



THE

LIVINGSTON SURVEY

Release Date: June 12, 2020

JUNE 2020

Sharply Negative Growth in Real GDP and High Unemployment for First Half of 2020, Recovery Second Half of 2020

The participants in the June *Livingston Survey* predict sharply lower output growth for the first half of 2020. The forecasters, who are surveyed by the Federal Reserve Bank of Philadelphia twice a year, project that the economy's output (real GDP) will fall at an annual rate of -20.2 percent during the first half of 2020. The economy is expected to start recovering in the second half of 2020. Growth in the second half of 2020 is expected to rise to an annual rate of 9.6 percent. Growth will average an annual rate of 7.2 percent in the first half of 2021.

The forecasters see a high unemployment rate in the first half of 2020, with recovery starting in the second half of 2020. The forecasters predict that the unemployment rate will be 17.4 percent in June 2020 and 10.6 percent in December 2020. The unemployment rate is expected to fall to 8.3 percent in June 2021.

	<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>					
2019 Q4 to 2020 Q2	1.9	-20.2	June 2020	3.5	17.4
2020 Q2 to 2020 Q4	1.8	9.6	December 2020	3.5	10.6
2020 Q4 to 2021 Q2	N.A.	7.2	June 2021	N.A.	8.3

Forecasters Cut Their Projections for Inflation in 2020

On an annual-average over annual-average basis, CPI inflation is expected to be 0.8 percent in 2020 and 1.6 percent in 2021. Both projections were revised downward from the forecasts in the December 2019 survey. PPI inflation for finished goods is expected to be -2.1 percent this year, a notable downward revision from 1.7 percent in the previous survey. The forecasters predict PPI inflation will rise to 2.2 percent for 2021.

	<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>				
2019 to 2020	2.1	0.8	1.7	-2.1
2020 to 2021	2.3	1.6	1.8	2.2

RESEARCH DEPARTMENT FEDERAL RESERVE BANK OF PHILADELPHIA

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Sharply Lower Projections for Short- and Long-Term Interest Rates

The panelists sharply lowered their forecasts for interest rates on three-month Treasury bills over those of six months ago. At the end of June 2020, the interest rate on three-month Treasury bills is predicted to be 0.13 percent. The forecasters predict that the three-month rate will be 0.14 percent at the end of December 2020, and they expect it to be 0.20 percent at the end of December 2021.

Accompanying the notable downward revisions to the rate on three-month Treasury bills, the forecasts for the 10-year Treasury rate were also sharply lower. The interest rate on 10-year Treasury bonds is predicted to reach 0.70 percent at the end of June 2020. The forecasters predict the 10-year rate will rise to 0.81 percent at the end of December 2020 and continue to rise to 1.07 percent at the end of June 2021. The 10-year Treasury bond interest rate is expected to reach 1.26 percent at the end of December 2021.

	<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, 2020	1.59	0.13	1.88	0.70
Dec. 31, 2020	1.60	0.14	2.05	0.81
June 30, 2021	N.A.	0.15	N.A.	1.07
Dec. 31, 2021	1.72	0.20	2.41	1.26

Notable Revisions to Long-Term Growth and Inflation

The forecasters predict that real GDP will grow at an annual average rate of 2.20 percent over the next 10 years, an upward revision from 2.00 in the survey six months ago. The forecasters now predict that inflation (measured by the CPI) will be 2.00 percent annually over the next 10 years, a downward revision from 2.22 in the December 2019 survey.

Forecasters Cut Their Projections for Stock Prices but Continue to See Rising Stock Prices This Year and Next

The panelists predict the S&P 500 index will finish the first half of 2020 at a level of 3050.0. Stock prices are expected to rise to 3117.5 at the end of 2020 and continue to rise to 3215.0 at the end of June 2021. The index is forecasted to reach 3280.0 by the end of 2021.

	<i>Stock Prices S&P 500 Index</i>	
	<i>Previous</i>	<i>New</i>
June 30, 2020	3202.0	3050.0
Dec. 31, 2020	3257.6	3117.5
June 30, 2021	N.A.	3215.0
Dec. 31, 2021	3400.0	3280.0

Technical Notes

This survey release reports the median value across the 20 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			
S. Anderson	Bank of the West		
B. Bovino/S. Panday	Standard & Poor's		
M. Brown/W.West	Visa	D. Knop	Independent Economist
J. Bryson	Wells Fargo Securities, LLC	T. Lam	Sim Kee Boon Institute, Singapore
J. Butkiewicz	University of Delaware	D. Manaenkov	RSQE (University of Michigan)
R. Chase	Economic & Policy Resources, Inc.	G. Mokrzan	Huntington National Bank
C. Chrappa	Independent Equipment Company	M. Moran	Daiwa Capital Markets America
R. Dhawan	Georgia State University	F. Nothhaft	CoreLogic
M. Englund	Action Economics, LLC	C. Rupkey	MUFG Union Bank, N.A.
J. Foster/B. Higginbotham	U.S. Chamber of Commerce	J. Smith	Parsec Financial Management, Inc.
P. Hooper	Deutsche Bank Securities	S. Snaith	University of Central Florida
B. Horrigan	Loomis, Sayles & Co.	S. Stanley	Amherst Pierpont Securities
S. Kahan	Kahan Consulting Ltd.	B. Wesbury/R. Stein	First Trust Advisors, L.P.
		M. Zandi	Moody's Analytics

LIVINGSTON SURVEY
MAJOR MACROECONOMIC INDICATORS, 2020-2021

QUARTERLY INDICATORS (percentage changes at annual rates)	Q4 2019 TO Q2 2020	Q2 2020 TO Q4 2020	Q4 2020 TO Q2 2021	2019 TO 2020	2020 TO 2021
Real Gross Domestic Product	-20.2	9.6	7.2	-6.2	4.2
Nominal Gross Domestic Product	-19.9	12.8	7.4	-4.7	5.2
Nonresidential Fixed Investment	-20.8	-1.5	9.6	-10.3	2.7
Corporate Profits After Taxes	-37.2	12.1	25.3	-15.6	15.7
MONTHLY INDICATORS (percentage changes at annual rates)	DEC 2019 TO JUN 2020	JUN 2020 TO DEC 2020	DEC 2020 TO JUN 2021	2019 TO 2020	2020 TO 2021
Industrial Production	-30.0	14.2	11.1	-10.7	7.8
Producer Prices - Finished Goods	-8.5	4.2	2.6	-2.1	2.2
Consumer Price Index (CPI-U)	-1.5	2.0	2.1	0.8	1.6
Average Weekly Earnings in Mfg.	-11.5	4.2	1.4	-2.2	2.9
Retail Trade	-32.4	20.4	7.9	-10.9	8.2
(levels of variables)	JUN 2020	DEC 2020	JUN 2021	2020	2021
Total Private Housing Starts (annual rate, millions)	0.958	1.169	1.247	1.134	1.297
Unemployment Rate (percent)	17.4	10.6	8.3	11.9	8.3
Automobile Sales (incl. foreign) (annual rate, millions)	2.8	3.6	4.0	3.4	4.0
FINANCIAL INDICATORS (levels of variables at end of month)	JUN 2020	DEC 2020	JUN 2021	DEC 2021	
Prime Interest Rate	3.25	3.25	3.25	3.25	
10-Year Treasury Note Yield	0.70	0.81	1.07	1.26	
3-Month Treasury Bill Rate	0.13	0.14	0.15	0.20	
Stock Prices (S&P500)	3050.0	3117.5	3215.0	3280.0	

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

Real GDP	2.20
Consumer Price Index	2.00

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2020

LIVINGSTON SURVEY

June 2020

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 19; the tables do not reflect subsequent revisions to the data. All forecasts were received on or before June 3.

TABLE ONE
MAJOR MACROECONOMIC INDICATORS, 2020-2021
MEDIAN OF FORECASTER PREDICTIONS

QUARTERLY INDICATORS	NUMBER OF FORE- CASTERS	ACTUAL	FORECASTS		ACTUAL	FORECASTS		
		2019 Q4	2020 Q2	2020 Q4	2021 Q2	2019	2020	2021
1. Real Gross Domestic Product (billions, chain weighted)	20	19222.0	17170.0	17975.9	18609.3	19073.1	17883.4	18637.2
2. Nominal Gross Domestic Product (\$ billions)	20	21729.1	19449.7	20655.2	21407.3	21427.7	20430.3	21500.0
3. Nonresidential Fixed Investment (billions, chain weighted)	19	2725.7	2425.0	2407.0	2520.1	2748.1	2465.0	2531.0
4. Corporate Profits After Taxes (\$ billions)	17	1908.2	1512.0	1601.0	1792.0	1856.4	1567.3	1813.4
MONTHLY INDICATORS		ACTUAL DEC 2019	FORECASTS JUN 2020	ACTUAL DEC 2020	FORECASTS JUN 2021	ACTUAL 2019	FORECASTS 2020	FORECASTS 2021
5. Industrial Production (2012=100)	16	109.6	91.7	98.0	103.3	109.5	97.8	105.3
6. Total Private Housing Starts (annual rate, millions)	16	1.587	0.958	1.169	1.247	1.295	1.134	1.297
7. Producer Prices - Finished Goods (index level)	11	207.7	198.7	202.9	205.5	205.7	201.4	205.8
8. Consumer Price Index (CPI-U) (index level)	18	258.4	256.5	259.1	261.8	255.7	257.7	261.8
9. Unemployment Rate (percent)	18	3.5	17.4	10.6	8.3	3.7	11.9	8.3
10. Average Weekly Earnings in Mfg. (\$)	4	945.3	889.0	907.7	913.8	921.7	901.8	928.1
11. Retail Trade (\$ billions)	9	525.5	432.1	474.2	492.6	518.2	461.6	499.3
12. Automobile Sales (incl. foreign) (annual rate, millions)	12	4.5	2.8	3.6	4.0	4.7	3.4	4.0

TABLE ONE (CONTINUED)

INTEREST RATES & STOCK PRICES (end of period)		ACTUAL	FORECASTS			
		DEC 2019	JUN 2020	DEC 2020	JUN 2021	DEC 2021
13. Prime Interest Rate (percent)	19	4.75	3.25	3.25	3.25	3.25
14. 10-Year Treasury Note Yield (percent)	19	1.92	0.70	0.81	1.07	1.26
15. 3-Month Treasury Bill Rate (percent)	20	1.52	0.13	0.14	0.15	0.20
16. Stock Prices (S&P500) (index level)	13	3230.8	3050.0	3117.5	3215.0	3280.0

Source: Research Department, Federal Reserve Bank of Philadelphia, Livingston Survey, June 2020

TABLE TWO
 MAJOR MACROECONOMIC INDICATORS, 2020-2021
 PERCENTAGE CHANGES AT ANNUAL RATES

QUARTERLY INDICATORS	NUMBER OF FORE- CASTERS	Q4 2019	Q2 2020	Q4 2020	2019	2020
		TO Q2 2020	TO Q4 2020	TO Q2 2021	TO 2020	TO 2021
1. Real Gross Domestic Product	20	-20.2	9.6	7.2	-6.2	4.2
2. Nominal Gross Domestic Product	20	-19.9	12.8	7.4	-4.7	5.2
3. Nonresidential Fixed Investment	19	-20.8	-1.5	9.6	-10.3	2.7
4. Corporate Profits After Taxes	17	-37.2	12.1	25.3	-15.6	15.7
MONTHLY INDICATORS		DEC 2019	JUN 2020	DEC 2020	2019	2020
		TO JUN 2020	TO DEC 2020	TO JUN 2021	TO 2020	TO 2021
5. Industrial Production	16	-30.0	14.2	11.1	-10.7	7.8
6. Total Private Housing Starts	16	-0.629	0.211	0.078	-0.161	0.163
7. Producer Prices - Finished Goods	11	-8.5	4.2	2.6	-2.1	2.2
8. Consumer Price Index (CPI-U)	18	-1.5	2.0	2.1	0.8	1.6
9. Unemployment Rate	18	13.9	-6.8	-2.3	8.2	-3.6
10. Average Weekly Earnings in Mfg.	4	-11.5	4.2	1.4	-2.2	2.9
11. Retail Trade	9	-32.4	20.4	7.9	-10.9	8.2
12. Automobile Sales (incl. foreign)	12	-1.7	0.9	0.4	-1.3	0.6

		DEC 2019	JUN 2020	DEC 2020	JUN 2021
		TO	TO	TO	TO
INTEREST RATES & STOCK PRICES		JUN 2020	DEC 2020	JUN 2021	DEC 2021
13. Prime Interest Rate	19	-1.50	0.00	0.00	0.00
14. 10-Year Treasury Note Yield	19	-1.22	0.11	0.26	0.19
15. 3-Month Treasury Bill Rate	20	-1.39	0.01	0.01	0.05
16. Stock Prices (S&P500)	13	-10.9	4.5	6.4	4.1

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 2020

TABLE THREE
LONG-TERM (10 YEAR) FORECASTS

SERIES: CPI Inflation Rate

STATISTIC	
Minimum	1.40
Lower Quartile	2.00
Median	2.00
Upper Quartile	2.30
Maximum	2.60
Mean	2.11
Std. Deviation	0.30
N	19
Missing	1

SERIES: Real GDP

STATISTIC	
Minimum	1.50
Lower Quartile	1.70
Median	2.20
Upper Quartile	2.40
Maximum	2.75
Mean	2.10
Std. Deviation	0.35
N	19
Missing	1
