


INVESTMENT

ESTABLISHED SEASON

By this season, you are established in your career and have set good saving habits. Your accumulation of knowledge and rich experiences are a reminder of a life lived to its fullest. Living within your means will create the freedom to pursue life-long dreams in the retirement season.

Verus

Investment Consultant's Report

Investment Objectives

The primary financial objective for Oklahoma Public Employees' Retirement System (OPERS) is to earn a long-term return sufficient to avoid deterioration in funded status. The System's actuary estimates this return requirement to be 7.0% while its investment consultant estimates the return requirement to be 6.0% for the fiscal year ended June 30, 2019. It is important to note that Verus uses a 10-year investment horizon whereas actuarial consultants use a much longer time horizon in developing forecasts, typically 30 years.

The secondary goals for OPERS are to outperform the asset allocation-weighted benchmark and to rank in the top fortieth percent of a universe of large public pension funds.

Asset Allocation

The System's Investment Philosophy stresses the following key points:

1. Asset allocation is the key determinant of return. Therefore, commitments to asset allocation targets are maintained through a disciplined rebalancing program.
2. Diversification, both by and within asset classes, is the primary tool for risk control.
3. Passive instruments (index funds) are suitable strategies in highly efficient markets.

ASSET CLASS	6/30/19 ALLOCATION	LOW	TARGET	HIGH	% PASSIVE OR SEMI-PASSIVE
U.S. EQUITY	40.6%	34.4%	40.0%	45.6%	68.7%
FIXED INCOME	31.5%	27.5%	32.0%	36.5%	59.0%
INT'L EQUITY	27.6%	25.0%	28.0%	31.0%	64.9%
REAL ESTATE	0.1%	0.0%	0.0%	0.2%	0.0%
CASH	0.2%	0.0%	0.0%	0.0%	0.0%

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Review of Fiscal Year 2019 Investment Environment

U.S. Equity

U.S. equities delivered strong returns over the trailing 1-year period ending in June; the S&P 500 Index returned +10.4%, weathering a healthy degree of volatility along the way. Last December, trade uncertainty and a decision from the Federal Reserve to hike interest rates helped to spark a -19.8% decline in the S&P 500 Index from previous peak levels, just shy of the -20.0% drawdown that indicates a technical bear market. Year-to-date, U.S. large-cap equities have led global equity markets higher, and the S&P 500 Index advanced +18.5%, nearly recovering from the selloff at the end of 2018.

In recent decades, equity and bond markets have benefited from Federal Reserve support during periods of market stress. In late 2018 and the first half of 2019 some weakness appeared in the U.S. economy and markets grew shaky. During this time the Fed stepped in, indicating much easier monetary policy, which has boosted asset prices. Many investors have expressed concern regarding the level of the current (cycle-high) fed funds range relative to past business cycle highs. This has left many to ask how impactful further central bank easing might be as U.S. interest rates approach zero.

A variety of secular trends have helped cultivate a supportive environment for U.S. stocks. Technological advances, lower interest rates, and falling corporate tax rates have all helped to boost corporate profit margins to record highs. As earnings expectations moderate, these margins may be increasingly scrutinized by investors. Per FactSet, the estimated year-over-year revenue and earnings growth for the S&P 500 Index in the second quarter are +3.7% and -3.0% respectively. At the end of the first quarter, expectations called for revenue and earnings growth of +4.5% and -0.5%, respectively, indicating that analysts' expectations fell markedly over the second quarter.

International Equity

International equities underperformed domestic stocks as U.S. exceptionalism remained the story. For the year ending June 30th, 2019, the S&P 500 Index delivered a +10.4% return, outpacing the MSCI ACWI Index (+5.7%), the MSCI Emerging Markets Index (+1.2%), and the MSCI EAFE Index (+1.1%). Within emerging market equities, Latin American equities (MSCI EM Latin America +18.4%) diverged from Asian equities (MCSI EM Asia -2.3%), likely aided by lower levels of economic exposure to the Chinese economy, which in Q2 grew only +6.2% from the prior year, its lowest rate since 1992.

Interest rate differentials between U.S. Treasuries and sovereign bonds in Europe and Japan widened as the Federal Reserve hiked rates while the European Central Bank and the Bank of Japan held rates steady. Expanding interest rate differentials likely contributed to the strength of the U.S. dollar over the period, which presented headwinds for unhedged investors in international equities. The only major international developed currency which strengthened vs. the dollar over the trailing year was the Japanese yen. The yen firmed up +2.8% relative to the dollar, mostly due to risk-off currency flows during the market selloff in the 4th quarter of 2018, where international investors sought safe-haven in the Japanese currency. Elsewhere, the

British pound sterling weakened as uncertainty surrounding Brexit continued to drive trading in the currency.

Fixed Income

Late last year, the Federal Reserve tightened monetary policy further with 0.25% rate hikes in September and December, bringing the target range for federal funds to 2.25% - 2.50%. In December, escalating geopolitical tensions and expectations for slowing global growth weighed on market sentiment, and despite the Fed cutting its guidance for additional rate hikes in 2019 from three to two, markets sold off. Moving into 2019, the Fed pivoted to a much more dovish stance, starting by clarifying its “patient approach” to future rate hikes, walking back its previous commitment to “further gradual increases”. In March, the Fed announced its balance sheet “normalization” process would unwind faster than originally anticipated, which effectively eased financial conditions by creating additional market liquidity. Finally, in June the Fed pledged to “act as appropriate to sustain the expansion”, an initiative unsupported by the Fed’s mandate targeting maximum employment, stable prices, and moderate long-term interest rates. Analysts viewed the Fed’s language as effective in preparing markets for a 0.25% cut during its July meeting, and perhaps another 0.25%-0.50% in cuts by the end of the calendar year.

The shift to more accommodative monetary policy is not a phenomenon unique to the Fed – the European Central Bank, the Bank of Japan, and others have also changed their tune, citing benign inflation pressures and an uncertain geopolitical backdrop as justification for lower rates. Still, with U.S. unemployment near 50-year lows and equities near all-time highs, some analysts have expressed concern over the strength of the Fed’s stimulus measures should a recession rear its head.

Falling ten-year sovereign yields were one of the biggest stories driving markets over the year. Ten-year Treasury yields reached as high as +3.2% in November but ended Q2 2019 at +2.0%. Long-duration U.S. Treasuries were top performers in the U.S., gaining +12.3% over the year and benefitting from precipitous declines in yields. Hard-currency emerging market debt (+12.4%) was the top fixed income performer over the year, and outperformed local-currency EMD (+9.0%), mostly due to a period of emerging market currency weakness last summer. In Europe, yields on many ten-year sovereign bonds established fresh all-time lows with German yields falling from 0.3% to -0.3% and French yields falling from 0.7% to 0.0%. In Italy, yields fell from 2.6% to 2.1%, but spiked as high as 3.6% in the fourth quarter of last year due to concerns that the sitting coalition government would not respect the fiscal budget deficit limits enforced by the European Union. Over the year, the value of global negative-yielding debt rose from $8.16 trillion to $12.92 trillion.

In U.S. credit, high yield and investment grade spreads remained near cycle tights at 3.77% and 1.15%. The BBgBarc U.S. High Yield Corporate Index and BBgBarc U.S. Agg Corporate Index returned 7.5% and 7.9% over the period, respectively.

Portfolio Review

The Board adopted a new asset allocation in fiscal year 2017, pursuant to an asset/liability study. The Board has maintained the same strategic asset allocation since that time. OPERS is scheduled to conduct its next asset/liability study in 2020 which could potentially result in an asset allocation change.

Performance Review

At quarterly intervals, the System reviews performance at the total fund, asset class and individual manager levels. At each level, returns are evaluated versus appropriate indexes and peers. Index comparisons have as return objectives various after-fee return premiums with risk (standard deviation) not exceeding 125%-150% of the underlying index. OPERS targets returns within the top fortieth percentile of peer comparisons over longer time periods.

Investment returns achieved through June 30, 2019 have been calculated using a time-weighted rate of return methodology based upon market values. As shown in the following table, for the 1, 3 and 5-year annualized time periods ended June 30, 2019; the U.S. Equity asset class performed above the benchmark for the 3-year period but below its respective blended benchmark for the 1 and 5-year periods. Over the 1-year period, one enhanced index manager that uses a factor-based approach had a particularly challenging year due to stylistic headwinds. The Non-U.S. Equity asset class performed below the benchmark for the 3-year period and above its respective benchmark for the 1-year and 5-year time periods. The Fixed Income asset class performed above the benchmark for the 1-year, 3-year, and 5-year annualized time periods ended June 30, 2019. During a fiscal year where bonds broadly performed well, OPERS' fixed income composite had strong absolute and relative returns, in particular from its long duration manager.

The Domestic Equity asset class was ranked in the second quartile for the 3-year and 5-year annualized time periods. The Non-U.S. Equity asset class was ranked in the third quartile of its universe for the 3-year time period and in the second quartile for the 5-year time period. The Fixed Income asset class ranked in the third quartile of its universe for the 3-year period and in the second quartile of its peer group for the 5-year annualized time periods ended June 30, 2019. OPERS' fixed income asset class structure is more conservative than many of its large plan peers.

The total OPERS Plan performed below its Policy Benchmark for the 1 and 3-year periods and in line with the Policy Benchmark for the 5-year periods ended June 30, 2019. The total OPERS Plan ranked in the second quartile of its peers for 1, 3, and 5-year time periods ended June 30, 2019 compared to the peer universe of Public Funds greater than $1 Billion, with percentile rankings of 31%, 44%, and 40% respectively.

Verus

PERIODS ENDED 6/30/19	ONE YEAR	THREE YEARS	FIVE YEARS
Domestic Equity	7.1%	14.0%	9.8%
85% Russell 1000 / 15% Russell 2000	8.0%	13.9%	10.0%
Rank*	64	46	47
Non-U.S. Equity	2.0%	9.3%	2.8%
MSCI ACWI ex-U.S.	1.8%	9.9%	2.6%
Rank*	21	53	47
Fixed Income	8.4%	2.6%	3.5%
78% BC Agg./11% Citi 20+ Year Tsy./11% BC U.S. TIPS	8.0%	2.2%	3.2%
Rank*	25	65	42
Total Fund	6.1%	9.1%	6.1%
*Policy Benchmark***	6.7%	9.2%	6.1%
Public Fund > $1 Billion Median*	5.3%	8.9%	5.8%
Rank*	31	44	40

* Ranking 1 is best, 100 is worst. Rankings source is Investment Metrics (formerly called InvestorForce).

** Policy Benchmark is:

40% Custom Domestic Equity Benchmark (85% Russell 1000/ 15% Russell 2000)/
32% Custom Fixed Income Benchmark (78% BB U.S. Aggregate/ 11% Citi 20-Year+ Treasury/ 11% BC U.S. TIPS)/
28% MSCI ACWI ex-U.S. Index

In summary, Verus believes that OPERS is managed in a prudent and cost effective manner. The sound and disciplined policies implemented by OPERS are evidenced by its competitive performance compared to relevant benchmarks and its above median total Plan peer ranking over longer time periods.

Yours truly,

Margaret S. Jadallah
Managing Director

Verus

Chief Investment Officer's Report

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Dear Members:

The Fund's total return of 6.1% for fiscal year 2019 was below the 7% long-term return target and below the 6.7% return of the policy portfolio. Capital market returns in the U.S. carried the day, as the equity markets continued this historic bull run. But it was the U.S. fixed income markets that provided the highest overall contribution to the total return of the Fund for the period. Non-U.S. equity markets lagged the U.S., but still provided positive total returns in U.S. dollar terms for the period. Our use of active management was an overall detractor from the performance of the Fund for the period, especially in the large cap areas of the market. We endeavor to build a durable portfolio that will weather tumultuous market conditions. Maintaining diversification among asset classes and geographical regions is a critical component of that effort. We also de-emphasize active management in the portfolio, as demonstrated by our large holdings of index funds. This year's letter, which covers the 2019 fiscal year, will follow the same format as in years past. First, I will discuss the general economic environment and the performance of various markets throughout the fiscal year. Next, I will focus on the Fund by reviewing the investment performance and the asset allocation. Then, I will offer an investment outlook and discuss recent events at the Fund. Finally, I will review the Fund's investment philosophy and guiding principles, because both are critically important to the investment decision-making process.

Economic Environment

The Gross Domestic Product (GDP), the primary gauge for economic activity in the U.S., entered the eleventh year of expansion since the Great Recession ended in 2009. U.S. GDP posted an annual growth rate of 2.0% in the second quarter. Spending by consumers surged, supported by the lowest unemployment rate in almost fifty years, rising wealth from stock market gains, and favorable consumer sentiment. The strength in consumer spending was offset by declining exports and weakness in the industrial, manufacturing, and housing sectors. The U.S. Administration and China continued to antagonize each other with rhetoric on trade and by each placing reciprocal tariffs on the other's products. The U.S. dollar strengthened relative to the rest of the developed world's currencies. Note that a stronger dollar makes U.S. exports more expensive in other countries. The Federal Reserve raised the Fed Funds rate twice during the fiscal year, to 2.5%. However, the trade dispute, geopolitical risks, and a global economic slowdown caused the Fed to reverse course and reduce rates in July 2019. Fed Chairman Powell stated the Fed would "act as appropriate" to preserve the economic expansion in the U.S.

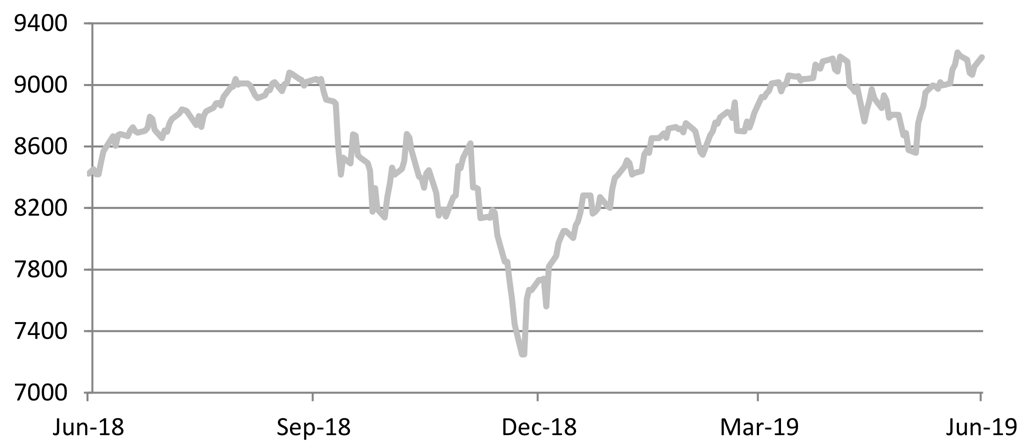
Economic activity in the European Union continued to slow on a year-over-year and quarter-over-quarter basis during the fiscal year. GDP growth for the Eurozone was just 0.2% for the second quarter of 2019. Eurozone GDP growth suffered on the potential for a global trade war, Brexit uncertainty, and reduced exports. The German economy, the largest in the Euro block, contracted on reduced industrial activity and exports. The European Central Bank (ECB) continued its stimulative measures, holding short-term rates at 0% and continuing to implement quantitative easing to lower long-term interest rates. The ECB also slashed its forecasted growth rate and inflation expectations for the Euro Zone. The United Kingdom's economic prospects have been dimmed by Brexit turmoil. Japan's quarterly economic growth was 0.3% percent in the second quarter of 2019. The trade war with the U.S. sapped economic strength in China, as the 6.3% annual GDP growth rate was the lowest it has been in nearly 30 years. GDP growth reflected lower import and export activity from trade protectionism in addition to declining domestic demand.

Chief Investment Officer's Report (continued)

U.S. and Global Stock Markets
The U.S. stock market, as measured by the Russell 3000 Index, continued to perform well during the fiscal year. The Russell 3000 Index is one of the broadest equity indices available and a good proxy for the U.S. equity market as a whole. Surging profitability by companies in the U.S. and corporate tax cuts lent support to the equity market index returns for the period.

Change in the Russell 3000 Index during the fiscal year ended June 30, 2019

Value at 6/30/19	9,180.3
Value at 6/30/18	8,423.6



Source: FTSE Russell

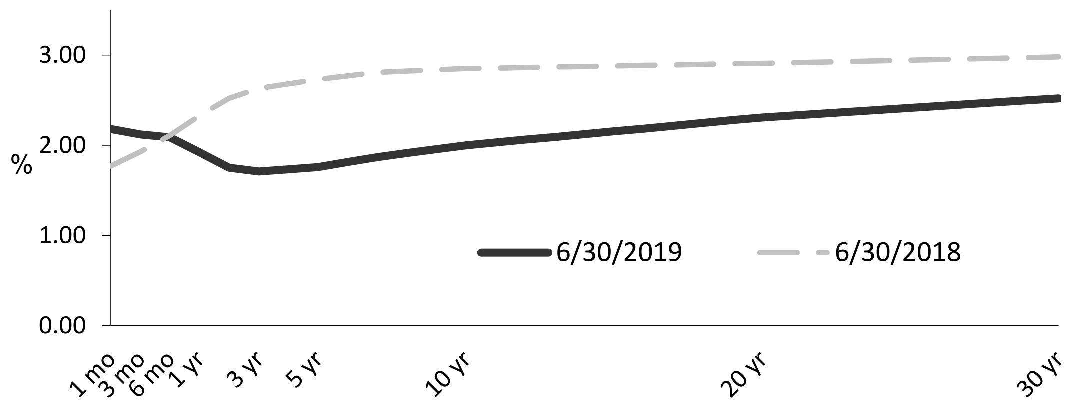
The Russell 3000 ended the one-year period through June 30, 2019, up 8.98%, despite a spike in volatility towards the end of the calendar year. While economic activity in the U.S. continued to offer support to earnings growth in general, the stock market sold off precipitously in the fourth quarter. The tariff-driven trade wars with China, Europe and Mexico, along with a ballooning federal budget deficit, contributed to uncertainty and an erosion of confidence in the business and consumer sectors. Large capitalization stocks performed especially well compared to small capitalization stocks over the one-year period ended June 30. The Russell 1000 index (large cap stocks) returned over 10%, while the Russell 2000 index (small cap stocks) lost over 3% over the period. The market again rewarded risk taking during the period, but this time in the largest companies with relatively less sensitivity to the general economy. Shares in sectors of the market with the least economic sensitivity, like utility stocks and consumer staples companies, performed well for the period, and technology shares continued to rise. The rest of the developed world continued to underperform the U.S. equity market on a U.S. dollar basis. The MSCI All Country World Index ex-U.S. (ACWI ex-U.S. Index), which includes developed and emerging markets, gained 1.29% (net) in U.S. dollar terms for the fiscal year. The U.S. dollar continued to strengthen relative to many other foreign currencies, which detracted from gains experienced by U.S. dollar investors in foreign markets. Emerging market returns in U.S. dollar terms were comparable to non-U.S. developed market returns.

Interest Rates
The chart on the next page depicts the U.S. Treasury term structure of interest rates. The yield curve is a graphical representation of yield levels across the spectrum of bond maturities. As shown, interest rate levels declined in the "belly" of the curve over the period, causing the yield curve to invert. For most of the fiscal year, the Federal Reserve continued on the path towards interest rate normalization by raising the Fed Funds rate twice during the fiscal year. The Fed Funds Rate stood at a range of 2.25%- 2.50% at the end of the fiscal year. The Federal Reserve then reversed course and began an easing cycle on fears that slowing economies outside of the U.S. would cause the economic expansion to stall in the U.S.

Chief Investment Officer's Report (continued)

Outside of the U.S., yields continued to be low, and even negative in Japan and Germany. Geopolitical risks associated with Brexit have caused great uncertainty in Europe, and central banks have continued to be accommodative.

U.S. Treasury Yield Curve



Source: U.S. Treasury

Investment Returns Through June 30, 2019

U.S. Equity	Style	1 Year	3 Years	5 Years
Russell 3000	Broad U.S. Equity	8.98%	14.02%	10.19%
S&P 500	Large Cap Equity	10.42%	14.19%	10.71%
Russell 1000	Large Cap Equity	10.02%	14.15%	10.45%
Russell 1000 Growth	Large Cap Growth	11.56%	18.07%	13.39%
Russell 1000 Value	Large Cap Value	8.46%	10.19%	7.46%
Russell 2000	Small Cap Equity	-3.31%	12.30%	7.06%
Russell 2000 Growth	Small Cap Growth	-0.49%	14.69%	8.63%
Russell 2000 Value	Small Cap Value	-6.24%	9.81%	5.39%
Oklahoma Public Employees Retirement System	**Broad U.S. Equity**	**7.15%**	**13.99%**	**9.79%**

U.S. Fixed Income	Style	1 Year	3 Years	5 Years
ML 3-Month T-Bill	Cash	2.27%	1.33%	0.83%
Bloomberg Barclays U.S. Aggregate	Core Bonds	7.87%	2.31%	2.95%
Citigroup 20-year Treasury Average	Long Term Bonds	12.22%	1.23%	5.94%
Bloomberg Barclays Corporate High Yield	High Yield Bonds	7.48%	7.52%	4.70%
Oklahoma Public Employees Retirement System	**Domestic Fixed Income**	**8.43%**	**2.60%**	**3.48%**

International Equity	Style	1 Year	3 Years	5 Years
MSCI ACWI Ex-US	Broad Non-US Equity	1.29%	9.39%	2.16%
MSCI EAFE	Developed Non-US Equity	1.08%	9.11%	2.25%
MSCI Emerging Market	Emerging Non-US Equity	1.21%	10.66%	2.49%
Oklahoma Public Employees Retirement System	**Non-U.S. Equity**	**2.00%**	**9.26%**	**2.85%**

Oklahoma Public Employees Retirement System	**Total Fund**	**6.11%**	**9.05%**	**6.07%**

Source: Various index providers, including FTSE Russell, S&P, Barclays, Citigroup, and MSCI. OPERS returns were calculated using the BAI Iterative method (as such returns are time-weighted) and are gross of investment fees.

Chief Investment Officer's Report (continued)

Investment Performance

Bull market continued

The Fund produced a total return of 6.1% for the period gross of fees (6.0% net of fees), which underperformed the policy benchmark portfolio by 55 basis points for the period. The results from active management this year were mixed, but overall detracted from total returns of the Fund. The U.S. small capitalization equity, non-U.S. equity, and fixed income portions of the Fund benefited from their respective exposures to active management, adding value relative to the benchmark. This positive influence was offset, however, by generally poor active results in the U.S. large capitalization equity portion of the portfolio.

The Fund benefited from robust absolute returns from the U.S. market, in both fixed income and equity market exposures. These two segments of the portfolio returned in excess of the 7% required return for the period and were the primary drivers of the Fund's overall results. Non-U.S. equity market returns were positive, but performed well below the required return-rate hurdle.

U.S. Equity

The Fund used a mix of passive and active investment management within the domestic equity portfolio structure, with a high proportion of U.S. equity assets managed in a passive style. Active U.S. equity management detracted from the Fund's overall performance for the fiscal year. The value added from the advisors in the large capitalization areas of the market was pressured, as value-oriented stocks underperformed the overall market in favor of growth-oriented stocks. While small capitalization stocks dramatically underperformed large capitalization stocks for the period, the small cap managers added value overall relative to the small cap index. The Fund's small capitalization managers who emphasize growth-oriented stocks and value (and yield)-oriented stocks both performed exceptionally well versus their respective benchmarks. The Fund's modest overweight to small cap stocks, combined with the underperformance of the large capitalization advisors caused the U.S. equity portion of the Fund to underperform the policy for the period.

Fixed Income

The Fund's bond portfolio contributed meaningfully to overall results, driving the total return for the fiscal year. As mentioned above, yields declined, especially in the belly of the yield curve, which boosted the nominal total return of the asset class. The Fund's advisor who uses interest rate positioning in managing its portion of the portfolio by analyzing long-term economic trends performed very well for the period, as its long duration position was handsomely rewarded. The inflation-sensitive portion of the bond portfolio also performed well. The two advisors who focus on the broader bond market both outperformed the benchmark, delivering equity-like total returns for the period, which is not expected from the asset class. Bonds are maintained in the portfolio for their diversified return pattern when compared with exposure to the equity markets. The decline in rates over the course of the fiscal year provided strong returns to the diversified Fund.

Non-U.S. Equity

The non-U.S. equity portfolio contributed positively to the total return of the Fund, having gained 2% in U.S. dollar terms for the period. Much like the U.S. Equity portfolio, a high proportion of these Fund assets are managed in a passive style. Within this segment of the asset allocation, two active managers are used. One of the active managers emphasizes the value area of the international market, and the other manager emphasizes the growth area. Nominal returns were positive for both active managers, but the benchmark-relative results for one of the advisors disappointed. The manager who focuses on the international value area of the global equity markets outperformed its benchmark, as defensiveness was rewarded outside of the U.S. The advisor who emphasizes the growth style underperformed its benchmark. The Fund's high relative allocation to the value-oriented manager allowed for the international portion of the Fund to outperform the benchmark.

Chief Investment Officer's Report (continued)

Asset Allocation

Diversification Reduces Volatility

Diversification is the most effective defense against the risks associated with any one individual security or asset class. Risks are controlled by allocating the Fund's assets across various asset classes and sectors within asset classes. There were no changes to the asset allocation during the fiscal year.

Asset Class	Min	6/30/2019	Target	Max
Cash and Real Estate	0.0%	0.3%	0.0%	0.0%
Domestic Fixed Income	27.5%	31.5%	32.0%	36.5%
U.S. Equity	34.4%	40.6%	40.0%	45.6%
Non-U.S. Equity	25.0%	27.6%	28.0%	31.0%
Total Fund		**100%**	**100%**	

Outlook and Recent Events

Outlook

If you've read this report in previous years, you know that I begin this section on a cautionary note regarding the accuracy of forecasted market returns. Correctly and consistently forecasting the market's behavior is impossible, and taking any forecast as fact is sheer folly. We build the Fund according to the tenets set forth in our Investment Policy while making diversification, with respect to different asset classes and within each asset class, a priority. We endeavor to structure the Fund so it may benefit from strong returns in relatively riskier asset classes, but are ever mindful to maintain a level of diversification to dampen the return volatility that can result.

The current global economic environment continues to be driven by economic activity in the U.S. However, the specter of trade wars with traditional trading partners, like China and potentially Europe, are tempering global economic growth forecasts. While the U.S. consumer appears to have withstood the saber rattling thus far, industrial and manufacturing activity, in addition to business confidence, have certainly been diminished in the U.S. The economic slowdown that has impacted the rest of the world has continued. The process for Brexit poses great uncertainty, not only to the U.K., but to Europe and the rest of the developed world. The good news is that central banks in the U.S., Europe, and Asia have continued to pursue easy money policies to support economic activity. Some of these measures are unprecedented, such as maintaining negative interest rate levels. The efficacy of these supportive policies, combined with the resolution of trade deals, will be the key to restoring confidence and enhancing global economic activity levels.

Our largest concern continues to be the prospect of generating and maintaining investment results that match or exceed the actuarial assumed rate of return of 7.00%. This will continue to be a challenging task going forward. Interest rates remain low, which pressures the long-term return generating capacity of a diversified portfolio. Additionally, with the stock market hitting record levels, equity market valuation levels appear stretched, which reduces prospective future returns.

Fixed Income

Over a long period of time, the total return of the bond market ***tends*** to resemble the yield of years past. Over short periods, interest rate movements may have a profound impact on the capital gains (or losses) experienced by bond investors. Even though rates started the year at relatively low levels, rates fell dramatically over the fiscal year, producing outsized returns for the bond market. Falling rates produce positive returns for bonds in the short-term, but also constrain prospective returns of the bond market going forward. Our medium-term expectation for the total return of the broad U.S. fixed income market going forward would more closely reflect current yields, which are around 1.5%-1.7%. Bonds are a necessary part of a diversified portfolio, but are unlikely to contribute to the total returns of the Fund as the asset class has in the past.

Chief Investment Officer's Report (continued)

Equity

Equity markets are particularly difficult to predict with any type of precision. Over short periods of time, market sentiment and technical factors (buying and selling) have an overwhelming impact on returns experienced by investors. ***Over a long period of time***, the real return from the equity markets can be attributable to three main sources: dividends on stocks, the growth rate of corporate earnings, and changes in the valuation ratios. Generally, the growth rate of earnings depends on the economic environment. The U.S. economy continues to exhibit relatively stable growth. Consumer spending, the biggest driver of the U.S. economy, remains stable as the outlook for employment is satisfactory but wage growth is stagnant. Market sentiment has been negatively impacted by trade tensions and a slowdown in the global economy. Geopolitical risks remain in the global economy, and the resolution of Brexit and trade tensions would contribute positively to the general economic outlook. Market valuations appear extended, and confidence is a fuel that can quickly evaporate.

Recent Events

There were no changes to the Fund structure or the managers within the Fund during the year.

Investment Philosophy and Guiding Principles

The investment philosophy and the principles that guide the stewardship of the Fund have remained consistent and are listed below. A pension fund has the longest of investment horizons and, therefore, rightly focuses on factors impacting long-term results:

- Asset allocation is the key factor determining long-term results.
- Disciplined rebalancing toward the desired asset allocation maintains diversification and controls risk.
- Diversification within and across asset classes is the most effective tool for controlling risk.
- Passive investment management is commonly the most effective approach in efficient markets; active investment management can succeed in less efficient markets.

For a complete discussion of the investment portfolio and policies thereof, please see the Statement of Investment Policy. A copy of the policy is posted on the OPERS website, www.OPERS.OK.gov/Investment. If you have any questions about this report or the management of the Fund's investments, please contact me. Thank you.

Regards,

Brad Tillberg, CFA
Chief Investment Officer

Largest Holdings

The Plan's ten largest fixed income and stock holdings at June 30, 2019, are described in the following schedules. The Plan invests in various index and commingled funds which are separately presented.

Ten Largest Fixed Income Holdings (By Fair Value):

Security	Par	Fair Value
U.S. Treasury Bonds 2.5% due 2-15-2046	102,200,000	$ 101,665,085
U.S. Treasury Notes 2.125% due 05-31-2021	93,930,000	94,568,442
U.S. Treasury Bonds 2.5% due 5-15-2046	80,560,000	80,094,283
U.S. Treasury Bonds 3.0% due 11-15-2045	64,000,000	70,040,000
U.S. Treasury Bonds 2.875% due 5-15-2049	60,397,000	64,794,687
U.S. Treasury Notes 2.125% due 5-31-2026	54,570,000	55,482,356
U.S. Treasury Notes 1.625% due 6-30-2024	48,370,000	48,349,201
U.S. Treasury Notes 2.0% due 5-31-2024	46,660,000	47,208,628
U.S. Treasury Bonds Strip Prin Pmt due 11-15-2045	85,000,000	43,101,035
US TREASURY N/B 2.375% 05-15-2029	41,005,000	42,374,485

Ten Largest Stock Holdings (By Fair Value):

Security	Shares	Fair Value
Microsoft Corporation Common Stock	440,696	$ 59,035,636
Apple Inc.Common Stock	264,501	52,350,038
Amazon.com, Inc. Common Stock	27,292	51,680,950
Johnson & Johnson Common Stock	223,430	31,119,330
Facebook, Inc. Class A Common Stock	149,350	28,824,550
Verizon Communications Common Stock	461,392	26,359,325
Chevron Corporation	210,421	26,184,789
Alphabet Inc. Common Stock	20,760	22,439,692
Bank of America Corporation Common Stock	725,120	21,028,480
United Overseas Bank BANK NPV	1,082,854	20,913,541

Investments in Funds (By Fair Value):

Fund	Units	Fair Value
BlackRock Russell 1000 Index Fund	7,359,694	$ 1,675,716,050
BlackRock ACWI ex-U.S. Index Fund	51,636,747	1,452,047,478
BlackRock ACWI ex-U.S. Growth Index Fund	18,485,112	330,600,910
BlackRock U.S. TIPS Index Fund	14,023,651	324,711,724

A complete list of portfolio holdings is available upon request from the OPERS Investment Accounting and Financial Reporting Department.

Investment Portfolio by Type and Manager

At June 30, 2019, the investment portfolio of OPERS was allocated by type and style as follows:

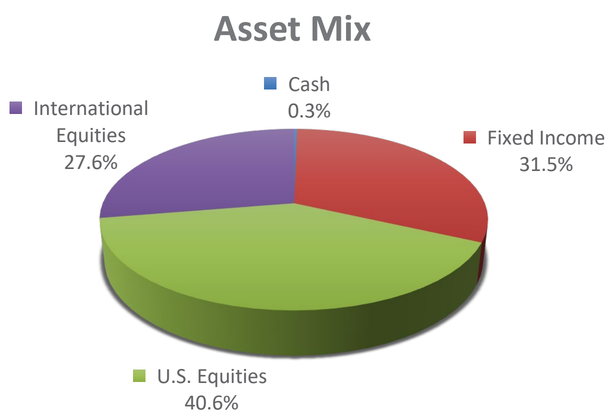
Investment Type and Manager	**Style**	**Fair Value***	**Percent of Total Fair Value**
		(000's)	
Fixed Income:			
Blackrock Financial Management, Inc.	Constrained Core	$ 1,511,330	15.2%
Hoisington Investment Management	Interest Rate Anticipation	358,645	3.6%
BlackRock Institutional Trust Company	Index Fund – U.S. TIPS	324,717	3.3%
Metropolitan West Asset Management	Core Plus	980,336	9.8%
Total Fixed Income		3,175,028	31.9%
U.S. Equities:			
BlackRock Institutional Trust Company	Index Fund – Russell 1000	1,675,716	16.7%
Mellon Capital Management	Large cap – Enhanced Index	544,020	5.5%
State Street Global Advisors	Large cap – Enhanced Index	548,711	5.5%
Westfield Capital Management	Large cap – Growth	309,317	3.1%
Aronson + Johnson + Ortiz	Large cap – Value	302,386	3.0%
UBS Global Asset Management	Small cap – Growth	224,524	2.3%
Barrow, Hanley, Mewhinney & Strauss, Inc.	Small cap – Value	207,888	2.1%
DePrince, Race & Zollo, Inc.	Small cap – Value	217,612	2.2%
Total U.S. Equities		4,030,174	40.4%
International Equities:			
Baillie Gifford Overseas Ltd.	International Growth	351,221	3.5%
Mondrian Investment Partners, Ltd.	International Value	605,154	6.1%
BlackRock Institutional Trust Company	Index Fund – ACWI ex-U.S. Growth	330,602	3.3%
BlackRock Institutional Trust Company	Index Fund – ACWI ex-U.S.	1,452,050	14.6%
Total International Equities		2,739,027	27.5%
Short-term Investment Funds	Operating Cash	17,790	0.2%
Total Managed Investments		9,962,019	100.0%
Real Estate		11,750	
Securities Lending Collateral		480,169	
Cash Equivalents on Deposit with State		3,594	
Total Investments and Cash Equivalents		$ 10,457,532	
Statement of Fiduciary Net Position			
Cash Equivalents		134,274	
Investments		10,323,258	
Total Investments and Cash Equivalents		$ 10,457,532	

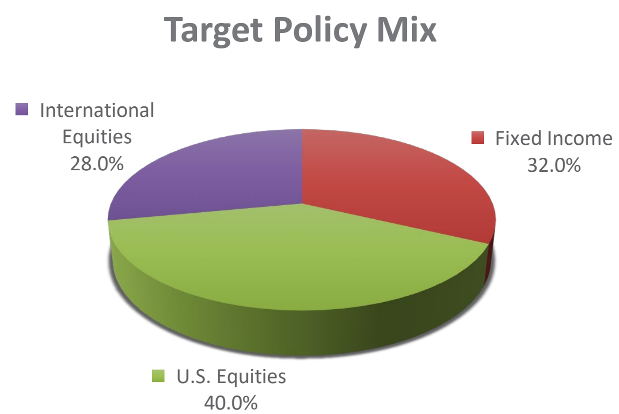
* *Manager fair values include their respective cash and cash equivalents.*

Asset Comparison

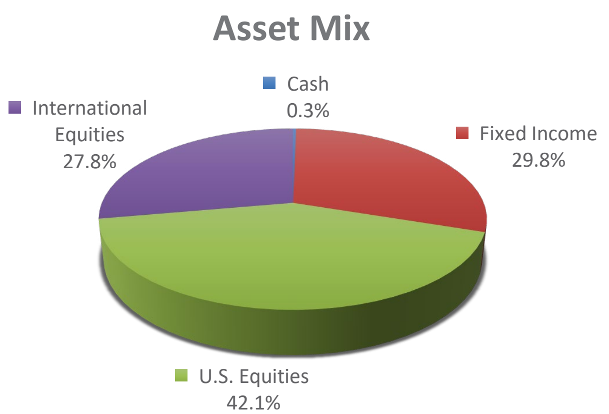
A comparison of the actual investment distribution at June 30, 2019 and 2018, based on the net investment manager holdings, including accrued income, payables and receivables, compared to the target allocation for each year is as follows:

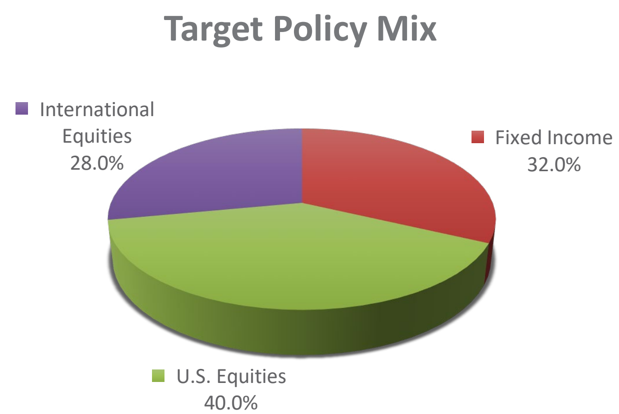
2019





2018





Schedule of Stock Brokerage Commissions Paid

Year Ended June 30, 2019

			Commission	
Brokerage Firm	**Shares Traded**	**Dollar Volume of Trades**	**Dollar Amount**	**Per Share**
NATIONAL FINANCIAL SERVICES LLC	12,413,091	$ 516,546,813	$ 117,122	0.009
INSTINET, LLC	5,859,135	325,521,433	74,034	0.013
BARCLAYS CAPITAL INC./LE	2,723,775	200,725,674	40,259	0.015
NORTHERN TRUST SECURITIES, INC.	3,779,878	171,232,274	116,598	0.031
MORGAN STANLEY & CO. LLC	2,947,302	133,033,534	39,560	0.013
UBS SECURITIES LLC	1,918,017	123,072,499	20,575	0.011
SANFORD C. BERNSTEIN & CO., LLC	1,933,049	115,064,293	39,899	0.021
CANTOR FITZGERALD & CO.	1,792,674	107,784,667	24,365	0.014
VIRTU AMERICAS LLC	1,233,177	105,244,542	12,230	0.010
J.P. MORGAN SECURITIES LLC	2,329,797	99,671,654	30,086	0.013
WEEDEN AND CO	1,807,009	97,357,344	30,708	0.017
ROSENBLATT SECURITIES INC	1,344,178	89,254,423	13,324	0.010
JONESTRADING INSTITUTIONAL SERVICES, LLC.	3,245,381	77,839,016	111,746	0.034
ITG INC.	1,312,001	75,445,515	11,666	0.009
PERSHING LLC	1,478,407	73,862,873	15,349	0.010
BOFA SECURITIES, INC.	1,316,412	61,637,844	18,830	0.014
LIQUIDNET INC	1,800,488	58,648,333	31,508	0.017
ISI GROUP INC.	509,736	54,362,013	14,961	0.029
SANFORD C. BERNSTEIN LTD	5,878,272	51,331,970	15,618	0.003
GOLDMAN, SACHS & CO.	1,102,616	50,130,888	28,352	0.026
Other	71,250,862	1,051,611,387	577,887	0.008
Total	127,975,257	$ 3,639,378,989	$ 1,384,676	0.012