FRBNY Blackbook

RESEARCH AND STATISTICS GROUP

FOMC Background Material

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FRBNY BLACKBOOK

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EXHIBITS

EXHIBIT OVERVIEW

1. Policy Recommendation and Rationale

Based on the economic developments over the inter-meeting period, we have largely maintained our central outlook for inflation but have changed somewhat our central outlook for output. While we have slightly increased our near-term real growth estimate, we have reduced our medium-term growth forecast to reflect a lower estimate of potential growth. Because we still expect real GDP growth to be near potential, we have made only minor changes to our near- and medium-term inflation forecasts.

In addition, our risks have shifted slightly, as we have increased the downside risk to real activity. This adjustment reflects a lower likelihood of productivity growth above the revised trend projection as well as the increase in the weights placed on the *Effects of Overheating* and *Over-Tightening* scenarios. We have maintained our upside risk to inflation.

In our central forecast, our projections for core PCE inflation in 2007 (Q4/Q4), 2008, and 2009 are 1.9%, 1.8%, and 1.7%, respectively. These projections are unchanged from the June Blackbook.

We have raised our 2007Q3 real GDP growth forecast from 3.0% (annual rate) in the last Blackbook to 3.3%; despite this increase, we have lowered our 2007 (Q4/Q4) forecast slightly from 2.7% to 2.5% because of lower growth in 2007H1 and a lower projection for Q4. We have also lowered our 2008 and 2009 forecasts from 3.0% to 2.7%, reflecting our changed estimate of potential growth. We have made no changes to our assumed neutral rate or policy path relative to the June Blackbook. We continue to assume that the first cut in the FFR will not occur until 2008H2, with the FFR then remaining at 5.00% until 2009H2. The reduction in our estimate of potential GDP growth, however, may require us to revisit the issues of the neutral rate range and the assumed policy path later this year.

Our recommended nominal policy path remains close to the nominal FFR path assumed in the Greenbook. The only difference is that the Board staff assumes, as they did in the

June Greenbook, that the FFR is held at 5.25% through the end of 2008, while we assume that the first 25 basis point cut occurs in 2008H2. As we have, the Board staff has reduced their estimate of potential GDP growth by approximately 0.3 percentage points. Their forecasts of inflation are also fairly similar to ours both over the near-term and for 2008 (Q4/Q4), though their projections remain slightly higher. There is, however, a somewhat greater divergence in the real GDP growth outlooks, as the Board is less sanguine than us and anticipates output rising about 2% (annual rate) in 2007H2 and in 2008. While their lower potential growth rate (2.2%) explains some of the difference, their explicit incorporation of a negative growth impact from recent mortgage and financial market also plays a role.

Many of the concerns discussed in the June Blackbook remain, although some additional risks have recently emerged. We continue to see some risk that inflation will fail to moderate to the extent expected in our forecast. While the significant deceleration in core inflation in Q2 is consistent with a moderation of underlying inflation, the divergence between the behavior of core inflation and some alternative measures of underlying inflation (first mentioned in the June Blackbook) persists. The relatively larger moderation in the traditional core inflation measure suggests that transitory factors were likely responsible for some of its moderation in Q2. We continue to see the potential for upside surprises to our inflation outlook from rising energy and import prices. Finally, we recognize the possibility that inflation expectations may drift upward if the currently anticipated moderation in inflation fails to occur over the medium-term horizon and prompts no policy reaction.

The downside risk to real growth from the housing market shows little if any evidence of dissipating over the near term. The new home inventory-sales ratio remains high, with slow-to-negative price appreciation persisting as a key feature of the market. Though we have again marked down our residential investment forecast, we cannot rule out the possibility that the slowdown in this sector will be deeper and more protracted than we currently anticipate.

At the time of the June Blackbook, we had little evidence that the housing market weakness was spilling over into consumer spending. The slow growth of consumption in Q2, as well as the weak July auto and light truck sales, may be the first signs of a significant pullback. We currently attribute this sluggishness to more transitory factors, such as the marked rise in energy prices in the spring. We recognize, however, that it may instead represent a more protracted slowing from other sources, such as the spillovers previously mentioned, lower trend productivity growth, or tighter financial conditions. The differing inflation outcomes associated with these downside real risk scenarios suggest markedly different policy responses.

The possibility of renewed weakness in capital good spending contributes to the downside risk to our real activity forecast through some of these channels as well. Even as we have reduced our trend productivity growth estimate for the second consecutive year, the possibility of slowing productivity growth remains a significant risk. The recent NIPA revisions did not eliminate any of the softness we have seen in equipment and software expenditures since early 2006, and other indicators suggest that momentum is this sector remains weak. At the same time, the observed weakness in capital goods spending has become even more worrisome in light of recent financial market events, as the softness since early 2006 occurred in an environment where firms generally faced favorable financing conditions. If the current credit conditions persist, we see some risk that business investment on equipment and software could weaken further.

Recent weeks' financial market movements raise and amplify a number of downside risks to our real activity outlook. Volatility in markets rose notably over the period, likely driven by concerns about the subprime mortgage sector and overall credit quality, which then generated a significant tightening in credit conditions more generally. Credit spreads widened markedly, the yield curve has inverted again, and broad equity price indices moved down significantly.

The abrupt shift in financial market sentiment is somewhat reminiscent of the fairly rapid and pronounced increase in nominal medium- and long-term interest rates that occurred during the previous inter-meeting period. Prior to last week's developments, there was considerable agreement between market expectations of the policy path and our recommended course of policy. Currently, however, financial markets are pricing in about one rate cut by the end of the 2007 and two rate cuts by the end of 2008. It is possible that market expectations have priced in much more downside risk to real activity than we have from the housing market turmoil and a general tightening of credit. Another possibility is that market participants have changed their perception of the FOMC's reaction function and believe it will be more responsive to movements in output below potential or even to a notable decline in asset prices. The recent developments in financial markets will require close monitoring. From the policy perspective, it will be important to differentiate between events reflecting a re-pricing of risk versus those that indicate a weakening of basic market functioning.

Overall, we view the developments during the inter-meeting period as largely providing confirmation to our central outlook for inflation and output, which has inflation converging to the objective and output growth near potential. Moreover, and with the exception of a small increase in downside risk to real activity and our policy-neutral reduction in the potential growth estimate, we have not made any significant changes to our outlook. Therefore, we would propose no change to our current recommendation, which maintains the FFR at 5.25% through 2008H1, with the FFR falling 25 basis points in 2008H2 and again in 2009H2.

2. Significant Developments

2.1 Economic Developments

The economic indicators released during the inter-meeting period had little impact on our inflation outlook or risks assessment; we have maintained upside risk to our inflation forecast. However, they had a notable impact on our medium-term growth outlook, as they prompted us to reduce our estimate of potential growth. The data also suggested an increase in the downside risk to real activity.

As expected, core inflation measures were slightly higher in June than in April or May. In particular, owners' equivalent rent (OER) inflation rose somewhat from its very low May level, though it remained below its elevated levels from the past few years, while core goods prices continued to fall. With the continued moderation, the 12-month change in the core CPI has now been in the 1.5-2.5% range for several months, and the 12-month change in the core PCE moved into the 1-2% range in June [Exhibit A-1]. Revisions to the 2004-2007Q1 core PCE data (primarily to the non-market component) pushed the inflation index slightly higher over the recent period but had no impact on our outlook. Overall, the recent behavior of core indices continues to be consistent with our outlook of a slow moderation in inflation.

Total inflation slowed considerably in June in both CPI and PCE measures as energy prices fell. The increase in total indices was higher than we expected, however, as food price inflation increased sharply for the third month in a row. While food prices tend to be volatile, the recent acceleration in this component may be somewhat of a cause for concern.

Alternative measures of inflation also suggest that the moderation observed in core may not accurately reflect the underlying inflation trend [Exhibit A-1]. The UIG and trimmed mean measures have moderated somewhat less than core in recent months, while the smoothed inflation measures for the CPI and PCE have been relatively flat. Overall, then, it seems likely that the moderation in core inflation has been supported by transitory factors likely to dissipate in coming quarters; we expect a slight pickup in inflation (relative to Q2) in the second half of the year.

Long-term financial market inflation expectations changed little over the inter-meeting period. They remain above the levels that prevailed through most of the early part of 2007 but near levels from late-2006 and last summer, suggesting that inflation expectations remain well contained. Longer-term household inflation expectations, as measured by the Michigan survey, moved up slightly but remained within recent ranges. Overall, however, the divergent behavior of the alternative measures of underlying inflation, the current slightly elevated level of financial market expectations, and the possible feed-through of higher energy and food prices into core inflation suggest continued upside risk to the inflation outlook, comparable to that in the last Blackbook.

Real GDP grew 3.4% (annual rate) in 2007Q2, near our projection prior to the release. Growth in individual components was largely consistent with our expectations. Real GDP growth since 2004, however, was revised down by an average of 0.3 percentage points below previous estimates. This lower profile for real GDP growth for 2004-2007Q1 suggests a lower potential growth rate over the recent period and the forecast horizon, causing us to reduce our potential growth estimate by 0.3 percentage points to 2.7%. This reduction reflects a lower profile for trend productivity growth. We still believe, however, that the recent below-trend productivity growth is associated with cyclical factors. It is likely that the next update of the Kahn-Rich productivity model will lend a note of caution to this interpretation: the now-weaker productivity and real consumption growth over the past three years, as well as the weak real consumer spending growth in Q2, will likely increase the probability that the economy is in the low-trend-productivity-growth state. The possibility of below-trend productivity growth thus remains a downside risk to our real growth outlook, despite the recent reduction in our productivity trend estimate.

Consistent with the rebound in real growth, indicators of business activity remained largely solid during the inter-meeting period. Survey measures generally stayed at levels consistent with the anticipated rebound in manufacturing, though many measures, including the ISM manufacturing index, showed a slight decline from June. Production and orders data continued to be more mixed. In particular, durable goods orders and shipments showed some weakness, which, though currently an outlier among indicators, may be a cause for concern. In addition, most inventory-sales ratios have returned to low levels, suggesting an end to the inventory correction that held down activity earlier this year, a view supported by broad-based increases in June industrial production. Overall, recent data support our outlook for moderate growth in production in the second half of the year. The service sector activity also continues to be strong, as indicated by the ISM non-manufacturing index. While the July number was down somewhat from June, it remains consistent with solid growth in this sector.

Recent capital spending indicators have been somewhat mixed, though largely in line with our forecast. Capital spending on structures has been robust, rising 22.1% (annual rate) in 2007Q2. In line with our forecast, initial data on nonresidential construction from June suggest a bit of a deceleration going into 2007H2. In contrast, real equipment and software expenditures rose 2.3% (annual rate) in Q2, somewhat below our expectations; revisions to expenditures over the past three years were relatively minor, leaving the softness that has persisted since early 2006 largely intact. Capital goods orders have also been somewhat weak, offering few signals of a more sustained rebound in the second half of the year. Overall, the recovery in business investment in equipment and software has remained somewhat tentative despite strong fundamentals and relatively easy access to financing over the recent period. Renewed weakness in capital goods spending thus remains a downside risk to our real growth outlook, particularly given concerns about firms' access to credit that have emerged from recent financial market turmoil.

The housing market also remains a source of downside real risk. Real residential investment fell approximately as anticipated in Q2, and most indicators suggest that the weakness is likely to continue. While June starts were fairly stable, the National Association of Home Builders' sentiment index continued to fall in July, signaling pessimism about current and future sales levels. The weekly mortgage applications index has also fallen over the past several weeks after rising early in the period. June new and existing home sales continued to decline, while inventory levels remain high; after declining in April, the new home inventory-sales ratio has increased in both the past two months. In addition, though rental and homeowner vacancies declined somewhat in Q2, they remain near historic highs. Unless the regional distribution of inventories is more concentrated than we believe, which could allow for a sustainable rebound in some areas, the current levels of starts likely remains out of balance with inventory and sales data: we have reduced our projection for housing starts and residential investment to reflect the impact of this continuing correction. However, the dynamics of this resolution and the impact of any additional reduction in credit availability, resulting from recent financial market developments, remain a source of significant downside risk to growth over the forecast horizon.

Indicators of conditions in the mortgage market worsened considerably. Spreads on subprime MBS and the ABX widened significantly during the period, surpassing their previous highs from earlier in the year. Broader credit spreads also widened markedly, as concerns about defaults by prime and near-prime borrowers increased. Consequently, the potential for downside risk from the mortgage market remains and has increased over the inter-meeting period.

With the housing market weakness continuing, home price appreciation continued to slow. The four-quarter change in the constant-quality new home price index (+0.6%) was the lowest since 1992, although it still shows slight appreciation. In contrast, the four-quarter change in the Case-Shiller composite index for metropolitan areas was negative (-2.8%), as it has been since the beginning of the year.

Possibly reflecting the impact of the housing market slowdown for the first time, real consumption growth in Q2 slowed considerably, as it increased only 1.3%, its slowest pace since 2005Q4. In addition, like real GDP growth, consumption growth from 2004-2007Q1 was revised down by about 0.3 percentage points below previous estimates. July sales of light-weight vehicles were also weak, falling below an already-weak June level. Overall, these recent developments have little affected our consumer spending outlook for 2007H2, as we attribute much of the recent slowing in consumption growth to transitory factors, including the significant energy price increases in Q2. Our central outlook assumes a return to trend consumption growth in the second half of the year. However, the recent revisions, as well as the weakness in Q2, increased the possibility of a slowdown in consumption, resulting from either slower productivity growth or spillovers from the housing market, and contributed to the increase in downside real risk over the inter-meeting period.

As it has over the past few months, continued solid labor market growth provides support for our view that the slowdown in consumer spending is transitory. June and July payroll employment growth were consistent with our forecast and in line with recent trends. The stability of unemployment insurance claims also suggests continued firmness in the labor market. Signals from the household survey were somewhat more mixed. While the unemployment rate ticked up to 4.6% in July and labor force participation remained stable at 66.1% after ticking up slightly in June, participation measures remain below their levels from earlier in the year. In addition, household survey employment growth (adjusted to be comparable to payroll employment growth) so far this year continues to be slower than establishment survey employment growth.

Despite continued solid labor market growth, wages did not show signs of acceleration. The 12-month change of July average hourly earnings was 3.9%, remaining below its levels from the second half of the 2006; the growth in this compensation measure has been remarkably stable over the past few months. The Q2 release of the Employment Cost Index also suggested steady, but not accelerating, wages. The 12-month change in the ECI of wages and salaries for private industry workers was 3.4% in Q2, in line with recent trends. Overall, the relative stability of most compensation measures over the recent period suggests no change in labor cost pressures.

The economic indicators from foreign economies, with the exception of China, were also generally consistent with our outlook of foreign growth slowing from 2006's high levels; foreign financial market volatility, however, suggests greater downside risks to the foreign growth outlook than at the time of the last Blackbook. Euro area indicators have been mixed but overall have been consistent with our forecast of slowing growth in that region in 2007H2. The 12-month change in euro area inflation remains under 2%. Signals from Japan have also been mixed. Employment and export growth have both been strong, but production has been flat so far this year after surging in the second half of 2006. Deflation in both total and core prices continues. In China, real GDP growth in Q2 was quite strong, and production, retail sales, investment spending, and credit growth indicators have all been quite robust, leading us to upwardly revise our projection.

Inflation hit 4.4% in June, largely due to higher food prices, and there are some signs that broader inflation pressures are building in China's economy. Oil prices also continued to increase over much of the inter-meeting period, returning to levels not seen since last summer, suggesting that overall global growth remains quite strong.

Consistent with the strength in the global economy and the recent depreciation in the dollar, net exports made a positive GDP growth contribution of roughly 1 percentage point in Q2, as strong export growth combined with some deceleration in imports. The downward revision to projected U.S. domestic demand growth for the second half of 2007 implies weaker U.S. non-oil imports for that period as well. As a result, net exports are now expected to make a modest positive contribution to GDP growth through the end of the year. However, continued strong global growth could push export growth higher, both in the latter half of 2007 and in 2008, creating some upside risk to this forecast.

2.2 Financial Markets

Mounting credit market concerns dominated financial market movements over the inter-meeting period, prompting significant increases in spreads and significant declines in Treasury yields, equities, and policy expectations. Financial market participants also may have re-assessed downside risk to the real outlook more so than we did, causing the reopening of the gap between our expected policy path and the market's expected path. While financial market developments did not impact our central outlook, they contributed to the increase in the downside risk to our growth outlook, as their impact on broader financial conditions for consumers and firms remains unclear.

Credit markets experienced significant volatility over the inter-meeting period. Overall, credit spreads, particularly speculative spreads, widened markedly, with A-rated investment grade spreads 28 basis points wider, and BB-rated high-yield spreads 101 basis points wider [Exhibit A-7]. Ten-year swap spreads widened 10 basis points to their widest level since 2001.

Credit market volatility was also reflected in equity markets and yields, as market participants generally re-priced risk. Equity markets declined significantly in recent weeks after many reached historic highs in nominal terms earlier in the month, with the Wilshire 5000 down 2.6% over the inter-meeting period; implied equity volatility also moved up sharply at both the near-term and medium-term horizons [Exhibit A-7]. In what was generally regarded as a flight-to-quality phenomenon, nominal yields moved lower at most horizons [Exhibit A-4]. The yield curve is now again inverted; the spread between the 10-year and 3-month yields declined 42 basis points to -11. Real rates declined largely in line with nominal rates, leaving implied inflation essentially unchanged [Exhibit A-4].

These movements, as well as the credit quality concerns that prompted them, suggest increased downside real risk on the part of market participants. Consistent with this increase in downside risk was a significant downward shift in the expected policy path [Exhibit A-5]. The most significant moves were at the medium-term horizon, with the expected rate two years ahead falling 34 basis points to 4.63%. However, more near-term expectations also moved somewhat. The probability of a 5.25% or 5.50% rate following the October meeting fell from 82% to 63%, and the probability of a 4.75% rate moved from close to 0% to 15%.

In line with these movements in expectations, uncertainty about the future path of policy increased. Implied interest rate volatility increased at both the short- and longer-term horizons [Exhibit A-6]. While the level of uncertainty around short-term interest rates returned to its levels from late February and early March, the level of uncertainty around longer-term interest rates is its highest in almost two years, though both remain fairly low historically. Consistent with the interpretation of an increase in downside real risk of market participants, implied skewness has become more negative in recent weeks, suggesting that the possibility of large rate cuts is again seen as relatively more likely.

Movements in global markets were similar to those in U.S. markets. Concern over the impact of U.S. credit conditions unsettled global financial markets during the inter-meeting period, despite evidence of generally solid growth. Long-term sovereign yields fell in main industrial countries, with German bonds benefiting also from flight to quality within the euro area [Exhibit A-8]. Corporate spreads rose sharply, however, especially for lower-grade securities [Exhibit A-8], and concern is rising about the exposure of foreign financial institutions to further deterioration in U.S. mortgage markets. After rising to historic highs through early July, most equity markets recorded sharp losses at the end of the month, bringing equity indices in Japan, the euro area, and Latin America below their levels at the time of the last FOMC meeting [Exhibit A-8]. Other Asian markets, supported by strong fundamentals, fared better, but also suffered in the wake of the risk-re-pricing episode at the end of the period.

The dollar was broadly weaker over the inter-meeting period, against major currencies as well as in effective terms [Exhibit A-9]. The yen appreciated sharply, especially against the dollar and against high-yield currencies, as investors appear to be unwinding some of their short yen positions in the face of increasing global risk. Option-implied volatility for major rates has risen, especially for yen cross-rates, but remains well within historical ranges.

2.3 Global Monetary Policy

The global trend over the inter-meeting period remained toward policy tightening, though expectations for future tightening declined slightly late in the period with the turbulence in financial markets. The Bank of England, Bank of Canada, Reserve Bank of New Zealand, People's Bank of China, Reserve Bank of India, and Bank of Korea all tightened policy. The Bank of Japan and ECB remained on hold at their most recent meetings. Both are viewed as likely to tighten policy over the next two months. As in the United States, financial volatility and its possible implications for global growth have tempered expectations of further moves in these and other major areas, and tightening cycles in the industrialized countries are likely approaching their ends [Exhibit A-8]. Policy expectations for these economies, however, tended to move down less than those for the U.S.

3. Evolution of Outlook and Risks

3.1 Central Forecast

Conditioning assumptions. In light of the recent NIPA revisions, we have lowered our estimate of potential GDP growth from 3.0% to 2.7%. Our new estimate of potential reflects 1.2% growth in hours worked and 1.5% growth in productivity on a GDP basis (1.8% growth in productivity on a non-farm business sector basis). We have extended the decline in potential back three years, over which time real GDP growth was revised down by 0.3 percentage points on average. Thus, this change in our estimate of potential does not change our estimate of the output gap, which we still believe to be around zero.

Our monetary policy assumption is unchanged from the June Blackbook. We expect the FFR to decline to 5.00% in 2008H2, then remain at that level until 2009H2, when we assume it will decline by another 25 basis points [Exhibit B-2]. Given recent events in financial markets, our assumed path is significantly above the current market-implied path. The widening in credit spreads and declines in equity prices that have occurred to date have not been large enough to alter our view that growth is rebounding toward trend.

We continue to assume that long-run inflation expectations will remain contained near current levels. The stability of financial market expectations over the inter-meeting period supports this assumption, as does the continued stability of household inflation expectations (as measured by the Michigan survey).

We expect the lower inflation persistence evident since the early 1990s to continue; this assumption is in contrast to the greater inflation persistence assumed in the Greenbook forecast (although the Board staff has revised the specification of long-run inflation expectations in the FRB/US model in a way that results in lower inflation persistence). The recent moderation of core inflation is consistent with this assumption, although alternative underlying inflation measures have displayed less slowing. Still, we expect that, in the absence of large shocks, inflation will move gradually toward a 1½% objective.

We continue to expect the term premium to remain low. Indeed, over the inter-meeting period the term premium, as measured by the Kim and Wright method, retraced some of the increase experienced between the May and June Blackbooks. We assume fiscal policy will provide a small impetus to real GDP growth in 2007 and 2008, similar to that in the last Blackbook. As is our standard practice, the paths of equity prices, home prices, and exchange rates are assumed not to differ significantly from those in the Greenbook.

Based on sharp increases in average futures prices over the intermeeting period, we raised our assumed path of oil prices over the near term significantly. We expect the spot price of West Texas intermediate crude oil to be $74.25 in 2007Q4 ($69.25 in the last Blackbook) and $72.50 in 2008Q4 ($71.75 in the last Blackbook).

Due largely to the continued strong growth in China, the staff projection for foreign GDP growth in 2007 has been raised to 3.4% (GDP- weighted, Q4/Q4), up from 3.2% in the June Blackbook. Projected foreign growth in 2008 in unchanged at 3.0%.

Inflation. Core PCE inflation increased at just 1.4% (annual rate) in 2007Q2, below the 1.6% projected in the June Blackbook. The increase in the first quarter was revised upward, however, to 2.4% (annual rate) from 2.2%. Thus, the average pace of core inflation over the first half of 2007 is essentially unchanged at 1.9% (annual rate). Given that alternative underlying inflation measures did not moderate as much as did core during the second quarter, we suspect that some of the second quarter moderation was transitory and that the true trend for the recent core inflation rate is around 1.9%. We project core PCE inflation at that rate for the second half of 2007, the same as in the June Blackbook [Exhibits B-1, B-2, and B-3]. For 2008 (Q4/Q4) and 2009, we continue to expect very gradual moderation in core inflation, to 1.8% and 1.7%, respectively [Exhibit B-4].

Although 2007Q2 core inflation came in somewhat lower than expected, we continue to see some upside risk to our inflation forecast. While there has been some moderation in core services prices, including rent and medical care, the bulk of the slowing in core inflation has been in core goods. With the inventory correction in the U.S. coming to an end at the same time that projected global demand growth is increasing, we see some risk that goods prices will firm more than expected over the forecast horizon. Moreover, the increase in our near-term path for oil prices introduces the risk of some pass-through of higher energy prices into both core goods and core services prices.

Real activity. Based on the advance estimate, real GDP growth rebounded to 3.4% (annual rate) in 2007Q2. While real PCE growth was a disappointing 1.3% (annual rate) in Q2, the underlying details suggest that the recent weakness of consumer spending was likely due to the sharp energy price increase in Q2 and not from the beginning of a spillover from the steep downturn in housing. In other components of aggregate demand, the second quarter data was generally consistent with the view that the economy entered the second half of 2007 with a fair amount of momentum. Growth of business investment in structures was very strong, while net exports contributed 1.2 percentage points to growth, which was much more than we had expected. The growth contribution from inventory investment was considerably less than expected, prompting us to boost our forecast for the inventory investment growth contribution in 2007Q3. This raises the projected growth rate of GDP for that quarter to 3.3% from 3.0% in the last Blackbook [Exhibits B-1, B-2, and B-3].

For 2007Q4 through 2009, the broad outlines of our forecast for real growth are essentially unchanged. After a deeper and more protracted correction in the housing sector than we had anticipated, we see growth converging toward potential. As mentioned above, however, our estimate of potential is now 2.7%, rather than 3.0% in the June Blackbook. Given recent mortgage market developments and housing market indicators, we have once again marked down our path for single-family housing starts over the forecast horizon. We now expect single-family starts to be just 1.1 million (annual rate) in the second half of the year, compared to 1.17 million (annual rate) in the first half of 2007. Offsetting this weaker housing outlook is a marking up of the estimated growth contribution from net exports. With somewhat weaker domestic demand now projected for 2007H2, our non-oil import growth projection has been revised down, and net exports are expected to make a modest positive contribution to GDP growth through the end of the year. A similar modest positive contribution is expected in 2008, as U.S. exports are projected to be sustained by strong economic growth in Europe and Asia and by a weak dollar, while import growth gradually recovers.

Key to this outlook is our long-held view that any spillover effects from housing and mortgage markets into consumer spending will be relatively small. This assumption reflects our view that a wealth effect and/or a home equity withdrawal effect from housing was not a major factor behind the robust growth of consumer spending over recent years. Indeed, the recent significant upward revision of personal income and the personal saving rate make that robust consumer spending look less anomalous. Another key view underlying the growth forecast is that the effects from the recent credit market turmoil will be primarily confined to the housing market.

We have reintroduced some, but not all, of the downside risk we took out in the June Blackbook. In addition to the downside risk to our productivity assumption, other key downside risks remain, such as the housing-consumer spending linkage mentioned above. There is also the downside risk is that the decline in the supply of credit currently being experienced in the housing market will become more pervasive and begin to restrict both consumer spending and business investment.

We also see some upside risks to our real activity forecast. As mentioned above, foreign growth remains strong, and U.S. export performance has surprised to the upside. The fact that oil prices continue to rise supports the view that that global demand is robust. This upside risk from strong global growth is a key distinction between the current concern about growth prospects for the U.S. economy and those that prevailed in late February and early March, a somewhat similarly turbulent period in financial markets.

3.2 Alternative Scenarios and Risks

The most significant changes we made to the alternative scenario probabilities were to increase the weight on the *Over-Tightening* and *Effects of Overheating* scenarios and lower the weight on the *Productivity Boom* scenario [Exhibit C-1]. In addition, we now show the weight on the *High Global Demand* scenario explicitly; last cycle, it was included in the analysis only through an increased weight on our standard generic upside risk scenario.

After pushing the probability of the *Over-Tightening* scenario to its maximum in March, we diminished it in the May and June Blackbooks because of the continued strength of the labor market and the strong signals from financial markets (specifically, relatively narrow credit spreads, strong equity markets, and a positively sloped yield curve). The labor market continued to be robust through June; however, financial markets became increasingly volatile in late July. This development, in addition to the surprisingly large downward revision to growth in 2006 and below-forecast inflation, argues for keeping some weight on the *Over-Tightening* scenario.

The increased probability of the *Effects of Overheating* scenario reflects the weakness of consumption in 2007Q2, the continued housing correction, the downward revisions to real GDP growth, and the recent weak auto sales. Furthermore, some of the recent turmoil in financial markets could be related to the over-extension of credit in the past, supporting the view that the economy overheated in 2004 to mid-2006. In response to the recent significant slowing in core inflation, which occurred in an environment with many other features consistent with this scenario, we have amended this scenario to imply inflation only slightly above the central forecast. In addition, we view some of the slowing in inflation as transitory and thus believe inflation may move to levels more consistent with this scenario. Higher global real interest rates, an improved U.S. budget deficit, and robust world growth all argue against past overheating; despite this, however, we think the data in support of the *Effects of Overheating* scenario is strong enough to suggest increasing its probability.

The decreased weight on the *Productivity Boom* scenario is largely due to the downward revision to real GDP growth over the past three years. This downward revision makes it more likely that transitory factors contributed significantly to the 2002-2004 productivity growth surge. The small change in the probability of the *Productivity Slump* scenario resulted from adjusting the weights on the other scenarios and does not reflect a direct change in our assessment of it. In the appendix, we have amended our description of the productivity scenarios to reflect the changes in our underlying productivity assumption.

As can be seen in Exhibit C-1, we have slightly increased the weight on the *High Global Demand* scenario (which was implicit in our June calculations) due to continued acceleration of growth in China. The increase in oil prices over the inter-meeting period is also consistent with this scenario and inconsistent with scenarios that suggest sustained weakness in U.S. growth.

All of the above changes imply a slightly lower probability on the central scenario [Exhibit C-1], which increases the overall uncertainty around our inflation and output forecasts over the forecast horizon [Exhibit C-3]. We have maintained the upside risk to the inflation forecast and slightly increased the downside risk to the output forecast, as indicated by (1) the difference between our central scenario projections and the expected value of the forecast distributions and (2) the change in the 5th and 95th percentiles of the forecast distributions from the previous to the current Blackbook (which have shifted down, even after correcting for the change in potential growth, which also pushes down the percentiles).

The effects of the changes in our risk assessment can be also be seen in the probability of core PCE inflation below 2% and probability of a continuing expansion [Exhibit C-3]. Most of the change in the former probability is attributable to revisions that raised the non-market-based portion of the PCE deflator in 2006; the probability is effectively unchanged once this is taken into account. The decrease in the latter probability is largely due to the reduction in our estimate of potential, with a smaller contribution from the increased weight on scenarios with output growth below the central forecast.

Finally, Exhibit C-4 depicts the evolution of our forecast over the past year and its performance relative to released data. Both output and inflation surprised us on the downside. The output surprise, however, was larger than the inflation one, despite having downside risk to the output forecast and upside risk to the inflation forecast in August 2006. The source of the output surprise is a combination of the larger-than-anticipated correction in housing and the NIPA revisions to earlier data. This exhibit also shows that we were assessing approximately the same amount of downside risk to output last August as we currently are, as evidenced by the differences between the central scenario projections and expected values.

The downward surprise to inflation was small. One explanation for the miss is the contribution of transitory factors to the slowing in core inflation. Once these low inflation readings are removed from the four-quarter average, it becomes clearer that there is has been little change in our views on inflation over the past year. In particular, the current level of upside risk is approximately the same as it was last August.

4. Forecast Comparison

4.1 Greenbook Comparison

As has been the case for some time, the Board staff projects higher inflation and lower output growth than we do for both 2007 and 2008. Though we made parallel downward revisions to our potential growth rates, the difference between our GDP growth forecasts and the Board's has widened over the inter-meeting period.

Conditioning assumptions. As in the June Greenbook, the baseline forecast is conditioned on the assumption that the policy rate stays at 5.25% through 2008. This path is somewhat above our path and markedly below the market-implied path.

The Board staff assumption of potential output (around 2.2% for 2007 and 2008) remains 0.5 percentage points below ours; most of this difference comes from lower trend growth in hours worked, as our estimates of trend productivity growth are fairly comparable. The

Board staff continues to assume that the labor force participation rate declines in 2007-2008, while we assume a stable participation rate of 66.1% through 2008.

We assume lower inflation persistence than the Board staff and a somewhat lower inflation objective; based on their interpretation of the current level of inflation expectations, they assume that monetary policy aims for a long-run PCE inflation objective of 2%, while we assume an objective of 1.5%. Also, we assume essentially no output gap over the forecast horizon, while the Board staff estimates a positive output gap in 2006 that slowly closes over 2007 and 2008. Accordingly, their projected path for the nominal interest rate remains above their equilibrium rate of 4.25%.

The Board staff continues to project slightly faster foreign growth in 2007 than we do. We expect foreign growth to slow to 3.4% (3.2% in June) this year, while the Board forecasts somewhat less of a slowdown to 3.5% (3.5% in June) growth (using our weights). We both upwardly revised our forecasts for China over the inter-meeting period, but the Board staff essentially offset this change by lowering their projections for Japan and Mexico. Our foreign growth forecasts for 2008 are very similar.

Inflation. The Board staff's expected trajectory for core PCE inflation is unchanged relative to the June Greenbook [Exhibit B-6]. Core PCE inflation is projected to be 2.0% for both 2007 (Q4/Q4) and 2008. They maintained their inflation projection, despite the adverse productivity developments, because of the low readings on core inflation over the past several months.

Real activity. The Board staff output growth forecast for 2007 and 2008 is lower than in the June Greenbook and markedly lower than our staff forecast. Output growth is projected to be 1.9% (down from 2.1%) for 2007 (Q4/Q4) and 2% for 2008 (down from 2.5%), mainly reflecting lower estimates of consumption growth over the forecast horizon. This downward revision to consumer spending reflects the decline in the stock market and estimates of potential output growth and the impact of these factors on permanent income.

These substantial markdowns mean that the discrepancy between our forecast and the Board's has widened. Our staff forecast for GDP growth is 0.6 percentage points higher than the Board projection for 2007 and 0.8 percentage points higher for 2008. Though we also marked down our trend level of consumption growth with our reduction in potential, the gap between these forecasts remains a key difference between our projections over the forecast horizon, reflecting in part the lower wealth effects we assume. In addition, while their forecast for business investment remains slightly higher, their projection for the housing market remains significantly lower than ours, particularly in 2007.

As in June, the Board staff forecast maintains an unemployment rate below their 5% estimate of NAIRU through 2008, though their expected 2008Q4 unemployment rate of 4.8% is still above our projection of 4.6%. Also, the Board staff projects substantially lower employment growth in 2008 than our forecast. They forecast monthly non-farm payroll gains of 75,000 in 2008 (down from 125,000 in 2007), while we expect growth to continue at a 135,000 job per month pace in 2008.

Our net exports contribution forecast matches the Board staff's for 2007 and 2008 at 0.3 and 0.2 percentage points, respectively. Different projected patterns for oil imports largely explain quarterly differences in the 2007H2 forecasts.

Uncertainty around forecasts. The uncertainty around the FRBNY and Board forecasts has not changed substantially since June. The 70% probability intervals for inflation and output in 2007 and 2008 are shown in Table 1 below, with the June values in parentheses. For core PCE inflation, the probability intervals around the two forecasts have about the same width in both 2007 and 2008.

Our probability intervals for real GDP growth are the same as the Greenbook for 2007 (1.5 percentage points) and somewhat narrower for 2008. In 2008, the width of our 70% probability interval is 2.7 percentage points, compared to 3.1 percentage points for the Greenbook; this difference in widths is about the same as it was in June.

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

	Core PCE Inflation		Real GDP Growth	
	FRBNY	*Board*	*FRBNY*	*Board*
2007	1.6-2.3 (1.5-2.4)	1.7-2.3 (1.6-2.5)	1.7-3.2 (1.7-3.4)	1.2-2.7 (1.0-3.3)
2008	1.3-2.7 (1.2-2.7)	1.3-2.7 (1.2-2.8)	1.1-3.8 (1.4-4.2)	0.4-3.5 (1.0-4.1)

To gauge the importance of the differences between our outlook and the Greenbook forecasts, we calculate the percentile of the baseline Greenbook forecasts for inflation and output in our forecast distributions. The results are shown in Table 2, with June values in parentheses. As in June, our forecasts of core inflation are fairly close when we account for our risk assessment, with the exception of 2010, when the gap increases significantly. The increase in the gap at this horizon largely reflects our differing assumed inflation objectives.

Table 2: Percentile of Greenbook Forecast in FRBNY Forecast Distribution

	Core PCE Inflation	Real GDP Growth
2007	59 (54)	22 (34)
2008	48 (49)	41 (46)
2009	57 (59)	44 (40)
2010	67	40

The discrepancy between the two output forecasts has largely widened since June, particularly for 2007. Nevertheless, despite the substantial differences in our point forecasts, the difference between our outlooks for output growth for 2008 and 2009 is much smaller than the difference in the point forecasts suggests once we take into account the downside risk to growth in our forecast.

Alternative Greenbook forecasting scenarios. The Greenbook alternative simulations focus primarily on potential negative effects on aggregate demand from a steep decline in prices and activity in the housing market. In the first alternative scenario, *Greater housing correction*, residential investment is 10% below the Greenbook baseline projection by 2008, while home prices drop 10% in both 2007 and 2008. Negative wealth effects from lower home prices and multiplier effects on consumption and investment spending decrease GDP growth to 1.5% in 2008, and the unemployment rate increases to 5%. In response to slower growth, the interest rate drops to 4.5% in 2008. Interestingly, this scenario implies a path for the policy instrument in line with the path currently priced into market policy expectations.

The next two alternative scenarios build on the *Greater housing correction* conditioning assumptions for the housing market. In the first of these, the fall in housing prices is associated with a drop in consumers' confidence, leading to higher savings and lower spending. As a result, GDP growth slows to below 1%, and the policy rate reaches 4% in 2008. The second scenario adds an increase in the risk premium, a response to weak economic conditions. Tighter financial conditions and further negative wealth effects from falling equity prices have negative consequences on output growth and the unemployment rate. With output growth down at 0.5% in 2008, the policy instrument declines to 3.5%, substantially below what is currently priced into financial markets.

The *lower NAIRU* scenario depicts a more optimistic view about the labor market. Current labor market conditions, perceived as tight in the baseline forecast, might reflect a gradual decrease in the NAIRU. In the simulation, the NAIRU has fallen to 4.25%. Slack in resource utilization lowers core PCE to 1.75% by the end of 2008, while GDP growth reaches 2.5%, as aggregate demand catches up with potential output. The federal funds rate path is little changed, as the estimated Taylor rule implies a gradual adjustment to the lower NAIRU.

4.2 Comparison with Private Forecasters

As in June, though our near-term outlook for inflation is comparable, our near-term outlook for real growth is somewhat different from the projections of private forecasters.

Our projection for 2007 continues to be more optimistic than the projections of private forecasters. Our forecast for 2007Q3 GDP growth is substantially above private forecasters, as it is 0.4-0.7 percentage points higher than Macro Advisers, the Blue Chip, and the SPF. It is also 1 percentage point higher than the projection from the PSI model, which predicts output growth at 2.5% for 2007H2, about halfway between the Board staff forecast (2%) and our staff forecast (3%). Two assumptions help to reconcile the differences. First, we assume that the weakness in consumption in Q2 was temporary and can likely be explained by energy price increases. Second, we project a substantial growth contribution for inventories in Q3 (which stems from the lower-than-expected contribution in Q2).

As in June, our projection for 2007 (Q4/Q4) real growth is slightly above the projections of private forecasters. Despite the downward revision to our potential growth estimate, our forecast is 0.3 percentage points above Macro Advisers and Blue Chip and 0.4 percentage points above the SPF. Our 2008 (Q4/Q4) forecast for growth is relatively similar to those of private forecasters, with any differences likely stemming from release dates.

There appear to be no significant differences in headline CPI projections; any discrepancies likely reflect differences in energy price inflation and NAIRU assumptions. The Macro Advisors forecast is 0.2 percentage points higher than our projection for 2008 (Q4/Q4), with Macro Advisors having a NAIRU assumption of 5.4%, a full percentage point higher than ours.

5. Robustness of Policy Recommendation

5.1 Sensitivity to Alternative Scenarios and Policy Rules

Our policy recommendation is unchanged from June and remains fairly close to the policy prescription of the *Baseline* rule in three of the five alternative scenarios [Exhibit D-1]. The exceptions are the *Over-Tightening* scenario, which requires rate cuts in 2007Q4, and the *High Global Demand* scenario, which requires a rate increase in 2008. At the moment we have not chosen to revise our neutral rate assumption of 4.5% in light of the change in our potential growth assumption and recent financial market movements; however, our lower estimate of potential alone would suggest a 15 basis point reduction in our estimate of the equilibrium real rate. Furthermore, if credit market conditions continue to tighten, that would also suggest a slightly lower neutral rate. We will revisit these issues in September.

The real FFR paths using the *Baseline* rule differ significantly across the five alternative scenarios, reflecting the differences in inflation outcomes in the alternative scenarios and the resulting policy stances [Exhibit D-1]. Notably, the *High Global Demand* scenario implies real interest rates close to 4%, similar to those realized in the late 90s.

We consider the same three alternative policy rules that we considered in the June Blackbook: the *Dove* rule, the *Opportunistic Disinflation* rule, and the *Outcome-based* rule. The *Outcome-based* rule, combined with our downside risk to output growth and our relatively benign inflation outlook, continues to prescribe cuts in the FFR [Exhibit D-2] under all scenarios except *High Global Demand* [Exhibit D-3]. As in the past, this rule implies considerably more uncertainty about the FFR going forward [Exhibit D-5].

The prescription of the *Opportunistic Disinflation* rule, which keeps the FFR at 5.25% over the forecast horizon under the central and all of the alternative scenarios except *Over-Tightening*, continues to be slightly above our policy recommendation [Exhibit D-3]. Following this rule would better preserve Fed credibility, if ex-post it appeared that either the *Productivity Slump* or the *Effects of Overheating* scenarios (currently the two most likely alternative scenarios) explained recent developments well. This rule implies very little uncertainty about the future FFR [Exhibit D-5].

The *Dove* rule is designed to be very sensitive to drops in output below potential. Thus, with the increase in the downside risk to real activity, it prescribes cuts in the FFR in 2007 and 2008 [Exhibits D-2 and D-3] for all of our scenarios. As can be seen in Exhibit D-5, it places very little probability on an FFR above 5.25% over the next few quarters.

5.2 Comparison to Market Expectations

The FFR path priced into financial markets has moved down since June; the expected FFR for May 2009 is now around 4.7%, compared with a level of more than 5% before the last FOMC meeting. With only a slight increase in the downside risk to real activity and little change in our inflation outlook, only the recommendation prescribed by the *Dove* rule has moved down as much as the market-implied path.

The prescription of our *Baseline* rule under the central scenario and the expected value of our forecast distribution are very similar and have changed little over the inter-meeting period; both shifted down slightly. The market-implied path has now moved below both of these paths [Exhibits D-1 and D-2]. The change in the *Baseline* rule prescription under the central scenario mainly reflects changes in past data that slightly change our calculation of the output and inflation gaps. The slightly larger downward move in the prescription evaluated under the expected value indicates the small increase in our downside real risk.

The path prescribed by the *Opportunistic Disinflation* rule under the expected value of the forecast distribution is now well above the market path. This is the opposite of the situation in June, when it almost exactly matched the market path over most of the forecast horizon [Exhibit D-2]. In contrast, the *Dove* rule in June was well below the market-implied path but is now very close to it through 2008.

The recent movement of the market path relative to the prescriptions of our *Baseline* rule and the two variants, *Opportunistic Disinflation* and *Dove*, suggests that the shift in the market path reflects some reassessment by market participants of the FOMC's reaction function, which they may believe has shifted in light of the recent financial market turbulence and lower inflation. In June, market participants seemed to place a greater weight on policy actions similar to the *Opportunistic Disinflation* rule, which reacts more strongly when inflation is above 2%. With inflation falling into the perceived comfort zone and the history of the FOMC lowering rates in periods of financial turmoil (e.g. 1987 and 1998), markets appear to think the FOMC may be more sensitive to deviations of output below potential. The impact of this increase in sensitivity is evidenced by the fact that only slightly increasing the risk of output below potential in our forecast distribution is sufficient to move the *Dove* path close to the near-term market-implied path.

An alternative explanation for the difference between the *Baseline* and the two variants' prescriptions and the market-implied path is that the market has not reassessed potential as we have. Given the downward revisions to output, a higher estimate of potential would imply a more negative (or less positive) output gap, which would suggest an FFR path closer to the market-implied path. We view this explanation as unlikely, however, as the market-implied path dropped significantly the day before the NIPA revisions and actually moved up slightly after the revisions were released.

The implied distributions of most of the rules [Exhibit D-5] capture the increase in negative skewness priced into markets [Exhibit A-6]; however, implied volatility around the market-implied path has increased sharply since June and has not been matched by a similar increase in the uncertainty around the paths implied by our policy rules. The very low volatility and lack of negative skewness associated with the *Opportunistic Disinflation* rule distribution, apparent in the width and shape of the 90% probability interval, is particularly striking, given how well this distribution matched the market-implied distribution in June [Exhibit D-5].

Overall, our analysis suggests that, holding market perceptions of the FOMC reaction function constant, the decrease in the level of market expectations and the increase in the market's implied volatility are inconsistent with the small increase in downside risk to real activity and maintained upside risk to inflation over the inter-meeting period. Our *Average* rule, which weights the *Baseline* rule and the two variants to match the market path as closely as possible, now places 0% of the weight on the *Opportunistic Disinflation* rule, 10% of the weight on the *Baseline* rule, and 90% of the weight on the *Dove* rule; their respective weights last cycle were 40%, 50%, and 10% [Exhibit D-4]. If we exclude the *Dove* rule, which in June we had viewed as becoming less relevant for understanding market movements, the probabilistic comparisons suggest a substantial divergence between our assessment and the market's relative to June.

To assess our previous projections of the FFR and consider the changes in market expectations over the past year, we compare our FFR expectation and distribution (using the *Baseline* rule) in August 2006 with our current expectation, as well as with the evolution of market expectations [Exhibit D-6]. The current assumed FFR path is very similar to that of August 2006, reflecting the small changes in our forecast with respect to inflation and the output gap. Market expectations over the past year have been fairly consistently in the lower half of the August 2006 FFR distribution, reflecting the market's greater concern about downside real risks during most of this period, as well as perceptions that the FOMC would respond promptly to any such realizations of those risks. Because of those concerns and perceptions, our FFR recommendation has been above market expectations for most of the past year.

6. Key Upcoming Issues

Macroeconomic developments during the inter-meeting period were generally in accord with our outlook, with one important exception: the downward revisions to 2004-2007Q1 real GDP growth led us to decrease our estimate of potential output growth from 3% to 2.7%. At the same time, we have increased the downside risks to growth, with the *Productivity Slump* scenario now more than twice as likely as the *Productivity Boom* because of the decline in the probability of the latter. Moreover, recent developments in financial markets raise some concerns about the possibility of a significant contraction in the availability of credit, well beyond the narrow subprime segment of the mortgage market. The possibility of such a "credit crunch," and the associated spillovers into consumption and investment, as well as a more general softening of demand, is reflected in the increased probability of the *Effects of Overheating* and *Over-Tightening* scenarios.

Much less has changed on the inflation front. Recent inflation readings are consistent with our forecast of a slow moderation of core inflation toward the implicit target. Nevertheless, the recent divergence between the behavior of core inflation and many of our alternative measures of underlying inflation remains a cause for concern. On balance, the risks to the inflation outlook remain on the upside, mainly driven by the probability of the *Productivity Slump* and *High Global Demand* scenarios.

With a largely unchanged output gap and inflation forecast, our recommendation for the federal funds rate remains the same as in June, and our *Baseline* rule, even when our risk assessment is taken into account, has shifted only slightly. In contrast, the expected policy path priced into markets has changed markedly. This shift represents a fairly abrupt reversal from the virtually flat expectations seen in June. One possibility is that market participants see a higher potential than we do for the recent widening in credit spreads to spill over to the real economy. At the moment, we see the recent macroeconomic news, although not universally in line with our central outlook, as inconsistent with such a radical revision of prospective economic conditions. Another possible explanation of the shift in the market path is that the market again has changed its assessment of the FOMC's reaction function, with the renewed focus on the downside real risks, reverting to a strong belief in the so-called "Greenspan put." If this is the case, this belief alone is currently contributing to an easing of financial conditions, at least as reflected in Treasury yields. It is an open question if this reduction in returns is enough to compensate for the increase in risk premia that investors are currently requiring to carry non-sovereign risk.

Looking forward, the bulk of risks to the forecast remain at the nexus of the evolution of the housing sector, credit market developments, and any potential spillovers into consumption and investment. Magnifying these risks is the possibility of a persistent slowdown in trend productivity growth, which would exacerbate any demand-side weakness, generating at the same time further inflationary pressures. The inter-meeting developments mostly moved us in the direction of increasing these downside risks.

In particular, consumer spending was sluggish in Q2. While we currently attribute the slowing to transitory factors, a view supported by the continued firmness of the labor market, it is also possible that consumers are finally showing the effects of spillovers from the problems in the housing market. Our central forecast assumes that the weakness in consumption is temporary, but we have increased the probability of the *Effects of Overheating* and *Over-Tightening* scenarios in part to reflect the uncertainty surrounding this assumption.

Similar considerations hold for investment. Residential investment continues its slump, and current indicators suggest that the declines are likely to continue in coming quarters. At the same time, equipment and software investment remained soft in Q2, even as fundamentals remained strong and financing easily available over the recent period; any declines in the availability of financing stemming from recent problems in credit markets cast further doubt on the possibility that firms will replace consumers as the drivers of a continued expansion. On the other hand, the rest of the world continues on a strong expansionary path, contributing to drive oil prices higher, as reflected by the explicit inclusion in this Blackbook of a *High Global Demand* scenario.

Also contributing to the increase in the downside risks to growth was the revision of the national accounts. In particular, the fact that consumption growth was revised down more or less in line with GDP and that the softness in equipment and software expenditures that has prevailed since 2006 was confirmed is consistent with a persistent reduction in the growth rate of productivity. So far, our estimate of the persistent component of the observed reduction in labor productivity growth is not dramatic, as reflected by the downward revision of potential GDP growth by 0.3 percentage points. However, the probability of the revisions continuing in this direction remains significant, as suggested by the relative probabilities placed on the *Productivity Slump* and *Productivity Boom* scenarios. Careful monitoring of productivity data in upcoming quarters, as well as tech sector indicators, will provide insight on the relative likelihood of these outcomes.

A shift in the productivity trend is particularly significant for policy, since a persistent slowdown in productivity would present policymakers with a difficult tradeoff between lower growth and higher inflation. Using the *Baseline* rule, the resolution of this tradeoff calls for an initial tightening of policy, followed by a gradual downward adjustment toward the lower neutral rate implied by the weaker growth rate of potential. Determining the source of any such slowdown in output growth, however, remains a critical policy issue; the *Productivity Slump*, *Effects of Overheating*, and *Over-Tightening* scenarios are not easily distinguished by their effects on real activity, but their differing implications for inflation suggest significantly different policy responses.

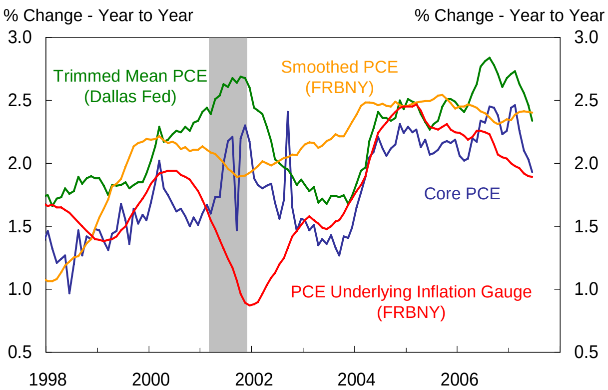
Lastly, recent volatility in financial markets also presents potential policy issues. On the surface, the current configuration of bond and equity markets is broadly in line with what it was around the May FOMC meeting, with a slightly inverted yield curve, stock market indices up a few points year-to-date, and significant easing priced into market policy expectations in late 2007 and 2008. The road traveled between May and today, however, and in particular in the last two weeks, is a source for concern. Treasury markets rallied during the latter period, erasing a positive slope in the yield curve of around 50 basis points. In the meantime, equity markets declined, while credit spreads widened significantly across the quality spectrum. While it is hard to pinpoint the source of this spike in market volatility, the reference to a “credit crunch” spreading from the subprime mortgage market has started to appear regularly as part of the commentary.

At the moment, we still view the possibility of a significant reduction in the availability of credit, with its potential effects on the ability of firms and consumers to borrow and spend, as quite remote. In fact, the current re-pricing of risk might even be seen as a reversal of some recent excesses and thus as a necessary and inevitable adjustment. A key to determining the medium-term consequences of this revaluation of risk is the extent to which it will happen in an orderly manner. In particular, the fact that spreads are widening from unusually low levels and to date have widened less than in recent episodes that eventually required intervention should decrease the urgency of any policy intervention. At the same time, if nervousness on the markets translated into a lack of liquidity, rather than just into a surge in volatility, a policy intervention might be necessary. This is without a doubt a development we will be following closely in the coming weeks.

A. Significant Developments

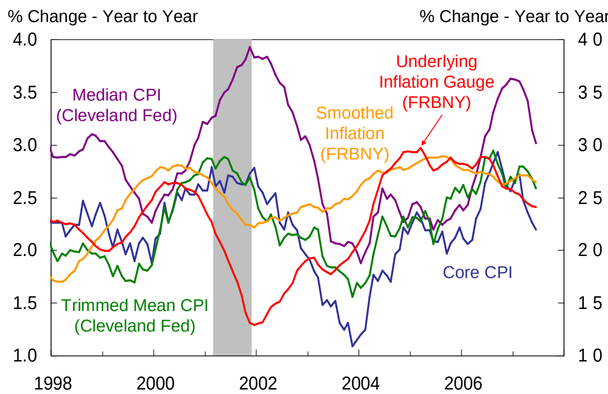
Exhibit A-1:
Measures of Trend Inflation

Alternative Measures of PCE Inflation



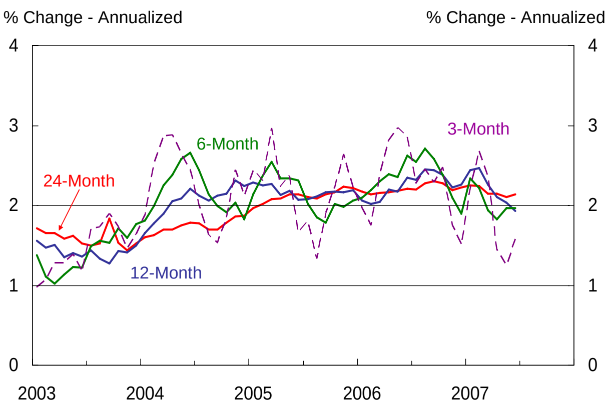
Source: Bureau of Labor Statistics, Cleveland Fed, MMS Function (FRBNY), and Swiss National Bank

Alternative Measures of CPI Inflation



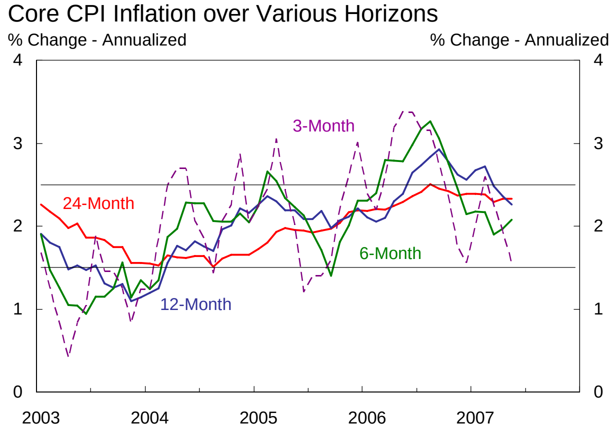
Source: Bureau of Labor Statistics, Cleveland Fed, MMS Function (FRBNY), and Swiss National Bank

Core PCE Inflation over Various Horizons



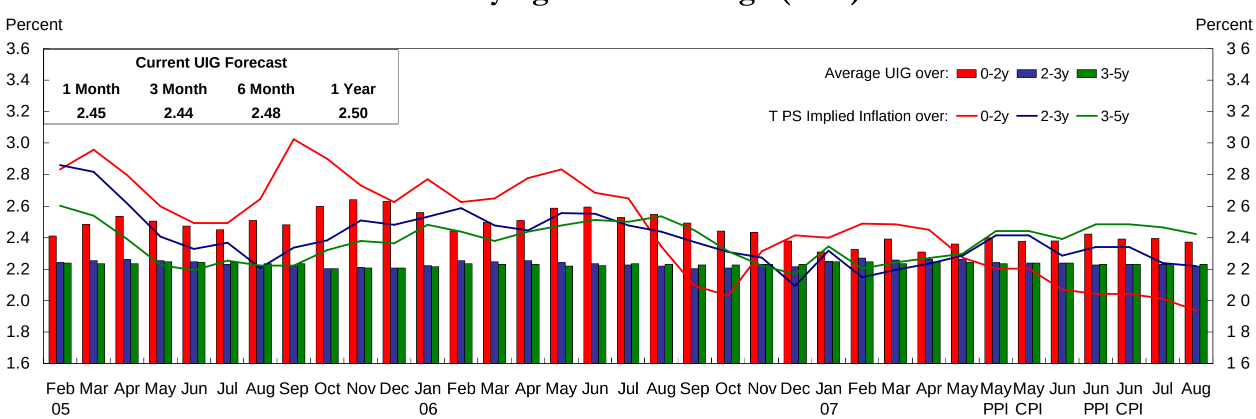
Source: Bureau of Economic Analysis

Core CPI Inflation over Various Horizons



Source: Bureau of Labor Statistics

Exhibit A-2:
Underlying Inflation Gauge (UIG)

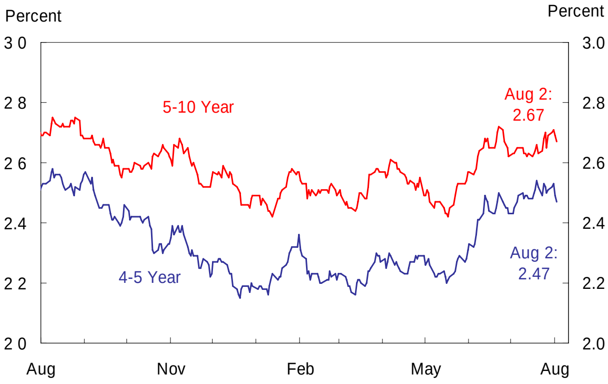


Source: MMS Function (FRBNY), Federal Reserve Board, and Swiss National Bank

A. Significant Developments

Exhibit A-3:
Implied Inflation

TIPS Implied Inflation: 4-5, 5-10 Year Horizons

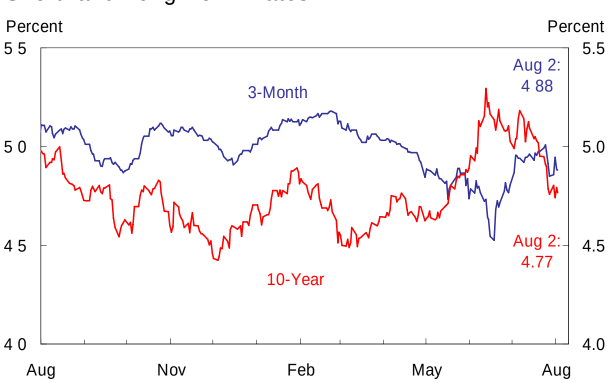


Source: Federal Reserve Board

Note: Carry-adjusted

Exhibit A-4:
Treasury Yields

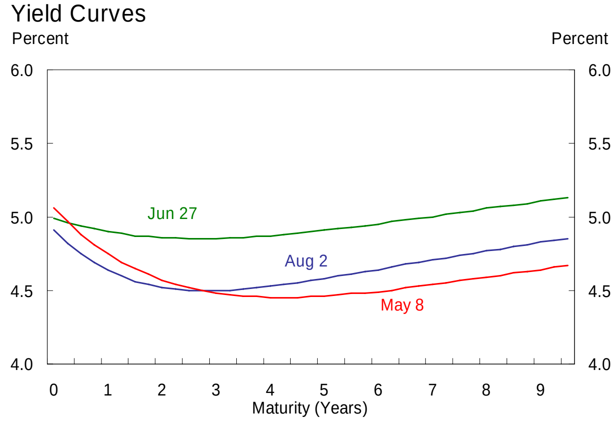
Short- and Long-Term Rates



Source: Bloomberg

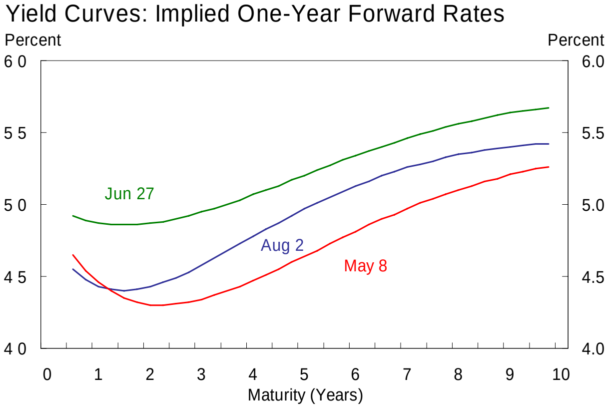
Note: Yields of on-the-run securities

Yield Curves



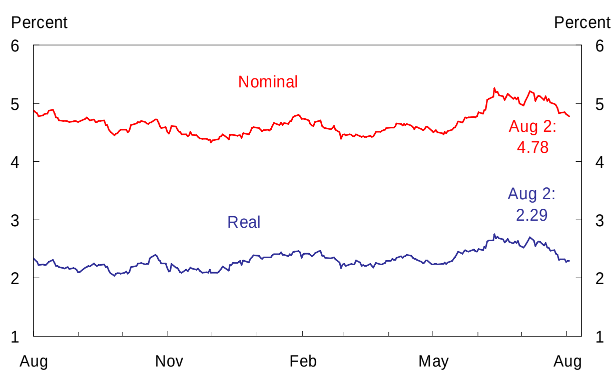
Source: Federal Reserve Board

Yield Curves: Implied One-Year Forward Rates



Source: Federal Reserve Board

4-5 Year Forward Rates

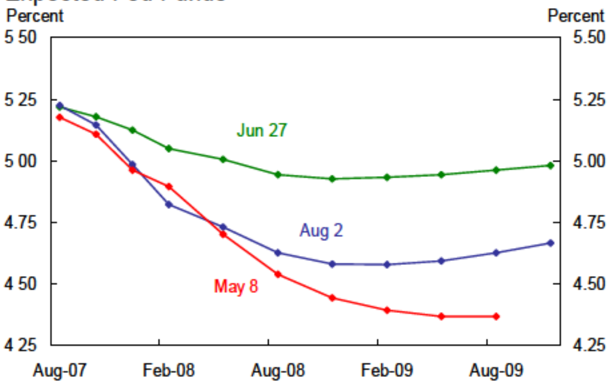


Source: Federal Reserve Board

A. Significant Developments

Exhibit A-5:
Policy Expectations

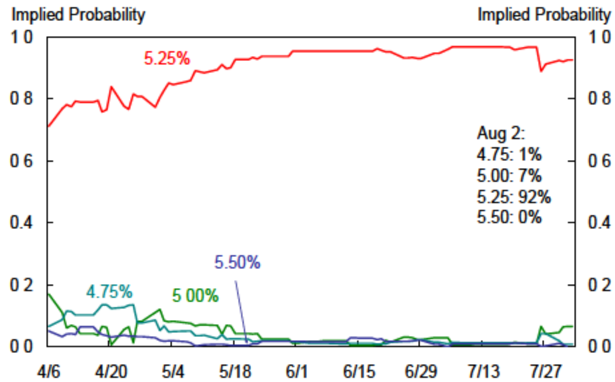
Expected Fed Funds



Source: Federal Reserve Board

Note: Estimated using fed funds and Eurodollar futures.

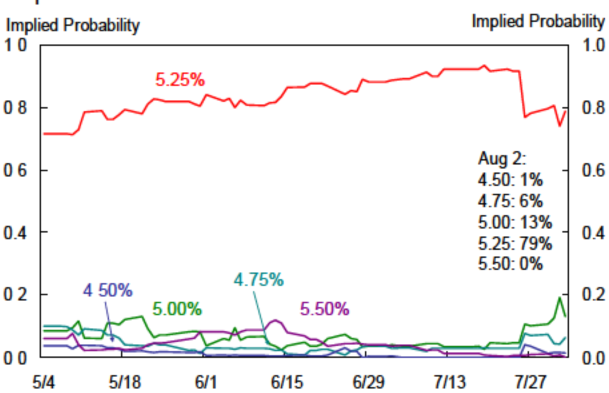
August 2007 FOMC



Source: Cleveland FRB

Note: Estimated using options on fed funds futures.

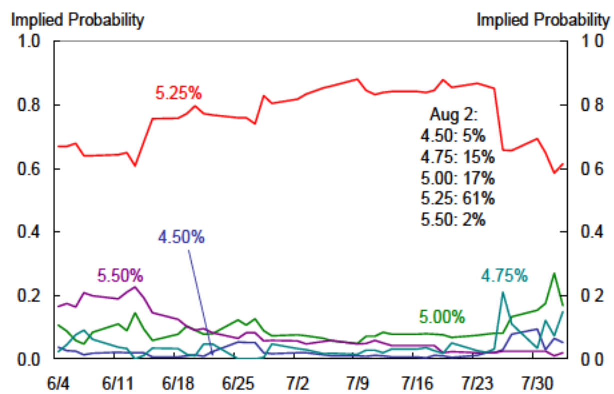
September 2007 FOMC



Source: Cleveland FRB

Note: Estimated using options on fed funds futures.

October 2007 FOMC



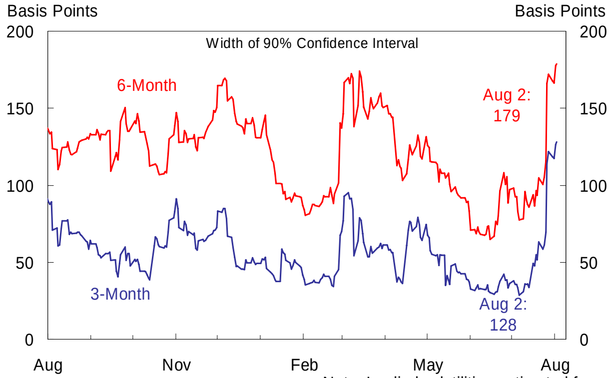
Source: Cleveland FRB

Note: Estimated using options on fed funds futures.

A. Significant Developments

Exhibit A-6:
Policy Uncertainty

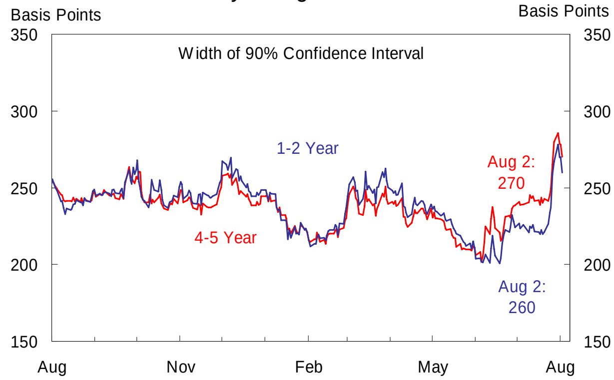
Interest Rate Volatility: Short-Term



Source: Datastream and FRBNY calculations

Note: Implied volatilities estimated from Eurodollar futures options.

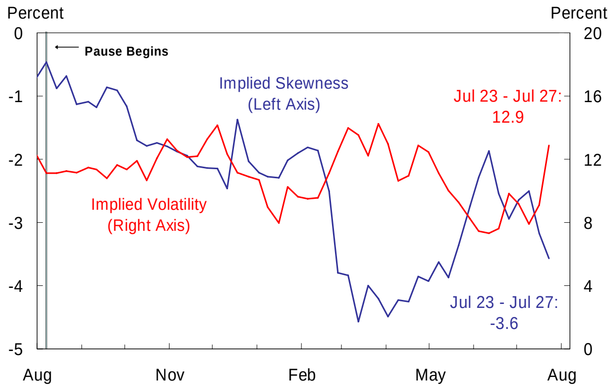
Interest Rate Volatility: Long-Term



Source: FRBNY calculations

Note: Implied volatilities estimated from swaptions.

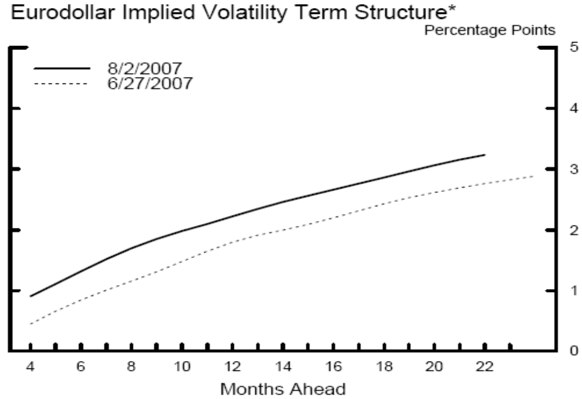
Implied Skewness and Volatility



Source: CME and FRBNY calculations

Note: Weekly averages based on 3-9 month implied volatilities from Eurodollar futures options.

Eurodollar Implied Volatility Term Structure*

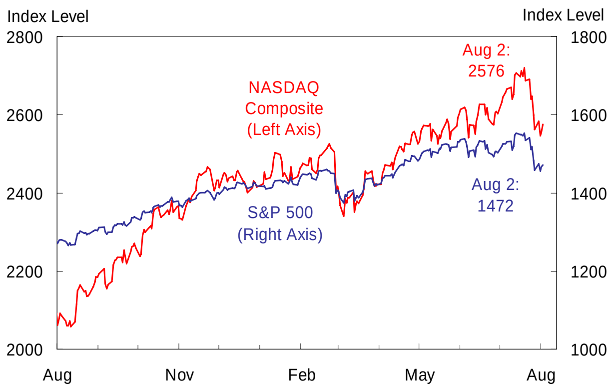


*Width of a 90 percent confidence interval computed from the term structures for the expected federal funds rate and implied volatility.

A. Significant Developments

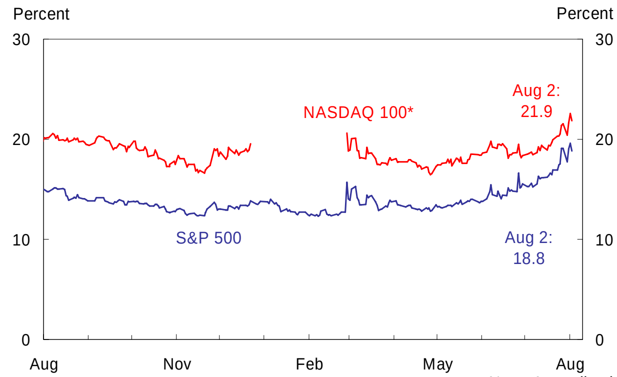
Exhibit A-7: Equity Markets and Corporate Credit Risk

Equity Market Performance



Source: Bloomberg

Implied Volatility: 12 Months

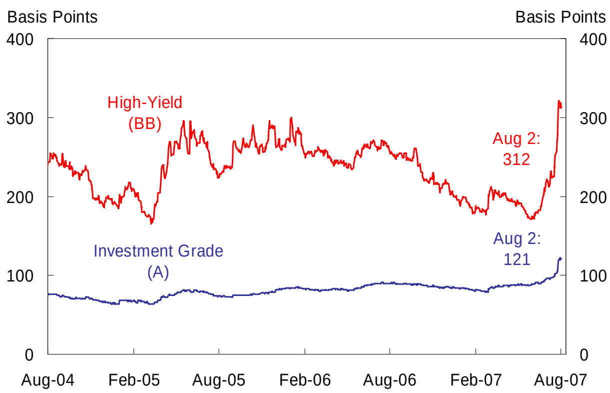


Note: Annualized

Source: OptionMetrics

*Data missing from 12/22/06 to 2/27/07

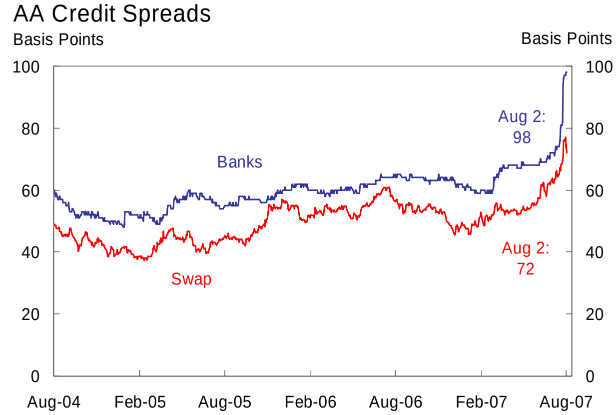
Corporate Credit Spreads



Source: Merrill Lynch

Note: Option-adjusted spreads

AA Credit Spreads

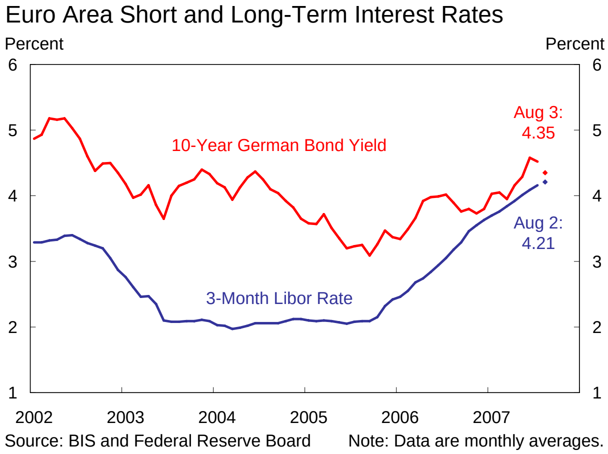


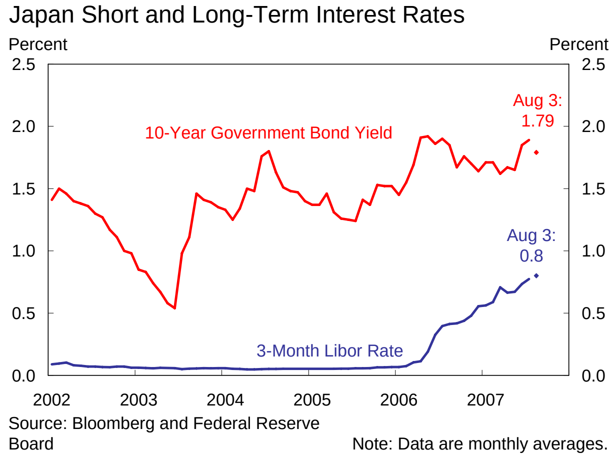
Source: ICAP and Merrill Lynch

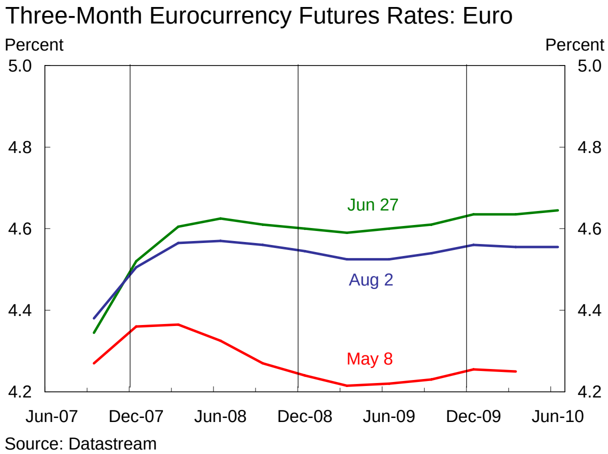
Note: Swap spread is 10-year swap rate minus 10-year Treasury yield and spread for banks is option-adjusted.

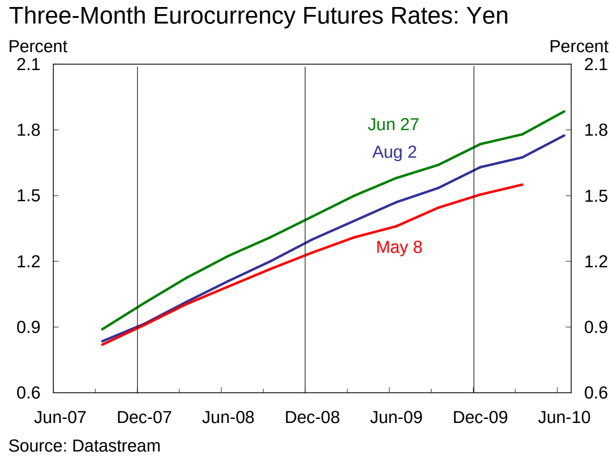
A. Significant Developments

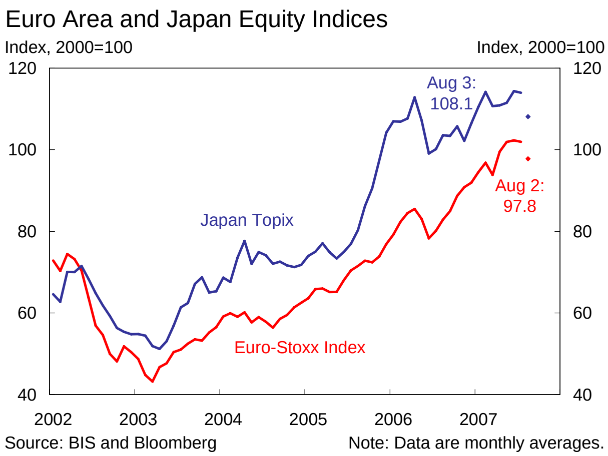
Exhibit A-8: Global Interest Rates and Equity Markets

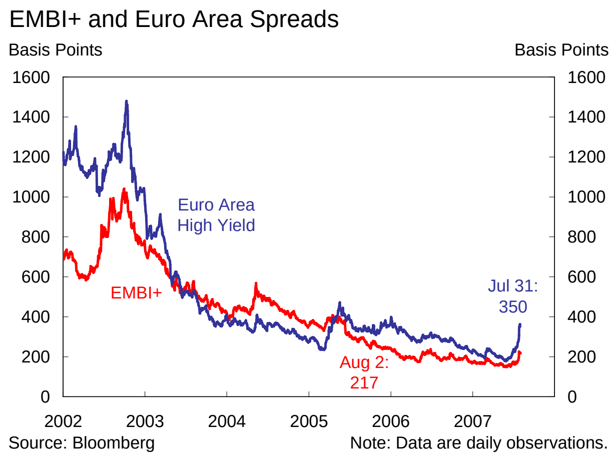








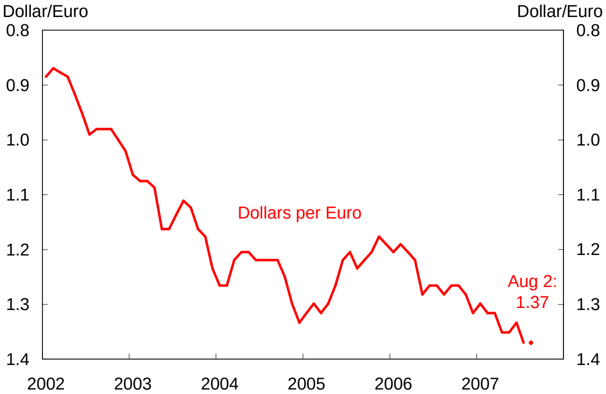




A. Significant Developments

Exhibit A-9:
Exchange Rates

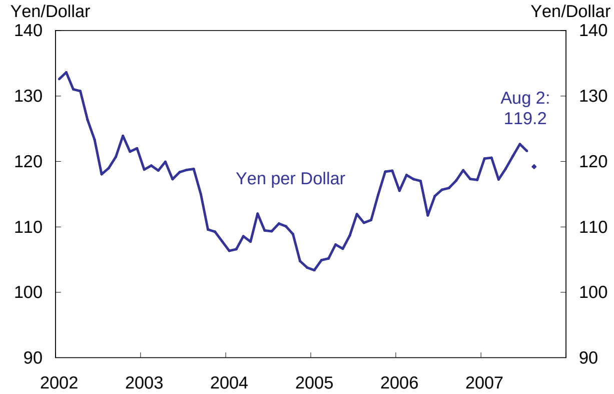
Dollar-Euro Exchange Rate



Source: BIS

Note: Data are monthly averages.

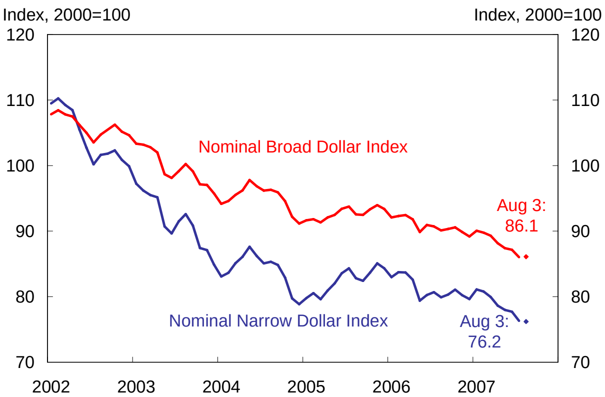
Yen-Dollar Exchange Rate



Source: BIS

Note: Data are monthly averages.

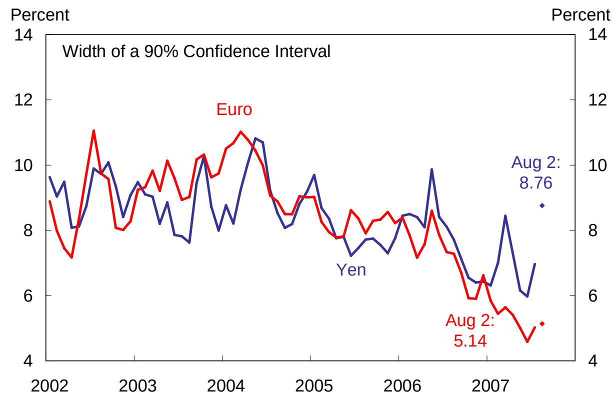
Nominal Effective Exchange Rates



Source: Federal Reserve Board

Note: Data are monthly averages.

Euro and Yen One-Month Implied FX Option Volatility



Source: Reuters

Note: Data are monthly averages.

B. FRBNY Forecast Details

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

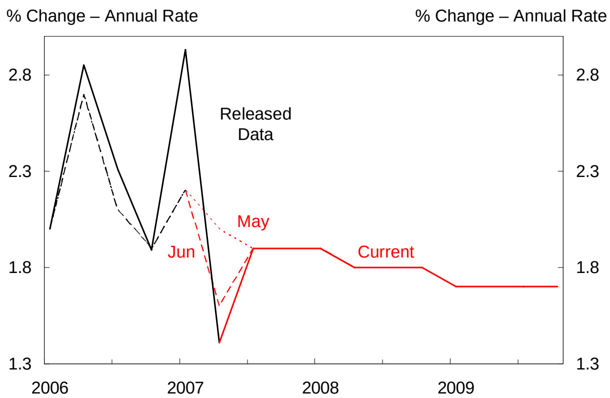
	Core PCE Inflation			Real GDP Growth			Unemployment Rate*			Fed Funds Rate**		
	May	Jun	Aug	May	Jun	Aug	May	Jun	Aug	May	Jun	Aug
2007												
Q1	*2.2*	*2.2*	*2.4*	*1.3*	*0.7*	*0.6*	*4.5*	*4.5*	*4.5*	*5.3*	*5.3*	*5.3*
Q2	2.0	1.6	*1.4*	2.7	3.8	*3.4*	4.6	4.5	*4.5*	5.3	5.3	*5.3*
Q3	1.9	1.9	1.9	3.3	3.0	3.3	4.6	4.6	4.6	5.3	5.3	5.3
Q4	1.9	1.9	1.9	3.1	3.1	2.7	4.6	4.6	4.6	5.0	5.3	5.3
2008												
Q1	1.9	1.9	1.9	2.8	3.0	2.7	4.6	4.6	4.6	5.0	5.3	5.3
Q2	1.8	1.8	1.8	3.2	3.0	2.7	4.6	4.6	4.6	5.0	5.3	5.3
Q3	1.8	1.8	1.8	3.1	3.0	2.7	4.6	4.6	4.6	4.8	5.0	5.0
Q4	1.8	1.8	1.8	3.1	3.0	2.7	4.6	4.6	4.6	4.8	5.0	5.0
2009												
Q1	--	--	1.7	--	--	2.7	--	--	4.6	--	--	5.0
Q2	--	--	1.7	--	--	2.7	--	--	4.6	--	--	5.0
Q3	--	--	1.7	--	--	2.7	--	--	4.6	--	--	4.8
Q4	--	--	1.7	--	--	2.7	--	--	4.6	--	--	4.8
Q4/Q4												
2006	*2.2*	*2.2*	*2.3*	*3.1*	*3.1*	*2.6*	*-0.5*	*-0.5*	*-0.5*	*1.0*	*1.0*	*1.0*
2007	2.0	2.0	1.9	2.7	2.6	2.5	0.1	0.1	0.1	-0.3	-0.3	0.0
2008	1.8	1.8	1.8	3.0	3.0	2.7	0.0	0.0	0.0	-0.3	-0.3	-0.3
2009	--	--	1.7	--	--	2.7	--	--	0.0	--	--	-0.3

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.

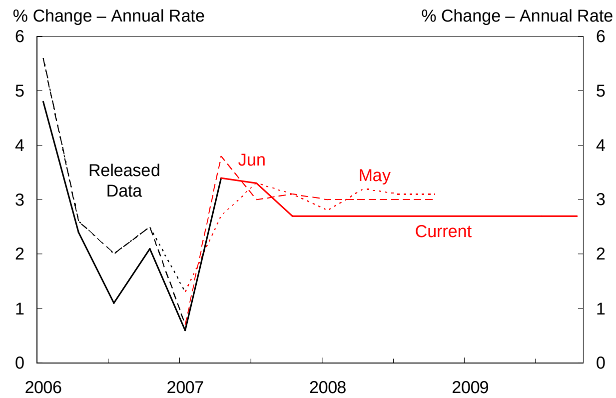
B. FRBNY Forecast Details

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

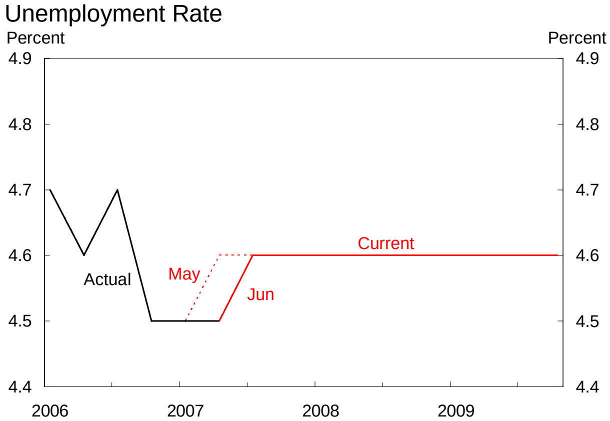
Core PCE Inflation



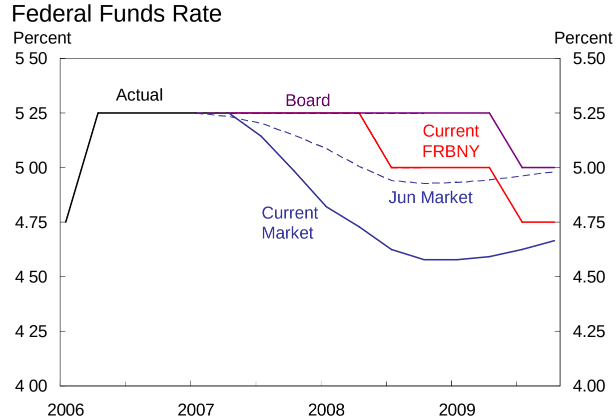
Real GDP Growth



Unemployment Rate

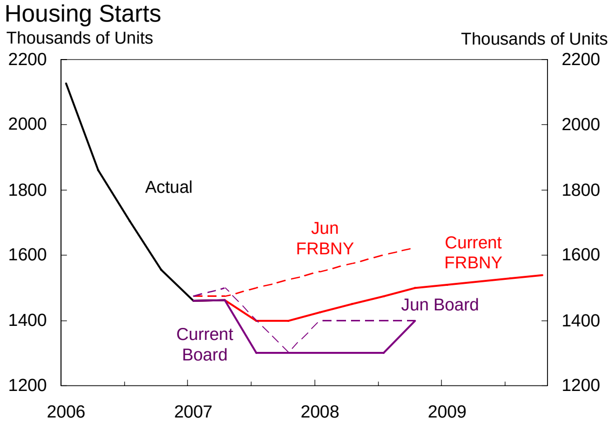


Federal Funds Rate

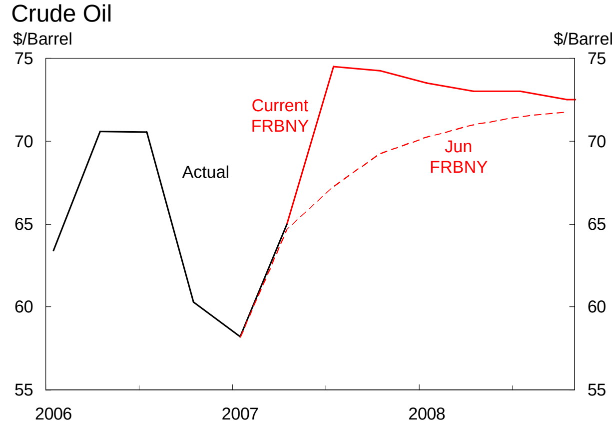


Note: FRBNY and Board Forecasts have not change since June

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)	
	2007Q3	2007Q4	2007Q3	2007Q4
OUTPUT				
Real GDP	3.3	2.7	3.3	2.7
	(3.0)	(3.1)	(3.0)	(3.1)
Final Sales to Domestic Purchasers	2.7	2.4	2.8	2.5
	(2.8)	(3.1)	(2.9)	(3.2)
Consumption	3.0	2.7	2.1	1.9
	(3.0)	(3.0)	(2.1)	(2.1)
BFI: Equipment and Software	6.0	5.0	0.4	0.4
	(6.0)	(6.0)	(0.4)	(0.4)
BFI: Nonresidential Structures	10.0	7.0	0.3	0.2
	(8.0)	(8.0)	(0.3)	(0.3)
Residential Investment	-12.0	-9.0	-0.6	-0.4
	(-10.0)	(-5.0)	(-0.5)	(-0.2)
Government: Federal	3.2	3.0	0.2	0.2
	(3.8)	(3.7)	(0.3)	(0.3)
Government: State and Local	3.0	2.5	0.4	0.3
	(3.0)	(3.0)	(0.4)	(0.4)
Inventory Investment	--	--	0.2	-0.1
	--	--	(0.0)	(0.0)
Net Exports	--	--	0.2	0.3
	--	--	(0.1)	(-0.1)
INFLATION				
Total PCE Deflator	2.2	2.2		
	(2.1)	(2.1)		
Core PCE Deflator	1.9	1.9		
	(1.9)	(1.9)		
PRODUCTIVITY AND LABOR COSTS*				
Output per Hour	2.6	1.8		
	(2.3)	(2.3)		
Compensation per Hour	4.0	7.0		
	(6.3)	(3.9)		
Unit Labor Costs	1.4	5.2		
	(4.1)	(1.6)		

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		
	2007	2008	2009	2007	2008	2009
OUTPUT						
Real GDP	2.5	2.7	2.7	2.5	2.7	2.7
	(2.7)	(3.0)	--	(2.7)	(3.0)	--
Final Sales to Domestic Purchasers	2.2	2.6	2.6	2.3	2.7	2.7
	(2.7)	(3.1)	--	(2.9)	(3.3)	--
Consumption	2.7	2.7	2.7	1.9	1.9	1.9
	(3.3)	(3.0)	--	(2.3)	(2.1)	--
BFI: Equipment and Software	3.4	3.7	3.0	0.2	0.3	0.2
	(5.0)	(5.0)	--	(0.4)	(0.4)	--
BFI: Nonresidential Structures	11.2	4.0	3.0	0.4	0.1	0.1
	(8.5)	(6.0)	--	(0.3)	(0.2)	--
Residential Investment	-11.7	-1.0	3.0	-0.6	0.0	0.1
	(-11.5)	(3.0)	--	(-0.6)	(0.1)	--
Government: Federal	1.5	2.0	1.5	0.1	0.1	0.1
	(1.7)	(2.0)	--	(0.1)	(0.1)	--
Government: State and Local	2.8	2.3	2.2	0.3	0.3	0.3
	(3.2)	(2.5)	--	(0.4)	(0.3)	--
Inventory Investment	--	--	--	-0.1	-0.1	0.0
	--	--	--	(0.0)	(-2.0)	--
Net Exports	--	--	--	0.3	0.1	0.0
	--	--	--	(-2.0)	(-0.1)	--
INFLATION						
Total PCE Deflator	3.1	2.0	1.7			
	(3.0)	(2.1)	--			
Core PCE Deflator	1.9	1.8	1.7			
	(1.9)	(1.8)	--			
Total CPI Inflation	3.7	2.2	1.9			
	(3.7)	(2.3)	--			
Core CPI Inflation	2.1	2.0	1.9			
	(2.1)	(2.0)	--			
GDP Deflator	2.9	2.3	1.9			
	(2.8)	(2.4)	--			

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		
	2007	2008	2009
INTEREST RATE ASSUMPTIONS			
Federal Funds Rate (End-of-Year)	5.25	5.00	4.75
	(5.25)	(5.00)	--
10-Year Treasury Yield (Avg. Q4 Level)	5.1	5.3	5.3
	(5.3)	(5.3)	--
PRODUCTIVITY AND LABOR COSTS*			
Output	2.8	3.0	3.0
	(2.8)	(3.3)	--
Hours	0.9	1.2	1.2
	(0.8)	(1.0)	--
Output per Hour	1.8	1.8	1.8
	(2.0)	(2.3)	--
Compensation per Hour	4.4	4.7	4.7
	(3.6)	(4.7)	--
Unit Labor Costs	2.5	2.9	2.9
	(1.6)	(2.4)	--
LABOR MARKET			
Unemployment Rate (Avg. Q4 Level)	4.6	4.6	4.6
	(4.6)	(4.6)	--
Participation Rate (Avg. Q4 Level)	66.1	66.1	66.1
	(66.0)	(66.0)	--
Monthly Nonfarm Payroll Growth (Thous.)	133	133	135
	(143)	(138)	--
INCOME			
Personal Income	6.6	5.4	5.1
	(6.2)	(5.9)	--
Real Disposable Personal Income	3.0	3.4	3.4
	(3.3)	(4.0)	--
Corporate Profits Before Taxes	1.1	-0.3	0.8
	(0.5)	(0.5)	--

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		
	2007	2008	2009	2007	2008	2009
OUTPUT						
Real GDP	2.5	2.7	2.7	1.9	2.0	--
	(2.7)	(3.0)	--	(2.2)	(2.5)	--
GDP Growth Contributions						
Final Sales to Domestic Purchasers	2.3	2.7	2.7	1.7	1.8	--
	(2.9)	(3.3)	--	(2.1)	(2.6)	--
Consumption	1.9	1.9	1.9	1.6	1.4	--
	(2.3)	(2.1)	--	(1.9)	(1.8)	--
BFI	0.6	0.4	0.3	0.5	0.3	--
	(0.6)	(0.6)	--	(0.4)	(0.5)	--
Residential Investment	-0.6	0.0	0.1	-0.9	-0.2	--
	(-0.6)	(0.1)	--	(-0.8)	(-0.1)	--
Government	0.5	0.4	0.4	0.5	0.3	--
	(0.5)	(0.4)	--	(0.6)	(0.4)	--
Inventory Investment	-0.1	-0.1	0.0	0.1	-0.1	--
	(0.0)	(-0.2)	--	(0.1)	(-0.1)	--
Net Exports	0.3	0.1	0.0	0.3	0.2	--
	(-0.2)	(-0.1)	--	(0.1)	(0.0)	--
INFLATION						
Total PCE Deflator	3.1	2.0	1.7	3.0	1.8	--
	(3.0)	(2.1)	--	(2.9)	(2.0)	--
Core PCE Deflator	1.9	1.8	1.7	2.0	2.0	--
	(1.9)	(1.8)	--	(2.0)	(2.0)	--
INTREST RATE ASSUMPTION						
Fed Funds Rate (End-of-Year)	5.25	5.00	4.75	5.3	5.3	--
	(5.25)	(5.00)	--	(5.25)	(5.25)	--
PRODUCTIVITY AND LABOR COSTS*						
Output per Hour	1.8	1.8	1.8	1.7	2.0	--
	(2.0)	(2.3)	--	(2.1)	(2.5)	--
Compensation per Hour	4.4	4.7	4.7	4.2	4.7	--
	(3.6)	(4.7)	--	(4.0)	(4.9)	--
Unit Labor Costs	2.5	2.9	2.9	2.4	2.7	--
	(1.6)	(2.4)	--	(1.9)	(2.3)	--
LABOR MARKET						
Unemployment Rate (Avg. Q4 Level)	4.6	4.6	4.6	4.7	4.8	--
	(4.6)	(4.6)	--	(4.7)	(4.8)	--
Participation Rate (Avg. Q4 Level)	66.1	66.1	66.1	66.0	65.8	--
	(66.0)	(66.0)	--	(65.9)	(65.8)	--
Monthly Nonfarm Payroll Growth (Thous.)	133	133	135	125.0	75.0	--
	(143)	(138)	--	(117)	(83)	--
HOUSING						
Housing Starts (Avg. Q4 Level, Thous.)	1400	1500	1540	1400.0	1300.0	--
	(1525)	(1625)	--	(1400)	(1400)	--

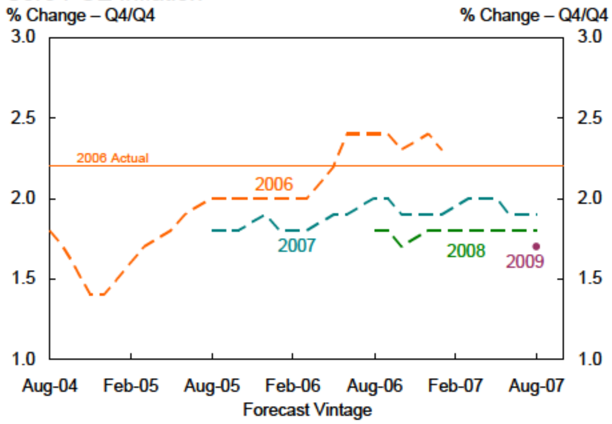
Note: All values are values are Q4/Q4 percent change, unless indicated otherwise. Numbers in parentheses are from the previous Blackbook or Greenbook.
*Nonfarm business sector

B. FRBNY Forecast Details

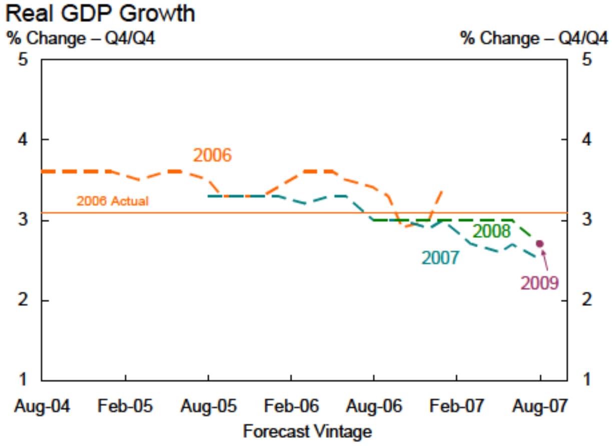
Exhibit B-7: Evolution of FRBNY and Board Forecasts since Mid-2004

FRBNY

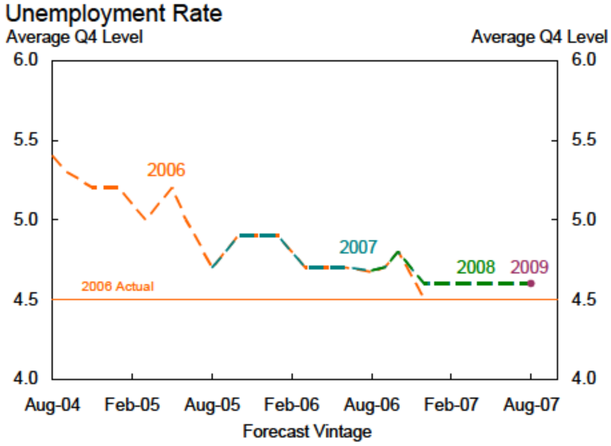
Core PCE Inflation



Real GDP Growth

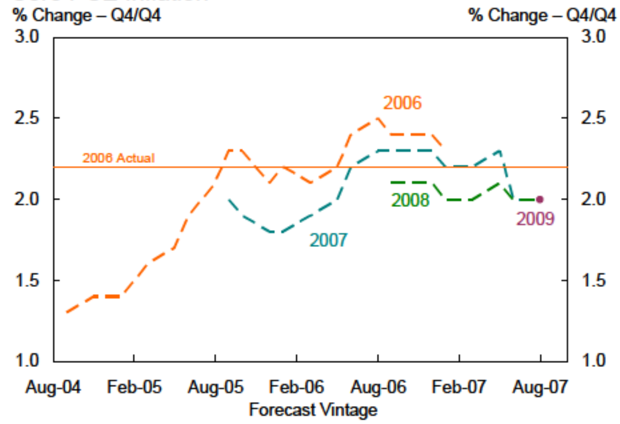


Unemployment Rate

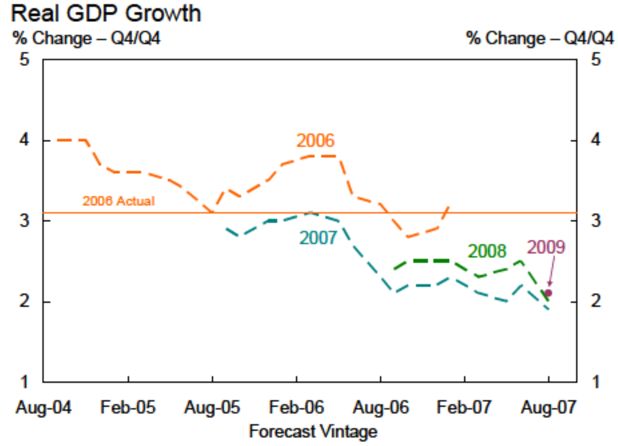


Board

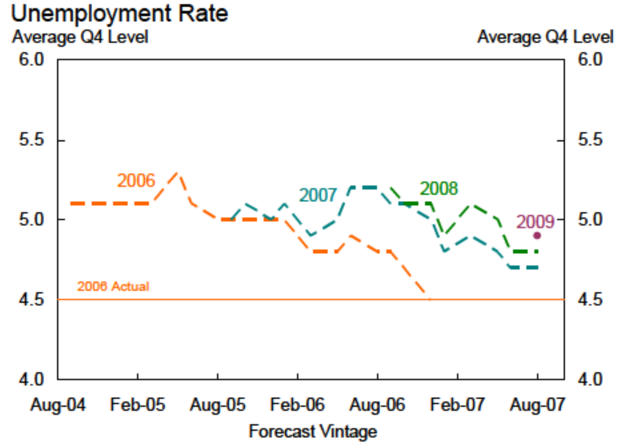
Core PCE Inflation



Real GDP Growth



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 2007Q3	2007Q4	2007 Q4/Q4	2008 Q4/Q4
FRBNY	7/30/2007	3.3	2.7	2.5	2.7
		(3.3)	(3.1)	(2.6)	(3.0)
PSI Model	8/2/2007	2.3	2.8	--	--
		(3.1)	--	--	--
Blue Chip	7/10/2007	2.6	2.8	2.3	2.9
		(2.6)	(2.9)	(2.2)	(3.0)
Median SPF	5/14/2007	2.6	2.9	2.1	2.9
		(3.0)	(3.2)	(2.8)	(3.0)
Macro Advisers	8/2/2007	2.4	2.5	2.2	2.6
		(2.9)	(2.8)	(2.4)	(3.0)

	Release Date	Core PCE Inflation 2007Q3	2007Q4	2007 Q4/Q4	2008 Q4/Q4
FRBNY	7/30/2007	1.9	1.9	1.9	1.8
		(1.9)	(1.9)	(2.0)	(1.8)
Median SPF	5/14/2007	2.1	2.1	2.1	2.1
		(2.0)	(2.0)	(2.0)	(2.0)

	Release Date	CPI Inflation 2007Q3	2007Q4	2007 Q4/Q4	2008 Q4/Q4
FRBNY	7/30/2007	2.8	2.3	3.7	2.2
		(2.4)	(2.3)	(3.1)	(2.3)
Blue Chip	7/10/2007	2.4	2.1	3.4	2.4
		(2.3)	(2.0)	(3.2)	(2.4)
Median SPF	5/14/2007	2.5	2.3	3.2	2.4
		(2.6)	(2.4)	(2.5)	(2.3)
Macro Advisers	8/2/2007	2.6	2.1	3.6	2.1
		(2.7)	(2.4)	(3.7)	(2.3)

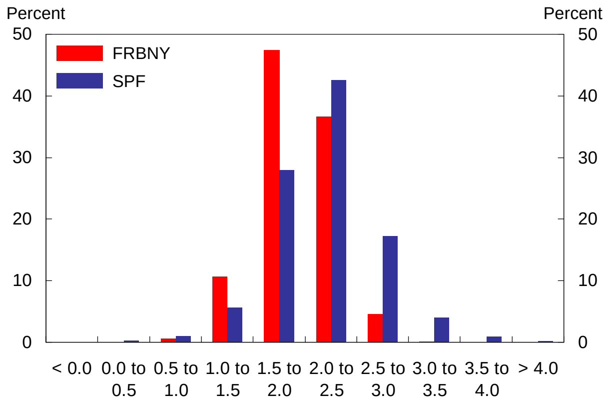
	Release Date	Core CPI Inflation 2007Q3	2007Q4	2007 Q4/Q4	2008 Q4/Q4
FRBNY	7/30/2007	2.1	2.1	2.1	2.0
		(2.3)	(2.1)	(2.3)	(2.1)
Median SPF	5/14/2007	2.3	2.3	2.3	2.3
		(2.3)	(2.3)	(2.3)	(2.3)
Macro Advisers	8/2/2007	2.4	2.4	2.2	2.2
		(2.3)	(2.3)	(2.2)	(2.3)

Note: Numbers in parentheses are from previous releases. Previous release of SPF is February and of all others is June. All values are quarterly percent changes at an annual rate.

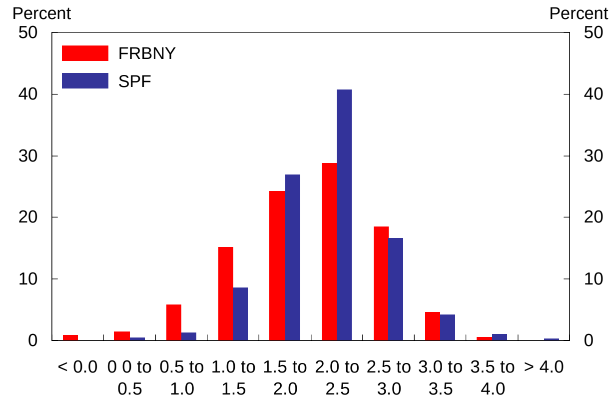
B. FRBNY Forecast Details

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

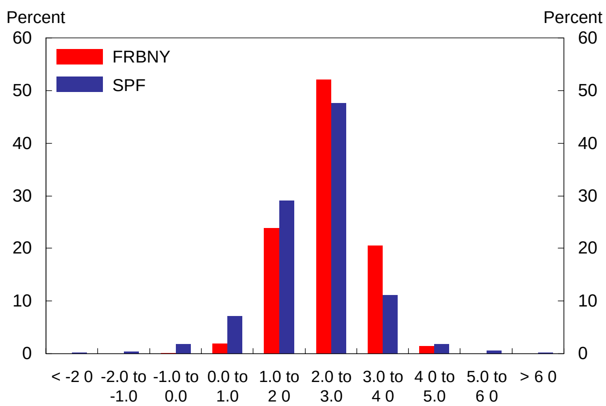
2007Q4/Q4 Core PCE Inflation Probabilities



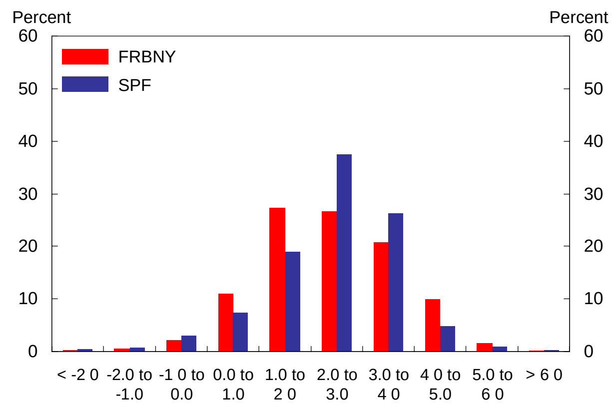
2008Q4/Q4 Core PCE Inflation Probabilities



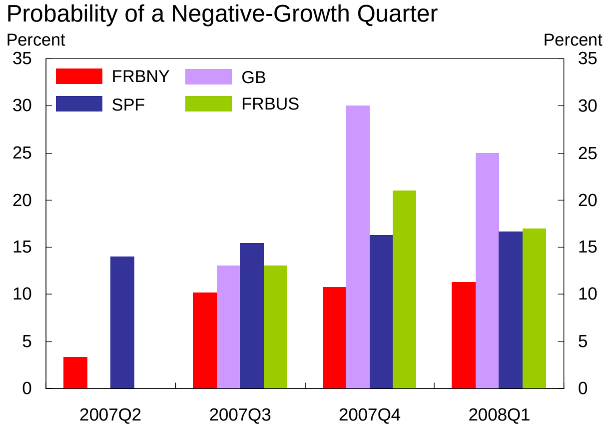
2007/2006 Real GDP Growth Probabilities



2008/2007 Real GDP Growth Probabilities



Probability of a Negative-Growth Quarter

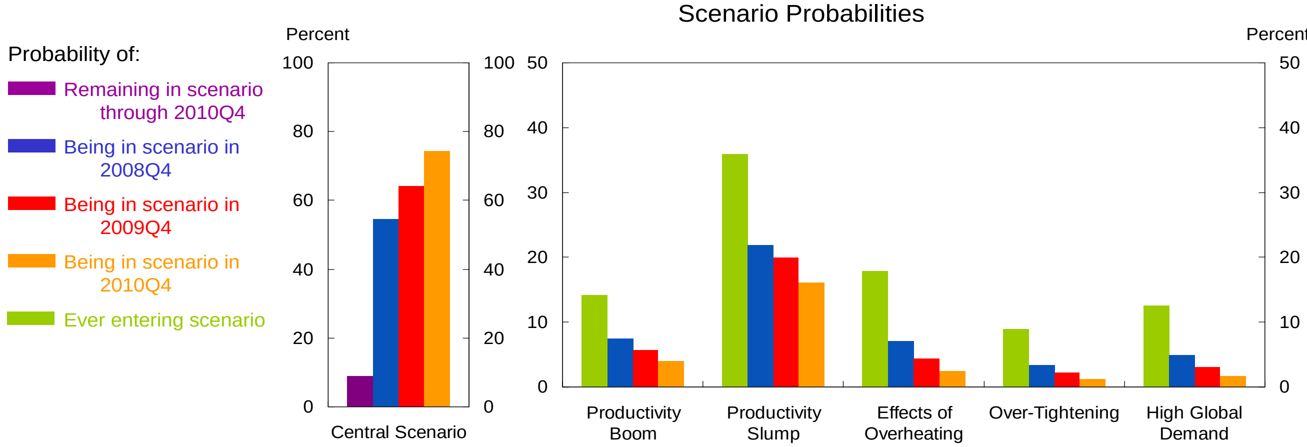


Source: MMS Function (FRBNY), FRB Philadelphia Survey of Professional Forecasters, and Federal Reserve Board
Note: SPF forecast was released May 14, 2007. Board forecasts are from the Greenbook.

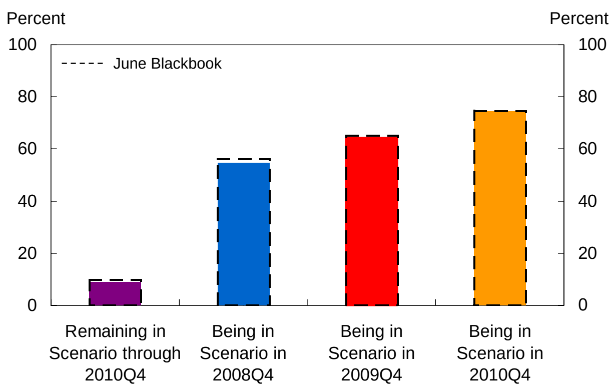
C. FRBNY Forecast Distributions

Exhibit C-1: Risks

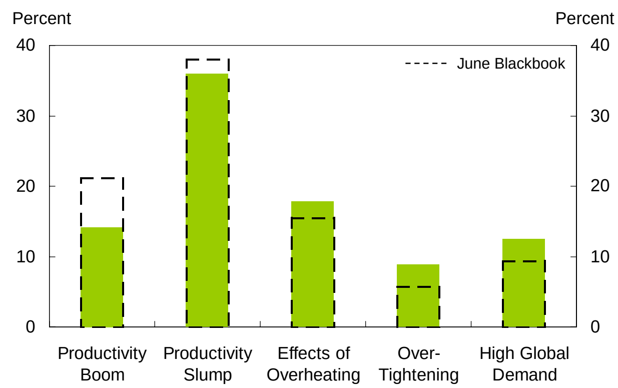
Scenario Probabilities



Change in Central Scenario Probabilities



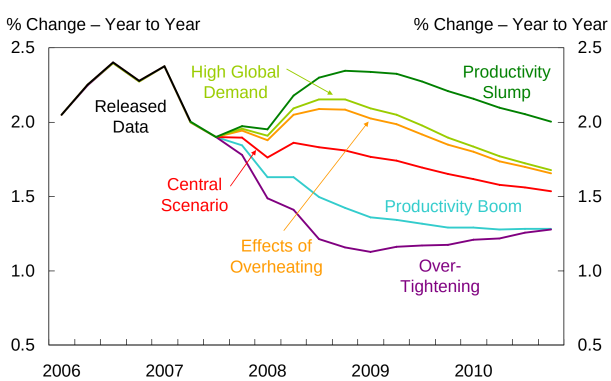
Change in Alternative Scenario Probabilities*



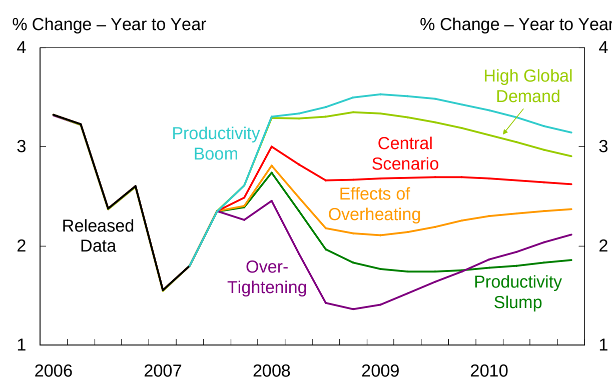
*Probability of ever reaching scenario

Exhibit C-2: Projections under Alternative Scenarios

Core PCE Inflation under Alternative Scenarios



Real GDP Growth under Alternative Scenarios

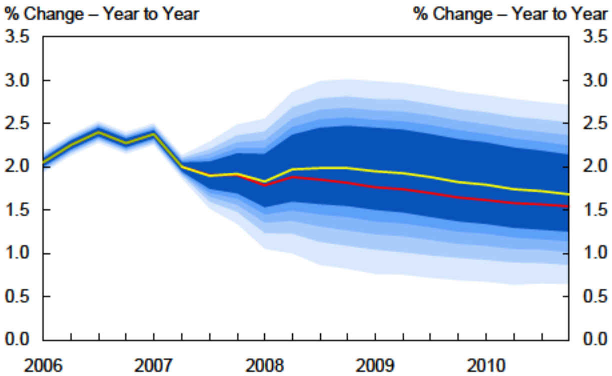


Source: MMS Function (FRBNY)

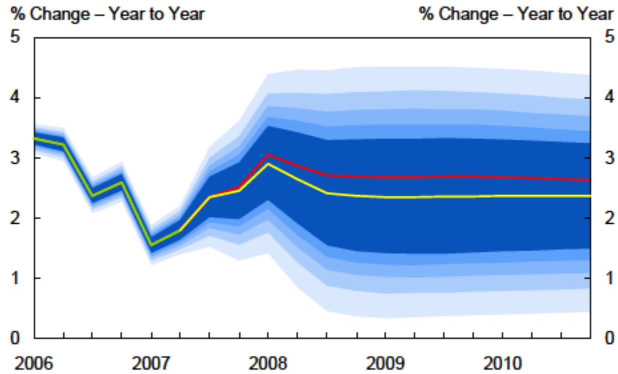
C. FRBNY Forecast Distributions

Exhibit C-3: Inflation and Output Forecast Distributions

Core PCE Inflation Forecast Distribution

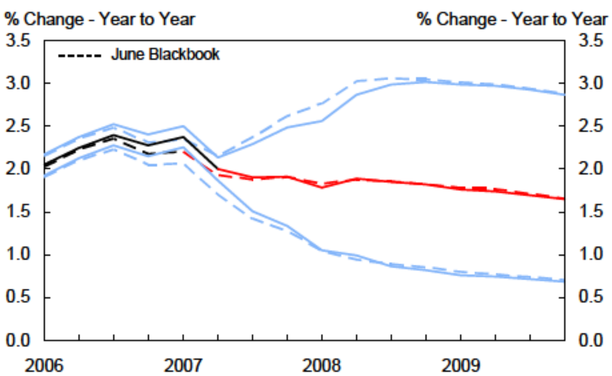


Real GDP Growth Forecast Distribution

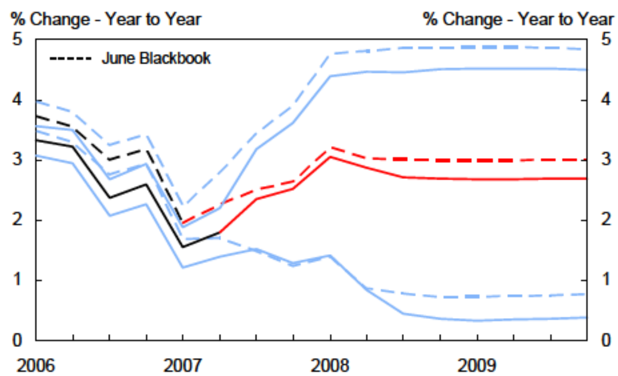


The yellow line is the expected value of the forecast distribution, the red line is the central scenario projection, and the green line is released data. The shading represents the 50, 60, 70, 80, and 90 percent chance that the four-quarter change will be within the respective range.

Change in Core PCE Inflation Forecast Distribution

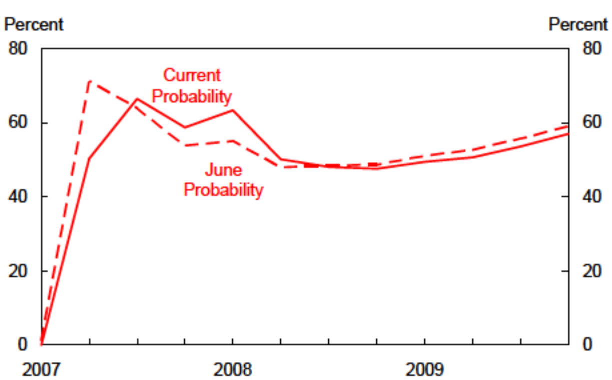


Change in Real GDP Growth Forecast Distribution

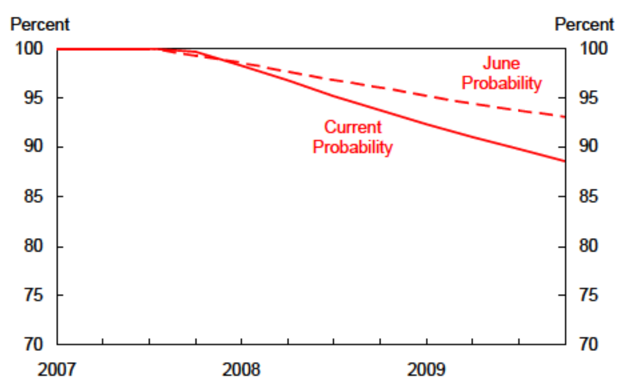


The blue lines are the 90% chance the four-quarter change will be within the lines, the red line is the central scenario projection, and the black line is released data. Dashed lines represent forecasts from previous Blackbook.

Probability of Four-Quarter Core PCE Inflation below 2%



Probability of Continuing Expansion*



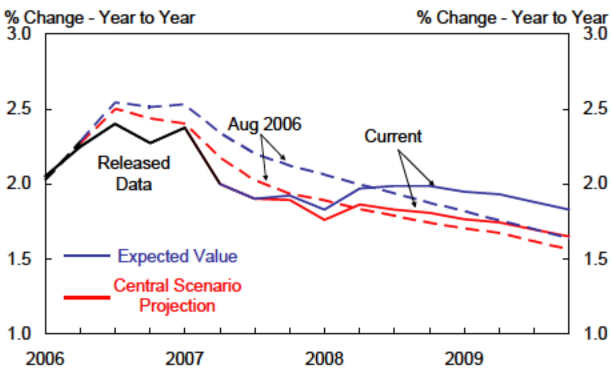
*No two consecutive quarters of negative growth

Source: MMS Function (FRBNY)

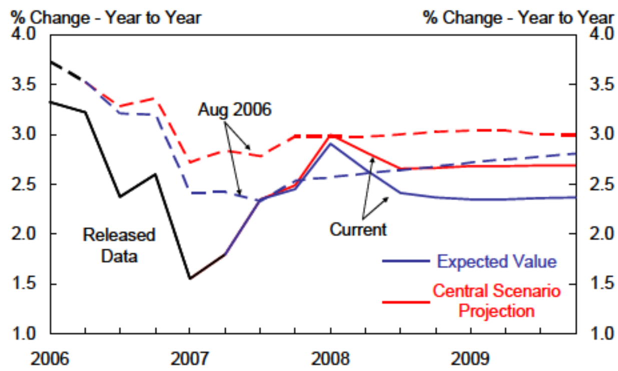
C. FRBNY Forecast Distributions

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

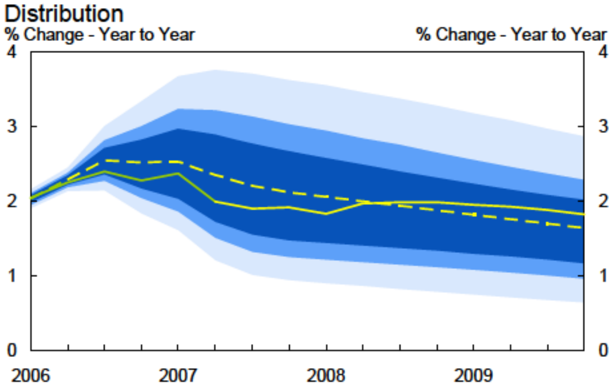
One-Year Comparison of Core PCE Inflation Forecast



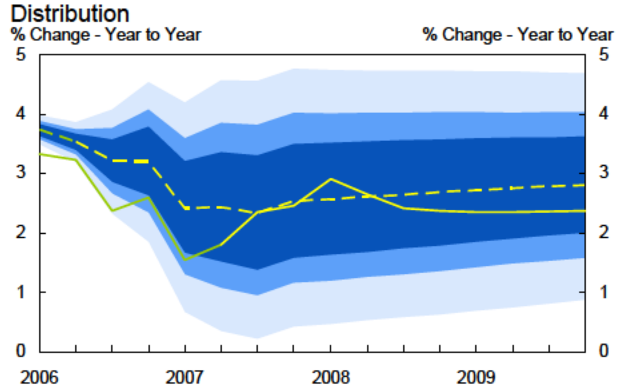
One-Year Comparison of Real GDP Growth Forecast



One-Year Comparison of Core PCE Inflation Forecast Distribution



One-Year Comparison of Real GDP Growth Forecast Distribution



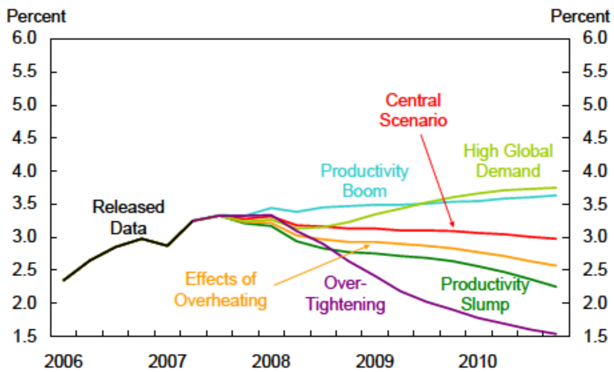
The solid yellow line is the **current** expected value of the forecast distribution, while the dashed yellow line is the **August 2006** expected value. The shading represents the 50, 75 and 90 percent probability intervals from the **August 2006** forecast. The green lines are released data.

Source: MMS Function (FRBNY)

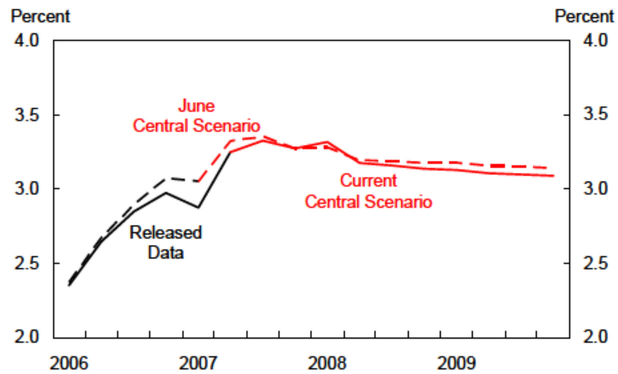
D. FRBNY Fed Funds Rate Projections

Exhibit D-1: *Baseline*
Policy Rule Analysis

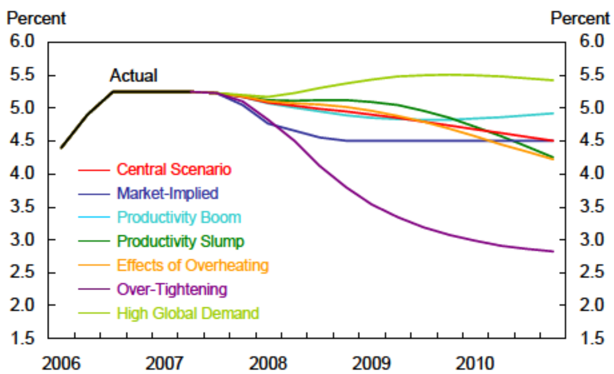
Real FFR under Alternative Scenarios



Change in Central Scenario Real FFR



Nominal FFR under Alternative Scenarios



Change in Central Scenario and Market-Implied Nominal FFR

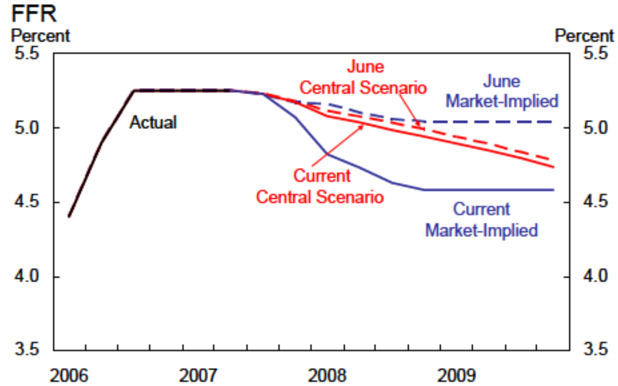
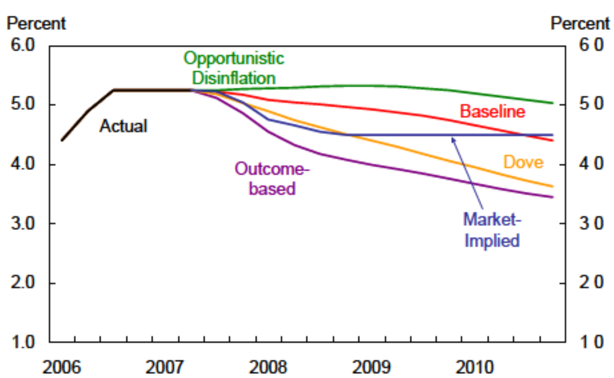


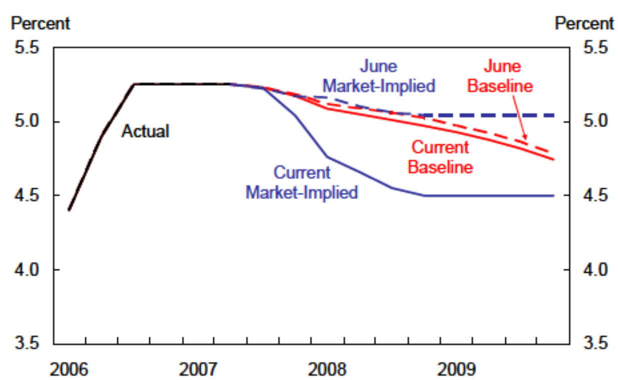
Exhibit D-2: Alternative Policy Rules under
Expected Value of Forecast Distribution

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

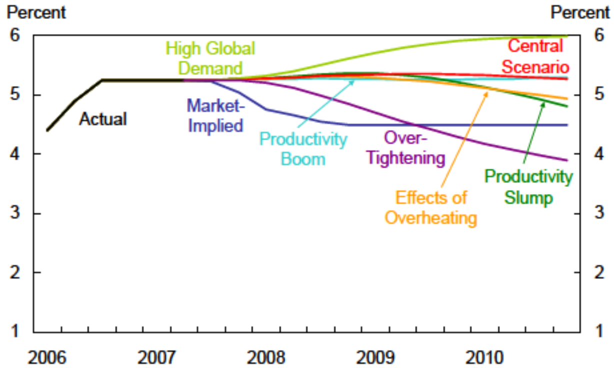
Source: MMS Function (FRBNY)

D. FRBNY Fed Funds Rate Projections

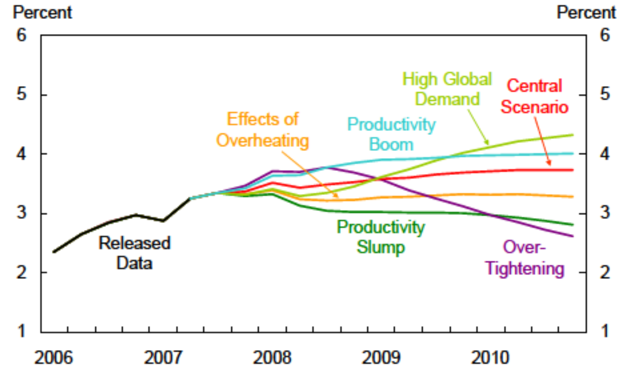
Exhibit D-3: Alternative Policy Rule Analysis

Policy Rule: *Opportunistic Disinflation*

Nominal FFR under Alternative Scenarios

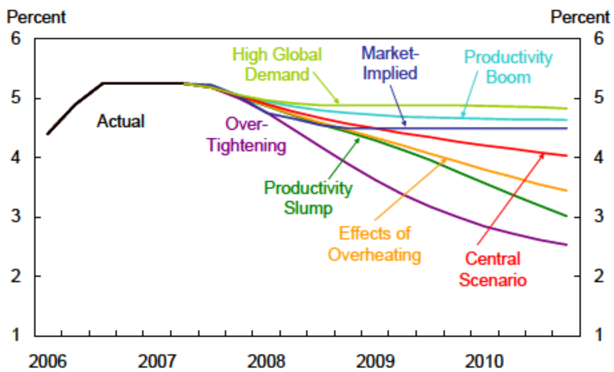


Real FFR under Alternative Scenarios

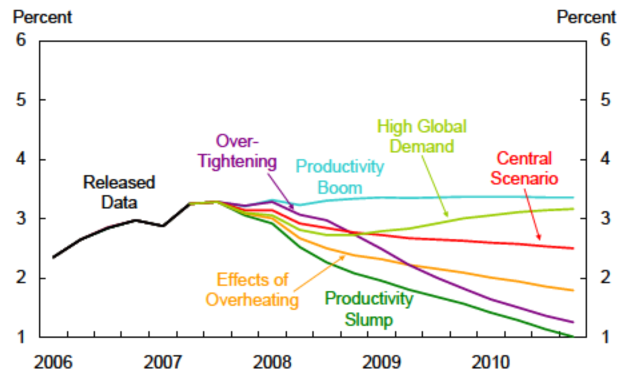


Policy Rule: *Dove*

Nominal FFR under Alternative Scenarios

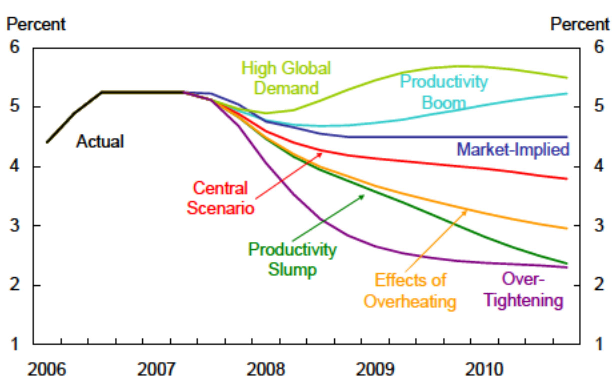


Real FFR under Alternative Scenarios

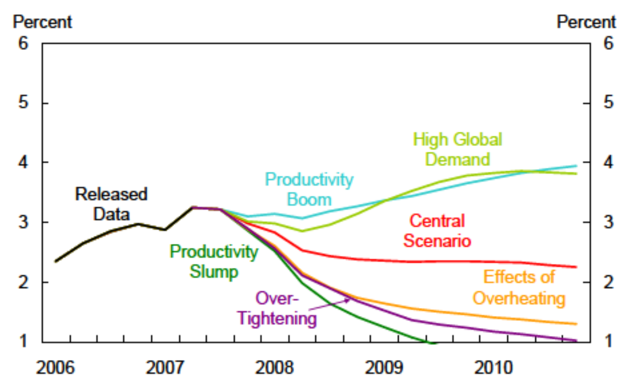


Policy Rule: *Outcome-based*

Nominal FFR under Alternative Scenarios



Real FFR under Alternative Scenarios



Source: MMS Function (FRBNY)

D. FRBNY Fed Funds Rate Projections

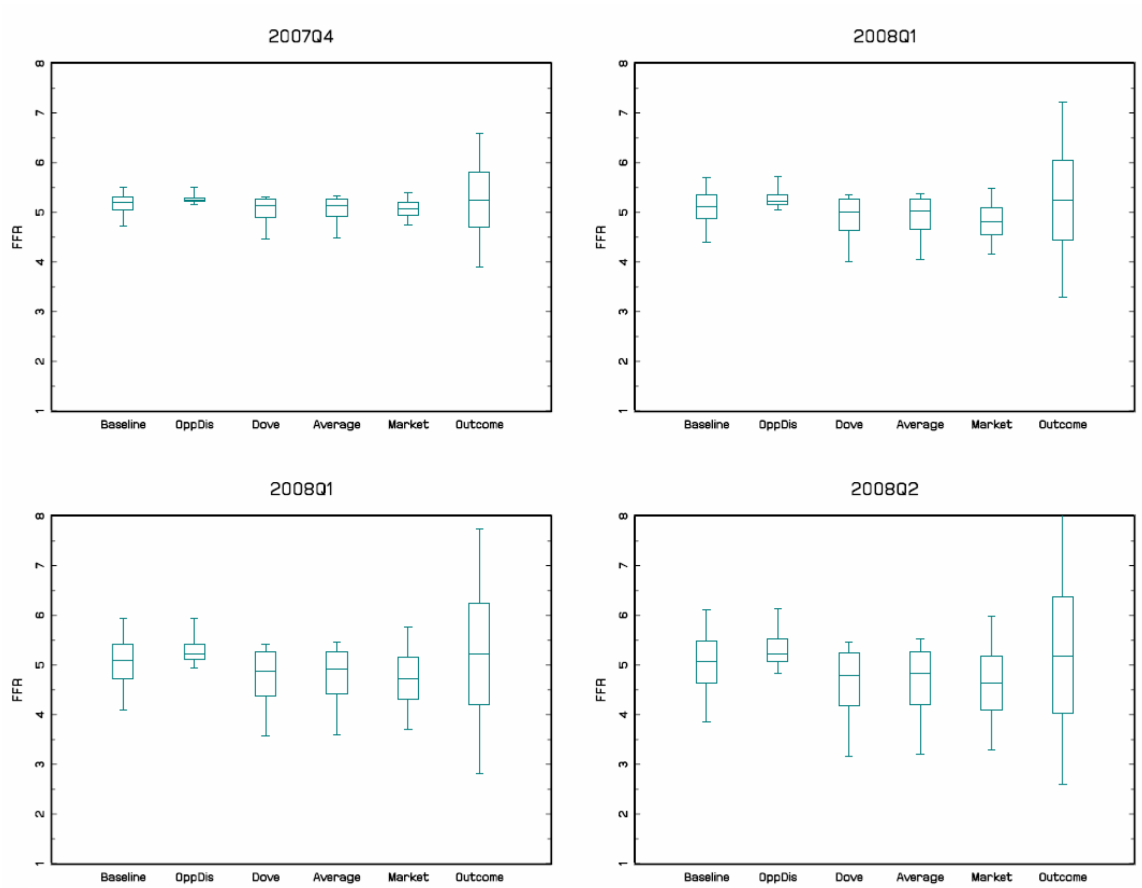
Exhibit D-4: Comparison between Market and Policy Rule FFR Expectations: 2008Q2

	Percentile of Rule Expectation in Market Distribution	Percentile of Market Expectation in Rule Distribution
Baseline	73 (49)	21 (47)
Opportunistic Disinflation	85 (62)	1 (25)
Dove	56 (24)	38 (64)
Outcome-based	83 (61)	35 (46)
Average	57 (52)	36 (40)

"Average" Weights:

Rule	Current	June Blackbook
Baseline	0.10	0.40
Opportunistic Disinflation	0.00	0.50
Dove	0.90	0.10

Exhibit D-5: FFR Distributions



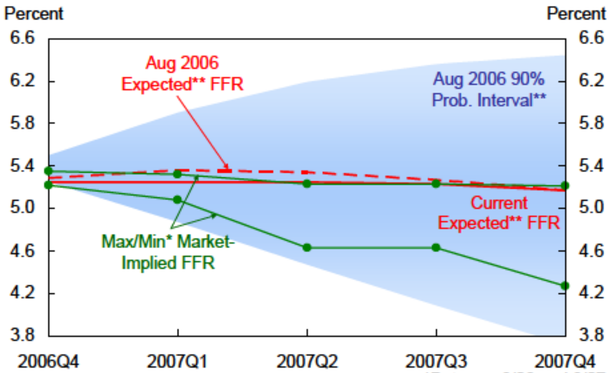
Note: The box represents the 50% probability interval, the line in the box the median, and the tails the 90% probability interval.

Source: MMS Function (FRBNY)

D. FRBNY Fed Funds Rate Projections

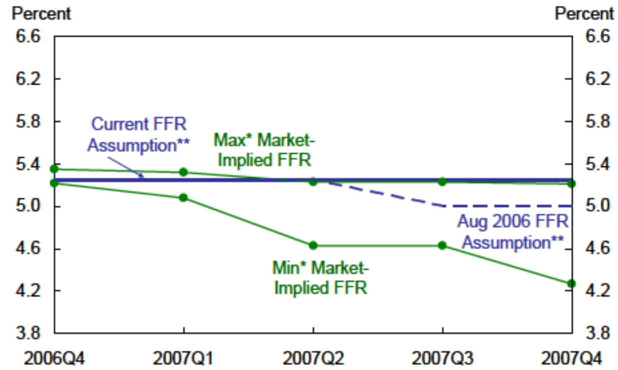
Exhibit D-6: Evolution of FFR Expectations and Assumption

FFR Forecast Distribution and Market-Implied FFR



*Between 8/06 and 8/07
**Using Baseline rule

FFR Conditioning Assumption and Market-Implied FFR



*Between 8/06 and 8/07
**Conditioning assumption for FRBNY central forecast

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*

The recent decline in productivity growth might prove to be a temporary, cyclical one. In this case, it is possible we will return to the strong productivity growth 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 18th 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. Strong productivity growth would also limit labor cost pressures and thereby help to subdue inflation.

Alternative 2: *Productivity Slump*

It is possible that the upswing in productivity that began in the mid-1990s has ended as the IT-driven surge has run it course. This would mean a period of productivity growth below the trend in our central forecast. Furthermore, the increase in the level and volatility of energy and commodity prices could continue and cause 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 three additional scenarios, two related to the impact of past monetary policy and possible misperceptions of its past and current stances, and one related to the impact of developments in the global economy.

Alternative 3: *Effects of Overheating*

Motivated principally by concerns over the prospect of deflation, the FOMC adopted a deliberately accommodative policy stance in the aftermath of the global slowdown of 2000-2003. It is possible the FOMC markedly underestimated the equilibrium real interest rate (i.e. overestimated the degree of slack in the real resources) during this period. In this case, their accommodative policy would have stimulated aggregate demand growth in excess of potential and, ultimately, triggered inflation. The above-potential output growth in 2004-mid-2006 and the persistent above-target inflation are consistent with such a scenario, as is the abrupt slowdown in real output growth that began in mid-2006. If this overheating episode occurred, it has likely passed already; however, there is a risk its effects will linger in the form of slightly above-forecast inflation and slightly below-forecast output growth.

Developments in the global economy during this period may have contributed to the economic conditions that motivated the initial policy and may also have made it more difficult for the FOMC to identify the overheating in real time. For example, one likely factor contributing to the deflation scare in the early part of this decade was the downward pressure on global goods prices triggered largely by growth in emerging economies' labor forces. Another critical factor may have been the exchange rate policies that a number of emerging market central banks adopted over this period. These polices, which were aimed at strengthening the dollar relative to their domestic currency, may have put significant downward pressure on long-term interest rates both in the U.S. and around the world, and in doing so, may have made it more difficult to correctly assess the equilibrium real interest rate during this period.

Alternative 4: *Over-Tightening*

We base our outlook on the assumption that the neutral policy rate is between 4.25% and 4.75%, with an implicit core PCE inflation target of 1.5%. For the past few years, however, core PCE inflation has been running above 2%. This combination of factors is consistent with recent fed funds rate levels and, if above-target inflation continues, is consistent with holding the FFR above 5%. We see some risk, however, that these inflation levels are a lagging indicator of demand pressures that have already subsided. We also see some risk that the neutral rate is actually lower than we assume. If either of these were true, it would imply recent policy has been more restrictive than necessary, which would cause the economy to slow significantly below potential over the forecast horizon.

Alternative 5: *High Global Demand*

Recent global growth, most notably in China and other emerging markets, has been robust; at the same time, low unemployment rates and relatively high capacity utilization rates in advanced economies outside the U.S. indicate there is little slack in the global economy. If these developments continue, there is a risk that high demand for U.S. exports will raise output growth above the level in the central forecast. At the same time, the strength in global demand could cause it to outpace supply, further pushing up commodity prices (and especially energy prices) and beginning to push up the price of imported manufactured goods. These increases would likely cause above-forecast inflation in the U.S.

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. *Effects of Overheating*: inflation above central forecast, output slightly below central forecast.

4. *Over-Tightening*: inflation below central forecast, output far below central forecast.
5. *High Global Demand*: inflation above central forecast, output above 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)

$i^* = 4.5$ (neutral FFR)

$\pi^* = 1.5$ (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

i_{t-1} : interest rate in previous quarter

Because we know that any given FFR move will be in increments of 0.25 within the quarter, we round the *Baseline* and alternative policy rule prescriptions for the upcoming quarter. This serves to both capture some of the discreteness in FFR movements and to smooth the FFR paths from the current to the upcoming quarter. We currently perform this exercise according to the following table, where r* is the actual output from the policy rule:

Policy Rule Prescription	Average FFR in Upcoming Quarter
r* < 3.00	r*
3.00 < r* < 3.75	4.00
3.75 < r* < 4.00	4.50
4.00 < r* < 4.75	4.75
4.75 < r* < 5.00	5.00
5.00 < r* < 5.50	5.25
5.50 < r* < 6.00	5.50
r* > 6.00	r*

We then feed these modified values into the policy rules to calculate the remaining FFR values.

The two variants of the *Baseline* rule that we use this cycle are the *Opportunistic Disinflation* and *Dove* rules. The *Opportunistic Disinflation* rule reacts more strongly than the *Baseline* rule to deviations of inflation from target when inflation is above the upper bound of the implicit target range (taken to be 2%) and falling. In such circumstances, it tends to raise the policy rate higher, then lower it more slowly than the *Baseline* rule. Specifically, in each quarter over the forecast horizon, if the four-quarter average of core PCE inflation in the prior quarter is above 2% and higher than the current quarter value, we substitute the prior quarter's core PCE inflation value for the current quarter's value in the *Baseline* policy rule specification (i.e. set $\pi_t = \pi_{t-1}$). In all other cases we follow the *Baseline* rule prescription. Thus, if the four-quarter average of inflation in the last quarter is below the value for the current quarter or simply below 2%, the *Opportunistic Disinflation* rule offers the same prescription as the *Baseline* rule.

The *Dove* rule reacts more strongly than the *Baseline* rule to a negative output gap. When the output gap is negative, the *Dove* rule increases the weight on deviations of output from potential (φ_x = 1 instead of 0.5). When the output gap is positive, however, the *Dove* rule offers the same prescription as the *Baseline* rule (φ_x = 0.5, as usual).

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 previous quarters using parameters estimated from real-time historical data (1988-2006)[1].

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

Using a weighting scheme, it is possible to combine the *Baseline* and the two variants into an *Average* rule that may better reflect market beliefs about FOMC preferences and views of the structure of the economy than does any individual rule. (That is, we can think of the market-implied path as reflecting an amalgam of different perceived FOMC preferences, etc.) Each cycle we construct the *Average* rule by taking the weighted average of the *Baseline* rule and two FRBNY-derived variants that matches the market-implied path as closely as possible. The weights from the current and previous cycles are provided in the note to Exhibit D-4. Examining the change in the weights used to construct the *Average* rule from one cycle to the next can provide insight into the reasons behind shifts in the market path not explained by changes in the outlook.

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