



THE

# LIVINGSTON SURVEY

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## DECEMBER 2013

### **Forecasters Cut Predictions for Growth Early Next Year but Shave Their Estimates for Unemployment**

The 33 participants in the December Livingston Survey predict sustained output growth through the end of 2014. 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 2.4 percent for the second half of 2013. They predict that the growth rate of economic output will increase to 2.5 percent (annual rate) in the first half of 2014 and 2.8 percent (annual rate) in the second half of 2014. The current projection for growth in the second half of 2013 increased 0.1 percentage point from the survey of six months ago, while the forecast for the first half of 2014 decreased 0.3 percentage point.

Projections for the unemployment rate have been revised downward. The forecasters predict that the unemployment rate will be 7.2 percent in December 2013 and 7.0 percent in June 2014. The current projections for December 2013 and June 2014 are down 0.2 percentage point from the last survey. The unemployment rate is then expected to fall to 6.7 percent in December 2014.

	<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>					
2013 Q2 to 2013 Q4	2.3	2.4	December 2013	7.4	7.2
2013 Q4 to 2014 Q2	2.8	2.5	June 2014	7.2	7.0
2014 Q2 to 2014 Q4	N.A.	2.8	December 2014	N.A.	6.7

### **Forecasters Trim Their Estimates for 2014 CPI Inflation**

On an annual-average over annual-average basis, CPI inflation is expected to be 1.5 percent in 2013 and 1.8 percent in 2014. The 2014 projection is down 0.2 percentage point from the estimate in the June survey. PPI inflation is expected to be 1.3 percent in 2013 and 1.5 percent in 2014. These projections are unchanged 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>				
2012 to 2013	1.5	1.5	1.3	1.3
2013 to 2014	2.0	1.8	1.5	1.5
2014 to 2015	N.A.	2.1	N.A.	1.6

**RESEARCH DEPARTMENT** FEDERAL RESERVE BANK OF PHILADELPHIA

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**Long-Term Interest Rates Revised Upward**

The forecast for the interest rate on three-month Treasury bills is lower than that of six months ago, while the rate on 10-year Treasury bonds is higher. At the end of June 2014, the interest rate on three-month Treasury bills is predicted to be 0.09 percent, revised down from 0.14 percent in the survey of six months ago. The forecasters predict that the rate will then rise to 0.15 percent at the end of 2014, and then to 0.75 percent at the end of 2015. The interest rate on 10-year Treasury bonds is predicted to reach 3.01 percent at the end of June 2014, up from the previous estimate of 2.38 percent. According to the forecasters, it will then rise to 3.25 percent at the end of 2014, and to 3.88 percent at the end of 2015.

	<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, 2013	0.10	0.06	2.20	2.78
June 30, 2014	0.14	0.09	2.38	3.01
Dec. 31, 2014	0.20	0.15	2.65	3.25
Dec. 31, 2015	N.A.	0.75	N.A.	3.88

**2013 Livingston Survey Participants**

<b>S. Anderson</b>	<b>Bank of the West</b>	<b>K. Mayland</b>	<b>Clear View Economics</b>
<b>B. Bovino</b>	<b>Standard &amp; Poor's</b>	<b>G. Mokrzan</b>	<b>Huntington National Bank</b>
<b>J. Butkiewicz</b>	<b>University of Delaware</b>	<b>M. Moran</b>	<b>Daiwa Capital Markets America</b>
<b>R. Chase</b>	<b>Economic &amp; Policy Resources Inc</b>	<b>J. Mueller</b>	<b>LBMC, LLC</b>
<b>C. Chrappa</b>	<b>Independent Equipment Company</b>	<b>F. Nothaft</b>	<b>Federal Home Loan Mortgage Corp.</b>
<b>D. Crowe</b>	<b>National Association of Home Builders</b>	<b>M. Regalia</b>	<b>U.S. Chamber of Commerce</b>
<b>R. Dhawan</b>	<b>Georgia State University</b>	<b>C. Rupkey</b>	<b>Bank of Tokyo-Mitsubishi UFJ</b>
<b>M. Englund</b>	<b>Action Economics, LLC</b>	<b>J. Silvia</b>	<b>Wells Fargo Securities, LLC</b>
<b>K. Goldstein/B. Ark</b>	<b>Conference Board</b>	<b>A. Sinai</b>	<b>Decision Economics, Inc.</b>
<b>P. Hooper</b>	<b>Deutsche Bank Securities Inc.</b>	<b>J. Smith</b>	<b>Parsec Financial Management, Inc.</b>
<b>B. Horrigan</b>	<b>Loomis Sayles &amp; Co.</b>	<b>S. Snaith</b>	<b>University of Central Florida</b>
<b>S. Kahan</b>	<b>Kahan Consulting Ltd.</b>	<b>S. Stanley</b>	<b>Pierpont Securities</b>
<b>D. Knop</b>	<b>Independent Economist</b>	<b>D. Torgerson</b>	<b>USDA</b>
<b>T. Lam</b>	<b>OSK-DMG</b>	<b>B. Wesbury/R. Stein</b>	<b>First Trust Advisors, L.P.</b>
<b>E. Leamer/D. Shulman</b>	<b>University of California, Los Angeles</b>	<b>R. Yamarone</b>	<b>Bloomberg, LP</b>
<b>J. Lonski</b>	<b>Moody's Capital Markets Group</b>	<b>L. Yun</b>	<b>National Association of Realtors</b>
<b>D. Maki</b>	<b>Barclays Capital</b>		

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

The panelists project lower long-term inflation, but their projection for long-term output growth is unchanged. The forecasters now predict that inflation (measured by the consumer price index) will grow 2.35 percent annually over the next 10 years, which is lower than the forecast of 2.50 percent in the survey of six months ago. Real GDP growth is expected to average 2.60 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 2013 at a level of 1800.7, an upward revision from the previous estimate of 1667.8. The forecasters project an increase in stock prices over the next two years, with the index rising to 1841.1 by the end of June 2014, and then to 1875.0 by the end of 2014, above the previous estimates of 1713.1 and 1750.0, respectively.

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

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

*Previous      New*

Dec. 31, 2013	1667.8	1800.7
June 30, 2014	1713.1	1841.1
Dec. 31, 2014	1750.0	1875.0
Dec. 31, 2015	N.A.	1948.5

### ***Technical Notes***

This news release reports the median value across the 33 forecasters on the survey's panel.

### ***Special Note: Housing Starts***

Due to delays in the release of historical data caused by the federal government shutdown, for the projections for housing starts, we used monthly historical values through August 2013, which were the only data available at the time we conducted the survey. (Normally, monthly historical values through October would be used to generate the projections for December's Livingston Survey.)

In the .XLS files that contain this survey's responses, the *BasePeriod* value (for October 2013) is based on the panelists' projections and not a historical value.

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, 2013-2015

QUARTERLY INDICATORS (percentage changes at annual rates)	Q2 2013 TO Q4 2013	Q4 2013 TO Q2 2014	Q2 2014 TO Q4 2014	2012 TO 2013	2013 TO 2014	2014 TO 2015
Real Gross Domestic Product	2.4	2.5	2.8	1.7	2.5	2.9
Nominal Gross Domestic Product	3.9	4.4	4.7	3.2	4.2	4.8
Nonresidential Fixed Investment	3.2	4.6	5.1	2.3	4.4	5.6
Corporate Profits After Taxes	5.6	4.5	4.9	6.3	5.2	4.8
MONTHLY INDICATORS (percentage changes at annual rates)	JUN 2013 TO DEC 2013	DEC 2013 TO JUN 2014	JUN 2014 TO DEC 2014	2012 TO 2013	2013 TO 2014	2014 TO 2015
Industrial Production	2.6	3.1	3.2	2.4	2.9	3.7
Producer Prices - Finished Goods	1.1	1.7	2.0	1.3	1.5	1.6
Consumer Price Index (CPI-U)	1.4	1.8	2.0	1.5	1.8	2.1
Average Weekly Earnings in Mfg.	1.7	2.6	2.9	1.6	2.4	2.6
Retail Trade	3.4	4.8	5.0	4.3	4.2	5.0
(levels of variables)	DEC 2013	JUN 2014	DEC 2014	2013	2014	2015
Total Private Housing Starts (annual rate, millions)	0.960	1.100	1.207	0.917	1.109	1.283
Unemployment Rate (percent)	7.2	7.0	6.7	7.4	6.9	6.4
Automobile Sales (incl. foreign) (annual rate, millions)	7.6	7.8	8.0	7.6	7.9	8.1
FINANCIAL INDICATORS (levels of variables at end of month)	DEC 2013	JUN 2014	DEC 2014	DEC 2015		
Prime Interest Rate	3.25	3.25	3.25	4.00		
10-Year Treasury Note Yield	2.78	3.01	3.25	3.88		
3-Month Treasury Bill Rate	0.06	0.09	0.15	0.75		
Stock Prices (S&P500)	1800.7	1841.1	1875.0	1948.5		

LONG-TERM OUTLOOK

Average Annual Growth Rate for the Next 10 Years

Real GDP 2.6

Consumer Price Index 2.3

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, December 2013

# LIVINGSTON SURVEY

December 2013

## 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 Nov 26; the tables do not reflect subsequent revisions to the data. All forecasts were received on or before December 5.

**Special Note: Housing Starts**

Due to delays in the release of historical data caused by the federal government shutdown, for the projections for housing starts, we used monthly historical values through August 2013, which were the only data available at the time we conducted the survey. (Normally, monthly historical values through October would be used to generate the projections for December’s Livingston Survey.)

In the .XLS files that contain this survey’s responses, the *BasePeriod* value (for October 2013) is based on the panelists’ projections and not a historical value.

TABLE ONE  
 MAJOR MACROECONOMIC INDICATORS, 2013-2015  
 MEDIANS OF FORECASTER PREDICTIONS

QUARTERLY INDICATORS	NUMBER OF FORE- CASTERS	ACTUAL				FORECASTS			
		2013 Q2	2013 Q4	2014 Q2	2014 Q4	2012	2013	2014	2015
1. Real Gross Domestic Product (billions, chain weighted)	33	15679.7	15868.5	16065.5	16286.6	15470.7	15730.5	16126.8	16595.7
2. Nominal Gross Domestic Product (\$ billions)	33	16661.0	16986.8	17354.7	17757.0	16244.6	16760.2	17465.8	18310.0
3. Nonresidential Fixed Investment (billions, chain weighted)	31	1971.3	2003.0	2048.6	2100.0	1931.8	1977.0	2063.4	2178.9
4. Corporate Profits After Taxes (\$ billions)	22	1669.2	1715.7	1753.8	1796.5	1574.7	1674.1	1760.9	1845.9
MONTHLY INDICATORS		ACTUAL		FORECASTS		ACTUAL		FORECASTS	
		JUN 2013	DEC 2013	JUN 2014	DEC 2014	2012	2013	2014	2015
5. Industrial Production (2007=100)	30	99.2	100.5	102.0	103.6	97.1	99.4	102.3	106.1
6. Total Private Housing Starts (annual rate, millions)	31	0.835	0.960	1.100	1.207	0.783	0.917	1.109	1.283
7. Producer Prices - Finished Goods (index level)	28	196.9	197.9	199.6	201.6	194.5	197.0	200.0	203.1
8. Consumer Price Index (CPI-U) (index level)	32	232.9	234.6	236.7	239.1	229.6	233.0	237.1	242.0
9. Unemployment Rate (percent)	32	7.6	7.2	7.0	6.7	8.1	7.4	6.9	6.4
10. Average Weekly Earnings in Mfg. (\$)	14	808.9	815.7	826.0	837.9	794.8	807.5	826.9	848.5
11. Retail Trade (\$ billions)	21	423.8	431.0	441.2	452.2	406.3	423.7	441.6	463.5
12. Automobile Sales (incl. foreign) (annual rate, millions)	24	7.7	7.6	7.8	8.0	7.2	7.6	7.9	8.1

TABLE ONE (CONTINUED)

INTEREST RATES & STOCK PRICES (end of period)		ACTUAL	FORECASTS			
		JUN 2013	DEC 2013	JUN 2014	DEC 2014	DEC 2015
13. Prime Interest Rate (percent)	32	3.25	3.25	3.25	3.25	4.00
14. 10-Year Treasury Note Yield (percent)	32	2.52	2.78	3.01	3.25	3.88
15. 3-Month Treasury Bill Rate (percent)	32	0.04	0.06	0.09	0.15	0.75
16. Stock Prices (S&P500) (index level)	21	1606.3	1800.7	1841.1	1875.0	1948.5

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, December 2013

TABLE TWO  
MAJOR MACROECONOMIC INDICATORS, 2013-2015  
PERCENTAGE CHANGES AT ANNUAL RATES

QUARTERLY INDICATORS	NUMBER OF FORE- CASTERS	Q2 2013	Q4 2013	Q2 2014	2012	2013	2014
		TO Q4 2013	TO Q2 2014	TO Q4 2014	TO 2013	TO 2014	TO 2015
1. Real Gross Domestic Product	33	2.4	2.5	2.8	1.7	2.5	2.9
2. Nominal Gross Domestic Product	33	3.9	4.4	4.7	3.2	4.2	4.8
3. Nonresidential Fixed Investment	31	3.2	4.6	5.1	2.3	4.4	5.6
4. Corporate Profits After Taxes	22	5.6	4.5	4.9	6.3	5.2	4.8
MONTHLY INDICATORS		JUN 2013	DEC 2013	JUN 2014	2012	2013	2014
		TO DEC 2013	TO JUN 2014	TO DEC 2014	TO 2013	TO 2014	TO 2015
5. Industrial Production	30	2.6	3.1	3.2	2.4	2.9	3.7
6. Total Private Housing Starts	31	0.125	0.140	0.107	0.134	0.191	0.174
7. Producer Prices - Finished Goods	28	1.1	1.7	2.0	1.3	1.5	1.6
8. Consumer Price Index (CPI-U)	32	1.4	1.8	2.0	1.5	1.8	2.1
9. Unemployment Rate	32	-0.4	-0.2	-0.3	-0.7	-0.5	-0.5
10. Average Weekly Earnings in Mfg.	14	1.7	2.6	2.9	1.6	2.4	2.6
11. Retail Trade	21	3.4	4.8	5.0	4.3	4.2	5.0
12. Automobile Sales (incl. foreign)	24	-0.1	0.2	0.2	0.4	0.3	0.2



		JUN 2013	DEC 2013	JUN 2014	DEC 2014
		TO	TO	TO	TO
INTEREST RATES & STOCK PRICES		DEC 2013	JUN 2014	DEC 2014	DEC 2015
13. Prime Interest Rate	32	0.00	0.00	0.00	0.75
14. 10-Year Treasury Note Yield	32	0.26	0.23	0.24	0.63
15. 3-Month Treasury Bill Rate	32	0.02	0.03	0.06	0.60
16. Stock Prices (S&P500)	21	25.7	4.5	3.7	3.9

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 2013

TABLE THREE  
LONG-TERM (10 YEAR) FORECASTS

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SERIES: CPI Inflation Rate

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STATISTIC	
Minimum	1.20
Lower Quartile	2.00
Median	2.35
Upper Quartile	2.50
Maximum	3.30
Mean	2.30
Std. Deviation	0.44
N	31
Missing	2

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SERIES: Real GDP

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STATISTIC	
Minimum	2.00
Lower Quartile	2.40
Median	2.60
Upper Quartile	2.70
Maximum	3.20
Mean	2.55
Std. Deviation	0.30
N	31
Missing	2

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