Table 1: Economic projections of Federal Reserve Board members and Federal Reserve Bank Presidents, April 2012

Percent

Variable	Central tendency[1]				Range[2]			
	2012	2013	2014	Longer run	2012	2013	2014	Longer run
Change in real GDP	2.4 to 2.9	2.7 to 3.1	3.1 to 3.6	2.3 to 2.6	2.1 to 3.0	2.4 to 3.8	2.9 to 4.3	2.2 to 3.0
January projection	2.2 to 2.7	2.8 to 3.2	3.3 to 4.0	2.3 to 2.6	2.1 to 3.0	2.4 to 3.8	2.8 to 4.3	2.2 to 3.0
Unemployment rate	7.8 to 8.0	7.3 to 7.7	6.7 to 7.4	5.2 to 6.0	7.8 to 8.2	7.0 to 8.1	6.3 to 7.7	4.9 to 6.0
January projection	8.2 to 8.5	7.4 to 8.1	6.7 to 7.6	5.2 to 6.0	7.8 to 8.6	7.0 to 8.2	6.3 to 7.7	5.0 to 6.0
PCE inflation	1.9 to 2.0	1.6 to 2.0	1.7 to 2.0	2.0	1.8 to 2.3	1.5 to 2.1	1.5 to 2.2	2.0
January projection	1.4 to 1.8	1.4 to 2.0	1.6 to 2.0	2.0	1.3 to 2.5	1.4 to 2.3	1.5 to 2.1	2.0
Core PCE inflation[3]	1.8 to 2.0	1.7 to 2.0	1.8 to 2.0		1.7 to 2.0	1.6 to 2.1	1.7 to 2.2	
January projection	1.5 to 1.8	1.5 to 2.0	1.6 to 2.0		1.3 to 2.0	1.4 to 2.0	1.4 to 2.0	

NOTE: Projections of change in real gross domestic product (GDP) and projections for both measures of inflation are from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption expenditures (PCE) and the price index for PCE excluding food and energy. Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated. Each participant's projections are based on his or her assessment of appropriate monetary policy. Longer-run projections represent each participant’s assessment of the rate to which each variable would be expected to converge under appropriate monetary policy and in the absence of further shocks to the economy. The January projections were made in conjunction with the Federal Open Market Committee meeting on January 24-25, 2012.

1. The central tendency excludes the three highest and three lowest projections for each variable in each year.
2. The range for a variable in a given year includes all participants' projections, from lowest to highest, for that variable in that year.
3. Longer-run projections for core PCE inflation are not collected.

Table 1a
Economic Projections for the First Half of 2012*
(in percent)

Central Tendencies and Ranges

	Central Tendency	Range
Change in Real GDP	2.3 to 2.8	2.2 to 3.0
PCE Inflation	2.0 to 2.2	1.9 to 2.4
Core PCE Inflation	1.9 to 2.0	1.8 to 2.1

Participants' Projections

Projection	Change in Real GDP	PCE Inflation	Core PCE Inflation
1	2.6	2.0	1.9
2	2.3	2.0	1.9
3	2.4	2.2	2.1
4	2.8	2.1	2.0
5	2.3	2.0	2.0
6	2.5	2.2	2.0
7	2.3	1.9	2.0
8	2.7	2.4	2.0
9	2.9	2.1	1.9
10	3.0	2.0	2.0
11	2.8	2.3	2.0
12	2.5	2.4	1.8
13	2.6	2.0	2.0
14	2.4	2.1	1.9
15	2.2	2.0	2.0
16	2.5	2.0	2.0
17	2.3	2.2	2.0

* Growth and inflation are reported at annualized rates.

Table 1b
Economic Projections for the Second Half of 2012*
(in percent)

Central Tendencies and Ranges

	Central Tendency	Range
Change in Real GDP	2.4 to 3.0	2.0 to 3.5
PCE Inflation	1.7 to 2.0	1.6 to 2.2
Core PCE Inflation	1.6 to 1.9	1.4 to 2.0

Participants' Projections

Projection	Change in Real GDP	PCE Inflation	Core PCE Inflation
1	2.4	1.8	1.7
2	2.3	1.8	1.7
3	3.0	1.8	1.9
4	2.8	1.7	1.6
5	2.3	1.6	1.4
6	2.9	1.8	1.6
7	2.5	1.7	1.8
8	2.7	1.6	2.0
9	2.9	2.1	1.9
10	3.0	2.0	2.0
11	3.2	1.9	1.8
12	3.5	2.2	1.8
13	3.0	1.8	1.8
14	2.8	1.7	1.7
15	2.0	1.8	1.6
16	2.9	2.0	2.0
17	2.7	1.8	1.8

* Projections for the second half of 2012 implied by participants' April projections for the first half of 2012 and for 2012 as a whole. Growth and inflation are reported at annualized rates.

Table 2: April Economic Projections
(in percent)

Projection	Year	Change in Real GDP	Unemployment Rate	PCE Inflation	Core PCE Inflation	Federal Funds Rate
1	2012	2.5	8.0	1.9	1.8	0.13
2	2012	2.3	8.1	1.9	1.8	0.13
3	2012	2.7	8.0	2.0	2.0	0.13
4	2012	2.8	8.0	1.9	1.8	0.13
5	2012	2.3	8.2	1.8	1.7	0.13
6	2012	2.7	7.8	2.0	1.8	0.13
7	2012	2.4	7.9	1.8	1.9	0.13
8	2012	2.7	7.9	2.0	2.0	0.13
9	2012	2.9	7.9	2.1	1.9	0.13
10	2012	3.0	7.8	2.0	2.0	1.00
11	2012	3.0	8.0	2.1	1.9	0.13
12	2012	3.0	7.8	2.3	1.8	0.13
13	2012	2.8	7.9	1.9	1.9	0.13
14	2012	2.6	8.0	1.9	1.8	0.13
15	2012	2.1	8.2	1.9	1.8	0.13
16	2012	2.7	7.8	2.0	2.0	1.25
17	2012	2.5	8.0	2.0	1.9	0.50
1	2013	2.6	7.7	1.8	1.8	0.13
2	2013	2.8	7.8	1.5	1.7	0.13
3	2013	3.1	7.5	1.8	1.9	0.13
4	2013	3.0	7.7	1.6	1.7	0.13
5	2013	2.7	7.8	1.7	1.6	0.13
6	2013	2.9	7.2	2.0	1.9	0.13
7	2013	3.1	7.3	1.9	1.9	1.00
8	2013	3.0	7.5	2.0	2.0	1.00
9	2013	3.0	7.3	2.0	2.0	0.13
10	2013	3.0	7.0	2.0	2.0	1.75
11	2013	3.0	7.5	2.1	1.9	0.13
12	2013	3.8	7.0	2.1	2.0	0.75
13	2013	3.4	7.3	1.6	1.8	0.13
14	2013	2.7	7.6	1.6	1.7	0.13
15	2013	2.4	8.1	1.5	1.7	0.13
16	2013	3.0	7.3	2.1	2.1	1.75
17	2013	3.2	7.5	2.0	2.0	1.25

Table 2 (continued): April Economic Projections

Projection	Year	Change in Real GDP	Unemployment Rate	PCE Inflation	Core PCE Inflation	Federal Funds Rate
1	2014	3.0	7.4	1.8	1.9	0.50
2	2014	3.2	7.4	1.7	1.7	0.13
3	2014	3.5	7.0	1.8	2.0	0.13
4	2014	4.0	7.1	1.7	1.7	0.13
5	2014	3.3	7.4	2.0	1.8	0.50
6	2014	4.3	6.4	2.0	2.0	0.50
7	2014	3.4	6.7	2.0	2.0	2.50
8	2014	3.5	7.2	2.0	2.0	2.50
9	2014	3.3	6.7	2.0	2.0	2.00
10	2014	3.0	6.3	2.0	2.0	2.50
11	2014	2.9	7.2	2.2	2.0	1.00
12	2014	3.5	6.5	2.0	2.0	2.75
13	2014	3.7	6.8	1.6	1.8	1.50
14	2014	3.1	7.1	1.7	1.8	1.00
15	2014	3.3	7.7	1.5	1.7	0.13
16	2014	3.2	6.7	2.2	2.2	2.25
17	2014	3.6	7.0	2.0	2.0	2.00
1	LR	2.4	5.5	2.0		4.40
2	LR	2.5	5.2	2.0		4.00
3	LR	2.5	5.3	2.0		4.00
4	LR	2.5	5.2	2.0		4.50
5	LR	2.3	5.4	2.0		4.00
6	LR	2.3	4.9	2.0		3.50
7	LR	2.5	5.5	2.0		4.50
8	LR	2.5	6.0	2.0		4.50
9	LR	2.5	5.2	2.0		4.50
10	LR	2.7	6.0	2.0		4.50
11	LR	2.6	6.0	2.0		4.00
12	LR	2.3	6.0	2.0		4.25
13	LR	2.5	6.0	2.0		4.50
14	LR	2.2	5.5	2.0		4.20
15	LR	3.0	5.4	2.0		3.80
16	LR	2.5	6.0	2.0		4.00
17	LR	2.7	5.5	2.0		4.00

Table 2 Appendix: Assessments of participants who, under appropriate monetary policy, judge that the federal funds rate will not be raised until after 2014

Projection	Year of first increase	Change in Real GDP	Unemployment Rate	PCE Inflation	Core PCE Inflation	Federal Funds Rate
2	2015	3.7	6.8	1.7	1.6	1.5
3	2015	3.7	6.3	1.9	2	1
4	2015	4	6.4	1.9	1.9	1
15	2015	4	7.0	1.7	1.7	1.5

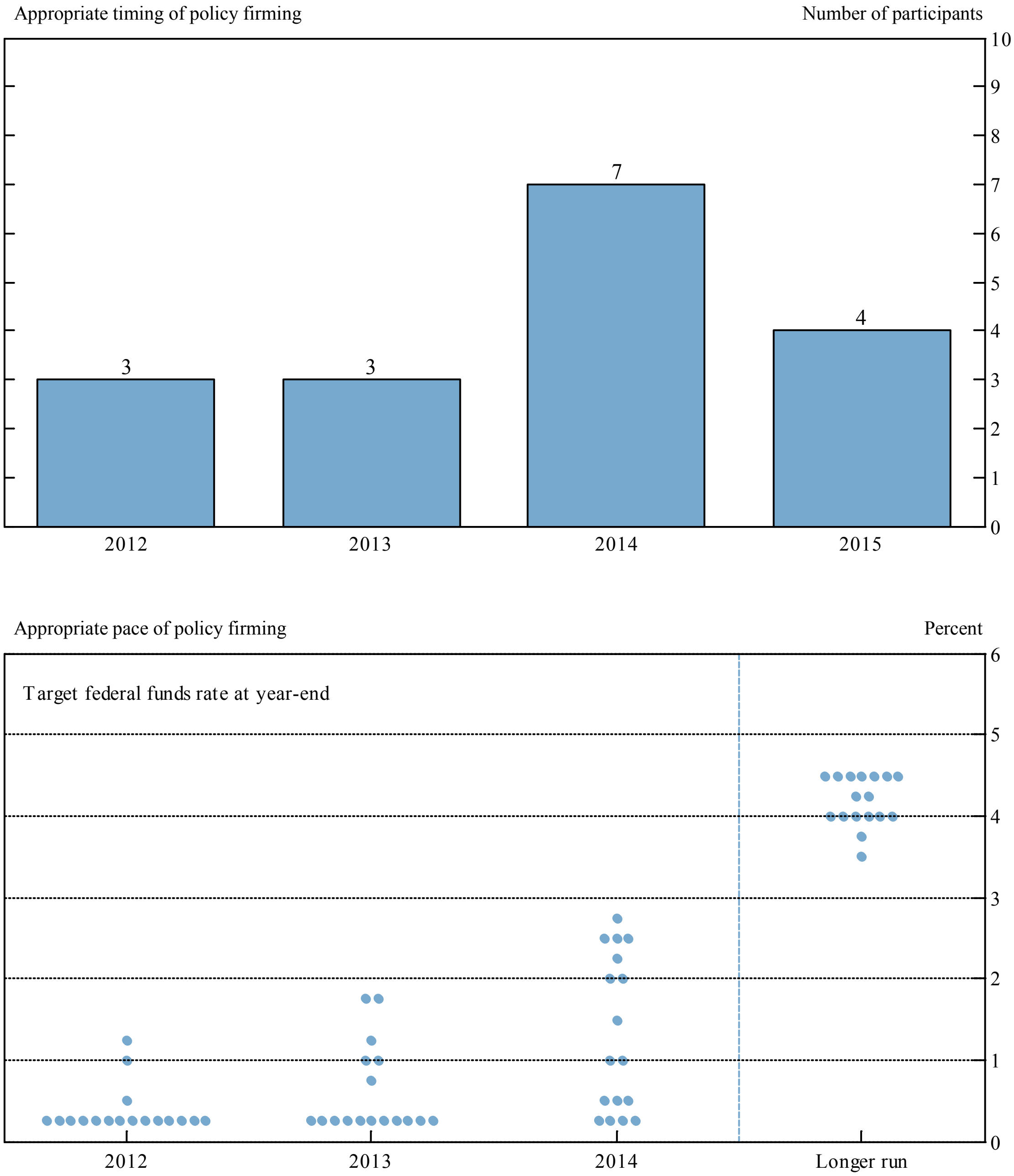
Figure 1. Central tendencies and ranges of economic projections, 2012–14 and over the longer run

NOTE: Definitions of variables are in the notes to table 1. The data for the actual values of the variables are annual.

Central tendencies and ranges of economic projections, 2012–14 and over the longer run

NOTE: Definitions of variables are in the notes to table 1. The data for the actual values of the variables are annual.

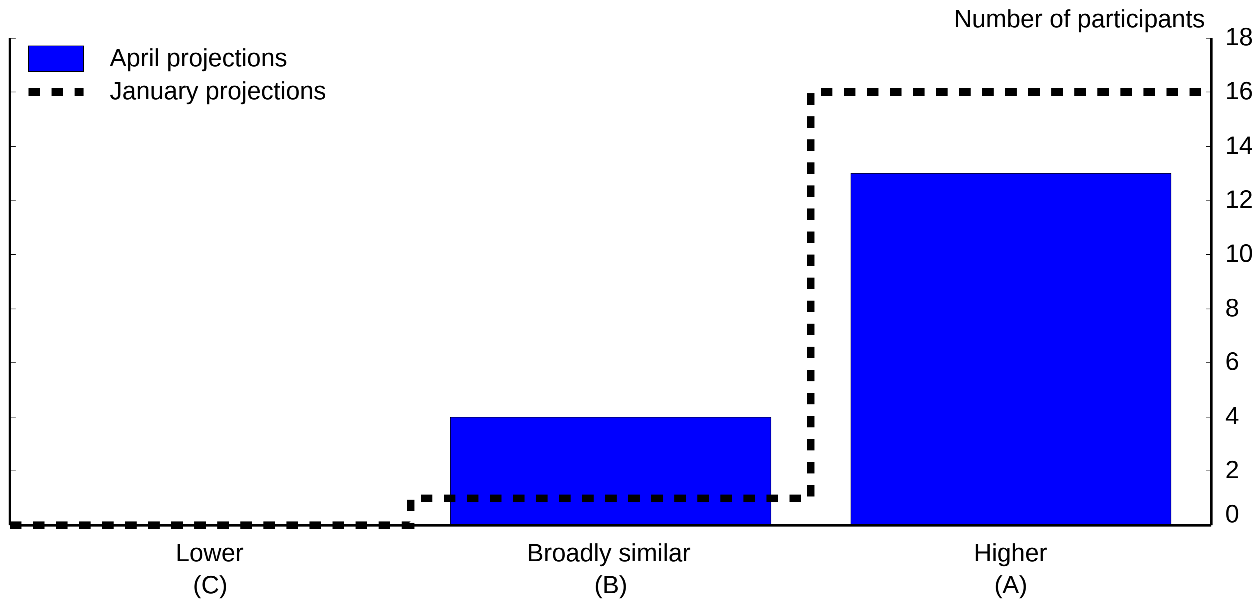
Figure 2. Overview of FOMC participants' assessments of appropriate monetary policy, April 2012



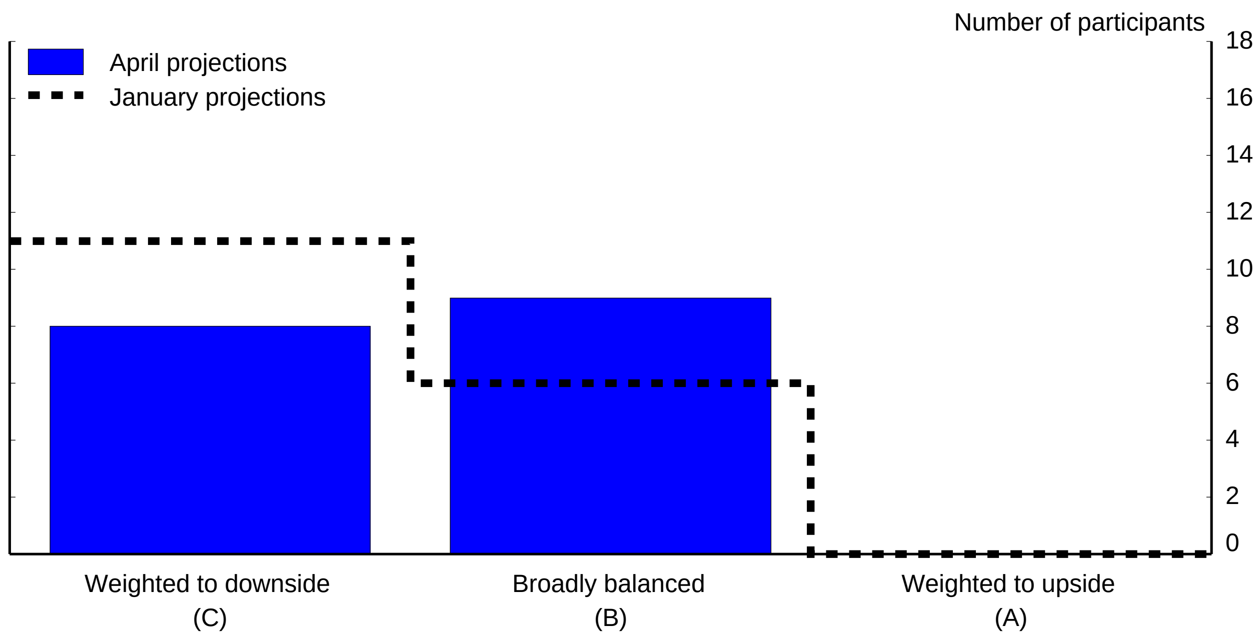
NOTE: In the upper panel, the height of each bar denotes the number of FOMC participants who judge that, under appropriate monetary policy, the first increase in the target federal funds rate from its current range of 0 to ¼ percent will occur in the specified calendar year. In January 2012, the numbers of FOMC participants who judged that the first increase in the target federal funds rate would occur in 2012, 2013, 2014, 2015, and 2016 were, respectively, 3, 3, 5, 4, and 2. In the lower panel, each shaded circle indicates the value (rounded to the nearest ¼ percent) of an individual participant's judgment of the appropriate level of the target federal funds rate at the end of the specified calendar year or over the longer run.

Uncertainty and Risks - GDP Growth

2(a): Please indicate your judgment of the uncertainty attached to your projections relative to levels of uncertainty over the past 20 years.



2(b): Please indicate your judgment of the risk weighting around your projections.

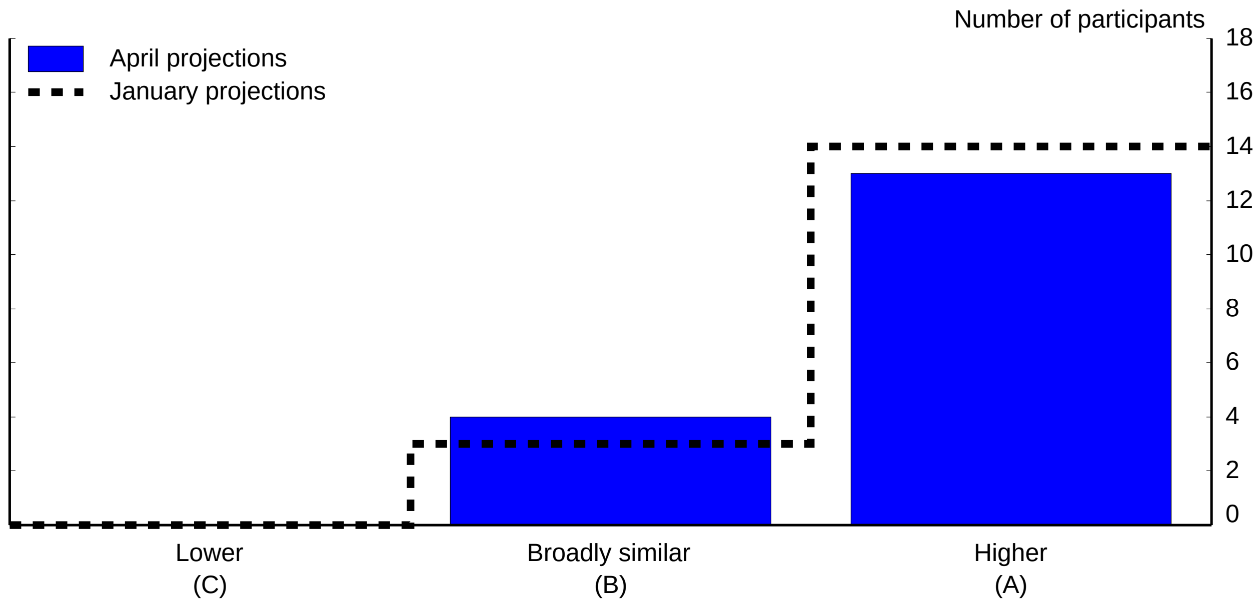


Individual Responses

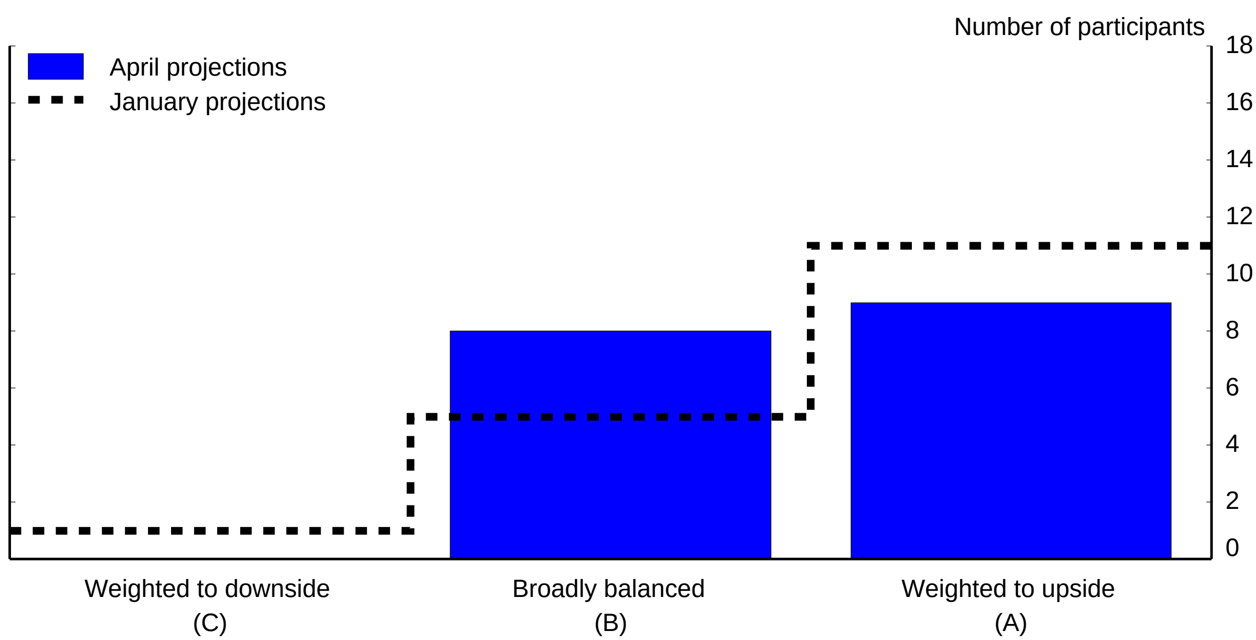
Respondent	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2(a)	A	A	A	A	B	A	A	A	B	A	B	B	A	A	A	A	A
2(b)	B	C	C	C	B	C	B	C	B	B	B	B	C	C	C	B	B

Uncertainty and Risks - Unemployment Rate

2(a): Please indicate your judgment of the uncertainty attached to your projections relative to levels of uncertainty over the past 20 years.



2(b): Please indicate your judgment of the risk weighting around your projections.

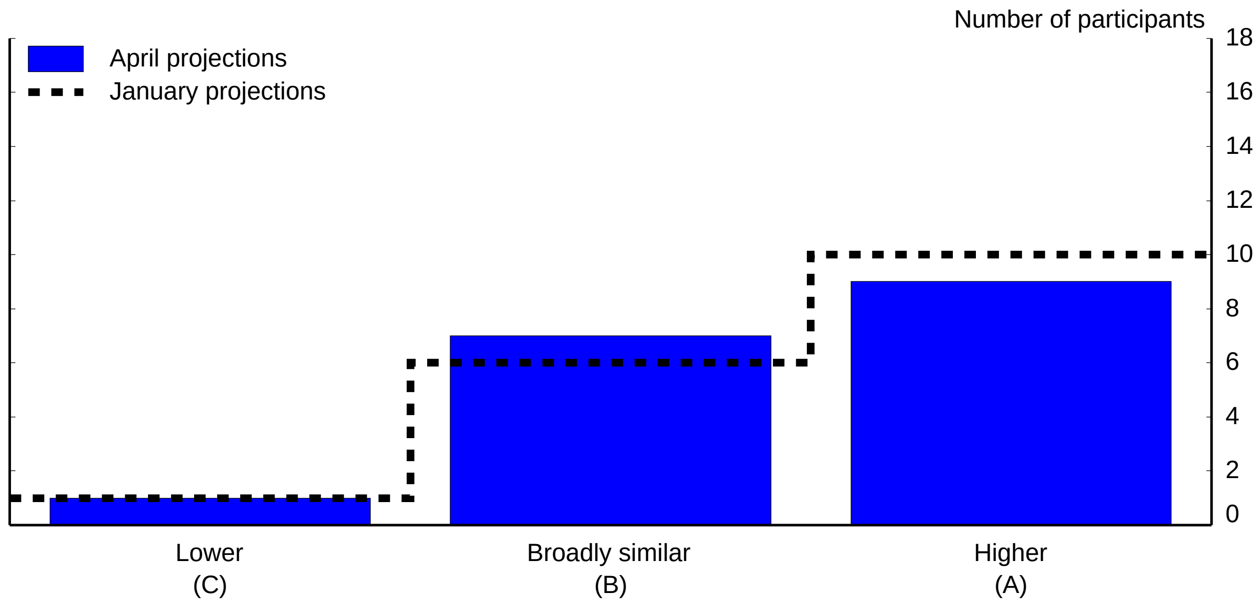


Individual Responses

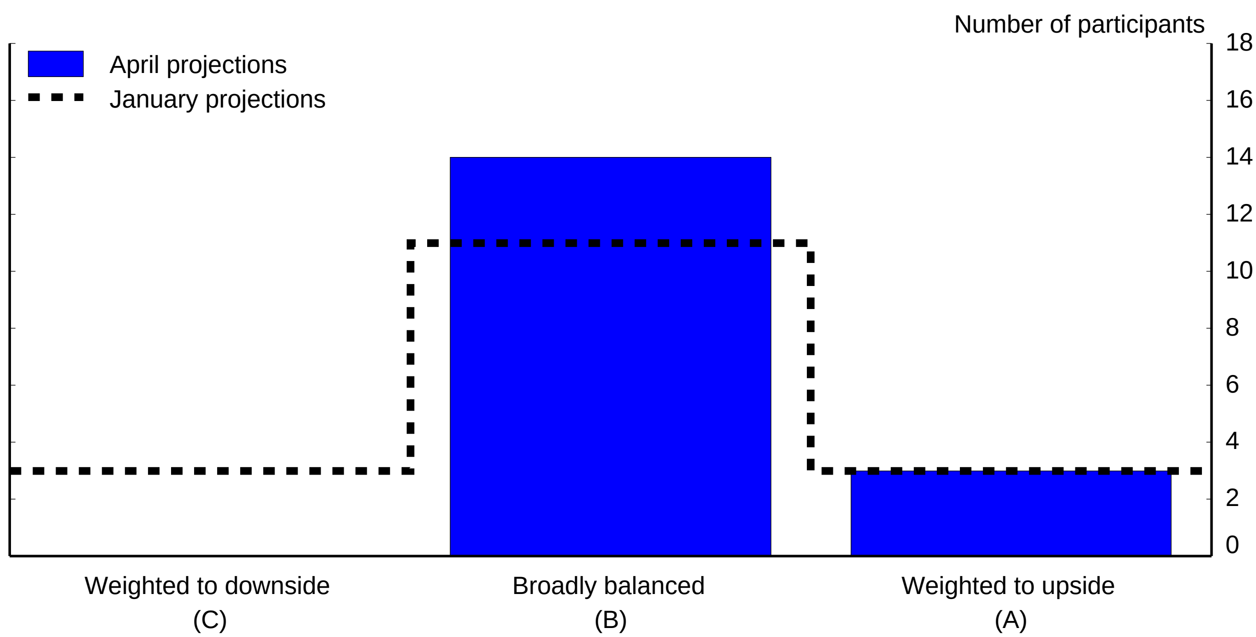
Respondent	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2(a)	A	A	A	A	B	A	A	A	B	B	A	B	A	A	A	A	A
2(b)	A	A	A	A	B	A	B	A	B	B	B	B	A	A	A	B	B

Uncertainty and Risks - PCE Inflation

2(a): Please indicate your judgment of the uncertainty attached to your projections relative to levels of uncertainty over the past 20 years.



2(b): Please indicate your judgment of the risk weighting around your projections.

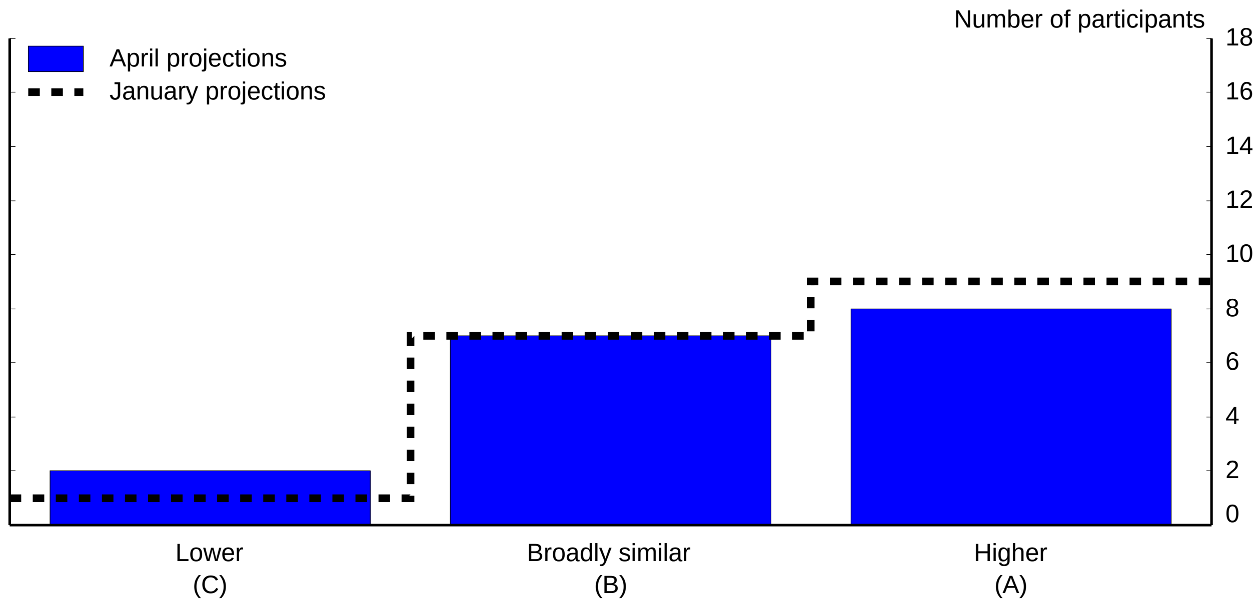


Individual Responses

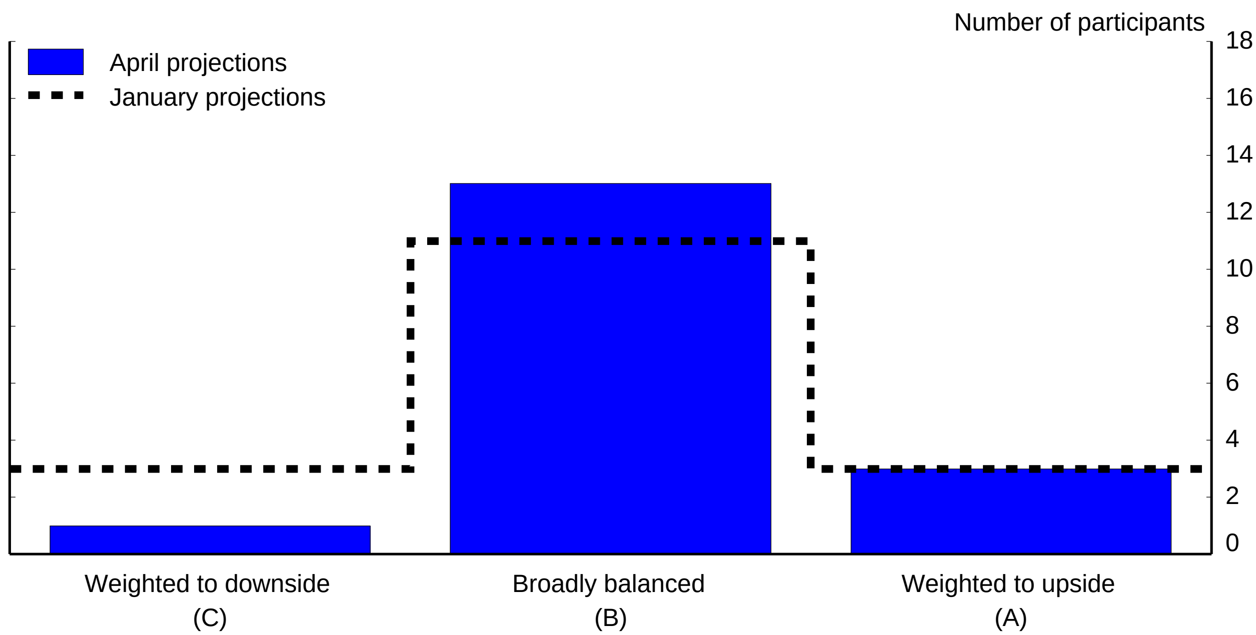
Respondent	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2(a)	A	A	A	B	B	A	A	C	B	A	A	B	A	B	B	A	B
2(b)	B	B	B	B	B	B	A	A	B	A	B	B	B	B	B	B	B

Uncertainty and Risks - Core PCE Inflation

2(a): Please indicate your judgment of the uncertainty attached to your projections relative to levels of uncertainty over the past 20 years.



2(b): Please indicate your judgment of the risk weighting around your projections.



Individual Responses

Respondent	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2(a)	B	A	A	B	B	A	A	C	B	A	A	B	A	C	B	A	B
2(b)	B	B	B	B	B	B	A	A	B	A	B	B	B	B	B	C	B

Longer-run Projections

1(c). If you anticipate that the convergence process will take SHORTER OR LONGER than about five or six years, please indicate below your best estimate of the duration of the convergence process. You may also include below any other explanatory comments that you think would be helpful.

Respondent 1:
Unemployment should be close to its long-run value in five to six years. Inflation should return to its long-run value within one to two years.

Respondent 2:
Convergence to the longer-run levels of the unemployment rate and inflation is expected in 5 to 6 years.

Respondent 3:
N/A

Respondent 4:
The unemployment rate might not converge to its longer-run value until late in the 5-6 year window.

Respondent 5:
N/A

Respondent 6:
Our current estimate of the economy's potential growth rate is in the 2% to 2 $\frac{1}{2}$% range. By 2017-18 we anticipate potential growth of around 2 $\frac{1}{4}$%. A reasonable estimate of the long-run unemployment rate is 4% to 6%. Assuming appropriate policy and no further significant shocks, we expect the unemployment rate to be in this range and the output gap to be around zero by 2017-18; analysis of recent long expansions (1980s and 1990s) suggests the unemployment rate could be somewhat below 5% in 5-6 years time.

We assume that long-term inflation expectations will continue to be anchored around 2.5% on a CPI basis and that the FOMC's inflation objective will remain at 2% for the PCE deflator and around 2.5% for the CPI. Under these conditions and with the output gap anticipated to be near zero, we expect inflation as measured by the PCE deflator to be close to 2% in 2017-18.

Respondent 7:
N/A

Respondent 8:
N/A

Respondent 9:
N/A

Respondent 10:
The convergence process may be slightly shorter than 5-6 years

Respondent 11:
N/A

Respondent 12:

I anticipate that the convergence process for real GDP growth and unemployment will be shorter than 5-6 years, likely on the order of 4 years. Similarly, and quite possibly even quicker, I think inflation will converge to 2 percent.

Respondent 13:
N/A

Respondent 14:
N/A

Respondent 15:
N/A

Respondent 16:
N/A

Respondent 17:
Full convergence may take five or six years. However, risks are weighted toward faster convergence.

Uncertainty and Risks

2(a). (Optional) If you have any explanatory comments regarding your judgment of the uncertainty attached to your projections relative to levels of uncertainty over the past 20 years, you may enter them below.

Respondent 1:
The size of the recession and its unusual origins (financial crisis, housing) make the pace of recovery unusually hard to forecast. The labor market is undergoing an unusual amount of structural change (e.g., in labor force participation) and fiscal policy is very uncertain. We do not know whether Okun's Law will reassert itself going forward. Europe poses uncertain downside risks. In all, uncertainty regarding output and unemployment is higher than normal, though perhaps slightly less elevated than earlier in the recovery. Core inflation seems stable, in part because of highly stable inflation expectations. Uncertainty about overall inflation is mostly linked to uncertainty about global commodity prices, which depend on idiosyncratic supply and demand factors as well as global growth; although on the whole commodity prices have been somewhat more stable lately, their volatility relative to the past makes overall inflation relatively uncertain.

Respondent 2:
N/A

Respondent 3:
N/A

Respondent 4:
N/A

Respondent 5:
N/A

Respondent 6:
Quantitative judgment based on the standard deviation of the FRBNY forecast distribution for GDP growth and core PCE inflation relative to the forecast errors over the last 20 years.

Respondent 7:
Several factors contribute to heightened uncertainty, including the European debt crisis, U.S. fiscal policy (near-term and medium-term), and ongoing changes in the regulatory environment. In addition, the Federal Reserve's unconventional policies are a source of uncertainty because they have no historical precedent.

Respondent 8:
It is not clear whether real output will grow appreciably and persistently faster than its longer-term trend in this recovery. Inflation expectations are probably more firmly anchored following the FOMC's consensus statement, and uncertainty is correspondingly lower than in the past.

Respondent 9:
N/A

Respondent 10:
The possibility that the European debt crisis is not resolved in an orderly fashion continues to be a risk to the forecast. It remains the case that the effect of the extraordinary monetary policy in place and uncertainties surrounding the future path of policy, including the timing of the exit from accommodative policy, contribute to uncertainty around my inflation forecast.

Respondent 11:
I have based my assessment of the uncertainty surrounding my forecast partly on judgment and partly on some research by my staff on the current level of uncertainty compared to historical norms. My staff's analysis, based on a vector autoregressive forecasting model that allows the variability of shocks to change over time, showed the uncertainty surrounding the GDP growth forecast now falls within historical norms, while the uncertainty around inflation remains higher than normal.

Respondent 12:
N/A

Respondent 13:
N/A

Respondent 14:
This is a close call, but uncertainty about my projection for economic activity still appears to be somewhat elevated relative to its average over the past 20 years. The new normal for macroeconomic relationships going forward remains unclear. For example, in the aftermath of the financial crisis, there is greater uncertainty than usual about the ability of the financial system to withstand shocks. In addition, there is limited ability for monetary and fiscal policy to damp the effects of adverse shocks. A key downside risk includes ongoing developments in Europe, where fiscal austerity, economic contraction, and a flare-up of financial market stress remain quite likely. Other downside risks include a jump in crude oil prices or a U.S. political stalemate that leads to abruptly contractionary fiscal policy. There are upside risks to the outlook as well. The housing market may be poised to improve faster than expected and a virtuous cycle of improving confidence, fundamentals, and financial conditions may be developing.

In contrast, underlying inflation is anchored by quite stable inflation expectations. The stability of these expectations is reinforced by the announcement of a 2 percent numerical objective for inflation,. Hence, uncertainty about core inflation is lower than in the past two decades. Uncertainty about headline inflation is broadly similar to the past two decades, reflecting the lower uncertainty about underlying inflation that is offset by greater-than-usual uncertainty about oil prices.

Respondent 15:
N/A

Respondent 16:
Volatility was unusually low in the past twenty years.

Respondent 17:
N/A

Uncertainty and Risks

2(b). (Optional) If you have any explanatory comments regarding your judgment of the risk weighting around your projections, you may enter them below.

Respondent 1:
N/A

Respondent 2:
N/A

Respondent 3:
N/A

Respondent 4:
Our baseline scenario is a modal projection that assumes that there will not be a major financial dislocation in Europe that would have a large impact on U.S. activity and that there will not be an abrupt fiscal consolidation in the U.S. over the projection period. Clearly, both of these assumptions pose important major downside risks to our projection. We see risks to our inflation projection emanating from energy prices, uncertainty over the degree of slack in the economy, and the evolution of inflationary expectations; however individually each of these inflationary risks appears broadly balanced on the up and downsides.

Respondent 5:
N/A

Respondent 6:
Quantitative judgment based on the difference between the central projection and the expected value from the FRBNY forecast distribution.

Respondent 7:
The risks to GDP growth and unemployment appear broadly balanced. Downside risks to growth (and upside risks to unemployment) include the European debt crisis, a slowdown in emerging market growth, political tensions in the Middle East leading to higher oil prices, and the fiscal cliff in the United States. However, the resilience of the U.S. economy and signs of improvement in labor markets and consumer sentiment pose upside risks to growth (downside risks to unemployment). The risks to inflation are skewed to the upside due to the highly accommodative stance of monetary policy and short-term and medium-term fiscal imbalances.

Respondent 8:
In the near term, there is an appreciable downside risk to growth in Europe that could lead to lower US exports to Europe and emerging economies. In the medium term, impediments to growth may be serious and persistent enough to pull GDP growth below the path given above. Also, the likelihood of a large surprise in energy prices is more likely to be on the high side of the path given by current prices in the futures markets.

Respondent 9:
N/A

Respondent 10:
I view the risks to inflation as weighted to the upside in the medium run and over the longer term. Longer-term inflation risks reflect uncertainty about the timing and efficacy of the Fed's withdrawal of accommodation, which could lead to inflation expectations becoming unanchored.

Respondent 11:
Tealbook provides a good summary of the relevant risks.

Respondent 12:
N/A

Respondent 13:
N/A

Respondent 14:
Risks to growth appear skewed to the downside and, consequently, to the upside for unemployment. In particular, it is easy to identify potential negative shocks including from Europe; the looming fiscal cliff; and tensions in the Middle East. In addition, negative shocks could have particularly severe effects, because of the continuing vulnerability of the financial system as well as the limited ability of fiscal and monetary policy to respond. Inflation risks, in contrast, are more typically balanced.

Respondent 15:
N/A

Respondent 16:
N/A

Respondent 17:
N/A

Key Factors Informing Your Judgements Regarding the Appropriate Path of the Federal Funds Rate

3(c). Please describe the key factors informing your judgements regarding the appropriate path of the federal funds rate. You may include other comments on appropriate monetary policy here as well.

Respondent 1:
My reaction function is slightly more hawkish than Taylor (1999), in part because of the additional stimulus embodied in asset purchases.. I tack on a quarter or two of additional ease to compensate for the effects of the ZLB.

Respondent 2:
The first increase in the federal funds rate is conditioned on an unemployment rate falling below 7 percent and underlying inflation below 2.5 percent. In the modal outlook, inflation remains well contained and the pace of economic growth picks up sufficiently to lower the unemployment rate below the 7 percent threshold only in 2015. This approach to setting the federal funds rate is consistent with optimal policy calculations based on FRB/US that place equal weights on deviations of inflation from a 2 percent target and the unemployment rate from the natural rate.

Respondent 3:
My assessment of economic conditions is very close to that in Tealbook, but my preferred policy path is significantly more accommodative than the outcome-based rule incorporated into the Tealbook baseline. I would only begin to raise the federal funds rate in mid 2015, when the unemployment rate has declined to around 6.5, reaching 100 basis points by the end of the year. This proposed path is marginally less stimulative than the optimal control with commitment path corresponding to the Tealbook baseline forecast. In contrast to Taylor (1999), which I consider a useful benchmark, I would hold the funds rate lower for longer, following a strategy similar to that proposed by Reifschneider and Williams, to account for the constraint that the zero bound has long placed on monetary policy. The consequence of this more aggressive policy is a path for the unemployment rate that declines more rapidly than Tealbook (I estimate this policy would lower unemployment to 6.3% at the end of 2015 versus 6.8% in the Tealbook baseline. In addition, my preferred policy path results in inflation running very close to 2% throughout the forecast horizon. In contrast, inflation in the Tealbook baseline is below 2% over the same horizon. My preferred policy path also takes into account risk management considerations. There is considerable uncertainty about the economic outlook with very significant downside risks relating to European developments, fiscal policy and other headwinds to the recovery. Should downside shocks materialize, the Committee's ability to respond will be limited by the zero bound. In contrast, should upside shocks to the outlook materialize, there is ample room to respond by tightening monetary policy sooner and more aggressively. In addition, I think there are asymmetric downside risks associated with an exceptionally slow decline in unemployment to normal levels. There is a distinct possibility that cyclical unemployment will be transformed into structural unemployment if individuals are sidelined from employment for an exceptionally long time, losing their attachment to the labor market.

Respondent 4:
My judgments regarding appropriate policy are based on a loss function that equally weights deviations of inflation and unemployment from their longer-run goals. Currently, we are close to target on inflation, but have a substantial miss on unemployment. Accordingly, policy should be more accommodative in order to speed progress towards our employment goal, and should accept the risk that inflation might modestly overshoot its target over the medium term. By my loss function, such a calibration would result in a lower overall expected policy loss than would the outcomes associated with the policy path in the Tealbook.

I believe the best way to deliver this accommodation would be to condition our future policy moves on a set of economic outcomes, delaying the first lift-off in the funds rate at least until the unemployment rate reaches 7 percent or the medium-term forecast for inflation rises to 3 percent. According to my forecast, we would hit this unemployment rate trigger some time in the first half of 2015. I would also communicate that after lift-off, policy rates initially would move up broadly in line with the more gradual increases prescribed by the Tealbook's optimal control simulations or Taylor (1999). Furthermore, if such forward guidance did not succeed in generating adequate progress towards our goals, I would supplement it with additional asset purchases.

Respondent 5:
N/A

Respondent 6:
The crucial factors behind our assessment of the appropriate path for monetary policy and the FFR are the current state of the economy, our central economic outlook, and our balance of risks around the central outlook. Indicators of economic and financial conditions generally have improved since January, although progress on the financial front is slow and unsteady. We see previous policy accommodation as a contributing factor to the improvement of both economic and financial conditions. Nevertheless, we still see the combination of continuing substantial resource underutilization; a forecast of slow growth, high unemployment, and near- or below-objective inflation; and downside risks to the real activity outlook as calling for continued policy accommodation. In the current environment where the policy rate is constrained by the zero lower bound and the financial system remains somewhat impaired, such accommodation will lead to the target FFR remaining near zero until late 2014. We expect that long-term inflation expectations will remain anchored over this period. The pace of renormalization of the target FFR following the period of near zero policy rates will depend upon our assessment of economic conditions and inflation expectations as well as upon credit spreads and overall financial conditions.

An important factor informing our assessment of the appropriate path for the target FFR is our estimate of the equilibrium real short-term interest rate. In normal times, we assume that the equilibrium real rate is in the range of 1% - 3%; adding the objective for inflation (2%) then gives our estimated range for longer-run rate as 3.0 - 5.0%. Given the recent behavior of nominal and real Treasury yields and productivity growth, we currently see the longer-run rate as more likely to be in the lower half of the indicated range, which results in the point estimate given in the response to question 3(a). Moreover, given the weak state of the economy and our expectations of continued strained financial conditions, our assessment of the current equilibrium real rate, and thus the "neutral" FFR, is below our estimate of the longer-run FFR and is expected to remain so for some time.

As discussed in our answer to question 3(e), our policy path is predicated on the FOMC initiating a program by mid-year that would increase the duration of the Federal Reserve's balance sheet as insurance against the still-notable downside risks to real activity. Further improvements over the coming months in economic and financial conditions, our modal forecasts, and our risk assessment would lead us to drop this assumption.

Respondent 7:
Key factors informing my judgment regarding the appropriate path of monetary policy are achieving an inflation objective of 2 percent and ensuring a sustainable economic recovery that reduces unemployment. With projections for the unemployment rate lower and inflation slightly higher than in January, along with the need to preempt the potential for rising inflationary pressures and the buildup of risks in the financial system that could impede the achievement of these goals, I currently anticipate it will be necessary to begin the process of normalizing monetary policy in early 2013. After raising the federal funds rate to 1.0 percent, I would maintain it for a period of time and allow the economy and markets to adjust to a non-crisis rate environment.

Respondent 8:
I believe that in order to achieve an inflation rate of 2 percent we would want to begin raising the federal funds rate in the second quarter of 2013.

Respondent 9:
If the inflation trend remains in the neighborhood of 2 percent then I expect the lift-off date for the federal funds rate will occur after the unemployment rate has fallen into the range of 7 to 7-1/2 percent. In my current forecast I have lift-off in early 2014.

Respondent 10:
Inflation and inflation expectations will be the main drivers of the removal of accommodation. Economic growth will be slightly above trend in 2012 and beyond and unemployment will decline slowly. The Committee will find it necessary to adjust policies to prevent inflation from rising above its target.

Respondent 11:
While unemployment is likely to remain elevated, I expect that it will be appropriate to begin raising the target for the federal funds rate in early to mid-2014 to prevent inflation from rising above levels consistent with price stability. Despite today's weak economy, the underlying inflation rate is very near 2 percent. By 2014, the economy will have recovered enough that preserving the stability of long-term inflation expectations and, in turn, inflation will warrant some tightening of monetary policy. This view of the appropriate path of policy reflects the importance I place on keeping the underlying inflation rate close to 2 percent, to preserve our credibility and to maintain price stability.

Respondent 12:
Assuming appropriate policy and my forecast of above-trend growth in the near term, my judgment is that the federal funds rate should be increased in late (i.e., fourth quarter) 2013.

Respondent 13:
I used the TealBook baseline with a somewhat stronger forecast supported by higher house prices.

Respondent 14:
Large and persistent output and unemployment gaps coupled with moderate inflation call for continuing very accommodative monetary policy well into 2014.

Respondent 15:
N/A

Respondent 16:
My judgements about the appropriate course of policy are shaped by the 1999 Taylor Rule, adjusted for the level of accommodation being provided by the LSAPs. Relative to my January submission, the appropriate path of FFRs is higher, because my projections for u is lower and pi is higher. I have adjusted the path by somewhat less than Taylor 99 would recommend, to allow the for the possibility that the NAIRU is also falling over time.

It is worth emphasizing that my "projections" are based on monetary policy's being appropriate. The Committee is highly likely to follow a policy that is more accommodative than I view as appropriate. This will result in slightly better employment outcomes and worse inflation outcomes (in the sense that inflation will rise further above 2%). My views about appropriate policy are shaped by the assumption that market participants' beliefs are influenced by my preferred reaction function, not the Committee's.

My judgements about the appropriate path of the federal funds rate are based only on economics, and so ignores the reputational risk associated with the Fed's raising the rate well in advance of the late 2014 deadline. That reputational risk might lead me to delay raising rates relative to the path that I describe above. Hence, I see the "forward guidance" in the statement as a form of commitment.

Respondent 17:
My policy projection is guided by the 1993 version of the Taylor Rule, with some smoothing and a temporary downward adjustment to the neutral real rate.

Appropriate Monetary Policy - Balance Sheet

3(d)&(e). Does your view of the appropriate path of the Federal Reserve's balance sheet differ materially from that assumed by the staff in the Tealbook? If yes, please specify in what ways (either qualitatively, or if you prefer, quantitatively).

YES	NO
11	6

Respondent 1: No
The maturity distribution of the SOMA has been altered by MEP. Still, like the Tealbook, I assume the evolution of the balance sheet follows the broad outlines of the exit plan agreed upon last June. I do not assume additional LSAPs in my baseline, but the tool should remain available in case growth is weaker than expected or there are signs of significant disinflation.

Respondent 2: Yes
Current portfolio-related policies are maintained until the first increase in the funds rate in 2015.

Respondent 3: No
I have not incorporated into my outlook further balance sheet actions. That said, I think a good case can be made to continue the MEP after our announced purchases conclude in June.

Respondent 4: Yes
Under appropriate policy, I anticipate the lift-off in the funds rate will occur sometime in 2015; accordingly, actions to normalize the balance sheet would be delayed relative to the Tealbook.

Respondent 5: Yes
Following the Committee's exit principles adopted last year, I would commence balance sheet adjustments 2-3 quarters later than contemplated in the Tealbook, commensurate with my later anticipated liftoff

Respondent 6: Yes
First, because we have a later lift-off of the FFR, based on the June 2011 exit strategy principles, the renormalization of the balance sheet occurs later than in the Tealbook. Second, we still see a downside balance of risks to real activity unlike the Board staff, even with our later lift-off. To insure against these downside risks, we believe that additional monetary accommodation is necessary to ensure that outcomes for economic growth, unemployment, and inflation are fairly close to our projections. To provide that accommodation, we assume a balance sheet program that increases further the duration of the Federal Reserve's balance sheet, beginning by mid-year and running through mid-2013. However, this balance sheet change is a marginal call as it was in January: improvement in economic and financial conditions over the next couple of months beyond that in our outlook, a further upgrade in our modal forecast, and most importantly indications of more reduction in the downside risks would lead us to drop this call for additional balance sheet actions.

Respondent 7: Yes
Because my view of appropriate monetary policy includes an earlier lift-off from zero for the federal funds rate, I would also start the normalization process for the balance sheet earlier than in the Tealbook, in line with the exit strategy principles agreed upon by the FOMC in June 2011.

Respondent 8: Yes
I would initiate our balance sheet exit strategy commensurately sooner, in accord with my forecast of an earlier lift-off.

Respondent 9: No
N/A

Respondent 10: Yes
Because my funds rate path is steeper than in the Tealbook, I would anticipate that following the Committee's exit strategy principles would mean that we would reduce the size of the balance sheet more quickly than in the Tealbook.

Respondent 11: No
N/A

Respondent 12: Yes
According to the Committee's exit strategy and my date of lift-off, the FOMC should begin reducing the SOMA portfolio in early 2014. The pace of the subsequent reduction likely exceeds that assumed in the Tealbook.

Respondent 13: No
N/A

Respondent 14: Yes
I assume lift-off of the funds rate in the latter part of 2014, and my balance sheet assumptions are adjusted accordingly.

Respondent 15: No
N/A

Respondent 16: Yes
My optimal path of monetary policy, under my current outlook, involves stopping re-investment toward the end of 2012 or early 2013, and initiating asset sales in early 2014.

Respondent 17: Yes
I remain skeptical of the usefulness of additional purchases of Treasury securities and of ongoing changes to the maturity distribution of our Treasury portfolio. As I think it desirable to begin raising short-term interest rates substantially earlier than is assumed in the Tealbook, I also think it desirable to begin shrinking the balance sheet earlier than is assumed in the Tealbook.

Forecast Narratives

4(a). Please describe the key factors shaping your central economic outlook and the uncertainty around that outlook.

Respondent 1:
Although there are signs that the economy is improving, some of the recent gains in GDP reflect temporary factors, including inventory accumulation, the surge in auto sales, and the recent rise in government spending. Looking forward, household and business fundamentals plus tightening fiscal conditions (and substantial fiscal uncertainty) do not seem consistent with growth much above trend. Financial stresses emanating from Europe and elsewhere, tight mortgage and small business lending, and continuing problems in housing are further potential drags. Thus, barring the emergence of a strong virtuous circle of income gains, confidence, and spending, GDP growth does not seem sufficient to reduce unemployment by much (although phasing out of EEB will have some effect on unemployment and participation). Europe and oil prices are the primary downside risks, with some risk attached also to the fiscal cliff. Fiscal factors pose a downside risk to the 2013 growth forecast.

Core inflation has firmed a bit more than expected but appears to be stable around 2 percent or a bit lower. Declines in commodity prices, slow increases in nominal wages, and stable inflation expectations suggest that stability will continue. Commodity prices seem to be on a generally flat or declining trend, which will keep overall inflation close to or perhaps slightly below core inflation after the effects of the rise in oil prices earlier this year begin to wash out..

Respondent 2:
Incoming data point to somewhat faster GDP growth in the first half of this year than previously thought. The pace of the recovery, however, remains slow by historical standards. Some of the recent gains in consumption could be reversed in coming months as disposable personal income growth remains disappointing. The acceleration in payroll employment is a welcome development but as the most recent initial claims data suggest, temporary factors may have played a role in the acceleration. The situation in the Euro area continues to be volatile, and while so far Europe has muddled through the crisis, the renewed financial tensions are an indication that the risks of a more severe European downturn and financial crisis are still present. Domestic uncertainty is also likely to intensify over the rest of this year as the election and important fiscal deadlines near. This heightened fiscal uncertainty could yield some businesses and consumers to postpone large spending decisions until next year.

In all, I expect that some of the recent spending gains will be reversed in the second half of the year, as consumers bring spending more in line with disposable income and an uncertain fiscal environment holds durable and capital expenditures back. For this reason, an acceleration in the pace of economic activity is expected to occur only in 2013. Then, however, the drag from fiscal policy is likely to be significant and should hold the pace of GDP growth below 3 percent. Only in 2014, as the restraint from fiscal policy eases, activity is expected to increase, and the unemployment rate to decline, more meaningfully. The unemployment rate is projected to reach about 7.4 percent by the end of 2014. With considerable slack in the labor market, inflation remains subdued over the course of the forecast horizon.

Risks to the projection for real activity are now somewhat more balanced. Recent errors in Okun's law showing more of a decline in the unemployment rate than what would be predicted by GDP growth could indicate more underlying momentum in economic activity than the real-time GDP data are currently showing. Similarly, the relative strength in consumption could be due to more disposable income than is currently being estimated. More exogenous factors, however, continue to point to significant downside risks. A worsening of the financial crisis in Europe and more U.S. fiscal tightening than are currently embedded in my modal forecast are two scenarios that represent more than a tail risk. The same holds true for disruptions in oil markets that would threaten the stable outlook for oil prices that underpins the modal forecast. In all, I remain more concerned about the downside risks to real activity, as any worsening of the economy in the current situation would be aggravated by the limited scope for further policy actions.

Respondent 3:
Incoming data have contained some upside surprises including encouraging readings on consumer spending, housing and the labor market. Unemployment has declined more than I had anticipated in January. In spite of a disappointing March employment report, the pace of private job gains have clearly picked up during 2012 and labor market conditions have improved. However, a key puzzle in the data that complicates the forecast is the fact that unemployment has declined much more than would have been anticipated given that growth appears to have been only moderate and trend-like growth. I have responded to these surprises by lowering my forecast for the unemployment rate over the entire forecast horizon, largely reflecting past unemployment surprises; but I have raised my growth projections only marginally and have assumed that the Okun's law puzzle will abate going forward, so further progress in lowering unemployment will be quite gradual. In effect, my forecast embodies an assumption that the recent decline in unemployment reflects "catch up"–that is that firms have been hiring partly to relieve unsustainable pressure on their workforces that developed during the downturn, when labor input was reduced drastically and unemployment rose by substantially more than was consistent with Okun's law. I recognize that an alternative explanation for the puzzle is that GDP growth may, in fact, be expanding more robustly than current data suggest. Another factor that has caused me to react cautiously to incoming data in this forecast round is uncertainty concerning the boost that unseasonably warm weather over the last several months may have given to employment. Weather could also have impacted consumer spending and indicators of activity in the housing market. Over the medium term, I continue to see the recovery as restrained by significant headwinds including a depressed housing sector that will be slow to recover, forthcoming shifts in fiscal policy that will create increased drags on growth, and slower growth in the global economy. Therefore the broad contours of my forecast show trendlike growth in GDP, strengthening somewhat in 2013 and 2014 under the impetus of highly accommodative monetary policy and a very gradual decline in unemployment over the forecast horizon toward the 5.3% level I consider to be normal in the longer run. With respect to inflation, I anticipate that the recent increase in inflation reflecting oil prices will be transitory. Incoming data on core inflation have been slightly more rapid than I had anticipated and I now anticipate that, with the highly accommodative monetary policy I consider appropriate, inflation will run in the vicinity of 2% through the forecast horizon.

Respondent 4:
The pickup in economic activity and improvement in labor markets have been welcome developments. However, they fall well short of the kind of breakout in household or business spending that would be consistent with an economy growing much faster than potential. Indeed, while there has been some ebbing in the headwinds that have restrained the recovery, they still pose a significant offset to the cyclical dynamics that would otherwise generate a more meaningful bounce in spending.

Still, the financial repair process is proceeding, and monetary policy is accommodative. These factors should support a steady ramp up in growth as we move through the projection period. However, we expect that fiscal consolidation will be an important offset to this momentum in 2013 (although we are not expecting a huge retrenchment such as would accompany current law).

We are forecasting that resource slack will remain significant throughout the projection period: The unemployment rate will be 7.1 percent by the end of 2014, and by that time structural factors temporarily elevating the NAIRU likely will either be gone (in the case of EUI) or greatly diminished (in the case of labor market mismatch). Even with a fairly flat Phillips curve, this slack is large enough to put some downward pressure on inflation. Furthermore, some of the recent increase in inflation likely will prove to be transitory, reflecting the passthough of higher energy prices and typical statistical volatility. That said, under my assumption for appropriate policy, inflation expectations will remain well anchored and provide an offset to resource slack. On net, I see little change in year-on-year inflation over the projection period.

Respondent 5:
No fundamental change in the patter of a slow-moving recovery, with enough momentum to ward off recessionary risks (at least in the absence of a major external or fiscal shock), but not enough to achieve significantly above-trend growth. Uncertainty among businesses and, to a lesser extent, households as to the outcome of the major fiscal policy decisions to made late this year will likely have a retarding effect in the second half of the year on the propensity to make major investments or large purchases. Downside risks from Eurozone, which appeared to abate for a couple of months, still seem significant, though perhaps not so high as last fall.

Respondent 6:
The first quarter data pertaining to the both the supply and the demand sides of the economy took on a stronger tone since the January FOMC meeting. As a result, we have boosted the projected growth rate of real GDP for 2012Q1 to 2.9% (annual rate) from the January estimate of 1.9%. Growth of payroll employment as well as hours worked by private sector employees was robust in 2012Q1 relative to that experienced in most of this expansion. Manufacturing output increased at a 10.5% annual rate over the quarter.

The recent expenditure data have been more mixed. Real personal consumption expenditures likely rose at around a 2 $\frac{1}{2}$% annual rate in 2012Q1, led by strong growth of spending on durable goods, particularly light-weight motor vehicles. Real residential investment also likely had a solid gain in 2012Q1, as there appears to be a very gradual uptrend in total housing starts as well as renewed strength in additions and alterations. The unusually warm weather experienced over 2012Q1 likely played a role in the strengthening of consumer spending and housing, but we believe that the somewhat better labor market and the improvement in overall financial conditions contributed as well.

In contrast, it appears that the growth rate of business fixed investment was quite sluggish in 2012Q1 after slowing sharply in 2011Q4. For now we see this slowing as mostly typical short-term volatility: new orders for nondefense capital goods, which have risen solidly recently, are well above shipments, and the architecture billings index has been modestly above 50 for five months ending in March.

Real exports appear to have grown 6 $\frac{1}{2}$% (annual rate) in 2012Q1, a significant increase over their growth rate in 2011H2, which has contributed to the strength of manufacturing. But growth of real imports has also increased, such that the growth contribution from net exports in 2012Q1 is likely to be just +0.2 percentage point. Consumption and gross investment by state and local governments appeared to decline in 2012Q1, though at a slower rate than in 2011. While on a declining trend, federal government expenditures are expected to have risen moderately in 2012Q1.

The largest change in our adding up of 2012Q1 GDP is in inventories. In 2011Q4 inventory investment contributed 1.8 percentage points to GDP growth. Historical patterns suggest that inventory investment would be a drag on 2012Q1 GDP growth, which was a feature in our January projection. Now, the inventory growth contribution is likely to be around + $\frac{1}{2}$ percentage point, with much of the surprise in the motor vehicle sector as dealers try to get inventories back to historical norms in an environment of rising sales.

We suspect that this stronger than expected growth over 2012Q1 is due in part to temporary factors, particularly the unusually warm weather and the ongoing normalization of motor vehicle inventories. The recent bounceback in initial claims and slow growth in real disposable income also point to temporary factors contributing to the relative strength in 2012Q1. Therefore, we have not carried this stronger pace of growth through the entire forecast horizon: projected 2012 (Q4/Q4) real GDP growth has been raised only from around 2 $\frac{1}{2}$% to 2 $\frac{3}{4}$%. Conditions do not yet appear to be in place for a really robust recovery. Analysis of our Equifax consumer credit panel indicates that aggregate household credit continues to decline, with the supply of credit constrained for all but the most credit worthy borrowers. Even borrowers with well above average credit scores report difficulty in obtaining mortgages. With underwriting standards tight and vacancy rates well above trend, any recovery of housing production is likely to remain muted. For 2013 our projected growth rate is little changed at around 3%. The gradual healing of the economy will be further along at that point, but federal fiscal policy is likely to exert a more substantial drag on growth: we assume that the payroll tax cut and extended unemployment benefits will not be renewed at the end of 2012 and that at least some of the spending restraint prescribed by the Budget Control Act of 2011 will occur. Defense spending also is expected to decline gradually as the drawdown of overseas troop levels continues.

Total and core inflation also have been higher in 2012Q1 than we anticipated in January. The total PCE deflator likely increased around 2.4% (annual rate) in 2012Q1 versus 1.1% in our January projection. Similarly, the projection for core PCE inflation in 2012Q1 has been raised to 2.2% (annual rate) from the January projection of 1.2%. This upside surprise is due in part to the upswing in gasoline prices during February and March that we had not anticipated. Fortunately, the gasoline price rise appears to be over, at least for now. But the bigger surprise has been the increase in core inflation, which reflects firmness in prices of both nonenergy services as well as of core goods. Several of our forward looking inflation indicators suggest that trend inflation will slow, and measures of inflation expectations remained anchored. Therefore, although we have raised the path of core inflation to reflect a higher starting point, we expect core PCE inflation to be just below the FOMC objective at 1.8% (Q4/Q4) in 2012 and 1.9% in 2013.

After falling from 9% to 8.5% between September and December, the unemployment rate declined to 8.2% in March. This has been a more rapid decline than previously expected, and certainly more rapid that would be suggested by an Okun's Law relationship. The path of the unemployment rate has been shifted lower to reflect this development. But we continue to believe that as the labor market improves, the labor force participation rate will stop declining. As a result, the unemployment rate is expected to decline more gradually than it has over the past six months even though we expect growth to be somewhat stronger. We now envision an unemployment rate of around 7 $\frac{3}{4}$% for 2012Q4 and a little over 7% by 2013Q4.

Respondent 7:
I continue to expect a moderate pace of growth going forward. The unemployment rate over the last several months has fallen more rapidly than previously expected, causing me to revise down my path for unemployment. I expect future improvements in the unemployment rate will be more closely tied to economic growth. Recovering demand, accommodative monetary policy, and improving labor markets will support economic growth over the forecast horizon. High household debt levels, reductions in federal government spending, and the slow healing of the housing market will weigh on growth. Considerable uncertainty about the European sovereign debt crisis and U.S. fiscal policy remains unresolved. Barring a financial crisis, I expect slowdowns abroad will have only a moderate impact on U.S. exports. The U.S. fiscal situation is more problematic, thereby posing larger uncertainty and potential risks to the outlook.

Turning to inflation, I expect that a gradually improving economy and stable inflation expectations will keep inflation near 2 percent over the forecast horizon. Over the medium term, a highly accommodative monetary policy and large long-run fiscal imbalances pose upside risks to inflation expectations and, hence, inflation. In addition, the current extraordinary level of monetary policy accommodation raises the possibility of distortions in financial markets and the mispricing of risk that could eventually destabilize the economy.

Respondent 8:
Growth has been better than expected so far this year. The firming we have seen in the labor market, along with improving consumer confidence, will support a gradual improvement in consumer spending. Busi-

ness fixed investment should continue to expand. Although excess inventories continue to weigh on the single-family housing market, modest expansion is occurring in multi-family construction and in home improvements. Government consumption and investment will be held down by the dismal budget outlook. Demand for US exports is likely to strengthen further.

Respondent 9:
The economy remains on a gradual recovery path, but I don't see anything that will push growth into a higher gear. Deleveraging is continuing and holding down the economy's performance, and uncertainty about the outlook and other concerns are weighing on household and business confidence. Many of these factors reflect persistent structural fiscal, housing, and external sector imbalances. These forces are producing headwinds that restrain growth over the medium term relative to a more typical cyclical pattern–in particular, the demand for labor and capital expansion. In addition, the slowdown in Europe combined with shifts in the growth and composition of emerging economies is restraining demand for U.S. exports over the near-term.

Relatively slow labor demand growth is keeping wage growth subdued and inflation expectations appear reasonably well anchored. As a result, my outlook for inflation remains steady around 2 percent over the forecast horizon.

Factors that enter into my assessment of the risks to the outlook include the potential for a financial spillover coming from a weakening European economy, a substantial rise in oil prices, and a sharp slowing in the demand for workers. Balanced against these is the chance that the recent strength in GDP and employment are an indication of a significant abatement of the headwinds that figure prominently into my current baseline.

Respondent 10:
Incoming data on economic activity have been largely consistent with my January forecast. The economy has rebounded from the negative shocks earlier in 2011 such as higher oil prices, bad weather, and the supply chain disruptions associated with the Japan disaster and the economy is now growing at an above-trend pace.

I expect 3 percent growth over the forecast horizon, slightly above my longer-term trend. With a moderate pace of growth over the forecast horizon, the labor market recovery remains gradual — I expect the unemployment rate to move down to about 6.3 percent by the end of the forecast horizon, at which time it remains above my estimate of the natural rate of unemployment. I anticipate that headline inflation will pull back to a 2 percent pace in 2012 and remain at that level in 2013 and 2014. Inflation stays anchored around my target of 2 percent in response to tighter monetary policy than that anticipated in the Tealbook.

In my view, the substantial liquidity that is now in the financial system continues to imply a risk that inflation will rapidly accelerate to unacceptable levels and that inflation expectations may become unanchored. To ward off these developments, the FOMC will need to commence a steady tightening of monetary policy that begins some time in 2012.

Respondent 11:
I continue to expect the economy to recover at a moderate rate from 2012 through 2014, reflecting a range of forces. The positive forces include considerable monetary stimulus and the economy's usual self-correcting forces. The negative forces include consumer de-leveraging, fiscal restraint, and uncertainty about conditions in Europe.

In this environment, I expect inflation to remain at about 2 percent from 2012 through 2014. This projection reflects recent PCE price trends, stable inflation expectations, and slow growth in wages. With the job market still weak, there is unlikely to be much pressure on inflation coming from wages over the next couple of years.

In the case of GDP growth, I now believe that the uncertainty surrounding the forecast has narrowed to levels consistent with the norms of the last 20 years. However, I continue to see the outlook for unemployment as more uncertain than normal, because of the questions surrounding the durability of the recent decline in the unemployment rate. For both growth and unemployment, the risks now seem to be balanced. On the down side, a severe recession in Europe and the additional financial stress the recession could cause would significantly slow growth and raise unemployment in the United States. On the up side, the apparent pickup in the pace of growth in the first quarter could be setting the stage for continued acceleration in the pace of recovery.

For inflation, I continue to believe that uncertainty remains higher than normal, due in part to the elevated volatility of commodity prices and, in turn, inflation. The risks to inflation appear to be balanced. The upside and downside risks to economic activity described in the previous paragraph would create, respectively, upward and downward pressure on inflation. Other inflation risks include the potential for the weakness of the economy to create more disinflation than I currently expect or for renewed volatility of commodity prices and extremely accommodative monetary policy to increase upward pressures on inflation.

Respondent 12:
The improvement in the labor market - job growth and reduced unemployment - is the key to my view that the economy has momentum and that the convergence to steady state is well underway.

Respondent 13:
I believe that house prices will recover a bit faster than the in the TealBook baseline. Also I expect somewhat higher consumer spending. Risks are financial instability arising from Europe and the fiscal cliff at the end of this year.

Respondent 14:
The economic recovery appears to be proceeding at a moderate pace. Some headwinds are slowly easing, including those related to banking and financial market conditions. Other headwinds are not abating. For example, fiscal policy at all levels is turning increasingly contractionary. In the context of these broad forces, continuing monetary stimulus should support a moderate expansion over the next few years. Still, it will take years of above-trend growth to return the economy to full employment. In terms of inflation, significant slack in labor and goods markets should keep underlying cost and inflation pressures low. In addition, well-anchored inflation expectations should help avoid significant pass-through from recent increases in energy prices to wage and prices inflation more generally.

Respondent 15:

While labor market data sets indicate improvement, other data indicates that growth remains moderate. I do not believe that growth in consumption is supported by the fundamentals of higher disposable real income or significant wealth effects. Consumption will remain dampened by the creation of mostly low wage jobs, high levels of student debt, uncertainty about resolution of significant fiscal issues and a generally low level of fiscal impetus.

I also remain concerned about a renewed worsening of European issues which further exacerbate the risks of a prolonged European recession.

Respondent 16:
Growth will continue to be constrained by both demand and supply forces. On the demand side, household spend will continue to be constrained by the significant loss of wealth and net worth. On the supply side,

there have been significant changes relative to four years ago. Firms are finding it harder to find appropriate workers. Entrepreneurs lack resources to initiate start-ups, which robs the economy of an important source of employment growth. The high level of corporate profits suggests that firms enjoy more market power, which reduces labor demand. Finally, of course, there is considerable uncertainty about future taxes and regulations.

Both demand and supply forces push up - temporarily - on the unemployment rate. They operate in opposite directions on inflation, and the upward impact of the supply considerations on inflation can be amplified by downward real wage rigidities. If low demand were responsible for the elevated unemployment rate, I believe that current and past inflation rates would have been considerably lower than what we've seen. Hence, I tend to put more weight on the supply effects that I've listed above than does the Tealbook. As a result, my forecast for inflation is higher than that in the Tealbook.

Several of the supply side forces that I mention will result in a permanently lower level of the E/P ratio.

Respondent 17:
The recovery appears to be on a firmer footing, now, as drags from excess housing and excess household debt gradually ease. However, looming cuts in federal government purchases, prospective tax increases, and regulatory uncertainty continue to limit the pace of the expansion. Downside risks stemming from economic and financial problems in Europe remain significant and there are tail risks on the downside presented by concerns over the potential for war in the Middle East and a sloppier than previously expected transition in China. Businesses are flush with cash, and their confidence is increasing, but they continue to be inclined to hold higher levels of cash than normal both offshore and domestically as a hedge against fiscal and regulatory uncertainty in the U.S.. Many of our potential job-creating larger businesses remain more interested in foreign than in domestic expansion, though wage and regulatory inflation in China is increasing interest in "on-shoring" some manufacturing (or bringing it closer to home in Mexico); small and medium sized business feel especially stymied by uncertainty over fiscal and regulatory policy. The pace of the recovery is unlikely to accelerate until next year, when some of the uncertainties currently restraining growth will have been resolved.

Forecast Narratives (continued)

4(b). Please describe the key factors causing your forecast to change since the previous SEP.

Respondent 1:
Recent data have again been a bit stronger than expected, particularly in the labor market (where unemployment has fallen more than expected) and in retail sales. There are signs that the recovery is broadening, including some improvements in household and business confidence, but I am not yet persuaded that above-trend growth can be sustained. Principal risks are to the downside (Europe, oil) but there is some upside risk also if the economy can build on the momentum we have seen recently. Core inflation has been a little higher than expected, and I did not anticipate the increase in gasoline prices seen since January.

Respondent 2:
Bottom-line numbers for GDP growth and the unemployment rate have not changed materially since the January forecast, but the current forecast is implicitly stronger than previously envisioned as it is not based on additional rounds of quantitative easing anymore. The inflation forecast has been revised up somewhat as incoming inflation data have been higher than we had anticipated in January.

Respondent 3:
Unemployment has declined substantially more than I anticipated in January in spite of modest demand growth. I responded by lowering my projected unemployment path. I have slightly upgraded my forecast for GDP growth in response to upside surprises in consumer spending. And I have boosted slightly my forecast of headline and core inflation in response to recent, higher-than-expected readings.

Respondent 4:
The incoming data on spending and labor markets have been somewhat more positive than we had expected in January, but we do not think they represent a fundamental change in the underlying momentum of the expansion. Accordingly, we marked up our projection for activity in 2012 a bit, but did not change our views about GDP growth in 2013 or 2014; we also adjusted down our projected path for the unemployment rate by the surprise in early-2012. Inflation has come in higher than we expected; some of the miss was due to higher energy prices, though core inflation also has run above our previous projection. As noted in 4a), we think some, though not all, of these increases will prove transitory. Accordingly, while we have marked up our projections for top-line and core inflation in 2012 by 1/2 and 1/4 percent, respectively, we have made only a small upward adjustment to our projection in the out-years of the forecast

Respondent 5:
First quarter data was considerably better than I had anticipated, which moves up the baseline for subsequent projections, but I don't think the basic dynamic of the next couple of years has changed much

Respondent 6:
As stated in our response to question 4(a), indicators of real PCE, real residential investment, and inventory investment have been stronger than we anticipated in January. We raised our 2012Q1 real GDP projection, but these factors are anticipated to have little effect in subsequent quarters.

Headline and core PCE inflation over the intermeeting period were above what we anticipated at the time of the January FOMC meeting. Alternative measures of underlying inflation also were a bit higher. Consequently, we have raised our near- and medium-term inflation projections.

The unemployment rate in March was somewhat below our anticipation at the time of the January meeting. We expect the unemployment rate will fall relatively quickly over the forecast horizon, reflecting the impact of the unemployment outflow rate that is a primary factor behind unemployment rate dynamics during expansions, leading to a somewhat lower path for the unemployment rate than in January. What prevents it from being even lower is our assumption that the labor force participation rate will increase modestly over the projection period.

In regard to our risk assessment, we now see less downside risks and somewhat more upside risks to real activity and inflation than we did in January. Most of these shifts occurred during the March intermeeting period. As a consequence, our risk assessment for inflation has shifted from a downside skew to roughly balanced. For real activity, the balance of risks are still to the downside, although less so than in January.

A major factor in the reduction of downside risks is the effect of official actions, particularly the 3-year LTRO, in alleviating some of the strains on financial conditions arising from the European sovereign debt crisis. Consequently, we have reduced the probability of financial market impairment leading to a global credit crunch as well as the probability of a severe global recession. The increase in upside risks primarily reflects that the generally stronger data received since January raise the probability that more typical recovery dynamics are finally being established. Because of the greater political tensions associated with Iran, we also have raised modestly the probability of an oil supply shock hitting the U.S. economy.

Respondent 7:
My forecast for real GDP growth is little changed from the previous SEP. Regarding the unemployment rate, my trajectory is broadly similar to the previous SEP, but the overall path for the unemployment rate is about 1/2 percentage point lower, reflecting the recent declines we have seen. With less slack and higher readings on inflation, I have also revised up my forecast for inflation (headline and core) by about a tenth of a percentage point, so I now expect inflation will be 2.0 percent in 2014.

Respondent 8:
Data on employment and consumer spending have been stronger than was anticipated early this year. I have been especially encouraged by the health of consumer spending in the face of the runup in gasoline prices. In addition, output in Europe has not been as weak as anticipated.

Respondent 9:
I have not revised my growth or inflation forecast in a significant way since the January submission.

Respondent 10:
NA

Respondent 11:
The changes in my forecast are primarily driven by data received between meetings. Unemployment has fallen, headline and core CPI inflation have picked up, and forecasts of first quarter GDP growth have risen. I have also been encouraged by the improvement in the tone of reports from my business contacts.

Respondent 12:
My forecasts have changed little. Reflecting additional information on PCE inflation, I have reduced my forecast of this variable for the first half of the year and adjusted slightly the forecasts for 2012 and 2013 accordingly.

Respondent 13:
N/A

Respondent 14:
Since January, output data have, on balance, suggested more near-term strength in the economy. Overall, labor and production data have exceeded expectations, and spending data have also picked up. Equity prices and risk spreads have generally improved. Our projections for the global economy are notably better, with

policy actions in Europe helping to stabilize the outlook there. At the same time, the situation in Europe remains fluid, and policy steps to date have not yet addressed the fundamental problems. Uncertainty about whether the European situation could intensify continues to weigh on financial markets and the broader economy. My baseline fiscal policy assumptions are largely unchanged from January. The recent data have led me to lower the projected path for the unemployment rate.

Data on core inflation have come in somewhat above expectations in recent months, and I have bumped up my forecasts for core and overall inflation somewhat over the forecast period.

Respondent 15:
There has been more positive news in the labor markets which should not be ignored.

Respondent 16:
Unemployment fell in the first quarter. That has pushed down my forecast for unemployment in the last quarters of both 2012 and 2013.

Respondent 17:
Revisions have been minor. An unusually warm winter has led me to shift real GDP growth forward into the first half of 2012. Recent favorable movements in the unemployment rate–payback, perhaps, for unusually sharp job cuts during the recession–have led me to revise downward my 2012 and 2013 forecasts of that variable. Inflation has been running a bit higher than I had expected, and my 2012:H1 forecasts have accordingly been revised modestly upward.

Forecast Narratives (continued)

4(c). Please describe any important differences between your current economic forecast and the Tealbook.

Respondent 1:
Broadly similar. A little more worried about fiscal restraint in 2013 and don't see the basis for a sharp increase in growth in 2014, so I have a slightly slower pace of improvement.

Respondent 2:
The factors shaping both the real and the inflation outlook are similar to the Tealbook's baseline forecast. I view the risks to economic activity as more tilted to the downside.

Respondent 3:
My forecast for economic growth is stronger than Tealbook;, my unemployment path declines more quickly and my inflation path is a bit higher than Tealbook. These differences reflect that fact that I have assumed a more accommodative stance of monetary policy with later lift-off of the funds rate.

Respondent 4:
Under appropriate policy, we assume that the lift-off in the federal funds rate (and attending balance sheet actions) occur about 1 year later than in the Tealbook. We also assume somewhat less fiscal consolidation in 2013. Furthermore, we did not mark down our view of potential output (either historically or over the projection period) as much as the Tealbook. All three of these factor contribute to our forecast for growth averaging about 0.4 percentage point per year higher than the Tealbook over the projection period.

Respondent 5:
N/A

Respondent 6:
We assume a somewhat later lift-off of the FFR (2014Q4) than in the Tealbook (2014Q1); consequently, the FFR at the end of 2014 is notably lower than in our forecast (0.5% vs. 1.25%). Because our projected inflation path is above the Tealbook's, the real FFR difference is a bit larger. Based on our common assumption that the FOMC follows the June 2011 exit strategy principles, the later lift-off of the FFR implies a later normalization of the balance sheet. In addition, as stated in our response to question 3(e), we assume a balance sheet program to provide additional monetary accommodation as insurance against the still-notable downside risks. Because the balance sheet is expected to proceed along a higher path–whether or not there is a balance sheet program–we assume that term premia rise to normal levels more slowly than in the Tealbook.

We see some of the headwinds restraining economic growth subsiding more quickly in 2014 than in the Tealbook. Thus, combining this with a more accommodative stance of policy, we expect the output gap to begin to close more quickly that year, and thus our 2014 real GDP growth forecast is above that of the Tealbook.

We continue to assume lower inflation persistence than does the Tealbook. Furthermore, we see a stronger influence of anchored inflation expectations on inflation dynamics. Consequently, our inflation forecast and the Tealbook forecast are similar for 2012, but beyond that we see total and core inflation remaining near 2% whereas the Tealbook has inflation declining in 2012H2 and then only returning slowly toward the 2% objective.

Even though our labor force participation rate path is higher than that of the Tealbook, we expect a greater decline in the unemployment rate than is projected in the Tealbook, particularly in 2013 and 2014. The source of this difference is a different interpretation of labor market dynamics as expansions mature; that is, we do not place as much weight on Okun's Law as the Board staff do.

The Tealbook now considers the risks around the real activity forecast as roughly balanced. In contrast, we see a downside balance of risks around our real activity outlook, although less so than in January. For us, the downside risks from a possible escalation of the European sovereign debt crisis and associated impairment of financial conditions as well as the possibility of a larger than expected fiscal consolidation appear to be more severe than any of the upside real risk scenarios. In part, this assessment reflects that with policy rates constrained by the zero lower bound, policy has less scope to address downside risks, particularly those associated with financial impairment, than it does for upside risks.

Respondent 7:
While my forecast for real GDP growth is broadly similar to Tealbook's, my forecast for the unemployment rate is significantly less than Tealbook's and my forecast for inflation is higher than Tealbook's.

Respondent 8:
My inflation forecast is higher, since the Phillips Curve used for the Tealbook has been consistently underestimating inflation.

Respondent 9:
I have slightly stronger 2012 H1 GDP growth and a somewhat steeper decline in the rate of unemployment than the Tealbook baseline. Otherwise, I believe my current forecast is similar to the Tealbook baseline.

Respondent 10:
My forecast calls for a stronger economy over the next two years and tighter monetary policy than the Tealbook.

Respondent 11:
Broadly, my forecast for 2012-2014 is similar to Tealbook's. At a more detailed level, there are some slight differences between our growth and unemployment profiles. In addition, while Tealbook projects a small decline in core inflation, I expect inflation to remain near target throughout the forecast horizon. I see a subdued rate of increase in labor costs helping to keep core inflation from rising, but I don't expect labor costs to push core inflation down in the next couple of years.

Respondent 12:
For 2012, 2013, and 2014, I anticipate relatively faster near-term GDP growth, lower unemployment, and higher inflation.

Respondent 13:
N/A

Respondent 14:
My forecast is broadly similar to the Tealbook projection, though with slightly stronger GDP growth in 2012 but slightly slower growth in 2013 and 2014.

Respondent 15:
I am generally in line with the tealbook baseline but am reflecting a partial fiscal cliff, which will be heightened by the public's attention to the economy in an election year. These political issues will create significant household and business confidence issues.

I also believe the baseline is too positive in terms of the sustainability of consumption spending.

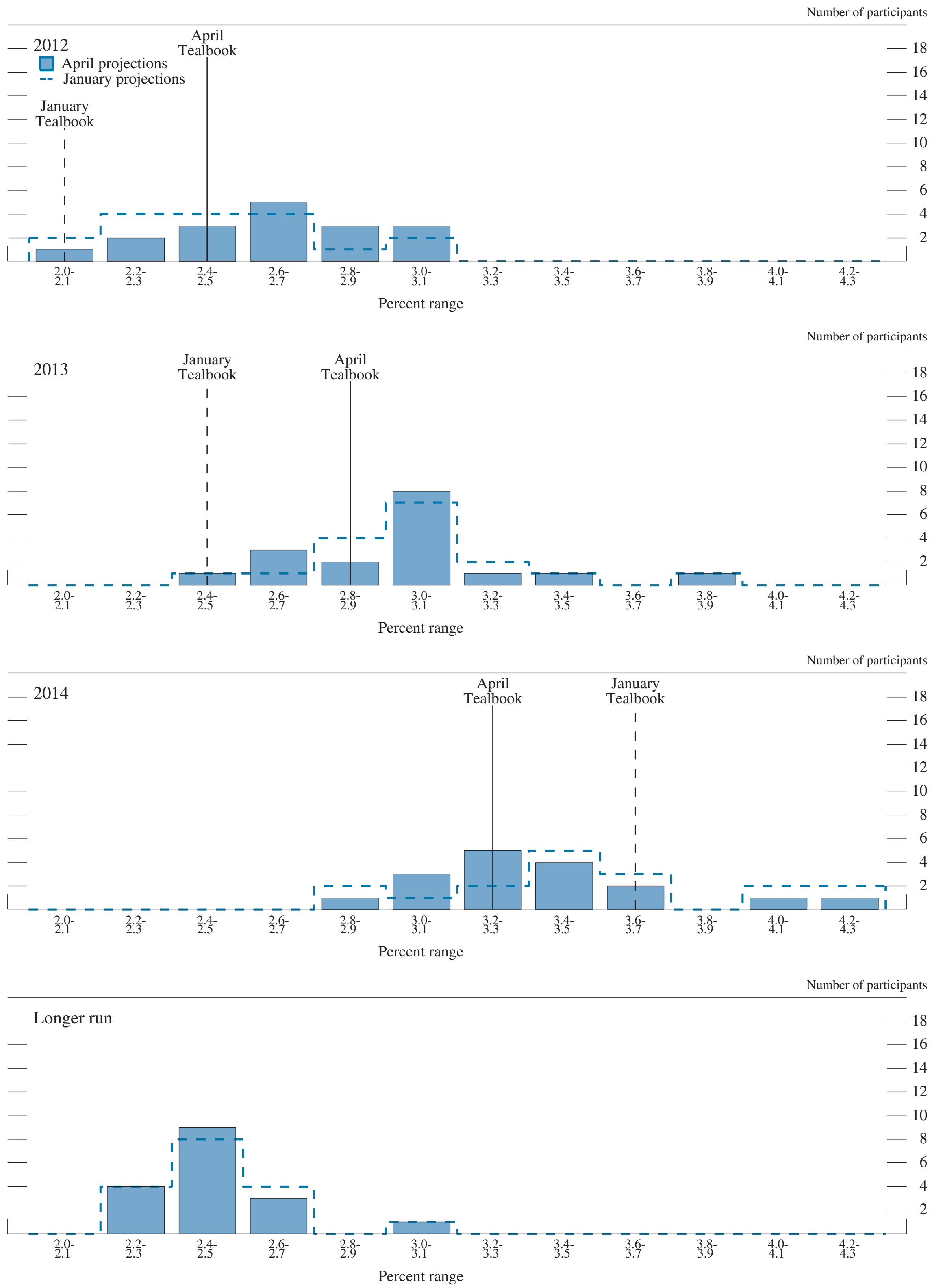
Respondent 16:

I expect unemployment to be lower at the end of 2014 (around 6.7% under what I view as appropriate monetary policy). I expect inflation to be higher (around 2% under appropriate monetary policy).

I expect E/P to stay below 59% through the end of 2014, both under appropriate monetary policy and the more accommodative policy that I expect that the Committee to actually follow..

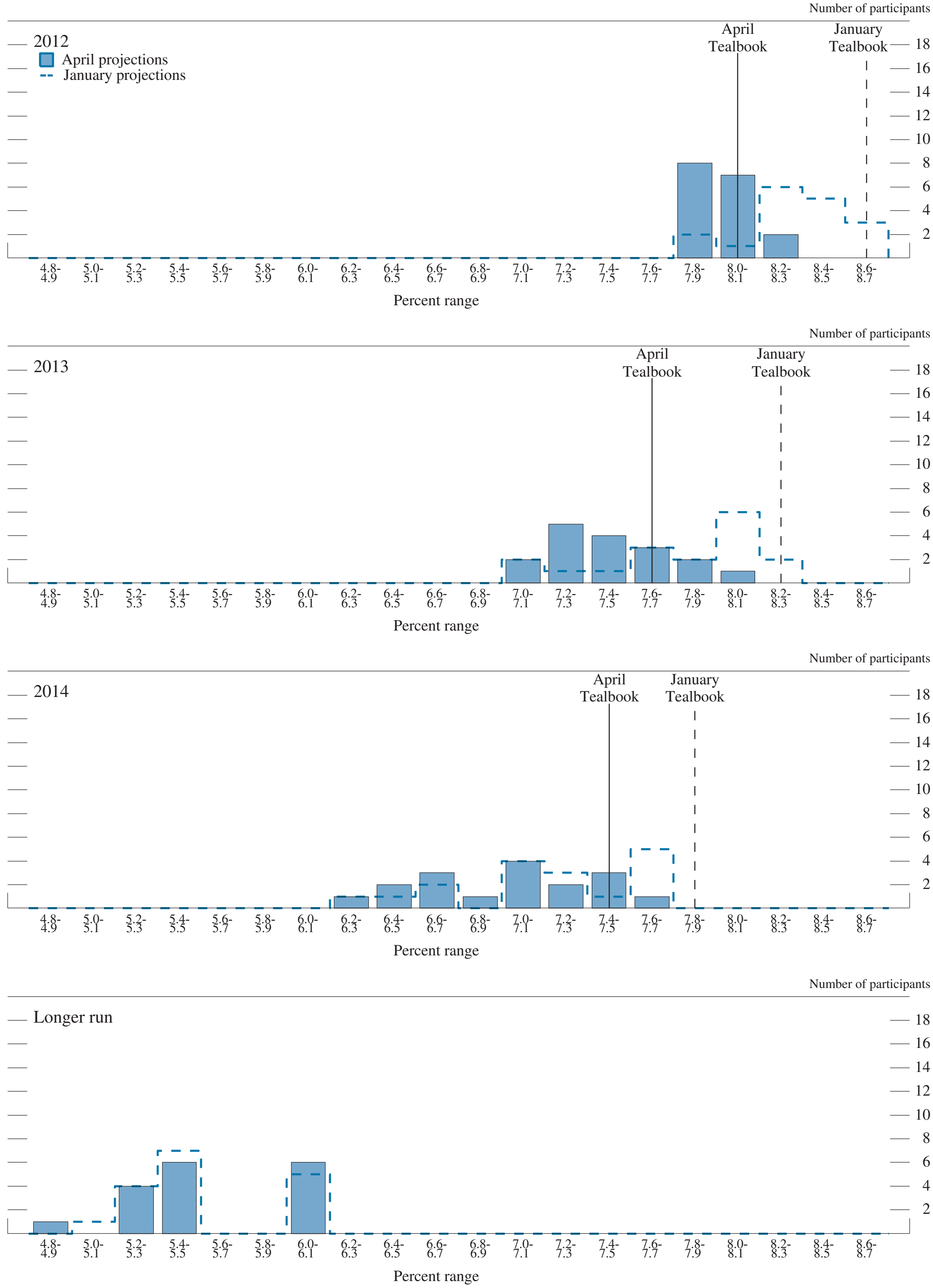
Respondent 17:
The Tealbook baseline forecasts for real activity and inflation in 2012 are reasonable, but I see a somewhat faster pace of recovery in 2013 and 2014 than does the Tealbook, and no drop off in inflation. A more rapid removal of monetary stimulus is appropriate given these forecasts.

Figure 3.A. Distribution of participants' projections for the change in real GDP, 2012–14 and over the longer run



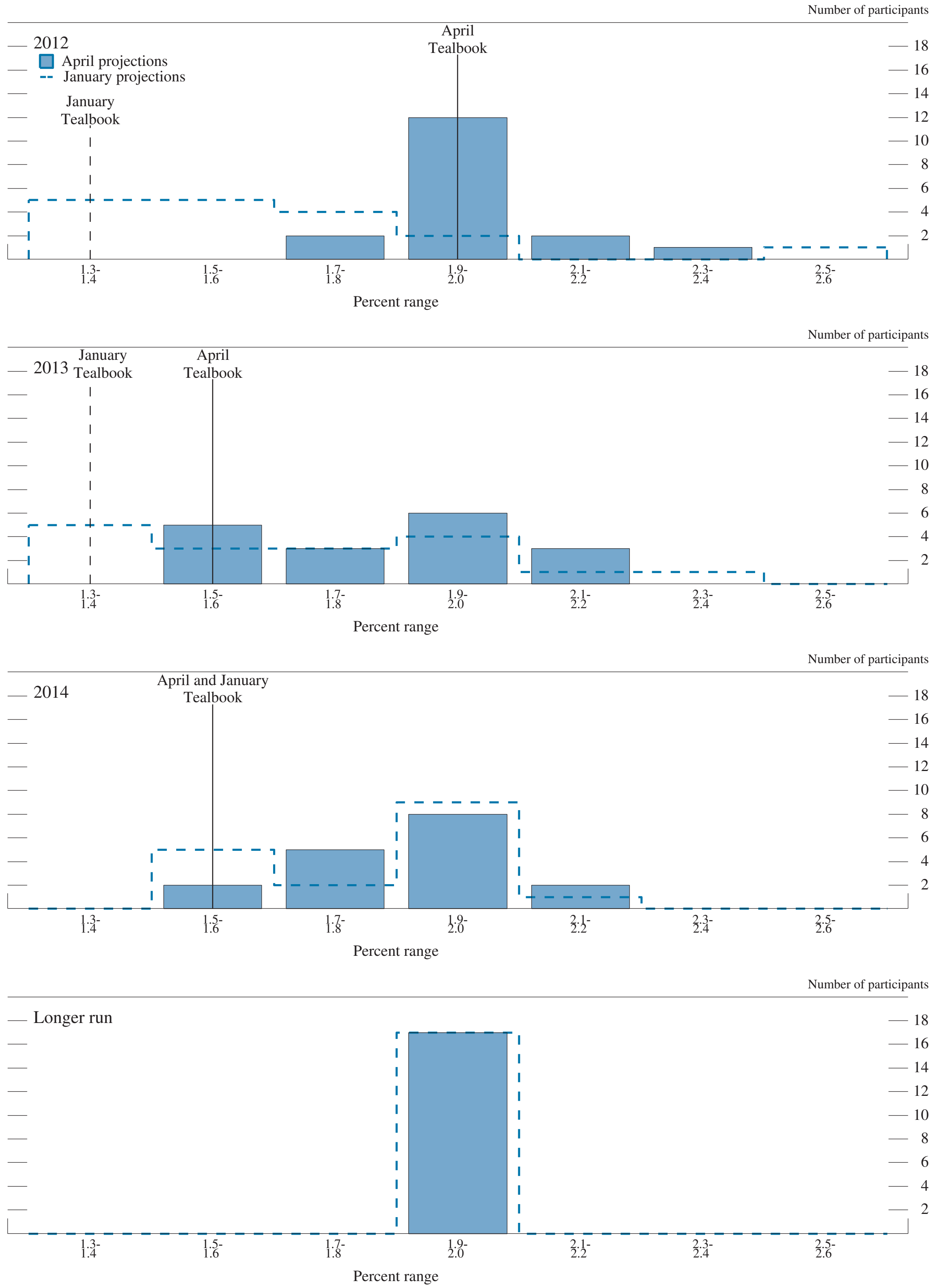
NOTE: Definitions of variables are in the general note to table 1.

Figure 3.B. Distribution of participants' projections for the unemployment rate, 2012–14 and over the longer run



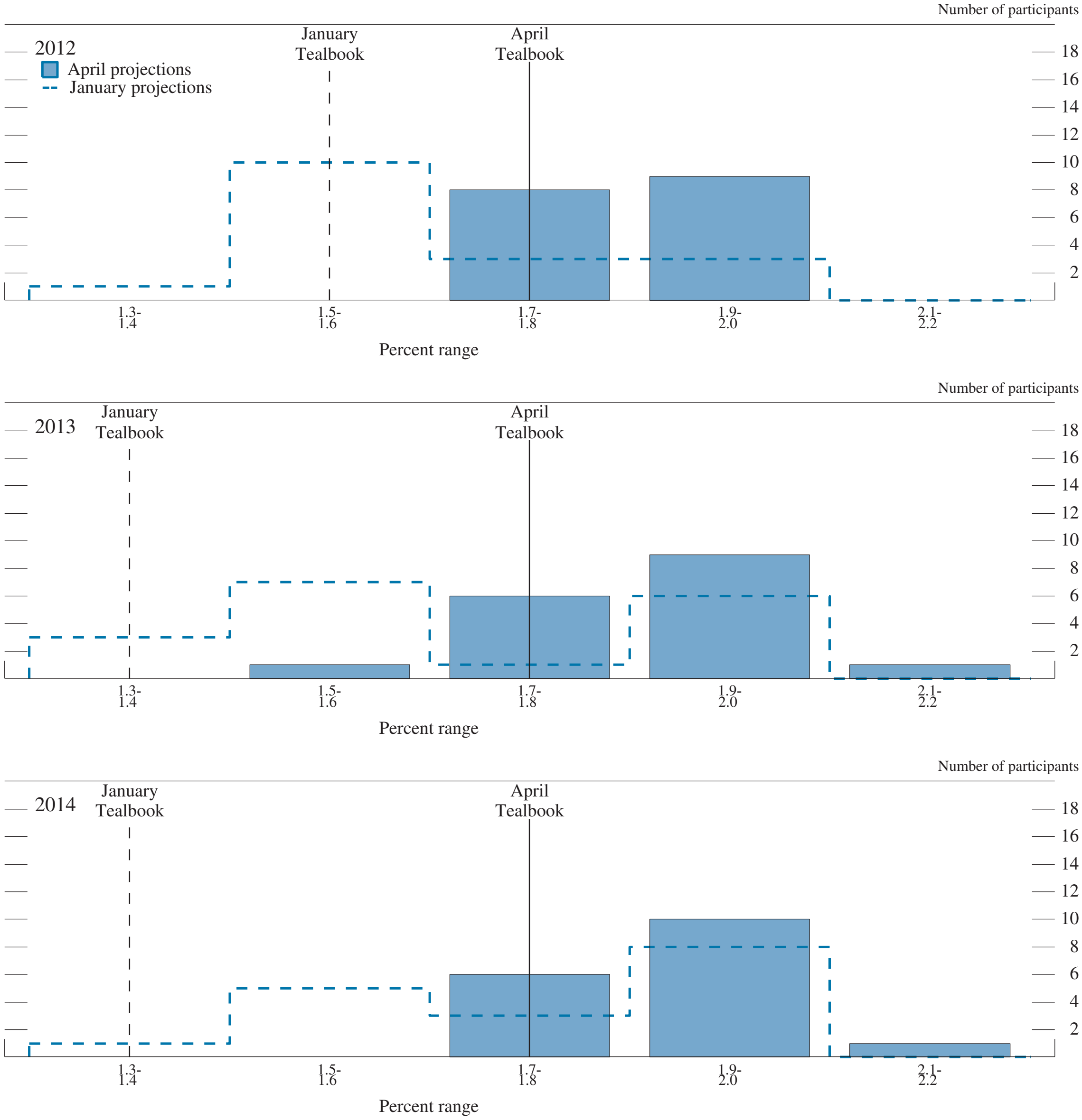
NOTE: Definitions of variables are in the general note to table 1.

Figure 3.C. Distribution of participants' projections for PCE inflation, 2012–14 and over the longer run



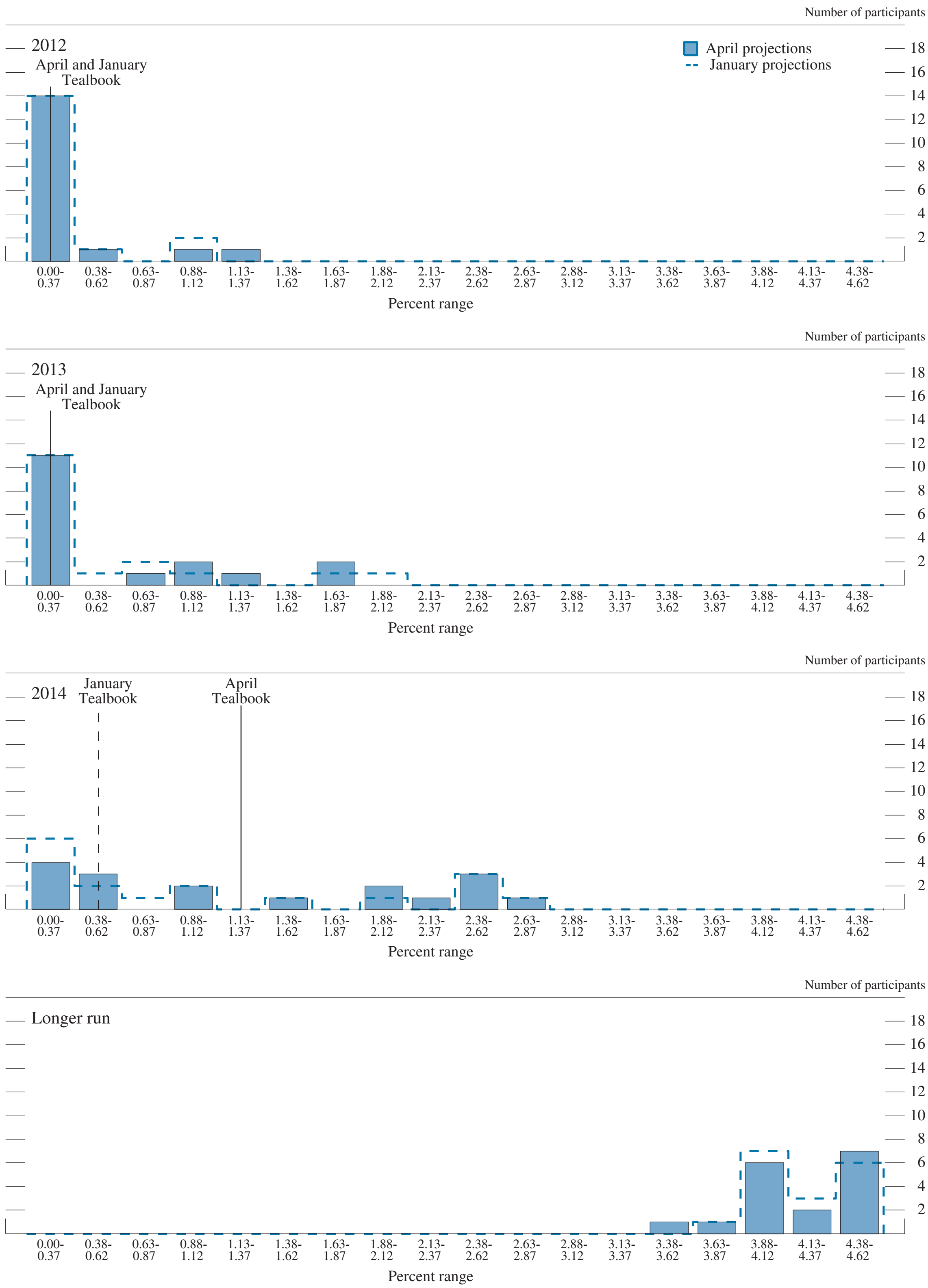
NOTE: Definitions of variables are in the general note to table 1.

Figure 3.D. Distribution of participants' projections for core PCE inflation, 2012–14



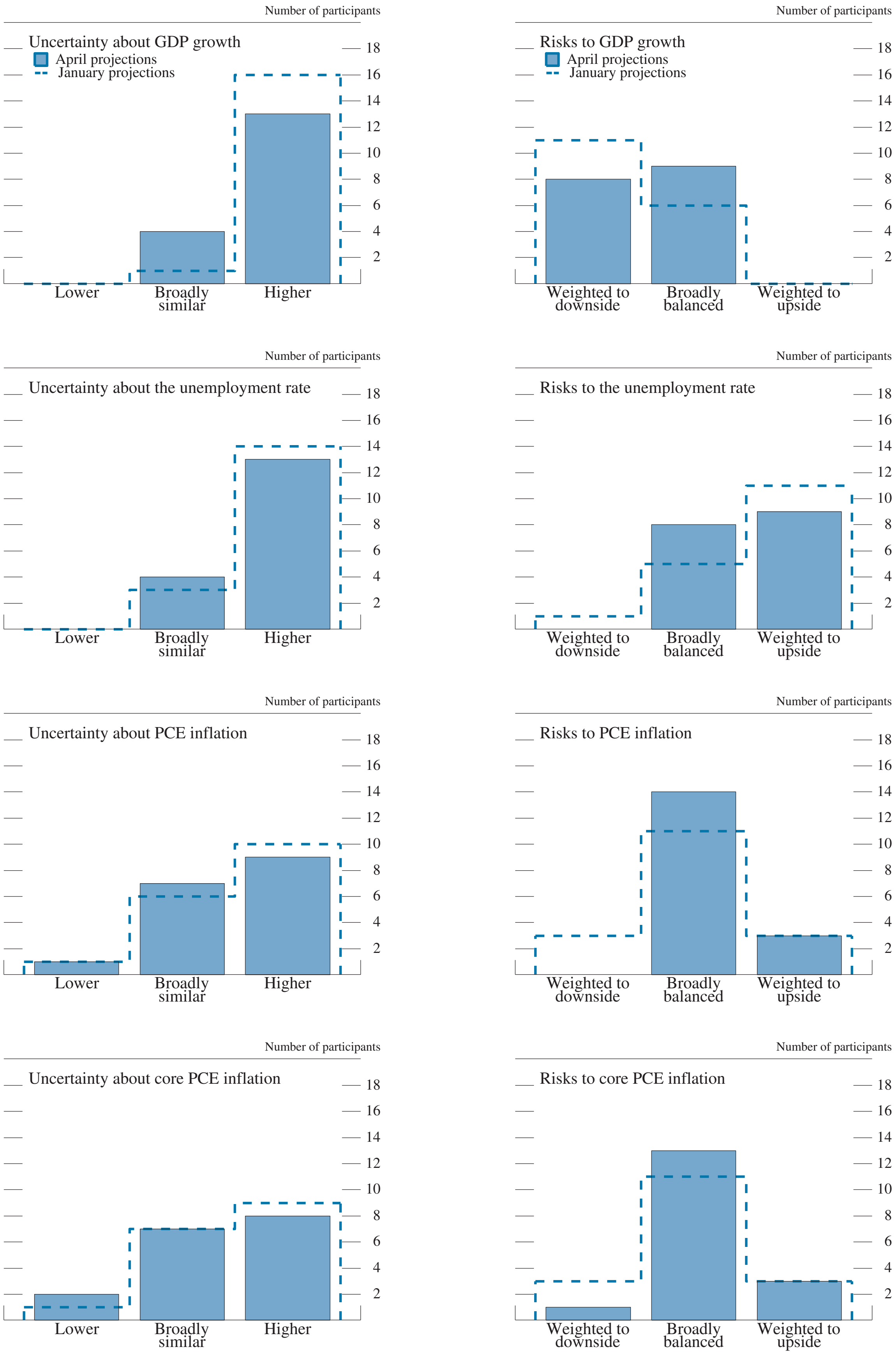
NOTE: Definitions of variables are in the general note to table 1.

Figure 3.E. Distribution of participants' projections for the target federal funds rate, 2012–14 and over the longer run



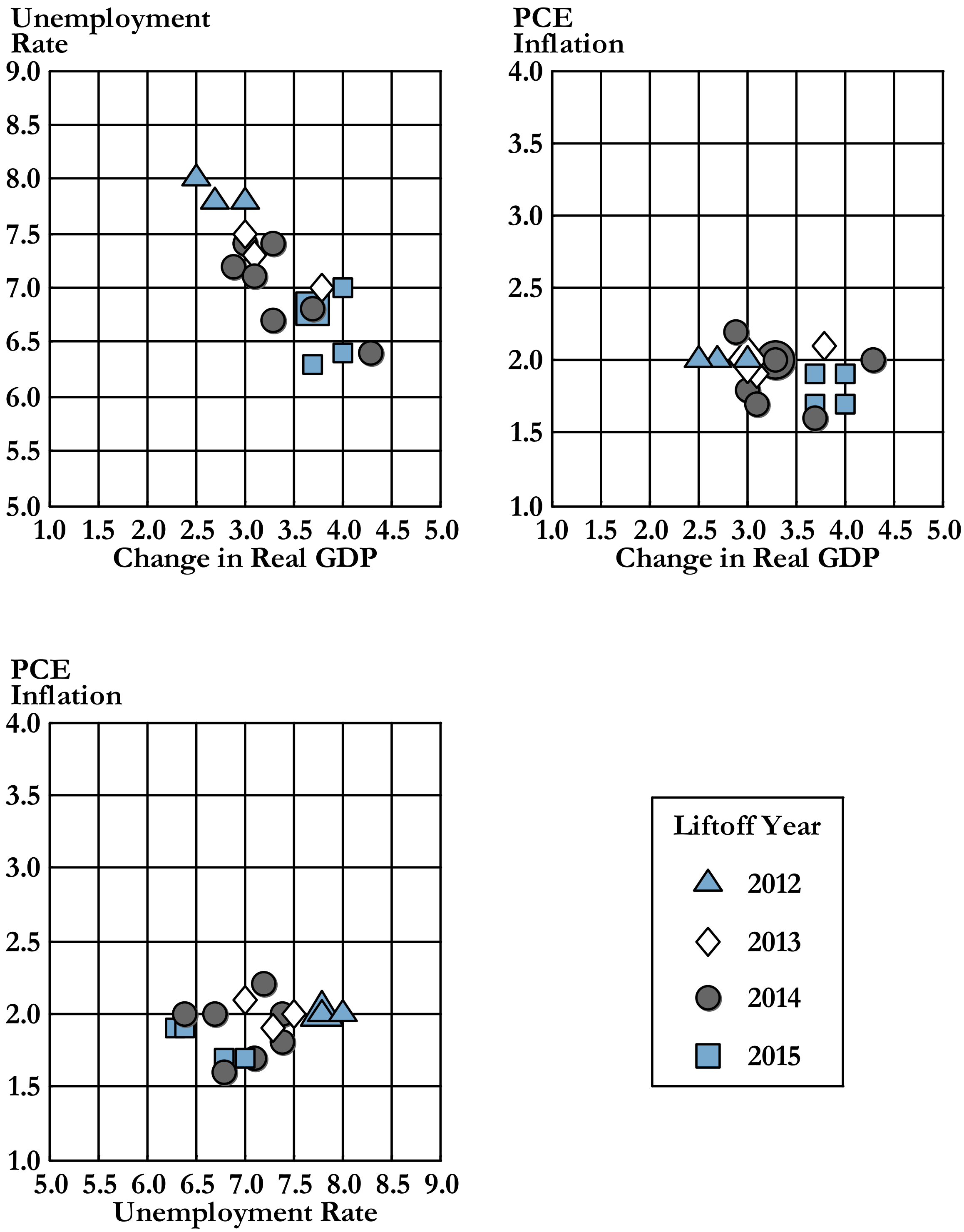
NOTE: The target funds rate is measured as the level of the target rate at the end of the calendar year or in the longer run.

Figure 4. Uncertainty and risks in economic projections



NOTE: For definitions of uncertainty and risks in economic projections, see the box "Forecast Uncertainty." Definitions of variables are in the general note to table 1.

Scatter Plots of Projections in the Liftoff Year



NOTE: Larger markers are used when the projections of two participants are identical.