

Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, under their individual assessments of projected appropriate monetary policy, December 2016

Percent

Variable	Median ¹					Central tendency ²					Range ³				
	2016	2017	2018	2019	Longer run	2016	2017	2018	2019	Longer run	2016	2017	2018	2019	Longer run
Change in real GDP	1.9	2.1	2.0	1.9	1.8	1.8–1.9	1.9–2.3	1.8–2.2	1.8–2.0	1.8–2.0	1.8–2.0	1.7–2.4	1.7–2.3	1.5–2.2	1.6–2.2
September projection	1.8	2.0	2.0	1.8	1.8	1.7–1.9	1.9–2.2	1.8–2.1	1.7–2.0	1.7–2.0	1.7–2.0	1.6–2.5	1.5–2.3	1.6–2.2	1.6–2.2
Unemployment rate	4.7	4.5	4.5	4.5	4.8	4.7–4.8	4.5–4.6	4.3–4.7	4.3–4.8	4.7–5.0	4.7–4.8	4.4–4.7	4.2–4.7	4.1–4.8	4.5–5.0
September projection	4.8	4.6	4.5	4.6	4.8	4.7–4.9	4.5–4.7	4.4–4.7	4.4–4.8	4.7–5.0	4.7–4.9	4.4–4.8	4.3–4.9	4.2–5.0	4.5–5.0
PCE inflation	1.5	1.9	2.0	2.0	2.0	1.5	1.7–2.0	1.9–2.0	2.0–2.1	2.0	1.5–1.6	1.7–2.0	1.8–2.2	1.8–2.2	2.0
September projection	1.3	1.9	2.0	2.0	2.0	1.2–1.4	1.7–1.9	1.8–2.0	1.9–2.0	2.0	1.1–1.7	1.5–2.0	1.8–2.0	1.8–2.1	2.0
Core PCE inflation ⁴	1.7	1.8	2.0	2.0		1.7–1.8	1.8–1.9	1.9–2.0	2.0		1.6–1.8	1.7–2.0	1.8–2.2	1.8–2.2	
September projection	1.7	1.8	2.0	2.0		1.6–1.8	1.7–1.9	1.9–2.0	2.0		1.5–2.0	1.6–2.0	1.8–2.0	1.8–2.1	
Memo: Projected appropriate policy path															
Federal funds rate	0.6	1.4	2.1	2.9	3.0	0.6	1.1–1.6	1.9–2.6	2.4–3.3	2.8–3.0	0.6	0.9–2.1	0.9–3.4	0.9–3.9	2.5–3.8
September projection	0.6	1.1	1.9	2.6	2.9	0.6–0.9	1.1–1.8	1.9–2.8	2.4–3.0	2.8–3.0	0.4–1.1	0.6–2.1	0.6–3.1	0.6–3.8	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 September projections were made in conjunction with the meeting of the Federal Open Market Committee on September 20–21, 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 September 20–21, 2016, meeting, and one participant did not submit such projections in conjunction with the December 13–14, 2016, 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.

Table 1.A. Economic projections for the first half of 2016*
(in percent)

Medians, central tendencies, and ranges			
	Median	Central tendency	Range
Change in real GDP	1.1	1.1	1.1
September projection	1.1	1.0 – 1.1	1.0 – 1.1
PCE inflation	1.1	1.1	1.1
September projection	1.1	1.1	1.1
Core PCE inflation	1.9	1.9	1.9
September projection	1.9	1.9	1.9

Participants' projections			
Projection	Change in real GDP	PCE inflation	Core PCE inflation
1	1.1	1.1	1.9
2	1.1	1.1	1.9
3	1.1	1.1	1.9
4	1.1	1.1	1.9
5	1.1	1.1	1.9
6	1.1	1.1	1.9
7	1.1	1.1	1.9
8	1.1	1.1	1.9
9	1.1	1.1	1.9
10	1.1	1.1	1.9
11	1.1	1.1	1.9
12	1.1	1.1	1.9
13	1.1	1.1	1.9
14	1.1	1.1	1.9
15	1.1	1.1	1.9
16	1.1	1.1	1.9
17	1.1	1.1	1.9

* Growth and inflation are reported at annualized rates.

Table 1.B. Economic projections for the second half of 2016*
(in percent)

Medians, central tendencies, and ranges			
	Median	Central tendency	Range
Change in real GDP	2.7	2.5 – 2.7	2.5 – 2.9
September projection	2.5	2.3 – 2.8	2.3 – 3.0
PCE inflation	1.9	1.9	1.9 – 2.1
September projection	1.5	1.3 – 1.7	1.1 – 2.3
Core PCE inflation	1.5	1.5 – 1.7	1.3 – 1.7
September projection	1.5	1.3 – 1.7	1.1 – 2.1

Participants' projections			
Projection	Change in real GDP	PCE inflation	Core PCE inflation
1	2.7	1.9	1.5
2	2.7	1.9	1.5
3	2.5	1.9	1.7
4	2.5	1.9	1.5
5	2.5	2.1	1.7
6	2.7	1.9	1.7
7	2.9	2.1	1.7
8	2.7	1.9	1.5
9	2.5	1.9	1.5
10	2.5	1.9	1.5
11	2.7	1.9	1.3
12	2.5	1.9	1.5
13	2.5	1.9	1.5
14	2.7	1.9	1.7
15	2.9	1.9	1.7
16	2.5	1.9	1.7
17	2.7	1.9	1.5

* Projections for the second half of 2016 implied by participants' December projections for the first half of 2016 and for 2016 as a whole. Growth and inflation are reported at annualized rates.

**Table 2. December economic projections, 2016–19 and over the longer run
(in percent)**

Projection	Year	Change in real GDP	Unemployment rate	PCE inflation	Core PCE inflation	Federal funds rate
1	2016	1.9	4.8	1.5	1.7	0.63
2	2016	1.9	4.8	1.5	1.7	0.63
3	2016	1.8	4.7	1.5	1.8	0.63
4	2016	1.8	4.8	1.5	1.7	0.63
5	2016	1.8	4.7	1.6	1.8	0.63
6	2016	1.9	4.7	1.5	1.8	0.63
7	2016	2.0	4.7	1.6	1.8	0.63
8	2016	1.9	4.8	1.5	1.7	0.63
9	2016	1.8	4.7	1.5	1.7	0.63
10	2016	1.8	4.7	1.5	1.7	0.63
11	2016	1.9	4.8	1.5	1.6	0.63
12	2016	1.8	4.8	1.5	1.7	0.63
13	2016	1.8	4.8	1.5	1.7	0.63
14	2016	1.9	4.7	1.5	1.8	0.63
15	2016	2.0	4.7	1.5	1.8	0.63
16	2016	1.8	4.8	1.5	1.8	0.63
17	2016	1.9	4.7	1.5	1.7	0.63
1	2017	2.3	4.6	1.8	1.8	1.38
2	2017	2.4	4.5	1.8	1.8	1.63
3	2017	1.9	4.6	2.0	1.9	1.13
4	2017	2.2	4.6	1.7	1.7	0.88
5	2017	2.1	4.5	2.0	2.0	1.13
6	2017	2.0	4.6	1.9	1.9	2.13
7	2017	2.2	4.5	1.9	1.9	1.75
8	2017	2.4	4.5	1.8	1.8	1.13
9	2017	1.8	4.6	1.8	1.8	1.38
10	2017	2.0	4.5	1.7	1.8	1.38
11	2017	2.2	4.5	1.7	1.7	1.13
12	2017	2.3	4.4	1.9	1.9	1.38
13	2017	2.1	4.6	1.7	1.7	1.38
14	2017	1.7	4.6	1.9	1.8	1.63
15	2017	2.0	4.7	2.0	2.0	0.88
16	2017	1.8	4.5	2.0	2.0	1.63
17	2017	2.3	4.4	2.0	1.9	1.38

Table 2. (continued)

Projection	Year	Change in real GDP	Unemployment rate	PCE inflation	Core PCE inflation	Federal funds rate
1	2018	2.2	4.5	2.0	2.0	1.88
2	2018	2.2	4.3	2.0	2.0	2.63
3	2018	1.8	4.7	2.0	2.0	1.88
4	2018	2.0	4.5	1.8	1.8	1.63
5	2018	2.1	4.5	2.0	2.0	1.88
6	2018	1.8	4.7	2.0	2.0	3.38
7	2018	2.2	4.5	2.1	2.1	3.00
8	2018	2.3	4.3	1.9	1.9	2.13
9	2018	1.9	4.4	1.9	1.9	1.88
10	2018	2.0	4.3	2.0	2.0	2.13
11	2018	2.0	4.4	1.9	1.9	1.88
12	2018	2.1	4.4	2.0	2.0	2.38
13	2018	2.1	4.5	1.9	1.9	2.13
14	2018	1.7	4.7	2.0	2.0	3.25
15	2018	2.0	4.7	2.0	2.0	0.88
16	2018	1.8	4.5	2.0	2.0	2.63
17	2018	2.0	4.2	2.2	2.2	2.38
1	2019	2.2	4.6	2.1	2.0	2.63
2	2019	1.9	4.2	2.1	2.1	3.63
3	2019	1.8	4.8	2.0	2.0	2.38
4	2019	1.8	4.5	1.9	1.9	2.63
5	2019	2.0	4.6	2.0	2.0	2.63
6	2019	1.8	4.8	2.0	2.0	3.88
7	2019	2.0	4.8	2.0	2.0	3.25
8	2019	2.0	4.3	2.0	2.0	3.00
9	2019	1.7	4.4	2.0	2.0	2.38
10	2019	1.8	4.3	2.0	2.0	2.88
11	2019	1.7	4.5	1.8	1.8	2.13
12	2019	2.1	4.5	2.0	2.0	3.13
13	2019	1.9	4.5	2.0	2.0	2.88
14	2019	1.5	4.8	2.1	2.1	3.25
15	2019	2.0	4.7	2.0	2.0	0.88
16	2019	1.8	4.6	2.0	2.0	3.00
17	2019	2.0	4.1	2.2	2.2	3.13

Table 2. (continued)

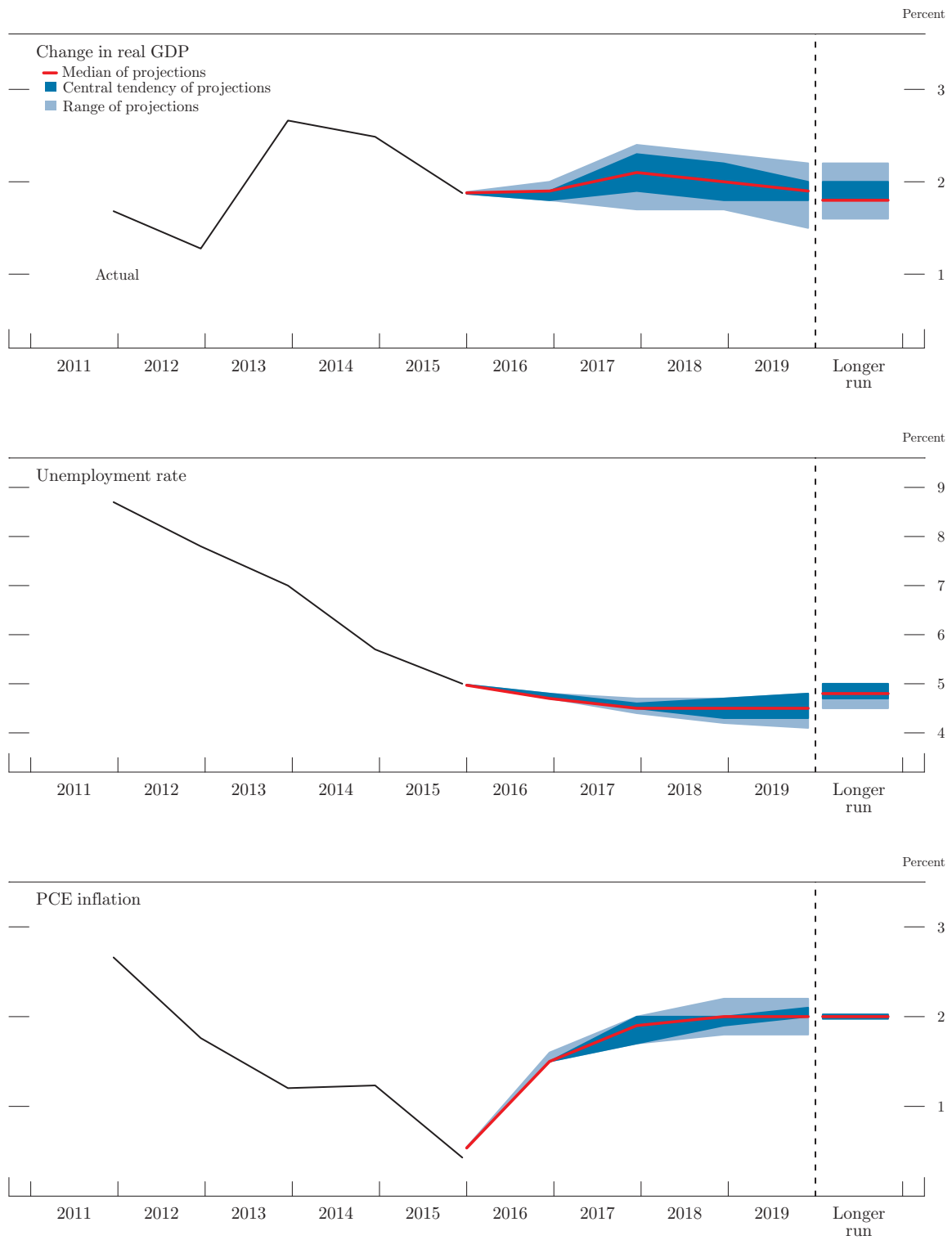
Projection	Year	Change in real GDP	Unemployment rate	PCE inflation	Core PCE inflation	Federal funds rate
1	LR	2.2	4.8	2.0		3.50
2	LR	1.8	4.7	2.0		3.00
3	LR	1.8	4.8	2.0		2.50
4	LR	1.7	4.7	2.0		2.75
5	LR	2.0	4.7	2.0		3.00
6	LR	1.8	5.0	2.0		3.75
7	LR	2.0	5.0	2.0		3.00
8	LR	1.8	4.5	2.0		3.00
9	LR	1.7	4.7	2.0		2.75
10	LR	1.8	4.8	2.0		2.75
11	LR	2.0	4.6	2.0		2.75
12	LR	2.0	4.7	2.0		3.00
13	LR	1.8	4.7	2.0		2.75
14	LR	1.6	5.0	2.0		2.75
15	LR			2.0		
16	LR	1.8	5.0	2.0		3.00
17	LR	1.8	4.8	2.0		3.00

Figure 1.A. Medians, central tendencies, and ranges of economic projections, 2016–19 and over the longer run



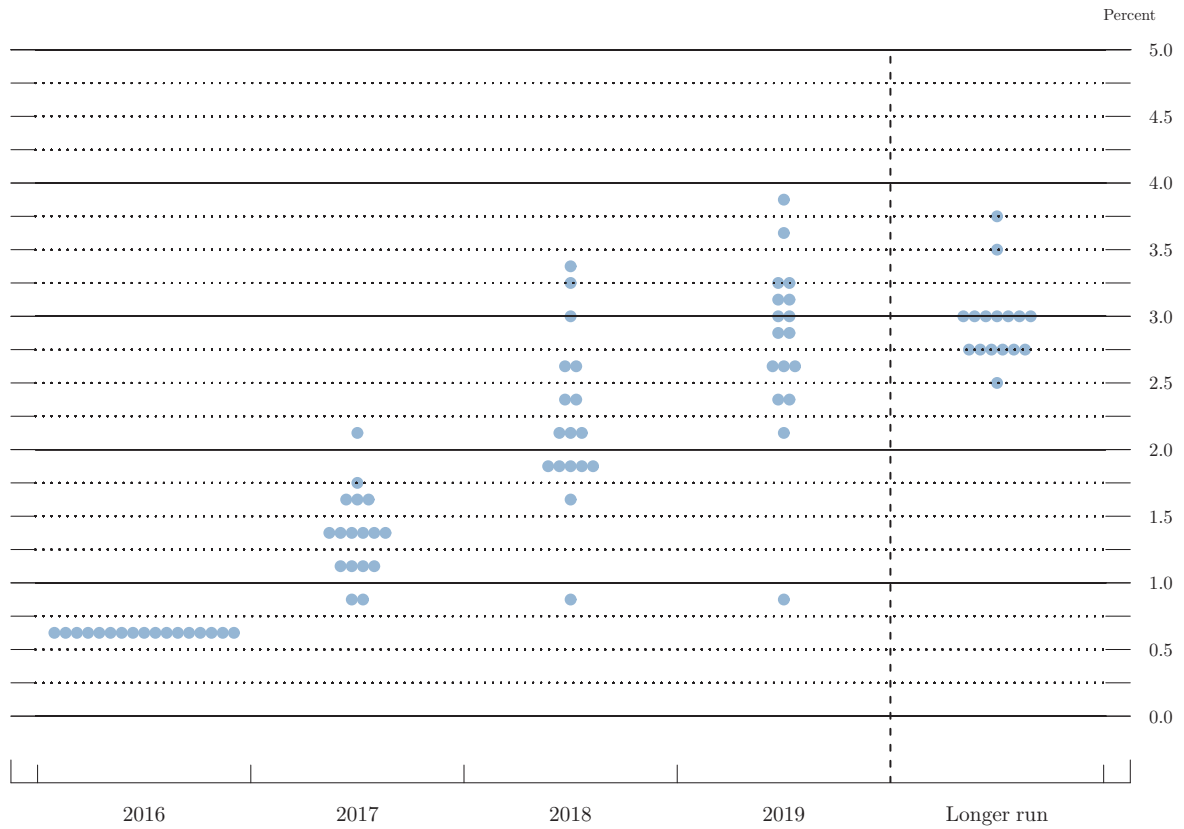
NOTE: Definitions of variables and other explanations are in the notes to table 1. The data for the actual values of the variables are annual.

Figure 1.B. Medians, central tendencies, and ranges of economic projections, 2016–19 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.

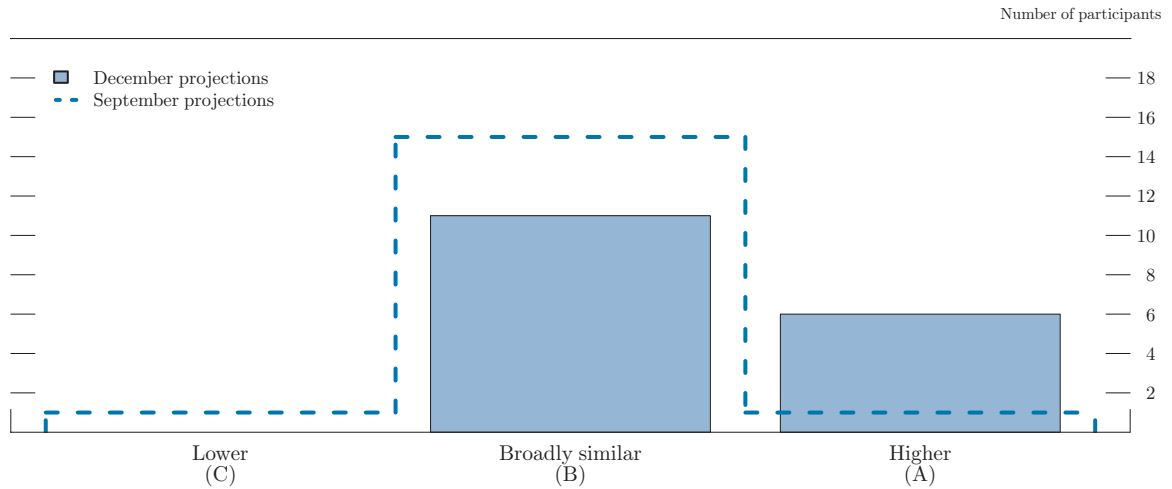
Figure 2. FOMC participants' assessments of appropriate monetary policy: Midpoint of target range or target level for the federal funds rate



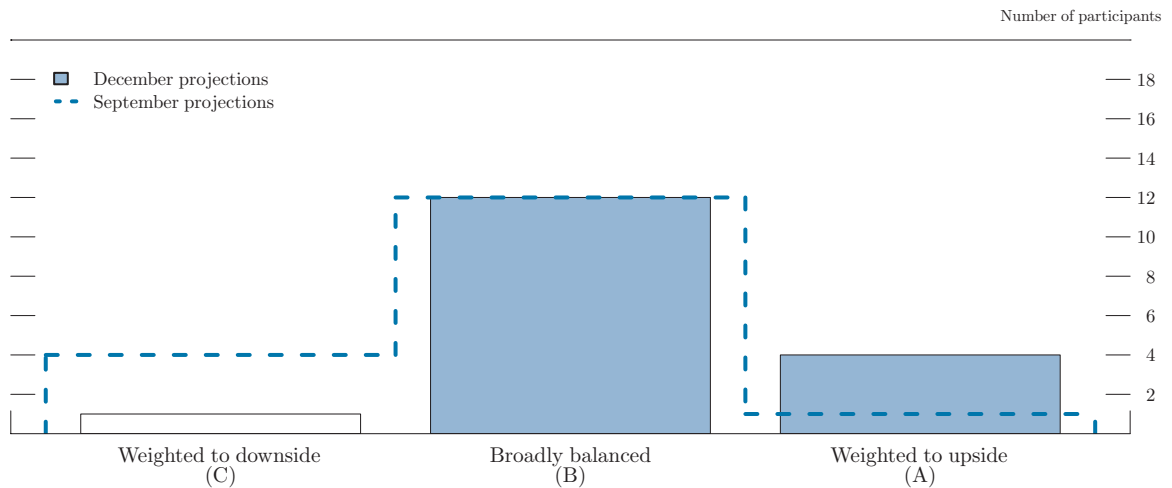
NOTE: Each shaded circle indicates the value (rounded to the nearest 1/8 percentage point) of an individual participant's judgment of the midpoint of the appropriate target range for the federal funds rate or the appropriate target level for the federal funds rate at the end of the specified calendar 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 – 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.

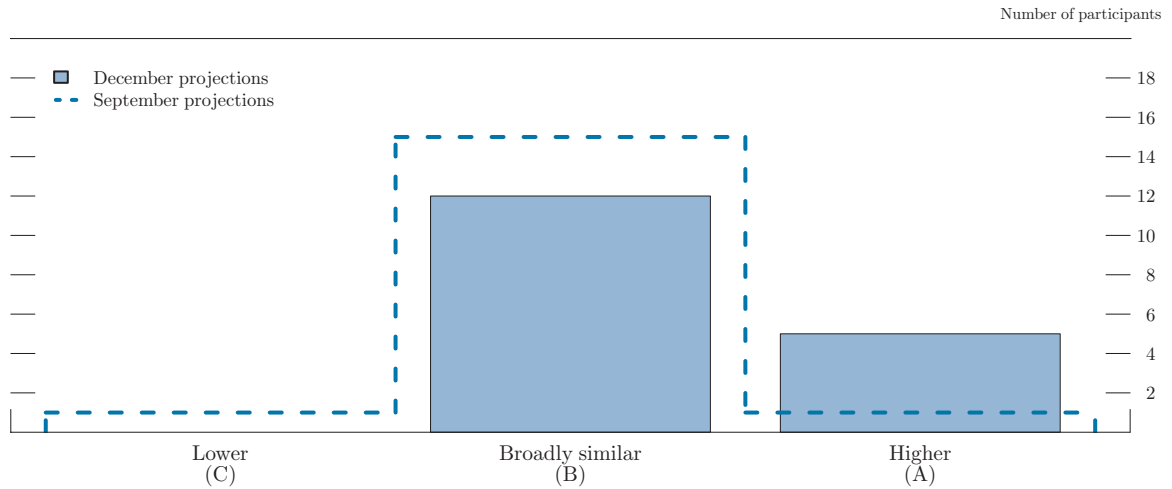


Individual responses

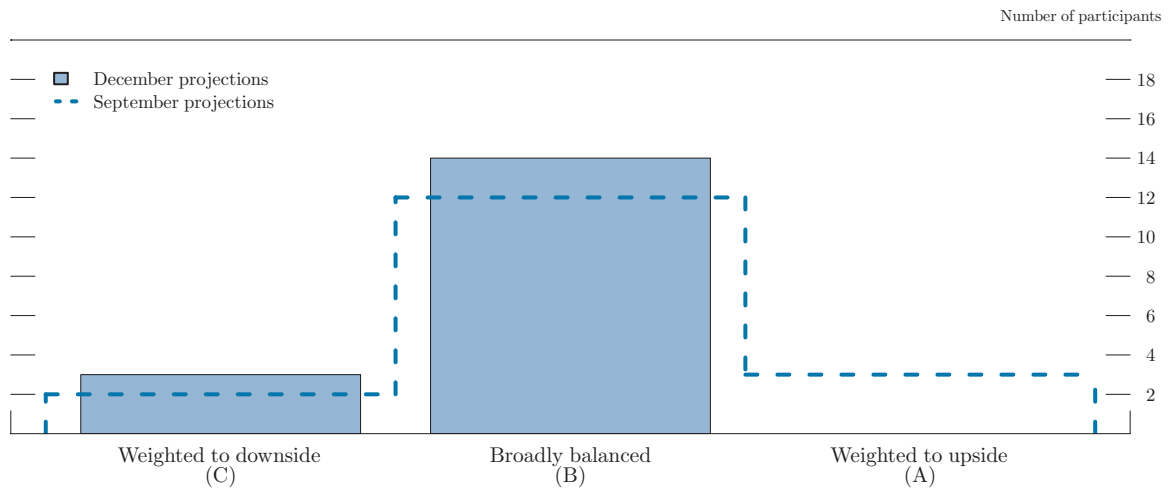
Respondent	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2(a)	A	B	A	B	A	A	B	B	B	B	A	A	B	B	B	B	B
2(b)	B	A	B	C	A	B	B	B	B	B	B	A	B	B	A	B	B

Figure 4.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.

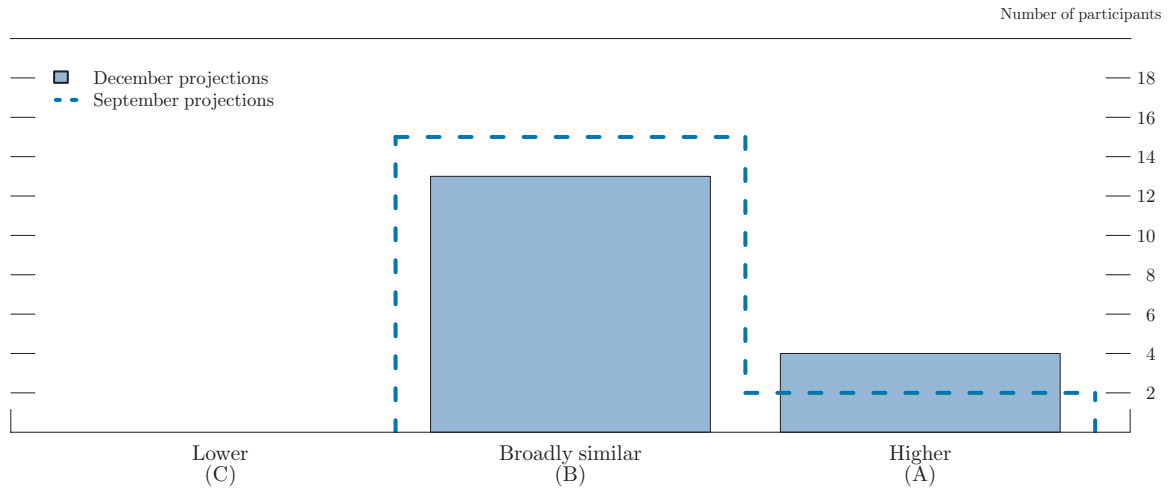


Individual responses

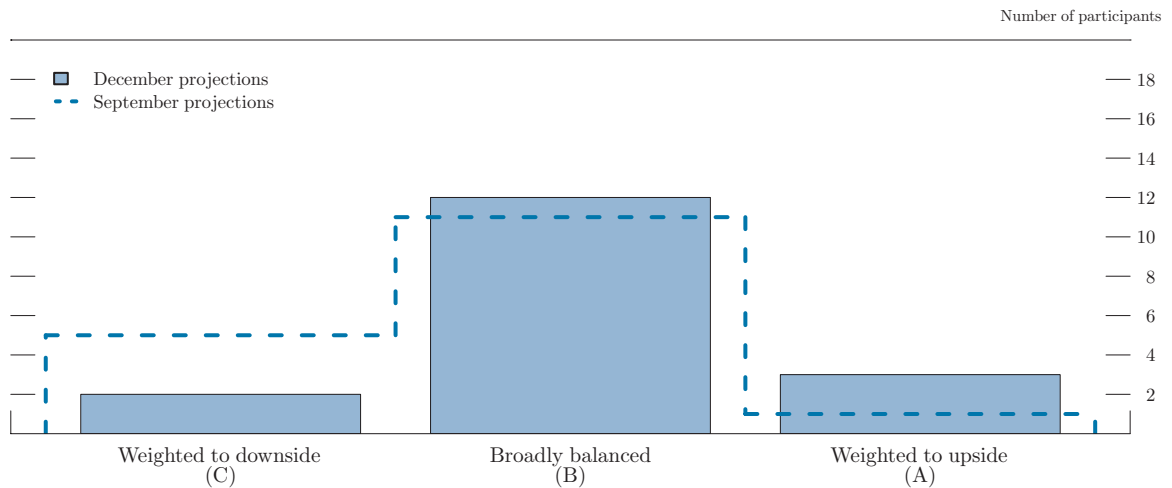
Respondent	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2(a)	B	B	A	B	A	A	B	B	B	B	A	A	B	B	B	B	B
2(b)	B	C	B	B	C	B	B	B	B	B	B	C	B	B	B	B	B

Figure 4.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.

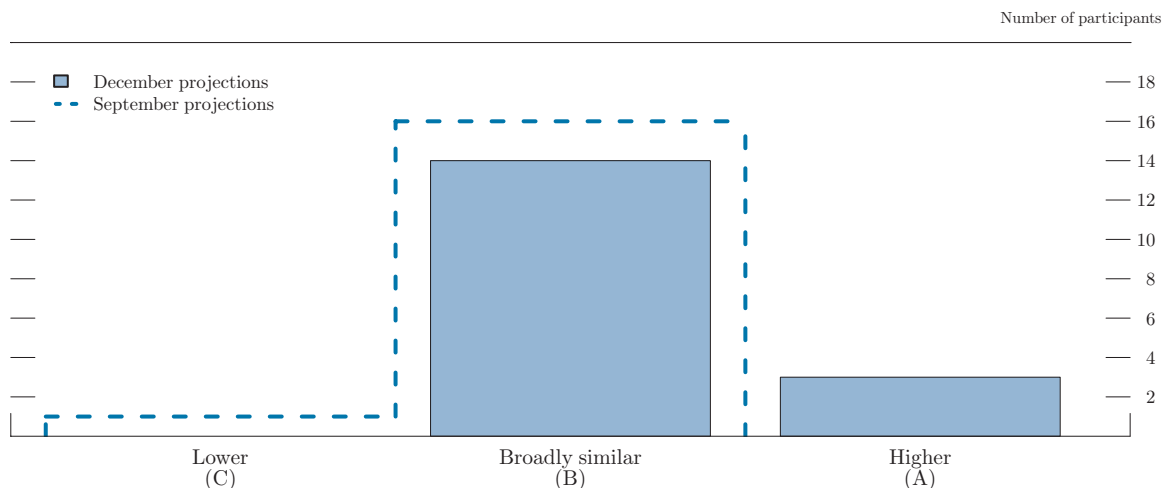


Individual responses

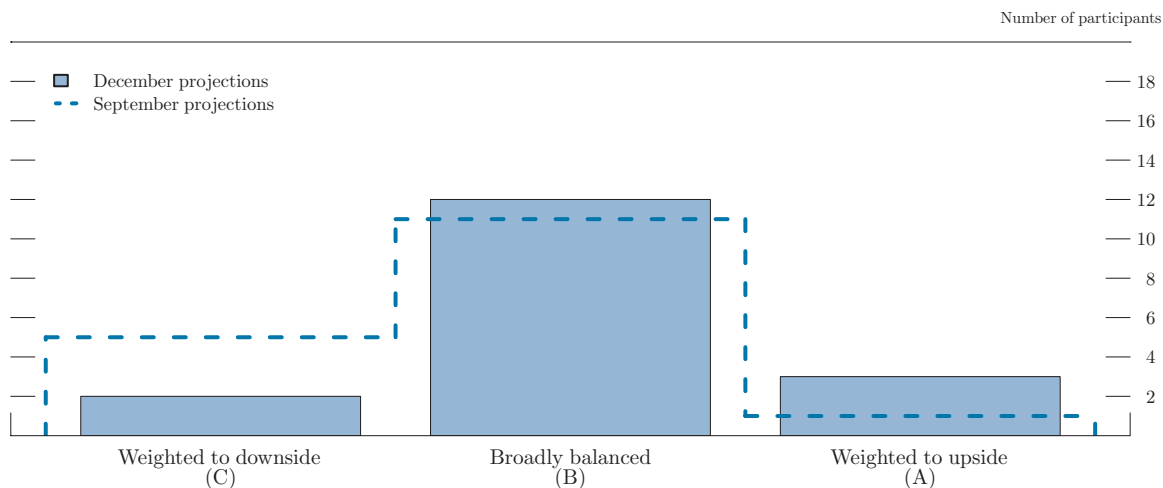
Respondent	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2(a)	B	B	A	B	A	A	B	B	B	B	A	B	B	B	B	B	B
2(b)	A	B	B	C	A	B	B	C	B	B	B	B	B	B	A	B	B

Figure 4.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	A	B	A	A	B	B	B	B	B	B	B	B	B	B	B
2(b)	A	B	B	C	A	B	B	C	B	B	B	B	B	B	A	B	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: Current economic conditions are consistent with an economy operating 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. Given the recent dollar appreciation and some persistence in the inflation process, convergence to the 2 percent inflation target is expected to occur in 2018.

Respondent 3: Our assumptions for potential GDP growth and the longer-run normal rate of unemployment are the same as in the September submission.

The unemployment rate is currently modestly below its longer-run normal level, and we project that it will remain below that level in 2017-18 before rising to its longer-run level by 2019. However, our scenario analysis of labor flows and the historical behavior of the unemployment rate in long expansions indicate that there is some probability that the unemployment rate could fall more substantially below its longer-run normal level in the medium term.

We assume that long-term inflation expectations will continue to be anchored at levels consistent with the FOMC longer-run objective. Under these conditions and with the resource gap anticipated to dissipate over the forecast horizon, we expect inflation as measured by the PCE deflator (on a quarterly basis) to be 2% by end-2017.

As indicated in our projections, we anticipate that under appropriate monetary policy and no further shocks, the convergence process should be largely completed by 2018. Accordingly, the major economic variables are projected to be at their longer-run values in 2019.

Respondent 4: N/A

Respondent 5: N/A

Respondent 6: N/A

Respondent 7: At this point, convergence is likely in three to four years.

Respondent 8: N/A

Respondent 9: I anticipate that GDP growth, the unemployment rate and inflation will be back to their long-run values within five or six years. However, the full macro convergence process may take longer because the real value of the neutral federal funds rate – which I estimate is currently near zero – may be rising for many years, in part because the term premium effects of the Fed’s asset holdings will not fully disappear until sometime in the next decade.

Respondent 10: N/A

Respondent 11: N/A

Respondent 12: I anticipate that the economy will converge to my longer-run projection within five years.

Respondent 13: N/A

Respondent 14: 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 15: 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 longer-run projections for GDP growth and unemployment. Calculating an average for these variables based on multiple outcomes is potentially misleading. We do provide a 2.0% longer-run inflation projection, which is independent of the regime.

Respondent 16: In my view, the economy has essentially converged to its longer-run path at the end of 2016. My projection for real GDP growth in 2016 is at 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 unforeseen 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 17: Labor-force participation is now 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 waning, I expect inflation to reach our 2-percent objective by early 2018. At that point, though, we will have pushed well past full employment, and a soft landing will be difficult to engineer. If we are successful, convergence will likely take 5 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: N/A

Respondent 3: 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 somewhat wider than in our September SEP submission, reflecting heightened post-elections uncertainty. As it has been the case in recent submissions, the probability intervals for the real activity forecasts remain slightly wider than the SEP standard; those for core PCE inflation now have become modestly wider than that standard, taking rough account of the differences between forecast errors for overall consumer inflation and core PCE inflation.

Respondent 4: 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. Uncertainty about near-to-medium term changes in fiscal and trade policy have slightly increased the uncertainty of my projections.

Respondent 5: My judgment that the uncertainty surrounding my projections is higher than “normal” owes largely to uncertainty about future fiscal, trade, and regulatory policy.

Respondent 6: Fiscal, regulatory, trade, 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 7: N/A

Respondent 8: Clearly, the uncertainties surrounding new fiscal, trade, immigration, and regulatory policies are high. Indeed, not only are these policy outcomes unclear, so, too, are the effects on spending of the potential swings in financial markets and household and business confidence that could occur with the inevitable ebb and flow of information as proposals get worked out. That said, though higher, we did not think that the level of uncertainty has increased enough to shift us out of the “broadly similar” uncertainty bucket.

Respondent 9: N/A

Respondent 10: N/A

Respondent 11: The degree of policy uncertainty across a variety of areas over the next year makes projections especially vulnerable to factors other than those endogenous to the current strengths, weaknesses, and trajectory of the economy.

Respondent 12: Uncertainty surrounding output growth and unemployment are 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 13: N/A

Respondent 14: 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 15: N/A

Respondent 16: N/A

Respondent 17: The Brexit vote has turned out to be a bit of a non-event, so far, but the real risks lie ahead. We may see a re-ignition of the euro-area debt crisis, and China continues on an unsustainable trajectory. Recent election outcomes suggest a broad global backlash against open borders, which if mapped into policy actions, could have a detrimental effect on long-term growth prospects. On the other hand, with expansionary fiscal policy in prospect the ELB is less of a concern than before. I show a balanced risk weighting on real growth and inflation, and roughly average uncertainty about these variables over the projections horizon. Because of possible fallout from overshoot of our full-employment and inflation objectives, uncertainty beyond 2019 is elevated, with risks at that point weighted to the downside for GDP growth and to the upside for unemployment.

Uncertainty about the appropriate path for the federal funds rate over the projections horizon—not something we ordinarily comment on—is unusually high, with risks weighted to the upside.

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: N/A

Respondent 2: 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. As a result, risks to the GDP growth outlook are tilted to the upside, and vice versa for the unemployment rate. We view this upside risk to the real outlook as having only minor effects on inflation, and thus our assessment of risks to the inflation outlook remains broadly balanced.

Respondent 3: Ours is a quantitative judgment based on the difference between the central projection and the expected value from the FRBNY forecast distribution. Future changes in U.S. fiscal and trade policy that may take place under the new administration have increased risks on both sides of the real activity outlook. However, our overall assessment is for risks to be roughly balanced over the forecast horizon.

Inflation risks have also increased on both sides relative to the September submission, but remain balanced throughout the forecast horizon. The rise in longer-run inflation compensation indicates an increase in upside inflation risks, but global disinflationary forces are still apparent and could offset possible fiscal stimulus, indicating there are still significant downside risks. Core measures of inflation have been stable as we had anticipated and we project convergence to objective just a tad faster relative to the September projections, which is consistent with little change in the balance of inflation risks.

Respondent 4: Risks for output and inflation are weighted to the downside because the effective lower bound limits the ability of monetary policy to respond to adverse shocks. The low level of inflation expectations presents an additional downside risk for inflation. For the unemployment rate, there is a countervailing risk that labor force participation stops increasing and rapid job growth will lead to large declines in the unemployment rate; therefore I see the risks to unemployment as broadly balanced.

Respondent 5: I have not yet incorporated any potential changes in fiscal 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 was too great to overcome 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 regimes and the possibility for either a non-linear response in inflation or for an unanchoring of inflation expectations cannot be dismissed.

Respondent 6: There are a number of possible policy changes that could affect the projections. For example, it is possible that trade restrictions will lower GDP and raise unemployment. It is also possible that regulatory changes will raise multifactor productivity and thereby raise GDP. In addition, tax changes and reduced regulatory burden could lead to more investment, and stronger growth in labor productivity and GDP.

Respondent 7: I continue to view the risks around my forecast as broadly balanced.

The prospects for some changes to fiscal and other economic policies, such as infrastructure spending, tax code changes, immigration policy, trade policy, and regulatory changes have increased. But the form any policy change will take, the timing of passage, and the timing and size of the impacts are very uncertain at this point. The Tealbook's baseline forecast of the size and timing of the impact of an expansionary fiscal policy package seem plausible to me, but the package could be larger or smaller, and its design will be an important factor in assessing the expected impact; the longer-run effects will depend on how the package is financed. We have few details at this point. I've incorporated a modest increase in output growth and inflation in 2018 due to fiscal policy effects. A larger package could impose upside risks to growth and inflation, especially if monetary policy does not

appropriately respond. A larger fiscal policy package could also impose some downside risks over the longer-run depending on the implications for the budget deficit and therefore long-term interest rates. A smaller fiscal policy package would be a downside risk; financial market expectations appear to be incorporating fairly large effects. Should the package fail to meet those expectations, it could generate financial market volatility to the extent that investors react in a sharp way.

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.

There continue to be some risks to the U.S. economy posed by developments abroad. Although U.S. banks have small direct exposure to Italian banks, the weak banking system in Italy could affect other European banks and result in some contagion to financial markets more broadly. The Chinese economy continues to rebalance, which will be a lengthy process. Monetary policy in many countries is likely to remain highly accommodative in the near to medium run. This will help support their economies but also result in further appreciation of the dollar.

The labor market may have more momentum than I've built into my forecast. This could result in a wider 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.

At this point I see inflation risks as roughly balanced. Oil prices have increased since the last meeting, and tangible signs of a reduction in supply could boost prices further. The value of the dollar has strengthened in recent weeks after having stabilized for much of this year. Further strengthening poses downside risks to my inflation forecast. Market-based measures of inflation expectations have moved up, but overall I view inflation expectations as relatively stable at this point.

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.

Respondent 8: Our forecast assumes a modest change in fiscal policy, but we see a risk that the package could be larger. In contrast, we did not incorporate any new trade or immigration policies, which we see as a downside risk to growth. With regard to the private sector, our business contacts have become somewhat more optimistic than they were in September; even though most firms still appear to be taking a wait-and-see attitude, the risks regarding hiring and capital expenditures appear to have moved into better balance.

We feel the balance of risks to our inflation forecast are still tilted to the downside, though to a lesser degree than they were in September. In part, this reflects the better alignment of the risks to our growth and unemployment projections. The increase in financial market inflation compensation also has been encouraging, but these as well as household measures of inflation expectations are still uncomfortably low. The recent appreciation in the dollar is a reminder that international conditions could pose a greater headwind on inflation than we have assumed.

Respondent 9: I view the risks to the outlook as broadly balanced, particularly in the near term. Over the medium term, we continue to face downside risks from our limited ability to respond to adverse shocks, given the asymmetries created by the ZLB. However, we now also face upside risks to real activity and inflation from fiscal policy, which could turn out to be easier than I have assumed in my modal projection.

Respondent 10: I have assumed that we will see more accommodative fiscal policy along the lines of the teal book baseline (see question 4, below). Policies along these lines seem to me to reduce the risk of low inflation across the forecast period.

Respondent 11: N/A

Respondent 12: Fiscal uncertainty is high. Most likely, some stimulus will be forthcoming in 2017 that would boost demand, raise output growth and lower the unemployment rate further. However, the magnitude of any such stimulus is highly uncertain.

Respondent 13: The possibility of a substantial increase in fiscal stimulus has increased the upside risks to real activity and inflation. At the time, 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. As a result, the risks to real activity and inflation are closer to balanced.

Respondent 14: 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 few years. The main uncertainty is by how much and for how long. Consumer spending is on track for solid growth this year, bolstered by a stronger labor market.

Fiscal policy is likely to be more accommodative for the next few years. 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 around an inflation path that is slightly higher than in September. 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 strengthened, 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 15: 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 growth 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 new 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 lead us to allow for a higher unemployment rate. On the other hand, we also see the possibility of some undershooting of the unemployment rate. Thus, 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, which are currently low, 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, much depends on the behavior of energy and other commodity prices. Overall, we see the risks as weighted to the upside.

Respondent 16: N/A

Respondent 17: N/A

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 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 2: The gradual tightening of monetary policy is accompanied in this projection by a contraction in the SOMA portfolio starting in the third quarter of next year, as maturing securities are no longer reinvested. 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.

Respondent 3: 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. How steep the policy path will be will in turn depend 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 2016, 2017, 2018, and 2019 at $1/2 - 3/4\%$, $1 - 1\ 1/4\%$, $1\ 3/4 - 2\%$, and $2\ 1/4 - 2\ 1/2\%$, respectively; these projected ranges are the same as in our September submission, and imply a 25 bps rate increase at the upcoming FOMC meeting.

The rate increase in December is consistent with the overall evolution of the economy according to our projections; moreover, the upside risks to our outlook are higher than they were earlier in the year. At the same time, the policy path remains fairly shallow and consistent with the gradual rising of the path of the natural interest rate as projected by the standard DSGE model.

Another factor informing our assessment of the appropriate policy path is our estimate of the equilibrium real short-term interest rate over the longer run, which we judge to be in the range of $0 - 2\%$, the same as our estimated range in the September SEP submission and 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 subdued productivity growth, 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).

We assume that 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 outlook, we expect those conditions to occur sometime in 2018.

Respondent 4: 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, remain elevated, 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. Because the nature of potential changes to fiscal policy in the near-to-medium term is very uncertain, the changes I have made to my path for monetary policy only reflect surprises from recent labor market data.

Respondent 5: 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, similar to that used in the current Tealbook.

Respondent 6: With core inflation nearing 2 percent and the unemployment rate below its longer-run value, we need to start closing the gap to funds rate paths given by policy rules that capture our behavior over the last few decades, such as the Taylor (1999). Since debt-financed fiscal policy actions are likely to raise the natural real interest rate, we should be prepared to adjust rule parameters accordingly. I also believe that we should begin reducing the size of our balance sheet in the very near future.

Respondent 7: The trajectory of my forecast over 2017-2018 is slightly steeper than my September projection, reflecting ending 2016 at a lower rate than I projected in September and my slightly higher projections of output and inflation, and lower projection for the unemployment rate.

In 2017 and 2018, I project that growth will be slightly 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. However, these gains will likely be slower than in past expansions reflecting slower growth in productivity.

Inflation is nearing our goal of 2 percent. Reasonably stable inflation expectations coupled with continued improvement in labor markets and ongoing economic growth suggest that inflation will move back to our goal of 2 percent over the next couple of years.

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. Given the outlook, I believe it will be appropriate for the FOMC to move rates up with a somewhat steeper trajectory in 2017 and 2018 than I assumed in my September projections. I now 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. 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.

Respondent 8: Our assumed appropriate policy path has the funds rate increasing 25 bps at this meeting, twice in 2017, 4 times in 2018, and then reaching its long-run neutral rate of 3 percent in the second half of 2019. We also assume the Committee strongly communicates that our rate path will depend on continued progress in achieving our inflation objective. These policy assumptions are the same as in our September submission. Under standard policy rules, the changes in our growth and inflation forecasts would elicit a small upward revision to the funds rate path. However, recent changes in term premia and the dollar represent a tightening of financial conditions that reduce the need for monetary restraint. Furthermore, while some uncertainties have been resolved, new ones have emerged. Like the Board staff, our forecast incorporates a modest fiscal policy stimulus. But this and other potential legislative or administrative policy changes are still speculative, as are the domestic and international reactions to the new environment. Accordingly, risk management considerations continue to argue in favor of tempered policy reactions. So, until we see more clarity on the situation, we think our previous shallow path for the funds rate continues to represent appropriate monetary policy.

Respondent 9: My projection for the appropriate path of the federal funds rate through 2019 runs persistently below my estimate of its longer-run value, for several reasons. First, I view it as appropriate to keep the funds rate relatively low in order to achieve a modest undershooting of the unemployment rate in order to help speed the return of inflation to 2 percent. Second, I judge that the level of the real neutral federal funds rate is currently near zero and will only gradually rise to its longer-run level of 75 basis points, even after factoring in the effects of the easier fiscal policy that I have incorporated into my projection this round. Third, the downward pressure on

term premiums from our asset holdings is projected to fall steadily over time, thereby removing accommodation independent of increases in the federal funds rate. And fourth, risk management concerns related to the ZLB suggest that a gradual pace of tightening is advisable as long as the neutral rate remains low.

Respondent 10: I have added one rate increase for 2017 (three instead of two) but have made no other changes in my rate path. This increase seems to me to be justified by the strengthening of the unemployment gap, and by expectation of added support from fiscal policy. I have also raised my estimate of the long-term neutral rate by 25 bp to 2.75%.

Respondent 11: Although the growth trend of the U.S economy has not really picked up its pace, the fact that gradual growth has continued – with a few anomalous intervals – for quite some time means that a rate increase would become a reasonable policy step at some point. This is the case even in the context of continued relative proximity to the zero lower bound and, accordingly, the limitations of tools available for providing more accommodation should be it be needed because of external shocks. In part for the reasons mentioned in my answer to question 4(a) , this seems a not unreasonable time to remove a bit more accommodation. However, precisely because of the modest pace of growth, I have not much changed my expectations for appropriate federal funds rate levels in the out years. Indeed, on the expectation (well, speculation really) that the economy will slow down noticeably sometime in the next few years, I have actually removed one increase from the 2018-19 period relative to my September projection.

I am not assuming any significant changes to fiscal policy in these projections. It all just seems to hard to project right now.

Respondent 12: In response to elevated uncertainty about future fiscal, regulatory, and trade policy, I have a somewhat shallower path for the funds rate in 2017 and 2018 compared to September. My projection for the appropriate path for the federal funds rate reflects my view that policy should adjust at a more gradual pace than has been typical in past lifto scenarios given low productivity growth, declining labor force participation, and inflation that has been running below target for some time.

Respondent 13: The economy has made important progress this year toward the Committee’s goals of full employment and 2 percent inflation. However, full employment has not yet been achieved, and inflation has remained persistently below our target. Given that the real neutral rate is likely to remain close to 0 through next year, there are important downside risks from abroad, and the ability of monetary policy to respond to shocks will remain asymmetric initially (due to the effective lower bound on conventional policy), appropriate policy calls for the funds rate to rise only gradually through the medium term. By the end of the medium term, with the recent increase in the probability of expansionary fiscal policy raising aggregate demand beyond its longer-run sustainable level, and with full employment and 2 percent inflation likely to be achieved, I expect the funds rate to rise somewhat above its longer-run level.

Respondent 14: The labor market is essentially at full employment according to various measures of slack. Labor markets will continue to tighten over the next year—with the unemployment rate falling further below its natural rate—before gradually returning to full employment. 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, 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 2017 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 market based fed funds rate expectations. 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 that the Committee will cease to reinvest the proceeds from maturing assets in the SOMA portfolio in the second half of 2017.

Respondent 15: Our small change in the target federal funds rate for 2017, 2018, and 2019 reflects the upward movement in the low real interest rate on short-term government debt. 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 16: 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 to be below my estimate of its longer-run level in 2017. In my view such a gradual path of the funds rate promotes economic and financial stability.

Respondent 17: The prospect of a more expansionary fiscal policy, incentives for public and private investment, and lighter regulation have likely raised 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, I've increased my estimate of the longer-run value of the funds rate by 25 basis points and have assumed a steeper path for the funds rate over the projections horizon. However, the pace of funds-rate increases may be constrained by the potential for financial dislocation in the emerging markets: High volumes of dollar-denominated debt substantially increase the vulnerability of foreign firms to dollar appreciation.

The exact nature and timing of non-monetary policy changes is, at this point, highly uncertain—as are their economic effects. Consequently, my confidence that the funds-rate path I have specified will, in fact, prove to be appropriate is lower than usual.

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: My central economic outlook is based on the performance of the economy in the last 3 to 4 years.

Respondent 2: Incoming data have been in line with expectations, and remain consistent with a pace of growth in the second half of this year that is roughly one percentage point above our estimate of potential GDP growth. Progress in closing the output gap is also generating a tighter labor market, with some signs of a pickup in wage inflation. Continued labor market improvements are sustaining households' disposable income, while other consumption fundamentals remain positive. As a result, an upbeat outlook for consumption supports a forecast for overall GDP growth modestly above potential over the period 2017-19.

The current forecast assumes more stimulative fiscal policy starting next year, with an assumption about the size and composition of the stimulus that is similar to the one in the baseline Tealbook outlook. The fiscal expansion, however, is largely offset by higher longer-term interest rates and additional dollar depreciation. As a result, we continue to project a relatively modest overshooting of full employment, with the unemployment rate expected to reach 4.2 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. We view the post-WWII experience with soft landings from a situation in which the unemployment rate has fallen below its equilibrium level, both in the U.S. and abroad, as supportive of this cautious approach. Our federal funds rate assumption is coupled with a contraction in the SOMA portfolio starting in the second half of next year, when maturing securities are no longer reinvested.

Downside risks emanating from abroad are still present. The expected tightening of U.S. monetary policy could also entail a stronger dollar than what we are currently envisioning. On the upside, the increase in the pace of growth of final sales to domestic purchasers could signal a stronger-than-expected acceleration in activity. Moreover, there is a considerable degree of uncertainty surrounding the timing, size, and composition of the fiscal stimulus in coming years. For example, a composition that is tilted towards spending rather than tax cuts would imply a larger fiscal multiplier, and thus a larger stimulative effect, than what we are currently assuming. In sum, we view the potential for more stimulative fiscal policy as shifting the overall balance of risks around the real outlook to the upside. As concerns inflation, the risk that long-run inflation expectations are anchored at a level below the 2 percent target continues to be present. Still, with the economy expected to overshoot full employment and upside risks to growth, there is also the risk of a nonlinear response of inflation. In all, we take the recent progress towards the inflation target as signaling that the risks around the inflation outlook are balanced.

Respondent 3: We expect real GDP growth to rebound to around 2 1/2% (annual rate) over 2016H2, resulting in a Q4/Q4 growth rate of 1.8%, slightly below the projections in our September SEP submission. Over the second half of 2016 the US economy appears to have fully absorbed the shocks of dollar appreciation and commodity price depreciation, with both the manufacturing sector and service sector showing signs of rebounding. We project the unemployment rate to decline to around 4.6% by the end of 2017 and then edge up to 4.7% by the end of 2018 as productivity growth gradually moves up toward what we regard to be its long-run trend. With the economy operating at full employment and inflation expectations well anchored at the FOMC's objective, we expect total PCE deflator inflation to move up to 2% by the end of 2017, a tad faster than in our September SEP submission, and to remain at the longer-run objective afterwards despite the slight undershooting of the unemployment rate in 2017-18.

Since the election there have been some significant moves in financial asset prices. The broad trade-weighted exchange value of the dollar is up nearly 4%, the 10-year Treasury yield is up about 65 basis points, high yield bond spreads have narrowed by about 25 basis points, and the S&P 500 equity index is up about 5%. The Goldman Sachs Financial Conditions Index has moved up somewhat as a result of these movements, suggesting on balance some tightening in financial conditions. However, the associated narrative of these moves is that they have been prompted by an upgrading of future growth prospects stemming from the increased likelihood of significant fiscal stimulus in 2017, rather than by an increase in risk aversion.

At this point we believe that there is not enough information regarding the nature, magnitude, and timing of future changes in fiscal policy to attempt to incorporate them into our modal forecast. In addition, it is not at all

clear how much stimulus such actions will be able to deliver with the economy at or near full employment, especially given the likely response of asset prices, particularly the exchange value of the dollar, to the prospects of stimulus.

Respondent 4: The improvement in secondary measures of labor market slack we had seen earlier has slowed. Because room remains to further reduce slack, inflation continues to run low and it is likely to be several years before it returns to target. The continued low level of inflation, the benefits to the economy of allowing further improvement in the labor market, weakness in foreign economies, uncertainty about future fiscal policy, and potential risks to the US economy from international policy divergence all suggest a gradual approach to normalizing the stance of monetary policy.

Respondent 5: My outlook consists of above-trend growth over the next few years and inflation that converges to target by the end of next year.

Growth over the medium term is primarily driven by a sustained pace of consumption growth and a strengthening in investment growth. This growth of domestic demand is supported by continued firming in the labor market and growth of household incomes.

As indicated in section 2, I view the risks to my growth outlook as weighted to the upside. I am waiting for further clarity on the size and composition of potential fiscal actions before I incorporate them into my outlook. My assumption is that, whatever set of fiscal policy changes are eventually enacted, they 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.

Given the lack of clarity about future fiscal policy, I view the uncertainty surrounding my projections as being elevated relative to recent history.

Respondent 6: In September I projected real GDP to grow at its trend rate. I have raised growth in the current projection to reflect the transitory effect of some form of expansive fiscal policy, which seems likely. I have followed the Tealbook regarding the timing and magnitude of fiscal effects on real growth. Appropriate policy limits the effect of these fiscal actions on inflation, but requires more aggressive rate increases.

Respondent 7: 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. 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. While global growth prospects remain subdued, monetary policy globally is highly accommodative, which should promote stronger growth and higher inflation rates abroad.

The prospect of expansionary fiscal policy has increased, but there is considerable uncertainty about the specifics of the fiscal policy in terms of the size of the package, the timing of passage and impact. I've incorporated fiscal policy assumptions 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.

After a weak start to the year, U.S. growth has strengthened over the second half of the year and we have seen further strengthening in labor market conditions. I believe we have achieved the maximum employment part of the dual mandate.

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 move back to our goal of 2 percent over the next couple of years.

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

Respondent 8: Accommodative monetary policy, a healthy labor market, improved household and business balance sheets, and a modest boost from fiscal policy should allow for consumer-led growth in domestic demand. Net exports likely will be drag on growth, but one that we expect to wane moving through the projection period. We expect growth to run moderately above potential over the next three years. At 4.8 percent, our projected level for the unemployment rate in 2016:Q4 is slightly above our estimate of the current natural rate, but we expect this gap, as well as those remaining in some other labor market indicators, to close as we move through next 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.

Our forecast has inflation returning to 2 percent by 2019, which is an improvement from September. The incoming data on inflation have moved us closer to target, and the eventual overshooting in resource slack and our assumed stabilization of the dollar and energy prices should provide further lift 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.

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

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, I assume that some significant fiscal initiative will be enacted, although what that may be is highly uncertain at this point. As a placeholder, I have assumed that Congress will enact a fiscal package in late 2017 that raises the deficit-to-GDP ratio by about 1 percentage point for a number of years, and that this package will have a modest net stimulative effect on real activity in 2018 and 2019 after factoring in the effects of recent movements in financial market conditions and a somewhat higher average level of the federal funds rate starting late next year. Third, I assume that the federal funds rate gradually rises over time to bring it in line with the (rising) neutral rate. Finally, I continue to assume that inflation will move up to 2 percent over the next several years, in an environment of moderately tight labor market conditions and anchored inflation expectations.

Fiscal policy and the accompanying response of financial markets are key risks to the outlook; at this point, we can't be sure what Congress will pass or what the effect of its provisions will be on real activity.

Respondent 10: It seems likely that more accommodative fiscal policy will arrive during 2017. The timing, size and components of that policy are highly uncertain at this time. I have therefore followed the staff baseline in assuming a personal income tax cut of 1% of GDP, as a placeholder. I have also raised my estimate of the long run neutral rate by 25 bp to 2.75%. I have also written down three rate increases for 2017 rather than two in my September 2016 SEP submission.

Respondent 11: Most labor market indicators continue to strengthen, and those that do not are already reasonably strong. Although it is difficult to read through monthly labor force participation rate figures in order to accurately discern underlying trends, the convergence of actual toward trend participation rates in the last couple of months suggests that a good bit of slack that did not show up in the unemployment figures has now been removed. Unlike a number of occasions over the last several years – when one factor holding down inflation faded, only to be replaced by another – it appears as though the fading of the effects of the big energy price decreases has not been offset by some new disinflationary impulse. While the dollar could strengthen some more, further such moves are likely not to be of the magnitude of the earlier ones. Thus what I would still regard as a tentative case for inflation returning at last to the Committee's target has been boosted a bit.

There are obviously substantial risks - both upside and downside – with respect to policies that the new Administration and Congress may pursue. External risks remain weighted to the downside, though they have shifted a bit recently – away from what was conceded only a moderate risk of financial turbulence from Brexit towards Italy and its banks. And, while near term risks associated with instability in Chinese markets has not recurred, the persistent and still unaddressed overhang of bad loans in secondary Chinese banks and its shadow banking system may at some point manifest itself in a bit of a credit crunch in the real economy, renewed financial instability, or both.

Respondent 12: My forecast calls for output growth at close to a 2 percent pace over the forecast horizon. I expect that some fiscal stimulus is likely to occur over the course of the next two years though its magnitude is

highly uncertain. Consequently, I see higher upside risk to output growth in this forecast. 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 continues to edge down. Headline inflation has been held down by falling energy prices, but as the price of oil rises in the near term and then stabilizes, inflation will move 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 natural rate estimate, monetary policy becomes less accommodative over the forecast horizon. However accommodation is removed at a gradual pace in light of economic uncertainties surrounding fiscal policy, regulatory and trade reform, productivity growth, and inflation dynamics.

Respondent 13: N/A

Respondent 14: 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 meager 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 is less certain given the stronger trend in the dollar and interest rates, which is offset by likely higher after-tax corporate cash flow and a likely lighter regulatory burden.

The expected fiscal stimulus is likely to boost economic growth during the next few years. Similarly to the Tealbook, I expect some new measures to be approved by the end of the first half of next year. However, I assume that the effects of those measures are less front-loaded with only a modest impact on growth in the second half of that year. In 2018 and 2019 there will be a more appreciable contribution to growth—on the order of $\frac{1}{4}$ 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 outlook for the longer run.

In this environment, I expect the economic recovery to proceed at a pace that is a bit above potential. Output and unemployment gaps were essentially closed by the end of 2015. 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 15: 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 so 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 16: Modal forecast: My forecast for real GDP growth is characterized by growth near trend in the period from 2016 to 2019. As the stimulus from accommodative financing conditions and past 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 next 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 the inflation rate in 2016 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. I have reduced my assessment of uncertainty about PCE inflation, consistent with the sharp decline in the option-implied volatility of oil prices since the beginning of the year. The risks to economic growth, inflation, and unemployment appear broadly balanced.

In particular, downside risks to the foreign outlook emanating from Europe and China are roughly balanced by upside risks related to the resilience of the U.S. economy and the possibility of a more expansionary fiscal policy stance.

Fiscal policy: My assumption for fiscal policy has not changed since September, as any possible changes in taxes, government spending, or regulations remain highly uncertain. I do see a higher likelihood of a more accommodative fiscal policy stance, which poses upside risk for growth and inflation and downside risk for the unemployment rate. Considering this increased risk in the context of the known global and domestic risks to the outlook, I view uncertainty as broadly similar to the past 20 years and the risks around my outlook as broadly balanced. With no change in the modal outlook and no marked change in my assessment of uncertainty and risks, I have not changed my projection for the appropriate path of the federal funds rate.

Respondent 17: The transition to sustainable growth with low inflation is likely to become more challenging. As we have discussed at FOMC meetings, these transitions can become more 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 and physical capital that suddenly become problematic—inducing sharp cutbacks in spending—when it becomes apparent that growth prospects must be revised downward. With fiscal policy likely to become more expansionary, 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 the U.S. (and world's) population ages.

Forecast Narratives (continued)

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

Respondent 1: At this point I judge the uncertainty around the outlook for fiscal policy to be too great to build any additional fiscal effect into my forecast. My forecast will likely change significantly when the new administration presents its first budget.

Respondent 2: Changes to the real outlook have been very minor. The effects of the fiscal stimulus in the current forecast are largely offset by a higher path for interest rates and a more appreciated dollar than what was assumed in the September outlook. The dollar appreciation also lowers our near-term projection for inflation, but the inflation outlook for 2018 and 2019 has not changed.

Respondent 3: Our macroeconomic projections have changed modestly relative to September. Real GDP growth is anticipated to be slightly lower in 2016 than we projected in the September SEP submission, largely as a result of a markdown in 2016Q4 expected growth, due to higher drag from trade. The recent labor market dynamics led us to lower slightly our unemployment projections for 2016 and 2017. Overall and core inflation forecasts ticked up relative to our September projections: inflation is now expected to converge to the longer-term objective by end-2017. As noted and explained in the response to 3(b), we still judge that a shallow path of the policy rate is consistent with these projections.

Respondent 4: Incoming data caused me to mark up GDP growth in 2016 and near-term inflation has run a bit higher than I expected. The unemployment rate has fallen a bit faster than I had expected, leading me to shift down my expected path for unemployment.

Respondent 5: I lowered my forecast of the unemployment rate because it has fallen more over the past three months than I expected. I marked up my 2016 Q4/Q4 PCE inflation projection 0.1 percentage point due to the recent increase in oil prices.

Respondent 6: The result of the U.S. presidential election along with subsequent developments in financial markets and anecdotal reports.

Respondent 7: My modal forecast has changed relatively modestly since September. I've incorporated fiscal policy assumptions 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.

The pickup in growth in the second half of this year and further strengthening in labor market conditions were largely as I had expected, but inflation readings have been a little stronger than anticipated. The latter give me confidence that, even with the recent strengthening of the dollar, inflation will move up to our 2 percent objective over the next couple of years.

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 nearing our goal of 2 percent. My path is slightly steeper than in my September projections reflecting the effects of expansionary fiscal policy, which will provide a modest boost to growth.

Respondent 8: The incoming data on spending and production since our September submission led us to slightly reduce our forecast for GDP growth in the second half of 2016; the revision largely reflects weaker-than-expected business fixed investment and net exports. We didn't take much signal from these misses for our forecast for 2017 or beyond.

Fiscal Policy. We incorporated a modest degree of fiscal expansion in our outlook. (We did this to keep our forecast assumptions from drifting too far from the fiscal policy expectations apparently now embedded in financial market prices and perhaps also in nonfinancial business and household sentiment.) We assumed that about 1/3 of the personal and business tax cuts proposed by President-elect Trump would be enacted in mid-2017 and that about \$35 billion-a-year of additional government purchases (largely defense) would begin in FY2018. Together,

we assume these policy changes would increase the primary deficit by a little over a percentage point of GDP, and that their direct impulse on consumption and government purchases would boost the level of GDP by about 1/2 percentage point by the end of 2018. However, given the sharp reactions we have already seen in treasury rates and the dollar, we assume some of this impulse will be crowded out, and accordingly boosted our projection for GDP at the end of 2018 by only 0.3 percentage point.

The incoming data on core PCE inflation led us to revise up our projection of inflation in 2017:H2. Our forecast for somewhat stronger GDP growth, as well as the increase in inflation compensation and the repricing of inflation risks in financial markets, also support a touch higher inflation path going forward. (We would note, however, that the current level of inflation expectations is probably not high enough to exert an upward pull on inflation.) On the downside, the appreciation in the dollar suggests that import prices will continue to be a drag on inflation for a while. Putting these factors together, we are projecting core PCE inflation at 1.7 percent this year. Then, as dollar effects wane, the economy overshoots potential, and inflation expectations firm further, we expect inflation to gradually rise to target by the end of the projection period. Relative to September, this forecast is up 0.1 percentage point throughout the projection period.

Respondent 9: My forecast now incorporates easier fiscal policy. However, its net effect on real activity is limited because of recent financial market developments as well as a somewhat higher projected path for the federal funds rate. In addition, I have revised down my expectation for real GDP growth (net of fiscal effects) over the next few years, on the grounds that my previous projection was too optimistic about how fast the economy would expand as monetary accommodation was removed. Finally, my near-term forecast has taken on board the surprisingly large drop in the unemployment rate in November, but assumes that much of the decline is noise that will be reverse in coming months.

Respondent 10: N/A

Respondent 11: See above.

Respondent 12: My forecast is largely unchanged from September. I do anticipate slightly more accommodative monetary policy over the near term in response to uncertainty surrounding fiscal policy.

Respondent 13: The increase in inflation compensation together with the increased probability of a sizeable and sustained increase in fiscal deficits have provided greater confidence in the achievement of our inflation objective, although there is some downside risk that the tightening in financial conditions we have seen so far could outpace the ultimate fiscal package.

Respondent 14: The key development since September has been increased likelihood of greater fiscal stimulus in coming years. My modal projection assumes that fiscal policy will push up growth by a tenth or two in each of the next three years after factoring in some offset from higher interest rates and a stronger dollar.

My inflation projection is also revised a bit higher based on my expectation of more overshooting in output and unemployment.

Respondent 15: Our forecasts are virtually unchanged. We made very small changes to our near-term inflation forecasts based on recent data for 2016. In addition, the recent increase in the real interest rate on short-term government debt led us to increase our federal funds rate target by 25 basis points for 2017, 2018, and 2019.

Respondent 16: I have made minor revisions to my forecasts for real GDP growth, the unemployment rate, and PCE inflation in 2016, based on the incoming data.

Respondent 17: As previously indicated, prospects for a more expansionary fiscal policy, incentives for public and private investment, and lighter regulation have led me to increase, somewhat, my estimate of the longer-run value of r^* . With the idea that investment incentives may pay off, I have also slightly increased my estimate of the economy's longer-run growth potential. In doing this, I implicitly assume that the most extreme anti-immigrant and anti-trade campaign rhetoric does not translate into policy action.

Despite a higher path for the federal funds rate, monetary and non-monetary stimulus is sufficient to drive GDP upward at a faster pace than previously projected, and to move the unemployment rate to a lower level. The tighter labor market drives inflation upward more quickly and a bit farther than before.

Forecast Narratives (continued)

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

Respondent 1: I believe the administration's fiscal policy will be more expansionary than assumed in the Tealbook, but since I have no idea of how their policies will differ from the Tealbook estimates, I have not yet adjusted my forecast to reflect the change in administration.

Respondent 2: 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 feature the same projected path for the unemployment rate, the Tealbook forecast implies a more pronounced overshooting of full employment than our forecast.

Respondent 3: As in the September SEP, there are some notable differences between the Tealbook forecast and our projections for the key SEP variables. These differences reflect in part divergences in some of the underlying assumptions in the two forecasts. In particular, the Tealbook forecast incorporates a substantial fiscal stimulus in the forecast in the form of a personal income tax that commences in 2017Q3. As we said in our answer to 4(a), we do not attempt at this time to incorporate future changes in fiscal policy in our modal forecast as there is not enough information regarding their nature, magnitude and timing.

The two forecasts for real GDP growth in 2016 are similar, but the Tealbook projects faster growth in 2017 and 2018 than in our outlook, as it did in September. Furthermore, based on its assessment of potential GDP growth, which is below our assumption in 2016-18, 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 not a significantly 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; while this is a long-standing difference between the two forecasts, in this round the discrepancy is larger as the fiscal policy assumption boosts significantly the Tealbook estimate of consumption growth relative to its September projections.

Another notable difference 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 be fairly close to 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 positive output gap that arises in the Tealbook forecast but not in our projections.

One other difference in the labor market projections concerns the paths for labor force participation: in our projection the participation rate is roughly flat through 2018 at 62.8% while in the Tealbook it declines gradually to 62.3% at end-2018. This difference reflects our assumption of some positive cyclical effects on participation.

For inflation, the two forecasts continue to differ on how quickly inflation reaches the 2% objective. In our projection inflation is at 2% at end-2017 whereas the Tealbook projects inflation below 2% until 2020, despite a sizable undershooting of unemployment in its projection. The considerable persistence of inflation and flat Phillips curve within the Tealbook framework appears to require a prolonged period of above-potential growth in order to induce inflation to rise toward the longer-run inflation goal. In our forecast, the faster return of inflation to its goal reflects our assumptions of less inflation persistence and a stronger attraction provided by anchored inflation expectations.

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 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 now 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 now see higher uncertainty than in the Tealbook, particularly because we have not taken into account fiscal stimulus in our modal forecast; however, we see risks to inflation as broadly balanced, as does the Tealbook.

Finally, our monetary policy path is significantly shallower than the Tealbook path for 2017-19. As discussed earlier in our submission, we believe that a very gradual removal of accommodation is necessary to support our projections and to address risk-management considerations. 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 our staff models' estimates of the longer-run equilibrium rate.

Respondent 4: My forecast for economic activity and inflation is broadly similar to the Tealbook except that I believe the improving labor market will continue to increase labor force participation, leading to more progress on the labor force participation rate than 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 policy more gradually, as in my projection, would produce a path for inflation similar to the Tealbook. In addition, I have not made any notable changes in my assumptions about fiscal policy, given the high degree of uncertainty of how it will evolve over the next few years.

Respondent 5: I have yet to mark in any potential changes in fiscal policy into my modal outlook. 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 somewhat slower employment growth. I have a faster acceleration in inflation to its longer-term target and I am assuming that inflation expectations are currently anchored at policy-consistent levels.

Respondent 6: We hit our inflation target in 2018, two years before the Tealbook. Also, a steeper path for the funds rate is necessary to prevent inflation from overshooting our target.

Respondent 7: As in the Tealbook, I expect that the economy will grow at a moderate pace, labor market conditions will continue to strengthen, and inflation will return to our 2 percent longer-term objective. My outlook for the real economy is generally similar to Tealbook's forecast, but I see somewhat greater inflationary pressures than in the Tealbook, with inflation returning to 2 percent over the next couple of years compared with 2020 in the Tealbook. 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. My fiscal policy assumptions are similar to those in the Tealbook, but there is considerable uncertainty around these assumptions.

Respondent 8: 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. The size of our assumed fiscal policy package is similar to the Tealbook. We did not, however, change our r^* in response to our new fiscal assumptions. 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. We do not, however, expect output to overshoot potential as much as the Tealbook does. This is because we see some slack remaining in the economy today: we assume the natural rate of unemployment currently is about 4.7 percent and will trend down to 4.5 percent by the end of 2019 (in contrast to the Tealbook's constant 5 percent assumption); we also think that the labor force participation rate is still below its long-run trend. Despite our differences in resource slack, 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 9: The Tealbook implicitly incorporates a faster rise in the neutral funds rate over the next few years than I do. It also assumes that easier fiscal policy will have a somewhat larger effect on real activity over the medium term, after controlling for the effects of accompanying movements in financial conditions. In addition, the Tealbook assumes that easier fiscal policy will raise the long-run equilibrium real interest rate by 25 basis points, where as I have incorporated no change in my projection of long-run R^* . Finally, the Tealbook assumes that a more pronounced undershooting of the unemployment rate will be needed to return inflation to 2 percent, in part because they assume that inflation expectations are currently anchored at a somewhat lower level.

Respondent 10: N/A

Respondent 11: I do not assume any fiscal stimulus next year.

Respondent 12: N/A

Respondent 13: N/A

Respondent 14: The Tealbook projects a more substantial and protracted overshooting of full employment, with the unemployment rate declining to 4.2 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 in 2017.

The Tealbook assumes that the effects of expected fiscal stimulus start in the second half of 2017 and are fairly front-loaded, with some smaller impact to growth in 2018 and 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 less front-loaded, with the biggest impact on growth taking place in 2018, and no change to the long-run level of the fed funds rate.

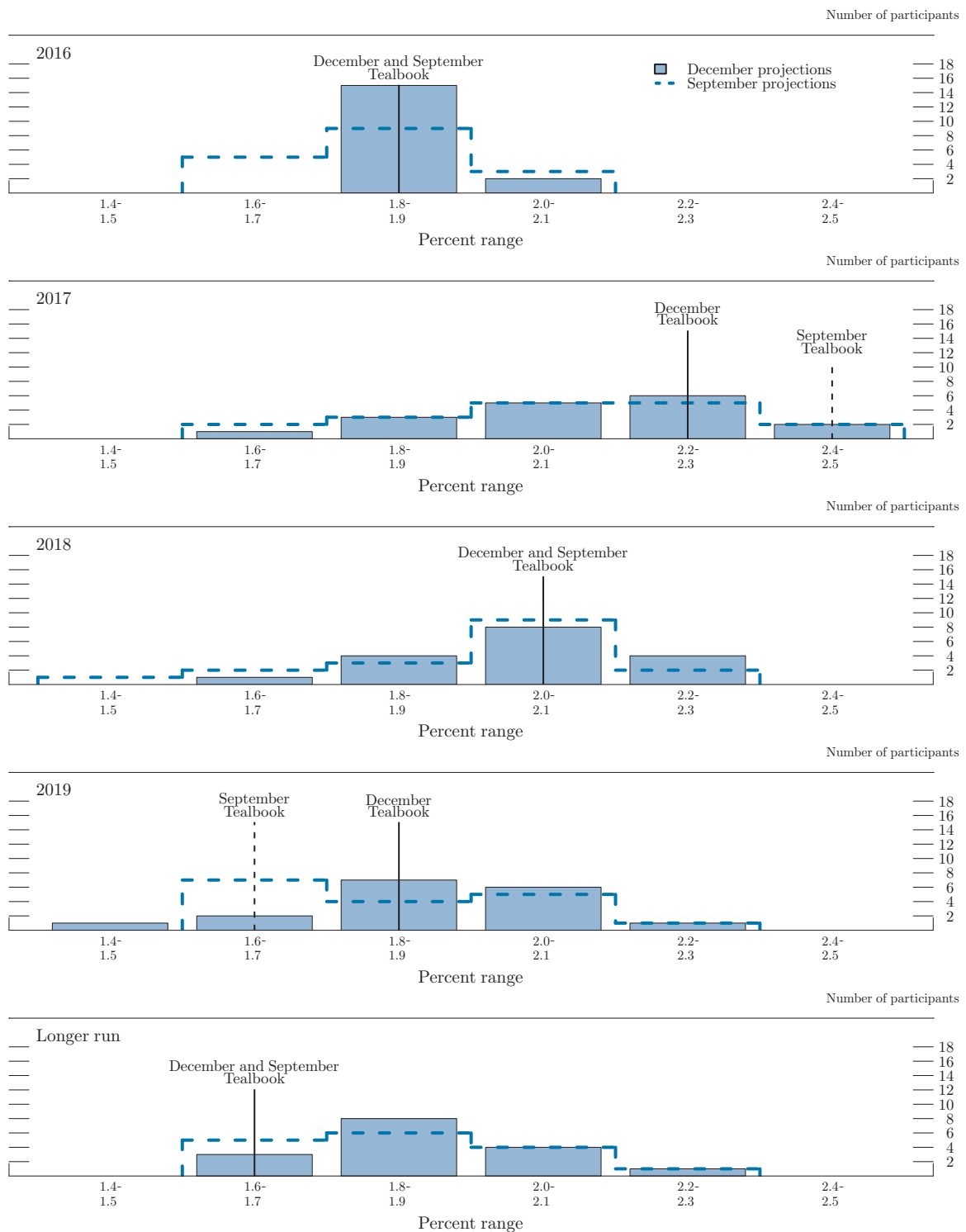
The gradual removal of monetary policy accommodation tightens financial conditions over time and slows growth to below potential in 2018 and 2019, respectively. This pushes up the unemployment rate to 4.8 percent by the end of 2019. Finally, the persistent overshoot of full employment pushes inflation 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 15: The Tealbook forecast is in many ways similar to our forecast, but 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 those regimes cannot be forecasted. This suggests a flat path for the policy rate over the forecast horizon relative to that contained in the Tealbook. The forecast in the Tealbook also has an undershooting of the unemployment rate before returning to its long-run value sometime after 2019.

Respondent 16: My projected path for real GDP growth in 2017 and 2018 is lower and my projected path for the unemployment rate is flatter than in Tealbook. Unlike Tealbook, my projection does not incorporate a change in the stance of fiscal policy. My forecasts for PCE inflation and core inflation in the period 2017-2019 are a few tenths of a percentage point above Tealbook's forecasts, with the difference narrowing over time. With inflation expectations well anchored, I view inflation as less inertial than Tealbook, and therefore expect the effects of past dollar appreciation and oil price declines to wane sooner than in the Tealbook projections.

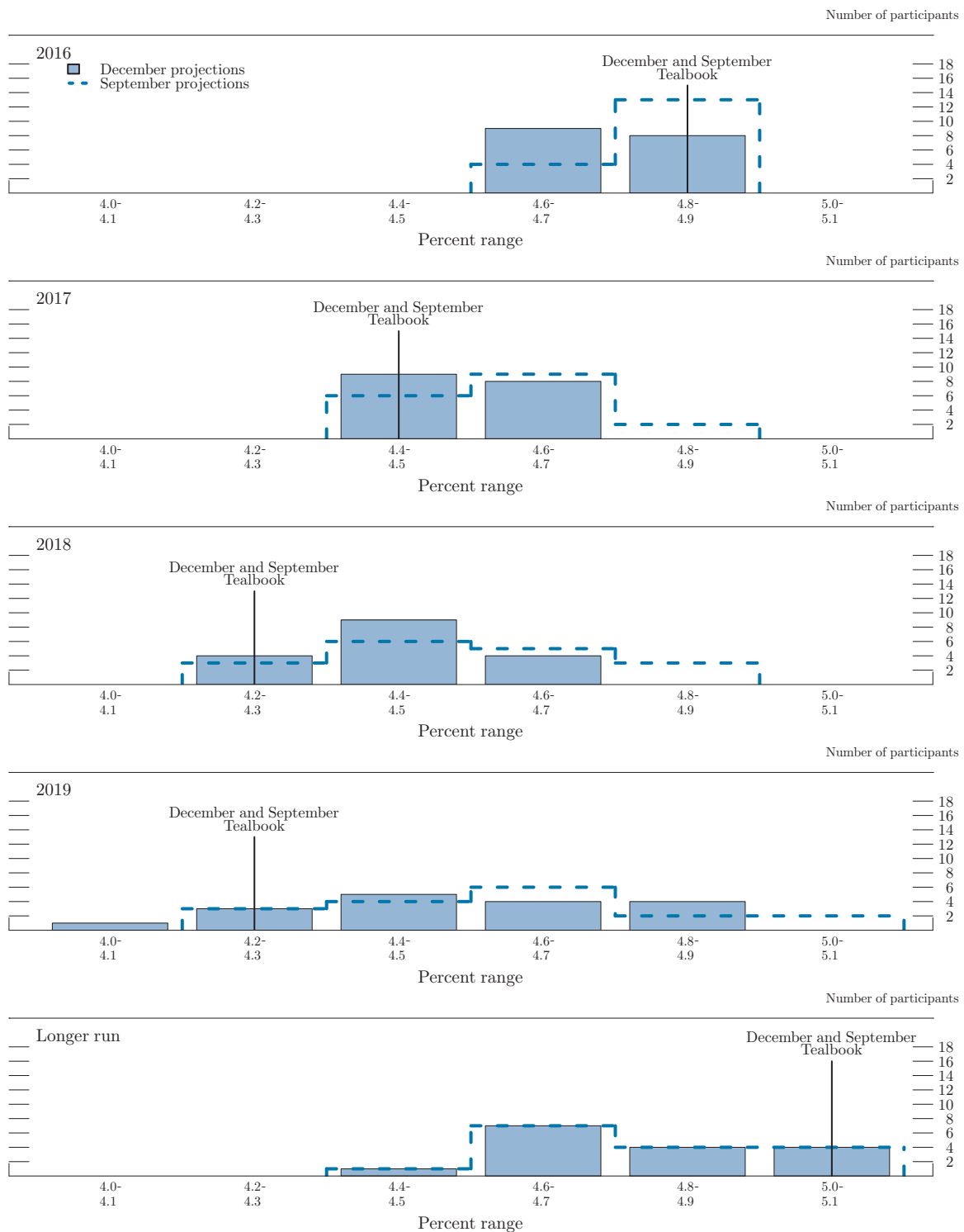
Respondent 17: My projected paths for GDP growth, the unemployment rate, and policy over 2017-2019 are now quite similar to those in the September and December Tealbook baseline forecasts. However, I see a more rapid return to our 2-percent inflation objective than is forecasted by Board staff. In my view, the longer-term inflation expectations relevant to wage and price setting remain anchored at 2 percent.

Figure 3.A. Distribution of participants' projections for the change in real GDP, 2016–19 and over the longer run



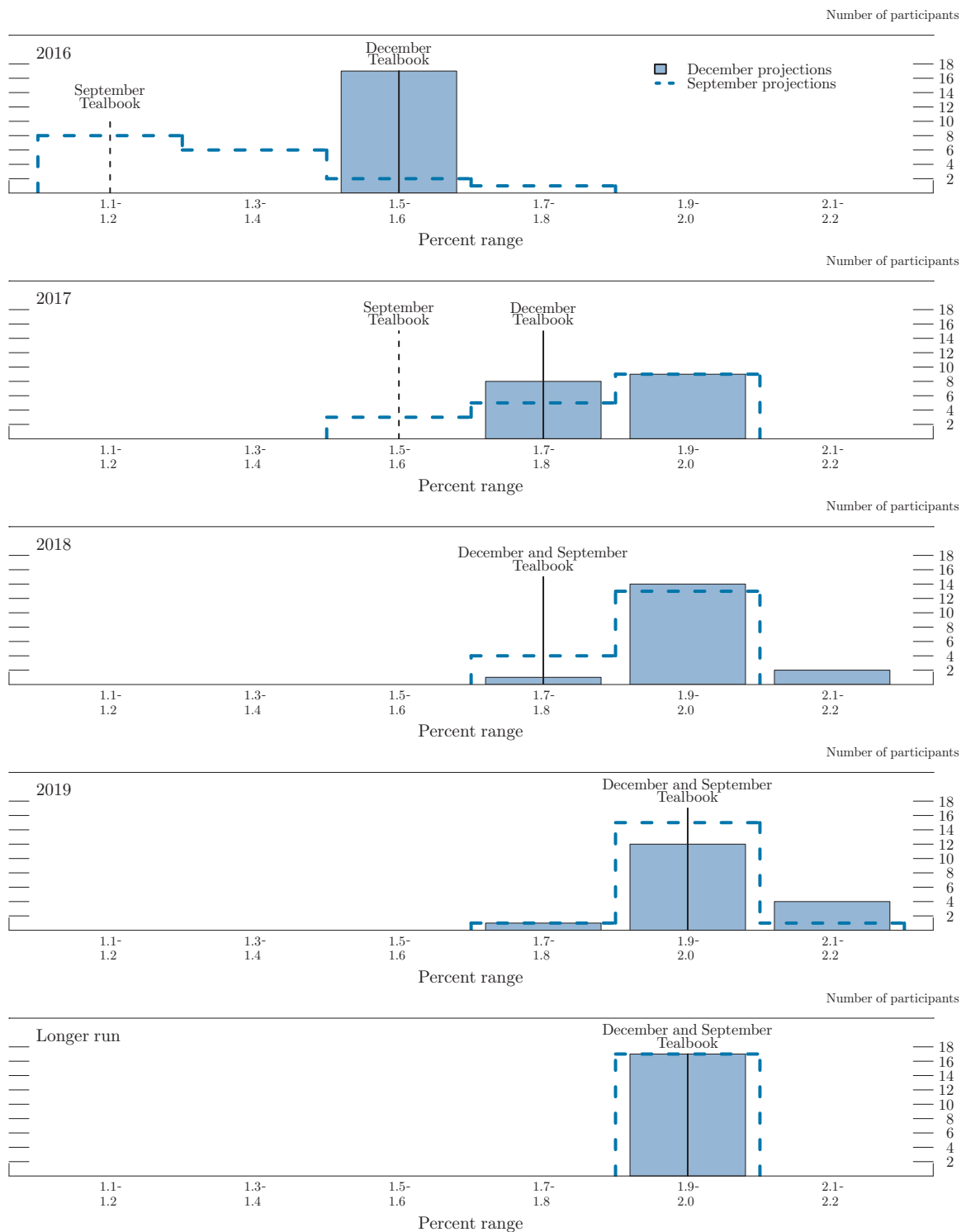
NOTE: Definitions of variables and other explanations are in the notes to table 1.

Figure 3.B. Distribution of participants' projections for the unemployment rate, 2016–19 and over the longer run



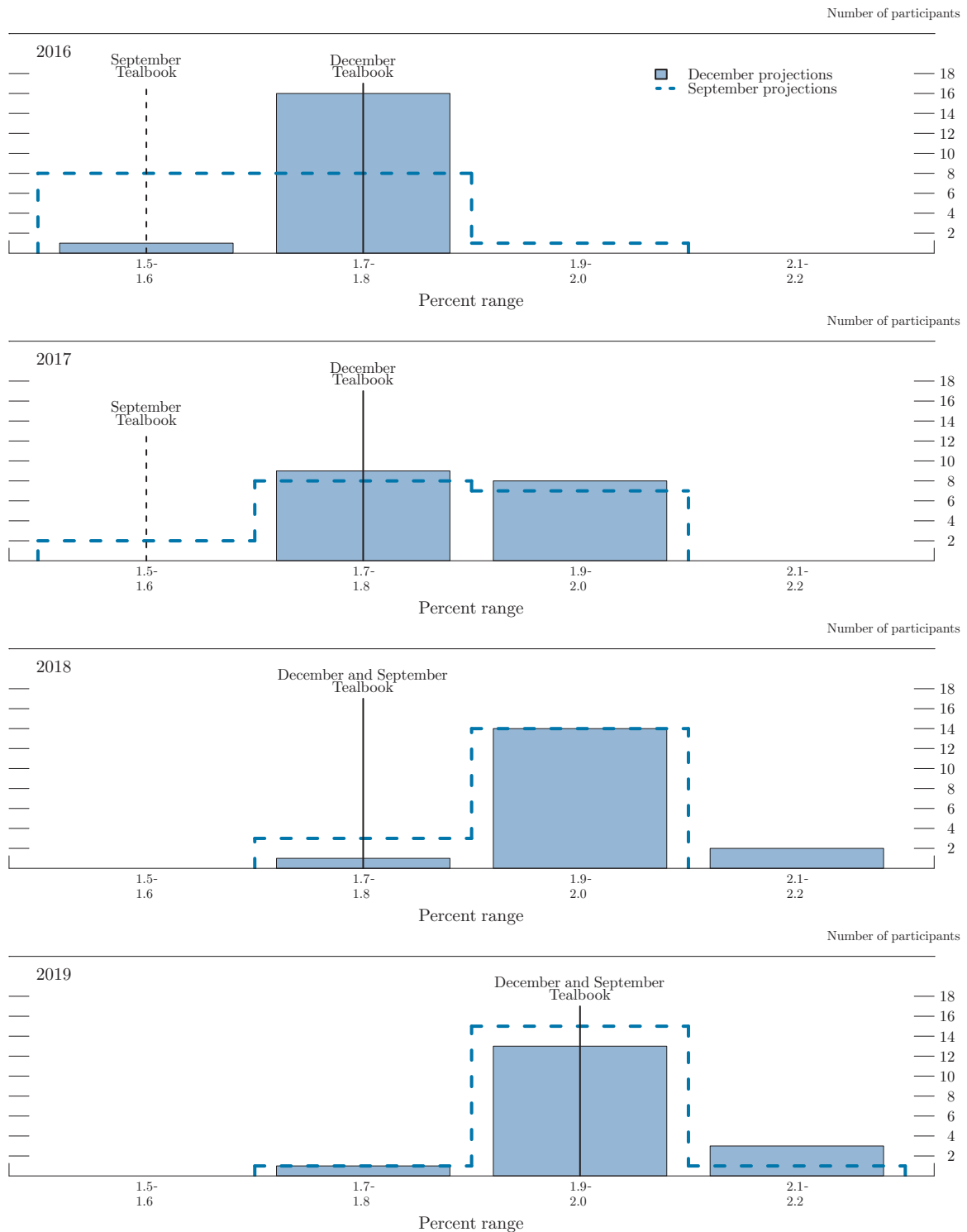
NOTE: Definitions of variables and other explanations are in the notes to table 1.

Figure 3.C. Distribution of participants' projections for PCE inflation, 2016–19 and over the longer run



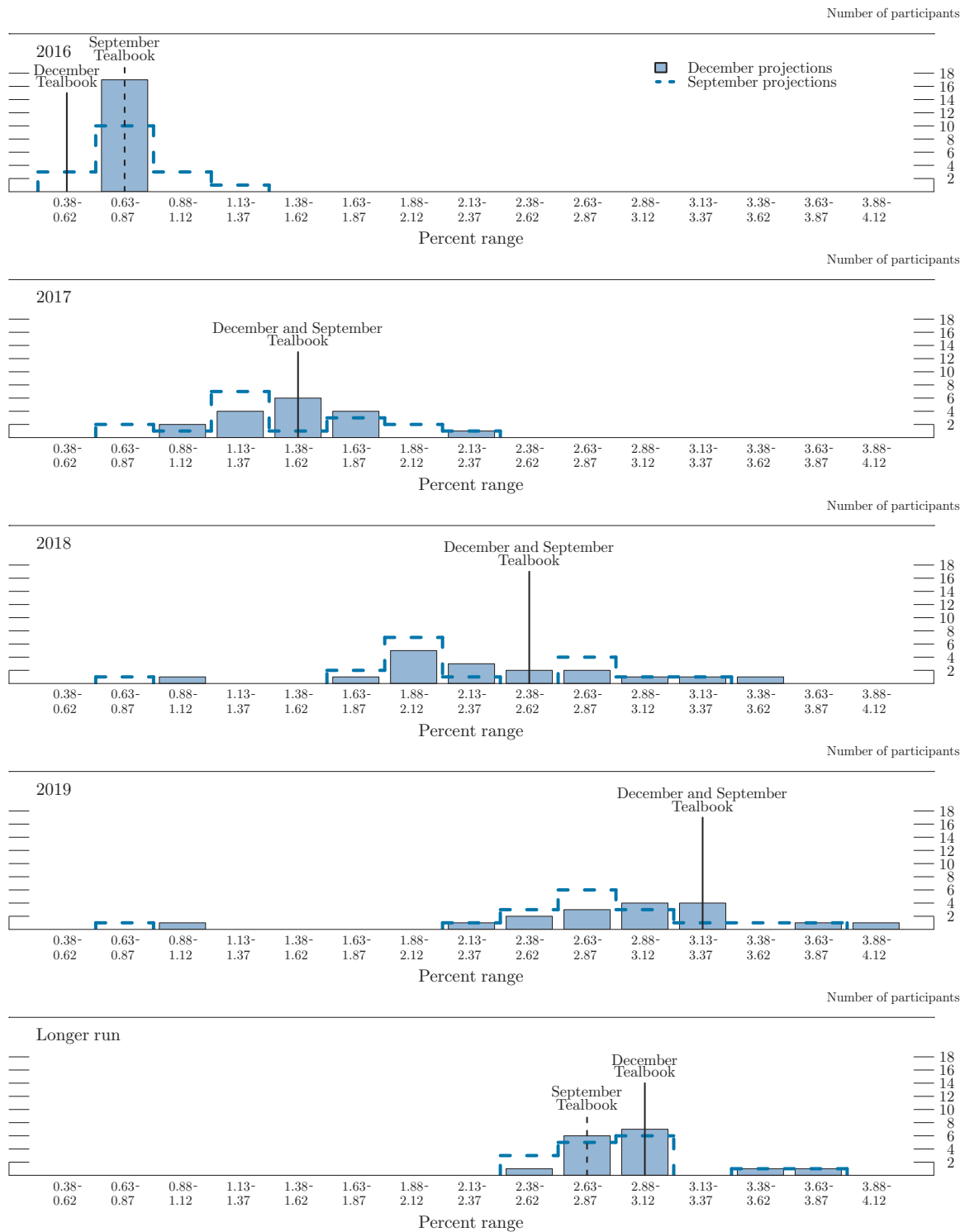
NOTE: Definitions of variables and other explanations are in the notes to table 1.

Figure 3.D. Distribution of participants' projections for core PCE inflation, 2016–19



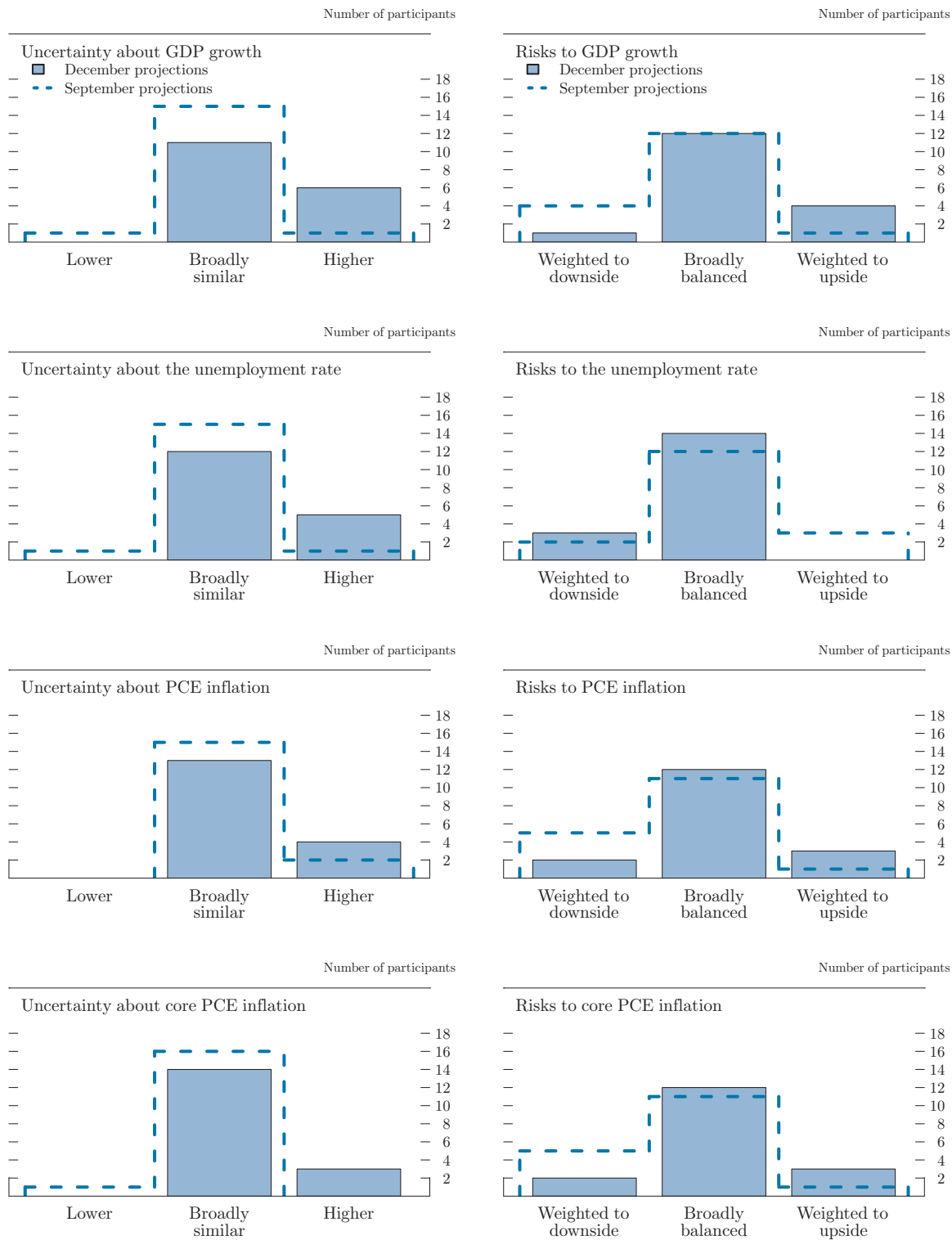
NOTE: Definitions of variables and other explanations are in the notes to table 1.

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, 2016–19 and over the longer run



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

Figure 4. Uncertainty and risks in economic projections



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