



“FREE” TRADES

While nationalism and protectionist policies continue to dominate global economic headlines, the online brokerage business here in the US has gone all in on “free” trade policies. Industry titan Charles Schwab pioneered the discount brokerage model and developed a highly successful business focusing on lowering commissions for retail investors. The firm has been so successful at bringing down fees, they recently announced that they would no longer be charging commissions on stock, ETF and certain option trades. On the heels of this announcement other industry leaders followed suit. TD Ameritrade, E*Trade and Interactive Brokers have all initiated similar no fee trading policies. Trading is now “free”.

If you are not already, the question you should be asking is if trades are now “free”, how do these firms make enough money to stay in business and provide shareholders with competitive returns on capital? A recent article by The Wall Street Journal stated it well, “when you trade for free, you still pay – at a different tollbooth.” There are essentially two tollbooths we would like to address, and neither is particularly transparent to the average investor.

Today, one of the primary sources of revenue for brokerage firms is net interest margin. Net interest margin is the difference between the interest income generated by financial institutions and the amount of interest paid out to their lenders. In this case, account holders are the lenders, whether they realize it or not. Virtually all brokerage accounts are set-up to sweep idle cash into low interest bank accounts (sweep vehicles) sponsored by the brokerage firms. The brokerage firm then directs equivalent funds into higher yielding investment accounts of its own and pockets the difference. Over time, account holders have typically seen their choice of sweep vehicles increasingly restricted. Sweep vehicles are generally paying annual interest between 0.10% and 0.60% in today’s marketplace. This compares to ultra conservative US government money market funds yielding nearly 2.0%. This business model is not new, the banking industry has been built on revenues from net interest margin. Given this increasing focus on net interest revenues, brokerage clients should be diligent about reviewing their sweep vehicle options.

The other tollbooth we would like to highlight is even less transparent, and while a legal (as long as it is disclosed) common industry practice, has the potential to take money out of investors’ pockets, a nearly invisible pickpocket of sorts. Contrary to popular press, Charles Schwab is not leading the industry transition to free trading. They are merely responding to new competition that operates on a far different revenue model. Enter Robinhood, a relatively new brokerage firm founded on the premise of commission-free trading. What’s the catch?

In order to process trades brokerage firms have to route their orders through any number of execution firms that match buy and sell orders. Robinhood, and other new competitors, as a practice derive a significant portion of their revenues from selling their brokerage order flow to the highest paying execution firms. Brokerage firms are allowed to sell their order flow but are required by the SEC to disclose to whom and for how much. The execution firms can use the order flow information to run high frequency trading programs that exploit pricing trends, trends visible only with access to order flow. There is a case to be made that the high frequency trading profits come at the expense of brokerage clients in the form of higher execution costs. However, any difference in execution would generally be difficult to detect even for sophisticated investors. The election to sell order flow is unique to each brokerage firm. Investors can access more details on their brokerage firm’s order routing practices by referencing the SEC’s Rule 606 quarterly reporting.

GLOBAL ECONOMIC LANDSCAPE

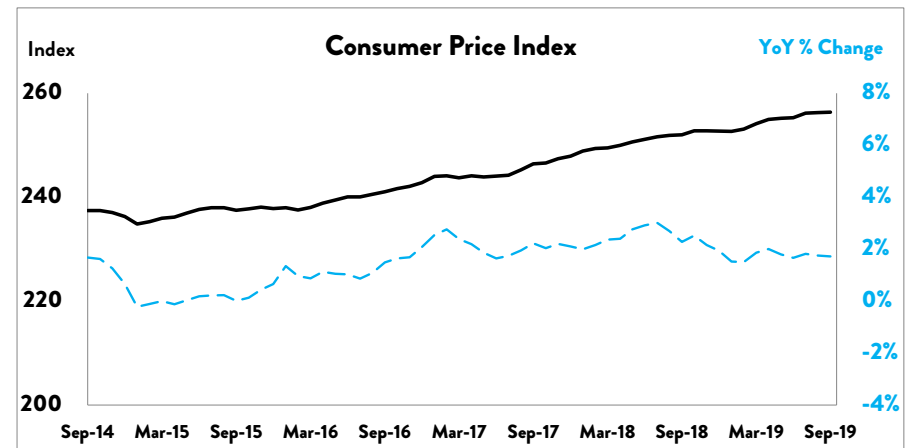
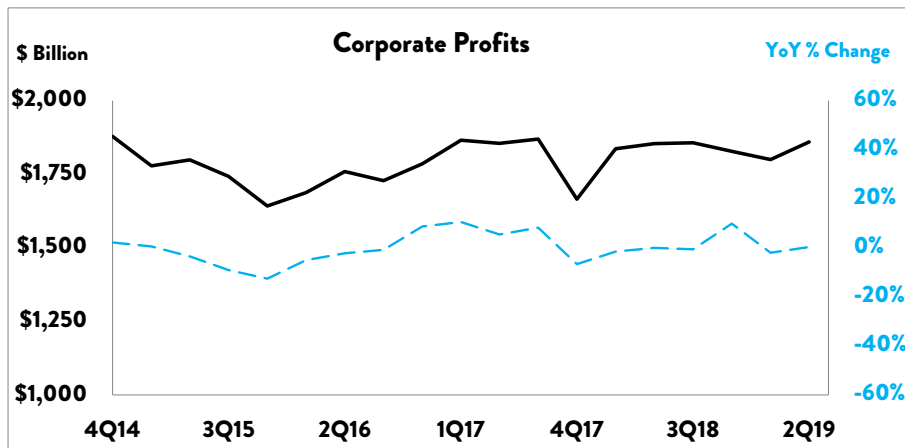
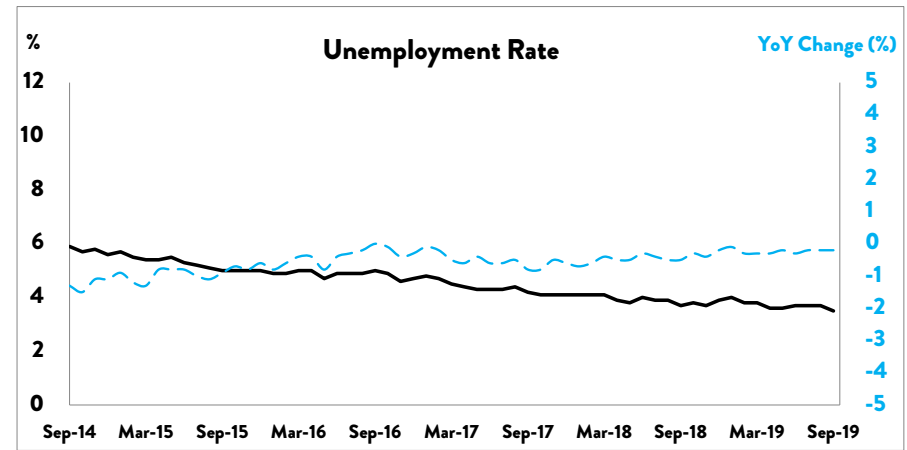
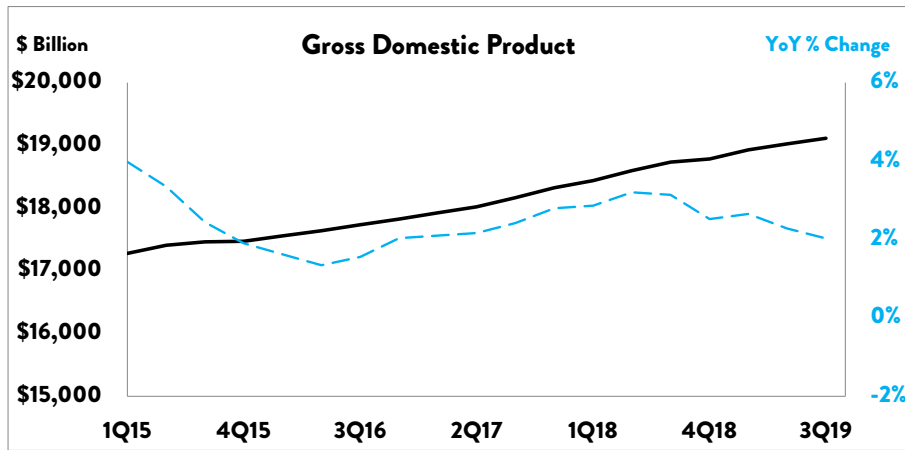
- Domestic markets continue to weigh mixed economic signals. The US economy gained 136,000 jobs in September, which coincided with a 45,000 upward revision to the prior two months. This resulted in a monthly average of just over 156,000 for the quarter, not bad for an aging economic cycle. However, US manufacturing activity fell to its lowest level in more than 10 years in the most recent month. Manufacturing represents a modest 10% of our current economy versus 90% for services. The net result was an unemployment rate that fell to 3.5% in September, its lowest reading since December 1969. This is well below the 50-year average rate of 6.2% and indicates an economy operating near full capacity.
- Economies of developed world countries continue to show signs of economic weakness. Global manufacturing declined another 1.3 points in September to 47.8, the lowest level in a decade. Global service activity has been more positive but shows signs of slowing. UK services Purchasing Managers Index dropped 1.1 points to 49.5 in September. The drop below 50 indicates a shift from expansion to contraction occurred late in the quarter. German industrial activity is nearing recession levels and the United Kingdom's Brexit transition is an ongoing source of uncertainty. Ten-year yields across Germany, France, Switzerland and Japan are all negative, reflecting continued weak growth expectations out of Europe.
- Latin American countries continue to pursue policies of reform to stimulate economic growth. Argentina was experiencing the beginning of a cyclical upswing in its economy until unexpected primary election results in August led to a collapse in sovereign bond prices. The Mexican central bank cut their policy rate by 25 basis points to counter slowing capital expenditures resulting from expected slower growth in the US. Mexico continues to gain market share of US exports at the expense of China. Brazil continues to promote controversial policies of economic growth that include clearing of rainforest to promote agricultural production and transitioning certain sovereign energy rights over to private parties to enhance production.

GLOBAL FINANCIAL MARKETS

- Domestic equity markets continue to see increasing cross-sector dispersion and are now seemingly split between cyclical and non-cyclical rotations. Throughout most of the quarter and year-to-date, non-cyclical sectors have trended higher on fears of a global economic recession. As a result, Technology, Real Estate and Utilities have been consistent outperformers. Cyclical sectors have lagged, dramatically led by Energy, Materials and Consumer Discretionary.
- Domestic fixed income markets benefited from a third consecutive quarter of declining interest rates. 10-year US Treasury yields ended the quarter just above 1.6%. Despite the decline in rates, the US continues to have the highest rate of any G7 country. The following highlights 10-year sovereign yields across the remaining G7 markets; Canada (1.23%), UK (0.44%), Germany (-0.59%), France (-0.28%), Italy (0.83%) and Japan (-0.21%).
- Drone strikes on Saudi Arabia oil production facilities took nearly half of their total daily production offline and sent oil prices skyrocketing by 15% in a single day. Markets were quick to reflect the temporary nature of this supply shock and the lack of any significant retaliation against Iran. In less than two weeks oil prices were back down below pre-attack valuations.
- Japanese corporate share repurchases are occurring at record pace. In 2018, Japanese companies announced \$7 trillion Yen (\$65B USD) in stock buybacks which represented a 40% year-over-year increase. This pace continues to pick up and is expected to reach \$9 Trillion Yen (\$85B USD) in 2019.
- Generally poor growth prospects overseas were reflected in negative developed and emerging stock returns this quarter. Though, year-to-date returns have been surprisingly resilient. Developed markets have benefited from central bank pledges of more accommodative policies. Emerging markets have also benefited from easier monetary policy but have been more directly impacted by increasing trade tensions between the US and China, resulting in slower growth expectations.

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3Q2019 Economic Data



Key: — Economic Series - - - Year-Over-Year Change

Labor Market Statistics (Monthly)					
Category	Recent	5-Yr High	5-Yr Low	5-Yr Avg.	Date
Jobs Added/Lost Monthly	136,000	351,000	14,000	203,033	Sep-19
Unemployment Rate	3.5%	5.9%	3.5%	4.5%	Sep-19
Median Unemployment Length (Weeks)	9.8	14.0	6.6	10.4	Sep-19
Average Hourly Earnings	\$28.09	\$28.10	\$24.58	\$26.22	Sep-19

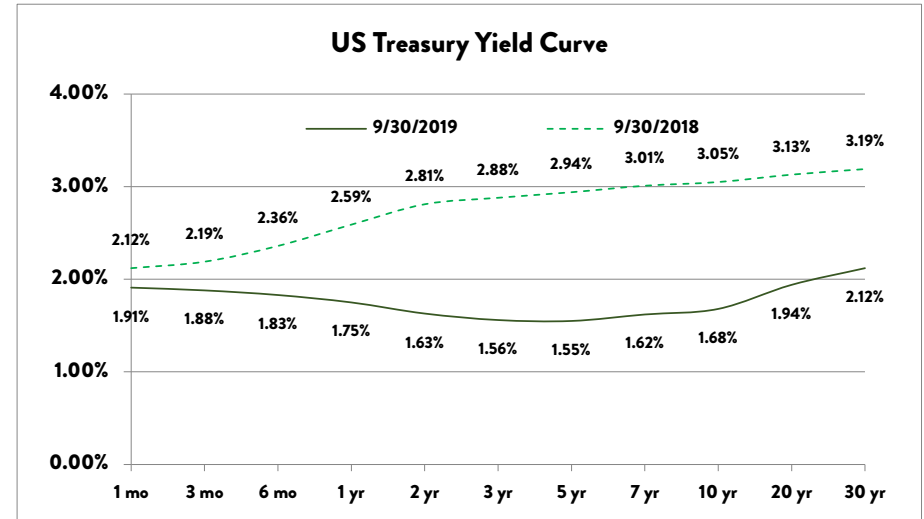
Source: Federal Reserve Bank of St. Louis and Bureau of Labor Statistics

Other Prices and Indexes (Monthly)					
Category	Recent	5-Yr High	5-Yr Low	% Off Peak	Date
Gas: Price per Gallon	\$2.56	\$3.20	\$1.79	-20.2%	Sep-19
Spot Oil	\$56.95	\$84.40	\$30.32	-32.5%	Sep-19
Case-Shiller Home Price Index	215.8	216.1	171.5	25.8%*	Aug-19
Medical Care CPI	502.3	502.3	437.5	14.8%*	Sep-19

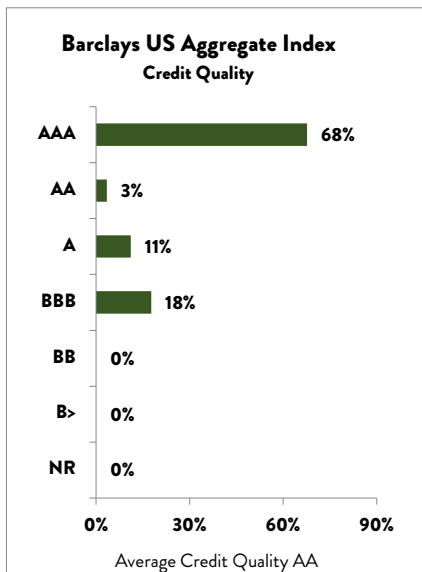
*% Off Low

3Q2019 Bond Market Data

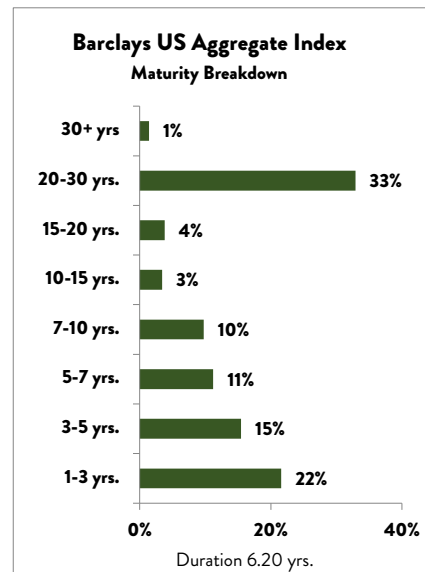
Index	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
90-Day T-Bill	0.58%	1.84%	2.35%	1.44%	0.90%	0.49%
Barclays US Aggregate	2.27%	8.52%	10.30%	2.92%	3.38%	3.75%
Barclays Short US Treasury	0.56%	1.95%	2.56%	1.57%	1.05%	0.62%
Barclays Int. US Treasury	1.18%	5.22%	7.58%	1.80%	2.19%	2.39%
Barclays Long US Treasury	7.92%	19.77%	24.79%	4.07%	6.77%	6.87%
Barclays US TIPS	1.35%	7.58%	7.13%	2.21%	2.45%	3.46%
Barclays US Credit	2.98%	12.61%	12.63%	4.33%	4.54%	5.32%
Barclays US Mortgage-Backed	1.37%	5.60%	7.80%	2.32%	2.80%	3.14%
Barclays US Asset-Backed	0.92%	4.13%	5.42%	2.24%	2.25%	2.82%
Barclays US 20-Yr Municipal	2.29%	8.59%	10.58%	4.04%	4.71%	5.24%
Barclays US High Yield	1.33%	11.41%	6.36%	6.07%	5.37%	7.94%
Barclays Global	0.71%	6.32%	7.60%	1.59%	1.99%	2.34%
Barclays International	-0.58%	4.38%	5.34%	0.43%	0.87%	1.27%
Barclays Emerging Market	1.28%	10.79%	10.60%	4.42%	5.04%	6.66%



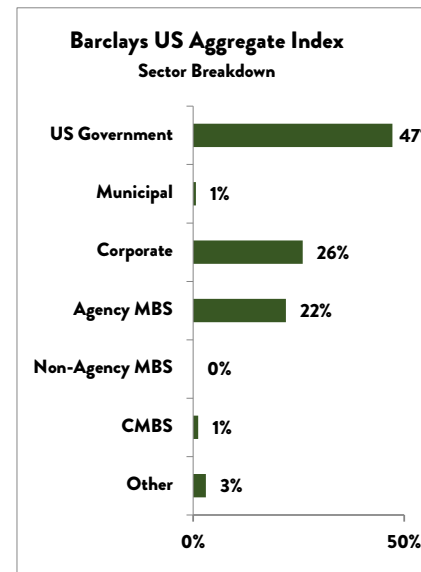
Source: Department of US Treasury



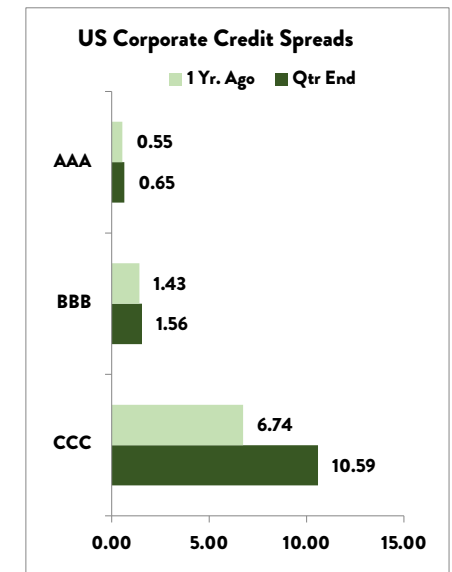
Source: Morningstar



Source: Morningstar



Source: Morningstar



Source: Federal Reserve / Bank of America

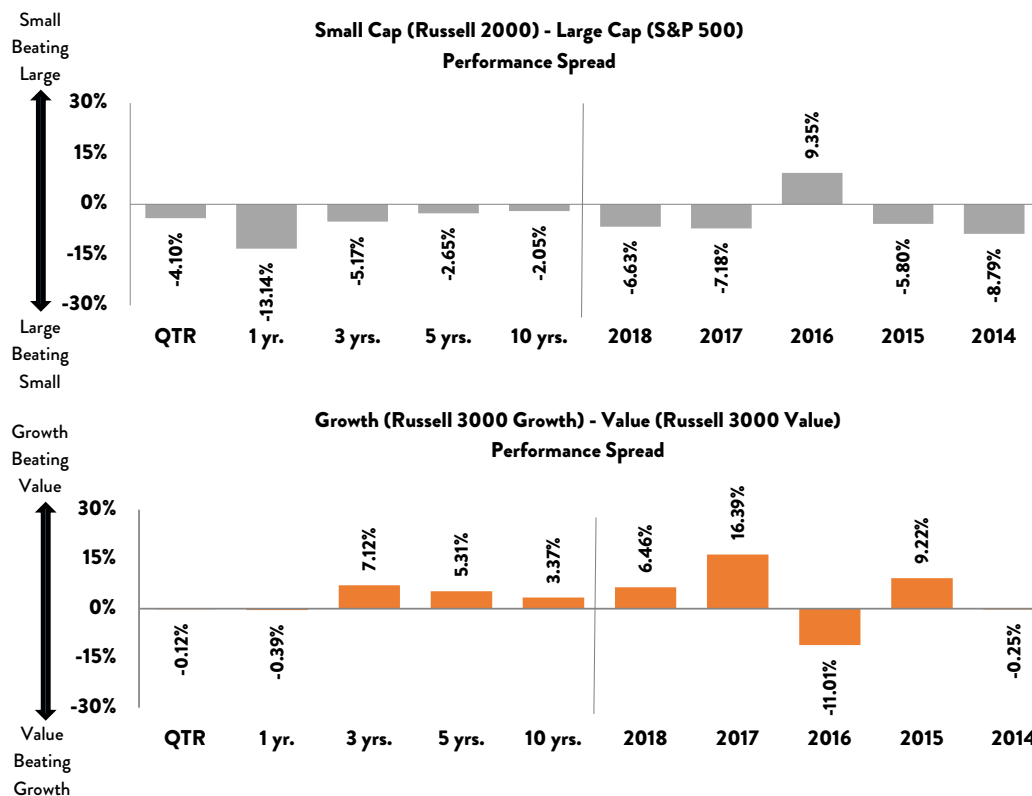
3Q2019 US Equity Market Data

Sectors Weights/Returns (ranked by quarter performance)

S&P 500 Index	Wgt.	Sector	QTR	YTD	1 yr.
	4%	Utilities	9.33%	25.40%	27.10%
	3%	Real Estate	7.71%	29.71%	24.74%
	8%	Consumer Staples	6.11%	23.28%	16.85%
	22%	Information Technology	3.34%	31.37%	8.59%
	10%	Communication Services	2.22%	21.74%	5.69%
	13%	Financials	2.01%	19.60%	3.92%
	9%	Industrials	0.99%	22.58%	1.39%
	10%	Consumer Discretionary	0.51%	22.46%	2.36%
	3%	Materials	-0.12%	17.11%	2.70%
14%	Health Care	-2.25%	5.64%	-3.57%	
5%	Energy	-6.30%	6.00%	-19.21%	
S&P Midcap 400 Index	Wgt.	Sector	QTR	YTD	1 yr.
	11%	Real Estate	7.26%	20.85%	8.09%
	5%	Utilities	3.28%	16.79%	15.94%
	3%	Consumer Staples	1.69%	7.59%	-1.03%
	17%	Financials	1.20%	20.28%	1.31%
	15%	Information Technology	1.08%	28.47%	6.82%
	12%	Consumer Discretionary	0.94%	17.45%	-3.87%
	16%	Industrials	-0.71%	23.20%	0.31%
	6%	Materials	-2.84%	13.08%	-8.97%
	10%	Health Care	-4.13%	10.49%	-11.53%
2%	Communication Services	-4.25%	12.00%	0.84%	
2%	Energy	-22.95%	-22.68%	-54.90%	
S&P Smallcap 600 Index	Wgt.	Sector	QTR	YTD	1 yr.
	2%	Utilities	6.58%	22.90%	15.97%
	7%	Real Estate	6.47%	23.50%	9.71%
	14%	Information Technology	3.31%	24.97%	2.89%
	4%	Consumer Staples	2.14%	7.72%	-7.72%
	14%	Consumer Discretionary	1.27%	10.11%	-11.40%
	18%	Industrials	0.57%	20.86%	-7.33%
	18%	Financials	-0.56%	11.74%	-4.12%
	2%	Communication Services	-1.40%	2.87%	-18.80%
	5%	Materials	-2.85%	12.23%	-17.47%
12%	Health Care	-3.76%	5.44%	-18.89%	
4%	Energy	-22.26%	-19.97%	-56.62%	

Index Performance Data

Index	QTR	YTD	1 yr.	Annualized		
				3 yrs.	5 yrs.	10 yrs.
S&P 500	1.70%	20.55%	4.25%	13.39%	10.84%	13.24%
Russell 1000 Value	1.36%	17.81%	4.00%	9.43%	7.79%	11.46%
Russell 1000 Growth	1.49%	23.30%	3.71%	16.89%	13.39%	14.94%
Russell Mid Cap	0.48%	21.93%	3.19%	10.69%	9.10%	13.07%
Russell Mid Cap Value	1.22%	19.47%	1.60%	7.82%	7.55%	12.29%
Russell Mid Cap Growth	-0.67%	25.23%	5.20%	14.50%	11.12%	14.08%
Russell 2000	-2.40%	14.18%	-8.89%	8.23%	8.19%	11.19%
Russell 2000 Value	-0.57%	12.82%	-8.24%	6.54%	7.17%	10.06%
Russell 2000 Growth	-4.17%	15.34%	-9.63%	9.79%	9.08%	12.25%
Russell 3000	1.16%	20.09%	2.92%	12.83%	10.44%	13.08%
DJ US Select REIT	6.83%	24.64%	16.41%	6.48%	9.70%	12.69%



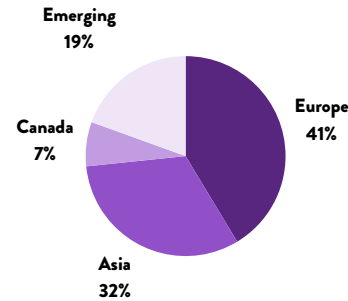
3Q2019 International Market Data

Index Performance Data (net)

Index (US\$)	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
MSCI ACWI ex-US	-1.80%	11.56%	-1.23%	6.33%	2.90%	4.45%
MSCI EAFE	-1.07%	12.80%	-1.34%	6.48%	3.27%	4.90%
Europe	-1.80%	13.72%	-0.75%	6.57%	2.38%	4.61%
United Kingdom	-2.49%	10.09%	-2.88%	4.63%	0.44%	4.76%
Germany	-4.03%	9.90%	-7.11%	3.48%	1.87%	4.42%
France	-1.72%	15.87%	-1.57%	10.23%	5.08%	4.35%
Pacific	0.23%	11.43%	-2.17%	6.54%	5.11%	5.61%
Japan	3.13%	11.12%	-4.69%	6.22%	5.61%	5.51%
Hong Kong	-11.94%	2.82%	-1.84%	5.51%	6.24%	7.74%
Australia	-1.39%	17.86%	6.06%	7.80%	3.77%	5.07%
Canada	0.45%	21.55%	2.96%	6.45%	1.00%	3.61%
MSCI EM	-4.25%	5.89%	-2.02%	5.97%	2.33%	3.37%
MSCI EM Latin America	-5.61%	6.32%	6.70%	6.80%	-0.78%	-0.48%
MSCI EM Asia	-3.41%	5.98%	-3.87%	6.33%	4.09%	5.20%
MSCI EM Eur/Mid East	-4.13%	9.99%	5.25%	7.95%	-0.42%	0.19%
MSCI ACWI Value ex-US	-2.80%	6.94%	-4.51%	5.24%	0.89%	3.05%
MSCI ACWI Growth ex-US	-0.85%	16.21%	2.03%	7.37%	4.86%	5.82%
MSCI ACWI Sm Cap ex-US	-1.19%	10.28%	-5.63%	4.64%	3.98%	6.13%

Regional Exposure

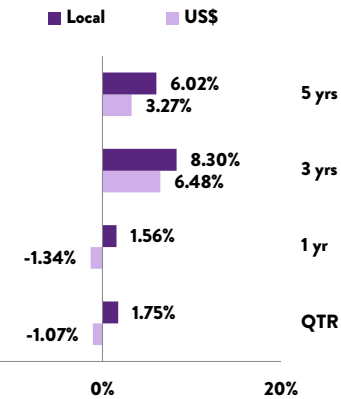
MSCI ACWI ex-US



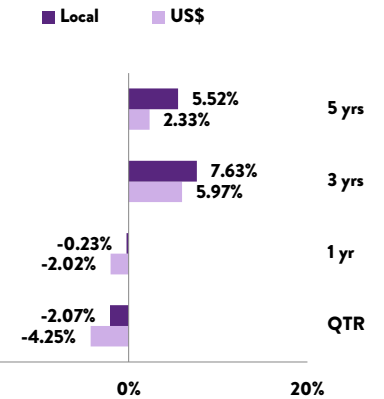
Top 10 Countries (MSCI AC World ex-US)

Japan	17%
UK	11%
China	9%
France	8%
Canada	7%
Switzerland	6%
Germany	6%
Australia	5%
South Korea	3%
Taiwan	3%

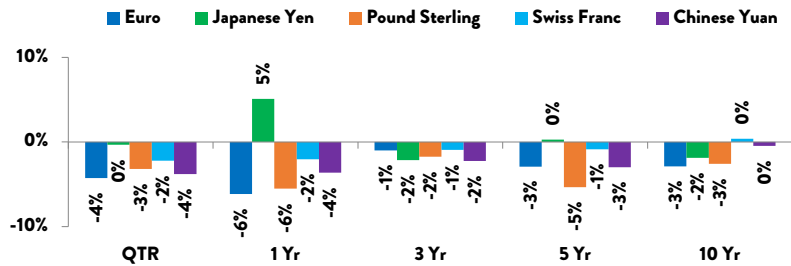
MSCI EAFE Index Return



MSCI Emerging Index Return

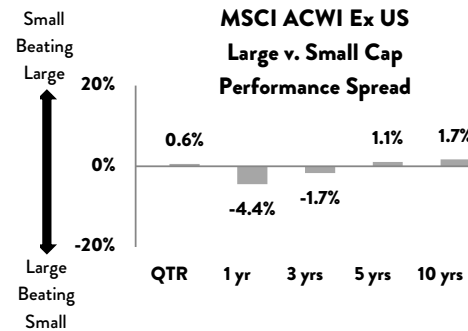


Foreign Currency v. US\$ Returns

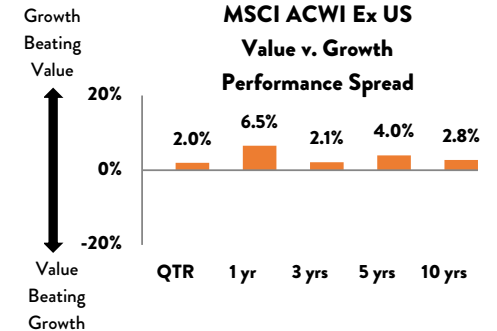


Exchange Rates	QTR	2Q19	1Q19	4Q18	3Q18	2Q18
Japanese Yen	108.11	107.84	110.68	109.70	113.48	110.71
Euro	0.92	0.88	0.89	0.87	0.86	0.86
British Pound	0.81	0.79	0.77	0.78	0.77	0.76
Swiss Franc	1.00	0.98	1.00	0.98	0.98	0.99
Chinese Yuan	7.15	6.87	6.71	6.88	6.87	6.62

MSCI ACWI Ex US Large v. Small Cap Performance Spread



MSCI ACWI Ex US Value v. Growth Performance Spread



Historical Market Returns

Ranked by Performance

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD	3Q19
Emerging Markets 25.55%	Emerging Markets 34.00%	Emerging Markets 32.14%	Emerging Markets 39.42%	US Bonds 5.24%	Emerging Markets 78.51%	Small Cap 26.85%	Core Real Estate 14.96%	Emerging Markets 18.22%	Small Cap 38.82%	Large Cap 13.68%	Core Real Estate 13.95%	Small Cap 21.30%	Emerging Markets 37.28%	Core Real Estate 7.36%	Mid Cap 21.93%	US Bonds 2.27%
Intl 20.91%	Commod. 21.36%	Intl 26.65%	Intl 16.65%	Global Bonds 4.79%	High Yield 58.21%	Mid Cap 25.48%	TIPS 13.56%	Mid Cap 17.28%	Mid Cap 34.76%	Mid Cap 13.21%	Large Cap 1.38%	High Yield 17.12%	Intl 27.19%	Cash 1.69%	Large Cap 20.55%	Large Cap 1.70%
Mid Cap 20.22%	Core Real Estate 20.15%	Small Cap 18.37%	Commod. 16.23%	Cash 1.39%	Intl 41.45%	Emerging Markets 18.88%	US Bonds 7.84%	Intl 16.83%	Large Cap 32.39%	Core Real Estate 11.44%	US Bonds 0.55%	Mid Cap 13.79%	Large Cap 21.83%	US Bonds 0.01%	Small Cap 14.18%	TIPS 1.35%
Small Cap 18.33%	Intl 16.62%	Large Cap 15.79%	Core Real Estate 14.84%	TIPS -2.35%	Mid Cap 40.48%	Commod. 16.83%	Global Bonds 5.64%	Small Cap 16.35%	Intl 15.29%	US Bonds 5.97%	Cash 0.03%	Large Cap 11.95%	Mid Cap 18.52%	Global Bonds -1.20%	Global Balanced 12.84%	High Yield 1.33%
Global Balanced 12.18%	Mid Cap 12.65%	Core Real Estate 15.27%	TIPS 11.64%	Core Real Estate -10.70%	Small Cap 27.17%	Core Real Estate 15.26%	High Yield 4.98%	Large Cap 16.00%	Global Balanced 14.46%	Small Cap 4.89%	TIPS -1.43%	Commod. 11.76	Global Balanced 15.87%	TIPS -1.26%	Intl 11.56%	Core Real Estate 1.08%
Core Real Estate 12.00%	Large Cap 4.91%	Mid Cap 15.26%	Global Bonds 9.48%	Global Balanced -24.51%	Large Cap 26.46%	High Yield 15.12%	Large Cap 2.11%	High Yield 15.81%	Core Real Estate 12.95%	TIPS 3.64%	Global Balanced -1.45%	Emerging Markets 11.18%	Small Cap 14.65%	High Yield -2.08%	High Yield 11.41%	Global Bonds 0.71%
High Yield 11.13%	Small Cap 4.55%	Global Balanced 14.53%	Global Balanced 9.07%	High Yield -26.16%	Global Balanced 20.49%	Large Cap 15.06%	Cash 0.06%	Global Balanced 11.06%	High Yield 7.44%	Global Balanced 3.17%	Mid Cap -2.43%	Core Real Estate 7.76%	High Yield 7.50%	Large Cap -4.38%	US Bonds 8.52%	Global Balanced 0.60%
Large Cap 10.88%	Global Balanced 4.16%	High Yield 11.85%	US Bonds 6.97%	Small Cap -33.79%	Commod. 18.91%	Intl 11.15%	Global Balanced -0.97%	Core Real Estate 9.76%	Cash 0.07%	High Yield 2.45%	Global Bonds -3.15%	Global Balanced 5.38%	Global Bonds 7.39%	Global Balanced -5.30%	TIPS 7.58%	Cash 0.58%
Global Bonds 9.27%	Cash 3.25%	Global Bonds 6.64%	Mid Cap 5.60%	Commod. -35.65%	TIPS 11.41%	Global Balanced 9.40%	Mid Cap -1.55%	TIPS 6.98%	US Bonds -2.02%	Global Bonds 0.59%	Small Cap -4.41%	TIPS 4.68%	Core Real Estate 6.66%	Mid Cap -9.06%	Global Bonds 6.32%	Mid Cap 0.48%
Commod. 9.15%	TIPS 2.84%	Cash 4.85%	Large Cap 5.49%	Large Cap -37.00%	Global Bonds 6.93%	US Bonds 6.54%	Small Cap -4.18%	Global Bonds 4.32%	Global Bonds -2.60%	Cash 0.04%	High Yield -4.46%	Intl 4.50%	US Bonds 3.54%	Small Cap -11.01%	Emerging Markets 5.89%	Intl -1.80%
TIPS 8.46%	High Yield 2.74%	US Bonds 4.33%	Cash 4.44%	Mid Cap -41.46%	US Bonds 5.93%	TIPS 6.31%	Commod. -13.32%	US Bonds 4.21%	Emerging Markets -2.60%	Emerging Markets -2.18%	Intl -5.66%	US Bonds 2.65%	TIPS 3.01%	Commod. -11.25%	Commod. 3.13%	Commod. -1.84%
US Bonds 4.34%	US Bonds 2.43%	Commod. 2.07%	High Yield 1.87%	Intl -45.53%	Cash 0.16%	Global Bonds 5.54%	Intl -13.71%	Cash 0.08%	TIPS -8.61%	Intl -3.86%	Emerging Markets -14.90%	Global Bonds 2.09%	Commod. 1.70%	Intl -14.20%	Core Real Estate 3.08%	Small Cap -2.40%
Cash 1.44%	Global Bonds -4.49%	TIPS 0.41%	Small Cap -1.57%	Emerging Markets -53.33%	Core Real Estate -30.40%	Cash 0.15%	Emerging Markets -18.42%	Commod. -1.06%	Commod. -9.52%	Commod. -17.00%	Commod. -24.60%	Cash 0.25%	Cash 0.71%	Emerging Markets -14.58%	Cash 1.84%	Emerging Markets -4.25%

Global Balanced is composed of 60% MSCI World Stock Index, 35% Barclays Global Aggregate Bond Index, and 5% US 90-Day T-Bills.