FRBNY BLACKBOOK UPDATE

RESEARCH AND STATISTICS GROUP

FOMC Background Material

July 2013

CONFIDENTIAL (FR) Class II FOMC

FRBNY BLACKBOOK UPDATE

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EXHIBITS

1. Policy Recommendation and Rationale

The economic and financial market developments since the June Blackbook do not support on balance a significant change in our policy recommendation. Our outlook has not shown significant improvement since the previous Blackbook; if anything, overall conditions have deteriorated slightly while uncertainty remains pervasive. We judge the current stance of monetary policy to be appropriately calibrated to provide sufficient accommodation and counteract ongoing headwinds. We recommend maintaining the state-contingent forward guidance regarding the federal funds rate – in particular, we see no need for changes to the numerical thresholds for unemployment and inflation, as they are not meant to be automatic triggers. We also recommend continuing asset purchases at their current pace, postponing decisions about reducing the pace until we are confident that the outlook for the labor market is beginning to improve substantially in a context of price stability.

The domestic and foreign data releases in the intermeeting period continue to indicate a slow pace of improvement in economic conditions in the face of notable headwinds. Our outlook for economic activity and inflation is associated with a high degree of uncertainty, with the risks to real activity and inflation roughly balanced at near- and medium-term horizons.

Although labor market conditions have firmed somewhat, with payroll employment increasing at a steady pace in the past few months, recent releases indicate that the housing market and consumption spending might be losing momentum, while manufacturing production continues to be weak. The softness in some of the data suggests that headwinds associated with weak global demand and tight fiscal policy could be a little stronger than thought in the spring. In addition, financial conditions tightened following the sharp steepening of the yield curve that began after the Chairman's May Congressional testimony and continued after the June FOMC meeting. If this increase primarily reflected improved economic conditions, then it should have limited effects on housing and investment. If, however, it reflected a market response to increased policy uncertainty, then this tightening in financial conditions could impede the recovery from gaining further momentum. On net, the data since the last Blackbook have led us to mark down our estimate of real GDP growth for both 2013 and 2014. Our forecast for 2013Q4/Q4 is now 1.9%, down from 2.3%. For 2014Q4/Q4 we expect real GDP growth to be 3% instead of the 3.3% anticipated in the previous Blackbook.

At the same time, inflation remains subdued: the four-quarter change in the total PCE deflator through 2013Q2 is projected to be +0.8%, and is expected to remain well below the FOMC's longer-run objective for the rest of the year. Much like in 2003, the recent decline in inflation has been driven primarily by weakness in commodities and goods prices, reflecting sluggish global demand. As inflation in the service sector and inflation expectations has remained stable, we view these downward pressures on inflation as temporary and therefore we still expect inflation to revert back to near-objective levels by the end of 2014.

Our outlook is based on the assumption that the federal funds rate remains in the 0-25 bps range until 2015Q2, and asset purchases continue at the current pace through the end of 2013. As in the previous Blackbook, we recommend that the pace of asset purchases should not be reduced before 2013Q4, especially in light of the potential risks that a slowdown in the monthly flows could lead to a material reduction in public perceptions of the program's expected ultimate size. A premature slowing of the asset purchases may endanger the credibility of the ongoing commitment to a highly accommodative policy stance, resulting in further tightening of financial conditions. In this environment, additional increases in long-term interest rates would be difficult to counteract in the absence of effective signaling devices on the future course of policy at the zero lower bound.

Consistent with our recommendation of open-ended asset purchases, we view the evolution of the ultimate size and duration of the asset purchase program as state-contingent. If economic conditions evolve as in our outlook, we anticipate a slowdown in the pace of asset purchases at the beginning of next year and an eventual termination of the purchase program in 2014Q2; at that time we anticipate that the unemployment rate would be about 7%, consistent with the Chairman's remarks at the June press conference.

However, if labor market conditions were to improve at a faster pace than assumed in our central forecast, we would recommend an earlier reduction in the pace of asset purchases and an earlier termination of the program. For example, a reduction would be justified by a steady decline in the unemployment rate driven by a return of hiring rates to their pre-recession levels, coupled with a firming in wage growth. Conversely, should labor market conditions weaken, possibly reflecting a slowdown in the housing sector or in consumer spending, we would recommend an increase in the pace of asset purchases and possibly an increase in the program's expected total size. In addition, we judge that a faster pace of asset purchases would be justified if we were to see signs that the slower growth in prices is spreading to the service sector, increasing deflationary risks.

Even without a substantial improvement in the outlook, the Committee may at some time judge it appropriate to scale back the asset purchase program if its perceived costs rise above its benefits. In such a contingency, the Committee should be prepared to deploy alternative strategies to maintain an accommodative stance. One option would be to reinforce the forward guidance on the interest rate by announcing a lower threshold for the unemployment rate, although we have doubts about the effectiveness of such a change. Instead, as we have argued in previous recommendations, we believe that a more effective option would be to change the framework for forward guidance to an explicit nominal GDP targeting strategy. In particular, a threshold expressed in terms of the cumulative gap over the past few years between nominal GDP and its desired path could represent a unified criterion for determining the lift-off date for the federal funds rate target, while providing some continuity with current communication. Moreover, this criterion would ensure greater continuity between the lift-off phase and the subsequent period of policy re-normalization. In fact, making the pace of normalization contingent on the evolution of the nominal GDP gap would result in an appropriately accommodative stance of policy for a considerable time after the economic recovery strengthens, as indicated in the current FOMC statement. For example, the FOMC could indicate that it intends to keep the target range for the federal funds rate between 0 and ¼ percent until the cumulative nominal GDP gap since the last time unemployment was 6.5% (i.e. October 2008) has been closed or is forecasted to close within a certain horizon.

In addition, and consistent with past recommendations, we recommend that the Committee provide more guidance about the path of the size and composition of the balance sheet after the end of the purchase program. As we argued previously, the "exit strategy principles" formulated in June 2011 should be revised to account for the much larger size and different composition of the Fed's balance sheet, and to address the inconsistency between those guidelines and the current outcome-based policy framework.

2. Outlook and Risks Update

2.1 Central Forecast

Recapping the First Half of 2013

Data released over the relatively short intermeeting period were mixed, but on balance we lowered our estimate of growth of real GDP for 2013Q2 to 0.9% (annual rate) from 1 ½% in June. Moreover, the final estimate of growth of real GDP in the first quarter was revised down to 1.8% from 2.4%. As a result, growth of real GDP for the first half of 2013 is now estimated at 1.3%, down from 2% as of the last FOMC meeting. It should be noted that the real GDP growth rates referred to in this Blackbook are based on the current concept of GDP. Beginning July 31, with the release of the first estimate of GDP for 2013Q2, some conceptual changes will be introduced which are expected to boost both the level and rate of growth of real GDP.

Relative to our expectations at the beginning the year, the rate of growth of real personal consumption expenditures over the first half of 2013 has been stronger than expected. Real PCE increased at a 2.6% annual rate in the first quarter, and our estimate for the second quarter is around 1 ½%. Excluding spending on light-weight vehicles and household utilities, growth of real PCE was 1.7% in the first quarter and around 1.8% in the second quarter, somewhat stronger than the 1.5% growth rate over the second half of 2012. While unit sales of light-weight vehicles were up slight in the second quarter relative to the first quarter—15.4 million annual rate versus 15.3 million—based on April and May data sales to consumers actually declined slightly. In addition, household spending on utilities fell in the second quarter after surging in the first quarter.

The increase in taxes at the beginning of the year did not have the depressing effect on aggregate consumer spending that we expected. There are several potential explanations for this, and all of them are likely operating to some extent. First, gasoline prices fell 14% over the six months ending in April. We estimate that this saved the household sector about $75 billion (annual rate) or about three fifths of the increase in payroll taxes. Second, household net worth soared in the first quarter as equity values and home prices rose and total liabilities continued to decline. Expressed as a percent of disposable income, household net worth returned to the average of the past decade. Finally, while still not particularly high from a historical standpoint, in recent months measures of consumer confidence have moved to their highest levels of the recovery to date. Somewhat more upbeat assessments of labor market conditions have contributed to this improvement in confidence. That being said, despite a reasonably strong rebound in spending on durable goods, the pace of growth of total real PCE remains relatively sluggish, with the year-over-year growth rate at just under 2% for about a year and a half.

The growth contribution from residential investment over the first half of 2013 is estimated to have been 0.3 percentage points, modestly below what was expected at the beginning of the year. Additions and alterations to the existing stock of housing have increased over the past year, but not as much as their historical relationship with single-family housing starts suggested would be the case. Data for the past few months suggest that the recovery of housing starts has stalled. Single-family starts in 2013Q2 averaged 593,000 units (seasonally-adjusted annual rate) versus 630,000 in the first quarter. While historically more volatile, multi-family starts also fell in the second quarter, to 279,000 versus 328,000

in the first quarter. Much of this development predates the sharp rise of mortgage interest rates that has occurred since early May.
The level of sales of new single-family homes, defined as signed sales contracts, was 497,000 units (seasonally-adjusted annual rate), above the consensus expectation of 484,000 and the highest since May of 2008. The percentage increase in new home sales in June was quite large (8.3%) due in part to the fact that the level of sales in May was revised down to 459,000 from the initial estimate of 476,000—a downward revision of 3.6%. Sales level in March and April were also revised lower, with the cumulative downward revision for the preceding three months totaling 38,000.

Sales of new single-family homes rose sharply in June, to around 500,000 from a trend of 450,000 over the preceding five months. It is not clear, however, whether this represents a permanent move to a higher level of sales. It would not be unusual to see a significant rise of home sales immediately following a large movement upward in mortgage interest rates, as buyers try to protect themselves from the possibility of even further increases in financing costs. Supporting this interpretation is the fact that the Mortgage Bankers Associations purchase mortgage applications index reached a recent high of 217 in the first week of June but was down to 198.5 for the second week of July, a decline of 8.5%. In addition, recent market commentary has notes that several of the large, publicly-traded home builders experienced declining orders toward the end of the second quarter.

The growth contributions of the remaining major categories of final expenditures over the first half of 2013 have been notably weaker than expected at the beginning of the year. The growth contribution of business fixed investment is likely to be just 0.2 percentage points for the first half of the year, versus 0.6 for 2012 and 1.0 for 2011. The net export growth contribution for the first half is estimated at -0.1 percentage points versus the expectation of +0.2 at the beginning of the year and +0.3 for all of 2012. While growth of imports has been roughly in line with our expectations, growth of exports has been weaker. Lastly, growth of government spending at both the federal and the state and local levels declined more than expected at the beginning of the year.

Despite the weaker than expected growth of final expenditures, growth of nonfarm payroll employment surprised to the upside over the first half of the year. Private employment gains averaged 205,000 per month over 2013H1 versus 187,000 per month over the second half of 2012. This increase in employment growth occurred despite the fact that average weekly hours rose to 34.5 over the first half of 2013 versus 34.4 for the second half of 2012. Thus, the mirror image of the gains in employment has been a sharp slowing of the rate of growth of output per hour in the nonfarm business sector. Smoothing this series by taking an eight quarter annualized percent change, productivity growth in the nonfarm business sector is expect to be down to about 0.5% for 2013Q2. This marks a dramatic slowing since 2011, with the current rate of growth well below our assumption of trend of about 1 ½%.

After reaching a low of 1.1% in April, the 12-month change of the not-seasonally-adjusted CPI rose to 1.75% in June due to rising energy prices. In contrast, the 12-month change of the not-seasonally-adjusted core CPI slowed somewhat further in June, to 1.6% from 1.7% in April and May. The core CPI inflation rate has been slowing for a year after reaching a recent peak of 2.3% in the second quarter of 2012. Much of this slowing has been due to the pronounced slowing of the rate of increase on core goods prices, which in turn has been due in part to declining import prices. However, in recent months the rate of increase of core services prices has also begun to slow. For example, the rate of increase of prices of admissions to movies and sporting events has been slowing for about a year, though this item has a relatively small weight in the index. In addition, there was a relatively steep decline of medical care services in April, likely due in part to the 2% reduction of Medicare payments to health care providers resulting from the sequester. This price series began to rise again in June. (Note that, conceptually, only medical care services paid for out of pocket are to be included in the CPI, so what happens to Medicare reimbursement rates should not have any effect. In reality, it appears that BLS data collection methods are unable to cleanly separate the out-of-pocket spending from that which is paid for by third parties such as Medicare.)

The Outlook

For some time now we have expected the economy to strengthen somewhat over the second half of 2013 and then move to above potential growth in 2014 as the headwinds restraining growth for the past few years gradually subside. One can cite several ongoing developments supportive of this view. Key measures of household financial conditions are the best they have been in well over a decade. Household net worth, expressed as a percent of disposable income, has returned to its average of the previous decade, reflecting rising equity and home prices and declining liabilities. Credit standards are beginning to ease somewhat, such that we are now experiencing a fairly typical cyclical recovery of consumer spending on durable goods. Similarly, after five years in which housing production was well below what is consistent with underlying demographic trends, it now appears that we have worked off the excess supply of housing built up during the boom years of the last decade. In addition, it appears that the worst of the downturn in economic activity in the Euro Area is behind us, as is the contraction in spending by state and local governments. Federal fiscal drag is likely to reach its maximum in the second half of 2013 and then begin to subside.

That being said, the high frequency data released over the past month suggest that the economy entered the second half of the year with less forward momentum than expected. While the June pace of light-weight vehicle sales rose to 15.96 million (annual rate), the highest since December of 2007, non-auto retail sales were quite sluggish in June. As noted above, housing starts declined over the past few months. Nominal private nonresidential construction declined in May to a level below the Q1 average. The ISM manufacturing index remained at a weak level in June (50.9) while the ISM non-manufacturing index fell to 52.2 in June, continuing a downward trend since reaching a recent high of 56 in February. Manufacturers' new orders saw a solid increase in May, but a great deal of the increase reflected a surge in new orders for nondefense aircraft. Excluding nondefense aircraft, the April-May average level of new orders is below the first quarter average level. One important bright spot among the recent indicators has been the fact that growth of both nonfarm payroll employment and hours worked have been well maintained in May and June.

At the same time that indicators of real activity suggest less forward momentum at mid-year than previously expected, financial market conditions have evolved in a manner that does not provide a clear signal with regard to future growth prospects. The stock market has moved higher over the intermeeting period, with the S&P 500 now just shy of 1700. In addition, long-term interest rates remain quite a bit higher than they were in early May. Even though the 10-year Treasury rate has declined somewhat from its recent peak, mortgage interest rates remain a full 100 basis points above their recent low. Finally, the broad nominal exchange value of the dollar is up about 2 percent since mid-May. All of these changes are consistent with past episodes in which US growth prospects improved and monetary policy, which had been quite accommodative for some time, was soon to begin the process of normalization. On the other hand, these recent financial market developments could be a global over-reaction to the possibility of an earlier-than-expected removal of monetary accommodation in the US, in which case they would be viewed as a slight net tightening of financial conditions.

It is quite possible that our expectation of a firming of growth over the next six quarters is simply wrong. For both cyclical and structural reasons, we may not see the rebound of business fixed investment that is needed to produce a stronger overall growth rate. Another possibility is that while our basic story about how economic conditions are likely to evolve over the forecast horizon is correct, the timing of the strengthening of growth will be more gradual than previously thought. In this forecast round, we have moved in the direction of the latter by lowering our modal forecast for growth for 2013 by nearly 1/2 percentage point to 1.8% (Q4/Q4) and by about ¼ percentage point for 2014 to 2.9%. Even with that reduction of the modal forecast, risks to the forecast are somewhat skewed to the downside.

Despite this somewhat lower growth path, the unemployment rate is still projected to fall to around 6 ½% by 2014Q4 as the projected path of productivity growth has been lowered in recognition of events over the first half of the year. In addition, the projected path of inflation over the forecast horizon is also essentially unchanged. On a Q4/Q4 basis, the rate of increase of the PCE deflator is expected to rise to around 2% in 2014 from 1.0% in 2013. The forces driving inflation higher include the gradual reduction of slack, a decline of the dollar in 2014, a firming in global demand, and the upward pull of anchored inflation expectations.

2.2 Alternative Scenarios and Risks

Our assessment of risks to the outlook is roughly unchanged since the last Blackbook; both risks to growth and inflation remain roughly balanced. Compared to June, the balance of risks for output growth is around a lower profile for the central scenario in the near and medium term.

These small changes in the overall risk profile reflect a decline in the likelihood of the *Faster Growth* scenario, which now accounts for slightly more than 30% of probability, and a small increase in the likelihood of the *Fiscal Consolidation* (about 30% probability) and the *Global Credit Crunch* (about 15% probability) scenarios [Exhibit C-1]. These adjustments mainly stem from weaker than expected business fixed investment, net exports and government spending. In addition, recent releases on retail sales and housing starts signal a risk that the recovery might be losing forward momentum.

Finally, Exhibit C-3 also displays the baseline forecasts from the FRBNY-DSGE model (orange line). The DSGE forecast for both core PCE inflation and real GDP growth continues to be below the mean and modal forecasts both in the near-term and in 2014-15.

Forecast Comparison with the Tealbook

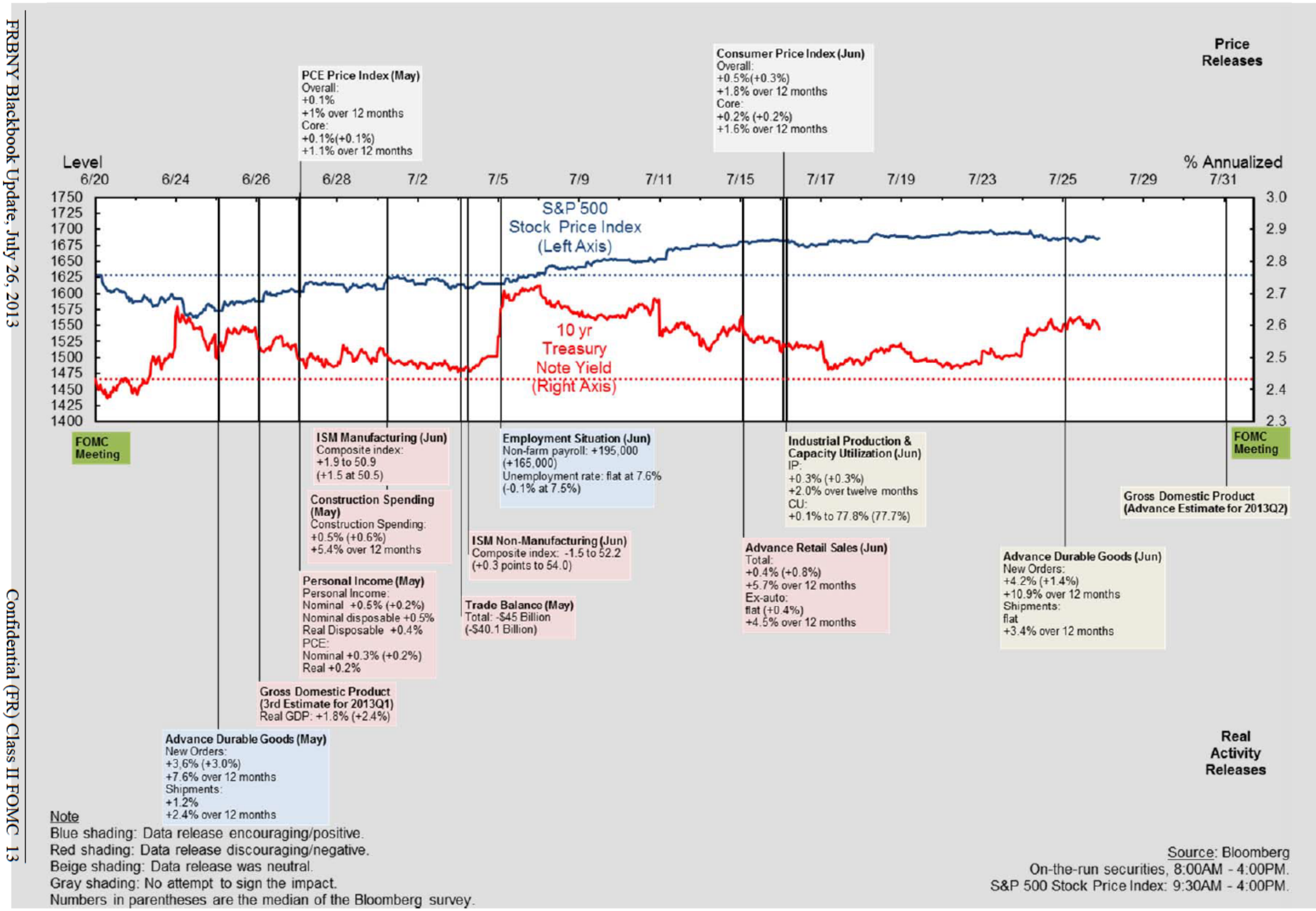
- *Tealbook policy assumption*: the total size of the asset purchase program has been revised up from $750 billion to $1.2 trillion.

- The Tealbook forecasts for real GDP growth were reduced for both 2013 and 2014, to 2.1% and 3.3% respectively, slightly above the Blackbook. More substantially, the projected paths of some of the spending components in the Tealbook are quite different from those in the Blackbook:

  - The Board staff lowered its forecast for consumption expenditures in 2013 relative to the June FOMC, but continues to anticipate a quite strong rebound in 2014, with a growth contribution (Q4/Q4) of 2.6%. The rebound is supported by the continuing expansion in both equity and house prices, which have a strong wealth effect on consumption. In our staff forecast, by contrast, consumption expenditures remain subdued, with a growth contribution of 2%.
  - Conversely, while in the Blackbook business fixed investment is expected to pick-up in 2014, with a growth contribution of 1.1% (up from 0.3% for 2013), in the Tealbook business fixed investment remains equally subdued in 2013 and 2014, with a growth contribution of 0.4% and 0.5%, respectively.

- A further difference between the Tealbook forecast and the Blackbook forecast is the path of productivity growth. Both the Board and our staff have reduced by more than half a percent the estimate of productivity growth in 2013. However, the Board staff forecasts a stronger rebound of productivity growth in 2014, and this accordingly implies a forecast for the unemployment rate of 6.8%, higher than in the June forecast. In the Blackbook forecast, labor productivity bounces back much less, and the unemployment rate is forecast to decline to 6.6%.

Key Data Releases



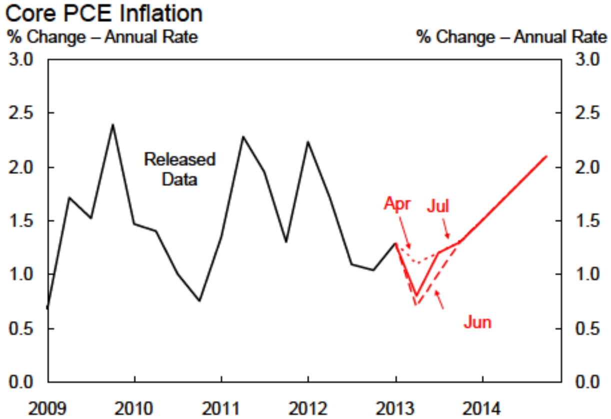
B. FRBNY Forecast Details

Exhibit B-2: Evolution of Projected Quarterly Paths

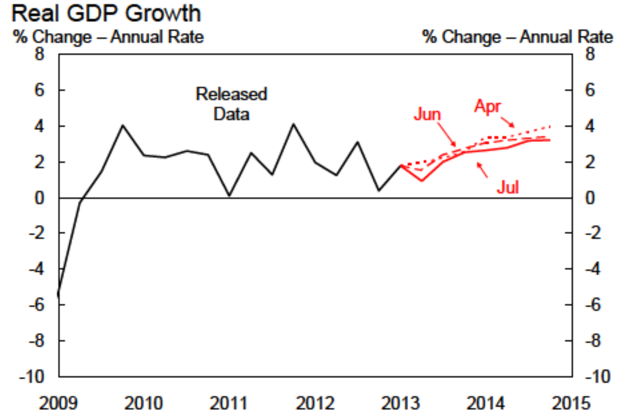
Key Indicators

Forecast Assumptions

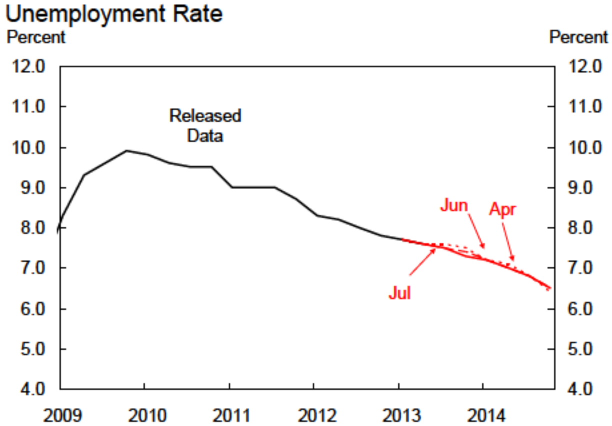
Core PCE Inflation



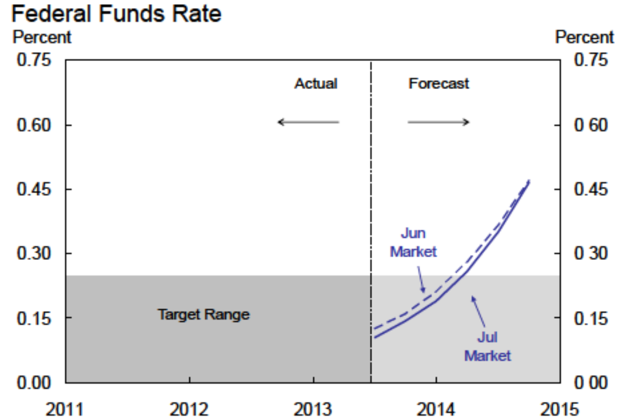
Real GDP Growth



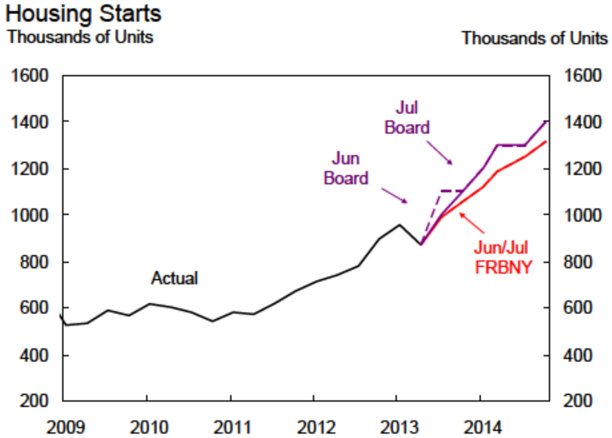
Unemployment Rate



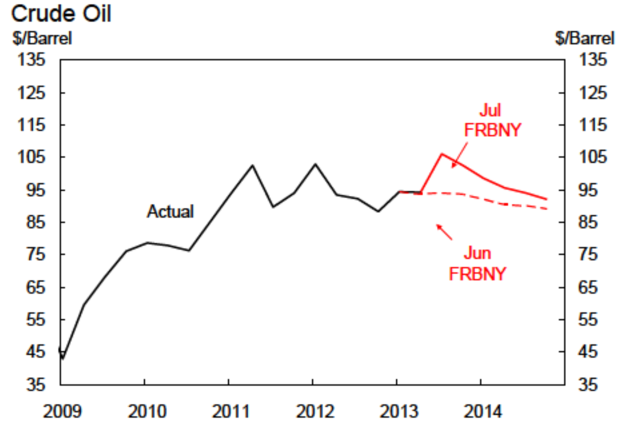
Federal Funds Rate



Housing Starts



Crude Oil



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

B. FRBNY Forecast Details

Exhibit B-3: Near-Term Projections

	Quarterly Growth Rates (AR)			Quarterly Growth Contributions (AR)		
	2013Q2	2013Q3	2013Q4	2013Q2	2013Q3	2013Q4
OUTPUT						
Real GDP	0.9	2.0	2.5	0.9	2.0	2.5
	(1.5)	(2.4)	(2.7)	(1.5)	(2.4)	(2.7)
Final Sales to Domestic Purchasers	1.0	1.8	2.2	1.1	1.8	2.3
	(1.4)	(2.0)	(2.4)	(1.5)	(2.0)	(2.5)
Consumption	1.5	2.1	2.5	1.1	1.5	1.8
	(2.2)	(2.2)	(2.5)	(1.6)	(1.6)	(1.8)
BFI: Equipment and Software	0.0	4.0	6.0	0.0	0.3	0.4
	(3.0)	(6.0)	(8.0)	(0.2)	(0.4)	(0.6)
BFI: Nonresidential Structures	2.0	2.0	4.0	0.1	0.1	0.1
	(2.0)	(2.0)	(4.0)	(0.1)	(0.1)	(0.1)
Residential Investment	13.0	18.0	16.0	0.3	0.5	0.5
	(15.0)	(18.0)	(18.0)	(0.4)	(0.5)	(0.5)
Government: Federal	-4.0	-6.2	-6.2	-0.3	-0.5	-0.5
	(-6.9)	(-6.2)	(-6.2)	(-0.5)	(-0.5)	(-0.4)
Government: State and Local	-1.0	-0.5	-0.2	-0.1	-0.1	-0.1
	(-1.7)	(-0.5)	(-0.2)	(-0.2)	(-0.1)	(-0.1)
Inventory Investment	--	--	--	0.0	-0.1	0.2
	--	--	--	(-0.2)	(0.1)	(0.1)
Net Exports	--	--	--	-0.2	0.3	0.3
	--	--	--	(0.3)	(0.3)	(0.3)
INFLATION						
Total PCE Deflator	-0.1	1.8	1.5			
	(-0.1)	(1.8)	(1.6)			
Core PCE Deflator	1.2	1.2	1.3			
	(0.7)	(1.0)	(1.3)			
PRODUCTIVITY AND LABOR COSTS*						
Output per Hour	-0.9	0.8	1.0			
	(0.8)	(0.8)	(1.0)			
Compensation per Hour	2.0	1.7	1.7			
	(1.6)	(1.7)	(1.7)			
Unit Labor Costs	2.9	0.9	0.7			
	(0.8)	(0.9)	(0.7)			

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

B. FRBNY Forecast Details

Exhibit B-4: Medium-Term Projections

	Q4/Q4 Growth Rates			Q4/Q4 Growth Contributions		
	2012	2013	2014	2012	2013	2014
OUTPUT						
Real GDP	1.7	1.8	2.9	1.7	1.8	2.9
	(1.7)	(2.3)	(3.3)	(1.7)	(2.3)	(3.3)
Final Sales to Domestic Purchasers	1.8	1.6	3.1	1.8	1.6	3.2
	(1.8)	(1.9)	(3.3)	(1.8)	(2.0)	(3.4)
Consumption	1.8	2.2	2.7	1.3	1.6	2.0
	(1.8)	(2.6)	(2.7)	(1.3)	(1.8)	(1.9)
BFI: Equipment and Software	4.7	3.5	11.0	0.3	0.3	0.8
	(4.7)	(5.4)	(12.5)	(0.3)	(0.4)	(1.0)
BFI: Nonresidential Structures	7.3	-0.2	8.5	0.2	0.0	0.3
	(7.3)	(1.1)	(8.5)	(0.2)	(0.0)	(0.3)
Residential Investment	14.9	15.2	11.0	0.3	0.4	0.3
	(14.9)	(15.7)	(14.2)	(0.3)	(0.4)	(0.4)
Government: Federal	-2.8	-6.3	-6.1	-0.2	-0.5	-0.4
	(-2.8)	(-7.0)	(-6.1)	(-0.2)	(-0.5)	(-0.4)
Government: State and Local	-1.1	-1.0	2.2	-0.1	-0.1	0.3
	(-1.1)	(-1.2)	(2.2)	(-0.1)	(-0.1)	(0.3)
Inventory Investment	--	--	--	-0.5	0.2	0.2
	--	--	--	(-0.5)	(0.2)	(0.2)
Net Exports	--	--	--	0.3	0.0	-0.4
	--	--	--	(0.3)	(0.1)	(-0.4)
INCOME						
Personal Income	5.7	1.6	5.1			
	(5.7)	(1.8)	(5.2)			
Real Disposable Personal Income	3.8	-0.5	2.9			
	(3.8)	(-0.3)	(3.0)			
Personal Saving Rate	5.3	2.8	3.0			
	(5.3)	(2.6)	(3.0)			
Corporate Profits Before Taxes	3.1	-5.1	2.6			
	(3.1)	(-2.7)	(1.8)			

Note: Numbers in parentheses are from the previous FOMC meeting.

B. FRBNY Forecast Details

Exhibit B-5: Medium-Term Projections, Continued

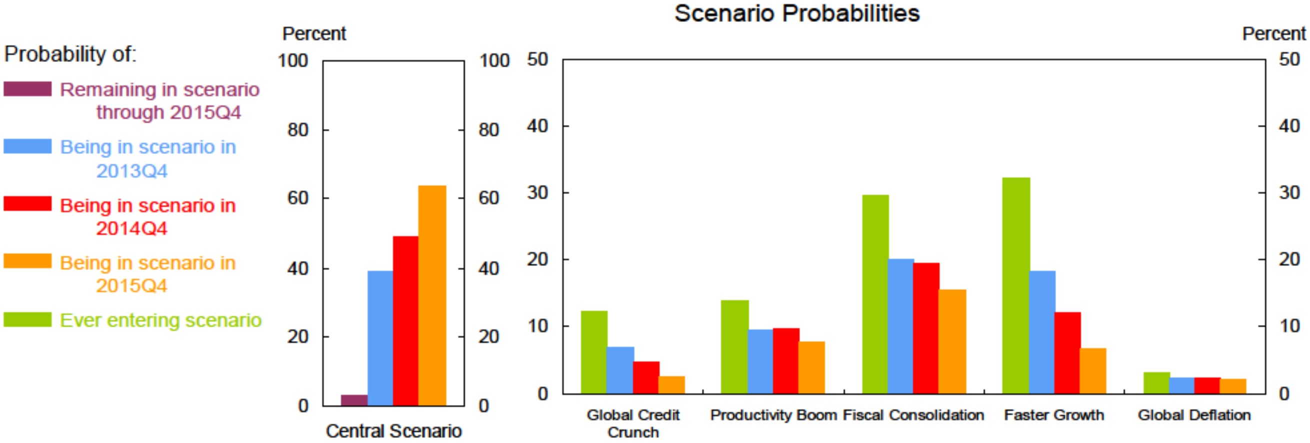
	Q4/Q4 Growth Rates		
	2012	**2013**	**2014**
INFLATION			
Total PCE Deflator	1.6	1.0	1.9
	(1.6)	(1.1)	(2.0)
Core PCE Deflator	1.5	1.1	1.8
	(1.5)	(1.1)	(1.8)
Total CPI Inflation	1.9	1.3	2.7
	(1.9)	(1.2)	(2.7)
Core CPI Inflation	1.9	1.7	2.4
	(1.9)	(1.7)	(2.4)
GDP Deflator	1.8	1.2	2.3
	(1.8)	(1.3)	(2.2)
PRODUCTIVITY AND LABOR COSTS*			
Output	2.5	2.2	3.7
	(2.5)	(2.6)	(4.1)
Hours	1.9	1.8	2.4
	(1.9)	(1.7)	(2.6)
Output per Hour	0.6	0.3	1.3
	(0.6)	(1.0)	(1.5)
Compensation per Hour	4.4	0.4	1.9
	(4.4)	(0.1)	(1.8)
Unit Labor Costs	3.8	0.0	0.7
	(3.8)	(-0.9)	(0.4)
LABOR MARKET			
Unemployment Rate (Avg. Q4 Level)	7.8	7.3	6.5
	(7.8)	(7.4)	(6.5)
Participation Rate (Avg. Q4 Level)	63.7	63.5	63.8
	(63.7)	(63.5)	(63.8)
Avg. Monthly Nonfarm Payroll Growth (Thous.)	181	202	263
	(181)	(178)	(265.3)

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

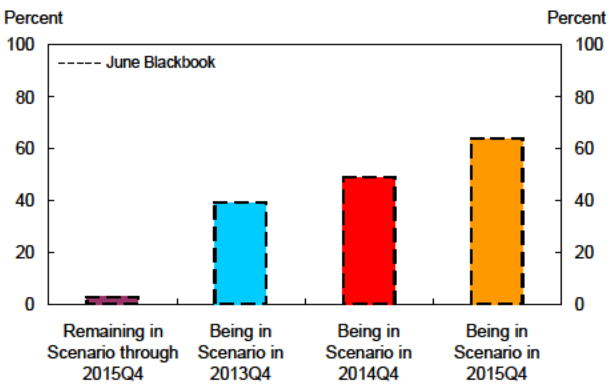
C. FRBNY Forecast Distributions

Exhibit C-1: Risks

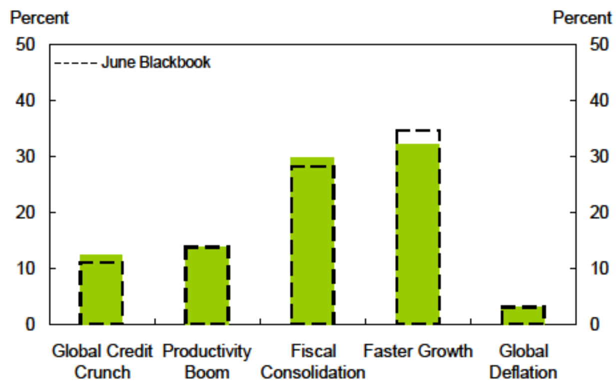
Scenario Probabilities



Change in Central Scenario Probabilities



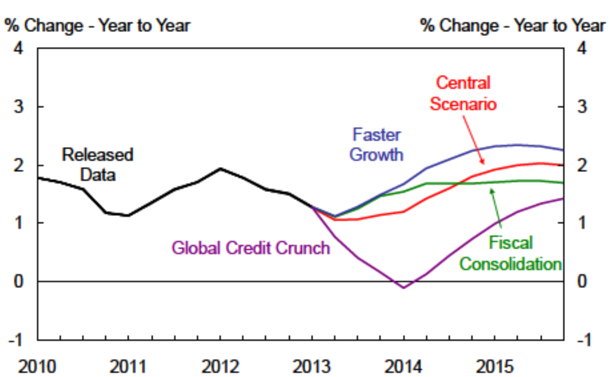
Change in Alternative Scenario Probabilities*



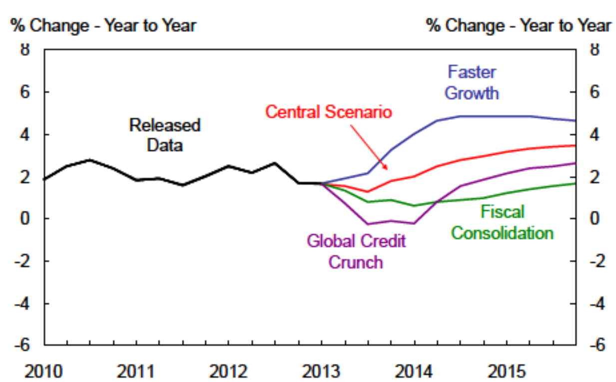
*Probability of ever reaching scenario

Exhibit C-2: Projections under Alternative Scenarios

Core PCE Inflation under Alternative Scenarios Selected



Real GDP Growth under Alternative Scenarios Selected

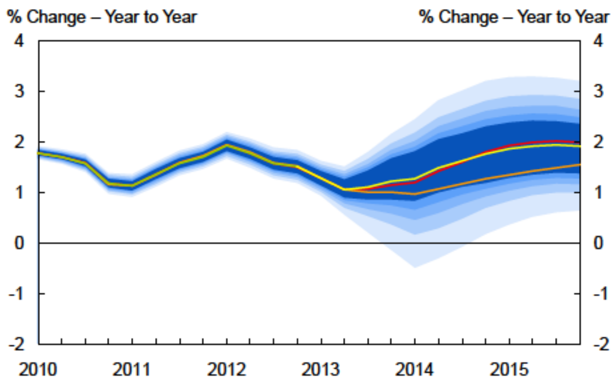


Source: MMS Function (FRBNY)

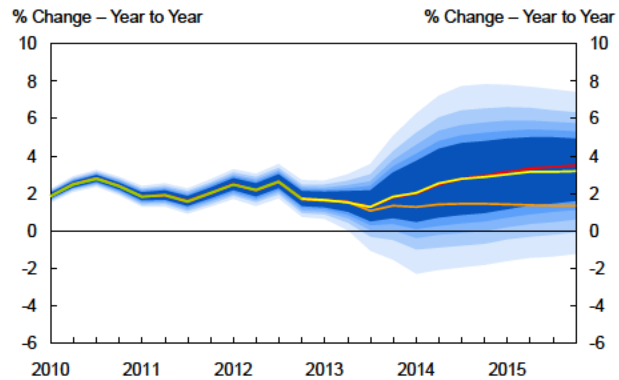
C. FRBNY Forecast Distributions

Exhibit C-3: Inflation and Output Forecast Distributions

Core PCE Inflation Forecast Distribution

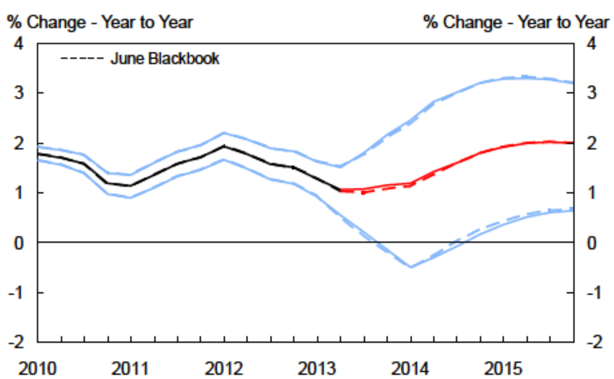


Real GDP Growth Forecast Distribution

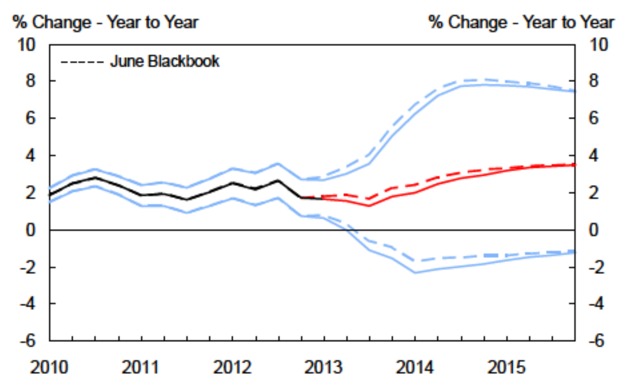


The yellow line is the expected value of the forecast distribution, the red line is the FRBNY central projection, the orange line is the DSGE forecast, and the green line is released data. The shading represents the 50, 60, 70, 80 and 90 percent probability that the four-quarter change will be within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

Change in Core PCE Inflation Forecast Distribution

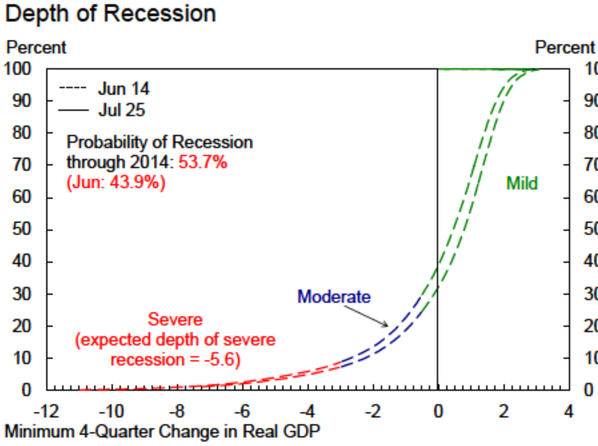


Change in Real GDP Growth Forecast Distribution

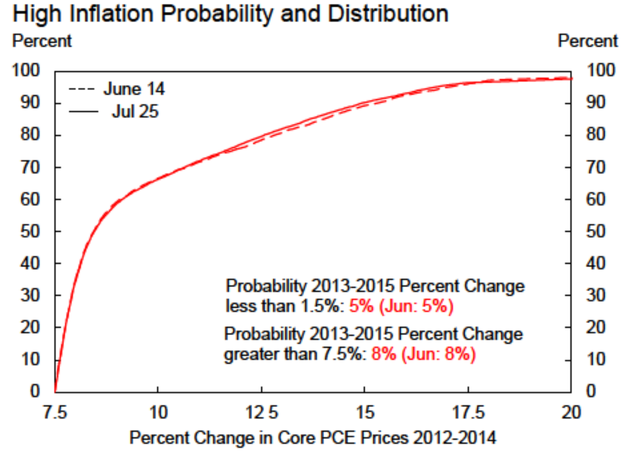


The blue lines are the 90% chance the four-quarter change will be within the lines, the red line is the central scenario projection, and the black line is released data. Dashed lines represent forecasts from the previous Blackbook.

Depth of Recession



High Inflation Probability and Distribution



Source: MMS Function (FRBNY)