

Prefatory Note

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

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Class II FOMC – Restricted (FR)

Report to the FOMC on Economic Conditions and Monetary Policy



Book A Economic and Financial Conditions: Outlook, Risks, and Policy Strategies

January 19, 2018

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

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Comparing the Staff Projection with Other Forecasts

The staff's projection for real GDP growth in 2017 is a touch above the projections from both the Survey of Professional Forecasters (SPF) and the Blue Chip consensus and somewhat above both of them in 2018. The staff's unemployment rate forecast is similar to the SPF and Blue Chip forecasts in 2017 and about $\frac{1}{2}$ percentage point below them in 2018. The staff's projection for CPI inflation is above the Blue Chip and SPF forecasts in both 2017 and 2018. The staff's projections for overall PCE price inflation and for core PCE inflation are a little higher than the SPF forecasts in both 2017 and 2018.

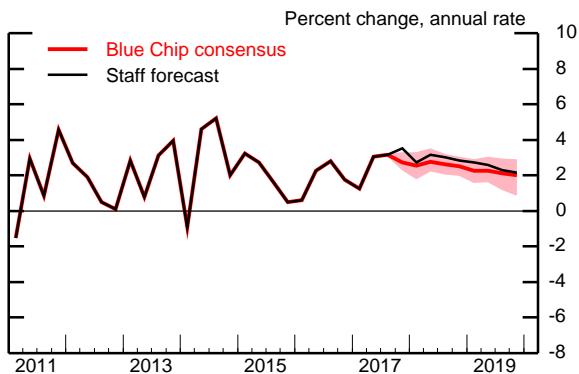
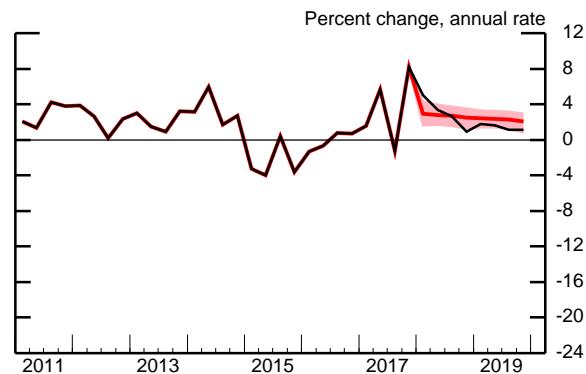
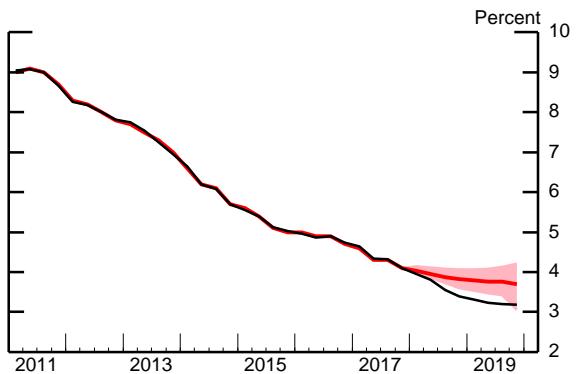
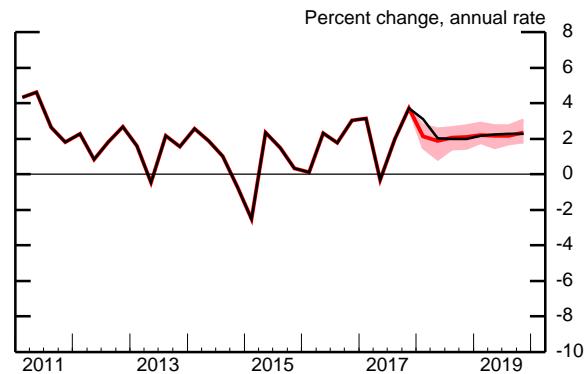
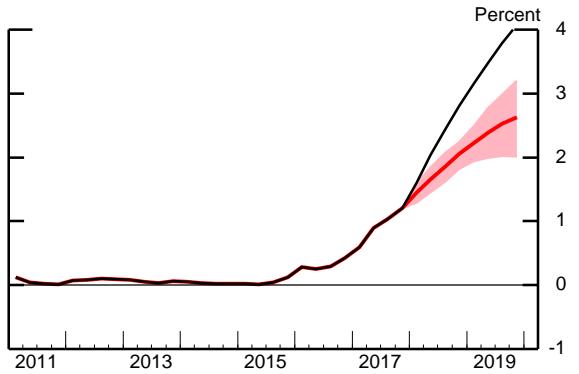
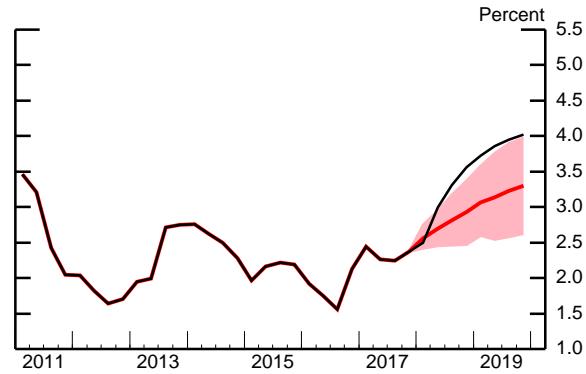
Comparison of Tealbook and Outside Forecasts

	2017	2018
GDP (Q4/Q4 percent change)		
January Tealbook	2.7	2.9
Blue Chip (01/10/18)	2.6	2.6
SPF median (11/13/17)	2.6	2.3
Unemployment rate (Q4 level)		
January Tealbook	4.1	3.4
Blue Chip (01/10/18)	4.1	3.8
SPF median (11/13/17)	4.2	4.0
CPI inflation (Q4/Q4 percent change)		
January Tealbook	2.1	2.3
Blue Chip (01/10/18)	2.0	2.0
SPF median (11/13/17)	1.8	2.1
PCE price inflation (Q4/Q4 percent change)		
January Tealbook	1.7	1.9
SPF median (11/13/17)	1.5	1.8
Core PCE price inflation (Q4/Q4 percent change)		
January Tealbook	1.5	1.9
SPF median (11/13/17)	1.4	1.8

Note: SPF is the Survey of Professional Forecasters, CPI is the consumer price index, and PCE is personal consumption expenditures. Blue Chip does not provide results for overall and core PCE price inflation. The Blue Chip consensus forecast includes input from about 50 panelists, and the SPF about 40. Roughly 20 panelists contribute to both surveys.

Source: Blue Chip Economic Indicators; Federal Reserve Bank of Philadelphia.

Tealbook Forecast Compared with Blue Chip (Blue Chip survey released January 10, 2018)

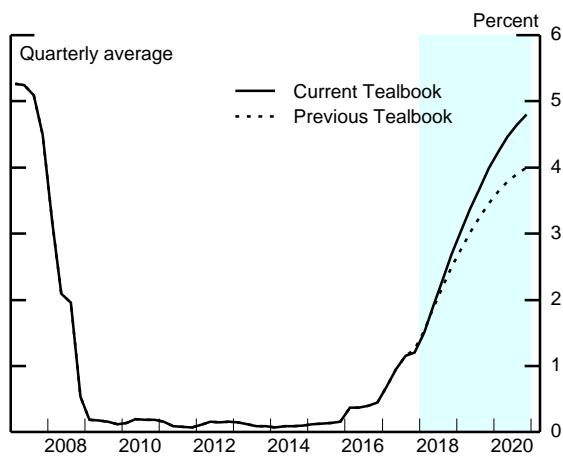
Real GDP**Industrial Production****Unemployment Rate****Consumer Price Index****Treasury Bill Rate****10-Year Treasury Yield**

Note: The yield is for on-the-run Treasury securities. Over the forecast period, the staff's projected yield is assumed to be 15 basis points below the off-the-run yield.

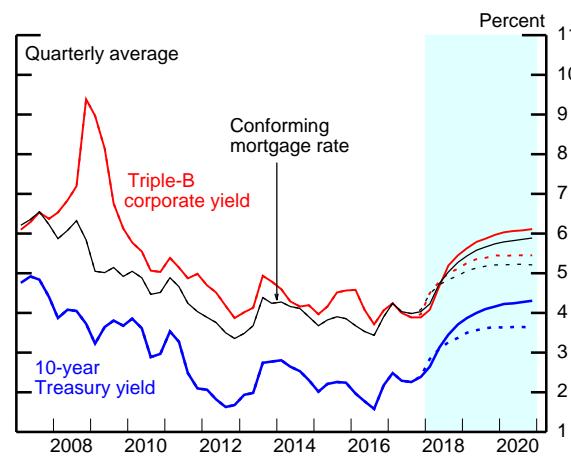
Note: The shaded area represents the area between the Blue Chip top 10 and bottom 10 averages.

Key Background Factors underlying the Baseline Staff Projection

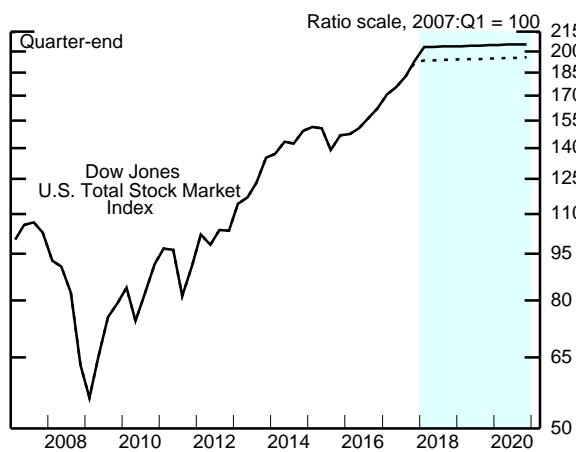
Federal Funds Rate



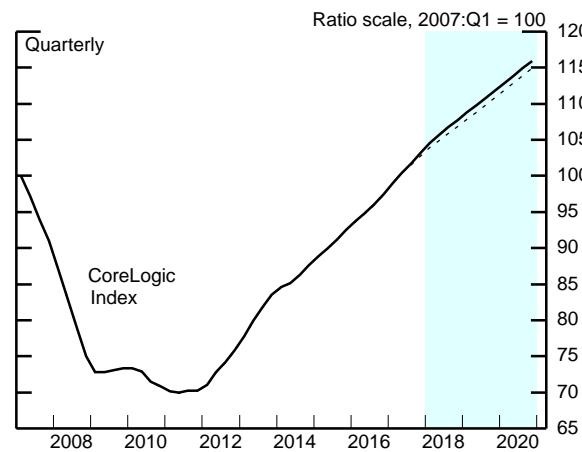
Long-Term Interest Rates



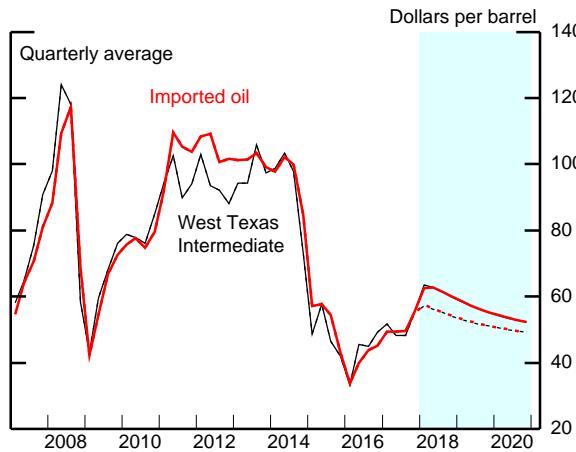
Equity Prices



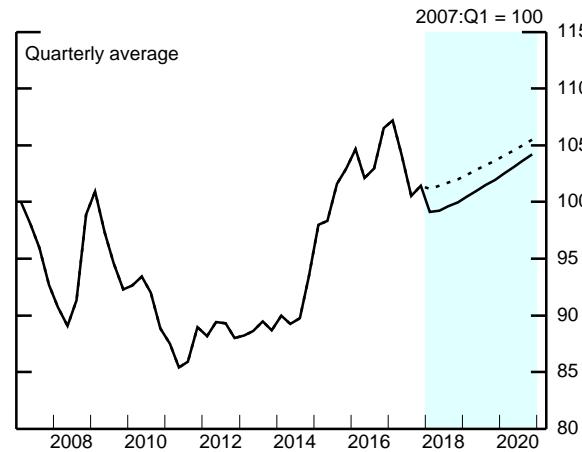
House Prices



Crude Oil Prices



Broad Real Dollar



the additional investment induced by the tax legislation results in capital deepening and, therefore, higher structural productivity and potential output. Over this period, we estimate that the level of potential output will increase by 0.35 percent because of the tax legislation (line 3), mostly as a result of increased labor supply. The boost to potential output further increases demand as households begin to realize higher labor income; for that reason, the potential output effects on GDP are additive to the direct aggregate demand effects in line 2.

After the initial increase in aggregate demand, follow-on multiplier effects will further augment growth (line 4). However, some of the aggregate demand effects will be offset by higher interest rates and a stronger dollar as the widening of the output gap leads to a tightening of monetary policy (line 5). We estimate that, on net, the TCJA will boost the level of real GDP 1¼ percent by the end of 2020 (line 1). But, owing to the increase in potential, the output gap is projected to widen a bit less than 1 percent (line 8). Given the increase in the output gap, we also project that the unemployment rate will be 0.5 percentage point lower at the end of 2020, while core PCE price inflation will be about 0.1 percentage point higher.

These effects are significantly larger than the ones we built into the December Tealbook (line 7). And they are slightly larger than the effects in the December 7, 2017, memo to the FOMC, “Staff’s Revised Fiscal Policy Assumptions” (line 6), as the size of the medium-term tax cuts in the TCJA turned out to be a little larger than we had assumed in that memo.

Our estimates of the act’s effects draw on analyses by other government agencies as well as a careful reading of the relevant academic literature. Nonetheless, many judgment calls are required. Accordingly, there is considerable uncertainty surrounding the effects of this complex legislation.

Tax Cuts and Jobs Act's Effects on the U.S. GDP Outlook

(Percentage point contributions to Q4/Q4 percentage change)

	2017	2018	2019	2020	2017–20
(1) Net fiscal policy: Current	.05	.45	.45	.35	1.25
(2) Direct aggregate demand	.05	.35	.35	.25	.95
(3) Potential output	--	.05	.15	.15	.35
(4) Follow-on multiplier	--	.10	.15	.15	.35
(5) Financial offsets	--	-.05	-.20	-.20	-.45
(6) Net fiscal policy: December 7 memo	.05	.40	.35	.30	1.05
(7) Net fiscal policy: December Tealbook	.05	.15	.10	.10	.40
<i>Memo:</i>					
(8) Output gap*	.05	.45	.75	.90	

Source: Staff estimates.

Note: Contributions may not sum due to rounding.

* Cumulative percentage point effect in Q4 of year shown.

Federal Reserve System Nowcasts of 2017:Q4 Real GDP Growth
(Percent change at annual rate from previous quarter)

Federal Reserve entity	Type of model	Nowcast as of Jan. 17, 2018
Federal Reserve Bank		
Boston	• Mixed-frequency BVAR	3.4
New York	<ul style="list-style-type: none"> • Factor-augmented autoregressive model combination • Factor-augmented autoregressive model combination, financial factors only • Dynamic factor model 	2.1 2.2 3.9
Cleveland	<ul style="list-style-type: none"> • Bayesian regressions with stochastic volatility • Tracking model 	3.6 2.7
Atlanta	<ul style="list-style-type: none"> • Tracking model combined with Bayesian vector autoregressions (VARs), dynamic factor models, and factor-augmented autoregressions (known as GDPNow) 	3.3
Chicago	<ul style="list-style-type: none"> • Dynamic factor models • Bayesian VARs 	3.8 3.7
St. Louis	<ul style="list-style-type: none"> • Dynamic factor models • News index model • Let-the-data-decide regressions 	3.3 3.1 3.1
Kansas City	• Accounting-based tracking estimate	2.5
Board of Governors	<ul style="list-style-type: none"> • Board staff's forecast (judgmental tracking model) • Monthly dynamic factor models (DFM-45) • Mixed-frequency dynamic factor model (DFM-BM) 	3.5 3.7 4.3
Memo: Median of Federal Reserve System nowcasts		3.4

Summary of the Near-Term Outlook

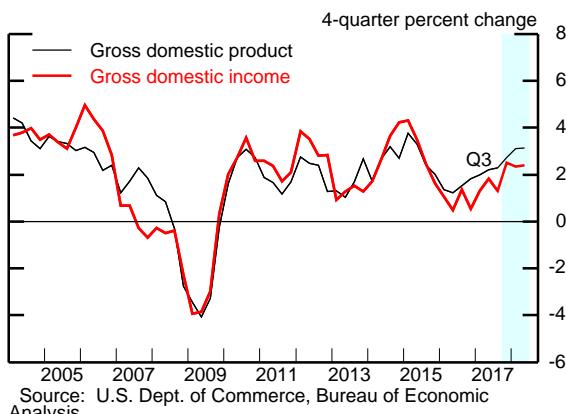
(Percent change at annual rate except as noted)

Measure	2017:Q4		2018:Q1		2018:Q2	
	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook	Previous Tealbook	Current Tealbook
Real GDP	2.2	3.5	2.7	2.7	2.4	3.2
Private domestic final purchases	2.9	4.9	2.8	2.7	3.0	3.5
Personal consumption expenditures	2.5	3.8	2.7	2.6	2.6	2.9
Residential investment	3.2	11.3	1.0	-1.0	5.3	5.2
Nonres. private fixed investment	5.2	8.9	4.0	4.6	4.3	6.3
Government purchases	.7	2.4	.3	-.1	.3	.4
<i>Contributions to change in real GDP</i>						
Inventory investment ¹	-.5	-.4	.4	.5	-.1	.1
Net exports ¹	.0	-.6	-.2	-.1	-.1	.0
Unemployment rate	4.1	4.1	4.0	3.9	3.8	3.8
PCE chain price index	2.8	2.7	1.7	2.4	1.7	1.8
Ex. food and energy	1.9	1.8	1.9	2.1	2.0	2.0

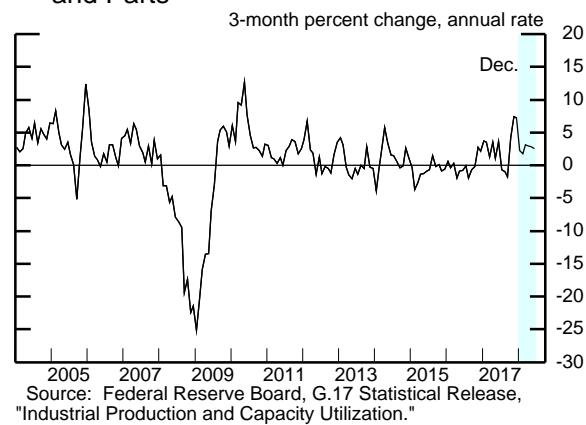
1. Percentage points.

Recent Nonfinancial Developments (1)

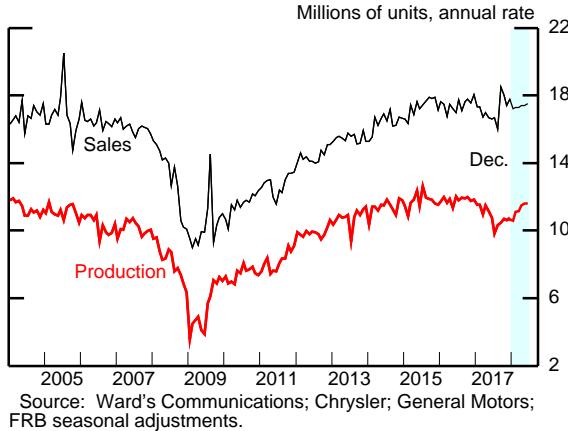
Real GDP and GDI



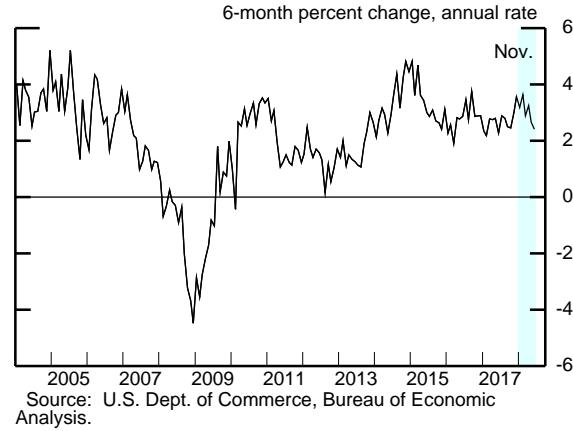
Manufacturing IP ex. Motor Vehicles and Parts



Sales and Production of Light Motor Vehicles

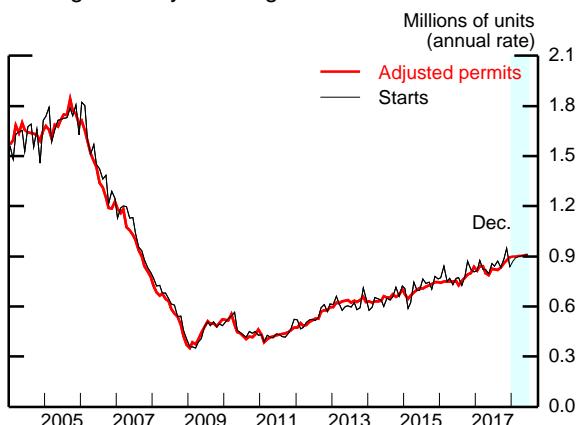


Real PCE Growth



Recent Nonfinancial Developments (2)

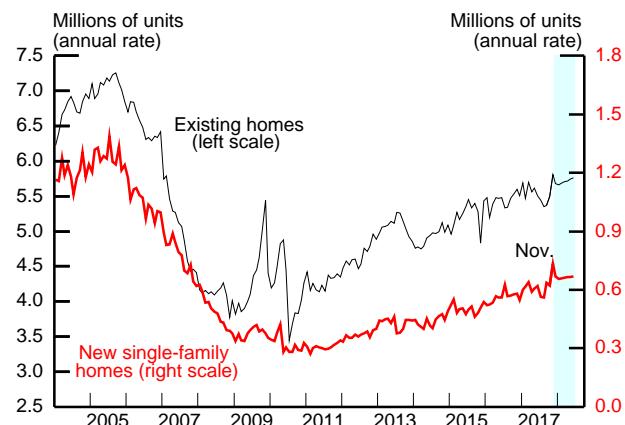
Single-Family Housing Starts and Permits



Note: Adjusted permits equal permit issuance plus starts outside of permit-issuing areas.

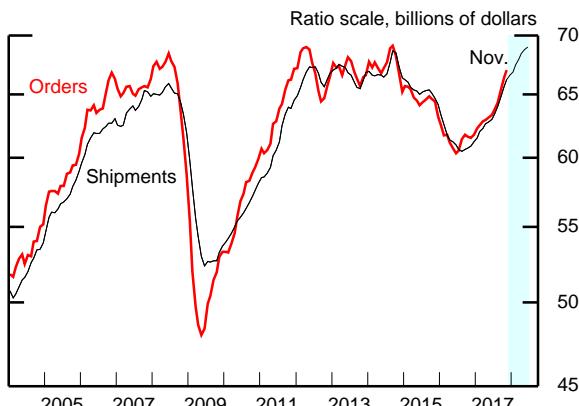
Source: U.S. Census Bureau.

Home Sales



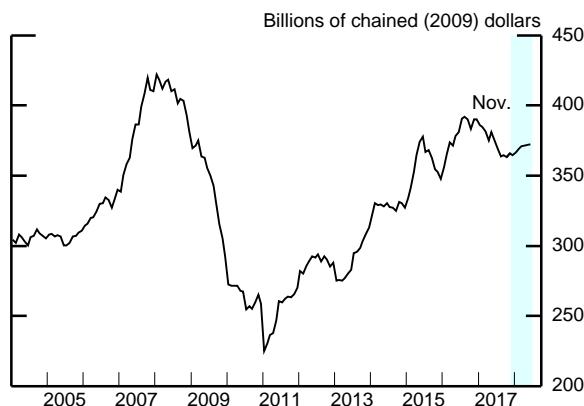
Source: For existing, National Association of Realtors; for new, U.S. Census Bureau.

Nondefense Capital Goods ex. Aircraft



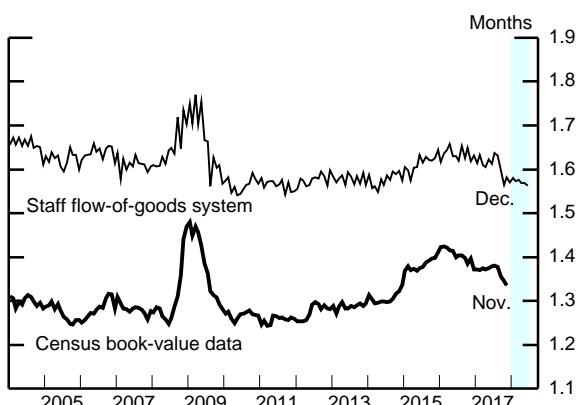
Note: Data are 3-month moving averages.
Source: U.S. Census Bureau.

Nonresidential Construction Put in Place



Note: Nominal CPIP deflated by BEA prices through 2017:Q3 and by the staff's estimated deflator thereafter.
Source: U.S. Census Bureau.

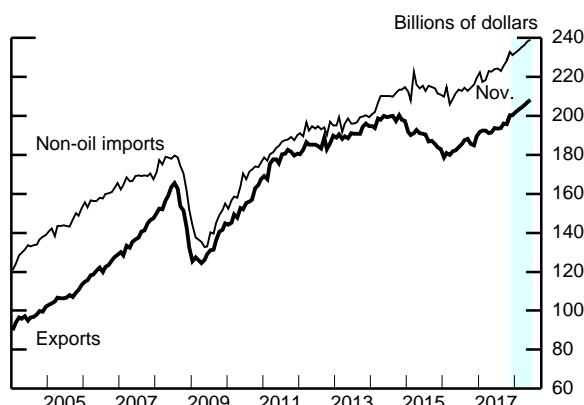
Inventory Ratios



Note: Flow-of-goods system inventories include manufacturing and mining industries and are relative to consumption. Census data cover manufacturing and trade, and inventories are relative to sales.

Source: U.S. Census Bureau; staff calculations.

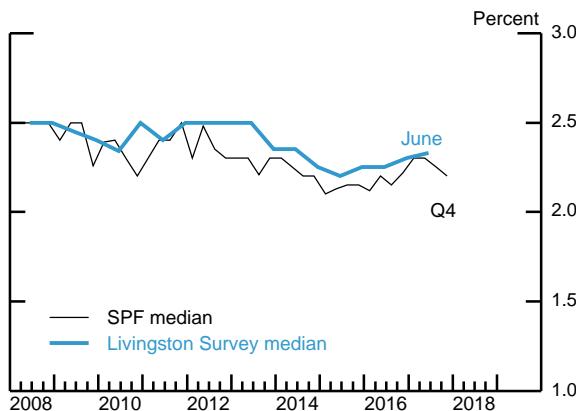
Exports and Non-oil Imports



Note: Forecasts are linear interpolations of quarterly values.
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis; U.S. Census Bureau.

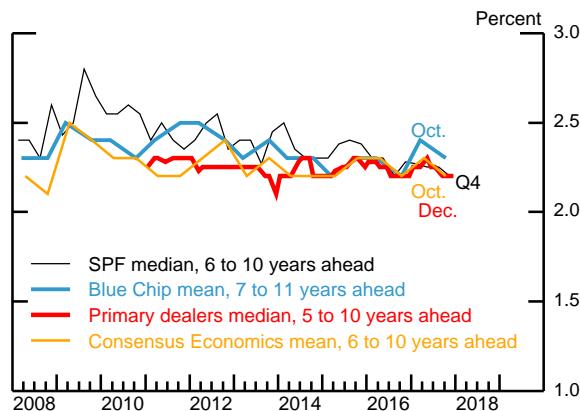
Survey Measures of Longer-Term Inflation Expectations

CPI Next 10 Years



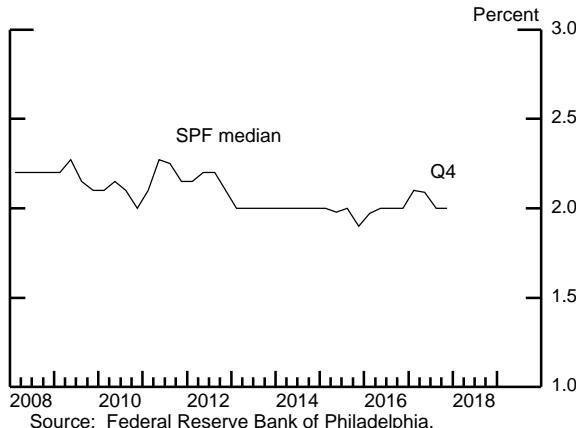
Note: SPF is Survey of Professional Forecasters.
Source: Federal Reserve Bank of Philadelphia.

CPI Forward Expectations



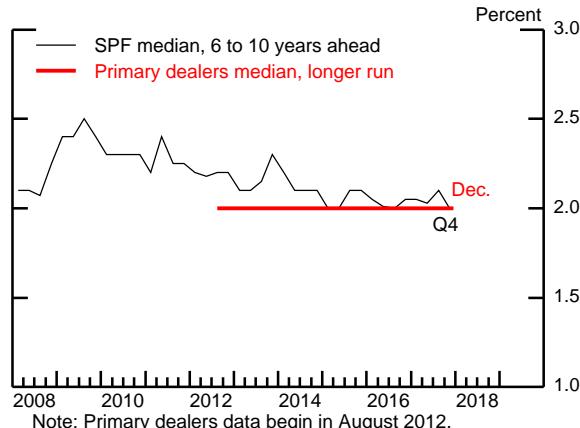
Source: Federal Reserve Bank of Philadelphia; Blue Chip Economic Indicators; Federal Reserve Bank of New York; Consensus Economics.

PCE Next 10 Years



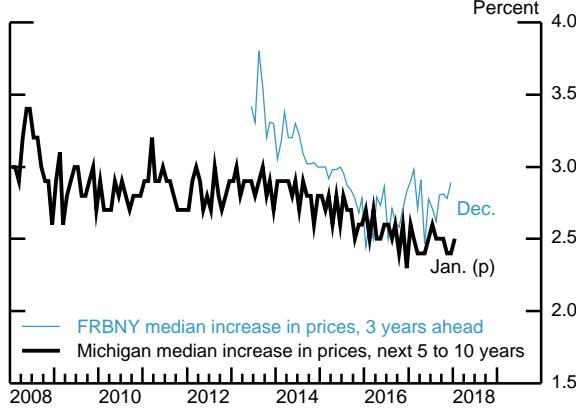
Source: Federal Reserve Bank of Philadelphia.

PCE Forward Expectations



Note: Primary dealers data begin in August 2012.
Source: Federal Reserve Bank of Philadelphia; Federal Reserve Bank of New York.

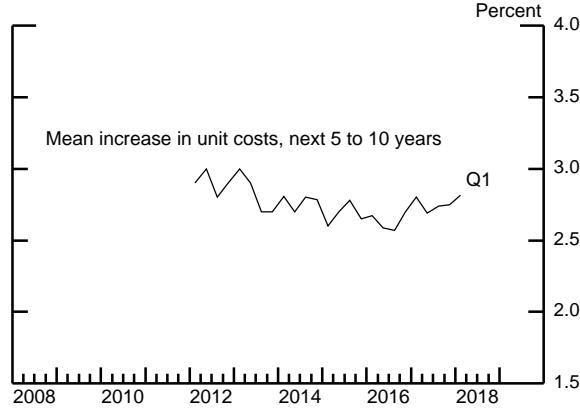
Surveys of Consumers



Note: Federal Reserve Bank of New York (FRBNY) Survey of Consumer Expectations reports expected 12-month inflation rate 3 years from the current survey date. FRBNY data begin in June 2013.

(p) Preliminary.
Source: University of Michigan Surveys of Consumers; Federal Reserve Bank of New York Survey of Consumer Expectations.

Survey of Business Inflation Expectations



Note: Survey of businesses in the Sixth Federal Reserve District. Data begin in February 2012.
Source: Federal Reserve Bank of Atlanta.

Projections of Real GDP and Related Components
 (Percent change at annual rate from final quarter
 of preceding period except as noted)

Measure	2017	2018		2018	2019	2020
		H1	H2			
Real GDP						
Previous Tealbook	2.7 2.4	3.0 2.5	2.9 2.2	2.9 2.4	2.4 2.0	2.0 1.7
Final sales	3.0	2.7	3.2	2.9	2.4	2.0
Previous Tealbook	2.7	2.4	2.5	2.5	1.9	1.7
Personal consumption expenditures	2.8	2.8	3.0	2.9	2.8	2.5
Previous Tealbook	2.5	2.7	2.5	2.6	2.3	2.1
Residential investment	2.2	2.0	6.4	4.2	.4	4.1
Previous Tealbook	.2	3.1	4.6	3.9	2.0	3.4
Nonresidential structures	4.0	3.8	3.6	3.7	1.8	.5
Previous Tealbook	2.1	3.0	2.0	2.5	.7	-.6
Equipment and intangibles	7.7	5.9	5.5	5.7	3.8	2.1
Previous Tealbook	7.2	4.5	3.6	4.0	2.5	1.6
Federal purchases	.8	-1.6	.0	-.8	.3	.7
Previous Tealbook	.2	-1.3	.5	-.4	.6	.5
State and local purchases	.4	1.2	.8	1.0	.8	.9
Previous Tealbook	.0	1.3	.8	1.0	.8	.9
Exports	4.5	4.9	6.3	5.6	4.9	3.3
Previous Tealbook	4.4	3.8	5.3	4.5	4.2	3.1
Imports	3.3	4.0	4.4	4.2	4.4	4.5
Previous Tealbook	2.0	4.0	3.3	3.7	4.1	3.8
Contributions to change in real GDP (percentage points)						
Inventory change	-.3	.3	-.2	.0	.0	.0
Previous Tealbook	-.3	.1	-.3	-.1	.0	.0
Net exports	.0	.0	.1	.0	-.1	-.3
Previous Tealbook	.2	-.1	.1	.0	-.1	-.2

Real GDP

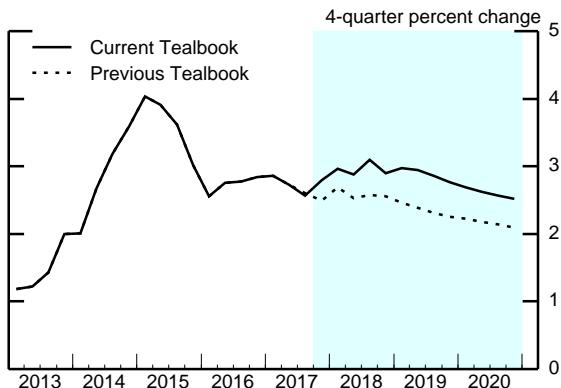


Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

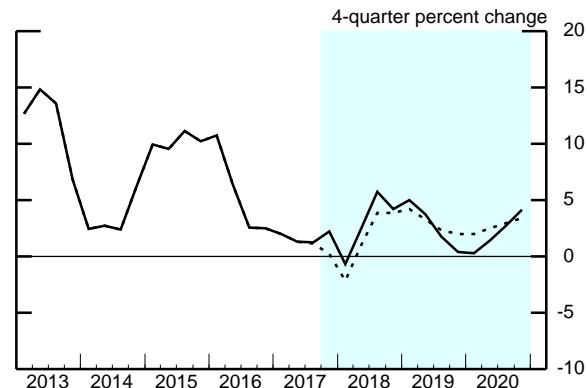
Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Components of Final Demand

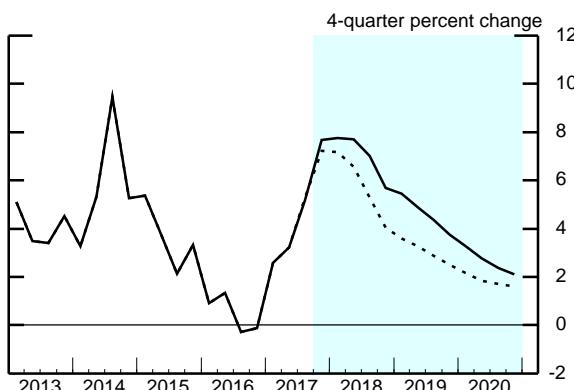
Personal Consumption Expenditures



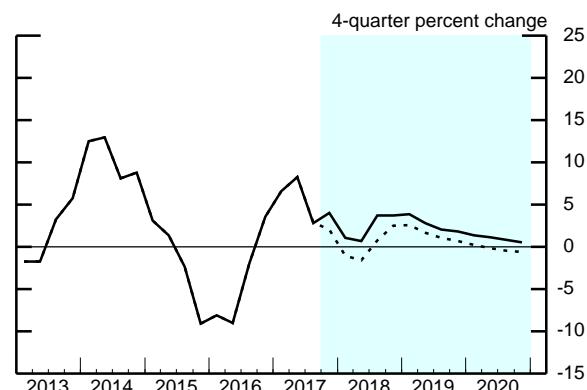
Residential Investment



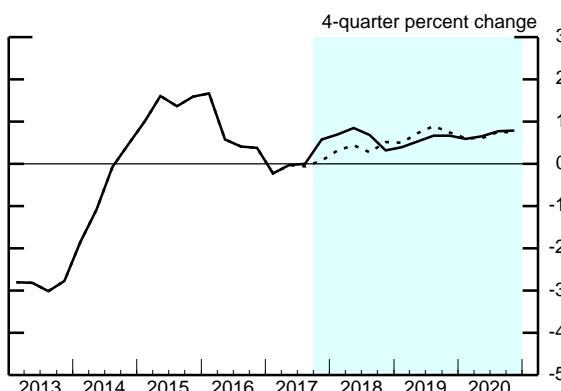
Equipment and Intangibles



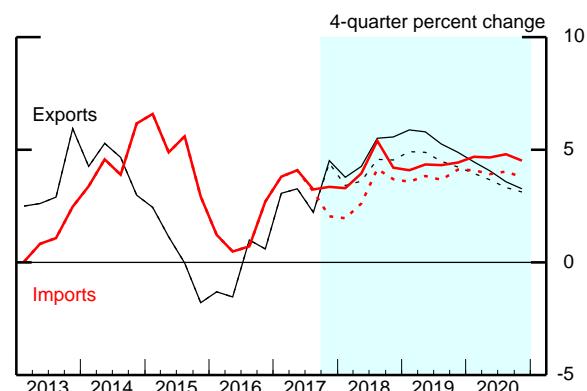
Nonresidential Structures



Government Consumption and Investment



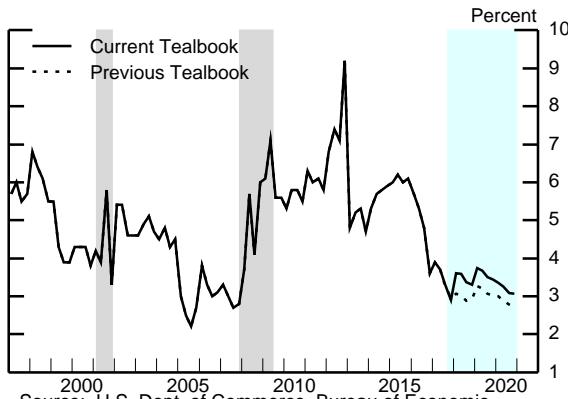
Exports and Imports



Source: U.S. Department of Commerce, Bureau of Economic Analysis.

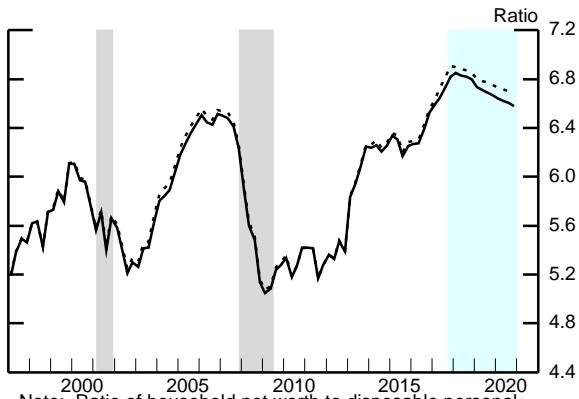
Aspects of the Medium-Term Projection

Personal Saving Rate



Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

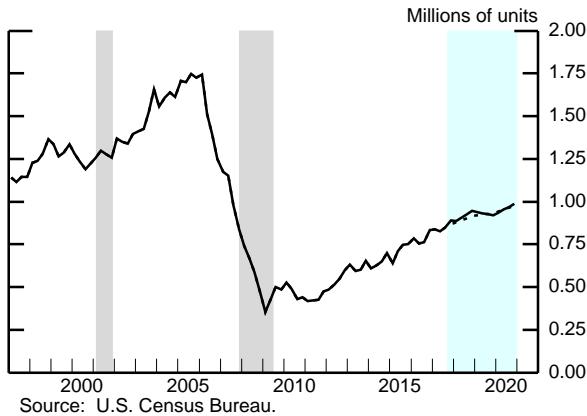
Wealth-to-Income Ratio



Note: Ratio of household net worth to disposable personal income.

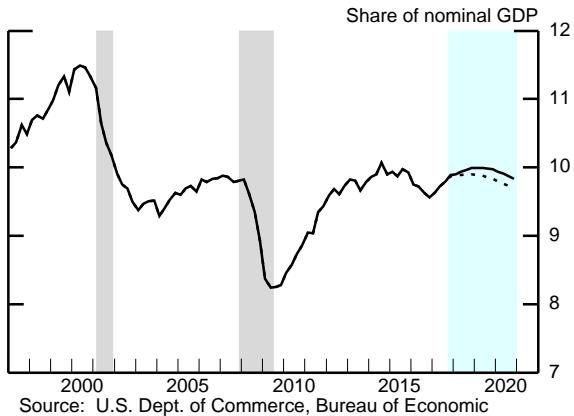
Source: For net worth, Federal Reserve Board, Financial Accounts of the United States; for income, U.S. Dept. of Commerce, Bureau of Economic Analysis.

Single-Family Housing Starts



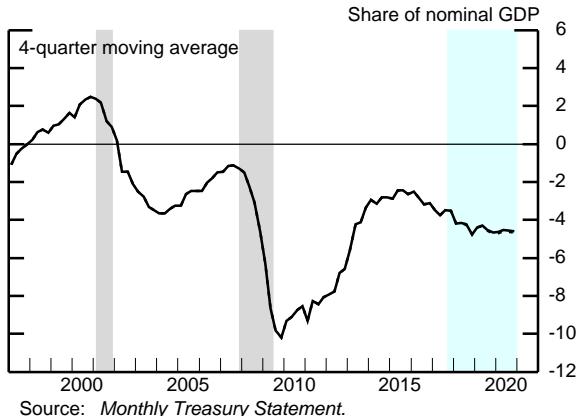
Source: U.S. Census Bureau.

Equipment and Intangibles Spending



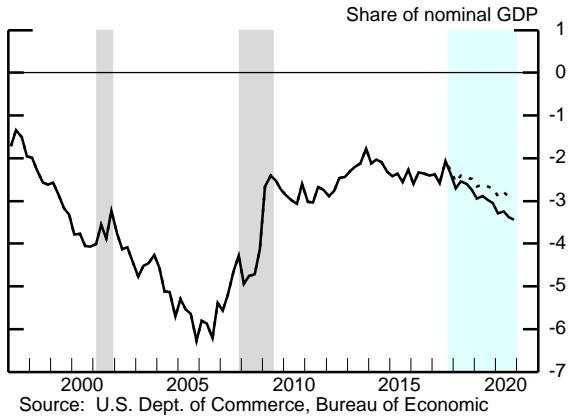
Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Federal Surplus/Deficit



Source: Monthly Treasury Statement.

Current Account Surplus/Deficit



Source: U.S. Dept. of Commerce, Bureau of Economic Analysis.

Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

Decomposition of Potential GDP

(Percent change, Q4 to Q4, except as noted)

Measure	1974-95	1996-2000	2001-07	2008-10	2011-15	2016	2017	2018	2019	2020
Potential real GDP	3.1	3.4	2.6	1.6	1.2	1.4	1.5	1.7	1.8	1.9
Previous Tealbook	3.1	3.4	2.6	1.6	1.2	1.4	1.4	1.6	1.8	1.8
<i>Selected contributions</i> ¹										
Structural labor productivity ²	1.6	2.9	2.8	1.4	.8	.8	1.1	1.2	1.2	1.3
Previous Tealbook	1.6	2.9	2.8	1.4	.8	.8	1.0	1.1	1.3	1.3
Capital deepening	.6	1.5	1.0	.3	.5	.5	.5	.6	.6	.5
Multifactor productivity	.7	1.0	1.5	.9	.1	.1	.4	.5	.5	.6
Structural hours	1.6	1.2	.8	.0	.6	.8	.2	.5	.6	.6
Previous Tealbook	1.6	1.2	.8	.0	.6	.8	.2	.5	.5	.5
Labor force participation	.4	-.1	-.2	-.5	-.6	-.3	-.3	-.3	-.2	-.2
Previous Tealbook	.4	-.1	-.2	-.5	-.6	-.3	-.3	-.3	-.3	-.3
Memo:										
Output gap ³	-1.9	2.4	.8	-4.2	-.1	.3	1.5	2.7	3.3	3.3
Previous Tealbook	-1.9	2.4	.8	-4.2	-.1	.3	1.3	2.1	2.3	2.1

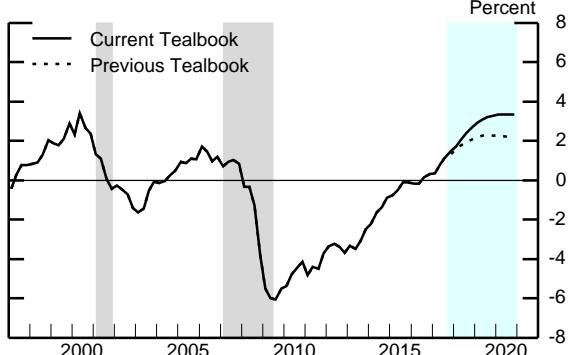
Note: For multiyear periods, the percent change is the annual average from Q4 of the year preceding the first year shown to Q4 of the last year shown.

1. Percentage points.

2. Total business sector.

3. Percent difference between actual and potential GDP in the final quarter of the period indicated. A negative number indicates that the economy is operating below potential.

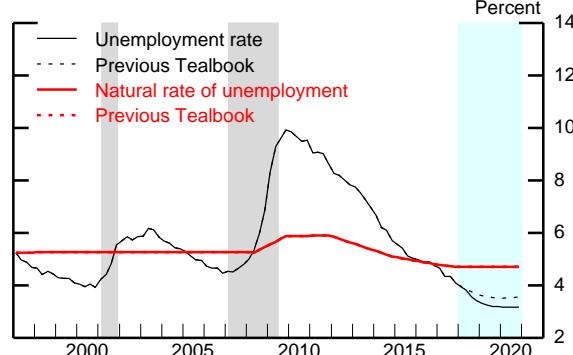
Output Gap



Note: The output gap is the percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential.

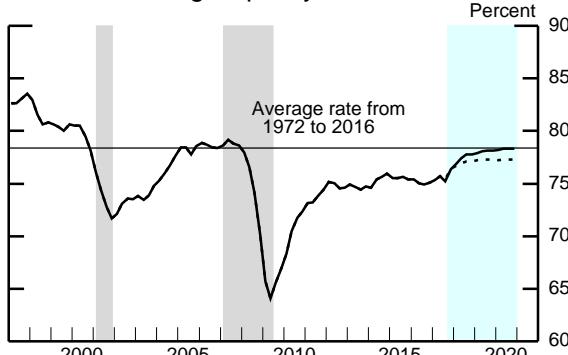
Source: U.S. Department of Commerce, Bureau of Economic Analysis; staff assumptions.

Unemployment Rate



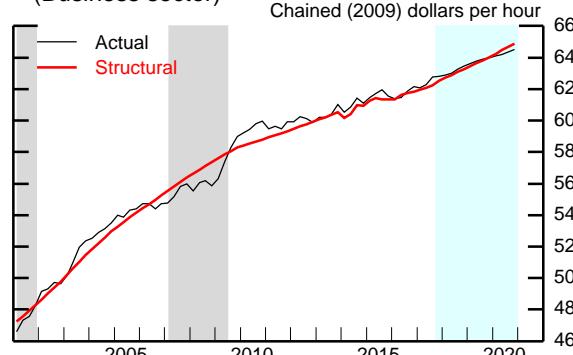
Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

Manufacturing Capacity Utilization Rate



Source: Federal Reserve Board, G.17 Statistical Release, "Industrial Production and Capacity Utilization."

Structural and Actual Labor Productivity (Business sector)



Source: U.S. Department of Labor, Bureau of Labor Statistics; U.S. Department of Commerce, Bureau of Economic Analysis; staff assumptions.

Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

The Outlook for the Labor Market

Measure	2017	2018		2018	2019	2020
		H1	H2			
Output per hour, business ¹ Previous Tealbook	1.0 .8	.7 1.2	1.4 .9	1.1 1.0	.8 .9	.9 .9
Nonfarm payroll employment ² Previous Tealbook	171 174	186 179	203 179	194 179	179 147	149 117
Private employment ² Previous Tealbook	168 168	178 170	195 170	186 170	170 138	140 108
Labor force participation rate ³ Previous Tealbook	62.7 62.7	62.7 62.7	62.7 62.6	62.7 62.6	62.7 62.5	62.7 62.4
Civilian unemployment rate ³ Previous Tealbook	4.1 4.1	3.8 3.8	3.4 3.6	3.4 3.6	3.2 3.5	3.2 3.5

1. Percent change from final quarter of preceding period at annual rate.

2. Thousands, average monthly changes.

3. Percent, average for the final quarter in the period.

Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

Inflation Projections

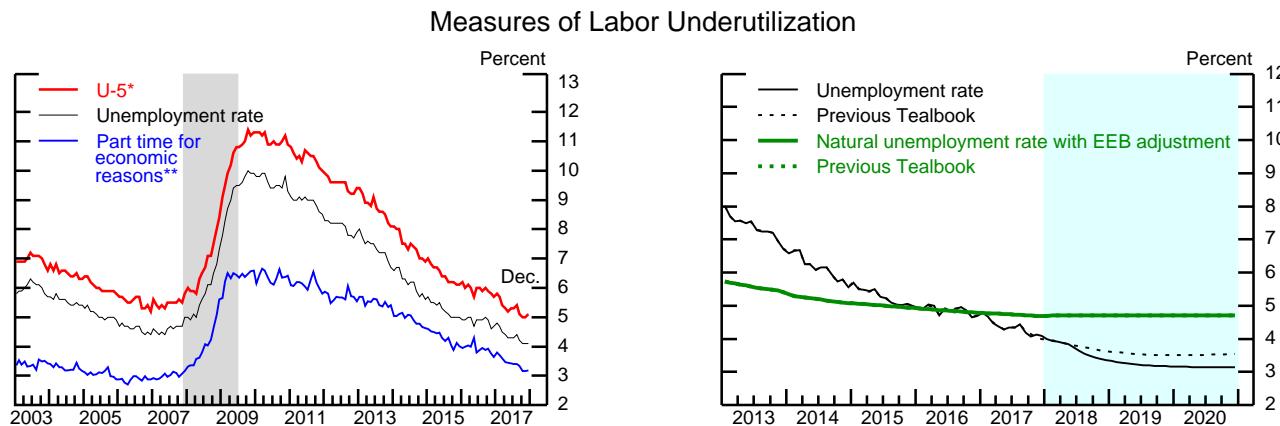
Measure	2017	2018		2018	2019	2020
		H1	H2			
<i>Percent change at annual rate from final quarter of preceding period</i>						
PCE chain-weighted price index Previous Tealbook	1.7 1.7	2.1 1.7	1.6 1.7	1.9 1.7	1.9 1.9	2.0 2.0
Food and beverages Previous Tealbook	.6 .9	1.4 2.1	2.2 2.2	1.8 2.1	2.3 2.3	2.2 2.2
Energy Previous Tealbook	8.2 8.3	3.8 -3.4	-2.2 -1.6	.8 -2.5	-1.1 -.4	-.4 .3
Excluding food and energy Previous Tealbook	1.5 1.5	2.1 1.9	1.8 1.8	1.9 1.8	2.1 2.0	2.1 2.0
Prices of core goods imports ¹ Previous Tealbook	1.3 1.6	2.7 1.0	.9 .8	1.8 .9	.6 .7	.6 .7
	Dec. 2017 ²	Jan. 2018 ²	Feb. 2018 ²	Mar. 2018 ²	Apr. 2018 ²	May 2018 ²
<i>12-month percent change</i>						
PCE chain-weighted price index Previous Tealbook	1.7 1.7	1.5 1.5	1.6 1.5	2.0 1.8	1.9 	2.1
Excluding food and energy Previous Tealbook	1.5 1.5	1.4 1.4	1.4 1.4	1.7 1.7	1.7 	1.8

1. Core goods imports exclude computers, semiconductors, oil, and natural gas.

2. Staff forecast.

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Labor Market Developments and Outlook (1)

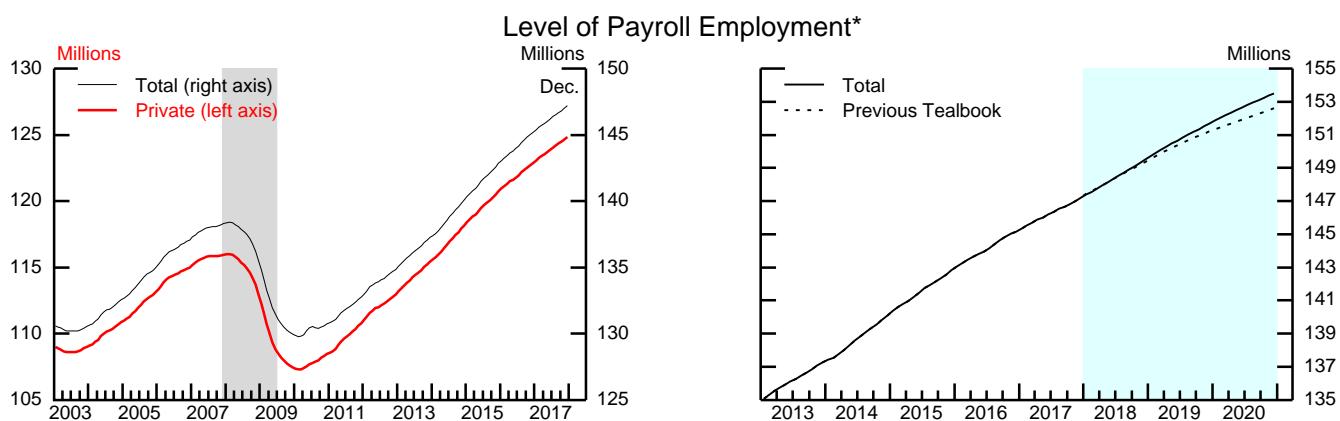


* U-5 measures total unemployed persons plus all marginally attached to the labor force, as a percent of the labor force plus persons marginally attached to the labor force.

** Percent of Current Population Survey employment.

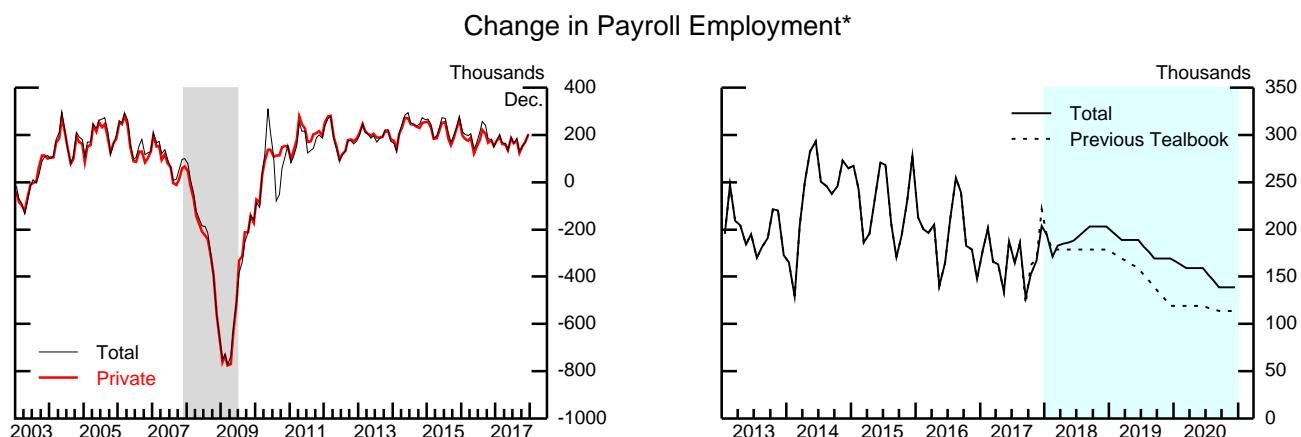
EEB Extended and emergency unemployment benefits.

Source: U.S. Department of Labor, Bureau of Labor Statistics.



* 3-month moving averages.

Source: U.S. Department of Labor, Bureau of Labor Statistics.



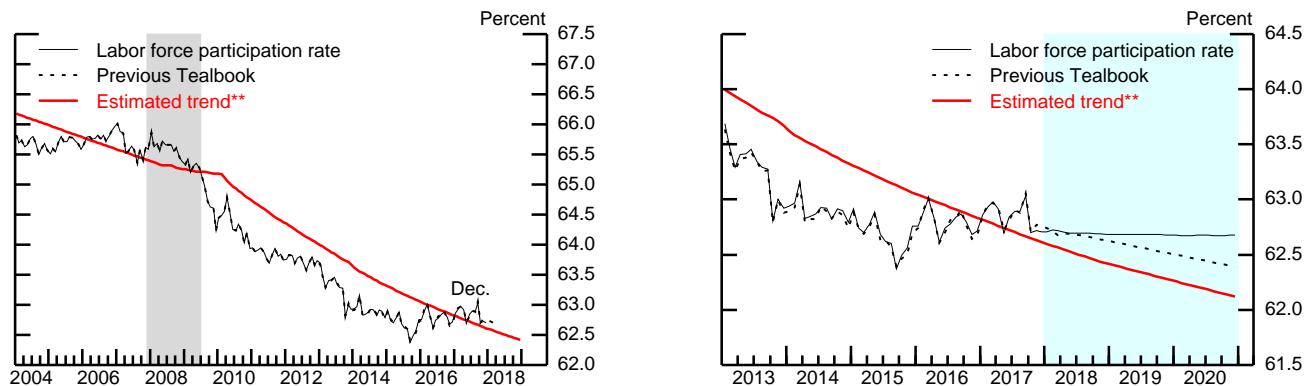
* 3-month moving averages.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

Labor Market Developments and Outlook (2)

Labor Force Participation Rate*

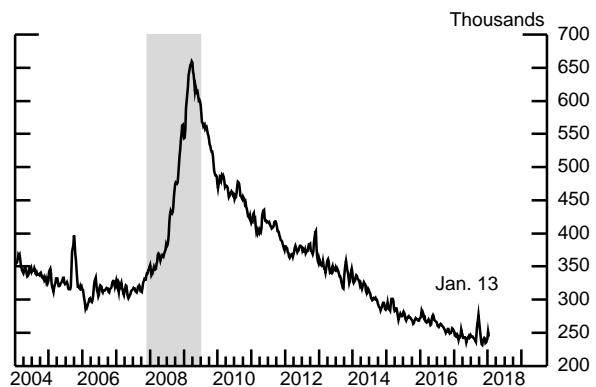


* Published data adjusted by staff to account for changes in population weights.

** Includes staff estimate of the effect of extended and emergency unemployment benefits.

Source: U.S. Department of Labor, Bureau of Labor Statistics; staff assumptions.

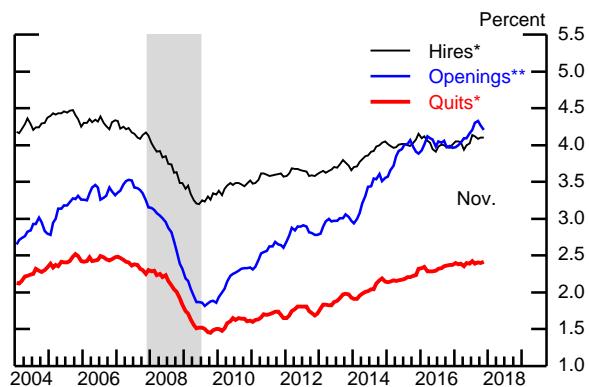
Initial Unemployment Insurance Claims*



* 4-week moving average.

Source: U.S. Department of Labor, Employment and Training Administration.

Hires, Quits, and Job Openings

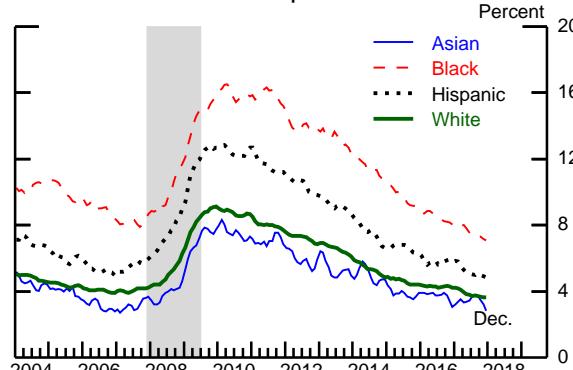


* Percent of private nonfarm payroll employment, 3-month moving average.

** Percent of private nonfarm payroll employment plus unfilled jobs, 3-month moving average.

Source: Job Openings and Labor Turnover Survey.

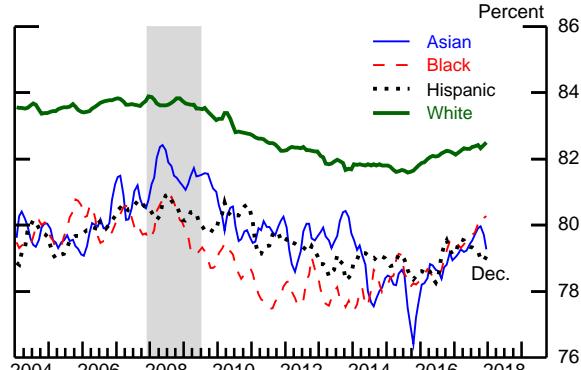
Unemployment Rate by Racial/Ethnic Group



Note: These categories are not mutually exclusive, as the ethnicity Hispanic may include people of any race. The Current Population Survey defines Hispanic ethnicity as those who report their origin is Mexican, Puerto Rican, Cuban, Central American, or South American (and some others). 3-month moving averages.

Source: U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey.

Labor Force Participation Rate by Racial/Ethnic Group, 25 to 54 years old



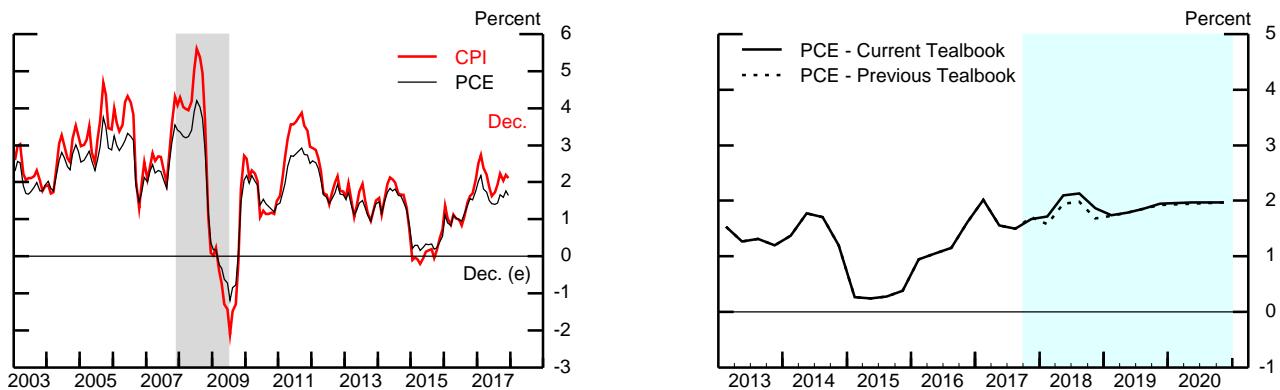
Note: These categories are not mutually exclusive, as the ethnicity Hispanic may include people of any race. The Current Population Survey defines Hispanic ethnicity as those who report their origin is Mexican, Puerto Rican, Cuban, Central American, or South American (and some others). 3-month moving averages.

Source: U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey.

Inflation Developments and Outlook (1)

(Percent change from year-earlier period)

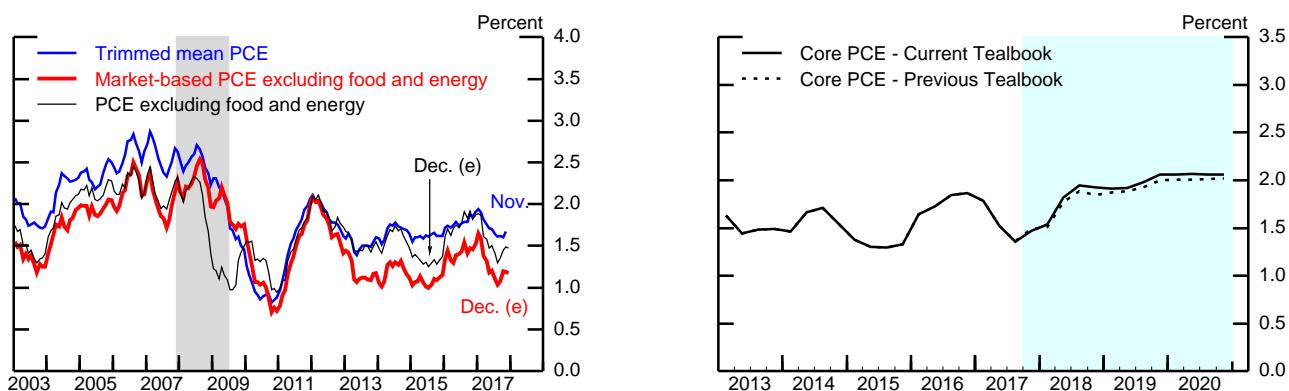
Headline Consumer Price Inflation



Note: PCE prices from October to December 2017 are staff estimates (e).

Source: For CPI, U.S. Department of Labor, Bureau of Labor Statistics; for PCE, U.S. Department of Commerce, Bureau of Economic Analysis.

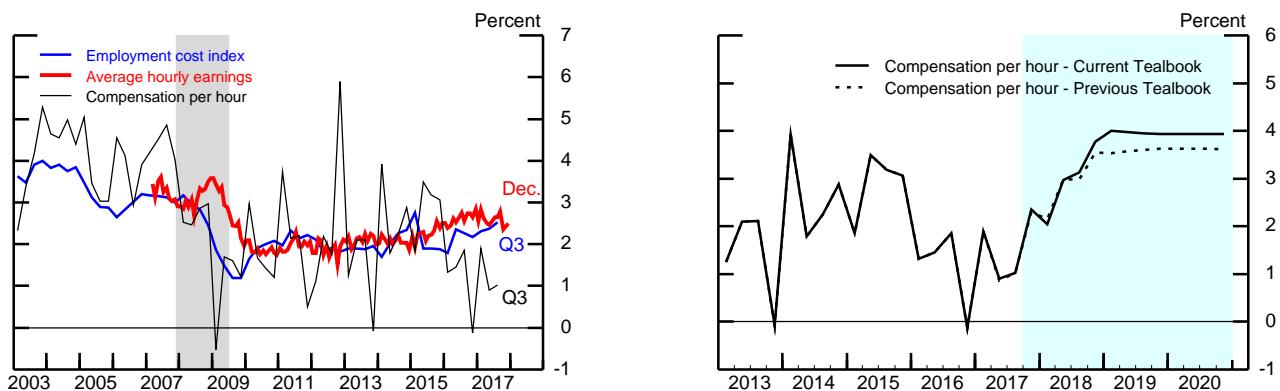
Measures of Underlying PCE Price Inflation



Note: Core PCE prices from October to December 2017 are staff estimates (e).

Source: For trimmed mean PCE, Federal Reserve Bank of Dallas; otherwise, U.S. Department of Commerce, Bureau of Economic Analysis.

Labor Cost Growth



Note: Compensation per hour is for the business sector. Average hourly earnings are for the private nonfarm sector. The employment cost index is for the private sector.

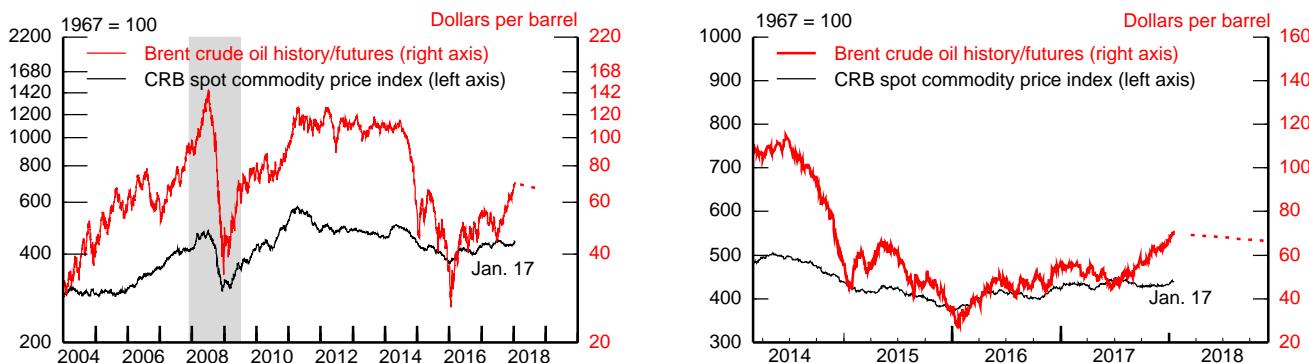
Source: U.S. Department of Labor, Bureau of Labor Statistics.

Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

Inflation Developments and Outlook (2)

(Percent change from year-earlier period, except as noted)

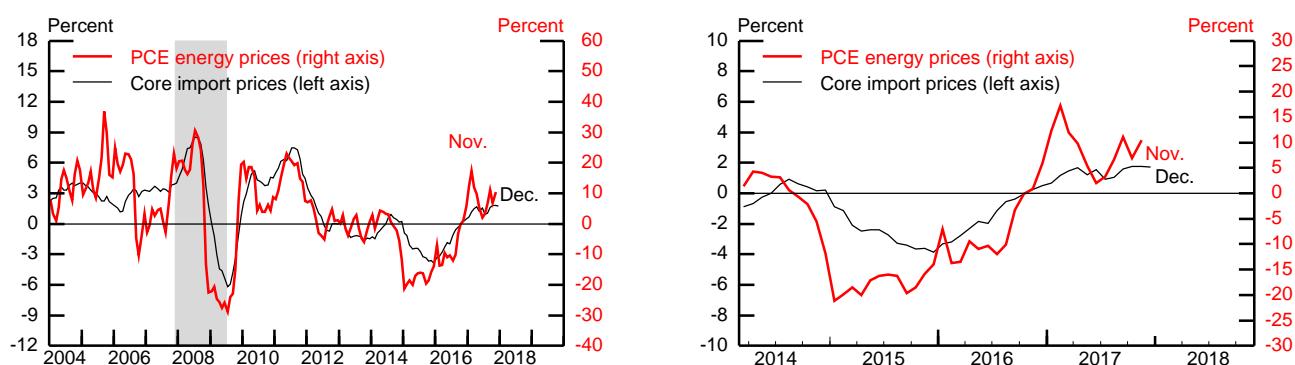
Commodity and Oil Price Levels



Note: Futures prices (dotted lines) are the latest observations on monthly futures contracts.

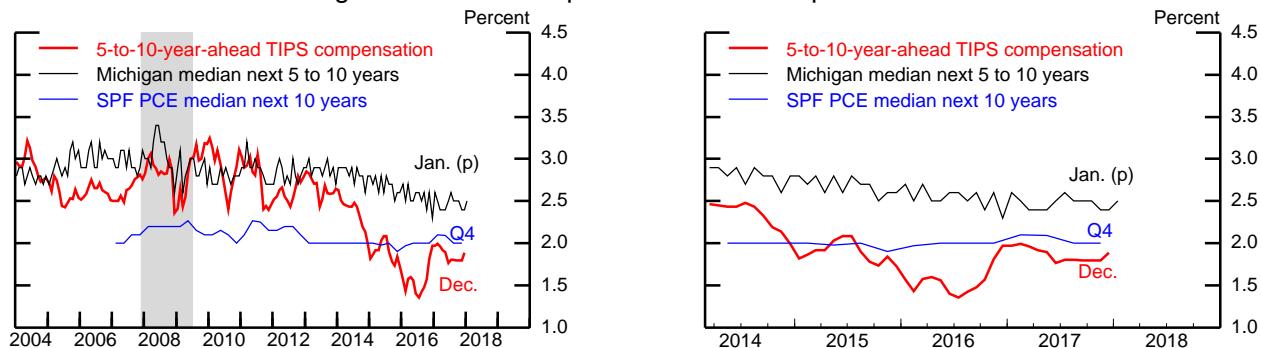
Source: For oil prices, U.S. Department of Energy, Energy Information Agency; for commodity prices, Commodity Research Bureau (CRB).

Energy and Import Price Inflation



Source: For core import prices, U.S. Dept. of Labor, Bureau of Labor Statistics; for PCE, U.S. Dept. of Commerce, Bureau of Economic Analysis.

Long-Term Inflation Expectations and Compensation



Note: Based on a comparison of an estimated TIPS (Treasury Inflation-Protected Securities) yield curve with an estimated nominal off-the-run Treasury yield curve, with an adjustment for the indexation-lag effect.

(p) Preliminary.

SPF Survey of Professional Forecasters.

Source: For Michigan, University of Michigan Surveys of Consumers; for SPF, Federal Reserve Bank of Philadelphia; for TIPS, Federal Reserve Board staff calculations.

Note: The gray shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.

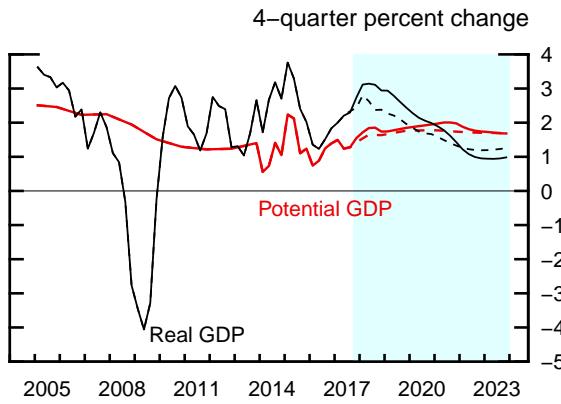
The Long-Term Outlook

(Percent change, Q4 to Q4, except as noted)

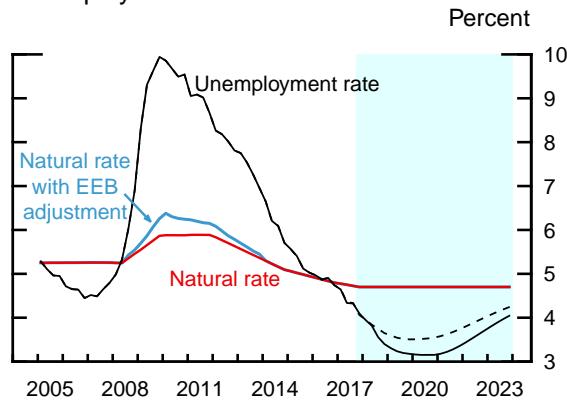
Measure	2017	2018	2019	2020	2021	2022	2023	Longer run
Real GDP Previous Tealbook	2.7 2.4	2.9 2.4	2.4 2.0	2.0 1.7	1.4 1.3	1.0 1.2	1.0 1.3	1.7 1.7
Civilian unemployment rate ¹ Previous Tealbook	4.1 4.1	3.4 3.6	3.2 3.5	3.2 3.5	3.4 3.7	3.7 4.0	4.0 4.2	4.7 4.7
PCE prices, total Previous Tealbook	1.7 1.7	1.9 1.7	1.9 1.9	2.0 2.0	2.1 2.1	2.2 2.1	2.2 2.1	2.0 2.0
Core PCE prices Previous Tealbook	1.5 1.5	1.9 1.8	2.1 2.0	2.1 2.0	2.1 2.1	2.2 2.1	2.2 2.1	2.0 2.0
Federal funds rate ¹ Previous Tealbook	1.20 1.25	2.69 2.50	3.99 3.46	4.80 4.00	5.09 4.16	4.95 4.05	4.57 3.80	2.50 2.50
10-year Treasury yield ¹ Previous Tealbook	2.4 2.4	3.7 3.4	4.2 3.7	4.3 3.6	4.2 3.5	3.9 3.4	3.7 3.3	3.2 2.9

1. Percent, average for the final quarter of the period.

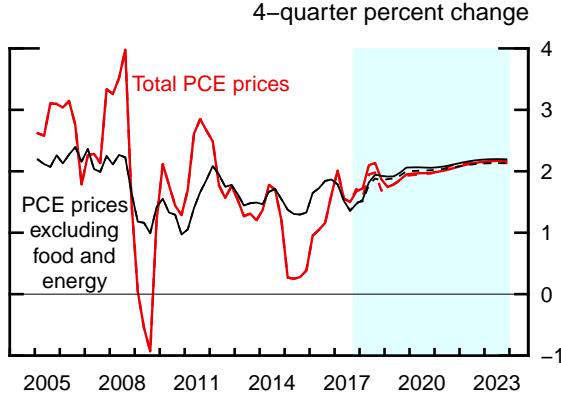
Real GDP



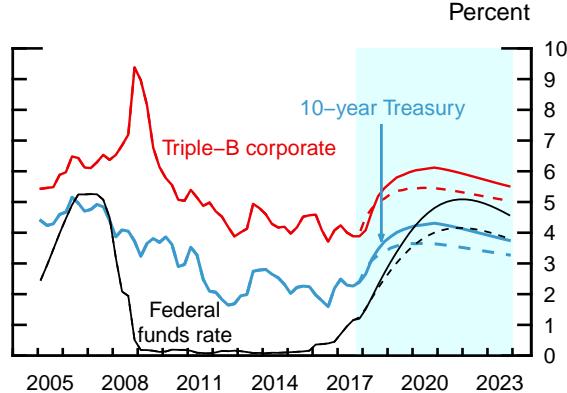
Unemployment Rate



PCE Prices



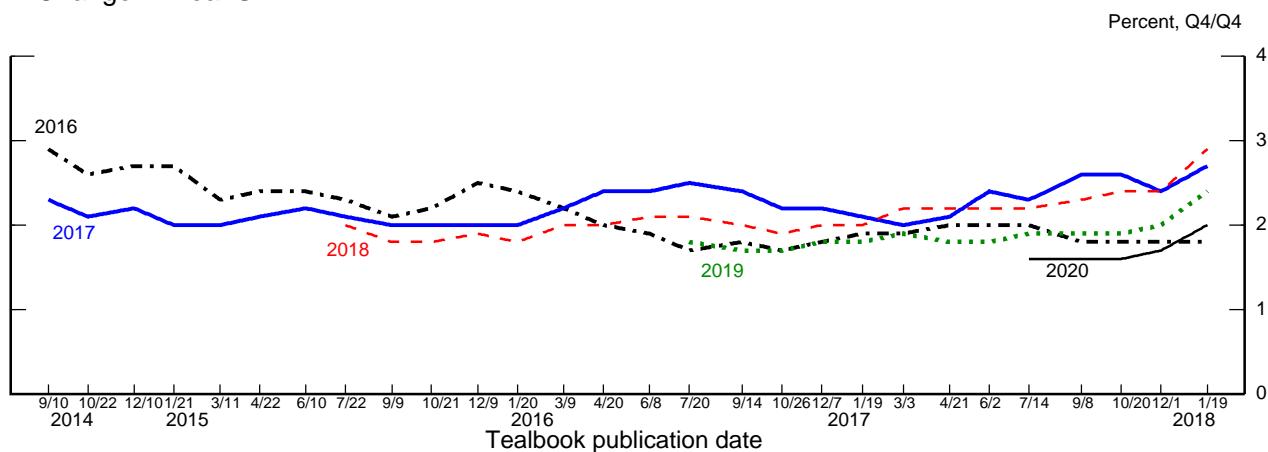
Interest Rates



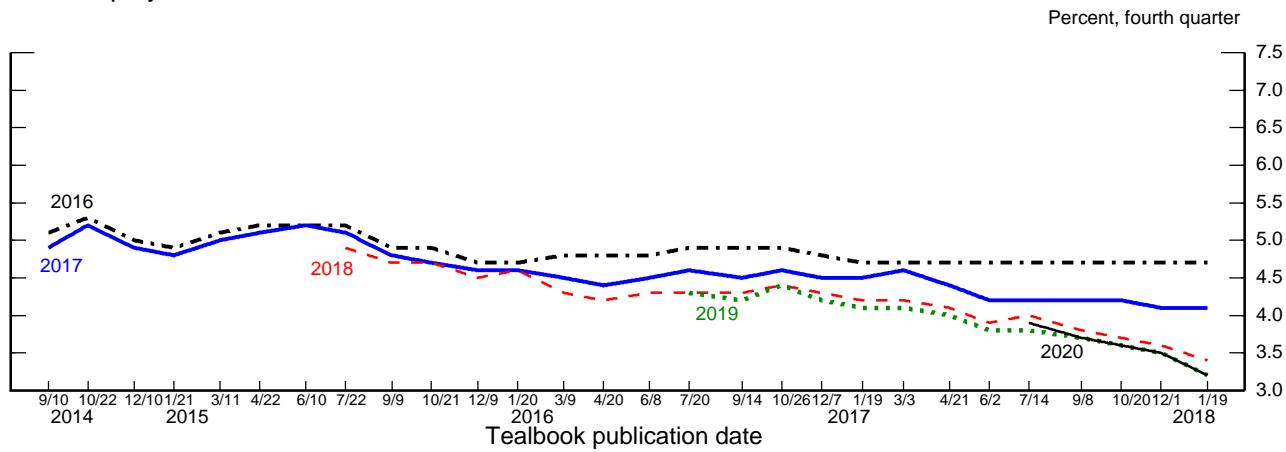
Note: In each panel, shading represents the projection period, and dashed lines are the previous Tealbook.

Evolution of the Staff Forecast

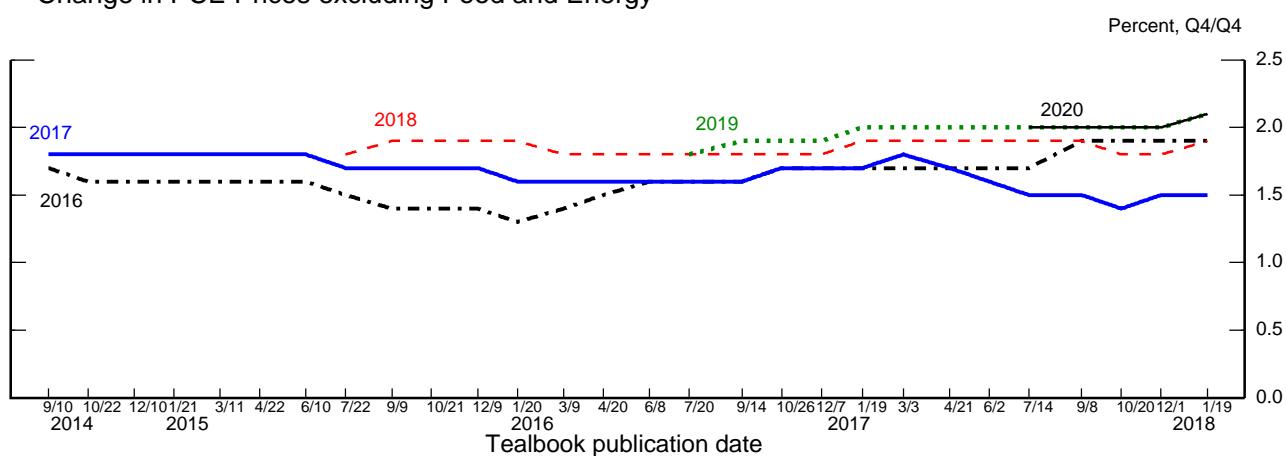
Change in Real GDP



Unemployment Rate



Change in PCE Prices excluding Food and Energy



The Foreign GDP Outlook

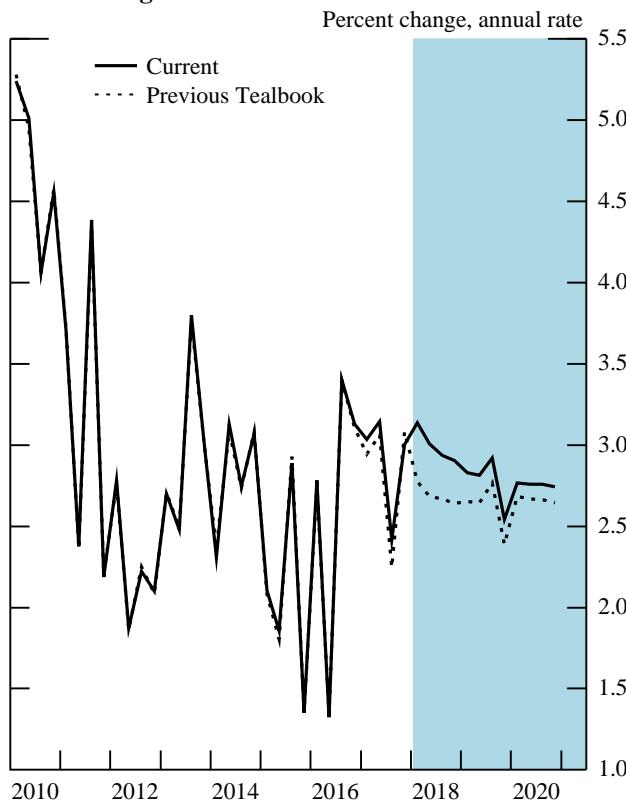
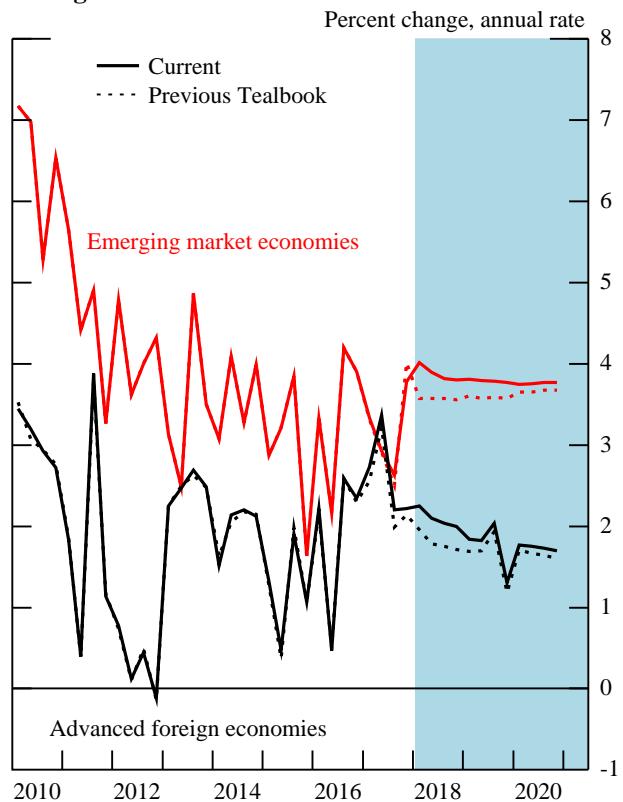
Real GDP*

Percent change, annual rate

	2017			2018			2019	2020
	H1	Q3	Q4	Q1	Q2	H2		
1. Total Foreign	3.1	2.4	3.0	3.1	3.0	2.9	2.8	2.8
Previous Tealbook	3.0	2.2	3.1	2.8	2.7	2.7	2.6	2.7
2. Advanced Foreign Economies	3.0	2.2	2.2	2.2	2.1	2.0	1.8	1.7
Previous Tealbook	2.9	2.0	2.1	2.0	1.8	1.7	1.6	1.7
3. Canada	4.0	1.7	2.0	2.4	2.3	2.2	2.0	1.9
4. Euro Area	2.7	2.9	2.6	2.4	2.1	2.1	1.8	1.7
5. Japan	2.2	2.5	2.0	1.4	1.2	1.0	.3	.9
6. United Kingdom	1.2	1.6	1.8	1.7	1.7	1.6	1.6	1.6
7. Emerging Market Economies	3.1	2.6	3.8	4.0	3.9	3.8	3.8	3.8
Previous Tealbook	3.1	2.5	4.0	3.6	3.6	3.6	3.6	3.7
8. China	6.9	6.5	6.8	6.7	6.6	6.4	6.2	5.9
9. Emerging Asia ex. China	4.2	5.1	4.4	4.2	4.0	4.0	3.8	3.7
10. Mexico	1.7	-1.2	2.7	3.2	3.0	2.8	2.9	3.0
11. Brazil	4.0	.6	1.5	2.5	2.5	2.5	3.0	2.6

* GDP aggregates weighted by shares of U.S. merchandise exports.

Int'l Econ Devel & Outlook

Total Foreign GDP**Foreign GDP**

The Foreign Inflation Outlook

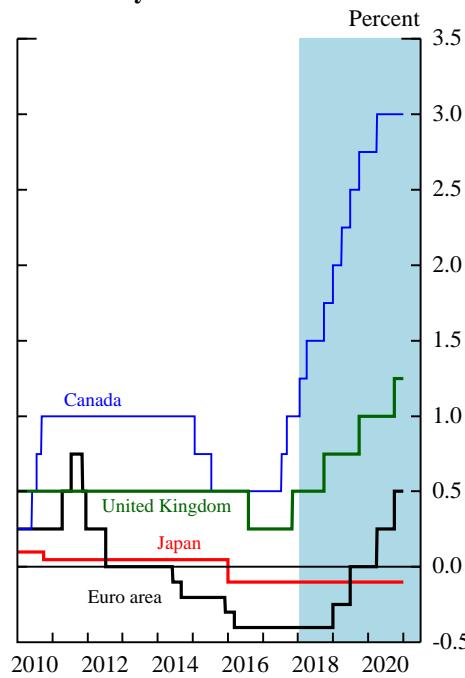
	Consumer Prices*							
	Percent change, annual rate							
	2017			2018			2019	2020
	H1	Q3	Q4	Q1	Q2	H2		
1. Total Foreign Previous Tealbook	2.4	2.2	3.1	2.9	2.5	2.5	2.5	2.4
	2.4	2.2	2.6	2.5	2.5	2.5	2.5	2.4
2. Advanced Foreign Economies Previous Tealbook	1.3	1.1	2.1	2.0	1.6	1.5	1.8	1.7
3. Canada	1.3	1.2	2.5	2.3	2.3	2.2	2.0	2.0
4. Euro Area	1.5	1.0	1.7	1.9	1.3	1.4	1.5	1.7
5. Japan	-.2	.4	2.3	1.3	.6	.6	2.2	1.0
6. United Kingdom	3.4	2.4	2.9	2.8	2.3	2.2	2.2	2.1
7. Emerging Market Economies Previous Tealbook	3.3	3.0	3.8	3.6	3.3	3.2	3.0	2.9
8. China	.9	2.0	3.5	2.8	2.5	2.5	2.5	2.5
9. Emerging Asia ex. China	2.0	2.1	3.1	3.5	3.3	3.2	3.1	3.0
10. Mexico	8.4	5.1	4.5	4.4	3.7	3.6	3.2	3.2
11. Brazil	2.7	2.3	3.6	4.3	4.3	4.3	4.3	4.3

* CPI aggregates weighted by shares of U.S. non-oil imports.

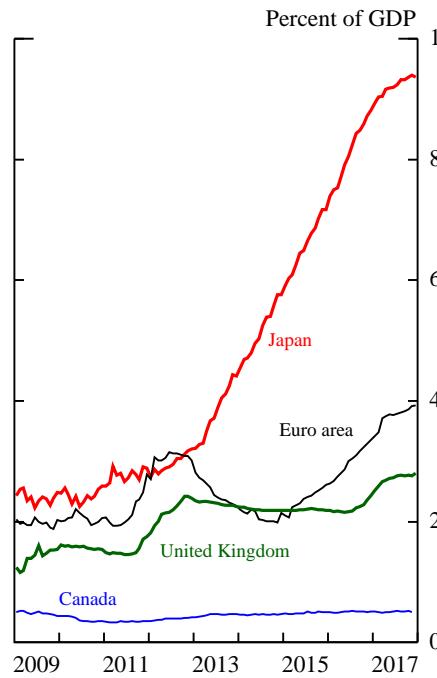
Int'l Econ Devel & Outlook

Foreign Monetary Policy

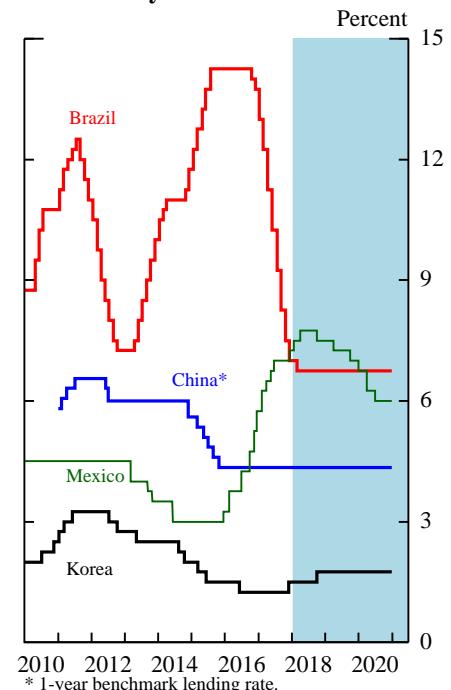
AFF Policy Rates



AFE Central Bank Balance Sheets

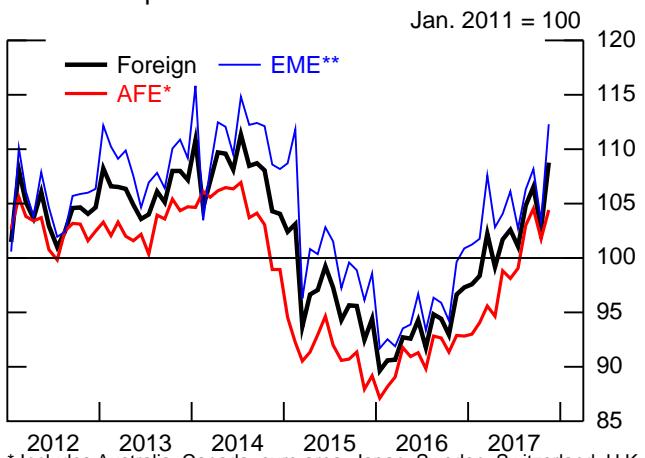


EME Policy Rates



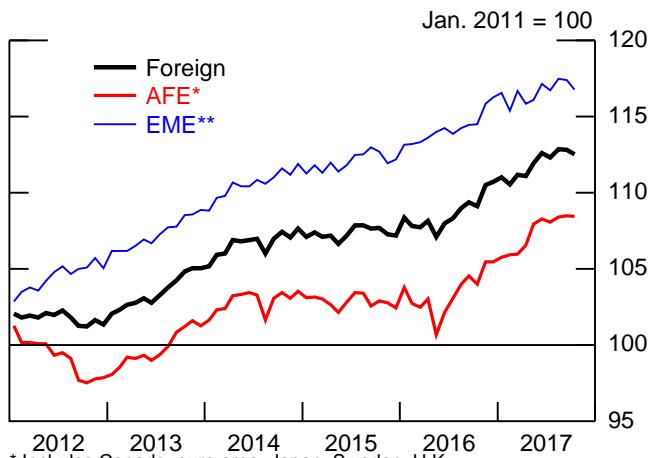
Recent Foreign Indicators

Int'l Econ Devel & Outlook

Nominal Exports

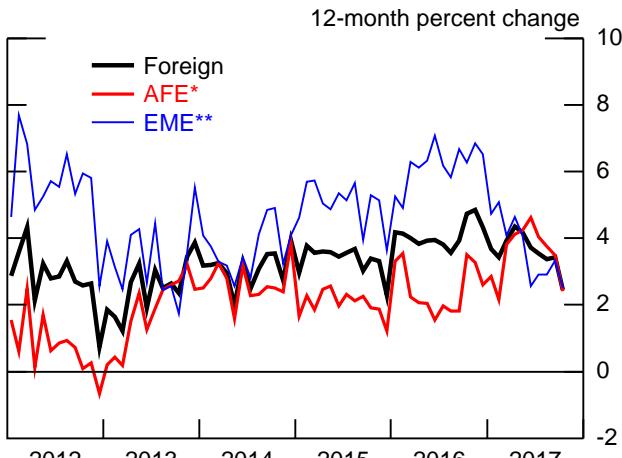
* Includes Australia, Canada, euro area, Japan, Sweden, Switzerland, U.K.

** Includes Argentina, Brazil, Chile, China, Colombia, Hong Kong, India, Indonesia, Israel, Korea, Malaysia, Mexico, Singapore, Taiwan, Thailand.

Industrial Production

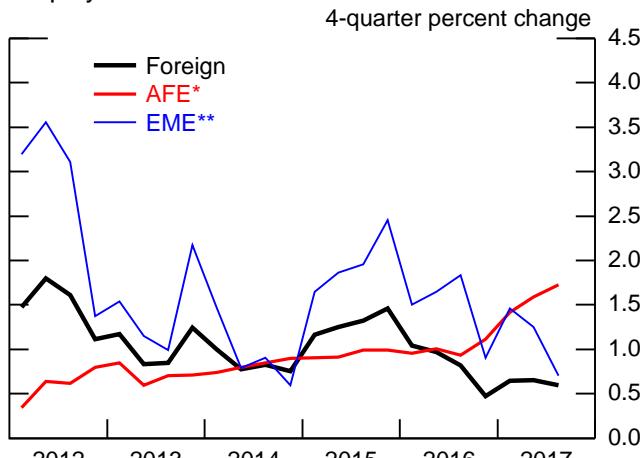
* Includes Canada, euro area, Japan, Sweden, U.K.

** Includes Argentina, Brazil, Chile, China, Colombia, India, Indonesia, Israel, Korea, Malaysia, Mexico, Philippines, Russia, Singapore, Taiwan, Thailand.

Retail Sales

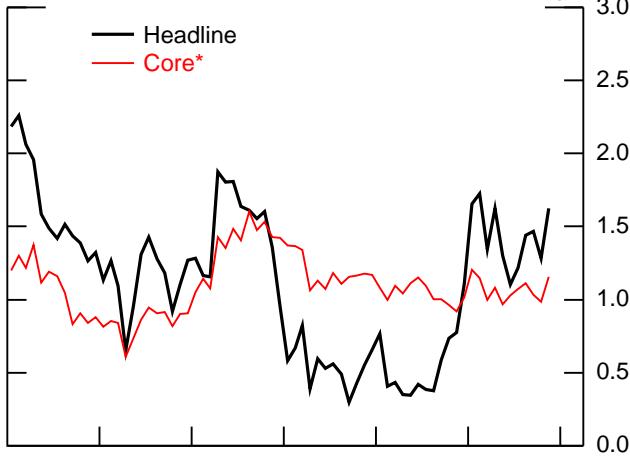
* Includes Canada, euro area, Japan, Sweden, Switzerland, U.K.

** Includes Brazil, Chile, China, Korea, Mexico, Singapore, Taiwan.

Employment

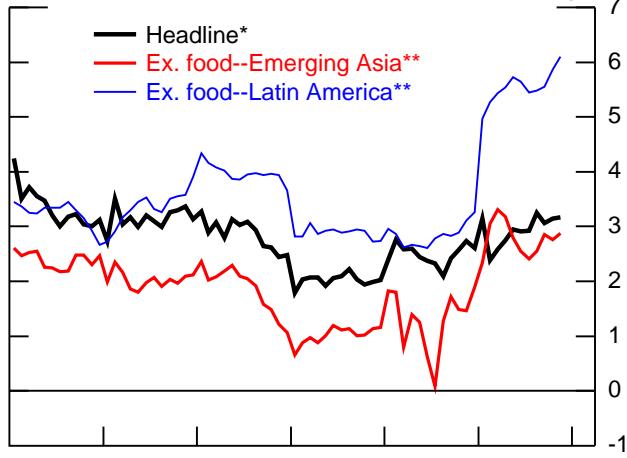
* Includes Australia, Canada, euro area, Japan, Sweden, Switzerland, U.K.

** Includes Chile, Colombia, Hong Kong, Israel, Korea, Mexico, Philippines, Russia, Singapore, Taiwan, Thailand, Turkey.

Consumer Prices: Advanced Foreign Economies
12-month percent change

Note: Includes Canada, euro area, Japan, U.K.
* Excludes all food and energy; staff calculation.

Source: Haver Analytics.

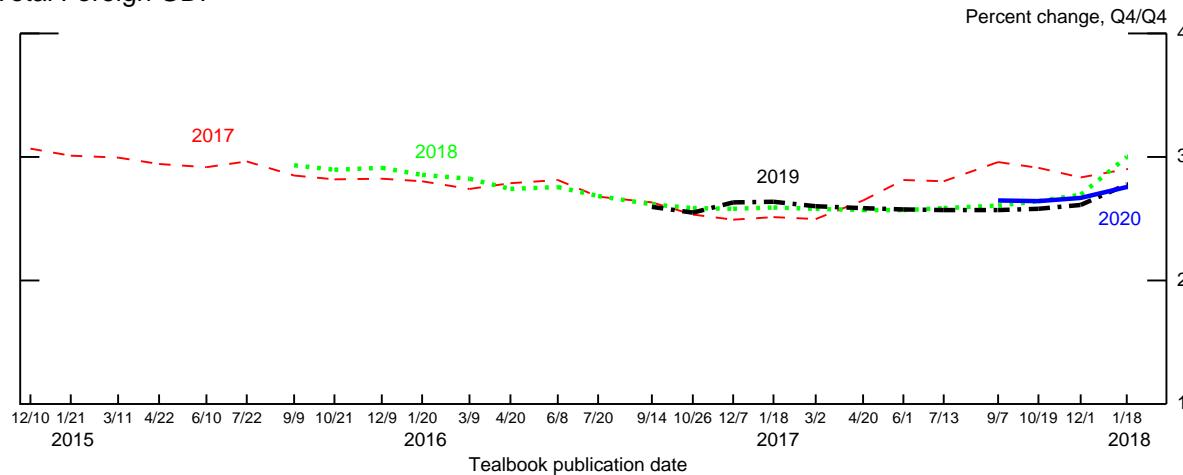
Consumer Prices: Emerging Market Economies
12-month percent change

* Includes Brazil, Chile, China, Colombia, Hong Kong, India, Indonesia, Korea, Malaysia, Mexico, Philippines, Singapore, Taiwan, Thailand.

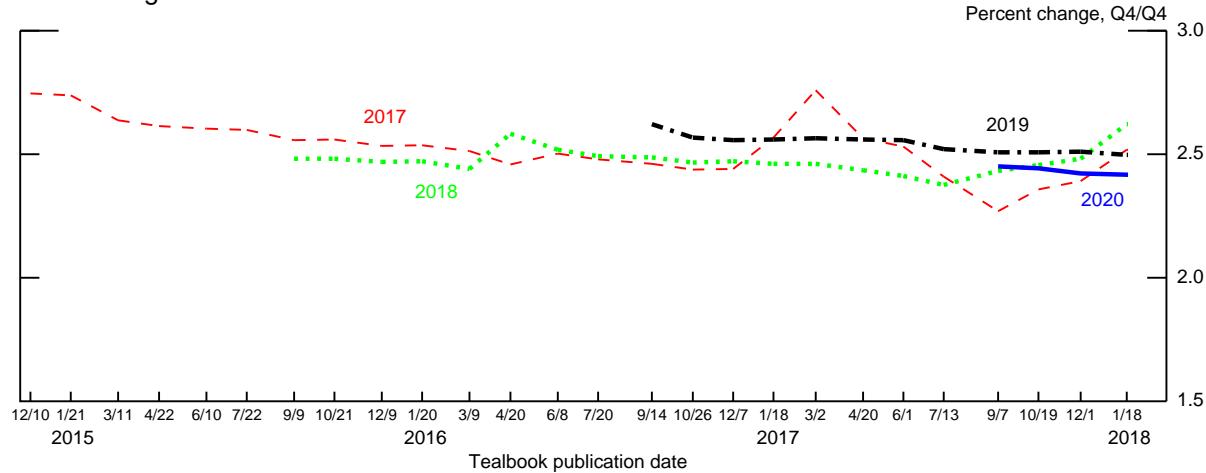
** Excludes all food; staff calculation. Excludes Argentina and Venezuela.

Evolution of Staff's International Forecast

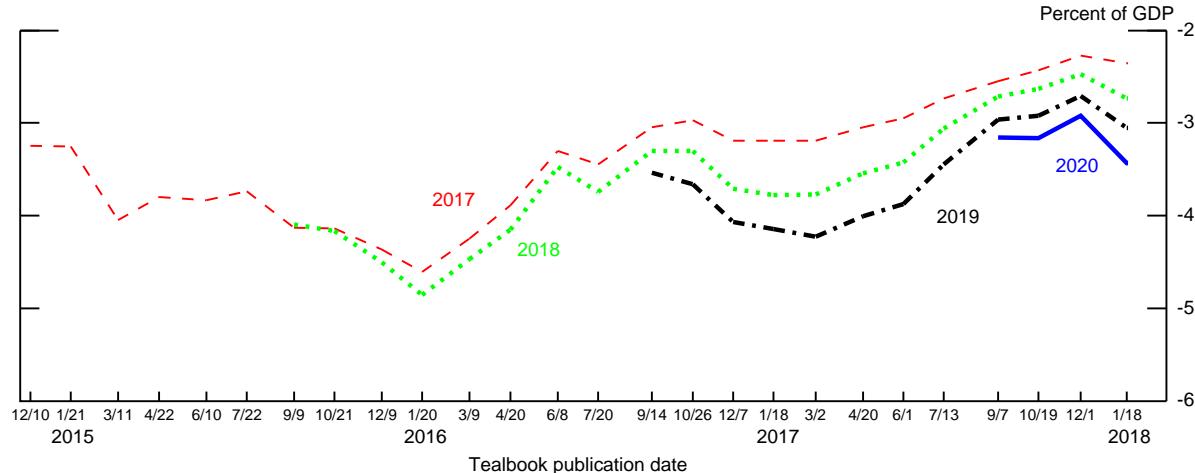
Total Foreign GDP



Total Foreign CPI



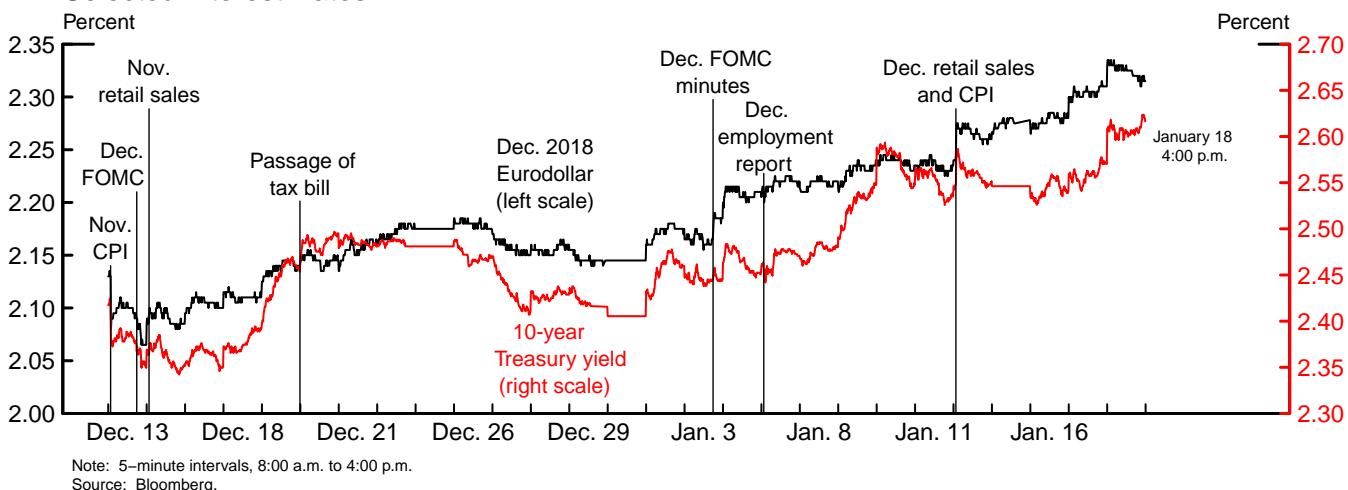
U.S. Current Account Balance



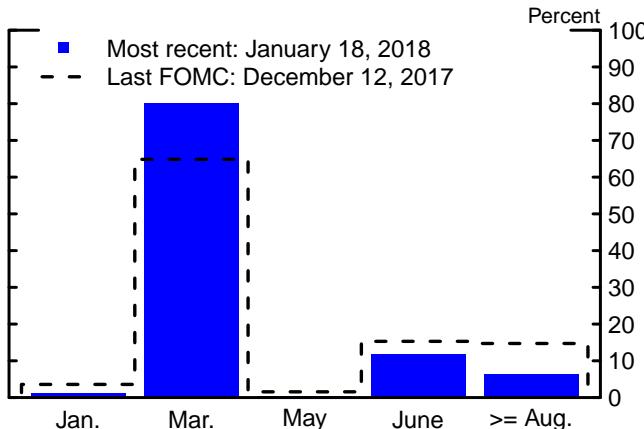
Int'l Econ Devel & Outlook

Policy Expectations and Treasury Yields

Selected Interest Rates



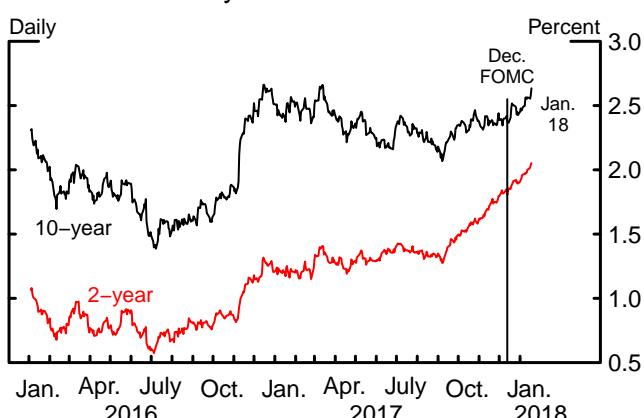
Market-Implied Probability Distribution of the Timing of Next Rate Increase



Note: Probabilities implied by a binomial tree fitted to settlement prices on federal funds futures contracts, assuming the next policy action is either no change or a 25 basis point increase in rates and no intermeeting moves. The effective federal funds rate until the next FOMC meeting is assumed to be equal to the observed rate on the previous non-month-end business day.

Source: CME Group; Federal Reserve Board staff estimates.

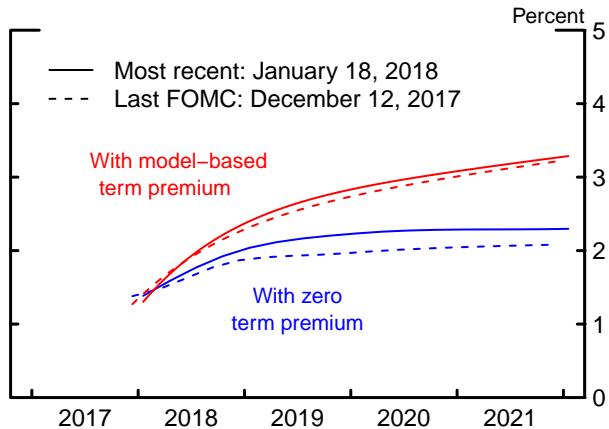
Nominal Treasury Yields



Note: Yields estimated from off-the-run Treasury coupon securities. Yields shown are those on nominal par Treasury securities with semiannual coupons.

Source: Federal Reserve Bank of New York; Federal Reserve Board staff estimates.

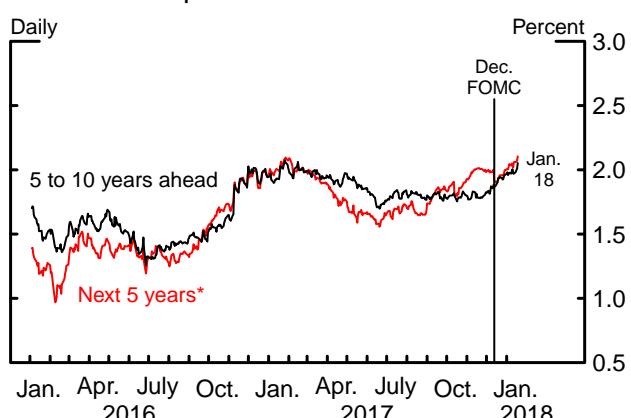
Implied Federal Funds Rate



Note: Zero term premium path is estimated using overnight index swap quotes with a spline approach and a term premium of zero basis points. Model-based term premium path is estimated using a term structure model maintained by Board staff and corrects for term premium.

Source: Bloomberg; Federal Reserve Board staff estimates.

Inflation Compensation



Note: Estimates based on smoothed nominal and inflation-indexed Treasury yield curves.

* Adjusted for lagged indexation of Treasury Inflation-Protected Securities (carry effect).
Source: Federal Reserve Bank of New York; Federal Reserve Board staff estimates.

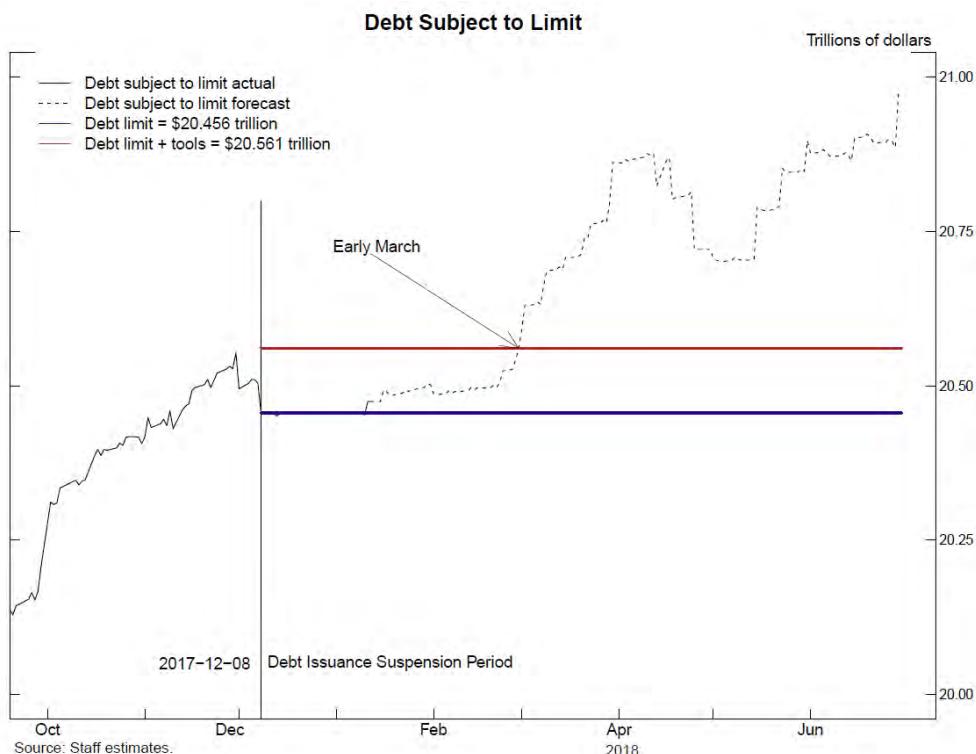
Projections for Federal Debt Subject to Limit

The statutory debt limit has been binding since December 8, 2017. The Treasury Department has been able to continue operations through its use of extraordinary measures.

Forecasts of when the Treasury will exhaust extraordinary measures and be unable to meet its obligations are subject to considerable uncertainty. The usual uncertainty associated with the timing of refunds during the spring tax-filing season is currently compounded by uncertainty created by the recently passed tax bill that will affect a variety of the Treasury's cash flows.

The staff projection calls for the Treasury to deplete its remaining extraordinary measures by the end of February, assuming no legislation is passed.¹ By early March, the Treasury's cash on hand is expected to cover payments for, at most, a few additional days (see figure).

At this point, pressures in financial markets related to the debt ceiling appear fairly modest. Yields on Treasury bills maturing in early March have risen and are currently 7 basis points higher than the mid-February bill; moreover, yields on potentially at-risk Treasury bills have moved higher than yields on agency discount notes with comparable maturity dates.



¹ The Treasury is allowed to use extraordinary measures to avoid breaching the statutory debt limit. These measures include suspending and redeeming securities from government employee retirement accounts as well as suspending the daily reinvestment of dollar balances held by the Exchange Stabilization Fund.

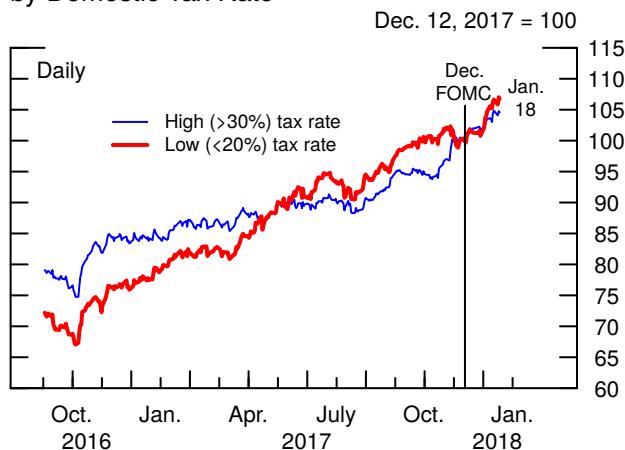
Corporate Asset Market Developments

S&P 500 Stock Price Index



Source: Bloomberg.

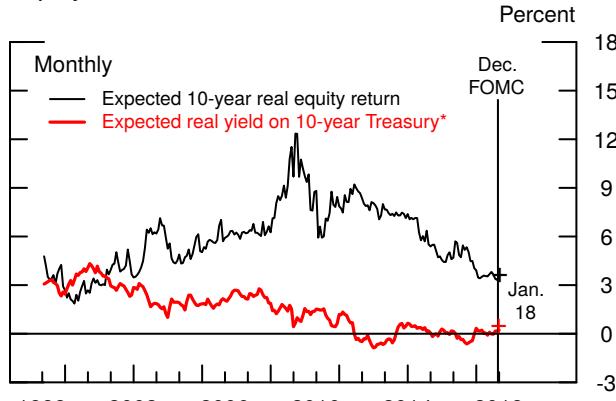
Value-Weighted Stock Returns, by Domestic Tax Rate



Note: The data include small firms excluding those in the financial and energy sectors. Tax rates are measured as U.S. taxes over pretax income.

Source: Compustat, Yahoo Finance.

Equity Risk Premium

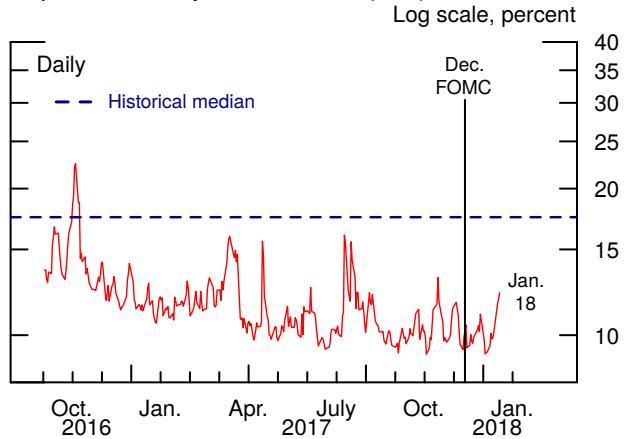


Note: The equity risk premium is the difference between the two data series.
* Off-the-run 10-year Treasury yield less Philadelphia Fed 10-year expected inflation.

+ Denotes latest observation using daily interest rates and stock prices as well as staff forecast of corporate profits.

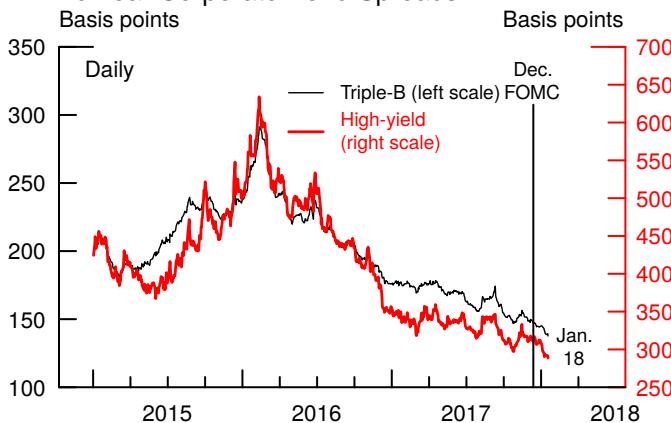
Source: Bloomberg; Philadelphia Fed; staff estimates; Thomson Reuters Financial.

Implied Volatility on S&P 500 (VIX)



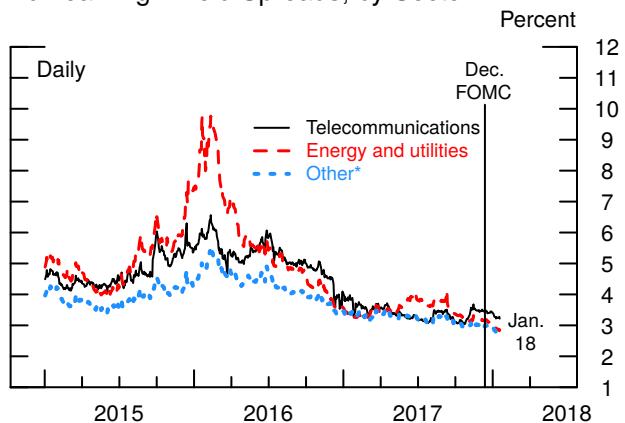
Note: Historical median is taken from 1990 onward.
Source: Chicago Board Options Exchange.

10-Year Corporate Bond Spreads



Note: Spreads over 10-year Treasury yield.
Source: Staff estimates of smoothed yield curves based on Merrill Lynch bond data and smoothed Treasury yield curve.

10-Year High-Yield Spreads, by Sector

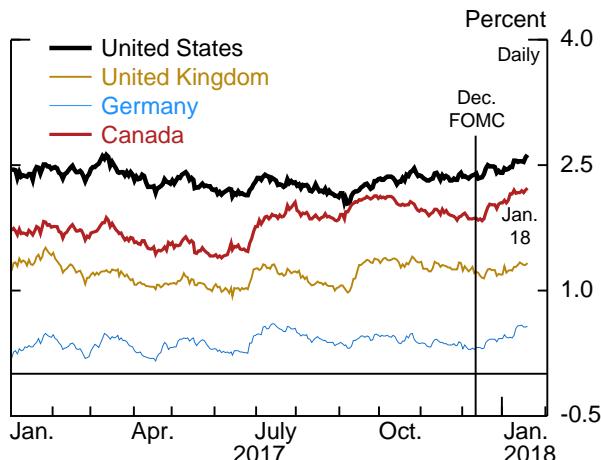


Note: Spreads over 10-year Treasury yield.
* Includes high-yield firms that are not in the telecommunications sector or energy and utilities sectors.

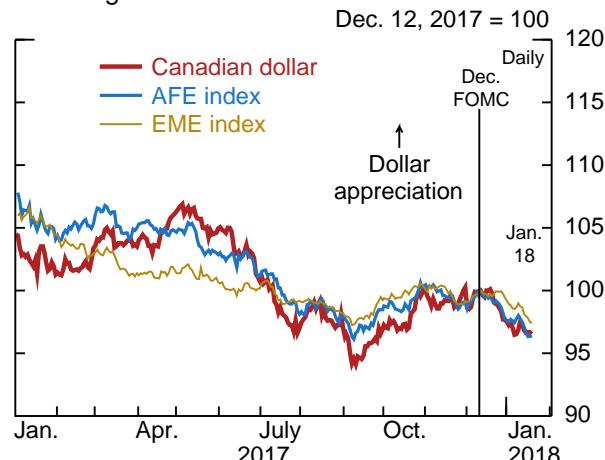
Source: Staff estimates of smoothed corporate yield curves based on Merrill Lynch data and smoothed Treasury yield curve.

Foreign Developments

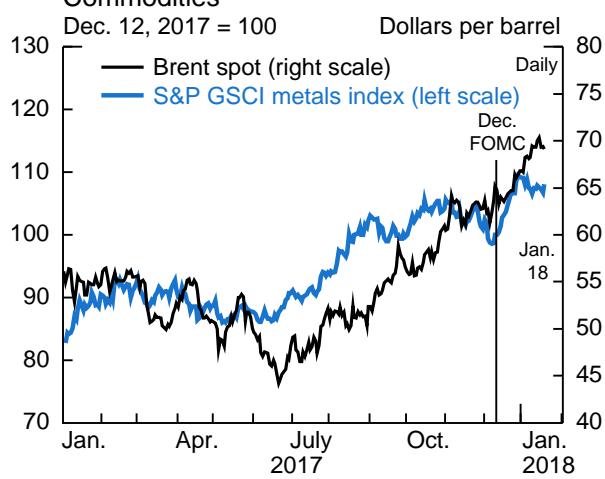
10-Year Nominal Yields



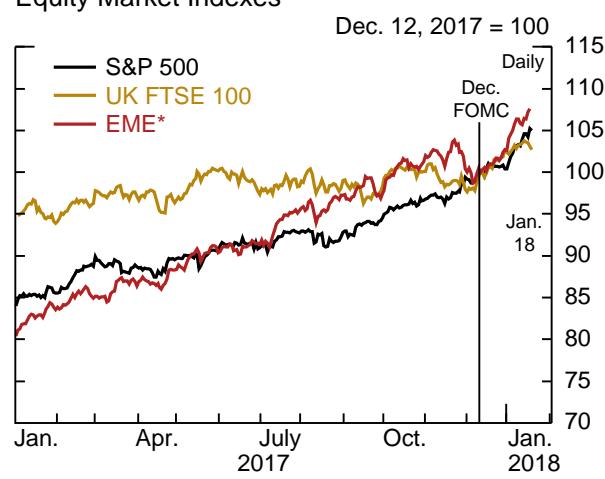
Exchange Rates



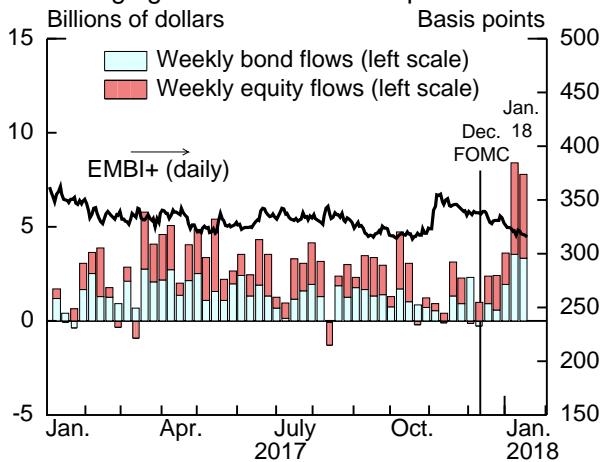
Commodities



Equity Market Indexes

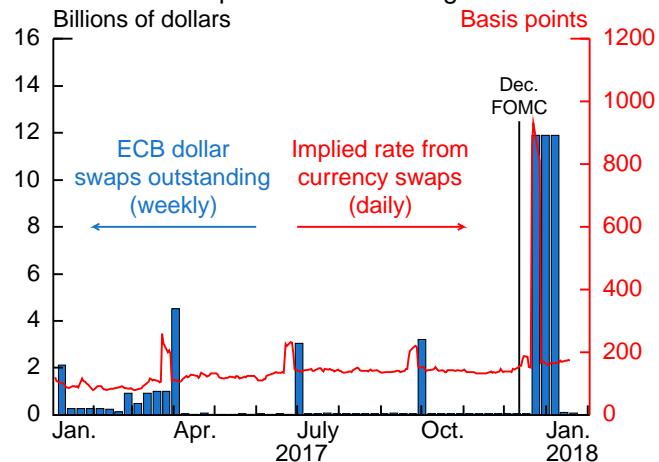


Emerging Market Flows and Spreads



Note: Emerging market bond spreads calculated as yield difference to zero-coupon Treasury securities. Excludes intra-China flows.

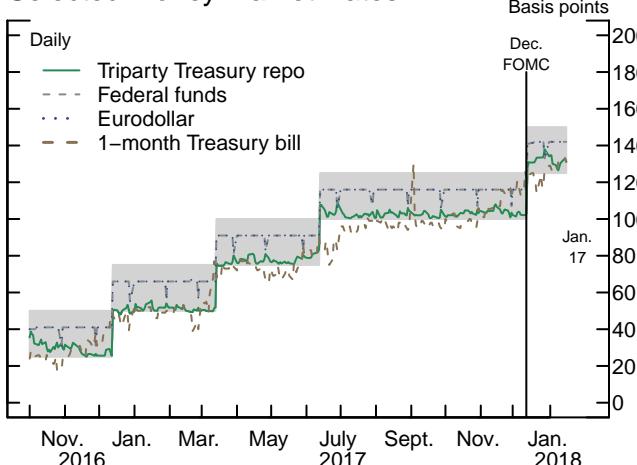
One-Week Implied Dollar Funding Cost



Short-Term Funding Markets and Federal Reserve Operations

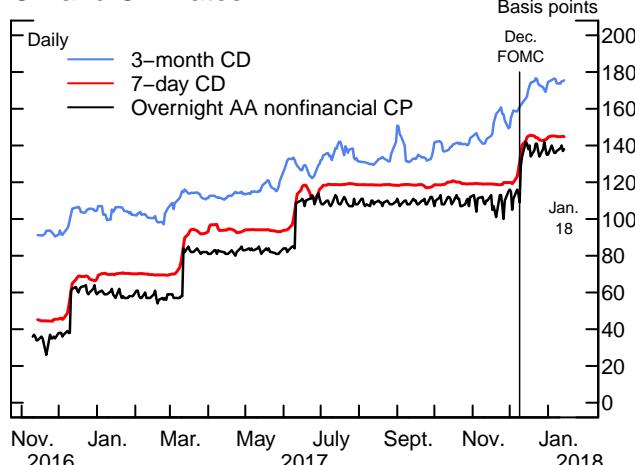
Financial Markets

Selected Money Market Rates



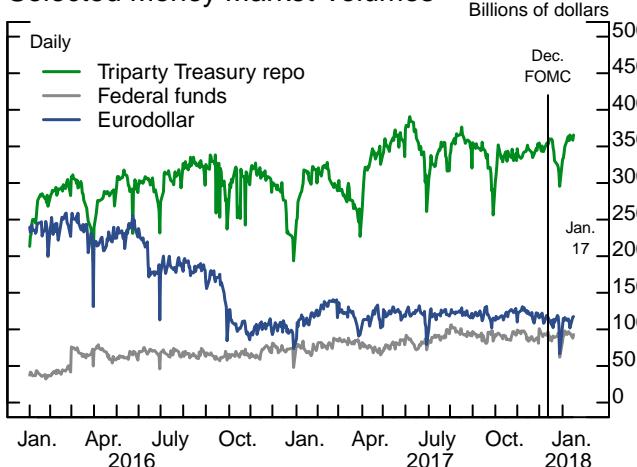
Note: Federal funds rate is a weighted median. Shaded area is the target range for the federal funds rate. Repo is repurchase agreement.
Source: Federal Reserve Bank of New York; Federal Reserve Board, Form FR 2420, Report of Selected Money Market Rates.

CP and CD Rates



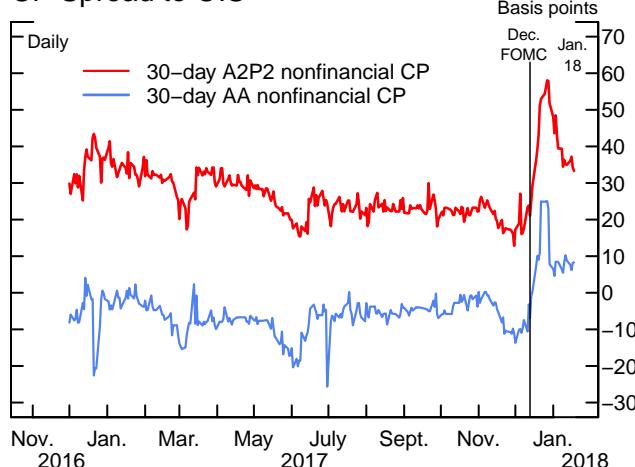
Note: CD rates are a 5-day moving average. CP is commercial paper and CD is certificate of deposit.
Source: Depository Trust & Clearing Corporation.

Selected Money Market Volumes



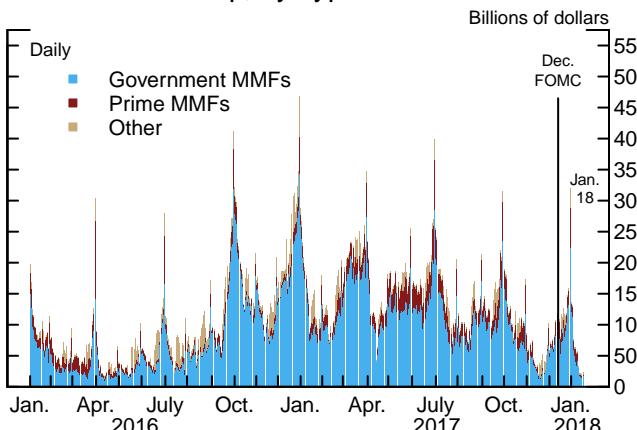
Note: Repo is repurchase agreement.
Source: Federal Reserve Bank of New York; Federal Reserve Board, Form FR 2420, Report of Selected Money Market Rates.

CP Spread to OIS



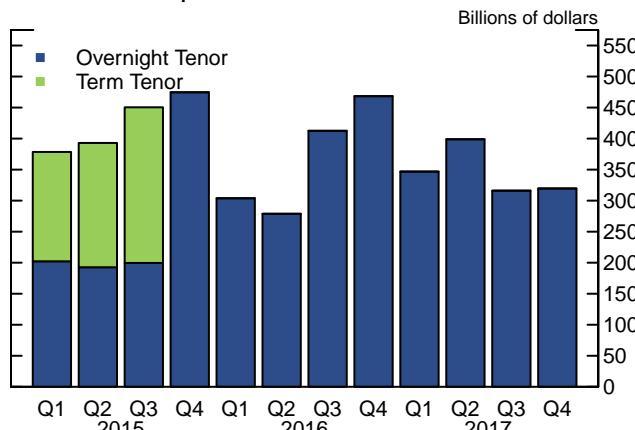
Note: CP is commercial paper and OIS is overnight indexed swap.
Source: Depository Trust & Clearing Corporation.

ON RRP Take-Up, by Type



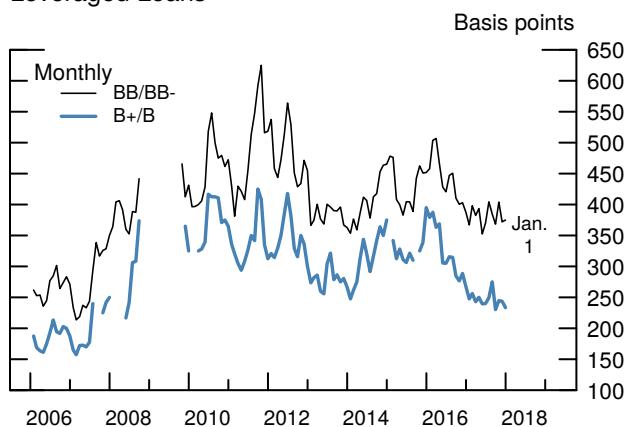
Note: ON RRP is overnight reverse repurchase agreement; MMF is money market fund.
Source: Federal Reserve Bank of New York.

RRP Take-Up on Quarter-Ends



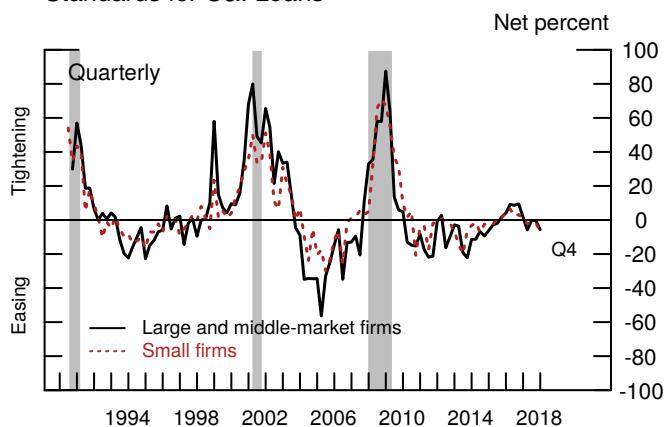
Business Finance

Average Spread of New-Issue Institutional Leveraged Loans



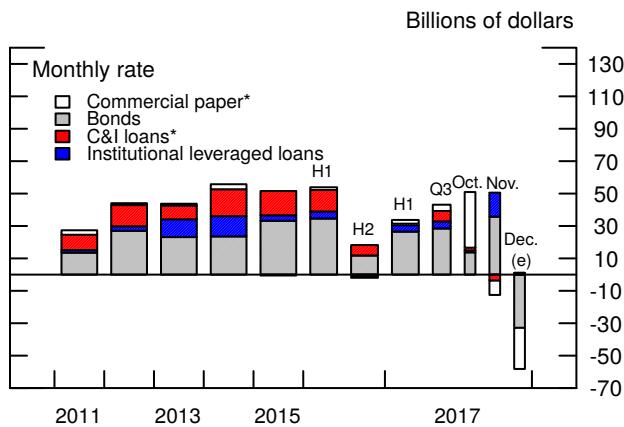
Note: Breaks in the series represent periods with no issuance. Spreads are calculated against 3-month LIBOR. The spreads do not include up-front fees.
Source: S&P LCD.

Standards for C&I Loans



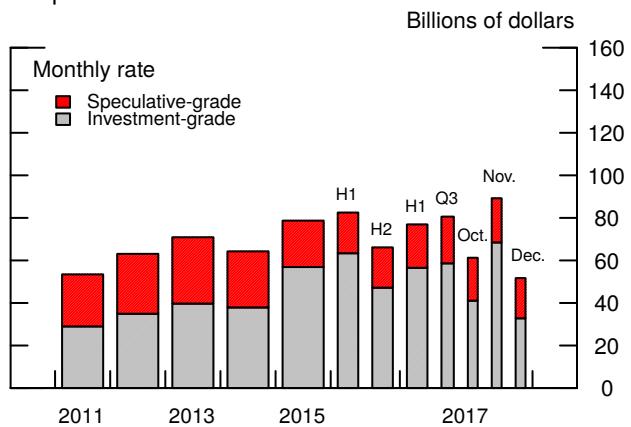
Note: C&I is commercial and industrial. The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research.
Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

Selected Components of Net Debt Financing, Nonfinancial Firms



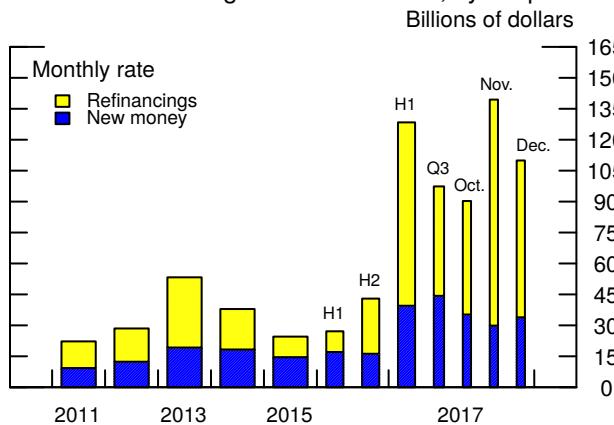
Note: C&I is commercial and industrial.
* Period-end basis.
(e) Estimate.
Source: Depository Trust & Clearing Corporation; Mergent Fixed Income Securities Database; Federal Reserve Board; Thomson Reuters LPC.

Gross Issuance of Nonfinancial Corporate Bonds



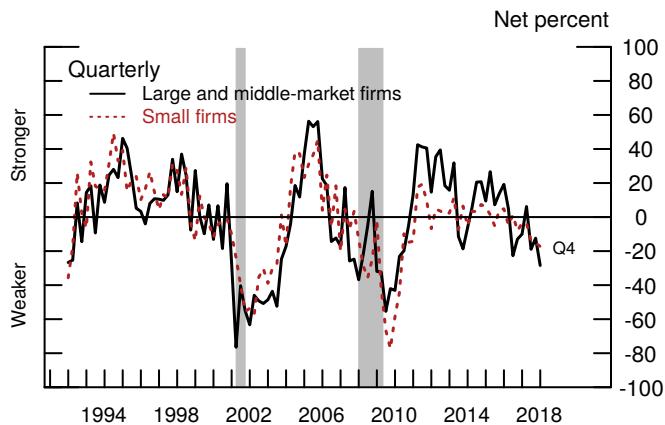
Note: Bonds are categorized by Moody's, Standard & Poor's, and Fitch.
Source: Mergent Fixed Income Securities Database.

Institutional Leveraged Loan Issuance, by Purpose



Source: Thomson Reuters LPC LoanConnector.

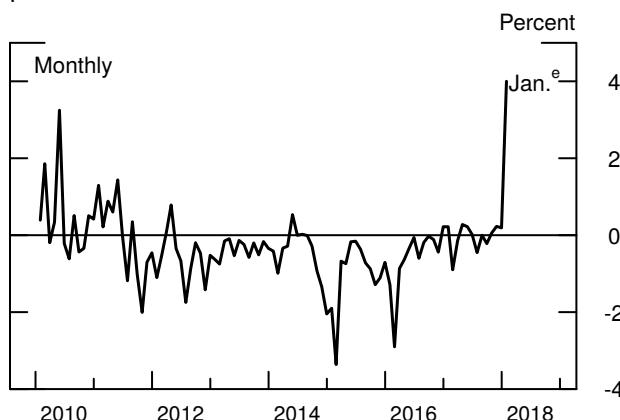
Demand for C&I Loans



Note: C&I is commercial and industrial. The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research.
Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

Corporate Profits, Credit Quality, and Commercial Real Estate Lending

Revisions to S&P 500 Year-Ahead Earnings per Share

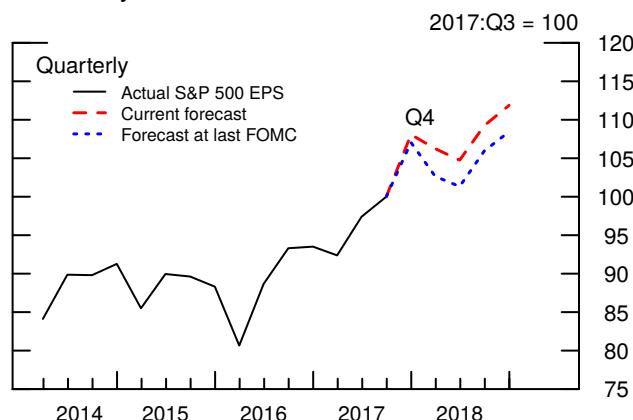


Note: Weighted average of the percent change in the consensus forecasts of current-year and following-year earnings per share.

e Estimate.

Source: Thomson Reuters Financial.

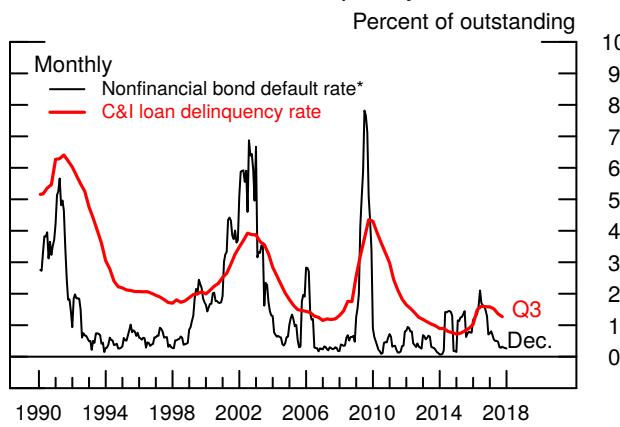
S&P 500 Quarterly Earnings per Share and Analyst Forecasts



Note: Forecasts are adjusted for bias and seasonality.

Source: Thomson Reuters Financial.

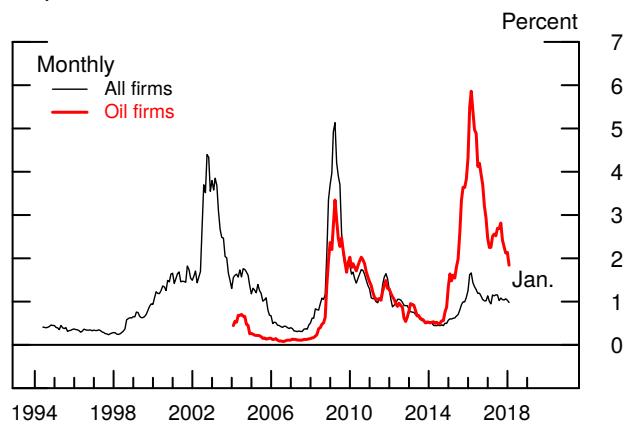
Selected Default and Delinquency Rates



* 6-month trailing defaults divided by beginning-of-period outstanding, at an annual rate.

Source: For default rate and outstanding amount of nonfinancial bonds, Moody's Investors Service; for delinquency rate and outstanding amount of commercial and industrial (C&I) loans, Call Report.

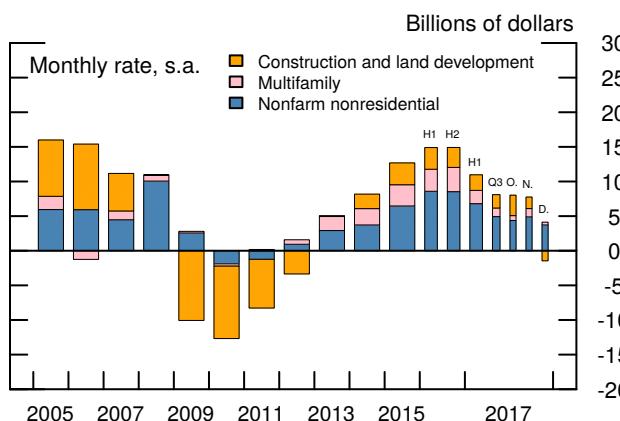
Expected Nonfinancial Year-Ahead Defaults



Note: Firm-level estimates of default weighted by firm liabilities as a percent of total liabilities, excluding defaulted firms.

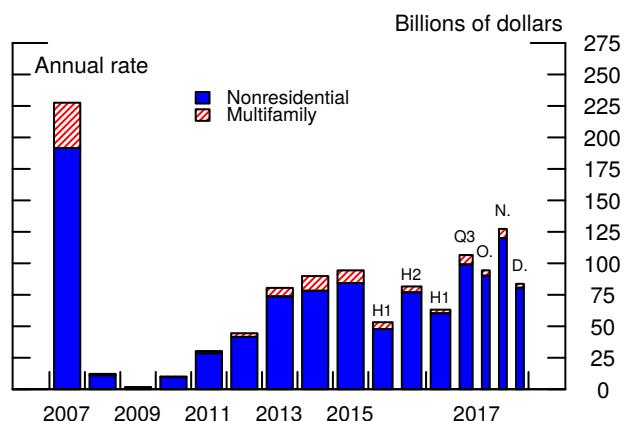
Source: Calculated using firm-level data from Moody's KMV.

Commercial Real Estate Loans



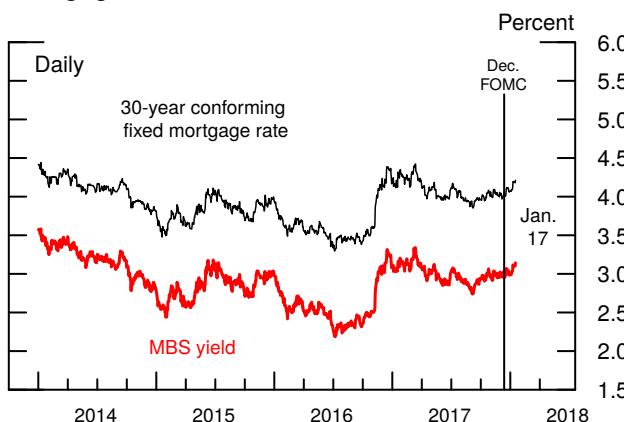
Source: Staff calculations, Form FR 2644, Weekly Report of Selected Assets and Liabilities of Domestically Chartered Commercial Banks and U.S. Branches and Agencies of Foreign Banks.

CMBS Issuance

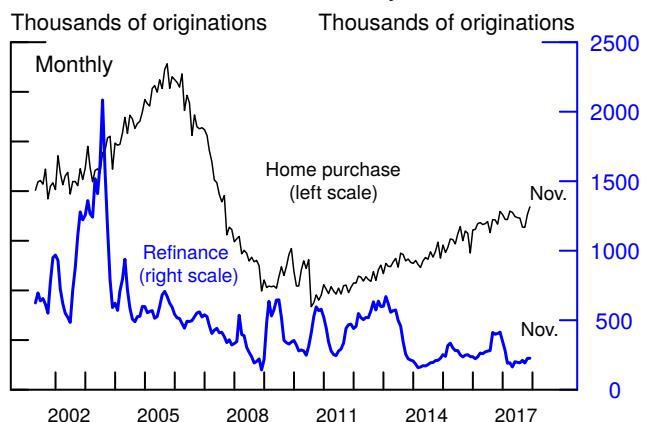


Note: CMBS is commercial mortgage-backed securities. Multifamily excludes agency issuance.

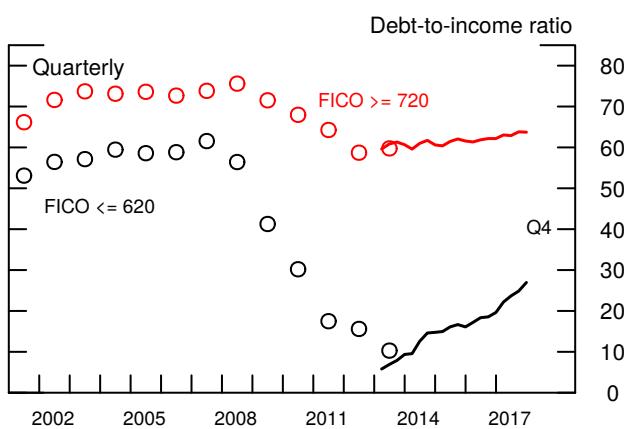
Source: Consumer Mortgage Alert.

Mortgage Rate and MBS Yield

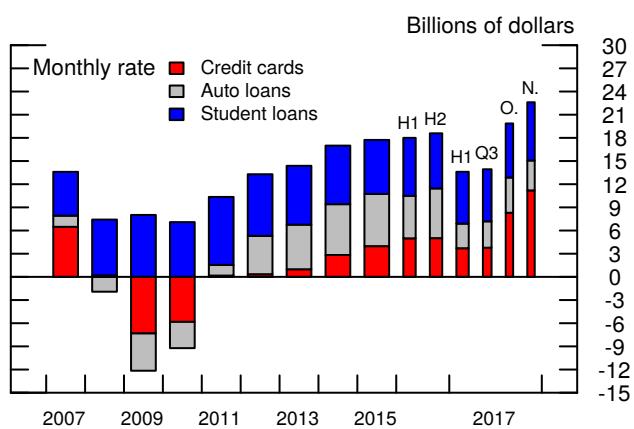
Note: The mortgage-backed securities (MBS) yield is the Fannie Mae 30-year current-coupon rate.
Source: For MBS yield, Barclays; for mortgage rate, Optimal Blue.

Purchase and Refinance Activity

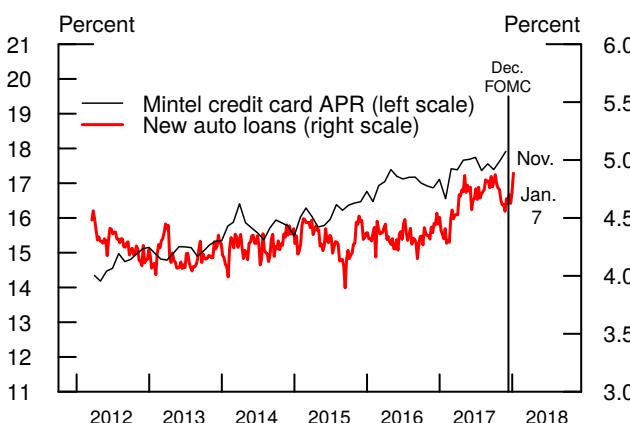
Note: The data are seasonally adjusted by Federal Reserve Board staff.
Source: For values prior to 2017, data reported under the Home Mortgage Disclosure Act of 1975; for values in 2017, staff estimates.

Mortgage Credit Summary Frontiers, by FICO Score

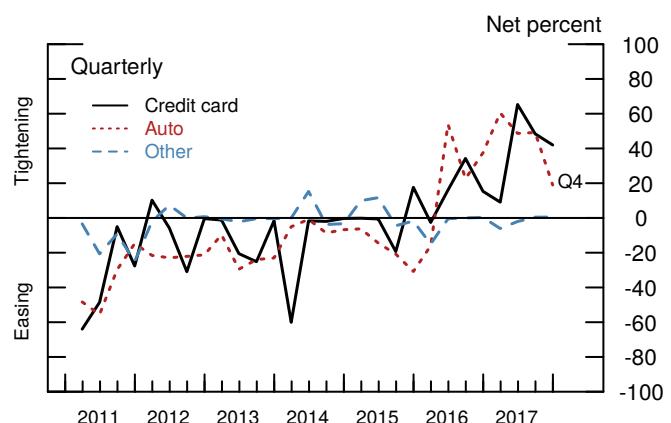
Note: Summary frontier is a weighted average of the individual frontiers associated with each loan-to-value ratio, property location, and FICO group.
Source: For frontiers shown with circles, McDash and CoreLogic; for frontiers shown with solid lines, Optimal Blue.

Consumer Credit Flows

Note: The data are seasonally adjusted by Federal Reserve Board staff.
Source: Federal Reserve Board.

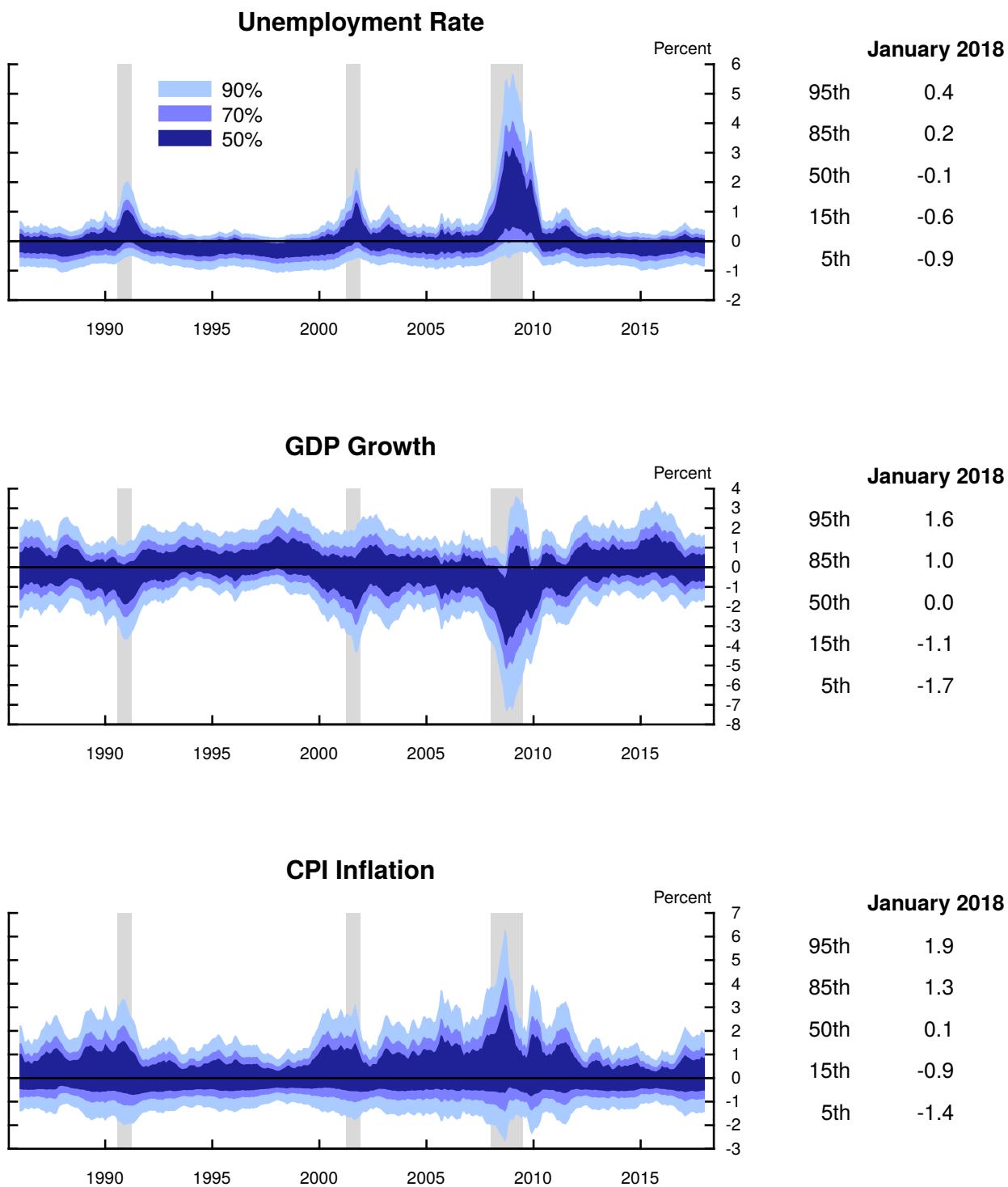
Consumer Interest Rates

Note: Series are seasonally adjusted. For credit cards, the data are monthly; for auto loans, the data are weekly. APR is annual percentage rate.
Source: For credit cards, Mintel; for auto loans, PIN.

Standards for Consumer Loans

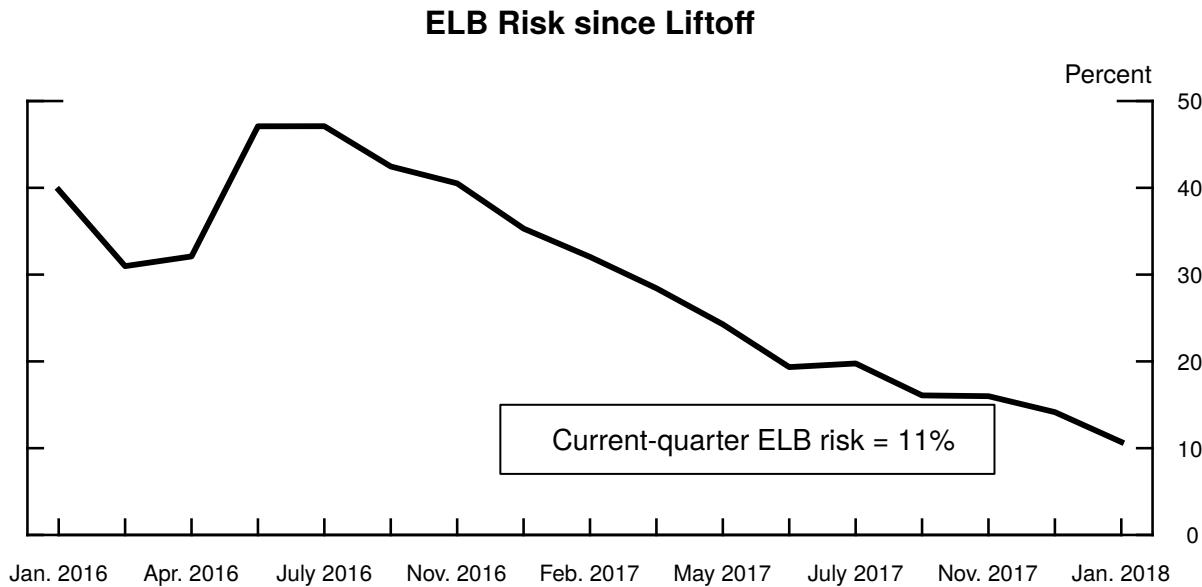
Source: Federal Reserve Board, Senior Loan Officer Opinion Survey on Bank Lending Practices.

Time-Varying Macroeconomic Risk

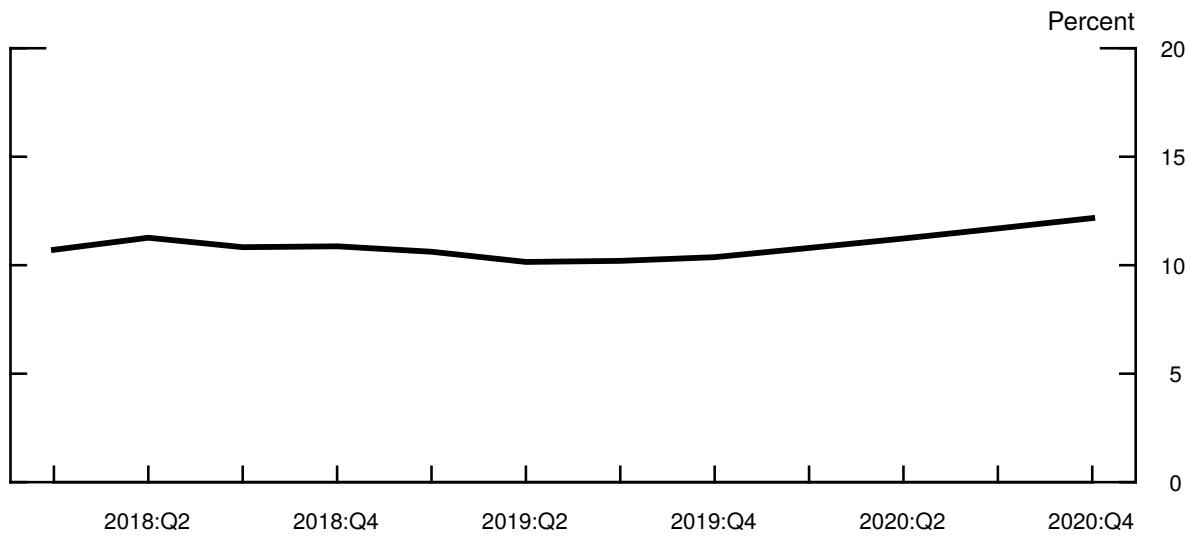


Note: The exhibit shows estimates of quantiles of the distribution of errors for four-quarter-ahead staff forecasts. The estimates are conditioned on indicators of real activity, inflation, financial market strain, and the volatility of high-frequency macroeconomic indicators. The tables show selected quantiles of the predictive distributions for the respective variables as of the current Tealbook.

Effective Lower Bound Risk Estimate



ELB Risk over the Projection Period



Note: The figures show the probability that the federal funds rate reaches the effective lower bound (ELB) over the next 3 years starting in the given quarter. Details behind the computation of the ELB risk measure are provided in the box "A Guidepost for Dropping the Effective Lower Bound Risk from the Assessment of Risks" in the Risks and Uncertainty section of the April 2017 Tealbook A. The lower panel computes ELB risk over a forward-looking moving 3-year window using stochastic simulations in FRB/US beginning in the current quarter. The simulations are computed around the Tealbook baseline.

Alternative Scenarios
(Percent change, annual rate, from end of preceding period except as noted)

Measure and scenario	2018		2019	2020	2021	2022-23
	H1	H2				
<i>Real GDP</i>						
Extended Tealbook baseline	3.0	2.9	2.4	2.0	1.4	1.0
Larger effects of the tax reform	3.0	3.2	2.8	2.2	1.6	1.1
Smaller effects of the tax reform	2.8	2.8	2.3	1.9	1.4	1.0
Misperceived lower natural rate	3.0	3.0	2.6	2.1	1.5	1.1
Lower inflation expectations	2.3	2.9	2.5	2.1	1.5	1.0
Steeper Phillips curve	3.0	2.9	2.4	1.9	1.2	.8
Global market correction	1.6	1.5	2.1	2.3	1.8	1.2
Faster foreign growth and tighter policy	3.3	3.4	2.6	1.5	1.1	1.0
<i>Unemployment rate¹</i>						
Extended Tealbook baseline	3.8	3.4	3.2	3.2	3.4	4.0
Larger effects of the tax reform	3.8	3.4	3.1	3.0	3.1	3.9
Smaller effects of the tax reform	3.8	3.4	3.3	3.3	3.5	4.1
Misperceived lower natural rate	3.7	3.2	2.8	2.7	2.8	3.3
Lower inflation expectations	4.0	3.6	3.3	3.2	3.4	4.1
Steeper Phillips curve	3.8	3.4	3.2	3.3	3.6	4.6
Global market correction	4.0	3.8	3.9	3.8	3.9	4.4
Faster foreign growth and tighter policy	3.8	3.3	2.9	3.0	3.3	4.0
<i>Total PCE prices</i>						
Extended Tealbook baseline	2.1	1.6	1.9	2.0	2.1	2.2
Larger effects of the tax reform	2.1	1.6	1.9	2.0	2.1	2.2
Smaller effects of the tax reform	2.1	1.6	1.9	1.9	2.0	2.1
Misperceived lower natural rate	2.1	1.6	1.9	1.9	2.0	2.1
Lower inflation expectations	1.8	1.3	1.6	1.6	1.7	1.8
Steeper Phillips curve	2.3	2.1	2.7	3.0	3.3	3.5
Global market correction	1.6	1.0	1.6	1.8	2.0	2.1
Faster foreign growth and tighter policy	2.3	2.0	2.3	1.9	2.0	2.2
<i>Core PCE prices</i>						
Extended Tealbook baseline	2.1	1.8	2.1	2.1	2.1	2.2
Larger effects of the tax reform	2.1	1.8	2.1	2.1	2.1	2.2
Smaller effects of the tax reform	2.0	1.8	2.0	2.0	2.1	2.1
Misperceived lower natural rate	2.1	1.8	2.0	2.0	2.1	2.1
Lower inflation expectations	1.8	1.4	1.7	1.7	1.8	1.9
Steeper Phillips curve	2.3	2.2	2.8	3.1	3.4	3.5
Global market correction	1.8	1.3	1.7	1.9	2.0	2.1
Faster foreign growth and tighter policy	2.2	2.0	2.3	2.1	2.1	2.2
<i>Federal funds rate¹</i>						
Extended Tealbook baseline	1.9	2.7	4.0	4.8	5.1	4.6
Larger effects of the tax reform	1.9	2.7	4.0	4.9	5.3	4.9
Smaller effects of the tax reform	1.9	2.6	3.9	4.6	4.9	4.3
Misperceived lower natural rate	1.9	2.7	4.0	4.9	5.1	4.6
Lower inflation expectations	1.8	2.4	3.5	4.3	4.5	4.0
Steeper Phillips curve	1.9	2.8	4.4	5.6	6.1	5.7
Global market correction	1.9	2.4	2.9	3.7	4.2	4.2
Faster foreign growth and tighter policy	2.0	2.9	4.6	5.1	5.0	4.4

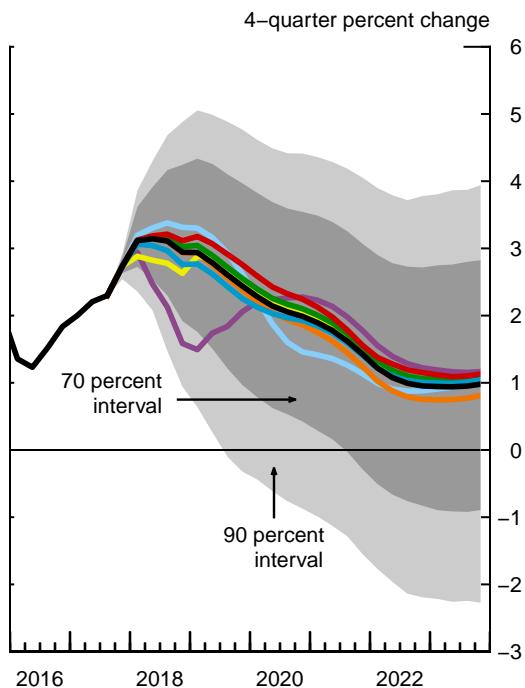
1. Percent, average for the final quarter of the period.

Forecast Confidence Intervals and Alternative Scenarios

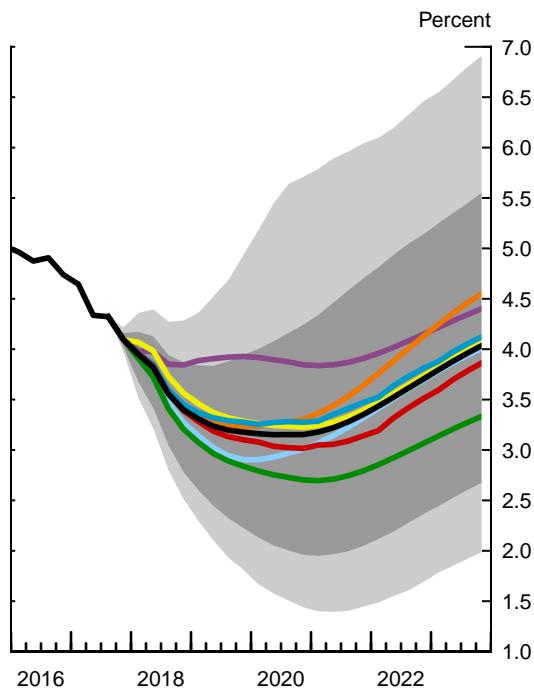
Confidence Intervals Based on FRB/US Stochastic Simulations

- Extended Tealbook baseline
- Larger effects of the tax reform
- Smaller effects of the tax reform
- Misperceived lower natural rate
- Lower inflation expectations
- Global market correction
- Faster foreign growth and tighter policy
- Steeper Phillips curve

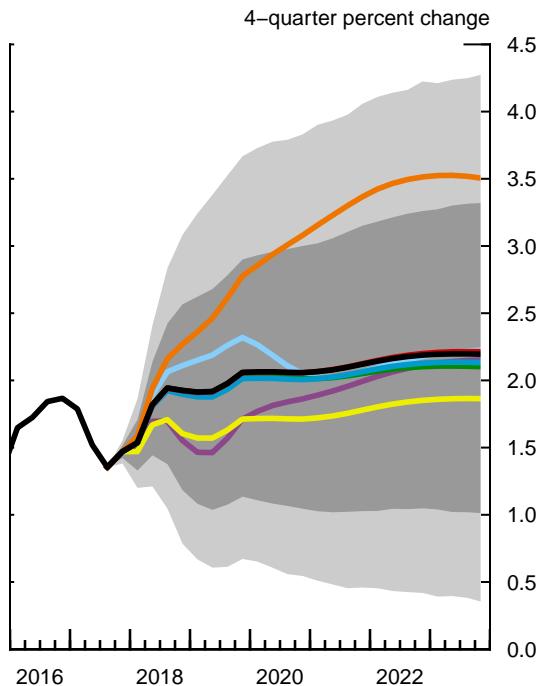
Real GDP



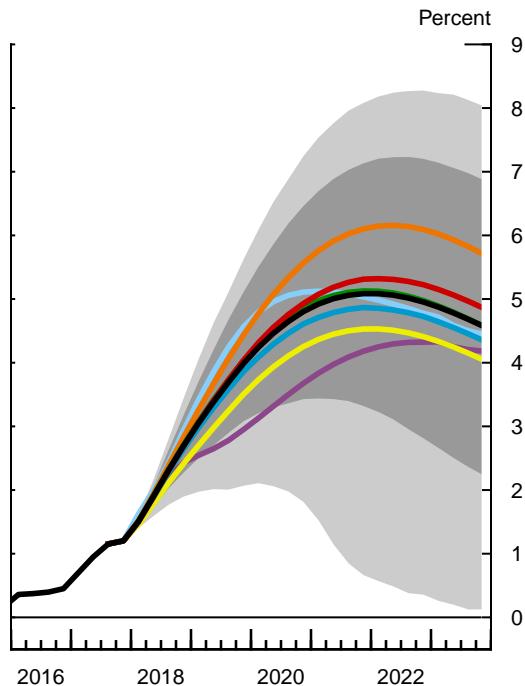
Unemployment Rate



PCE Prices excluding Food and Energy



Federal Funds Rate



Selected Tealbook Projections and 70 Percent Confidence Intervals Derived from Historical Tealbook Forecast Errors and FRB/US Simulations

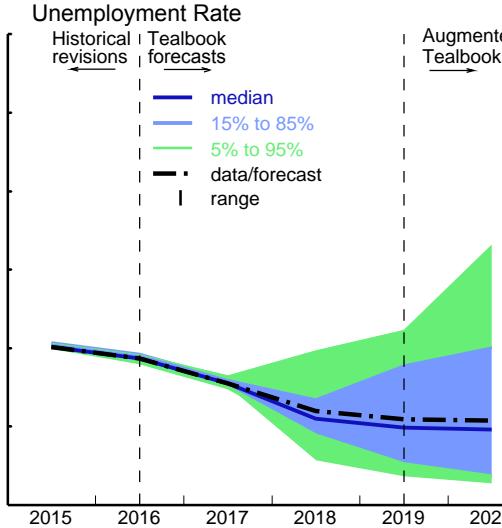
Measure	2017	2018	2019	2020	2021	2022
<i>Real GDP</i> <i>(percent change, Q4 to Q4)</i>						
Projection	2.7	2.9	2.4	2.0	1.4	1.0
Confidence interval						
Tealbook forecast errors	2.2–3.6	1.4–4.6	.1–4.0	-.6–3.5
FRB/US stochastic simulations	2.6–2.9	1.9–4.2	1.0–4.0	.4–3.5	-.3–3.1	-.8–2.7
<i>Civilian unemployment rate</i> <i>(percent, Q4)</i>						
Projection	4.1	3.4	3.2	3.2	3.4	3.7
Confidence interval						
Tealbook forecast errors	4.0–4.2	2.8–3.7	2.0–4.6	1.7–5.0
FRB/US stochastic simulations	4.0–4.2	2.8–3.9	2.2–3.9	2.0–4.2	2.0–4.7	2.4–5.1
<i>PCE prices, total</i> <i>(percent change, Q4 to Q4)</i>						
Projection	1.7	1.9	1.9	2.0	2.1	2.2
Confidence interval						
Tealbook forecast errors	1.6–2.0	1.4–3.2	1.2–3.5	1.2–3.3
FRB/US stochastic simulations	1.6–1.7	1.0–2.6	.9–2.9	.9–3.0	.9–3.2	.9–3.3
<i>PCE prices excluding food and energy</i> <i>(percent change, Q4 to Q4)</i>						
Projection	1.5	1.9	2.1	2.1	2.1	2.2
Confidence interval						
Tealbook forecast errors	1.3–1.9	1.7–2.5	1.5–2.8
FRB/US stochastic simulations	1.4–1.5	1.2–2.6	1.1–2.9	1.0–3.0	1.0–3.2	1.0–3.3
<i>Federal funds rate</i> <i>(percent, Q4)</i>						
Projection	1.2	2.7	4.0	4.8	5.1	5.0
Confidence interval						
FRB/US stochastic simulations	1.2–1.2	2.3–3.2	3.1–5.1	3.4–6.5	3.3–7.1	2.8–7.2

Note: Shocks underlying FRB/US stochastic simulations are randomly drawn from the 1969–2016 set of model equation residuals. Intervals derived from Tealbook forecast errors are based on projections made from 1980 to 2016 for real GDP and unemployment and from 1998 to 2016 for PCE prices. The intervals for real GDP, unemployment, and total PCE prices are extended into 2020 using information from the Blue Chip survey and forecasts from the CBO and CEA.

... Not applicable.

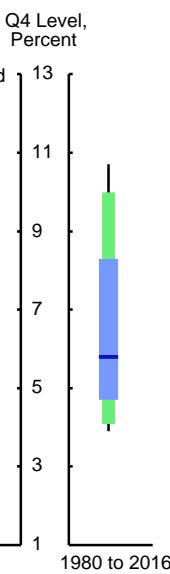
Prediction Intervals Derived from Historical Tealbook Forecast Errors

Forecast Error Percentiles

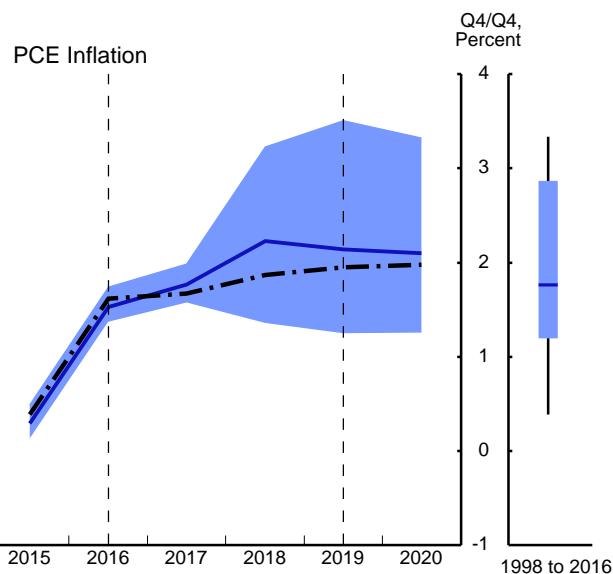


Historical Distributions

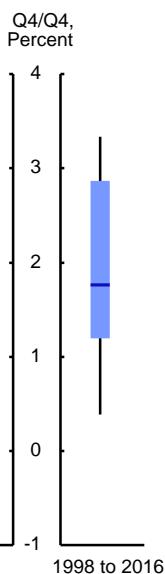
Q4 Level, Percent



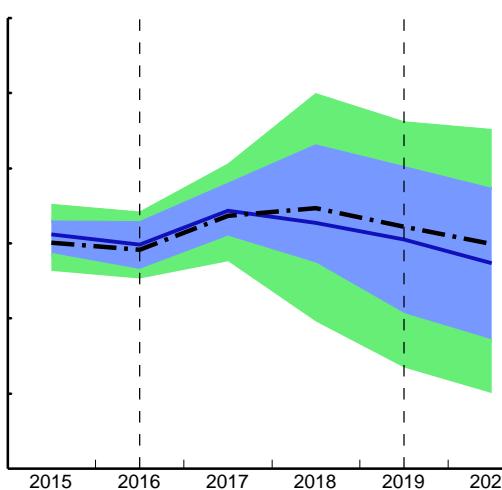
PCE Inflation



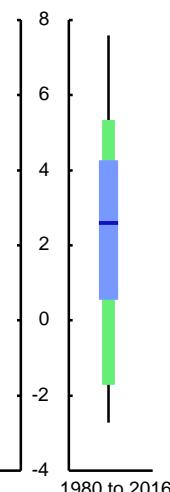
Q4/Q4, Percent



Real GDP Growth

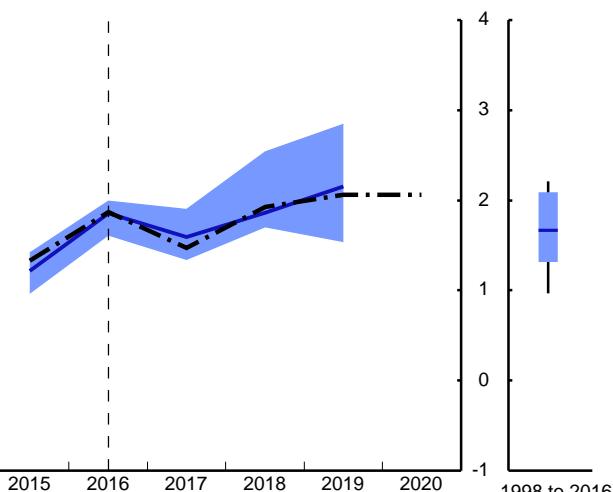


Q4/Q4, Percent



Core PCE Inflation

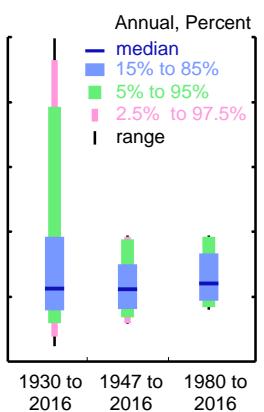
Q4/Q4, Percent



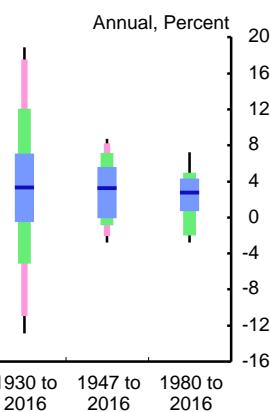
Q4/Q4, Percent

Historical Distributions

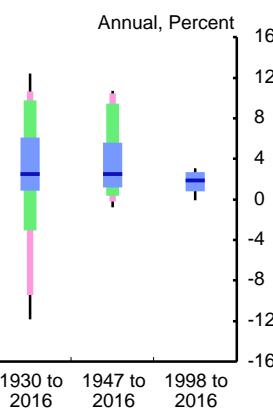
Unemployment Rate



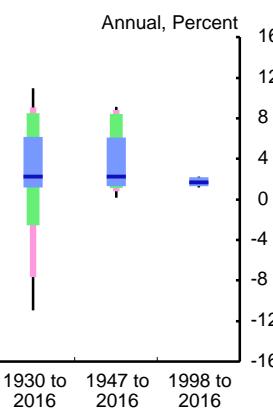
Real GDP Growth



PCE Inflation



Core PCE Inflation



Note: See the technical note in the appendix for more information on this exhibit.

1. Augmented Tealbook prediction intervals use 1- and 2-year-ahead forecast errors from Blue Chip, CBO, and CEA to extend the Tealbook prediction intervals through 2020.

Assessment of Key Macroeconomic Risks

Probability of Inflation Events

(4 quarters ahead)

Probability that the 4-quarter change in total PCE prices will be . . .	Staff	FRB/US	EDO	BVAR
<i>Greater than 3 percent</i>				
Current Tealbook	.06	.05	.01	.09
Previous Tealbook	.05	.04	.02	.10
<i>Less than 1 percent</i>				
Current Tealbook	.12	.17	.20	.13
Previous Tealbook	.19	.19	.13	.12

Probability of Unemployment Events

(4 quarters ahead)

Probability that the unemployment rate will . . .	Staff	FRB/US	EDO	BVAR
<i>Increase by 1 percentage point</i>				
Current Tealbook	.00	.01	.15	.01
Previous Tealbook	.01	.01	.18	.02
<i>Decrease by 1 percentage point</i>				
Current Tealbook	.35	.17	.06	.17
Previous Tealbook	.15	.06	.05	.16

Probability of Near-Term Recession

Probability that real GDP declines in the next two quarters	Staff	FRB/US	EDO	BVAR	Factor Model
Current Tealbook	.00	.00	.03	.01	.03
Previous Tealbook	.01	.01	.05	.03	.00

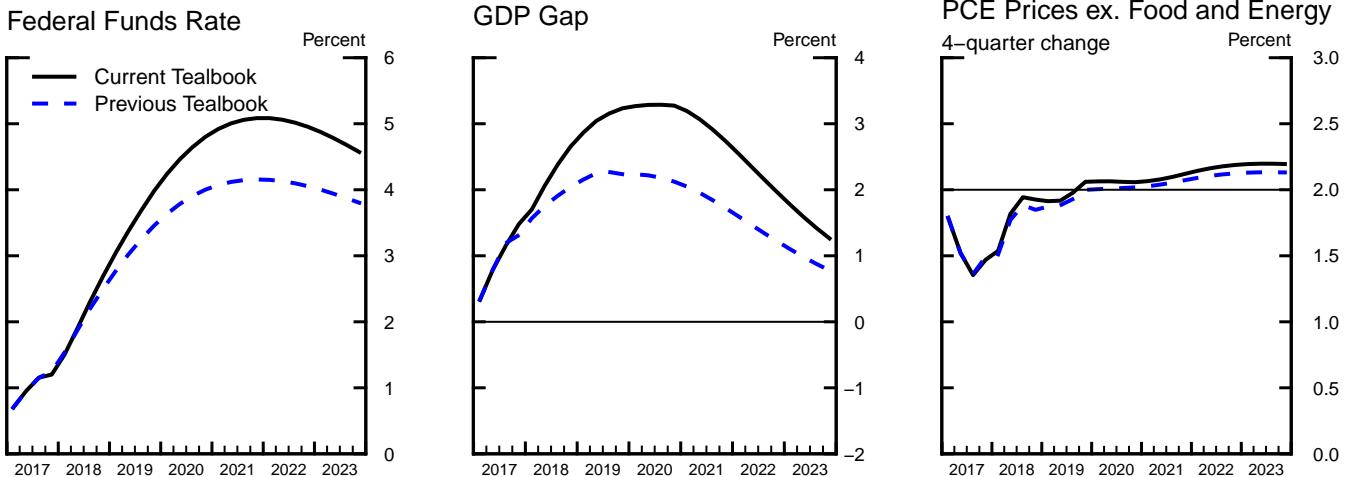
Note: "Staff" represents stochastic simulations in FRB/US around the staff baseline; baselines for FRB/US, BVAR, EDO, and the factor model are generated by those models themselves, up to the current-quarter estimate. Data for the current quarter are taken from the staff estimate for the second Tealbook in each quarter; if the second Tealbook for the current quarter has not yet been published, the preceding quarter is taken as the latest historical observation.

Policy Rules and the Staff Projection

Near-Term Prescriptions of Selected Simple Policy Rules¹

	(Percent)	2018:Q1	2018:Q2
Taylor (1993) rule	2.63	3.20	
<i>Previous Tealbook</i>	2.53	2.99	
Taylor (1999) rule	3.45	4.18	
<i>Previous Tealbook</i>	3.28	3.82	
First-difference rule	1.73	2.24	
<i>Previous Tealbook projection</i>	1.48	1.69	
Nominal income targeting rule	1.23	1.34	
<i>Previous Tealbook projection</i>	1.21	1.27	
<i>Addendum:</i>			
Tealbook baseline	1.50	1.90	

Key Elements of the Staff Projection



A Medium-Term Notion of the Equilibrium Real Federal Funds Rate²

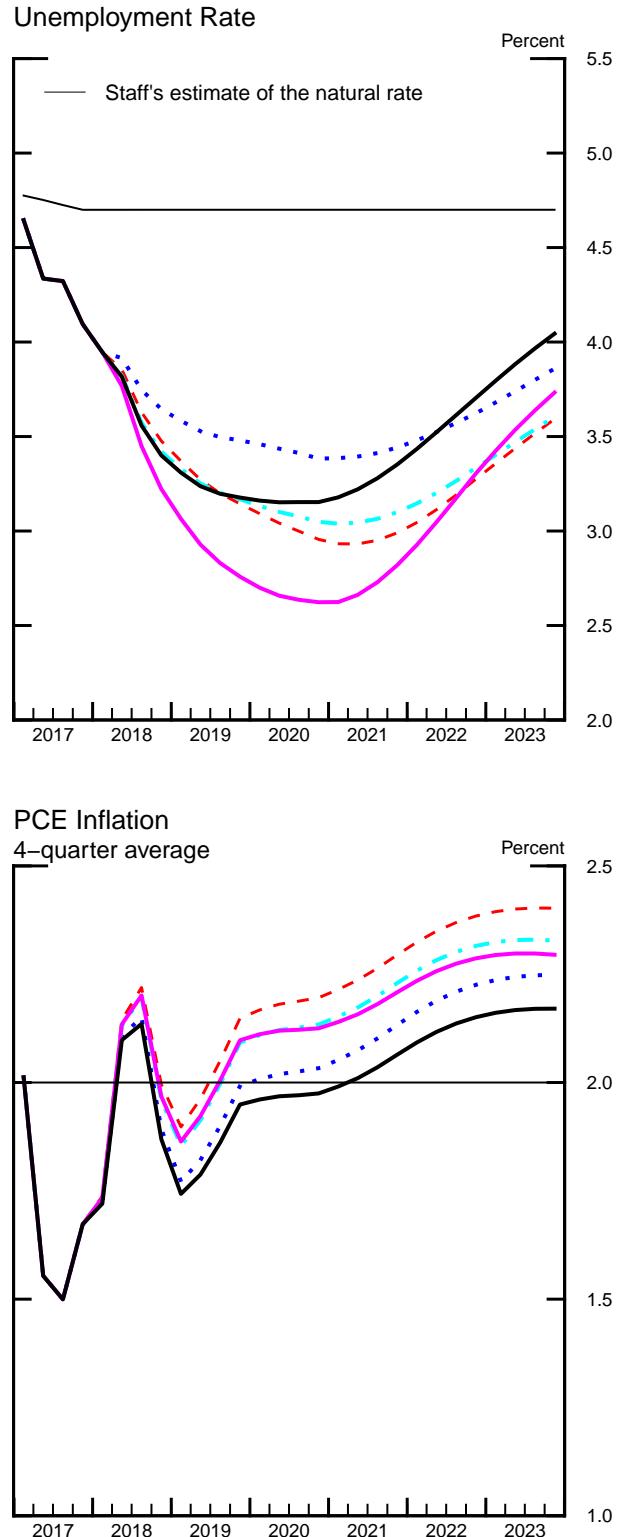
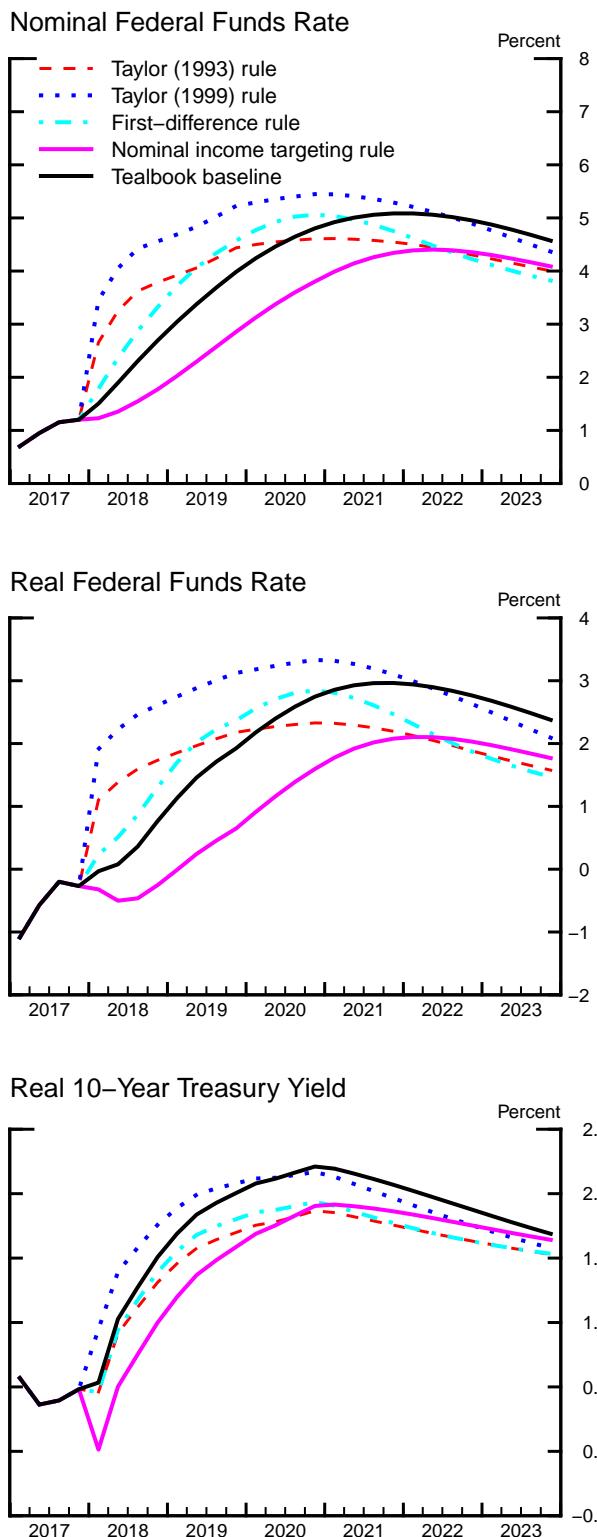
	Current Tealbook	Current-Quarter Estimate Based on Previous Tealbook	Previous Tealbook
Tealbook baseline			
FRB/US r^*	3.43	2.38	2.21
Average projected real federal funds rate	1.46	1.12	.93
SEP-consistent baseline			
FRB/US r^*	1.09		
Average projected real federal funds rate	.46		

1. For rules that have a lagged policy rate as a right-hand-side variable, the lines denoted "Previous Tealbook projection" report prescriptions based on the previous Tealbook's staff outlook for inflation and the output gap, but conditional on the current-Tealbook value of the lagged policy rate.

2. The "FRB/US r^* " is the level of the real federal funds rate that, if maintained over a 12-quarter period (beginning in the current quarter) in the FRB/US model, sets the output gap equal to zero in the final quarter of that period given either the Tealbook or SEP-consistent projection. The SEP-consistent baseline corresponds to the September 2017 median SEP responses. The "Average projected real federal funds rate" is calculated under the Tealbook and SEP-consistent baseline projections over the same 12-quarter period as FRB/US r^* . The previous-Tealbook r^* is adjusted to be consistent with a revision in the model's fiscal rules.

Simple Policy Rule Simulations

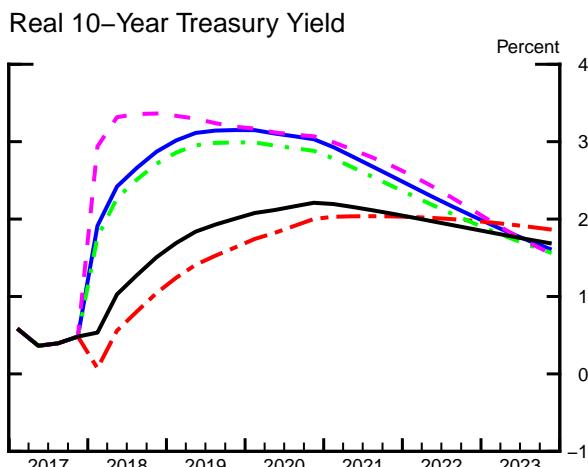
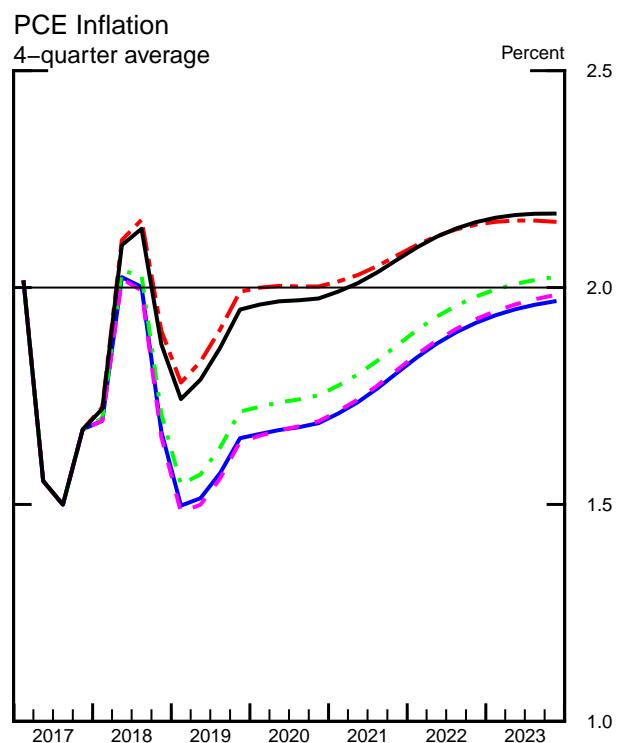
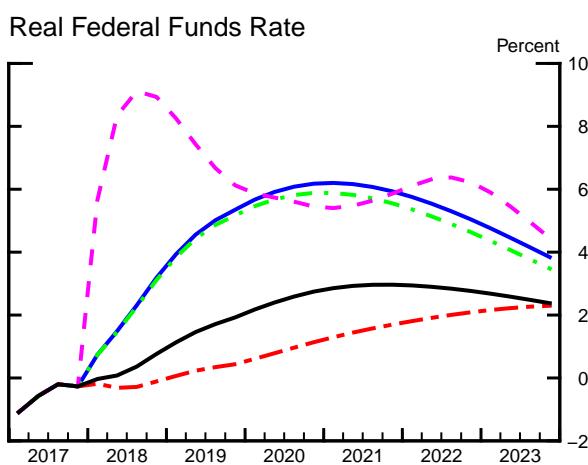
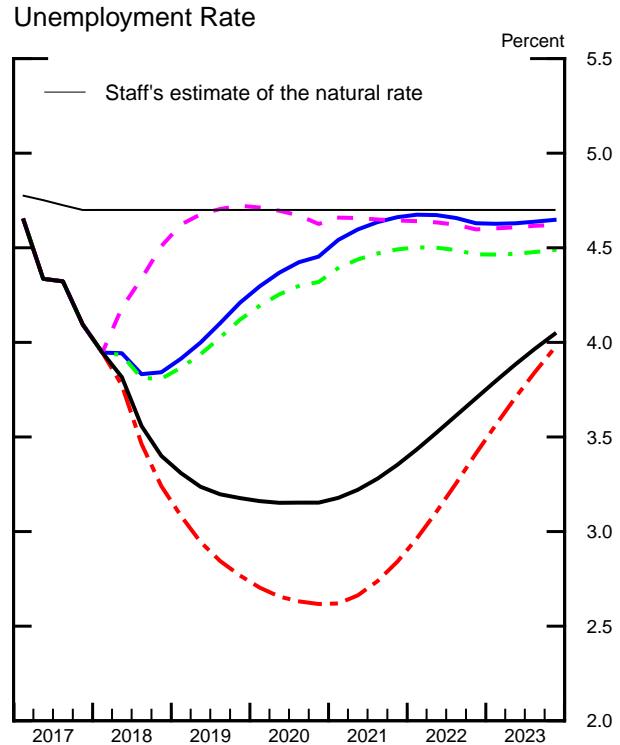
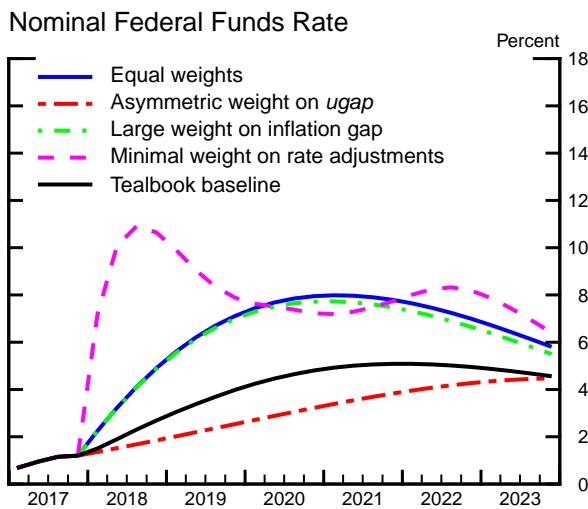
Monetary Policy Strategies



Note: The policy rule simulations in this exhibit are based on rules that respond to core inflation rather than to headline inflation. This choice of rule specification was made in light of a tendency for current and near-term core inflation rates to outperform headline inflation rates as predictors of the medium-term behavior of headline inflation.

Optimal Control Simulations under Commitment

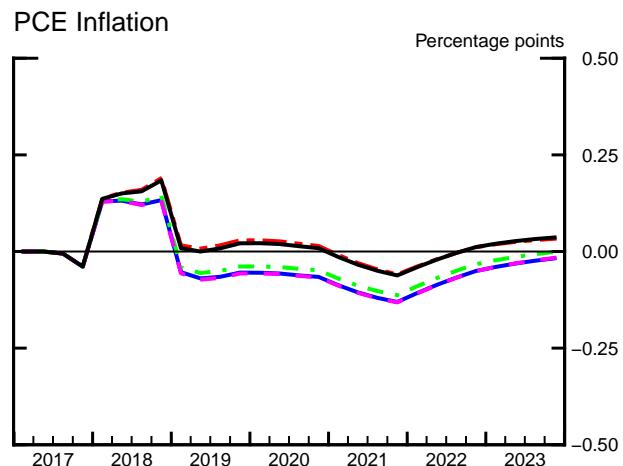
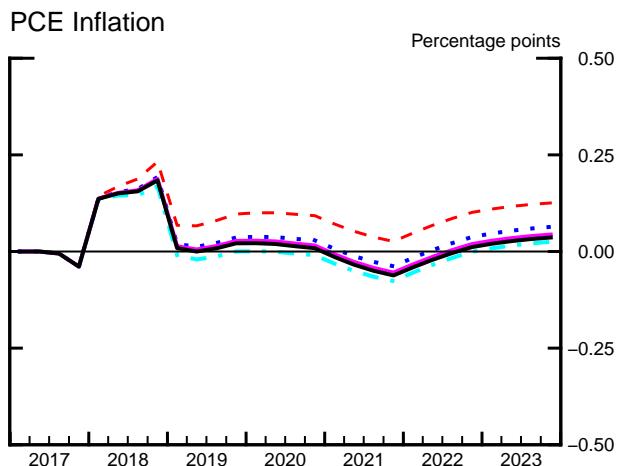
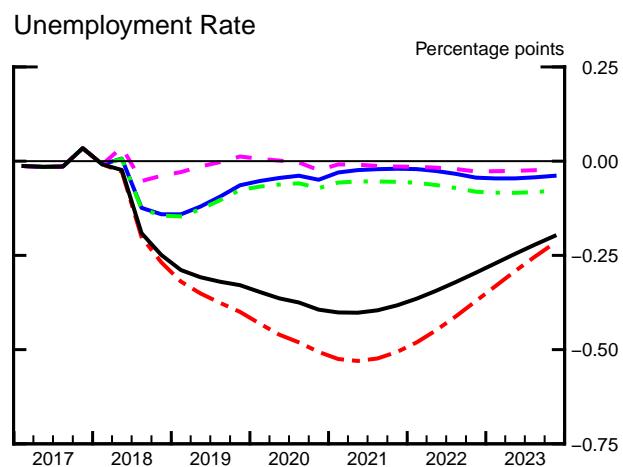
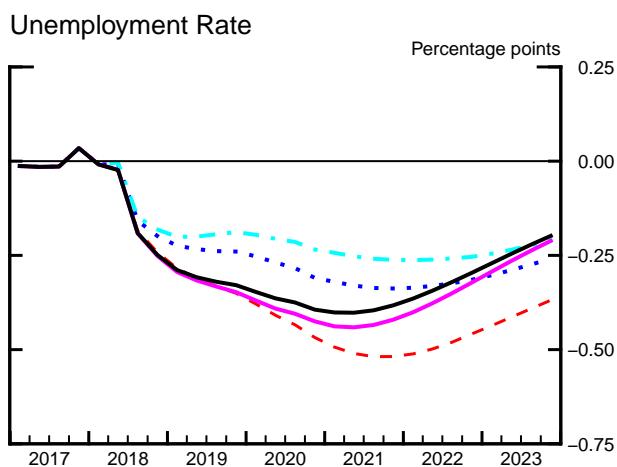
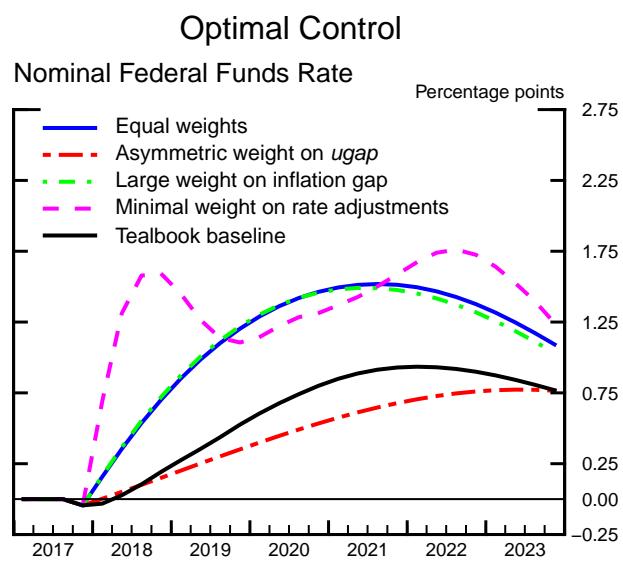
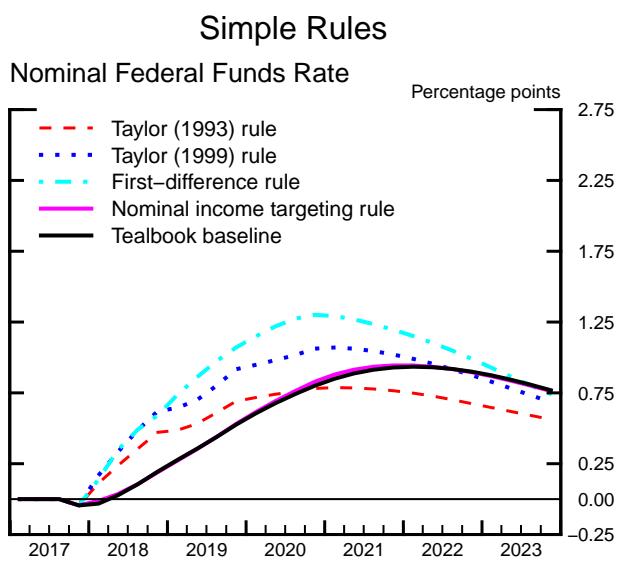
Monetary Policy Strategies



Note: Each set of lines corresponds to an optimal control policy under commitment in which policymakers minimize a discounted weighted sum of squared deviations of 4-quarter headline PCE inflation from the Committee's 2 percent objective, of squared deviations of the unemployment rate from the staff's estimate of the natural rate, and of squared changes in the federal funds rate. The weights vary across simulations. See the appendix for technical details and the box "Optimal Control and the Loss Function" in the June 2016 Tealbook B for a motivation.

Changes in Prescriptions and Outcomes from the December Tealbook

Monetary Policy Strategies



Note: Each set of lines corresponds to the difference between the current prescriptions and economic outcomes under a simple policy rule or optimal control policy (shown in the previous two figures) and the associated prescriptions and economic outcomes shown in the December Tealbook.

Outcomes of Simple Policy Rule Simulations
 (Percent change, annual rate, from end of preceding period except as noted)

Outcome and strategy	2017						
	H2	2018	2019	2020	2021	2022	2023
<i>Nominal federal funds rate¹</i>							
Taylor (1993)	1.2	3.8	4.4	4.6	4.5	4.3	4.0
Taylor (1999)	1.2	4.6	5.2	5.4	5.3	4.9	4.4
First-difference	1.2	3.3	4.6	5.1	4.8	4.2	3.8
Nominal income targeting	1.2	1.8	2.9	3.8	4.3	4.4	4.1
Extended Tealbook baseline	1.2	2.7	4.0	4.8	5.1	5.0	4.6
<i>Real GDP</i>							
Taylor (1993)	3.3	2.9	2.6	2.3	1.7	1.1	1.1
Taylor (1999)	3.3	2.5	2.3	2.1	1.7	1.2	1.1
First-difference	3.3	2.9	2.5	2.2	1.7	1.2	1.2
Nominal income targeting	3.3	3.3	2.9	2.2	1.4	.8	.9
Extended Tealbook baseline	3.3	2.9	2.4	2.0	1.4	1.0	1.0
<i>Unemployment rate¹</i>							
Taylor (1993)	4.1	3.5	3.1	3.0	3.0	3.3	3.6
Taylor (1999)	4.1	3.6	3.5	3.4	3.4	3.6	3.9
First-difference	4.1	3.4	3.2	3.0	3.1	3.3	3.6
Nominal income targeting	4.1	3.2	2.8	2.6	2.8	3.3	3.7
Extended Tealbook baseline	4.1	3.4	3.2	3.2	3.4	3.7	4.0
<i>Total PCE prices</i>							
Taylor (1993)	2.1	2.0	2.1	2.2	2.3	2.4	2.4
Taylor (1999)	2.1	1.9	2.0	2.0	2.1	2.2	2.2
First-difference	2.1	2.0	2.1	2.1	2.2	2.3	2.3
Nominal income targeting	2.1	2.0	2.1	2.1	2.2	2.3	2.3
Extended Tealbook baseline	2.1	1.9	1.9	2.0	2.1	2.2	2.2
<i>Core PCE prices</i>							
Taylor (1993)	1.6	2.1	2.3	2.3	2.4	2.4	2.4
Taylor (1999)	1.6	1.9	2.1	2.1	2.2	2.3	2.3
First-difference	1.6	2.0	2.2	2.2	2.3	2.4	2.4
Nominal income targeting	1.6	2.0	2.2	2.2	2.3	2.3	2.3
Extended Tealbook baseline	1.6	1.9	2.1	2.1	2.1	2.2	2.2

1. Percent, average for the final quarter of the period.

Outcomes of Simple Policy Rule Simulations, Quarterly
 (4-quarter percent change, except as noted)

Outcome and strategy	2018				2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<i>Nominal federal funds rate¹</i>								
Taylor (1993)	2.7	3.2	3.6	3.8	3.9	4.1	4.2	4.4
Taylor (1999)	3.5	4.1	4.4	4.6	4.7	4.8	5.0	5.2
First-difference	1.8	2.4	2.9	3.3	3.7	4.1	4.3	4.6
Nominal income targeting	1.2	1.4	1.5	1.8	2.0	2.3	2.6	2.9
Extended Tealbook baseline	1.5	1.9	2.3	2.7	3.0	3.4	3.7	4.0
<i>Real GDP</i>								
Taylor (1993)	3.1	3.1	3.1	2.9	2.9	2.8	2.7	2.6
Taylor (1999)	3.1	3.0	2.8	2.5	2.5	2.4	2.3	2.3
First-difference	3.1	3.1	3.1	2.9	3.0	2.8	2.7	2.5
Nominal income targeting	3.1	3.3	3.4	3.3	3.5	3.3	3.1	2.9
Extended Tealbook baseline	3.1	3.1	3.1	2.9	2.9	2.8	2.6	2.4
<i>Unemployment rate¹</i>								
Taylor (1993)	3.9	3.9	3.6	3.5	3.4	3.3	3.2	3.1
Taylor (1999)	3.9	3.9	3.7	3.6	3.6	3.5	3.5	3.5
First-difference	3.9	3.8	3.6	3.4	3.3	3.3	3.2	3.2
Nominal income targeting	3.9	3.8	3.4	3.2	3.1	2.9	2.8	2.8
Extended Tealbook baseline	3.9	3.8	3.6	3.4	3.3	3.2	3.2	3.2
<i>Total PCE prices</i>								
Taylor (1993)	1.7	2.1	2.2	2.0	1.9	2.0	2.1	2.1
Taylor (1999)	1.7	2.1	2.2	1.9	1.8	1.8	1.9	2.0
First-difference	1.7	2.1	2.2	2.0	1.9	1.9	2.0	2.1
Nominal income targeting	1.7	2.1	2.2	2.0	1.9	1.9	2.0	2.1
Extended Tealbook baseline	1.7	2.1	2.1	1.9	1.7	1.8	1.9	1.9
<i>Core PCE prices</i>								
Taylor (1993)	1.6	1.9	2.0	2.1	2.1	2.1	2.2	2.3
Taylor (1999)	1.5	1.8	2.0	1.9	1.9	2.0	2.0	2.1
First-difference	1.5	1.9	2.0	2.0	2.0	2.0	2.1	2.2
Nominal income targeting	1.6	1.9	2.0	2.0	2.0	2.1	2.1	2.2
Extended Tealbook baseline	1.5	1.8	1.9	1.9	1.9	1.9	2.0	2.1

1. Percent, average for the quarter.

Outcomes of Optimal Control Simulations under Commitment

(Percent change, annual rate, from end of preceding period except as noted)

Outcome and strategy	2017	2018	2019	2020	2021	2022	2023
	H2						
<i>Nominal federal funds rate¹</i>							
Equal weights	1.2	4.9	7.1	7.9	7.8	7.0	5.8
Asymmetric weight on ugap	1.2	1.8	2.5	3.2	3.8	4.3	4.5
Large weight on inflation gap	1.2	4.9	7.0	7.7	7.5	6.6	5.5
Minimal weight on rate adjustments	1.2	10.6	7.9	7.2	7.7	8.2	6.5
Extended Tealbook baseline	1.2	2.7	4.0	4.8	5.1	5.0	4.6
<i>Real GDP</i>							
Equal weights	3.3	2.0	1.3	1.5	1.5	1.5	1.3
Asymmetric weight on ugap	3.3	3.3	2.9	2.2	1.3	.6	.7
Large weight on inflation gap	3.3	2.1	1.4	1.6	1.6	1.5	1.3
Minimal weight on rate adjustments	3.3	1.0	1.3	2.1	1.9	1.5	1.2
Extended Tealbook baseline	3.3	2.9	2.4	2.0	1.4	1.0	1.0
<i>Unemployment rate¹</i>							
Equal weights	4.1	3.8	4.2	4.5	4.7	4.6	4.6
Asymmetric weight on ugap	4.1	3.2	2.8	2.6	2.8	3.4	4.0
Large weight on inflation gap	4.1	3.8	4.1	4.3	4.5	4.5	4.5
Minimal weight on rate adjustments	4.1	4.5	4.7	4.6	4.6	4.6	4.6
Extended Tealbook baseline	4.1	3.4	3.2	3.2	3.4	3.7	4.0
<i>Total PCE prices</i>							
Equal weights	2.1	1.7	1.7	1.7	1.8	1.9	2.0
Asymmetric weight on ugap	2.1	1.9	2.0	2.0	2.1	2.1	2.2
Large weight on inflation gap	2.1	1.7	1.7	1.8	1.9	2.0	2.0
Minimal weight on rate adjustments	2.1	1.7	1.6	1.7	1.8	1.9	2.0
Extended Tealbook baseline	2.1	1.9	1.9	2.0	2.1	2.2	2.2
<i>Core PCE prices</i>							
Equal weights	1.6	1.7	1.8	1.8	1.9	2.0	2.0
Asymmetric weight on ugap	1.6	2.0	2.1	2.1	2.1	2.2	2.2
Large weight on inflation gap	1.6	1.8	1.8	1.8	1.9	2.0	2.0
Minimal weight on rate adjustments	1.6	1.7	1.8	1.8	1.9	2.0	2.0
Extended Tealbook baseline	1.6	1.9	2.1	2.1	2.1	2.2	2.2

1. Percent, average for the final quarter of the period.

Outcomes of Optimal Control Simulations under Commitment, Quarterly
 (4-quarter percent change, except as noted)

Outcome and strategy	2018				2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<i>Nominal federal funds rate¹</i>								
Equal weights	2.2	3.2	4.1	4.9	5.6	6.2	6.7	7.1
Asymmetric weight on <i>ugap</i>	1.4	1.5	1.7	1.8	2.0	2.2	2.4	2.5
Large weight on inflation gap	2.2	3.2	4.1	4.9	5.6	6.1	6.6	7.0
Minimal weight on rate adjustments	7.2	10.1	10.9	10.6	9.9	9.1	8.4	7.9
Extended Tealbook baseline	1.5	1.9	2.3	2.7	3.0	3.4	3.7	4.0
<i>Real GDP</i>								
Equal weights	3.1	2.8	2.5	2.0	1.6	1.5	1.3	1.3
Asymmetric weight on <i>ugap</i>	3.1	3.2	3.3	3.3	3.4	3.3	3.1	2.9
Large weight on inflation gap	3.1	2.9	2.6	2.1	1.8	1.6	1.5	1.4
Minimal weight on rate adjustments	3.1	2.5	1.8	1.0	.5	.6	.9	1.3
Extended Tealbook baseline	3.1	3.1	3.1	2.9	2.9	2.8	2.6	2.4
<i>Unemployment rate¹</i>								
Equal weights	3.9	3.9	3.8	3.8	3.9	4.0	4.1	4.2
Asymmetric weight on <i>ugap</i>	3.9	3.8	3.5	3.2	3.1	2.9	2.8	2.8
Large weight on inflation gap	3.9	3.9	3.8	3.8	3.9	3.9	4.0	4.1
Minimal weight on rate adjustments	3.9	4.2	4.3	4.5	4.6	4.7	4.7	4.7
Extended Tealbook baseline	3.9	3.8	3.6	3.4	3.3	3.2	3.2	3.2
<i>Total PCE prices</i>								
Equal weights	1.7	2.0	2.0	1.7	1.5	1.5	1.6	1.7
Asymmetric weight on <i>ugap</i>	1.7	2.1	2.2	1.9	1.8	1.8	1.9	2.0
Large weight on inflation gap	1.7	2.0	2.0	1.7	1.5	1.6	1.6	1.7
Minimal weight on rate adjustments	1.7	2.0	2.0	1.7	1.5	1.5	1.6	1.6
Extended Tealbook baseline	1.7	2.1	2.1	1.9	1.7	1.8	1.9	1.9
<i>Core PCE prices</i>								
Equal weights	1.5	1.7	1.8	1.7	1.7	1.6	1.7	1.8
Asymmetric weight on <i>ugap</i>	1.5	1.8	2.0	2.0	2.0	2.0	2.0	2.1
Large weight on inflation gap	1.5	1.8	1.8	1.8	1.7	1.7	1.7	1.8
Minimal weight on rate adjustments	1.5	1.7	1.8	1.7	1.7	1.6	1.7	1.8
Extended Tealbook baseline	1.5	1.8	1.9	1.9	1.9	1.9	2.0	2.1

1. Percent, average for the quarter.

Changes in GDP, Prices, and Unemployment
(Percent, annual rate except as noted)

Class II FOMC – Restricted (FR)

Authorized for Public Release

January 19, 2018

	Nominal GDP		Real GDP		PCE price index		Core PCE price index		Unemployment rate ¹	
Interval	12/01/17	01/18/18	12/01/17	01/18/18	12/01/17	01/18/18	12/01/17	01/18/18	12/01/17	01/18/18
<i>Quarterly</i>										
2017:Q1	3.3	3.3	1.2	1.2	2.2	2.2	1.8	1.8	4.7	4.6
Q2	4.1	4.1	3.1	3.1	.3	.3	.9	.9	4.4	4.3
Q3	5.5	5.3	3.3	3.2	1.5	1.5	1.4	1.3	4.3	4.3
Q4	4.8	6.0	2.2	3.5	2.8	2.7	1.9	1.8	4.1	4.1
2018:Q1	4.5	4.8	2.7	2.7	1.7	2.4	1.9	2.1	4.0	3.9
Q2	4.3	4.9	2.4	3.2	1.7	1.8	2.0	2.0	3.8	3.8
Q3	4.2	5.0	2.3	3.0	1.7	1.7	1.8	1.8	3.7	3.6
Q4	4.0	4.7	2.2	2.8	1.6	1.6	1.7	1.7	3.6	3.4
2019:Q1	4.4	5.0	2.2	2.7	1.9	1.9	2.0	2.0	3.6	3.3
Q2	4.2	4.7	2.2	2.6	1.9	1.9	2.0	2.1	3.5	3.2
Q3	3.9	4.4	1.8	2.3	1.9	2.0	2.0	2.1	3.5	3.2
Q4	3.7	4.2	1.6	2.2	1.9	2.0	2.0	2.1	3.5	3.2
<i>Two-quarter²</i>										
2017:Q2	3.7	3.7	2.1	2.1	1.2	1.2	1.4	1.4	-.3	-.4
Q4	5.1	5.7	2.7	3.3	2.2	2.1	1.6	1.6	-.3	-.2
2018:Q2	4.4	4.8	2.5	3.0	1.7	2.1	1.9	2.1	-.3	-.3
Q4	4.1	4.9	2.2	2.9	1.7	1.6	1.8	1.8	-.2	-.4
2019:Q2	4.3	4.8	2.2	2.6	1.9	1.9	2.0	2.0	-.1	-.2
Q4	3.8	4.3	1.7	2.2	1.9	2.0	2.0	2.1	.0	.0
<i>Four-quarter³</i>										
2016:Q4	3.4	3.4	1.8	1.8	1.6	1.6	1.9	1.9	-.3	-.3
2017:Q4	4.4	4.7	2.4	2.7	1.7	1.7	1.5	1.5	-.6	-.6
2018:Q4	4.2	4.9	2.4	2.9	1.7	1.9	1.8	1.9	-.5	-.7
2019:Q4	4.1	4.6	2.0	2.4	1.9	1.9	2.0	2.1	-.1	-.2
2020:Q4	3.8	4.1	1.7	2.0	2.0	2.0	2.0	2.1	.0	.0
<i>Annual</i>										
2016	2.8	2.8	1.5	1.5	1.2	1.2	1.8	1.8	4.9	4.9
2017	4.1	4.2	2.2	2.3	1.7	1.7	1.5	1.5	4.4	4.4
2018	4.5	5.1	2.5	3.1	1.8	2.0	1.8	1.8	3.8	3.7
2019	4.2	4.8	2.1	2.7	1.8	1.8	1.9	2.0	3.5	3.2
2020	3.9	4.3	1.7	2.1	2.0	2.0	2.0	2.1	3.5	3.2

- 1. Level, except for two-quarter and four-quarter intervals.
- 2. Percent change from two quarters earlier; for unemployment rate, change is in percentage points.
- 3. Percent change from four quarters earlier; for unemployment rate, change is in percentage points.

Greensheets
Changes in Real Gross Domestic Product and Related Items
(Percent, annual rate except as noted)

Item	2017			2018			2019			2017 ¹			2018 ¹			2019 ¹			2020 ¹		
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017	2018 ¹	2019 ¹	2020 ¹	2017	2018 ¹	2019 ¹	2020 ¹		
Real GDP <i>Previous Tealbook</i>	3.1	3.2	3.5	2.7	3.2	3.0	2.8	2.7	2.6	2.3	2.2	2.2	2.3	2.2	2.2	2.7	2.9	2.4	2.0	2.0	
Final sales <i>Previous Tealbook</i>	3.0	2.4	4.0	2.2	3.1	3.2	3.2	2.8	2.4	2.2	2.2	2.2	1.9	2.1	2.2	3.0	2.9	2.4	2.0	1.7	
Priv. dom. final purch. <i>Previous Tealbook</i>	3.3	2.2	4.9	2.7	3.5	3.6	3.4	3.0	2.8	2.6	2.5	2.5	2.4	2.5	2.5	3.4	3.3	2.7	2.7	2.5	
Personal cons. expend. <i>Previous Tealbook</i>	3.3	2.2	3.8	2.6	2.9	3.0	3.0	2.9	2.8	2.7	2.6	2.6	2.7	2.6	2.6	2.8	2.9	2.8	2.8	2.5	
Durables	7.6	8.6	12.2	1.5	4.6	4.7	4.3	2.4	2.3	2.2	2.1	2.1	7.0	3.8	3.8	2.3	2.3	2.3	2.3	2.1	
Nondurables	4.2	2.3	6.3	3.4	3.5	3.2	3.2	3.0	2.9	2.8	2.7	2.7	3.5	3.4	3.4	2.9	2.9	2.6	2.6	2.0	
Services	2.3	1.1	1.8	2.5	2.5	2.7	2.7	3.0	2.9	2.8	2.7	2.7	1.9	2.6	2.6	2.8	2.8	2.6	2.6	2.6	
Residential investment <i>Previous Tealbook</i>	-7.3	-4.7	11.3	-1.0	5.2	7.9	4.9	2.2	1.1	-1	-1	-1	-7	-7	-7	2.2	4.2	.4	4.1	3.4	
Nonres. priv. fixed invest. <i>Previous Tealbook</i>	6.7	4.7	8.9	4.6	6.3	5.4	4.7	3.9	3.6	3.1	2.6	2.6	6.8	5.2	5.2	3.3	3.3	1.7	3.3	1.7	
Equipment & intangibles <i>Previous Tealbook</i>	6.6	8.4	10.8	5.3	6.5	5.6	5.4	4.3	4.2	3.5	3.0	3.0	7.7	5.7	5.7	3.8	3.8	2.1	2.1	2.1	
Nonres. structures <i>Previous Tealbook</i>	6.6	8.9	8.4	4.8	4.1	3.8	3.4	3.1	2.9	2.2	1.8	1.8	7.2	4.0	4.0	2.5	2.5	1.6	1.6	1.6	
Nonres. structures <i>Previous Tealbook</i>	7.0	-7.0	2.6	2.1	5.6	4.7	2.5	2.5	1.5	1.6	1.4	1.4	4.0	3.7	3.7	1.8	1.8	.5	.5	.5	
Net exports ² <i>Previous Tealbook</i> ²	-614	-598	-627	-632	-628	-623	-618	-625	-633	-641	-615	-615	-628	-629	-629	-628	-629	-678	-678	-643	
Exports	3.5	2.1	5.2	4.3	5.4	7.0	5.5	5.6	5.0	4.9	4.0	4.5	5.6	4.9	4.5	5.6	4.9	3.3	3.3	3.3	
Imports	1.5	-.7	8.5	4.0	4.1	5.0	3.7	3.6	5.0	4.9	4.2	3.3	4.2	4.2	3.3	4.2	4.4	4.4	4.5	4.5	
Gov't. cons. & invest. <i>Previous Tealbook</i>	-.2	.7	2.4	-.1	.4	.0	1.0	.2	.9	.5	1.0	.6	.3	.7	.7	.7	.7	.8	.8	.8	
Federal	1.9	1.3	2.5	-.2	-.9	-1.2	1.2	-1.0	.8	.5	1.1	.8	.1	.5	.7	.7	.7	.7	.7	.7	
Defense	4.7	2.4	5.4	-.2	-.5	-.6	2.6	-.8	2.0	1.4	2.0	2.3	-.3	-.3	1.1	1.1	1.1	1.0	1.0	1.0	
Nonddefense	-1.9	-.2	-1.6	-1.6	-2.0	-.8	-1.2	-1.0	-1.0	-1.0	-1.0	-1.5	-.4	-.4	-.8	-.8	-.8	.1	.1	.1	
State & local	-1.5	.2	2.4	1.2	.7	.9	.9	1.0	.6	.9	.9	1.0	.4	1.0	.8	.8	.8	.9	.9	.9	
Change in priv. inventories ² <i>Previous Tealbook</i> ²	5	39	18	40	42	35	22	19	25	5	14	16	6	15	15	16	35	37	37	37	

1. Change from fourth quarter of previous year to fourth quarter of year indicated.

2. Billions of chained (2009) dollars.

Changes in Real Gross Domestic Product and Related Items
 (Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise noted)

Item	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Real GDP <i>Previous Tealbook</i>	1.7 1.7	1.3 2.7	2.7 2.7	2.7 2.0	2.0 2.0	1.8 1.9	2.7 2.7	2.9 2.4	2.4 2.4	2.0 2.0
Final sales <i>Previous Tealbook</i>	1.5 1.5	1.7 2.3	2.0 2.6	2.9 4.1	2.0 2.9	1.9 2.5	2.7 3.4	2.5 3.3	2.4 2.5	1.7 2.0
Priv. dom. final purch. <i>Previous Tealbook</i>	2.6 2.6	2.3 2.3	2.6 4.1	4.1 4.1	2.9 2.9	2.5 2.5	3.4 2.9	3.3 2.8	1.9 2.2	1.7 2.0
Personal cons. expend. <i>Previous Tealbook</i>	1.5 1.5	1.3 1.3	2.0 2.0	3.6 3.6	3.0 3.0	2.8 2.8	2.8 2.5	2.9 2.6	2.8 2.6	2.5 2.5
Durables	4.8	7.2	5.2	8.7	6.4	7.0	7.0	3.8	2.3	2.1
Nondurables	.4	.8	2.6	2.8	2.8	2.5	3.5	3.4	2.9	2.0
Services	1.4	.6	1.3	3.0	2.6	2.3	1.9	2.6	2.8	2.6
Residential investment <i>Previous Tealbook</i>	6.0 6.0	15.7 15.7	6.8 6.8	6.3 6.3	10.3 10.3	2.5 2.5	2.2 .2	4.2 3.9	4 2.0	4.1 3.4
Nonres. priv. fixed invest. <i>Previous Tealbook</i>	9.0 9.0	5.2 5.2	4.8 4.8	6.1 6.1	.3 .3	.7 .7	6.8 6.0	5.2 5.7	3.3 3.7	1.7 2.1
Equipment & intangibles <i>Previous Tealbook</i>	9.2 9.2	5.5 5.5	4.5 4.5	5.3 5.3	3.3 3.3	-1 -1	7.7 7.2	5.7 4.0	3.8 2.5	2.1 1.6
Nonres. structures <i>Previous Tealbook</i>	8.0 8.0	4.1 4.1	5.8 5.8	8.8 8.8	-9.1 -9.1	3.5 3.5	4.0 2.1	3.7 2.5	1.8 1.8	.5 -.6
Net exports ¹ <i>Previous Tealbook</i>	-459 -459	-447 -447	-405 -405	-428 -428	-545 -545	-586 -586	-615 -606	-628 -605	-629 -609	-678 -643
Exports	4.2	2.2	5.9	3.0	-1.8	.6	4.5	5.6	4.9	3.3
Imports	3.5	.3	2.5	6.2	2.9	2.7	3.3	4.2	4.4	4.5
Gov't. cons. & invest. <i>Previous Tealbook</i>	-3.0 -3.0	-2.2 -2.2	-2.8 -.5	.5 1.6	.4 .4	.6 .1	3 .5	3 .5	.7 .7	.8 .7
Federal	-4.0	-2.1	-6.7	-1.2	1.2	-.3	.8	-.8	.3	.7
Defense	-4.1	-3.9	-7.1	-4.0	.0	-1.4	2.3	-.3	1.1	1.0
Nondefense	-3.9	1.0	-6.0	3.5	2.9	1.2	-1.2	-1.5	-.8	.1
State & local	-2.3	-2.3	-.1	1.5	1.9	.8	.4	1.0	.8	.9
Change in priv. inventories ¹ <i>Previous Tealbook</i>	38 38	55 55	79 79	68 101	101 101	33 33	16 15	35 22	26 10	37 12

1. Billions of chained (2009) dollars.

Contributions to Changes in Real Gross Domestic Product
 (Percentage points, annual rate except as noted)

Item	2017			2018			2019			2017 ¹			2018 ¹			2019 ¹		
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017 ¹	2018 ¹	2019 ¹	2018 ¹	2019 ¹	2020 ¹	
Real GDP <i>Previous Tealbook</i>	3.1	3.2	3.5	2.7	3.2	3.0	2.8	2.7	2.6	2.3	2.2	2.4	2.7	2.9	2.4	2.4	2.0	
Final sales <i>Previous Tealbook</i>	2.9	2.4	4.0	2.2	3.1	3.2	3.2	2.8	2.4	2.2	2.2	1.8	1.6	2.4	2.4	2.0	1.7	
Priv. dom. final purch. <i>Previous Tealbook</i>	2.8	1.9	4.1	2.3	3.0	3.1	2.9	2.6	2.4	2.3	2.1	2.1	2.9	2.5	2.4	2.4	2.0	
Personal cons. expend. <i>Previous Tealbook</i>	2.2	1.5	2.6	1.8	2.0	2.1	2.1	2.0	1.9	1.9	1.8	1.9	2.0	2.0	1.9	1.9	1.7	
Durables Nondurables Services	.6	.6	.9	.1	.3	.4	.3	.2	.2	.2	.2	.2	.5	.3	.2	.1	.1	
Residential investment <i>Previous Tealbook</i>	-3	-2	.4	.0	.2	.3	.2	.1	.0	.0	.0	.1	.1	.2	.0	.2	.1	
Nonres. priv. fixed invest. <i>Previous Tealbook</i>	.8	.6	1.1	.6	.8	.7	.6	.5	.5	.4	.3	.2	.2	.7	.7	.5	.2	
Equipment & intangibles <i>Previous Tealbook</i>	.8	.6	.6	.5	.5	.4	.4	.5	.4	.4	.3	.3	.3	.7	.6	.4	.1	
Nonres. structures <i>Previous Tealbook</i>	.6	.8	1.0	.5	.6	.6	.5	.3	.3	.2	.2	.2	.2	.7	.7	.4	.2	
Net exports <i>Previous Tealbook</i>	.2	.2	.1	.1	.2	.1	.1	.1	.0	.0	.0	.0	.0	.1	.1	.1	.0	
Gov't. cons. & invest. <i>Previous Tealbook</i>	.2	.4	-.6	-.1	0	.1	.1	.1	.1	.1	.1	.1	.1	.2	.1	.1	.1	
Exports Imports	.4	.3	.6	.5	.7	.8	.7	.7	.6	.6	.5	.5	.5	.7	.6	.4	.2	
Change in priv. inventories <i>Previous Tealbook</i>	.1	.8	-.4	.5	.1	-.2	-.3	-.1	.1	.1	.0	.0	.0	-.3	.0	.0	.0	

1. Change from fourth quarter of previous year to fourth quarter of year indicated.

Changes in Prices and Costs
(Percent, annual rate except as noted)

Class II FOMC – Restricted (FR)

Authorized for Public Release

January 19, 2018

Item	2017				2018				2019				2020 ¹			
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	2017 ¹	2018 ¹	2019 ¹	2020 ¹
GDP chain-wt. price index	1.0	2.1	2.4	2.0	1.7	1.9	1.8	2.2	2.1	2.0	2.0	1.9	1.9	2.1	2.1	2.1
<i>Previous Tealbook</i>	1.0	2.1	2.6	1.7	1.9	1.8	2.2	2.0	2.0	2.0	2.0	1.9	1.8	2.1	2.1	2.1
PCE chain-wt. price index	.3	1.5	2.7	2.4	1.8	1.7	1.6	1.9	1.9	2.0	2.0	1.7	1.9	1.9	1.9	2.0
<i>Previous Tealbook</i>	.3	1.5	2.8	1.7	1.7	1.6	1.9	1.9	1.9	1.9	1.9	1.7	1.7	1.9	1.9	2.0
Energy	-16.0	8.4	30.6	12.4	-4.1	-2.4	-1.9	-1.6	-1.2	-1.0	-8	8.2	.8	-1.1	-4	.3
<i>Previous Tealbook</i>	-16.0	8.3	31.2	-2.6	-4.2	-2.1	-1.2	-7	-5	-2	8.3	-2.5	-4	-1.1	-4	.3
Food	2.0	.2	-.1	.9	1.9	2.1	2.3	2.3	2.3	2.3	2.3	.6	1.8	2.3	2.3	2.2
<i>Previous Tealbook</i>	2.0	.2	.9	2.0	2.1	2.1	2.3	2.3	2.3	2.3	2.3	.9	2.1	2.3	2.3	2.2
Ex. food & energy	.9	1.3	1.8	2.1	2.0	1.8	1.7	2.0	2.1	2.1	2.1	1.5	1.9	2.1	2.1	2.1
<i>Previous Tealbook</i>	.9	1.4	1.9	1.9	2.0	1.8	1.7	2.0	2.0	2.0	2.0	1.5	1.8	2.0	2.0	2.0
Ex. food & energy, market based	.3	1.0	1.6	1.8	1.9	1.6	1.5	1.8	1.9	1.9	1.9	1.2	1.7	1.9	1.9	1.9
<i>Previous Tealbook</i>	.3	1.0	1.5	1.6	1.7	1.6	1.5	1.8	1.8	1.8	1.8	1.2	1.6	1.8	1.8	1.9
CPI	-.3	2.0	3.7	3.1	2.0	2.0	2.2	2.2	2.2	2.3	2.3	2.1	2.3	2.2	2.3	2.3
<i>Previous Tealbook</i>	-.3	2.0	3.7	3.1	2.0	2.0	2.2	2.2	2.2	2.3	2.3	2.1	2.3	2.2	2.3	2.3
Ex. food & energy	-.6	1.7	2.3	2.6	2.5	2.3	2.2	2.4	2.4	2.4	2.4	2.5	2.5	2.4	2.5	2.5
<i>Previous Tealbook</i>	-.6	1.7	2.2	2.2	2.3	2.3	2.2	2.4	2.4	2.4	2.4	2.5	2.5	2.4	2.4	2.5
ECI, hourly compensation ²	2.2	3.1	2.5	2.6	2.5	2.5	2.6	2.6	2.7	2.7	2.7	2.8	2.5	2.7	2.7	2.7
<i>Previous Tealbook</i>	2.2	3.1	2.5	2.6	2.4	2.4	2.5	2.5	2.6	2.6	2.6	2.8	2.5	2.7	2.7	2.6
Business sector	1.4	3.3	.2	.5	.9	1.6	1.3	1.0	.9	.8	.5	1.0	1.1	.8	.9	.9
Output per hour	1.4	3.8	-1.1	1.3	1.1	.9	1.1	1.0	.8	.8	.8	1.0	1.0	.9	.9	.9
<i>Previous Tealbook</i>	1.4	3.3	1.5	3.0	4.0	4.0	4.0	3.9	3.9	3.9	3.9	2.4	3.8	3.9	3.9	3.9
Compensation per hour	.3	3.5	1.3	3.6	3.5	3.5	3.5	3.6	3.6	3.6	3.6	2.3	3.5	3.6	3.6	3.6
<i>Previous Tealbook</i>	.2	3.5	1.3	2.5	3.1	2.4	2.7	2.9	3.0	3.2	3.4	1.3	2.7	3.1	3.0	3.0
Unit labor costs	-1.0	.1	1.3	2.3	2.4	2.6	2.6	2.5	2.6	2.8	2.9	1.5	2.5	2.7	2.7	2.7
<i>Previous Tealbook</i>	-1.2	-.2	2.4	2.3	2.4	2.6	2.6	2.5	2.6	2.8	2.9	1.5	2.5	2.7	2.7	2.7
Core goods imports chain-wt. price index ³	2.5	1.1	1.7	2.4	3.0	1.1	.8	.7	.6	.6	.6	1.3	1.8	.6	.6	.6
<i>Previous Tealbook</i>	2.5	1.2	2.6	.8	1.2	.8	.8	.8	.7	.7	.7	1.6	.9	.7	.7	.7

1. Change from fourth quarter of previous year to fourth quarter of year indicated.

2. Private-industry workers.

3. Core goods imports exclude computers, semiconductors, oil, and natural gas.

Greensheets

Changes in Prices and Costs (Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise noted)

Item	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
GDP chain-wt. price index <i>Previous Tealbook</i>	1.9 1.9	1.9 1.9	1.6 1.6	1.6 1.6	1.0 1.0	1.5 1.5	1.9 1.9	1.9 1.8	2.1 2.1	2.1 2.1
PCE chain-wt. price index <i>Previous Tealbook</i>	2.7 2.7	1.8 1.8	1.2 1.2	1.2 1.2	.4 .4	1.6 1.6	1.7 1.7	1.9 1.7	1.9 1.9	2.0 2.0
Energy <i>Previous Tealbook</i>	12.0 12.0	2.3 2.3	-2.5 -2.5	-6.5 -6.5	-16.2 -16.2	2.2 2.2	8.2 8.3	.8 -2.5	-1.1 -.4	-.4 .3
Food <i>Previous Tealbook</i>	5.1 5.1	1.2 1.2	.7 .7	2.6 2.6	.3 .3	-1.7 -1.7	.6 .6	1.8 1.8	2.3 2.3	2.2 2.2
Ex. food & energy <i>Previous Tealbook</i>	1.9 1.9	1.8 1.8	1.5 1.5	1.5 1.5	1.3 1.3	1.9 1.9	1.5 1.5	1.9 1.8	2.1 2.0	2.1 2.0
Ex. food & energy; market based <i>Previous Tealbook</i>	1.9 1.9	1.5 1.5	1.1 1.1	1.2 1.2	1.1 1.1	1.5 1.5	1.2 1.2	1.7 1.6	1.9 1.8	1.9 1.9
CPI <i>Previous Tealbook</i>	3.3 3.3	1.9 1.9	1.2 1.2	1.2 1.2	.4 .4	1.8 1.8	2.1 2.1	2.3 2.3	2.2 2.2	2.3 2.3
Ex. food & energy <i>Previous Tealbook</i>	2.2 2.2	1.9 1.9	1.7 1.7	1.7 1.7	2.0 2.0	2.2 2.2	1.7 1.7	2.4 2.4	2.5 2.4	2.5 2.5
ECI, hourly compensation ¹ <i>Previous Tealbook</i>	2.2 2.2	1.8 1.8	2.0 2.0	2.3 2.3	1.9 1.9	2.2 2.2	2.8 2.8	2.5 2.5	2.7 2.5	2.7 2.6
Business sector										
Output per hour <i>Previous Tealbook</i>	-1 -1	-1 -1	1.9 1.9	.1 .1	.7 .7	1.0 1.0	1.0 .8	1.1 1.0	.8 .9	.9 .9
Compensation per hour <i>Previous Tealbook</i>	.5 .5	5.9 5.9	-1 -1	2.9 2.9	3.1 3.1	-.1 -.1	2.4 2.3	3.8 3.5	3.9 3.6	3.9 3.6
Unit labor costs <i>Previous Tealbook</i>	.6 .6	6.0 6.0	-2.0 -2.0	2.8 2.8	2.4 2.4	-1.2 -1.2	1.3 1.5	2.7 2.5	3.1 2.7	3.0 2.7
Core goods imports chain-wt. price index ² <i>Previous Tealbook</i>	4.3 4.3	.1 .1	-1.5 -1.5	.3 .3	-3.7 -3.7	-.2 -.2	1.3 1.6	1.8 .9	.6 .7	.6 .7

1. Private-industry workers.

2. Core goods imports exclude computers, semiconductors, oil, and natural gas.

Other Macroeconomic Indicators

Item	2017			2018			2019			2020 ¹				
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2017 ¹	2018 ¹	2019 ¹
<i>Employment and production</i>														
Nonfarm payroll employment ²	187	128	204	183	188	203	203	189	189	169	171	194	179	149
Unemployment rate ³	4.3	4.3	4.1	3.9	3.8	3.6	3.4	3.3	3.2	3.2	4.1	3.4	3.2	3.2
<i>Previous Tealbook</i> ³	4.4	4.3	4.1	4.0	3.8	3.7	3.6	3.5	3.5	3.5	4.1	3.6	3.5	3.5
Natural rate of unemployment ³	4.8	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
<i>Previous Tealbook</i> ³	4.8	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
Employment-to-Population Ratio ³	60.1	60.2	60.1	60.2	60.3	60.5	60.6	60.7	60.7	60.7	60.1	60.6	60.7	60.7
Employment-to-Population Trend ³	59.8	59.7	59.7	59.6	59.6	59.5	59.5	59.4	59.4	59.4	59.7	59.5	59.4	59.2
Output gap ⁴	.8	1.2	1.5	1.7	2.1	2.4	2.7	2.9	3.1	3.2	1.5	2.7	3.3	3.3
<i>Previous Tealbook</i> ⁴	.8	1.2	1.3	1.6	1.8	1.9	2.1	2.2	2.3	2.3	1.3	2.1	2.3	2.1
Industrial production ⁵	5.6	-1.3	8.2	5.0	3.4	2.6	.9	1.8	1.6	1.1	1.1	3.5	3.0	1.4
<i>Previous Tealbook</i> ⁵	5.6	-3	5.5	3.5	2.4	1.1	1.1	1.2	.9	.6	.4	3.1	2.0	.8
Manufacturing industr. prod. ⁵	2.6	-2.0	7.0	3.1	3.6	2.7	.7	1.4	1.6	1.4	.8	2.4	2.5	1.3
<i>Previous Tealbook</i> ⁵	2.6	-1.2	6.3	2.1	2.0	1.3	.9	.9	.8	.6	.2	2.5	1.6	.9
Capacity utilization rate - mfg. ³	75.7	75.2	76.4	76.8	77.4	77.8	77.9	78.1	78.2	78.2	76.4	77.8	78.2	.2
<i>Previous Tealbook</i> ³	75.7	75.4	76.4	76.7	76.9	77.1	77.1	77.2	77.3	77.3	76.4	77.1	77.3	.2
Housing starts ⁶	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.3	1.3	1.4
Light motor vehicle sales ⁶	16.8	17.1	17.7	17.3	17.4	17.4	17.1	17.1	17.1	17.0	16.9	17.1	17.3	16.7
<i>Income and saving</i>														
Nominal GDP ⁵	4.1	5.3	6.0	4.8	4.9	5.0	4.7	5.0	4.7	4.4	4.2	4.7	4.9	4.6
Real disposable pers. income ⁵	2.7	.5	2.0	5.6	2.8	2.0	2.7	4.8	2.5	2.0	2.3	2.0	3.3	2.9
<i>Previous Tealbook</i> ⁵	2.7	.4	1.1	3.1	2.3	1.9	2.6	3.7	1.9	1.7	1.9	1.8	2.5	2.3
Personal saving rate ³	3.7	3.3	2.9	3.6	3.4	3.3	3.7	3.7	3.5	3.4	3.4	3.0	3.3	3.1
<i>Previous Tealbook</i> ³	3.7	3.3	3.0	3.1	3.0	2.9	2.9	3.3	3.2	3.1	3.0	3.0	2.9	2.7
Corporate profits ⁷	2.8	18.1	17.7	5.3	2.3	12.6	7.7	2.5	3.5	3.8	2.8	7.0	6.9	3.1
Profit share of GNP ³	10.9	11.2	11.5	11.5	11.5	11.7	11.8	11.8	11.7	11.7	11.7	11.5	11.8	11.6
Gross national saving rate ³	17.2	17.6	17.3	17.0	17.2	17.4	17.3	17.3	17.2	17.1	17.3	17.4	17.1	16.8
Net national saving rate ³	2.0	2.5	2.4	2.1	2.1	2.4	2.5	2.4	2.3	2.2	2.1	2.4	2.5	2.1

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Class II FOMC – Restricted (FR)

January 19, 2018

1. Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise indicated.

2.

Average monthly change, thousands.

3. Percent; annual values are for the fourth quarter of the year indicated.

4. Percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential.

Annual values are for the fourth quarter of the year indicated.

5. Percent change, annual rate.

6. Level, millions; annual values are annual averages.

7. Percent change, annual rate, with inventory valuation and capital consumption adjustments.

Greensheets

Other Macroeconomic Indicators

(Change from fourth quarter of previous year to fourth quarter of year indicated, unless otherwise noted)

Item	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<i>Employment and production</i>										
Nonfarm payroll employment ¹	174	179	192	250	226	187	171	194	179	149
Unemployment rate ²	8.7	7.8	7.0	5.7	5.0	4.7	4.1	3.4	3.2	3.2
<i>Previous Tealbook</i> ²	8.7	7.8	7.0	5.7	5.0	4.7	4.1	3.6	3.5	3.5
Natural rate of unemployment ²	5.9	5.6	5.4	5.1	4.9	4.8	4.7	4.7	4.7	4.7
<i>Previous Tealbook</i> ²	5.9	5.6	5.4	5.1	4.9	4.8	4.7	4.7	4.7	4.7
Employment-to-Population Ratio ²	58.5	58.7	58.5	59.3	59.4	59.8	60.1	60.6	60.7	60.7
Employment-to-Population Trend ²	60.7	60.3	60.2	60.1	59.9	59.8	59.7	59.5	59.4	59.2
Output gap ³	-3.7	-3.7	-2.5	-9	-1	3	1.5	2.7	3.3	3.3
<i>Previous Tealbook</i> ³	-3.7	-3.7	-2.5	-9	-1	3	1.3	2.1	2.3	2.1
Industrial production ⁴	2.8	2.3	2.2	3.4	-2.7	-1	3.5	3.0	1.4	1.1
<i>Previous Tealbook</i> ⁴	2.8	2.3	2.2	3.4	-2.7	-1	3.1	2.0	.8	.5
Manufacturing industr. prod. ⁴	2.5	1.7	.9	1.5	-6	3	2.4	2.5	1.3	.9
<i>Previous Tealbook</i> ⁴	2.5	1.7	.9	1.5	-6	3	2.5	1.6	.6	.2
Capacity utilization rate - mfg. ²	74.4	74.6	74.7	75.9	75.4	75.1	76.4	77.8	78.2	78.3
<i>Previous Tealbook</i> ²	74.4	74.6	74.7	75.9	75.4	75.1	76.4	77.1	77.3	77.3
Housing starts ⁵	.6	.8	.9	1.0	1.1	1.2	1.2	1.3	1.3	1.4
Light motor vehicle sales ⁵	12.7	14.4	15.5	16.5	17.4	17.5	17.1	17.3	17.0	16.7
<i>Income and saving</i>										
Nominal GDP ⁴	3.6	3.2	4.3	4.3	3.1	3.4	4.7	4.9	4.6	4.1
Real disposable pers. income ⁴	1.7	5.1	-2.8	4.9	3.2	2	2.0	3.3	2.9	2.1
<i>Previous Tealbook</i> ⁴	1.7	5.1	-2.8	4.9	3.2	2	1.8	2.5	2.3	1.8
Personal saving rate ²	5.8	9.2	4.7	5.9	6.1	3.6	2.9	3.3	3.4	3.1
<i>Previous Tealbook</i> ²	5.8	9.2	4.7	5.9	6.1	3.6	3.0	2.9	3.0	2.7
Corporate profits ⁶	6.8	.6	4.7	7.4	-11.1	8.7	7.0	6.9	3.1	2.8
Profit share of GNP ²	12.3	12.0	12.0	12.4	10.7	11.3	11.5	11.8	11.7	11.6
Gross national saving rate ²	16.1	18.0	18.2	19.5	19.0	17.2	17.3	17.4	17.1	16.8
Net national saving rate ²	.8	2.9	3.1	4.7	4.1	2.1	2.4	2.5	2.1	1.7

1. Average monthly change, thousands.

2. Percent; values are for the fourth quarter of the year indicated.

3. Percent difference between actual and potential GDP; a negative number indicates that the economy is operating below potential.
Values are for the fourth quarter of the year indicated.

4. Percent change.

5. Level, millions; values are annual averages.

6. Percent change, with inventory valuation and capital consumption adjustments.

Staff Projections of Government-Sector Accounts and Related Items

Item	2015	2016	2017	2018	2019	2020	2017		2018	
							Q3	Q4	Q1	Q2
Unified federal budget¹										
Receipts	3,250	3,268	3,315	3,259	3,472	3,716	807	770	662	1,033
Outlays	3,688	3,853	3,981	4,112	4,428	4,719	950	994	1,119	1,031
Surplus/deficit	-438	-585	-666	-853	-956	-1,002	-143	-225	-458	1
<i>Percent of GDP</i>					Percent of GDP					
Surplus/deficit	-2.4	-3.2	-3.5	-4.2	-4.5	-4.5	-2.9	-4.5	-9.1	.0
<i>Previous Tealbook</i>	-2.4	-3.2	-3.5	-3.6	-3.9	-4.0	-2.9	-4.5	-9.1	.0
Primary surplus/deficit	-1.2	-1.9	-2.0	-2.6	-2.6	-2.1	-2.0	-2.8	-7.4	1.9
Net interest	1.2	1.3	1.4	1.6	2.0	2.4	.9	1.7	1.7	1.9
Cyclically adjusted surplus/deficit	-1.9	-2.8	-3.3	-4.7	-5.6	-5.9	-3.0	-4.8	-9.5	-.5
Federal debt held by public	72.9	76.7	76.5	77.6	79.4	81.2	75.2	74.8	76.7	75.9
Government in the NIPA²										
Purchases	1.6	.4	.6	.3	.7	.8	.7	2.4	-.1	.4
Consumption	1.9	.6	.2	.0	.3	.5	1.6	.6	-.4	-.1
Investment	.4	-.5	2.3	1.8	2.0	2.0	-1.5	10.5	1.4	2.2
State and local construction	.0	-2.3	-2.6	1.5	1.0	1.0	-4.2	17.0	2.0	2.0
Real disposable personal income	3.2	.2	2.0	3.3	2.9	2.1	.5	2.0	5.6	2.8
Contribution from transfers ³	.7	.3	.4	.7	.8	.7	.3	.5	1.2	1.3
Contribution from taxes ³	-1.4	.2	-.8	.1	-.7	-1.0	-1.1	-.6	3.3	-.9
Government employment					Average net change in monthly payrolls, thousands					
Federal	3	4	-1	-1	0	0	-1	-2	-1	-1
State and local	10	13	5	9	9	9	6	3	9	9
Fiscal indicators²										
Fiscal effect (FE) ⁴	.2	.3	.1	.4	.6	.5	-.1	.2	.5	.5
Discretionary policy actions (FI)	.4	.2	.1	.5	.5	.4	.2	.5	.3	.4
<i>Previous Tealbook</i>	.4	.2	.1	.3	.3	.2	.1	.2	.4	.2
Federal purchases	.1	.0	.1	-.1	.0	.0	.1	.2	-.1	-.1
State and local purchases	.2	.1	.0	.1	.1	.1	.0	.3	.1	.1
Taxes and transfers	.1	.1	.1	.4	.4	.2	.1	.1	.4	.4
Cyclical	-.2	.0	-.2	-.3	-.1	.0	-.3	-.2	-.2	-.2
Other	.0	.1	.1	.3	.3	.2	.0	.0	.3	.2

1. Annual values stated on a fiscal year basis. Quarterly values not seasonally adjusted.

2. Annual values refer to the change from fourth quarter of previous year to fourth quarter of year indicated.

3. Percentage point contribution to change in real disposable personal income, annual basis.

4. The FE measure captures the total contribution of the government sector to the growth of real GDP (excluding multiplier effects). It equals the sum of the direct contributions to real GDP growth from all changes in federal purchases and state and local purchases, plus the estimated contribution to real household consumption and business investment that is induced by changes in transfer and tax policies. FI (fiscal impetus) is the portion of FE attributable to discretionary fiscal policy actions (for example, a legislated change in tax revenues).

Greensheets

Foreign Real GDP and Consumer Prices: Selected Countries (Quarterly percent changes at an annual rate)

Measure and country	2017				2018				Projected 2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real GDP¹												
Total foreign	3.0	3.1	2.4	3.0	3.1	3.0	2.9	2.9	2.8	2.8	2.9	2.5
<i>Previous Tealbook</i>	2.9	3.1	2.2	3.1	2.8	2.7	2.7	2.6	2.7	2.6	2.8	2.4
Advanced foreign economies	2.7	3.4	2.2	2.2	2.1	2.1	2.0	2.0	1.8	1.8	2.0	1.3
Canada	3.7	4.3	1.7	2.0	2.4	2.3	2.3	2.2	2.0	2.0	2.0	2.0
Japan	1.5	2.9	2.5	2.0	1.4	1.2	1.0	.9	.9	.9	3.3	-3.7
United Kingdom	1.2	1.2	1.6	1.8	1.7	1.7	1.6	1.5	1.5	1.6	1.6	1.6
Euro area	2.5	2.9	2.9	2.6	2.4	2.1	2.1	2.1	1.9	1.8	1.7	1.7
Germany	3.6	2.6	3.3	2.5	2.2	1.9	1.8	1.7	1.6	1.5	1.4	1.4
Emerging market economies	3.3	2.9	2.6	3.8	4.0	3.9	3.8	3.8	3.8	3.8	3.8	3.8
Asia	5.4	5.1	5.6	5.3	5.2	5.0	5.0	4.9	4.8	4.7	4.7	4.7
Korea	4.3	2.4	6.3	3.7	3.4	3.4	3.4	3.4	3.2	3.2	3.1	3.1
China	7.1	6.8	6.5	6.8	6.7	6.6	6.5	6.4	6.3	6.2	6.2	6.1
Latin America	2.1	1.3	-.5	2.4	3.0	2.9	2.8	2.8	2.9	2.9	2.9	2.9
Mexico	2.2	1.1	-1.2	2.7	3.2	3.0	2.8	2.8	2.9	2.9	2.9	2.9
Brazil	5.3	2.7	.6	1.5	2.5	2.5	2.5	2.5	3.0	3.0	3.0	3.0
<i>Consumer prices²</i>												
Total foreign	2.9	2.0	2.2	2.6	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4
<i>Previous Tealbook</i>	2.9	2.0	2.2	2.1	2.0	1.6	1.5	1.5	1.5	2.4	2.4	2.8
Advanced foreign economies	2.2	.3	1.1	1.2	2.5	2.3	2.3	2.1	2.0	1.6	1.6	2.6
Canada	2.6	.1	1.2	2.5	2.4	1.8	1.7	1.8	1.9	2.0	2.0	2.0
Japan	-.1	-.3	.4	2.3	1.3	.6	.6	.7	.8	1.0	1.0	6.3
United Kingdom	3.7	3.0	2.4	2.9	2.8	2.3	2.2	2.2	2.2	2.2	2.2	2.2
Euro area	2.8	.2	1.0	1.7	1.9	1.3	1.3	1.4	1.4	1.5	1.6	1.6
Germany	2.1	.4	1.6	2.4	2.4	1.8	1.7	1.8	1.9	2.0	2.1	2.2
Emerging market economies	3.3	3.3	3.0	3.8	3.6	3.3	3.2	3.2	3.1	3.0	3.0	3.0
Asia	.9	1.7	2.1	3.3	3.1	2.8	2.8	2.8	2.8	2.7	2.7	2.7
Korea	2.6	.7	2.2	.5	2.8	3.4	3.4	3.3	3.2	3.1	3.1	3.1
China	-.6	2.3	2.0	3.5	2.8	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Latin America	9.1	7.0	5.2	5.0	4.4	3.7	3.7	4.1	3.7	3.5	3.5	3.5
Mexico	9.9	6.9	5.1	4.5	4.4	4.3	4.3	4.3	4.3	3.2	3.2	3.2
Brazil	3.2	2.3	2.3	3.6	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

¹Foreign GDP aggregates calculated using shares of U.S. exports.

²Foreign CPI aggregates calculated using shares of U.S. non-oil imports.

Foreign Real GDP and Consumer Prices: Selected Countries
 (Percent change, Q4 to Q4)

Class II FOMC – Restricted (FR)

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Measure and country	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Projected
Real GDP¹											
Total foreign	3.2	2.2	3.0	2.8	2.0	2.7	2.9	3.0	2.8	2.8	
<i>Previous Tealbook</i>	3.2	2.2	3.0	2.8	2.0	2.6	2.8	2.7	2.6	2.7	
Advanced foreign economies	1.8	3	2.5	2.0	1.2	1.9	2.6	2.1	1.8	1.7	
Canada	3.1	.7	3.6	2.5	.3	2.0	2.9	2.3	2.0	1.9	
Japan	.2	.3	2.8	-.3	1.2	1.5	2.2	1.1	.3	.9	
United Kingdom	1.3	1.5	2.6	3.3	2.1	2.0	1.4	1.6	1.6	1.6	
Euro area	.5	-1.0	.8	1.5	2.0	1.9	2.7	2.2	1.8	1.7	
Germany	2.4	.2	1.6	1.9	1.3	1.9	3.0	1.9	1.5	1.4	
Emerging market economies	4.6	4.2	3.5	3.6	2.9	3.4	3.2	3.9	3.8	3.8	
Asia	5.1	5.7	5.4	5.0	4.4	4.8	5.4	5.0	4.7	4.6	
Korea	2.9	2.1	3.5	2.8	3.3	2.4	4.2	3.4	3.1	3.0	
China	8.7	8.0	7.6	7.1	6.8	6.8	6.8	6.5	6.2	5.9	
Latin America	4.0	3.1	1.7	2.5	1.6	2.1	1.3	2.9	2.9	3.0	
Mexico	3.9	3.0	1.2	3.5	2.7	3.3	1.2	2.9	2.9	3.0	
Brazil	2.6	2.6	2.6	-.1	-5.5	-2.4	2.5	2.5	3.0	2.6	
<i>Consumer prices²</i>											
Total foreign	3.4	2.3	2.4	2.0	1.4	1.9	1.9	2.5	2.6	2.4	
<i>Previous Tealbook</i>	3.4	2.3	2.4	2.0	1.4	1.9	2.4	2.5	2.5	2.4	
Advanced foreign economies	2.2	1.3	1.0	1.2	.5	.9	1.4	1.7	1.8	1.7	
Canada	2.7	1.0	1.0	2.0	1.3	1.4	1.6	2.2	2.0	2.0	
Japan	-.3	-2	1.4	2.6	.2	.3	.6	.8	2.2	1.0	
United Kingdom	4.6	2.6	2.1	.9	.1	1.2	3.0	2.4	2.2	2.1	
Euro area	2.9	2.3	.8	.2	.7	1.4	1.5	1.5	1.5	1.7	
Germany	2.6	1.9	1.4	.4	.2	1.0	1.6	1.9	2.0	2.2	
Emerging market economies	4.3	3.1	3.4	2.7	2.1	2.7	3.3	3.3	3.0	2.9	
Asia	4.4	2.6	3.1	1.8	1.5	2.0	2.0	2.9	2.7	2.7	
China	3.9	1.7	1.1	1.0	.9	1.5	1.5	3.3	3.2	3.0	
Latin America	4.6	2.1	2.9	1.5	1.5	2.2	1.8	2.6	2.5	2.5	
Mexico	4.1	4.4	4.1	4.8	3.4	4.2	6.6	4.4	3.6	3.4	
Brazil	3.5	4.1	3.6	4.2	2.3	3.2	6.6	3.8	3.2	3.2	

¹Foreign GDP aggregates calculated using shares of U.S. exports.

²Foreign CPI aggregates calculated using shares of U.S. non-oil imports.

**U.S. Current Account
Quarterly Data**

	2017				2018				Projected 2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<i>Billions of dollars, s.a.a.r.</i>												
U.S. current account balance	-454.1	-497.6	-402.3	-466.1	-541.1	-513.6	-533.5	-567.4	-617.0	-614.2	-638.4	-662.0
<i>Previous Tealbook</i>	-454.1	-492.5	-408.8	-448.0	-508.8	-484.7	-501.8	-509.5	-554.6	-550.3	-564.8	-580.4
Current account as percent of GDP	-2.4	-2.6	-2.1	-2.4	-2.7	-2.5	-2.6	-2.7	-2.9	-2.9	-3.0	-3.1
<i>Previous Tealbook</i>	-2.4	-2.6	-2.1	-2.3	-2.5	-2.4	-2.5	-2.5	-2.7	-2.6	-2.7	-2.7
Net goods & services	-552.4	-566.9	-537.4	-583.7	-632.2	-608.6	-592.9	-591.3	-601.6	-580.7	-579.6	-591.9
Investment income, net	213.7	216.3	242.4	245.3	227.6	220.5	191.1	151.5	121.1	92.0	72.8	57.5
Direct, net	295.7	292.8	312.8	316.6	313.6	327.9	322.0	307.1	301.1	296.2	301.5	309.9
Portfolio, net	-82.1	-76.5	-70.4	-71.4	-86.0	-107.5	-130.9	-155.6	-179.9	-204.2	-228.7	-252.4
Other income and transfers, net	-115.4	-147.0	-107.2	-127.6	-136.5	-125.5	-131.6	-127.6	-136.5	-125.5	-131.6	-127.6
<i>Annual Data</i>												
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2019	2019	2020
U.S. current account balance	444.6	-426.2	-349.5	-373.0	-434.6	-451.7	-455.0	-538.9	-632.9	-632.9	-742.2	
<i>Previous Tealbook</i>	-444.6	-426.2	-349.5	-373.0	-434.6	-451.7	-450.9	-501.2	-562.5	-562.5	-630.7	
Current account as percent of GDP	-2.9	-2.6	-2.1	-2.1	-2.4	-2.4	-2.4	-2.3	-2.6	-3.0	-3.3	
<i>Previous Tealbook</i>	-2.9	-2.6	-2.1	-2.1	-2.4	-2.4	-2.4	-2.3	-2.5	-2.7	-2.9	
Net goods & services	-548.6	-536.8	-461.9	-489.5	-500.4	-504.8	-560.1	-606.2	-588.5	-588.5	-629.5	
Investment income, net	219.2	216.1	215.4	221.3	192.7	186.8	229.4	197.7	85.9	85.9	17.6	
Direct, net	288.7	285.5	283.3	276.7	266.5	258.8	304.5	317.7	302.2	302.2	325.1	
Portfolio, net	-69.5	-69.4	-67.9	-55.4	-73.8	-72.0	-75.1	-120.0	-216.3	-216.3	-307.5	
Other income and transfers, net	-115.1	-105.5	-103.1	-104.8	-126.9	-133.7	-124.3	-130.3	-130.3	-130.3	-130.3	

Abbreviations

AFE	advanced foreign economy
BLS	Bureau of Labor Statistics
BOC	Bank of Canada
BOE	Bank of England
BOM	Bank of Mexico
C&I	commercial and industrial
CMBS	commercial mortgage-backed securities
CPH	compensation per hour
CPI	consumer price index
CRE	commercial real estate
ECB	European Central Bank
ECI	employment cost index
E&I	equipment and intangibles
ELB	effective lower bound
EME	emerging market economy
FOMC	Federal Open Market Committee; also, the Committee
GDP	gross domestic product
LFPR	labor force participation rate
MBS	mortgage-backed securities
MMF	money market fund
NAFTA	North American Free Trade Agreement
NIT	nominal income targeting
OIS	overnight index swap
ON RRP	overnight reverse repurchase agreement
PAB	private activity bonds

PCE	personal consumption expenditures
PMI	purchasing managers index
REIT	real estate investment trust
repo	repurchase agreement
SEP	Summary of Economic Projections
SLOOS	Senior Loan Officer Opinion Survey on Bank Lending Practices
SOMA	System Open Market Account
S&P	Standard & Poor's
TCJA	Tax Cuts and Jobs Act
TIPS	Treasury Inflation-Protected Securities
VIX	Chicago Board Options Exchange volatility index

Class I FOMC – Restricted Controlled (FR)

Report to the FOMC on Economic Conditions and Monetary Policy

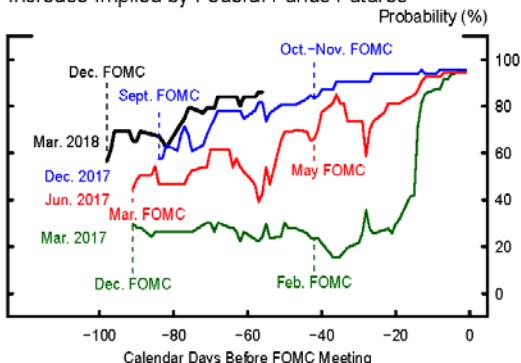


Book B Monetary Policy Alternatives

January 25, 2018

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

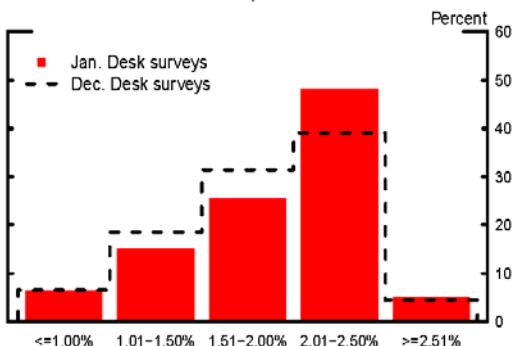
Figure 1: Market-Implied Probability of the Next Rate Increase Implied by Federal Funds Futures



Note: Probabilities implied by a binomial tree fitted to settlement prices on fed funds futures contracts, assuming the next policy action is either no change or a 25 basis point increase in rates and no intervening moves. The effective federal funds rate until the next FOMC meeting is assumed to be equal to the observed rate on the previous non-month-end business day.

Source: CME Group; Federal Reserve Board staff estimates.

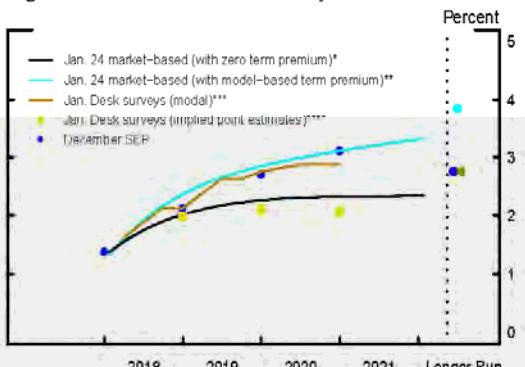
Figure 3: Desk Survey Probability Distribution of the Federal Funds Rate, Year-End 2018



Note: Average unconditional probabilities across primary dealers and market participants for different ranges of the federal funds rate at the end of 2018.

Source: FRBNY.

Figure 5: Federal Funds Rate Projections



*Estimated using overnight index swap quotes with a spline approach and no term premium.

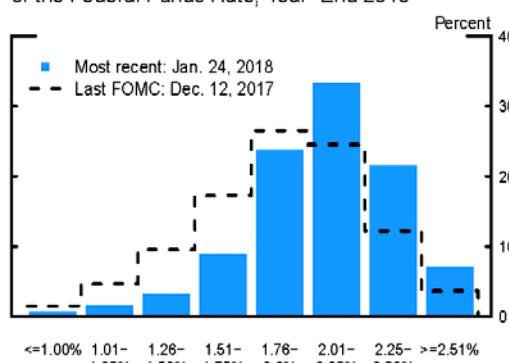
**Estimated using a term structure model maintained by Board staff and adjusted for term premiums. The longer-run model-implied forecast is for the expected federal funds rate 5 to 10 years ahead.

***Median of the respondents' modal paths for the federal funds rate.

****Estimated from respondents' conditional year-end probability distributions.

Source: Bloomberg; Federal Reserve Board staff estimates; FRBNY; Summary of Economic Projections.

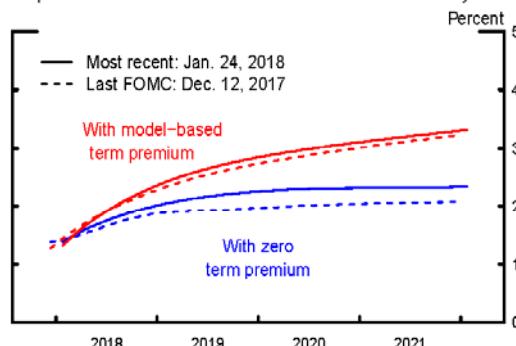
Figure 2: Market-Implied Probability Distribution of the Federal Funds Rate, Year-End 2018



Note: Estimated from Eurodollar futures options, accounting for the differences in the levels and option-implied volatilities of LIBOR and the federal funds rate, but not adjusted for risk premium.

Source: CME Group; Federal Reserve Board staff estimates.

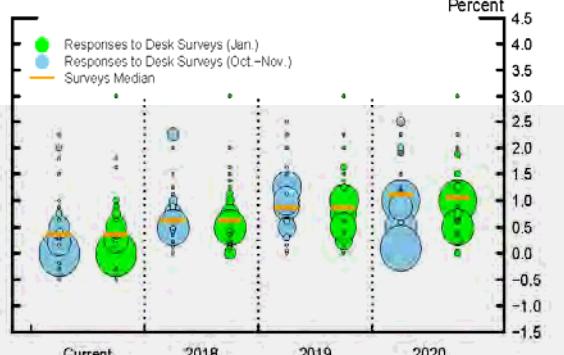
Figure 4: Market-Implied Federal Funds Rate Expectations with and without Term Premium Adjustment



Note: Zero term premium path is estimated using overnight index swap quotes with a spline approach and a term premium of zero basis points. Model-based term premium path is estimated using a term structure model maintained by Board staff and corrects for term premium.

Source: Bloomberg; Federal Reserve Board staff estimates.

Figure 6: Estimate of the Neutral Real Federal Funds Rate



Note: Based on all responses from the Survey of Primary Dealers and Survey of Market Participants. Dots scaled by number of respondents.

Source: FRBNY.

Redemptions and Reinvestments of SOMA Principal Payments

Projections for Treasury Securities
(Billions of dollars)

	Redemptions		Reinvestments	
	Period	Cumulative*	Period	Cumulative*
2018: Q1	36.0	54.0	74.8	101.9
2018: Q2	54.0	108.0	65.7	167.6
2018: Q3	67.0	175.0	27.4	195.1
2018: Q4	72.1	247.1	29.2	224.3
2019	267.5	514.5	114.3	338.5
2020	209.9	724.4	88.4	426.9
2021	339.5	1063.9	57.2	484.1

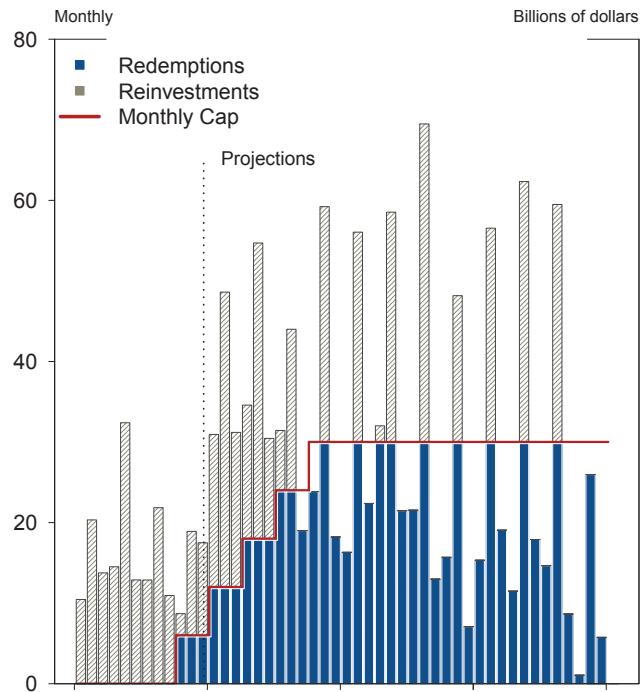
* Since October 2017.

Projections for Agency Securities
(Billions of dollars)

	Redemptions		Reinvestments	
	Period	Cumulative*	Period	Cumulative*
2018: Q1	24.0	36.0	35.4	93.1
2018: Q2	36.0	72.0	20.6	113.7
2018: Q3	44.8	116.8	1.1	114.8
2018: Q4	39.4	156.2	0.0	114.8
2019	147.8	304.0	0.0	114.8
2020	133.7	437.7	0.0	114.8
2021	123.9	561.6	0.0	114.8

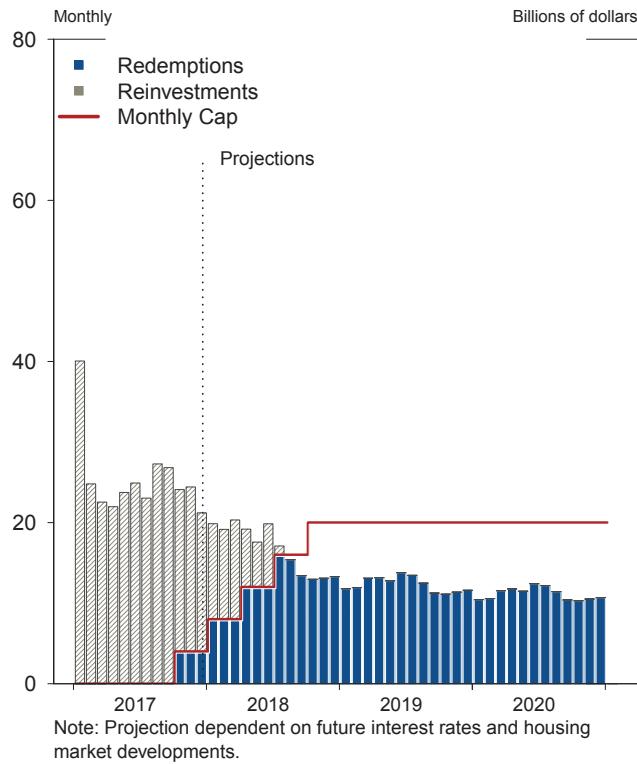
* Since October 2017.

SOMA Treasury Securities Principal Payments



Note: Projection dependent on assumed distribution of future Treasury issuance.

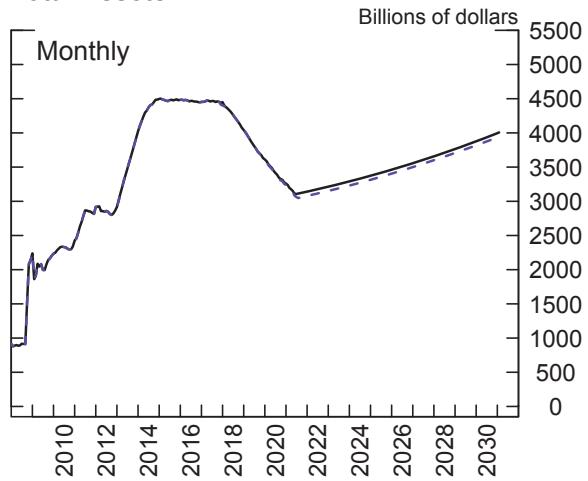
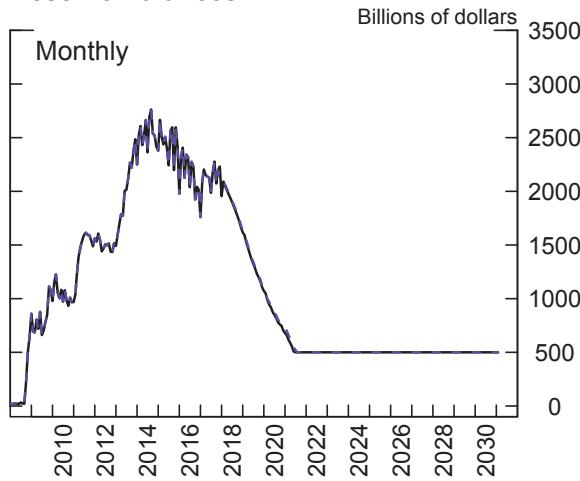
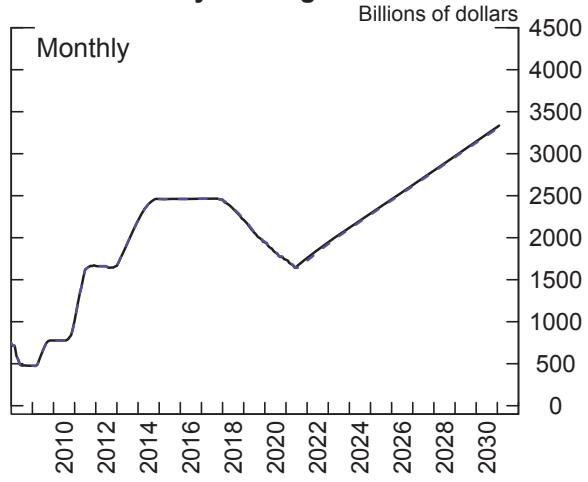
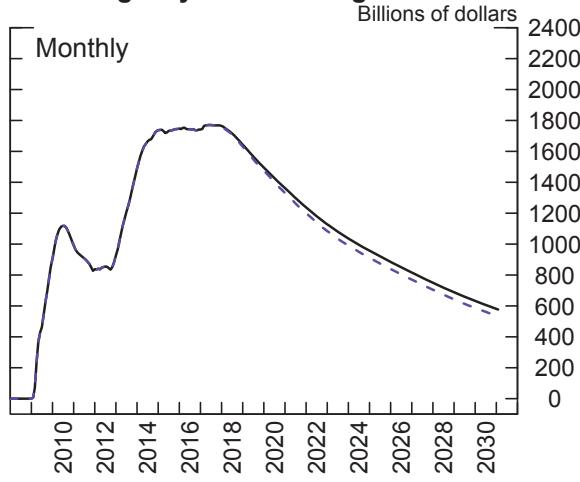
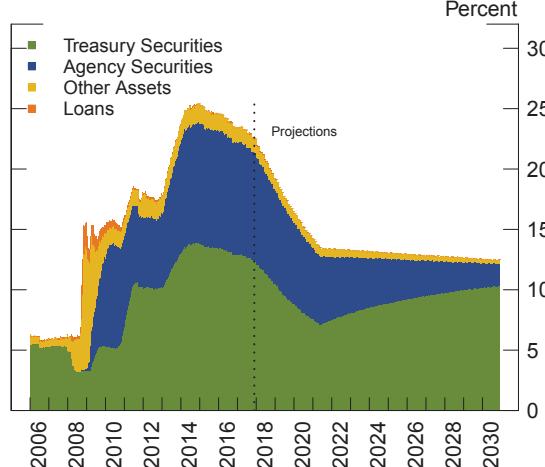
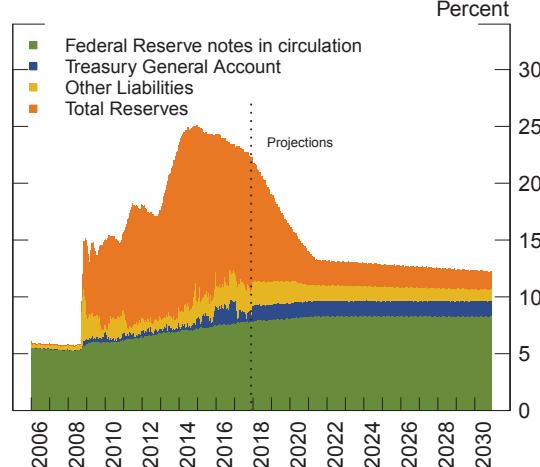
SOMA Agency Debt and MBS Principal Payments



Note: Projection dependent on future interest rates and housing market developments.

Total Assets and Selected Balance Sheet Items

— January Tealbook baseline — December Tealbook baseline

Total Assets**Reserve Balances****SOMA Treasury Holdings****SOMA Agency MBS Holdings****Assets as a Share of GDP****Liabilities as a Share of GDP**

**Federal Reserve Balance Sheet
End-of-Year Projections -- January Tealbook**
(Billions of dollars)

	Dec 31, 2017	2018	2020	2022	2024	2026	2030
Total assets	4,450	4,039	3,259	3,216	3,372	3,557	3,996
Selected assets							
Loans and other credit extensions*	14	0	0	0	0	0	0
Securities held outright	4,224	3,855	3,102	3,077	3,248	3,445	3,903
U.S. Treasury securities	2,454	2,210	1,739	1,947	2,289	2,627	3,320
Agency debt securities	4	2	2	2	2	2	2
Agency mortgage-backed securities	1,765	1,643	1,361	1,128	957	816	581
Unamortized premiums	159	141	111	91	75	62	42
Unamortized discounts	-14	-12	-10	-8	-7	-6	-4
Total other assets	68	55	55	55	55	55	55
Total liabilities	4,409	3,997	3,214	3,166	3,318	3,498	3,926
Selected liabilities							
Federal Reserve notes in circulation	1,571	1,677	1,890	2,018	2,149	2,305	2,673
Reverse repurchase agreements	564	345	262	245	245	245	245
Deposits with Federal Reserve Banks	2,336	1,970	1,057	898	919	943	1,002
Reserve balances held by depository institutions	1,954	1,618	680	500	500	500	500
U.S. Treasury, General Account	229	277	302	322	343	368	427
Other deposits	153	75	75	75	75	75	75
Earnings remittances due to the U.S. Treasury	2	0	0	0	0	0	0
Total Federal Reserve Bank capital**	41	42	45	49	54	59	70

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

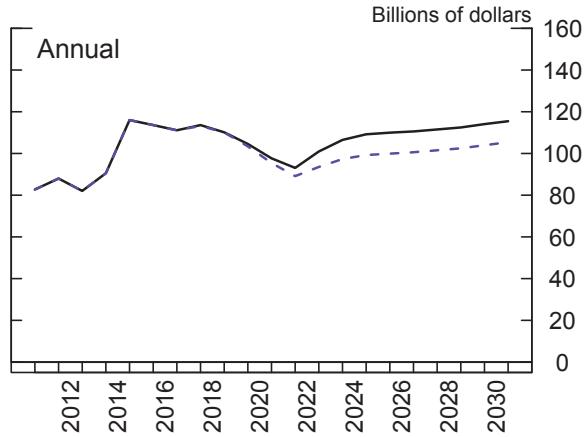
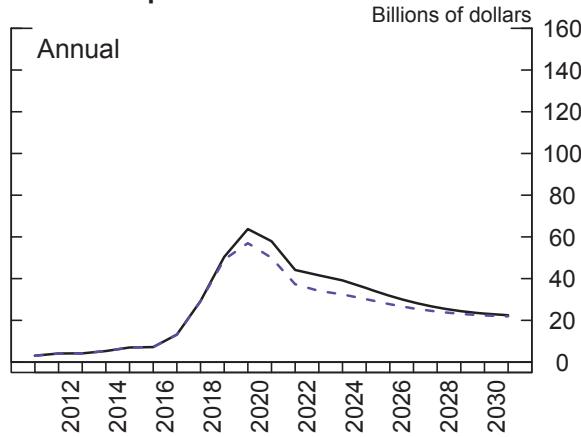
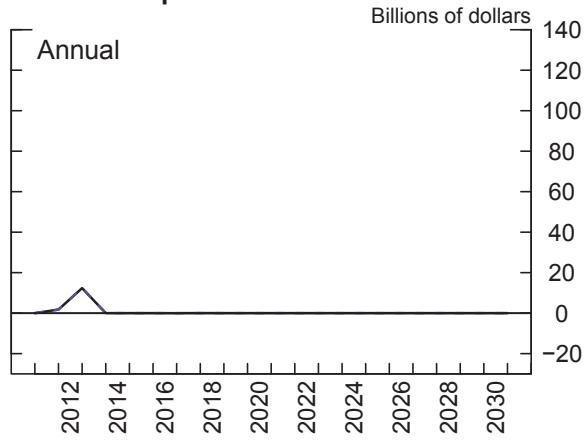
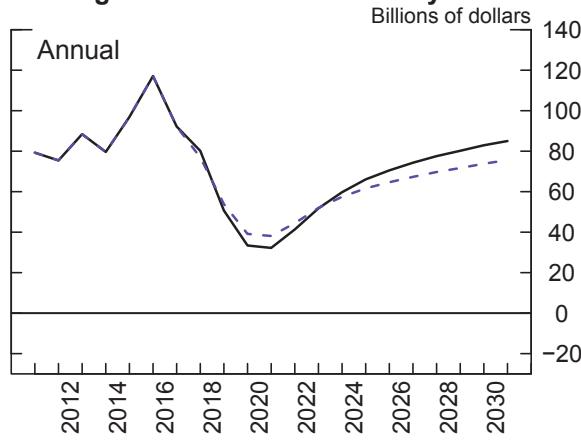
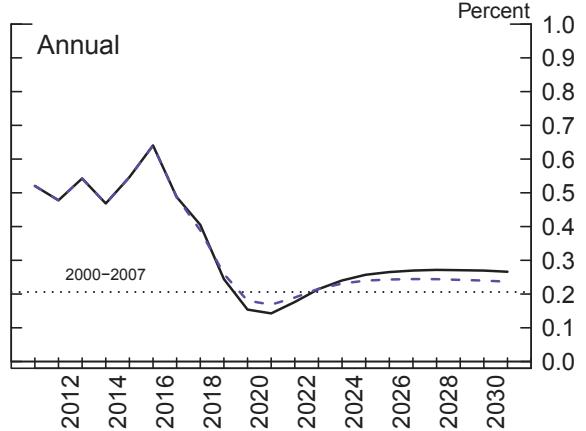
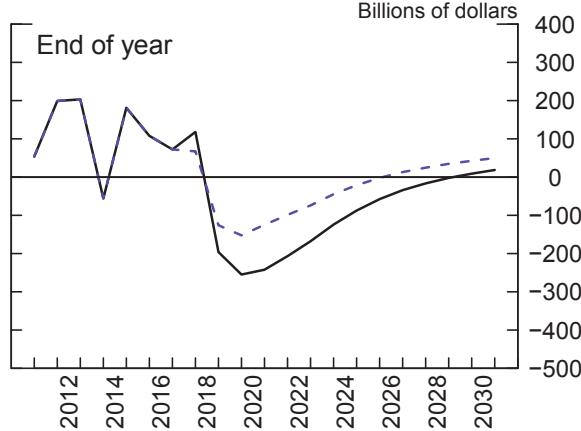
Note: Components may not sum to totals due to rounding.

*Loans and other credit extensions includes primary, secondary, and seasonal credit; central bank liquidity swaps; and net portfolio holdings of Maiden Lane LLC.

**Total capital includes capital paid-in and capital surplus accounts.

Income Projections

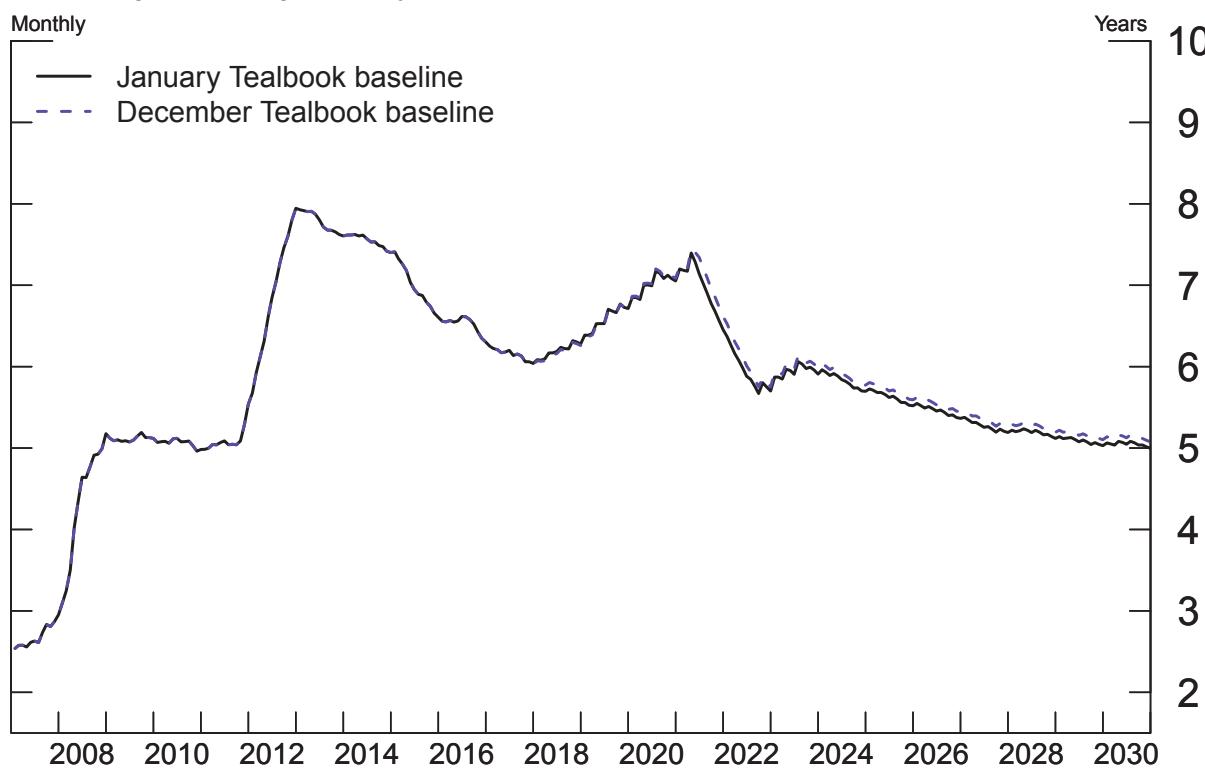
— January Tealbook baseline - - December Tealbook baseline

Interest Income**Interest Expense****Realized Capital Gains****Earnings Remittances to Treasury****Remittances as a Percent of GDP****Memo: Unrealized Gains/Losses**

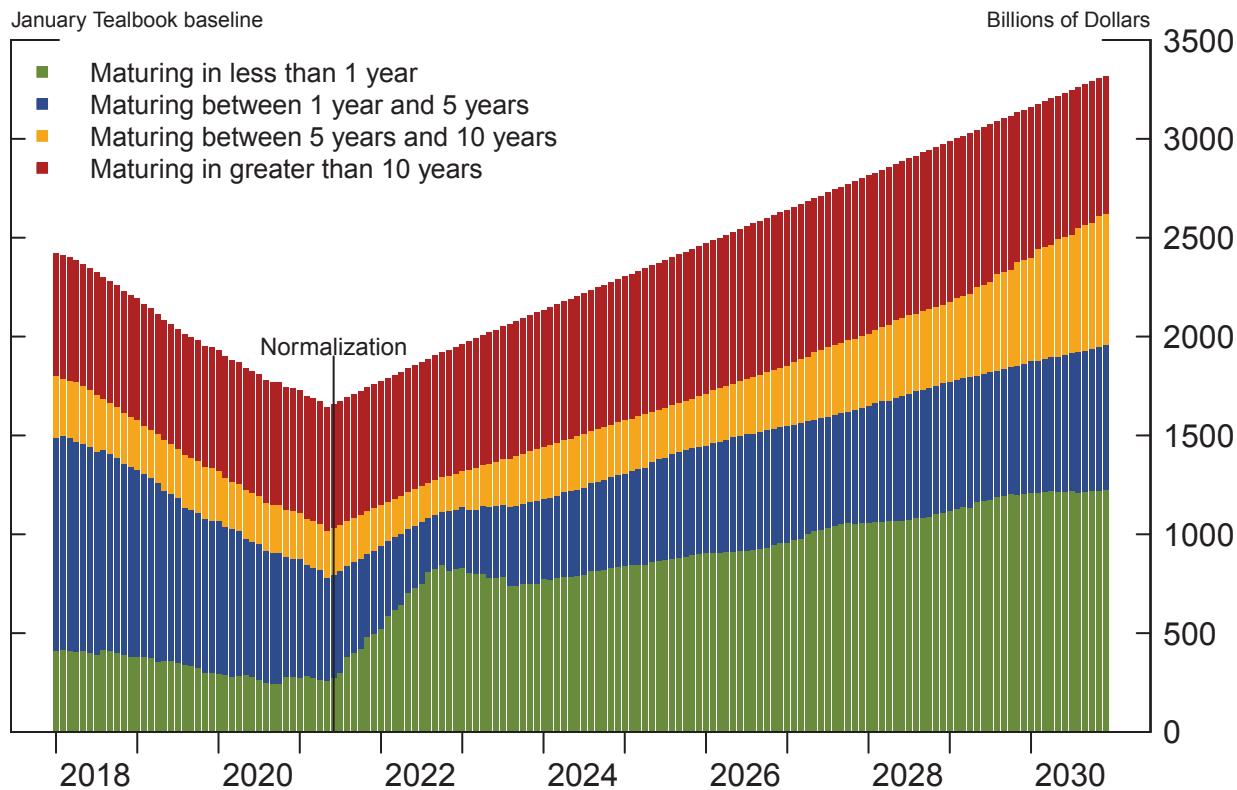
Projections for the 10-Year Treasury Term Premium Effect
(Basis Points)

Date	January Tealbook	December Tealbook
Quarterly Averages		
2018:Q1	-84	-84
Q2	-81	-81
Q3	-79	-78
Q4	-76	-75
2019:Q4	-66	-64
2020:Q4	-58	-57
2021:Q4	-52	-51
2022:Q4	-49	-48
2023:Q4	-46	-45
2024:Q4	-43	-42
2025:Q4	-40	-39
2026:Q4	-37	-36
2027:Q4	-35	-34
2028:Q4	-33	-32
2029:Q4	-31	-31
2030:Q4	-30	-29

Projections for the Characteristics of SOMA Treasury Securities Holdings

SOMA Weighted-Average Treasury Duration

Balance Sheet & Income

Maturity Composition of SOMA Treasury Portfolio

Abbreviations

ABS	asset-backed securities
AFE	advanced foreign economy
BEA	Bureau of Economic Analysis, Department of Commerce
BHC	bank holding company
CDS	credit default swaps
CFTC	Commodity Futures Trading Commission
C&I	commercial and industrial
CLO	collateralized loan obligation
CMBS	commercial mortgage-backed securities
CPI	consumer price index
CRE	commercial real estate
DEDO	section in Tealbook A, “Domestic Economic Developments and Outlook”
Desk	Open Market Desk
DFMU	Designated Financial Market Utilities
ECB	European Central Bank
ELB	effective lower bound
EME	emerging market economy
EU	European Union
FAST Act	Fixing America’s Surface Transportation Act
FDIC	Federal Deposit Insurance Corporation
FOMC	Federal Open Market Committee; also, the Committee
GCF	general collateral finance
GDI	gross domestic income
GDP	gross domestic product
GSIBs	globally systemically important banking organizations
HQLA	high-quality liquid assets
IOER	interest on excess reserves
ISM	Institute for Supply Management

LIBOR	London interbank offered rate
LSAPs	large-scale asset purchases
MBS	mortgage-backed securities
MMFs	money market funds
NBER	National Bureau of Economic Research
NI	nominal income
NIPA	national income and product accounts
OIS	overnight index swap
ON RRP	overnight reverse repurchase agreement
PCE	personal consumption expenditures
QS	Quantitative Surveillance
repo	repurchase agreement
RMBS	residential mortgage-backed securities
RRP	reverse repurchase agreement
SCOOS	Senior Credit Officer Opinion Survey on Dealer Financing Terms
SEP	Summary of Economic Projections
SFA	Supplemental Financing Account
SLOOS	Senior Loan Officer Opinion Survey on Bank Lending Practices
SOMA	System Open Market Account
TBA	to be announced (for example, TBA market)
TCJA	Tax Cuts and Jobs Act of 2017
TGA	U.S. Treasury's General Account
TIPS	Treasury inflation-protected securities
TPE	Term premium effects
ZLB	zero lower bound