Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, under their individual assessments of projected appropriate monetary policy, March 2017

Percent

Variable	Median[1]				Central tendency[2]				Range[3]			
	2017	2018	2019	Longer run	2017	2018	2019	Longer run	2017	2018	2019	Longer run
Change in real GDP	2.1	2.1	1.9	1.8	2.0 – 2.2	1.8 – 2.3	1.8 – 2.0	1.8 – 2.0	1.7 – 2.3	1.7 – 2.4	1.5 – 2.2	1.6 – 2.2
December projection	2.1	2.0	1.9	1.8	1.9 – 2.3	1.8 – 2.2	1.8 – 2.0	1.8 – 2.0	1.7 – 2.4	1.7 – 2.3	1.5 – 2.2	1.6 – 2.2
Unemployment rate	4.5	4.5	4.5	4.7	4.5 – 4.6	4.3 – 4.6	4.3 – 4.7	4.7 – 5.0	4.4 – 4.7	4.2 – 4.7	4.1 – 4.8	4.5 – 5.0
December projection	4.5	4.5	4.5	4.8	4.5 – 4.6	4.3 – 4.7	4.3 – 4.8	4.7 – 5.0	4.4 – 4.7	4.2 – 4.7	4.1 – 4.8	4.5 – 5.0
PCE inflation	1.9	2.0	2.0	2.0	1.8 – 2.0	1.9 – 2.0	2.0 – 2.1	2.0	1.7 – 2.1	1.8 – 2.1	1.8 – 2.2	2.0
December projection	1.9	2.0	2.0	2.0	1.7 – 2.0	1.9 – 2.0	2.0 – 2.1	2.0	1.7 – 2.0	1.8 – 2.2	1.8 – 2.2	2.0
Core PCE inflation[4]	1.9	2.0	2.0		1.8 – 1.9	1.9 – 2.0	2.0 – 2.1		1.7 – 2.0	1.8 – 2.1	1.8 – 2.2	
December projection	1.8	2.0	2.0		1.8 – 1.9	1.9 – 2.0	2.0		1.7 – 2.0	1.8 – 2.2	1.8 – 2.2	
Memo: Projected appropriate policy path												
Federal funds rate	1.4	2.1	3.0	3.0	1.4 – 1.6	2.1 – 2.9	2.6 – 3.3	2.8 – 3.0	0.9 – 2.1	0.9 – 3.4	0.9 – 3.9	2.5 – 3.8
December projection	1.4	2.1	2.9	3.0	1.1 – 1.6	1.9 – 2.6	2.4 – 3.3	2.8 – 3.0	0.9 – 2.1	0.9 – 3.4	0.9 – 3.9	2.5 – 3.8

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 projections for the federal funds rate are the value of the midpoint of the projected appropriate target range for the federal funds rate or the projected appropriate target level for the federal funds rate at the end of the specified calendar year or over the longer run. The December projections were made in conjunction with the meeting of the Federal Open Market Committee on December 13–14, 2016. One participant did not submit longer-run projections for the change in real GDP, the unemployment rate, or the federal funds rate in conjunction with the December 13–14, 2016, meeting, and one participant did not submit such projections in conjunction with the March 14–15, 2017, meeting.

1. For each period, the median is the middle projection when the projections are arranged from lowest to highest. When the number of projections is even, the median is the average of the two middle projections.
2. The central tendency excludes the three highest and three lowest projections for each variable in each year.
3. The range for a variable in a given year includes all participants' projections, from lowest to highest, for that variable in that year.
4. Longer-run projections for core PCE inflation are not collected.

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Table 1.A. Economic projections for the first half of 2017*
(in percent)

Medians, central tendencies, and ranges

	Median	Central tendency	Range
Change in real GDP	1.9	1.7 – 2.0	1.6 – 2.2
PCE inflation	2.0	1.9 – 2.1	1.9 – 2.2
Core PCE inflation	2.0	1.9 – 2.0	1.8 – 2.1

Participants' projections

Projection	Change in real GDP	PCE inflation	Core PCE inflation
1	1.9	1.9	2.0
2	1.6	2.2	2.0
3	2.0	2.1	1.9
4	2.0	2.0	1.9
5	1.8	2.0	2.0
6	1.7	2.0	2.0
7	1.8	2.1	1.8
8	1.8	1.9	1.8
9	1.7	1.9	2.0
10	2.1	2.0	2.0
11	2.0	2.0	1.9
12	2.0	2.0	2.0
13	2.2	2.0	2.0
14	1.7	2.0	2.0
15	2.0	2.0	2.0
16	1.9	2.1	2.1
17	2.1	1.9	1.9

* Growth and inflation are reported at annualized rates.

Table 1.B. Economic projections for the second half of 2017* (in percent)

Medians, central tendencies, and ranges

	Median	Central tendency	Range
Change in real GDP	2.3	2.0 – 2.4	1.8 – 2.7
PCE inflation	1.8	1.5 – 1.9	1.4 – 2.1
Core PCE inflation	1.8	1.6 – 1.9	1.6 – 2.1

Participants' projections

Projection	Change in real GDP	PCE inflation	Core PCE inflation
1	2.1	1.5	1.6
2	1.8	1.8	1.8
3	2.6	1.5	1.7
4	2.0	1.8	1.9
5	1.8	1.8	1.8
6	2.7	1.6	1.8
7	2.2	2.1	2.0
8	2.4	1.7	1.6
9	2.1	1.7	1.6
10	2.3	1.4	1.6
11	2.6	1.8	1.9
12	2.0	2.0	2.0
13	2.2	1.8	1.6
14	2.3	1.4	1.6
15	2.4	1.6	1.8
16	2.3	1.9	1.9
17	2.3	2.1	2.1

* Projections for the second half of 2017 implied by participants' March projections for the first half of 2017 and for 2017 as a whole. Growth and inflation are reported at annualized rates.

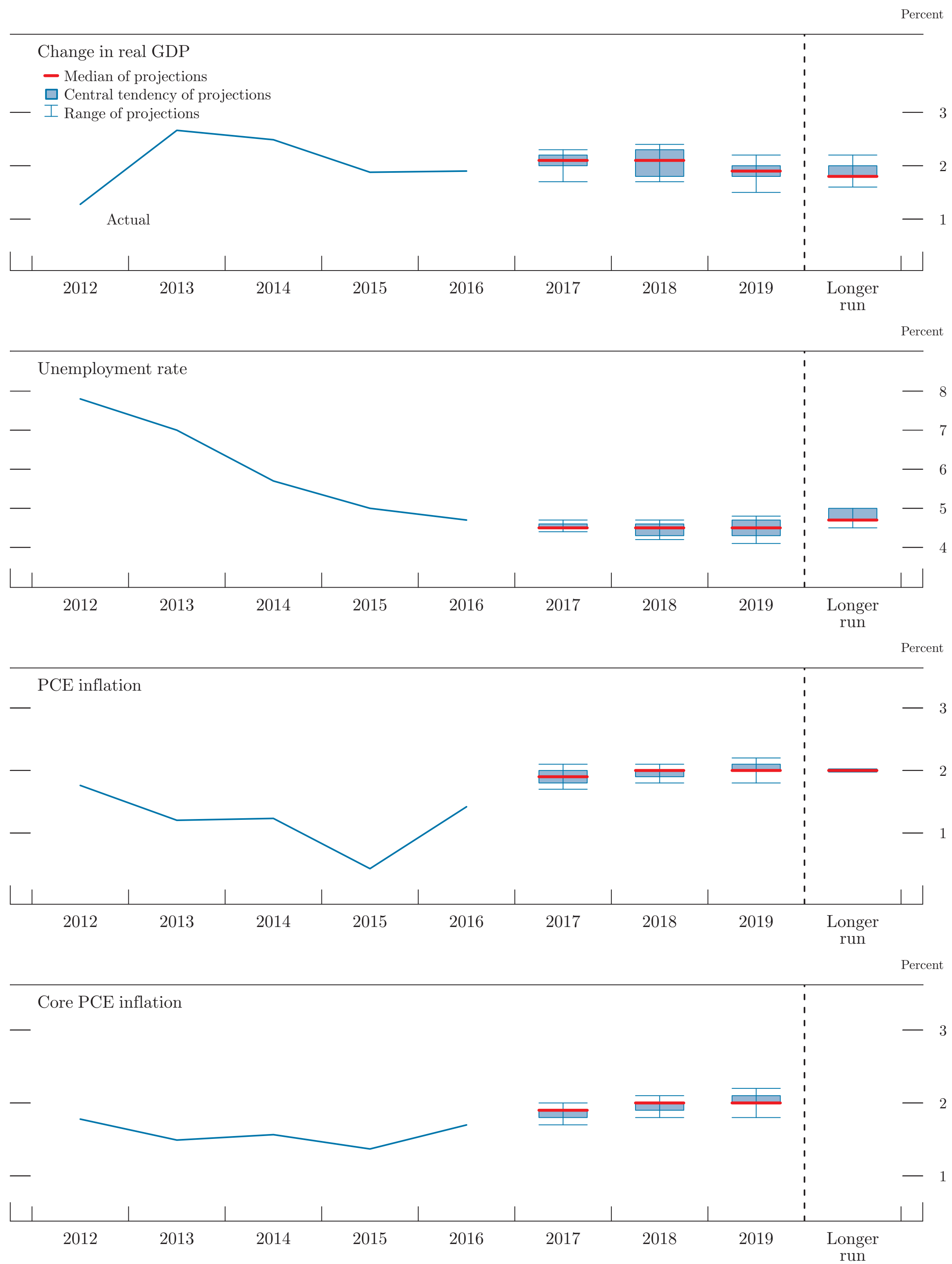
Table 2. March economic projections, 2017–19 and over the longer run (in percent)

Projection	Year	Change in real GDP	Unemployment rate	PCE inflation	Core PCE inflation	Federal funds rate
1	2017	2.0	4.6	1.7	1.8	1.38
2	2017	1.7	4.6	2.0	1.9	1.63
3	2017	2.3	4.5	1.8	1.8	1.13
4	2017	2.0	4.4	1.9	1.9	1.63
5	2017	1.8	4.7	1.9	1.9	2.13
6	2017	2.2	4.5	1.8	1.9	1.38
7	2017	2.0	4.6	2.1	1.9	1.38
8	2017	2.1	4.5	1.8	1.7	1.38
9	2017	1.9	4.6	1.8	1.8	1.38
10	2017	2.2	4.6	1.7	1.8	0.88
11	2017	2.3	4.4	1.9	1.9	1.38
12	2017	2.0	4.7	2.0	2.0	0.88
13	2017	2.2	4.4	1.9	1.8	1.38
14	2017	2.0	4.5	1.7	1.8	1.38
15	2017	2.2	4.5	1.8	1.9	1.63
16	2017	2.1	4.6	2.0	2.0	1.38
17	2017	2.2	4.5	2.0	2.0	1.63
1	2018	2.2	4.5	1.9	1.9	2.13
2	2018	1.7	4.7	2.0	2.0	3.25
3	2018	2.4	4.3	1.9	1.9	2.13
4	2018	1.8	4.4	2.0	2.0	2.63
5	2018	2.0	4.6	2.0	2.0	3.38
6	2018	2.3	4.5	2.0	2.1	2.13
7	2018	1.8	4.5	2.1	2.1	2.13
8	2018	2.1	4.4	1.9	1.9	2.13
9	2018	1.8	4.5	1.9	1.9	1.88
10	2018	2.0	4.5	1.8	1.8	1.63
11	2018	2.1	4.4	2.0	2.0	2.38
12	2018	2.0	4.7	2.0	2.0	0.88
13	2018	2.0	4.2	2.0	2.0	2.38
14	2018	2.2	4.2	2.0	2.0	2.38
15	2018	2.3	4.3	2.0	2.0	2.88
16	2018	2.1	4.6	2.0	2.0	2.13
17	2018	2.3	4.5	2.1	2.1	3.00

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

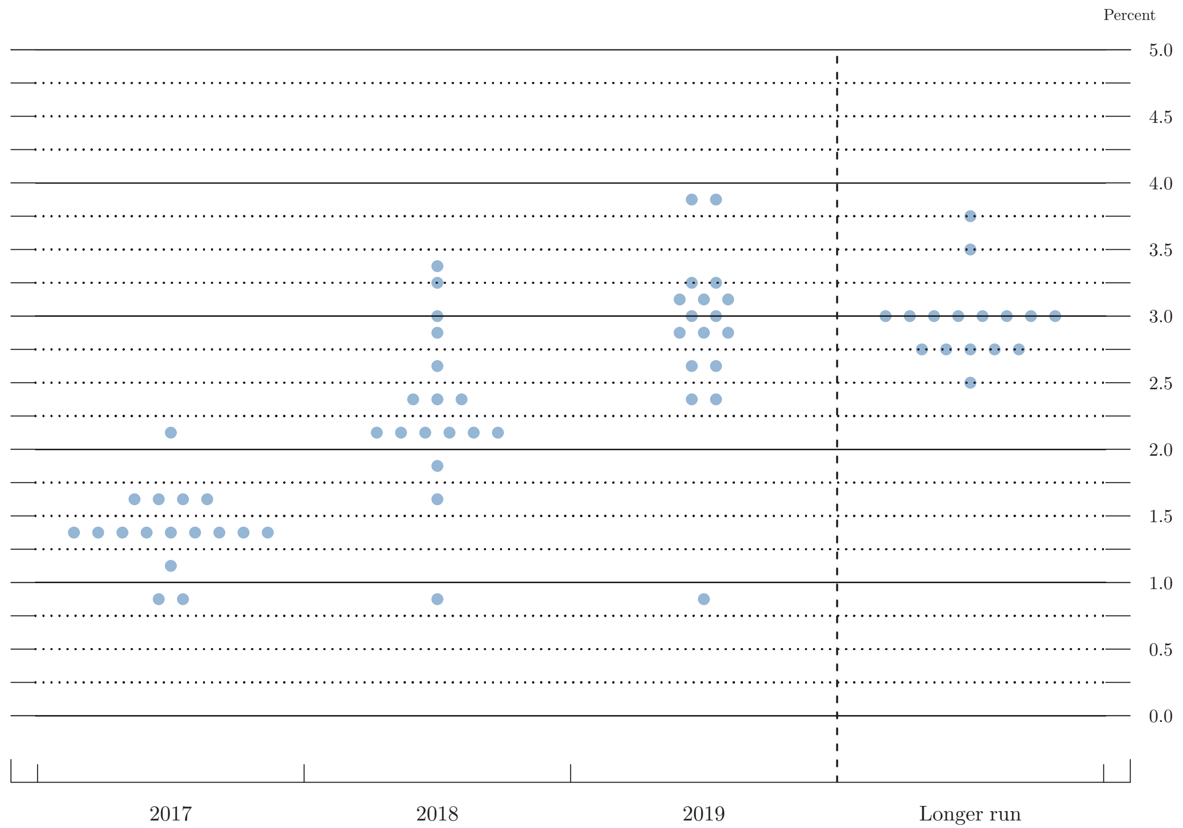
Projection	Year	Change in real GDP	Unemployment rate	PCE inflation	Core PCE inflation	Federal funds rate
1	2019	1.9	4.5	2.0	2.0	2.88
2	2019	1.5	4.8	2.1	2.1	3.25
3	2019	2.0	4.3	2.0	2.0	3.00
4	2019	1.8	4.5	2.0	2.0	3.00
5	2019	1.8	4.7	2.0	2.0	3.88
6	2019	2.2	4.6	2.0	2.0	2.88
7	2019	1.8	4.5	2.2	2.2	2.88
8	2019	1.8	4.4	1.8	1.8	2.38
9	2019	1.7	4.4	2.0	2.0	2.38
10	2019	1.8	4.5	1.9	1.9	2.63
11	2019	2.1	4.5	2.0	2.0	3.13
12	2019	2.0	4.7	2.0	2.0	0.88
13	2019	2.0	4.1	2.2	2.2	3.13
14	2019	2.0	4.2	2.0	2.0	3.13
15	2019	1.8	4.3	2.1	2.1	3.88
16	2019	2.0	4.7	2.0	2.0	2.63
17	2019	2.1	4.7	2.0	2.0	3.25
1	LR	1.9	4.7	2.0		2.75
2	LR	1.6	5.0	2.0		2.75
3	LR	1.8	4.5	2.0		3.00
4	LR	1.8	5.0	2.0		3.00
5	LR	1.8	5.0	2.0		3.75
6	LR	2.2	4.6	2.0		3.50
7	LR	1.8	4.8	2.0		2.50
8	LR	2.0	4.5	2.0		2.75
9	LR	1.7	4.7	2.0		2.75
10	LR	1.7	4.7	2.0		2.75
11	LR	2.0	4.7	2.0		3.00
12	LR			2.0		
13	LR	1.8	4.8	2.0		3.00
14	LR	1.8	4.7	2.0		3.00
15	LR	1.8	4.7	2.0		3.00
16	LR	2.0	4.7	2.0		3.00
17	LR	2.0	5.0	2.0		3.00

Figure 1. Medians, central tendencies, and ranges of economic projections, 2017–19 and over the longer run



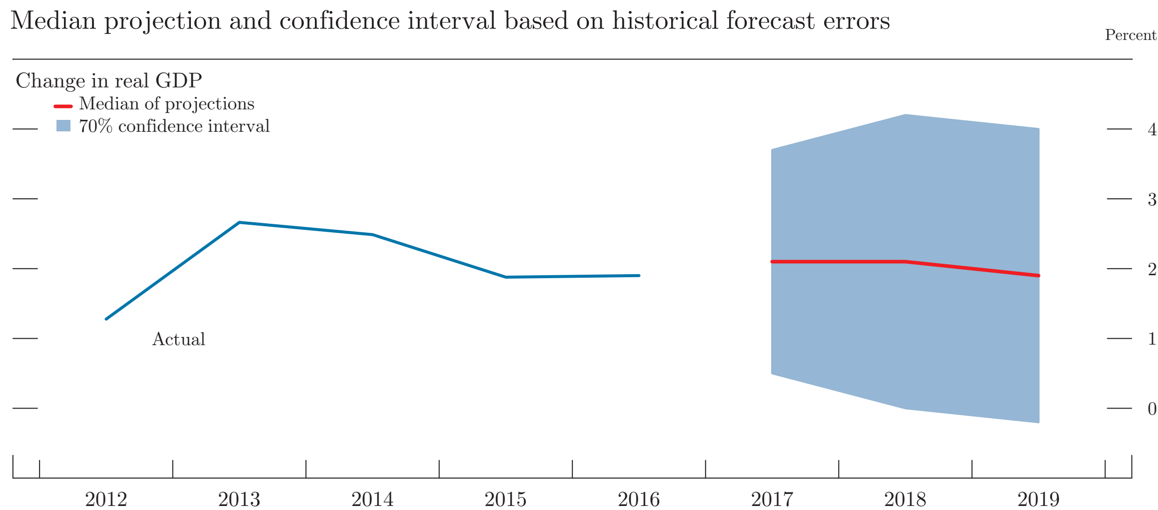
NOTE: Definitions of variables and other explanations are in the notes to table 1. The data for the actual values of the variables are annual.

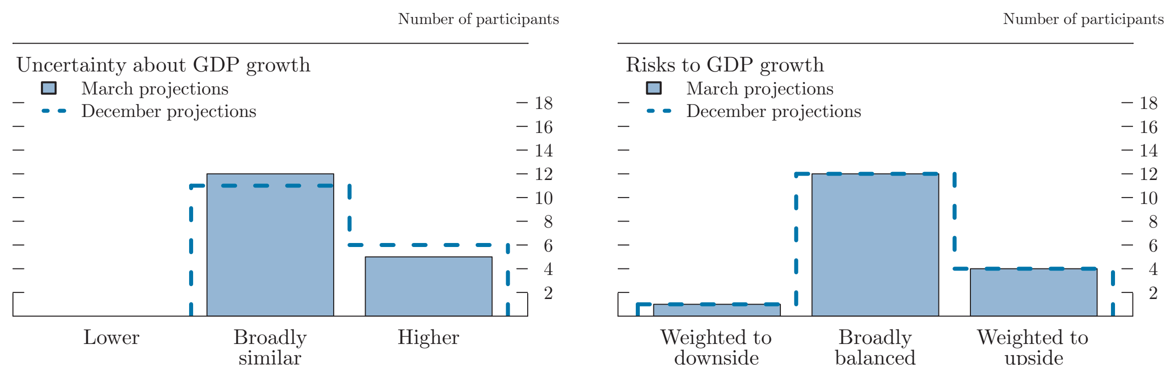
Figure 2. FOMC participants' assessments of appropriate monetary policy: Midpoint of target range or target level for the federal funds rate



Note: 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. One participant did not submit longer-run projections for the federal funds rate.

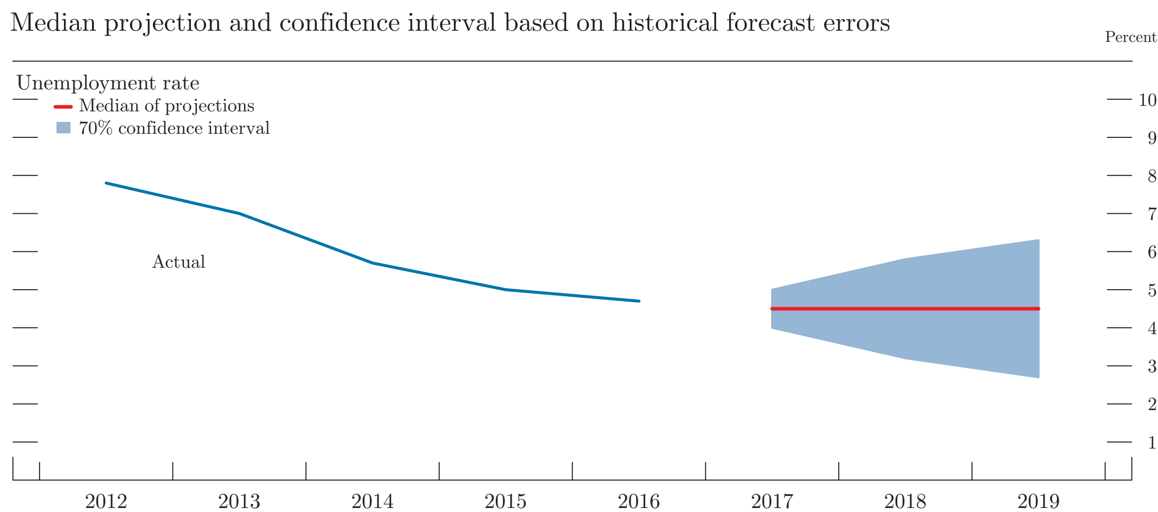
Figure 4.A. Uncertainty and risks in projections of GDP growth

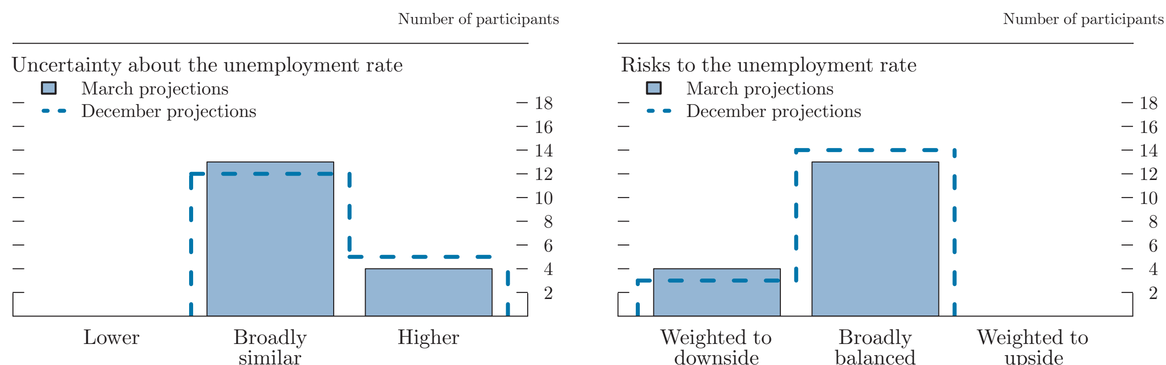




Note: The blue and red lines in the top panel show actual values and median projected values, respectively, of the percent change in real GDP from the fourth quarter of the previous year to the fourth quarter of the year indicated. The confidence interval around the median projected values is assumed to be symmetric and is based on root mean squared errors of various private and government forecasts made over the previous 20 years; more information about these data is available in Table 2. Because current conditions may differ from those that prevailed on average over the previous 20 years, the width and shape of the confidence interval estimated on the basis of the historical forecast errors may not reflect FOMC participants' current assessments of the uncertainty and risks around their projections; these current assessments are summarized in the lower panels. Generally speaking, participants who judge the uncertainty about their projections as "broadly similar" to the average levels of the past 20 years would view the width of the confidence interval shown in the historical fan chart as largely consistent with their assessments of the uncertainty about their projections. Likewise, participants who judge the risks to their projections as "broadly balanced" would view the confidence interval around their projections as approximately symmetric. For definitions of uncertainty and risks in economic projections, see the box "Forecast Uncertainty."

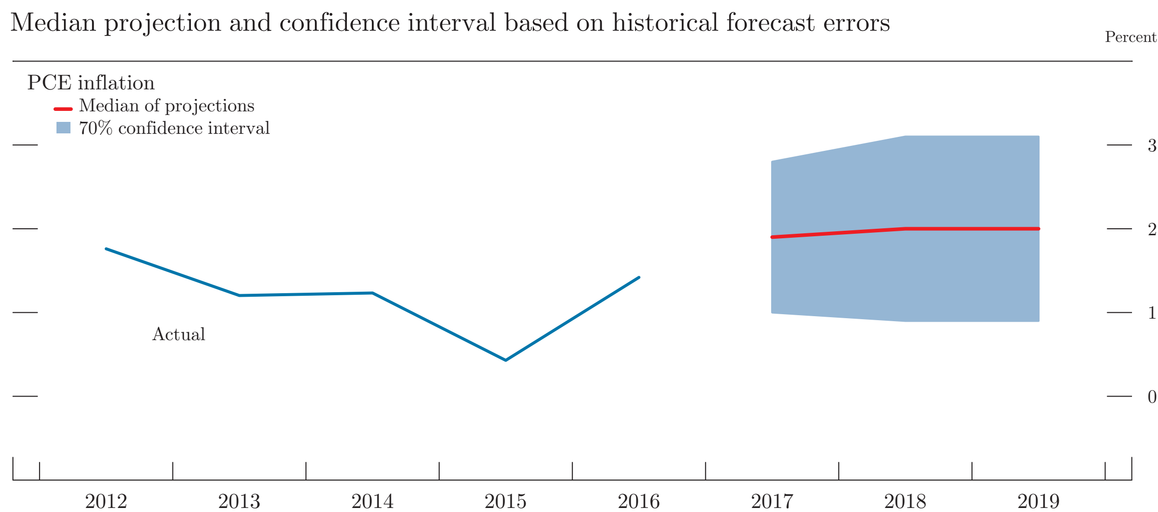
Figure 4.B. Uncertainty and risks in projections of the unemployment rate

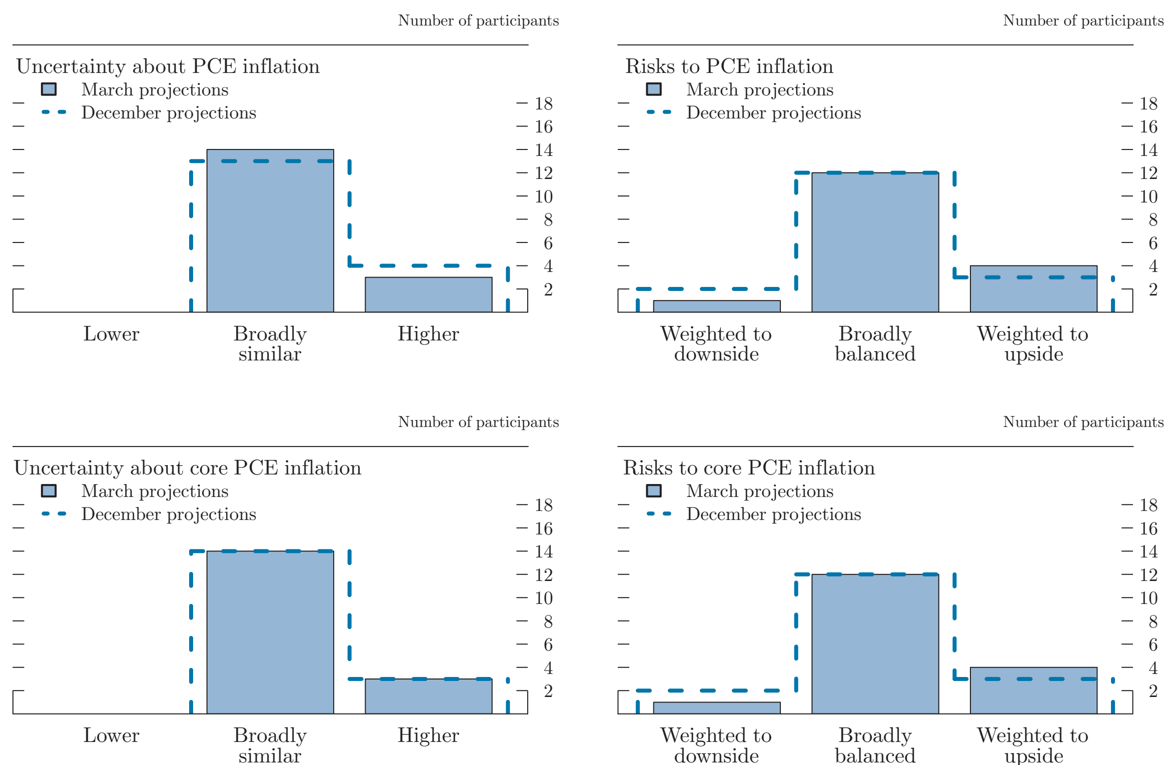




Note: The blue and red lines in the top panel show actual values and median projected values, respectively, of the average civilian unemployment rate in the fourth quarter of the year indicated. The confidence interval around the median projected values is assumed to be symmetric and is based on root mean squared errors of various private and government forecasts made over the previous 20 years; more information about these data is available in Table 2. Because current conditions may differ from those that prevailed on average over the previous 20 years, the width and shape of the confidence interval estimated on the basis of the historical forecast errors may not reflect FOMC participants' current assessments of the uncertainty and risks around their projections; these current assessments are summarized in the lower panels. Generally speaking, participants who judge the uncertainty about their projections as "broadly similar" to the average levels of the past 20 years would view the width of the confidence interval shown in the historical fan chart as largely consistent with their assessments of the uncertainty about their projections. Likewise, participants who judge the risks to their projections as "broadly balanced" would view the confidence interval around their projections as approximately symmetric. For definitions of uncertainty and risks in economic projections, see the box "Forecast Uncertainty."

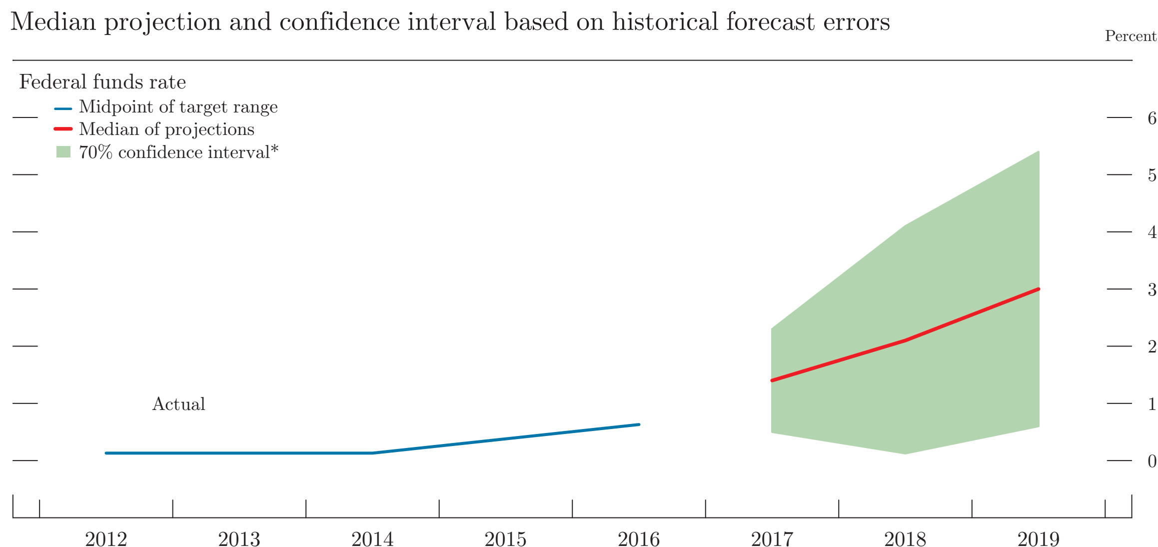
Figure 4.C. Uncertainty and risks in projections of PCE inflation





Note: The blue and red lines in the top panel show actual values and median projected values, respectively, of the percent change in the price index for personal consumption expenditures (PCE) from the fourth quarter of the previous year to the fourth quarter of the year indicated. The confidence interval around the median projected values is assumed to be symmetric and is based on root mean squared errors of various private and government forecasts made over the previous 20 years; more information about these data is available in Table 2. Because current conditions may differ from those that prevailed on average over the previous 20 years, the width and shape of the confidence interval estimated on the basis of the historical forecast errors may not reflect FOMC participants' current assessments of the uncertainty and risks around their projections; these current assessments are summarized in the lower panels. Generally speaking, participants who judge the uncertainty about their projections as "broadly similar" to the average levels of the past 20 years would view the width of the confidence interval shown in the historical fan chart as largely consistent with their assessments of the uncertainty about their projections. Likewise, participants who judge the risks to their projections as "broadly balanced" would view the confidence interval around their projections as approximately symmetric. For definitions of uncertainty and risks in economic projections, see the box "Forecast Uncertainty."

Figure 5. Uncertainty in projections of the federal funds rate



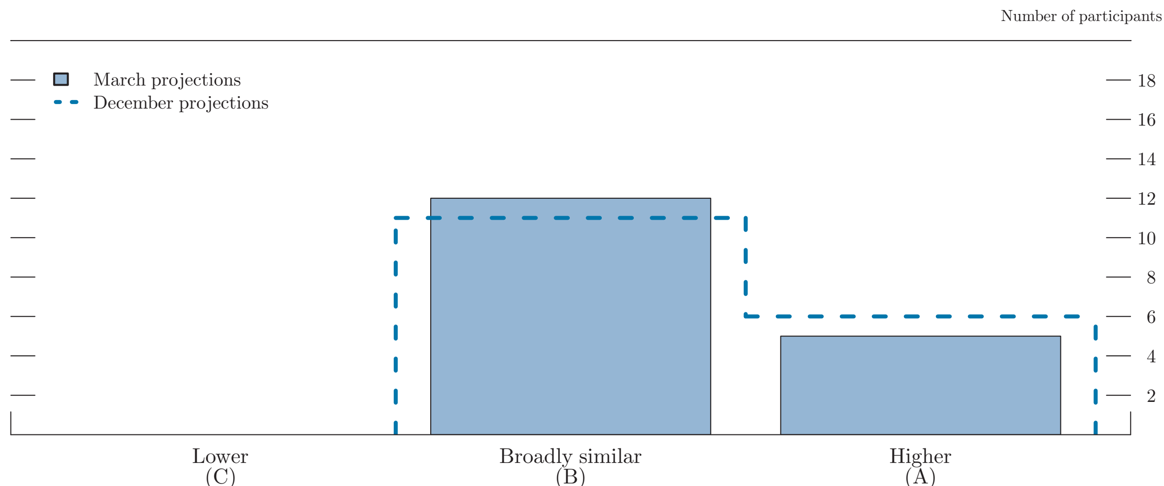
NOTE: The blue and red lines are based on actual values and median projected values, respectively, of the Committee's target for the federal funds rate at the end of the year indicated. The actual values are the midpoint of the target range; the median projected values are based on either the midpoint of the target range or the target level. The confidence interval around the median projected values is based on root mean squared errors of various private and government forecasts made over the previous 20 years. The confidence interval is not strictly consistent with the SEP projections for the federal funds rate, primarily because the SEP projections are not forecasts of the likeliest outcomes for the federal funds rate, but rather projections of participants' individual assessments of appropriate monetary policy. Still, historical forecast errors provide a broad sense of the uncertainty around the future path of the federal funds rate generated by the uncertainty about the macroeconomic variables as well as additional adjustments to monetary policy that may be appropriate to offset the effects of shocks to the economy.

The confidence interval is assumed to be symmetric, except when it is truncated at zero—the bottom of the lowest target range for the federal funds rate that has been adopted in the past by the Committee. This truncation is not intended to indicate the likelihood of the use of negative interest rates to provide additional monetary policy accommodation if doing so was judged appropriate. In such situations, the Committee could also employ other tools, including forward guidance and large-scale asset purchases, to provide additional accommodation. Because current conditions may differ from those that prevailed on average over the previous 20 years, the width and shape of the confidence interval estimated on the basis of the historical forecast errors may not reflect FOMC participants' current assessments of the uncertainty and risks around their projections.

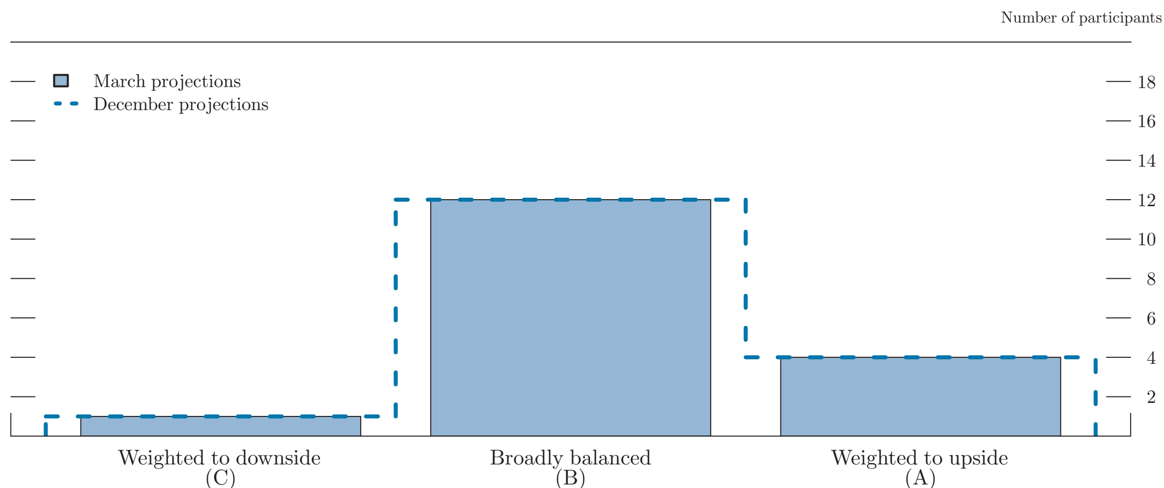
* The confidence interval is derived from forecasts of the average level of short-term interest rates in the fourth quarter of the year indicated; more information about these data is available in Table 2. The shaded area encompasses less than a 70 percent confidence interval if it has been truncated at zero.

Figure 6.A. Uncertainty and risks – GDP growth

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



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

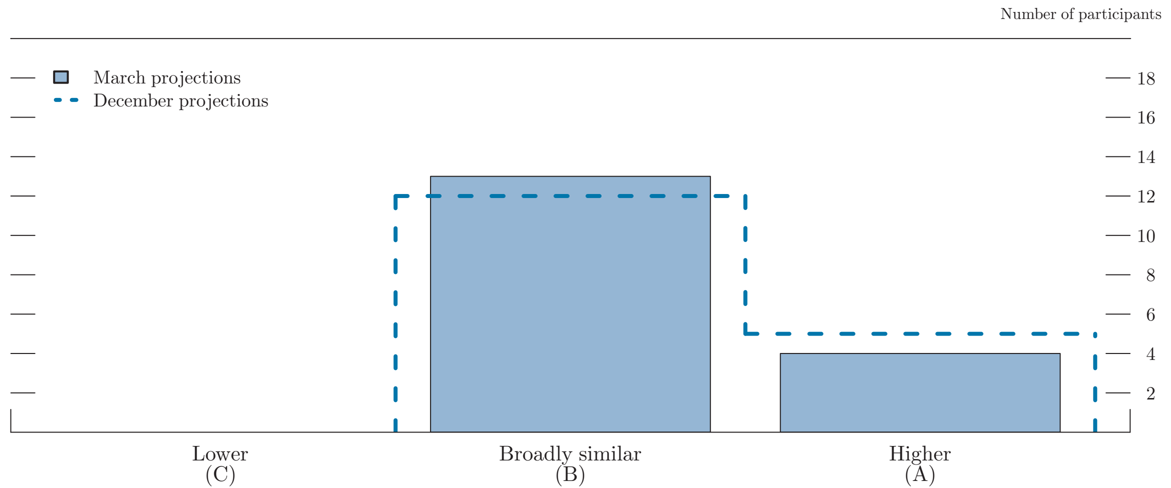


Individual responses

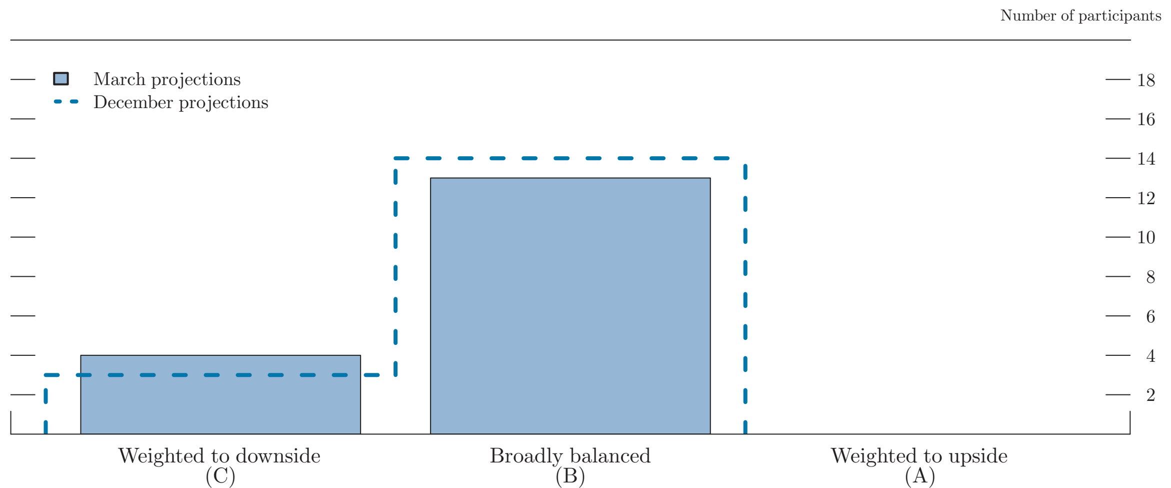
Respondent	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2(a)	B	B	B	B	A	A	A	B	B	B	A	B	B	B	B	A	B
2(b)	B	B	B	B	B	B	B	B	B	C	A	A	B	B	A	A	B

Figure 6.B. Uncertainty and risks – Unemployment rate

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



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

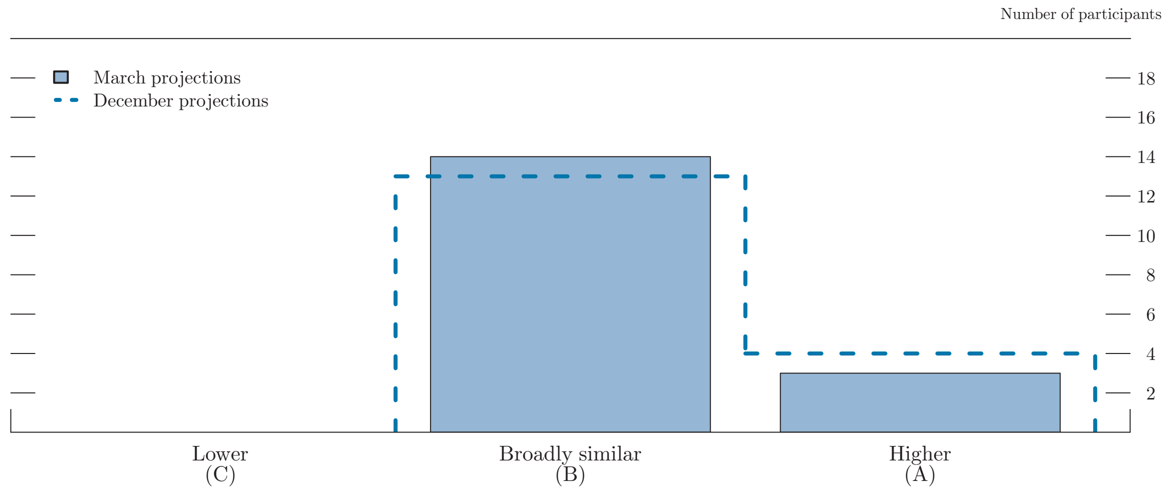


Individual responses

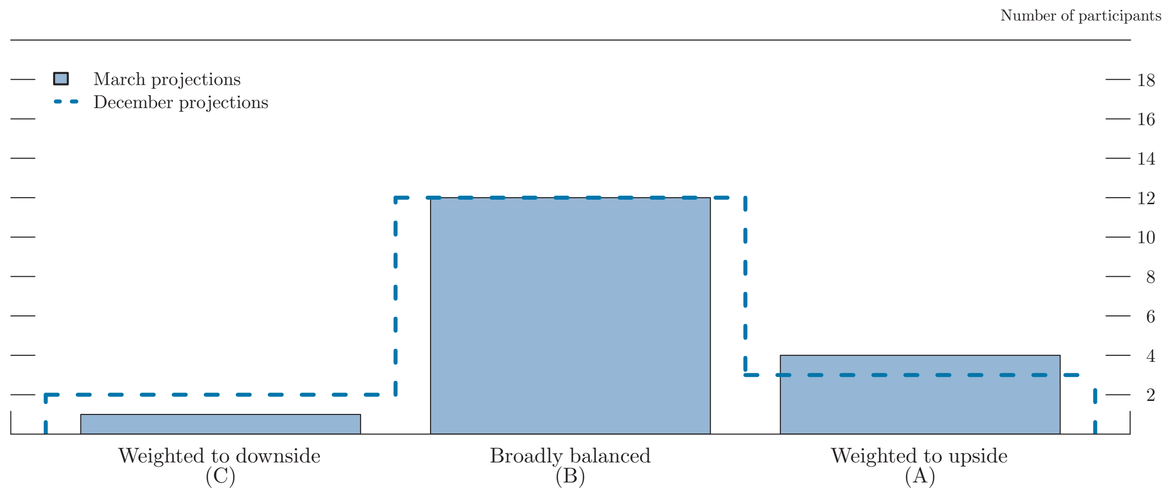
Respondent	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2(a)	B	B	B	B	A	B	A	B	B	B	A	B	B	B	B	A	B
2(b)	B	B	B	B	B	B	B	B	B	B	C	B	B	C	C	C	B

Figure 6.C. Uncertainty and risks – PCE inflation

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



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

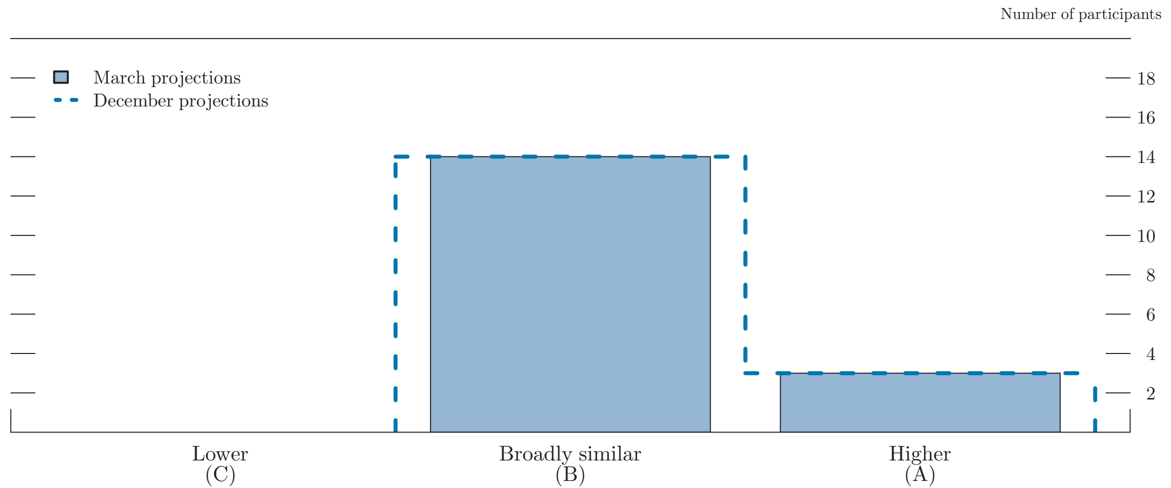


Individual responses

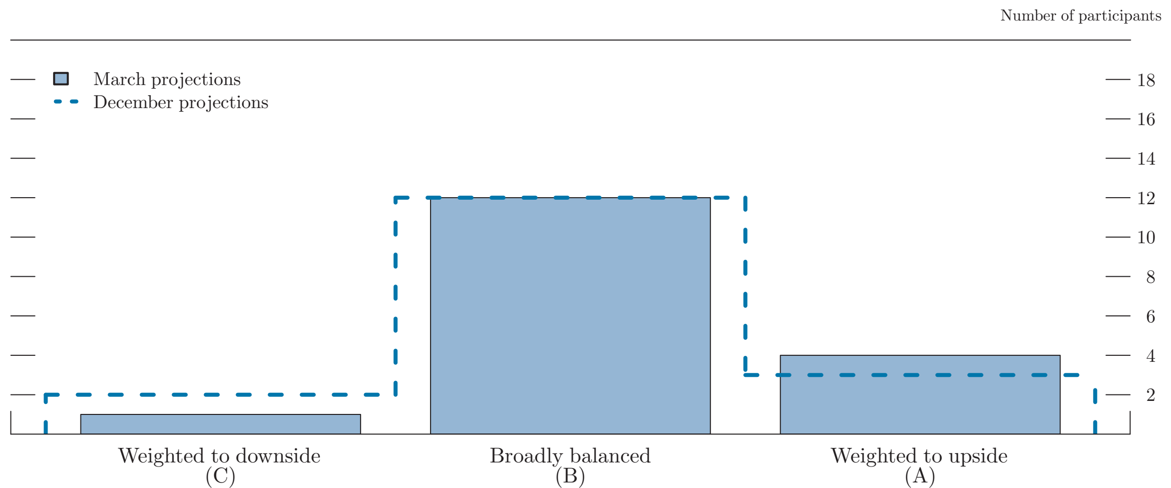
Respondent	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2(a)	B	B	B	B	A	B	A	B	B	B	B	B	B	B	B	A	B
2(b)	B	B	B	B	B	A	B	B	B	C	B	A	B	B	A	A	B

Figure 6.D. Uncertainty and risks – Core PCE inflation

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



Question 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	B	B	A	B	A	B	B	B	B	B	B	B	B	A	B
2(b)	B	B	B	B	B	A	B	B	B	C	B	A	B	B	A	A	B

Longer-run Projections

Question 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: N/A

Respondent 2: Our dual mandate goals are reached or exceeded by 2018. However, it will take a couple more years to achieve complete convergence to our longer-run projections. The effects from accommodative fiscal and monetary policy will generate some overshooting of both inflation and unemployment before dissipating over the longer run.

Respondent 3: We believe convergence of the federal funds rate to its long-run level is likely to take about 2 1/2 years.

Respondent 4: The economy has in my view essentially converged to its longer-run path. My projection for real GDP growth in 2017 is near my estimate of its longer-run rate, the unemployment rate has moved slightly below my estimate of its longer-run rate, and inflation is near 2 percent. Barring shocks, I anticipate that real GDP growth will remain close to its longer-run rate over the next three years. The unemployment rate will likely decline somewhat further below its longer-run rate before moving back toward it. I expect inflation will stabilize around 2 percent over the next three years.

Respondent 5: In the absence of shocks, as we are asked to assume, 12-month inflation should converge to 2.0% and unemployment should return to 5.0% within a year or two. Real GDP growth is basically at 1.8% now.

Respondent 6: N/A

Respondent 7: Our assumptions for potential GDP growth and the longer-run normal rate of unemployment are the same as in the December submission.

The current unemployment rate is slightly below its longer-run normal level, and we project that it will remain below that level through the projection horizon. Our scenario analysis of labor flows and the historical behavior of the unemployment rate in long expansions indicate that there is significant probability that the unemployment rate will fall somewhat further below its longer-run normal level.

We assume that long-term inflation expectations will be anchored at levels consistent with the FOMC longer-run objective. Under these conditions and with a modest undershooting of the longer-run normal unemployment rate over the forecast horizon, we expect inflation as measured by the PCE deflator to be mildly above the FOMC's longer-run objective in 2018-19, before returning to that level afterwards.

Respondent 8: N/A

Respondent 9: Even though the labor market is more or less back to normal and the underlying trend in inflation is running only somewhat below 2 percent, the convergence process is likely to be drawn out because I anticipate that various factors currently restraining activity, such as slow productivity growth and weak global activity, are likely to diminish somewhat over time. As a result, it will probably be five or six years before real GDP, unemployment, inflation, and interest rates all settled down at their longer-run values.

Respondent 10: N/A

Respondent 11: I anticipate that the economy will converge to my longer-run projection within five years.

Respondent 12: We think all variables have essentially converged to a regime characterized by low productivity growth and a low real interest rate on short-term government debt. This regime features GDP growth of 2.0%, an unemployment rate of 4.7%, and inflation of 2.0%. Because there are multiple medium term outcomes, we cannot provide a single set of projections for GDP growth and unemployment. Calculating an average for these variables based on multiple outcomes ins potentially misleading. We do provide a 2.0% longer-run inflation projection, which is independent of the regime.

Respondent 13: Labor-force participation is near its demographic trend and the unemployment rate is roughly at its longer-run sustainable level. With negligible labor-market slack and with the restraining effects of oil-price declines and a stronger dollar having waned, inflation is now close to our 2-percent longer-run objective. So, we have very nearly achieved our dual objectives. But with monetary policy still accommodative and expansionary fiscal policy in prospect, we seem likely to overshoot both full employment and 2-percent inflation in coming years-–possibly by a significant margin. In those circumstances, a soft landing will be difficult to engineer. If we are successful, convergence will likely take 5 years.

Respondent 14: N/A

Respondent 15: Current economic conditions are consistent with a level of activity that is very close to (if not at) full capacity. Over the forecast horizon, the projected pace of growth should lead to an economy operating above full employment, albeit by a relatively modest amount. Despite the unemployment rate falling below its longer-run level, inflation is expected to remain close to the 2 percent target throughout the forecast horizon, as further dollar appreciation provides some offset to the wage pressures associated with a tightening labor market.

Respondent 16: N/A

Respondent 17: At this point, convergence is likely in three to four years.

Uncertainty and Risks

Question 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: N/A

Respondent 2: Uncertainty about my projection for economic activity and inflation is similar to its average level over the past 20 years. Inflation remains anchored by stable longer-run inflation expectations at the FOMC's stated goal of 2 percent.

Respondent 3: The size and timing of new fiscal, trade, immigration, and regulatory policies, and their corresponding impact on household and business spending, remains unresolved and highly uncertain. In contrast, volatility in financial markets is low and concerns over foreign economic growth appear to have diminished. While the incoming news on inflation has been positive, the uncertainties surrounding the forecast have not changed substantially. On balance, the level of uncertainty for both activity and inflation remain in the "broadly similar" uncertainty bucket.

Respondent 4: N/A

Respondent 5: Fiscal, trade, regulatory, and other economic policy choices are likely to change over the forecast period. At this time it is difficult to predict the size, timing, and composition of the policy changes that will occur.

Respondent 6: N/A

Respondent 7: Ours is a quantitative judgment based on the width of the probability intervals from the FRBNY forecast distribution for real GDP growth and core PCE inflation. The widths of these intervals are slightly narrower than in our December SEP submission, reflecting that the economic data have been roughly consistent with our central projection. However, continued lack of clarity concerning potential policy changes imply that uncertainty remains high. Consequently, the probability intervals for the real activity and core PCE inflation forecasts remain moderately wider than the SEP standard (for inflation, this assessment takes into rough account of the differences between forecast errors for overall consumer inflation and core PCE inflation).

Respondent 8: While substantial uncertainty remains as to the direction of various non-monetary policies with economic implications, the interval since the last SEP has made the likelihood and scope of at least some of those possible changes rather less than they appeared three months ago.

Respondent 9: N/A

Respondent 10: The current level of uncertainty lies somewhere between the low levels experienced during the Great Moderation and the high levels experienced during the financial crisis and its immediate aftermath.

Respondent 11: Uncertainty surrounding output growth and unemployment remains elevated by heightened uncertainty about the course of fiscal policy, regulatory reform, and trade policy. The impact on inflation uncertainty is small given how flat the Phillips curve seems to be.

Respondent 12: N/A

Respondent 13: Uncertainty is roughly average over the next three years. Because of possible fallout from overshoot of our full-employment and inflation objectives, uncertainty beyond 2019 is, in contrast, elevated. Risks at that point will be weighted to the downside for GDP growth and to the upside for unemployment.

Respondent 14: N/A

Respondent 15: N/A

Respondent 16: My judgment that the uncertainty surrounding my projections is higher than "normal" owes largely to uncertainty about future fiscal, trade, and regulatory policy.

Respondent 17: N/A

Uncertainty and Risks (continued)

Question 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: Near-term downside risks from the global environment have diminished. Recent indicators of growth in China, Europe, and Japan have been favorable, on balance, while confidence in the near term ability of policy to support growth in these regions (and exchange rate and financial market stability in the case of China) has increased. In the U.S., continued improvement in the labor market and inflation, as well as the outlook for more expansionary fiscal policy and the higher funds rate path it implies, have reduced to some extent the likelihood that monetary policy will be constrained by the effective lower bound for conventional policy over the medium term. At the same time, recent increases in equity prices and household and business sentiment, along with possibility of substantially stronger U.S. fiscal stimulus than in my baseline projection, have increased the upside risks to real activity and inflation. As a result the risks to real activity and inflation are balanced.

Respondent 2: Risks to economic activity appear broadly balanced. We have essentially reached our objective of maximum sustainable employment according to a variety of labor market measures and will likely overshoot full employment for the next couple of years. The main uncertainty is by how much and for how long. Despite some Q1 softness, consumer spending is on track for solid growth this year, bolstered by a stronger labor market and sizable equity wealth gains.

Fiscal policy is likely to be more accommodative in 2018 and 2019. However, there is significant uncertainty about the size, composition, timing, and effect of future fiscal policy initiatives.

Uncertainty about growth in foreign economies appears to have subsided somewhat in recent months, but some risks to the foreign outlook remain.

Although the effective lower bound somewhat constrains our ability to respond to adverse shocks, this constraint is becoming less important given that appropriate policy calls for steady increases in the target funds rate over the next two years.

Inflation risks are also balanced. A tightening of resource utilization supports the continued movement of inflation towards 2 percent and a slight overshooting some time afterwards. In recent months, the dollar has maintained its strength, which will hold down import prices in the near term. On the other hand, oil prices have increased somewhat and, if sustained, could lead to higher inflation. The size, scope, and impact of expected fiscal policy measures are a contributing factor to inflation risk.

Respondent 3: Our forecast assumes a modest pick up in growth arising from fiscal policy, but these and other potential legislative or administrative policy changes remain speculative. In particular, we see some risk that the tax and spending package could be somewhat larger than we currently assume, but with some offsetting downside risk from potential trade and immigration policies.

We now see the risk to our inflation forecast as balanced. In December, we assumed inflation risks were still modestly tilted to the downside. Since then, some stronger inflation numbers, as well as a flattening in the dollar, higher commodity prices, and a small uptick in survey measures of inflation expectations led us to revise our risk assessment. Still, we remain concerned about the low levels of financial market inflation compensation and household measures of inflation expectations.

Respondent 4: N/A

Respondent 5: There are a number of possible policy changes that could have beneficial or adverse effects on GDP and unemployment. While the risks are tilted toward expansionary fiscal stimulus, appropriate monetary policy will be offsetting and prevent more than minor deviations in real growth. On inflation, under the appropriate policy assumption, we will react quickly and forcefully enough to keep it near 2 percent.

Respondent 6: N/A

Respondent 7: Ours is a quantitative judgment based on the difference between the central projection and the expected value from the FRBNY forecast distribution. With little resolution concerning U.S. fiscal and trade policy changes, risks remain elevated on both sides of the real activity outlook. Overall, as in December, they are roughly balanced over the forecast horizon.

Inflation risks remain roughly balanced throughout the forecast horizon. Longer-run inflation compensation and the Michigan long-run survey inflation expectations have been stable at still-low levels, consistent with continued downside risks. By contrast, global disinflationary forces appear to have abated somewhat and our SCE 3-year inflation expectations have moved up, as have a number of measures of underlying inflation, pointing to upside risks that are somewhat greater than they have been in recent years.

Respondent 8: N/A

Respondent 9: I view the risks to the near-term outlook as roughly balanced, with the upside potential associated with post-election increases in consumer and business sentiment more or less offset by the downside potential associated with now somewhat rich equity valuations (which have increased the odds of a market correction) and upcoming European elections. As for the medium-term outlook, although the odds are non-trivial that fiscal policy will turn out to be more expansionary than assumed in my baseline outlook (although probably not before 2018), the effect of this factor on the balance of risks is offset by the asymmetric ability of monetary policy to respond to cyclical fluctuations in a low interest rate environment.

Respondent 10: Risks for output and inflation are weighted tot he downside because the effective lower bound limits the ability of monetary policy to respond to adverse shocks. For the unemployment rate, there is a countervailing risk that it will fall more rapidly if the labor force participation rate resumes its downward trend. Therefore, I see the risks to unemployment as broadly balanced.

Respondent 11: Fiscal uncertainty remains high. Some stimulus seems likely that would boost demand, raise output growth and lower the unemployment rate further. The magnitude and timing of any such stimulus remains uncertain.

Respondent 12: We are answering this question variable by variable as they may be affected by important regime shifts.

With respect to GDP growth, the current productivity regime is low. A higher productivity growth regime is possible, but we see no compelling reason to predict a switch at this time. We do not see the fiscal and deregulation proposals of the administration as sufficiently concrete or close enough to enactment to forecast a high productivity regime. Such a possible switch, however, leads us to weight to the upside more rapid GDP growth.

Concerning unemployment, the current unemployment rate is at the low end for an economic expansion. If a recession were to occur, the unemployment rate would rise substantially. We have no compelling reason to predict a recession during the forecast horizon; however, such a possibility leads us to allow for a higher unemployment rate. On the other hand, we also see the possibility of some undershooting of the unemployment rate. We see the risks as broadly balanced.

For core PCE inflation, we place negligible weight on the prospects of Phillips Curve effects. There is, however, a risk that Phillips Curve effects reassert themselves and that inflation moves higher. It is also possible that inflation expectations could drift higher and become unanchored. Thus, we see the risks on this variable to be weighted to the upside.

For PCE inflation, the risks are the same as for core PCE inflation. In addition, this variable also depends on the behavior of energy and other commodity prices. Overall, we see the risks as weighted to the upside.

Respondent 13: China continues on an unsustainable trajectory and proposed U.S. tax and trade-policy changes could strain the finances of some emerging-market countries and trigger a round of protectionist counter measures. On the other hand, with expansionary fiscal policy in prospect the ELB is less of a concern than before, and financial markets are signaling robust growth. Risks over the next few years seem roughly balanced, on net. Because of possible fallout from overshoot of our full-employment and inflation objectives, however, post-2019 risks will be weighted to the downside for GDP growth and to the upside for unemployment.

Respondent 14: I see a significant chance that measured unemployment will decline faster than forecast if labor force participation moves down or if the wedge is smaller than forecast between employment in the household survey and employment in the establishment survey.

Respondent 15: Survey measures of sentiment and activity are at fairly elevated levels, and could be consistent with a faster pace of spending. In addition, our baseline forecast features expansionary fiscal policy in the form of a tax cut which, as in the Tealbook, raises the primary deficit to GDP ratio by 1 percentage point. While there is considerable uncertainty surrounding future fiscal policy, our assumption may prove too conservative. In all, we assess the risks to the GDP growth outlook as being tilted to the upside, and vice versa for the unemployment rate. We now view the risks to the inflation outlook as mirroring the risks to the real outlook. In particular, we place some weight on the possibility that wages are becoming more responsive to the unemployment rate gap as labor market conditions continue to tighten.

Respondent 16: I have not incorporated any potential changes in fiscal, trade, or regulatory policy into my baseline outlook. My view is that the lack of clarity over the potential set of policy options and the attending probabilities of those options made incorporating them untenable at this point.

Any changes to fiscal policy are likely to be, on net, expansionary in the near-to-medium term. Expansionary fiscal measures could push the unemployment rate well below its full-employment level. We have limited experience in such "high-pressure" regimes and the possibility for either a non-linear response in inflation or for an unanchoring of inflation expectations cannot be dismissed.

Respondent 17: I continue to view the risks around my forecast as broadly balanced. However, this view is based on a monetary policy path that is a bit steeper than the median path in the December SEPs.

Over the forecast horizon, I expect there will be changes to fiscal and other economic policies, such as infrastructure spending, tax code changes, immigration policy, trade policy, healthcare policy, and regulatory changes. The timing and magnitudes of the impacts will depend on the details. My baseline forecast incorporates fiscal stimulus in line with the size and timing of the package assumed in the Tealbook. But there are upside and downside risks, as the package could be larger or smaller, and its design will be an important factor in assessing the expected impact. I've incorporated a modest increase in output growth and inflation in 2018 due to fiscal policy effects. A larger package could pose upside risks to growth and inflation, especially if monetary policy does not appropriately respond. Depending on how it is financed, a larger fiscal policy package could also pose some downside risks over the longer run because of the implications for the budget deficit and, therefore, for long-term interest rates. A smaller fiscal policy package would be a downside risk and could generate financial market volatility to the extent that investors' expectations are not met.

Also, policies that constrain immigration and trade would have negative effects for the U.S. economy over the longer run, but I have not incorporated these into my projections.

The global outlook has improved somewhat. However, some risks remain, including the weak banking system in Italy, uncertainty around the outcomes of the elections in several European countries, which may reshape the political landscape there, and the continued rebalancing of the Chinese economy. Accommodative monetary policy in many countries will help support their economies but divergence between monetary policy abroad and in the U.S. will also result in further appreciation of the dollar. Stronger appreciation than I've assumed poses some downside risk to growth.

Sentiment and confidence measures from consumers and businesses are at high levels. I have not incorporated a separate effect on spending from these high confidence levels beyond what is reflected in income and wealth effects. However, if these beliefs lead to a sizable pick-up in spending, they could pose an upside risk to my outlook.

At this point, I see inflation risks as roughly balanced. In my baseline, growth at or above trend and stable inflation expectations keep inflation near our target of 2 percent. The labor market may have more momentum than I've built into my forecast. This could result in a larger under-run of the unemployment rate below my estimate of its long-run level. Should the slope of the Phillips curve steepen as economic growth picks up, the tightness in labor markets could translate into higher inflation, especially if the withdrawal of monetary accommodation is slower than I've assumed. Even absent a change in the slope of the Phillips curve, a slower withdrawal of monetary accommodation than I've assumed poses an upside risk to my inflation forecast.

Over the past year, oil prices have risen, but supplies are increasing, which could put downward pressure on the price of oil, which would feed through to headline inflation measures for a time. The value of the dollar has

strengthened over the last year, and I expect further strengthening. A larger appreciation than I've assumed poses a downside risk to my inflation forecast.

Risks to financial stability from very low interest rates appear to be contained so far, but given the outlook and the low level of interest rates, should we fail to remove monetary policy accommodation at an appropriate pace, these risks would rise.

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

Question 3(b). 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 revised 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: The economy has made important progress in recent months toward the Committee's goals of full employment and 2 percent inflation. However, there may still be some room for improvement in the labor market, and it may be some time before the economy achieves a sustained inflation rate of 2 percent. Given the likely continued gradual pace of increase in economic activity, the persistent shortfalls of inflation from our target, the asymmetric risks induced by proximity to the effective lower bound, and the continued presence of significant medium-term downside risks from abroad, appropriate policy calls for the funds rate to rise only gradually through the medium term. My expectation of a gradual path for the federal funds rate is also influenced by my expectation that the Committee will decide to begin to phase out reinvestment of principal payments once the funds rate rises above 1.5 percent. By the end of the medium term, with expansionary fiscal policy raising aggregate demand beyond its longer-run sustainable level and with 2 percent inflation likely to be achieved, I expect the funds rate to rise somewhat above its longer run level. If fiscal expansion is significantly stronger than in my baseline projection, I would expect the funds rate to rise even further above the longer-run level by the end of the medium term.

Respondent 2: The labor market is essentially at full employment according to various measures of slack. Labor markets will continue to tighten this year–with the unemployment rate falling further below its natural rate–before gradually returning to its long-run steady-state value. This overshooting partly reflects expected additional fiscal policy stimulus. On inflation, despite some transitory factors affecting recent data, I expect inflation to rise gradually and reach our 2 percent objective in 2018 and overshoot it in 2019. Underpinning this path is my view that the economy will continue to improve, causing it to run somewhat above its potential, and that the slope of the Phillips curve is non-negligible.

My assessment of appropriate policy is generally informed by looking at simple rules that adjust for the zero lower bound and assume a low natural rate of interest, as well as by my expectations of, and uncertainty about, the costs and benefits of continuing unconventional actions.

My fed funds path through the end of this year remains flatter than some simple rules would suggest. This reflects the fact that inflation has been rising only gradually to our objective from below. Beyond the near term, I envision a pace of normalization of the fed funds rate that is faster than that derived from fed funds futures. The fed funds rate will overshoot its long-run level a bit in the second half of 2018 and in 2019 to unwind the overshooting in inflation and labor market conditions. Similarly to the Tealbook, I expect the SOMA portfolio to start to gradually decline before the end of this year as reinvestments begin to taper o

Respondent 3: Our assumed appropriate policy path has the funds rate increasing twice in 2017, 4 times in 2018, and then reaching its long-run neutral rate of 3 percent in the second half of 2019. The recent news on inflation has been welcome support to our projection that inflation is on a gradual upswing. But, particularly in the near term, for continued improvement we still see the need for ample policy accommodation and explicit communication

that our rate path will depend on sustained progress toward achieving our symmetric inflation objective. Risk management considerations also continue to argue in favor of tempering policy moves. If growth proceeds along our forecast path and inflation also solidifies as expected, then by next year we believe normalization will be able to proceed at a somewhat faster pace. With events generally transpiring in line with our earlier projection, our policy assumptions are the same as in our December submission.

Respondent 4: My judgment regarding the appropriate path of the federal funds rate is predicated on promoting sustainable economic growth and price stability. My forecast calls for the unemployment rate to be below its longer-run level and inflation to be at two percent in 2017. Yet I view the appropriate level of the federal funds rate in 2017 to be below my estimate of its longer-run level. In my view a gradual path of the funds rate promotes economic and financial stability.

Respondent 5: With inflation near 2 percent and unemployment below its longer-run level, I believe that we should begin converging to the funds rate path given by policy rules such as Taylor (1999) that capture our behavior over the past few decades. Since higher budget deficits or stronger productivity growth would raise the natural real interest rate, we should be prepared to adjust the parameters accordingly. I also believe we should begin reducing the size of our balance sheet the next time we raise rates.

Respondent 6: The low level of the federal funds rate has been necessary to move inflation and unemployment back toward our targets. This is likely because r* is temporarily depressed by the low rate of productivity growth and other factors. Those factors are likely to dissipate only gradually, requiring a low federal funds rate for some time in order to deliver an appropriate amount of accommodation.

Respondent 7: The principal factors behind our assessment of the appropriate path for monetary policy are the current state of the economy, our central economic outlook, and our balance of risks around the outlook. The steepness of the policy path also depends on how overall financial conditions respond to our policy actions.

Our current projection of the appropriate policy path has the target FFR ranges at the end of 2017, 2018, and 2019 at 1 1/4 – 1 1/2%, 2 – 2 1/4 %, and 2 3/4 – 3% respectively; the projected ranges are 25 bps higher in 2017 and 2018, and 50 bps higher in 2019 than in our December submission. The upward shift in our appropriate policy path is primarily motivated by an increase in our inflation projection and a rise in the upside tail risks to that projection, as well as an assessment of some reduction of the costs associated with the downside risks to real activity and inflation. In addition, the loosening of financial conditions since December indicates that a somewhat tighter policy stance is warranted. Even with this shift, the policy path remains fairly shallow and is consistent with a gradual rising path of the natural interest rate as projected by the sta DSGE model.

Despite the shift in the medium term policy path, our estimate of the equilibrium real short-term interest rate over the longer run remains in the range of 0 – 2%, consistent with the estimates and forecasts from a variety of models. Adding the objective for inflation (2%) gives our estimated range for the nominal equilibrium rate as 2 – 4%. Our modal projection for the equilibrium rate is in the lower half of this range due to the combination of continued subdued productivity growth, still-low longer-term sovereign yields, continued indications of a global "saving glut," and demographic factors. These considerations lead to our point estimate of 2 1/2% in the response to question 3(a), which is the same as in the December submission. Consequently, our appropriate policy path temporarily overshoots the longer-run FFR.

We assume that full reinvestment continues until economic and financial conditions indicate that the exit from the effective lower bound appears to be sustainable and risks of a reversion are deemed to be negligible. Based on our modal economic outlook and the shift in the appropriate policy path, we expect those conditions to occur by 2017Q4.

Respondent 8: The fact that several more months of data have conformed to or, in some instances, exceeded, my expectations in December has made me more confident in the trajectory and strength of the economy. Accordingly, I have added another 25 bp to my expected appropriate rate increases for this year. I have not changed my expectations with respect to the amount of increase in the federal funds rate over the next two years. Thus, on net, my projection of the appropriate target at the end of 2019 is 25 bp higher than in my December submission.

Respondent 9: I anticipate that the appropriate path for the federal funds rate will rise gradually over time but remain below its longer-run level through 2019, for two reasons. First, the underlying trend in inflation is still somewhat below 2 percent, and so it will be appropriate to keep policy moderately accommodative this year in order to promote some further strengthening in labor market conditions, thereby helping inflation to stabilize around 2 percent on a sustained basis over the medium term. Second, I anticipate that the neutral funds rate, which is currently near zero, will rise somewhat over the next few years; as this occurs, it will be appropriate to raise the actual federal funds rate in tandem.

Respondent 10: The labor market, as measured by the unemployment rate, is essentially back to normal. But secondary measures of slack, such as the fraction of the labor force working part time for economic reasons, remains slightly elevated, the labor force participation rate and employment-population ratio for prime working age persons remain well below their pre-recession levels, and wage growth remains subdued. In addition, the neutral funds rate is expected to rise from its currently low level, but that adjustment is likely to take several years. As a result, it is appropriate to raise rates gradually.

Respondent 11: My projection for the appropriate path for the federal funds rate is unchanged from last time. My view is that policy should adjust at a more gradual pace than has been typical in past lifto scenarios given low productivity growth, uncertainty about the future path of the labor force participation rate, and inflation that has been running below target for some time.

Respondent 12: To reflect an upward movement in the low real interest rate on short-term government debt, we think one 25-point increase in the federal funds rate should occur in 2017, with no additional changes in 2018 and 2019. We think all variables have essentially converged to a regime characterized by low productivity growth and a still low rate on short-term government debt.

Respondent 13: Prospects for a more expansionary fiscal policy, incentives for public and private investment, and lighter regulation have combined to increase the neutral real funds rate, r*. This increase makes the current monetary policy setting more accommodative and reduces the chances that policy will become constrained by the zero bound in the event of an adverse shock. In response to these developments, in December I increased my estimate of the longer-run value of the funds rate by 25 basis points and assumed a steeper path for the funds rate over the projections horizon. I have not made further changes to my policy projections in this SEP round. However, my confidence that the funds-rate path I have specified will, in fact, prove to be appropriate is somewhat lower than usual.

Respondent 14: I see a gradual path of 3 rate increases in 2017 and 4 rate increases in 2018. Since we are quite close to our mandates, it is appropriate to return the real federal funds rate to a neutral level, which today I estimate at around 0. On this path, the fed funds rate should reach that level in about a year. I expect that it will be appropriate to begin to shrink the balance sheet in mid-2018 and that will also tighten financial conditions. I see unemployment declining below estimates of the natural rate for some time, and think that is appropriate to continue to support labor market conditions. It seems plausible or even likely to me that the natural rate is lower than current estimates.

Respondent 15: The tightening of monetary policy is accompanied in this projection by a contraction in the SOMA portfolio starting in the second half of this year. Over the earlier part of the forecast horizon, the projected tightening of policy assumes an equilibrium federal funds rate that is below our longer-run estimate of 3 percent. Absent this temporary effect, the projected trajectory for the federal funds rate would be somewhat higher. Monetary policy has to balance the need to probe for better labor market outcomes with the need to avoid overshooting full employment by a large amount. If the equilibrium unemployment rate is indeed at 4.7 percent as we are assuming, the projected stance of monetary policy pushes probing to what is likely the limit before the probability that a soft landing will turn into a recession rises sizably. When taking such a risk into account, appropriate monetary policy could well entail more than the four 25 basis points increases in the federal funds rate that we feature in our outlook for 2017.

Respondent 16: My projection for the federal funds rate is informed by a simple policy rule with a gradual rise in the short-run equilibrium funds rate.

Respondent 17: My view of the appropriate path of the federal funds rate is unchanged since December, as the incoming data have been generally in line with my expectations and my medium-run economic outlook has changed little. I assume reinvestments will end later this year.

In 2017 and 2018, I project that growth will be somewhat above and the unemployment rate will be somewhat below my estimates of their longer-run levels. I anticipate that labor compensation measures will firm moderately, in line with anecdotal reports of increasing wage pressures across a range of skill groups and a variety of data showing that wage and compensation gains have picked up over time. However, these gains will likely be slower than in past expansions reflecting slower growth in productivity.

Inflation is near our goal of 2 percent. Reasonably stable inflation expectations coupled with continued strength in labor markets and ongoing economic growth suggest that inflation will remain near our goal of 2 percent over the forecast horizon.

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. Based on the outlook, I believe it will be appropriate for the FOMC to move rates up over the course of 2017 and 2018. I assume that the funds rate will end 2019 at a level slightly higher than my longer-run estimate of 3 percent. But admittedly there is considerable uncertainty around this path. With the high level of uncertainty around fiscal and other government policies, and with labor markets already at full employment and inflation already near 2 percent, upside or downside surprises may require more variation in our forecasts and appropriate policy paths over the next couple of years than we saw over the past couple of years. Forestalling rate increases for too long increases the risks to financial stability and has the potential to require even sharper rate increases in the future, which poses its own risks to the outlook.

Forecast Narratives

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

Respondent 1: N/A

Respondent 2: The recovery from the housing collapse and financial crisis is essentially complete, and incoming data indicate that the economy is expanding at a solid pace relative to the slow pace of potential, which has pushed the unemployment lower. Going forward, the strength in the labor market hiring, faster wage growth, and gains in household wealth should support continued consumption growth. The climate for future fixed business investment appears to have improved given the likely higher after-tax corporate cash flow, a likely lighter regulatory burden, and improving prospects abroad.

The expected fiscal stimulus is likely to boost economic growth over the next few years. Similarly to the Tealbook, I expect some new measures to be approved by the end of this year, contributing to growth in 2018 and 2019 by about 1/4 percentage point, which is partly offset by less accommodative monetary policy. Due to the substantial uncertainty about the composition of the stimulus it is premature to adjust the longer-run outlook.

In this environment, I expect the economic recovery to proceed at a pace that is a bit above potential. Output and unemployment gaps were closed in 2016. With substantial monetary stimulus still in place and renewed fiscal stimulus, I expect these gaps to overshoot for the next few years before closing at the end of 2020. This overshooting should lead to faster inflation over the next few years. I expect inflation to reach our 2 percent target in the first quarter of 2018, and to overshoot slightly in 2019. Tighter monetary policy will bring inflation, growth, and unemployment back to their long-run sustainable levels by the end of 2020.

Respondent 3: We expect growth to run moderately above potential through 2019. Although consumer spending weakened in January, we read this development as a temporary lull and expect that the usual factors – accommodative monetary policy, a healthy labor market, and improved household and business balance sheets – will continue to support consumer-driven growth in the near future. Business spending at last appears poised to grow at a healthier pace. Moreover, we expect the drag from net exports to wane through the projection period. Fiscal policy is assumed to provide a modest boost to growth beginning in late 2017. At 4.7 percent, the unemployment rate is at our estimate of the current natural rate, and we expect to slightly overshoot neutral as we move through this year. We project the unemployment rate will be 4.3 percent in 2019, about a quarter percentage point below the natural rate we expect to prevail at that time.

This outlook incorporates roughly the same degree of fiscal stimulus as in our December forecast, but differs in its timing. In total, we expect policy changes will increase the primary deficit by a little over a percentage point of GDP, and that their direct impulse on consumption and government purchases will boost the level of GDP by about 1/2 percentage point. We assume some of this impulse is crowded out by higher interest rates and a stronger dollar, and accordingly boosted our projection for GDP by only 0.3 percentage point. We see about a tenth of this growth arising in 2017 from increases in defense spending late in the year (the first quarter of FY2018). But in light of the lack of legislative momentum, we now assume tax cuts will not become effective until CY2018, and therefore see the remaining two tenths of fiscal stimulus to GDP occurring next year.

Our forecast has core inflation returning to 2 percent by 2019. The incoming data on total inflation have moved us closer to target. The eventual overshooting in resource slack and the stabilization of the dollar and energy prices should provide a further lift to inflation going forward. In addition, we assume the shallow path for policy normalization and a strongly communicated commitment to a symmetric 2 percent inflation target will further solidify inflation expectations and help return actual inflation to target. This forecast is the same as we made in December.

The key factors shaping uncertainty and the risks to the forecasts were discussed earlier in the risks and uncertainty sections.

Respondent 4: Modal forecast: My forecast for real GDP growth is characterized by growth near trend in the period from 2017 to 2019. As the stimulus from accommodative financing conditions and gains in household wealth gradually diminishes, I expect growth to become more self-sustaining, based on modest increases in aggregate hours worked and a moderate recovery in the pace of productivity gains. After the rapid reductions in economic slack in

the past few years, I view the economy as currently operating near full capacity. I expect the unemployment rate to move somewhat lower this year, before gradually moving back toward its longer-run rate in 2019. My inflation outlook projects an inflation rate at 2 percent from 2017 onwards, an increase from its recent level that reflects tightening labor market conditions and the dissipating effects of past dollar appreciation and lower energy prices.

Uncertainty and risks: I view uncertainty surrounding my projections as broadly similar to levels of uncertainty over the past 20 years, considering the magnitude of historical projection errors, the current economic problems in major regions around the world, and economic and policy uncertainty at home. The risks to economic growth, inflation, and unemployment appear broadly balanced. On the downside, risks to the foreign outlook emanate from Europe and China. The possibility that an overly expansive monetary policy could lead the unemployment rate to significantly undershoot its natural level is another downside risk, as periods of overheating have historically often ended with a recession. Upside risks to my forecast are related to the resilience of the U.S. economy and the possibility of a more expansionary fiscal policy stance.

Fiscal policy: My projection incorporates no change in fiscal policy, as any possible changes in taxes, government spending, or regulations remain highly uncertain. The likelihood of a more accommodative fiscal policy stance poses upside risk for growth and inflation and downside risk for the unemployment rate. Considering this risk in the context of the array of possible changes to fiscal, trade, health, and regulatory policies, however, I view uncertainty as broadly similar to the past 20 years and the risks around my outlook as broadly balanced. With no marked changes in the modal outlook or my assessment of uncertainty and risks, I have not changed my projection for the appropriate path of the federal funds rate.

Respondent 5: With unemployment a bit below its longer-run value, my forecast begins with trend growth in real GDP. I agree with the Tealbook that expansive fiscal policies are unlikely to take effect this year. I have added a bump of two tenths in real GDP growth for 2018, for the portion of initial fiscal stimulus that is not offset.

Respondent 6: My central economic outlook is based on the performance of the economy in the past few years and my attempt to foresee future policies.

Respondent 7: We raised our projected growth of real GDP for 2017H1 by 0.1 percentage point to 1.8 percent (annual rate). We expect real PCE growth over the first half of 2017 to be somewhat lower than we anticipated in December, but we now see this reduction being more than offset by higher growth of business fixed investment, residential investment, and inventory investment.

We expect real GDP growth for 2017 to be 2 percent (Q4/Q4), up from 1.9% in the December submission. As in that submission, we expect real GDP growth to slow to around 1.8% in 2018 and 2019, with this slowing driven by a combination of an aging business cycle and a tightening of financial conditions as the policy rate continues to rise. The unemployment rate is projected to decline to 4.6 percent in 2017Q4 and then to 4.5 percent in 2018Q4 and 2019Q4, which is moderately below our point estimate of its longer-run normal rate and reflects our view of typical labor market dynamics in long expansions. Also underlying the unemployment projection is a gradual increase in productivity growth toward its long-run trend and a slight downward trend in the labor force participation rate over the forecast horizon.

We project some slowing in real PCE growth in both 2017 and 2018 due to tightening financial conditions and modest slowing in real disposable income growth. As in previous submissions, we anticipate the personal saving rate to be essentially flat over the projection horizon. We anticipate some firming of business fixed investment, and that housing starts will remain on a gradual uptrend despite rising mortgage interest rates. Overall, we project growth of final sales to domestic purchasers to be slightly stronger in 2017 than in 2016, but we also anticipate the net export real GDP growth contribution to be -0.5 percentage point in 2017, down from -0.2 percentage point in 2016. In 2018, growth of final sales to domestic purchasers slows a bit, so that the net export growth contribution is projected to be -0.4 percentage point.

Regarding inflation, we anticipate total PCE deflator inflation to be 2.1 percent in 2017, while core PCE inflation is projected to be 1.9 percent, with the difference reflecting the impact of the rise in energy prices in the latter part of 2016. With the economy operating near or modestly beyond full employment and inflation expectations anchored at the FOMC's objective, core PCE inflation is projected to rise to 2.1 percent in 2018 and 2.2 percent in 2019. Overall PCE inflation is similar in those two years.

Since the presidential election there have been significant moves in financial asset prices resulting in some easing of financial conditions as measured by the Goldman Sachs Financial Conditions Index. In our view, the change in

underlying financial conditions is too modest to warrant a meaningful change in our modal forecast; instead, we incorporate this development into our risk assessment.

As in December, we believe that there is insufficient information regarding the nature, magnitude, and timing of future changes in fiscal policy to attempt to incorporate them into our modal forecast. In addition, the amount of stimulus such actions could deliver with the economy at or near full employment is not clear.

Respondent 8: The most important factor since December is precisely that, taken as a while, the economy has continued to grow in roughly the way we expected. The labor market continues to improve, further reducing remaining slack, although wages have yet to move upward in the sharper, sustained way that many have long expected. The prospect for inflation reaching, and then stabilizing around 2% also looks to have improved. A general diminution in downside risks from economic performance abroad (though perhaps not from political and geopolitical risks) also removes some negative uncertainty from the outlook.

Respondent 9: My forecast is conditioned on several key assumptions. First, I continue to assume that the forces which are currently restraining growth – slow productivity growth, an elevated exchange rate, weak foreign growth, and restrictive mortgage credit – will abate only gradually. Second, as a placeholder I now assume that there will be no significant change in fiscal policy, in contrast to the modest additional stimulus I incorporated into my December projection. However, the contractionary effects of this change in fiscal assumptions on my projection are essentially offset by a gradual boost to consumer spending from recent stock market gains. Third, I assume that the federal funds rate will gradually rise over time to bring it in line with the (rising) neutral rate. Finally, I assume that headline inflation will edge back to around 1.8 percent later this year as the transitory effects of recent increases in energy abate, but then will edge up over the next two years to 2 percent, aided a bit by modestly tight labor market conditions.

Respondent 10: The improvement in secondary measures of labor market slack we had seen has slowed. Because room remains to further reduce slack, core inflation continues to run below target and it is likely to take several years before it returns to target. The continued low level of core inflation, the benefits to the economy of allowing further improvement in the labor market, and potential risks to the US economy from international policy divergence all suggest a gradual approach to normalizing the stance of monetary policy.

My outlook does not include any assumptions about potential forthcoming fiscal policy changes.

Respondent 11: My forecast calls for output growth of about 2 percent over the forecast horizon. I continue to expect that some fiscal stimulus may be forthcoming over the next few years, but because the timing and magnitude is so uncertain it is not meaningfully affecting my point forecast. However, I see some upside risk to output growth over the medium term. The unemployment rate falls modestly below my estimate of the natural rate as the economy grows at about its trend pace and the labor force participation rate edges down. Headline inflation moves up to the 2 percent target by the beginning of 2018. With inflation and output growth running near my longer-term trends and the unemployment rate slightly below my estimate of the natural rate, monetary policy becomes less accommodative over the forecast horizon. However, accommodation is removed at a gradual pace in light of the economic uncertainties surrounding fiscal policy, regulatory and trade reform, productivity growth, and inflation dynamics.

Respondent 12: Our forecast continues to use a regime-based conception of medium and long-term outcomes for the U.S. economy. In our conception, there are multiple regimes and we appear to have converged to one of them. The current regime is viewed as persistent, and we see no reason to forecast an exit from the current regime over the forecast horizon. Monetary policy is regime-dependent, and can be viewed as optimal given the current regime. Longer term, the economy may visit some of the other regimes, such as ones associated with higher productivity growth, a higher real return to short-term government debt, or recession. If the economy transitions to any of these states, all variables may be affected and, in particular, the optimal regime-dependent policy rate would require adjustment. However, we have no way of predicting when these transitions may occur, and so we forecast that we will remain in the current regime over the forecast horizon.

Respondent 13: As we have discussed at previous meetings, transitions to sustainable, non-inflationary growth are difficult once the unemployment rate has fallen below the natural rate. (Over the past 60 years there

are no gradual increases in the unemployment rate of any appreciable size.) The exact mechanisms are unclear, but probably revolve around levels of debt, physical capital, and staffing that suddenly become problematic––inducing sharp cutbacks in spending and hiring–when it becomes apparent that the growth outlook must be revised downward. Substantial unemployment undershoot now seems all but inevitable, and it will take unusual skill and a good measure of luck to engineer a soft landing.

The transition to sustainable growth will be complicated by a further significant slowing in labor-force growth as our (and the world's) population ages.

Respondent 14: The economy is on solid footing today, with growth above potential and strong hiring at a time of low measured unemployment. Inflation is near mandate. Ebullient confidence surveys and booming asset prices represent upside if they are sustained. Fiscal policy will likely turn accommodative next year. Risks abroad have diminished but are still to the downside. Overall, risks to our economy are balanced or perhaps skewed to the upside in my view.

Respondent 15: Incoming data have been mixed, but they have not led to significant changes in our assessment of the outlook. The labor market continues to improve roughly in line with expectations. Household spending at the beginning of the year was less than expected, but fundamentals for consumption remain positive. The possibility of residual seasonality in the BEA's national accounts data, which works in the direction of understating growth in the first half of the year and overstating it in the second half, should be kept in mind when assessing this information and comparing it with the signal from the labor market. Conditioning assumptions are now more favorable, largely because the stock market has appreciated more than expected since December. Uncertainty surrounding the timing, nature, and size of the Trump Administration's fiscal policy measures is still present. For comparison purposes, we continue to work with the same assumptions as in the Tealbook. The ultimate impact of the fiscal stimulus is offset to some extent by higher longer-term interest rates and additional dollar appreciation.

The broad contours of the forecast have not changed materially. Activity in the near term is sustained by continued improvements in the labor market and by gains in household net worth, which translate into a relatively fast pace of growth in consumer spending. In 2018, fiscal policy provides additional support to disposable income at a time when the effect on consumption from net worth appreciation is starting to wane. The consumption gains also raise business spending, though the outlook for investment is muted by rising interest rates. Overall, the upbeat outlook for consumption supports a forecast for GDP growth modestly above potential over the period 2017-19. This pace of growth is associated with a modest overshooting of full employment, as the unemployment rate is expected to reach 4.3 percent by the end of 2019. The forecast is conditioned on a projected path for the federal funds rate that balances the need for probing for better labor market outcomes with the risk of overshooting full employment by a larger amount. Our federal funds rate assumption is coupled with a contraction in the SOMA portfolio starting in the second half of this year, when we begin to taper the reinvestment of maturing securities. We continue to expect inflation to remain close to target over the forecast period.

Downside risks emanating from abroad are still present but appear to have receded somewhat. On the upside, the increase in household and business sentiment since November of last year could signal a stronger-than-expected acceleration in activity. Moreover,a composition of the projected fiscal stimulus package that is tilted towards spending rather than tax cuts would imply a larger fiscal multiplier, and thus a larger simulative effect, than what we are currently assuming. In all, we assess the risks to the growth outlook as tilted to the upside. As concerns prices, with the economy expected to overshoot full employment and upside risks to growth, there is the risk of a nonlinear response of inflation. These upside risks reinforce the need for a path for the federal funds rate that keeps the economy close to full employment.

Respondent 16: My outlook consists of modestly above-trend growth over the next two years and inflation that remains at 2 percent throughout the forecast horizon.

Growth over the medium term is primarily driven by a moderate pace of consumption growth and a strengthening in investment growth. Support for domestic demand comes from further firming in the labor market alongside continued growth in household incomes.

I view the risks to my growth outlook as weighted to the upside. This tilt rests primarily on the assumption that whatever set of fiscal policy changes are eventually enacted, are likely to be, on net, expansionary in the near-to-medium term.

The risks to my inflation outlook are also weighted to the upside. The prospect for additional fiscal stimulus at a time when the unemployment rate is near its full-employment level suggests upside risk. Recent history suggests

that the response of inflation to changes in resource slack is somewhat muted (perhaps owing to well-anchored inflation expectations). However, that may not remain the case if the unemployment rate falls well below its natural level.

Respondent 17: The fundamentals supporting the expansion remain favorable, including highly accommodative monetary policy, household balance sheets that have improved greatly since the recession, continued improvement in labor markets, and relatively low oil prices. Business investment has begun to strengthen. Consistent with the data, business contacts report further tightening in labor markets, more widespread difficulties in finding qualified workers, and some increased wage pressures across a range of skill groups and occupations. Global growth prospects have improved somewhat and inflation rates here and abroad have firmed, supported by highly accommodative monetary policy.

In the U.S., there will likely be some form of expansionary fiscal policy, although the details are still unknown. I've incorporated fiscal policy assumptions similar to those in the Tealbook and I expect that fiscal stimulus will provide a modest boost to growth and inflation over the forecast horizon. There is considerable uncertainty surrounding my fiscal policy assumptions. In addition, there is uncertainty about whether policies that constrain immigration and trade will be enacted. While I have not incorporated such effects into my baseline forecast, these would have negative effects for the U.S. economy over the longer run.

The U.S. economy has been growing at a moderate rate and labor market conditions have strengthened over the last year. From the perspective of what monetary policy can do, I believe we have achieved the maximum employment part of the dual mandate.

Inflation is near our 2 percent goal. Inflation rates have moved up from their year-ago levels as the effects of past declines in oil prices and the appreciation of the dollar have faded. This path is consistent with what the FOMC has been expecting. I view inflation expectations as reasonably well-anchored. This, coupled with continued strengthening in labor market conditions and ongoing economic growth, suggest that inflation will be near our 2 percent goal over the forecast horizon.

Although there is uncertainty surrounding fiscal and other government policies, 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.

Forecast Narratives (continued)

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

Respondent 1: N/A

Respondent 2: A key development since December has been a delay in the expected fiscal stimulus. My modal projection now assumes that fiscal policy will not impact growth in this year but will push up growth by a tenth or two in each of the next two years after factoring in some offset from higher interest rates and a stronger dollar. The effects of this delay in fiscal stimulus have been offset by the sizable run-up in broad-based equity market indexes, which should boost consumption later this year. Therefore, my projection for growth in this year is unchanged compared to December.

My inflation projection is revised a bit higher for this year due to stronger than expected data in the first quarter. I expect this to be mostly due to transitory factors and did not change my projections for inflation in the following years.

Respondent 3: The spending and production data since our December submission have come in pretty much in line with expectations and therefore we made no material change to our GDP or unemployment rate forecasts. We did shift a tenth of GDP growth from 2017 to 2018 to account for a later enactment of tax cuts; we previously distributed the impact of tax reform equally between 2017 and 2018. The incoming inflation data have solidified our belief that core inflation is on the gradual path to target that we projected in December–we have not changed our modal expectation of the inflation path, but have changed our risk assessment from down to balanced.

Respondent 4: I have made minor revisions to my forecasts for real GDP growth, the unemployment rate, and headline and core inflation based on the incoming data.

Respondent 5: My forecast is almost identical to the December submission. I did postponed the fiscal policy effect on GDP by one year, and I changed the unemployment forecast slightly in response to recent labor market data.

Respondent 6: I judge uncertainty around the outlook for fiscal policy to be large. While I believe fiscal policy will likely be more expansionary than I had previously thought, I remain with considerable uncertainty about future policies.

Respondent 7: Even though our real GDP growth projections have not changed significantly, we now project that the unemployment rate will remain modestly below our point estimate of its longer-run normal rate for a longer time than in our December submission. This change reflects our current assessment of the implications of recent labor market dynamics for the near- and medium-term outlook.

The overall and core inflation forecasts for 2018 and 2019 are a bit higher than they were in our December projections, and now display a small overshoot of the inflation objective. This overshoot helps to ensure that inflation expectations do not begin to fall below the FOMC's longer-run inflation objective and thus helps to achieve the Federal Reserve's mandated objectives over the longer run.

As noted and explained in the response to 3(b), we have moved up our assessment of the appropriate policy path. The higher near-term policy path reflects the combined effects of the easing in financial conditions, some greater upside risks to the real activity and inflation outlooks, and the generally strong survey data seen in recent months. The policy path over the medium term is higher to ensure that the overshoot of inflation and undershoot of unemployment are temporary, helping to lead to the achievement of the longer-run objectives in the early 2020s. With the higher policy path, we now assume that the end of full reinvestment will occur in 2017Q4 rather than sometime in 2018.

Respondent 8: See above.

Respondent 9: My forecast no longer assumes (as a placeholder) that Congress will enact a modest tax cut later this year. However, my outlook is little changed on net because, due to recent stock market gains, I have factored in a modest boost to consumer spending from higher household wealth.

Respondent 10: Near-term core inflation has come in a bit higher than I expected, so I increased my 2017 forecast a touch. Because of the recent increases in the labor force participation rate, I expect the labor market to be able to accommodate robust employment gains, but at a slightly lower rate.

Respondent 11: N/A

Respondent 12: Our forecasts are unchanged for 2017, 2018, and 2019.

Respondent 13: My projections are almost unchanged from those I submitted in December.

As before, I implicitly assume that the most extreme anti-immigrant and anti-trade campaign rhetoric does not translate into policy action.

Respondent 14: N/A

Respondent 15: Changes to the real and the inflation outlook have been minor. However, given the more favorable developments in households net worth since December, the current forecast is conditioned on a modestly tighter path for the federal funds rate. The unemployment rate bottoms out at 4.3 percent, slightly above the level projected in our previous forecast. This revision is the result of a somewhat more cautious approach to probing for a lower equilibrium unemployment rate, since recent wage and price inflation developments could be interpreted as consistent with an economy that is currently at full employment.

Respondent 16: N/A

Respondent 17: My modal forecast is little changed since December. The recent inflation data have been a bit stronger than anticipated, and my inflation forecast in 2017 is slightly higher as a result. Otherwise, the incoming data have been generally in line with my expectations.

I have not made changes to my expectations for fiscal policy since the last SEP and continue to await further details on the composition, timing, and magnitude of any package. At this point, my fiscal policy assumptions remain similar to those in the Tealbook and I expect that expansionary fiscal policy will provide a modest boost to growth and inflation over the forecast horizon. I have not incorporated changes to other economic policies such as immigration policy and trade policy, but view these as risks to the outlook over the longer run.

I view an upward path of monetary policy as appropriate given that unemployment is expected to remain below its longer-run level and inflation is near our goal of 2 percent. My path is unchanged since my December projection.

Forecast Narratives (continued)

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

Respondent 1: N/A

Respondent 2: The Tealbook projects a more substantial and protracted overshooting of full employment, with the unemployment rate declining to 4.1 percent at the end of 2019, and with inflation returning to the 2 percent target only very gradually. In my projection, there is more modest overshooting of unemployment and output through 2019, and those gaps close in 2020. I see the unemployment rate bottoming out at 4.6 percent this year.

The Tealbook assumes that the effects of expected fiscal stimulus are fairly front-loaded in 2018 with some smaller impact to growth in 2019. Additionally, the Tealbook assumes that the permanent changes to fiscal policy lead to an increase of the long-run level of the fed funds rate. In my projections I assume that the expected fiscal policy stimulus is also somewhat concentrated in 2018 with a smaller contribution to growth in 2019, but no change to the long-run level of the fed funds rate.

The gradual removal of monetary policy accommodation tightens financial conditions over time and slows growth to below potential in 2019. This pushes up the unemployment rate to 4.8 percent by the end of 2019. Finally, the persistent overshoot of full employment pushes inflation back to 2 percent in 2018 and a slight overshooting for some time afterwards. Tighter monetary policy brings inflation back to target and unemployment back to its long-run sustainable level in 2020.

Respondent 3: Our Federal Funds rate path is about 40 bps below the Tealbook over the forecast period, ending 2019 at 3 percent, which is our view of its long-run equilibrium level. Our projection for GDP growth over 2017-2019 averages 0.2 percentage point per year higher than the Tealbook, largely reflecting our somewhat higher assumption for potential output growth (the size of our assumed fiscal policy package is similar to the Tealbook). We do not, however, expect output to overshoot potential as much as the Tealbook does because of our somewhat different view of labor-market neutrality. We assume the natural rate of unemployment currently is about 4.7 percent and that it will trend down to 4.5 percent by the end of 2019 (in contrast to the Tealbook's constant 5 percent assumption); our trend for the labor force participation rate is also a bit higher than the Tealbook's. Despite our differences in resource gaps, our outlook for inflation is very similar to the Tealbook, as we feel our more accommodative path for monetary policy will be successful at buoying inflationary expectations, firming the inflationary attractor and therefore providing a larger boost to actual inflation.

Respondent 4: Unlike Tealbook, my forecast does not incorporate a change in the stance of fiscal policy. Consistently, my projection for real GDP growth in 2018 and 2019 is lower and my projected path for the unemployment rate is flatter than in Tealbook. My forecast for headline inflation in the period from 2017 to 2019 is modestly above Tealbook's forecast, with the difference narrowing over time, but my forecast for core inflation is essentially the same as Tealbook's forecast.

Respondent 5: I continue to believe that, in the absence of shocks, core inflation will trend higher this year and reach our target next year. Headline inflation may sag a bit mid-year, but should return to almost 2.0% by year end.

Respondent 6: I have not attempted to make a precise assumption about future fiscal policy changes (e.g. 1 percent of GDP increase in the deficit.)

Respondent 7: As in the December SEP, there are some notable differences between the Tealbook forecast and our projections for the key SEP variables. In part, these differences reflect divergences in some of the underlying assumptions in the two forecasts. In particular, the Tealbook forecast incorporates a substantial fiscal stimulus in the form of a personal income tax that commences in 2018Q1. As we said in our answer to 4(a), we do not attempt at this time to incorporate changes in fiscal policy in our modal forecast as there still is not enough information regarding their nature, magnitude and timing.

The two forecasts for real GDP growth in 2017 are similar, but the Tealbook projects faster growth in 2018 than in our outlook, as it did in December. Furthermore, based on its assessment of potential GDP growth, which is below our assumption in 2017-19, the Tealbook path of real GDP leads to a notably positive output gap in 2017-19. Even though we do not calculate precise estimates of the output gap, our assessment is that there is at most a modestly positive output gap at that time.

A major component behind the differences between the real GDP growth projections is consumption. The Tealbook forecast has higher real PCE growth in 2017 – 19 than in our projection; this is a long-standing difference between the two forecasts, which has been exacerbated by the Tealbook's fiscal policy assumption that helps to boost the Tealbook projection of consumption growth in 2018. Another effect of the Tealbook's fiscal policy assumption is a higher projected saving rate in 2018 that is above our projection.

Another notable difference between the projections is the underlying assumptions on the longer-run natural rate of unemployment: the Tealbook assumption of 5.0% is above our assumption of 4.8%. Combined with our growth projections, we anticipate that unemployment will only modestly undershoot its natural rate over the projection period; in contrast, the Tealbook projects that unemployment significantly undershoots the longer-run natural rate. This pattern is a counterpart of the sizable positive output gap that arises in the Tealbook forecast.

One other difference in the labor market projections concerns the paths for labor force participation: in our projection the participation rate declines only very gradually from its current level while in the Tealbook it declines more substantially to 62.3% at end-2018. This difference reflects our assumption of some positive cyclical effects on participation.

For inflation, the two forecasts differ notably on the dynamics over the projection period. We project inflation to rise modestly above 2 percent in 2018 – 19 before returning to objective early in the next decade whereas the Tealbook projects core inflation to reach 2 percent only in 2019, despite a sizable undershooting of unemployment. The considerable persistence of inflation and flat Phillips curve within the Tealbook framework appear to require a prolonged period of above-potential growth in order to induce inflation to rise toward the longer-run inflation goal. As mentioned previously, the overshoot of inflation in our projection occurs to prevent inflation expectations from falling below levels consistent with the FOMC's longer-run objective.

In terms of the uncertainty and risk assessment, we see a few differences between the two projections. On the real side, we continue to see somewhat higher uncertainty than normal in the projections of real activity and unemployment, whereas the Tealbook sees uncertainty at near normal levels. This assessment reflects our view that the unusual nature of the current expansion and the atypical policy environment in the U.S. and abroad keep uncertainty about real activity above the SEP standard. However, we see the risks to real growth as roughly balanced, in contrast to the Tealbook's assessment of a downside skew to the risks. As for inflation, we see higher uncertainty than in the Tealbook, but we see risks to inflation as broadly balanced, as does the Tealbook.

Finally, our monetary policy path is somewhat below the Tealbook path for 2017-19. In addition, our assumption for the longer-run normal policy rate is 50bps below that of the Tealbook, as we take a somewhat stronger signal from the still-low sovereign yields and potential growth rate estimates across the advanced economies. Both policy paths have a mild overshooting of the longer-run FFR in 2019.

Respondent 8: I do not assume enactment of any fiscal stimulus package.

Respondent 9: The Tealbook implicitly incorporates a faster rise in the neutral funds rate over the next few years than I do. In addition, the sta projects a higher level for both the unemployment rate and the federal funds rate in the longer run. Finally, the sta assumes that a more pronounced undershooting of the unemployment rate over the next few years will be necessary to stabilize inflation at 2 percent on a sustained basis, reflecting their assumption that inflation expectations are currently anchored at a level that is somewhat below 2 percent.

Respondent 10: My forecast for economic activity and inflation is broadly similar to the Tealbook except that I believe the improving labor market will continue to keep the labor force participation rate from falling, minimizing the downward effects of healthy job growth on the unemployment rate. This would lead to less upward movement for wages and prices if monetary policy were to follow the path assumed in the Tealbook. Removing monetary accommodation more gradually, as in my projection, would produce a path for inflation similar to the Tealbook.

Respondent 11: My forecast calls for the unemployment rate to be closer to the natural rate in 2018 and 2019 compared to the Tealbook.

Respondent 12: For GDP growth and inflation, our forecast is virtually identical to the one in the Tealbook. Differences arise because the Tealbook incorporates the idea of a longer-run steady state to which the economy is converging. Monetary policy has to be set appropriately as the economy transitions toward the longer-run steady state. This tends to imply an upward-sloping policy rate path. The regime conception we use, in contrast, views monetary policy as regime-dependent and the current regime is viewed as persistent. It is acknowledged that the economy may visit other regimes in the future, but switches to hose regimes cannot be forecasted. This suggests a flat path for the policy path over the forecast horizon relative to that contained in the Tealbook. The Tealbook forecast also has an undershooting of the unemployment rate before returning to its long-run value.

Respondent 13: My projected paths for GDP growth and the unemployment rate over 2017-2019 remain similar to those in the Tealbook baseline forecast. However, at this point I see room for a slightly flatter upward path for the funds rate. Also, I anticipate a more rapid return to our 2-percent inflation objective than is forecasted by Board sta . In my view, the longer-term inflation expectations relevant to wage and price setting remain anchored at 2 percent.

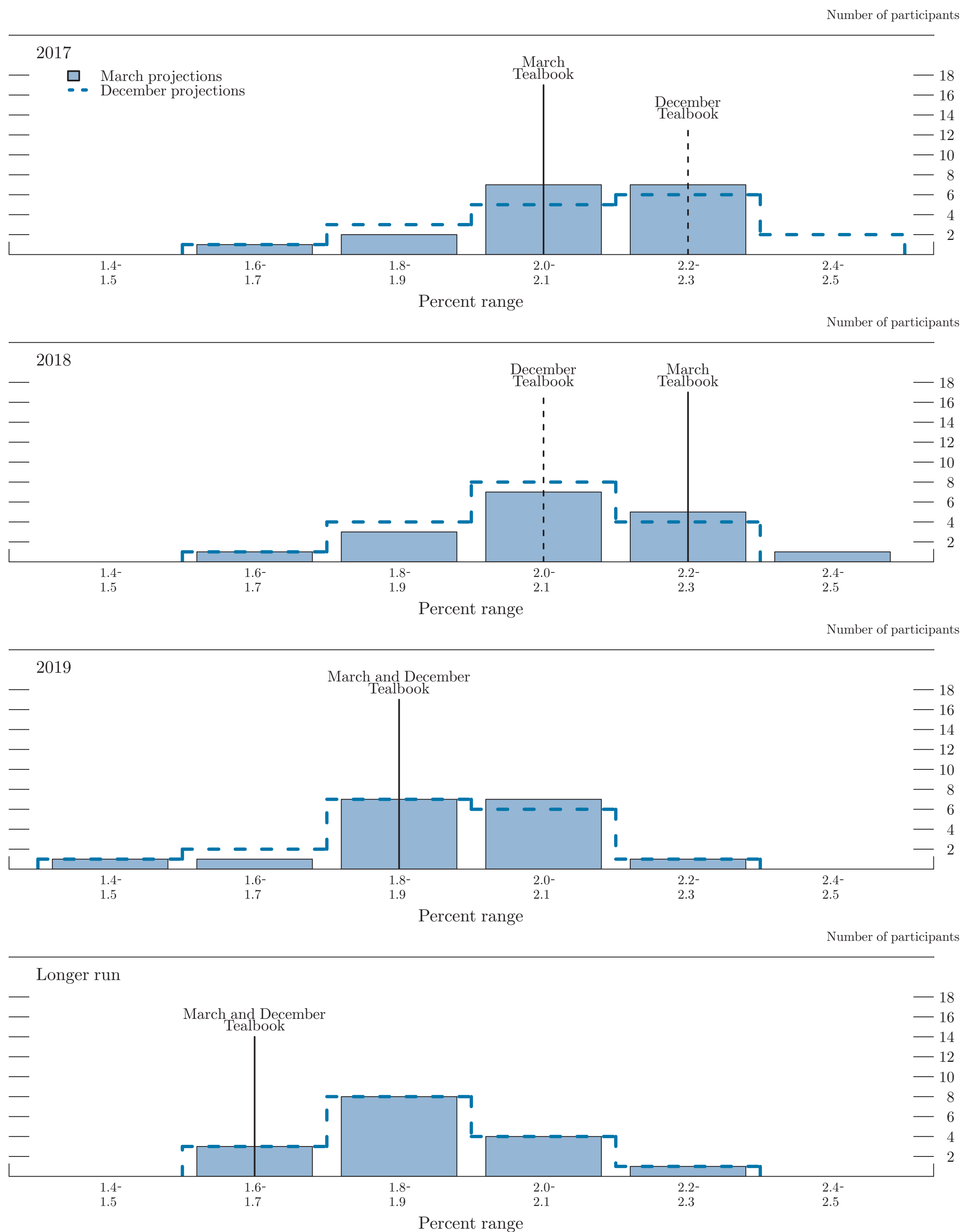
Respondent 14: N/A

Respondent 15: The Tealbook's estimate of the natural rate of unemployment, at 5.0 percent, is higher than our estimate, which stands at 4.7 percent. Therefore, while the two forecasts are qualitatively similar on an unemployment rate basis, the Tealbook forecast implies a more pronounced overshooting of full employment than our forecast. Our forecast is also conditioned on a steeper path for the federal funds rate.

Respondent 16: Despite some differences in assumptions, my growth forecast is similar to the Tealbook through 2019. My projection has a higher long-run growth trend owing to a somewhat stronger productivity assumption. My forecast for the unemployment rate declines more modestly, owing to a somewhat slower projection for employment growth. I have inflation remaining effectively at its longer-term target and I am assuming that inflation expectations are currently anchored at policy-consistent levels.

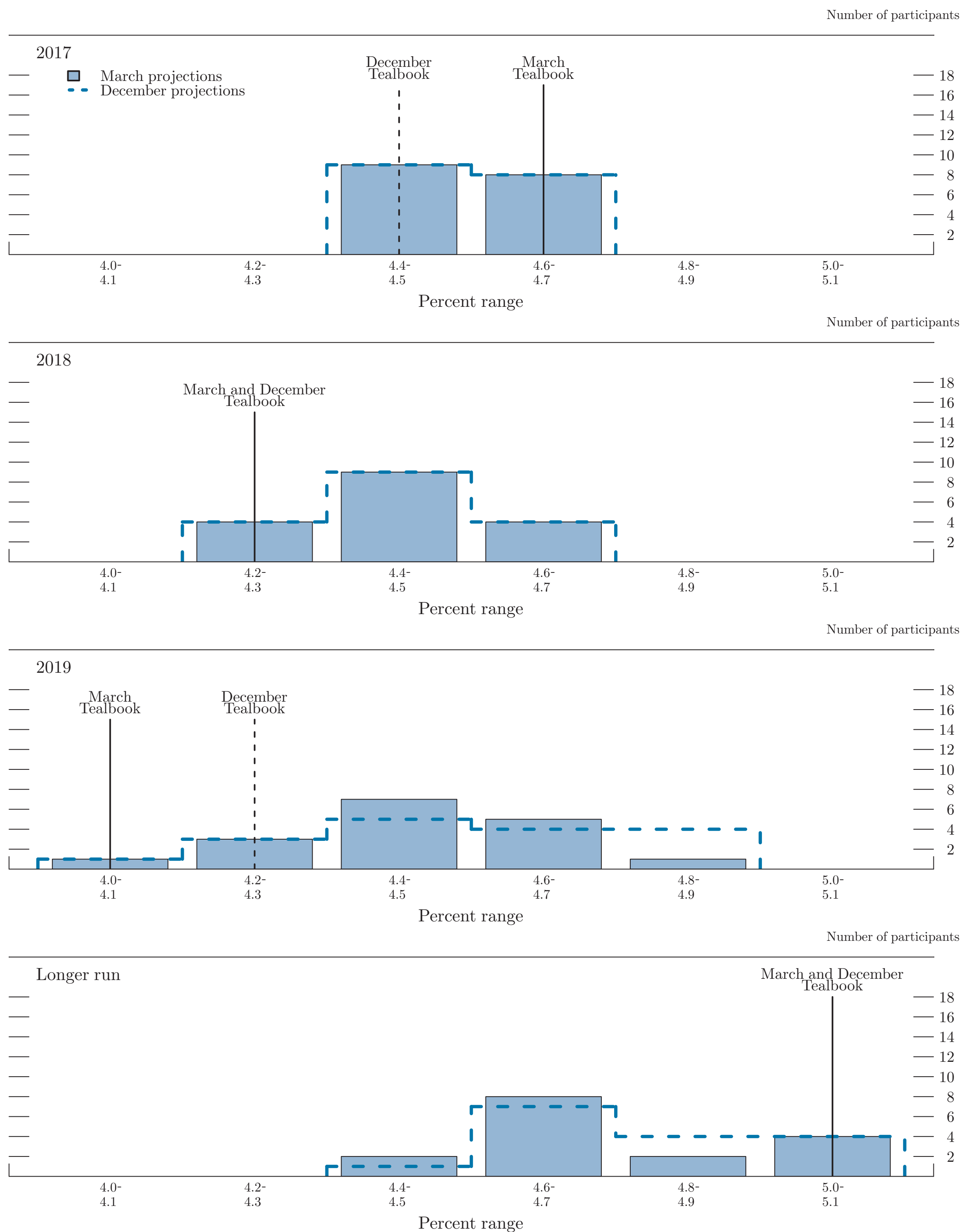
Respondent 17: As in the Tealbook, I expect that the economy will grow at a moderate pace and labor market conditions will continue to strengthen. I see somewhat greater inflationary pressures than in the Tealbook, with inflation expected to be near our 2 percent longer-term objective throughout the forecast horizon, while Tealbook anticipates a more gradual return of inflation to 2 percent in 2019-2020. As a result, I believe it will be appropriate to have a somewhat steeper path for the federal funds rate compared with the Tealbook, which limits the extent to which the unemployment rate undershoots its longer-run value in my forecast compared to that in the Tealbook. My fiscal policy assumptions are similar to those in the Tealbook, but there is considerable uncertainty around these assumptions.

Figure 3.A. Distribution of participants' projections for the change in real GDP, 2017–19 and over the longer run



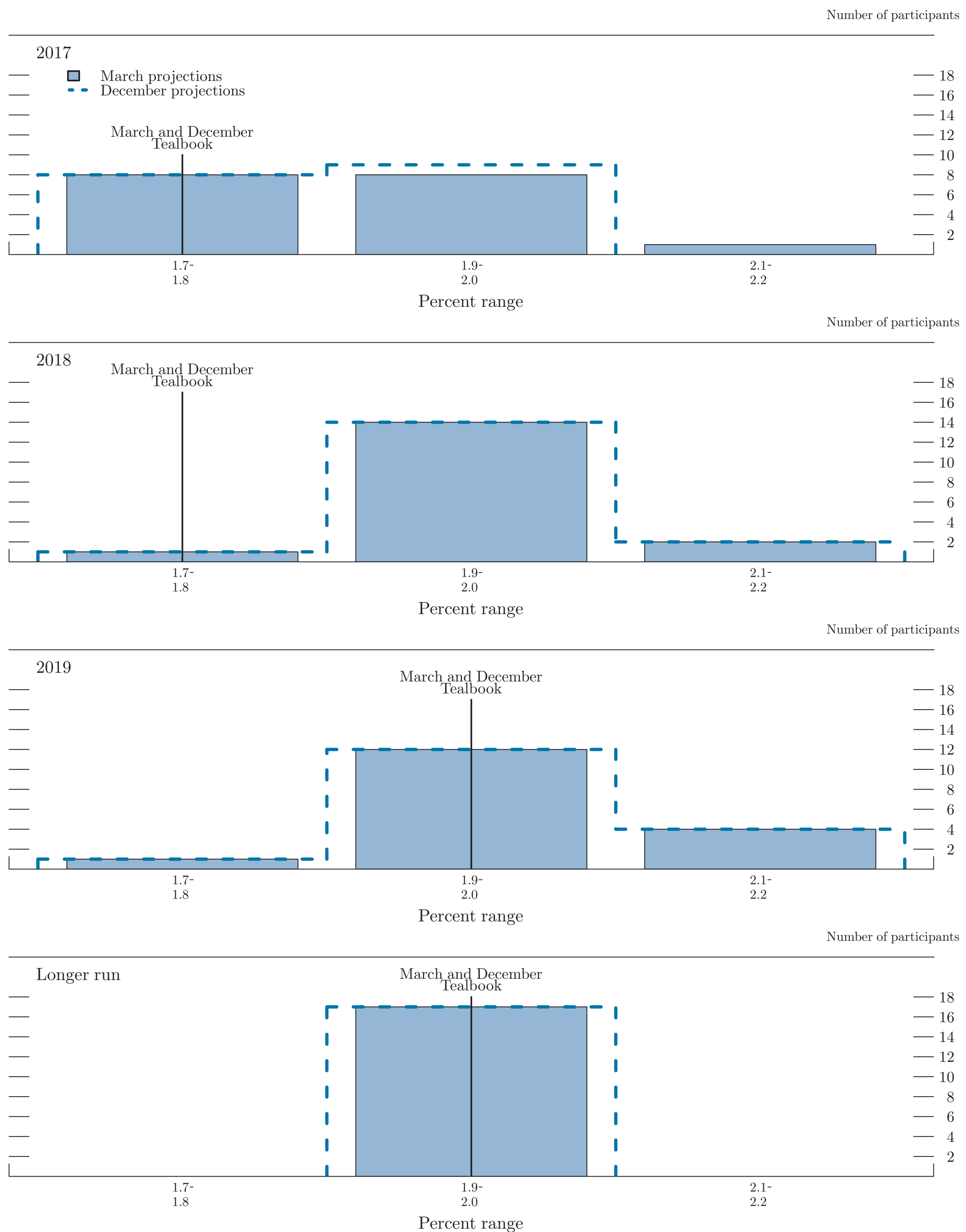
NOTE: Definitions of variables and other explanations are in the notes to table 1.

Figure 3.B. Distribution of participants' projections for the unemployment rate, 2017–19 and over the longer run



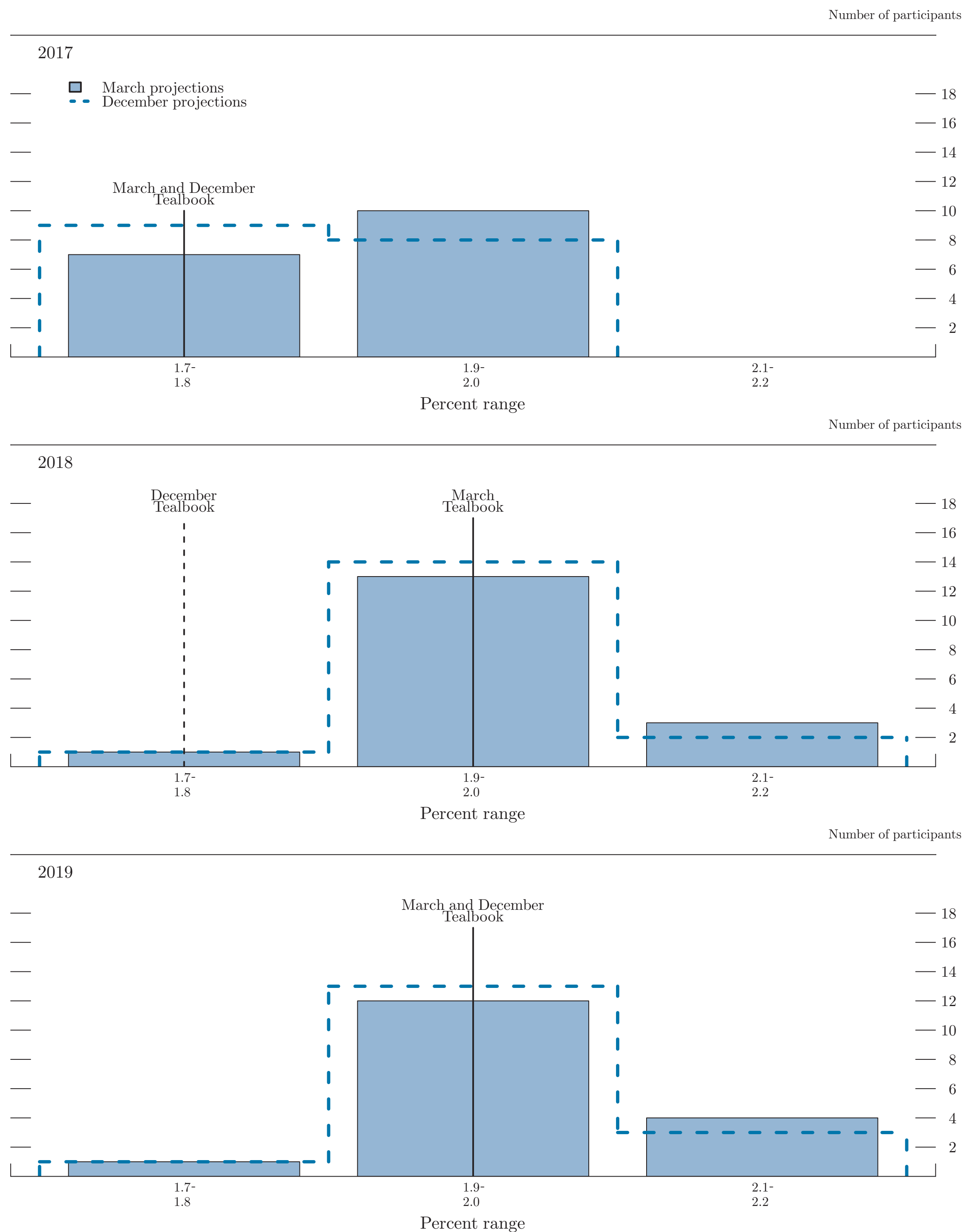
Note: Definitions of variables and other explanations are in the notes to table 1.

Figure 3.C. Distribution of participants' projections for PCE inflation, 2017–19 and over the longer run



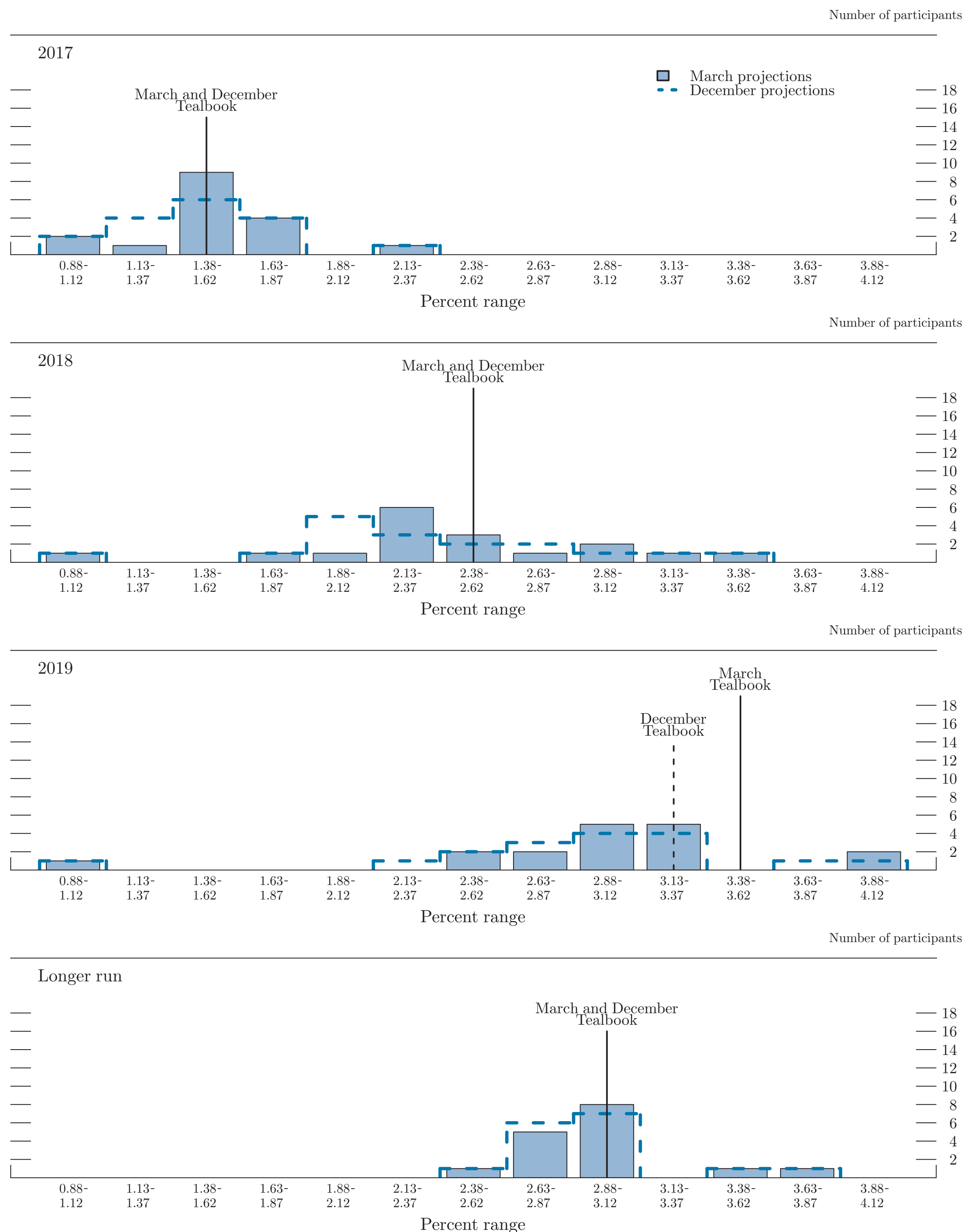
NOTE: Definitions of variables and other explanations are in the notes to table 1.

Figure 3.D. Distribution of participants' projections for core PCE inflation, 2017–19



NOTE: Definitions of variables and other explanations are in the notes 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, 2017–19 and over the longer run



NOTE: Definitions of variables and other explanations are in the notes to table 1.