

FY2019 Q4 Investment Reports

BACKGROUND

The Oregon State University (“university”) investment reports for the fourth quarter (Q4) of FY2019 are presented in the following three sections:

- **FY2019 Q4 Public University Fund Investment Report** – This section includes a report on the investments of the Public University Fund (PUF) for the fourth quarter of FY2019. The PUF is an investment pool that is administered by the university on behalf of all Oregon public university participants, pursuant to legislation adopted by the 2014 Legislature. The PUF holds assets of the following participating Oregon public universities: Eastern Oregon University, Oregon Institute of Technology, Oregon State University, Portland State University, Southern Oregon University, and Western Oregon University.
- **FY2019 Q4 Oregon State University Investment Report** – This section includes a report on the investments of the operating and endowment assets of the university. This report reflects the university’s operating assets that are invested in the PUF, the university’s endowment and quasi-endowment investments managed by the Oregon State University Foundation, the land held as separately invested endowments, and the land grant endowment that is invested in the PUF.
- **FY2019 Q4 Market Background** – This section provides a general discussion of the investment markets and related performance information during the fourth quarter of FY2019 (i.e., April 1 – June 30, 2019).

FY2019 Q4 PUBLIC UNIVERSITY FUND INVESTMENT REPORT

(Prepared by the Public University Fund Administrator)

Performance

The PUF gained 1.6% for the quarter and 5.0% for fiscal year 2019. The PUF’s three-year average return was 2.2%.

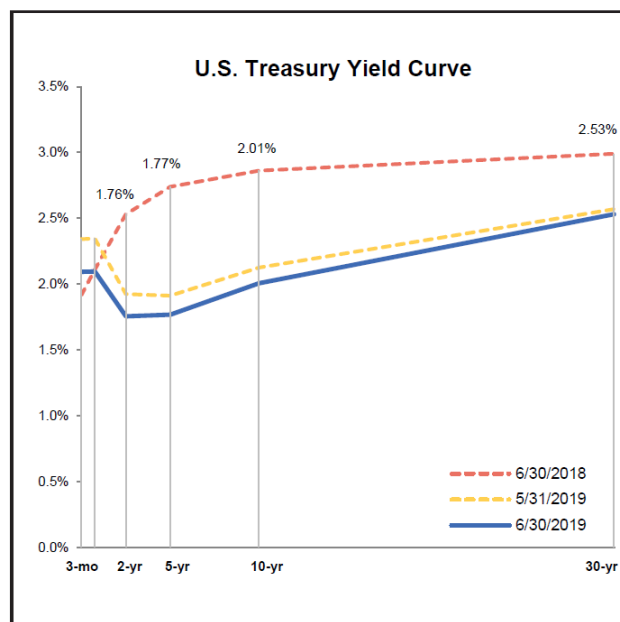
The Oregon Short-Term Fund (OSTF) returned 0.7% for the quarter, outperforming its benchmark by 10 basis points. The Core Bond Fund returned 2.2% for the quarter, underperforming its benchmark by 10 basis points. The investment yield on the PUF portfolio was 0.7% for the quarter and 2.7% for fiscal year 2019.

In July, Oregon State Treasury fixed income portfolio manager, Tom Lofton, conducted a quarterly performance review with university staff. The fixed income markets posted strong returns during the quarter as short to intermediate-term interest rates declined slowing global manufacturing data and hints of a possible Federal Funds rate cut in July fueled a market rally. To mitigate risk in the portfolio, Mr. Lofton continues to diversify the issuers held in the portfolio and maintain an average portfolio duration in-line with the stated benchmark.

Segments of the yield curve remain inverted for a third consecutive quarter, particularly the 6-month to 5-year maturities.

As depicted by the blue line in the graph (right), the yield on the 3-month Treasury bill (2.09%) was higher than the 5-year Treasury note (1.77%).

During the quarter, the PUF Administrator sold \$52 million from the Core Bond Fund to meet anticipated liquidity requirements during fiscal year 2020.



Source: PFM

Public University Fund Performance

	Quarter Ended 6-30-19	Current Fiscal YTD	Prior Fiscal YTD	3-Year Avg.	Market Value	Asset Allocation	Policy Allocation
Oregon Short-Term Fund	0.7%	2.6%	1.7%	1.8%	\$292,937,813	46.4%	\$100 million target ¹
<i>Benchmark - 91 day T-Bill</i>	0.6%	2.3%	1.4%	1.4%			
PUF Core Bond Fund	2.2%	6.3%	-0.3%	N/A	338,347,950	53.6%	
<i>Blended Benchmark ²</i>	2.3%	6.7%	-0.6%	1.8%			
PUF Total Return	1.6%	5.0%	0.9%	2.2%	\$631,285,763	100.0%	
<i>PUF Investment Yield</i>	0.7%	2.7%	2.1%	2.2%			

¹ The PUF policy guidelines define investment allocation targets based upon total participant dollars committed. Core balances in excess of liquidity requirements for the participants are available for investment in the Core Bond Fund. Maximum core investment allocations are determined based upon anticipated average cash balances for all participants during the fiscal year.

² The Blended Benchmark comprises the Bloomberg Barclay's Aggregate 3-5 Years Index (75%) and the Bloomberg Barclay's Aggregate 5-7 Years Index (25%).

A description of each investment pool's portfolio characteristics and market exposures is included in Appendix A of this report.

Investment Income and Participant Ownership

During the quarter, investment earnings distributed to the participants totaled \$4,789,462.

	Earnings Distribution ¹	Market Value as of 6/30/19	% Ownership
Oregon State University ²	\$ 2,031,973	\$ 292,974,687	46.4%
Portland State University	1,778,314	223,940,834	35.5%
Western Oregon University	386,676	46,419,608	7.4%
Southern Oregon University	214,470	24,209,430	3.8%
Oregon Institute of Technology	209,952	24,206,658	3.8%
Eastern Oregon University	168,077	19,534,546	3.1%
Grand Total	\$ 4,789,462	\$ 631,285,763	100.0%

¹ The earnings available for distribution to participants were earned during the months of March 2019 through May 2019 and distributed to participants in June 2019. Earnings are distributed to participants based upon average cash and investment balances on deposit during the same period, which differs from the total market value at the end of the quarter.

² As of June 30, 2019, Oregon State University's total PUF market value consisted of operating assets, valued at \$292,644,455, and the land grant endowment, valued at \$330,232

FY2019 Q4 OREGON STATE UNIVERSITY INVESTMENT REPORT

The schedule of Oregon State University's investments is shown in the following investment summary.

Public University Fund Performance

Oregon State University's operating assets and the land grant endowment are invested in the Public University Fund (PUF). The report on the investment performance of the PUF, provided in the separate section above, shows the PUF gained 1.6% for the fourth quarter and 5.0% for FY 2019.

OSU Endowment Asset Performance

The OSU Endowment Assets, including those managed by the OSU Foundation, gained 3.6% during the fourth quarter and 5.8% for fiscal year 2019. The three-year average total return was 10.3%. The total market value of the OSU endowment assets as of June 30, 2019, was \$55,030,583.

The OSU Foundation, pursuant to an investment management contract, is managing the majority of the university's endowment assets. The OSU Foundation's Endowment Pool gained 3.2% during the quarter and 5.9% for the fiscal year ended June 30, 2019, underperforming its benchmark by 40 and 10 basis points, respectively. The three-year average return was 9.8%, outperforming its benchmark by 70 basis points.

Oregon State University

Investment Summary

as of June 30, 2019

(Net of Fees)

	Quarter Ended 6/30/2019	Current Fiscal YTD	Prior Fiscal YTD	3 Yr Avg	5 Yr Avg	10 Yr Avg	Market Value	Actual Asset Allocation	Policy Allocation Range
OSU Operating Assets Invested in Public University Fund									
Oregon Short - Term Fund	0.7%	2.6%	1.7%	1.8%	1.3%	0.9%	\$ 135,796,863	46.4%	1
Benchmark - 91 day T-Bill	0.6%	2.3%	1.4%	1.4%	0.9%	0.5%			
PUF Core Bond Fund	2.2%	6.3%	-0.3%	N/A	N/A	N/A	\$ 156,847,592	53.6%	1
Blended Benchmark ²	2.3%	6.7%	-0.6%	1.8%	2.8%	N/A			
Public University Fund Total Return	1.6%	5.0%	0.9%	2.2%			\$ 292,644,455	100.0%	
Public University Fund Investment Yield	0.7%	2.7%	2.1%	2.2%					
OSU Endowment Assets									
OSU Endowment Assets Invested in the OSUF Endowment Pool									
Total Global Equity	4.2%	6.0%	12.4%				\$ 25,072,374	52.0%	50.0%
Benchmark - MSCI All Country World Index	3.6%	5.7%	10.7%						
Total Global Fixed Income	3.0%	6.4%	2.5%				4,141,721	8.6%	5.0%
Benchmark - Bloomberg Barclays Global Agg. Bond Index	3.3%	5.8%	1.4%						
Total Absolute Return	0.9%	-2.1%	5.9%				5,121,638	10.6%	10.0%
Benchmark - HFRI Fund of Funds Index	1.7%	1.4%	5.5%						
Total Real Assets	0.0%	1.2%	3.1%				5,131,293	10.6%	10.0%
Benchmark - Real Assets Custom ³	0.6%	2.2%	5.4%						
Total Private Capital	5.8%	21.9%	21.0%				6,791,843	14.1%	25.0%
Benchmark - No benchmark provided									
Total Cash	0.0%	0.0%	0.0%				2,012,933	4.1%	0.0%
Total OSU Endowment Assets Invested in OSUF Endow. Pool ⁴	3.2%	5.9%	9.5%	9.8%			48,271,802	100.0%	100.0%
Benchmark-80% MSCI ACWI/20% BBG Barclays Global Agg. ⁵	3.6%	6.0%	8.8%	9.1%					
Other OSU Endowment Assets									
Land Held as Separately Invested Endowment Funds ⁶	-1.9%	-1.9%	45.4%	11.1%			6,428,549		
Other Endowment Assets Invested in the PUF	1.6%	5.0%	0.9%	2.3%			330,232		
Total Other OSU Endowment Assets							6,758,781		
Total OSU Endowment Assets	2.6%	4.8%	12.6%	9.9%			\$ 55,030,583		

(continued on next page)

Oregon State University**Investment Summary****as of June 30, 2019**

- ¹ The Public University Fund (PUF) policy guidelines define investment allocation targets based upon total participant dollars committed. Core balances in excess of liquidity requirements for the participants are available for investment in the Core Bond Fund. Maximum core investment allocations are determined based upon anticipated average cash balances for all participants during the fiscal year.
- ² Blended Benchmark Composition: 75% Bloomberg Barclay's Aggregate 3-5 Years Index, 25% Bloomberg Barclay's Aggregate 5-7 Years Index.
- ³ Real Assets Custom Benchmark: 1/3 Financial Times Stock Exchange European Public Real Estate Association/National Association Real Estate Investment Trust Developed Index, 1/3 Bloomberg Commodity Index, 1/3 Bloomberg Barclays U.S. Treasury Inflation Protected Securities.
- ⁴ Investment returns are reported net of investment manager fees; gross of the Foundation's administrative fees.
- ⁵ The Endowed Pool benchmark consists of 80% of the MSCI ACWI and 20% of the Barclays Global Aggregate. During the portfolio transition period (July 2016), as agreed with OSUF, the benchmark return was equal to the actual return of the portfolio. Prior to 7/1/16, the benchmark consisted of 15% S&P 500 / 4% Russell 1000 Growth / 17% MSCI EAFE / 6% MSCI Emerging Markets / 6.5% Barclays Aggregate / 6.5% Citi WGBI / 3% Principal Diversified Real Assets Custom Blend / 18% HFRI Fund of Funds Composite Index / 3% S&P North American Natural Resources Sector Index / 3% Alerian MLP Index / 5% NCREIF Townsend Blended Index / 10% Burgiss Global Private Equity Index / 2% 91 Day T-Bills / 1% Mercer Illiquid Natural Resources Index.
- ⁶ Physical appraisals completed every five years. Valuations in interim years provided by faculty. Investment returns updated annually during the fiscal fourth quarter. Land held as separately invested endowments may not be sold, with the exception of the Matteson property, beginning 2/25/2035. Land use is restricted to teaching and research. Partial harvests, consistent with good forestry management practices are allowed, with specified uses for ongoing funding for scholarships and an endowed chair.
- Note: Outlined returns underperformed their benchmark.

FY2019 Q4 OREGON STATE UNIVERSITY REPORT ON UNSPENT GENERAL REVENUE BOND PROCEEDS

The schedule of Oregon State University's unspent revenue bond proceeds as of June 30, 2019, is shown in the summary below.

Unspent Revenue Bond Proceeds

Issuance Year	2015 ¹	2016 ²	2017 ³	2019	Total
Unspent Revenue Bond Proceeds	\$ 679,821	\$ 4,880,728	\$ 54,999,595	\$ 119,783,553	\$ 180,343,697
<i>Allocated</i> ⁴	\$ 679,821	\$ 4,880,728	\$ 54,999,595	\$ 59,678,201	\$ 120,238,345
<i>Unallocated</i> ⁵	\$ -	\$ -	\$ -	\$ 60,105,352	\$ 60,105,352

¹ Space Improvement Projects are forecasted to be fully expended in FY2020.

² Primarily taxable funds allocated to IT Systems Infrastructure project (Link Oregon).

³ Proceeds use approved June 2017.

⁴ Allocated proceeds are project budgets that have been approved by the Board.

⁵ Unallocated proceeds have not yet been approved by the Board for specific capital projects.

FY2019 Q4 MARKET BACKGROUND

(Prepared by Callan Associates, consultants to the Oregon Investment Council)

Macroeconomic Environment

Economists are fond of saying that expansions do not die of old age; they must be killed. As the U.S. enters its 121st month of expansion, the longest on record, and valuations are lofty across most markets, the eventuality and timing of a U.S. recession remains forefront on investors' minds. In its most recent meeting, the Federal Reserve (Fed) announced a relatively new policy objective – to “sustain the expansion” – and U.S. Treasury and stock markets rejoiced in tandem. Stock markets approached record highs, and the 10-year U.S. Treasury yield hit a multi-year low.

Outside of the U.S., global growth continued to decelerate but remained positive, though central banks generally expressed a willingness to engage in further stimulus measures as needed. A persistent lack of inflation, at least according to traditional measures, remains a conundrum and a key challenge for banks around the world. Away from data, trade talks with several countries are fluid; a no-deal British Exit this October is no longer a remote possibility; and tensions with Iran are mounting. All of these issues, added to the distractions associated with the 2020 election in the U.S., pose additional variables for investors to untangle.

The U.S. economic picture continues to be mixed. A strong labor market and rising personal income have supported consumer spending, which accounts for roughly 70% of gross domestic product (GDP). First calendar quarter 2019 real GDP was +3.1% (year-over-year (y-o-y)), though this figure is expected to slow. Additionally, unemployment hovers at a five-year low at 3.6%, although wage growth, as measured by private sector average hourly earnings, remains sluggish (+3.1% y-o-y in May). Meanwhile, manufacturing continues to be a point of weakness; the most recent (June) Purchasing Managers' Index continued to signal expansion (above 50),

but only barely so with a reading of 51.7, which is sharply off its August 2018 peak of 60.8. As noted above, inflation remains elusive with the headline Consumer Price Index (CPI) up 1.8% in May (y-o-y) and core inflation (excluding food and energy) up 2.0%. The Fed's preferred inflation gauge, the Core PCE Deflator, is still falling short of its 2% target and rose only 1.6% over the trailing year.

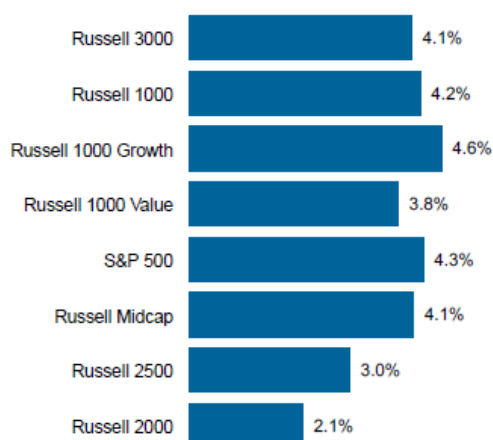
The Fed left rates on hold at its June meeting, but comments from Chairman Powell were interpreted to be dovish and that cuts would be imminent. As of quarter-end, markets had priced in a 100% probability of a rate cut in July, and the probability of three additional 25 basis point (bps) cuts in calendar year 2019 was greater than 50%. But, there appears to be room for disappointment if economic data releases do not justify these moves.

Overseas, European Central Bank (ECB) President Mario Draghi also emboldened investors with his comments that rates could be cut and/or asset purchase programs restarted if inflation does not reach the bank's target. Following those remarks, the German 10-year government bond yield hit a new record low and continued to trend lower into quarter-end, closing the quarter at negative 0.33%. (The policy rate remained unchanged at -0.40%). Inflation in the euro area was +1.2% (y-o-y) in May and the lowest monthly rate since April 2018. GDP was barely positive in the euro area (+1.2% y-o-y) and, while calendar Q1 GDP for Japan (+2.2% annualized) beat expectations, growth is expected to slow for the export-driven country. Inflation continues to be almost non-existent in Japan; +0.8% y-o-y in May. As in the U.S., manufacturing remained a key source of weakness in Europe and Asia with trade tariffs and tepid global demand being key drivers.

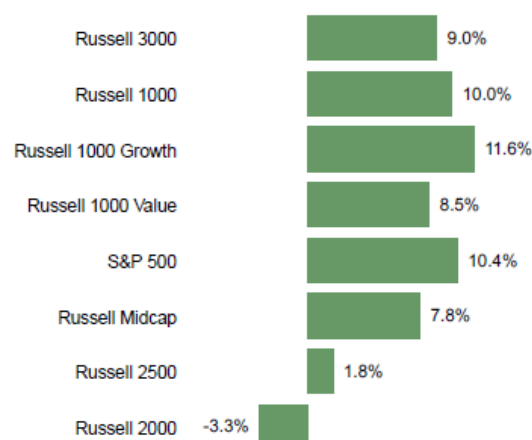
Equity Markets Results

U.S. equity markets approached record levels as investors were heartened by the potential for imminent Fed rate cuts. The S&P 500 Index rose 4.3%, bringing its calendar year-to-date return to 18.5%. Financials (+8.0%) were the best performers while Energy (-2.8%) was the only sector with a negative return. Small cap stocks (Russell 2000: 2.1%) underperformed large cap (Russell 1000: 4.2%) and growth continued its trend of outperformance across the capitalization spectrum, albeit only modestly in calendar Q2. In a reversal from calendar Q1, quality factors such as operating margin and return on equity contributed to performance. Value factors (Price/Book, Price/Equity trailing, and yield) were mixed while growth factors (Earnings Per Share growth, sales growth) were positive.

U.S. Equity: Quarterly Returns

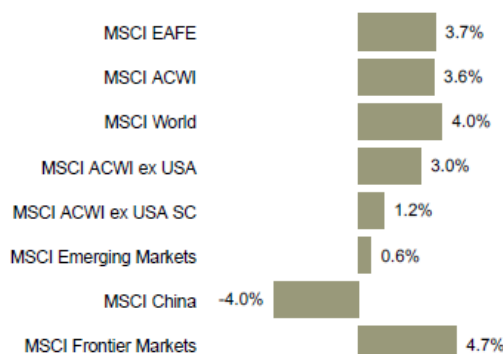


U.S. Equity: One-Year Returns

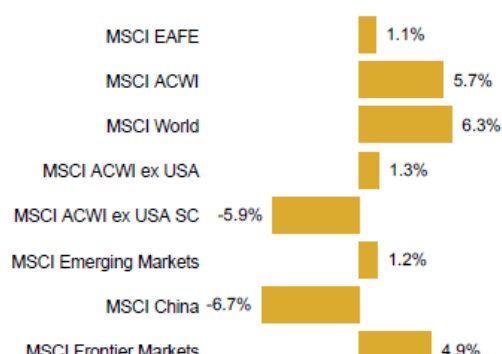


Developed markets were also buoyed by optimism for rate cuts. The Morgan Stanley Capital Indices (MSCI) All Countries World Index ex-USA rose 3.0%, with Canada (+4.9%), Pacific ex-Japan (+5.2%) and Europe ex-UK (+5.8%) leading the way. Japan (+1.0%) and the UK (+0.9%), at the lower end of the group, were able to eke out small positive returns. The Canadian dollar, yen and euro appreciated versus the U.S. dollar while the British pound and Australian dollar lost ground. Emerging markets (MSCI Emerging Markets: +0.6%) underperformed developed but returns across countries varied. Russia (+16.9%) was at the top while China (-4.0%) was among the few countries with negative returns for the quarter. Also worth mentioning are BRIC countries Brazil (+7.2%) and India (+0.5%). The U.S. dollar weakened versus most emerging market currencies as the prospect for rate cuts in the U.S. loomed large.

Global Equity: Quarterly Returns



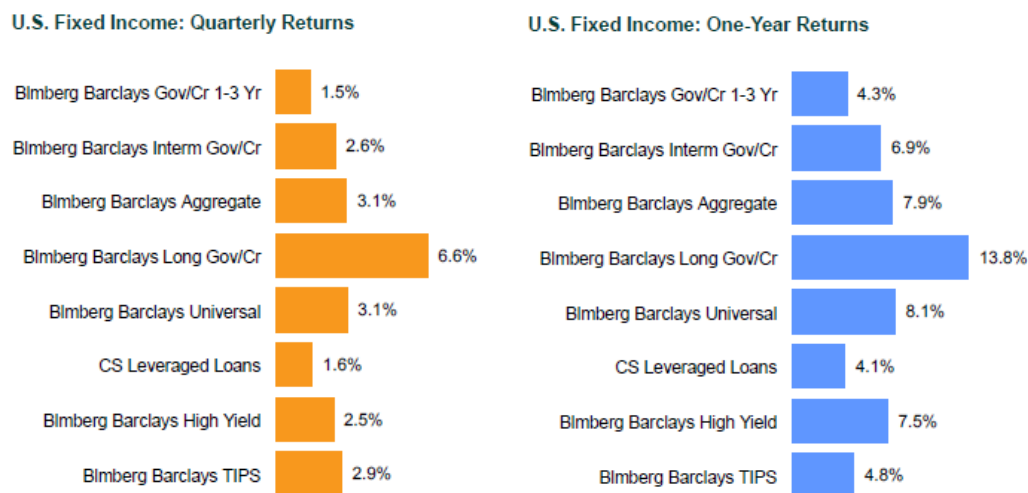
Global Equity: One-Year Returns



Fixed Income Markets Results

In the U.S., the Bloomberg Barclays U.S. Aggregate Bond Index rose 3.1% for the quarter, nearly mirroring its calendar Q1 result (+2.9%). U.S. Treasury yields hit multi-year lows in June, and the 10-year closed the quarter at 2.0% (lowest since November 2016). The curve remained inverted between the 90-day T-bill and the 10-year U.S. Treasury, but the more widely watched spread between the 2- and 10-year widened during the quarter to 25 bps. Investment grade corporate bonds performed best (+4.5%). Agency mortgages underperformed (+2.0%) as lower rates raised concerns around prepayment risk. Treasury Inflation-Protected Securities

(Bloomberg Barclays TIPS: +2.9%) underperformed as inflation expectations fell; the 10-year breakeven spread was only 1.69% as of quarter-end versus 1.88% as of 3/31/2019. The high yield corporate bond market (Bloomberg Barclays High Yield: +2.5%) underperformed investment grade but is up nearly 10% calendar year-to-date. Leveraged loans (S&P Loan Syndications & Trading Association: +1.6%) held their own in spite of negative press and falling rates. Municipal bonds (Bloomberg Barclays Municipal Bond: +2.1%) underperformed U.S. Treasuries in calendar Q2.



Overseas, yields across developed markets generally fell. The Bloomberg Barclays Global Aggregate Index rose 3.3% for the quarter on an unhedged basis. Hedged into dollars, the Index gained 2.9%. In a reversal from calendar Q1, the dollar lost ground vs. most currencies, with the pound being a notable exception. In Germany, the yield on the 10-year government bond hit an all-time low and closed the quarter at -0.33%. Negative yielding debt globally hit a new high of nearly \$13 trillion and is now roughly 25% of the Global Aggregate Index. Emerging market debt performed well; the U.S. dollar-denominated JP Morgan Emerging Market Bond Global Diversified Index gained 4.1%. Local currency emerging market debt, as measured by the JP Morgan Global Bond Emerging Markets Diversified Index, rose 5.6%.

Other Assets Results

The Bloomberg Commodity Index fell 1.2% in calendar Q2. Both the Precious Metals (+7.2%) and Agriculture (+4.5%) commodity sectors were positive performers, driven by strong individual returns for Gold (+9%) as well as Corn, Wheat, and Coffee, respectively. Meanwhile, Livestock, Energy and Industrial Metals commodity sectors all posted negative quarterly results. Oil pulled back but was roughly flat for the quarter, ending at \$58/barrel (WTI), while Natural Gas within the Bloomberg Energy Sub-index declined a precipitous -16.2%. Elsewhere, Master Limited Partnerships (Alerian MLP Index: +0.1%) were flat and Real Estate Investment Trusts saw modest gains (FTSE NAREIT Equity: +1.2%) but lagged listed infrastructure assets (Dow Jones Brookfield Global Infrastructure: +4.3%).

Closing Thoughts

With such a torrid start to the year for broad asset classes following an almost equally disappointing end to 2018, more periodic bouts of volatility seem inevitable. Central bank policies that portend lower rates have fueled gains in bonds and stocks globally, but much

optimism in the way of stimulus has been priced into asset prices. Valuations are lofty, the certainty and timing of a U.S. recession are unknown, and numerous geopolitical events continue to loom. Thus, just as we have stated in the past, adherence to an appropriate and well-defined long-term asset allocation policy remains the best course of action to manage the path to successful attainment of long-term investment goals.

RECOMMENDATION

Staff recommend the Finance & Administration Committee accept the FY2019 Q4 Public University Fund Investment Report and the FY2019 Q4 Oregon State University Investment Report.

Oregon Short Term Fund

June 30, 2019

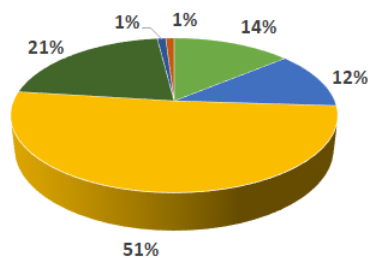
Portfolio Characteristics

Market Value 6/30/2019	\$ 292,937,813
Weighted Average Credit Quality	AA
Book Yield (%)	2.76
Weighted Average Maturity (years)	1.23
Duration (years)	0.57
Spread Duration (rate)	0.97

Top 10 Issuers

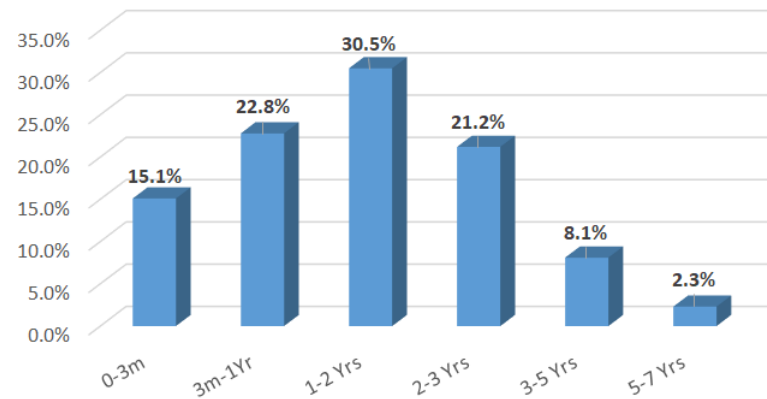
United States Treasury	14.4%
Citigroup Incorporated	3.3%
Wells Fargo & Company	2.9%
JP Morgan Chase & Co	2.9%
Barclays Plc	2.2%
Caterpillar Incorporated	2.2%
Goldman Sachs Group Incorporated (The)	2.1%
Toyota Motor Corporation	2.1%
Federal Farm Credit Banks Funding Corporation	1.9%
Morgan Stanley	1.8%
Total	35.8%

Sector Allocations

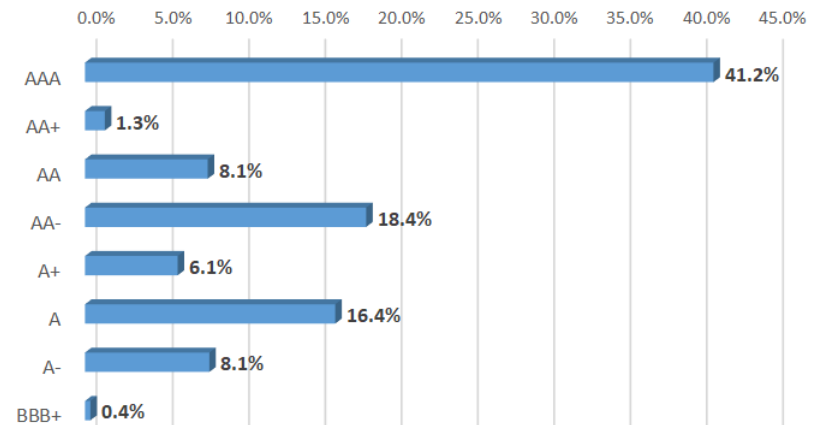


■ Treasuries ■ Government Related ■ Corporates ■ Securitized ■ Funds ■ Cash Securities

Maturity Breakdown



Credit Quality Distribution



Source: Oregon State Treasury

Core Bond Fund

June 30, 2019

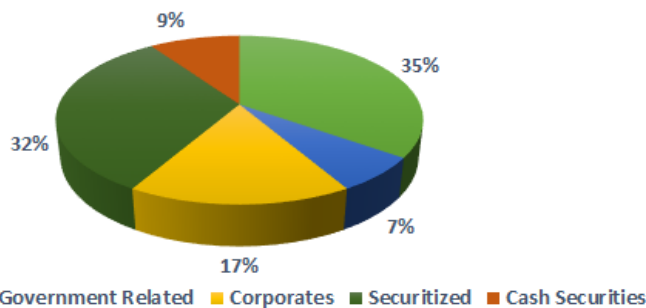
Portfolio Characteristics

Market Value 6/30/19	\$ 338,347,950
Weighted Average Credit Quality	AA+
Book Yield (%)	2.64
Weighted Average Maturity (years)	4.15
Duration (years)	3.15
Spread Duration (rate)	2.28

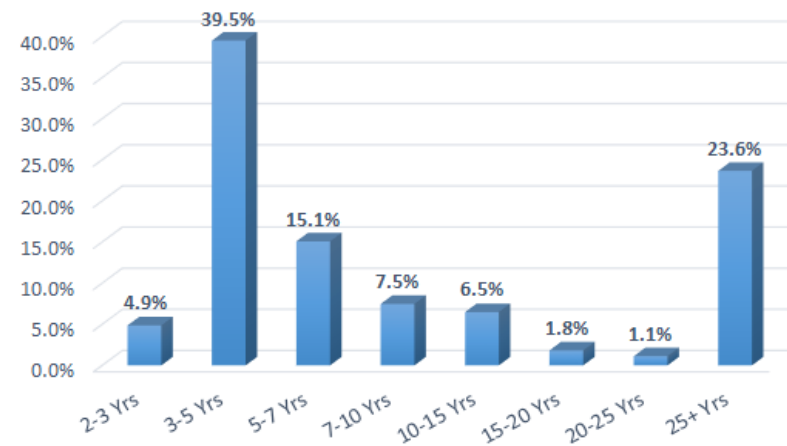
Top 10 Issuers

United States Treasury	48.1%
Oregon State Treasury (Oregon Short-Term Fund)	9.9%
Federal National Mortgage Association	8.6%
Federal Home Loan Mortgage Corporation	6.5%
European Investment Bank	1.7%
Capital One Multi-Asset Execution Trust	1.4%
Goldman Sachs Group Incorporated (The)	0.9%
Celgene Corporation	0.8%
JP Morgan Chase & Company	0.8%
Freddie Mac FHLMC Trust 4664	0.7%
Total	79.4%

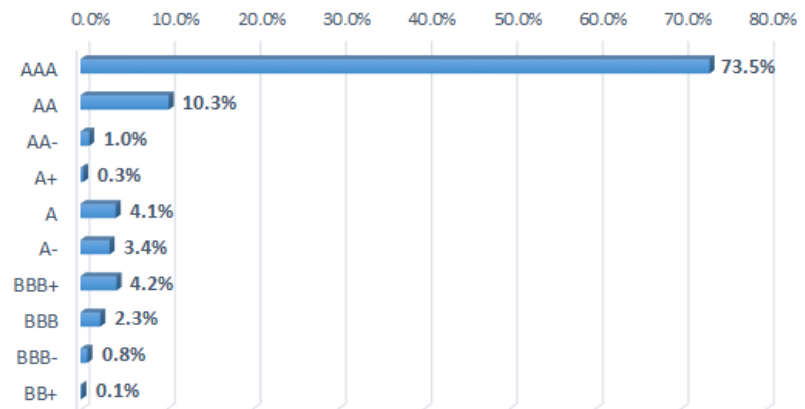
Sector Allocations



Maturity Breakdown



Credit Quality Distribution



Source: Oregon State Treasury

October 17-18, 2019 Board of Trustees Meetings