



THE

# LIVINGSTON SURVEY

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## DECEMBER 2014

### **Forecasters Predict Steady Growth and Lower Unemployment**

The 29 participants in the December *Livingston Survey* predict fairly steady output growth through the end of 2015. The forecasters, who are surveyed by the Federal Reserve Bank of Philadelphia twice a year, project that the economy's output (real GDP) will grow at an annual rate of 3.1 percent for the second half of 2014. They predict that the growth rate of economic output will be 2.9 percent (annual rate) in the first half of 2015 and 2.7 percent (annual rate) in the second half of 2015. The current projection for growth in the second half of 2014 is 0.1 percentage point higher than the projection from the survey of six months ago, while the forecast for the first half of 2015 is unchanged.

The forecasters see the unemployment rate falling next year, and the projections have been revised downward. The forecasters predict that the unemployment rate will be 5.7 percent in December 2014 and 5.6 percent in June 2015. The current projections for December 2014 and June 2015 are down 0.4 and 0.3 percentage points, respectively, from the last survey. The unemployment rate will fall to 5.4 percent in December 2015.

	<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>					
2014 Q2 to 2014 Q4	3.0	3.1	December 2014	6.1	5.7
2014 Q4 to 2015 Q2	2.9	2.9	June 2015	5.9	5.6
2015 Q2 to 2015 Q4	N.A.	2.7	December 2015	N.A.	5.4

### **Forecasters See Lower CPI and PPI Inflation in 2015**

On an annual-average over annual-average basis, CPI inflation is expected to be 1.7 percent in 2014 and 1.4 percent in 2015. The 2015 projection is down 0.6 percentage point from the estimate in the June survey. PPI inflation is expected to be 2.1 percent in 2014 and 1.1 percent in 2015. These projections are down 0.3 and 0.6 percentage points, respectively, from those of the last survey.

	<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>				
2013 to 2014	1.8	1.7	2.4	2.1
2014 to 2015	2.0	1.4	1.7	1.1
2015 to 2016	N.A.	2.1	N.A.	1.5

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***Long-Term Interest Rates Revised Downward***

The forecast for the interest rate on three-month Treasury bills is little changed from that of six months ago, while the forecast for 10-year Treasury bonds reflects a downward revision. At the end of June 2015, the interest rate on three-month Treasury bills is predicted to be 0.25 percent, revised up from 0.20 percent in the survey of six months ago. The forecasters predict that the rate will be 0.81 percent at the end of 2015 and 2.25 percent at the end of 2016. The interest rate on 10-year Treasury bonds is predicted to reach 2.72 percent at the end of June 2015, down from the previous estimate of 3.50 percent. According to the forecasters, the 10-year rate will rise to 3.20 percent at the end of 2015, and to 3.75 percent at the end of 2016.

	<i>3-Month Treasury Bill</i>		<i>10-Year Treasury Bond</i>	
	<i>Interest Rate</i>		<i>Interest Rate</i>	
	<i>Previous</i>	<i>New</i>	<i>Previous</i>	<i>New</i>
Dec. 31, 2014	0.07	0.03	3.10	2.40
June 30, 2015	0.20	0.25	3.50	2.72
Dec. 31, 2015	0.95	0.81	3.75	3.20
Dec. 30, 2016	N.A.	2.25	N.A.	3.75

**2014 Livingston Survey Participants**

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### ***Outlook for Long-Term Inflation Revised Downward***

The panelists project lower long-term inflation, compared with their projection in the June 2014 survey, but their projection for long-term output growth is unchanged. The forecasters now predict that inflation (measured by the CPI) will grow 2.25 percent annually over the next 10 years, which is lower than the forecast of 2.35 percent in the survey of six months ago. Real GDP growth is expected to average 2.50 percent over the next 10 years, the same estimate as in the previous survey.

### ***Stock Prices Are Projected to Rise***

The forecasters predict the S&P 500 index will finish 2014 at a level of 2065.0, an upward revision from the estimate of 1950.0 in the June 2014 survey. They also see stock prices increasing over the next two years, with the index rising to 2125.0 by the end of June 2015, to 2160.6 by the end of 2015, and then to 2300.0 by the end of 2016.

#### *Stock Prices (end of period)*

##### *S&P 500 Index*

*Previous      New*

Dec. 31, 2014	1950.0	2065.0
June 30, 2015	1999.8	2125.0
Dec. 31, 2015	2026.5	2160.6
Dec. 30, 2016	N.A.	2300.0

The Philadelphia Fed's *Livingston Survey* is the oldest continuous survey of economists' expectations. The survey was started in 1946 by the late columnist Joseph A. Livingston. It summarizes the forecasts 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 [http://www.philadelphiafed.org/philscriber/user/dsp\\_content.cfm](http://www.philadelphiafed.org/philscriber/user/dsp_content.cfm).

LIVINGSTON SURVEY  
MAJOR MACROECONOMIC INDICATORS, 2014-2016

QUARTERLY INDICATORS (percentage changes at annual rates)	Q2 2014 TO Q4 2014	Q4 2014 TO Q2 2015	Q2 2015 TO Q4 2015	2013 TO 2014	2014 TO 2015	2015 TO 2016
Real Gross Domestic Product	3.1	2.9	2.7	2.3	3.0	2.8
Nominal Gross Domestic Product	4.5	4.8	4.7	3.8	4.7	4.8
Nonresidential Fixed Investment	5.9	5.3	5.8	6.1	5.8	5.6
Corporate Profits After Taxes	11.7	5.1	5.0	-7.6	8.9	4.5
MONTHLY INDICATORS (percentage changes at annual rates)	JUN 2014 TO DEC 2014	DEC 2014 TO JUN 2015	JUN 2015 TO DEC 2015	2013 TO 2014	2014 TO 2015	2015 TO 2016
Industrial Production	2.9	3.0	3.7	4.0	3.7	3.4
Producer Prices - Finished Goods	-1.6	1.6	1.6	2.1	1.1	1.5
Consumer Price Index (CPI-U)	0.3	1.7	2.1	1.7	1.4	2.1
Average Weekly Earnings in Mfg.	1.6	2.3	2.3	1.8	2.3	2.5
Retail Trade	2.9	4.8	4.3	4.0	4.4	4.5
(levels of variables)	DEC 2014	JUN 2015	DEC 2015	2014	2015	2016
Total Private Housing Starts (annual rate, millions)	1.040	1.131	1.231	0.999	1.165	1.332
Unemployment Rate (percent)	5.7	5.6	5.4	6.2	5.6	5.3
Automobile Sales (incl. foreign) (annual rate, millions)	7.8	8.0	7.9	7.7	7.9	8.1
FINANCIAL INDICATORS (levels of variables at end of month)	DEC 2014	JUN 2015	DEC 2015	DEC 2016		
Prime Interest Rate	3.25	3.25	3.85	5.25		
10-Year Treasury Note Yield	2.40	2.72	3.20	3.75		
3-Month Treasury Bill Rate	0.03	0.25	0.81	2.25		
Stock Prices (S&P500)	2065.0	2125.0	2160.6	2300.0		

LONG-TERM OUTLOOK

Average Annual Growth Rate for the Next Ten Years

Real GDP                    2.50

Consumer Price Index    2.25

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, December 2014

# **LIVINGSTON SURVEY**

**December 2014**

**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 November 20; the tables do not reflect subsequent revisions to the data. All forecasts were received on or before December 4.**

TABLE ONE  
MAJOR MACROECONOMIC INDICATORS, 2014-2016  
MEDIAN OF FORECASTER PREDICTIONS

QUARTERLY INDICATORS	NUMBER OF FORE- CASTERS	ACTUAL				FORECASTS			
		2014 Q2	2014 Q4	2015 Q2	2015 Q4	2013	2014	2015	2016
1. Real Gross Domestic Product (billions, chain weighted)	29	16010.4	16259.4	16494.3	16716.6	15710.3	16066.4	16546.8	17017.6
2. Nominal Gross Domestic Product (\$ billions)	28	17328.2	17713.2	18131.0	18547.9	16768.1	17412.5	18236.7	19109.7
3. Nonresidential Fixed Investment (billions, chain weighted)	27	2099.6	2160.6	2217.0	2280.0	1990.6	2111.7	2235.1	2359.8
4. Corporate Profits After Taxes (\$ billions)	18	1498.2	1583.6	1623.2	1663.4	1632.6	1508.8	1643.3	1716.5
MONTHLY INDICATORS		ACTUAL		FORECASTS		ACTUAL		FORECASTS	
		JUN 2014	DEC 2014	JUN 2015	DEC 2015	2013	2014	2015	2016
5. Industrial Production (2007=100)	25	104.0	105.5	107.1	109.0	99.9	103.9	107.7	111.4
6. Total Private Housing Starts (annual rate, millions)	26	0.909	1.040	1.131	1.231	0.930	0.999	1.165	1.332
7. Producer Prices - Finished Goods (index level)	20	202.4	200.8	202.4	204.1	196.7	200.8	203.0	206.1
8. Consumer Price Index (CPI-U) (index level)	27	237.7	238.0	240.0	242.5	233.0	236.9	240.3	245.3
9. Unemployment Rate (percent)	27	6.1	5.7	5.6	5.4	7.3	6.2	5.6	5.3
10. Average Weekly Earnings in Mfg. (\$)	12	824.8	831.4	840.8	850.2	807.5	822.2	841.1	862.1
11. Retail Trade (\$ billions)	15	440.3	446.6	457.2	467.0	422.2	438.9	458.3	478.9
12. Automobile Sales (incl. foreign) (annual rate, millions)	18	8.1	7.8	8.0	7.9	7.6	7.7	7.9	8.1

TABLE ONE (CONTINUED)

INTEREST RATES & STOCK PRICES (end of period)		ACTUAL		FORECASTS		
		JUN 2014	DEC 2014	JUN 2015	DEC 2015	DEC 2016
13. Prime Interest Rate (percent)	27	3.25	3.25	3.25	3.85	5.25
14. 10-Year Treasury Note Yield (percent)	28	2.53	2.40	2.72	3.20	3.75
15. 3-Month Treasury Bill Rate (percent)	27	0.04	0.03	0.25	0.81	2.25
16. Stock Prices (S&P500) (index level)	18	1960.2	2065.0	2125.0	2160.6	2300.0

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, December 2014

TABLE TWO  
 MAJOR MACROECONOMIC INDICATORS, 2014-2016  
 PERCENTAGE CHANGES AT ANNUAL RATES

QUARTERLY INDICATORS	NUMBER OF FORE- CASTERS	Q2 2014	Q4 2014	Q2 2015	2013	2014	2015
		TO Q4 2014	TO Q2 2015	TO Q4 2015	TO 2014	TO 2015	TO 2016
1. Real Gross Domestic Product	29	3.1	2.9	2.7	2.3	3.0	2.8
2. Nominal Gross Domestic Product	28	4.5	4.8	4.7	3.8	4.7	4.8
3. Nonresidential Fixed Investment	27	5.9	5.3	5.8	6.1	5.8	5.6
4. Corporate Profits After Taxes	18	11.7	5.1	5.0	-7.6	8.9	4.5
MONTHLY INDICATORS		JUN 2014	DEC 2014	JUN 2015	2013	2014	2015
		TO DEC 2014	TO JUN 2015	TO DEC 2015	TO 2014	TO 2015	TO 2016
5. Industrial Production	25	2.9	3.0	3.7	4.0	3.7	3.4
6. Total Private Housing Starts	26	0.131	0.091	0.101	0.069	0.166	0.167
7. Producer Prices - Finished Goods	20	-1.6	1.6	1.6	2.1	1.1	1.5
8. Consumer Price Index (CPI-U)	27	0.3	1.7	2.1	1.7	1.4	2.1
9. Unemployment Rate	27	-0.4	-0.1	-0.2	-1.2	-0.6	-0.3
10. Average Weekly Earnings in Mfg.	12	1.6	2.3	2.3	1.8	2.3	2.5
11. Retail Trade	15	2.9	4.8	4.3	4.0	4.4	4.5
12. Automobile Sales (incl. foreign)	18	-0.3	0.2	-0.1	0.1	0.2	0.2

		JUN 2014	DEC 2014	JUN 2015	DEC 2015
		TO	TO	TO	TO
INTEREST RATES & STOCK PRICES		DEC 2014	JUN 2015	DEC 2015	DEC 2016
13. Prime Interest Rate	27	0.00	0.00	0.60	1.40
14. 10-Year Treasury Note Yield	28	-0.13	0.32	0.48	0.55
15. 3-Month Treasury Bill Rate	27	-0.01	0.22	0.56	1.44
16. Stock Prices (S&P500)	18	11.0	5.9	3.4	6.5

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, December 2014

TABLE THREE  
LONG-TERM (10 YEAR) FORECASTS

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SERIES: CPI Inflation Rate

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STATISTIC	
Minimum	1.40
Lower Quartile	1.95
Median	2.25
Upper Quartile	2.50
Maximum	2.90
Mean	2.21
Std. Deviation	0.39
N	29
Missing	0

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SERIES: Real GDP

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STATISTIC	
Minimum	1.80
Lower Quartile	2.30
Median	2.50
Upper Quartile	2.65
Maximum	3.10
Mean	2.50
Std. Deviation	0.28
N	29
Missing	0

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Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, December 2014