

Board of Trustees

1000 Mill Street
San Luis Obispo, CA 93408
Phone: (805) 781-5465
Fax: (805) 781-5697
www.SLOPensionTrust.org



Date: October 28, 2019

To: Board of Trustees

From: Carl Nelson – Executive Director
Amy Burke – Deputy Director

Investment Report for September 2019

	September	Year to Date 2019	2018	2017	2016	2015	2014
Total Trust Investments (\$ millions)	\$1,409		\$1,285 year end	\$1,351 year end	\$1,196 year end	\$1,148 year end	\$1,190 year end
Total Fund Return	0.7% Gross	10.7% Gross	-3.2 % Gross	15.5 % Gross	6.6 % Gross	-0.8% Gross	5.1 % Gross
Policy Index Return (r)	1.0%	11.2%	-3.2 %	13.4 %	7.7 %	-0.5 %	5.2 %

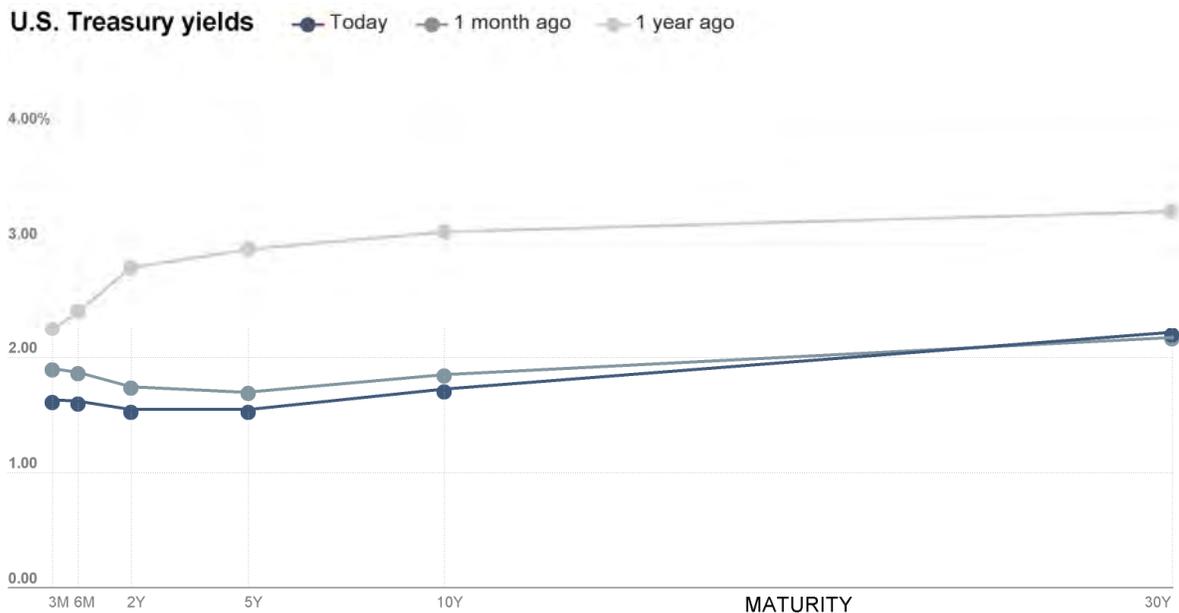
(r) Policy index as of Aug. 2016 revision to Strategic Asset Allocation Policy: 20% domestic equity, 20% international equity, 15% core bonds, 5% bank loans, 5% global bonds, 5% emerging market debt, 15% real estate, 5% commodities, 5% private equity, 5% private credit.

The Economy and Capital Markets:

- **Fed Policy and Interest Rates –**

- At the September 18th FOMC meeting the Fed again reduced the Fed Funds rate by 0.25% in-line with capital market expectations of one more rate cut in 2019.
- The stretched nature of liquidity in the fixed income markets was shown with a pronounced spike in Repo rates in September until the Fed intervened to provide liquidity. Repos are Repurchase Agreements which are a widely used tool for overnight investments by the banking and other sectors.

- The yield curve, responding to a slowing global growth, slipped decidedly inverted August 14th. The 10-year Treasury vs. the 3-month rate has been mostly inverted for several months. The August 14th move to an inverted 10-year Treasury vs. the 2-year Treasury – a reliable predictor of recession in 2-6 quarters – spooked the capital markets with the S&P 500 down 3% for the day. However, Treasury yields in September and October backed off from inverted giving some reassurance to the markets. The 10 year Treasury most recently traded at 1.80% versus the 2 year Treasury at 1.62%. The yield curve as of October 25th is shown below -



- **Economic Growth / Recession Risk –**

- Outlook for GDP Growth –

- The firm worldwide consensus for slowing growth appears to influence both interest rates and equity markets. Some forecasters estimate the risk of U.S. recession in 2020 at about a 40% probability. U.S. GDP growth is likely to be well under 2% in the near term future with low labor force growth being a factor.
- Business confidence in the manufacturing sector has slipped to worrisome levels. The ISM Purchasing Managers Index (PMI) fell to 47.8 in September. PMI survey measures below 50 are indications of contractionary expectations.
- While consumer spending has been the bright spot in the U.S. economy, Consumer Confidence survey data has fallen notably in September – albeit still in a positive range.

- Eurozone and Brexit –

- The ongoing drama of the Brexit issue dominates the British and Eurozone economies. The court reversal of Boris Johnson’s attempt to suspend Parliament and the chaotic response of the House of Commons’ have not bounced the capital markets as much as one would expect. It is possible the European markets have priced in some version of a Brexit resolution short of worst-case and are holding their breath waiting for the

outcome. As of late October it seems likely that an EU extension of the Brexit deadline may take place with a January U.K. election to factor in.

- **Trade Policy –**

- Ongoing turmoil in trade policy has been slightly improved in October with the deferral of some U.S. tariffs on Chinese goods. However, the long term effects of trade uncertainty and its deleterious impact on business's ability to plan is becoming more apparent.
- The World Trade Organization cuts its forecast for growth in world trade in 2020 in half compared to just 6 months ago. The WTO included in its report "**Risks to the forecast are heavily weighted to the downside and dominated by trade policy**".

- **Employment and Wages –**

- The September DOL report on nonfarm employment showed -
 - New jobs came in at +136K in September, bringing the 3-month average to +157k.
 - The average increase in new jobs in all of 2018 was +223k/month. During 2019 year to date the average increase has been +161k/month.
 - The chain of positive gains in new jobs was extended to 108 consecutive months with the September report.
 - Unemployment declined to 3.5% - the lowest rate since 1969. A broader measure of unemployment that includes discouraged job seekers and part-time employees who would prefer full-time fell to 6.9%.
 - Average Hourly Earnings were little changed with a year-over-year increase of only 2.9%.

- **U.S. Political Turmoil –**

The capital markets tend to not be overly sensitive to political developments. Capital markets tend to focus on corporate profits and interest rates and to focus on politics when the outlook for profits and interest rates is changed by elected officials. The October storm over impeachment inquiries into President Trump appear to not have roiled the markets so far. Capital markets are efficient price-discovery mechanisms and embody expectations about future conditions. It appears that the markets expect and are not too concerned about the likeliest prospect of an impeachment vote in the house of Representatives followed by an acquittal in the Senate. While a historic conflict in American political history, such a path is already factored into capital market prices.

SLOCPT Investment Returns:

The attached report from Verus covers the investment returns of the SLOCPT portfolio and general market conditions through the end of September. The attached market commentary from Verus details market conditions in September, but subsequent activity in October is not yet factored into these numbers.

Respectfully submitted

San Luis Obispo County Pension Trust

Executive Summary - Preliminary (Gross of Fees)

Period Ending: September 30, 2019

	Market Value	% of Portfolio	1 Mo	YTD
Total Fund	1,408,635,998	100.0	0.7	10.7
Total Fund ex Overlay	1,405,133,559	99.8	0.7	10.7
Policy Index			1.0	11.2
Total Domestic Equity	289,262,725	20.5	1.7	20.0
Russell 3000			1.8	20.1
PIMCO RAE Fundamental PLUS Instl	57,643,764	4.1	4.2	15.9
S&P 500			1.9	20.6
Loomis Sayles Large Cap Growth	84,295,168	6.0	-0.6	20.7
Russell 1000 Growth			0.0	23.3
Boston Partners Large Cap Value	82,703,766	5.9	3.2	14.9
Russell 1000 Value			3.6	17.8
Atlanta Capital Mgmt	64,620,027	4.6	0.8	30.1
Russell 2500			1.8	17.7
Total International Equity	305,679,324	21.7	1.6	18.0
MSCI ACWI ex USA Gross			2.6	12.1
Dodge & Cox Intl Stock	141,733,800	10.1	4.5	11.5
MSCI EAFE Gross			2.9	13.3
WCM International Growth	163,945,524	11.6	-0.8	24.3
MSCI ACWI ex USA Gross			2.6	12.1
Total Domestic Fixed Income	291,851,041	20.7	-0.1	9.0
BBgBarc US Aggregate TR			-0.5	8.5
BlackRock Core Bond	109,098,553	7.7	-0.5	10.0
BBgBarc US Aggregate TR			-0.5	8.5
Dodge & Cox Income Fund	106,419,003	7.6	0.0	9.2
BBgBarc US Aggregate TR			-0.5	8.5
Pacific Asset Corporate Loan	76,333,486	5.4	0.6	7.4
S&P/LSTA Leveraged Loan Index			0.5	6.8
Total Global Fixed	136,684,605	9.7	0.3	3.6
FTSE World Govt Bond Index			-1.3	6.3
Brandywine Global Fixed Income	65,667,779	4.7	0.4	1.1
FTSE WGBI ex US TR			-1.6	5.4
Ashmore EM Blended Debt Fund	71,016,826	5.0	0.2	--
50% JPM EMBI GD/25% JPM GBI EM GD/25% JPM ELM+			0.3	--



*Other balance represents Clifton Group.

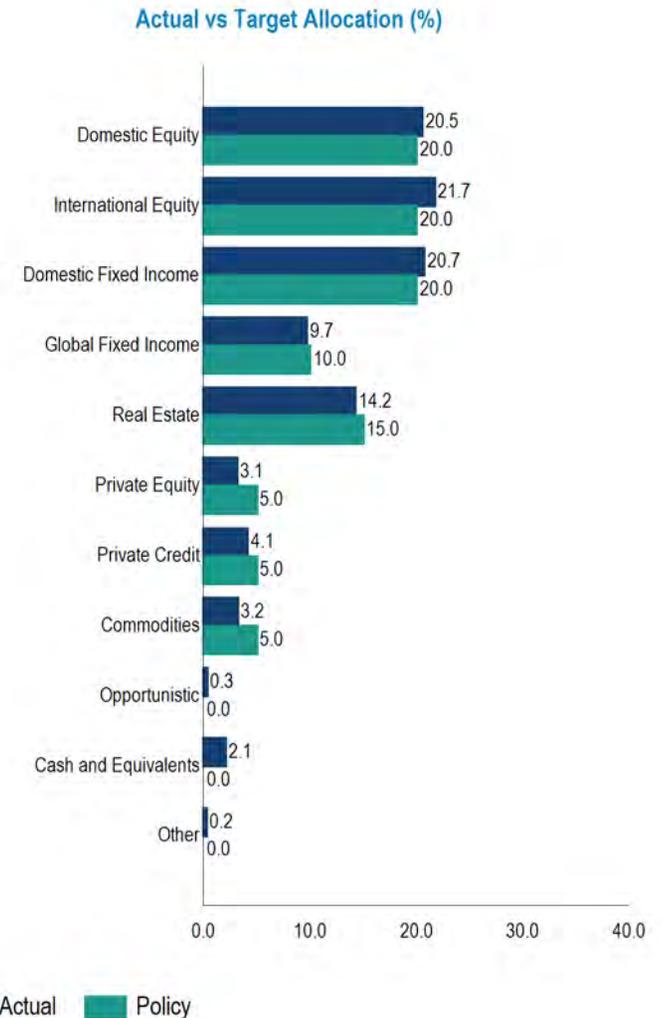
Policy Index (10/1/2016): 20% Russell 3000, 20% MSCI ACWI ex. US, 30% BBgBarc Aggregate, 15% NCREIF Property, 5% Bloomberg Commodity, 5% Russell 3000 + 300 bp, 5% BBgBarc High Yield + 200 bp lagged. Effective 1/01/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation. Boston Partners funded 2/1/2017. WCM Intl Growth replaced Vontobel on 2/15/2017. Pathway 9 funded 4/7/2017. SSGA TIPS liquidated on 12/7/2017. Fidelity Real Estate Growth III liquidated on 12/29/2017. SSGA Flagship S&P 500 liquidated 2/1/2018. Harbourvest 2018 Global Fund L.P. funded 12/14/2018. Stone Harbor liquidated 3/22/2019. Ashmore EM Blended Debt funded 3/31/2019. Direct RE liquidated 5/3/2019. Most recently reported market values for private equity/credit, opportunistic, and illiquid real estate funds adjusted for calls and distributions through the report end date. All data is preliminary.

San Luis Obispo County Pension Trust

Executive Summary - Preliminary (Gross of Fees)

Period Ending: September 30, 2019

	Market Value	% of Portfolio	1 Mo	YTD
Total Real Estate	200,645,293	14.2	0.0	2.3
NCREIF Property Index			0.0	3.3
JP Morgan Core Real Estate	166,614,104	11.8	0.0	1.3
NCREIF-ODCE			0.0	2.4
NCREIF Property Index			0.0	3.3
ARA American Strategic Value Realty	33,885,219	2.4	0.0	5.4
NCREIF-ODCE			0.0	2.4
NCREIF Property Index			0.0	3.3
Total Commodities	44,905,393	3.2	1.3	3.1
Bloomberg Commodity Index TR USD			1.2	3.1
Gresham MTAP Commodity Builder	44,905,393	3.2	1.3	3.1
Bloomberg Commodity Index TR USD			1.2	3.1
Total Private Equity	44,191,010	3.1		
Harbourvest Partners IX Buyout Fund L.P.	14,930,279	1.1		
Pathway Private Equity Fund Investors 9 L.P.	25,474,331	1.8		
Harbourvest 2018 Global Fund L.P.	3,786,400	0.3		
Total Private Credit	58,219,685	4.1		
TPG Diversified Credit Program	58,219,685	4.1		
Total Cash	29,089,956	2.1	0.0	1.5
91 Day T-Bills			0.2	1.7
Cash Account	29,089,956	2.1	0.0	1.5
91 Day T-Bills			0.2	1.7
Total Opportunistic	4,604,526	0.3		
Kohlberg Kravis Roberts & Co. Mezzanine Partners I	4,502,305	0.3		
PIMCO Distressed Credit Fund	102,221	0.0		
CPI + 5%			0.5	6.0



*Other balance represents Clifton Group.

Policy Index (10/1/2016): 20% Russell 3000, 20% MSCI ACWI ex. US, 30% BBgBarc Aggregate, 15% NCREIF Property, 5% Bloomberg Commodity, 5% Russell 3000 + 300 bp, 5% BBgBarc High Yield + 200 bp lagged. Effective 1/01/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation. Boston Partners funded 2/1/2017. WCM Intl Growth replaced Vontobel on 2/15/2017. Pathway 9 funded 4/7/2017. SSGA TIPS liquidated on 12/7/2017. Fidelity Real Estate Growth III liquidated on 12/29/2017. SSGA Flagship S&P 500 liquidated 2/1/2018. Harbourvest 2018 Global Fund L.P. funded 12/14/2018. Stone Harbor liquidated 3/22/2019. Ashmore EM Blended Debt funded 3/31/2019. Direct RE liquidated 5/3/2019. Most recently reported market values for private equity/credit, opportunistic, and illiquid real estate funds adjusted for calls and distributions through the report end date. All data is preliminary.



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**

SEPTEMBER 2019
Capital Markets Update

Market commentary

U.S. ECONOMICS

- Nonfarm payrolls increased by 136,000 in September (exp. +145,000) while additions in July and August were revised higher by 45,000 in total. Nonfarm payroll growth has averaged 157,000 over the past three months. The Healthcare (+39,000) and Professional and Business Services (+34,000) sectors led job gains for the month.
- The ISM Manufacturing PMI remained under the neutral level of 50.0 and fell from 49.1 to 47.8 (exp 50.0), the second consecutive month of contraction and the lowest reading since June 2009. Trade remains the most significant issue with new export orders component falling from 43.3 to 41.1.
- Consumer confidence indicators declined and significantly missed estimates. The Conference Board Consumer Confidence Index fell from 134.2 to 125.1 (exp. 133.2), its largest drop in nine months and its largest miss relative to economists' estimates since 2010.

U.S. EQUITIES

- The S&P 500 Index rebounded +1.9% following two consecutive months of decline. At the end of the period, the S&P 500 Index had generated a year-to-date total return of +20.6%.
- The CBOE VIX index faded its gains from August and fell from 19.0 to 16.2 in September. The trailing 30- and 90-day realized volatility on the S&P 500 Index fell to 12.7% and 14.3%, respectively.
- Per FactSet, the Q3 2019 estimated earnings for the S&P 500 is -4.1%. If earnings contract -4.1% in Q3, it will mark the third straight quarter of year-over-year earnings contraction, which hasn't happened since Q4 2015. All eleven sectors have seen downward revisions to EPS estimates, led by Energy (-31.8%) and Materials (-8.1%).

U.S. FIXED INCOME

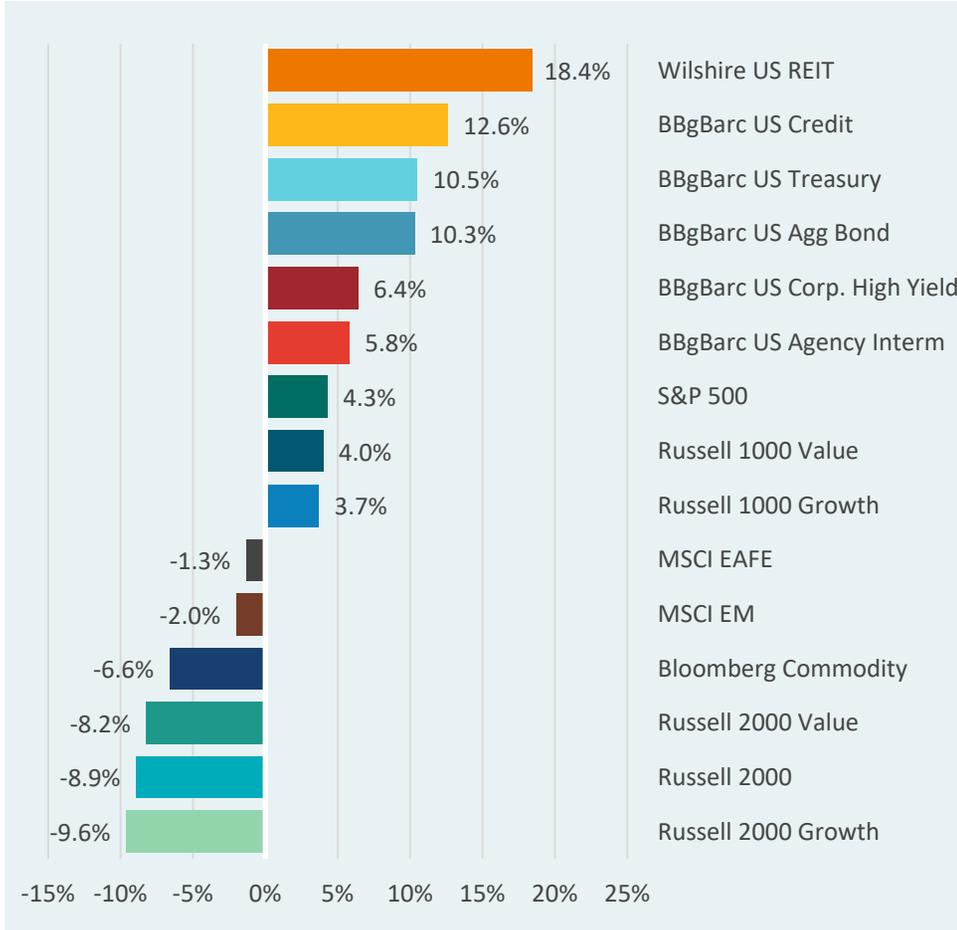
- The Federal Open Market Committee cut its range for the benchmark rate by 0.25% to 1.75% - 2.00%, in line with expectations. Voting committee members' opinions on the decision were dispersed: seven were in favor of the 0.25% cut, two sought no changes, and one preferred a 0.50% cut.
- Ten-year Treasury yields rose from 1.50% to 1.67% and touched intra-month highs of 1.90%. The +0.17% move higher over the month marked the largest monthly advance since last September.
- Riskier credit outperformed safer credit within U.S. markets. The average option-adjusted spread on corporate bonds in the Bloomberg Barclays High Yield Index fell from 3.93% to 3.73%, while the average option-adjust spread on corporate bonds in the Bloomberg Barclays Aggregate Index fell from 1.20% to 1.15%.

INTERNATIONAL MARKETS

- European PMI data continued to paint a gloomy picture for the global manufacturing outlook. Markit's Manufacturing PMI readings plunged to 41.7 in Germany, fell to 47.8 in Italy, faded to 47.7 in Spain, and remained in contraction in the United Kingdom.
- The MSCI Emerging Markets Currency Index gained 0.8% in September, notching its third best monthly performance of the year, and its third month of positive performance in the last four.
- The Supreme Court of the United Kingdom ruled the British Prime Minister Boris Johnson's 5-week suspension of government as illegal. Following the ruling, British lawmakers returned to Parliament, and continued to work toward reaching a deal ahead of the looming October 31st deadline for the U.K. to leave the E.U.

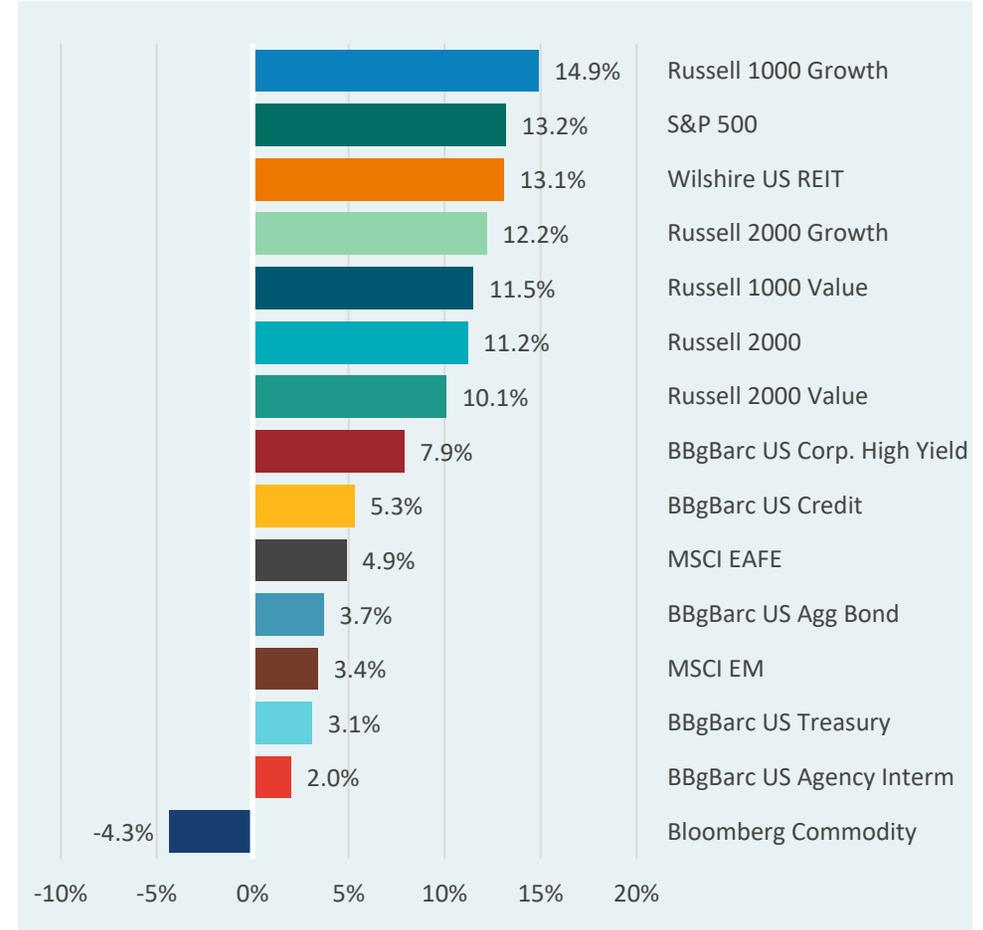
Major asset class returns

ONE YEAR ENDING SEPTEMBER



Source: Morningstar, as of 9/30/19

TEN YEARS ENDING SEPTEMBER

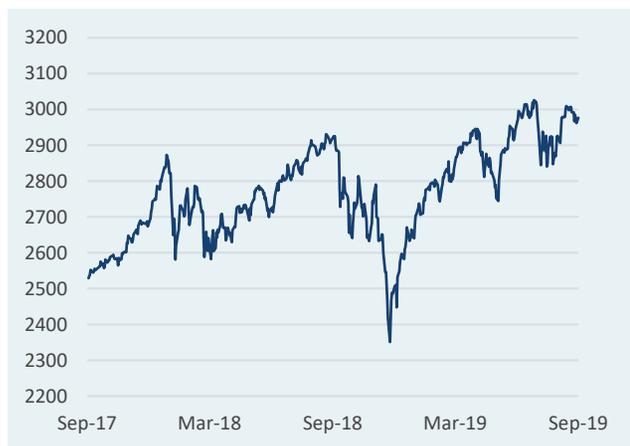


Source: Morningstar, as of 9/30/19

U.S. large cap equities

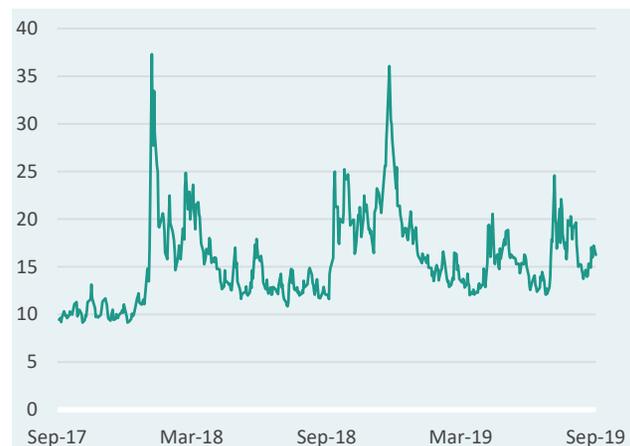
- The S&P 500 Index gained 1.9% in September, rebounding from its -1.6% decline last month. Ten of eleven sectors posted positive performance for the month and the Financials (+4.6%) and Utilities (+4.3%) sectors outperformed.
- According to FactSet, the bottom-up September 30th 2020 target price for the S&P 500 Price Index is 3322, which would imply a year-over-year price appreciation of 14.2%. The Energy sector (+25.5%) is expected to see the largest price increase while the Utilities sector (+1.6%) is expected to see the smallest appreciation.
- The Healthcare sector (-0.2%) underperformed over the month, extending its year-to-date underperformance of the S&P 500 Index to 15.0%. The sector has faced headwinds from increased political pressure over drug pricing, opiates and insurance costs.
- At month-end, the forward one-year P/E ratio of the S&P 500 Index was 16.9, which exceeded both its 5- and 10-year averages of 16.6 and 14.8, respectively. The Consumer Discretionary (20.7) and Financials (11.7) sectors have the highest and lowest forward one-year P/E ratios.

S&P 500 PRICE INDEX



Source: Bloomberg, as of 9/30/19

IMPLIED VOLATILITY (VIX INDEX)



Source: CBOE, as of 9/30/19

S&P 500 VALUATION SNAPSHOT

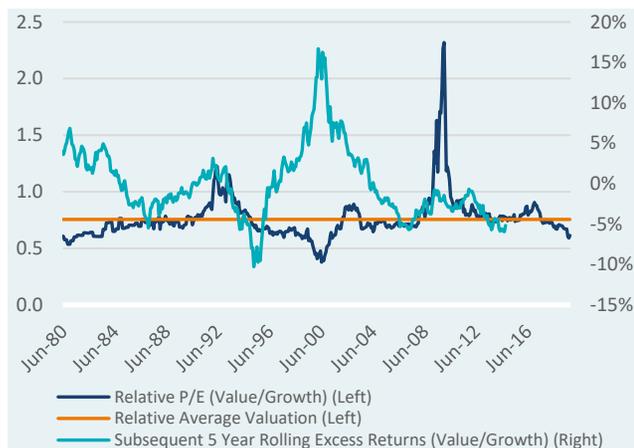


Source: Bloomberg, as of 9/30/19

Domestic equity size and style

- Value significantly outperformed growth over the period, across both large- and small-cap universes. The Russell 3000 Value Index advanced 3.7% and fared better than the Russell 3000 Growth Index (unchanged) for just the second time this year.
- The outperformance of the value factor over the growth factor was most pronounced within the Financials sector. The Financials Sub-Index within the Russell 3000 Value advanced 5.4%, significantly outpacing its growth counterpart, which registered a 1.0% decline.
- Small-cap equities outperformed large-cap equities for the fourth month this year. The Russell 2000 Index returned 2.1% while the Russell 1000 Index gained 1.7%. Year-to-date, small-cap equities (+14.2%) have underperformed large-cap equities (+20.5%) by 6.3%.
- The S&P 500 Price Index closed the month at 2976, above its 50-, 100-, and 200-day moving-averages, indicating that there has been an upward price trend over the past six months.

VALUE VS. GROWTH RELATIVE VALUATIONS



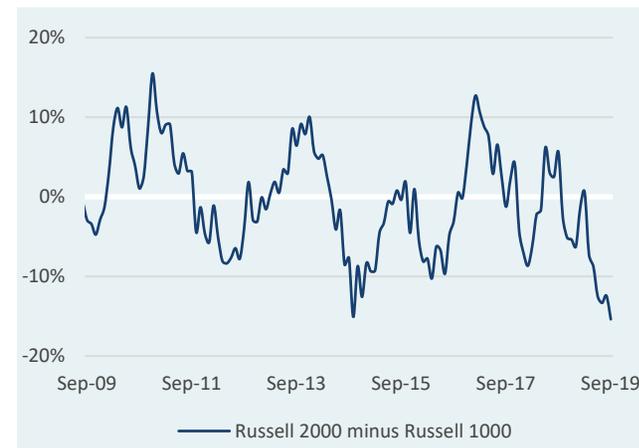
Source: Russell, Bloomberg, as of 9/30/19

VALUE VS. GROWTH 1-YR ROLLING RELATIVE PERFORMANCE



Source: FTSE, Bloomberg, as of 9/30/19

SMALL VS. LARGE 1-YR ROLLING RELATIVE PERFORMANCE



Source: FTSE, Bloomberg, as of 9/30/19

Fixed income

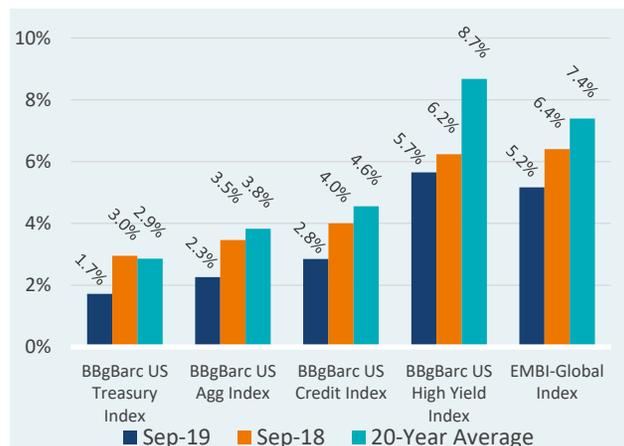
- The European Central Bank delivered a fresh stimulus package in its September meeting, in line with expectations. The ECB cut its main deposit rate from -0.40% to -0.50% and announced it would restart asset purchases to the tune of €20 billion per month beginning November 1st, and with no stated end date.
- At the end of the period, the futures implied probability of the fed funds range being cut by at least 0.25% by the end of the year sat at 72%. There was a 21% probability of at least 0.50% in cuts by year-end.
- Repo rates, which represent the overnight rate paid by short-term borrowers of cash, reached as high as 8.8% as liquidity was strained in the short-term funds market. Officials at the Federal Reserve Bank of New York responded, providing liquidity and stating that the dislocation was merely a financial “plumbing” issue.
- Local-currency denominated emerging market debt outperformed spread-sector U.S. fixed income. The J.P. Morgan GBI-EM Global Diversified Index (+1.0%) outpaced the S&P/LSTA Leveraged Loan (+0.5%), and Bloomberg Barclays U.S. High Yield (+0.4%) indices.

U.S. TREASURY YIELD CURVE



Source: Bloomberg, as of 9/30/19

NOMINAL YIELDS



Source: Morningstar, as of 9/30/19

BREAKEVEN INFLATION RATES

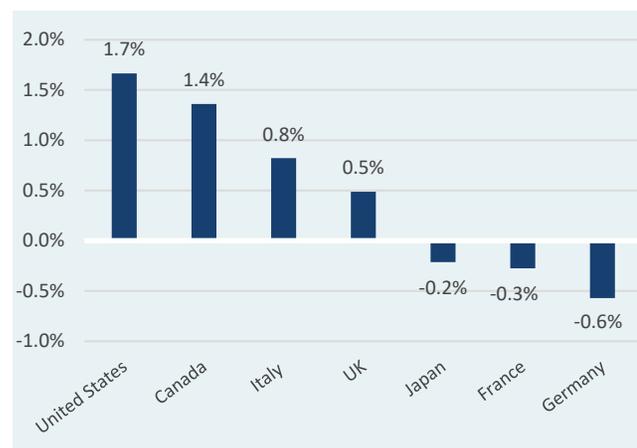


Source: Bloomberg, as of 9/30/19

Global markets

- Emerging market currency exposure dampened EM equity performance. The MSCI EM Index gained 1.9% in U.S. dollar terms and only 1.5% in local currency terms.
- In a gesture of good will, President Trump announced that the effective date of the tariff rate hike from 25% to 30% on \$250 billion of Chinese imports would be delayed from October 1st to October 15th. China also made several good will gestures as the two sides laid the groundwork for the resumption of high-level trade talks in Washington at the beginning of October.
- Following approval by the World Trade Organization, the U.S. announced duties on \$7.5 billion of European exports. The new tariffs will take effect October 18th and will start at 25% for several European food products including wines and cheese, and at 10% for commercial aircraft.
- The global bond rally showed signs of slowing in September. Ten-year German bund yield, which started the month only two basis points above all-time-lows at -0.70%, rose to -0.58% by the end of the month.

GLOBAL SOVEREIGN 10-YEAR YIELDS



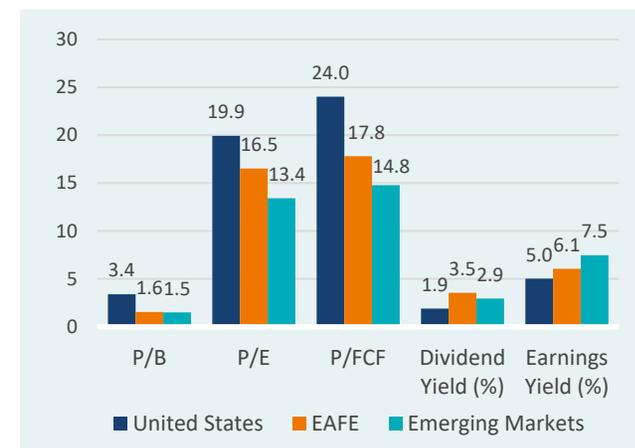
Source: Bloomberg, as of 9/30/19

U.S. DOLLAR MAJOR CURRENCY INDEX



Source: Federal Reserve, as of 9/30/19

MSCI VALUATION METRICS (3-MONTH AVG)



Source: Bloomberg, as of 9/30/19

Commodities

- The Bloomberg Commodity Index advanced 1.2% over the period, bringing its year-to-date performance to 3.1%. Grains (+5.2%), as well as Livestock (+7.5%) propelled the index higher, while Precious Metals (-4.4%) presented headwinds for performance.
- The Livestock Sub-Index rebounded from its poor performance in August with a 7.5% return in September. Lean hog futures prices boosted the sub-index higher on reports that African swine fever had spread into Southeast Asia and South Korea, and that local governments had begun to cull pig populations.
- Brent crude oil futures contracts spiked nearly 10% and reached as high as \$71.95 per barrel following drone attacks on several Saudi Arabian oil processing plants which resulted in the temporary reduction of daily global oil output by 5%. As production was brought back online, oil prices settled and ended the month up only 1.7%.
- Precious Metals (-4.4%) was the worst performing group within the commodities basket. Dollar strength in September made holding gold and silver more expensive in U.S.-dollar terms and rising yields increased the opportunity cost of holding assets not providing income.

INDEX AND SECTOR PERFORMANCE

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg Commodity	1.2	(1.8)	3.1	(6.6)	(1.5)	(7.2)	(4.3)
Bloomberg Agriculture	4.2	(6.1)	(5.0)	(4.9)	(9.6)	(7.3)	(3.6)
Bloomberg Energy	1.1	(4.5)	5.6	(21.6)	(0.8)	(16.8)	(11.9)
Bloomberg Grains	5.2	(6.5)	(4.5)	(3.8)	(6.7)	(6.7)	(3.7)
Bloomberg Industrial Metals	0.5	2.4	7.2	(2.1)	5.8	(1.7)	(2.0)
Bloomberg Livestock	7.5	0.8	(6.1)	(5.5)	5.8	(6.6)	(1.4)
Bloomberg Petroleum	1.3	(5.3)	18.0	(23.2)	4.2	(14.5)	(6.4)
Bloomberg Precious Metals	(4.4)	5.3	12.8	20.5	0.9	2.2	2.3
Bloomberg Softs	4.2	(8.6)	(8.5)	(7.8)	(18.7)	(11.5)	(6.2)

Source: Morningstar, as of 9/30/19

COMMODITY PERFORMANCE



Source: Bloomberg, as of 9/30/19

Appendix

Periodic table of returns

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD	5-Year	10-Year
Large Cap Growth	38.7	66.4	31.8	14.0	25.9	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	23.3	13.4	14.9
Large Cap Equity	27.0	43.1	22.8	8.4	10.3	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	20.5	10.6	13.2
Large Cap Value	20.3	33.2	12.2	7.3	6.7	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	0.0	17.8	9.1	12.2
Small Cap Growth	19.3	27.3	11.6	3.3	1.6	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	-1.5	15.3	8.8	11.5
Small Cap Equity	16.2	26.5	7.0	2.8	1.0	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	-3.5	14.2	8.2	11.2
Small Cap Value	8.7	21.3	4.1	-2.4	-6.0	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	-6.0	12.8	7.8	10.1
International Equity	15.6	24.3	6.0	2.5	-5.9	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	-4.8	12.8	7.2	9.3
60/40 Global Portfolio	4.9	20.9	-3.0	-5.6	-11.4	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	-8.3	12.4	4.9	6.1
US Bonds	1.2	13.2	-7.3	-9.1	-15.5	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	-9.3	8.5	3.4	4.9
Emerging Markets Equity	-2.5	11.4	-7.8	-9.2	-15.7	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	5.9	3.3	3.7
Hedge Funds of Funds	-5.1	7.3	-14.0	-12.4	-20.5	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	7.0	-11.2	5.0	2.3	3.4
Real Estate	-6.5	4.8	-22.4	-19.5	-21.7	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-12.9	3.3	1.9	2.7
Commodities	-25.3	-0.8	-22.4	-20.4	-27.9	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-13.8	3.1	1.0	0.5
Cash	-27.0	-1.5	-30.6	-21.2	-30.3	1.0	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-14.6	1.7	-7.2	-4.3

Large Cap Equity

Large Cap Value

Large Cap Growth

Small Cap Equity

Small Cap Value

Small Cap Growth

International Equity

Emerging Markets Equity

US Bonds

Cash

Commodities

Real Estate

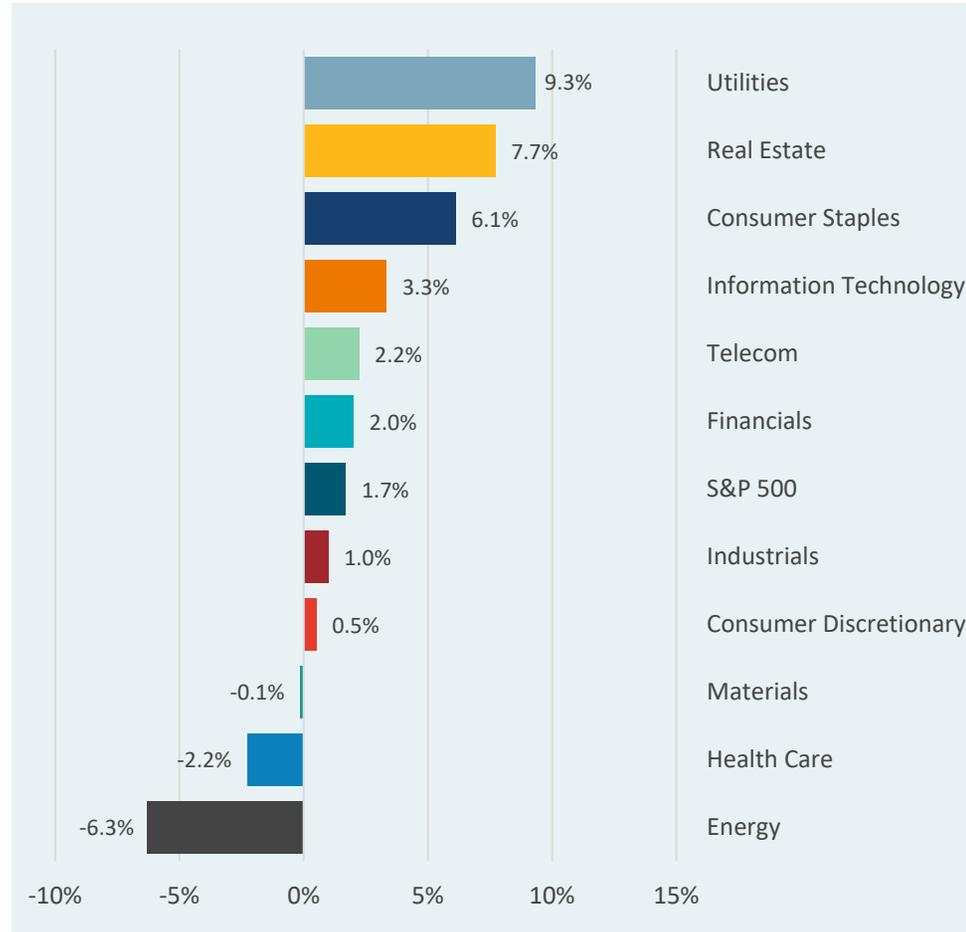
Hedge Funds of Funds

60% MSCI ACWI/40% BBgBarc Global Bond

Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, BBgBarc US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, BBgBarc Global Bond. NCREIF Property Index performance data as of 6/30/19.

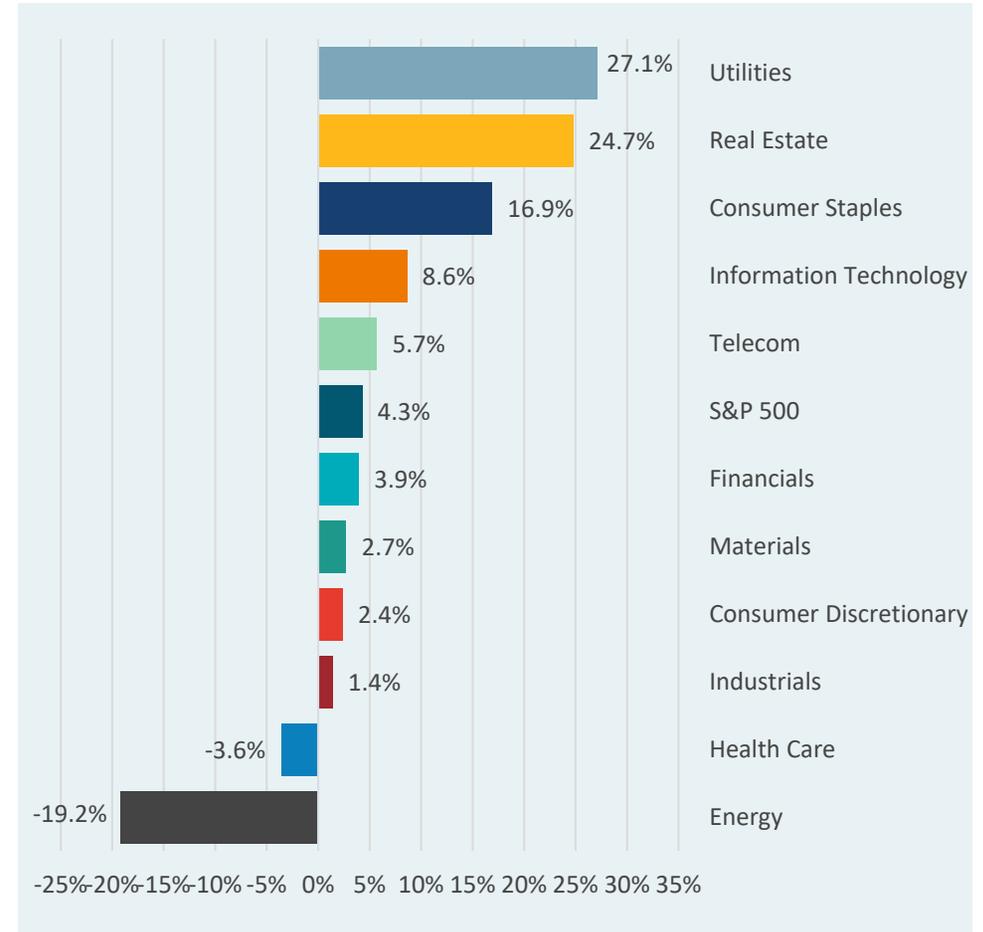
S&P 500 sector returns

Q3



Source: Morningstar, as of 9/30/19

ONE YEAR ENDING SEPTEMBER



Source: Morningstar, as of 9/30/19

Detailed index returns

DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	1.9	1.7	20.6	4.3	13.4	10.8	13.2
S&P 500 Equal Weighted	3.1	0.8	20.1	3.4	11.1	9.5	13.4
DJ Industrial Average	2.1	1.8	17.5	4.2	16.4	12.3	13.6
Russell Top 200	1.6	1.8	20.0	4.1	14.2	11.2	13.3
Russell 1000	1.7	1.4	20.5	3.9	13.2	10.6	13.2
Russell 2000	2.1	(2.4)	14.2	(8.9)	8.2	8.2	11.2
Russell 3000	1.8	1.2	20.1	2.9	12.8	10.4	13.1
Russell Mid Cap	2.0	0.5	21.9	3.2	10.7	9.1	13.1
Style Index							
Russell 1000 Growth	0.0	1.5	23.3	3.7	16.9	13.4	14.9
Russell 1000 Value	3.6	1.4	17.8	4.0	9.4	7.8	11.5
Russell 2000 Growth	(0.8)	(4.2)	15.3	(9.6)	9.8	9.1	12.2
Russell 2000 Value	5.1	(0.6)	12.8	(8.2)	6.5	7.2	10.1

INTERNATIONAL EQUITY

Broad Index							
MSCI ACWI	2.1	(0.0)	16.2	1.4	9.7	6.7	8.3
MSCI ACWI ex US	2.6	(1.8)	11.6	(1.2)	6.3	2.9	4.5
MSCI EAFE	2.9	(1.1)	12.8	(1.3)	6.5	3.3	4.9
MSCI EM	1.9	(4.2)	5.9	(2.0)	6.0	2.3	3.4
MSCI EAFE Small Cap	2.8	(0.4)	12.1	(5.9)	5.9	6.0	7.5
Style Index							
MSCI EAFE Growth	1.1	(0.4)	17.9	2.2	7.8	5.5	6.5
MSCI EAFE Value	4.8	(1.7)	7.7	(4.9)	5.1	1.0	3.2
Regional Index							
MSCI UK	4.2	(2.5)	10.1	(2.9)	4.6	0.4	4.8
MSCI Japan	4.0	3.1	11.1	(4.7)	6.2	5.6	5.5
MSCI Euro	2.8	(2.0)	13.9	(1.1)	7.1	2.4	3.1
MSCI EM Asia	2.0	(3.4)	6.0	(3.9)	6.3	4.1	5.2
MSCI EM Latin American	2.6	(5.6)	6.3	6.7	6.8	(0.8)	(0.5)

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
BBgBarc US TIPS	(1.4)	1.3	7.6	7.1	2.2	2.4	3.5
BBgBarc US Treasury Bills	0.2	0.6	1.9	2.4	1.5	1.0	0.6
BBgBarc US Agg Bond	(0.5)	2.3	8.5	10.3	2.9	3.4	3.7
Duration							
BBgBarc US Treasury 1-3 Yr	(0.1)	0.6	3.1	4.4	1.5	1.3	1.2
BBgBarc US Treasury Long	(2.5)	7.9	19.8	24.8	4.1	6.8	6.9
BBgBarc US Treasury	(0.8)	2.4	7.7	10.5	2.2	2.9	3.1
Issuer							
BBgBarc US MBS	0.1	1.4	5.6	7.8	2.3	2.8	3.1
BBgBarc US Corp. High Yield	0.4	1.3	11.4	6.4	6.1	5.4	7.9
BBgBarc US Agency Interm	(0.2)	1.0	4.1	5.8	1.9	2.0	2.0
BBgBarc US Credit	(0.7)	3.0	12.6	12.6	4.3	4.5	5.3

OTHER

Index							
Bloomberg Commodity	1.2	(1.8)	3.1	(6.6)	(1.5)	(7.2)	(4.3)
Wilshire US REIT	2.8	7.9	27.2	18.4	7.2	10.2	13.1
CS Leveraged Loans	0.4	0.9	6.4	3.1	4.7	4.1	5.4
Alerian MLP	0.8	(5.1)	11.8	(6.4)	(2.7)	(8.2)	7.0
Regional Index							
JPM EMBI Global Div	(0.5)	1.5	13.0	11.6	4.6	5.7	6.9
JPM GBI-EM Global Div	1.0	(0.8)	7.9	10.1	3.1	0.6	2.5
Hedge Funds							
HFRI Composite	(0.3)	(0.5)	6.7	0.3	3.8	2.9	4.0
HFRI FOF Composite	(0.6)	(1.1)	5.0	(0.2)	3.1	1.9	2.7
Currency (Spot)							
Euro	(1.8)	(0.3)	1.5	5.1	(2.1)	0.3	(1.9)
Pound	1.2	(3.2)	(3.2)	(5.5)	(1.7)	(5.3)	(2.6)
Yen	(1.0)	(4.3)	(4.6)	(6.1)	(1.0)	(2.9)	(2.9)

Source: Morningstar, HFR, as of 9/30/19

Notices & disclosures

Past performance is no guarantee of future results. This document is provided for informational purposes only and is directed to institutional clients and eligible institutional counterparties only and is not intended for retail investors. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security or pursue a particular investment vehicle or any trading strategy. This document may include or imply estimates, outlooks, projections and other “forward-looking statements.” No assurance can be given that future results described or implied by any forward looking information will be achieved. Investing entails risks, including possible loss of principal. Verus Advisory Inc. (“Verus”) file a single form ADV under the United States Investment Advisors Act of 1940, as amended. Additional information about Verus Advisory, Inc. available on the SEC’s website at www.adviserinfo.sec.gov.

Verus – also known as Verus Advisory™.

This page left blank intentionally.