Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, June 2015

Percent

Variable	Central tendency[1]				Range[2]			
	2015	2016	2017	Longer run	2015	2016	2017	Longer run
Change in real GDP	1.8 to 2.0	2.4 to 2.7	2.1 to 2.5	2.0 to 2.3	1.7 to 2.3	2.3 to 3.0	2.0 to 2.5	1.8 to 2.5
March projection	2.3 to 2.7	2.3 to 2.7	2.0 to 2.4	2.0 to 2.3	2.1 to 3.1	2.2 to 3.0	1.8 to 2.5	1.8 to 2.5
Unemployment rate	5.2 to 5.3	4.9 to 5.1	4.9 to 5.1	5.0 to 5.2	5.0 to 5.3	4.6 to 5.2	4.8 to 5.5	5.0 to 5.8
March projection	5.0 to 5.2	4.9 to 5.1	4.8 to 5.1	5.0 to 5.2	4.8 to 5.3	4.5 to 5.2	4.8 to 5.5	4.9 to 5.8
PCE inflation	0.6 to 0.8	1.6 to 1.9	1.9 to 2.0	2.0	0.6 to 1.0	1.5 to 2.4	1.7 to 2.2	2.0
March projection	0.6 to 0.8	1.7 to 1.9	1.9 to 2.0	2.0	0.6 to 1.5	1.6 to 2.4	1.7 to 2.2	2.0
Core PCE inflation[3]	1.3 to 1.4	1.6 to 1.9	1.9 to 2.0		1.2 to 1.6	1.5 to 2.4	1.7 to 2.2	
March projection	1.3 to 1.4	1.5 to 1.9	1.8 to 2.0		1.2 to 1.6	1.5 to 2.4	1.7 to 2.2	

NOTE: Projections of change in real gross domestic product (GDP) and projections for both measures of inflation are percent changes 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 March projections were made in conjunction with the meeting of the Federal Open Market Committee on March 17–18, 2015.

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 1.A. Economic projections for the first half of 2015*
(in percent)

Central tendencies and ranges

	Central tendency	Range
Change in real GDP	1.2 to 1.3	0.8 to 1.4
March projection	2.1 to 2.4	2.0 to 2.7
PCE inflation	-0.1 to 0.0	-0.3 to 0.1
March projection	-0.3 to 0.0	-0.3 to 0.4
Core PCE inflation	1.2	1.1 to 1.3
March projection	1.1 to 1.2	1.0 to 1.3

Participants' projections

Projection	Change in real GDP	PCE inflation	Core PCE inflation
1	1.0	0.0	1.2
2	1.4	0.0	1.2
3	1.4	0.0	1.3
4	0.8	0.1	1.3
5	1.3	0.0	1.2
6	1.3	−0.1	1.2
7	1.3	−0.1	1.2
8	1.2	−0.3	1.2
9	1.2	−0.1	1.1
10	1.3	−0.1	1.2
11	1.1	−0.2	1.2
12	1.2	−0.2	1.1
13	1.3	−0.1	1.2
14	1.3	−0.1	1.2
15	1.3	−0.1	1.2
16	1.2	−0.1	1.2
17	1.2	−0.1	1.2

* Growth and inflation are reported at annualized rates.

Table 1.B. Economic projections for the second half of 2015*
(in percent)

Central tendencies and ranges

	Central tendency	Range
Change in real GDP	2.4 to 3.0	2.1 to 3.2
March projection	2.6 to 3.0	2.2 to 3.5
PCE inflation	1.3 to 1.7	1.3 to 2.0
March projection	1.5 to 1.7	1.0 to 2.8
Core PCE inflation	1.4 to 1.6	1.2 to 2.0
March projection	1.4 to 1.7	1.3 to 2.0

Participants' projections

Projection	Change in real GDP	PCE inflation	Core PCE inflation
1	3.0	1.6	1.6
2	3.2	2.0	2.0
3	2.4	1.6	1.3
4	2.8	1.9	1.7
5	2.5	1.4	1.2
6	2.5	1.3	1.6
7	2.5	1.3	1.2
8	2.4	1.5	1.6
9	3.0	1.7	1.5
10	2.1	1.3	1.4
11	2.9	1.6	1.4
12	2.8	1.4	1.5
13	2.7	1.7	1.6
14	2.5	1.3	1.4
15	2.5	1.3	1.4
16	3.0	1.7	1.6
17	2.4	1.7	1.6

* Projections for the second half of 2015 implied by participants' June projections for the first half of 2015 and for 2015 as a whole. Growth and inflation are reported at annualized rates.

Table 2. June economic projections, 2015–17 and over the longer run (in percent)

Projection	Year	Change in real GDP	Unemployment rate	PCE inflation	Core PCE inflation	Federal funds rate
1	2015	2.0	5.2	0.8	1.4	0.63
2	2015	2.3	5.0	1.0	1.6	0.88
3	2015	1.9	5.3	0.8	1.3	0.38
4	2015	1.8	5.2	1.0	1.5	0.88
5	2015	1.9	5.3	0.7	1.2	0.38
6	2015	1.9	5.3	0.6	1.4	0.13
7	2015	1.9	5.3	0.6	1.2	0.38
8	2015	1.8	5.3	0.6	1.4	0.88
9	2015	2.1	5.2	0.8	1.3	0.88
10	2015	1.7	5.3	0.6	1.3	0.38
11	2015	2.0	5.1	0.7	1.3	0.63
12	2015	2.0	5.3	0.6	1.3	0.13
13	2015	2.0	5.2	0.8	1.4	0.88
14	2015	1.9	5.3	0.6	1.3	0.38
15	2015	1.9	5.1	0.6	1.3	0.63
16	2015	2.1	5.3	0.8	1.4	0.63
17	2015	1.8	5.3	0.8	1.4	0.63
1	2016	2.7	5.1	1.8	1.7	2.13
2	2016	2.8	4.6	2.4	2.4	2.88
3	2016	2.5	5.1	1.6	1.7	1.13
4	2016	2.7	5.1	1.9	1.9	1.88
5	2016	2.5	5.2	1.7	1.5	1.38
6	2016	2.6	5.0	1.7	1.8	0.38
7	2016	2.4	5.1	1.7	1.6	1.38
8	2016	2.4	5.0	1.9	1.9	2.38
9	2016	3.0	5.2	2.0	1.9	2.63
10	2016	2.3	5.1	1.6	1.6	1.38
11	2016	2.3	5.0	1.9	1.8	2.25
12	2016	2.7	5.1	1.5	1.5	0.88
13	2016	2.5	4.9	2.0	1.9	2.88
14	2016	2.3	5.1	1.6	1.6	1.38
15	2016	2.4	4.9	1.7	1.7	1.63
16	2016	2.7	5.1	1.8	1.8	1.63
17	2016	2.5	4.9	1.9	1.8	1.63

Table 2. ***(continued)***

Projection	Year	Change in real GDP	Unemployment rate	PCE inflation	Core PCE inflation	Federal funds rate
1	2017	2.4	5.0	2.0	2.0	3.63
2	2017	2.0	5.3	2.2	2.2	3.88
3	2017	2.4	5.0	1.9	1.9	2.13
4	2017	2.3	5.1	2.0	2.0	2.88
5	2017	2.2	5.1	1.8	1.8	2.63
6	2017	2.2	4.9	2.0	2.0	2.00
7	2017	2.3	5.0	1.9	1.9	2.38
8	2017	2.1	5.0	2.0	2.0	3.38
9	2017	2.5	5.5	2.0	2.0	3.75
10	2017	2.3	4.8	1.9	1.9	2.63
11	2017	2.0	5.2	2.0	2.0	3.75
12	2017	2.5	5.0	1.7	1.7	2.38
13	2017	2.2	4.9	2.2	2.0	3.88
14	2017	2.5	5.0	1.8	1.8	2.38
15	2017	2.2	4.9	2.0	2.0	2.63
16	2017	2.5	5.0	2.0	2.0	3.63
17	2017	2.0	4.9	2.0	2.0	3.13
1	LR	2.4	5.2	2.0		3.75
2	LR	2.0	5.8	2.0		4.00
3	LR	2.4	5.0	2.0		3.50
4	LR	2.3	5.2	2.0		4.25
5	LR	2.0	5.0	2.0		3.25
6	LR	2.0	5.0	2.0		3.25
7	LR	1.9	5.0	2.0		3.50
8	LR	1.8	5.3	2.0		3.75
9	LR	2.5	5.5	2.0		3.75
10	LR	1.8	5.0	2.0		3.25
11	LR	2.0	5.2	2.0		3.75
12	LR	2.3	5.0	2.0		3.50
13	LR	2.2	5.2	2.0		3.75
14	LR	2.2	5.0	2.0		3.75
15	LR	2.0	5.0	2.0		3.50
16	LR	2.3	5.0	2.0		4.00
17	LR	2.0	5.0	2.0		3.50

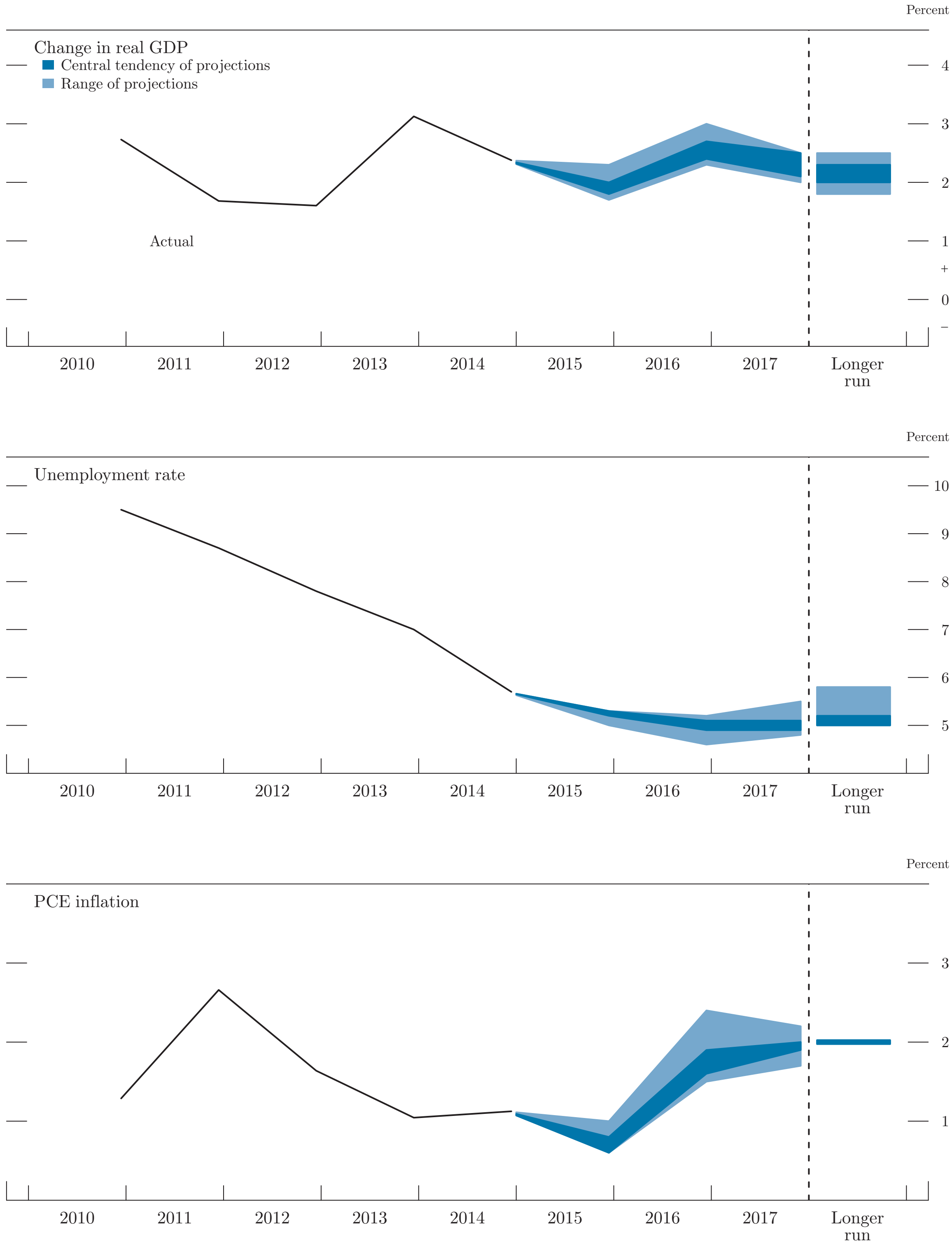
Table 2 Appendix. Timing (quarter) of liftoff and economic conditions in quarter of liftoff

Projection	Year of first increase	Quarter of first increase	Change in real GDP	Unemployment rate	PCE inflation	Core PCE inflation
1	2015	3	1.9	5.1	0.5	1.2
2	2015	3	2.1	5.2	0.4	1.4
3	2015	3	1.8	5.4	0.4	1.2
4	2015	2	2.2	5.4	0.3	1.3
5	2015	4	1.9	5.3	0.7	1.2
6	2016	4	2.6	5.0	1.7	1.8
7	2015	4	1.9	5.3	0.6	1.2
8	2015	2	2.4	5.4	0.2	1.2
9	2015	3	1.9	5.3	0.3	1.2
10	2015	3	1.6	5.4	0.2	1.2
11	2015	3	1.8	5.3	0.2	1.2
12	2016	2	2.7	5.2	1.4	1.4
13	2015	3	1.9	5.3	0.4	1.3
14	2015	4	1.9	5.3	0.6	1.3
15	2015	3	1.6	5.4	0.2	1.2
16	2015	3	1.9	5.4	0.3	1.2
17	2015	3	1.7	5.4	0.3	1.2

Figure 1.A. Central tendencies and ranges of economic projections, 2015–17 and over the longer run

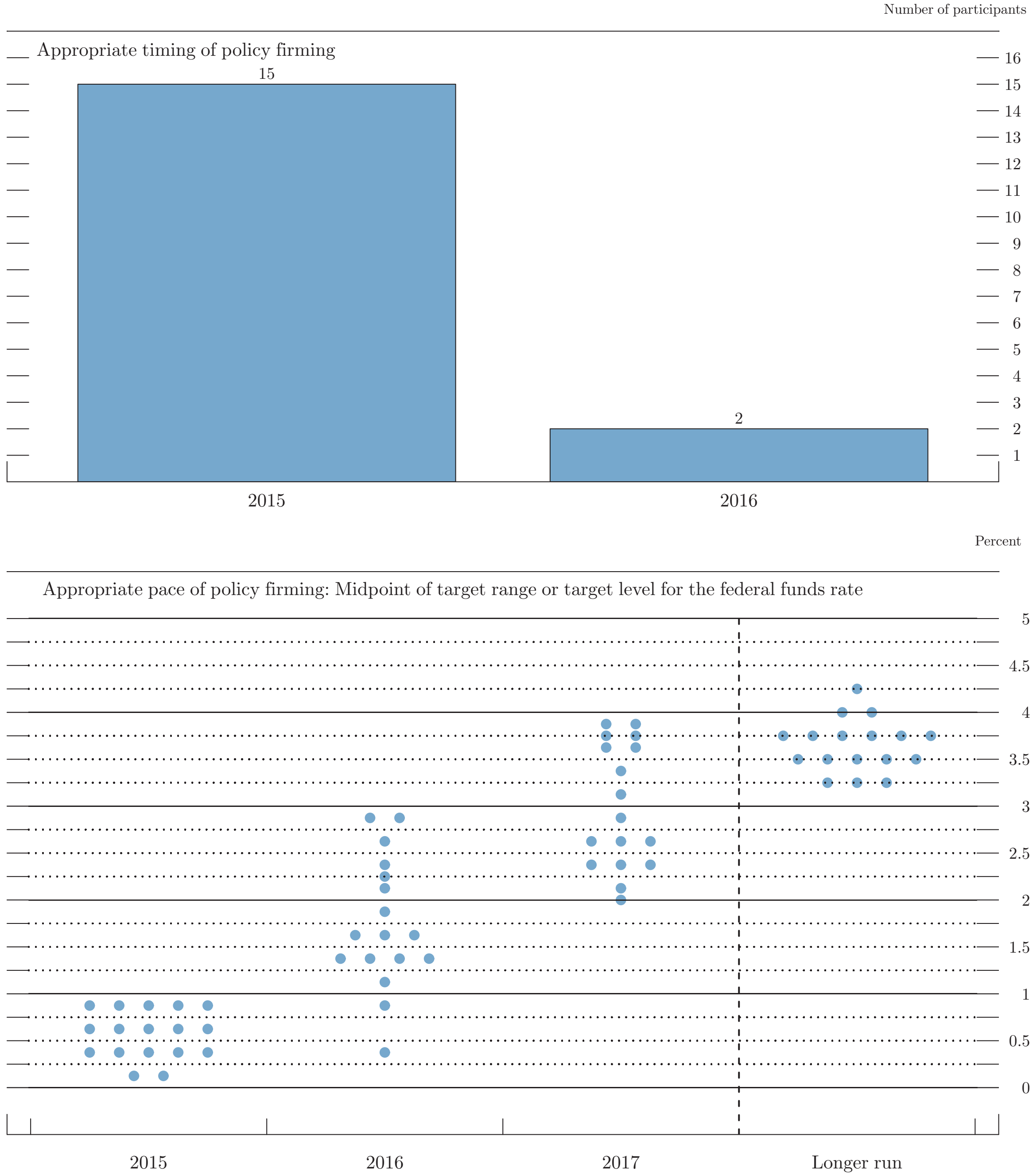
Note: Definitions of variables are in the general note to table 1. The data for the actual values of the variables are annual.

Figure 1.B. Central tendencies and ranges of economic projections, 2015–17 and over the longer run



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

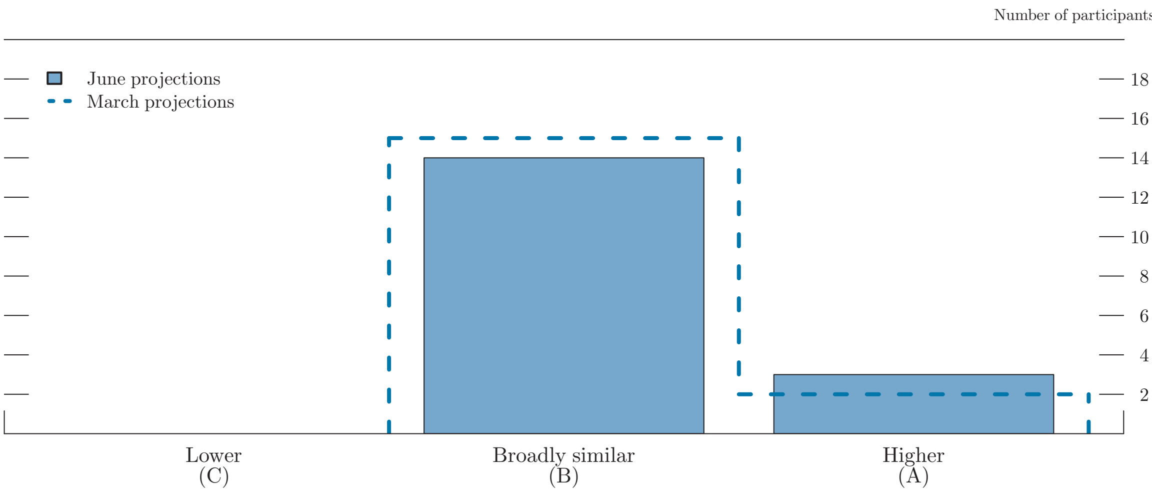
Figure 2. Overview of FOMC participants' assessments of appropriate monetary policy



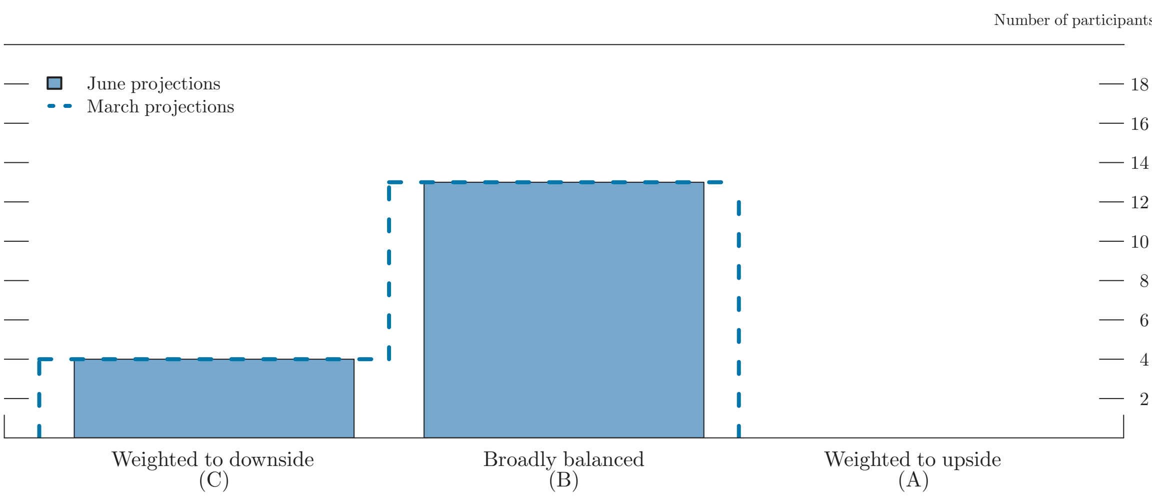
NOTE: In the upper panel, the height of each bar denotes the number of FOMC participants who judge that, under appropriate monetary policy, the first increase in the target range for the federal funds rate from its current range of 0 to 1/4 percent will occur in the specified calendar year. In March 2015, the numbers of FOMC participants who judged that the first increase in the target federal funds rate would occur in 2015 and 2016 were, respectively, 15 and 2. In the lower panel, each shaded circle indicates the value (rounded to the nearest 1/8 percentage point) of an individual participant's judgment of the midpoint of the appropriate target range for the federal funds rate or the appropriate target level for the federal funds rate at the end of the specified calendar year or over the longer run.

Figure 4.A. 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.

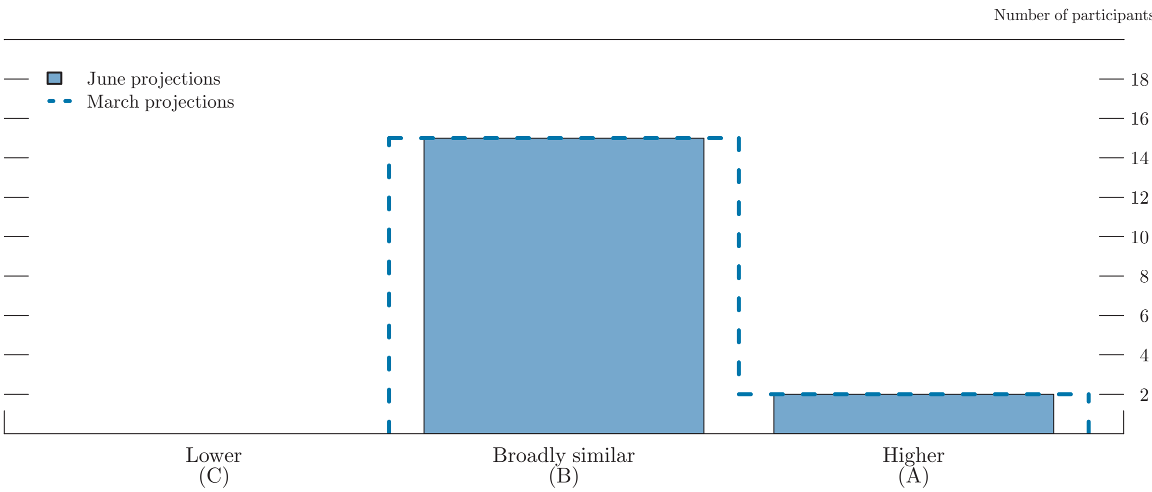


Individual responses

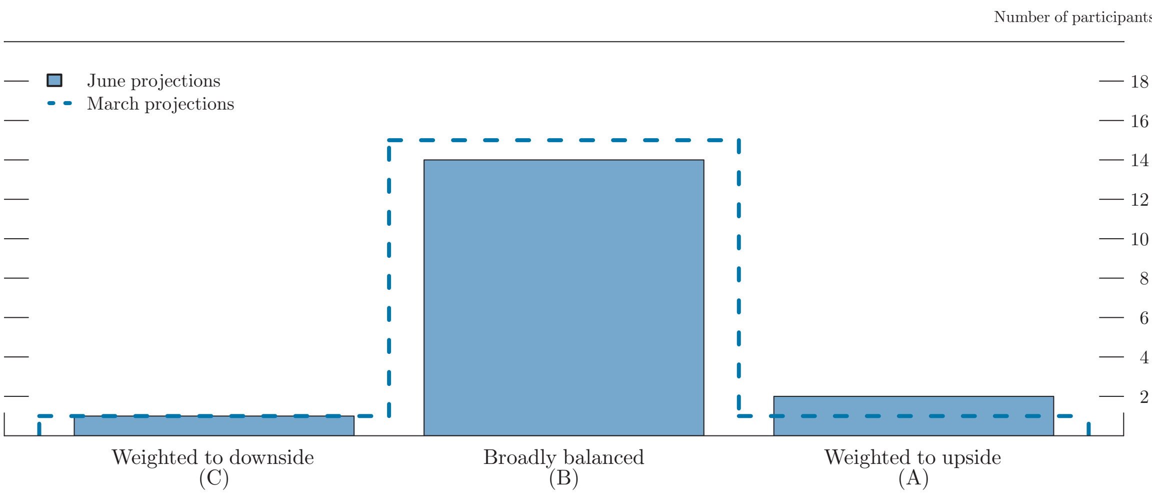
Respondent	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2(a)	B	B	A	B	B	B	B	B	B	B	B	B	B	A	B	B	A
2(b)	B	B	B	B	C	C	B	B	B	C	B	B	B	B	B	C	B

Figure 4.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.

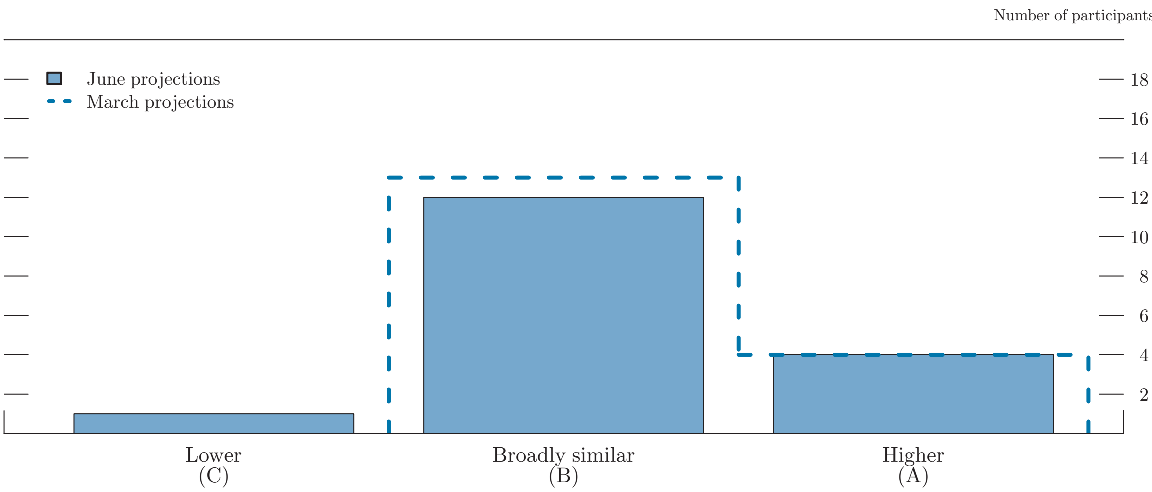


Individual responses

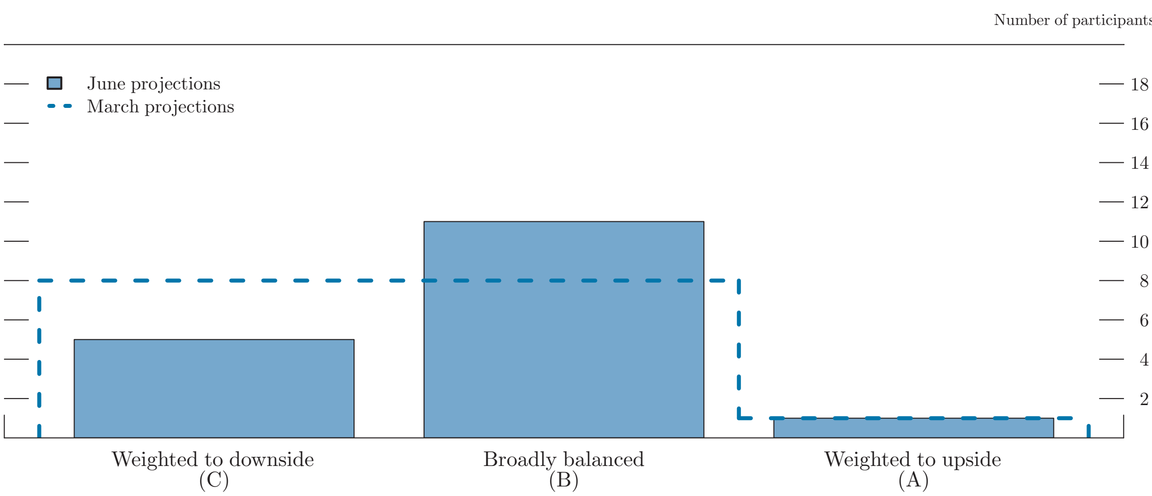
Respondent	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2(a)	B	B	A	B	B	B	B	B	B	B	B	B	B	B	B	B	A
2(b)	B	B	A	B	B	A	C	B	B	B	B	B	B	B	B	B	B

Figure 4.C. 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.

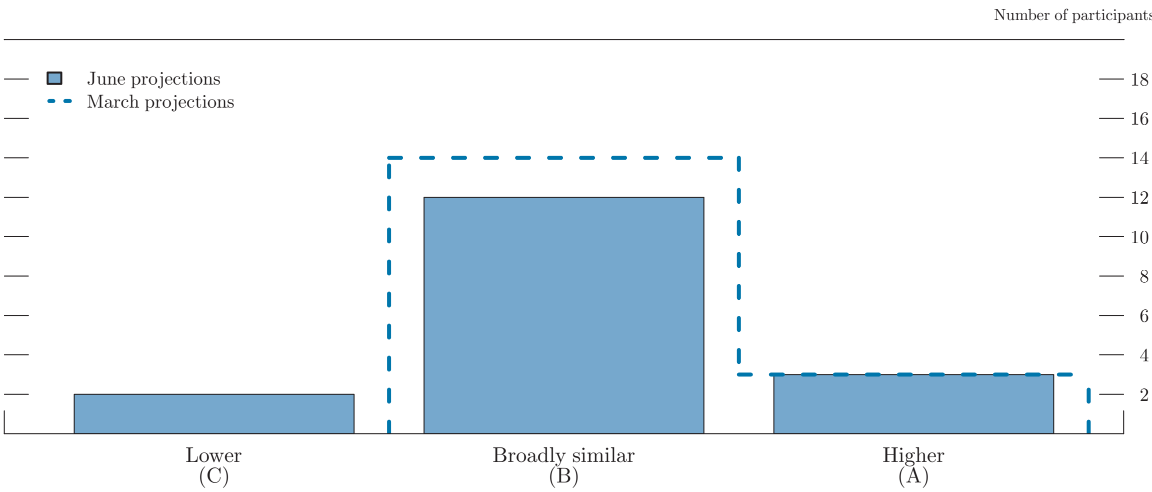


Individual responses

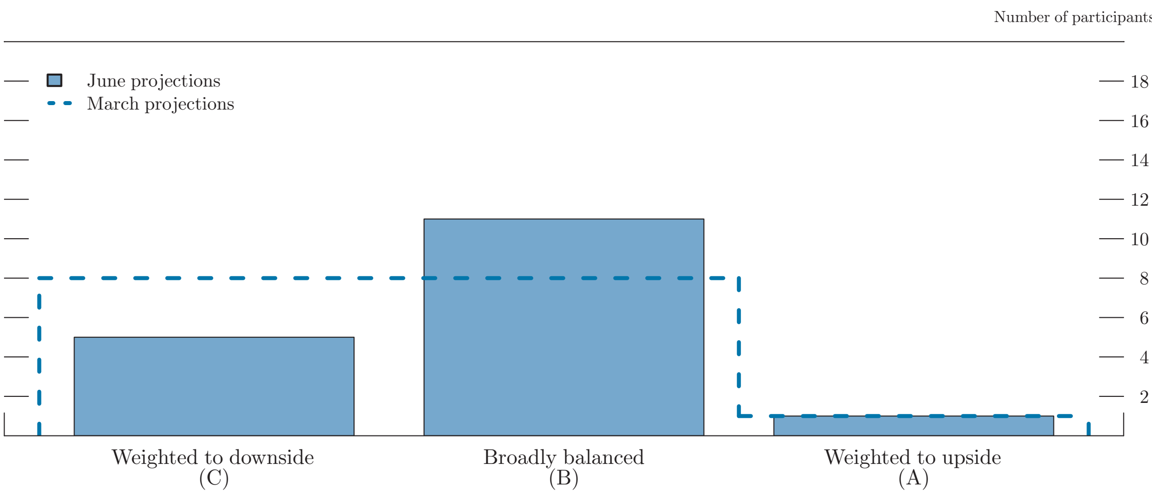
Respondent	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2(a)	A	B	B	B	B	A	B	C	B	B	B	B	B	A	B	A	B
2(b)	A	B	B	B	B	C	C	B	B	C	B	C	B	C	B	B	B

Figure 4.D. 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)	A	B	B	B	C	A	B	C	B	B	B	B	B	B	B	A	B
2(b)	A	B	B	B	B	C	C	B	B	C	B	C	B	C	B	B	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: I anticipate that the economy will converge to its longer run growth and inflation targets by the end of 2017.

Respondent 2: All measures converge in less than 5-6 years. GDP growth will converge in 2017, while the unemployment and inflation measures will converge in 2018. Prior to convergence, I expect the unemployment rate to decline further below its long-run value of 5.8% and the inflation measures to overshoot 2%.

Respondent 3: N/A

Respondent 4: I anticipate that the convergence of real GDP growth and inflation will takes less than 5 years. Specifically, I expect real GDP growth to reach its longer-run rate by 2017 and inflation to rise to close to 2 percent in 2016. I expect the unemployment rate will hit its longer-run level by the end of 2015, and fall below it in 2016 and in 2017 before moving back to its longer-run level.

Respondent 5: N/A

Respondent 6: It will be shorter under appropriate monetary policy, in part because the FOMC will take appropriate steps to help return the underlying rate of inflation to 2%. My assessment of appropriate monetary policy puts little weight on interest rate smoothing.

Respondent 7: Convergence to the mandated goals is expected to occur over the 2017-18 period.

Respondent 8: N/A

Respondent 9: At this point, convergence is likely in two to three years.

Respondent 10: N/A

Respondent 11: N/A

Respondent 12: N/A

Respondent 13: I expect the unemployment rate to reach its longer-run sustainable rate by the end of 2015, and then to fall past that level. Convergence to the natural rate from below is unlikely to be achieved until the end of 2018. To avoid setting the stage for a new recession, it is essential that any substantial overshoot of the natural rate be avoided. I expect trimmed-mean inflation to reach 2 percent in 2016, and to rise past 2 percent in 2017. Inflation is unlikely to return to target until 2019.

Respondent 14: N/A

Respondent 15: N/A

Respondent 16: No comment.

Respondent 17: We continue to assume that the economy's potential growth rate is within a range around 2% and maintain a point estimate of 2%. We currently assess that a reasonable range for the longer-run unemployment rate is 4% to 6%, and we have maintained our point estimate of 5%. We plan to conduct our usual reassessment of these assumptions after the annual revisions of GDP and productivity are released in late July and August.

We expect the unemployment rate to reach its longer-run level in 2016Q3, and for it to fall slightly below that level at the end of 2016, which would be consistent with the implications of some of our scenario analysis of labor flows.

We assume that long-term inflation expectations will continue to be anchored at levels consistent with the FOMC longer-run objective (2% for the PCE deflator and around 2.5% for the CPI, based on the longer-term average of the difference between CPI and PCE inflation). Under these conditions and with the resource gap anticipated to dissipate over the forecast horizon (the unemployment gap may not provide an accurate measure of the resource gap at this time), we expect inflation as measured by the PCE deflator to be about 2% in 2017 and thereafter.

As indicated in our projections, we anticipate that under appropriate monetary policy and no further shocks, the convergence process should be largely completed in 2017.

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: It remains the case that 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 2: N/A

Respondent 3: N/A

Respondent 4: N/A

Respondent 5: N/A

Respondent 6: N/A

Respondent 7: N/A

Respondent 8: Inflation expectations have probably become more firmly anchored as a result of the FOMC's consensus statements, and uncertaintly is accordingly lower than before January 2012.

Respondent 9: N/A

Respondent 10: N/A

Respondent 11: Uncertainty about my projection for economic activity is similar to its average level over the past 20 years, which, of course, is a period that was characterized by considerable variability. Inflation remains anchored by quite stable longer-run inflation expectations at the FOMC's stated goal of 2 percent. Inflation expectations have now been well anchored for about 20 years, so I see the magnitude of the uncertainty around the inflation outlook as consistent with that over the past 20 years.

Respondent 12: N/A

Respondent 13: N/A

Respondent 14: Because of the difficulty disentangling persistent headwinds from structural changes in the economy, GDP growth over the medium term is somewhat more uncertain than is typically the case.

Also, the recent swings in oil prices and the still uncertain response of oil demand and oil supply to last year's sharp drop in prices imply a higher-than-usual amount of uncertainty around energy prices and PCE inflation.

Respondent 15: N/A

Respondent 16: Oil price futures have remained particularly volatile, raising the uncertainty around my headline PCE projection above its 20 year average. I also judge the uncertainty surrounding my core PCE inflation projection as "higher." This is due to recent disparate readings on underlying PCE inflation coming from various measures, and uncertainty regarding how inflation expectations are reacting to a prolonged period of below-target core inflation readings, especially in light of inflation compensation measures that remain 1/2 percentage point below year ago levels.

Respondent 17: Quantitative judgment based on the width of the probability intervals from the FRBNY forecast distribution for real GDP growth and core PCE inflation relative to the forecast errors over the last 20 years. The width of these intervals have narrowed modestly since the March SEP, as we interpret the recent developments as indicating less probability of either a sharp increase in real growth or a significant and protracted slowdown. Nevertheless, the probability intervals for the real activity forecasts are still somewhat wider than the SEP standard, particularly in 2016 and 2017, in part because of the still-extraordinary economic and financial environment, including the policy rate in most advanced economies remaining constrained by its effective lower bound. The further net impact on real activity of the dollar appreciation during the second half of 2014 and early 2015 is not yet clear, contributing to the uncertainty. In contrast, the forecast intervals for core PCE inflation appear broadly consistent with the SEP standard, taking rough account of the differences between forecast errors for overall consumer inflation and core PCE inflation.

Uncertainty and Risks (continued)

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: I view the risks to inflation as weighted to the upside over the medium term and longer run. Longer-term inflation risks reflect uncertainty about the timing and efficacy of the Fed's withdrawal of accommodation. The risks to output growth and unemployment are balanced.

Respondent 2: N/A

Respondent 3: N/A

Respondent 4: N/A

Respondent 5: N/A

Respondent 6: Because of the zero lower bound, and the perceived costs associated with asset purchases, it is hard for the FOMC to respond effectively to low inflation and low growth outcomes. This means that these outcomes are more likely to occur.

Respondent 7: N/A

Respondent 8: N/A

Respondent 9: The risks to my projections are broadly balanced. Weakness abroad remains a downside risk, but less so than in April. Further weakening in the economies of key trading partners may have a larger effect on U.S. export growth than I am forecasting. Central banks in foreign economies have been adding accommodation, which is helping to stimulate global demand.

Oil prices have stabilized at a low level, which should be a net positive for spending. The U.S. labor market is showing solid gains and measures of labor compensation are strengthening, which will support household spending. The combination of these factors alongside highly accommodative monetary policy raises the possibility that the U.S. economy may be poised for faster growth than I am currently projecting.

Inflation risks are balanced. Second-quarter inflation rates have moved up from their very weak first-quarter readings, as oil prices have stabilized and transitory factors weighing on core inflation have waned. Survey-based measures of inflation expectations have been relatively stable; inflation compensation measures based on asset prices have stabilized but I've been taking less signal about inflation expectations from changes in these measures because the changes might be reflecting liquidity effects. A broad-based downward drift in inflation expectations would pose a downside risk to my inflation projection. On the other hand, too slow a withdrawal of monetary policy accommodation has the potential to create upside risks to inflation over the medium run.

Respondent 10: I see the risks to GDP growth as somewhat weighted to the downside for two reasons. First, the lower bound on the nominal funds rate constrains the ability of monetary policy to bu er negative, but not positive, shocks to the economy, thereby skewing the distribution of possible outcomes for real activity. Second, I see a greater-than-even chance that productivity growth will be slower to pick up than I anticipate. For the unemployment rate, however, these two factors largely offset one another, leaving my assessment of the risks to my forecast as broadly balanced.

As for inflation, I continue to see the risks to my forecast as weighted to the downside, although perhaps a bit less so than in March. I am now more confident than before that the influence of past energy price declines and dollar appreciation will prove to be transitory and that inflation will return to an underlying trend of about 1-1/2 percent by early 2016. But I still see a greater-than-even chance that inflation may not move back to 2 percent as quickly as I project. In particular, even if my projection for the labor market comes to pass, I worry that the response of inflation will be less than I anticipate because my baseline forecast anticipates that the slope of the Phillips curve will not be quite as low as it has been in recent years. Moreover, I see a greater risk that the true natural rate of unemployment may be below 5 percent than above, although the recent tentative signs of a pickup in wage inflation have diminished my concerns on this score somewhat.

Respondent 11: Risks to economic activity appear balanced. Recent data point to slower GDP growth in the first half of this year, but much of that reported softness likely is due to temporary factors such as adverse weather and residual seasonality. Overall, most indicators suggest steady improvements in economic conditions going forward. Most of the remaining headwinds continue to abate.

The zero lower bound does somewhat constrain our ability to respond to adverse shocks. However, this constraint no longer appears quantitatively important, especially in light of the apparent effectiveness of forward guidance and LSAPs. Moreover, normalization of monetary policy means that the zero lower bound will be less relevant over the forecast horizon.

Inflation risks are also balanced. The recent low readings on headline and core PCE inflation raise the possibility that inflation could remain below target for some time. On the other side, the steady diminution of labor market slack increases the odds of building wage pressures feeding through to more inflation in the near-term.

Respondent 12: We think the risks to our GDP and unemployment rate forecasts are roughly in balance. On the downside, we've been surprised by the lackluster gains in consumption and investment, and we cannot dismiss the possibility that risk-aversion may be a more powerful and longer-lasting headwind on household and business spending than we have assumed. On the upside, we still see some chance that positive household sector fundamentals (gains in wealth, the better job market, and low energy prices) and ample business access to credit could lead to stronger-than-expected growth. In addition, we see some possibility that demographic trends will lead to greater trend labor input and a lower natural rate of unemployment than we have assumed.

The flattening in the dollar, slight increase in oil prices, and the signs of a pickup in wage growth have reduced the downside risks to the inflation outlook, but not by enough to move the risks into balance. Importantly, our forecast of inflation rising to 1-3/4 percent by the end of the projection period depends heavily on an upward pull from inflation expectations supported by the FOMC's credible commitment to a symmetric 2 percent inflation target. We have yet to see evidence of these factors taking hold in the pricing plans of our business contacts, let alone in the actual inflation data. Accordingly, we still see the balance of risks to the inflation forecast as tilted to the downside.

Respondent 13: N/A

Respondent 14: Over the medium term, I expect the effects of dollar appreciation on inflation to wane, and wage pressures to increase as resource utilization rise. But there are risks that these factors continue to weigh on prices longer than I expect, and the that dollar strengthens further. In this low inflation environment, inflation expectations may start to decline.

Respondent 15: N/A

Respondent 16: No comments.

Respondent 17: Quantitative judgment based on the difference between the central projection and the expected value from the FRBNY forecast distribution. Under our appropriate policy stance, the risks to the inflation outlook are roughly balanced, as has been the case in recent SEPs: even though market-based inflation compensation has risen some since the March SEP, its level is still low, indicating little change in the balance of inflation risks over the past few months. The risks to the real activity outlook also are roughly balanced over our forecast horizon. The broad balance continues to reflect two opposing hypotheses that could explain the contrasting tone of data of the past several months–relatively strong labor market data and relatively weak expenditure data. One hypothesis is that the sluggish growth through much of this expansion has come from more persistent structural factors rather than from various headwinds that are expected to abate in our central forecast, which is consistent with the weaker expenditure data. The other hypothesis is that the economy has greater underlying strength than anticipated in our projection, which is consistent with the stronger labor market data. Beyond those hypotheses, other risks include the impacts of the recent oil price decline and dollar appreciation on U.S. activity and inflation; the continued weakness in a number of emerging market economies, most prominently China, which could leave the U.S. and world economies more susceptible to negative shocks; and the constraints that monetary policy faces under the effective lower bound in a number of major economies.

Key Factors Informing Your Judgments regarding the Appropriate Path of the Federal Funds Rate

3(c). Please describe the key factors informing your judgments regarding the appropriate path of the federal funds rate. If, in your projections for any year in the projection period, the unemployment rate for that year is close to or below your projection for its longer-run normal level and inflation for that year is close to or above 2 percent, and your assessment of the appropriate level of the federal funds rate for that year is still significantly below your assessment of its longer-run normal value, please describe the factor or factors that you anticipate will make the lower-than-normal funds rate appropriate. If you have reduced your estimate of the longer-run normal value of the federal funds rate since the previous SEP, please indicate the factor or factors accounting for the change. You may include any other comments on appropriate monetary policy as well.

Respondent 1: My appropriate path for policy has the Commitee starting to raise the funds rate in 2015Q3 as the economy continues to strengthen and inflation moves toward target. My path for the funds rate is within the range of prescriptions given by the monetary policy rules enumerated in the Tealbook and has the funds rate gradually rising over the forecast horizon to reach its long-run level of 3.75 percent in early 2018.

Respondent 2: According to the empirical model supporting my forecast, lift-off should have already occurred. Such an action would have reduced the extent of the undershooting of unemployment and the overshooting of inflation.

Respondent 3: I have lowered my growth forecast for this year so I lowered my appropriate policy path as well.

Respondent 4: My judgment regarding the appropriate path of the federal funds rate is predicated on promoting sustainable long-run economic growth and price stability. My forecast calls for the unemployment rate to be near its longer-run level and inflation close to two percent in early 2016. Given uncertainty about how the economy will respond to the removal of accommodation after a prolonged period of near-zero interest rates, I believe increases in the funds rate should be gradual to see how the economy responds. Adjustments should be data-dependent, but the gradual approach to normalizing policy results in a funds rate below my estimate of its longer-run level in 2016 and 2017.

Respondent 5: After the roller coaster of data generated during the spring, we are left with expected economic performace for the next ten quarters that is little changed from March projections, but without the grwoth that had been anticipated for 2015 Q1. Thus, while it does not at this time appear that Q1 reflected a significant slowdown in underlying growth momentum, the performance of the economy will very likely be worse than expected in the March projections. Thus there seems little reason to move up my projected date for the first federal funds rate increase. Moreover, tha apparent absence of a substantial bounceback from the poor Q1 makes it reasonable to await more confirmation that there hasn't been a slowing even more significant. I anticipate a fairly gradual increase in the federal funds rate, as growth continues to run only modestly to moderately above potential and inflation only gradually returns to the Committee's stated target. Also, I have again marked down my projection of the longer run target federal funds rate, which has also prompted me to make the path from zero to fully normalized still less steep.

Respondent 6: The data suggest that there has been a sharp fall in the natural real rate of interest since 2007. We remain below maximum employment and below target inflation, even though the market real rate of interest (over any horizon) is much lower than in 2007. This means that the neutral real rate of interest – consistent with target inflation and maximum employment – has fallen by even more.

There are many reasons for this change in the neutral real rate of interest – but the main point is that the change is likely to unwind over time – but only slowly and only partially. This judgment is borne out by the real yield curve, which is upward sloping (roughly 10 basis points over the next five years, and rising to over1.5% from 2025 to 2035). Note that this real yield curve is roughly consistent with inflation break-evens of around 2%, which suggests tha these market interest rates are reflective too of what's happening with the neutral real rate of interest.

Put another way: I see the intercept term in the Taylor rule as being a stochastic process with a lot of persistence. That intercept is very low and is likely to return to its long-run value only slowly.

I have also taken on board the staff's downward revision of the underlying rate of inflation, as well as the staff' view that overshooting of the unemployment rate below its natural rate will be helpful to bring inflation back to 2 percent. Given the low inflation outlook, I believe it would be appropriate to reinstate some kind of asset purchase pogram.

I have increased my estimate of the longer-run normal value of the federal funds rate since the previous SEP because longer-term nominal market interest rates have come back up in the last quarter.

Respondent 7: The projected path for the federal funds rate features a gradual removal of policy accommodation, so that policy can probe for the possibility of lower equilibrium levels of the unemployment rate and/or the equilibrium real rate of interest. If our current estimates for the longer run levels of the unemployment rate and the real interest rate turn out to be correct, the projected path for the federal funds rate will generate a level of activity modestly above full employment and inflation slightly above target over the period 2018-19. In other words, we judge the costs of probing in the current environment to be small.

Respondent 8: The decline in core and headline inflation that we saw late last year has clearly come to an end, and recent readings have boosted confidence that inflation is headed back toward our 2 percent objective. Moreover, labor market underutilization is statistically insignificant, and so the conditions the Committee spelled out at the beginning of the year have been met. In addition, consumer spending has shown sustained strength since the middle of last year, despite a couple of soft months this past winter. The tightening of labor market conditions is likely to bolster household spending growth going forward. Such conditions warrant raising real interest rates.

Respondent 9: I continue to see underlying strength in the economy and labor markets. The weakness in the first quarter data appears to have been primarily caused by a number of temporary factors, and the incoming monthly data give me confidence that some rebound is already underway. The labor market has already made considerable, sustained progress toward our goal of full employment, and I expect further gains to be made. The unemployment rate has reached my point estimate of its longer-run level. Measures of underemployment have been steadily declining as well, and recent signs of firming in labor compensation lend further support to the view that labor underutilization is shrinking. Inflation expectations are stable, oil prices have stabilized, and appreciation in the value of the dollar has slowed. Based on these factors and my forecast for above-trend growth, I anticipate that inflation will move higher over time. I continue to project a gradual rise in inflation over the forecast horizon to the Committee's 2 percent longer-run goal by late 2016 or early 2017.

Given that monetary policy affects the economy with a lag, I believe appropriate monetary policy should reflect both actual and projected progress toward the Committee's goals. With the economy at or close to full employment and projected inflation between one and two years ahead already equal to the Committee's goal of 2 percent, an economic case can be made for raising the funds rate in June. But given our past communications, I believe the public is unprepared for such a rate hike. Thus, my policy path has the FOMC beginning to raise the fed funds rate in 2015Q3, with the funds rate rising gradually over the remainder of the forecast horizon.

Respondent 10: Several factors influence my judgement regarding the appropriate path of the federal funds rate, which I anticipate will need to rise only gradually over the next few years given my modal outlook. First, I judge that an appreciable amount of slack remains in the labor market, and more than the unemployment gap by itself would suggest. Second, the underlying trend in inflation currently appears to be no higher than 1-1/2 percent, and I believe that bringing inflation back to 2 percent over the next few years will require policy to remain sufficiently accommodative to generate a noticeable further tightening in labor market conditions, to the point of allowing the unemployment rate to fall below its natural rate for a time. Third, the headwinds which have restrained the expansion to date have not yet completely faded and will likely take several more years to completely disappear; alternatively put, the equilibrium real funds rate currently appears to be near zero and I expect it to converge only gradually to its (low) longer-run value of 1-1/4 percent. Fourth, uncertainty about the true value of the equilibrium real rate argues for taking a cautious approach to policy firming, particularly initially, until we are more certain about the economy's ability to continue to expand at a moderate pace in the face of rising interest rates. Similarly, I believe that it will be appropriate to proceed cautiously in firming the stance of monetary policy until the risks associated with a return to the zero lower bound fade.

Respondent 11: Output and unemployment gaps continue to decline. I expect these gaps to close by the end of this year. In addition, I expect inflation to remain below our 2 percent objective until the end of 2016. This situation continues to call for very accommodative monetary policy. Appropriate policy in this case is to delay liftoff from the zero lower bound until the second half of 2015. My judgment on appropriate policy is generally informed by looking at simple rules that adjust for the zero lower bound, as well as by my expectations of, and uncertainty about, the costs and benefits of continuing unconventional actions.

Following liftoff, my fed funds path through the end of 2016 remains flatter than some simple rules would suggest. In my projection, the reasons include the following:

- Although the unemployment rate reaches its long-run natural rate in the second half of 2015, broader measures of slack (including the share of long-term unemployment) take a bit longer to return to normal, reflecting the dynamics of the labor market.
- Some headwinds remain in 2016, such as constraints on credit availability for some borrowers and foreign economic activity. These continue to reduce the equilibrium real interest rate relative to its long-run value.
- In an environment in which short-term rates have been near zero for almost seven years, there are potential benefits to having an earlier liftoff followed by a more gradual rate path than might normally be called for. These benefits include managing expectations and minimizing the potential for disruptions to global financial markets.

Respondent 12: We continue to believe that under appropriate policy, liftoff should be delayed until growth is clearly on a more sustained footing, an array of labor market measures are closer to their long-run norms, and core inflation has clearly begun to move sustainably higher. In our projection, it will take until mid-2016 for all three of these conditions to be met. In particular, at that time our two-year-ahead inflation forecast will just be reaching 2 percent. After liftoff, we believe it will be appropriate for the path of rate increases to be quite shallow, at least initially. This would give the Committee time to assess the economy's performance under less accommodative financial conditions and to observe whether inflation is indeed moving up to target. Furthermore, we believe that a mid-2016 lift off date and a shallow path for rate increases is appropriate policy from a risk management perspective, as we view the costs of a retreat back to the zero lower bound as much greater than those of inflation running modestly above 2 percent for a couple of years if demand is unexpectedly strong. Indeed, given the normal inertia in the inflation process, our rate assumptions could result in inflation modestly overshooting 2 percent beyond the projection horizon. We see this as a feature of an optimal policy aimed at achieving a symmetric inflation target. Finally, our path for appropriate policy also is influenced by our view that the equilibrium real interest rate currently is quite low and, though moving up over time, it will still be well below our assumption for the long-run neutral rate at the end of the projection period.

Respondent 13: The amount of accommodation provided by a given short-term interest rate is heavily influenced by broader financial conditions, which can be approximated using a long-term forward rate and growth in household net worth. Accommodation measured in this way is a powerful predictor of changes in the unemployment rate, and a policy rule that has the FOMC adjust accommodation in response to current slack and inflation does a good job of explaining historical funds-rate movements without resort to ad hoc inertia. Policy was exceptionally accommodative in late 2013 and into 2014, but a deterioration in the economic outlook abroad and increased geo-political uncertainty have subsequently reduced accommodation, without overt FOMC action. Nevertheless, the Committee's current policy stance is more accommodative than is warranted. At least, it is more accommodative than is consistent with the FOMC's past behavior.

Is a tilt toward accommodation appropriate given the proximity of the zero bound? I do not see the risks associated with too-much and too-little accommodation as asymmetric at this stage of the business cycle: Too much accommodation or accommodation maintained for too long is just as risky as too little accommodation once you reach the point where full-employment overshoot is a real possibility. You'll note the focus on full-employment overshoot, not inflation overshoot. The concern is that business investment decisions, consumer durables purchases, and borrowing commitments made in an artificially favorable financial environment can't be easily reversed or unwound when financial conditions eventually begin to normalize. It is difficult to achieve smooth convergence in an economy with capital and debt overhangs, and the longer artificially favorable financial conditions persist, the greater these overhangs are likely to become. The damage to the economy from overshooting full employment is cumulative, and as it accumulates the threat to macroeconomic stability mounts.

Dallas Fed research has confirmed that the wage Phillips curve is nonlinear. That nonlinearity suggests that as the unemployment rate is pushed downward, eventually wage growth will rise relative to price inflation by an amount that exceeds trend productivity growth, eroding profit margins. Falling profit margins must have consequences for business investment and for equity prices. The point is that if Federal Reserve policymakers focus solely on the inflation consequences of their actions, they may miss other important parts of the picture.

There is a price to be paid for running the economy hot, and it is not just the risk of a period of above-target inflation. Even (especially?) if inflation does not pick up, imbalances are created that are (1) unsustainable and (2) dangerous, if allowed to build.

In projecting a path for the funds rate, I assume that headwinds from weak growth prospects in the foreign advanced economies and from geo-political uncertainty lift only gradually, and it is for that reason that the funds rate I project for 2016 falls short of its longer-run normal level, even though by then I expect we will have achieved full employment and price stability. It may very well be that headwinds ease more quickly than I expect, in which case a steeper policy path will be appropriate.

Respondent 14: Although we have seen continued improvement in the labor market, the aftereffects of the crisis continue to restrain housing, and perhaps consumer spending. At the same time, the significant appreciation of the currency has held down net exports and core inflation through import prices. These effects are likely to fade only slowly. As a result, monetary policy may need to remain accommodative for longer to move employment and inflation, in particular, back to target levels.

Respondent 15: N/A

Respondent 16: My outlook has liftoff for the federal funds rate in September 2015 (to a range of 25-50 basis points), followed by 25 basis point increases at every other meeting through 2016. The trajectory steepens to 25 basis point increases at every meeting in 2017, nearing its appropriate long-run value by the end of the year.

Respondent 17: 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. As such, we believe it is important to communicate clearly to the public that these factors will dictate the path of the policy stance. The developments along these dimensions since the March SEP were such that there is no change to our assessment of the appropriate path for the FFR in this submission.

Based on our modal outlook and assuming that long-term inflation expectations remain anchored, we anticipate that the target range for the FFR will remain at its current level until September 2015. Nevertheless, it is important to communicate to the public that the decision about the timing of liftoff is dependent upon the data and the FOMC's assessment of the outlook and risks rather than a particular calendar date.

However, a more important factor in determining the stance of policy as we approach normalization will be the pace of rate increases following liftoff. In general, this pace will depend upon our assessment of economic conditions and the outlook, longer-term inflation expectations, and the response of overall financial conditions to policy tightening. Currently, the still-low levels of inflation and longer-term inflation compensation, the still-significant uncertainty surrounding both the real activity and inflation outlooks, and the uncertainty about the level of the equilibrium real FFR [discussed further below] all point to a gradual pace during the early stages of normalization. Therefore, our assessment of the appropriate path continues to have the target FFR ranges at the end of 2015 and the end of 2016 at 1/2 - 3/4% and 1 3/4 - 2% respectively. We thus do not expect that the FFR will reach our estimate of its longer-run normal rate until 2018. We believe that this gradual path is necessary to provide insurance against the various restraining forces still faced by the U.S. economy (including those stemming from global economic and financial developments) and to address the uncertainty about the equilibrium real FFR, which in turn will help ensure the achievement of the FOMC's objectives over the longer run. Moreover, in current circumstances–low inflation and unemployment near our estimate of its longer-run normal level–unemployment could fall below its longer-run normal level under appropriate policy, thus providing more insurance against the risk of being caught in a low inflation trap. Our modal forecast has the unemployment rate falling just below our 5% estimate of the longer-run normal rate, although there is a sizable probability that it could fall further below the longer-run rate.

Another factor informing our assessment of the appropriate path for the target FFR is our estimate of the equilibrium real short-term interest rate. We maintain the range of 1/2 - 3% that we had in March: this range is modestly below our assessment of 1% - 3% for "normal times," reflecting the impact of the protracted period of low global interest rates and resulting continued uncertainty about the equilibrium real rate. Adding the objective for inflation (2%) then gives our estimated range for the nominal equilibrium rate as 2.5 - 5.0%. We continue to assess that the equilibrium rate is more likely to be in the lower half of that range because of the behavior of nominal and real Treasury yields and productivity growth since the end of the recession, leading to our point estimate of 3 1/2%, as seen in the response to question 3(a). Estimates of the equilibrium rate using DSGE models and the Laubach-Williams model also suggest that the equilibrium rate remains low.

We would also note that we assume that reinvestment continues until economic and financial conditions indicate that the exit from the zero lower bound appears to be sustainable and the risks of a reversion are deemed to be negligible. Based on our modal outlook, we expect those conditions to occur sometime in the first half of 2016.

Forecast Narratives

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

Respondent 1: I expect the pace of output growth over the medium term to be somewhat above my longer term trend of 2.4 percent as the headwinds that have been holding down growth recede further. While I lowered my output growth forecast for 2015 to reflect the weak 2015Q1 data, I continue to expect that the economy will rebound to about 3 percent growth in the second half of the year. With fairly modest headline growth over the forecast horizon, I anticipate that the unemployment rate will fall to about 5 percent in 2017, slightly below my longer term trend. With appropriate monetary policy firming, I do not anticipate that the unemployment rate will move much below the natural rate in 2017. Headline inflation has been held down in the first half of 2015 by the fall in energy prices. In 2017, I anticipate that headline and core inflation will have rebounded to my 2 percent target. Inflation stays anchored around 2 percent in response to tighter monetary policy than that anticipated in the Tealbook.

Respondent 2: My view is that lift-off will be tardy. This tardiness is shaping my forecasts of the overshooting of inflation and the undershooting of unemployment.

Respondent 3: i) Fundamentally, the belief that the underlying trend of growth is strong now that we are recovering well from the Q1 slowdown. ii) The need to look through the influence of the decline in oil prices and —to a considerable extent—the appreciation of the dollar in forecasting inflation. iii) The fact that employment has continued to increase at an impressive rate.

Respondent 4: My forecast for real GDP growth is characterized by below-trend growth in 2015 followed by above-trend growth in 2016. Real GDP growth is supported by income growth from rising employment and wages, rising household wealth, and accommodative financing conditions. Real GDP growth is likely to slow in 2017 as the economy operates at full capacity. As the remaining economic slack declines, I expect the unemployment gap to be closed by the end of 2015. My inflation outlook projects a gradual rise in inflation coinciding with the removal of slack from the economy and the dissipating of transitory effects of dollar appreciation and lower energy prices.

I view the risks surrounding my outlook as broadly balanced. Important downside risks to GDP growth are global growth, which may deteriorate due to a possible slowing in emerging markets or to spillovers from a possible Greek exit, and continued weakness in productivity. On the upside, possible surprises to consumer spending, residential construction or wages are risks to the growth outlook. For the unemployment rate path, the difficulty with predicting labor force participation introduces risks to the upside and to the downside. For the inflation outlook, the downside risk of a persistent impact of the dollar's appreciation is broadly balanced by the upside risk that slack may diminish faster than expected.

Respondent 5: My expectation continues to be for a path of moderate recovery as labor markets continue to improve, consumer spending firms, and fiscal headwinds disappear. The absence of a strong rebound from Q1, a la Q2 in 2014, is of some concern. Industrial production and business fixed investment (even ex the energy sector) are still disappointing, and may remain so until household income is supported by rising wage increases as well as by employment increases, thereby providing greater certainty that the demand warranting more investment and production will be there. The strength of the dollar will be a notable drag on growth for at least the next several quarters. The degree of risk posed by international developments – notably Greece – seems to fluctuate on an almost daily basis, but it seems fair to anticipate that the average level of risk in at least the first part of the projection period will be elevated.

Respondent 6: There is a risk of a premature tightening of monetary policy that would degrade our performance on inflation and employment.

Respondent 7: Incoming data on real economic activity has been below expectations, but labor market improvements have continued at a relatively solid pace. We judge that, at this stage, the labor market provides a more reliable signal of the underlying strength of the economy, and as a result we continue to expect that the economy will grow modestly above potential over the projection period. The factors shaping our real outlook have not changed materially. Over the second half of this year and in 2016 and 2017, consumption is expected to grow somewhat faster than GDP and disposable income, as the pent-up demand that has accumulated so far is being released. Steady growth in consumption should stimulate business investment, and continued improvements in the labor market should translate into a faster pace of household formation and residential investment growth. There are several uncertainties surrounding our baseline outlook. In particular, it is possible that the rebound in consumption may prove weaker than expected if consumer behavior is still being impacted by the experience of the financial crisis and the Great Recession. The forecast for the investment components of demand remains especially uncertain, given the subdued recovery so far in residential and investment and the uneven improvement in business capital spending.

Given our outlook for real economic activity, we project a gradual decline in the unemployment rate, with the unemployment rate reaching the 5 percent equilibrium level by 2017. The decline in the unemployment rate is slower than what would be implied by just considering the projected pace of GDP growth. The reason has to do with our expectation of a cyclical rebound in labor force participation over the forecast period, which should bring the relationship between employment and labor force participation more in line with historical norms. By the end of 2017, core PCE inflation is expected to run slightly below target. In a context of growth modestly above potential and little inflationary pressures, monetary policy can afford to be patient when removing accommodation. The gradual removal of accommodation in our baseline outlook gives monetary policy the opportunity to probe for lower equilibrium levels of the unemployment rate and/or the equilibrium real rate of interest than we are currently assuming. It also provides room for a faster but disciplined pace of tightening should inflationary pressures materialize more rapidly than expected.

The risks to the growth outlook are becoming more balanced, even if the risks of a negative shock from abroad remain somewhat elevated. Moreover, it is still the case that monetary policy may not provide an adequate offset in the case of an adverse scenario. So far the unemployment rate has declined more than what we would have thought given the pace of GDP growth, and there is a risk that this pattern will persist over the forecast horizon. We continue to view the risks to the inflation outlook as skewed to the downside, as we factor in the possibility that the equilibrium unemployment rate is lower than 5 percent, and that long-run inflation expectations are currently anchored at a level below target.

Respondent 8: Population growth in prime working ages will be below 0.5 percent each year. Real GDP per employee has risen by less than 1 percent annually over the last 3 years and is not likely to change dramatically over the forecasting horizon. My estimate of the medium-trend in real GDP is accordingly 1.75 percent, well below what we have experienced in the past. My forecast is that consumer spending will be robust, leading to GDP growth that is modestly above trend, and unemployment will fall below its long-run value.

Respondent 9: Fundamentals supporting the expansion remain favorable, including highly accommodative monetary policy, improving household balance sheets, strengthening labor markets and lower oil prices that support consumer spending, easing fiscal headwinds, and further relaxation of tight credit conditions. The softness in the data early this year will prove to be transitory; recent incoming data suggest strengthening is underway. Foreign central banks are adding accommodation, which is promoting stronger growth and higher inflation rates abroad. My business contacts are optimistic, and a majority of my contacts anticipate increasing employment over the next 12 months. Overall, I see these forces contributing to above-trend growth and further improvement in labor markets. By the end of 2017, I project that the economy will essentially be at its steady state.

The year-over-year headline PCE inflation rate is likely to remain low in the near term due to the impact of the oil price shock, and core inflation has been affected by some pass-through of lower oil prices and import prices. But with oil prices already moving up from their lows reached earlier in the year and with the dollar moving sideways since this spring, these forces will exert less drag on inflation going forward. In my judgment, inflation expectations remain anchored, especially the survey-based measures to which I attach more signal. Anchored inflation expectations along with an improving economy are consistent with inflation moving back to the 2 percent longer-run objective by late 2016 or early 2017. As inflation increases and the expansion continues, I expect wage growth to rise further as well.

I view overall uncertainty as roughly comparable to historical norms of the last 20 years. As described above, while there are a number of risks to my outlook, I view them as broadly balanced for both the real economy and inflation.

Respondent 10: I anticipate that real GDP, after increasing at an anemic 1-1/4 percent annual rate during the first half of 2015, will expand at an average pace from the second half of this year through 2017 that is slightly faster than potential, reflecting a gradual improvement in the underlying strength of aggregate demand that is not quite offset by a gradual rise in interest rates. Among the factors increasing underlying aggregate demand are diminishing drag from net exports, assuming that the real exchange rate remains flat for a time and then begins to depreciate gradually in the context of a modest pickup in foreign activity. In addition, continued progress in the repair of household balance sheets, further modest increases in credit availability, and rising employment (albeit at a moderate rate) should permit solid growth in consumer spending and further increases in residential construction even as borrowing costs rise. Business fixed investment should also pick up more noticeably once the contraction in drilling is behind us, although I do not expect this sector to contribute much to overall growth in an environment in which aggregate demand is expanding only modestly and interest rates are rising. Finally, I anticipate little if any contribution to growth from federal, state or local governments given their fiscal situations.

My forecast for the labor market assumes that the Committee adjusts the pace of tightening over time so as to cause the unemployment rate in 2017 to fall a bit below my estimate of its natural rate. Allowing the unemployment rate to temporarily undershoot its longer level would accelerate the takeup of underutilized labor resources, specifically by helping both to attract discouraged workers back into the labor force and to reduce the number of employees working part-time involuntarily. In my estimation, such a tightening in labor market conditions will be necessary to return inflation to 2 percent over the medium term. Nevertheless, my forecast assumes that we do not achieve our inflation objective until 2018.

Regarding key risks to my forecast, I am concerned that the various headwinds noted above may fail to lift as quickly or as much as I anticipate, creating the possibility that we might inadvertently pursue too rapid a pace of tightening for a time. In addition, I am concerned that the anemic gains in productivity recorded over the past year could be a harbinger of continued weakness; if so, the risk of having to return to the zero lower bound in the face of any adverse shocks to the economy would be greatly increased in the resulting slow-growth world. Finally, I am concerned that returning inflation to 2 percent within a reasonable time period may require stronger real activity and a tighter labor market than envisioned in my projection.

Respondent 11: The economy is still recovering from the severe housing collapse and financial crisis. Recoveries from these types of episodes are associated with sustained weakness in aggregate demand through a variety of channels, which policy has only partially offset. Many of the associated remaining headwinds are slowly easing:

- Housing has been and continues to be a headwind. However, with household balance sheets as well as consumer credit conditions improving, I expect this to abate;
- The relatively strong performance of the U.S. economy over the past year compared with that of the rest of the world, and subsequent monetary easing in Europe and elsewhere, resulted in a sharp appreciation of the dollar. This appreciation has been a drag on net exports and GDP growth. Yet, as the value of the dollar appears to have stabilized, I expect this drag to gradually abate over the next year. The potential deterioration of foreign economic and financial conditions represents a downside risk.

In this environment, I expect the economic recovery will proceed at a solid pace. And with substantial monetary stimulus still in play I expect output and unemployment gaps to close by the end of this year. In terms of inflation, the lagged effects of the remaining slack in labor and goods markets, combined with subdued commodity and import prices, should keep inflation below the FOMC's 2 percent inflation target over the next year and a half. Well-anchored inflation expectations and diminishing slack eventually pull inflation back to our objective.

Respondent 12: Accommodative monetary policy, a healthier labor market, improved household and business balance sheets, increased access to credit, and continued low energy prices should allow domestic demand to gain momentum as we move through the projection period. We also assume that the high-degree of risk aversion that still seems to be holding back household and business spending will diminish over the forecast period, which in turn should unencumber some pent-up demands for consumer durables, housing, and capital goods. We assume little change in the dollar going forward, so that the constraint on net exports from its earlier appreciation will wane as we move through the projection period.

These factors supporting activity are assumed to generate growth moderately above potential over the next 2-1/2 years. As monetary policy normalizes and cyclical dynamics run their course, growth moderates back towards potential as we move into 2018. Our path for GDP results in resource gaps nearly being closed by the end of 2017. Accordingly, the downward influence of resource slack on inflation is expected to diminish as we move through the projection period. Furthermore, as noted above, we assume policy normalization does not begin until mid-2016 and that, at least initially, the path for rate increases will be shallow. This highly accommodative path should reinforce the public's perception that the Committee is firmly committed to a symmetric 2 percent inflation target, and thus solidify the upward pull on actual inflation from inflationary expectations.

See the description of uncertainties and risks in section 2(b) above.

Respondent 13: Financial conditions remained accommodative, on net, in the second half of 2014 despite the rising dollar and uncertainties about the foreign economic outlook. Now, with the dollar holding relatively steady and with increased confidence about the growth outlook in the foreign advanced economies, financial conditions are becoming even more accommodative. The result should be solid growth during the remainder of 2015, with continued improvement in the labor market. Expected reductions in labor-market slack give me confidence that inflation will reach our 2-percent objective in 2016 or shortly thereafter.

Potential adverse international political and financial developments are the main source of near-term downside risks. The main near-term upside risk is that Federal Reserve policy will remain too easy for too long. This is also the main downside risk for 2017.

Respondent 14: The gradual fading of the aftereffects of the global financial crisis in the U.S., developments abroad, levels of resource utilization, and inflation expectations are the key factors shaping my central economic outlook. In addition to the aftereffects of the financial crisis on domestic activity, the depressing effect of the elevated dollar on net exports and core inflation will exert restraint on the progression of employment and inflation to target levels. In this environment, accommodative monetary policy remains necessary to move to maximum employment consistent with price stability and 2 percent inflation, assuming inflation expectations remain well anchored. The main risks to this outlook stem from developments abroad, in particular the tightening of financial conditions and restraint on aggregate demand associated with a considerable and persistent strengthening of the dollar.

Respondent 15: N/A

Respondent 16: My outlook consists of above-trend growth over the next several quarters, a further reduction of labor market slack, and inflation that gradually converges to target.

Growth over the medium term is primarily driven by stronger consumption growth, supported by ongoing improvements in the labor market and a robust pace of disposable income growth, further improvement in consumer sentiment, and a modest stimulus from lower energy prices. While lower oil prices negatively impact energy-related investment in the near-term, conditions remain supportive for capital investment in other sectors. Strength in the dollar remains a modest headwind in my outlook, slowing export growth and providing some restraint to domestic industrial activity.

The risks to my growth outlook are tilted to the downside. Further dollar appreciation and weaker foreign GDP growth could restrain export growth and domestic industrial activity more than I assume in my baseline outlook. I am also growing increasingly concerned that the recent weak growth readings are not as transitory as I've assumed in my baseline, and my assumption for potential GDP growth is too optimistic.

The risks to my inflation outlook are balanced. On the upside, some measures of underlying inflation point to a nascent acceleration that, if sustained, would suggest convergence to target much more quickly than I've built into my baseline outlook. However, measures of inflation compensation are still about 50 basis points below year ago levels, and some respondents in the Survey of Professional Forecasters panel have lowered their longer-run inflation expectations.

Respondent 17: Real GDP expanded 2.7% (annual rate) over 2013 and 2014, firmer than growth earlier in the expansion. Qualitatively, this firming was consistent with our outlook at the time: much of the household deleveraging process was completed, imbalances in the housing market were worked off, and fiscal consolidation at both the federal and state and local levels was largely finished. The stronger 2013-14 growth rate appeared to have been above the potential growth rate, as the unemployment rate declined by over two percentage points and other labor market indicators also improved. Core PCE inflation was relatively stable over this period, running between 1 1/4% and 1 1/2%, consistent with a flat price Phillips curve.

Then in 2015Q1 the US economy was bu eted by several adverse shocks; some of which were transitory, such as severe winter weather and the West Coast port labor dispute, while others are more long lasting, such as the appreciation of dollar and steep contraction in oil and gas exploration in the wake of the steep decline of oil prices. But now, there is greater evidence that the economy has begun to shake off these shocks. Nevertheless, the growth rate of real GDP for 2015H1 is expected to be a little below 1 1/4% (annual rate). [Note: this projection takes on board the Board staff's estimates of the revisions to the second estimate of Q1 real GDP growth that were shown in the Tealbook forecast update memo to the FOMC.]

Assessing that much of this slowdown is temporary, we expect real GDP to expand 2 1/4% to 2 1/2% (annual rate) over 2015H2, similar to that in our March SEP submission, which would bring the Q4/Q4 growth rate to about 1 3/4%. We anticipate real PCE growth moving up to around 3% (annual rate) in 2015H2 from about 2% In 2015H1. In addition to improved labor market conditions and consumer confidence, we expect the savings from lower energy prices to provide an important boost to consumer spending as households become more confident that lower prices are lasting. We also expect housing construction to continue to move higher, aided by an improved labor market, gradual easing of mortgage underwriting standards, and emerging tightness in housing supply. The steep contraction in investment in the oil and gas sector should be largely over by the second half of the year. In addition, we anticipate that the the drag from international trade, while still substantial, will be less in 2015H2 than our projections for 2015H1.

For 2016 we expect growth of around 2 1/2% (Q4/Q4); again, similar to our March SEP submission. Growth of real PCE will likely slow somewhat from the 2015H2 pace as the boost from lower energy prices fades. Nonetheless, we anticipate the personal saving rate to continue to decline gradually as credit becomes more readily available and the scars from the financial crisis fade. We project stronger growth of residential investment in 2016 than in 2015 but we also anticipate it will slow in 2016H2 as higher mortgage interest rates begin to have an effect. Given our assumption of a relatively stable dollar exchange rate and somewhat stronger foreign growth, the drag from trade is expected to diminish in 2016 and US manufacturing output is projected to rise at a healthy rate. In this environment, business fixed investment is also expected to strengthen though the growth rate––6% (Q4/Q4)–is still not particularly robust. In 2017, most of the resource slack is expected to be dissipated, and thus we expect growth to be near its potential rate.

Above-potential growth between mid-2015 and end-2016 is expected to lead to further reductions of labor market slack, with the unemployment rate falling slightly below 5% by late 2016. This is a pretty flat trajectory relative to the experience of the past few years: a projected return of productivity growth to its longer-term trend, a flat participation rate, and a modest increase of the average work week all contribute to a slower decline in the unemployment rate over this period. With real GDP and productivity growth near trend in 2017, we project that the unemployment rate is little changed that year.

Based on oil futures markets, we believe that oil prices have bottomed out and will gradually move higher over the forecast horizon. Thus, while the total PCE deflator is likely to be essentially unchanged over the 2015H1, we expect it to rise at 1 3/4% annual rate over 2015H2. Over 2016 we expect headline inflation to move gradually toward the FOMC's target of 2%, due to declining slack and the gravitational pull of well-anchored longer-term inflation expectations. The core PCE deflator is expected to rise 1 1/4% (annual rate) over 2015H1, the same as over 2014H2, as declining prices for nonpetroleum imports depress goods prices. However, over the remainder of the forecast horizon the effect of the dollar appreciation begins to wane and the slowing of health care price inflation is expected to end. Under those assumptions, core PCE inflation will rise gradually to 2% in 2017.

The near-term risks to the forecast for real activity appear to be reasonably well balanced. On the upside, the transitory adverse shocks may have obscured a significantly stronger economy; consequently, with an improving labor market and solid sentiment, we could see a stronger growth than we now expect. If so, that would likely provide an additional boost to business investment spending. On the downside, the U.S. economy may have been more negatively affected by dollar appreciation than assumed in our central forecast, or further dollar appreciation could lead to a larger drag from international trade. Also, because we do not fully understand the sources of the recent decline of productivity, it is possible that productivity growth could remain below our forecast with adverse effects on real GDP growth. The risks to the inflation forecast also appear to be roughly balanced. The disinflationary effect of dollar appreciation may be stronger than we have anticipated. However, it is possible the slack may be reduced more quickly and begins to have a stronger impact on inflation than we have anticipated.

Forecast Narratives (continued)

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

Respondent 1: I have lowered my near-term forecast somewhat in response to weaker-than-expected data received since the March FOMC meeting.

Respondent 2: The GDP data for Q1/2015 has caused a markdown of growth in the first half of 2015 and for 2015 as a whole. The unemployment rate for 2015 has also been adjusted accordingly. Some of the growth has been shifted to 2016 and 2017.

Respondent 3: Other than the near term, my forecast has not changed greatly.

Respondent 4: The information received since March has led me to revise down my forecasts for real GDP growth in the first half of 2015, my forecast for the unemployment rate in 2015, and revise up my forecasts for PCE inflation and core PCE inflation in 2015.

Respondent 5: Obviously, the severity of the reported Q1 stumble has caused me to mark down my expectation for 2015 GDP growth. Otherwise, I haven't changed much from my March forecast.

Respondent 6: My forecast is little changed since the previous SEP.

Respondent 7: The projected pace of GDP growth this year is slower than in the previous projections, mainly as a result of weaker than expected growth in the first half of the year. Given that the current pace of growth is slower than previously thought, the forecast is conditioned on a somewhat more accommodative policy stance. This more accommodative stance is expected to generate, by the end of the forecast horizon, the same unemployment rate outcome as in the previous forecast. The outlook for inflation has not changed materially.

Respondent 8: The temporary weakness in the first quarter was greater than expected. But consumer spending seems more resilient than I feared, which suggests somewhat more momentum next year and beyond.

Respondent 9: The contours of my forecast are little changed from the previous SEP. GDP growth in the first half of this year was weaker than I anticipated, but I attribute much of the softness to transitory factors that are dissipating; I continue to expect growth to pick up to above-trend levels. The recent incoming data related to consumer spending and labor markets support this view. The labor market data and inflation developments have played out largely in line with my previous forecast: with an improving economy and stable inflation expectations, I expect further declines in the unemployment rate and an inflation rate that gradually returns to our target.

Respondent 10: My projections for real GDP growth have shifted down noticeably since the March FOMC, reflecting both the weaker-than-expected tone of incoming spending and production indicators and a downward revision to my estimate of the longer-run growth rates of labor productivity and potential output. In turn, the revision to potential output growth has led me to lower the longer-run projection of the nominal federal funds rate by 25 basis points, to 3-1/4 percent. Relatedly, the somewhat disappointing incoming data also led me to reassess the underlying strength of aggregate demand. I now judge that achieving the tightening in resource utilization needed to return inflation to 2 percent within the next few years will require a noticeably flatter trajectory for the federal funds rate. Because I have incorporated such a trajectory into my outlook, my projections for the paths of unemployment and inflation are little changed.

Respondent 11: Since March, I have made few changes to my forecast. My forecast for GDP growth in 2015 (Q4/Q4) is somewhat lower, primarily due to the unexpected weakness of GDP growth in the first half of the year. My medium and longer run forecasts for GDP growth are unchanged. Also, I have revised up slightly my forecast of the unemployment rate for 2015, reflecting the recent slowing in the decline of the unemployment rate.

My inflation forecast is little changed. I continue to expect both headline and core inflation to run below our 2 percent target until the end of 2016.

Respondent 12: On balance, the incoming data have been weaker than we expected in March. Although the labor market improved about as we expected, consumption and investment rose less-than-anticipated, possibly, as we noted earlier, due to a greater degree of risk aversion on the part of households and consumers than we had been assuming. Indeed, the reports from our business contacts–particularly with regard to capital spending– have been more subdued than they were in March. The incoming news on inflation has been mixed. On the positive side, there are nascent indications of a pickup in wage growth and relative stabilization of the dollar and energy prices; on the downside, the incoming data on core PCE inflation have been a touch softer than we expected and we still are not hearing of any price pressures from our business contacts.

In response to these developments, we lowered our forecast for real GDP growth in 2015 by about 3/4 percentage point; about half of this revision reflects a weaker first quarter. We made only marginal changes to our growth outlook for 2016 and 2017. Corresponding to the lower level of GDP in this forecast, we bumped up our unemployment rate forecast a touch throughout the projection period. We slightly reduced our near-term forecast for core inflation in light of recent data, but left our 2016 and 2017 forecasts the same as in March. Given the changes in resource slack and lower near-term inflation outlook, we pushed our assumed date of policy liftoff from early 2016 to the middle of that year and lowered our funds rate path marginally thereafter.

Respondent 13: First-quarter GDP growth was weaker than anticipated. I expect some of the shortfall to be made up in the second half of 2015, and more to be made up in 2016. Still, full employment is likely to take slightly longer to achieve than I previously thought (the end of 2015, rather than the middle of the year). I've left my inflation forecasts largely unchanged: As discussed in my response to question 4c, below, Dallas Fed research continues to suggest that we will see inflation rise to our 2-percent objective in 2016. My assessment of the likely appropriate policy path has changed significantly for reasons given in my response to question 3c, above. I would note that the broader financial conditions which play an important role in my thinking about appropriate policy can change quickly.

Respondent 14: The incoming indicators on the labor market and aggregate spending suggest a more pronounced slowing in the pace of economic activity in the first half of the year than I had expected in March. As a result, I reduced my projection of GDP growth this year and raised my projection of the level of the unemployment rate a bit in 2016 and 2017. Because of the weaker trajectory of the incoming data, I believe monetary policy will need to be slightly more accommodative than I expected in March, and, thus, I have lowered my projected path of the federal funds rate by 1/4 percentage point at the end of 2015, 2016, and 2017.

Respondent 15: N/A

Respondent 16: I have marked down my growth forecast in 2015 appreciably, largely in response to a decline in first quarter output growth. I view much of that weakness as reflecting transitory factors, such as unusually severe winter weather and other seasonal anomalies, West coast port disruptions, a sharp drop in energy-related investment, and headwinds due to a stronger dollar. I expect weakness connected to declining energy-related structures investment and softer net exports to persist, at least through the current quarter.

Respondent 17: For real GDP growth, the first quarter was much weaker than we expected. As noted above, a number of transitory adverse shocks contributed to the weakness; in addition, the residual seasonality issue could have contributed a little to that weakness. We differ from the Tealbook assessment about the relative contributions of those factors–we attribute more to the weather and less to residual seasonality–but our assessment of the total effect on Q1 real GDP growth is similar. Although we expect much of these effects to be reversed in 2015Q2, the expenditure data for the quarter so far on net indicate that the rebound could be relatively subdued, and thus our projection for 2015H1 is significantly below that of the March SEP submission. Nevertheless, we see the economic fundamentals as progressing fairly close to our March projection; consequently, the forecast for 2015H2 and beyond is little changed.

The unemployment rate is a bit higher than we had projected in March. With little change in our economic growth forecast, we have carried that higher rate forward, leaving our projected path for the unemployment rate slightly higher than that of our March SEP submission, although the unemployment rate still falls slightly below our point estimate of the longer-run natural rate.

Both overall and core inflation have been modestly above our previous projections, leading us to raise our projected paths for both variables. The behavior of alternative measures of underlying inflation also is consistent with a bit higher inflation path over the next two years. Beyond the aggregate number, the higher path for inflation reflects our assessment that the decline in import prices has had a somewhat smaller effect on core goods inflation than we had anticipated in March. We continue to assume that inflation expectations remain anchored at the FOMC's longer-run objective, so we still project inflation be at 2% in 2017.

Forecast Narratives (continued)

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

Respondent 1: My forecast calls for stronger growth, somewhat higher inflation, and tighter monetary policy over the forecast horizon than the Tealbook

Respondent 2: My forecast is for more rapid GDP growth in 2015 and 2016 than is in the Tealbook forecast. While the Tealbook indicates a convergence of the unemployment rate to 5.2% in 2016, my forecast includes an undershooting to 4.6% and then a convergence to 5.8%. Also, the Tealbook anticipates a steady convergence of inflation to 2%, while I foresee an overshooting to 2.4% and then a convergence to 2.0%.

Respondent 3: I am more optimistic than the Tealbook throughout the forecast.

Respondent 4: My forecast for GDP growth in 2015, 2016 and 2017 is slightly above that of Tealbook, largely due to my more upbeat outlook for investment and expectations of less drag from net exports, reflecting less persistent effects of the rise in the foreign exchange value of the dollar. My projected path for the unemployment rate does not differ substantially from Tealbook's path. My outlook for PCE inflation and core PCE inflation is several tenths of a percentage point above Tealbook's projection, largely reflecting a quicker reduction in slack than in the Tealbook forecast.

Respondent 5: No major differences – a few tenths of a percentage one way or the other for some items.

Respondent 6: N/A

Respondent 7: Our forecast is conditioned on liftoff occurring in Q4 rather than Q3. However, the Tealbook forecast and our forecast have similar outcomes both in terms of economic activity and inflation.

Respondent 8: I believe that inflation will reach 2 percent in 2017.

Respondent 9: My forecast is somewhat stronger than the June Tealbook forecast. As in the Tealbook, I expect that after a weak first quarter GDP growth will proceed at an above-trend pace in 2015 and 2016 and the unemployment rate will continue to decline. (I note that my trend growth rate is higher than the Tealbook's.) My forecast calls for somewhat more inflationary pressure than in the Tealbook forecast: I expect that inflation will return to our 2 percent longer-term objective by late 2016 or early 2017. Compared with Tealbook, this firmer path for inflation calls for a steeper path for the funds rate.

Respondent 10: My longer-run projections for output growth, the unemployment rate, and the nominal federal funds rate are modestly lower than the staff's, but otherwise the two forecasts are reasonably close.

Respondent 11: My forecast is broadly similar to the Tealbook projection. One notable difference is that the Tealbook has a much more protracted return of inflation to the FOMC's stated 2 percent objective. Also, the Tealbook has somewhat slower GDP growth in the second half of 2015 than I do, though I broadly share the Tealbook's view on GDP growth after 2015.

Respondent 12: We assume that the first increase in the funds rate will occur mid-2016, three quarters later than the Tealbook. Our rate of increase after liftoff is a bit faster than the Tealbook, and at the end of the projection period our funds rate reaches 2.38 percent.

Our projection for GDP growth runs about 1/4 percentage point stronger than the Tealbook throughout the projection period. However, given our somewhat higher assumption for potential output growth, our forecast represents a slightly weaker cyclical outlook than the Tealbook, and we end the forecast period with actual output still bit below potential. Our projection for inflation is a touch below the Tealbook in 2016 and 2017. We also assume the long-run normal level of the unemployment rate is 5 percent, 0.2 percentage point below the Tealbook's.

Respondent 13: Dallas researchers forecast significantly faster GDP growth in the second half of 2015 than does the Tealbook, and slightly more strength in 2016 as well. Consequently, the unemployment rate falls a bit faster and a bit farther than is shown in the Board-staff forecast. Partly because of our lower unemployment path, partly because we believe that inflation responds to changes in the unemployment rate as well as its level, and partly because we accept that long-term inflation expectations are anchored at 2 percent, our forecast calls for inflation to rise past 2-percent within the projections horizon. With the unemployment rate falling faster and farther than in the Tealbook, inflation rising faster and farther, and no ad hoc policy inertia, the appropriate funds-rate path is steeper than that assumed in the Tealbook baseline forecast.

Respondent 14: N/A

Respondent 15: N/A

Respondent 16: After making similar adjustments to the near-term path, my growth forecast continues to run roughly 1/2 percentage point above the Tealbook throughout the forecast horizon, mostly due to our differing perspectives on potential GDP growth. My unemployment rate projection converges in 2017 to a long-run unemployment rate that is 0.2 percentage point below the Tealbook. My headline and core inflation forecasts run about 1/4 percentage point above the Tealbook over the forecast horizon, as it is still my view that inflation expectations remain at a target-consistent level of 2 percent.

Respondent 17: Since March, the revisions to the Tealbook forecast and our projection for real GDP growth have resulted in the two forecasts being fairly similar for 2015-16. The Tealbook forecast is modestly above ours for 2017, reflecting the Tealbook's assessment that there is some economic slack remaining at the end of 2016.

Therefore, on the real side, the differences are principally in the details. Among such details, one longstanding difference regards business fixed investment. The Tealbook projects slower growth in business fixed investment in 2015-16 than in our forecast; this difference may partly reflect the Tealbook assessment that the capital stock is fairly close to levels consistent with its rather low estimate of potential growth. This factor is offset by faster consumption growth in the Tealbook forecast, another long-standing difference with our forecast, which in part reflects stronger wealth effects in the Tealbook forecast.

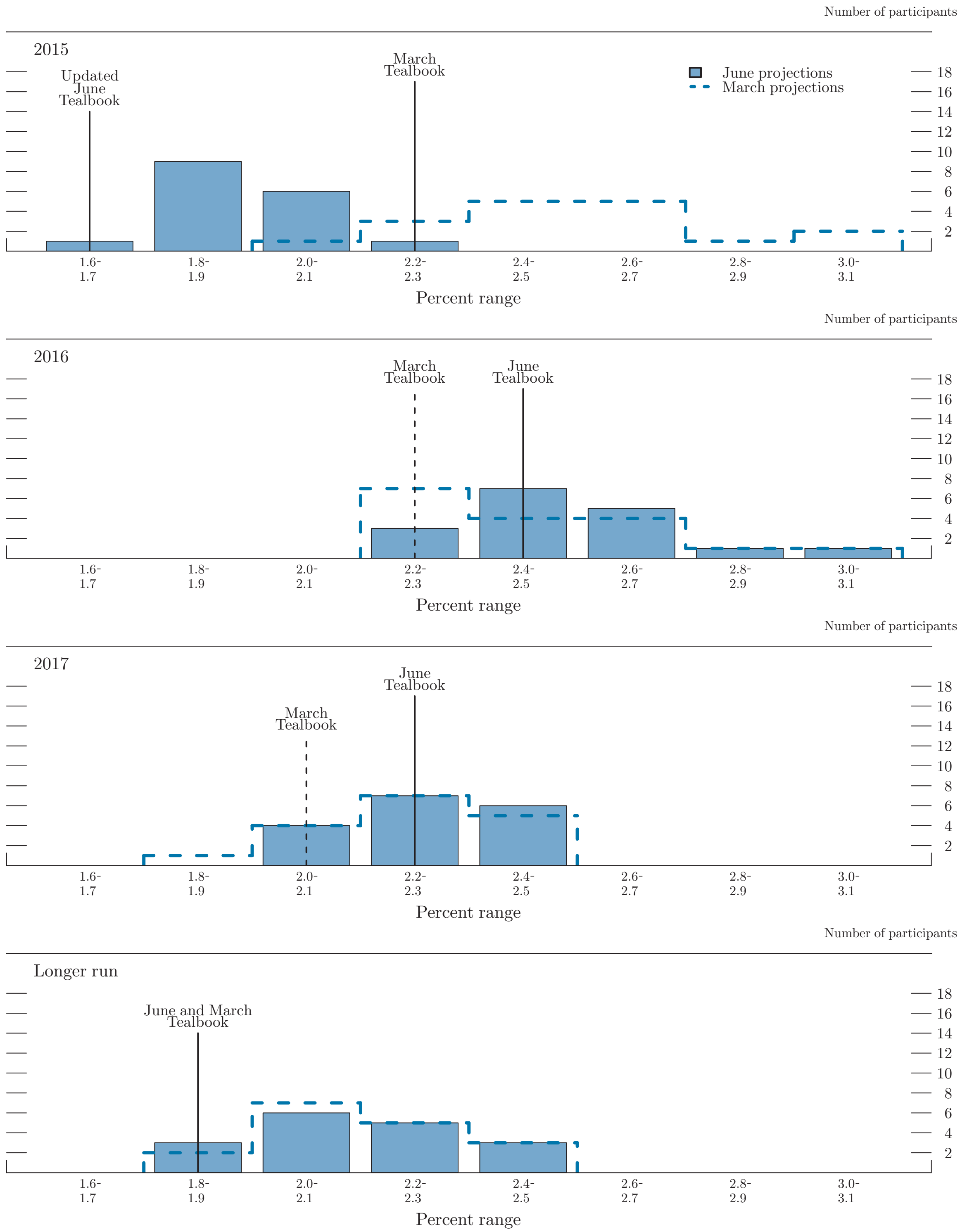
We project a slight undershoot of the unemployment rate while the Tealbook has unemployment at or above its estimate of the longer-run natural rate. However, the difference between the paths of the unemployment rate reflects more the Tealbook's higher estimate of the longer-run rate (5 1/4%) than in our forecast (5%). In addition, there is a small difference in the paths for labor force participation: our projection has a flat participation rate path through 2016 while the Tealbook has it declining gradually to 62.6% at end-2016.

For inflation, the two forecasts are similar in 2015. Larger di erences arise in 2016-17, where we expect inflation to rise relatively quickly toward the FOMC's objective while the Tealbook projects that inflation will not reach that level until 2019. This difference reflects differing views about inflation dynamics. In the Tealbook, with the underlying inflation rate below the FOMC longer-run objective and considerable persistence in the inflation process, a prolonged period of above-potential growth (and a positive output gap) appears to be necessary to induce inflation to rise toward the longer-run inflation goal. The faster return of inflation to its goal in our forecast reflects our assumptions of less inflation persistence and of the stronger attraction provided by anchored inflation expections.

As in March, our assessment of the longer-run potential GDP growth rate is a bit higher than that in the Tealbook forecast. We will reevaluate our assessment following the release of the annual revisions for GDP and productivity during the summer.

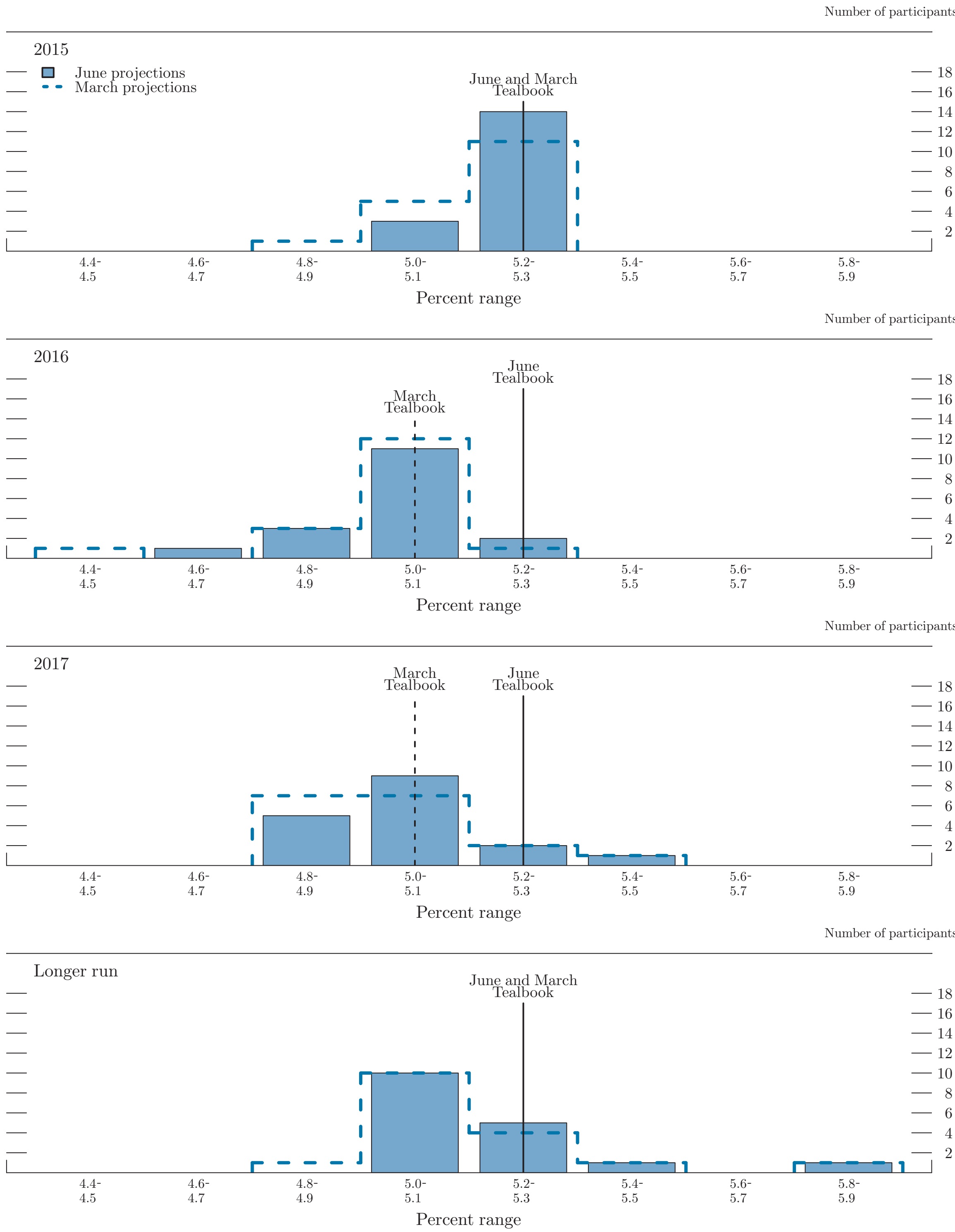
In terms of the uncertainty and risk assessment, we see some differences between the two projections. On the real side, we continue to see higher uncertainty than normal whereas the Tealbook sees uncertainty at near normal levels. This assessment reflects our view that the unusual nature of the current expansion, the atypical policy environment in the U.S. and many foreign economies, and the decline in real GDP in 2015Q1 leave uncertainty about real activity above the SEP standard associated with the 20-year window of forecast errors. In another contrast, we see the risks around the real activity projections as roughly balanced rather than tilted to the downside as in the Tealbook. The continued improvement in labor market conditions and the indications that private final domestic demand has been well maintained so far (despite some of the weaker expenditure data) signal a significant risk that stronger expansion dynamics have been established. Furthermore, the possibility of delayed response to lower energy prices is another offset to the negative risks cited by the Tealbook. As for inflation, although our uncertainty assessment is similar to the Tealbook, we still see the risks as roughly balanced: although still-low longer-term inflation compensation and low inflation in other areas of the world pose downside risks to the forecast, the possibility that slack could be dissipated more quickly than anticipated offsets those risks.

Figure 3.A. Distribution of participants' projections for the change in real GDP, 2015–17 and over the longer run



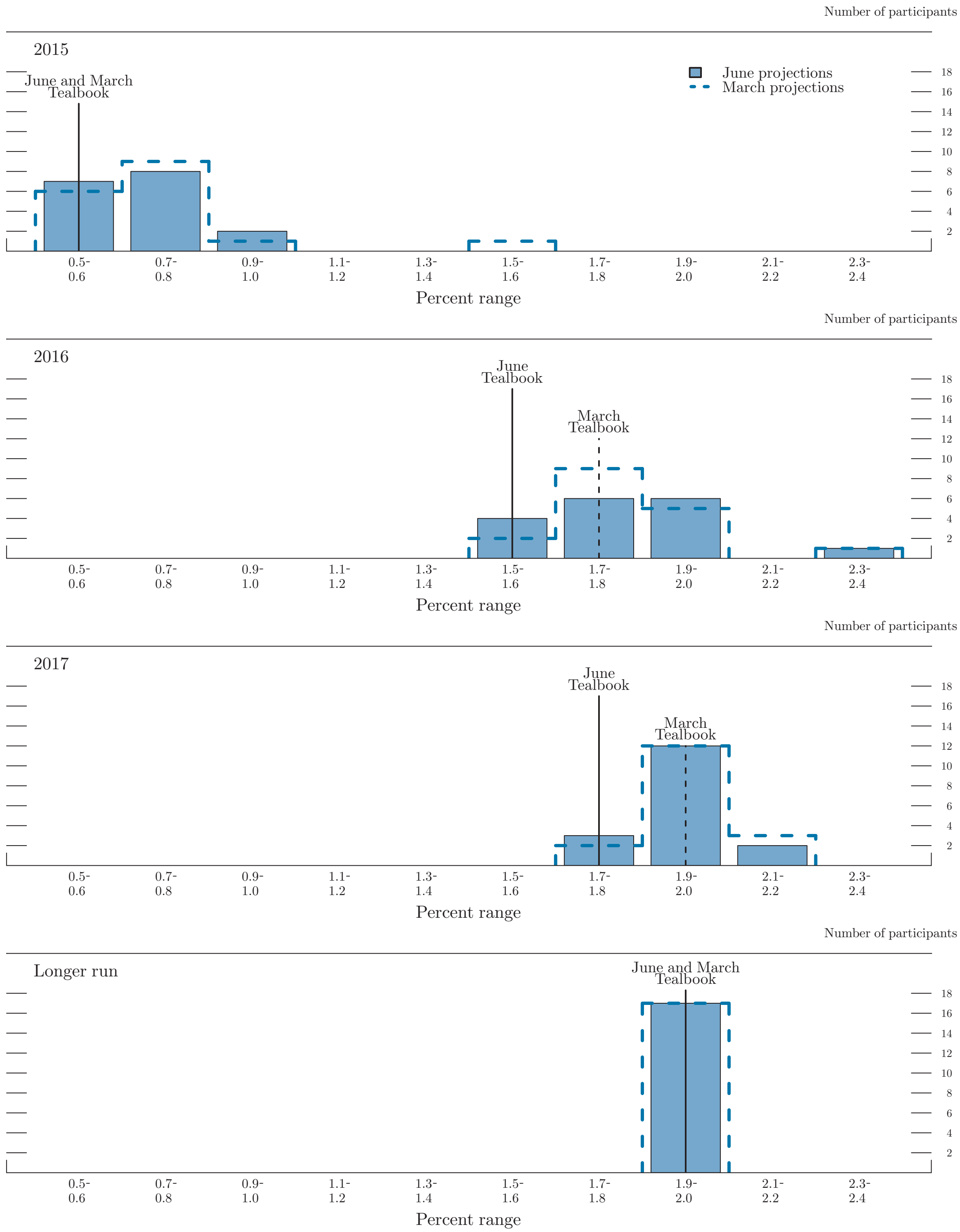
NOTE: Definitions of variables are in the general note to table 1.

Figure 3.B. Distribution of participants' projections for the unemployment rate, 2015–17 and over the longer run



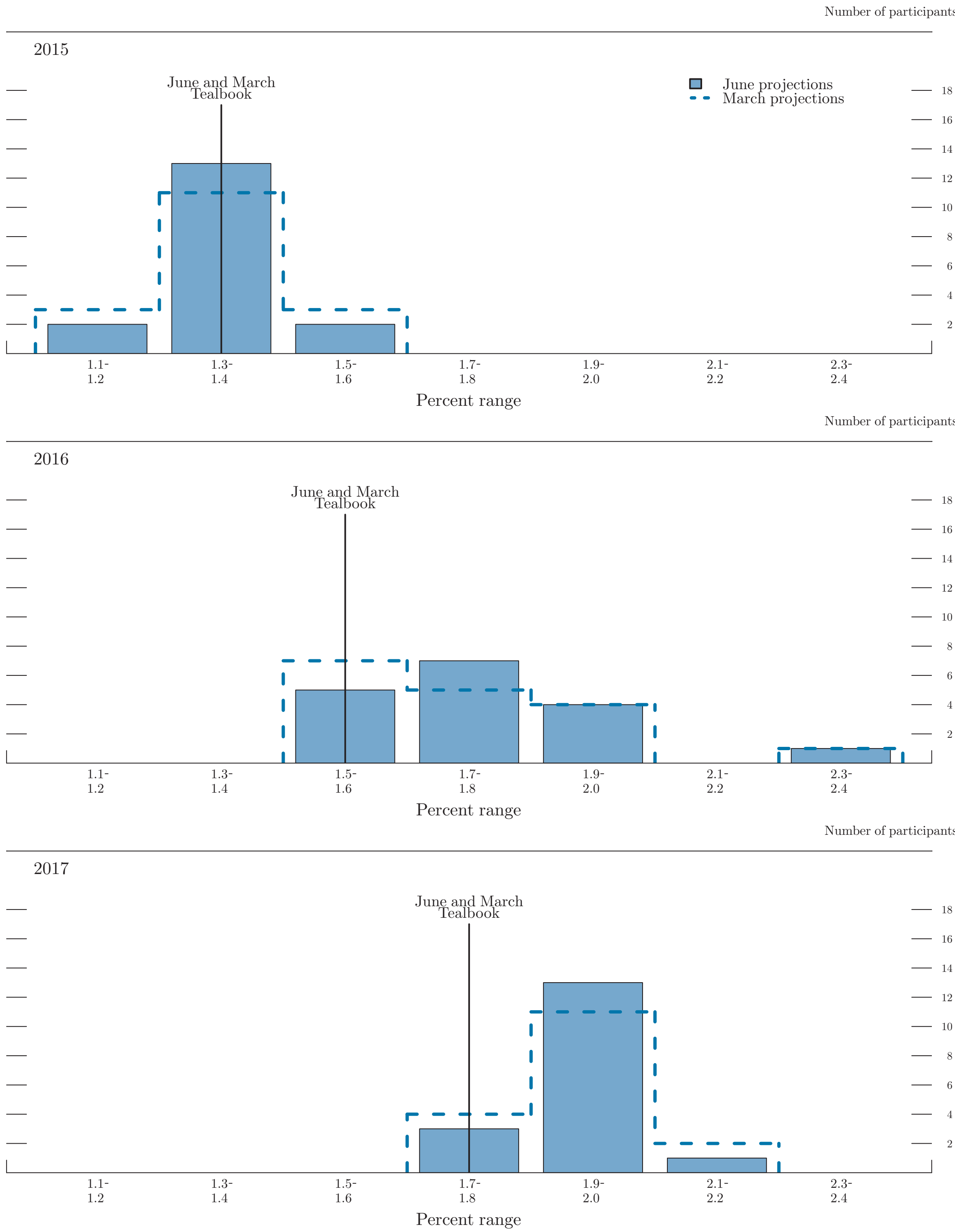
Note: Definitions of variables are in the general note to table 1.

Figure 3.C. Distribution of participants' projections for PCE inflation, 2015–17 and over the longer run



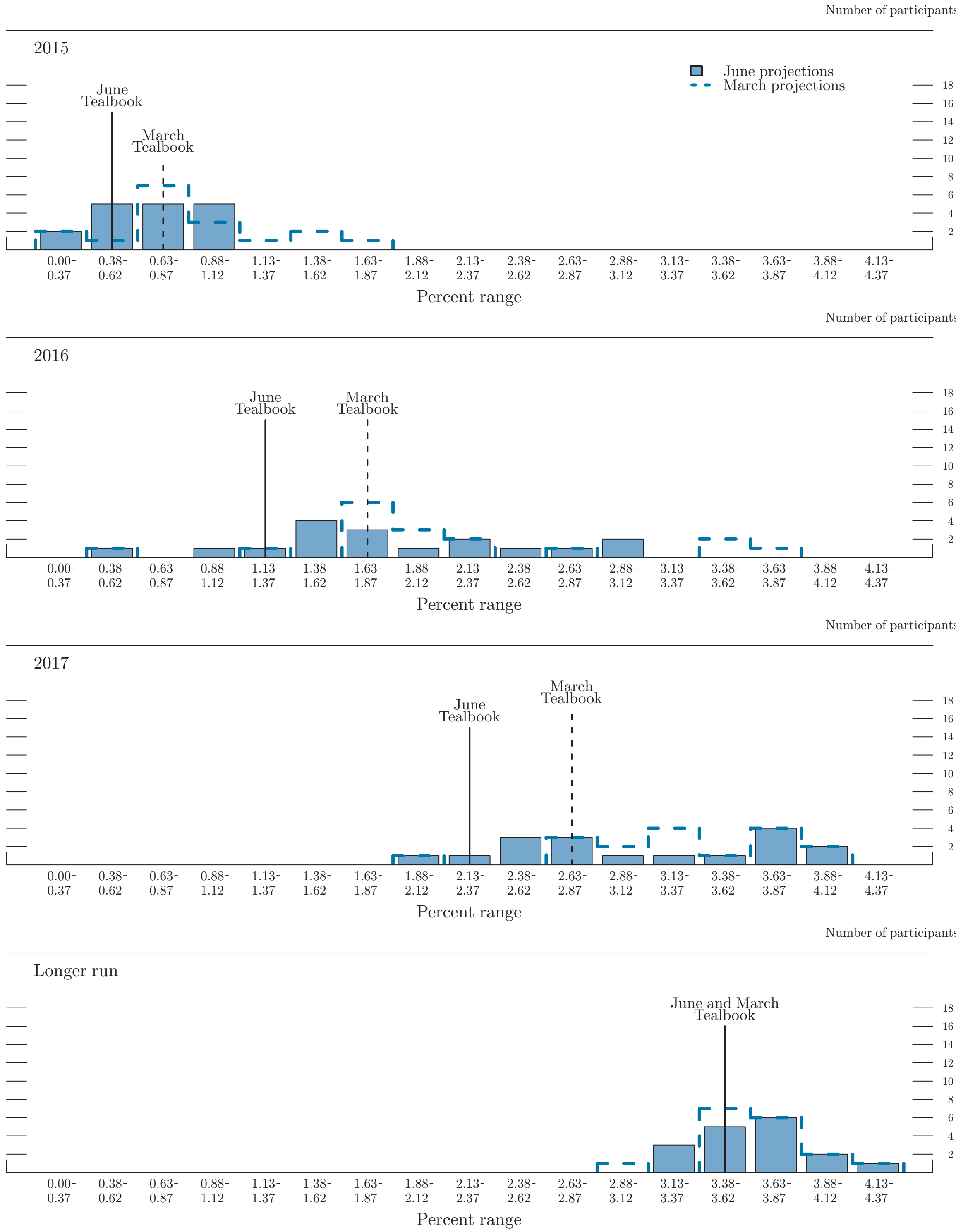
NOTE: Definitions of variables are in the general note to table 1.

Figure 3.D. Distribution of participants' projections for core PCE inflation, 2015–17



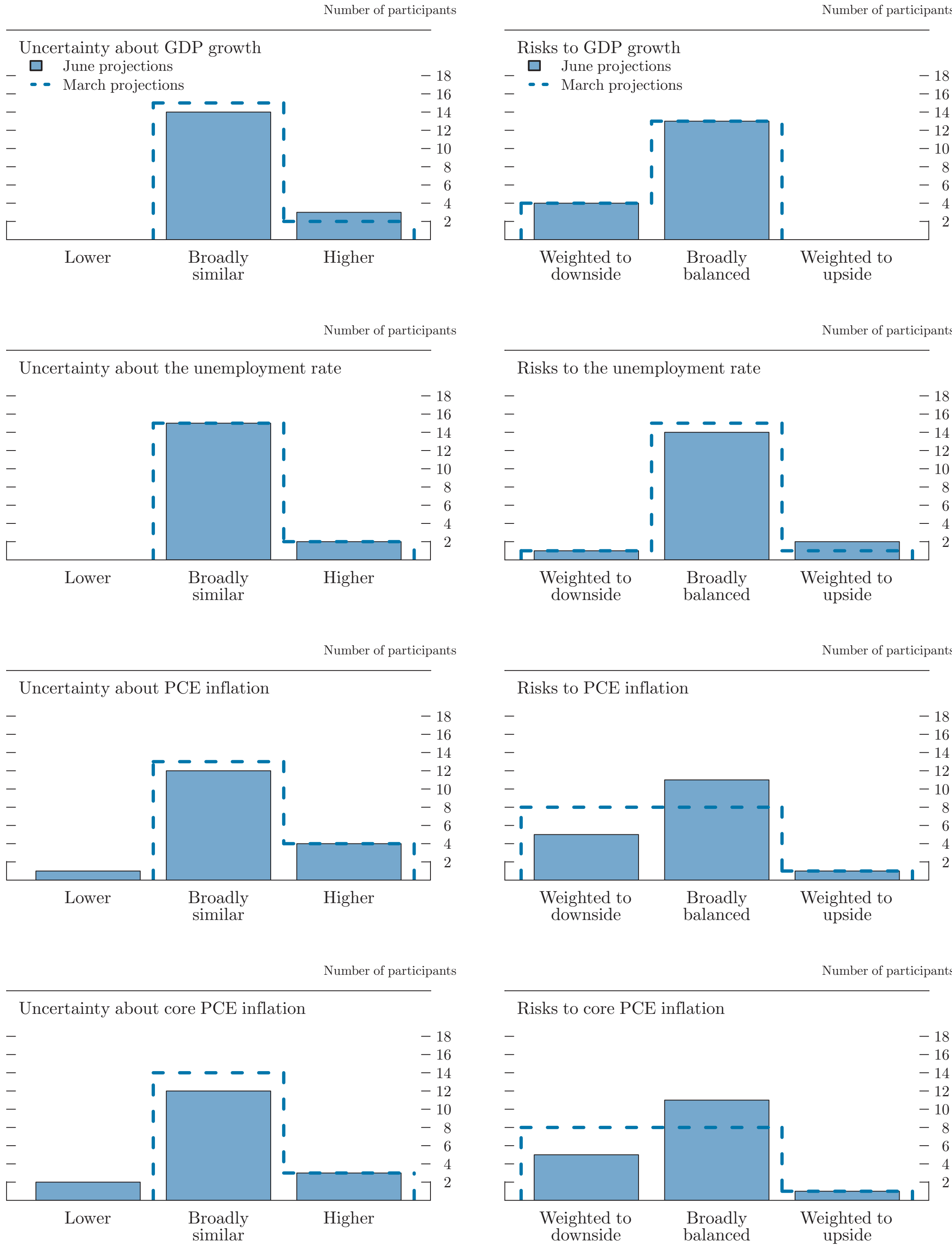
NOTE: Definitions of variables are in the general note to table 1.

Figure 3.E. Distribution of participants' judgments of the midpoint of the appropriate target range for the federal funds rate or the appropriate target level for the federal funds rate, 2015–17 and over the longer run



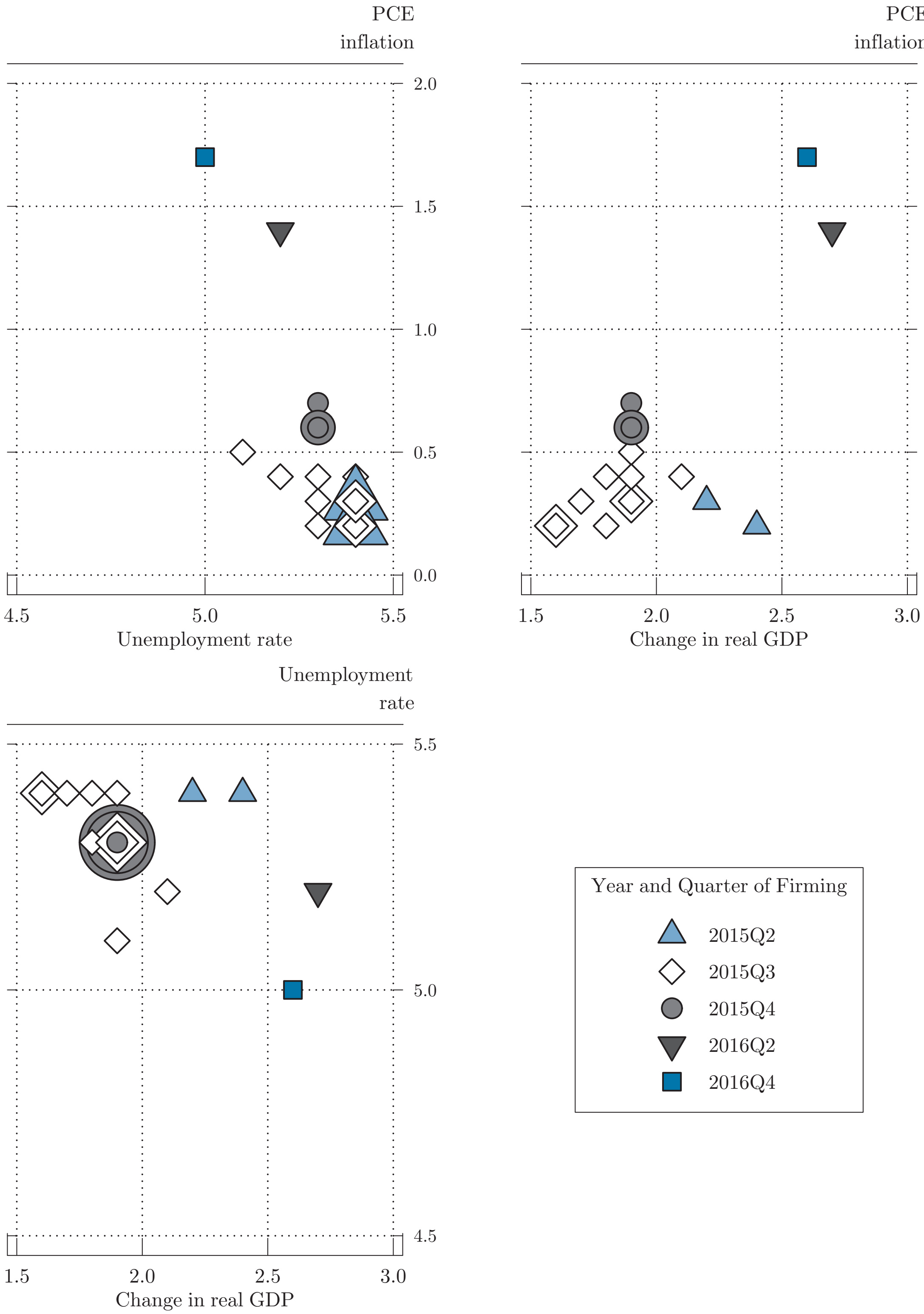
NOTE: The midpoints of the target ranges for the federal funds rate and the target levels for the federal funds rate are measured at the end of the specified calendar year or over the longer run.

Figure 4. Uncertainty and risks in economic projections



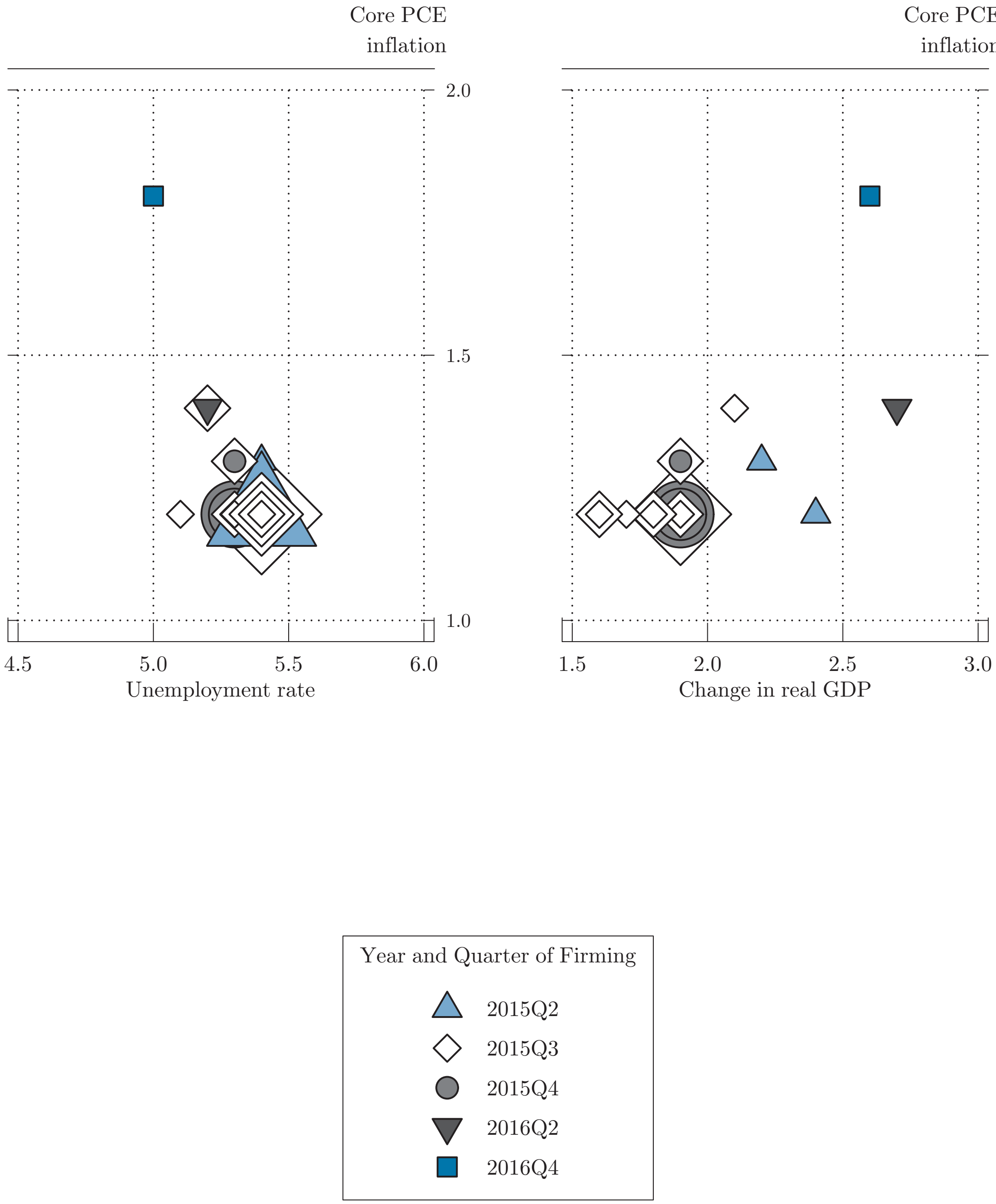
NOTE: Definitions of variables are in the general note to table 1.

Figure 6. Projections of GDP, unemployment, and PCE inflation in the quarter of liftoff



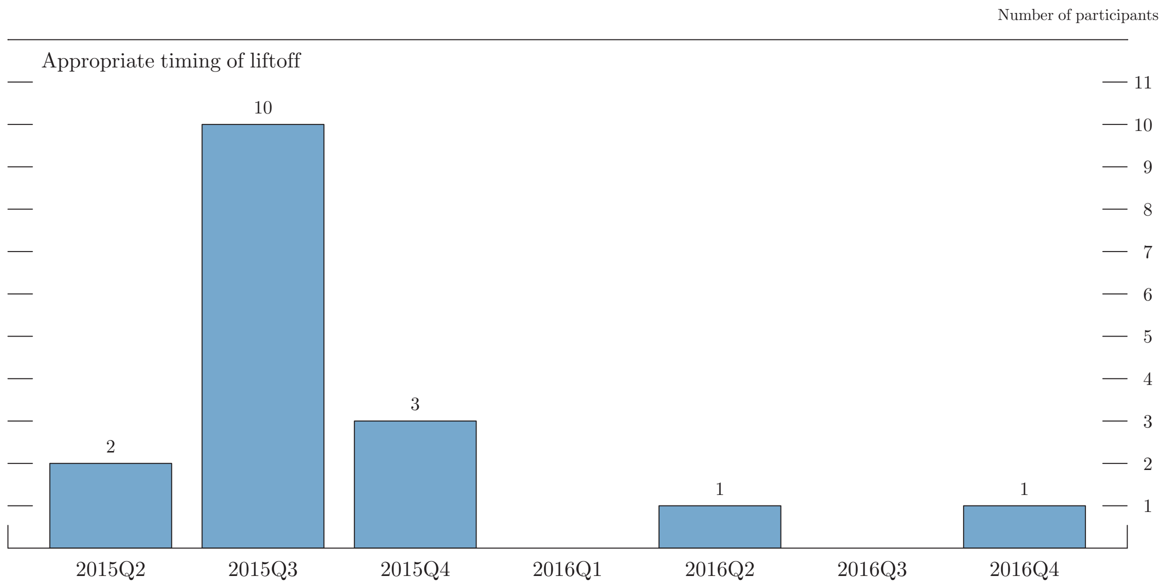
NOTE: When the projections of two or more participants are identical, larger markers, which represent one participant each, are used so that each projection can be seen.

Figure 7. Projections of GDP, unemployment, and core PCE inflation in the quarter of liftoff



Note: When the projections of two or more participants are identical, larger markers, which represent one participant each, are used so that each projection can be seen.

Figure 8. FOMC participants' assessments of appropriate liftoff year and quarter



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 range for the federal funds rate from its current range of 0 to 1/4 percent will occur in the specified calendar year and quarter.