



THE

# LIVINGSTON SURVEY

Release Date: June 17, 2022

## JUNE 2022

### **Forecasters Lower Their Forecasts for Real GDP Growth and the Unemployment Rate**

The 18 participants in the June *Livingston Survey* predict sharply lower output growth for the first half of 2022 than they predicted in the December 2021 survey. The forecasters, who are surveyed by the Federal Reserve Bank of Philadelphia twice a year, now project that the economy's output (real GDP) will grow at an annual rate of 0.5 percent during the first half of 2022. They expect stronger conditions in the second half of 2022, when growth is expected to be at an annual rate of 2.1 percent. Both projections represent sharp downward revisions from those of the December 2021 survey. Growth will average an annual rate of 2.3 percent in the first half of 2023.

The forecasters see a lower unemployment rate in June 2022 and December 2022 than they predicted previously. The forecasters now predict that the unemployment rate will be 3.6 percent in June 2022 and 3.4 percent in December 2022. The unemployment rate is expected to reach 3.5 percent in June 2023.

	<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>					
2021 Q4 to 2022 Q2	3.9	0.5	June 2022	4.0	3.6
2022 Q2 to 2022 Q4	3.5	2.1	December 2022	3.8	3.4
2022 Q4 to 2023 Q2	N.A.	2.3	June 2023	N.A.	3.5

### **Forecasters Hike Their Projections for Inflation in 2022 and 2023**

On an annual-average over annual-average basis, CPI inflation is expected to be 7.6 percent in 2022 and 3.8 percent in 2023. Both projections are revised upward from the forecasts in the December 2021 survey. PPI inflation for finished goods is expected to be 13.2 percent this year, a notable upward revision from 6.3 percent in the previous survey. The forecasters predict PPI inflation will average 4.2 percent in 2023, nearly double the rate they predicted previously.

	<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>				
2021 to 2022	4.5	7.6	6.3	13.2
2022 to 2023	2.5	3.8	2.2	4.2

**RESEARCH DEPARTMENT** FEDERAL RESERVE BANK OF PHILADELPHIA

Ten Independence Mall, Philadelphia, PA 19106-1574 • [www.philadelphiafed.org](http://www.philadelphiafed.org)

### ***Higher Projections for Short-Term and Long-Term Interest Rates***

The panelists increased their forecasts for interest rates on three-month Treasury bills compared with their forecasts of six months ago. The interest rate on three-month Treasury bills is now predicted to be 1.49 percent at the end of June 2022. The forecasters predict the three-month rate will rise to 2.54 percent at the end of December 2022 and 3.04 percent at the end of June 2023. The panelists see the rate at 3.00 percent at the end of December 2023.

Upward revisions to the forecasts for the 10-year Treasury rate accompany the upward revisions to the forecasts for the three-month rate. The interest rate on 10-year Treasury bonds is predicted to be 3.04 percent at the end of June 2022, up from 1.80 percent in the December survey. The forecasters predict the 10-year rate will rise to 3.31 percent at the end of December 2022 and 3.32 percent at the end of June 2023. The 10-year Treasury bond interest rate is expected to fall to 3.23 percent at the end of December 2023.

	<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, 2022	0.13	1.49	1.80	3.04
Dec. 30, 2022	0.53	2.54	2.15	3.31
June 30, 2023	N.A.	3.04	N.A.	3.32
Dec. 29, 2023	1.10	3.00	2.47	3.23

### ***Upward Revisions to Long-Term Inflation but Unchanged Outlook for Long-Term Growth***

The forecasters now predict that inflation (measured by the CPI) will be 2.50 percent annually over the next 10 years, marking an upward revision from 2.40 percent in the December 2021 survey. The forecasters see real GDP growing 2.10 percent annually over the next 10 years, the same rate they predicted previously.

### ***Forecasters See Stock Prices Rising from Lower Levels***

The panelists predict the S&P 500 index will finish the first half of 2022 at a level of 4100.0, marking a downward revision from their previous prediction. Stock prices are expected to rise to 4130.0 at the end of 2022 and continue to rise to 4186.1 at the end of June 2023. The index is predicted to reach 4245.4 by the end of 2023. All forecasts for stock prices mark downward revisions from those of the December 2021 survey.

	<i>Stock Prices S&amp;P 500 Index</i>	
	<i>Previous</i>	<i>New</i>
June 30, 2022	4809.7	4100.0
Dec. 30, 2022	4840.0	4130.0
June 30, 2023	N.A.	4186.1
Dec. 29, 2023	5000.0	4245.4

**Technical Notes**

This survey release reports the median value across the 18 forecasters on the survey’s panel. All forecasts were submitted before the June 3, 2022, 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>.

**Livingston Survey Participants**

<b>S. Anderson</b>	<b>Bank of the West</b>	<b>T. Lam</b>	<b>Sim Kee Boon Institute, Singapore</b>
<b>B. Bovino/S.Panday</b>	<b>Standard &amp; Poor's</b>	<b>D. Manaenkov</b>	<b>RSQE (University of Michigan)</b>
<b>M. Brown/W.West</b>	<b>Visa</b>	<b>G. Mokrzan</b>	<b>Huntington National Bank</b>
<b>J. Bryson</b>	<b>Wells Fargo Securities, LLC</b>	<b>M. Moran</b>	<b>Daiwa Capital Markets America</b>
<b>J. Butkiewicz</b>	<b>University of Delaware</b>	<b>F. Nothaft</b>	<b>CoreLogic</b>
<b>R. Chase</b>	<b>Economic &amp; Policy Resources, Inc.</b>	<b>A. Sinai/L. Yu</b>	<b>Decision Economics, Inc.</b>
<b>C. Chrappa</b>	<b>Independent Equipment Company</b>	<b>J. Smith</b>	<b>Parsec Financial Management, Inc.</b>
<b>R. Dhawan</b>	<b>Georgia State University</b>	<b>S. Snaith</b>	<b>Institute for Economic Forecasting</b>
<b>M. Englund</b>	<b>Action Economics, LLC</b>	<b>S. Stanley</b>	<b>Amherst Pierpont Securities</b>
<b>P. Hooper/B. Ryan</b>	<b>Deutsche Bank Securities</b>	<b>B. Wesbury/R. Stein</b>	<b>First Trust Advisors, L.P.</b>
<b>B. Horrigan</b>	<b>Loomis, Sayles &amp; Co.</b>	<b>M. Zandi</b>	<b>Moody's Analytics</b>
<b>S. Kahan</b>	<b>Kahan Consulting Ltd.</b>		

Livingston Survey Summary Table  
MAJOR MACROECONOMIC INDICATORS, 2022-2023

QUARTERLY INDICATORS (percentage changes at annual rates)	Q4 2021 TO Q2 2022	Q2 2022 TO Q4 2022	Q4 2022 TO Q2 2023	2021 TO 2022	2022 TO 2023
--	--------------------------	--------------------------	--------------------------	--------------------	--------------------

Real Gross Domestic Product	0.5	2.1	2.3	2.4	2.2
Nominal Gross Domestic Product	7.3	6.7	4.7	9.0	5.5
Nonresidential Fixed Investment	8.6	4.7	3.9	6.0	4.4
Corporate Profits After Taxes	-4.6	3.6	-0.8	1.8	2.0

MONTHLY INDICATORS (percentage changes at annual rates)	DEC 2021 TO JUN 2022	JUN 2022 TO DEC 2022	DEC 2022 TO JUN 2023	2021 TO 2022	2022 TO 2023
--	----------------------------	----------------------------	----------------------------	--------------------	--------------------

Industrial Production	8.2	2.6	3.0	5.3	3.2
Producer Prices - Finished Goods	15.2	4.0	2.8	13.2	4.2
Consumer Price Index (CPI-U)	7.9	4.4	2.7	7.6	3.8
Average Weekly Earnings in Mfg.	0.4	5.9	5.6	4.1	5.3
Retail Trade	13.7	0.9	1.7	8.7	1.9

(levels of variables)	JUN 2022	DEC 2022	JUN 2023	2022	2023
Total Private Housing Starts (annual rate, millions)	1.650	1.605	1.541	1.670	1.534
Unemployment Rate (percent)	3.6	3.4	3.5	3.6	3.5
Automobile Sales (incl. foreign) (annual rate, millions)	3.1	3.3	3.3	3.1	3.3

FINANCIAL INDICATORS (levels of variables at end of month)	JUN 2022	DEC 2022	JUN 2023	DEC 2023
---	----------	----------	----------	----------

Prime Interest Rate	4.50	5.75	6.17	6.25
10-Year Treasury Note Yield	3.04	3.31	3.32	3.23
3-Month Treasury Bill Rate	1.49	2.54	3.04	3.00
Stock Prices (S&P500)	4100.0	4130.0	4186.1	4245.4

LONG-TERM OUTLOOK  
Average Annual Growth Rate for the Next Ten Years

Real GDP	2.10
Consumer Price Index	2.50

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2022.

# **LIVINGSTON SURVEY**

**June 2022**

**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, 2022-2023  
MEDIAN OF FORECASTER PREDICTIONS

QUARTERLY INDICATORS	NUMBER OF FORECASTERS	ACTUAL	FORECAST			ACTUAL	FORECAST	
		2021 Q4	2022 Q2	2022 Q4	2023 Q2	2021 ANNUAL	2022 ANNUAL	2023 ANNUAL
1. Real Gross Domestic Product (billions, chain weighted)	18	19806.3	19857.9	20069.0	20294.6	19427.3	19900.6	20328.5
2. Nominal Gross Domestic Product (\$ billions)	18	24002.8	24864.0	25687.9	26279.0	22996.1	25070.1	26442.9
3. Nonresidential Fixed Investment (billions, chain weighted)	17	2905.5	3028.5	3099.4	3159.5	2868.5	3041.0	3174.5
4. Corporate Profits After Taxes (\$ billions)	16	2527.4	2468.1	2512.2	2501.6	2424.6	2469.2	2517.8
MONTHLY INDICATORS		2021 Dec	2022 Jun	2022 Dec	2023 Jun	2021 ANNUAL	2022 ANNUAL	2023 ANNUAL
5. Industrial Production (2017=100)	13	101.7	105.8	107.2	108.7	100.2	105.5	108.9
6. Total Private Housing Starts (annual rate, millions)	15	1.768	1.650	1.605	1.541	1.605	1.670	1.534
7. Producer Prices - Finished Goods (index level)	10	232.0	249.1	254.0	257.5	221.0	250.2	260.8
8. Consumer Price Index (CPI-U) (index level)	16	280.1	291.0	297.3	301.3	271.0	291.6	302.6
9. Unemployment Rate (percent)	18	3.9	3.6	3.4	3.5	5.4	3.6	3.5
10. Average Weekly Earnings in Mfg. (\$)	5	1017.9	1020.0	1049.9	1079.0	985.7	1025.8	1080.4
11. Retail Trade (\$ billions)	9	634.4	676.6	679.6	685.4	619.3	672.9	685.5
12. Automobile Sales (incl. foreign) (annual rate, millions)	11	2.7	3.1	3.3	3.3	3.3	3.1	3.3
INTEREST RATES & STOCK PRICES (end of period)		2021 Dec	2022 Jun	2022 Dec	2023 Jun	2023 Dec		
13. Prime Interest Rate (percent)	16	3.25	4.50	5.75	6.17	6.25		
14. 10-Year Treasury Note Yield (percent)	16	1.52	3.04	3.31	3.32	3.23		
15. 3-Month Treasury Bill Rate (percent)	16	0.06	1.49	2.54	3.04	3.00		
16. Stock Prices (S&P500) (index level)	11	4766.2	4100.0	4130.0	4186.1	4245.4		

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2022.

TABLE TWO  
 MAJOR MACROECONOMIC INDICATORS, 2022-2023  
 PERCENTAGE CHANGES AT ANNUAL RATES

QUARTERLY INDICATORS	NUMBER OF FORECASTERS	Q4 2021 TO Q2 2022	Q2 2022 TO Q4 2022	Q4 2022 TO Q2 2023	2021 TO 2022	2022 TO 2023
1. Real Gross Domestic Product	18	0.5	2.1	2.3	2.4	2.2
2. Nominal Gross Domestic Product	18	7.3	6.7	4.7	9.0	5.5
3. Nonresidential Fixed Investment	17	8.6	4.7	3.9	6.0	4.4
4. Corporate Profits After Taxes	16	-4.6	3.6	-0.8	1.8	2.0
MONTHLY INDICATORS		DEC 2021 TO JUN 2022	JUN 2022 TO DEC 2022	DEC 2022 TO JUN 2023	2021 TO 2022	2022 TO 2023
5. Industrial Production	13	8.2	2.6	3.0	5.3	3.2
6. Total Private Housing Starts	15	-0.118	-0.045	-0.064	0.065	-0.136
7. Producer Prices - Finished Goods	10	15.2	4.0	2.8	13.2	4.2
8. Consumer Price Index (CPI-U)	16	7.9	4.4	2.7	7.6	3.8
9. Unemployment Rate	18	-0.3	-0.2	0.1	-1.8	-0.1
10. Average Weekly Earnings in Mfg.	5	0.4	5.9	5.6	4.1	5.3
11. Retail Trade	9	13.7	0.9	1.7	8.7	1.9
12. Automobile Sales (incl. foreign)	11	0.4	0.2	0.0	-0.2	0.2
INTEREST RATES & STOCK PRICES		DEC 2021 TO JUN 2022	JUN 2022 TO DEC 2022	DEC 2022 TO JUN 2023	JUN 2023 TO DEC 2023	
13. Prime Interest Rate	16	1.25	1.25	0.42	0.08	
14. 10-Year Treasury Note Yield	16	1.52	0.26	0.01	-0.08	
15. 3-Month Treasury Bill Rate	16	1.43	1.05	0.50	-0.04	
16. Stock Prices (S&P500)	11	-26.0	1.5	2.7	2.9	

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, June 2022.

TABLE THREE  
LONG-TERM (10 YEAR) FORECASTS

---

SERIES: Real GDP

---

Statistic	
Minimum	1.70
Lower Quartile	1.80
Median	2.10
Upper Quartile	2.30
Maximum	2.80
Mean	2.13
Std. Deviation	0.30
N	17
Missing	1

---

SERIES: CPI Inflation Rate

---

Statistic	
Minimum	1.90
Lower Quartile	2.32
Median	2.50
Upper Quartile	2.60
Maximum	4.00
Mean	2.53
Std. Deviation	0.46
N	17
Missing	1

---

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2022.