FRBNY BLACKBOOK

RESEARCH AND STATISTICS GROUP

FOMC Background Material

April 2010

CONFIDENTIAL (FR) Class II FOMC

FRBNY BLACKBOOK

April 2010

CONTENTS

EXHIBITS

EXHIBIT OVERVIEW

1. Policy Recommendation and Rationale

The policy recommendation is to maintain the target range for the federal funds rate at 0–0.25% until 2011Q1 and retain the current "extended period" language in the FOMC statement. We also suggest no changes in the policies concerning the large scale asset holdings.

Developments in the intermeeting period prompted only minor changes in our central outlook and suggest somewhat reduced downside risks to the outlook for both real activity and inflation and modestly increased upside risk to the real activity outlook.

Labor market conditions continued to improve, as shown by increases in both employment and hours in March. Moreover, data point to a more substantial rebound in consumer spending, although personal income and compensation remained weak. In contrast, residential and nonresidential construction continued at depressed levels.

Recent data indicated that underlying inflation remains subdued, with TIPS-implied forward inflation compensation and survey expectations measures relatively stable over the intermeeting period. These developments suggest that there remains considerable slack in the economy and some near-term risk of deflation. However, one upside concern is that faster-than-expected economic growth could exert inflationary pressures even with conventional measures of slack at high levels: potential bottlenecks could occur because financial sector impairment may slow the reallocation of capital and skill and location mismatches may slow the reallocation of labor.

Financial conditions showed improvement, with the reduction of some credit spreads and an increase in stock prices. The completion of MBS purchases did not have a significant impact on financial markets. Nevertheless, the latest Senior Loan Officers Opinion Survey indicated only minor changes in bank lending standards, suggesting that they remain tight; it also indicated that the demand for bank loans is still weak. Concerns about financial stability also remain, partly related to the Greek fiscal crisis and the SEC's civil case against Goldman Sachs.

Despite the overall improvement in economic and financial conditions, uncertainty about the path of fiscal policy in the U.S. and abroad poses significant risks to the outlook. Concerns about U.S. fiscal sustainability could lead to higher Treasury yields that trigger an earlier-than-expected fiscal consolidation.

In light of the outlook and risk assessment, we recommend maintaining the current accommodative stance of monetary policy until there is more confidence the economy is on a self-sustained and balanced recovery. In particular, we are looking for a healthier pace of private investment spending and export growth. In our central scenario these developments are not fully in place until the end of 2011Q1. We therefore recommend retaining the “extended period” language in the FOMC statement.

We recommend no changes in the policies concerning the large scale asset holdings (including the current redemption policies for maturing Treasury securities holdings), consistent with the “buy and hold strategy”. There are still considerable downside risks to economic activity and inflation, partly related to concerns about financial stability. Asset sales probably would be interpreted as a policy tightening which could exacerbate the downside risks to the growth outlook. In addition, maintaining the buy and hold strategy is beneficial to Federal Reserve credibility. A change in policy towards an earlier reduction of assets holdings could be perceived as inconsistent with the commitment to buy and hold, hurting the effectiveness of similar policy actions in the future. Still, the large size of current asset holdings fuels concerns about Federal Reserve independence and its ability to tighten policy when the recovery takes hold. To balance these concerns, the FOMC statement should give the Committee sufficient flexibility to adjust the size and composition of the System’s asset holdings as conditions warrant.

With the anticipated start of the renormalization process coming closer, the FOMC will be challenged to guide market expectations. It will have to continue to make clear that technical changes in liquidity provisions—for example, moving the discount rate spread and tests of reverse repos and term deposits—do not represent changes in policy. Also, because of the current atypical nature of the Fed's balance sheet, the FOMC will need to provide clear and consistent communication about the expected evolution of the balance sheet to reduce the risk of financial markets misinterpreting the policy path relative to the FOMC's expectations.

2. Evolution of Outlook and Risks

2.1 Central Forecast

Aided by aggressive fiscal and monetary stimulus, economic growth resumed over the second half of 2009 following a post-WWII record decline of GDP of nearly 4% over the preceding four quarters. This growth was led by an unusually strong inventory cycle, which contributed 2.2 percentage points of the overall 3.9% (annualized) growth rate of 2009H2. In contrast, final sales contributed a more modest 1.7 percentage points. Growth of real personal consumption expenditures contributed nearly all of that increase in final sales. Along with the automatic stabilizers, the American Recovery and Reinvestment Act of 2009, enacted in February, significantly lowered tax burdens and increased transfer payments. In addition, a steep decline of energy prices over the first half of 2009 provided an additional boost to real disposable income. Finally, the "cash for clunkers" program led to a significant increase in light-weight vehicle sales in 2009Q3. Similarly, single-family housing starts rose by nearly 40% from 2009Q1 to 2009Q3, reflecting a larger-than-anticipated response to the first time home buyer tax credit as well as the success of the Fed's purchases of agency MBS in lowering mortgage interest rates. And despite a very low capacity utilization rate, business investment in new equipment and software rose a robust 19% (annual rate) in 2009Q4, likely reflecting the pending expiration of the bonus depreciation provision included in the stimulus bill. Exports grew rapidly over the second half of 2009 after plunging over the preceding four quarters, but this growth contribution was more than offset by an equally large rebound of imports.

Despite the stronger-than-expected growth of real GDP, labor market conditions continued to deteriorate over the second half of 2009. Nonfarm payroll employment fell 261,000 per month in 2009Q3 and 90,000 per month in 2009Q4. The unemployment rate increased to 10% in the fourth quarter from 9.3% in 2009Q2, and would have increased further had the labor force participation rate not declined. This weakness in labor demand was coupled with surging productivity that rose at a 7.4% annual rate over the second half of the year.

The PCE deflator increased at a 2.6% annual rate in the second half of 2009 after being essentially zero over the first half of the year. Energy prices rebounded over the second half of 2009 after plunging in late 2008 and early 2009. The core PCE deflator rose at a 1.5% annual rate in the second half of 2009. Nonenergy services price inflation slowed dramatically over the course of 2009, led by the two rent components. This is consistent with our view that the high degree to which resources are underutilized has put downward pressure on core inflation. However, core goods price inflation increased over the second half of 2009 due in part to special factors such as the cash for clunkers program and increased taxes on tobacco prices.

Conditioning assumptions.

We continue to assume that potential GDP growth is between 2.50% and 2.75%. This is composed of 1.00% to 1.25% trend hours growth (although we assume this growth will begin to decline in 2010) and trend productivity growth of around 1.50% (on a GDP basis, which is equivalent to about 1.75% on a nonfarm business sector basis). The Board staff estimates of potential in the April Greenbook are 2.3% for 2010 and 2.5% for 2011, unchanged from March.

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 the gradual rise of core inflation back toward the midpoint of the FOMC's objective for core PCE inflation of 1.5% to 2.0%.

The FRBNY outlook for foreign growth in 2010 has been boosted from 3.0% (Q4/Q4 on a GDP-weighted basis) to 3.4%. This reflects upward revisions to the growth projections for Japan, China, and the four Asian newly industrialized economies. For 2011 the foreign growth outlook is essentially unchanged at 3.4%. The Board staff projections for foreign growth over the forecast horizon are essentially equal to ours. The projected path of oil prices has been raised by an average of $7 per barrel in 2010 and $6 per barrel in 2011. We now expect an average of $89.00 per barrel by 2010Q4 and $90.00 per barrel by 2011Q4. Our assumed path for oil prices is essentially the same as that of the Greenbook.

Our assumptions regarding fiscal policy are the same as that of the Greenbook. A change in those assumptions introduced in this cycle is that, due to concerns about large deficits and the rising debt to GDP ratio, additional grants to state and local governments will be scaled back to $35 billion from the $75 billion level assumed in the January and March Greenbooks.

As is our usual practice, our assumptions for equity prices and the real exchange value of the dollar are similar to those of the Greenbook. Given the substantial increase in equity prices of the past few months, it is now assumed that they will rise at an annual rate of 13% over the forecast horizon rather than the 15% annual rate assumed in the March Greenbook. This increase in equity values is driven to a large extent by an assumed decline in the equity premium. The exchange value of the dollar (trade-weighted basis) is assumed to decline 1.7% in 2010 and 2.5% in 2011.

Finally, our assumption regarding the future path of the Loan Performance Home Price Index is also the same as the Board's. For 2010 that index is projected to decline 3% as further increases in distressed sales put renewed downward pressure on prices. In 2011, the index is expected to rise 1% as housing demand firms and the supply of distressed properties declines.

The Outlook.

Our modal forecast for 2010 and 2011 has been based on the assessment that the current cycle is qualitatively different from the typical post-WWII cycle such that we are unlikely to experience the robust growth that we otherwise might expect. In addition to its severity, the current downturn is unique in that it was preceded by a global financial crisis which was due in large part to excessive leverage and excessive investment in real estate assets, both of which will take time to unwind. Therefore, even though we have moved our point forecast for growth of real GDP in 2010 upward once again, to 3% from 2 ¾% in March and 2 ¼% in January, it is still the case that growth in 2010 is likely to be only around the economy's potential growth rate. This is well below the rates of growth experienced during the initial stages of recovery from previous severe recessions. This implies that the unemployment rate is likely to remain stubbornly high and the excessive slack in overall resource utilization will be absorbed only gradually.

A key reason for expecting a relatively muted recovery in the near term is that consumer spending still faces substantial headwinds. The household sector has suffered very large negative shocks to both income and wealth and has a substantial debt overhang. The stimulus bill increased transfer payments and lowered taxes in an attempt to offset these negative impulses, but that stimulus is now waning. Energy prices have increased from their recent lows, sapping real disposable income growth. While equity and home prices have recovered somewhat, the ratio of household net worth to disposable income remained nearly 25% below its peak as of 2009Q4. And even though financial conditions appear to be gradually easing, we expect credit availability to remain tight relative to the standards of the recent past.

In addition to relatively sluggish growth of consumer spending, a second key feature of our modal forecast is that while it appears the correction in housing production is over, it is unlikely that we will experience the surge of residential investment typical of the early stages of post-WWII recoveries. By our estimates there are currently nearly 3 million excess vacant housing units, with more coming onto the market over the forecast horizon due to the unusually high volume of homes in the foreclosure process. At the same time, mortgage underwriting standards have been significantly tightened, with even high credit quality borrowers being required to make substantial down payments. Finally, the housing sector has been given a significant boost by the first-time home buyer tax credit combined with the large scale purchases of mortgage backed securities by the Federal Reserve. Both of these effects are expected to wane over the next few months.

With the two main drivers of final demand--consumption and residential investment—on a relatively muted growth trajectory, recovery of business fixed investment is likely to be delayed. This is particularly true given that manufacturing capacity utilization rates remain low while retail and office vacancy rates continue to rise. Also contributing to the relatively tepid growth expected during this recovery is the ongoing structural adjustment taking place in state and local governments which is expected to result in significant declines in employment and outlays in this sector. Finally, while growth prospects for our trading partners have generally improved, suggesting a continued rebound of exports, the modest upgrade in final demand as the U.S. recovers will be associated with rising imports. Thus, while the net exports component of GDP will not be a major drag on growth, it is unlikely to be a major positive contributor to growth over the forecast horizon.

Going into 2011 we expect the underlying fundamentals of the recovery to improve such that growth rises to the 4.0% to 4.5% range with the unemployment rate steadily declining. Further forward momentum is likely to be established in 2012, with 5% growth in GDP and a fall in the unemployment rate to below 7%. Underlying this projection is the expectation that financial market functioning remains normal and that consumer and business confidence and the general appetite for risk continue to recover. With household income and balance sheets improving and credit flowing more normally, the substantial pent-up demand for consumer durables, housing, and business equipment and software will start to be satisfied. Moreover, the structural adjustments of state and local governments and of the commercial real estate sector will likely have run their course by that time.

Barring a significant decline in the level of the economy's potential output or its potential growth rate, this point forecast implies that a large output gap will persist over most of the forecast horizon. Accordingly, we expect core inflation to slow to around 1% (Q4/Q4) in 2010. But by late 2011 and into 2012, as final demand firms within the context of anchored inflation expectations, we expect core inflation to move up to within the "mandate consistent" range.

The risks to our central projection for real activity are now regarded as being roughly balanced for the first time since October 2007. A key downside risk is that the loss of wealth suffered by the household sector induces a steeper-than-expected increase of the personal saving rate, keeping consumer spending weaker for longer. The sharp decrease in the prime age employment to population ratio during the current cycle, combined with the large share of workers nearing retirement age and the possibility of future fiscal consolidation makes this risk particularly acute. That being said, recent data on real consumer spending have been stronger than expected and there is an unusually large gap between employment gains as measured by the household survey versus the establishment survey. Accurate measurement of economic activity is always difficult, but is especially so at turning points. It is entirely possible that economic activity is rebounding much faster than we expect.

An important risk over the medium term is the uncertainty surrounding our assumption of the economy's potential growth rate. On the one hand, given the weakness of business investment and the necessary reallocation of labor and capital, the economy's potential growth rate may have slowed significantly. On the other hand, current estimates of labor productivity continue to surprise to the upside. Another source of risk to the forecast is fiscal policy. Under current law many of the tax provisions enacted in 2001 and 2003 are scheduled to expire at the end of 2010. The outcome of the debate over these provisions could potentially have a significant impact on both growth prospects and inflation expectations. Finally, relatively modest changes in variables such as productivity growth, the participation rate, and the average work week could have a significant impact on the path of the unemployment rate.

The risks around the central scenario for inflation are also relatively balanced. Clearly, the remaining downside risks to the growth projection combined with the possibility of no meaningful decline in potential implies downside risks to the inflation projection. In contrast, with the aggressive global monetary and fiscal policy response to the financial crisis and the possibility of a stronger-than-expected rebound, there is a risk of higher inflation.

The heightened uncertainty associated with the shape of recoveries from periods of banking and financial crisis as well as the uncertainty associated with the timing and synchronization of the removal of global policy accommodation result in greater uncertainty around our central projection compared to typical levels over the last twenty years.

2.2 Alternative Scenarios and Risks

The risk assessment improved modestly in the intermeeting period, leading to roughly balanced risks for both output and inflation. The degree of uncertainty about our forecasts is still higher than the historical average, however. Positive economic data led to an increase in the upside risk for output. These developments also suggest that the likelihood of a credit crunch scenario, and the deflation associated with it, has diminished. This results in the removal of some of the downside risks to inflation, in spite of the low core inflation numbers. Overall, the changes in the bands of the forecast distributions are fairly small.

Exhibit C-1 shows that the *Productivity Boom* scenario is still the most likely scenario, as was the case in the last few Blackbooks, with an associated probability of almost 40%. The second most likely scenario is the *Fiscal Consolidation* scenario, which replaces the *Effects of Overheating* scenario. This new scenario envisions concerns on the part of investors about fiscal sustainability in the United States, which lead to an increase in long term rates and consequently to a decline in output growth. As the U.S. government responds to these concerns by reducing fiscal stimulus, activity is further weakened. Inflation temporarily rises above the *Central Scenario* forecast, in part due to a likely depreciation of the dollar, but then declines as a consequence of the drop in output. The paths for core PCE inflation and GDP growth associated with this new scenario are shown in Exhibit C-2. The likelihood of the *Fiscal Consolidation* scenario is roughly 20%. The probability associated with the *Global Credit Crunch* scenario has decreased since the last Blackbook for the above-mentioned reasons, and now stands at 15%, slightly above that of the *Loss of Credibility* scenario.

The paths for core PCE inflation and GDP growth associated with scenarios other than *Fiscal Consolidation* have changed a bit in the intermeeting period [Exhibit C-2], particularly those associated with the *Global Credit Crunch* scenario. The output growth path associated with the *Global Credit Crunch* scenario is now closer to the *Central Scenario* forecast, particularly in 2011 and 2012, as it incorporates a rebound in activity as the economy leaves the credit crunch state. The decrease in the likelihood of the *Global Credit Crunch* scenario implies modest upward shift in the 5th percentile of the forecast distribution for core PCE inflation relative to March. The Large Price Level Deviations chart shows that these changes further decrease the likelihood of deflation. Together with the increase in the probability of the *Productivity Boom* scenario, the drop in the likelihood of the *Global Credit Crunch* scenario also implies a slight upward shift in the entire forecast distribution for output growth, resulting in an even balance of risks. The "Scale of Recovery Through 2011" chart shows that this change in the forecast distribution results in a higher likelihood of faster recovery, although the changes are small.

Finally, Exhibit C-4 shows the evolution of our forecasts relative to 12 months ago. The actual paths for output and inflation are mostly within the 50% probability bands generated a year before, indicating that in early 2009 the probability distribution embedded in the forecasts appropriately reflected the risks the U.S. economy was to face in the following 12 months.

3. Forecast Comparison

3.1 Greenbook Comparison. Both the FRBNY and Greenbook forecasts for GDP growth were raised slightly for 2010, with the Greenbook forecast remaining somewhat more optimistic. For 2011, the Greenbook GDP forecast is unchanged and aligned with our forecast. The Greenbook forecasts for inflation did not change significantly. As in March, the Board staff inflation forecast is similar to our forecast for 2010, but it remains considerably lower for 2011.

Conditioning Assumptions. As in the March Greenbook, the Board staff projects a slightly later start of the tightening process. The Greenbook still assumes the Federal Funds Rate (FFR) to remain in the current target range of 0–0.25% through the end of 2011, while the Blackbook central forecast assumes that the FFR will reach 1.50% by the end of 2011 (unchanged since March). Both the Greenbook and the Blackbook maintain their assumptions about nontraditional policy actions. The other conditioning assumptions are little changed since the March Greenbook.

Inflation. The Greenbook and the Blackbook forecasts for core PCE inflation in 2010 (Q4/Q4) are identical, at 0.9%, with the Board Staff's projection reduced from 1.0% in the March Greenbook. The Greenbook projects core PCE inflation to stay at 0.9% in 2011 (from 0.8% in March), while the FRBNY expects it to increase to 1.4% (as in March).

Real Activity. Compared to March, both the Greenbook and the Blackbook forecasts for GDP growth in 2010 (Q4/Q4) were increased by 0.2%, mostly due to more consumer spending. The Board expects GDP to grow 3.5% in 2010 (Q4/Q4), compared to the 3.0% outlook in the Blackbook. The main difference, as in March, is investment in equipment and software, which is expected by the Board to contribute a full percentage point to real GDP growth, while we expect it to contribute only 0.4%.

For 2011 (Q4/Q4), the Greenbook forecast for GDP growth is unchanged at 4.4% and nearly identical to the FRBNY forecast (at 4.3%). In term of expenditures components, the Greenbook expects stronger contributions from consumption and smaller contributions from government outlays and net exports relative to our forecasts.

Since March both the Board staff and the FRBNY staff have revised downwards their projections for unemployment. For 2010Q4, the Greenbook forecasts an unemployment rate of 9.3% (from 9.4%) while the FRBNY staff forecast is 9.7% (from 9.9%). The Greenbook and the Blackbook unemployment forecasts for 2011Q4 were reduced to 8.2% and 8.0% respectively (both down 0.1% from March).

During the intermeeting period, both the FRBNY and the Board staff projections for payroll employment in 2010 were revised down. We now forecast payroll employment to increase 1.0 million (compared to 1.4 million in March), while the Greenbook forecast is 1.9 million (compared to 2.5 million in March). For 2011, the FRBNY staff forecasts an increase of 3.8 million (roughly 600,000 below March) while the Board staff expects an increase of 4.1 million, up by 400,000 in the intermeeting period. As in March, the difference is partly explained by different assumptions about the evolution of productivity growth over the forecasting horizon.

International trade. The FRBNY forecast for the net exports contribution to GDP growth for 2010 and 2011 is close to the Board's forecast. The FRBNY forecast is for a net exports contribution of 0.2 percentage point for both years, whereas the Board's forecast is for a small drag of 0.1 percentage point in 2010 and for a net exports contribution of zero in 2011. FRBNY's expected growth contribution is slightly higher than the Board's largely because we expect domestic demand to be weaker than forecasted by the Board.

Uncertainty around forecasts. There were few changes in our and the Board staff's risk assessment relative to March. As in the last FOMC cycle, the FRBNY forecast continues to have more downside risk to inflation in 2010 as captured by the lower bounds on the 70% confidence intervals. In contrast, for 2011 the Board forecast assigns a higher probability to lower inflation realizations. The Board staff's low inflation rate projections for 2011 and 2012 continue to be well within the lower half of our inflation forecast distribution.

Our forecast for real activity continues to have substantially more downside risk than the Greenbook forecast. With little change in the FRBNY forecast distribution and some convergence in the point forecasts, the Greenbook's forecast is now closer to the center of our output forecast distribution.

Table 1: Comparison of 70% Intervals around FRBNY and Board Forecasts

	Core PCE Inflation		Real GDP Growth	
	FRBNY	*Board*	*FRBNY*	*Board*
2010	0.1, 1.6 (-0.1, 1.7)	0.4, 1.3 (0.4, 1.6)	1.0, 4.8 (0.6, 4.3)	2.2, 4.8 (1.7, 4.9)
2011	0.5, 2.1 (0.5, 2.3)	0.2, 1.7 (0.1, 1.8)	2.0, 6.3 (2.0, 6.1)	2.6, 6.2 (2.7, 6.1)
2012	1.1, 2.6 (1.2, 2.8)	n/a (n/a)	2.7, 6.9 (2.8, 6.8)	n/a (n/a)

Table 2: Percentile of Greenbook Forecast in FRBNY Forecast Distribution

	Core PCE Inflation	Real GDP Growth
2010	53 (59)	60 (66)
2011	34 (36)	52 (57)
2012	14 (12)	46 (48)

Alternative Greenbook forecasting scenarios. The April Greenbook considers six alternative scenarios. The first two evaluate opposite risks to aggregate demand. In the *Strong recovery* scenario financial conditions improve more quickly than baseline, leading to higher spending by both firms and consumers. GDP growth is significantly higher than baseline in 2010, but somewhat lower in later years because of tighter monetary conditions. (The tightening process is anticipated to begin in early 2011, in response to inflationary pressures.) On net, the amount of economic slack and the unemployment rate are lower than the baseline through the forecasting horizon. In the *Weaker consumption* scenario, the recent pick-up in consumer spending is viewed as being temporary and not self-sustaining. Lower demand has a negative impact on both economic activity and financial conditions, with adverse feed-back effects on spending. The recovery is delayed, with unemployment remaining at 9% through 2011 and with core PCE below 1% over the forecasting horizon.

The *Jobless recovery* scenario assumes a more sustained pace of labor productivity growth than under the baseline scenario, resembling the pattern seen in the 2002-03 jobless recovery. In addition, higher productivity growth is accompanied by lower investment, as firms are reluctant to expand both capital and labor inputs, and by lower consumption. The recovery is delayed relative to the baseline scenario, with the unemployment rate remaining above 8% in 2012, GDP growth picking up only in 2012, and core PCE inflation slowing below 1% through the forecasting horizon. In this scenario, monetary policy remains accommodative until 2013.

In the *Lower potential* scenario, monetary policymakers overestimate potential output and thus the size of the output gap, thereby keeping the federal funds rate at zero for too long. The public, which has a correct assessment of the output gap, interprets the policy accommodation as an increase in the FOMC's inflation objective. As a result, long-run inflation expectations increase to 2.5% by late 2010 (0.75% above baseline). This, coupled with lower potential output, increases inflation above 2% starting in 2012, while at the same time economic activity and labor market conditions remain weaker than baseline. Policy tightening begins in 2010, further depressing economic growth.

Finally, the *Greater disinflation* scenario features a mild deflation generated by unanchored inflation expectations. Inflation turns negative starting in 2012. As a response, monetary policy remains accommodative until 2013, spurring economic growth above baseline.

3.2 Comparison with Private Forecasters[1]

The FRBNY forecast for GDP growth for 2010 is about the same as the Median SPF and Blue Chip forecasts, but below Macro Advisers. As in March, our projection for GDP growth in 2011 is above private forecasts. Our inflation projections are generally in line with those of private forecasters for 2010. For 2011, the FRBNY forecasts remain significantly above Macro Advisers' projections, which are closer to those of the Board staff. Forecasts are reported in Exhibit B-8. Note that the Median SPF forecasts are from the February (2010Q1) release.

GDP Growth. Relative to the last FOMC, all forecasts for 2010 have been slightly revised upwards (with the exception of Blue Chip). The FRBNY forecast for 2010 (Q4/Q4), at 3.0% is now in line with Median SPF (2.7%) and Blue Chip (2.9%), but it remains below Macro Advisers (3.6%). For 2011 (Q4/Q4), the FRBNY forecast, unchanged at 4.3%, is slightly above the Macro Advisers forecast (3.9%) and considerably higher than Blue Chip (3.2%).

Inflation. As in March, the FRBNY and private forecasters' projections for core PCE remain within a 0.9%-1.4% range for 2010 (Q4/Q4). Our 2011 (Q4/Q4) forecasts for core inflation, at 1.4% (core PCE) and 1.7% (core CPI), are in line with Median SPF forecasts and above the forecasts of Macro Advisers (0.9% and 1.0%, respectively). The difference between our forecast and that of Macro Advisers probably reflects a stronger role for economic slack in the inflation process of the Macro Advisers model. Differences similar to those described above are evident in the overall CPI forecast.

4. Robustness of Policy Recommendation

4.1 Sensitivity to Alternative Scenarios and Policy Rules

We continue to recommend keeping the target federal funds rate in the 0 to 0.25% range through 2010. Our recommendation is consistent with the *Baseline* policy rule under all scenarios [Exhibit D-1], as well as under the expected value of the forecast distribution

[1] Release dates of the private forecasts discussed in this section are in parentheses: Blue Chip consensus (4/10), SPF (2/12), Macro Advisers (4/6), and the PSI Model (4/22). Quarterly numbers are SAAR.

[Exhibit D-2]. Even under the *Loss of Credibility* scenario the FFR effectively does not increase until 2011Q1. Under all other scenarios the FFR starts increasing no earlier than 2012Q1, except for the *Global Credit Crunch* scenario where, following a rebound in economic activity as the crunch ends, the rate lift-off occurs in 2011Q3. The FFR path for the *Baseline* rule under the *Loss of Credibility* scenario roughly coincides with market expectations.

Exhibit D-3 shows the prescriptions from alternative policy rules. The *Nutter* rule under the *Loss of Credibility* scenario is the only case where the FFR path differs significantly from our policy recommendation, since the first rate increase occurs in the current quarter. The *Nutter* rule has a strong response to inflation and no response to the output gap. Under the expected value of the forecast distribution, the prescriptions from this rule are close to the path from market expectations. The *Asymmetric Price Targeting* rule results in a FFR path that is close to zero until the end of 2012. For the *Outcome-based* rule we show the implied nominal FFR ignoring the zero bound. Since this rule pays particular attention to output, the faster recovery under the *Productivity Boom* scenario implies a renormalization starting in mid-2011. Under the expected value of the forecast distribution the unconstrained nominal FFR is about -2.5% by mid-2011, returning to zero only by the end of 2012 [Exhibit D-2].

Exhibit D-1 shows the *shadow* real rates - that is, the real FFR rates implied by the various rules under the various scenarios *ignoring* the zero bound constraint. The *Baseline* rule under the *Central* scenario implies a real rate between -3% and -4% in the current quarter. Exhibit D-3 shows the real rate (under alternative scenarios) for *Asymmetric Price Targeting*, the *Nutter*, and the *Outcome-based* rules.

We also use the DSGE-VAR and the DSGE models to assess the current stance of monetary policy. We perform a counterfactual exercise eliminating past policy shocks. We find that the both the DSGE model and the DSGE-VAR model roughly predict a counterfactual FFR for the current quarter in line with the policy rate.

4.2 Comparison to Market Expectations

The market-implied FFR path shifted down during the intermeeting period and is now in line with our recommended path. The anticipated start of the renormalization process, as implied by the expected FFR from the market path (using the Board's assumptions concerning term premia), occurs in 2011Q1. The responses from the primary dealers survey about the expected timing of the first FFR increase show that the mean is January 2010, in line with the market-implied FFR and our recommendation. The distribution of responses is bimodal, with one mode in 2010Q3 and the other in 2011Q1. A number of respondents believe that the first rate increase will occur no earlier than 2011Q2.

5. Significant Developments

5.1 Economic Developments

U.S. Data Releases Overview. Data releases on activity and inflation during the intermeeting period were somewhat better than expected. Among the stronger real indicators were those for production and consumption. Employment data indicate further improvement in labor market conditions, with payrolls starting to show some increases. Measures of underlying inflation suggest that trend inflation remains subdued, consistent with downward pressure from excess capacity.

Real Activity. *GDP:* Real GDP rose 5.6% (annual rate) in 2009Q4, according the third estimate, compared to the prior release of 5.9%. The small downward revision reflected lower estimates for spending on nonresidential structures and inventory investment. Corporate profits rose 8.0% (quarterly rate) in Q4; the four-quarter change was 30.6%.

Production: Industrial production rose 0.1% in March. However, manufacturing output increased 0.9%. For 2010Q1, factory production rose 6.7% (annual rate), about equal to the growth rate in 2009H2, indicating that the fairly strong manufacturing recovery has been sustained. The capacity utilization rate in manufacturing rose from 69.4% in February to 70.0% in March, the highest it has been since November 2008.

Personal income and consumption: Personal income was unchanged in February. Wages and salaries were flat, likely influenced by weather holding down the earnings of workers paid on an hourly basis. Both current and constant-dollar consumption rose 0.3%, despite the drop in auto sales leading to a decline in durable goods spending.

Retail sales: Retail sales rose 1.6% in March, with a rise of 0.6% ex-autos. Ex-autos, building materials, and gasoline, sales were up 0.9%. Sales were up in furniture, clothing, and sporting goods, while electronics stores saw a decline. In general, the report suggests that consumers are loosening their purse strings, a positive for growth going forward.

Motor vehicle sales: According to Autodata Corporation, light motor vehicle sales (automobiles and light trucks) were 11.78 million units (annual rate). For 2010Q1, sales averaged 10.98 million units per month, modestly above that of 2009Q4.

Consumer credit: Total consumer credit outstanding decreased $11.5 billion in February, the 12th decline in the past 13 months. Consumer credit was $2.45 trillion, 5.2% below its July 2008 peak. Revolving credit fell at an annual rate of 13.1%, down 12.1% from its peak in September 2008. Nonrevolving credit fell at a 1.6% annual rate.

Home sales: New home sales surged 26.9% in March to 411,000 units (annual rate), and there were upward revisions to previous months. The months' supply of new homes fell to 6.7, the lowest it has been since December 2006. The increase in new home sales in part reflects the pending expiration of the home buyer tax credit. Existing home sales rose 6.8% in March to 5.35 million units (annual rate), which is still relatively low—last November existing home sales were 6.5 million.

House prices: The FHFA purchase-only home price index fell 0.2% in February. The index was down 3.4% over the year. The S&P/Case Shiller 20-city composite home price index increased 0.3% in January, its 8th consecutive monthly gain. The 12-month change was -0.7%, the smallest decline since January 2007.

Housing starts: Total housing starts rose 1.6% to a level of 626,000 units (annual rate) in March. Starts in February were revised up substantially. Single-family starts fell 0.9% in March while multi-family starts rose 18.8%. Building permits were up 7.5% to 685,000 units, their highest level since October 2008. The recent improvement in starts and permits is consistent with our forecast of a slow improvement in residential investment.

Construction: The aggregate value of construction put in place fell 1.3% in February, and there were downward revisions to both December and January. Private residential construction declined 2.1% and private nonresidential spending fell 0.4%. Public construction declined 1.7%, and there were downward revisions to earlier months.

Orders and shipments: New orders for durable goods manufacturers decreased 1.3% in March. Orders excluding transportation equipment rose 2.8%. Shipments of durable goods manufacturers increased 1.2%. Excluding transportation, shipments increased 1.0%. Shipments of nondefense capital goods excluding aircraft increased 2.2%. The 2010Q1 average of these shipments was 1.8% above the 2009Q4 monthly average. Orders for nondefense capital goods excluding aircraft rose 4.0%.

Inventories: Manufacturers' inventories increased 0.5% in February. The inventories-shipments ratio was unchanged at 1.29, somewhat above levels that prevailed during the mid-2000s. Wholesale inventories rose 0.6%. The wholesale trade inventories-sales ratio was unchanged at 1.16. Retail inventories increased 0.3% in February. The retail trade inventories-sales ratio was 1.36, matching its historical low. Total business inventories rose 0.5%. The total business inventories-sales ratio was unchanged at 1.27, similar to the levels in mid-2008.

Labor market. *Establishment survey:* Nonfarm payroll employment increased 162,000 in March. There were minor upward revisions to January and February. Census-related hiring was lower than expected with an increase of only 48,000 in federal government employment. The diffusion index increased from 50 to 60, the highest in the last three years. The aggregate hours index and average weekly hours increased 0.4% and 0.3%, respectively. Average hourly earnings declined 0.1% and the 12-month change was only 1.8%. Average weekly earnings rose 0.2%, reflecting an increase in hours worked.

Household survey: The unemployment rate was unchanged at 9.7%. The unemployment rate for prime-age male workers also was unchanged at 9.5%. Prime-age female unemployment rate increased from 7.7% to 7.9%. The employment-population ratio rose from 58.5% to 58.6%, and the labor force participation rate increased from 64.8% to 64.9%. This is the third consecutive month that both have increased. The average duration of unemployment was at a new record high of 31.2 weeks. The duration distribution of unemployment has become more skewed towards long-term: the fraction of unemployed workers unemployed for 27 weeks or more increased to 44.1%.

JOLTS: The job openings rate was little changed in February at 2.1%. The hires rate also was little changed at 3.1%. The total separations rate remained low at 3.1% and the quits rate was 1.4%. The rate of discharges and layoffs declined from 1.5% in January to 1.4% in February. February was the first month since November 2008 that the number of quits exceeded the number of layoffs and discharges.

Unemployment insurance claims: New claims for unemployment insurance fell 24,000 in the week ending April 17 to 456,000, and the four-week moving average rose 2,750 to just over 460,000. Since the beginning of the year, the trend of initial claims has been fairly flat. Continuing claims fell 40,000 in the week ending April 10 to 4.646 million, and the insured unemployment rate moved down from 3.6% to 3.5%. Extended and emergency benefits (not seasonally adjusted) fell sharply for the week ending April 3.

Trade. The trade deficit widened to $39.7 billion in February, up from $37.0 billion (revised) in January. Both export and import volumes increased in February, following declines in the previous month. The oil bill rose by $0.4 billion, as higher oil import volumes more than offset a fall in oil prices. The widening of the trade deficit in February was driven mainly by higher imports of consumer goods and industrial supplies and materials, while auto imports fell. Based on these data we estimate that the net export contribution to GDP growth will subtract 0.3 percentage points in Q1.

Inflation. *CPI:* The overall CPI rose 0.1% in March, while core CPI was unchanged. Owners' equivalent rent fell 0.1% and medical care prices rose 0.3%. Core services rose 0.1% in March and core goods fell 0.1%. Over the twelve months ending in March, core prices increased just 1.2% while the three-month change was -0.2%. This was the first three-month decline in the core measure that has ever been reported in the history of the series.

PCE deflator: The overall PCE price index was unchanged in February, as was the core PCE price index. The 12-month change of the core measure was only 1.3%. The market-based core measure rose 0.1%, while the 12-month change was 1.2%. The latest figures for the core measure are comparable to the lows seen toward the end of 2008 and in early 2009, while the figures for the market-based core are lower than at that time.

Surveys. *ISM surveys:* The ISM surveys suggested stronger growth in the manufacturing and non-manufacturing sectors for March. The ISM manufacturing composite index climbed 3.1 points to 59.6—its highest level since 2004. Most of the specific activity indices rose. The prices paid index increased 8.0 points to 75.0. The ISM non-manufacturing composite index rose 2.4 points to 55.4. Most of the specific activity indices rose. The prices paid index rose 2.5 points to 62.9.

Federal Reserve surveys: The regional Federal Reserve surveys generally indicated improvement in business conditions. The Empire State Manufacturing Survey general business conditions index rose 9.0 points in April to 31.9, just shy of its recent high of late 2009. The Philadelphia Fed current activity index edged up 1.3 points to 20.2 in April. The Dallas Fed Texas Manufacturing Outlook Survey general business conditions index rose from -0.1 to +7.2 in March. The Richmond Fed composite manufacturing index climbed from +2 to +6 in March. From the parallel service sector survey, the revenue index increased 15 points to 0.

Consumer surveys: The Reuters/Michigan consumer sentiment index slipped 4.1 points to 69.5 in early April—its lowest level since last November. Inflation expectations were steady to up slightly. The median expected 5-year-ahead inflation rate was 2.7% for the third straight month and the median 1-year-ahead rate rose from 2.7% to 2.9%. The Conference Board Consumer Confidence Index was 52.5 in March, up from February's level of 46.4 and within the low range that has prevailed over the past year. Near-term (one-year) household inflation expectations increased modestly.

Foreign Macroeconomic Conditions

Data over the intermeeting period were mostly positive, with the recovery in global exports and production continuing. Business confidence measures are improving and unemployment rates are stabilizing. The first round of Q1 GDP data showed stronger-than-expected growth in emerging Asia. Foreign output is expected to increase 3.4% (Q4/Q4) in 2010 after rising 0.4% in 2009.

Europe: The manufacturing index has moved higher, rising 8.3% (saar) in Q4 with additional gains through February. Exports, though, lost steam in the first two months of 2010. Confidence measures for the industry and service sectors improved in March, continuing a strong upswing over the past year. The consumer confidence index has stalled in recent months, which is consistent with poor retail sales data in January and February. Credit to non-financial firms was unchanged in January and February relative to Q4 levels, while consumer credit fell sharply. The pace of workers entering unemployment appears to have increased in Q1 after showing some stability at the end of 2009.

Asia: The Tankan business survey showed continued improvement in the outlook of Japanese firms. The dire state of private domestic demand, however, tempered the responses of domestically-oriented firms. Production fell over the month for the first time in a year in February, coinciding with a slowdown in export growth. Survey data suggest that production peaked in January with some further drops expected in March and April. Inventories, after declining in 2009, grew in January and February suggesting the end of the boost to growth from the inventory cycle. Consumer price deflation eased further in February to 1.1% over the year as energy prices firmed. Core prices fell 1.1%, pointing to persistent deflation in the medium term.

China's Q1 GDP was stronger than expected, with output up 11.9% over the year. Growth was led by domestic demand, which was propelled upward by policy lending. (Lending growth, though, appears to be slowing in line with the government's target of 19%.) Manufacturing PMI readings in April rose markedly, pointing to another strong GDP reading in Q2. Elsewhere in Asia, countries reported strong data on both exports and domestic demand in Q1.

Latin America: Brazil's retail sales are on pace to grow by almost 20% (saar) in Q1, pointing to another strong quarter for domestic spending. Mexico is being helped by a rebound in exports to the U.S. market, but consumer demand continues to face headwinds from tight consumer credit and declining real income.

5.2 Financial Markets

Domestic Financial Markets

Policy rate expectations were essentially unchanged over the intermeeting period. The Treasury yield curve steepened slightly and credit spreads narrowed. Amounts outstanding under the Fed's liquidity facilities continued to decline over the intermeeting period as short-term funding conditions remained stable following the end of large scale asset purchase programs for agency debt and agency MBS in late March.

Policy rate expectations were almost unchanged since the last FOMC meeting as Federal Reserve communication reinforced expectations of the target rate remaining exceptionally low for an extended period [Exhibit A-5]. Implied fed funds and Eurodollar futures rates suggest that market participants expect the policy rate to remain within its current range into early autumn and then rise to about 50 basis points by early 2011 and to about 1.75% by early 2012.

Nominal Treasury yields rose modestly since the last FOMC meeting, despite the unchanged policy rate expectations [Exhibit A-3]. The off-the-run 2- and 10-year yields both were up slightly during the intermeeting period, with the 10-year yield briefly breaking the 4% level in late March and early April. The 3-month yield, in contrast, fluctuated within a narrow band of 1 basis point of its April 20th level of 16 basis points. Volatility in Treasury markets returned most of the way to early March lows following a temporary spike in the 3-month MOVE and SMOVE indices in late March. Current volatility levels in Treasury markets remain at levels last seen in late 2007 [Exhibit A-6]. At the longer end of the yield curve, the 1-year expiration 10-year tenor swaption implied volatility spiked in late March coinciding with the 10-year swap spread turning negative for the first time, but has since fallen back close to the levels seen in early March.

Real yields increased over the intermeeting period at the 5-year maturity and decreased modestly at the 10-year maturity, while inflation compensation increased modestly across the curve [Exhibit A-4]. The carry-adjusted 5-year real yield increased 9 basis points to 0.65% on April 20, whereas the nominal off-the-run 5-year yield increased 14 basis points to 2.56%, causing 0-5 year inflation compensation to increase by 6 basis points to 1.91%. The 5-10 year inflation compensation increased 12 basis points to 3.06%.

Equity markets increased over the intermeeting period, with broad indices up almost 5% as of the April 20 close following a string of positive corporate earnings surprises [Exhibit A-7]. The S&P 500 is now 78% above its March 2009 low, but still 23% below its October 2007 high. Equity index implied volatility briefly jumped higher on April 16 following the SEC announcement of a lawsuit against Goldman Sachs but has since returned to March lows of around 16 [Exhibit A-6]. Speculative grade credit spreads narrowed slightly since the last FOMC meeting, with BB spreads 49 basis points narrower at 400 basis points while A credit spreads declined by 19 basis points to 140 basis points as of April 20.

Amounts outstanding under the Fed's liquidity facilities continued to decline over the intermeeting period as short-term funding conditions remained stable [Exhibit A-8]. In addition, the large scale purchases of agency debt and MBS ended in March without appreciable market reaction [Exhibit A-9]. On net, total Federal Reserve assets were little changed since the last FOMC meeting at approximately $2.3 trillion.

Commercial and industrial loans continued to decline in December at a year-over-year annual rate commensurate with November [Exhibit A-10]. Loans outstanding continued to decline through end of March (the latest data available), albeit at a slower pace than in previous months.

Foreign Financial Markets

Three-month LIBOR-OIS spreads across Europe and Japan remain broadly unchanged since the last FOMC meeting at levels below 20 basis points. The negative fiscal outlook for peripheral euro area member states continues to haunt European financial markets. Greek sovereign CDS and bond yield spreads increased dramatically over the intermeeting period as investors' concerns regarding Greece's fiscal outlook escalated. On April 23, Greece formally asked for aid from euro area countries and the IMF, although there are still questions as to how and when such support would be administered. The request came after a downgrade by Moody's and an an upward revision of Greece's 2009 fiscal deficit.

There is an ongoing concern that the Greek crisis could spread to other developed economies with an uncertain fiscal outlook. Uncertainty about the U.K.'s fiscal path, especially with the upcoming elections in May, helped widen UK sovereign CDS spreads, whereas Fitch and S&P put Japan on a negative outlook until the government's fiscal consolidation plan is published this summer.

Credit conditions in emerging market economies improved over the period. There was a surge in inflows to emerging market bond and equity funds as investors search for yield on the back of increased risk appetite. External debt issuance by Emerging Market economies continued to be relatively strong.

The trade-weighted U.S. dollar index has remained broadly unchanged since the last FOMC meeting. Relative to the euro and the Japanese yen, however, the dollar strengthened with gains of about 3%. More broadly, the trade-weighted euro and the yen depreciated, 1% and 4%, respectively. The moves in the euro were driven by a perception that the strength of the economic recovery in the euro area will be less strong relative to other developed economies and uncertainty about the fiscal outlook for the peripheral member countries. In the case of Japan, the currency moves appear to be mainly caused by an expectation that domestic policy rates will remain persistently low given the ongoing decline of consumer prices. The dollar remained stable against the Chinese yuan, although forward contracts reflect an expectation that Chinese authorities will allow for a gradual appreciation relative to the U.S. dollar.

5.3 Global Economic Policy

Developed nation central banks have generally kept their policy stance at a very accommodative level over the intermeeting period. However, some institutions took tentative steps towards preparing markets for a change in policy in the near term. Monetary tightening is gathering pace in emerging market and commodities-orientated economies.

As has been the case since March last year, the ECB kept its policy rate unchanged at 1.0% at its April meeting, with a neutral risk outlook for their growth projections. The size of the ECB's balance sheet remained unchanged at €1.9 trillion since the last FOMC meeting. To mitigate financial stability risks due to downgrades of Greek Treasury bonds, the ECB decided to keep the minimum credit rating requirement for collateral pledged at its lending operations in 2011 at BBB-. Originally, the ECB had the intention to return in 2011 to pre-crisis norms of A-. However, they did raise the haircuts on the lower-graded debt that will be put forward as collateral for the 2011 refinancing operations.

The Bank of Japan is keeping its policy rate close to the zero-bound, at 0.10%. To battle deflation, the Bank voted at its March policy meeting to double the size of its 3-month fixed-rate funding facility introduced in December 2009 to ¥20 trillion. To date, the Bank has spent ¥12 trillion under this program. However, this facility will not increase the Bank's balance sheet as it merely replaces the liquidity support measures that expired at the end of 2009. The prospect of persistent consumer price deflation and yen strengthening might force the Bank of Japan to pursue more aggressive options. These include a further expansion of the current funding facility, a duration commitment for a near-zero policy rate combined with an inflation target, currency interventions, and an increase in its outright purchases of government bonds.

China initiated a number of monetary tightening measures since January such as increased reserve requirements and higher managed interest rates, including the central bank's 1-year sterilization bill rate. Chinese monetary authorities are expected to pursue a further tightening of these measures and may soon allow the Chinese yuan to appreciate against the U.S. dollar. However, any upward adjustment in the exchange rate is likely to be gradual.

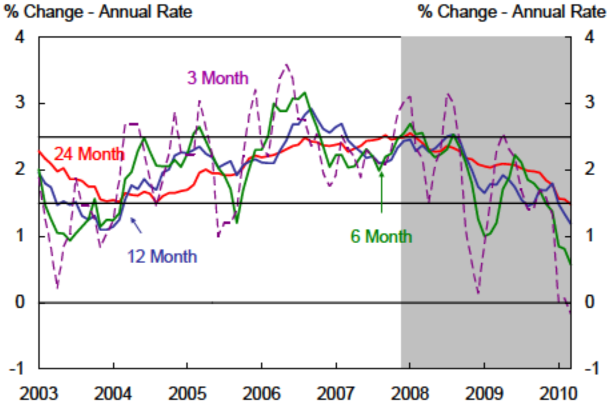
Amongst other Emerging Asia countries, the central banks of India and Singapore made robust moves to tighten their policies. The Reserve Bank of India raised both its policy rate and the reserve requirements for banks twice over the intermeeting period, resulting in cumulative policy rate and reserve requirements increases of 50 and 100 basis points, respectively. In Singapore, the monetary authorities tightened with the announcement of an upward shift in the midpoint of the target band for the trade-weighted exchange rate index. Meanwhile, the central banks of South Korea and Taiwan are expected to maintain their current policy stance for several months before starting to tighten their policies.

The boom in global commodities markets, driven by demand from Emerging Asia, is feeding a very robust economic recovery in Australia, causing its central bank to raise its policy rate in March and April by, in total, 50 basis points. Most of the remaining central banks kept their policy rates unchanged at historically low levels. At its April meeting the Bank of Canada kept its policy rate unchanged at 0.25 percent but removed its previously stated commitment to maintain the policy rate at this level until the end of Q2 2010. Markets now expect the Bank of Canada to start hiking rates in June. Brazil and Mexico are expected to increase their policy rates at year-end by, respectively, 275 and 50 basis points.

A. Significant Developments

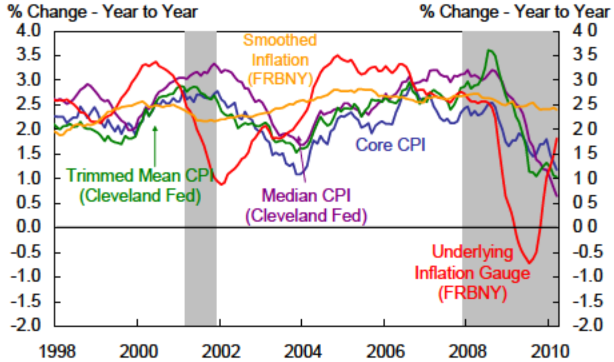
Exhibit A-1:
Measures of Trend Inflation

Core CPI Inflation over Various Horizons



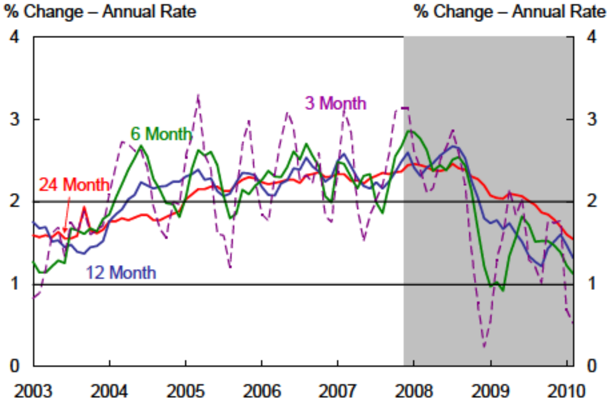
Source: Bureau of Labor Statistics

Alternative Measures of CPI Inflation



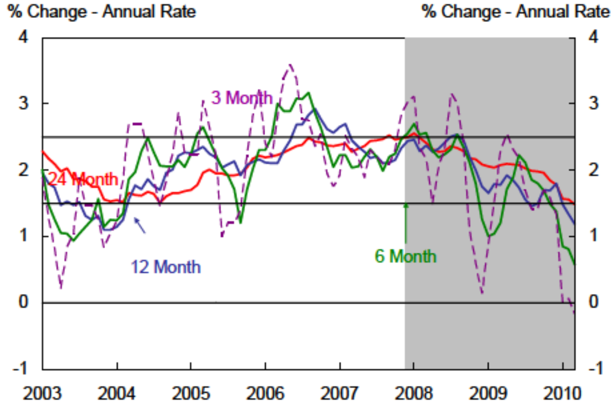
Source: Bureau of Labor Statistics, Cleveland Fed, MMS Function (FRBNY), and Swiss National Bank

Core PCE over Various Horizons



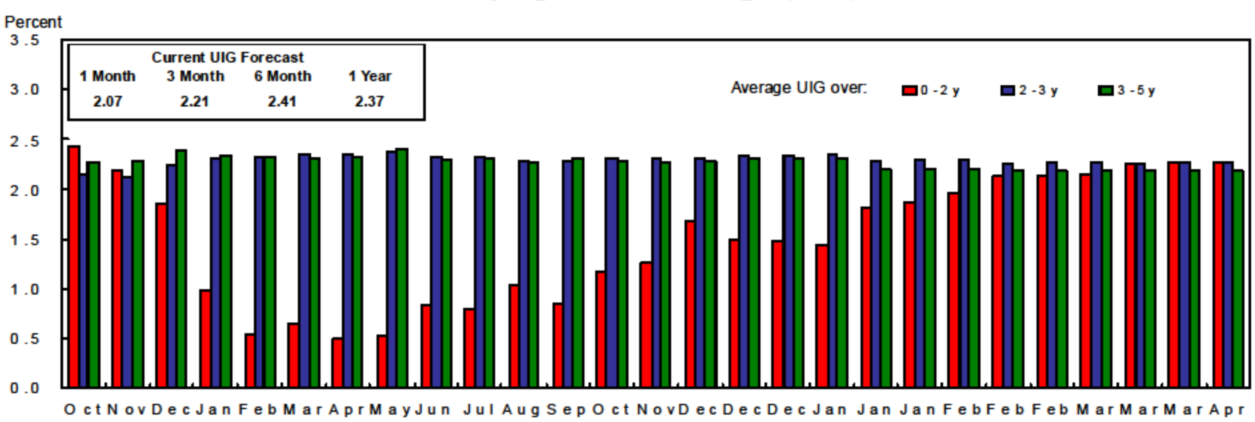
Source: Bureau of Economic Analysis

Core CPI Inflation over Various Horizons



Source: Bureau of Labor Statistics

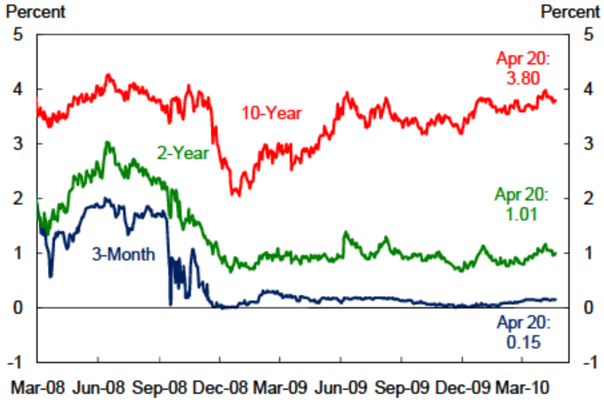
Exhibit A-2:
Underlying Inflation Gauge (UIG)



Source: MMS Function (FRBNY) and Swiss National Bank

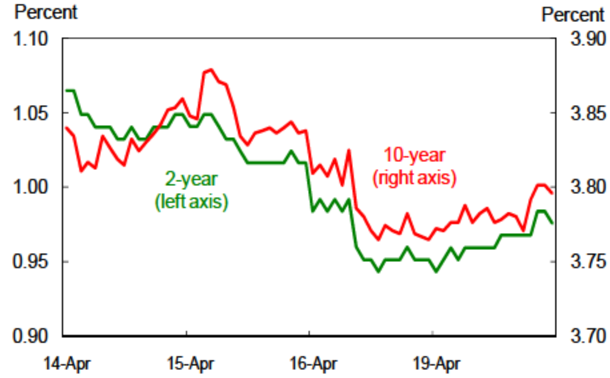
Exhibit A-3: Treasury Yields

Short- and Long-Term Rates



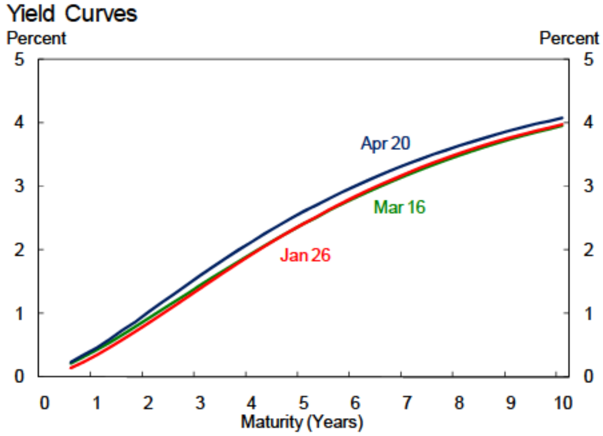
Source: Bloomberg. Note: Yields of on-the-run securities.

Short- and Long-Term Rates (Intraday)



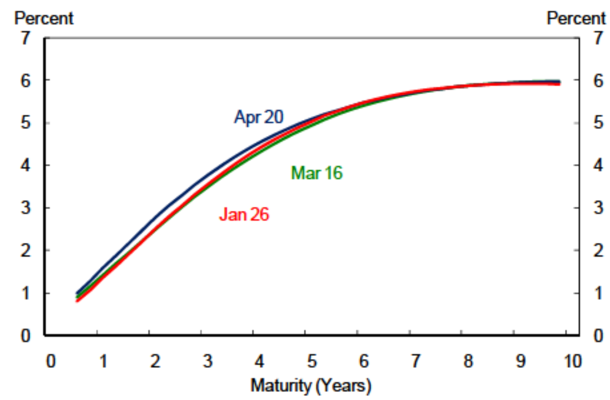
Source: Bloomberg. Note: On-the-run securities, 8:00 am to 4:00 pm.

Yield Curves



Source: Federal Reserve Board

Yield Curves: One-Year Forward Rates

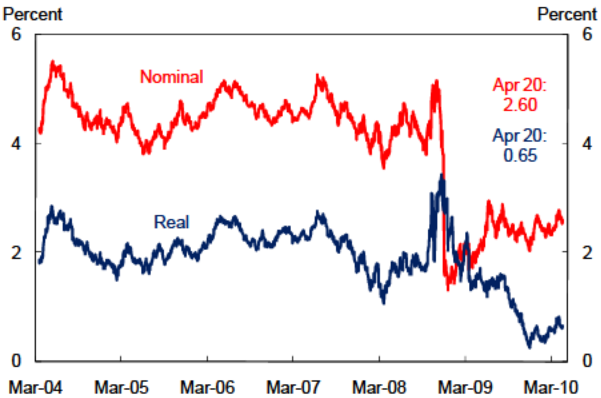


Source: Federal Reserve Board

A. Significant Developments

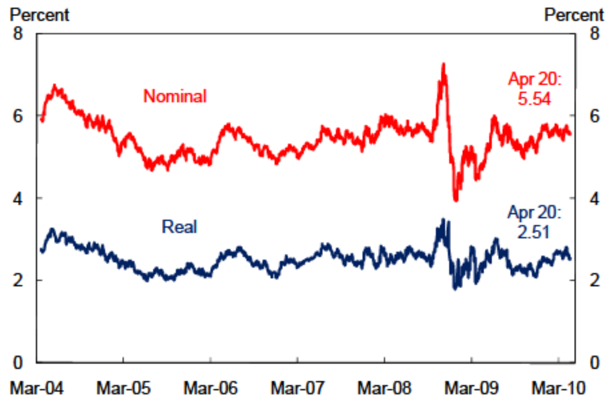
Exhibit A-4:
Real Yields and Implied Inflation

5 Year Spot Rate



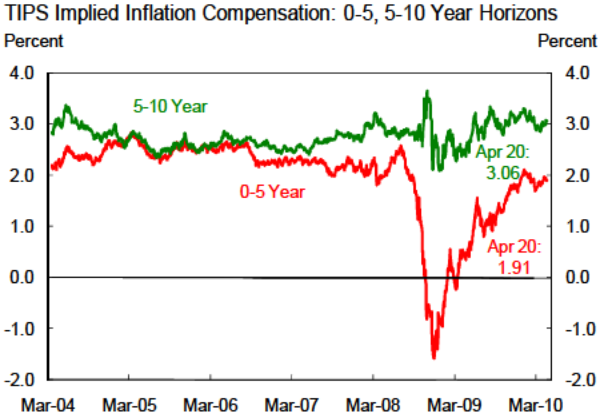
Source: Federal Reserve Board

5-10 Year Forward Rates



Source: Federal Reserve Board

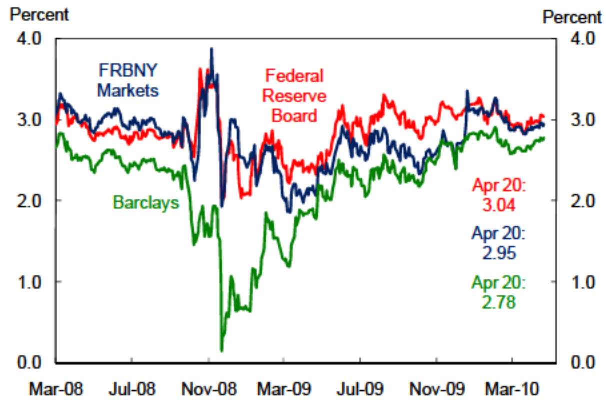
TIPS Implied Inflation Compensation: 0-5, 5-10 Year Horizons



Source: Federal Reserve Board

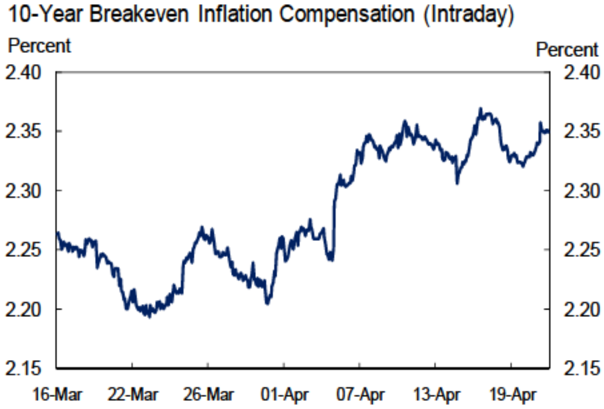
Note: Carry-adjusted.

Alternative Measures of 5-10 Year Implied Inflation Compensation



Source: Federal Reserve Board, Barclays, and FRBNY calculations

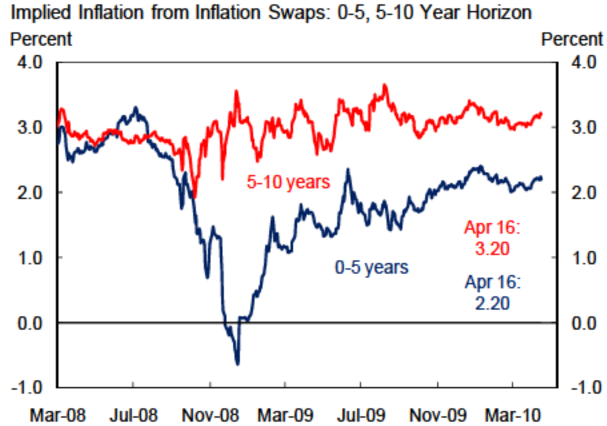
10-Year Breakeven Inflation Compensation (Intraday)



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

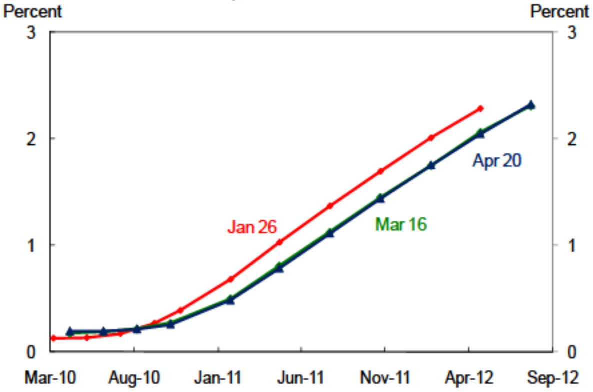


Source: Barclays

A. Significant Developments

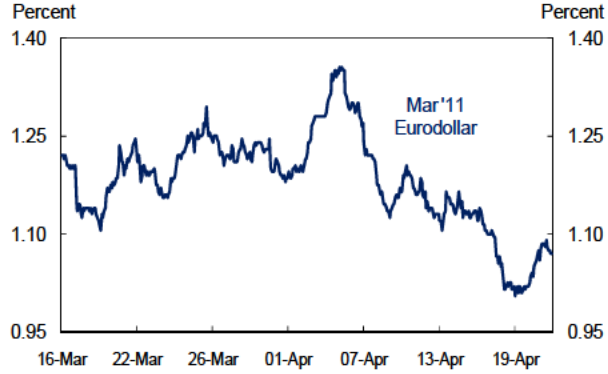
Exhibit A-5:
Policy Expectations

Fed Funds Futures Implied Rates



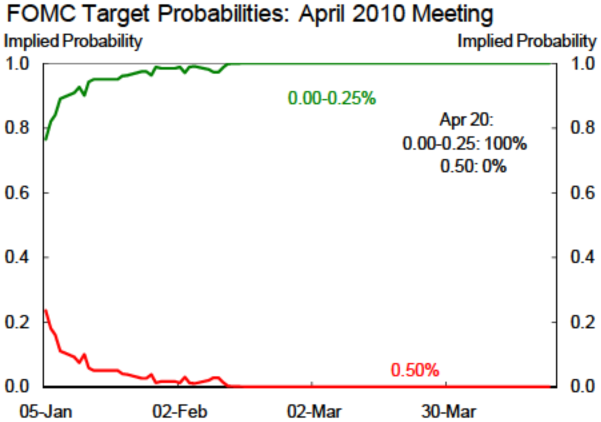
Source: Federal Reserve Board
Note: Estimated using fed funds and Eurodollar futures.

Implied Eurodollar Rates (Intraday)



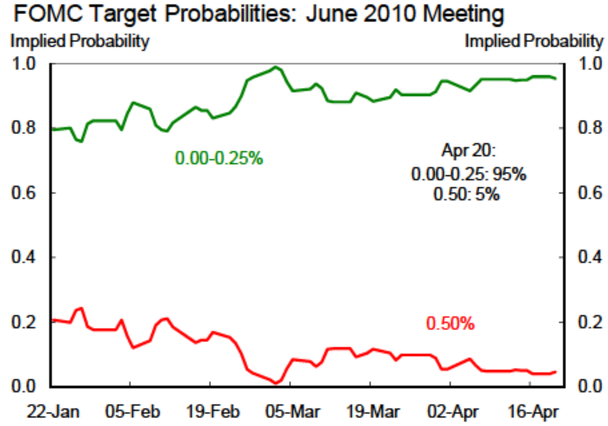
Source: Bloomberg
Note: 8:00 am to 4:00 pm.

FOMC Target Probabilities: April 2010 Meeting



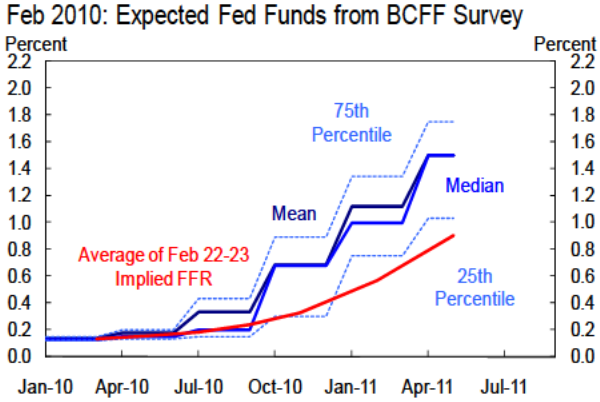
Source: Cleveland FRB
Note: Estimated using options on fed funds futures.

FOMC Target Probabilities: June 2010 Meeting



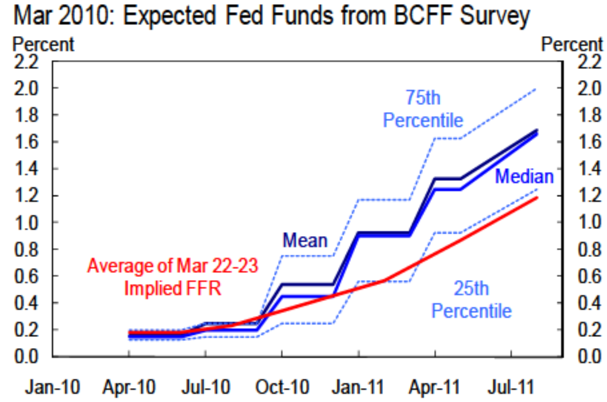
Source: Cleveland FRB
Note: Estimated using options on fed funds futures.

Feb 2010: Expected Fed Funds from BCFF Survey



Note: Implied FFR are from fed funds and Eurodollar futures.
The BCFF survey was conducted on Feb 22-23.

Mar 2010: Expected Fed Funds from BCFF Survey

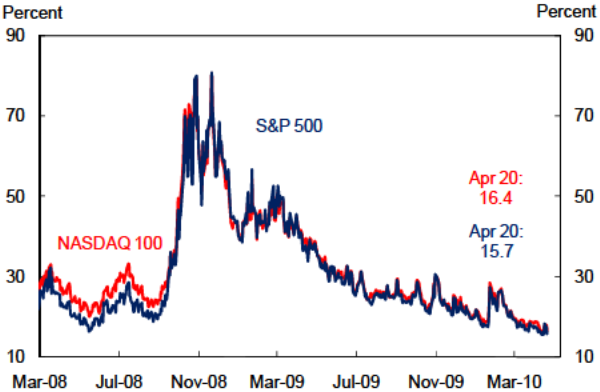


Note: Implied FFR are from fed funds and Eurodollar futures.
The BCFF survey was conducted on Mar 22-23.

A. Significant Developments

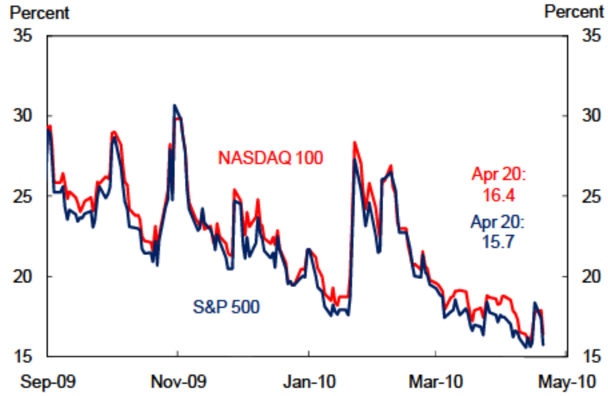
Exhibit A-6:
Implied Volatility

Equity Index Implied Volatility: 1-Month



Source: Datastream

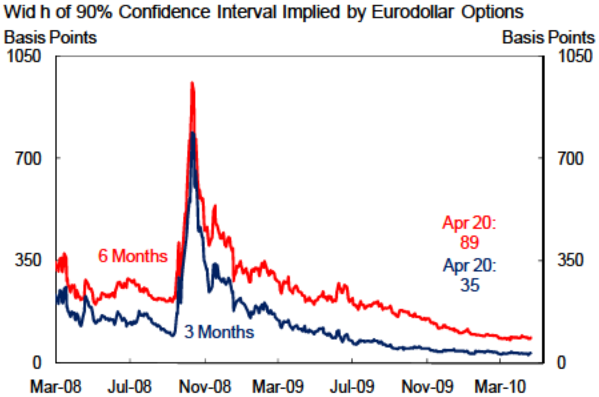
Equity Index Implied Volatility: 1-Month



Source: Datastream

Short-Term Interest Rate Volatility

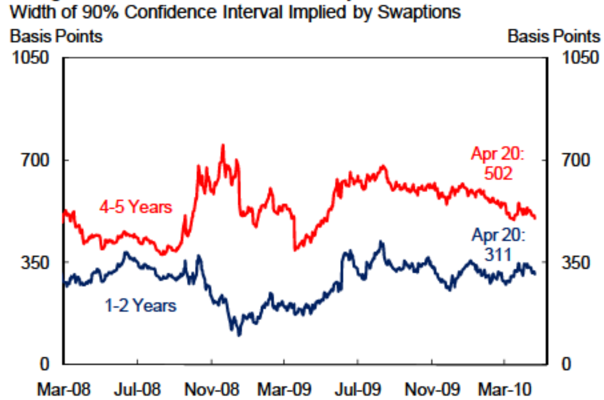
Wid h of 90% Confidence Interval Implied by Eurodollar Options



Source: Datastream, FRBNY calculations

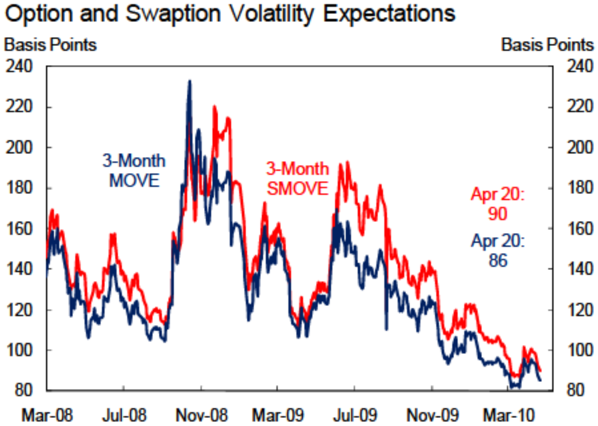
Long-Term Interest Rate Volatility

Width of 90% Confidence Interval Implied by Swaptions



Source: Datastream, FRBNY calculations

Option and Swaption Volatility Expectations



Source: Merrill Lynch, Haver

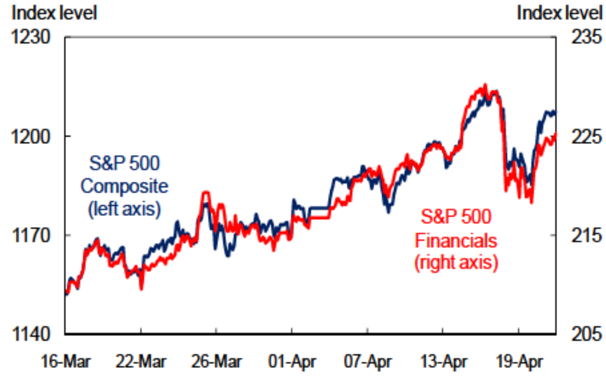
A. Significant Developments

Exhibit A-7:
Equity and Credit

Equity Index Levels

Source: Datastream

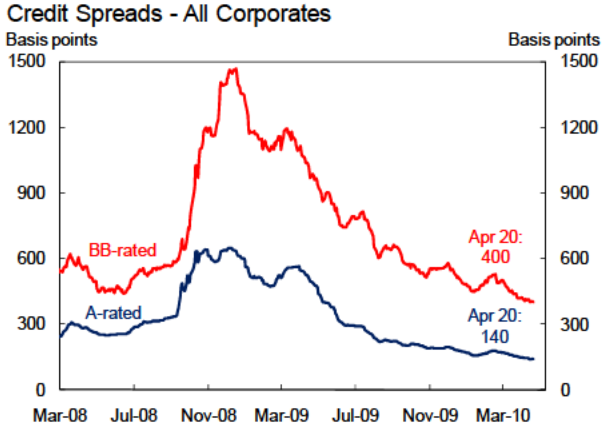
S&P 500 Indices (Intraday)



Source: Bloomberg

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

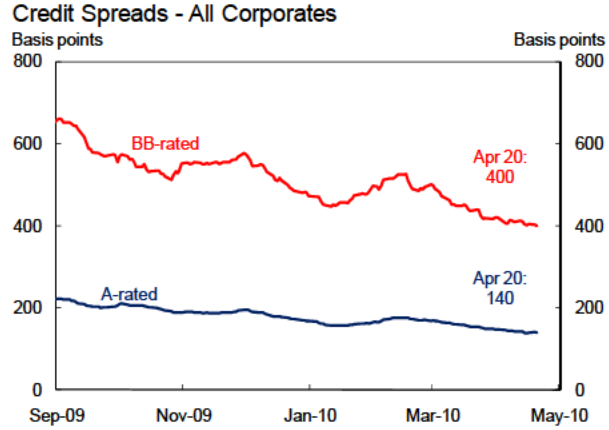
Credit Spreads - All Corporates



Source: Merrill Lynch

Note: Option-adjusted spreads.

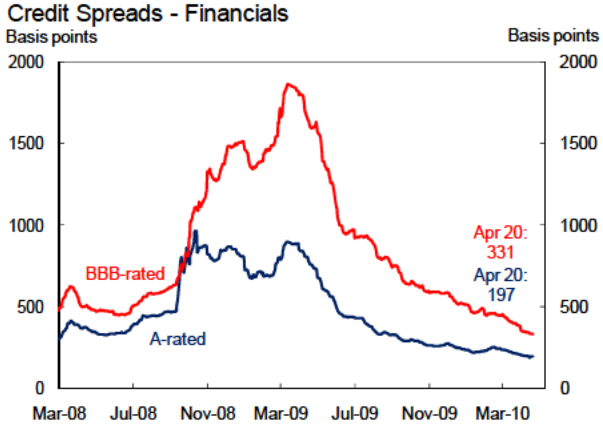
Credit Spreads - All Corporates



Source: Merrill Lynch

Note: Option-adjusted spreads.

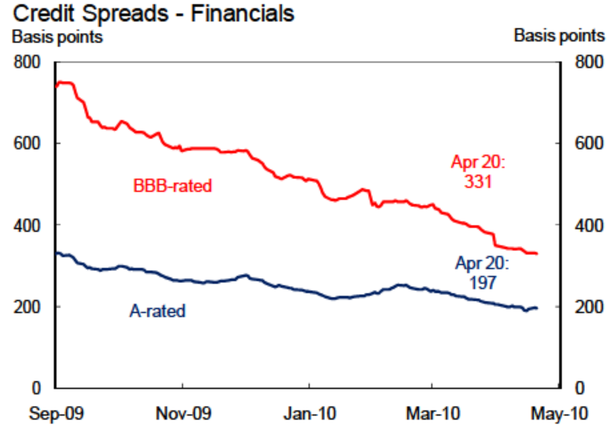
Credit Spreads - Financials



Source: Merrill Lynch

Note: Option-adjusted spreads.

Credit Spreads - Financials



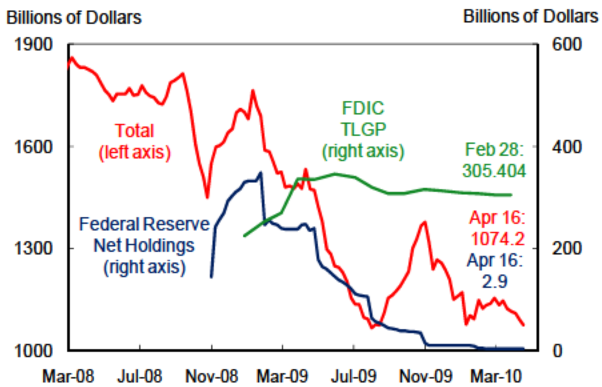
Source: Merrill Lynch

Note: Option-adjusted spreads.

A. Significant Developments

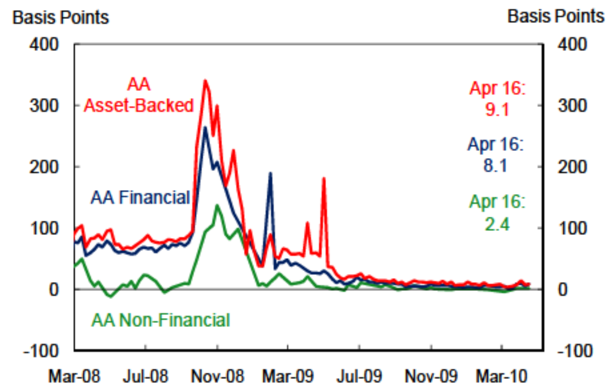
Exhibit A-8:
Liquidity Facilities

CPFF and Commercial Paper Outstanding



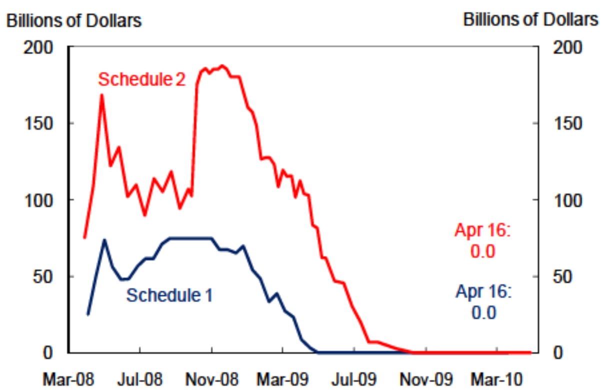
Source: Federal Reserve Board, Haver

3-Month CP Rates over OIS



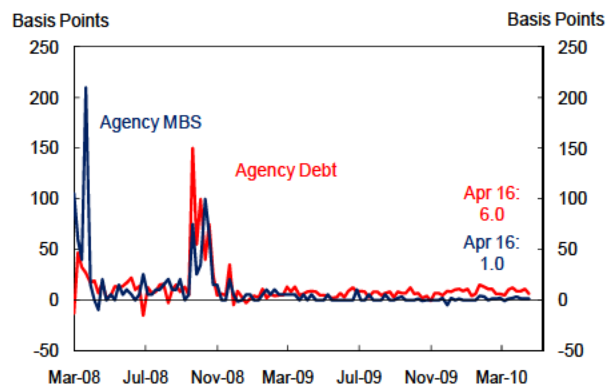
Source: Federal Reserve Board, Haver, Bloomberg

TSLF Outstanding



Source: Federal Reserve Bank of New York

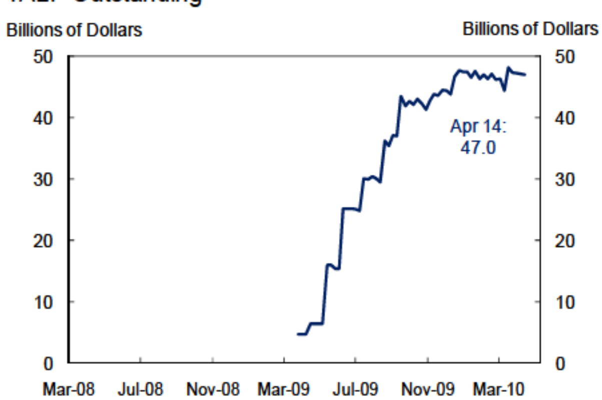
Overnight Financing Spreads



Source: Bloomberg

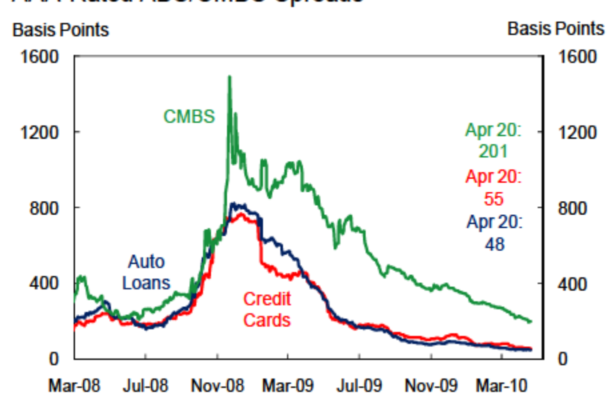
Note: Spreads are between overnight agency debt and MBS and Treasury general collateral repo rates.

TALF Outstanding



Source: Federal Reserve Board

AAA-Rated ABS/CMBS Spreads



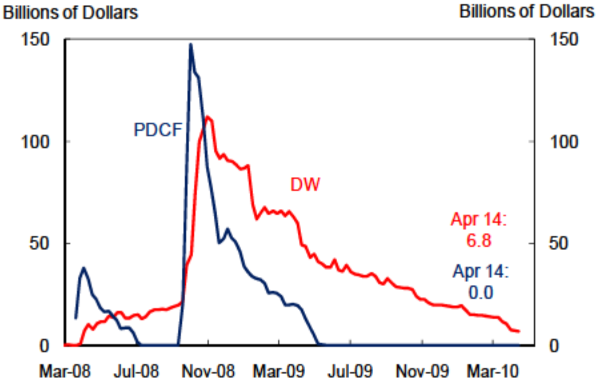
Source: Merrill Lynch

Note: Option-adjusted spreads.

A. Significant Developments

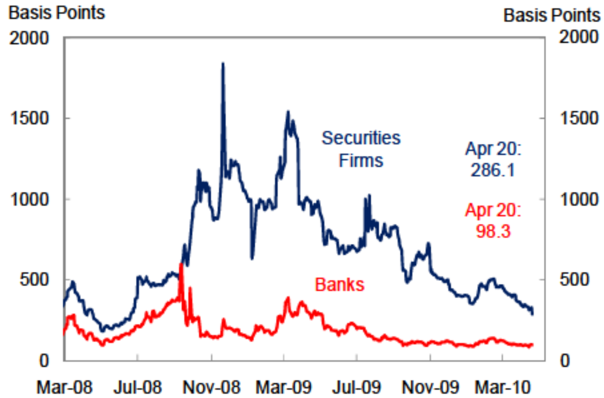
Exhibit A-8:
Liquidity Facilities

Discount Window and PDCF Borrowing



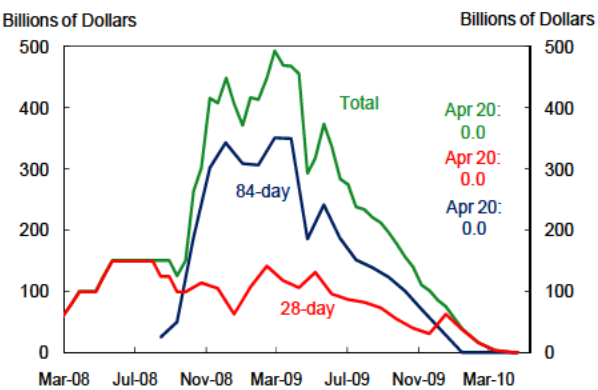
Source: Federal Reserve Board

Sector CDS Spreads



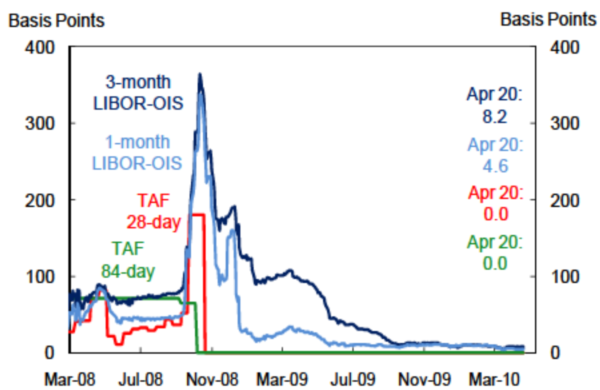
Source: CMA

TAF Outstanding



Source: Federal Reserve Board

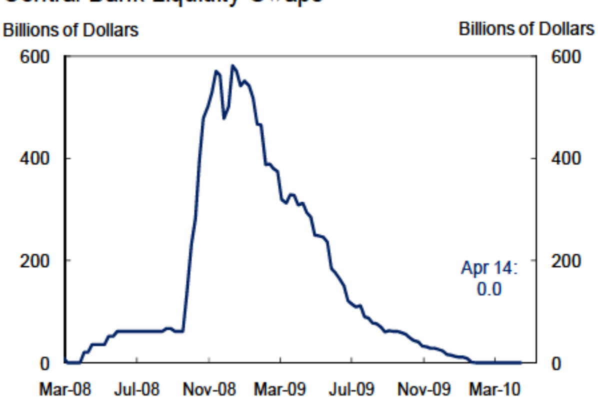
TAF Spreads and Libor to OIS



Source: Federal Reserve Board, Bloomberg

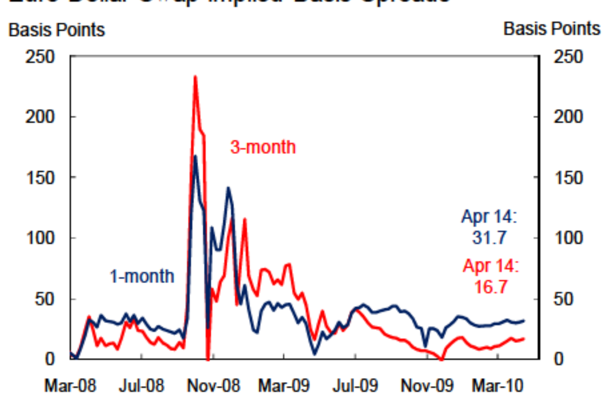
Note: The TAF spread is defined as the stop-out rate less the minimum bid rate.

Central Bank Liquidity Swaps



Source: Federal Reserve Board, Bloomberg

Euro-Dollar Swap Implied Basis Spreads

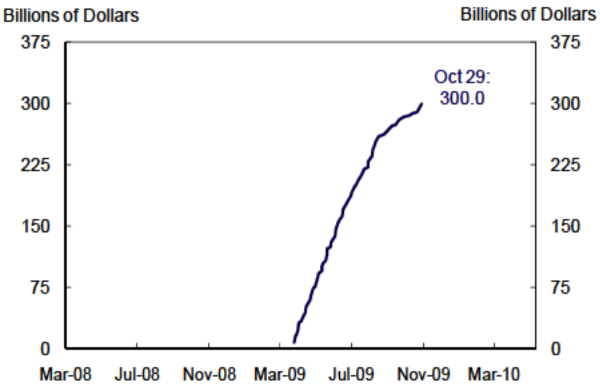


Source: Reuters, Tullett

A. Significant Developments

Exhibit A-9:
Outright Purchase Program

Treasury Outright Purchases

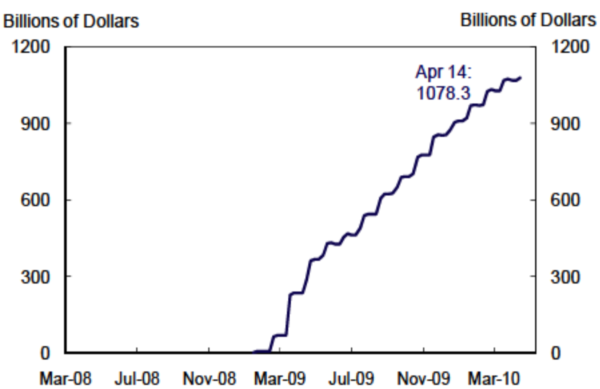


Source: Federal Reserve

Treasury Rates

Source: Wall Street Journal, Haver

Agency MBS Net Outright Purchases



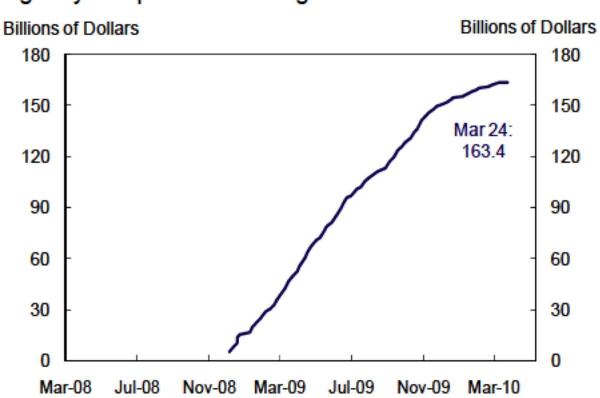
Source: Federal Reserve

Mortgage Market Rates

Source: Bloomberg

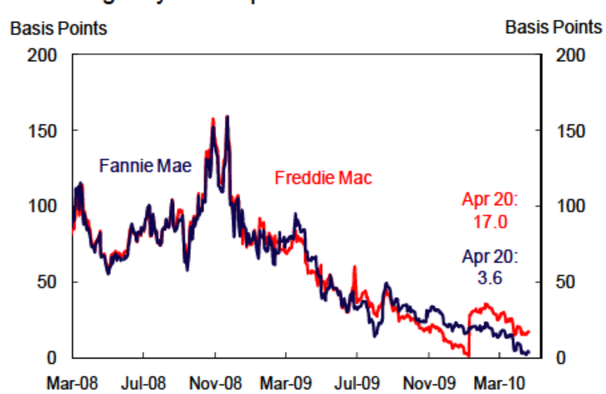
Note: 30-Year Fixed Mortgage rate and Fannie Mae current coupon yield.

Agency Coupon Debt Outright Purchases



Source: Federal Reserve

5-Year Agency Debt Spreads

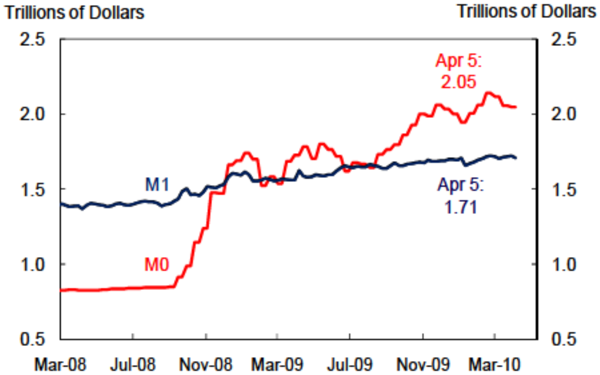


Source: Bloomberg

A. Significant Developments

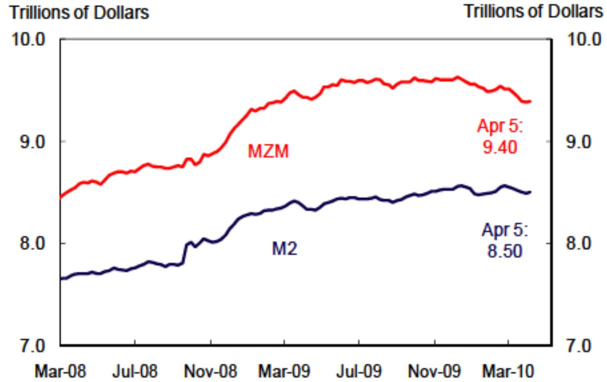
Exhibit A-10:
Money and Banking

Measures of Money Supply: M0, M1



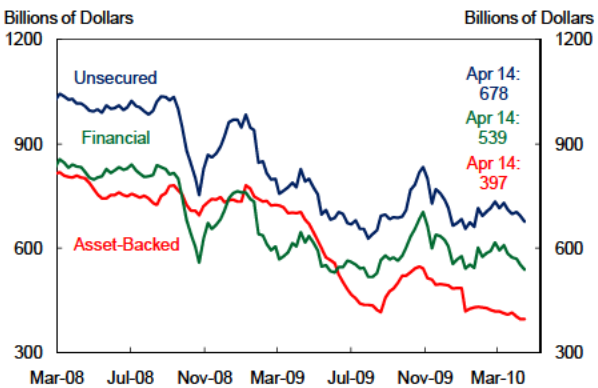
Source: Federal Reserve Board, Haver

Measures of Money Supply: M2, MZM



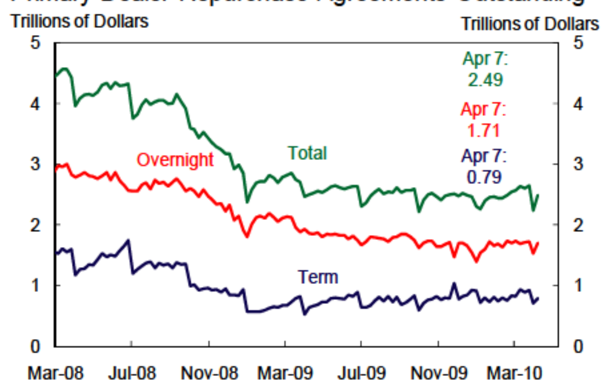
Source: Federal Reserve Board, Haver

Commercial Paper Outstanding



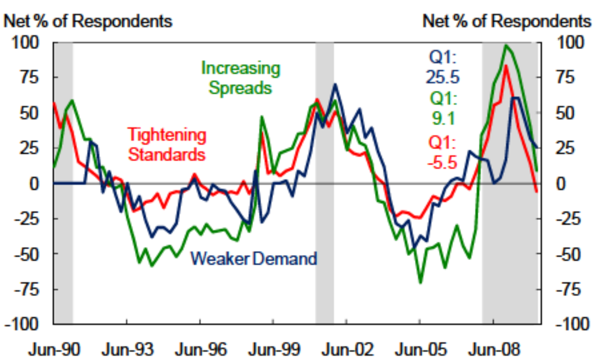
Source: Federal Reserve Board

Primary Dealer Repurchase Agreements Outstanding



Source: Federal Reserve Board

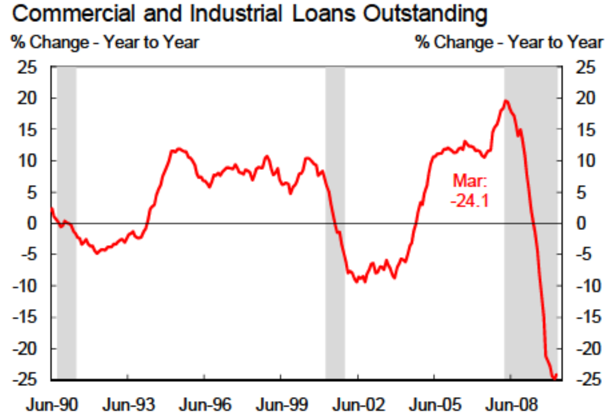
Bank Lending Practices



Source: Federal Reserve Board

Note: Data cover C&I loans to large- and medium-sized firms.

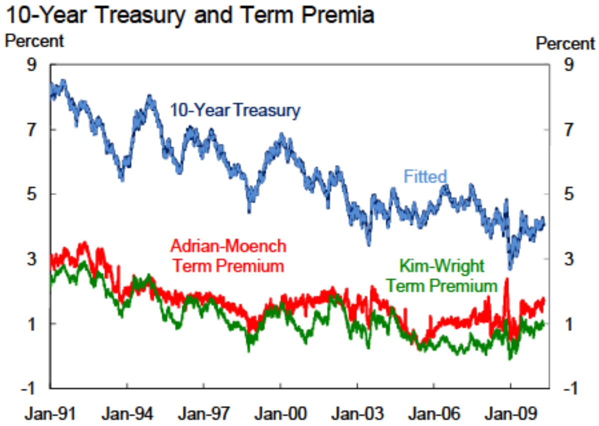
Commercial and Industrial Loans Outstanding



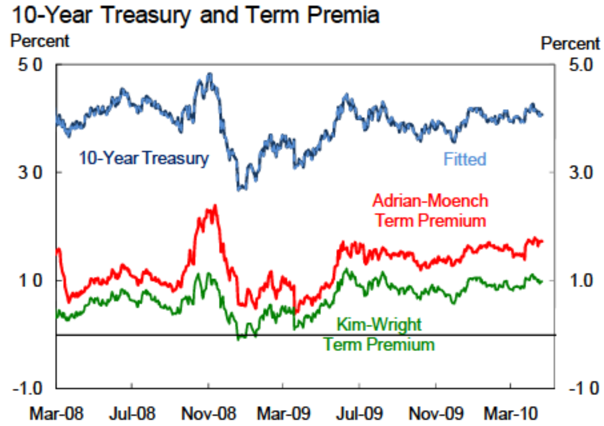
Source: Federal Reserve Board

A. Significant Developments

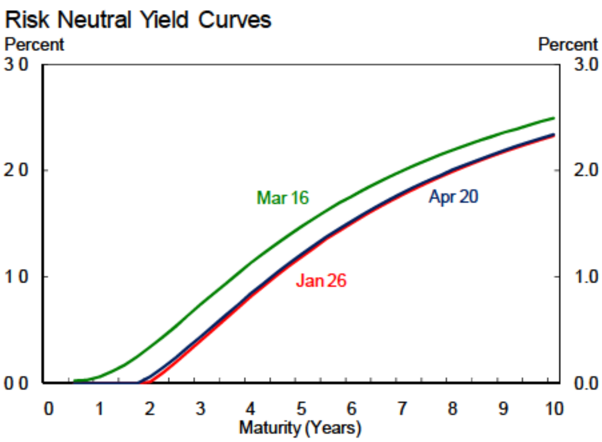
Exhibit A-11:
Estimates of Term Premia in Treasury Yields



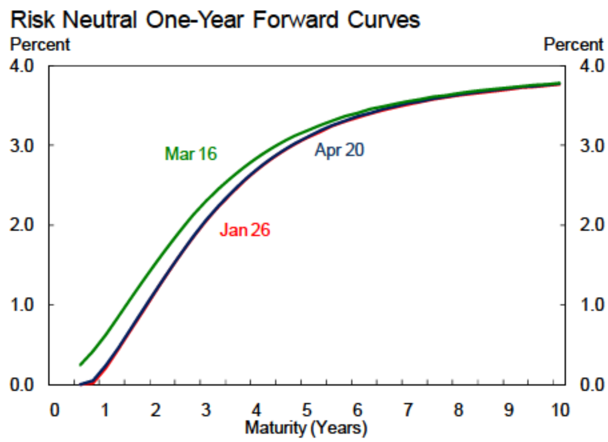
Source: FRBNY calculations, Federal Reserve Board



Source: FRBNY calculations, Federal Reserve Board



Source: FRBNY calculations

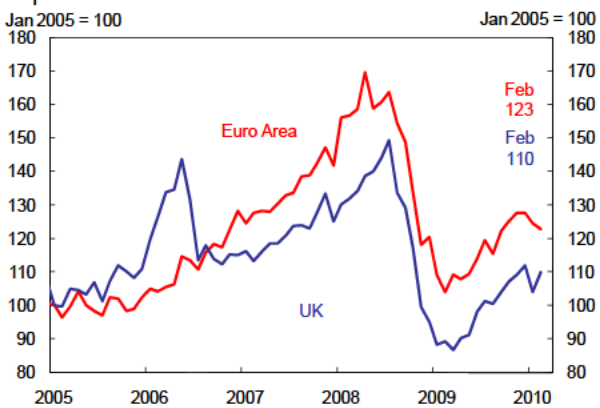


Source: FRBNY calculations

A. Significant Developments

Exhibit A-12: Exports and Industrial Production

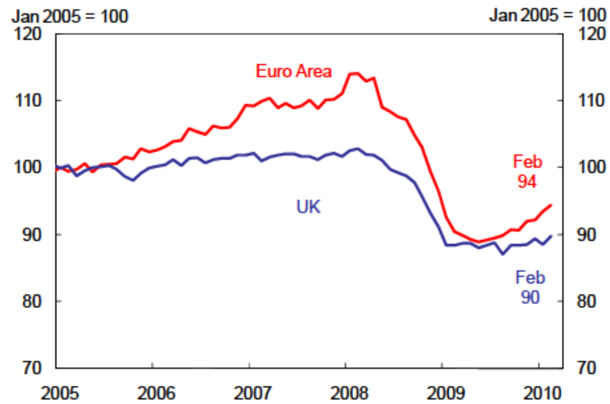
Exports



Source: Haver

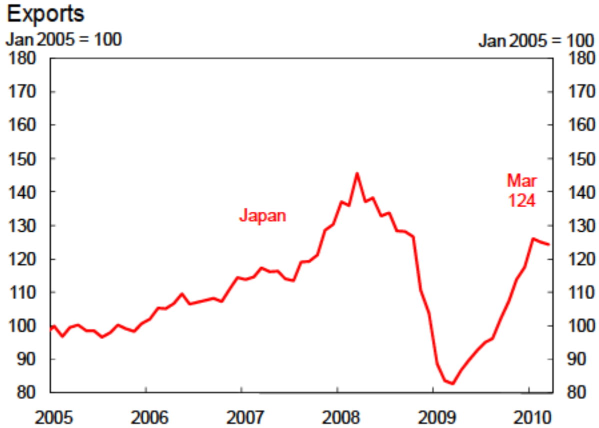
Note: In Dollar Terms

Industrial Production



Source: Haver

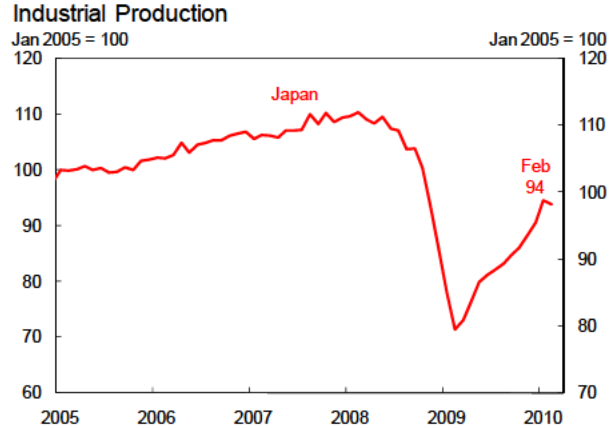
Exports



Source: Haver

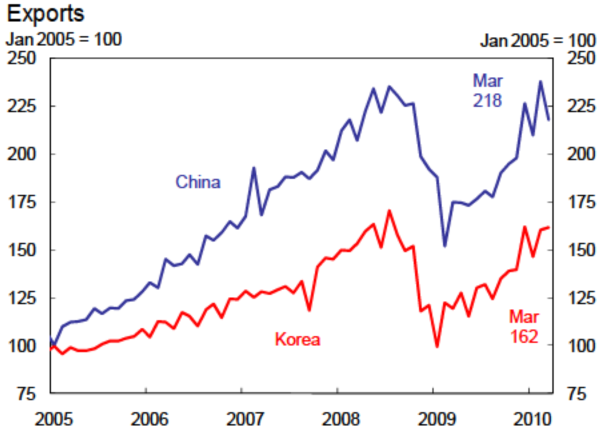
Note: In Dollar Terms

Industrial Production



Source: Haver

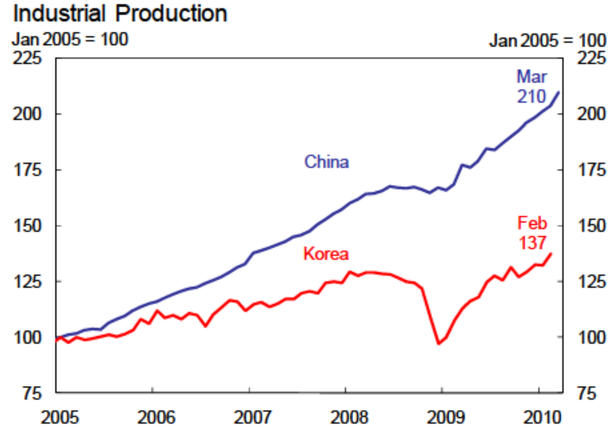
Exports



Source: Haver

Note: In Dollar Terms

Industrial Production

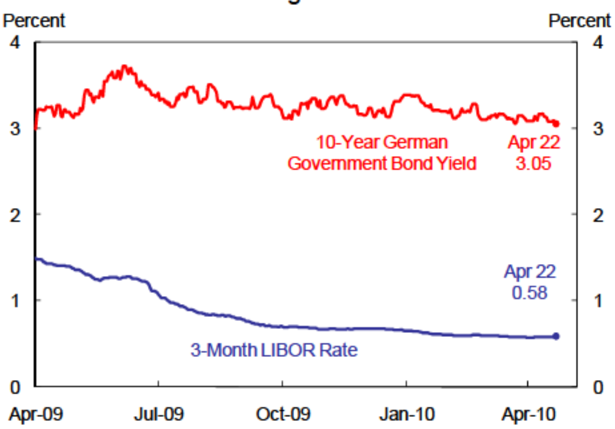


Source: Haver, CEIC

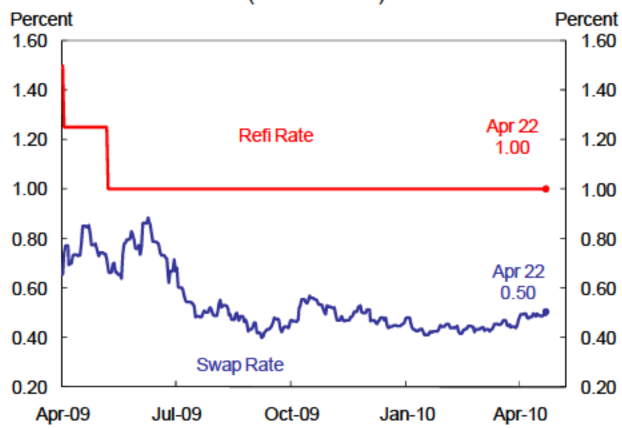
A. Significant Developments

Exhibit A-13:
Global Interest Rates and Equity Markets

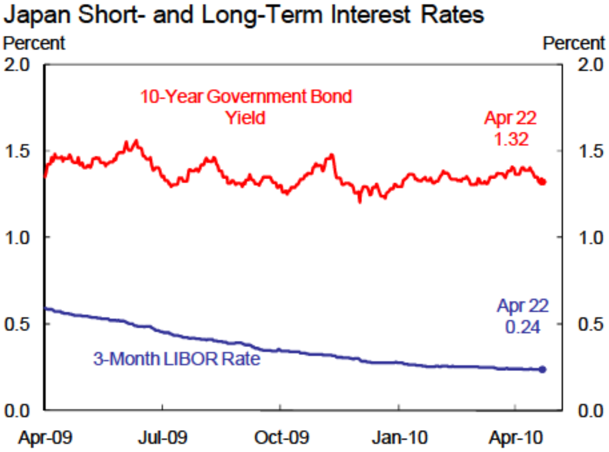
Euro Area Short- and Long-Term Interest Rates



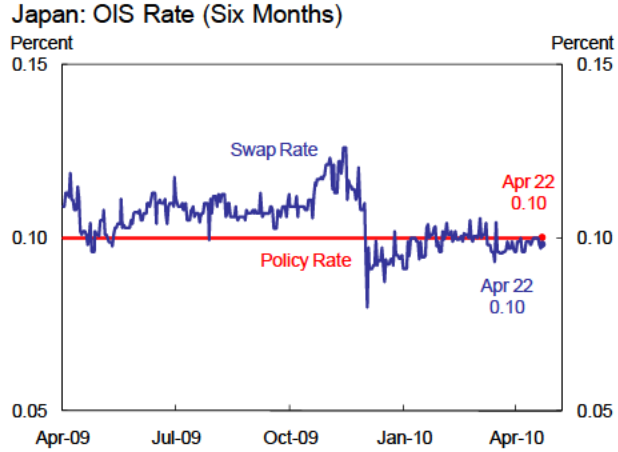
Euro Area: OIS Rate (Six Months)



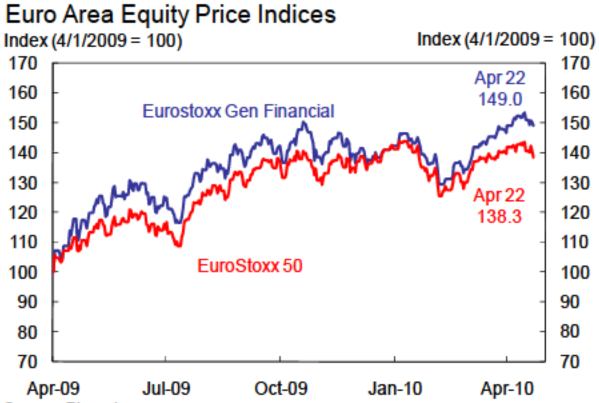
Japan Short- and Long-Term Interest Rates



Japan: OIS Rate (Six Months)

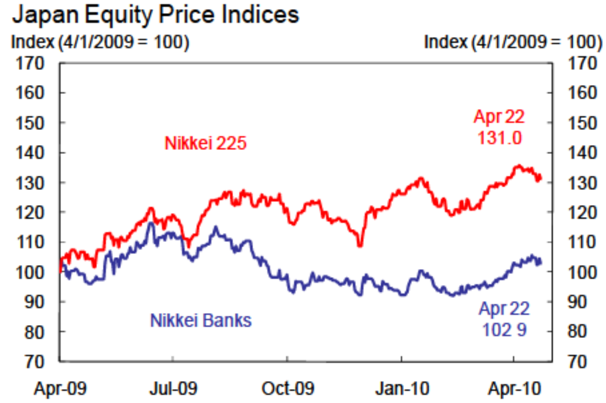


Euro Area Equity Price Indices



Source: Bloomberg

Japan Equity Price Indices

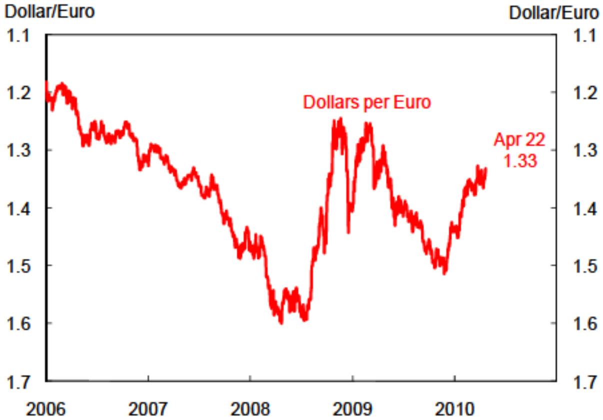


Source: Bloomberg

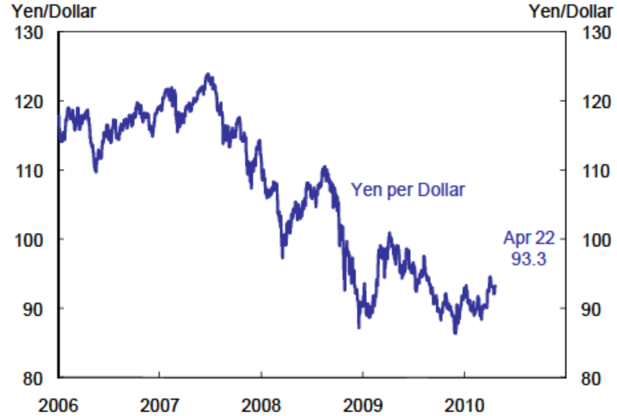
A. Significant Developments

Exhibit A-14:
Exchange Rates

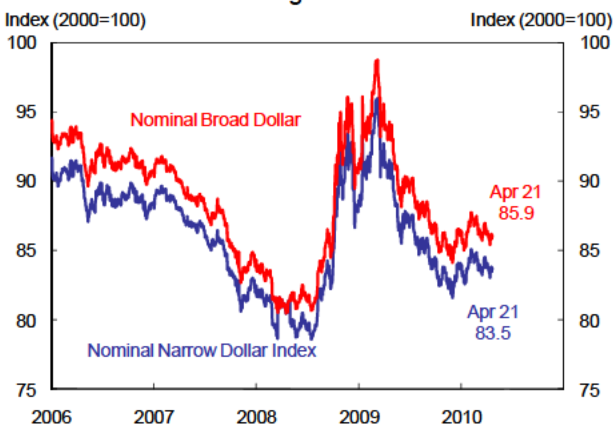
Dollar-Euro Exchange Rate



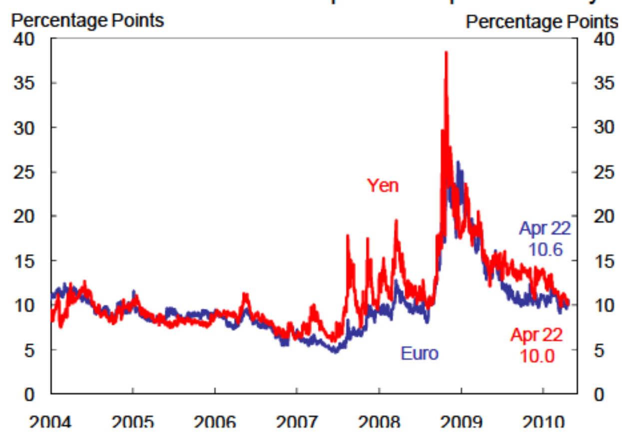
Yen-Dollar Exchange Rate



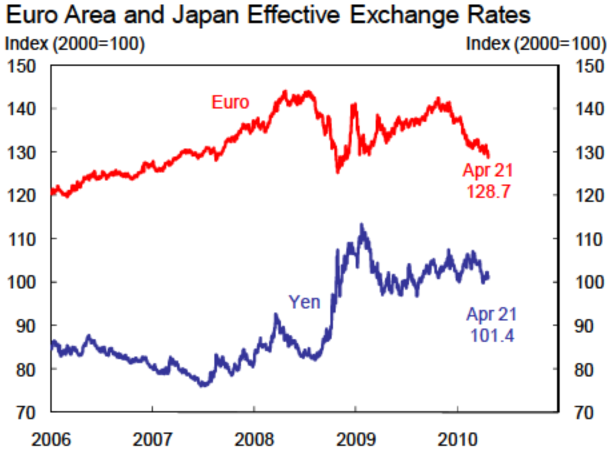
Nominal Effective Exchange Rates



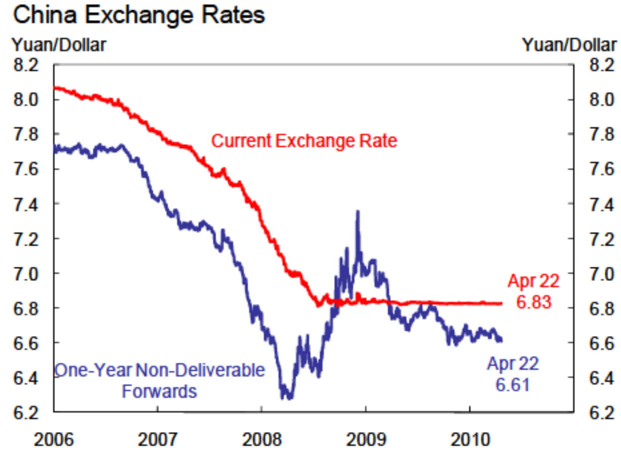
Euro and Yen One-Month Implied FX Option Volatility



Euro Area and Japan Effective Exchange Rates



China Exchange Rates



B. FRBNY Forecast Details

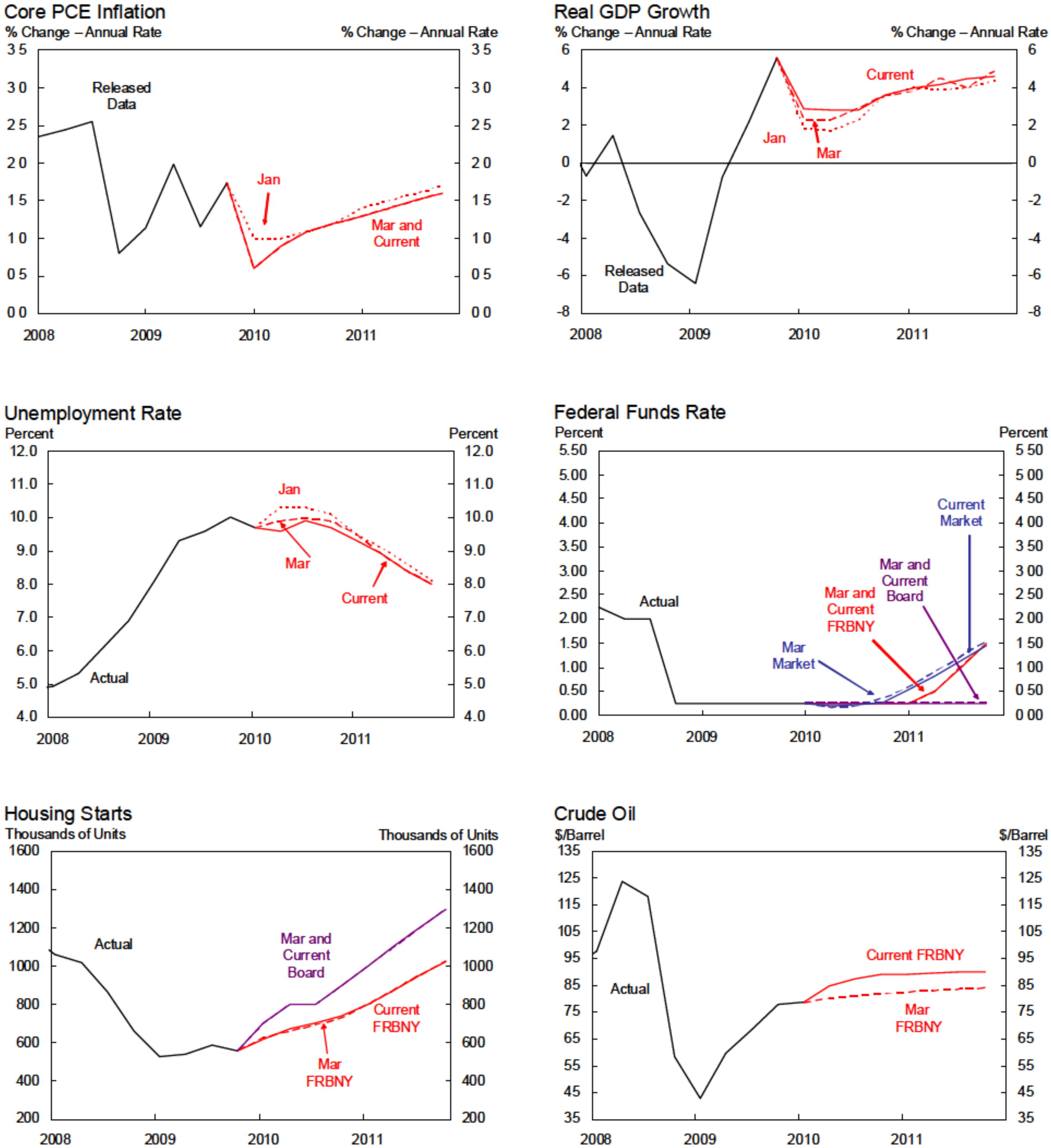
Exhibit B-1: Quarterly and Annual Projections of Key Variables

	Core PCE Inflation			Real GDP Growth			Unemployment Rate*			Fed Funds Rate**		
	Jan	Mar	Apr	Jan	Mar	Apr	Jan	Mar	Apr	Jan	Mar	Apr
2009												
Q1	*1.1*	*1.1*	*1.1*	*-6.4*	*-6.4*	*-6.4*	*8.2*	*8.2*	*8.2*	*0-0.25*	*0-0.25*	*0-0.25*
Q2	*2.0*	*2.0*	*2.0*	*-0.7*	*-0.7*	*-0.7*	*9.3*	*9.3*	*9.3*	0-0.25	*0-0.25*	*0-0.25*
Q3	1.2	*1.2*	*1.2*	2.2	*2.2*	*2.2*	*9.6*	*9.6*	*9.6*	*0-0.25*	*0-0.25*	*0-0.25*
Q4	1.2	1.5	*1.7*	5.3	5.9	*5.6*	10.0	*10.0*	*10.0*	0-0.25	*0-0.25*	*0-0.25*
2010												
Q1	1.0	0.6	0.6	1.8	2.3	2.9	10.1	9.9	*9.7*	0-0.25	0-0.25	*0-0.25*
Q2	1.0	0.9	0.9	1.7	2.3	2.8	10.3	9.9	9.6	0-0.25	0-0.25	0-0.25
Q3	1.1	1.1	1.1	2.3	2.9	2.8	10.3	10.0	9.9	0-0.25	0-0.25	0-0.25
Q4	1.2	1.2	1.2	3.6	3.6	3.6	10.1	9.9	9.7	0-0.25	0-0.25	0-0.25
2011												
Q1	1.4	1.3	1.3	4.0	3.8	4.0	9.5	9.5	9.3	0-0.25	0-0.25	0-0.25
Q2	1.5	1.4	1.4	3.9	4.5	4.2	9.1	8.9	8.9	0.5	0.5	0.5
Q3	1.6	1.5	1.5	4.0	4.0	4.5	8.6	8.6	8.4	1.0	1.0	1.0
Q4	1.7	1.6	1.6	4.4	4.9	4.6	8.1	8.1	8.0	1.5	1.5	1.5
Q4/Q4												
2008	*2.0*	*2.0*	*2.0*	*-1.9*	*-1.9*	*-1.9*	*2.2*	*2.2*	*2.2*	*-4.0*	*-4.0*	*-4.0*
2009	1.4	1.5	*1.5*	0.0	0.1	*0.1*	3.0	3.1	*3.1*	0.0	0.0	*0.0*
2010	1.1	0.9	0.9	2.3	2.8	3.0	0.1	-0.3	-0.3	0.0	0.0	0.0
2011	1.5	1.4	1.4	4.1	4.3	4.3	-2.0	-2.3	-1.7	1.3	1.3	1.3

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



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)	
	2010Q1	2010Q2	2010Q1	2010Q2
OUTPUT				
Real GDP	2.9	2.8	2.9	2.8
	(2.3)	(2.3)	(2.3)	(2.3)
Final Sales to Domestic Purchasers	1.7	2.0	1.8	2.1
	(1.7)	(1.9)	(1.8)	(2.0)
Consumption	3.8	2.2	2.6	1.5
	(2.8)	(2.2)	(2.0)	(1.5)
BFI: Equipment and Software	4.0	5.0	0.3	0.3
	(6.0)	(5.0)	(0.4)	(0.3)
BFI: Nonresidential Structures	-12.0	-7.5	-0.4	-0.2
	(-10.0)	(-7.5)	(-0.3)	(-0.2)
Residential Investment	-10.3	10.2	-0.3	0.2
	(-10.0)	(6.6)	(-0.3)	(0.2)
Government: Federal	-2.0	2.0	-0.2	0.2
	(2.3)	(2.0)	(0.2)	(0.2)
Government: State and Local	-2.5	0.4	-0.3	0.0
	(-1.2)	(0.4)	(-0.1)	(0.0)
Inventory Investment	--	--	1.3	0.5
	--	--	(0.9)	(0.2)
Net Exports	--	--	-0.3	0.3
	--	--	(-0.4)	(0.1)
INFLATION				
Total PCE Deflator	1.5	1.4		
	(1.4)	(1.2)		
Core PCE Deflator	0.6	0.9		
	(0.6)	(0.9)		
PRODUCTIVITY AND LABOR COSTS*				
Output per Hour	1.9	1.8		
	(2.0)	(1.8)		
Compensation per Hour	1.5	1.3		
	(1.5)	(1.3)		
Unit Labor Costs	-0.4	-0.5		
	(-0.5)	(-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		
	2009	2010	2011	2009	2010	2011
OUTPUT						
Real GDP	0.1	3.0	4.3	0.1	3.0	4.3
	(0.1)	(2.8)	(4.3)	(0.1)	(2.8)	(4.3)
Final Sales to Domestic Purchasers	-1.0	2.2	3.8	-1.0	2.3	3.9
	(-0.9)	(2.2)	(3.8)	(-0.9)	(2.2)	(3.9)
Consumption	1.0	2.7	2.6	0.7	1.9	1.8
	(1.0)	(2.3)	(2.4)	(0.7)	(1.6)	(1.7)
BFI: Equipment and Software	-7.5	6.0	14.2	-0.5	0.4	0.9
	(-7.7)	(6.5)	(14.2)	(-0.5)	(0.4)	(0.9)
BFI: Nonresidential Structures	-25.3	-6.8	8.1	-1.1	-0.2	0.2
	(-24.3)	(-6.3)	(8.1)	(-1.0)	(-0.2)	(0.2)
Residential Investment	-12.6	5.6	20.2	-0.4	0.1	0.5
	(-12.3)	(5.9)	(22.8)	(-0.4)	(0.2)	(0.6)
Government: Federal	3.6	0.9	1.5	0.3	0.1	0.1
	(3.6)	(2.0)	(1.5)	(0.3)	(0.2)	(0.1)
Government: State and Local	-0.1	0.2	2.5	0.0	0.0	0.3
	(-0.1)	(0.6)	(2.5)	(-0.0)	(0.1)	(0.3)
Inventory Investment	--	--	--	0.1	0.5	0.2
	--	--	--	(0.2)	(0.5)	(0.2)
Net Exports	--	--	--	1.0	0.2	0.2
	--	--	--	(1.0)	(0.1)	(0.1)
INFLATION						
Total PCE Deflator	1.2	1.4	1.5			
	(1.2)	(1.3)	(1.5)			
Core PCE Deflator	1.5	0.9	1.4			
	(1.5)	(0.9)	(1.4)			
Total CPI Inflation	1.5	1.4	1.9			
	(1.5)	(1.9)	(1.9)			
Core CPI Inflation	1.7	0.8	1.7			
	(1.7)	(1.2)	(1.7)			
GDP Deflator	0.7	1.2	1.5			
	(0.7)	(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		
	2009	2010	2011
INTEREST RATE ASSUMPTIONS			
Federal Funds Rate (End-of-Year)	0-0.25	0-0.25	1.5
	0-0.25	0-0.25	(1.5)
10-Year Treasury Yield (Avg. Q4 Level)	3.5	4.1	4.3
	(3.5)	(3.9)	(4.2)
PRODUCTIVITY AND LABOR COSTS*			
Output	-0.3	3.6	5.3
	(-0.2)	(3.3)	(5.3)
Hours	-5.7	1.8	3.5
	(-5.7)	(1.5)	(3.5)
Output per Hour	5.6	1.8	1.7
	(5.8)	(1.8)	(1.7)
Compensation per Hour	0.8	1.4	1.7
	(0.8)	(1.4)	(1.7)
Unit Labor Costs	-4.6	-0.4	0.0
	(-4.7)	(-0.4)	(0.0)
LABOR MARKET			
Unemployment Rate (Avg. Q4 Level)	10.0	9.7	8.0
	(10.0)	(9.7)	(7.4)
Participation Rate (Avg. Q4 Level)	64.8	64.8	64.8
	(64.8)	(64.9)	(65.2)
Avg. Monthly Nonfarm Payroll Growth (Thous.)	-448	66	322
	(-448)	(117)	(371)
INCOME			
Personal Income	-1.1	4.1	6.1
	(-1.0)	(4.2)	(6.0)
Real Disposable Personal Income	0.9	2.2	4.4
	(1.1)	(2.1)	(4.4)
Corporate Profits Before Taxes	30.6	7.0	4.8
	(32.7)	(4.8)	(4.8)

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

B. FRBNY Forecast Details

Exhibit B-6: FRBNY and Greenbook Forecast Comparison

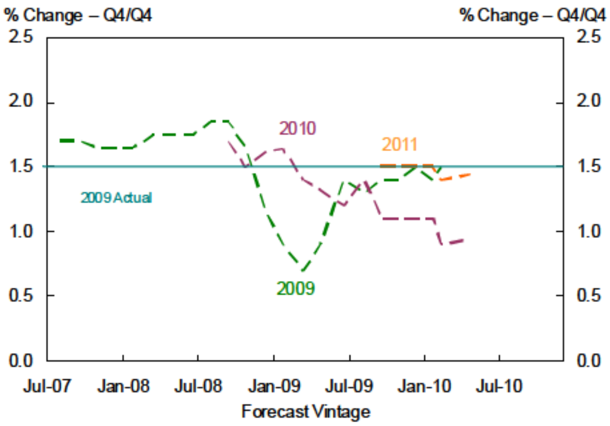
	FRBNY			Board		
	2009	2010	2011	2009	2010	2011
OUTPUT						
Real GDP	0.1	3.0	4.3	0.1	3.5	4.4
	(0.1)	(2.8)	(4.3)	(0.1)	(3.3)	(4.4)
GDP Growth Contributions						
Final Sales to Domestic Purchasers	-1.0	2.3	3.9	-1.0	3.2	4.0
	(-0.9)	(2.2)	(3.9)	(-1.0)	(2.9)	(4.1)
Consumption	0.7	1.9	1.8	0.7	2.0	2.5
	(0.7)	(1.6)	(1.7)	(0.7)	(1.8)	(2.5)
BFI	-1.6	0.2	1.1	-1.6	0.9	0.9
	(-1.6)	(0.2)	(1.2)	(-1.6)	(0.8)	(0.9)
Residential Investment	-0.4	0.1	0.5	-0.4	0.1	0.5
	(-0.4)	(0.2)	(0.6)	(-0.4)	(0.0)	(0.5)
Government	0.3	0.1	0.4	0.3	0.2	0.1
	(0.3)	(0.2)	(0.4)	(0.3)	(0.3)	(0.2)
Inventory Investment	0.1	0.5	0.2	0.1	0.5	0.3
	(0.2)	(0.5)	(0.2)	(0.1)	(0.4)	(0.4)
Net Exports	1.0	0.2	0.2	1.0	-0.1	0.0
	(1.0)	(0.1)	(0.1)	(1.0)	(-0.1)	(-0.1)
INFLATION						
Total PCE Deflator	1.2	1.4	1.5	1.2	1.3	1.0
	(1.2)	(1.3)	(1.5)	(1.2)	(1.3)	(1.0)
Core PCE Deflator	1.5	0.9	1.4	1.5	0.9	0.9
	(1.5)	(0.9)	(1.4)	(1.5)	(1.0)	(1.0)
INTREST RATE ASSUMPTION						
Fed Funds Rate (End-of-Year)	0-0.25	0-0.25	1.5	0-0.25	0-0.25	0-0.25
	0-0.25	0-0.25	(1.5)	0-0.25	0-0.25	0-0.25
PRODUCTIVITY AND LABOR COSTS*						
Output per Hour	5.6	1.8	1.7	5.6	1.3	0.8
	(5.8)	(1.8)	(1.7)	(5.7)	(0.8)	(1.2)
Compensation per Hour	0.8	1.4	1.7	0.8	2.2	2.5
	(0.8)	(1.4)	(1.7)	(0.8)	(2.2)	(2.5)
Unit Labor Costs	-4.6	(0.4)	(0.0)	-4.6	0.9	1.7
	(-4.7)	(-0.4)	(-0.0)	(-4.6)	(1.3)	(1.3)
LABOR MARKET						
Unemployment Rate (Avg. Q4 Level)	10.0	9.7	8.0	10.0	9.3	8.2
	(10.0)	(9.9)	(8.1)	(10.0)	(9.4)	(8.3)
Participation Rate (Avg. Q4 Level)	64.8	64.8	64.8	64.9	64.7	64.7
	(64.8)	(64.9)	(65.2)	(64.9)	(64.7)	(64.6)
Avg. Monthly Nonfarm Payroll Growth (Thous.)	-448	66	322	-450	158	342
	(-448)	(117)	(371)	(-450)	(183)	(308)
HOUSING						
Housing Starts (Avg. Q4 Level, Thous.)	559	740	1025	600	700	1000
	(554)	(730)	(1025)	(600)	(700)	(1000)

B. FRBNY Forecast Details

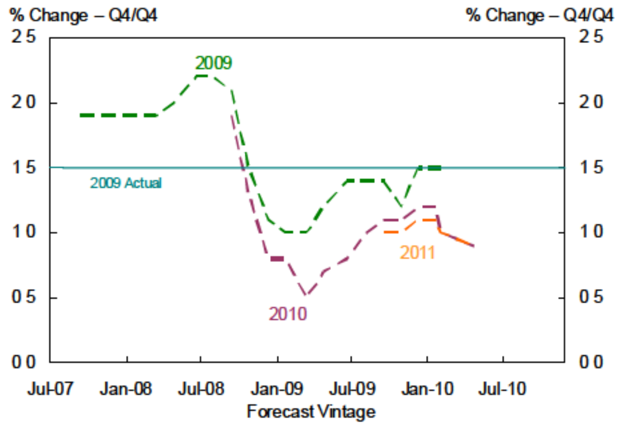
Exhibit B-7: Evolution of FRBNY and Board Forecasts since Mid-2006

FRBNY | **Board**

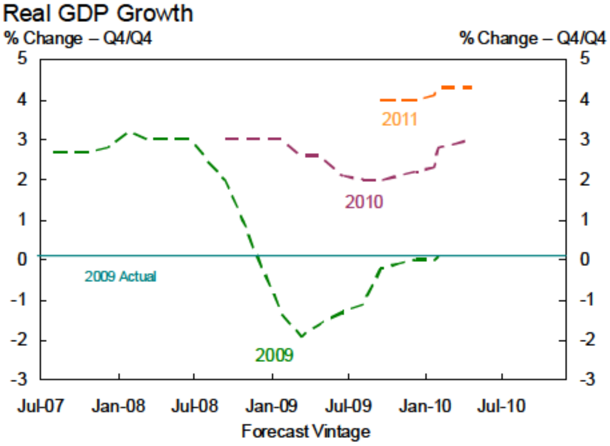
Core PCE Inflation



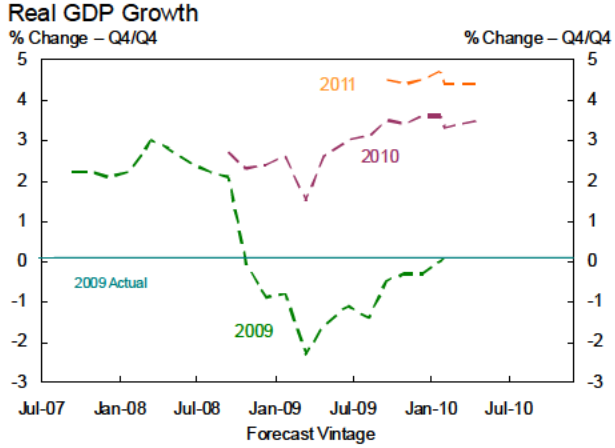
Core PCE Inflation



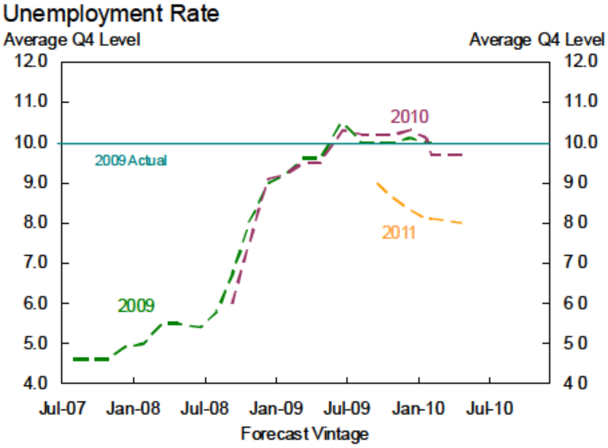
Real GDP Growth



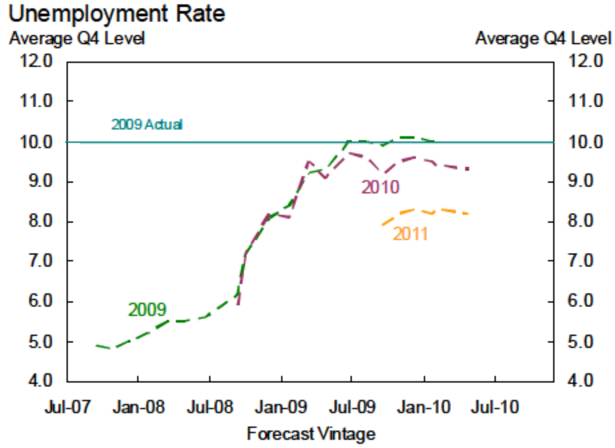
Real GDP Growth



Unemployment Rate



Unemployment Rate



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

B. FRBNY Forecast Details

Exhibit B-8: Alternative
GDP and Inflation Forecasts

	Release Date	Real GDP Growth 2010Q1	2010Q2	2010 Q4/Q4	2011 Q4/Q4
FRBNY	4/23/2010	2.9	2.8	3.0	4.3
		(2.3)	(2.3)	(2.8)	(4.3)
PSI Model	4/22/2010	3.2	1.3	--	--
		(1.7)	(1.4)	--	--
Blue Chip	4/10/2010	2.9	3.0	2.9	3 2
		(2.8)	(2.9)	(2.9)	(3 2)
Median SPF	2/12/2010	2.7	2.7	2.7	--
		(2.3)	(2.4)	(2.6)	--
Macro Advisers	4/23/2010	3.2	4.3	3.6	3 9
		(3.1)	(3.7)	(3.5)	(3.8)

	Release Date	Core PCE Inflation 2010Q1	2010Q2	2010 Q4/Q4	2011 Q4/Q4
FRBNY	4/23/2010	0.6	0.9	0.9	1.4
		(0.6)	(0.9)	(0.9)	(1.4)
Median SPF	2/12/2010	1.2	1.3	1.3	1.5
		(1.0)	(1.2)	(1.3)	(1.5)
Macro Advisers	4/6/2010	0.5	0.9	0.8	0 9
		(0.8)	(1.0)	(0.9)	(0 9)

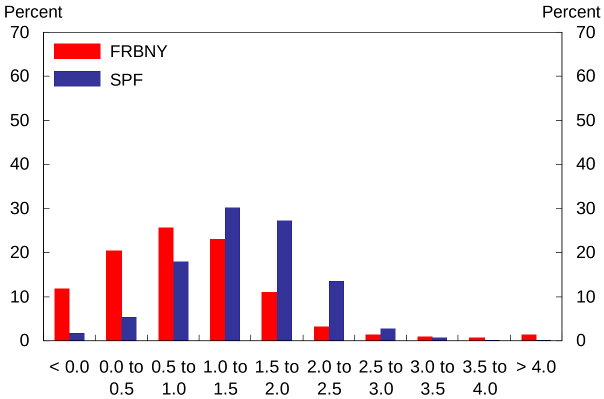
	Release Date	CPI Inflation 2010Q1	2010Q2	2010 Q4/Q4	2011 Q4/Q4
FRBNY	4/23/2010	1.6	1.0	1.4	1 9
		(2.2)	(1.9)	(1.9)	(1 9)
Blue Chip	4/10/2010	1.7	1.3	1.7	2 0
		(2.0)	(1.5)	(1.8)	(2.1)
Median SPF	2/12/2010	2.1	1.4	1.7	2.1
		(1.5)	(1.5)	(1.7)	(2.1)
Macro Advisers	4/6/2010	1.6	0.4	1.0	1 0
		(1.9)	(0.6)	(1.2)	(1 0)

	Release Date	Core CPI Inflation 2010Q1	2010Q2	2010 Q4/Q4	2011 Q4/Q4
FRBNY	4/23/2010	0.0	0.9	0.8	1.7
		(0.3)	(1.6)	(1.2)	(1.7)
Median SPF	2/12/2010	1.3	1.4	1.4	1.7
		(1.2)	(1.4)	(1.4)	(1.8)
Macro Advisers	4/6/2010	0.1	0.8	0.7	1 0
		(0.3)	(1.1)	(0.9)	(1 0)

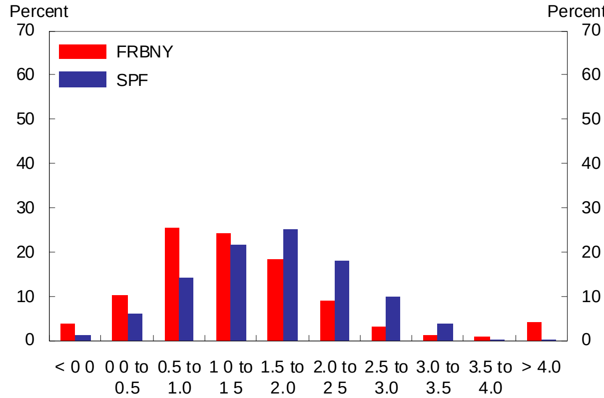
B. FRBNY Forecast Details

Exhibit B-9: FRBNY, SPF, and Board Forecast Comparison

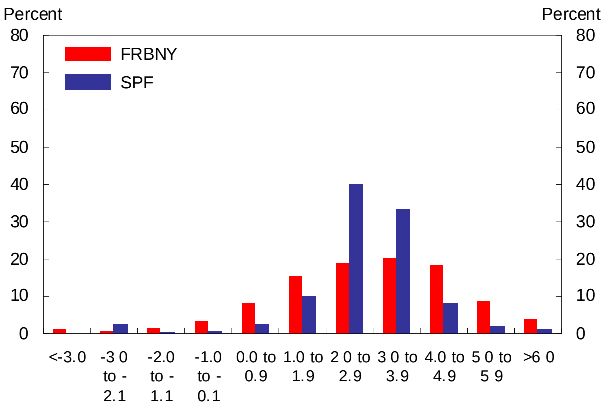
2010Q4/Q4 Core PCE Inflation Probabilities



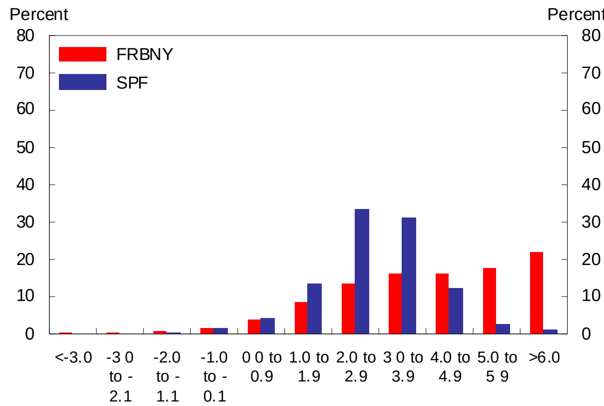
2011Q4/Q4 Core PCE Inflation Probabilities



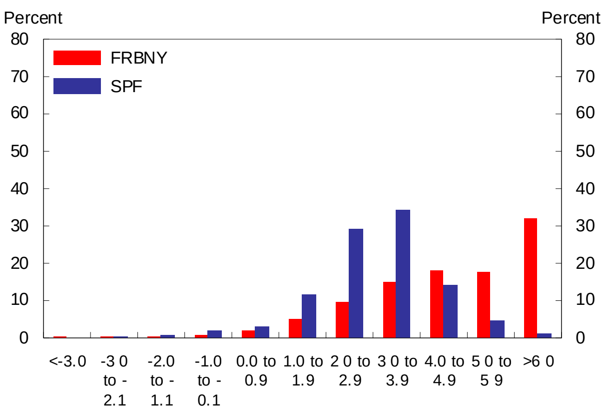
2010/2009 Real GDP Growth Probabilities



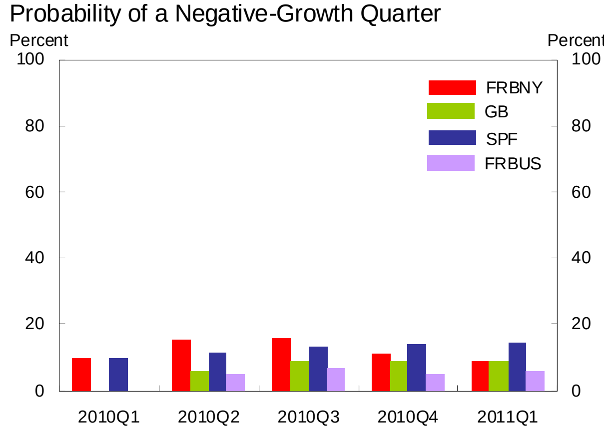
2011/2010 Real GDP Growth Probabilities



2012/2011 Real GDP Growth Probabilities



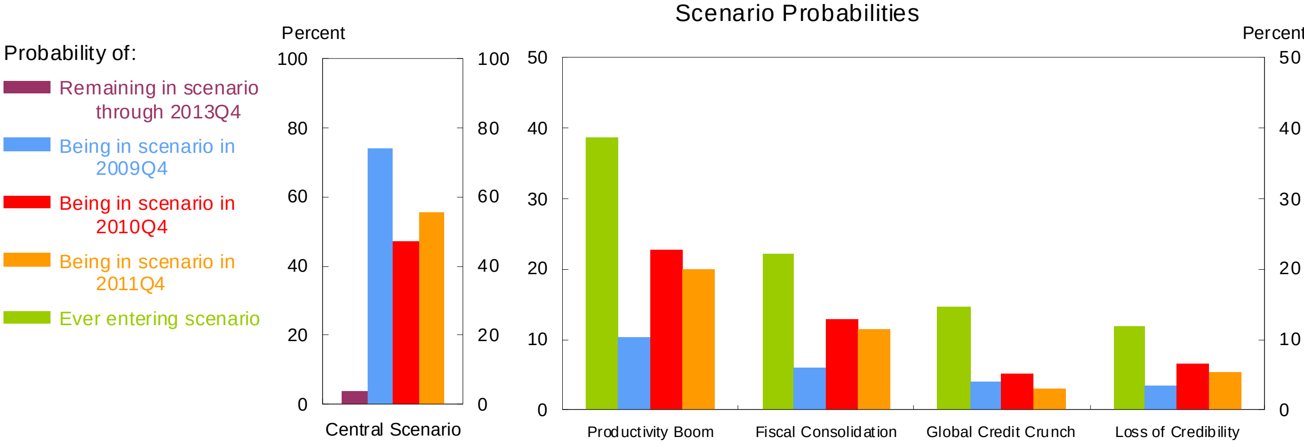
Probability of a Negative-Growth Quarter



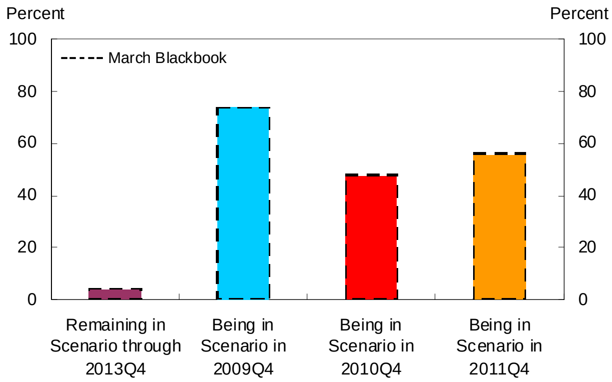
C. FRBNY Forecast Distributions

Exhibit C-1:
Risks

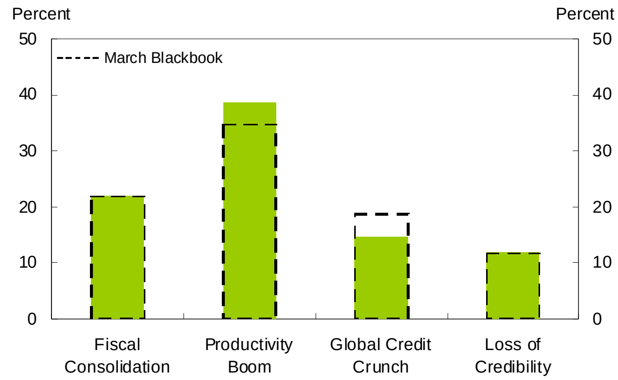
Scenario Probabilities



Change in Central Scenario Probabilities



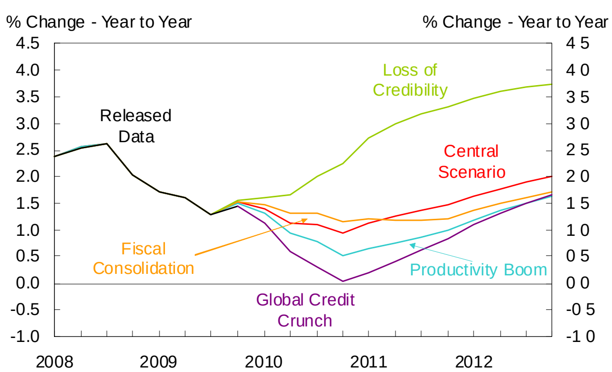
Change in Alternative Scenario Probabilities*



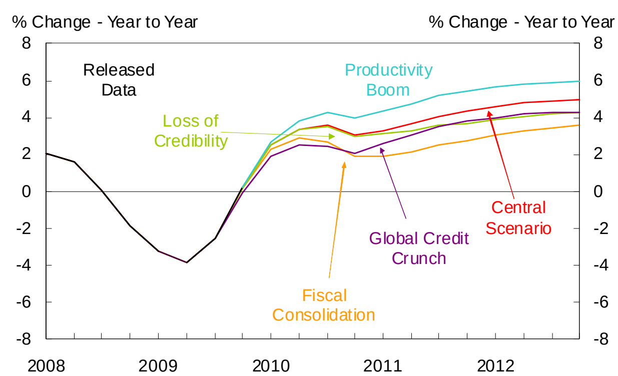
*Probability of ever reaching scenario

Exhibit C-2: Projections under Alternative Scenarios

Core PCE Inflation under Alternative Scenarios



Real GDP Growth under Alternative Scenarios

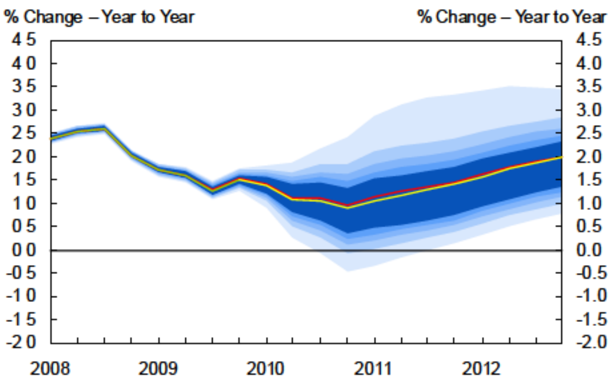


Source: MMS Function (FRBNY)

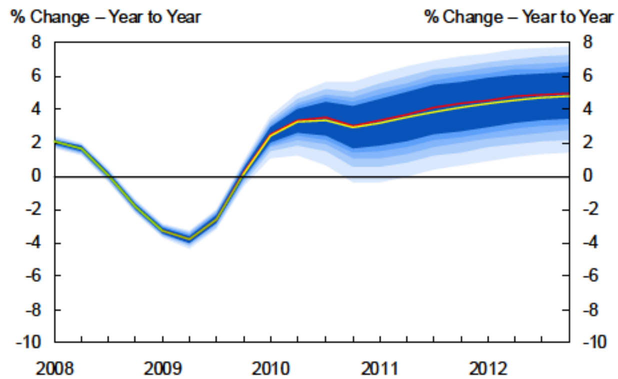
C. FRBNY Forecast Distributions

Exhibit C-3: Inflation and Output Forecast Distributions

Core PCE Inflation Forecast Distribution

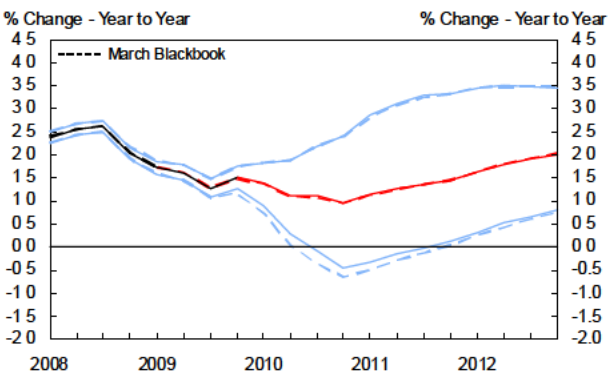


Real GDP Growth Forecast Distribution

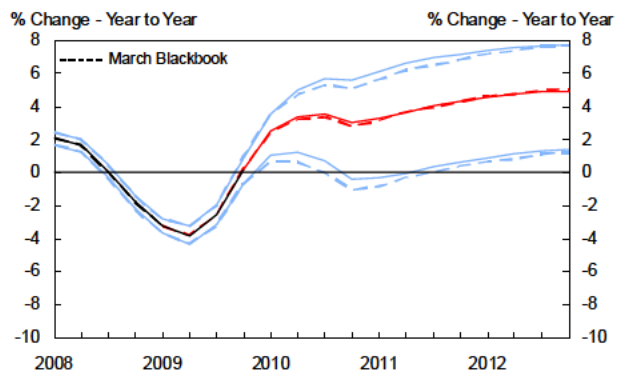


The yellow line is the expected value of the forecast distribution, the red line is the central scenario projection, and the green line is released data. The shading represents the 50, 60, 70, 80, and 90 percent chance that the four-quarter change will be within the respective range.

Change in Core PCE Inflation Forecast Distribution

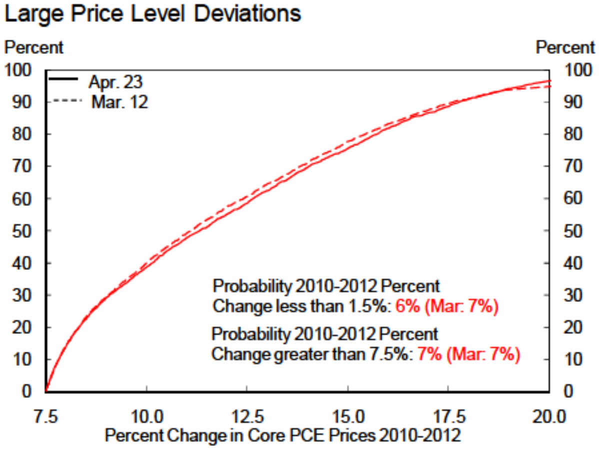


Change in Real GDP Growth Forecast Distribution

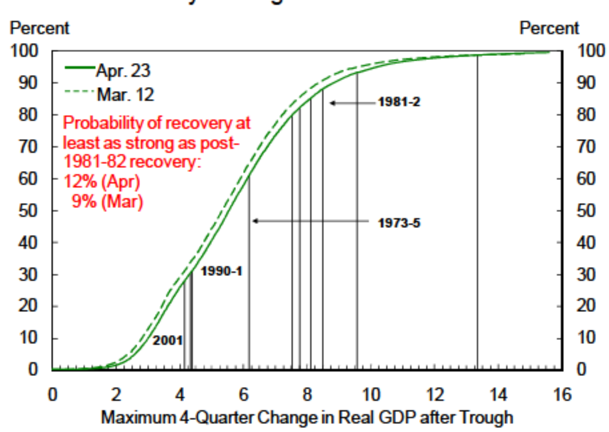


The blue lines are the 90% chance the four-quarter change will be within the lines, the red line is the central scenario projection, and the black line is released data. Dashed lines represent forecasts from previous Blackbook.

Large Price Level Deviations



Scale of Recovery Through End of 2011

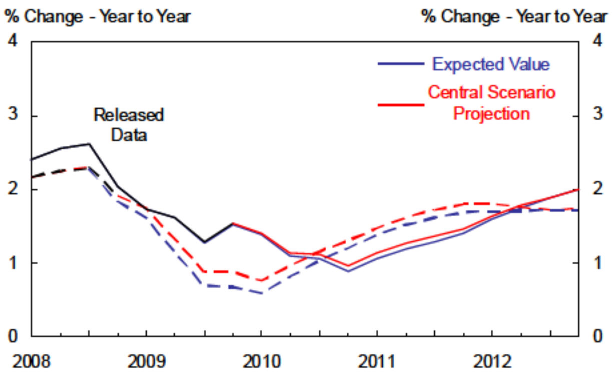


Source: MMS Function (FRBNY)

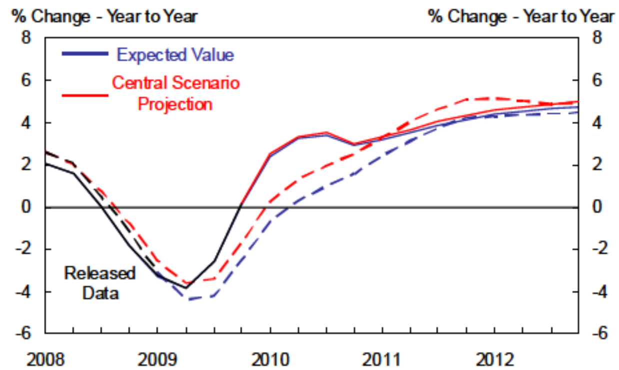
C. FRBNY Forecast Distributions

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

One-Year Comparison of Core PCE Inflation Forecast

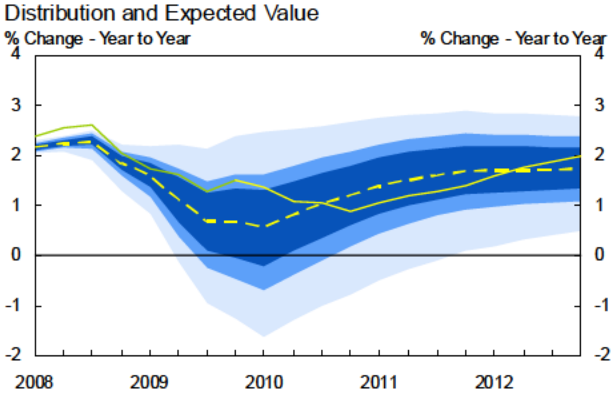


One-Year Comparison of Real GDP Growth Forecast

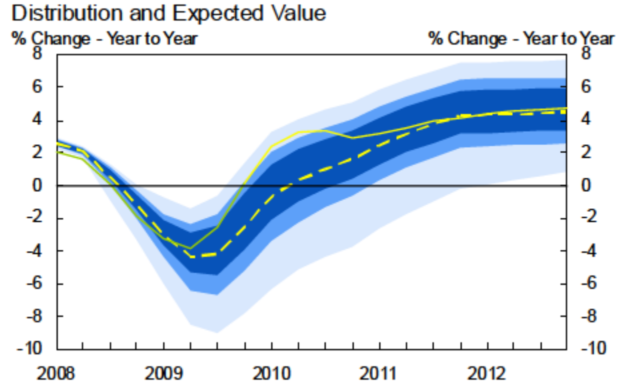


The solid lines represent the current central scenario projection and expected value, while the dashed lines represent those from the year-ago Blackbook.

One-Year Comparison of Core PCE Inflation Forecast Distribution and Expected Value



One-Year Comparison of Real GDP Growth Forecast Distribution and Expected Value



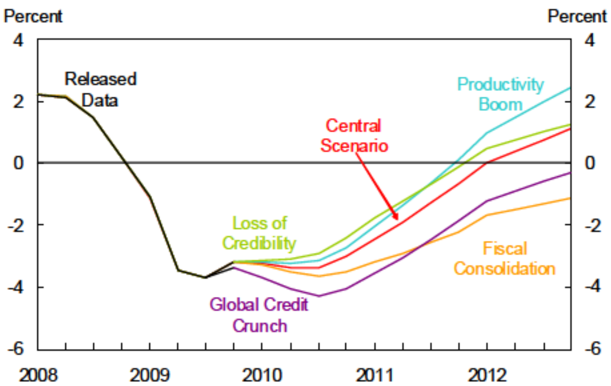
The solid yellow line is the **current** expected value of the forecast distribution, while the dashed yellow line is the expected value from the year-ago Blackbook. The shading represents the 50, 70 and 90 percent probability intervals from the year-ago forecast. The green lines are released data.

Source: MMS Function (FRBNY)

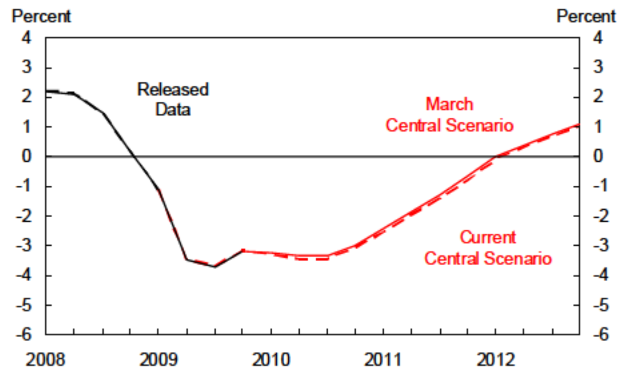
D. FRBNY Fed Funds Rate Projections

Exhibit D-1: *Baseline*
Policy Rule Analysis

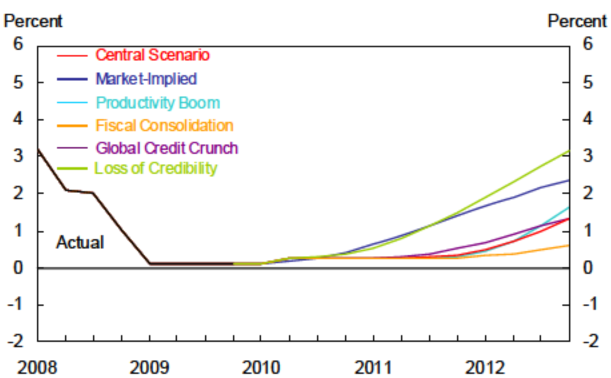
Real FFR under Alternative Scenarios



Change in Central Scenario Real FFR



Nominal FFR under Alternative Scenarios



Change in Central Scenario and Market-Implied Nominal FFR

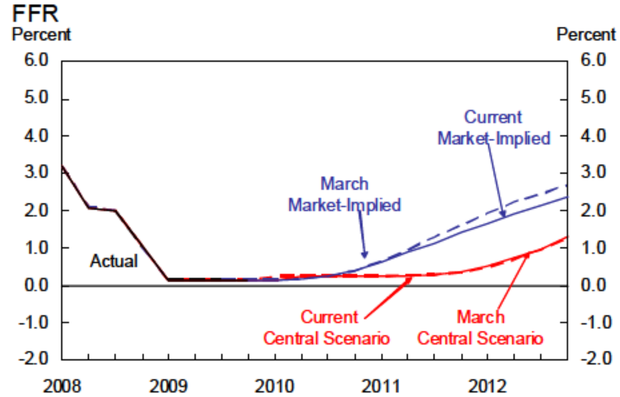
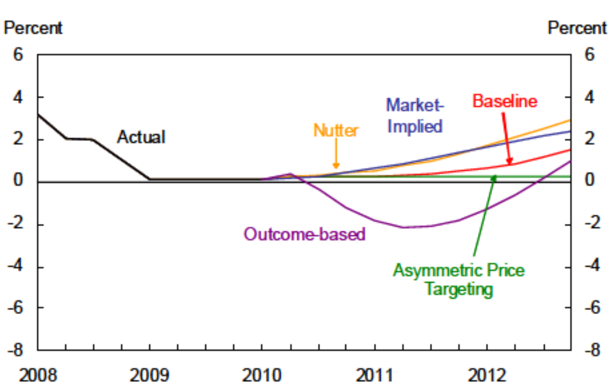


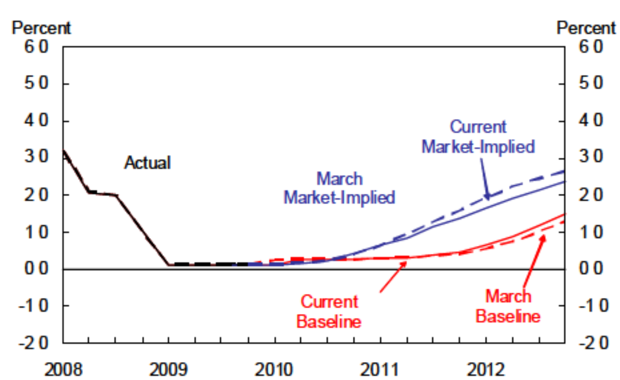
Exhibit D-2: Alternative Policy Rules under Expected Value of Forecast Distribution

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

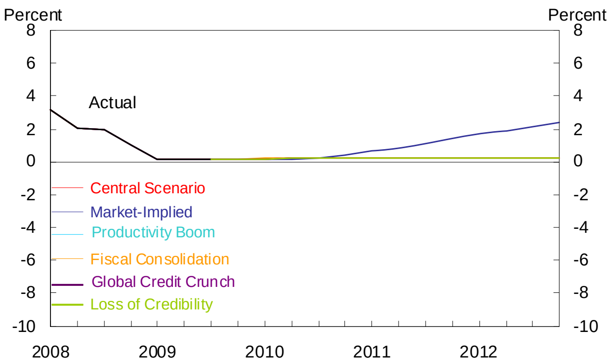
Source: MMS Function (FRBNY)

D. FRBNY Fed Funds Rate Projections

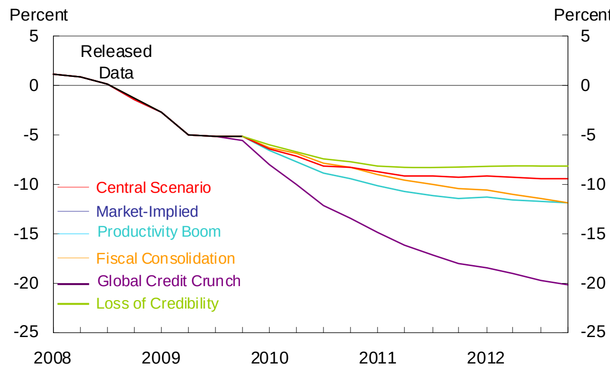
Exhibit D-3: Alternative Policy Rule Analysis

Policy Rule: *Asymmetric Price Targeting*

Nominal FFR under Alternative Scenarios

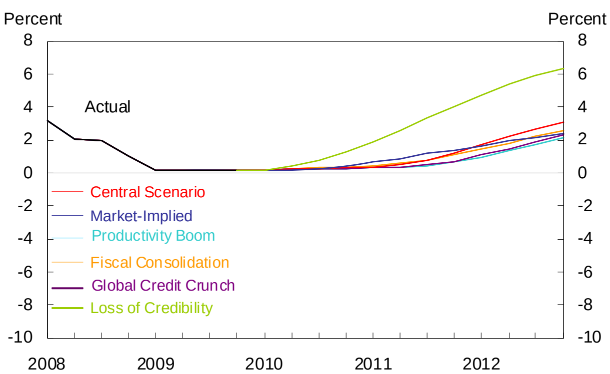


Real FFR under Alternative Scenarios

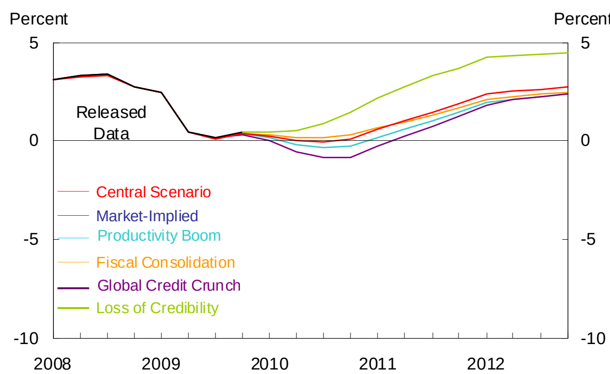


Policy Rule: *Nutter*

Nominal FFR under Alternative Scenarios

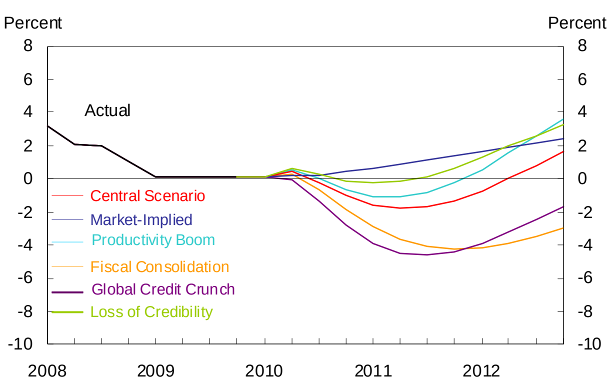


Real FFR under Alternative Scenarios

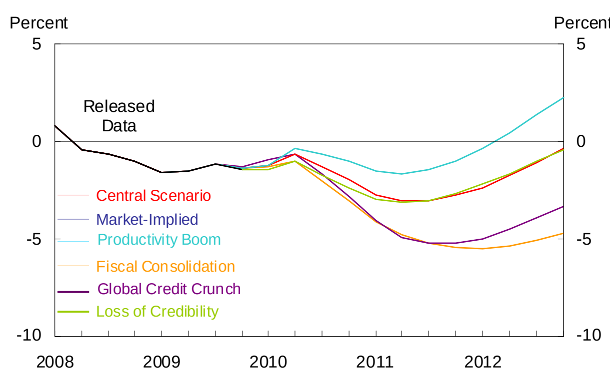


Policy Rule: *Outcome-based*

Nominal FFR under Alternative Scenarios



Real FFR under Alternative Scenarios



Source: MMS Function (FRBNY)

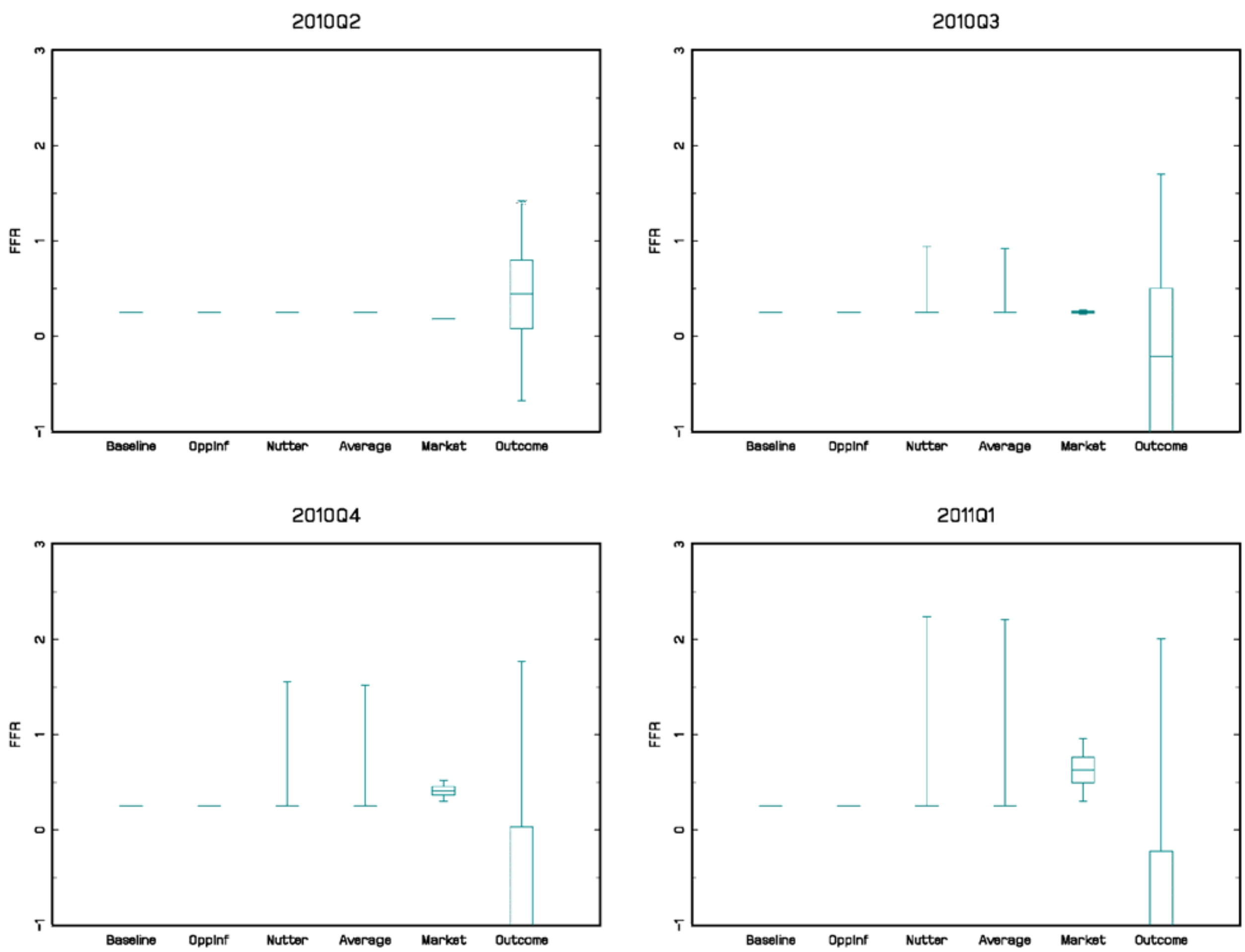
D. FRBNY Fed Funds Rate Projections

Exhibit D-4: Comparison between Market and Policy Rule FFR Expectations: 2010Q1

"Average" Weights:

Rule	Current	Mar Blackbook
Baseline	0.01	0.01
Asymmetric Price Targeting	0.01	0.01
Nutter	0.98	0.98

Exhibit D-5: FFR Distributions



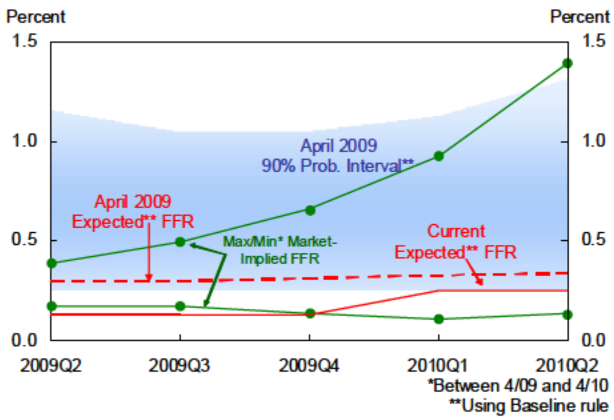
Note: The box represents the 50% probability interval, the line in the box the median, and the tails the 90% probability interval.

Source: MMS Function (FRBNY)

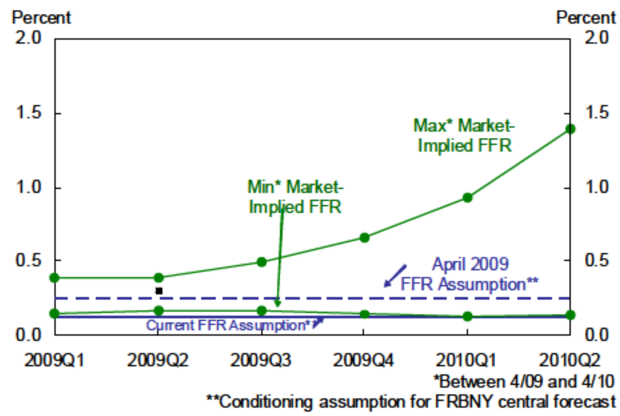
D. FRBNY Fed Funds Rate Projections

Exhibit D-6: Evolution of FFR Expectations and Assumption

FFR Forecast Distribution and Market-Implied FFR



FFR Conditioning Assumption and Market-Implied FFR



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 two alternative scenarios consider the impact of above- and below-trend productivity growth, respectively. In the post-war era, the United States has experienced three productivity epochs (pre-1973, High I; 1973 to mid-1990s, Low I; and mid-1990s to 2004, High II). The NIPA revisions in July 2006 and 2007 prompted us to reduce our estimate of potential output growth; thus our current central projection for medium- and long-term productivity growth is somewhat lower than that of the pre-1973 epoch.

Alternative 1: *Productivity Boom*

After a lull from 2004 through early 2007, productivity growth since has been robust and above our current estimate of trend productivity growth. Our projections for 2008Q2 productivity indicate that this pattern should continue. These patterns raise 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 the High II epoch, with some mixture of IT-driven production and applications leading the way. Support for this view comes from Moore's law on the doubling of computing power every 18 months. As such, we could see persistent productivity growth above our assumed trend, implying a higher potential growth rate and thus expected real growth that is higher than our current estimate (as well as a possible development of a larger output gap in 2008). Strong productivity growth would also limit labor cost pressures and thereby help to subdue inflation.

Alternative 2: *Productivity Slump*

The recent surge in productivity growth may reflect a new cyclical pattern whereby firms protective of their profit margins reduce labor input in anticipation of slower profit growth. Furthermore, it is possible that the longer-term upswing in productivity that began in the mid-1990s has ended as the IT-driven surge has run it course. If so, there could be an extended period of productivity growth below the trend in our central forecast. In addition, the increase in the level and volatility of energy and commodity prices could continue and lead to lower productivity growth, as occurred in the 1970s. Below-trend growth would not only imply a lower estimate of potential growth, but would also push inflation above the level projected in our central forecast.

We also consider four additional scenarios. Three are related to the impact of monetary policy on the economy and financial markets as well as possible FOMC misperceptions of its past and current policy stances. The other is related to the impact of developments in the global economy.

Alternative 3: *Fiscal Consolidation*

The *Fiscal Consolidation* scenario replaces the *Effects of Overheating* scenario. This new scenario envisions concerns on the part of investors about fiscal sustainability in the United States, which lead to an increase in long term rates and consequently to a decline in output growth. As the U.S. government responds to these concerns by reducing fiscal stimulus, activity is further weakened. Inflation temporarily rises above the *Central Scenario* forecast, in part due to a likely depreciation of the dollar, but then declines as a consequence of the drop in output.

Alternative 4: *Global Credit Crunch*

The financial turmoil that started in the summer of 2007 has continued to put a significant strain on the availability of credit. In the U.S., financial conditions have tightened significantly and financial market stress has reached record high levels in recent months. 30-year fixed rate mortgage rates remain near their one-year high. In addition, global data for 2003Q3 have been largely negative. The intensification of the financial crisis together with global slowing of economic growth has lead to significant wealth losses and increased volatility in equity markets. Policy-makers worldwide have enacted measured to address the freezing of interbank markets and implemented a coordinated cut in policy rates. This combination of factors suggests the neutral rate is lower than 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 below our lower estimate of the neutral rate, tighter credit conditions and continued stresses in global financial markets, along with increased risk of a further deterioration in global economic conditions, create a risk that output growth will slow significantly below the level projected in the central forecast; this would likely be accompanied by inflation below the level in the central forecast.

Alternative 5: *Loss of Credibility*

One interpretation of recent higher inflation, higher financial market inflation compensation, higher commodity prices, and dollar depreciation is that inflation expectations have risen despite the FOMC continuing to state its price stability mandate, raising concern that the FOMC has started to lose its credibility on inflation. Although some FOMC communications have placed more emphasis on the upside inflation risks, the FOMC also has communicated continued concern about growth risks, thus providing signals that the FFR may remain low that have further fueled such concerns. It is possible that these statements and actions of the FOMC may lead to further increases in inflation and inflation expectations, such that firms and households begin to see the FOMC as not credible in regard to inflation. Such developments are likely to cause further rises in inflation and inflation expectations above forecast.

Alternative 6: *Global Deflation*

Recent price level indicators point to slowing or decreasing inflation in many regions of the world. Domestic measures of implied inflation have fallen sharply, suggesting that inflation expectations are also declining. These signals, coupled with falling global output as a result of financial market turmoil, suggest that there is an increased risk of global deflation going forward. This possibility is further exacerbated as central banks around the world cut interests rates and target rates approach 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. These factors would result in both inflation and output growth far below the levels projected in the central forecast. Although the onset of this slowdown would be later compared to other scenarios, global factors would cause these conditions to be more persistent.

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. *Productivity Slump*: inflation above central forecast, output below central forecast.
3. *Fiscal Consolidation*: inflation initially above central forecast, eventually falls below central foreast; output below central forecast.
4. *Global Credit Crunch*: inflation below central forecast, output significantly below central forecast.
5. *Loss of Credibility*: inflation far above central forecast, output slightly 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, while incorporating some degree of inertia. For each of the FFR paths and each of the policy rules, we determine these deviations using the corresponding inflation and output paths.

Policy Rule – Baseline 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)

$i^* = 2.00 - 3.00$ 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.[2] 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 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.

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

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 ($\varphi_\pi = 2$ 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)[3].

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 Exhibits D-4 and D-5, 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).

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