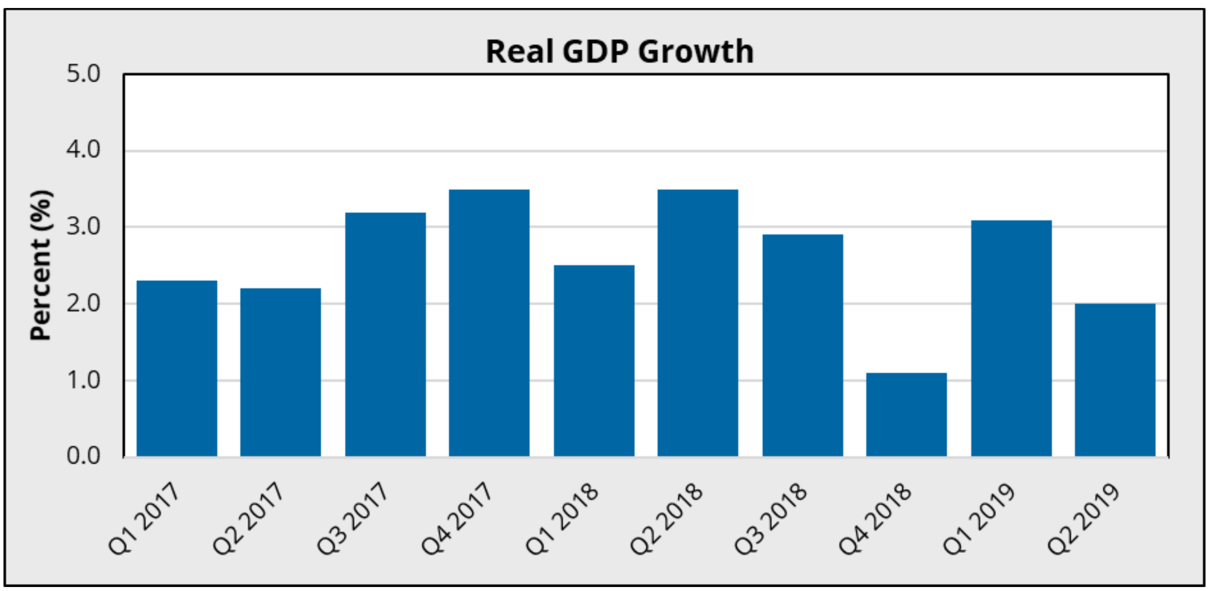
ECONOMIC AND INDUSTRY OVERVIEW

During the second quarter of 2019, the U.S. economy grew at an annual rate of 2.0% over the prior quarter. Household spending has been a primary driver of growth, and the economy continues to perform strongly despite slowing global growth and headwinds from trade disputes.

OVERVIEW OF THE U.S. ECONOMY

According to the third estimate released by the Bureau of Economic Analysis (BEA), the U.S. economy grew in the second quarter of 2019, with real gross domestic product (GDP) increasing at an annual rate of 2.0%, following a first quarter increase of 3.1%. The increase in real GDP in the second quarter reflected positive contributions from PCE, federal government spending, and state and local government spending that were partly offset by the negative effects from private inventory investment, exports, nonresidential fixed investment, and residential fixed investment.[1] This brings the US economy its twenty-first consecutive quarter with positive GDP growth. For comparison, the longest streak of consecutive quarters is thirty-nine, which occurred between 1991 and 2001.



Forecasters surveyed by the Federal Reserve Bank of Philadelphia predicted, on average, a 1.8% annual real growth rate for the third quarter of 2019 and 2.0% for the fourth quarter of 2019. The forecasters predicted, on average, that real GDP will grow 2.3% in 2019, 1.9% in 2020, 2.0% in 2021, and 2.1% in 2022. The forecast for 2021 was higher

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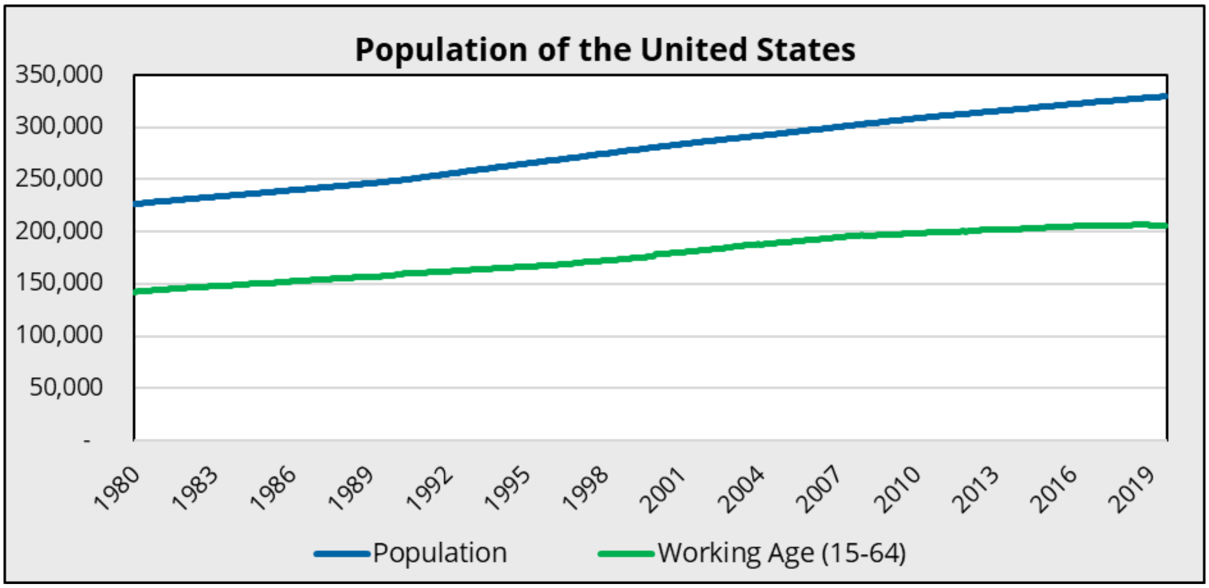
1 U.S. Department of Commerce, Bureau of Economic Analysis, *Gross Domestic Product: Second Quarter 2019 (Third Estimate),* September 26, 2019

than previous estimates, while the forecasts for 2019, 2020, and 2022 were revised downward from previous estimates.[2]

Population

Population growth is an important driver of long-term growth in an economy. The total population increased from 327.7 million in August 2018 to 329.7 million in August 2019.[3] The working age population (15-64) declined slightly from 206.6 million in August 2018 to 206.2 million in August 2019.[4]



The labor force participation rate has hardly budged in recent years and remains lower than pre-2008 levels. In August 2019, the civilian labor force participation rate was 63.2%.[5] The minimum participation rate in the past decade was 62.4%, recorded in September 2015, while the maximum of 66.4% was recorded in December 2006. This is at least partially explained by the aging population but could be evidence of slack in the labor market.

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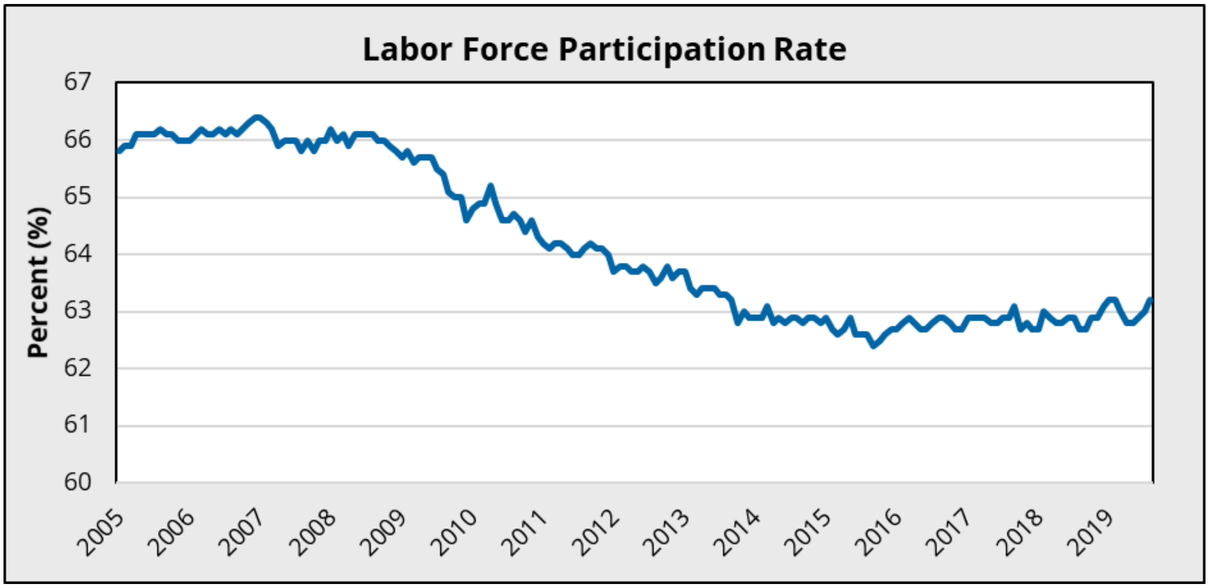
2 Federal Reserve Bank of Philadelphia, *Third Quarter 2019 Survey of Professional Forecasters*, August 9, 2019

3 U.S. Bureau of Economic Analysis, Population [POPTHM], retrieved from FRED, Federal Reserve Bank of St. Louis, October 10, 2019

4 Organization for Economic Co-operation and Development, Working Age Population: Aged 15-64: All Persons for the United States [LFWA64TTUSM647N], retrieved from FRED, Federal Reserve Bank of St. Louis, October 10, 2019

5 U.S. Bureau of Labor Statistics, Civilian Labor Force Participation Rate [CIVPART], retrieved from FRED, Federal Reserve Bank of St. Louis, October 10, 2019



Employment

Nonfarm payroll employment, according to the Bureau of Labor Statistics (BLS), rose by 130,000 in August 2019. The unemployment rate (U3) in August 2019 remained at 3.7%. This is at the bottom end of the Federal Open Market Committee (FOMC) participants' projections of the long-run natural rate of unemployment, which range from 3.6% to 4.5%. The BLS reported job gains in federal government, health care, and financial activities.[6]

Forecasters surveyed by the Federal Reserve Bank of Philadelphia predicted, on average, that the unemployment rate will be 3.7% in 2019, 3.6% in 2020, 3.9% in 2021, and 4.0% in 2022.[7]

The U6 unemployment rate, which includes all marginally attached workers and those employed part-time for economic reasons, declined from 7.4% in August 2018 to 7.2% in August 2019.[8] The gap between U3 and U6 has declined from the 10-year high of 7.4% in September 2011 to 3.5% in August 2019.

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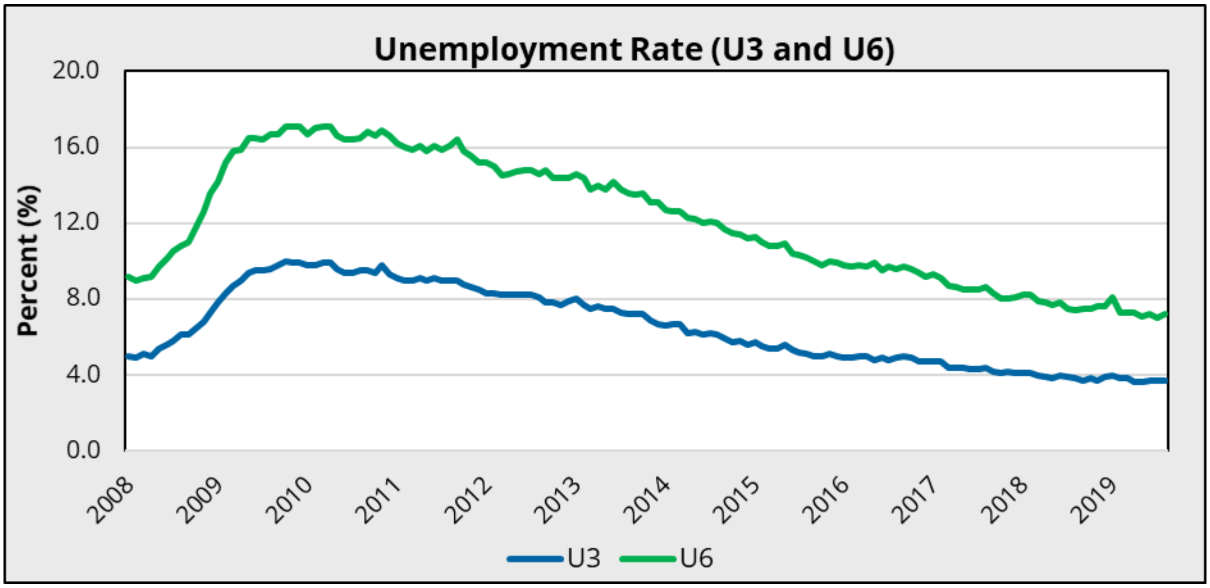
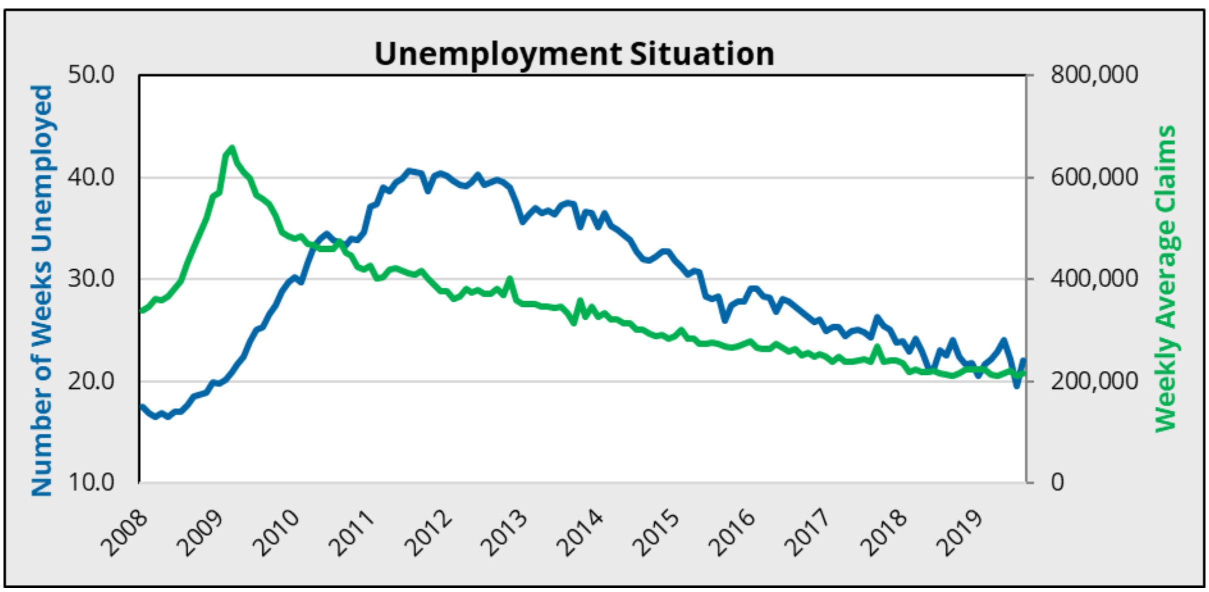
6 United States Department of Labor, Bureau of Labor Statistics, *The Employment Situation: August 2019*, September 6, 2019

7 Federal Reserve Bank of Philadelphia, *Third Quarter 2019 Survey of Professional Forecasters*, August 9, 2019

8 U.S. Bureau of Labor Statistics, Total unemployed, plus all marginally attached workers plus total employed part time for economic reasons [U6RATE], Civilian Unemployment Rate [UNRATE], retrieved from FRED, Federal Reserve Bank of St. Louis, last accessed October 10, 2019



The average number of weeks unemployed has declined to near pre-2008 levels and has decreased over the past twelve months, from 22.6 weeks in August 2018 to 22.1 in August 2019.[9] This is far below the 10-year high of 40.7 weeks in July 2011 and slightly above the low of 16.5 weeks in March 2008. The number of jobless claims increased slightly, from 214,750 in August 2018 to 215,600 in August 2019.[10]

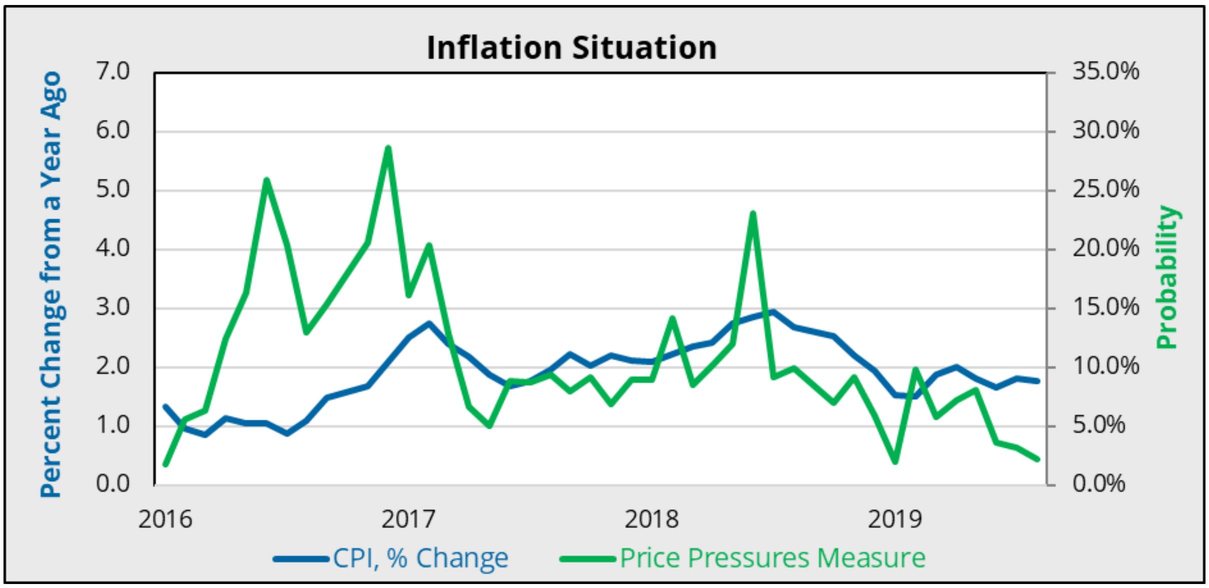


9 U.S. Bureau of Labor Statistics, Average (Mean) Duration of Unemployment [UEMPMEAN], retrieved from FRED, Federal Reserve Bank of St. Louis, October 10, 2019

10 U.S. Employment and Training Administration, Initial Claims [ICSA], retrieved from FRED, Federal Reserve Bank of St. Louis, October 10, 2019

Inflation

According to the BLS, the Consumer Price Index for All Urban Consumers (CPI-U) increased 0.1% in August 2019 on a seasonally adjusted basis. Over the previous 12 months, the all-items index increased 1.7% before seasonal adjustment. The index for all items less food and energy rose 2.4% for the twelve-month period ending August 2019. The energy index fell 4.4% over the last year, while the food index increased 1.7%.[11] The price pressures measure estimates the probability that the personal consumption expenditures price index inflation rate will exceed 2.5% over the next twelve months. This price pressures measure reported a probability of 2.2% in August 2019, which is below the average of 8.2% over the past two years.[12]



Forecasters surveyed by the Federal Reserve Bank of Philadelphia predicted, on average, headline CPI inflation to be 1.9% in 2019, 2.0% in 2020, and 2.2% in 2021. Over the next ten years, forecasters expect CPI inflation to average 2.20% annually.[13]

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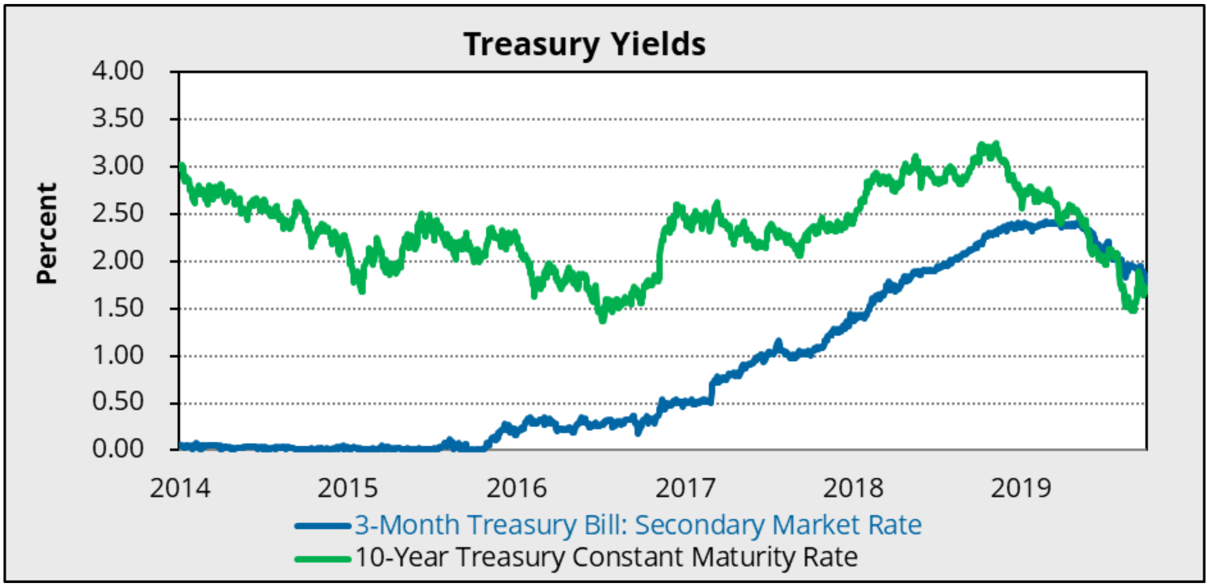
[11] United States Department of Labor, Bureau of Labor Statistics, *Consumer Price Index: August 2019*, September 12, 2019

[12] Federal Reserve Bank of St. Louis, Price Pressures Measure [STLPPM], retrieved from FRED, Federal Reserve Bank of St. Louis, October 10, 2019

[13] Federal Reserve Bank of Philadelphia, *Third Quarter 2019 Survey of Professional Forecasters*, August 9, 2019

Interest Rates

The interest rate on the three-month Treasury bill decreased from 2.15% as of September 28, 2018 to 1.84% as of September 30, 2019.[14] The interest rate on the ten-year Treasury note decreased from 3.05% to 1.68% over the same period.[15]



On September 18, 2019, the Federal Open Market Committee (FOMC) announced their decision to lower the federal funds target range to 1.75 - 2.00%. The following charts display projections from FOMC participants of the midpoint of the federal funds target range at the end of each calendar year.[16]

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14 Board of Governors Federal Reserve System, 3-Month Treasury Bill: Secondary Market Rate [DTB3MS], retrieved from FRED, Federal Reserve Bank of St. Louis, last accessed October 10, 2019

15 Board of Governors Federal Reserve System, 10-Year Treasury Constant Maturity Rate [DGS10], retrieved from FRED, Federal Reserve Bank of St. Louis, last accessed October 10, 2019

16 Federal Open Market Committee, Summary of Economic Projections, September 18, 2019

FOMC Participants Federal Funds Rate Projections					
Midpoint of Target Range	**2019**	**2020**	**2021**	**2022**	**Longer Run**
3.500%					
3.375%					
3.250%					1
3.125%					
3.000%					1
2.875%				2	
2.750%					3
2.625%			1	2	
2.500%					8
2.375%		1	5	5	1
2.250%					1
2.125%	5	6	4	4	
2.000%					1
1.875%	5	2	3	3	
1.750%					
1.625%	7	8	4	1	

The following table represents the market's reactions leading up to and following the FOMC meeting.

FOMC Meeting Market Impact					
Instrument	**9/16 Close**	**9/17 Close**	**FOMC Release**	**9/18 Close**	**9/19 Close**
S&P 500 (SPX)	2,998.0	3,005.7		3,006.7	3,006.8
Dow Jones Industrial (DJI)	27,076.8	27,110.8		27,147.1	27,094.8
1-Year Treasury Bill	1.81%	1.82%		1.82%	1.83%
10-Year Treasury Bond	1.84%	1.81%		1.80%	1.79%

As of September 30, 2019, the yields on Moody's Aaa-rated corporate bonds and Baa-rated corporate bonds were 3.01% and 3.88%, respectively.[17]

The spread between the twenty-year Treasury Bond and the one-year Treasury Bill declined from 0.54% as of September 28, 2018 to 0.19% as of September 30, 2019.[18] A combination of increasing short-term interest rates from federal funds rate hikes and tempered long-term growth expectations have caused the yield curve to flatten in recent years. The spread between long- and short-maturity Treasury securities have long been

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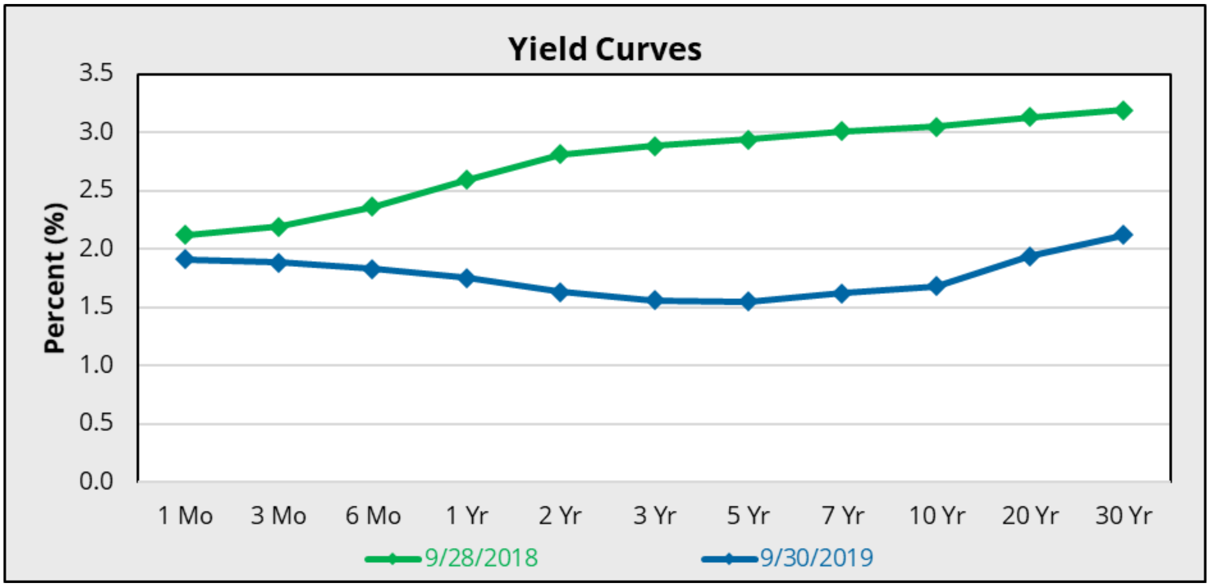
[17] Moody's, Moody's Seasoned Aaa Corporate Bond Yield© [DAAA], Moody's Seasoned Baa Corporate Bond Yield© [DBAA], retrieved from FRED, Federal Reserve Bank of St. Louis, last accessed October 10, 2019

[18] U.S. Department of the Treasury, *Daily Treasury Yield Curve Rates*, last accessed October 10, 2019

used as a predictive measure for future economic performance. A recent paper from the Federal Reserve showed that the probability of a near-term recession has increased in recent years.[19] However, when additional information was incorporated into their model, such as the excess bond premium,[20] the component of corporate bond spreads in excess of an estimate of the compensation for expected default losses, the recession probability was significantly lower.



Corporate Profits

According to the BEA, profits from current production (corporate profits with inventory valuation and capital consumption adjustments) increased \$75.8 billion in the first quarter of 2019 over the first quarter, compared to a decrease of \$78.7 billion in the first quarter of 2019 over the fourth quarter of 2018.[21]

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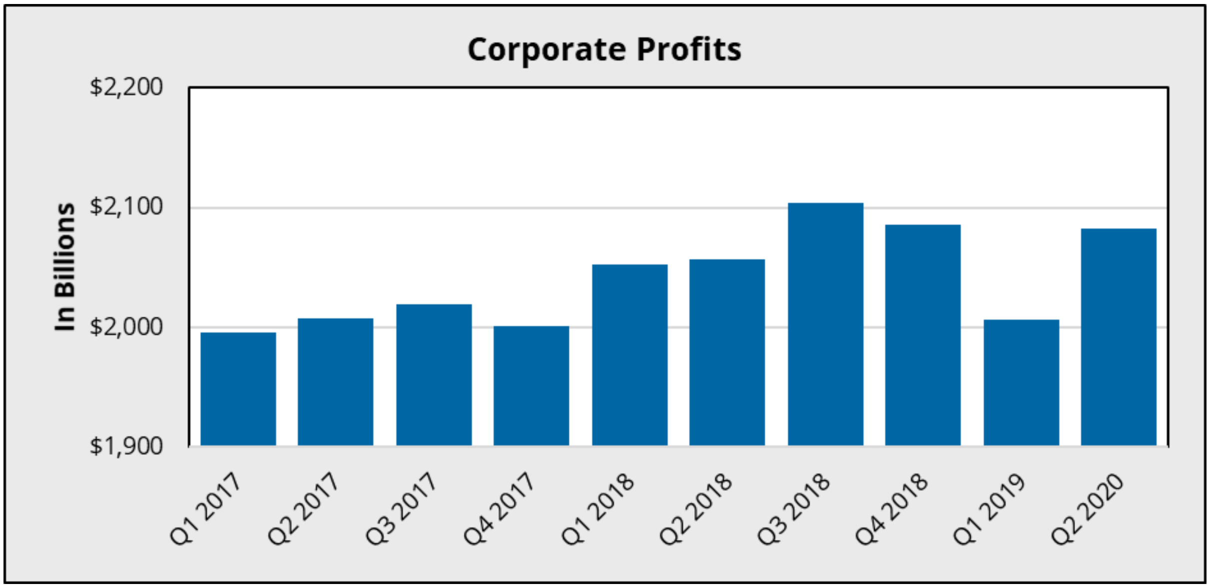
19 Johansson, Peter, and Andrew Meldrum (2018). "Predicting Recession Probabilities Using the Slope of the Yield Curve," FEDS Notes. Washington: Board of Governors of the Federal Reserve System, March 1, 2018, https://doi.org/10.17016/2380-7172.2146.

20 Gilchrist, S., and E. Zakrajšek (2012), "Credit Spreads and Business Cycle Fluctuations," American Economic Review 102(4), pp. 1692-1720.

21 U.S. Department of Commerce, Bureau of Economic Analysis, *Corporate Profits: Second Quarter 2019,* September 26, 2019

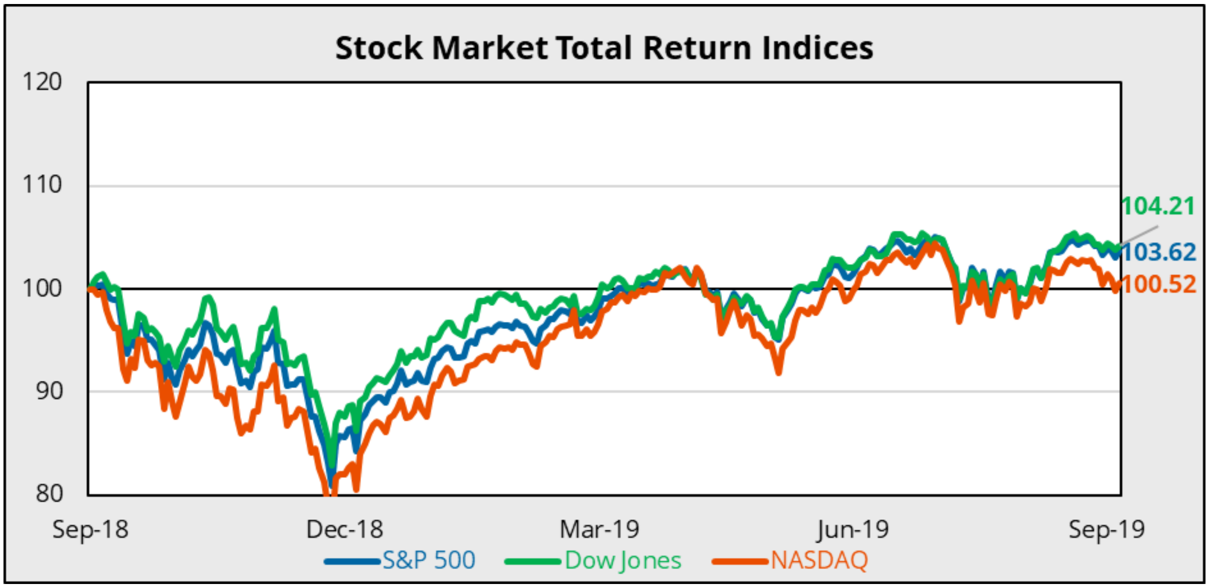


Stock Markets

The S&P 500 Total Return[22] Index closed at 5,144.1 on September 28, 2018 and closed higher at 5,330.3 on September 30, 2019. This corresponds to an annual return of 3.6%. The Dow Jones Industrial Average Total Return Index closed at 58,028.5 on September 28, 2018 and closed higher at 60,471.5 on September 30, 2019. This corresponds to an annual return of 4.2%. The NASDAQ Composite Total Return Index closed at 9,322.1 on September 28, 2018 and closed higher at 9,370.9 on September 30, 2019.[23] This corresponds to an annual return of 0.5%. In the graph below, the September 28, 2018 values were set to 100.

[22] Total return indices include returns from both income and capital gains

[23] *S&P Capital IQ* Database, last accessed October 10, 2019

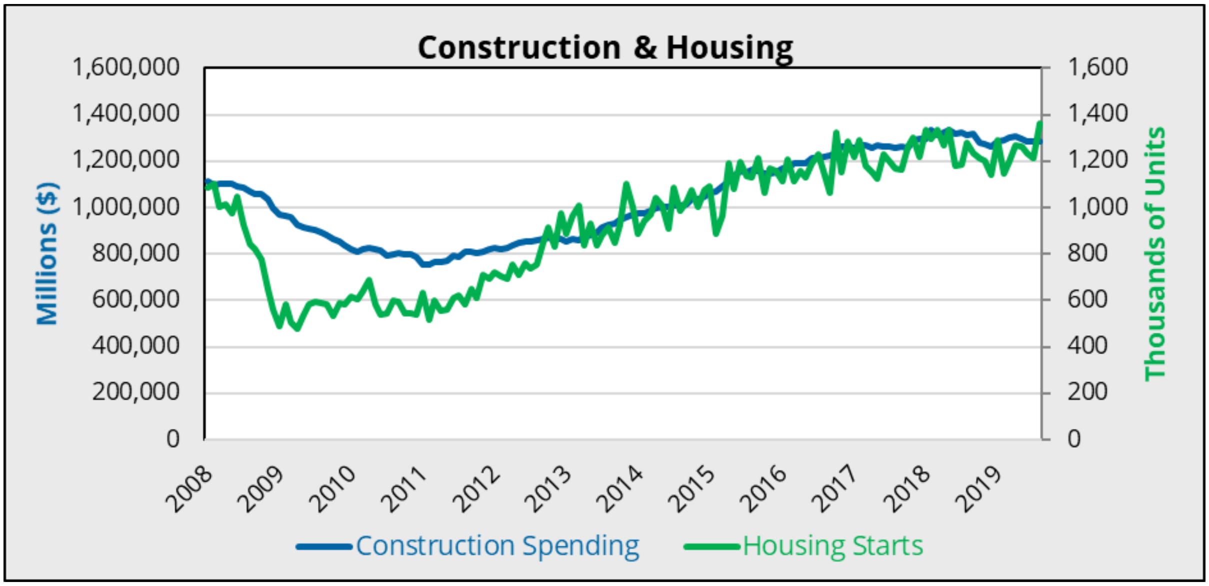


Construction & Housing Starts

Construction spending and housing starts are two other important indicators for the economy. Construction spending may indicate the sentiment in real estate markets and the soundness of the economy while housing starts are an alternative indicator of consumer sentiment. Increases in demand for newly constructed homes can lead to job growth in the construction industry, increased demand for appliances and furniture, and ripple effects throughout the economy. Housing starts increased from 1.279 million units in August 2018 to 1.364 million units in August 2019.[24] Construction spending, a seasonally adjusted annual figure, decreased from $1.312 trillion in August 2018 to $1.287 trillion in August 2019.[25]

24 U.S. Census Bureau and U.S. Department of Housing and Urban Development, Housing Starts, New Privately-Owned Housing Units Started [HOUST], retrieved from FRED, Federal Reserve Bank of St. Louis, last accessed October 10, 2019

25 U.S. Census Bureau, Total Construction Spending, Seasonally Adjusted Annual Rate [TTLCONS], retrieved from FRED, Federal Reserve Bank of St. Louis, last accessed October 10, 2019



Consumer Confidence

The Conference Board reported that the Consumer Confidence Index declined in September 2019 to 125.1 from 134.2 in August.[26] The index is based on a survey of consumer perceptions of present economic conditions and expectations of future conditions. The survey is based on a representative sample of 5,000 U.S. households and is considered a leading indicator of future consumer expenditures and economic activity.

The University of Michigan Survey of Consumers reported that the Index of Consumer Sentiment decreased in August 2019 to 89.8, down from 98.4 in July 2019 and 96.2 in August 2018.[27] The index is based on a survey of consumer perceptions of present economic conditions and expectations of future conditions. The survey is based on a sample of 500 phone interviews consisting of 50 core questions conducted across the continental U.S. This is considered a leading indicator of future consumer expenditures and economic activity.

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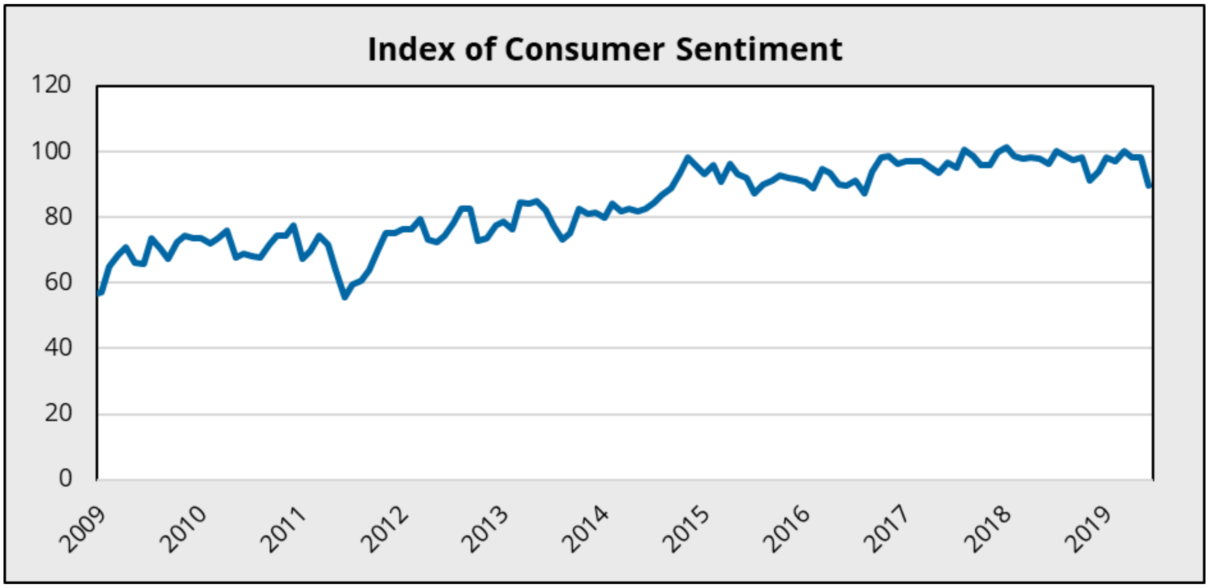
[26] The Conference Board, *Consumer Confidence Index*, September 24, 2019

[27] University of Michigan, *Surveys of Consumers*, September 2019



In September, the survey focused on the variation in consumer sentiment based on political party affiliation. The survey results are presented in the following table.

Month	Index of Consumer Sentiment		
	Democrat	Independent	Republican
March 2017	80.7	96.1	119.6
September 2017	81.0	95.8	114.2
March 2018	82.1	101.0	124.2
September 2018	78.2	102.8	123.5
March 2019	75.7	98.9	121.9
September 2019	72.0	90.7	119.5

Conclusion

In conclusion, the economy performed well in the second quarter of 2019; however, it has shown signs of slowing down. Economic growth has slowed, and many economists have revised growth expectations downward. The yield curve remains inverted, with the 10-year Treasury bond falling below the 3-month Treasury bill. Every recession since the 1960s has been preceded by an inversion of the Treasury yield curve. Inflation has been modest, and the labor market remains tight with the unemployment rate hovering around the FOMC participants' projection of the natural rate of unemployment. Equity markets have rebounded from a dip at the beginning of August 2019. Consumer sentiment remains optimistic with a wide divergence based on the individual's political party.

Federal Reserve Chairman Jerome Powell recounted his thoughts on the economy's performance at post-meeting press conference on September 18, 2019:

The U.S. economy has continued to perform well. We are into the 11th year of this economic expansion, and the baseline outlook remains favorable. The economy grew at a 2½ percent pace in the first half of the year. Household spending—supported by a strong job market, rising incomes, and solid consumer confidence—has been the key driver of growth. In contrast, business investment and exports have weakened amid falling manufacturing output. The main reasons appear to be slower growth abroad and trade policy developments—two sources of uncertainty that we've been monitoring all year.

The following table displays a summary of the economic indicators, their performance over the past year, and whether this is viewed as a positive or negative sign for the economy at large. The leading, lagging, and coincident indices were obtained from The Conference Board and were measured as of August 2019.[28]

Summary of Economic Indicators		
Indicator	**12 Month Change**	**Interpretation**
Leading		
Price Pressures Measure	Decrease	Positive
Housing Starts	Increase	Positive
Jobless Claims	Increase	Negative
Equities Markets	Increase	Positive
Interest Rate Spread	Decrease	Negative
Consumer Sentiment	Decrease	Negative
Leading Index	**Unchanged**	**Neutral**
Coincident		
GDP Growth	Increase	Positive
Corporate Profits	Increase	Positive
Unemployment Rate	Decrease	Positive
Coincident Index	**Increase**	**Positive**
Lagging		
CPI Inflation	Decrease	Negative
Duration of Unemployment	Decrease	Positive
Lagging Index	**Decrease**	**Negative**

28 The Conference Board, *The Conference Board Leading Economic Index® (LEI) for the U.S. Remained Unchanged in August*, September 19, 2019