



THE

# LIVINGSTON SURVEY

Release Date: June 16, 2017

## JUNE 2017

### **Forecasters Predict Slightly Higher Growth and Lower Unemployment for the Second Half of 2017**

The participants in the June *Livingston Survey* predict higher output growth for the second half of 2017 than they did in the December survey. The forecasters, who are surveyed by the Federal Reserve Bank of Philadelphia twice a year, project that the economy's output (real GDP) will rise at an annual rate of 2.1 percent during the first half of 2017, only slightly weaker than the prediction of 2.2 percent in the December 2016 survey. Growth in the second half of 2017 is expected to rise to 2.5 percent, only a bit higher than the prediction of 2.4 percent in the previous survey. Real GDP is predicted to grow steadily at a rate of 2.5 percent in the first half of 2018.

The forecasters see the unemployment rate falling in the second half of this year, and their projections have been revised downward from the December 2016 survey. The forecasters predict that the unemployment rate will be 4.4 percent in June 2017 and 4.3 percent in December 2017. The unemployment rate is expected to continue to fall to 4.2 percent in June 2018. On an annual-average basis, the unemployment rate is expected to be 4.5 percent for 2017 and 4.2 percent in 2018.

	<i>Growth Rate of Real GDP (%)</i>			<i>Unemployment Rate (%)</i>	
	<i>Previous</i>	<i>New</i>		<i>Previous</i>	<i>New</i>
<i>Half-year data:</i>					
2016 Q4 to 2017 Q2	2.2	2.1	June 2017	4.7	4.4
2017 Q2 to 2017 Q4	2.4	2.5	December 2017	4.6	4.3
2017 Q4 to 2018 Q2	N.A.	2.5	June 2018	N.A.	4.2

### **Forecasters Predict Declining Inflation from 2017 to 2018**

On an annual-average over annual-average basis, CPI inflation is expected to be 2.4 percent in 2017 and 2.3 percent in 2018. The projection for CPI inflation in 2017 remains unchanged from that of the December survey. PPI inflation for finished goods is expected to be 3.3 percent this year, a significant upward revision from 2.7 percent in the previous survey. The forecasters peg PPI inflation at 2.0 percent next year.

	<i>CPI Inflation (%)</i>		<i>PPI Inflation (%)</i>	
	<i>Previous</i>	<i>New</i>	<i>Previous</i>	<i>New</i>
<i>Annual-average data:</i>				
2016 to 2017	2.4	2.4	2.7	3.3
2017 to 2018	2.5	2.3	2.1	2.0

**RESEARCH DEPARTMENT** FEDERAL RESERVE BANK OF PHILADELPHIA

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### ***Short- and Long-Term Interest Rates Are Predicted to Rise over Time***

The panelists strengthened their forecasts for the interest rates on three-month Treasury bills over those of six months ago. At the end of June 2017, the interest rate on three-month Treasury bills is predicted to be 1.00 percent. The forecasters predict that the three-month rate will reach 1.30 percent at the end of December 2017 and continue to rise to 1.60 percent at the end of June 2018. The three-month Treasury bill interest rate is expected to reach 2.02 percent at the end of December 2018. All forecasts for the short-term interest rate were revised upward from the December 2016 survey.

Unlike the strong upward revisions of the three-month Treasury bills, the revisions to the 10-year rate are mildly downward. The interest rate on 10-year Treasury bonds is predicted to reach 2.40 percent at the end of June 2017, a downward revision from 2.50 percent in the survey of six months ago. The forecasters continue to predict that the 10-year rate will rise to 2.75 percent at the end of December 2017 and continue to rise to 3.00 percent at the end of June 2018. The 10-year Treasury bond interest rate is expected to reach 3.30 percent at the end of December 2018.

	<i>3-Month Treasury Bill Interest Rate</i>		<i>10-Year Treasury Bond Interest Rate</i>	
	<i>Previous</i>	<i>New</i>	<i>Previous</i>	<i>New</i>
June 30, 2017	0.83	1.00	2.50	2.40
Dec. 29, 2017	1.12	1.30	2.75	2.75
June 29, 2018	N.A.	1.60	N.A.	3.00
Dec. 31, 2018	2.00	2.02	3.35	3.30

### ***No Change in Long-Term Output Growth Forecasts While There's a Slight Increase in Long-Term Inflation Forecasts***

The forecasters continue to predict that real GDP will grow 2.20 percent annually over the next 10 years, as they did in the survey of six months ago. The forecasters now predict that inflation (measured by the CPI) will be 2.32 percent annually over the next 10 years, only a bit higher than the forecast of 2.30 percent in the December 2016 survey.

### ***Forecasters Continue to See Rising Stock Prices This Year and Next***

The panelists predict that the S&P 500 index will finish the first half of 2017 at a level of 2410.0. Stock prices are expected to rise to 2470.0 at the end of 2017 and continue to rise to 2550.0 at the end of June 2018. The index is forecasted to reach to 2630.0 by the end of 2018. All forecasts for stock prices were revised upward from the December 2016 survey.

	<i>Stock Prices S&amp;P 500 Index</i>	
	<i>Previous</i>	<i>New</i>
June 30, 2017	2254.8	2410.0
Dec. 29, 2017	2314.5	2470.0
June 29, 2018	N.A.	2550.0
Dec. 31, 2018	2400.0	2630.0

**Technical Notes**

This survey release reports the median value across the 28 forecasters on the survey’s panel. All forecasts were submitted before the June 2, 2017, employment report.

The Philadelphia Fed’s *Livingston Survey* is the oldest survey of economists’ expectations. The survey was started in 1946 by the late columnist Joseph A. Livingston. It summarizes the forecast of economists from industry, government, banking and academia. It is published twice a year, in June and December.

To subscribe to the survey, go to <https://www.philadelphiafed.org/notifications>.

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LIVINGSTON SURVEY  
MAJOR MACROECONOMIC INDICATORS, 2017-2018

QUARTERLY INDICATORS (percentage changes at annual rates)	Q4 2016 TO Q2 2017	Q2 2017 TO Q4 2017	Q4 2017 TO Q2 2018	2016 TO 2017	2017 TO 2018
Real Gross Domestic Product	2.1	2.5	2.5	2.2	2.5
Nominal Gross Domestic Product	4.1	4.8	4.4	4.3	4.6
Nonresidential Fixed Investment	7.0	4.2	4.2	4.5	4.1
Corporate Profits After Taxes	-2.9	4.6	3.2	3.3	4.9
MONTHLY INDICATORS (percentage changes at annual rates)	DEC 2016 TO JUN 2017	JUN 2017 TO DEC 2017	DEC 2017 TO JUN 2018	2016 TO 2017	2017 TO 2018
Industrial Production	2.9	2.2	1.9	2.0	2.6
Producer Prices - Finished Goods	3.6	2.2	1.7	3.3	2.0
Consumer Price Index (CPI-U)	1.9	2.3	2.2	2.4	2.3
Average Weekly Earnings in Mfg.	-2.4	3.5	3.3	1.4	3.0
Retail Trade	2.9	4.3	4.2	4.4	4.2
(levels of variables)	JUN 2017	DEC 2017	JUN 2018	2017	2018
Total Private Housing Starts (annual rate, millions)	1.250	1.280	1.325	1.260	1.330
Unemployment Rate (percent)	4.4	4.3	4.2	4.5	4.2
Automobile Sales (incl. foreign) (annual rate, millions)	6.3	6.3	6.3	6.3	6.3
FINANCIAL INDICATORS (levels of variables at end of month)	JUN 2017	DEC 2017	JUN 2018	DEC 2018	
Prime Interest Rate	4.25	4.50	4.75	5.25	
10-Year Treasury Note Yield	2.40	2.75	3.00	3.30	
3-Month Treasury Bill Rate	1.00	1.30	1.60	2.02	
Stock Prices (S&P500)	2410.0	2470.0	2550.0	2630.0	
LONG-TERM OUTLOOK Average Annual Growth Rate for the Next Ten Years					
Real GDP	2.20				
Consumer Price Index	2.32				

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2017

# **LIVINGSTON SURVEY**

**June 2017**

**Tables**

**Note: Data in these tables listed as “actual” are the data that were available to the forecasters when they were sent the survey questionnaire on May 17; the tables do not reflect subsequent revisions to the data. All forecasts were received on or before June 1.**

TABLE ONE  
 MAJOR MACROECONOMIC INDICATORS, 2017-2018  
 MEDIANS OF FORECASTER PREDICTIONS

QUARTERLY INDICATORS	NUMBER OF FORE- CASTERS	ACTUAL	FORECASTS		ACTUAL	FORECASTS		
		2016 Q4	2017 Q2	2017 Q4	2018 Q2	2016	2017	2018
1. Real Gross Domestic Product (billions, chain weighted)	26	16813.3	16988.6	17199.1	17413.6	16662.1	17036.2	17462.4
2. Nominal Gross Domestic Product (\$ billions)	26	18869.4	19250.6	19703.9	20135.9	18569.1	19364.5	20250.7
3. Nonresidential Fixed Investment (billions, chain weighted)	24	2197.2	2273.2	2320.7	2369.3	2188.6	2287.0	2380.6
4. Corporate Profits After Taxes (\$ billions)	13	1611.4	1588.0	1624.2	1649.7	1542.5	1593.5	1671.6
MONTHLY INDICATORS		ACTUAL DEC 2016	FORECASTS		ACTUAL 2016	FORECASTS		
			JUN 2017	DEC 2017	JUN 2018		2017	2018
5. Industrial Production (2012=100)	22	103.8	105.3	106.4	107.4	103.1	105.2	108.0
6. Total Private Housing Starts (annual rate, millions)	21	1.268	1.250	1.280	1.325	1.177	1.260	1.330
7. Producer Prices - Finished Goods (index level)	15	194.6	198.1	200.2	201.9	191.9	198.2	202.2
8. Consumer Price Index (CPI-U) (index level)	23	242.8	245.1	247.9	250.6	240.0	245.7	251.3
9. Unemployment Rate (percent)	23	4.7	4.4	4.3	4.2	4.8	4.5	4.2
10. Average Weekly Earnings in Mfg. (\$)	8	874.3	863.7	878.7	892.8	855.7	867.7	893.8
11. Retail Trade (\$ billions)	13	471.0	477.7	487.8	498.0	459.0	479.1	499.0
12. Automobile Sales (incl. foreign) (annual rate, millions)	15	7.0	6.3	6.3	6.3	6.9	6.3	6.3

TABLE ONE (CONTINUED)

INTEREST RATES & STOCK PRICES (end of period)		ACTUAL	FORECASTS			
		DEC 2016	JUN 2017	DEC 2017	JUN 2018	DEC 2018
13. Prime Interest Rate (percent)	23	3.75	4.25	4.50	4.75	5.25
14. 10-Year Treasury Note Yield (percent)	25	2.45	2.40	2.75	3.00	3.30
15. 3-Month Treasury Bill Rate (percent)	25	0.50	1.00	1.30	1.60	2.02
16. Stock Prices (S&P500) (index level)	17	2238.8	2410.0	2470.0	2550.0	2630.0

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2017

TABLE TWO  
 MAJOR MACROECONOMIC INDICATORS, 2017-2018  
 PERCENTAGE CHANGES AT ANNUAL RATES

QUARTERLY INDICATORS	NUMBER OF FORE- CASTERS	Q4 2016	Q2 2017	Q4 2017	2016	2017
		TO Q2 2017	TO Q4 2017	TO Q2 2018	TO 2017	TO 2018
1. Real Gross Domestic Product	26	2.1	2.5	2.5	2.2	2.5
2. Nominal Gross Domestic Product	26	4.1	4.8	4.4	4.3	4.6
3. Nonresidential Fixed Investment	24	7.0	4.2	4.2	4.5	4.1
4. Corporate Profits After Taxes	13	-2.9	4.6	3.2	3.3	4.9
MONTHLY INDICATORS		DEC 2016	JUN 2017	DEC 2017	2016	2017
		TO JUN 2017	TO DEC 2017	TO JUN 2018	TO 2017	TO 2018
5. Industrial Production	22	2.9	2.2	1.9	2.0	2.6
6. Total Private Housing Starts	21	-0.018	0.030	0.045	0.083	0.070
7. Producer Prices - Finished Goods	15	3.6	2.2	1.7	3.3	2.0
8. Consumer Price Index (CPI-U)	23	1.9	2.3	2.2	2.4	2.3
9. Unemployment Rate	23	-0.3	-0.1	-0.1	-0.4	-0.3
10. Average Weekly Earnings in Mfg.	8	-2.4	3.5	3.3	1.4	3.0
11. Retail Trade	13	2.9	4.3	4.2	4.4	4.2
12. Automobile Sales (incl. foreign)	15	-0.7	0.0	0.0	-0.6	0.0



INTEREST RATES & STOCK PRICES		DEC 2016 TO JUN 2017	JUN 2017 TO DEC 2017	DEC 2017 TO JUN 2018	JUN 2018 TO DEC 2018
13. Prime Interest Rate	23	0.50	0.25	0.25	0.50
14. 10-Year Treasury Note Yield	25	-0.05	0.35	0.25	0.30
15. 3-Month Treasury Bill Rate	25	0.50	0.30	0.30	0.42
16. Stock Prices (S&P500)	17	15.9	5.0	6.6	6.4

Note: Figures for housing starts, unemployment rate, auto sales, prime interest rate, 10-year Treasury bond, and 90-day Treasury bill are changes in levels. All others are percentage changes at annual rates.

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2017

TABLE THREE  
LONG-TERM (10 YEAR) FORECASTS

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SERIES: CPI Inflation Rate

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STATISTIC	
Minimum	1.50
Lower Quartile	2.21
Median	2.32
Upper Quartile	2.50
Maximum	2.80
Mean	2.34
Std. Deviation	0.26
N	24
Missing	2

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SERIES: Real GDP

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STATISTIC	
Minimum	1.60
Lower Quartile	2.01
Median	2.20
Upper Quartile	2.30
Maximum	3.10
Mean	2.20
Std. Deviation	0.31
N	24
Missing	2

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