

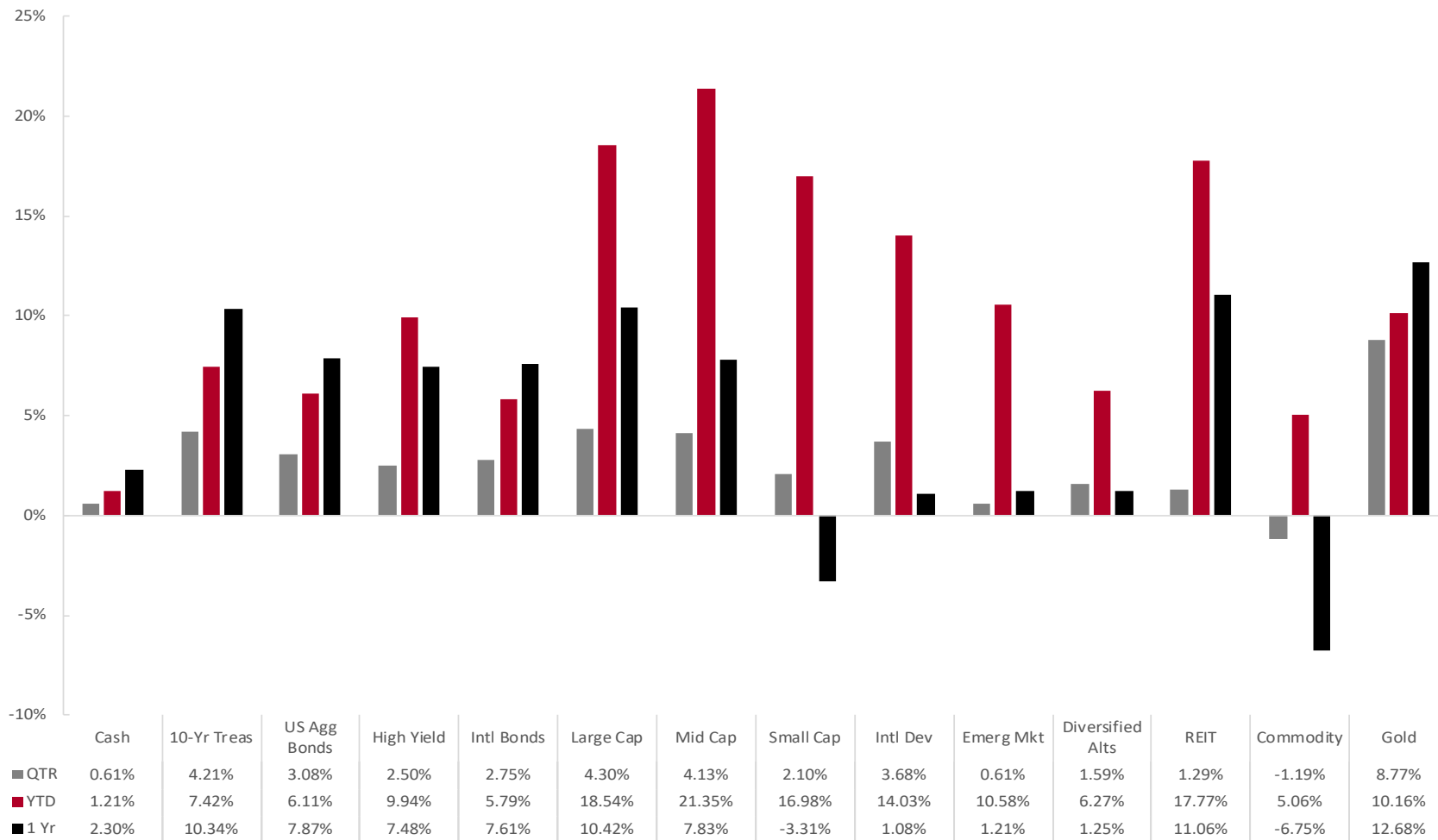
Investment Review



UNM RETIREE WELFARE BENEFIT TRUST
Investment Review
Period Ended 06/30/2019

Quarterly Market Summary

Sell in May and go away? Maybe not. A breakdown in trade negotiations between the U.S. and China led to a tough May with the S&P 500 down -6.35%, but it was sandwiched between a positive April and the best June since the 1950s. Broad market indices posted positive results for the second quarter of 2019 despite the increased volatility.



Source: Morningstar

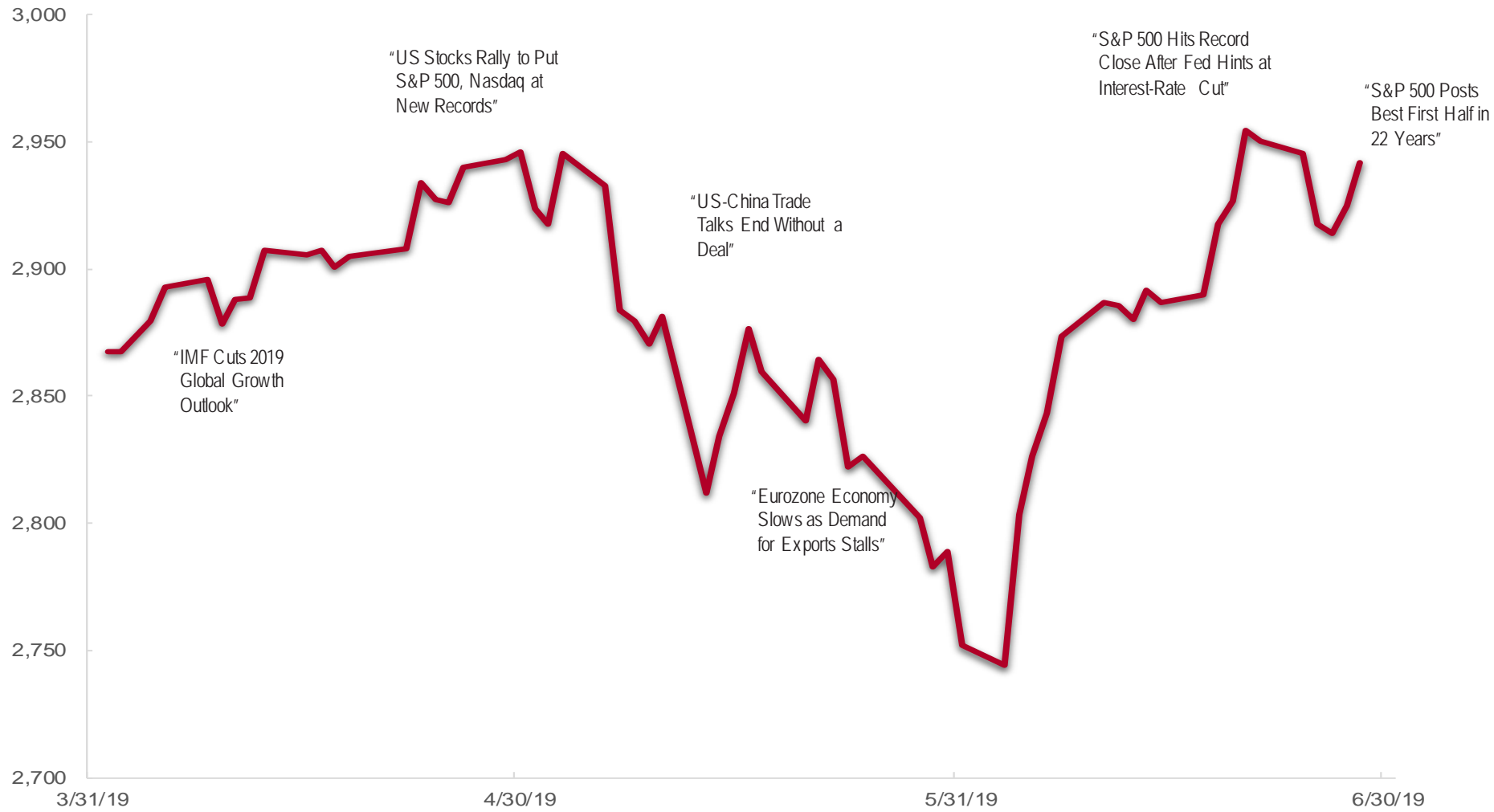
Broad Market Overview

Returns	3 Mo.	YTD	1 Yr.	3 Yrs.	5 Yrs.	10 Yrs.
Capital Markets						
DJ Industrial Average TR USD	3.21	15.40	12.20	16.82	12.29	15.03
NASDAQ 100 TR USD	4.25	21.85	10.16	21.57	16.14	19.24
Russell 3000 TR USD	4.10	18.71	8.98	14.03	10.19	14.67
S&P 500 TR USD	4.30	18.54	10.42	14.20	10.71	14.70
Domestic Large Cap Equities						
Russell 1000 TR USD	4.25	18.84	10.02	14.16	10.45	14.77
Russell 1000 Value TR USD	3.84	16.24	8.46	10.20	7.46	13.19
Russell 1000 Growth TR USD	4.64	21.49	11.56	18.08	13.39	16.28
Domestic Mid Cap Equities						
Russell Mid Cap TR USD	4.13	21.35	7.83	12.16	8.63	15.16
Russell Mid Cap Value TR USD	3.19	18.02	3.68	8.96	6.72	14.56
Russell Mid Cap Growth TR USD	5.40	26.08	13.94	16.50	11.11	16.02
Domestic Small Cap Equities						
Russell 2000 TR USD	2.10	16.98	-3.31	12.31	7.06	13.45
Russell 2000 Value TR USD	1.38	13.47	-6.24	9.82	5.39	12.40
Russell 2000 Growth TR USD	2.75	20.36	-0.49	14.70	8.63	14.41
International Equities						
MSCI EAFE NR USD	3.68	14.03	1.08	9.11	2.25	6.90
MSCI EAFE Value NR USD	1.54	9.58	-2.10	8.47	0.05	5.50
MSCI EAFE Growth NR USD	5.73	18.47	4.24	9.69	4.39	8.23
MSCI ACWI Ex USA NR USD	2.98	13.60	1.29	9.39	2.16	6.54
MSCI EMNR USD	0.61	10.58	1.21	10.67	2.49	5.81
Cash & Fixed Income						
FTSE Treasury Bill 3 Mon USD	0.61	1.21	2.30	1.36	0.84	0.46
BBgBarc US Agg Bond TR USD	3.08	6.11	7.87	2.32	2.95	3.90
BBgBarc Gbl Agg Ex USD TR Hdg USD	2.75	5.79	7.61	3.34	4.43	4.44
BBgBarc US Corporate High Yield TR USD	2.50	9.94	7.48	7.52	4.70	9.24
Alternatives						
HFRI Fund of Funds Composite USD	1.59	6.27	1.25	4.29	2.21	3.22
MSCI US REIT GR USD	1.29	17.77	11.06	4.14	7.81	15.55
Bloomberg Commodity TR USD	-1.19	5.06	-6.75	-2.18	-9.15	-3.74

Source: Morningstar

World Stock Market Performance

S&P 500 Index with Selected Headlines for Q2 2019



Source: Morningstar

World Stock Market Performance

S&P 500 Index with Selected Headlines for past 12 Months



Source: Morningstar

Annual Total Returns of Key Asset Classes

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD	
78.51%	26.85%	7.84%	18.22%	38.82%	13.69%	5.67%	21.31%	37.28%	3.17%	21.49%	Best Performing ↑ ↓ Worst Performing
58.21%	25.48%	4.98%	17.51%	34.76%	13.45%	1.38%	17.34%	30.21%	0.01%	21.35%	
40.48%	18.88%	3.94%	17.32%	33.48%	13.22%	1.36%	17.13%	25.03%	-1.51%	18.54%	
37.21%	16.71%	2.64%	17.28%	32.53%	13.05%	0.55%	13.80%	21.83%	-2.08%	16.98%	
31.78%	15.51%	2.11%	16.35%	32.39%	8.79%	-0.27%	11.96%	18.52%	-4.02%	16.24%	
27.17%	15.12%	0.39%	16.00%	22.78%	5.97%	-0.81%	11.19%	14.65%	-4.38%	14.03%	
26.46%	15.06%	-1.55%	15.81%	8.96%	4.89%	-2.44%	7.08%	13.66%	-8.27%	10.58%	
19.69%	7.75%	-4.18%	15.26%	7.44%	3.37%	-3.83%	4.90%	7.77%	-9.06%	9.94%	
11.47%	6.54%	-5.72%	6.46%	1.18%	2.45%	-4.41%	2.65%	7.50%	-11.01%	6.27%	
5.93%	5.70%	-12.14%	4.79%	-2.02%	-2.19%	-4.47%	1.00%	3.54%	-13.79%	6.11%	
4.43%	3.28%	-18.42%	4.21%	-2.60%	-4.90%	-14.92%	0.51%	2.48%	-14.57%	5.79%	

S&P 500
Large Cap Value
Large Cap Growth

Mid Cap Blend
Small Cap Blend
Alternatives

Foreign Stocks
Emerging Markets
High Yield

Bonds
Foreign Bonds

Source: Morningstar

U.S. Equity

Q2 2019

	Value	Core	Growth
Large	3.8	4.3	4.6
Mid	3.2	4.1	5.4
Small	1.4	2.1	2.7

YTD

	Value	Core	Growth
Large	16.2	18.5	21.5
Mid	18.0	21.3	26.1
Small	13.5	17.0	20.4

1 Year

	Value	Core	Growth
Large	8.5	10.4	11.6
Mid	3.7	7.8	13.9
Small	-6.2	-3.3	-0.5

3 Year

	Value	Core	Growth
Large	10.2	14.2	18.1
Mid	9.0	12.2	16.5
Small	9.8	12.3	14.7

5 Year

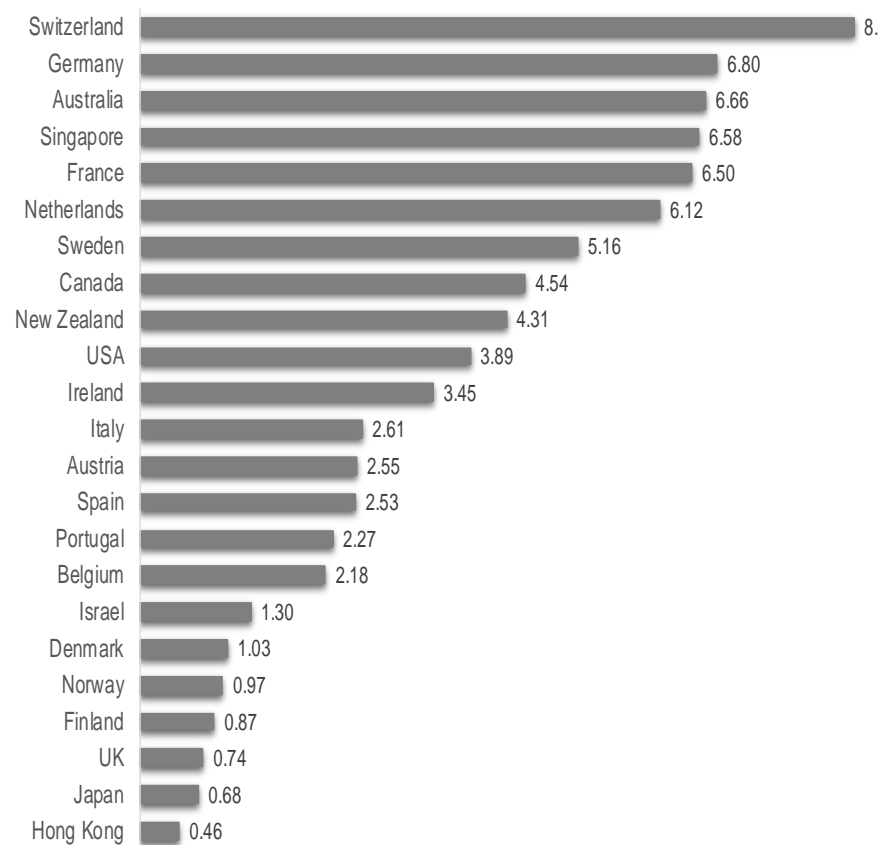
	Value	Core	Growth
Large	7.5	10.7	13.4
Mid	6.7	8.6	11.1
Small	5.4	7.1	8.6

Russell 3000 Index is used as the proxy for the US market. Returns in the style boxes are represented by the Russell indexes. Boxes shown in red represent returns below 0%. Gray boxes represent returns between 0% and 10%. Returns above 10% are shown in black.

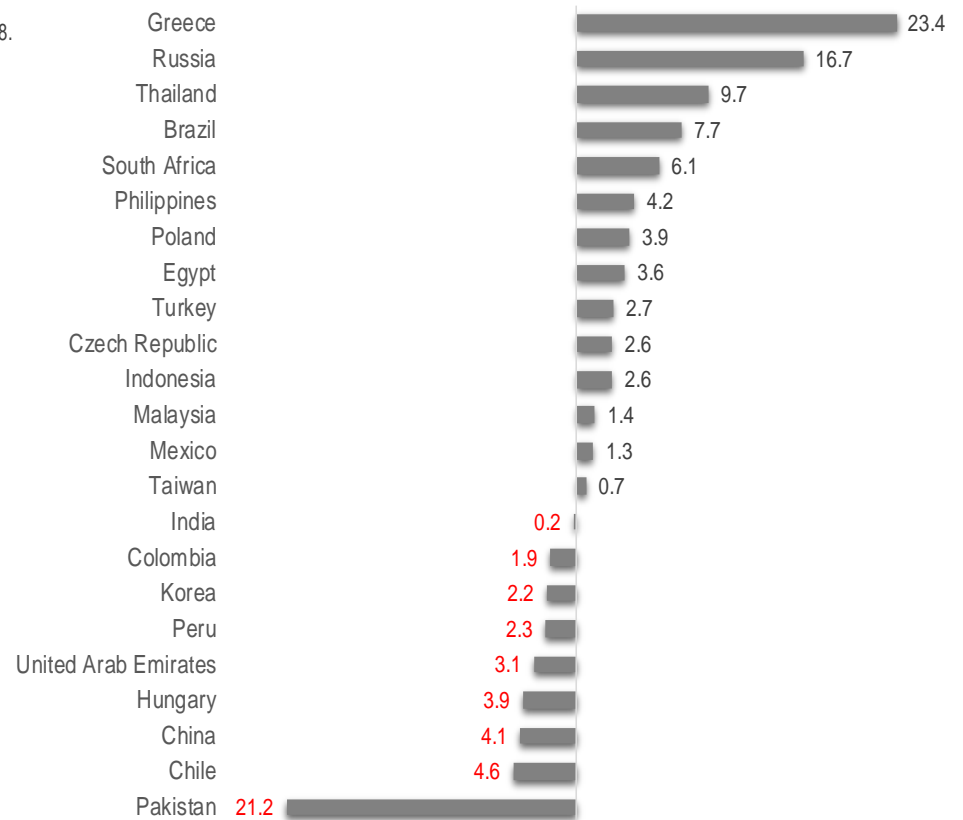
International Equity

In US dollar terms, developed market indices outperformed emerging markets, but both trailed US equity markets for 2q19. Growth outperformed value in large and small cap developed markets, but value outperformed in the broad emerging market indices.

Developed Markets Returns, Q2 19 (%)



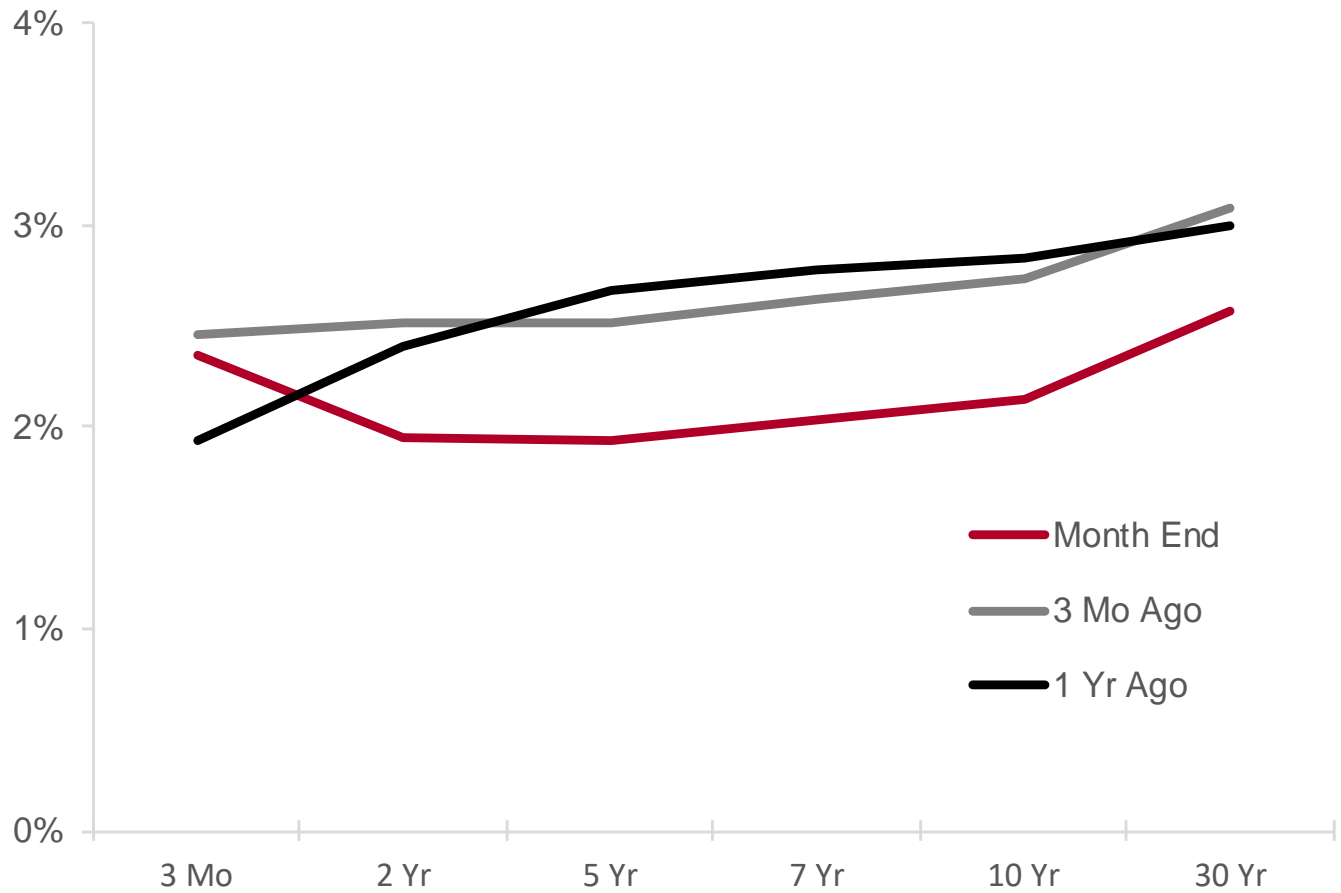
Emerging Markets Returns, Q2 19 (%)



Source: Morningstar

Fixed Income

Treasury Yield Curves

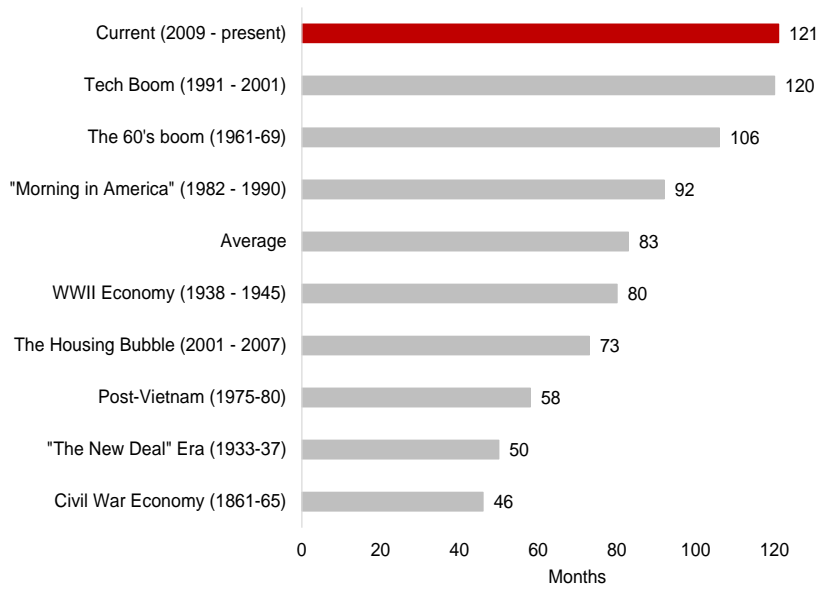


Source: Morningstar

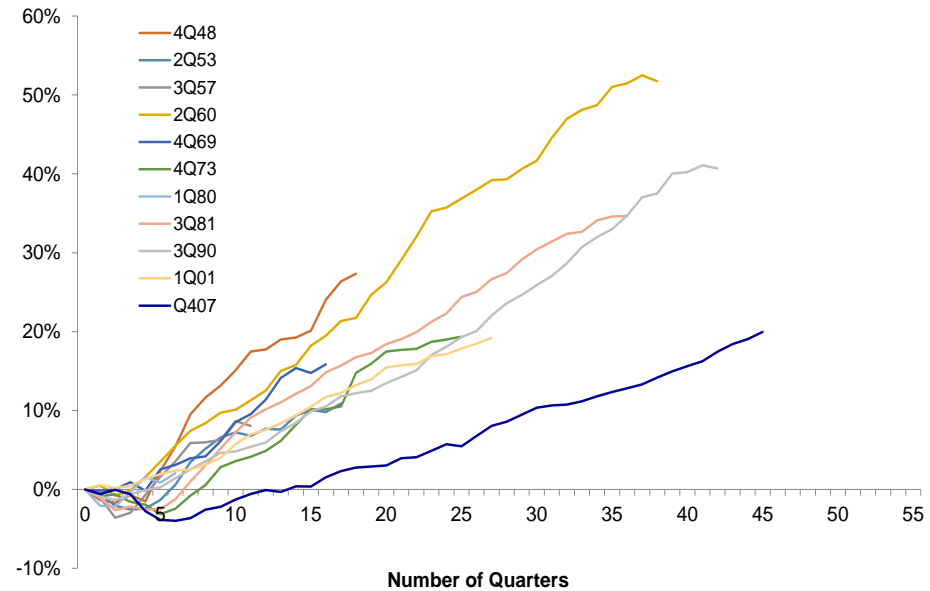
Long, Slow Recovery

The current economic expansion has now been the longest, yet slowest, expansion in U.S. history. Starting in 2009, the expansion has lasted 121 months. While a record in terms of duration, the recovery lags past recoveries in terms of cumulative GDP growth. Our current outlook is for this recovery to continue as growth remains sub-par.

Length of Economic Expansions



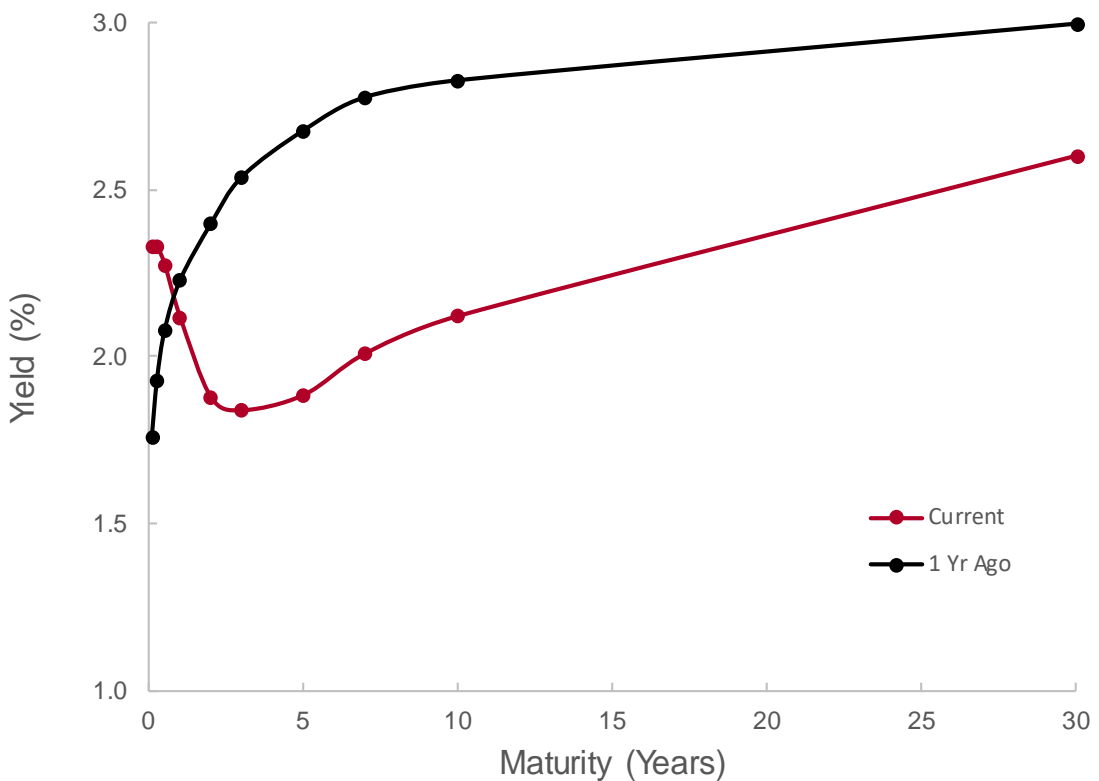
Strength of Economic Expansions



Source: Strategas

The Inverted Yield Curve

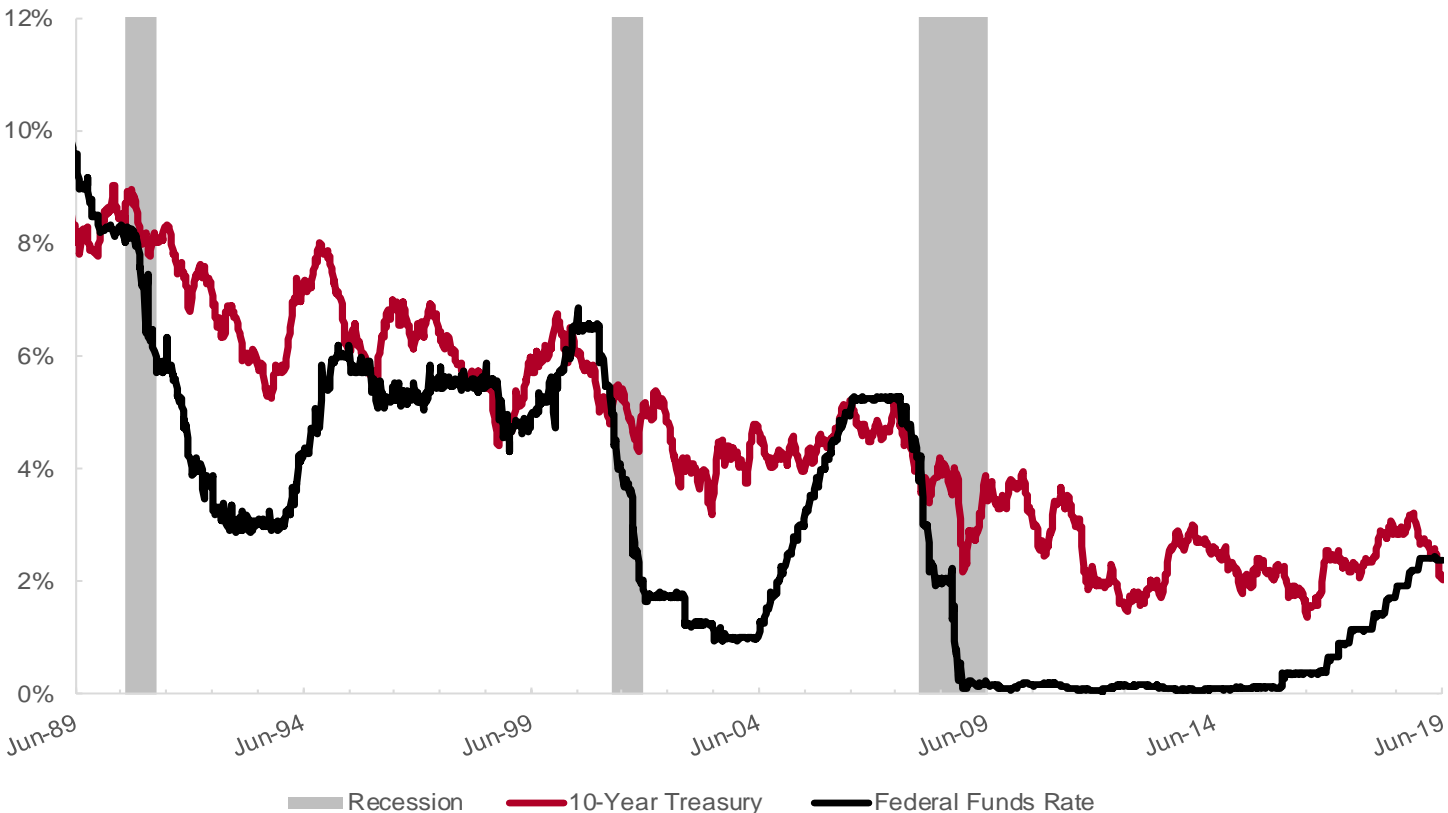
The yield curve has historically been viewed as a good forecaster of future economic activity. An upward sloping yield curve indicates an expectation of continued or accelerating economic growth with some inflation, leading investors to demand a higher rate of return to offset the longer-term effects of inflation. In contrast, the "inverted" yield curve indicates economic activity may slow and the Federal Reserve is expected to respond by lowering interest rates.



Source: Morningstar

The Inverted Yield Curve

In periods when an inversion preceded a recession, there was some period of time, normally months, that passed before the onset of economic weakness. The chart below shows the historical Federal Funds rate and the 10-year Treasury yield. It shows there have been times when the effective Federal Funds rate has matched the rate on the 10-year Treasury yield and these instances did not precede a recession. A crossover between the rates, however, usually resulted in a reduction in the Federal Funds rate.



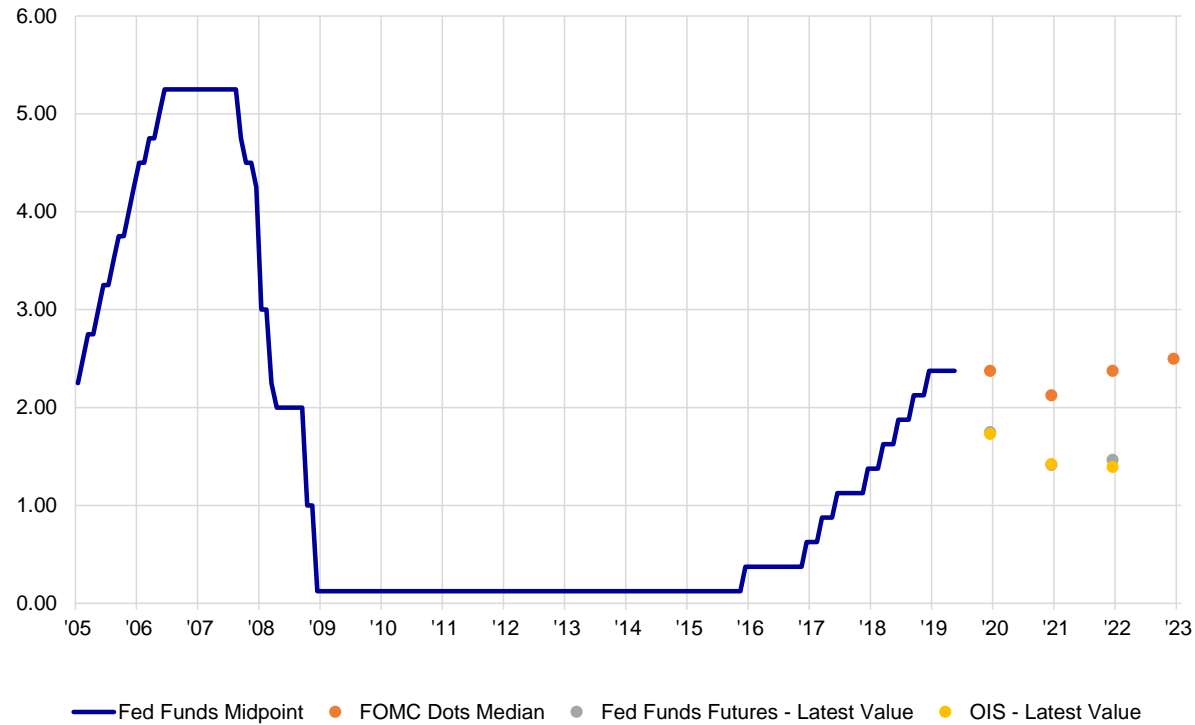
Source: FRED

Lower Forecasted Fed Funds Rate

In June, the Federal Open Market Committee (FOMC) hinted at possible rate cuts as a result of increased “uncertainties” and their intent to “sustain the expansion”. The dot plot below reflects an outlook of stable or decreasing rates among the Committee, while the market is expecting a more significant decrease in rates.

Market Expectations vs Fed Forecasts

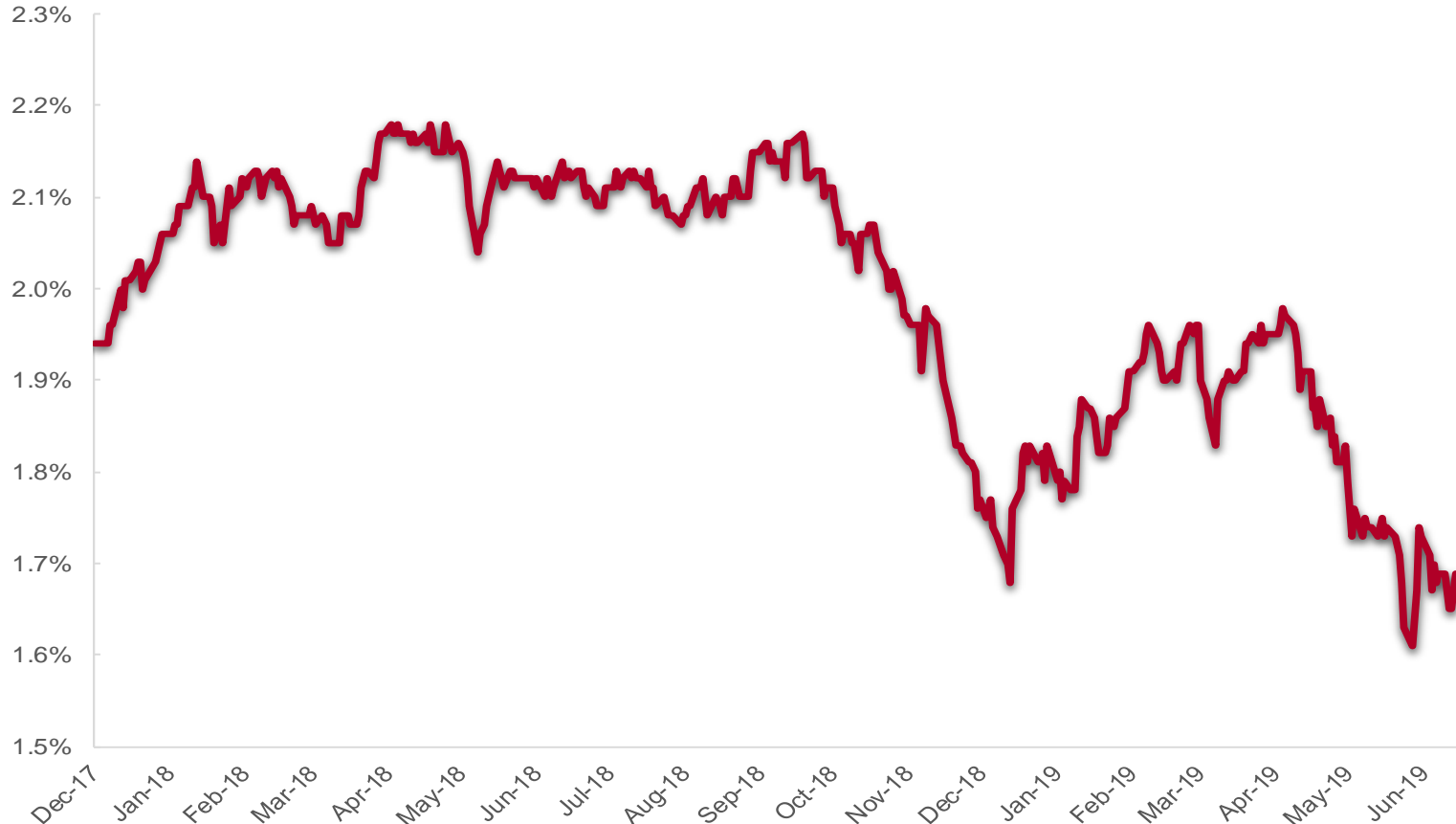
As of July 8, 2019



Source: Strategas

Declining Inflation Expectations

The strong dollar and falling commodity prices, particularly the recent drop in oil, have pushed the 10-year breakeven rate down, taking back all of the increases seen in late 2017 and early 2018. This decline may help provide the Fed cover to reduce the trajectory of the funds rate.



Source: FRED

Investment Policy Summary

Investment Objective

The long-term objective of the Trust is to earn a return sufficient to preserve the purchasing power of the Trust to fund retirement benefits for contributing UNM employees. Ultimately, the goal is to achieve an annual total return, net of management and

Benchmark(s)

Policy Benchmark Not Available
 Primary Benchmark 35% BC AGG / 15% MSCI EM, 15% MSCI EAFE, 35% RUS 3000

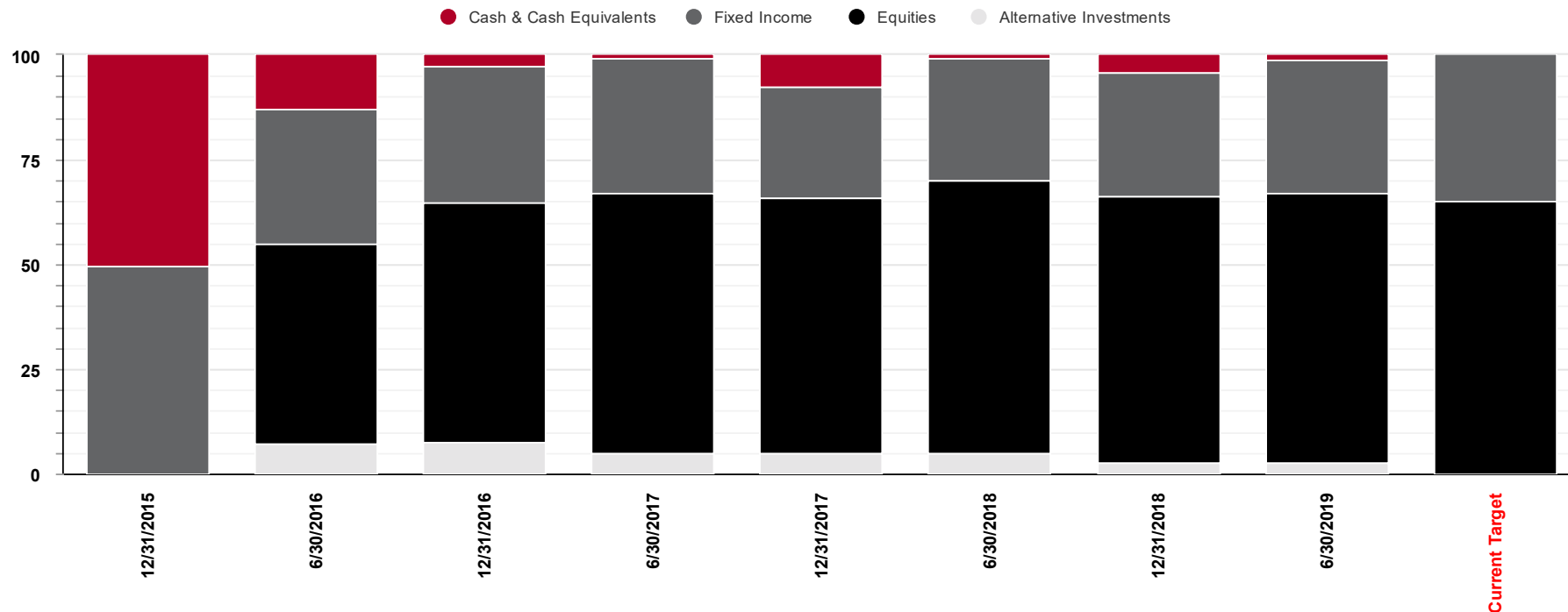
Additional Information

Liquidity Needs No known short or long-term needs
 Tax Exempt Status/Tax Information -
 Fiscal Year-End 06/30
 Account Inception 09/04/2015
 Investment Policy Statement (IPS) Effective Date 07/01/2013
 Performance Inception Date 12/31/2015

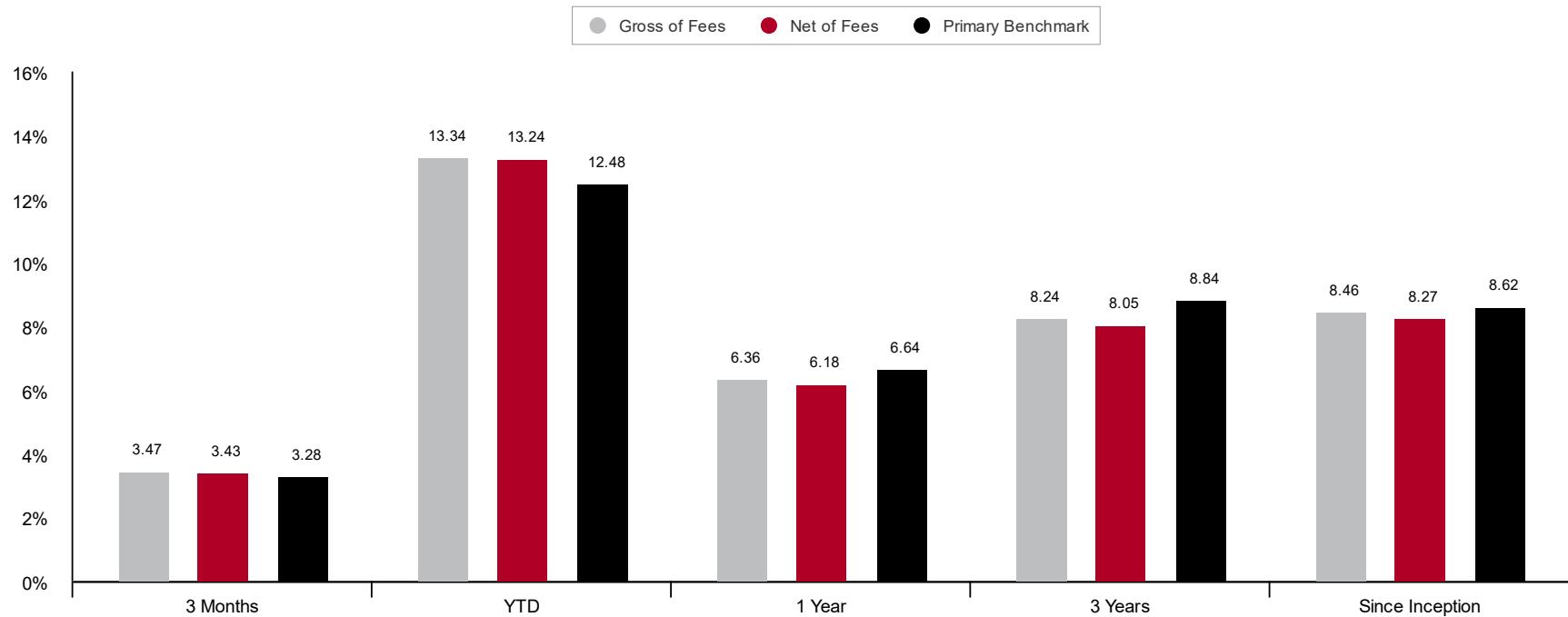
IPS Strategic Asset Allocation And Targets

Asset Class	Minimum	Maximum	Target
Cash and Cash Equivalents	0.0%	0.0%	0.0%
Fixed Income	0.0%	45.0%	35.0%
Equities	0.0%	65.0%	65.0%
Alternatives	0.0%	15.0%	0.0%

Allocation Summary



Class	Ending Market Value	Current Portfolio Allocation	Target Allocation	Difference (%)	Difference (\$)
Cash & Cash Equivalents	358,031	1.0%	-	1.0%	358,031
Fixed Income	11,659,336	31.8%	35.0%	-3.2%	-1,161,309
Equities	23,630,756	64.5%	65.0%	-0.5%	-179,012
Alternative Investments	982,290	2.7%	-	2.7%	982,290
TOTAL PORTFOLIO	36,630,413	100%	100%	-	-

Portfolio Performance Summary


Account inception was September 04, 2015. Performance calculation began on December 31, 2015.
Returns for time periods greater than 1 year are annualized.

Portfolio Summary	3 Months	YTD	1 Year	3 Years	Since Inception
Beginning Value (\$)	34,704,443	30,298,085	30,023,327	16,500,060	12,423,572
Net Contributions and Withdrawals (\$)	701,279	2,184,933	4,439,642	14,057,172	17,460,023
Investment Gain/Loss (\$)	1,224,690	4,147,394	2,167,443	6,073,180	6,746,817
Ending Value (\$)	36,630,412	36,630,412	36,630,412	36,630,412	36,630,412
Total Portfolio (Gross of Fees) (%)	3.47%	13.34%	6.36%	8.24%	8.46%
Total Portfolio (Net of Fees) (%)	3.43%	13.24%	6.18%	8.05%	8.27%
Class Blended (Primary %)	3.28%	12.48%	6.64%	8.84%	8.62%

Performance by Asset Class

Asset Class / Benchmark	Alloc %	Market Value	3 Months	YTD	1 Year	3 Years	Inception
Cash Equivalent	1.0%	358,031	0.36%	0.89%	1.76%	1.18%	1.04%
<i>N/A</i>	-	-	-	-	-	-	-
Fixed Income	31.8%	11,659,336	2.98%	6.47%	8.23%	2.71%	2.52%
<i>Barclays Capital U.S. Aggregate</i>	35.0%	-	3.08%	6.11%	7.87%	2.31%	3.50%
Equities	64.5%	23,630,756	3.68%	17.30%	6.00%	12.45%	14.45%
<i>MSCI Emerging Market Net (14.95%) / MSCI EAFE Net (14.95%) / Russell 3000® Index (35.1%)</i>	65.0%	-	3.20%	15.74%	5.43%	12.23%	11.17%
Alternatives	2.7%	982,290	4.76%	14.82%	6.66%	5.14%	3.75%
<i>N/A</i>	-	-	-	-	-	-	-
Total Portfolio (Gross of fees)	100.0%	36,630,412	3.47%	13.34%	6.36%	8.24%	8.46%
Total Portfolio (Net of fees)	-	-	3.43%	13.24%	6.18%	8.05%	8.27%
<i>Class Blended</i>	100.0%	-	3.28%	12.48%	6.64%	8.84%	8.62%

Returns for time periods greater than 1 year are annualized.

Reconciliation

Year	Time Period	Beginning Market Value ¹	Net Contributions & Withdrawals	Earnings	Ending Market Value ¹
TOTALS			29,853,938	6,776,475	
2019		30,298,085	2,184,933	4,147,394	36,630,412
	June	34,960,285	0	1,670,127	36,630,412
	May	35,525,842	715,810	-1,281,367	34,960,285
	April	34,704,443	-14,532	835,930	35,525,842
	March	33,870,381	391,469	442,593	34,704,443
	February	32,187,359	1,106,152	576,870	33,870,381
	January	30,298,085	-13,967	1,903,241	32,187,359
2018		28,232,608	4,242,681	-2,177,204	30,298,085
	Quarter 4	32,138,866	763,170	-2,603,950	30,298,085
	Quarter 3	30,023,327	1,491,540	623,999	32,138,866
	Quarter 2	29,386,795	770,872	-134,340	30,023,327
	Quarter 1	28,232,608	1,217,099	-62,912	29,386,795
2017		19,097,989	5,492,375	3,642,245	28,232,608
	Quarter 4	25,227,621	2,021,703	983,285	28,232,608
	Quarter 3	23,912,205	416,012	899,404	25,227,621
	Quarter 2	21,846,878	1,298,815	766,512	23,912,205
	Quarter 1	19,097,989	1,755,844	993,045	21,846,878
2016		12,410,699	5,540,035	1,147,255	19,097,989
	Quarter 4	18,285,337	844,838	-32,186	19,097,989
	Quarter 3	16,500,060	1,292,346	492,930	18,285,337
	Quarter 2	14,858,058	1,436,838	205,165	16,500,060
	Quarter 1	12,410,699	1,966,013	481,346	14,858,058
2015		-	12,393,916	16,783	12,410,699
	Quarter 4	10,447,273	1,962,571	855	12,410,699
	Quarter 3	-	10,431,345	15,928	10,447,273

¹Market values include accrued income.

Manager Due Diligence

The Due Diligence process uses a rational and disciplined framework for manager oversight. A manager may be placed on Watch status if/when anything of material nature occurs or is determined to potentially impact the long-term relative performance of the strategy. Such events or changes would generally be characterized as any adverse deviations in the organization, investment process or performance results of the managers. Managers that are used within the portfolio and have a Watch Status are listed within this section.

T. Rowe Price New Horizons I (PRJIX)

The investment seeks long-term capital growth. The fund invests primarily in a diversified group of small emerging growth companies, preferably early in their corporate life cycle before the companies become widely recognized by the investment community. It may also invest in companies that offer the possibility of accelerating earnings growth because of rejuvenated management, new products, or structural changes in the economy.

Asset Class: Equities, Small-Cap Growth

Date Placed on Watch: March 31, 2019

Reason for Status Change: Changes in Organization

Watch Status

- Effective 4/1/2019, Lead Portfolio Manager Henry Ellenbogen and Associate Portfolio Manager Barry Henderson will be departing the New Horizons strategy to start a new venture together outside of T. Rowe Price.
- Joshua Spencer will be named lead manager on the New Horizons portfolio and will depart the Global Technology Fund where he has served as lead portfolio manager since May 2012.
- Spencer has 20 years of investment experience, 14 of which have been with T. Rowe Price. Spencer has run the technology sleeve of the New Horizons portfolio (~25% of portfolio assets) under Ellenbogen's 9 year leadership of the fund.

Important Information

Allocation Effect: Allocation Effect measures the influence that an over- or underweight allocation to a particular sector has on a portfolio's performance.

Alpha: Alpha is a measure of performance on a risk-adjusted basis, taking the volatility of a portfolio into consideration and comparing the risk-adjusted performance to a benchmark index. The excess return of the strategy relative to the return of the benchmark index is alpha. A positive alpha of 1.0 means the strategy has outperformed its benchmark by 1%, while a similar negative alpha would indicate an underperformance of 1%.

Beta: Beta is a measure of the volatility, or systematic risk, of a portfolio in comparison to that of the market as a whole. Beta values can be positive or negative. An index has a beta of 1.0.

Batting Average: Batting average is a statistical metric used to measure a manager's ability to meet or beat an index. It is calculated by dividing the number of months in which the manager beats or matches the index return by the total number of months in the comparison period and multiplying that factor by 100. A higher batting average reflects greater skill of the manager.

Capture Ratio: The capture ratio is a statistical measure that compares the strategy's overall performance in up-markets versus its overall performance in down-markets, and is used to evaluate how much a manager participates on the upside compared to how well it protects on the downside.

Days of Non-Compliance: When monitoring compliance to investment guidelines over a period of time, the days of non-compliance are the total number of days during the time period when the portfolio was not in compliance with those guidelines.

Investment Gain/Loss: Investment Gain/Loss is defined as interest and dividend income, accrued income, foreign tax withholding refunds, realized gain/loss, and market appreciation and depreciation.

Information Ratio: Information Ratio is a risk-adjusted ratio of portfolio returns exceeding the returns of a benchmark index to the volatility of those excess returns. The information Ratio measures a portfolio manager's ability to generate excess returns relative to a benchmark, but also attempts to identify the consistency of the manager. The higher the ratio, the more consistent the manager's historical returns.

Interaction Effect: Interaction Effect is the portion of a portfolio's return that can be attributed to the interaction between the manager's selection decisions and allocation decisions.

Issuer Concentration: Issuer Concentration is monitored based on counterparties and industries by consolidating securities by issuer using the first six digits of the security's cusip. This information is then sorted by percentage of total market value.

Market Value: The market values shown in this report and used in calculating the returns in this report are calculated independently from our trust accounting system. Valuations are based on trade date full accrual methodologies which may differ from your chosen statement reporting method. Please refer to your BOKF Financial statement for your official account record. Discrepancies should be discussed with your advisor.

Net of Fee Returns: Net of fee returns reflect investment management fees that have either been calculated by BOKF or deducted from the market value of the portfolio.

Parallel Shift Effect: The Parallel Shift Effect is the portion of a portfolio's return that is attributable to a movement of the yield curve over the time period being evaluated.

Performance Inception Date: Performance inception date is the date that the all funds designated are fully invested in the chosen investment strategy.

Policy Benchmark: A Policy Benchmark is assigned to a portfolio if the client's Investment Policy Statement indicates the market index used to evaluate achievement of the investment objective. The blended benchmark represents the weighted average of the asset allocation targets defined in the investment policy statement. If no targets are defined, the midpoints of each asset class's minimum and maximum ranges will be used, with the total of the weights equaling 100%. Changes to benchmarks are made prospectively.

Primary Benchmark: The primary benchmark is made up of the target weightings assigned to asset class benchmarks of the investment policy statement, reflecting the investment strategy for the total portfolio. The primary benchmark reflects indices deemed by the investment manager to be most appropriate for the management strategy.

R-Squared: R-squared is a statistical measure that represents the percentage of a security's movements that can be explained by movements in a benchmark index. R-squared values range from 0 to 100, and a value of 100 means that all movements of a portfolio are completely explained by movements in the index.

Reshaping Effect: The Reshaping Effect is the portion of a portfolio's return that is attributable to the change in the shape of the yield curve over the time period being evaluated.

Rolldown Effect: The Rolldown Effect is the portion of a portfolio's return that is attributable to the bonds' movement along the yield curve as the term-to-maturity decreases over time.

Secondary Benchmark: In some instances, a secondary benchmark may be assigned as an additional measurement using different indices.

Security Level Returns: Beginning date of security level historical performance is as-of the implementation of enhanced performance reporting.

Important Information

Security/Sector Selection Effect: The Security/Sector Selection Effect is the portion of a portfolio's return that can be attributed to the manager's sector allocation and security selection decisions.

Selection Effect: The Selection Effect is the portion of a portfolio's return that can be attributed to the manager's security selection decisions within a particular sector.

Standard Deviation: Standard deviation is a measure of dispersion of returns. It is calculated by using the positive square root of the variance. The higher the standard deviation, the more risky the data set being measured.

Sortino Ratio: Sortino Ratio is a risk-adjusted ratio. It is a modification of the Sharpe ratio that differentiates harmful downside volatility from general volatility by taking into account the standard deviation of negative asset returns. The Sortino Ratio subtracts the risk-free rate of return from the portfolio's return and then divides that by the downside deviation. A large Sortino Ratio indicates the portfolio has historically had lower probability of large loss.

Tracking Error: Tracking error is a divergence between the price behavior of a portfolio and the price behavior of a benchmark. Tracking errors are reported as a positive number representing the standard deviation percentage difference. Tracking error for passive strategies should be minimal.

Turnover Ratio: Turnover Ratio is the percentage of an investment or mutual fund's holdings that have been replaced in a given year to measure the level of the fund's trading activity. The Turnover Ratio can vary depending on the type of investment style, objective, or strategy.

Yield Effect: The Yield Effect is the portion of a portfolio's return that is attributable to interest income and to price changes resulting from a decrease in term-to-maturity over the time period being evaluated.

As of: 06/30/2019

Disclosures

The information provided in this report was prepared by members of the investment management group, Strategic Investment Advisors (SIA), of BOKF, NA. The information provided herein is intended to be informative and not intended to be advice relative to any investment or portfolio offered through BOK Financial Corporation (NASDAQ:BOKF). The views expressed in this commentary reflect the opinion of the author based on data available as of the date this report was written and is subject to change without notice. This commentary is not a complete analysis of any sector, industry or security. Individual investors should consult with their financial advisor before implementing changes in their portfolio based on opinions expressed. The commentary information is not a solicitation for the investment management services of any BOKF subsidiary.

Investment Policy Statement compliance monitoring is based on the best ability of BOKF to monitor the investments within the portfolio. Pooled investments, such as mutual funds, are monitored based on the designated objective of the fund. Furthermore, BOKF will utilize their interpretation of the guidelines to determine if a portfolio is in compliance with the Investment Policy Statement.

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