Prefatory Note

The attached document represents the most complete and accurate version available based on original files from the FOMC Secretariat at the Board of Governors of the Federal Reserve System.

Please note that some material may have been redacted from this document if that material was received on a confidential basis. Redacted material is indicated by occasional gaps in the text or by gray boxes around non-text content. All redacted passages are exempt from disclosure under applicable provisions of the Freedom of Information Act.

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Class I FOMC – Restricted Controlled (FR)

Report to the FOMC on Economic Conditions and Monetary Policy

Book B

Monetary Policy: Strategies and Alternatives

October 28, 2010

Prepared for the Federal Open Market Committee
by the staff of the Board of Governors of the Federal Reserve System

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Monetary Policy Strategies

The exhibit "Equilibrium Real Federal Funds Rate" displays estimates of short-run *r**, defined as the real federal funds rate that, if maintained over time, would return output to its potential in twelve quarters. Compared to the estimates for 2010Q4 made in September, most estimates of short-run *r** in the current Tealbook have moved up, as improved financial conditions—notably the reductions in interest rates, increases in equity prices, and the decline in the foreign exchange value of the dollar—have produced a stronger near-term staff projection for real activity.[1] In particular, the Tealbook-consistent estimate of short-run *r** generated by the FRB/US model has increased by 30 basis points, to minus 1.9 percent, and the EDO model's Tealbook-consistent *r** estimate has increased to minus 2.3 percent. In contrast, the estimates of short-run *r** generated from both models using their own projections and without conditioning on the staff's financial assumptions have remained unchanged. The estimates of short-run *r** from the single-equation model and the small structural model are conditioned on the staff's assessment of recent output gap behavior. As the staff has revised downwards its judgment about the level of potential GDP, both models' estimates of short-run *r** have increased since September, but remain at very low levels.

As discussed in Part A of the Tealbook, the recent easing in financial conditions—and therefore most of the improvement in the staff outlook—is reportedly due to market participants' growing confidence that the Federal Reserve will soon undertake further asset purchases. Net of the effects on asset prices of anticipated further Federal Reserve measures, the short-run value of r* implicit in the staff forecast would likely remain about unchanged.

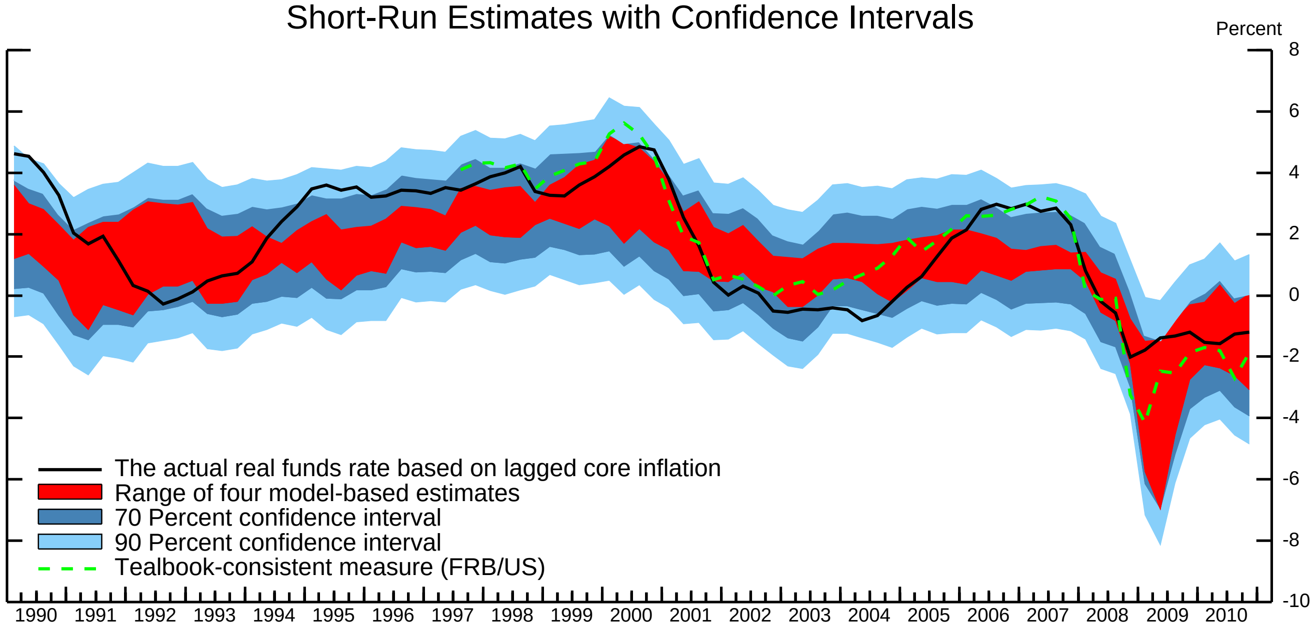
The exhibit "Constrained vs. Unconstrained Monetary Policy" displays the policy prescriptions produced by optimal control simulations of the FRB/US model based on the extended staff baseline projection, which as discussed in Tealbook Book A incorporates the effects of $600 billion in additional asset purchases by the Federal Reserve. In these simulations, policymakers are assumed to place equal weight on keeping core PCE

[1] Even in the absence of a shift in the staff outlook, estimates of *r** may change when the Tealbook is early in the quarter because the twelve-quarter horizon covered by the calculation rolls forward one quarter relative to the previous Tealbook. Consequently, the comparisons made here do not refer to the estimates for 2010Q3 shown in the last Tealbook, but to estimates for 2010Q4, which were computed in September and which are reported in the column labeled "Current Quarter Estimate as of Previous Tealbook."

Strategies

Equilibrium Real Federal Funds Rate

Short-Run Estimates with Confidence Intervals



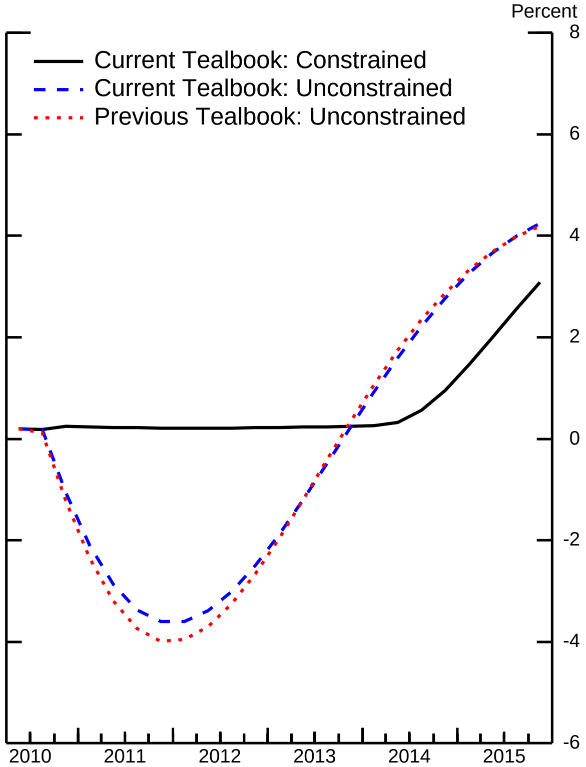
Short-Run and Medium-Run Measures

	Current Tealbook	*Current Quarter Estimate as of Previous Tealbook*	*Previous Tealbook*
Short-Run Measures			
Single-equation model	-2.4	*-2.7*	*-2.4*
Small structural model	-2.7	*-3.1*	*-2.8*
EDO model	0.1	*0.1*	*0.6*
FRB/US model	-3.1	*-3.1*	*-3.3*
Confidence intervals for four model-based estimates			
70 percent confidence interval	-3.9 to 0.0		
90 percent confidence interval	-4.9 to 1.3		
Tealbook-consistent measures			
EDO model	-2.3	*-2.8*	*-3.7*
FRB/US model	-1.9	*-2.2*	*-2.4*
Medium-Run Measures			
Single-equation model	1.2	*1.1*	*1.1*
Small structural model	1.2	*1.2*	*1.2*
Confidence intervals for two model-based estimates			
70 percent confidence interval	0.3 to 2.1		
90 percent confidence interval	-0.3 to 2.8		
TIPS-based factor model	2.0		*2.0*
Memo			
Actual real federal funds rate	-1.2		*-1.2*

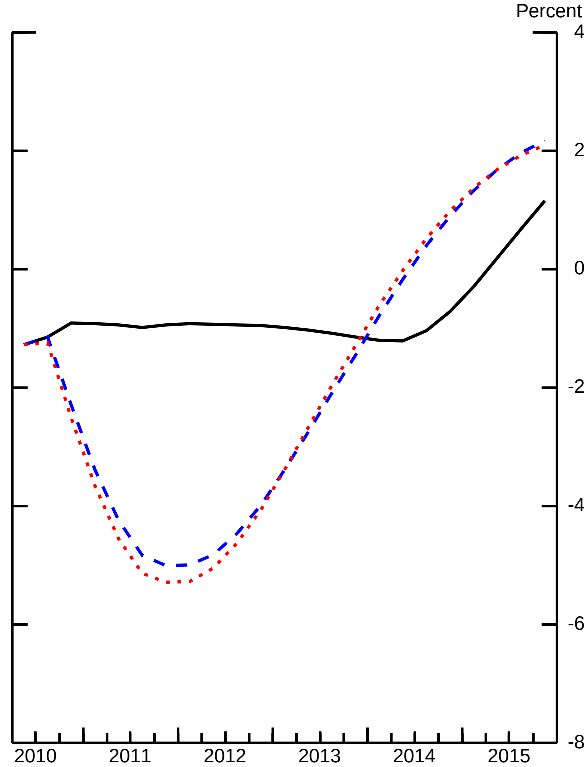
Note: Explanatory Note A provides background information regarding the construction of these measures and confidence intervals. The actual real federal funds rate shown is based on lagged core inflation as a proxy for inflation expectations. For information regarding alternative measures, see Explanatory Note A. Estimates of r* may change at the beginning of a quarter even when there is no shift in the staff outlook because the twelve quarter horizon covered by the calculation has rolled forward one quarter. Therefore, whenever the Tealbook is published early in the quarter, this table includes a third column labeled "Current Quarter Estimate as of Previous Tealbook."

Constrained vs. Unconstrained Monetary Policy
(2 Percent Inflation Goal)

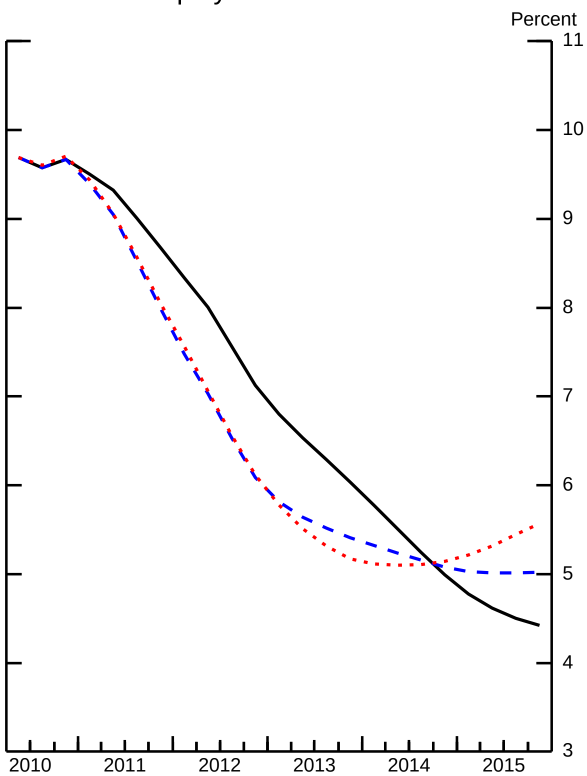
Nominal Federal Funds Rate



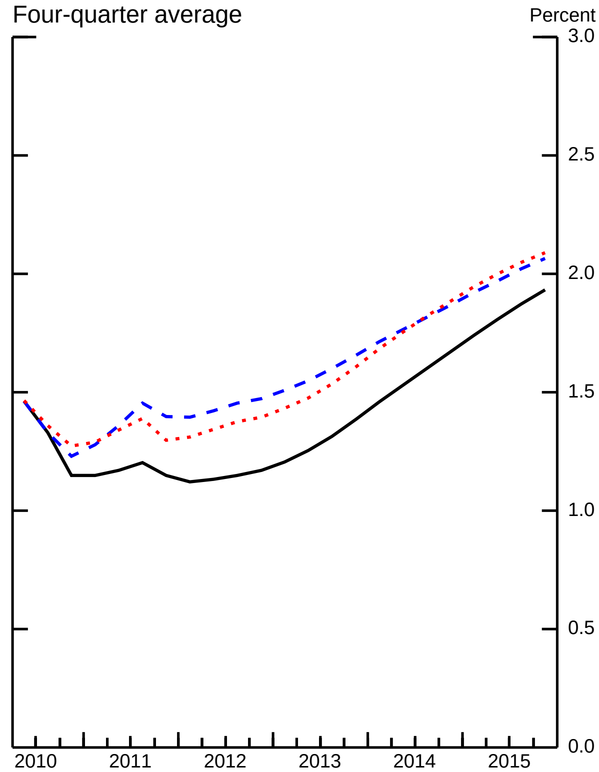
Real Federal Funds Rate



Civilian Unemployment Rate



Core PCE Inflation
Four-quarter average



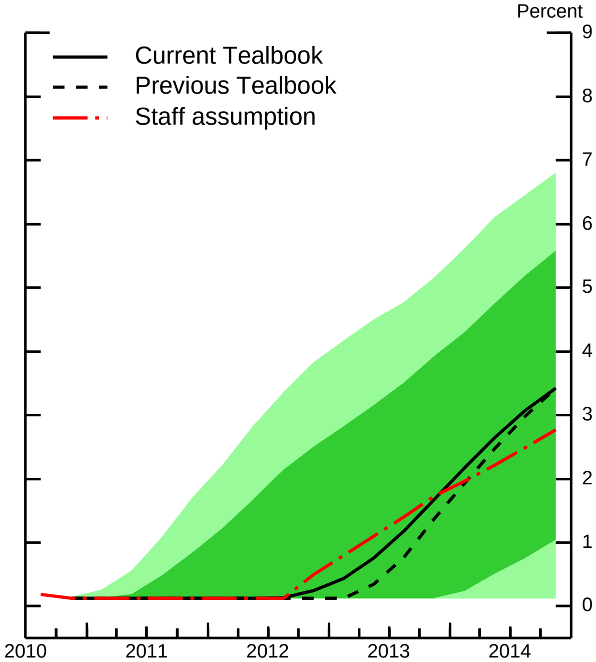
inflation close to a 2 percent inflation goal, on keeping unemployment close to the effective NAIRU, and on minimizing changes in the federal funds rate. As has been true for some time, the simulations indicate that optimal policy remains importantly constrained by the effective lower bound on nominal interest rates. With the lower-bound constraint imposed, the federal funds rate does not begin to rise appreciably until mid-2014, the unemployment rate remains above the staff's estimate of the effective NAIRU until early 2014, and inflation stays persistently below target until the end of 2015 (black solid line), which is very similar to the trajectories shown in the September Tealbook.[2] But if the nominal funds rate could fall below zero, optimal policy would call for the nominal funds rate to decline to around minus 3½ percent by the fourth quarter of 2011 (blue dashed line). Reflecting the recent improvement in financial conditions and an upward revision in the effective NAIRU, the unconstrained path for the funds rate is on average a bit higher than in the previous Tealbook, while delivering similar outcomes for unemployment and inflation. If the unconstrained policy were feasible, inflation would reach the 2 percent target by mid-2015 and the unemployment rate would be brought down to the staff estimate of the NAIRU more rapidly than in the constrained case.

As shown in the exhibit, "The Policy Outlook in an Uncertain Environment," the expected path for the federal funds rate implied by market quotes and the prescriptions from the staff's estimated outcome-based policy rule stay below 25 basis points at least until the second half of 2012. The staff's estimated outcome-based policy rule prescribes raising the federal funds rate above its effective lower bound after the fourth quarter of 2012, which is one quarter earlier than in the September Tealbook; this revision reflects the stronger outlook for real GDP and a small downward revision to the level of potential GDP in the staff projection. The expected federal funds rate path implied by financial market data has shifted down on net over the intermeeting period. The distribution of the federal funds rate at future dates derived from option prices suggests that market participants consider it very unlikely that the federal funds rate will rise above its current target range before the beginning of 2012—about one quarter later than in the previous Tealbook. While this timing is similar to the baseline path simulated from the outcome-based rule, market participants appear to perceive much less uncertainty around this outcome than is suggested by the model simulations with the outcome-based rule. Over

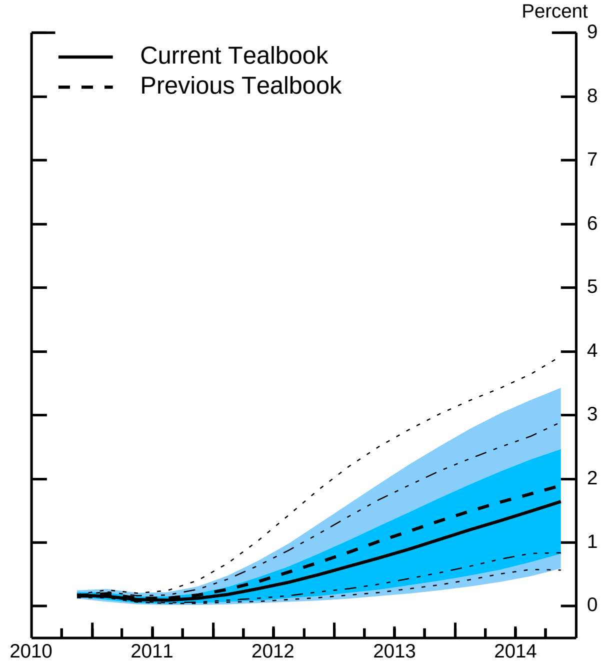
[2] Reflecting the transitory effects of extended unemployment benefits, the staff's estimate of the effective NAIRU falls from 6½ percent in 2010Q4 to 6 percent by 2012Q4, and then further until it reaches 5¼ percent by the end of 2015.

The Policy Outlook in an Uncertain Environment

FRB/US Model Simulations of Estimated Outcome-Based Rule



Information from Financial Markets



Note: In both panels, the dark and light shading represent the 70 and 90 percent confidence intervals respectively. Financial market quotes are as of October 27.

Near-Term Prescriptions of Simple Policy Rules

	Constrained Policy		Unconstrained Policy	
	2010Q4	2011Q1	2010Q4	2011Q1
Taylor (1993) rule	**0.13**	**0.13**	**-0.81**	**-0.82**
Previous Tealbook	*0.13*	*0.13*	*-0.92*	*-1.00*
Taylor (1999) rule	**0.13**	**0.13**	**-4.23**	**-4.21**
Previous Tealbook	*0.13*	*0.13*	*-4.51*	*-4.59*
Estimated outcome-based rule	**0.13**	**0.13**	**-0.51**	**-1.31**
Previous Tealbook	*0.13*	*0.13*	*-0.70*	*-1.64*
Estimated forecast-based rule	**0.13**	**0.13**	**-0.54**	**-1.28**
Previous Tealbook	*0.13*	*0.13*	*-0.71*	*-1.60*
First-difference rule	**0.13**	**0.17**	**0.01**	**0.05**
Previous Tealbook	*0.13*	*0.13*	*-0.19*	*-0.34*

Memo

	2010Q4	2011Q1
Staff assumption	0.13	0.13
Fed funds futures	0.17	0.13
Median expectation of primary dealers	0.13	0.13
Blue Chip forecast (October 1, 2010)	0.20	0.20

Note: In calculating the near-term prescriptions of these simple policy rules, policymakers' long-run inflation objective is assumed to be 2 percent. Explanatory Note B provides further background information.

the remainder of the forecast horizon, the expected path for the federal funds rate implied by financial market data is about 25 basis points lower than in September. Following this path, the funds rate rises gradually to about 1½ percent by the end of 2014, which is markedly lower than the 3½ percent level of the funds rate prescribed by the outcome-based rule.

The table in the lower panel of the exhibit provides near-term prescriptions from simple policy rules for the nominal federal funds rate. As shown in the left-hand columns, all of the prescriptions remain at the effective lower bound. The right-hand columns show the prescriptions that would be implied by these rules in the absence of the lower bound. With the exception of the first-difference rule, all unconstrained rule prescriptions continue to be negative, but are somewhat higher than in the September Tealbook, reflecting the staff's reduced estimate of the output gap over the near term.

Monetary Policy Alternatives

This Tealbook presents four policy alternatives—labeled A, B, C, and D—for the Committee's consideration. Under Alternatives A and B, the Committee would provide more monetary policy stimulus by increasing the Federal Reserve's holdings of longer-term securities. All of the alternatives maintain the existing target for the federal funds rate. Alternative A includes explicit forward guidance about the period over which the funds rate is likely to stay at its effective lower bound. Alternatives B and C maintain the "extended period" language as part of the forward guidance about the target rate. Alternative D would signal that the period of extraordinary monetary policy accommodation is likely to come to an end in the near future. As always, the Committee could mix components of the various alternatives to construct its desired statement.

The statement under Alternative B would characterize the information received over the intermeeting period as confirming that the economic recovery "continues to be slow." The statement would reflect the Committee's judgment that "the unemployment rate is elevated," and that measures of underlying inflation are "somewhat low," relative to the levels that the Committee considers to be consistent with its dual mandate, and that "progress towards its objectives has been unacceptably slow." To "promote a stronger pace of economic recovery," the FOMC would expand its holdings of securities by maintaining its existing policy of reinvesting the principal payments from agency securities and purchasing an additional $600 billion of Treasury securities by the end of the second quarter of 2011. The statement would indicate that the expansion of the balance sheet would average about $75 billion per month; based on projections of the amounts of principal payments that will be reinvested, total monthly purchases of Treasury securities under this alternative would likely be just over $100 billion per month. In addition, the Committee would state that it "will employ its policy tools as necessary to support the economic recovery and to return inflation, over time, to levels consistent with its mandate," to suggest that any near-term change to policy is more likely to be an increase in securities holdings than a reduction. To reflect a flexible approach to the implementation of its strategy, however, the Committee would state that it "will regularly review the pace of its securities purchases and the overall size of the asset-purchase program in light of incoming information and will adjust the program as needed" to achieve its objectives.

Under Alternative A, the Committee would characterize economic conditions and the outlook as it would under Alternative B, but it would take more substantial policy action, increasing the Federal Reserve's holdings of longer-term securities by $1 trillion by the end of 2011. The forward guidance for the federal funds rate would be more explicit and state that the Committee expects to keep the target for the federal funds rate at its current level "at least until mid-2012, so long as: The unemployment rate remains elevated; the Committee continues to anticipate that such a policy stance will not lead to rates of inflation in the intermediate term that exceed the levels that it deems consistent with its mandate; and longer-term inflation expectations remain well anchored." The statement would also note that the Committee is prepared to provide additional accommodation as needed to "strengthen the economic recovery and move inflation" back toward levels the Committee views as consistent with its objectives.

Under Alternative C, the Committee would not expand the size of its securities holdings, but would signal that such an action remains possible. The statement would characterize incoming data as confirming that the pace of economic recovery "continues to be slow." The Committee would state that it will maintain the current target for the federal funds rate for an extended period and continue its policy of reinvesting the proceeds of principal payments into Treasury securities. By noting that the Committee is "prepared to provide additional accommodation if needed," the statement would imply that further policy action could be taken depending on economic developments.

Alternative D would state that the "economic recovery is proceeding" and note that "the Committee anticipates a gradual return to higher levels of resource utilization in a context of price stability." The statement would signal that the Committee is likely to begin removing monetary accommodation fairly soon. While maintaining the target for the federal funds rate at its current level, the Committee would indicate that it anticipated the rate staying at "low levels" for "some time" rather than at "exceptionally low levels" for "an extended period" as in the previous statement. In addition, the Committee would state that its policy of reinvesting proceeds of principal repayments would be continued only "for the time being," suggesting that this policy was likely to end soon.

A table summarizing the key components of each alternative appears on the next page, followed by complete draft statements and the arguments for each alternative.

Table 1: Overview of Alternatives for the November 3 FOMC Statement

<table>
<tr><th rowspan="2">Key Components</th><th rowspan="2">September Statement</th><th colspan="4">November Alternatives</th></tr>
<tr><th>A</th><th>B</th><th>C</th><th>D</th></tr>
<tr><td colspan="6">Economic Activity</td></tr>
<tr><td>Recent Developments</td><td>pace of recovery has slowed in recent months</td><td colspan="2">pace of recovery continues to be slow</td><td>pace of recovery continues to be slow</td><td>economic recovery is proceeding</td></tr>
<tr><td>Labor Market</td><td>pace of recovery in employment has slowed; high unemployment; employers remain reluctant to add to payrolls</td><td colspan="2">pace of recovery continues to be slow; high unemployment; employers remain reluctant to add to payrolls; the unemployment rate is elevated</td><td>pace of recovery continues to be slow; high unemployment; employers remain reluctant to add to payrolls</td><td>n.a.</td></tr>
<tr><td>Outlook</td><td>gradual return to higher resource utilization w/ price stability; pace of recovery likely to be modest in near term</td><td colspan="2">Committee anticipates a gradual return to higher resource utilization w/price stability</td><td>gradual return to higher resource utilization w/ price stability; pace of recovery likely to remain modest in near term</td><td>the Committee anticipates a gradual return to higher resource utilization w/price stability</td></tr>
<tr><td colspan="6">Financial Conditions</td></tr>
<tr><td>Recent Developments</td><td>bank lending has continued to contract, but at a reduced rate</td><td colspan="2">n.a.</td><td>bank lending has continued to contract, but at a reduced rate</td><td>The contraction in bank lending has slowed</td></tr>
<tr><td colspan="6">Inflation</td></tr>
<tr><td rowspan="2">Recent Developments</td><td>underlying inflation currently below levels consistent with dual mandate</td><td colspan="2">longer-term expectations stable, but underlying inflation has trended lower; underlying inflation low relative to rates consistent with dual mandate</td><td>underlying inflation currently below levels consistent with dual mandate</td><td>n.a.</td></tr>
<tr><td>substantial slack; stable inflation expectations</td><td colspan="2">longer-term expectations stable</td><td>substantial slack; stable inflation expectations</td><td>n.a.</td></tr>
<tr><td>Outlook</td><td>subdued for some time before rising to mandate-consistent levels</td><td colspan="2">Committee anticipates a gradual return to higher resource utilization w/price stability…but progress toward its objectives has been unacceptably slow</td><td>subdued for some time before rising toward mandate-consistent levels</td><td>gradual return to higher resource utilization in a context of price stability</td></tr>
</table>

(continued on next page)

Table 1: Overview of Alternatives for the November 3 FOMC Statement
(continued)

Key Components	September Statement	November Alternatives			
		A B		**C**	**D**
Target Federal Funds Rate					
Intermeeting Period	0 to ¼ percent	0 to ¼ percent			
Forward Guidance	exceptionally low levels for an extended period	at least until mid-2012, so long as: unemployment is elevated; inflation is expected to remain consistent with mandate; and inflation expectations anchored	exceptionally low levels for an extended period	exceptionally low levels for an extended period	low levels for some time
SOMA Portfolio Policy					
Approach	*keep constant:* reinvest principal payments in Treasuries	*increase:* maintain reinvestment policy; purchase additional $1 trillion of Treasuries through the end of 2011	*increase:* maintain reinvestment policy; purchase additional $600 billion of Treasuries through the 2011 Q2; regularly review program	*keep constant:* maintain existing reinvestment policy	*keep constant:* for the time being, maintain existing reinvestment policy
Future Policy Action					
Approach	provide additional accommodation, if needed	provide additional accommodation, as needed	employ tools as necessary	provide additional accommodation, if needed	gradually remove accommodation

SEPTEMBER FOMC STATEMENT

1. Information received since the Federal Open Market Committee met in August indicates that the pace of recovery in output and employment has slowed in recent months. Household spending is increasing gradually, but remains constrained by high unemployment, modest income growth, lower housing wealth, and tight credit. Business spending on equipment and software is rising, though less rapidly than earlier in the year, while investment in nonresidential structures continues to be weak. Employers remain reluctant to add to payrolls. Housing starts are at a depressed level. Bank lending has continued to contract, but at a reduced rate in recent months. The Committee anticipates a gradual return to higher levels of resource utilization in a context of price stability, although the pace of economic recovery is likely to be modest in the near term.

2. Measures of underlying inflation are currently at levels somewhat below those the Committee judges most consistent, over the longer run, with its mandate to promote maximum employment and price stability. With substantial resource slack continuing to restrain cost pressures and longer-term inflation expectations stable, inflation is likely to remain subdued for some time before rising to levels the Committee considers consistent with its mandate.

3. The Committee will maintain the target range for the federal funds rate at 0 to ¼ percent and continues to anticipate that economic conditions, including low rates of resource utilization, subdued inflation trends, and stable inflation expectations, are likely to warrant exceptionally low levels for the federal funds rate for an extended period. The Committee also will maintain its existing policy of reinvesting principal payments from its securities holdings.

4. The Committee will continue to monitor the economic outlook and financial developments and is prepared to provide additional accommodation if needed to support the economic recovery and to return inflation, over time, to levels consistent with its mandate.

NOVEMBER FOMC STATEMENT—ALTERNATIVE A

1. Information received since the Federal Open Market Committee met in ~~August~~ **September** ~~indicates~~ **confirms** that the pace of recovery in output and employment ~~has slowed in recent months~~ **continues to be slow**. Household spending is increasing gradually, but remains constrained by high unemployment, modest income growth, lower housing wealth, and tight credit. Business spending on equipment and software is rising, though less rapidly than earlier in the year, while investment in nonresidential structures continues to be weak. Employers remain reluctant to add to payrolls. Housing starts **continue to be** ~~are at a~~ depressed ~~level~~. ~~Bank lending has continued to contract, but at a reduced rate in recent months. The Committee anticipates a gradual return to higher levels of resource utilization in a context of price stability, although the pace of economic recovery is likely to be modest in the near term.~~ **Longer-term inflation expectations have remained stable, but measures of underlying inflation have trended lower in recent quarters.**

2. **Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. Currently, the unemployment rate is elevated, and** measures of underlying inflation are ~~currently at levels~~ somewhat **low** ~~below those~~, **relative to levels that** the Committee judges **to be** ~~most~~ consistent~~, over the longer run,~~ with its **dual** mandate. ~~to promote maximum employment and price stability. With substantial resource slack continuing to restrain cost pressures and longer-term inflation expectations stable, inflation is likely to remain subdued for some time before rising to levels the Committee considers consistent with its mandate.~~ **Although the Committee anticipates a gradual return to higher levels of resource utilization in a context of price stability, it judges that progress toward its objectives has been unacceptably slow.**

3. **To promote a stronger pace of economic recovery and to return inflation, over time, to levels consistent with its mandate, the Committee decided today to expand its holdings of securities.** The Committee ~~also~~ will maintain its existing policy of reinvesting principal payments from its securities holdings **and intends to purchase an additional $1 trillion of longer-term Treasury securities by the end of 2011, an average pace of approximately $70 billion of purchases per month**.

4. The Committee **expects to** ~~will~~ maintain the target range for the federal funds rate at 0 to ¼ percent **at least until mid-2012, so long as: The unemployment rate remains elevated; the Committee continues to anticipate that such a policy stance will not lead to rates of inflation in the intermediate term that exceed the levels that it deems consistent with its mandate; and longer-term inflation expectations remain well anchored**. ~~and continues to anticipate that economic conditions, including low rates of resource utilization, subdued inflation trends, and stable inflation expectations, are likely to warrant exceptionally low levels for the federal funds rate for an extended period.~~

5. The Committee will continue to monitor the economic outlook and financial developments and is prepared to provide additional accommodation ~~if~~ **as** needed to ~~support~~ **strengthen** the economic recovery and ~~to return~~ **move** inflation, over time, to levels consistent with its mandate.

NOVEMBER FOMC STATEMENT—ALTERNATIVE B

1. Information received since the Federal Open Market Committee met in ~~August~~ **September** ~~indicates~~ **confirms** that the pace of recovery in output and employment ~~has slowed in recent months~~ **continues to be slow**. Household spending is increasing gradually, but remains constrained by high unemployment, modest income growth, lower housing wealth, and tight credit. Business spending on equipment and software is rising, though less rapidly than earlier in the year, while investment in nonresidential structures continues to be weak. Employers remain reluctant to add to payrolls. Housing starts **continue to be** ~~are at a~~ depressed ~~level~~. ~~Bank lending has continued to contract, but at a reduced rate in recent months. The Committee anticipates a gradual return to higher levels of resource utilization in a context of price stability, although the pace of economic recovery is likely to be modest in the near term.~~ **Longer-term inflation expectations have remained stable, but measures of underlying inflation have trended lower in recent quarters.**

2. **Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. Currently, the unemployment rate is elevated, and** measures of underlying inflation are ~~currently at levels~~ somewhat **low** ~~below~~, **relative to levels that** the Committee judges **to be** ~~most~~ consistent~~, over the longer run,~~ with its **dual** mandate. ~~to promote maximum employment and price stability. With substantial resource slack continuing to restrain cost pressures and longer-term inflation expectations stable, inflation is likely to remain subdued for some time before rising to levels the Committee considers consistent with its mandate.~~ **Although the Committee anticipates a gradual return to higher levels of resource utilization in a context of price stability, it judges that progress toward its objectives has been unacceptably slow.**

3. **To promote a stronger pace of economic recovery and to return inflation, over time, to levels consistent with its mandate, the Committee decided today to expand its holdings of securities.** The Committee ~~also~~ will maintain its existing policy of reinvesting principal payments from its securities holdings **and intends to purchase an additional $600 billion of longer-term Treasury securities by the end of the second quarter of 2011, an average pace of $75 billion of purchases per month**.

4. The Committee will maintain the target range for the federal funds rate at 0 to ¼ percent and continues to anticipate that economic conditions, including low rates of resource utilization, subdued inflation trends, and stable inflation expectations, are likely to warrant exceptionally low levels for the federal funds rate for an extended period.

5. The Committee will continue to monitor the economic outlook and financial developments and **will employ its policy tools as necessary** ~~is prepared to provide additional accommodation if needed~~ to support the economic recovery and to return inflation, over time, to levels consistent with its mandate. **In particular, the Committee will regularly review the pace of its securities purchases and the overall size of the asset-purchase program in light of incoming information and will adjust the program as needed to best foster maximum employment and price stability.**

Alternatives

NOVEMBER FOMC STATEMENT—ALTERNATIVE C

1. Information received since the Federal Open Market Committee met in ~~August~~ **September** ~~indicates~~ **confirms** that the pace of recovery in output and employment ~~has slowed in recent months~~ **continues to be slow**. Household spending is increasing gradually, but remains constrained by high unemployment, modest income growth, lower housing wealth, and tight credit. Business spending on equipment and software is rising, though less rapidly than earlier in the year, while investment in nonresidential structures continues to be weak. Employers remain reluctant to add to payrolls. Housing starts are at a depressed level. Bank lending has continued to contract, but at a reduced rate in recent months. The Committee anticipates a gradual return to higher levels of resource utilization in a context of price stability, although the pace of economic recovery is likely to ~~be~~ **remain** modest in the near term.

2. Measures of underlying inflation are currently at levels somewhat below those the Committee judges most consistent, over the longer run, with its mandate to promote maximum employment and price stability. With substantial resource slack continuing to restrain cost pressures and longer-term inflation expectations stable, inflation is likely to remain subdued for some time before rising to levels the Committee considers consistent with its mandate.

3. The Committee will maintain the target range for the federal funds rate at 0 to ¼ percent and continues to anticipate that economic conditions, including low rates of resource utilization, subdued inflation trends, and stable inflation expectations, are likely to warrant exceptionally low levels for the federal funds rate for an extended period. The Committee also will ~~maintain~~ **continue the** ~~its~~ existing policy of reinvesting principal payments from its securities holdings **to maintain the size of its securities holdings at current levels**.

4. The Committee will continue to monitor the economic outlook and financial developments and is prepared to provide additional accommodation if needed to support the economic recovery and to return inflation, over time, to levels consistent with its mandate.

Alternatives

NOVEMBER FOMC STATEMENT—ALTERNATIVE D

1. Information received since the Federal Open Market Committee met in ~~August~~ **September** indicates that the ~~pace of~~ **economic** recovery ~~in output and employment has slowed in recent months~~ **is proceeding**. Household **income and** spending **are** ~~is~~ increasing ~~gradually, but remains constrained by high unemployment, modest income growth, lower housing wealth, and tight credit.~~**, and** business spending on equipment and software is rising.~~, though less rapidly than earlier in the year, while investment in nonresidential structures continues to be weak. Employers remain reluctant to add to payrolls. Housing starts are at a depressed level.~~ **The contraction in** bank lending has **slowed** ~~continued to contract, but at a reduced rate in recent months~~. The Committee anticipates a gradual return to higher levels of resource utilization in a context of price stability~~, although the pace of economic recovery is likely to be modest in the near term~~.

   ~~Measures of underlying inflation are currently at levels somewhat below those the Committee judges most consistent, over the longer run, with its mandate to promote maximum employment and price stability. With substantial resource slack continuing to restrain cost pressures and longer-term inflation expectations stable, inflation is likely to remain subdued for some time before rising to levels the Committee considers consistent with its mandate.~~

2. The Committee ~~will~~ **decided to** maintain the target range for the federal funds rate at 0 to ¼ percent and ~~continues to~~ anticipate**s** that economic conditions~~, including low rates of resource utilization, subdued inflation trends, and stable inflation expectations,~~ are likely to warrant ~~exceptionally~~ low levels for the federal funds rate for ~~an extended period~~ **some time**. **For the time being,** the Committee also will maintain its existing policy of reinvesting principal payments from its securities holdings.

3. The Committee will continue to monitor the economic outlook and financial developments and ~~is prepared to provide additional accommodation if needed to support the economic recovery and to return inflation, over time, to levels consistent with its mandate~~ **anticipates that it will gradually begin to remove policy accommodation at the appropriate time to promote maximum employment and price stability**.

Alternatives

Alternatives

THE CASE FOR ALTERNATIVE B

The Committee may see the economic recovery as too weak to deliver acceptable progress toward its objectives of maximum employment and price stability and, as a result, may judge that additional monetary policy accommodation is appropriate. In that case, the Committee might choose an announcement along the lines of that provided in Alternative B.

Although members' modal outlook for the economy may not have changed materially since the September meeting, greater certainty that economic performance will be subpar and result in missing both aspects of the dual mandate for quite some time may be seen as justifying additional policy action at this time. The staff projects that the output gap will remain sizable through the end of 2012 and beyond and that inflation will remain noticeably below levels that the Committee considers consistent with the dual mandate. If the Committee is inclined to take action at this meeting, it may wish to indicate an intention to expand its holdings of longer-term securities by purchasing additional longer-term Treasury securities. Policymakers may prefer to purchase Treasury securities instead of additional mortgage-backed securities to avoid the possibility of being seen as allocating credit to a particular sector of the economy and because they ultimately want to move to a Treasury-only portfolio. The Committee may also want to indicate that it is willing to provide additional policy accommodation in the future if necessary to support the economic recovery and return inflation to levels consistent with its objectives, while maintaining flexibility in the timing and extent of its purchases.

Some members may see an even larger purchase program as likely to be necessary. Nonetheless, they may not wish to commit to too large a step at the November meeting because the effect of increases in the balance sheet are not understood with precision, and the amount of stimulus the economy will need is similarly difficult to assess. As a result, a somewhat incremental approach in the direction of the ultimately anticipated degree of policy easing may be seen as appropriate so as to retain flexibility in the face of uncertainty and to help the public understand the conditionality of the Committee's policy decisions. A more moderate policy move at this time may also be attractive if the expansion of securities holdings raises some members' concerns about the Committee's ability to execute a smooth exit from policy accommodation. Also, a pace of approximately $75 billion per month of additional purchases, on top of the reinvestment of proceeds of principal payments from current securities holdings, may be about the fastest rate of purchases that can be made without risking adverse effects in markets. As a result, some members may worry that announcing a larger total quantity of purchases may be seen as a commitment to accommodative policy for a longer period of time than is desirable, given the possibility that incoming data may change the Committee's assessment of the appropriate policy stance over coming months.

The statement in Alternative B would underscore the commitment of the Committee to its dual mandate, thereby helping to anchor inflation expectations. Because the statement would note that the Committee sees unemployment as elevated and inflation as somewhat low relative to levels consistent with its objectives, it may solidify the views of market participants that policy accommodation will remain in place for a significant period of time. The statement would further clarify the Committee's intentions by being explicit about both the size of the expansion of the balance sheet and the pace of purchases to be undertaken. By noting that it is prepared to use its policy tools as necessary to support the economic recovery and return inflation to levels consistent with its mandate, the Committee would suggest that the next adjustment to its balance sheet policy would more likely be a further expansion than a contraction. The statement would not be an unconditional commitment, however, because the Committee would indicate that it will "regularly review" its asset-purchase program, and make adjustments based on incoming information.

Responses from the Desk's latest survey of primary dealers suggest that market participants believe the third quarter of 2012 to be the most likely date when the federal funds rate will begin to increase. In addition, there appears to be a strong expectation that the Committee will announce an expansion in the balance sheet at this meeting, with the median expectation of a cumulative increase in securities holdings of $1 trillion over a twelve-month period. A statement along the lines of Alternative B would probably not greatly surprise market participants. The $600 billion figure is likely a little more than most market participants expect at this meeting, and in recent days, longer-term rates have risen somewhat, possibly reflecting some paring back of investors' expectations for additional purchases as well as an increase in uncertainty regarding the implementation of such purchases. On the other hand, the announced pace of purchases may be a bit on the low side of expectations, and the reference to reviewing the pace of purchases could suggest to some market participants that the ultimate level of purchases could be less than expected. On balance, market interest rates would likely decline a little, while equity prices would probably rally some, and the foreign exchange value of the dollar would move lower.[1, 2]

In addition to an expansion of the balance sheet, policy makers may be inclined to include more explicit guidance about the anticipated path for the federal funds rate, such as referring to a specific date as under Alternative A. As discussed below, such a choice may not change appreciably market participants' expectations about the future path of the federal funds rate, but in the context of an announcement of further policy accommodation, it would likely reinforce market participants' confidence in the Committee's intent to foster financial conditions in line with its goals.

THE CASE FOR ALTERNATIVE A

Policymakers may believe that without fairly aggressive policy action soon, both employment and inflation will likely be below the Committee's objectives for these variables for a very substantial period. Moreover, they may be worried that very low inflation poses significant risks to the recovery. If so, the Committee may wish to provide more substantial policy accommodation at this meeting, as in Alternative A.

Committee members may, like the staff, expect the economic recovery to remain quite gradual, even with the additional $600 billion expansion of the Federal Reserve's balance sheet envisioned in Alternative B. In the staff's baseline projection, the unemployment rate does not fall below 9 percent until 2012, and inflation remains below levels that the Committee sees as consistent with its objectives for much longer. Members may see such outcomes as unacceptable. Moreover, some policymakers may be skeptical of the anticipated acceleration in economic activity that the staff has projected for next year, and may instead anticipate a slower economic expansion for some time, along the lines of the "Weaker recovery" scenario. In addition, members may judge that in the current environment, very low inflation heightens the risk that adverse shocks could lead to deflation and a protracted period of extremely poor economic

[1] Clearly, the market reaction to the Committee's decision could also be importantly influenced by information provided by the Chairman in a press briefing or press conference, were such an event to be held following the FOMC meeting.

[2] The box in Tealbook Book A Domestic titled "Alternative Balance Sheet Scenarios" notes that with financial markets currently pricing in about $1 trillion in cumulative purchases, if the Committee were to decide to limit additional purchases to the $600 billion announced at this meeting, over time longer-term interest rates and the foreign exchange value of the dollar would likely rise some and stock prices would decline.

performance, such as in the "Greater Disinflation" scenario. Although inflation expectations have remained fairly stable thus far, policymakers may worry that further disinflation could push those expectations downward and possibly raise the chances of deflation. In such a circumstance, the Committee may believe that only particularly assertive policy action will convince markets and the public that the Committee desires a more rapid decline in the unemployment rate and a timely return of inflation to levels it considers most consistent with its dual mandate. By announcing an additional $1 trillion of purchases of longer-term Treasury securities, the Committee would send a clear signal that it sought more rapid progress toward its objectives.

The Committee may view the risks associated with such an expansion of the balance sheet to be acceptably low when compared to the anticipated benefits. Small-scale operations of two short-term reserve-management tools, the Term Deposit Facility and reverse repurchase agreements with an expanded set of counterparties, are ongoing. These operations may give policymakers confidence that even with a substantial further expansion of the Federal Reserve's balance sheet and the associated increase in reserve balances, the Federal Reserve will be able to exit smoothly from its extraordinarily accommodative stance of policy when appropriate.

The Committee may also wish to communicate more explicitly its expectation for the path of the federal funds rate by stating that it expects that the current level of the target rate will remain in place "at least until mid-2012." The statement would not be an unconditional commitment, however, because the Committee would note that it might adjust the setting for the federal funds rate if unemployment fell substantially, if the Committee's projections for inflation over the medium term exceeded levels it considers to be consistent with its dual mandate, or if inflation expectations rose appreciably. Given the expectations for the policy path currently implied by market quotes, such a statement would be unlikely to change appreciably investors' modal forecasts of the funds rate path. Nevertheless, making such an explicit statement would clarify the FOMC's intentions regarding future adjustments to the federal funds rate, and market rates could decline somewhat in response.

Although investors anticipate that the Federal Reserve will ultimately purchase something like an additional $1 trillion or more of longer-term Treasury securities over a twelve-month period, an announcement at this meeting of such a large program of purchases would come as a surprise. Longer-term yields would probably fall noticeably, stock prices would likely move up, and the foreign exchange value of the dollar would likely decline moderately. If the large size of the announced purchases led investors to anticipate even more policy accommodation was likely to be forthcoming, the movement in asset prices could be large.

THE CASE FOR ALTERNATIVE C

The incoming data over the intermeeting period were mixed and, as a result, the Committee may not be convinced that additional policy accommodation is warranted, especially if members perceive an expansion of the balance sheet as entailing significant risks. Instead, the Committee may wish to accumulate more information in order to form a clearer view of the likely trajectory of output and inflation before deciding whether to take additional policy action, and as a result may be inclined to issue a statement along the lines of that in Alternative C.

The Committee may believe that, on net, the data received over the past several months confirms that the pace of economic recovery has slowed relative to the spring. Nevertheless, the Committee may continue to anticipate that the economic recovery will pick up steam next year. Indeed, some members may see some risks that the economy could accelerate substantially more than is projected, as in the "Faster Recovery" scenario, and, as a result, wish to have greater certainty about the outlook before providing additional accommodation. For now, inflation expectations appear to remain well anchored despite the current low levels of underlying inflation. On balance, therefore, the Committee's views on the prospects for economic growth and inflation over the medium term may not have changed appreciably since September, and the Committee may be uncertain whether, given the lags with which monetary policy influences the economy, additional accommodation is likely to be helpful. Even if the Committee sees some benefit to easing the stance of policy, it may wish for more conclusive evidence that the economic recovery will remain tepid before engaging in further action. As a result, policymakers may not see the threshold for undertaking further policy accommodation as having been met, and under Alternative C, the statement would indicate that the "Committee anticipates a gradual return to higher levels of resource utilization in a context of price stability, although the pace of economic recovery is likely to remain modest in the near term."

Even if policymakers perceive the economic outlook to be weaker than they would prefer, they may worry that the likely benefit of additional monetary policy accommodation is not as large as the associated risks. In contrast to the situation during the first round of asset purchases, markets are functioning fairly well, so some Committee members may be skeptical that additional purchases would have an appreciable effect on markets. Other policymakers may worry that a further expansion in the size of the Federal Reserve's balance sheet could push up private-sector inflation expectations either because the public may question the Federal Reserve's ability to exit smoothly from an even more accommodative stance of policy or because additional purchases of Treasury securities may kindle fears of monetization of the federal debt. In addition, given the recent declines in the foreign exchange value of the dollar, members may see a risk that additional policy action at this time could lead to a sharp and perhaps disorderly further decline.

On balance, members may view the current outlook for the economy, though disappointing, as about the best that can be achieved under the circumstances, but they may be prepared to act in the future if conditions deteriorate. Members may see the current array of risks to the economy as being asymmetric; downward surprises to inflation, for example, may be seen as significantly more costly than upward surprises, given the current low level of inflation. Consequently, the Committee may judge, against the backdrop of a lackluster recovery, that retaining the "extended period" language in the statement remains appropriate, and that the final paragraph of the statement should continue to indicate that the Committee "is prepared to provide additional accommodation if needed to support the economic recovery and to return inflation, over time, to levels consistent with its mandate."

In light of current market expectations for additional policy easing at this meeting, a statement along the lines of that in Alternative C would come as a significant surprise to market participants and, as a result, longer-term interest rates would back up, stock prices fall, and the foreign exchange value of the dollar would increase. The indication that the Committee might provide additional accommodation going forward could limit these market reactions, but they would likely be significant nevertheless. The rise in longer-term nominal rates might be damped to the extent that the policy decision led investors to lower their inflation expectations.

THE CASE FOR ALTERNATIVE D

If policymakers viewed the incoming data as largely conforming to their expectations that the economic recovery is continuing and will strengthen over time, and if they wished to signal that they were likely to begin withdrawing the current extraordinary amount of monetary policy accommodation before long, they might issue a statement such as that in Alternative D. If Committee members believe that the economy is likely to accelerate next year, they may worry that the current size of the Federal Reserve's balance sheet could make it difficult to tighten policy as quickly as may be required to avoid an increase in inflation as the recovery strengthens, especially if the size of balance sheet itself directly affects inflation expectations. Under this alternative, the Committee would characterize the economic recovery as "proceeding" and would note that it "anticipates a gradual return to higher levels of resource utilization in a context of price stability."

Committee members may be concerned about the high level of unemployment but may judge that, given the nature of the recession, a good deal of current joblessness reflects structural misallocations in the economy and that such issues cannot be effectively addressed by monetary policy, perhaps as suggested in the "Lower Potential" scenario.

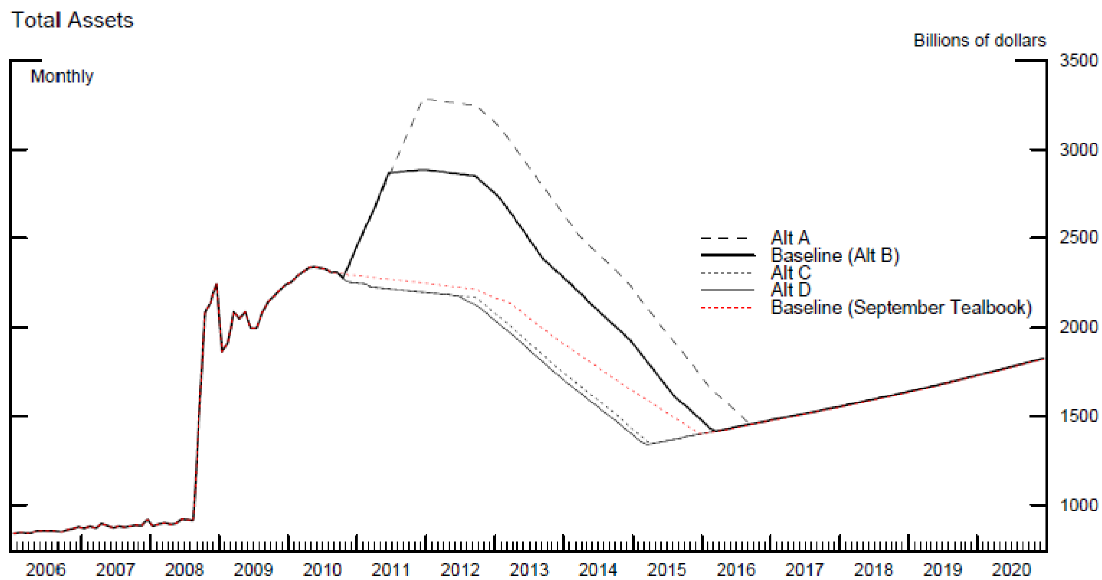
The language in Alternative D would position the Committee to begin removing policy accommodation before long. Issuance in bond markets has been robust and the contraction in bank loans, which had been rapid for over a year, has slowed, on balance, in recent months. As a result, members may worry that the current low level of the federal funds rate has the potential to result in a surprisingly fast rebound in credit growth, which could ultimately spur a rise in inflation expectations and in actual inflation. Although the target for the federal funds rate would be maintained under this alternative, the forward guidance would indicate that economic conditions warranted "low levels" of the federal funds rate for "some time," instead of the "exceptionally low levels" for an "extended period" indicated in the September statement. The Committee would also state that its policy of reinvesting the proceeds from principal repayments on its current holdings of securities would be maintained only "for the time being," suggesting that the Committee might discontinue this policy before long.

Besides the near-term economic outlook, members may also be concerned about the possible unintended consequences of signaling that the target for the federal funds rate will be kept at its current level for a very long period of time. Members may believe that the current statement language could lead to a buildup of macroeconomic or financial imbalances. For example, inflation expectations could become unmoored, leading to a persistent and costly increase in actual inflation, or investors, in an effort to obtain higher yields could take on risks that they do not understand, putting financial stability at risk as the economy recovers and interest rates rise. The Committee may view the economic costs associated with such outcomes as likely to be higher than those that would result from an earlier but more gradual removal of policy accommodation, suggesting that the adoption of Alternative D may best manage these longer-term risks.

The announcement of Alternative D would completely surprise market participants. As noted above, investors anticipate the announcement of a substantial increase in the Federal Reserve's balance sheet at this meeting, so an indication that the Federal Reserve was instead moving toward removing accommodation would likely lead them to re-examine their expectations both for the path of policy and for the Federal Reserve's portfolio, leading to a marked rise in interest rates at all horizons. The foreign exchange value of the dollar would likely increase, and equity markets would sell off sharply.

Long-Run Projections of the Balance Sheet and Monetary Base

The staff has prepared four scenarios for the Federal Reserve's balance sheet that correspond to the policy alternatives presented above: a baseline scenario corresponding to Alternative B, and other scenarios corresponding to Alternatives A, C, and D. Projections under each scenario are based on assumptions about each component of the balance sheet. Details of these assumptions as well as projections for each major component of the balance sheet can be found in Explanatory Note C.



Source: Federal Reserve H.4.1 statistical release and staff calculations.

Under the baseline scenario, the FOMC announces an expansion of its holdings of longer-term Treasury securities of $600 billion (at an average pace of about $75 billion per month) at the November meeting, and by the middle of next year the size of the balance sheet peaks at about $2.8 trillion. Over the following year and a half, the size of the balance sheet edges down slightly as credit extensions are repaid, and then declines more rapidly through 2015 as securities mature, are prepaid, or are sold. Under Alternative A, an additional $1 trillion of longer-term Treasury securities are purchased by the end of next year, and the balance sheet expands to reach a peak of $3.3 trillion in December 2011. Over the following year, the size of the balance sheet declines slightly as credit extensions are repaid; thereafter, the size of the balance sheet contracts more quickly as securities mature and eventually returns to the total asset path projected under the baseline by September 2016. Under Alternatives C and D, only the proceeds from principal payments of agency securities are reinvested in Treasury securities; in these alternatives, the balance sheet immediately begins a modest pace of contraction and then declines more rapidly when asset sales begin. In all four scenarios, Treasury securities begin to roll off the portfolio as they mature starting in the fourth quarter of 2012.

In each scenario, after reserve balances reach the assumed $25 billion floor and the U.S. Treasury's supplementary financing account has been wound down, the balance sheet begins to expand as purchases of Treasury securities match the growth of Federal Reserve capital and notes in circulation. The balance sheet reaches a size of about $1.8 trillion by the end of 2020.[3]

In the baseline scenario, an additional $600 billion of longer-term Treasury securities are purchased. The proceeds from principal repayments from Treasury securities, agency debt securities, and agency MBS continue to be reinvested into Treasury securities. This reinvestment policy continues until the assumed liftoff of the target federal funds rate from its current setting in the fourth quarter of 2012.[4] Immediately after the target federal funds rate increases, the baseline projection assumes that all maturing securities and prepayments of securities are allowed to roll off the portfolio. Six months after the assumed rise in the target federal funds rate, remaining holdings of agency MBS and agency debt securities begin to be sold at a rate that would reduce the amount of these securities in the portfolio to zero in five years, by the end of the first quarter of 2018.[5, 6]

In the scenario corresponding to Alternative A, a larger purchase program is assumed–an additional $1 trillion of longer-term Treasury securities are purchased from November 2010 to the end of 2011, at a pace of about $70 billion per month. All other assumptions are identical to the baseline scenario.

In the scenario corresponding to Alternative C, there are no additional Treasury security purchases, although the proceeds from maturing Treasury securities and the

[3] The composition of Federal Reserve assets in these projections differs notably at times from historical patterns. Prior to August 2007, U.S. Treasury securities made up 100 percent of the domestic securities portfolio. By contrast, under the baseline scenario, Treasury securities are projected to account for only around 44 percent of the domestic securities portfolio at the end of 2010. By the end of 2020, Treasury securities account for 100 percent of the domestic securities portfolio under all scenarios.

[4] All scenarios assume the same path for the federal funds rate.

[5] Given the maturity schedule for agency debt securities, the volume of sales necessary to reduce holdings of these securities to zero over the five year period is minimal.

[6] The balance sheet projections assume that the tools to drain reserve balances (reverse repurchase agreements and the term deposit facility) are not used.

principal payments of agency MBS and agency debt securities are reinvested in Treasury securities through the third quarter of 2012. All other assumptions are as in the baseline.

For Alternative D, there are no additional Treasury security purchases, although the proceeds from maturing Treasury securities and the principal payments of agency securities are reinvested in Treasury securities; the reinvestment of principal payments on agency securities is halted at the end of the second quarter of 2011, five quarters earlier than in the other scenarios. The Tealbook projects that GDP accelerates in 2011, and this alternative assumes that the FOMC halts its policy of reinvestment in response. The subsequent decline in asset holdings is the same as in the other alternatives.

Relative to the September Tealbook, under the baseline scenario, total assets are projected to be much higher over the next few years due to the additional purchases of longer-term Treasury securities. The path for holdings of agency MBS is a bit lower than in the September Tealbook based on projections for a somewhat faster rate of prepayments of agency MBS.

On the liability side of the balance sheet, in the baseline scenario, reserve balances are higher than in the previous Tealbook over the next couple of years as a result of the purchase of additional Treasury securities. With this higher path for reserve balances, the U.S. Treasury's supplementary financing account is not run down to zero until March 2016, almost a year later than in the last projection. Under the baseline scenario, the monetary base is projected to contract, on net, through mid-2015, reflecting the decline in reserve balances.

Growth Rates for the Monetary Base

Date	Baseline	Alternative A	Alternative C	Alternative D
		Percent, annual rate		
		Monthly		
Jan-10	-17.8	-17.8	-17.8	-17.8
Feb-10	72.2	72.2	72.2	72.2
Mar-10	-19.7	-19.7	-19.7	-19.7
Apr-10	-37.6	-37.6	-37.6	-37.6
May-10	-2.0	-2.0	-2.0	-2.0
Jun-10	-5.8	-5.8	-5.8	-5.8
Jul-10	-2.2	-2.2	-2.2	-2.2
Aug-10	-2.4	-2.4	-2.4	-2.4
Sep-10	-10.2	-10.2	-10.2	-10.2
Oct-10	14.6	14.6	13.7	12.5
Nov-10	32.6	31.6	6.5	5.9
Dec-10	27.3	25.2	-24.4	-23.2
		Quarterly		
2010 Q1	14.0	14.0	14.0	14.0
2010 Q2	-10.4	-10.4	-10.4	-10.4
2010 Q3	-3.9	-3.9	-3.9	-3.9
2010 Q4	12.7	12.3	0.7	0.3
		Annual, Q4 to Q4		
2009	41.5	41.5	41.5	41.5
2010	3.0	2.9	0.0	-0.1
2011	28.7	43.1	-1.7	-1.7
2012	-2.3	1.6	-2.9	-4.8
2013	-16.7	-15.0	-15.3	-15.6
2014	-15.8	-16.2	-18.1	-18.2
2015	-22.2	-20.8	-0.5	2.1

Note: Not seasonally adjusted.

Alternatives

DEBT, BANK CREDIT, AND MONEY FORECASTS

Domestic nonfinancial debt is projected to expand at an annual rate of about 4 percent during the fourth quarter of this year, as private domestic nonfinancial debt is expected to remain about unchanged while government debt continues to grow rapidly. With private debt anticipated to begin increasing again next year, domestic nonfinancial debt is expected to expand about 4¾ percent in 2011 and 5¼ percent in 2012. Nonfinancial business debt is projected to grow 1¾ percent in the fourth quarter, as modest growth in capital spending and firms' very high holdings of liquid assets suggest continued weak demand for external funding. We expect growth in nonfinancial business debt to rise gradually to 3½ percent in 2012, reflecting a pickup in capital expenditures over the forecast period. Despite historically low mortgage rates, home mortgage debt is anticipated to contract until the middle of 2011, reflecting relatively tight lending standards, sluggish housing demand, and declining house prices.[7] With the gradual improvement in housing sector fundamentals, home mortgage debt is anticipated to grow slightly in 2012. Consumer credit is projected to be flat in the current quarter but to increase fairly robustly over the remainder of the forecast period, driven by strong growth in spending on consumer durables. Federal government debt is expected to expand at a double-digit rate, on average, over the forecast period.

After remaining about flat in the third quarter, commercial bank credit is expected to increase about 1 percent in the current quarter, as the runoff in loans slows down slightly and banks continue to expand rapidly their securities holdings. Bank credit is projected to grow about 2¼ percent in 2011 and 3¾ percent in 2012, primarily reflecting a resumption of modest loan growth. Although standards and terms for bank loans to businesses are easing somewhat, lending conditions for bank-dependent borrowers remain tight. Commercial and industrial loans are projected to be relatively little changed in the fourth quarter before accelerating gradually over the remainder of the forecast period. We anticipate that commercial real estate loans will contract in 2011 and remain about flat in 2012, as fundamentals for this sector remain weak. Residential real estate loans are forecast to run off through the second quarter of 2011 and then to grow slowly. Consumer loans at banks are expected to decline in the fourth quarter, partly due to a continued increase in the share of consumer credit held by nonbank institutions. Next year, consumer lending at banks is projected to increase modestly and strengthen further

[7] We expect the recent mortgage documentation problems to have only limited effects on the trajectory of home mortgage debt, on net, over the next year.

in 2012. Partly reflecting the gradual recovery in loan demand, the growth in banks' securities holdings is expected to moderate over the forecast period.

M2 is projected to expand at a pace below that of nominal GDP over the forecast period, as investors steadily reallocate their portfolios away from safe and liquid M2 assets toward higher-yielding investments. Liquid deposits are anticipated to decelerate from their robust pace recorded since 2009, but growth in this component of M2 is expected to remain solid. Small time deposits and retail money market mutual funds are projected to continue to contract through most of the forecast period, though the rate of decline moderates over time. Currency is forecast to expand moderately as demand for currency from abroad wanes.

Growth Rates for M2

(Percent, seasonally adjusted annual rate)

Monthly Growth Rates	Tealbook Forecast*
Jan-10	-8.0
Feb-10	8.4
Mar-10	-3.6
Apr-10	-4.1
May-10	11.6
Jun-10	4.4
Jul-10	-0.2
Aug-10	6.4
Sep-10	8.3
Oct-10	8.3
Nov-10	3.2
Dec-10	1.3
Quarterly Growth Rates	
2010 Q1	-0.1
2010 Q2	1.8
2010 Q3	4.6
2010 Q4	6.2
Annual Growth Rates	
2009	5.1
2010	3.2
2011	1.4
2012	4.3

* This forecast is consistent with nominal GDP and interest rates in the Tealbook forecast. Actual data through October 2010; projections thereafter.

DIRECTIVE

The September directive appears below. Drafts for a November directive that correspond to each of the four policy alternatives appear on subsequent pages. The directive for Alternatives A and B would instruct the Desk to increase the SOMA's securities holdings by $1 trillion by the end of December 2011 through the purchase of longer-term Treasury securities while continuing the current portfolio policy of reinvesting principal payments. Alternative B would instruct the Desk to increase the SOMA's securities holdings by $600 trillion by the end of June 2011 through the purchases of longer-term Treasury securities while continuing the current portfolio policy of reinvesting principal payments. The directives that correspond to Alternatives C and D would instruct the Desk to maintain the SOMA's total holdings of securities at approximately the current level by continuing to reinvest repayments of principal from agency debt and MBS in longer-term Treasury securities.

September 2010 FOMC Directive

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range from 0 to ¼ percent. The Committee directs the Desk to maintain the total face value of domestic securities held in the System Open Market Account at approximately $2 trillion by reinvesting principal payments from agency debt and agency mortgage-backed securities in longer-term Treasury securities. The System Open Market Account Manager and the Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability.

November 2010 FOMC Directive — Alternative A

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range from 0 to ¼ percent. **The Committee directs the Desk to execute purchases of longer-term Treasury securities by the end of December 2011 in order to increase the total face value of domestic securities held in the System Open Market Account to approximately $3 trillion.** The Committee **also** directs the Desk to ~~maintain the total face value of domestic securities held in the System Open Market Account at approximately $2 trillion by~~ reinvest~~ing~~ principal payments from agency debt and agency mortgage-backed securities in longer-term Treasury securities. The System Open Market Account Manager and the Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability.

Alternatives

November 2010 FOMC Directive — Alternative B

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range from 0 to ¼ percent. **The Committee directs the Desk to execute purchases of longer-term Treasury securities by the end of June 2011 in order to increase the total face value of domestic securities held in the System Open Market Account to approximately $2.6 trillion.** The Committee **also** directs the Desk to ~~maintain the total face value of domestic securities held in the System Open Market Account at approximately $2 trillion by~~ reinvest~~ing~~ principal payments from agency debt and agency mortgage-backed securities in longer-term Treasury securities. The System Open Market Account Manager and the Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability.

Alternatives

November 2010 FOMC Directive — Alternative C

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range from 0 to ¼ percent. The Committee directs the Desk to maintain the total face value of domestic securities held in the System Open Market Account at approximately $2 trillion by reinvesting principal payments from agency debt and agency mortgage-backed securities in longer-term Treasury securities. The System Open Market Account Manager and the Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability.

November 2010 FOMC Directive — Alternative D

The Federal Open Market Committee seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output. To further its long-run objectives, the Committee seeks conditions in reserve markets consistent with federal funds trading in a range from 0 to ¼ percent. The Committee directs the Desk to maintain the total face value of domestic securities held in the System Open Market Account at approximately $2 trillion by reinvesting principal payments from agency debt and agency mortgage-backed securities in longer-term Treasury securities. The System Open Market Account Manager and the Secretary will keep the Committee informed of ongoing developments regarding the System's balance sheet that could affect the attainment over time of the Committee's objectives of maximum employment and price stability.

Explanatory Notes

A. Measures of the Equilibrium Real Rate

The equilibrium real rate is the real federal funds rate that, if maintained, would be projected to return output to its potential level over time. The short-run equilibrium rate is defined as the rate that would close the output gap in twelve quarters given the corresponding model's projection of the economy. The medium-run concept is the value of the real federal funds rate projected to keep output at potential in seven years, under the assumption that monetary policy acts to bring actual and potential output into line in the short run and then keeps them equal thereafter. The TIPS-based factor model measure provides an estimate of market expectations for the real federal funds rate seven years ahead.

Measure	Description
Single-equation Model	The measure of the equilibrium real rate in the single-equation model is based on an estimated aggregate-demand relationship between the current value of the output gap and its lagged values as well as the lagged values of the real federal funds rate.
Small Structural Model	The small-scale model of the economy consists of equations for six variables: the output gap, the equity premium, the federal budget surplus, the trend growth rate of output, the real bond yield, and the real federal funds rate.
EDO Model	Estimates of the equilibrium real rate using EDO—an estimated dynamic-stochastic-general-equilibrium (DSGE) model of the U.S. economy—depend on data for major spending categories, price and wages, and the federal funds rate as well as the model's structure and estimate of the output gap.
FRB/US Model	Estimates of the equilibrium real rate using FRB/US—the staff's large-scale econometric model of the U.S. economy—depend on a very broad array of economic factors, some of which take the form of projected values of the model's exogenous variables.
Tealbook-consistent	Two measures are presented based on the FRB/US and the EDO models. Both models are matched to the extended Tealbook forecast. Model simulations determine the value of the real federal funds rate that closes the output gap conditional on the extended baseline.

Measure	Description
TIPS-based Factor Model	Yields on TIPS (Treasury Inflation-Protected Securities) reflect investors' expectations of the future path of real interest rates. The TIPS-based measure of the equilibrium real rate is constructed using the seven-year-ahead instantaneous real forward rate derived from TIPS yields as of the Tealbook publication date. This forward rate is adjusted to remove estimates of the term and liquidity premiums based on a three-factor arbitrage-free term-structure model applied to TIPS yields, nominal yields, and inflation.

The actual real federal funds rate is constructed as the difference between the nominal rate and realized inflation, where the nominal rate is measured as the quarterly average of the observed federal funds rate, and realized inflation is given by the log difference between the core PCE price index and its lagged value four quarters earlier. If the upcoming FOMC meeting falls early in the quarter, the lagged inflation measure ends in the last quarter. For the current quarter, the nominal rate is specified as the target federal funds rate on the Tealbook publication date.

Estimates of the real federal funds rate depend on the proxies for expected inflation used. The table below shows estimated real federal funds rates based on lagged core PCE inflation, the definition used in the Equilibrium Real Federal Funds Rate chart; lagged four-quarter headline PCE inflation; and projected four-quarter headline PCE inflation beginning with the next quarter. For each estimate of the real rate, the table also provides the Tealbook-consistent FRB/US-based measure of the short-run equilibrium real rate and the average actual real federal funds rate over the next twelve quarters.

Proxy used for expected inflation	Actual real federal funds rate (current value)	Tealbook-consistent FRB/US-based measure of the equilibrium real funds rate (current value)	Average actual real funds rate (twelve-quarter average)
Lagged core inflation	-1.2	-1.9	-0.7
Lagged headline inflation	-1.3	-2.0	-0.8
Projected headline inflation	-1.0	-1.9	-0.7

Explanatory Notes

B. Analysis of Policy Paths and Confidence Intervals

RULE SPECIFICATIONS

For the following rules, i_t denotes the federal funds rate for quarter t, while the right-hand-side variables include the staff's projection of trailing four-quarter core PCE inflation (π_t), inflation two and three quarters ahead ($\pi_{t+2|t}$ and $\pi_{t+3|t}$), the output gap in the current period and one quarter ahead ($y_t - y_t^*$ and $y_{t+1|t} - y_{t+1|t}^*$), and the three-quarter-ahead forecast of annual average GDP growth relative to potential ($\Delta^4 y_{t+3|t} - \Delta^4 y_{t+3|t}^*$), and denotes an assumed value of policymakers' long-run inflation objective. The outcome-based and forecast-based rules were estimated using real-time data over the sample 1988:1-2006:4; each specification was chosen using the Bayesian information criterion. Each rule incorporates a 75 basis point shift in the intercept, specified as a sequence of 25 basis point increments during the first three quarters of 1998. The first two simple rules were proposed by Taylor (1993, 1999). The prescriptions of the first-difference rule do not depend on assumptions regarding $r*$ or the level of the output gap; see Orphanides (2003).

Outcome-based rule	$i_t = 1.20 i_{t-1} - 0.39 i_{t-2} + 0.19[1.17 + 1.73\pi_t$ $+3.66(y_t - y_t^*) - 2.72(y_{t-1} - y_{t-1}^*)]$
Forecast-based rule	$i_t = 1.18 i_{t-1} - 0.38 i_{t-2} + 0.20[0.98 + 1.72\pi_{t+2|t}$ $+2.29\left(y_{t+1|t} - y_{t+1|t}^*\right) - 1.37(y_{t-1} - y_{t-1}^*)]$
Taylor (1993) rule	$i_t = 2 + \pi_t + 0.5(\pi_t - \pi^*) + 0.5(y_t - y_t^*)$
Taylor (1999) rule	$i_t = 2 + \pi_t + 0.5(\pi_t - \pi^*) + (y_t - y_t^*)$
First-difference rule	$i_t = i_{t-1} + 0.5\left(\pi_{t+3|t} - \pi^*\right) + 0.5(\Delta^4 y_{t+3|t} - \Delta^4 y_{t+3|t}^*)$

FRB/US MODEL SIMULATIONS

Prescriptions from the two empirical rules are computed using dynamic simulations of the FRB/US model, implemented as though the rule were followed starting at this FOMC meeting. The dotted line labeled "Previous Tealbook" is based on the current specification of the policy rule, applied to the previous Tealbook projection. Confidence intervals are based on stochastic simulations of the FRB/US model with shocks drawn from the estimated residuals over 1969-2008.

INFORMATION FROM FINANCIAL MARKETS

The expected funds rate path is based on Eurodollar quotes and implied three-month forward rates from swaps, and the confidence intervals for this path are constructed using prices of interest rate caps.

NEAR-TERM PRESCRIPTIONS OF SIMPLE POLICY RULES

These prescriptions are calculated using Tealbook projections for inflation and the output gap. Because the first-difference rule involves the lagged funds rate, the value labeled "Previous Tealbook" for the current quarter is computed using the actual value of the lagged funds rate, and the one-quarter-ahead prescriptions are based on this rule's prescription for the current quarter.

REFERENCES

Taylor, John B. (1993). "Discretion versus Policy Rules in Practice," *Carnegie-Rochester Conference Series on Public Policy*, vol. 39 (December), pp. 195–214.

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Orphanides, Athanasios (2003). "Historical Monetary Policy Analysis and the Taylor Rule," *Journal of Monetary Economics*, vol. 50 (July), pp. 983–1022.

C. Long-run Projections of the Balance Sheet and Monetary Base

This explanatory note presents the assumptions underlying the projections provided in the section entitled "Long-Run Projections of the Balance Sheet and Monetary Base," as well as projections for each major component of the balance sheet.

GENERAL ASSUMPTIONS

The balance sheet projections are constructed on a monthly frequency from October 2010 to December 2020. The few balance sheet items that are not discussed below are assumed to be constant over the projection period at the level observed on September 30, 2010. The projections for all major asset and liability categories under each scenario are summarized in the tables that follow the bullet points.

The Tealbook projection assumes that the federal funds rate begins to increase in the fourth quarter of 2012. The balance sheet projections assume that no use of short-term draining tools is necessary to achieve the projected path for the federal funds rate.

ASSETS

Treasury Securities, Agency MBS, and Agency Debt Securities

- The baseline scenario corresponds to Alternative B.
    - An additional $600 billion of longer-term Treasury securities are purchased from November 2010 to June 2011, at an average pace of $75 billion per month.
    - Principal payments from Treasury securities continue to be reinvested until the federal funds rate lifts off.
    - Principal payments from agency MBS and agency debt securities are reinvested in longer term Treasury securities until the federal funds rate increases in the fourth quarter of 2012.
    - All purchases of Treasury securities are executed assuming a maturity distribution similar to that of the first Treasury purchase program.[1]
    - At the time of the federal funds liftoff, all securities are allowed to roll off the portfolio as they mature or prepay.

Explanatory Notes

[1] Because current and expected near-term interest rates are below the average coupon rate on outstanding Treasury securities, the market value at which these securities are purchased will exceed the face value. Reserve balances will increase by the market value, whereas securities holdings will increase by the face value. The roughly $120 billion in premiums is recorded in "other assets."

- The Federal Reserve will begin to sell agency MBS and agency debt securities six months after the assumed increase in the federal funds rate. The holdings of agency securities are reduced over five years and reach zero by the end of the first quarter of 2018.

- For agency MBS, the rate of prepayment is based on estimates of housing market factors from one of the program's investment managers and interest rate projections from the Tealbook. The projected rate of prepayment is sensitive to these underlying assumptions.

- Under Alternative A, a $1 trillion longer-term Treasury securities purchase program is implemented between November 2010 and the end of 2011. All other assumptions follow the baseline scenario.

- Under Alternative C, there are no additional Treasury security purchases, although the proceeds from maturing Treasury securities and the principal payments of agency MBS and agency debt securities are reinvested in Treasury securities through September 2012. All other assumptions are as in the baseline.

- Under Alternative D, there are no additional Treasury security purchases, although the proceeds from maturing Treasury securities and the principal payments of agency securities are reinvested in Treasury securities; the latter is halted at the end of the second quarter of 2011, five quarters earlier than in the other scenarios. The Tealbook projects that GDP accelerates in 2011, and this alternative assumes that the FOMC halts its policy of reinvestment in response. The subsequent decline in asset holdings is the same as in the other alternatives.

- In all four scenarios, a minimum level of $25 billion is set for reserve balances. To ensure that reserve balances do not fall below this minimum level, first the U.S. Treasury's supplementary financing account (SFA) is reduced. After the SFA declines to zero, Treasury bills are purchased. Purchases of bills continue until these securities comprise one-third of the Federal Reserve's total Treasury securities holdings–about the average level in the period prior to the crisis. Once this level is reached, the Federal Reserve buys notes and bonds in addition to bills to maintain an approximate composition of the portfolio of one-third bills and two-thirds coupon securities.

Liquidity Programs and Credit Facilities

- Loans through the Term Asset-Backed Securities Loan Facility (TALF) peaked at $49 billion in March 2010. Credit extended through this facility declines to zero by the end of 2014, reflecting loan maturities and prepayments.

- The assets held by TALF LLC increase to $1.3 billion by the end of 2014, before declining to zero thereafter. Assets held by TALF LLC consist of investments of commitment fees collected by the LLC and the U.S. Treasury's initial funding. In this projection, the LLC does not purchase any asset-backed securities received by the Federal Reserve Bank of New York in connection with a decision of a borrower not to repay a TALF loan.

- Credit extended to AIG, the sum of the Federal Reserve Bank of New York's extension of revolving credit and its preferred interests in AIA Aurora LLC and ALICO Holdings LLC, increases slightly to $47 billion in October 2010 and then declines to zero by March of 2013.
- The assets held by Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III LLC are sold over time and reach a minimal level by the end of 2016.

LIABILITIES AND CAPITAL

- Federal Reserve notes in circulation grow in line with the staff forecast for money stock currency through the end of 2012. From 2013 to the end of the projection period, Federal Reserve notes in circulation grow at the same rate as nominal GDP, as projected in the extended Tealbook forecast.
- The U.S. Treasury's general account (TGA) follows the staff forecast for end-of-month U.S. Treasury operating cash balances through March of 2011.[2] At that point, the TGA slowly drops back to its historical target level of $5 billion by the end of 2011 as it is assumed that the Treasury will have implemented a new cash management system that allows it to invest funds in excess of $5 billion. The TGA remains constant at $5 billion over the remainder of the forecast period.
- Balances in the SFA remain at their current level until the SFA is reduced to ensure that the level of reserve balances does not fall below $25 billion.
- Federal Reserve capital grows 15 percent per year, in line with the average rate of the past ten years.
- In general, increases in the level of assets of the Federal Reserve generate higher levels of reserve balances. Increases in the levels of other liability items, such as Federal Reserve notes in circulation or the Treasury's general account, like increases in the level of Reserve Bank capital, drain reserve balances. When increases in these liability or capital items would otherwise cause reserve balances to fall below $25 billion, purchases of Treasury securities are assumed in order to maintain that level of reserve balances.

[2] The staff forecast for end-of-month U.S. Treasury operating cash balances includes forecasts of both the TGA and balances associated with the U.S. Treasury's Tax and Loan program. Because balances associated with the Tax and Loan program are $2 billion, for the time being, this forecast is a good proxy for the level of TGA balances.

Federal Reserve Balance Sheet
End-of-Year Projections -- Baseline Scenario (Alternative B)

	Sep 30, 2010	2010	2012	2014	2016	2018	2020
		End-of-Year					
		$ Billions					
Total assets	2,311	2,424	2,767	1,930	1,475	1,635	1,825
Selected assets:							
Liquidity programs for financial firms	0	0	0	0	0	0	0
Primary, secondary, and seasonal credit	0	0	0	0	0	0	0
Central bank liquidity swaps	0	0	0	0	0	0	0
Lending though other credit facilities	30	29	9	0	0	0	0
Term Asset-Backed Securities Loan Facility (TALF)	30	29	9	0	0	0	0
Support for specific institutions	112	84	29	9	2	0	0
Credit extended to AIG	45	31	0	0	0	0	0
Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III	67	53	29	9	2	0	0
Securities held outright	2,054	2,180	2,561	1,799	1,384	1,559	1,756
U.S. Treasury securities	822	1,040	1,934	1,415	1,235	1,559	1,756
Agency debt securities	154	147	77	39	16	0	0
Agency mortgage-backed securities	1,079	992	550	345	133	0	0
Special drawing rights certificate account	5	5	7	7	7	7	7
Net portfolio holdings of TALF LLC	1	1	1	1	0	0	0
Total other assets	108	126	161	113	82	69	62
Total liabilities	2,254	2,365	2,689	1,827	1,339	1,455	1,587
Selected liabilities:							
Federal Reserve notes in circulation	914	920	981	1,113	1,231	1,347	1,479
Reverse repurchase agreements	65	64	59	59	59	59	59
Deposits with Federal Reserve Banks	1,252	1,363	1,634	641	35	35	35
Reserve balances held by depository institutions	942	1,091	1,424	431	25	25	25
U.S. Treasury, general account	108	70	5	5	5	5	5
U.S. Treasury, supplementary financing account	200	200	200	200	0	0	0
Other balances	2	2	5	5	5	5	5
Total capital	57	59	78	103	136	180	239

Source: Federal Reserve H.4.1 statistical release and staff calculations.
Note: Components may not sum to totals due to rounding.

Explanatory Notes

Federal Reserve Balance Sheet
End-of-Year Projections -- Alternative A

	Sep 30, 2010	2010	2012	2014	2016	2018	2020
		End-of-Year					
		$ Billions					
Total assets	2,311	2,417	3,167	2,236	1,475	1,635	1,825
Selected assets:							
Liquidity programs for financial firms	0	0	0	0	0	0	0
Primary, secondary, and seasonal credit	0	0	0	0	0	0	0
Central bank liquidity swaps	0	0	0	0	0	0	0
Lending though other credit facilities	30	29	9	0	0	0	0
Term Asset-Backed Securities Loan Facility (TALF)	30	29	9	0	0	0	0
Support for specific institutions	112	84	29	9	2	0	0
Credit extended to AIG	45	31	0	0	0	0	0
Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III	67	53	29	9	2	0	0
Securities held outright	2,054	2,173	2,961	2,105	1,384	1,559	1,756
U.S. Treasury securities	822	1,033	2,334	1,721	1,235	1,559	1,756
Agency debt securities	154	147	77	39	16	0	0
Agency mortgage-backed securities	1,079	992	550	345	133	0	0
Special drawing rights certificate account	5	5	7	7	7	7	7
Net portfolio holdings of TALF LLC	1	1	1	1	0	0	0
Total other assets	108	126	161	113	82	69	62
Total liabilities	2,254	2,358	3,089	2,132	1,339	1,455	1,587
Selected liabilities:							
Federal Reserve notes in circulation	914	920	981	1,113	1,231	1,347	1,479
Reverse repurchase agreements	65	64	59	59	59	59	59
Deposits with Federal Reserve Banks	1,252	1,358	2,034	947	35	35	35
Reserve balances held by depository institutions	942	1,084	1,824	737	25	25	25
U.S. Treasury, general account	108	70	5	5	5	5	5
U.S. Treasury, supplementary financing account	200	200	200	200	0	0	0
Other balances	2	5	5	5	5	5	5
Total capital	57	59	78	103	136	180	239

Source: Federal Reserve H.4.1 statistical release and staff calculations.
Note: Components may not sum to totals due to rounding.

Explanatory Notes

Federal Reserve Balance Sheet
End-of-Year Projections -- Alternative C

	Sep 30, 2010	End-of-Year 2010	2012	2014	2016	2018	2020
		$ Billions					
Total assets	2,311	2,246	2,092	1,440	1,475	1,635	1,825
Selected assets:							
Liquidity programs for financial firms	0	0	0	0	0	0	0
Primary, secondary, and seasonal credit	0	0	0	0	0	0	0
Central bank liquidity swaps	0	0	0	0	0	0	0
Lending though other credit facilities	30	29	9	0	0	0	0
Term Asset-Backed Securities Loan Facility (TALF)	30	29	9	0	0	0	0
Support for specific institutions	112	84	29	9	2	0	0
Credit extended to AIG	45	31	0	0	0	0	0
Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III	67	53	29	9	2	0	0
Securities held outright	2,054	2,030	1,964	1,351	1,400	1,566	1,759
U.S. Treasury securities	822	890	1,338	967	1,251	1,566	1,759
Agency debt securities	154	147	77	39	16	0	0
Agency mortgage-backed securities	1,079	992	550	345	133	0	0
Special drawing rights certificate account	5	5	7	7	7	7	7
Net portfolio holdings of TALF LLC	1	1	1	1	0	0	0
Total other assets	108	98	82	71	66	63	59
Total liabilities	2,254	2,187	2,014	1,337	1,339	1,455	1,587
Selected liabilities:							
Federal Reserve notes in circulation	914	920	981	1,113	1,231	1,347	1,479
Reverse repurchase agreements	65	64	59	59	59	59	59
Deposits with Federal Reserve Banks	1,252	1,187	959	151	35	35	35
Reserve balances held by depository institutions	942	913	749	25	25	25	25
U.S. Treasury, general account	108	70	5	5	5	5	5
U.S. Treasury, supplementary financing account	200	200	200	116	0	0	0
Other balances	2	5	5	5	5	5	5
Total capital	57	59	78	103	136	180	239

Source: Federal Reserve H.4.1 statistical release and staff calculations.
Note: Components may not sum to totals due to rounding.

Explanatory Notes

Federal Reserve Balance Sheet
End-of-Year Projections --Alternative D

		End-of-Year					
	Sep 30, 2010	2010	2012	2014	2016	2018	2020
		$ Billions					
Total assets	2,311	2,246	2,052	1,409	1,475	1,635	1,825
Selected assets:							
Liquidity programs for financial firms	0	0	0	0	0	0	0
Primary, secondary, and seasonal credit	0	0	0	0	0	0	0
Central bank liquidity swaps	0	0	0	0	0	0	0
Lending though other credit facilities	30	29	9	0	0	0	0
Term Asset-Backed Securities Loan Facility (TALF)	30	29	9	0	0	0	0
Support for specific institutions	112	84	29	9	2	0	0
Credit extended to AIG	45	31	0	0	0	0	0
Net portfolio holdings of Maiden Lane LLC, Maiden Lane II LLC, and Maiden Lane III	67	53	29	9	2	0	0
Securities held outright	2,054	2,030	1,925	1,320	1,400	1,566	1,759
U.S. Treasury securities	822	890	1,298	936	1,251	1,566	1,759
Agency debt securities	154	147	77	39	16	0	0
Agency mortgage-backed securities	1,079	992	550	345	133	0	0
Special drawing rights certificate account	5	5	7	7	7	7	7
Net portfolio holdings of TALF LLC	1	1	1	1	0	0	0
Total other assets	108	98	82	71	66	63	59
Total liabilities	2,254	2,187	1,974	1,305	1,339	1,455	1,587
Selected liabilities:							
Federal Reserve notes in circulation	914	920	981	1,113	1,231	1,347	1,479
Reverse repurchase agreements	65	64	59	59	59	59	59
Deposits with Federal Reserve Banks	1,252	1,185	919	120	35	35	35
Reserve balances held by depository institutions	942	913	709	25	25	25	25
U.S. Treasury, general account	108	70	5	5	5	5	5
U.S. Treasury, supplementary financing account	200	200	200	85	0	0	0
Other balances	2	2	5	5	5	5	5
Total capital	57	59	78	103	136	180	239

Source: Federal Reserve H.4.1 statistical release and staff calculations.
Note: Components may not sum to totals due to rounding.

Explanatory Notes

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