Third Quarter 2019 Chartbook

Data as of May 31, 2019

Key Takeaways

- The economic expansion still has legs, but key indicators point to slower growth in the second half of the year.
- A drop off in earnings growth coupled with decelerating global growth are challenges for equities. The Fed, however, is likely to ease rates in the second half.
- Bond yields continue to feel downward pressure from weaker growth and inflation outlook. A resolution to the trade conflict with China or stronger than expected economic growth could still push rates higher in the second half.
- Risks
 - Trade War
 - Decelerating global economic growth
 - Policy mistake by the Federal Reserve

Third Quarter 2019 Outlook

Economy – Growth Likely to Slow in Second Half



The current economic expansion, which is a decade old, is on track to become the longest expansion in U.S. history in July. Although growth was strong in the first quarter, we anticipate the pace of growth slowing through year-end. There are a few key headwinds for the U.S. economy including the fading impact of the 2018 tax reform package, uncertainty caused by the ongoing trade dispute with China, and slowing growth for the global economy. Recent data for key economic indicators is showing signs of a slowdown for the economy. U.S. manufacturing activity, industrial production, retail sales, and housing activity are all growing at a slower pace relative to 2018. The pace of jobs growth is also slowing and parts of the yield curve is currently inverted. Positively, consumer confidence remains strong, but that is typical later in an economic expansion. Overall, our current outlook remains that the U.S. and global economy are likely to slow this year, but there is still life in this expansion for the remainder of 2019.

Equities – Stocks Supported by a More Dovish Fed



Despite a lower outlook for economic growth and falling earnings, stocks have held up well through the first half of the year. A more dovish Fed outlook is creating a tailwind for equities. After four rate hikes last year, markets expect at least one rate cut in the second half of this year. Subdued inflation and low bond yields are supportive of higher equity valuations. Earnings growth has been weak in the first half of the year, but projections from FactSet research point to an improvement in the second half of the year. Valuations for most major equity classes remain reasonable and sustainable barring a sharp pullback in economic growth. Although we anticipate a slower pace of growth for the U.S. and global economy in the second half of the year, we do not anticipate growth falling into negative territory. Foreign stocks continue to offer better valuations compared to U.S. stocks. Emerging markets have struggled relative to U.S. stocks this year, but a resolution to the trade war with China could provide upside potential for developing market equities.

Fixed Income – Are Low Yields the New Normal?



Bond yields continued their downward descent in the second quarter and several parts of the yield curve remains inverted. The trade war, signs of weakening economic growth, and falling inflationary pressures have pressed yields lower. With the Fed likely to cut rates more than once this year, yields may remain lower in the second half of the year. Yields could move higher, however, if expectations for inflation and economic growth improve. High yield spreads compressed through the first four months of the year before climbing higher during a bout of market volatility in May. Credit spreads are at risk of rising in the event that market volatility picks up in the second half.

U.S. Economic Risk Overview

Indicator	Recession Risk	Trend Signal						Trend					\longrightarrow	Latest
ISM Manufacturing PMI	LOW	•	60.0	58.4	60.8	59.5	57.5	58.8	54.3	56.6	54.2	55.3	52.8	52.1
ISM Non-Manufacturing PMI	LOW	•	59.1	55.7	58.5	61.6	60.3	60.7	58.0	56.7	59.7	56.1	55.5	56.9
Industrial Production YoY Growth	LOW	•	3.4%	3.9%	5.3%	5.4%	4.1%	4.1%	3.8%	3.6%	2.7%	2.2%	0.9%	2.0%
Building Permits YoY Growth (3 Mo. Avg.)	LOW	•	4.9%	3.2%	-0.7%	0.3%	-2.9%	-1.6%	-1.8%	-1.1%	-1.9%	-4.2%	-4.8%	-4.2%
Unemployment Rate	LOW	•	4.0%	3.9%	3.8%	3.7%	3.8%	3.7%	3.9%	4.0%	3.8%	3.8%	3.6%	3.6%
Temporary Help Employment YoY	LOW	•	2.0%	1.8%	2.1%	2.5%	2.7%	2.5%	2.8%	1.9%	1.8%	1.5%	1.4%	1.5%
Real Retail Sales YoY Growth (3 Mo. Avg.)	LOW	•	2.9%	3.4%	3.4%	3.0%	2.5%	1.9%	1.2%	0.9%	0.5%	1.3%	1.4%	1.7%
U. of Michigan Consumer Sentiment	LOW	₽	98.2	97.9	96.2	100.1	98.6	97.5	98.3	91.2	93.8	98.4	97.2	102.4
Philly Fed Leading U.S. Index	LOW	€)	1.59	1.55	1.37	1.55	1.40	1.50	1.13	1.17	1.15	1.22	1.26	1.43
Treasury Yield Curve (10yr - 2yr)	MODERATE	€)	0.33%	0.29%	0.24%	0.24%	0.28%	0.21%	0.21%	0.18%	0.21%	0.14%	0.24%	0.19%

Recession Riskometer

Economic Trend Signal

Commentary

The dials on the left show our combined estimate of near-term recession risk and direction of economic

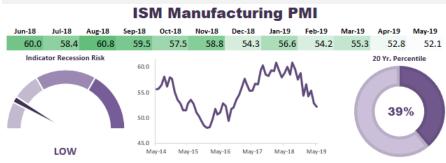


growth, based on the average reading of ten economic indicators. The Recession Riskometer focuses on producer sentiment, output and manufacturing growth, employment, consumer strength and leading economic indicators. At this time, nine out of ten recession risk indicators signal a low risk of recession. The Treasury yield curve 10yr-2yr spread is under 0.25%, signaling a moderate, or rising risk of recession. The key economic indicators are signaling a slowdown in economic growth. Economic growth is likely to slow in the second half because of several headwinds including weaker global demand, fading impact of fiscal stimulus, and trade uncertainty because of the trade war.

The overall economic trend signal remains negative. At present, two of the indicators are in a positive trend, two indicators are in a stable trend, and six indicators are in a negative trend. The negative reading for the economic trend signal is indicating that our key recession risk indicators are decelerating. This is suggesting that economic growth is slowing.

Sources are listed on pages 35-36. Data as of 5/31/2019.

U.S. Economic Risk Indicators



The ISM Manufacturing PMI index fell from 52.8 in April to 52.1 in May. This indicator has been decelerating since last summer. The current reading is still in expansion territory and the index is in the 39th percentile - over the last 20 years the PMI reading has been lower 39% of the time. The Manufacturing PMI has been in expansion territory for 33 consecutive months. A reading over 50 indicates expansion, and in the mid 40's suggests recession.

ISM Non-Manufacturing PMI



The ISM Non-Manufacturing Index, a barometer for services activity, increased to 56.9 in May. This indicator has expanded 112 straight months and is higher than 70% of all readings over the last 20 years. It is a concern if we see a sharp drop in this indicator. A reading over 50 indicates expansion, and in the mid 40's suggests recession.

page 4

U.S. Economic Risk Indicators

Industrial Production - YoY Change



YoY Industrial Production growth increased to 2.0% in May, however, this indicator has trended lower since reaching a peak of 5.4% last September. The most recent YoY figure is lower than 57% of all monthly readings over the last 20 years and is currently growing above levels that historically have signaled recession risk. Industrial Production Index measures real output for manufacturing, mining, and utilities. The YoY change in Industrial Production signals a high risk of recession when it falls into negative territory. There is a low recessionary risk when greater than 1%.

U3 Unemployment Rate



The unemployment rate remained at a 50-year low of 3.6% in May. Despite the low unemployment rate, jobs growth is showing signs of slowing. The U.S. economy added the fewest number of jobs in the first five months of the year since 2016. Caution is advised if the trend of a low unemployment rate reverses and this indicator begins to move higher. The U3 Unemployment Rate measures the percentage of people without jobs who are actively seeking work. This is often the officially quoted unemployment rate.

Building Permits YoY Growth (3 Mo. Avg.)



The 3-month average of building permits was -4.2% YoY in May. The current reading is lower than 74% of all monthly readings over the past 20 years, but is still signaling a low risk of recession. Despite the pullback in housing, there are signs that activity may be stabilizing. Building Permits are a measure of the issuance of permits to build new housing units. Building permit growth is a measure of the total year-over-year percentage change in building permits (3-month average). This indicator signals a high recession risk when growth falls below -15% YoY.

Temporary Help Employment - YoY Change



The year-over-year change in temporary help employment increased slightly to 1.5% in May. The current reading is currently lower than 64% of all months over the past 20 years. This indicator continues to signal a stable labor market, but caution is warranted if it falls towards flat or negative YoY growth. Temporary help employment figures are viewed favorably if they are positive and trending higher. Changes in temporary help numbers are often used as a predictor of changes in future employment.

U.S. Economic Risk Indicators



The three-month average of Real Retail Sales increased 1.7% YoY through May. This reading is higher than just 36% of all readings over the last 20 years. Real retail sales growth is a measure of the total year-over-year change in retail and food sales adjusted for inflation using the Consumer Price Index. Real retail sales typically decline heading into a recession, and a weaker reading is a concern for the economy.

Philly Fed Leading U.S. Index



The Philly Fed Leading Index increased from 1.26 in March to 1.43 in April. The leading index remains at a level that indicates stable economic growth in future months. The Philly Fed Leading Index is in the 51st percentile – it is higher than 51% of all months over the last 20 years, The Philly Fed Leading Index is a composite index of several U.S. economic indicators that lead the economy. This indicator historically has declined into negative territory in recessions and rises back into positive territory in expansions.

U. of Michigan Consumer Sentiment



The University of Michigan Consumer Sentiment index jumped to 102.4 in May from 97.2 in April. This indicator is currently in the 92nd percentile, meaning it is higher now than 92% of all months over the last 20 years. Strong consumer confidence is a positive signal for future consumer spending, but it is a concern if this indicator is trending lower. The index uses surveys to gather information on consumer expectations regarding the economy.

Treasury Yield Curve (10 Yr. Minus 2 Yr.)



The 2-10 yield curve spread fell to 0.19% at the end of May and has been range bound over the last several months. Spreads typically narrow to this level later in an economic cycle, but we have not yet reached a level that immediately precedes a recession historically. However, the 3mo-10yr yield curve is inverted. The difference (spread) between the yields of the 10-Year and 2-Year maturity Treasury bonds is one of the early and reliable predictors of a recession. Under normal conditions the 10-Year/2-Year spread is positive, and as recession nears the spread flattens and turns negative. This indicator will shift to high recession risk when the spread is below zero.

Equity Valuation Overview

Price/Earnings (P/E)											
			St. Dev	. From							
Index	Current	15 Yr. Avg.	15 Yr.	Mean	Percentile (15 Yrs.)						
S&P 500	18.9	17.3		0.6	74%						
S&P 500 Growth	24.2	19.8		1.2	89%						
S&P 500 Value	14.8	15.3		-0.3	30%						
S&P MidCap 400	17.6	19.0		-0.6	20%						
S&P MidCap 400 Growth	21.9	21.4		0.1	54%						
S&P MidCap 400 Value	14.4	17.1		-1.3	8%						
S&P SmallCap 600	17.0	19.4		-0.9	12%						
S&P SmallCap 600 Growth	20.5	21.0		-0.2	46%						
S&P SmallCap 600 Value	14.4	17.9		-1.7	7%						
MSCI EAFE	14.6	14.4		0.1	41%						
MSCI EAFE Growth	19.9	17.8		0.7	78%						
MSCI EAFE Value	11.3	12.1		-0.4	31%						
MSCI Emerging Markets	12.1	12.7		-0.3	36%						
MSCI Europe	15.6	14.3		0.4	67%						
MSCI Pacific	13.1	15.1		-0.8	17%						
MSCI ACWI	16.3	15.6		0.3	54%						

Price/Book Value (P/B)

15 Yr. Avg.

2.6

4.0

1.9

2.2

3.1

1.7

2.0

1.6

1.8

2.7

1.9

2.1

1.5

2.2

3.0

5.0

2.1

2.0

2.9

1.5

1.7

2.4

1.3

1.5

2.8

1.0

1.5

1.6

1.3

2.1

Index

S&P 500

S&P 500 Growth

S&P MidCap 400

S&P SmallCap 600

MSCI EAFE Growth

MSCI EAFE Value

MSCI Europe

MSCI Pacific

MSCI ACWI

MSCI EAFE

S&P MidCap 400 Growth

S&P MidCap 400 Value

S&P SmallCap 600 Growth

S&P SmallCap 600 Value

MSCI Emerging Markets

S&P 500 Value

St. Dev. From

15 Yr. Mean

1.0

-0.7

-0.4

-0.9

-0.9

-1.0

-0.6

0.2

-0.8

-0.7

-0.6

-0.6

-0.2

Percen

	7%	
	41%	
	78%	_
	31%	
	36%	
	67%	
	17%	
	54%	
		Th
		Во
tile (15	Yrs.)	the
	86%	fro
	82%	
	72%	1.5
	21%	ne
	25%	pe
	18%	ye
	17%	
	20%	As
	15%	to 1
	28%	Mic
	70%	ave
	11%	cui

30%

27%

53%





Commentary

The two charts above show equity valuations based on the average Price-to-Earnings (P/E) and Price-to-Book (P/B) ratios for commonly used equity benchmarks. To the left, current valuations are compared to their 15-year average, and we show how far (as measured by standard deviation) the current valuation is from the average. Valuations within 0.5 standard deviations are close to historic norms, a reading around 1.5 indicates high valuation, and figures above 2 are near historic highs. The percentile figure shown next provides a ranking of each index valuation relative to its 15-year history. As an example, if the percentile is 80%, valuation is higher than 80% of all other observations for that index over the past 15-years and lower than 20% of the observations.

As measured by Price-to-Earnings, most major asset classes are at a reasonable valuation level relative to the last 15 years. U.S. large cap core and growth stocks have an above-average valuation. Domestic Mid Cap, Small Cap, and Emerging Market equities are all trading at a discount to their historical average. Value stocks are still trading at a discount to growth stocks domestically and abroad. The current environment of low bond yields and tepid inflation supports above average valuation levels. That can change, however, if economic growth slows faster than expected. International equities continue to trade at an above-average discount relative to U.S. equities.

Based on Price-to-Book, U.S. large cap stocks continue to trade at a premium relative to their 15-year average. Mid Cap, Small Cap, and foreign equities are trading at a discount to their 15-year average. Global equities, as measured by the MSCI ACWI Index, are roughly in-line with their 15-year average.

Sector Valuation Overview

Price/Earnings (P/E)												
			St. Dev. From									
Index	Current	15 Yr. Avg.	15 Yr. Mean	Percentile (15 Yrs.)								
S&P 500	18.9	17.3	0.6	74%								
S&P 500 Consumer Discretionary	23.2	18.9	1.5	95%								
S&P 500 Consumer Staples	20.1	19.2	0.4	62%								
S&P 500 Energy	14.7	14.6	0.0	68%								
S&P 500 Financials	12.5	14.4	-0.8	20%								
S&P 500 Health Care	23.1	20.6	0.6	67%								
S&P 500 Industrials	17.2	18.0	-0.2	31%								
S&P 500 Information Technology	20.5	20.4	0.0	51%								
S&P 500 Materials	16.3	18.2	-0.5	34%								
S&P 500 Real Estate*	34.9	N/A	N/A	N/A								
S&P 500 Utilities	22.9	16.7	1.9	99%								
S&P 500 Communication Services	19.8	18.8	0.1	74%								

Price/Book Value (P/B)												
			St. Dev. From									
Index	Current	15 Yr. Avg.	15 Yr. Mean	Percentile (15 Yrs.)								
S&P 500	3.0	2.6	1.0	86%								
S&P 500 Consumer Discretionary	5.4	3.4	1.7	95%								
S&P 500 Consumer Staples	4.5	4.0	0.7	77%								
S&P 500 Energy	1.5	2.2	-1.3	3%								
S&P 500 Financials	1.3	1.4	-0.2	51%								
S&P 500 Health Care	3.8	3.4	0.6	63%								
S&P 500 Industrials	4.4	3.2	1.6	91%								
S&P 500 Information Technology	6.7	4.1	2.9	98%								
S&P 500 Materials	1.9	2.9	-1.9	3%								
S&P 500 Real Estate*	3.4	N/A	N/A	N/A								
S&P 500 Utilities	2.1	1.8	1.0	81%								
S&P 500 Communication Services	3.2	2.3	1.4	88%								

Commentary

These charts show sector valuations based on the average Price-to-Earnings (P/E) and Price-to-Book (P/B) ratios for the sectors within the S&P 500 index. Valuations are compared to 15 year averages, and we show by how many standard deviations the current is from the average. The percentile figure shown next provides a ranking of each index valuation relative to its 15-year history. As an example, if the percentile is 80%, it is greater than 80% of all other observations over the past 15 years and lower than 20% of observations.

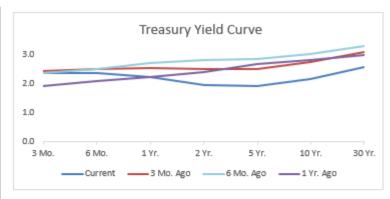
Cyclical sectors – Materials and Financials sectors underperformed the S&P 500 over the last three months, while consumer discretionary stocks outperformed. Valuations for consumer discretionary stocks remain well above their historical average for P/E (1.5 st. dev above) and P/B (1.7 st. dev above). Financials, on the other hand, are trading at a discount to their historical norms for both P/E and P/B. Financials could benefit in future months if the yield curve widens, following a long period of falling yields. Materials and consumer discretionary stocks might benefit if economic growth comes in stronger than expected over the next few quarters.

Within the Economically-sensitive sectors, the energy sector struggled the most over the last three months. Industrials also lagged the S&P 500, but communications and tech stocks outperformed. The P/E for energy is narrowly above the 15-year average and P/B is 1.3 st. dev. below its average. Tech stock valuations are near their 15-year average for P/E, but the P/B for the tech sector is 2.9 st. dev. above the 15-year average. Tech and Communications both outperformed the S&P 500 over the last three months. The industrials sector struggled over the last three months, but valuations remain reasonable for this sector.

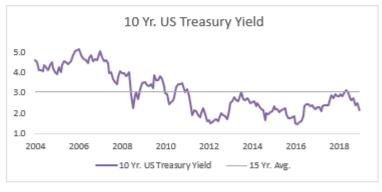
Defensive sectors: Utilities and Consumer Staples stocks had strong performance over the last three months, benefitting from a drop in bond yields. Valuations for Utilities are high compared to their 15-year average. Consumer Staples stocks, on the other hand, are trading close to their historical level. Health Care stocks have struggled in recent months because of concern about government disruption in drug pricing and hospital price transparency. Health Care stocks continue to trade at a moderate premium compared to their historical average. Utilities and Consumer Staples remain sensitive to movements in interest rates, and may struggle if long term rates experience a sharp increase. Conversely, these sectors can provide downside protection during market downturns.

Fixed Income Overview

Yield												
	St. Dev. From											
Index	Current	15 Yr. Avg.	15 Yr. Mean	Percentile (15 Yrs.)								
BofAML US Treasury Bill 3 Mon USD	2.28	1.30	-0.6	24%								
BBgBarc Treasury 1-3 Yr USD	1.99	1.73	-0.2	36%								
BBgBarc US Treasury 7-10 Yr USD	2.10	2.92	0.8	77%								
BBgBarc US Treasury US TIPS USD	2.29	3.06	0.5	54%								
BBgBarc Municipal USD	2.07	3.10	1.2	92%								
BBgBarc GNMA USD	2.83	3.76	0.7	70%								
BBgBarc US Corp IG USD	3.44	4.28	0.6	63%								
BBgBarc US Corporate High Yield USD	6.57	7.90	0.5	67%								
BBgBarc US Aggregate 1-3 Yr USD	2.20	2.21	0.0	43%								
BBgBarc US Agg Bond USD	2.69	3.35	0.5	55%								
BBgBarc Global Treasury Ex US USD	0.62	1.86	1.4	97%								
JPM EMBI Global Diversified USD	5.99	6.33	0.3	55%								



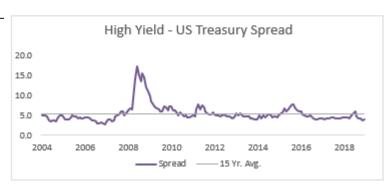
Treasury Spreads											
			St. Dev. From								
Index	Current	15 Yr. Avg.	15 Yr. Mean	Percentile (15 Yrs.)							
BBgBarc Municipal USD	-0.54	0.68	1.7	92%							
BBgBarc GNMA USD	0.22	1.34	1.9	98%							
BBgBarc US Corp IG USD	0.83	1.86	1.7	99%							
BBgBarc US Corporate High Yield USD	3.96	5.47	0.7	89%							
BBgBarc US Agg Bond USD	0.08	0.93	1.6	93%							
BBgBarc Global Treasury Ex US USD	-1.99	-0.56	2.0	100%							
JPM EMBI Global Diversified USD	3.38	3.91	0.5	73%							



Commentary

The Yield chart above shows current yields for several commonly used fixed income benchmarks, compared to their 15-year average. The Treasury Spreads chart shows spreads of credit-sensitive bond sectors relative to Treasury bonds. We also show by how many standard deviations the current yield is from its average, and how often has it been as high or as low for the past 15 years.

The 10-year U.S. Treasury yield has been in a downtrend since last December and closed at 2.14% at the end of May. Growing anxiety about trade war risks, subdued inflation, and signs of weakening economic growth have pressed bond yields lower. We could see a rise in yields, however, if growth and inflation are higher than expected over the remainder of the year. The yield curve inverted again in May. Although this is historically a precursor to a recession, keep in mind that the lead time can be as long as two years. High yield bond spreads narrowed in the first four months of the year before widening during the volatile environment for markets in May. International bonds continue to look unattractive based on the relatively low yields at this time. A growing number of government issuance has a negative yield.



page 9

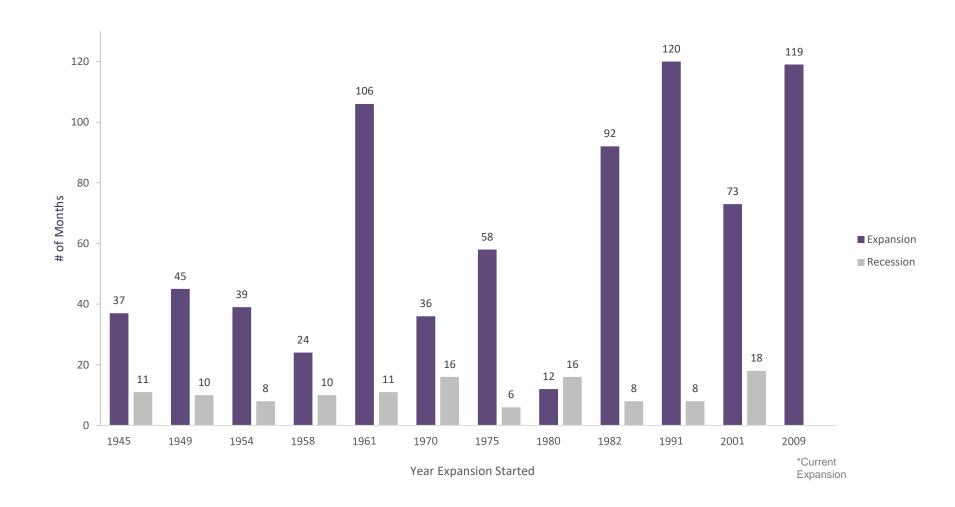


Appendix

U.S. Economic Overview

Employment	As of	Latest	Previous	1 Yr. Ago	3 Mo. Avg.	12 Mo. Avg.	1 Mo. Diff.	1 Yr. Diff.	Percentile (10 Yrs.)	1 Yr. Trend 5 Yr. Trend			Trend		\longrightarrow	Latest
US Nonfarm Monthly Payrolls ('000)	May-19	75	224	270	151	. 196	-149	-195	18%	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	227	312	56	153	224	75
US Total Nonfarm Payrolls - YoY Change	May-19	1.6%	1.7%	1.7%	1.7%	1.7%	-0.1%	-0.1%	37%		1.8%	1.9%	1.7%	1.7%	1.7%	1.6%
U3 Unemployment Rate	May-19	3.6%	3.6%	3.8%	3.7%	3.8%	0.0%	-0.2%	100%		3.9%	4.0%	3.8%	3.8%	3.6%	3.6%
U6 Unemployment Rate	May-19	7.1%	7.3%	7.7%			-0.2%	-0.6%	100%		7.6%	8.1%	7.3%	7.3%	7.3%	7.1%
Quit Rate	Apr-19	2.3%	2.3%	2.2%	2.3%	2.3%	0.0%	0.1%	92%		2.3%	2.3%	2.3%	2.3%	2.3%	2.3%
Job Openings: Total Nonfarm ('000)	Apr-19	7,449	7,474	7,106	7,355	7,424	(25)	343	96%		7,626	7,479	7,625	7,142	7,474	7,449
Initial Jobless Claims ('000) 4 Wk. MA - Month End	May-19	218	213	220	215	218	5	-3	95%		222	223	225	214	213	218
KC Fed LMCI Momentum Indicator	May-19	1.0	1.0	1.1	1.0	1.1	0.1	-0.1	66%		1.1	0.8	0.7	1.1	1.0	1.0
Labor Force Participation Rate	May-19	62.8%	62.8%	62.8%	62.9%	62.9%	0.0%	0.0%	17%		63.1%	63.2%	63.2%	63.0%	62.8%	62.8%
Employment to Population Ratio	May-19	60.6	60.6	60.4	60.6	60.6	0.0	0.2	94%		60.6	60.7	60.7	60.6	60.6	60.6
I													Trend			
Consumer	As of	Latest	Previous			12 Mo. Avg.		1 Yr. Diff.	Percentile (10 Yrs.)	1 Yr. Trend 5 Yr. Trend						Latest
Retail Sales - YoY Change	May-19	3.2%	3.7%	6.2%	3.6%		-0.6%	-3.0%	29%		1.6%	2.9%	2.1%	3.8%	3.7%	3.2%
Vehicle Sales (Mil. Units, annualized)	May-19	17.3	16.3	17.2			1.0	0.1	76%		17.5	16.7	16.4	17.3	16.3	17.3
Personal Savings Rate	Apr-19	6.2%	6.1%	6.8%	6.4%	6.5%	0.1%	-0.6%	11%	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	6.0%	7.4%	6.9%	7.0%	6.1%	6.2%
													Trend			
Production	As of	Latest	Previous					1 Yr. Diff.	Percentile (10 Yrs.)	1 Yr. Trend 5 Yr. Trend			24			Latest
Industrial Production - YoY Change	May-19	2.0%	0.9%	2.8%	1.7%		1.2%	-0.8%	39%		3.8%	3.6%	2.7%	2.2%	0.9%	2.0%
Capacity Utilization	May-19	78.1%	77.9%	78.1%	78.1%		0.2%	0.0%	79%		79.5%	79.0%	78.4%	78.4%	77.9%	78.1%
Core Capital Goods Orders - YoY Change	Apr-19	1.2%	3.8%	6.8%	2.5%	4.8%	-2.6%	-5.6%	42%	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	6.1%	1.9%	4.1%	2.4%	3.8%	1.2%
								- N					Trend			
Housing & Construction	As of	Latest	Previous			12 Mo. Avg.		1 Yr. Diff.	Percentile (10 Yrs.)	1 Yr. Trend 5 Yr. Trend	4 005	4.047	1.004	4.000		Latest
Building Permits ('000)	May-19	1,294	1,290	1,301	1,291	1,292	4	-7	87%		1,326	1,317	1,291	1,288	1,290	1,294
Housing Starts ('000)	May-19	1,269	1,281	1,332	1,250	1,219	-12	-63	91%		1,142	1,291	1,149	1,199	1,281	1,269
New Home Sales ('000)	Apr-19	673	723	629	688	628	-50	44	98%		615	564	644	669	723	673
S&P/Case-Shiller Home Price Index (20 city) - YoY Change	Mar-19	2.6%	2.9%	6.6%	3.0%		-0.3%	-4.0%	31%		5.0%	4.5%	4.1%	3.5%	2.9%	2.6%
Total Construction Spending - YoY Change	Apr-19	-1.2%	0.5%	5.8%	-0.5%	2.6%	-1.7%	-7.1%	22%		1.3%	0.3%	0.7%	-0.6%	0.5%	-1.2%
Survey Data	As of	Latest	Previous	1 Vr. Ago	2 Mo. Ava	12 Mo. Avg.	1 Mo Diff	1 Yr. Diff.	Percentile (10 Yrs.)	1 Yr. Trend 5 Yr. Trend			Trend			Latest
ISM Manufacturing PMI Composite		52.1	52.8	1 Yr. Ago 58.7	-	-		-6.6	25%	1 Yr. Trend 5 Yr. Trend	54.3	56.6	54.2	55.3	52.8	52.1
	May-19		51.7									58.2		57.4		
ISM Manufacturing PMI New Orders	May-19	52.7	55.5	63.7				-11.0	21%		51.3		55.5		51.7	52.7
ISM Non-Manufacturing PMI Composite	May-19	56.9		58.6				-1.7	71%		58.0	56.7	59.7	56.1 59.0	55.5	56.9
ISM Non-Manufacturing PMI New Orders	May-19	58.6	58.1 97.2	60.5 98.0				-1.9 4.4	61%		62.7 98.3	57.7	65.2		58.1 97.2	58.6
U. of Michigan Consumer Sentiment	May-19	102.4	97.2	98.0	99.3	97.5	5.2	4.4	100%		98.3	91.2	93.8	98.4	97.2	102.4
Inflation	As of	Latest	Previous	1 Yr. Ago	3 Mo. Avg.	12 Mo. Avg.	4 Mo Diff	1 Yr. Diff.	Percentile (10 Yrs.)	1 Yr. Trend 5 Yr. Trend			Trend		\rightarrow	Latest
Consumer Price Index (CPI) - YoY Change	May-19	1.8%	2.0%	2.8%	1.9%		-0.2%	-1.0%	54%	1 Yr. Heliu 5 H. Heliu	1.9%	1.6%	1.5%	1.9%	2.0%	1.8%
Personal Consumption Expenditure (PCE) - YoY Change	Apr-19	1.5%	1.4%	2.8%	1.4%		0.1%	-0.5%	48%		1.9%	1.8%	1.3%	1.3%	1.4%	1.5%
Producer Price Index (PPI) - YoY Change	May-19	1.5%	2.3%	3.0%	2.1%		-0.4%	-1.1%	48% N/A		2.6%	1.8%	1.8%	2.2%	2.3%	1.5%
	May-19	3.1%	3.2%	2.9%	3.2%		-0.4%	0.2%	93%		3.3%	3.2%	3.4%	3.2%	3.2%	3.1%
Average Hourly Earnings - YoY Change	Iviay-15	3.170	3.270	2.370	3,270	3,270	-0.170	U.Z/0	33/0		3.370	3.2/0	3.470	3.2/0	3.2/0	3.1/0
GDP	As of	Latest	Previous	1 Yr. Ago	2 Qtr. Avg.	4 Qtr. Avg.	1 Otr Diff	1 Yr. Diff.	Percentile (10 Yrs.)	1 Yr. Trend 5 Yr. Trend			Trend			Latest
Real GDP - QoQ (SAAR)	Q1-19	3.1%	2.2%	2.2%	2.6%		0.9%	0.8%	67%	111. Heliu 311. Heliu	2.3%	2.2%	4.2%	3.4%	2.2%	3.1%
Real GDP - YoY Change	01-19	3.2%	3.0%	2.6%	3.1%		0.3%	0.6%	95%		-1.8%	-1.1%	-1.9%	-4.2%	-4.8%	-4.2%
Real GDP - 101 Change		3.270	3.070	2.070	3,170	3,070	0.270	0.070	3370		-1.070	-1.170		-4.2/0	-4.070	-4.2/0
Other	As of	Latest	Previous	1 Yr. Ago	3 Mo. Avg.	12 Mo. Avg.	1 Mo. Diff.	1 Yr. Diff.	Percentile (10 Yrs.)	1 Yr. Trend 5 Yr. Trend			Trend			Latest
Treasury Yield Curve (10 Yr. Minus 2 Yr.) - Month End	May-19	0.19%	0.24%	0.43%	0.19%		-0.05%	-0.24%	2%	711.11.11.11	0.21%	0.18%	0.21%	0.14%	0.24%	0.19%
Philly Fed Leading U.S. Index	Apr-19	1.43	1.26	1.60				-0.17	32%		1.13	1.17	1.15	1.22	1.26	1.43

Post-WWII Economic Expansions and Subsequent Recession Length



Percent of Active Managers Beating Category Benchmark

			Perform	nance		Standard D	eviation	
Category	3 Mo.	YTD	1 Yr.	3 Yr.	2018	2017	1 Yr.	3 Yr.
Domestic Large Cap Core	44%	25%	33%	18%	34%	33%	45%	54%
Domestic Large Growth	41%	46%	36%	32%	44%	35%	50%	59%
Domestic Large Cap Value	49%	39%	33%	48%	40%	78%	57%	64%
Domestic Mid Cap Core	23%	13%	18%	20%	30%	23%	46%	34%
Domestic Mid Cap Growth	53%	45%	34%	36%	41%	41%	48%	42%
Domestic Mid Cap Value	26%	31%	21%	45%	38%	54%	28%	19%
Domestic Small Cap Core	50%	40%	47%	20%	32%	27%	64%	60%
Domestic Small Cap Growth	77%	65%	74%	63%	74%	47%	54%	60%
Domestic Small Cap Value	41%	41%	34%	12%	21%	58%	28%	44%
Foreign Large Core	63%	58%	38%	14%	42%	32%	35%	38%
Foreign Large Growth	76%	71%	52%	40%	52%	31%	43%	41%
Foreign Large Value	51%	58%	24%	11%	22%	57%	26%	29%
Global Equity	56%	52%	49%	36%	50%	47%	36%	37%
Emerging Markets	83%	74%	52%	25%	28%	43%	45%	46%
Intermediate Core Bond	41%	46%	30%	34%	35%	34%	70%	66%
World Bond	56%	78%	80%	84%	43%	24%	71%	92%
Municipal - Short Term	51%	45%	35%	37%	5%	52%	67%	63%
Municipal - Intermediate	27%	15%	1%	14%	16%	15%	92%	96%
Municipal - Long Term	10%	14%	8%	10%	16%	12%	88%	90%
Municipal - High Yield	84%	80%	24%	85%	57%	87%	26%	54%
High Yield Bond	49%	30%	19%	16%	38%	32%	59%	57%
Bank Loan	17%	17%	12%	17%	25%	28%	60%	51%
Short Govt/Corp	12%	31%	7%	67%	27%	76%	76%	81%
Emerging Markets Bond	15%	25%	14%	61%	36%	72%	36%	39%
Specialty - TIPS	31%	40%	29%	43%	31%	42%	51%	60%
Multisector Bond	6%	60%	9%	89%	30%	89%	37%	44%
Real Estate	84%	79%	36%	46%	14%	66%	73%	92%
Global Real Estate	54%	41%	18%	63%	31%	96%	51%	88%
Specialty - Natural Resources	31%	9%	10%	41%	26%	63%	90%	83%
Equity Long/Short	44%	11%	17%	0%	38%	5%	95%	90%
Market Neutral	36%	48%	40%	51%	40%	68%	0%	0%
Managed Futures	69%	79%	19%	72%	31%	91%	46%	59%
Multialternative	54%	6%	26%	8%	63%	5%	86%	82%

Above 67% Between 33% and 67% Below 33%

Commentary

This chart shows the percentage of active managers beating their category benchmark in each of the Morningstar categories listed. We also show the percentage of active managers that have lower risk, or standard deviation, relative to their Morningstar category benchmark.

A darker background color indicates that actively managed funds are outperforming, with over 67% of non-index funds beating the category benchmark. The lightest color indicates that active management is lagging, with 33% or lower of active managers beating the category benchmark. The middle shade indicates close to average results. For risk, as measured by standard deviation, a darker color indicates risk lower than 67% of the peer group average risk, and the lightest color indicates risk higher than 33% of the peer group benchmark risk.

In recent months, there has been solid outperformance for active managers in Small Cap Growth, Foreign Large Equities, Emerging Markets, Real Estate, Managed Futures, Multialternative, and World Bond. Asset classes that managers have struggled to outperform in the last three months include Mid Cap Core, Bank Loan, Short Govt/Corp, Emerging Market Bond, Multisector Bond, and Natural Resources. The sharp decline in bond yields this year has created a wide dispersion in returns for fixed income managers. Active security selection has done well historically in wide dispersion markets and volatile markets. Volatility picked up in May, resulting in a change of momentum for the market. The gap between the best and worst performing S&P 500 sector is 17.0% YTD. The gap between large value and large growth is 5.2%.

The relative advantage of actively managed funds is more evident when looking at risk levels. When comparing standard deviations to category benchmarks, active funds tend to more consistently show lower risk characteristics. At present, this is true for the one- and three-year timeframes shown here.

Asset Class Historical Return Heat Map

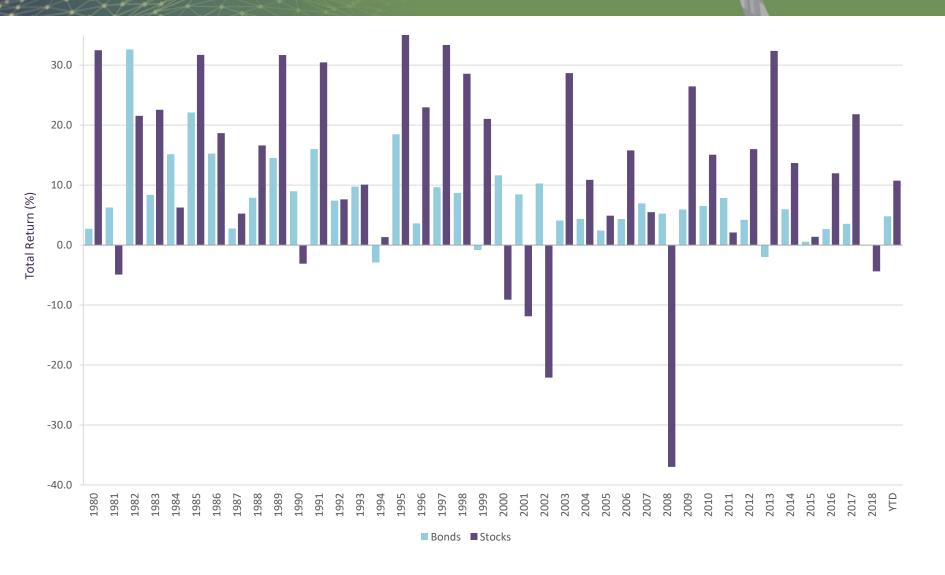
Asset Class	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
US Large Cap	10.74	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	2.11	15.06	26.46
US Large Cap Growth	13.21	-0.01	27.44	6.89	5.52	14.89	32.75	14.61	4.65	15.05	31.57
US Large Cap Value	7.97	-8.95	15.36	17.40	-3.13	12.36	31.99	17.68	-0.48	15.10	21.18
US Mid Cap	9.60	-11.08	16.24	20.74	-2.18	9.77	33.50	17.88	-1.73	26.64	37.38
US Small Cap	5.81	-8.48	13.23	26.56	-1.97	5.76	41.31	16.33	1.02	26.31	25.57
International Developed	8.05	-13.36	25.62	1.51	-0.39	-4.48	23.29	17.90	-11.73	8.21	32.46
Emerging Market Equities	4.19	-14.25	37.75	11.60	-14.60	-1.82	-2.27	18.63	-18.17	19.20	79.02
REITs	15.11	-4.22	3.76	6.68	4.48	32.00	1.22	17.12	9.37	28.07	28.46
Commodities	2.31	-11.25	1.70	11.77	-24.66	-17.01	-9.52	-1.06	-13.32	16.83	18.91
Gold	1.85	-2.81	12.79	7.75	-10.88	-1.75	-28.65	6.08	9.63	28.72	22.86
Intermediate-Term Treasurys	5.48	0.90	2.55	1.05	1.63	9.00	-6.04	4.16	15.59	9.37	-6.03
Long-Term Treasurys	9.69	-2.00	8.98	1.43	-1.59	27.48	-13.88	3.36	33.84	9.38	-21.40
TIPS	5.25	-1.26	3.01	4.68	-1.44	3.64	-8.61	6.98	13.56	6.31	11.41
Mortgage-Backed Securities	3.27	1.02	1.86	1.56	1.39	5.97	-2.12	2.42	7.90	6.67	5.37
Corporate IG Bonds	7.23	-2.51	6.42	6.11	-0.68	7.46	-1.53	9.82	8.15	9.00	18.68
High Yield Corporate Bonds	7.49	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12	58.21
Emerging Market Debt	7.33	-4.61	9.32	10.19	1.23	5.53	-6.58	18.54	8.46	12.04	28.18
US Aggregate Bonds	4.80	0.01	3.54	2.65	0.55	5.97	-2.02	4.21	7.84	6.54	5.93
60-40 Allocation	8.36	-2.63	14.52	8.23	1.05	10.60	18.62	11.29	4.40	11.65	18.25

For each time frame, the heat map colors range from green (stronger relative performance) to red (weaker relative performance). There is a box around the return of the best performing asset class in each time period.

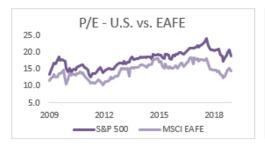
S&P 500 Historical Returns

	January	February	March	April	May	June	July	August	September	October	November	December	Annual	
YTD	8.01	3.21	1.94	4.05	-6.35								10.74	YTD
2018	5.72	-3.69	-2.54	0.38	2.41	0.62	3.72	3.26	0.57	-6.84	2.04	-9.03	-4.38	2018
2017	1.90	3.97	0.12	1.03	1.41	0.62	2.06	0.31	2.06	2.33	3.07	1.11	21.83	2017
2016	-4.96	-0.13	6.78	0.39	1.80	0.26	3.69	0.14	0.02	-1.82	3.70	1.98	11.96	2016
2015	-3.00	5.75	-1.58	0.96	1.29	-1.94	2.10	-6.03	-2.47	8.44	0.30	-1.58	1.38	2015
2014	-3.46	4.57	0.84	0.74	2.35	2.07	-1.38	4.00	-1.40	2.44	2.69	-0.25	13.69	2014
2013	5.18	1.36	3.75	1.93	2.34	-1.34	5.09	-2.90	3.14	4.60	3.05	2.53	32.39	2013
2012	4.48	4.32	3.29	-0.63	-6.01	4.12	1.39	2.25	2.58	-1.85	0.58	0.91	16.00	2012
2011	2.37	3.43	0.04	2.96	-1.13	-1.67	-2.03	-5.43	-7.03	10.93	-0.22	1.02	2.11	2011
2010	-3.60	3.10	6.03	1.58	-7.99	-5.23	7.01	-4.51	8.92	3.80	0.01	6.68	15.06	2010
2009	-8.43	-10.65	8.76	9.57	5.59	0.20	7.56	3.61	3.73	-1.86	6.00	1.93	26.46	2009
2008	-6.00	-3.25	-0.43	4.87	1.30	-8.43	-0.84	1.45	-8.91	-16.79	-7.18	1.06	-37.00	2008
2007	1.51	-1.96	1.12	4.43	3.49	-1.66	-3.10	1.50		1.59	-4.18	-0.69	5.49	2007
2006	2.65	0.27	1.24	1.34	-2.88	0.14	0.62	2.38		3.26	1.90	1.40	15.79	2006
2005	-2.44	2.10	-1.77	-1.90	3.18	0.14	3.72	-0.91	0.81	-1.67	3.78	0.03	4.91	2005
2004	1.84	1.39	-1.51	-1.57	1.37	1.94	-3.31	0.40		1.53	4.05	3.40	10.88	2004
2003	-2.62	-1.50	0.97	8.24	5.27	1.28	1.76	1.95		5.66		5.24	28.68	2003
2002	-1.46	-1.93	3.76	-6.06	-0.74	-7.12	-7.80	0.66		8.80	5.89	-5.87	-22.10	2002
2001	3.55	-9.12	-6.34	7.77	0.67	-2.43	-0.98	-6.26		1.91	7.67	0.88	-11.89	2001
2000	-5.02	-1.89	9.78	-3.01	-2.05	2.47	-1.56	6.21		-0.42	-7.88	0.49	-9.10	2000
1999	4.18	-3.11	4.00	3.87	-2.36	5.55	-3.12	-0.49	-2.74	6.33	2.03	5.89	21.04	1999
10 Yr. Avg.	1.26	2.59	1.87	1.34	-0.99	-0.23	2.92	-0.53		2.02		0.53	12.37	
25 Yr. Avg.	0.55	0.36	1.73	2.09	0.56	-0.07	0.95	-0.48		1.59	1.89	1.04	11.17	
40 Yr. Avg.	1.27	0.68	1.28	1.80	1.13	0.39	1.05	0.44		1.11	1.96	1.43	12.69	
% Positive (10 Yrs.)	60%	80%	80%	90%	60%	60%	80%	60%		60%	90%	70%	90%	
% Positive (25 Yrs.)	60%	60%	72%	80%	64%	64%	56%	64%		64%	80%	76%	80%	
% Positive (40 Yrs.)	63%	63%	70%	73%	70%	63%	53%	65%	55%	65%	75%	75%	83%	

Historical Stock and Bond Returns



Equity Valuation Charts



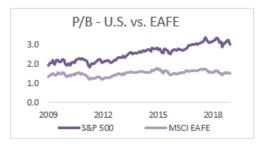




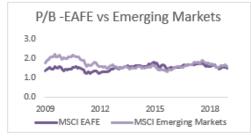


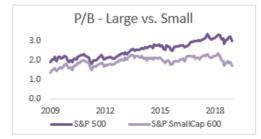










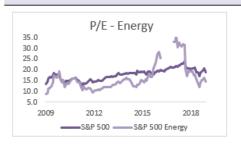


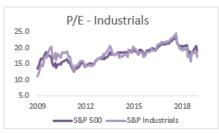




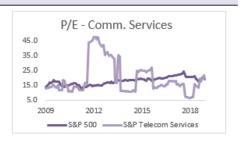
Sector Valuation Charts

Economically Sensitive Sectors



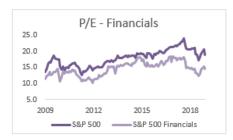






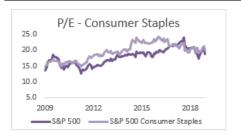
Cyclical Sectors



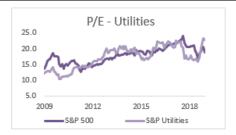




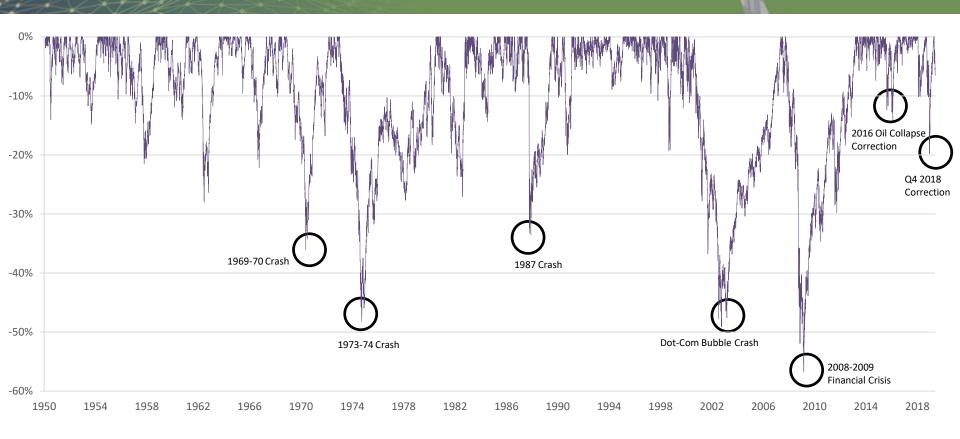
Defensive Sectors



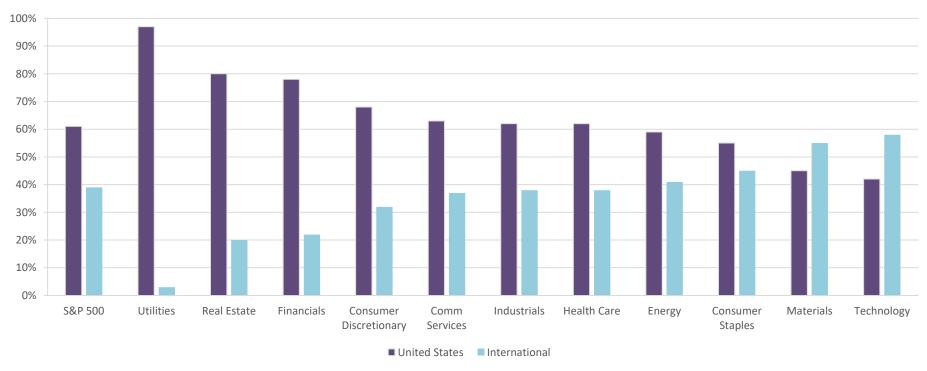




S&P 500 Drawdowns (1950-2019)



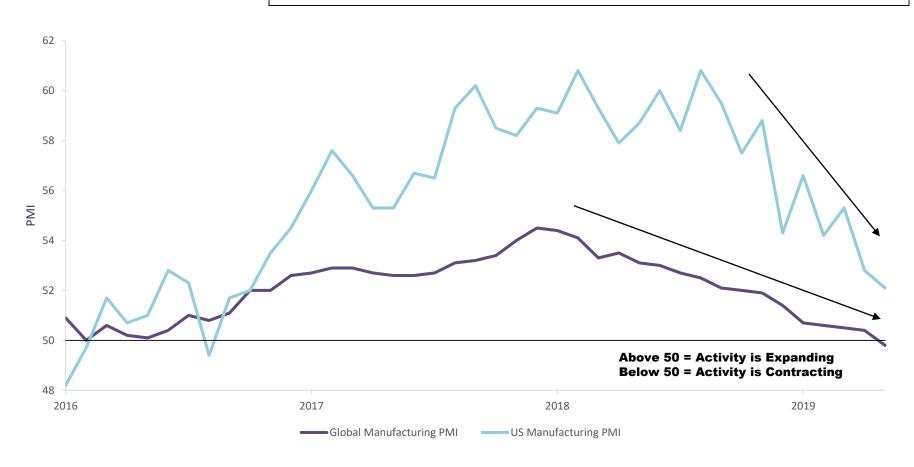
S&P 500: Sector Revenue Exposure (%)



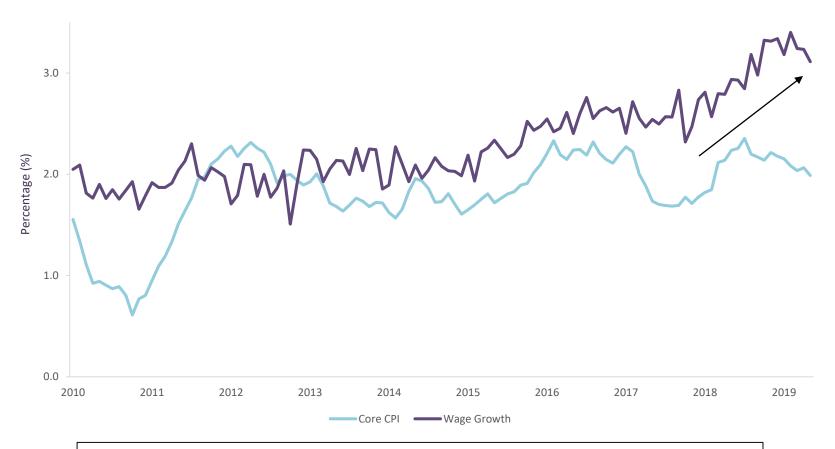
39% of the revenue for S&P 500 firms is from outside of the United States. This highlights the sensitivity of U.S. corporations to the health of the global economy and trade disputes. As shown in the chart, technology and materials are the two sectors that source the highest percentage of their revenue from outside of the U.S. Utilities and Real Estate source the highest percentage of revenue from the U.S.

Manufacturing Activity: Global vs. U.S.

The U.S. Manufacturing PMI has been in a downward trend since the summer of 2018 and recently hit a 31-month low. It is still in expansion territory, but the trend is a concern. Global manufacturing, on the other hand, is already contracting, signaling weaker growth for the global economy.



Wage Growth Outpacing Inflation



The tight labor market over the last few years has resulted in wage growth acceleration. Year-over-year wage growth has exceeded 3.0% for ten consecutive months, which is a positive for consumer spending. Wage growth is also increasing relative to core CPI inflation, providing higher inflation adjusted wage gains.

Disclosures

About Cetera® Investment Management

Cetera Investment Management LLC is an SEC registered investment adviser owned by Cetera Financial Group. Cetera Investment Management provides market perspectives, portfolio guidance and other investment advice to its affiliated broker-dealers, dually registered broker-dealers and registered investment advisers.

About Cetera Financial Group®

Cetera Financial Group ("Cetera") is a leading network of independent firms empowering the delivery of professional financial advice to individuals, families and company retirement plans across the country through trusted financial advisors and financial institutions. Cetera has re-defined the delivery of financial advice through the establishment of a truly Advice-Centric Experience™ for both advisors and their clients. Cetera is the second-largest independent financial advisor network in the nation by number of advisors, as well as a leading provider of retail services to the investment programs of banks and credit unions.

Through its multiple distinct firms, Cetera offers independent and institutions-based advisors the benefits of a large, established broker-dealer and registered investment adviser, while serving advisors and institutions in a way that is customized to their needs, thus providing a personalized experience for their clients. Among the award-winning advisor support resources offered through Cetera are wealth management and advisory platforms, comprehensive broker-dealer and registered investment adviser services, practice management support and innovative technology. For more information, visit cetera.com.

"Cetera Financial Group" refers to the network of independent retail firms encompassing Cetera Advisors, Cetera Advisor Networks, Cetera Investment Services (marketed as Cetera Financial Institutions), Cetera Financial Specialists, First Allied Securities and Summit Brokerage Services. All firms are members FINRA/SIPC.

Disclosures (cont.)

The material contained in this document was authored by and is the property of Cetera Investment Management LLC. Cetera Investment Management provides investment management and advisory services to a number of programs sponsored by affiliated and non-affiliated registered investment advisers. Your registered representative or investment adviser representative is not registered with Cetera Investment Management and did not take part in the creation of this material. He or she may not be able to offer Cetera Investment Management portfolio management services.

Nothing in this presentation should be construed as offering or disseminating specific investment, tax, or legal advice to any individual without the benefit of direct and specific consultation with an investment adviser representative authorized to offer Cetera Investment Management services. Information contained herein shall not constitute an offer or a solicitation of any services. Past performance is not a guarantee of future results.

For more information about Cetera Investment Management strategies and available advisory programs, please reference the Cetera Investment Management LLC Form ADV disclosure brochure and the disclosure brochure for the registered investment adviser your adviser is registered with. Please consult with your adviser for his or her specific firm registrations and programs available.

No independent analysis has been performed and the material should not be construed as investment advice. Investment decisions should not be based on this material since the information contained here is a singular update, and prudent investment decisions require the analysis of a much broader collection of facts and context. All information is believed to be from reliable sources; however, we make no representation as to its completeness or accuracy. The opinions expressed are as of the date published and may change without notice. Any forward-looking statements are based on assumptions, may not materialize, and are subject to revision.

All economic and performance information is historical and not indicative of future results. The market indices discussed are not actively managed. Investors cannot directly invest in unmanaged indices. Please consult your financial advisor for more information.

Additional risks are associated with international investing, such as currency fluctuations, political and economic instability, and differences in accounting standards. Emerging markets involve heightened risks related to the same factors as well as increased volatility and lower trading volume.

Definitions

The **Recession Riskometer** is the average reading of ten economic indicators – Unemployment, ISM Manufacturing and Non-Manufacturing Indexes, Industrial Production Growth, Building Permits Growth, Temporary Staffing Employment Growth, Real Retail Sales Growth, Consumer Confidence as measured by the University of Michigan, Philadelphia Federal Reserve's Leading Indicator for the U.S. Index, as well as the difference between 10- and 2-year Treasury rates.

The Economic Trend Signal measures the average of whether each of the ten indicators in the **Recession Riskometer** are improving, neutral or declining in their most recent reading as compared to historical data.

The U3 Unemployment Rate measures the percentage of people without jobs who are actively seeking work. This is often the officially quoted unemployment rate. The U6 Unemployment Rate expands the definition of U3 by including "discouraged workers", or those who have stopped looking for work because current economic conditions make them believe that no work is available for them, other "marginally attached workers", or those who would like and are able to work, but have not looked for work recently, as well as part-time workers who want to work full-time, but cannot due to economic reasons.

The ISM Manufacturing Index is based on surveys of over 400 manufacturing firms across 20 industries by the Institute of Supply Management. Equal weight is given to responses in five areas - new orders, production, supplier deliveries, employment and inventories. Generally, a reading over 50 indicates expansion, and a reading in the low 40's suggests recessionary conditions. Changes in the index are also helpful in gauging the direction of economic growth.

The ISM Non-Manufacturing Index is based on surveys of over 350 non-manufacturing firms in 17 industries representing over 80% of the U.S. economy by the Institute of Supply Management. The survey shows the percentage of managers reporting higher activity, lower activity or no change in the following areas: business activity, new orders, employment, supplier deliveries, backlog of orders, new export orders, inventory change, inventory sentiment, imports, and prices.

Industrial Production and Capacity Utilization is measured monthly by the United States Federal Reserve, based on hours worked by industrial-sector employees. The report shows total amount of US industrial production as a percentage compared to a baseline year. It also offers percentage changes from month to month and year to year, and a breakdown of production by industry grouping.

Building Permits are a measure of the issuance of permits to build new housing units (single and multi-family units). Building Permits Growth is a measure of the total year-over-year percentage change of the 3-month average of building permits. This indicator leads housing construction and provides a signal for potential weakness in the housing sector when it is declining.

Definitions (cont.)

The US Bureau of Labor Statistics surveys the temporary staffing industry is surveyed in its Professional and Business Services. They produce a report on Temporary Help Employment - changes in this figure are often used as a predictor of changes in future employment. Changes in Temporary Help Employment is a coincident economic indicator.

Real Retail Sales Growth is a measure of the total year-over-year change in retail and food sales adjusted for inflation using the Consumer Price Index. Real Retail Sales figures provided are the year-over-year change of the 3-month average. By neutralizing the impact of inflation, the year-over-year change in retail and food sales provides a better view into consumer spending strength because growth in this figure indicates stronger demand without the impact of rising prices. Real Retail and Food Sales typically decline heading into recession, and a weaker read is a concern for the economy.

The University of Michigan Consumer Sentiment Index is survey of consumer confidence conducted via telephone surveys to gather information on consumer expectations regarding the overall economy.

The Philly Fed U.S. Leading Index is a composite index of several U.S. economic indicators that lead the economy including housing permits, initial unemployment insurance claims, and Treasury yield spreads. This index is often used as a proxy to gauge where the economy is heading over the next several months because it measures the strength of leading indicators. The Leading U.S. Index historically has declined into negative territory during recessions and rises back into positive territory during expansions.

The difference (spread) between the yields of the 10-Year and 2-Year maturity Treasury bonds. Often referred to as the 10-Year/2-Year spread, this metric is one of the early and reliable predictors of recession. Under normal conditions the 10-Year/2-Year spread is positive, as investors demand higher risk premium for longer -term bonds. Spreads are usually wider early in an economic recovery and narrow as growth sets in. As recession becomes more likely, spreads tend to move toward zero or turn negative - this occurs because in periods when economic growth slows inflation decreases and demand for credit declines, pushing long term rates lower.

A Price/Earnings (P/E) ratio is a measure for equity analysis. It is calculated by dividing the current market price of a stock by its earning per share.

A Price/Book (P/B) ratio is a measure for equity analysis. It is calculated by dividing the current market price of a stock by the most recent book value per share.

The yield curve is a graphical representation of several yields or interest rates across different bond maturities. Typical maturities include 3-month, 6-month, 1-year, 2-year, 5-year, 10-year and 30-year.

The High-Yield - US Treasury spread is the percentage difference in current yields of various classes of high-yield bonds compared against U.S. Treasury bonds.

Definitions (cont.)

Percentile is a method of ranking a metric versus its history by measuring the percentage of group observations equal to or lower than it. As an example, if a metric scores in the 80th percentile, it is greater than 80% of all other group observations over the stated time period and lower than 20% of the group observations.

Standard deviation is a statistical method used to gauge asset risk based on measuring the dispersion in returns relative to the average over a specified period of time.

The Global Industry Classification Standard (GICS) is a classification system for equities, it is used by various equity indexes to classify domestic and international stocks and breaks equites down to 11 sectors, which Morningstar breaks down into three groups as described below. Stocks in Energy, Industrials, Information Technology and Telecommunication Services are classified as Sensitive. Consumer Discretionary, Financials and Materials are defined as Cyclical, and Consumer Staples, Health Care and Utilities are classified as Defensive.

Sensitive - The sensitive super sector includes industries which ebb and flow with the overall economy, but not severely so. Sensitive industries fall between the defensive and cyclical industries as they are not immune to a poor economy but they also may not be as severely impacted by a poor economy as industries in the cyclical super sector. In general, the stocks in these industries move closely to the direction of the economy.

Cyclical - The cyclical super sector includes industries significantly impacted by economic shifts. When the economy is prosperous these industries tend to expand and when the economy is in a downturn these industries tend to shrink. In general, the stocks in these industries expand faster when the economy is growing and also contract faster in a recession.

Defensive - The defensive super sector includes industries that are relatively immune to economic cycles. These industries provide services that consumers require in both good and bad times, such as healthcare and utilities. In general, the stocks in these industries are not very sensitive to the direction of the economy.

A drawdown is a measure of the decline from a peak point for an investment or an index. It is typically quoted for a specified period of time, and measured as the percentage between the peak and the subsequent trough in value. The duration of a drawdown indicates the time elapsed before the investment returns to the starting peak value.

A simple moving average of an investment or an index calculates its average price for a set period to the most recent price. The moving average is updated each successive period by deleting the price from the earliest date and adding the newly available most recent price. The result is a trend line for price movements, which may be an indicator of market sentiment. Generally, if the moving average is trending higher and the investment or index price rises above the moving average, sentiment is considered to be bullish, as prices are likely to continue higher, and it may be a good time to buy. If the moving average trend slopes downward, and the investment price is below the moving average, this may be a bearish, or sell signal, as prices may continue to move down.

Index Definitions

The S&P 500 is an index of 500 stocks chosen for market size, liquidity and industry grouping (among other factors) designed to be a leading indicator of U.S. equities and is meant to reflect the risk/return characteristics of the large cap universe.

The S&P Growth Index is a float adjusted, market capitalization weighted index of 317 stocks drawn from the S&P 500 Index that exhibit strong growth characteristics. S&P Dow Jones Indexes uses three factors to measure growth: sales growth, the ratio of earnings change to price, and momentum.

The S&P Value Index is a float adjusted, market capitalization weighted index of 364 stocks drawn from the S&P 500 Index that exhibit strong value characteristics. S&P Dow Jones Indexes uses three factors to measure value: the ratios of book value, earnings and the sales to price sales metric.

The S&P MidCap 400 provides investors with a benchmark for mid-sized companies. The index, which is distinct from the large-cap S&P 500®, measures the performance of 400 mid-sized companies, representing more than 7% of available market cap.

The S&P MidCap 400 Growth Index represents the growth companies of the S&P MidCap 400 Index which itself is composed of mid-cap stocks from the broad U.S. equity market. Growth companies are identified by three factors: book value to price ratio, earnings to price ratio, and sales to price ratio.

The S&P MidCap 400 Value Index represents the value companies of the S&P MidCap 400 Index which itself is composed of midcap stocks from the broad U.S. equity market. Value companies are identified by three factors: book value to price ratio, earnings to price ratio, and sales to price ratio.

The S&P SmallCap 600 measures the small-cap segment of the U.S. equity market. Introduced in 1994, the index is designed to track the performance of 600 small-size companies in the U.S, reflecting this market segment's distinctive risk and return characteristics. The index measures a segment of the market that is typically known for less liquidity and potentially less financial stability than large-caps, the index was constructed to be an efficient benchmark composed of small-cap companies that meet investability and financial viability criteria.

The S&P SmallCap 600 Growth Index represents the growth companies of the S&P S&P SmallCap 600 Index which itself is composed of small cap stocks from the broad U.S. equity market. Growth companies are identified by three factors: book value to price ratio, earnings to price ratio, and sales to price ratio.

The S&P SmallCap 600 Value Index represents the value companies of the S&P SmallCap 600 Index which itself is composed of small-cap stocks from the broad U.S. equity market. Value companies are identified by three factors: book value to price ratio, earnings to price ratio, and sales to price ratio.

The MSCI EAFE is designed to measure the equity market performance of developed markets (Europe, Australasia, Far East) excluding the U.S. and Canada. The Index is market-capitalization weighted.

The MSCI EAFE Growth index represents large and mid-cap securities exhibiting overall growth style characteristics across Developed Markets countries around the world, excluding the U.S. and Canada.

The MSCI EAFE Value index represents large and-mid cap securities exhibiting overall value style characteristics across Developed Markets countries around the world, excluding the U.S. and Canada.

The MSCI Emerging Markets is designed to measure equity market performance in global emerging markets. It is a floatadjusted market capitalization index.

The MSCI Europe Index is a free float-adjusted market capitalization index that is designed to measure developed market equity performance in Europe.

The MSCI Pacific Index captures large and mid-cap representation across five Developed Markets (DM) countries in the Pacific region. With 470 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

The MSCI ACWI is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The MSCI ACWI consists of 46 country indexes comprising 23 developed and 23 emerging market country indexes. The developed market country indexes included are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the United Kingdom and the United States. The emerging market country indexes included are: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey and United Arab Emirates.

The S&P 500® Consumer Discretionary Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Consumer Discretionary sector.

The S&P 500® Consumer Staples Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Consumer Staples sector.

The S&P 500® Energy Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Energy sector.

The S&P 500® Financials Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Financials sector.

The S&P 500® Health Care Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Health Care sector.

The S&P 500® Industrials Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Industrials sector.

The S&P 500® Information Technology Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Information Technology sector.

The S&P 500® Materials Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Materials sector.

The S&P 500® Real Estate Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Real Estate sector.

The S&P 500® Telecommunication Services Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Telecommunication Services sector.

The S&P 500® Utilities Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Utilities sector.

The Bank of America Merrill Lynch U.S. Treasury Bill 3 Month index measures the performance of a single issue of outstanding treasury bill which matures closest to, but not beyond, three months from the rebalancing date. The issue is purchased at the beginning of the month and held for a full month; at the end of the month that issue is sold and rolled into a newly selected issue.

The Bloomberg Barclays U.S. Treasury: 1-3 Year Index measures the performance of U.S. Treasury securities with remaining maturities of one to three years.

The Bloomberg Barclays U.S. Treasury: 7-10 Year Index measures the performance of U.S. Treasury securities that have a remaining maturity of at least seven years and less than 10 years.

The Bloomberg Barclays U.S. Treasury: U.S. TIPS Index includes all publicly issued, U.S. Treasury inflation-protected securities that have at least one year remaining to maturity, are rated investment grade, and have \$250 million or more of outstanding face value.

The Bloomberg Barclays U.S. Municipal Bond Index is an unmanaged, market-value-weighted index of investment-grade municipal bonds with maturities of one year or more.

The Bloomberg Barclays GNMA Index measures the performance of Government National Mortgage Association (GNMA or "Ginnie Mae") bonds. It is a subset of the Bloomberg Barclays U.S. Aggregate index.

The Bloomberg Barclays U.S. Corporate (Investment Grade) Bond Index measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD-denominated securities publicly issued by U.S. and non-US private-sector industrial, utility and financial issuers. Certificates of deposit are also included. Launched in July 1973, securities included must be rated investment grade (Baa3/BBB-/BBB- or higher). Eligible senior and subordinated corporate securities must have at least one year until final maturity, but in practice the index holdings has a fluctuating average life of around 10.75 years. The index is unhedged and rebalances monthly.

The Bloomberg Barclays U.S. Corporate High-Yield Index measures the market of USD-denominated, non-investment grade, fixed-rate, taxable corporate bonds. Securities are classified as high-yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below, excluding emerging market debt.

The Bloomberg Barclays U.S. Aggregate 1-3 Years Index consists of publicly issued investment grade corporate, US Treasury and government agency securities with remaining maturities of one to three years.

The Bloomberg Barclays Capital U.S. Aggregate Bond Index, which was originally called the Lehman Aggregate Bond Index, is a broad based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government—related and corporate debt securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS and CMBS (agency and non-agency) debt securities that are rated at least Baa3 by Moody's and BBB- by S&P. Taxable municipals, including Build America bonds and a small amount of foreign bonds traded in U.S. markets are also included. Eligible bonds must have at least one year until final maturity, but in practice the index holdings has a fluctuating average life of around 8.25 years. This total return index, created in 1986 with history backfilled to January 1, 1976, is unhedged and rebalances monthly.

The Bloomberg Barclays Global Treasury ex U.S. Bond Index consists of those securities included in the Barclays Global Aggregate Bond Index that are Treasury securities, with the U.S. excluded. The Barclays Global Aggregate Bond Index is comprised of several other Barclays indexes that measure fixed income performance of regions around the world.

The JP Morgan Emerging Markets Bond Index (EMBI) Global Diversified measures the performance of fix-rate for external-currency denominated debt instruments including Brady bonds, loans, Eurobonds in emerging markets. Countries covered are Argentina, Brazil, Bulgaria, Mexico, Morocco, Nigeria, the Philippines, Poland, Russia, and South Africa. It covers more of the eligible instruments than the EMBI+ by relaxing somewhat the strict EMBI+ limits on secondary market trading liquidity.

The Bloomberg Commodity Index is a broadly diversified index that measures 22 exchange-traded futures on physical commodities in five groups (energy, agriculture, industrial metals, precious metals, and livestock), which are weighted to account for economic significance and market liquidity. No single commodity can comprise less than 2% or more than 15% of the index; and no group can represent more than 33% of the index. However, between rebalancings, group weightings may fluctuate to levels outside the limits. The index rebalances annually, weighted 2/3 by trading volume and 1/3 by world production.

The Bloomberg Barclays US Treasury 20+ Year index represents the 20+ Year component of the Barclays US Treasury Index. Included securities must have at least 20 years to final maturity regardless of call features, and least \$250 million par amount outstanding. They must be rated investment grade (Baa3/BBB- or higher) by at least two of the following ratings agencies: Moody's, S&P, Fitch.

The Dow Jones U.S. Select REIT Index tracks the performance of publicly traded REITs and REIT-like securities and is designed to serve as a proxy for direct real estate investment, in part by excluding companies whose performance may be driven by factors other than the value of real estate. The index is a subset of the Dow Jones U.S. Select Real Estate Securities Index (RESI), which represents equity real estate investment trusts (REITs) and real estate operating companies (REOCs) traded in the U.S.

The S&P GSCI Gold Index, a sub-index of the S&P GSCI, provides investors with a reliable and publicly available benchmark tracking the COMEX gold future. The index is designed to be tradable, readily accessible to market participants, and cost efficient to implement. The more widely tracked S&P GSCI index is recognized as a leading measure of general price movements and inflation in the world economy. The index represents commodity market beta is world-production weighted and is designed to be investable by including the most liquid commodity futures.

Federal funds rate is the interest banks charge one another when lending reserve balances on an overnight basis. Typically banks with reserve capital above the minimum required to be held at the Federal Reserve will lend the excess to banks who need to meet minimums.

Treasury yield is the return on investment of U.S. government's debt obligations. Short-term Treasury bills offer no interest payments and are issued at discount from face value. The yield of the three-month Treasury bill is the difference between the discount price and face value, expressed as an annualized percentage rate.

Longer-term Treasury notes are issued for maturities from 1-10 years and offer an interest (or coupon) payment. They may be purchased at premium or discount from face value. The yield on 1- and 2- year Treasury notes is based on their coupon payment and face value, adjusted upward if the note was purchased at discount, and downward if the note was purchased at a premium. It is also expressed as an annualized percentage rate.

page 33

Asset Class Indexes

Asset Class

US Large Cap

US Large Cap Growth

US Large Cap Value

US Mid Cap

US Small Cap

International Developed

Emerging Market Equities

REITs

Commodities

Gold

Intermediate-Term Treasurys

Long-Term Treasurys

TIPS

Mortgage-Backed Securities

Corporate IG Bonds

High Yield Corporate Bonds

Emerging Market Debt

US Aggregate Bonds

60-40 Allocation

Index

S&P 500

S&P 500 Growth

S&P 500 Value

S&P Midcap 400

S&P SmallCap 600

MSCI EAFE

MSCI Emerging Markets

DJ US Select REIT

Bloomberg Commodities

S&P GSCI Gold

Bloomberg Barclays US Treasury 7-10 Yr

Bloomberg Barclays US Treasury 20+ Yr

Bloomberg Barclays US Treasury US TIPS

Bloomberg Barclays GNMA

Bloomberg Barclays US Corporate IG

Bloomberg Barclays US Corporate High Yield

JPM EMBI Global

Bloomberg Barclays US Aggregate Bond

60% S&P 500, 40% Bloomberg Barclays US Aggregate Bond

Data Sources

Economic Indicator

Nonfarm Monthly Payrolls ('000)

Total Nonfarm Payrolls - YoY Change

U3 Unemployment Rate

U6 Unemployment Rate

Quit Rate

Job Openings: Total Nonfarm Payroll

Initial Jobless Claims ('000) 4 Wk. MA - Month End

KC Fed LMCI Momentum Indicator

Labor Force Participation Rate

Employment to Population Ratio

Temporary Help Employment

Retail Sales - YoY Change

Vehicle Sales (Mil. Units, annualized)

Personal Savings Rate

Real Retail Sales (3MMA) - YoY Change

Industrial Production - YoY Change

Capacity Utilization

Core Capital Goods Orders - YoY Change

Building Permits ('000)

Housing Starts ('000)

Source

- U.S. Bureau of Labor Statistics
- U.S. Employment and Training Administration

Federal Reserve Bank of Kansas City

- U.S. Bureau of Labor Statistics
- U.S. Bureau of Labor Statistics
- U.S. Bureau of Labor Statistics
- U.S. Bureau of the Census
- U.S. Bureau of Economic Analysis
- U.S. Bureau of Economic Analysis

Federal Reserve Bank of St. Louis

Board of Governors of the Federal Reserve System (US)

Board of Governors of the Federal Reserve System (US)

- U.S. Bureau of the Census
- U.S. Bureau of the Census
- U.S. Bureau of the Census

Data Sources (cont.)

Economic Indicator

New Home Sales

S&P/Case-Shiller Home Price Index (20 city) - YoY Change

Total Construction Spending - YoY Change

ISM Manufacturing Composite PMI

ISM Manufacturing New Orders

ISM Non-Manufacturing Composite PMI

ISM Non-Manufacturing New Orders

U. of Michigan Consumer Sentiment

Consumer Price Index (CPI) - YoY Change

Personal Consumption Expenditure (PCE) - YoY Change

Producer Price Index (PPI) - YoY Change

Average Hourly Earnings - YoY Change

Real GDP – QoQ (SAAR)

Real GDP - YoY Change

Treasury Yield Curve (10-Yr. Minus 2-Yr.)

Philly Fed Leading U.S. Index

Source

U.S. Bureau of the Census

S&P Dow Jones Indices LLC

U.S. Bureau of the Census

Institute for Supply Management

Institute for Supply Management

Institute for Supply Management

Institute for Supply Management

University of Michigan

U.S. Bureau of Labor Statistics

U.S. Bureau of Economic Analysis

U.S. Bureau of Labor Statistics

U.S. Bureau of Labor Statistics

U.S. Bureau of Economic Analysis

U.S. Bureau of Economic Analysis

Federal Reserve Bank of St. Louis

Federal Reserve Bank of Philadelphia