



THE

LIVINGSTON SURVEY

Release Date: June 15, 2018

JUNE 2018

Forecasters Predict Higher Growth and Lower Unemployment for 2018

The participants in the June *Livingston Survey* predict higher output growth for 2018 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 2.7 percent during the first half of 2018, an upward revision from the prediction of 2.5 percent in the December 2017 survey. Growth in the second half of 2018 is expected to rise to an annual rate of 3.1 percent, higher than the prediction of 2.4 percent in the previous survey. Real GDP is predicted to grow steadily at an annual rate of 2.7 percent in the first half of 2019.

The forecasters see the unemployment rate falling in the second half of this year, and their projections have been revised downward from those of the December 2017 survey. The forecasters predict that the unemployment rate will be 3.9 percent in June 2018 and 3.7 percent in December 2018. The unemployment rate is expected to continue to fall to 3.6 percent in June 2019. On an annual-average basis, the unemployment rate is expected to be 3.9 percent for 2018 and 3.6 percent in 2019.

	<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>					
2017 Q4 to 2018 Q2	2.5	2.7	June 2018	4.0	3.9
2018 Q2 to 2018 Q4	2.4	3.1	December 2018	3.9	3.7
2018 Q4 to 2019 Q2	N.A.	2.7	June 2019	N.A.	3.6

Forecasters Predict Declining Inflation from 2018 to 2019

On an annual-average over annual-average basis, CPI inflation is expected to be 2.6 percent in 2018 and 2.3 percent in 2019. Both projections were upwardly revised from the forecasts in the December 2017 Survey. PPI inflation for finished goods is expected to be 3.0 percent this year, a significant revision from 2.1 percent in the previous survey. The forecasters continue to peg PPI inflation at 2.0 for 2019.

	<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>				
2017 to 2018	2.2	2.6	2.1	3.0
2018 to 2019	2.2	2.3	2.0	2.0

RESEARCH DEPARTMENT FEDERAL RESERVE BANK OF PHILADELPHIA

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Short- and Long-Term Interest Rates Are Seen Rising

The panelists hiked their forecasts for interest rates on three-month Treasury bills over those of six months ago. At the end of June 2018, the interest rate on three-month Treasury bills is predicted to be 1.98 percent. The forecasters predict that the three-month rate will reach 2.35 percent at the end of December 2018 and continue to rise to 2.69 percent at the end of June 2019. The three-month Treasury bill interest rate is expected to reach 2.93 percent at the end of December 2019. All forecasts for the short-term interest rate were revised upward from those of the December 2017 survey.

Accompanying the upward revisions to the rate on three-month Treasury bills, the forecasts for the 10-year rate have also been upwardly revised. The interest rate on 10-year Treasury bonds is predicted to reach 3.00 percent at the end of June 2018. The forecasters predict the 10-year rate will rise to 3.25 percent at the end of December 2018 and continue to rise to 3.50 percent at the end of June 2019. The 10-year Treasury bond interest rate is expected to reach 3.60 percent at the end of December 2019.

	<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 29, 2018	1.60	1.98	2.75	3.00
Dec. 31, 2018	1.88	2.35	3.00	3.25
June 28, 2019	N.A.	2.69	N.A.	3.50
Dec. 31, 2019	2.41	2.93	3.35	3.60

Slight Upward Revision for Predicted Long-Term Output Growth, While Long-Term Inflation Forecasts Are Revised Downward

The forecasters predict that real GDP will grow 2.20 percent annually over the next 10 years, a bit more than the 2.18 percent predicted six months ago. The forecasters now predict that inflation (measured by the CPI) will be 2.28 percent annually over the next 10 years, lower than the forecast of 2.34 percent in the December 2017 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 2018 at a level of 2720.0. Stock prices are expected to rise to 2824.0 at the end of 2018 and continue to rise to 2850.0 at the end of June 2019. The index is forecasted to reach 2880.3 by the end of 2019.

	<i>Stock Prices S&P 500 Index</i>	
	<i>Previous</i>	<i>New</i>
June 29, 2018	2739.8	2720.0
Dec. 31, 2018	2805.0	2824.0
June 28, 2019	N.A.	2850.0
Dec. 31, 2019	2980.0	2880.3

Technical Notes

This survey release reports the median value across the 24 forecasters on the survey's panel.

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>.

Livingston Survey Participants

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M. Englund	Action Economics, LLC	B. Schaitkin	Conference Board
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LIVINGSTON SURVEY
MAJOR MACROECONOMIC INDICATORS, 2018-2019

QUARTERLY INDICATORS (percentage changes at annual rates)	Q4 2017 TO Q2 2018	Q2 2018 TO Q4 2018	Q4 2018 TO Q2 2019	2017 TO 2018	2018 TO 2019
Real Gross Domestic Product	2.7	3.1	2.7	2.8	2.7
Nominal Gross Domestic Product	4.8	5.2	5.0	4.9	5.1
Nonresidential Fixed Investment	5.6	5.8	4.8	5.9	5.2
Corporate Profits After Taxes	10.4	7.0	6.4	9.9	6.8
MONTHLY INDICATORS (percentage changes at annual rates)	DEC 2017 TO JUN 2018	JUN 2018 TO DEC 2018	DEC 2018 TO JUN 2019	2017 TO 2018	2018 TO 2019
Industrial Production	4.0	2.6	2.6	4.0	2.9
Producer Prices - Finished Goods	2.4	2.1	2.0	3.0	2.0
Consumer Price Index (CPI-U)	2.5	2.2	2.2	2.6	2.3
Average Weekly Earnings in Mfg.	2.5	2.8	2.3	4.1	2.9
Retail Trade	3.2	5.2	4.0	4.7	4.5
(levels of variables)	JUN 2018	DEC 2018	JUN 2019	2018	2019
Total Private Housing Starts (annual rate, millions)	1.310	1.320	1.363	1.310	1.356
Unemployment Rate (percent)	3.9	3.7	3.6	3.9	3.6
Automobile Sales (incl. foreign) (annual rate, millions)	5.3	5.3	5.2	5.3	5.2
FINANCIAL INDICATORS (levels of variables at end of month)	JUN 2018	DEC 2018	JUN 2019	DEC 2019	
Prime Interest Rate	5.00	5.30	5.75	6.00	
10-Year Treasury Note Yield	3.00	3.25	3.50	3.60	
3-Month Treasury Bill Rate	1.98	2.35	2.69	2.93	
Stock Prices (S&P500)	2720.0	2824.0	2850.0	2880.3	
LONG-TERM OUTLOOK					
Average Annual Growth Rate for the Next Ten Years					
Real GDP	2.20				
Consumer Price Index	2.28				

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2018

LIVINGSTON SURVEY

June 2018

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 May 31.

TABLE ONE
 MAJOR MACROECONOMIC INDICATORS, 2018-2019
 MEDIANS OF FORECASTER PREDICTIONS

QUARTERLY INDICATORS	NUMBER OF FORE- CASTERS	ACTUAL	FORECASTS		ACTUAL	FORECASTS		
		2017 Q4	2018 Q2	2018 Q4	2019 Q2	2017	2018	2019
1. Real Gross Domestic Product (billions, chain weighted)	24	17286.5	17516.4	17782.7	18020.8	17096.2	17582.4	18063.0
2. Nominal Gross Domestic Product (\$ billions)	24	19754.1	20217.8	20732.9	21249.0	19390.6	20345.7	21375.7
3. Nonresidential Fixed Investment (billions, chain weighted)	23	2365.7	2431.4	2500.7	2560.0	2314.2	2449.8	2576.5
4. Corporate Profits After Taxes (\$ billions)	17	1767.0	1856.4	1920.0	1980.1	1697.9	1866.3	1992.5
MONTHLY INDICATORS		ACTUAL DEC 2017	FORECASTS JUN 2018	ACTUAL DEC 2018	FORECASTS JUN 2019	ACTUAL 2017	FORECASTS 2018	FORECASTS 2019
5. Industrial Production (2012=100)	22	105.7	107.8	109.2	110.7	103.7	107.8	110.9
6. Total Private Housing Starts (annual rate, millions)	21	1.210	1.310	1.320	1.363	1.208	1.310	1.356
7. Producer Prices - Finished Goods (index level)	18	201.1	203.5	205.6	207.7	198.0	203.9	208.0
8. Consumer Price Index (CPI-U) (index level)	23	247.9	251.0	253.7	256.5	245.1	251.5	257.2
9. Unemployment Rate (percent)	23	4.1	3.9	3.7	3.6	4.3	3.9	3.6
10. Average Weekly Earnings in Mfg. (\$)	6	902.3	913.6	926.3	936.7	875.6	911.8	938.4
11. Retail Trade (\$ billions)	12	492.9	500.7	513.6	523.8	479.9	502.5	525.2
12. Automobile Sales (incl. foreign) (annual rate, millions)	15	5.8	5.3	5.3	5.2	6.1	5.3	5.2

TABLE ONE (CONTINUED)

INTEREST RATES & STOCK PRICES (end of period)		ACTUAL	FORECASTS			
		DEC 2017	JUN 2018	DEC 2018	JUN 2019	DEC 2019
13. Prime Interest Rate (percent)	21	4.50	5.00	5.30	5.75	6.00
14. 10-Year Treasury Note Yield (percent)	23	2.40	3.00	3.25	3.50	3.60
15. 3-Month Treasury Bill Rate (percent)	24	1.37	1.98	2.35	2.69	2.93
16. Stock Prices (S&P500) (index level)	13	2673.6	2720.0	2824.0	2850.0	2880.3

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2018

TABLE TWO
 MAJOR MACROECONOMIC INDICATORS, 2018-2019
 PERCENTAGE CHANGES AT ANNUAL RATES

QUARTERLY INDICATORS	NUMBER OF FORE- CASTERS	Q4 2017	Q2 2018	Q4 2018	2017	2018
		TO Q2 2018	TO Q4 2018	TO Q2 2019	TO 2018	TO 2019
1. Real Gross Domestic Product	24	2.7	3.1	2.7	2.8	2.7
2. Nominal Gross Domestic Product	24	4.8	5.2	5.0	4.9	5.1
3. Nonresidential Fixed Investment	23	5.6	5.8	4.8	5.9	5.2
4. Corporate Profits After Taxes	17	10.4	7.0	6.4	9.9	6.8
MONTHLY INDICATORS		DEC 2017	JUN 2018	DEC 2018	2017	2018
		TO JUN 2018	TO DEC 2018	TO JUN 2019	TO 2018	TO 2019
5. Industrial Production	22	4.0	2.6	2.6	4.0	2.9
6. Total Private Housing Starts	21	0.100	0.010	0.043	0.102	0.046
7. Producer Prices - Finished Goods	18	2.4	2.1	2.0	3.0	2.0
8. Consumer Price Index (CPI-U)	23	2.5	2.2	2.2	2.6	2.3
9. Unemployment Rate	23	-0.2	-0.2	-0.1	-0.4	-0.3
10. Average Weekly Earnings in Mfg.	6	2.5	2.8	2.3	4.1	2.9
11. Retail Trade	12	3.2	5.2	4.0	4.7	4.5
12. Automobile Sales (incl. foreign)	15	-0.5	0.0	-0.1	-0.8	-0.2

		DEC 2017	JUN 2018	DEC 2018	JUN 2019
		TO	TO	TO	TO
INTEREST RATES & STOCK PRICES		JUN 2018	DEC 2018	JUN 2019	DEC 2019
13. Prime Interest Rate	21	0.50	0.30	0.45	0.25
14. 10-Year Treasury Note Yield	23	0.60	0.25	0.25	0.10
15. 3-Month Treasury Bill Rate	24	0.61	0.37	0.34	0.24
16. Stock Prices (S&P500)	13	3.5	7.8	1.8	2.1

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 2018

TABLE THREE
LONG-TERM (10 YEAR) FORECASTS

SERIES: CPI Inflation Rate

STATISTIC	
Minimum	1.80
Lower Quartile	2.17
Median	2.28
Upper Quartile	2.50
Maximum	3.30
Mean	2.36
Std. Deviation	0.32
N	22
Missing	2

SERIES: Real GDP

STATISTIC	
Minimum	1.60
Lower Quartile	1.90
Median	2.20
Upper Quartile	2.43
Maximum	2.90
Mean	2.17
Std. Deviation	0.34
N	22
Missing	2
