FY2018 Q3 Investment Reports

BACKGROUND

The Oregon State University (university) investment reports for the third quarter (Q3) of FY2018 are presented in the following three sections:

- **FY2018 Q3 Public University Fund Investment Report** – This section includes a report on the investments of the Public University Fund (PUF) for the third quarter of FY2018. 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.

- **FY2018 Q3 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.

- **FY2018 Q3 Market Background** – This section provides a general discussion of the investment markets and related performance information during the third quarter of FY2018 (January 1 – March 31, 2018).

FY2018 Q3 PUBLIC UNIVERSITY FUND INVESTMENT REPORT

(Prepared by the Public University Fund Administrator)

Performance

The Public University Fund (PUF) declined 0.1% for the quarter and gained 0.5% fiscal year-to-date through March 31, 2018. The PUF's three-year average total return was 1.3%.

The Oregon Short-Term Fund (OSTF) returned 0.5% for the quarter and 1.2% fiscal year-to-date, outperforming its benchmark by 10 and 30 basis points, respectively. The Core Bond Fund declined 0.8% for the quarter and declined 0.5% fiscal year-to-date, outperforming its benchmark by 10 basis points during both periods. In April, Oregon State Treasury fixed income portfolio manager, Tom Lofton, conducted a quarterly performance review with university staff. Mr. Lofton discussed the OSTF's favorable sensitivity to rising short-term interest rates. Daily, the OSTF portfolio managers are reinvesting proceeds from maturing securities into new securities with higher coupons, resulting in rising investment income yields for investors. The annualized yield for the Oregon Short-Term Fund was 2.1% as of March 31, 2018, rising 80 basis points during the trailing 12 month period.

The PUF Administrator allocated $45 million of excess liquidity into the Core Bond Fund during the quarter.

A snapshot of each investment pool's portfolio characteristics and market exposures is included with this report.

	Quarter Ended 3-31-18	Prior Fiscal YTD	Current Fiscal YTD	3-Year Avg.	Market Value	Asset Allocation	Policy Allocation
Oregon Short–Term Fund	0.5%	0.8%	1.2%	1.0%	$240,487,776	40.1%	$100 million target [1]
Benchmark - 91 day T-Bill	*0.4%*	*0.3%*	*0.9%*	*0.5%*			
PUF Core Bond Fund	-0.8%	N/A	-0.5%	N/A	$359,873,499	59.9%	
Blended Benchmark [2]	*-0.9%*	*N/A*	*-0.6%*	*1.2%*			
PUF Total Return	-0.1%	0.3%	0.5%	1.3%	$600,361,275	100.0%	
PUF Investment Yield	*0.5%*	*1.3%*	*1.5%*	*1.7%*			

[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 is comprised of the Bloomberg Barclay's Aggregate 3-5 Years Index (75%) and the Bloomberg Barclay's Aggregate 5-7 Years Index (25%).

Investment Income and Participant Ownership

During the quarter, investment earnings distributed to the participants totaled $3,462,814.

	Earnings Distribution [1]	Market Value as of 3/31/18	% Ownership
Oregon State University [2]	$ 1,756,742	$ 282,920,749	47.1%
Portland State University	1,019,245	199,271,824	33.2%
Western Oregon University	279,481	47,075,008	7.8%
Southern Oregon University	126,438	25,322,225	4.2%
Oregon Institute of Technology	158,357	24,964,836	4.2%
Eastern Oregon University	122,551	20,806,633	3.5%
Grand Total	$ 3,462,814	$ 600,361,275	100.0%

[1] The earnings available for distribution to participants were earned during the months of December 2017 through February 2018 and distributed to participants in March 2018. 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 March 31, 2018, Oregon State University's total PUF market value consisted of operating assets, valued at $282,596,872, and the land grant endowment, valued at $323,877.

Oregon Short-Term Fund Exposures

March 31, 2018

Sector	Market Value Percent	Gain (Loss) Percent	Duration Rate	Duration Spread	Yield Percent
Corporates	53.8%	-1.2%	0.5	1.1	2.5%
Treasuries	17.9%	-0.1%	0.4	0.0	1.9%
Securitized	13.8%	-0.7%	0.7	1.0	2.4%
Government Related	13.3%	-0.1%	0.4	0.7	1.9%
Investment Funds	1.1%	0.0%	2.7	1.5	2.7%
Municipals	0.1%	0.0%	0.0	0.0	1.7%
Total	**100.0%**	**-2.1%**	**0.5**	**0.8**	**2.3%**

Rating	Market Value Percent	Gain (Loss) Percent	Duration Rate	Duration Spread	Yield Percent
AAA	38.6%	-0.9%	0.5	0.5	2.0%
AA+	1.3%	0.0%	0.2	0.5	2.0%
AA	3.5%	0.0%	0.4	0.6	2.2%
AA-	20.4%	-0.3%	0.4	0.9	2.4%
A+	9.4%	-0.3%	0.6	1.4	2.6%
A	16.6%	-0.3%	0.6	1.0	2.5%
A-	8.8%	-0.3%	0.6	1.3	2.7%
No Rating	0.3%	0.0%	0.2	0.2	1.7%
Investment Funds	1.1%	0.0%	2.7	1.5	2.7%
Total	**100.0%**	**-2.1%**	**0.5**	**0.8**	**2.3%**

Industry	Market Value Percent	Gain (Loss) Percent	Duration Rate	Duration Spread	Yield Percent
Banking	39.7%	-0.8%	0.5	1.1	2.6%
Treasuries	17.9%	-0.1%	0.4	0.0	1.9%
ABS	13.8%	-0.7%	0.7	1.0	2.4%
Government Related	13.3%	-0.1%	0.4	0.7	1.9%
Consumer Cyclical	5.7%	-0.1%	0.4	1.0	2.4%
Capital Goods	2.8%	-0.1%	0.6	1.6	2.6%
Technology	2.0%	-0.1%	0.9	1.5	2.5%
Consumer Non-Cyclical	1.8%	-0.1%	0.6	0.8	2.1%
Investment Funds	1.1%	0.0%	2.7	1.5	2.7%
Insurance	0.7%	0.0%	0.4	1.0	2.4%
Finance Companies	0.3%	0.0%	2.5	2.5	3.2%
Communications	0.2%	0.0%	0.7	1.2	2.5%
Utility	0.2%	0.0%	0.7	0.7	2.7%
Industrial Other	0.2%	0.0%	0.3	0.3	2.3%
Financial Other	0.1%	0.0%	0.0	0.3	2.1%
Transportation	0.1%	0.0%	1.0	1.0	2.3%
Municipals	0.1%	0.0%	0.0	0.0	1.7%
Total	**100.0%**	**-2.1%**	**0.5**	**0.8**	**2.3%**

Top Exposures	Market Value Percent
United States Treasury	18.0%
JP Morgan Chase & Company	4.4%
Wells Fargo & Company	4.0%
Toyota Motor Corporation	3.3%
Bank of America Corporation	3.2%
Citi Bank NA	2.5%
Morgan Stanley	2.3%
Federal Farm Credit Banks Funding Corporation	2.2%
Barclays Plc	2.2%
Credit Suisse Group A.G.	2.0%
Goldman Sachs Group Incorporated (The)	2.0%
Royal Bank of Canada	2.0%
American Express Company	1.9%
Canada (Government of)	1.6%
Honda Motor Company Limited	1.5%
Bank of Nova Scotia	1.4%
American Express Credit Account Master Trust	1.4%
Toronto-Dominion Bank (The)	1.4%
Caterpillar Incorporated	1.2%
Westpac Banking Corporation	1.2%

Source: Oregon State Treasury

PUF Core Bond Fund Exposures — March 31, 2018

Sector	Market Value Percent	Gain (Loss) Percent	Duration Rate	Duration Spread	Yield Percent
Securitized	34.1%	-1.0%	3.7	4.5	3.0%
Treasuries	28.4%	-0.2%	4.3	0.0	2.5%
Corporates	21.7%	-0.5%	3.5	4.7	3.5%
Government Related	9.3%	-0.1%	4.3	4.5	2.8%
Cash	6.5%	0.0%	0.5	0.8	2.3%
Total	**100.0%**	**-1.8%**	**3.7**	**3.0**	**2.9%**

Rating	Market Value Percent	Gain (Loss) Percent	Duration Rate	Duration Spread	Yield Percent
AAA	71.8%	-1.3%	4.0	2.7	2.8%
AA+	0.0%	0.0%	0.0	0.0	0.0%
AA	6.9%	0.0%	0.9	1.1	2.4%
AA-	0.3%	0.0%	0.2	4.2	2.7%
A+	0.0%	0.0%	0.0	0.0	0.0%
A	2.3%	-0.1%	2.3	4.3	3.2%
A-	5.7%	0.0%	2.6	5.3	3.2%
BBB+	5.4%	-0.2%	3.7	4.4	3.5%
BBB	4.8%	-0.1%	4.3	4.3	3.7%
BBB-	2.8%	-0.1%	5.1	5.1	4.1%
Total	**100.0%**	**-1.8%**	**3.7**	**3.0**	**2.9%**

Industry	Market Value Percent	Gain (Loss) Percent	Duration Rate	Duration Spread	Yield Percent
Treasuries	28.4%	-0.2%	4.3	0.0	2.5%
MBS Pass-Through	15.1%	-0.6%	4.2	4.9	3.2%
CMBS	9.4%	-0.1%	4.0	4.5	3.0%
Agency	6.7%	-0.1%	4.3	4.6	2.7%
Cash	6.5%	0.0%	0.5	0.8	2.3%
ABS	5.9%	-0.1%	2.4	3.4	2.7%
Banking	5.6%	0.0%	0.9	4.5	3.2%
Consumer Non-Cyclical	5.0%	-0.1%	4.5	4.7	3.5%
CMO	3.7%	-0.1%	3.2	4.6	2.9%
Consumer Cyclical	2.6%	-0.1%	3.2	3.7	3.6%
Capital Goods	2.1%	-0.1%	3.5	4.3	3.3%
Supranational	2.1%	0.0%	4.0	4.0	2.7%
REITs	2.0%	0.0%	7.7	7.9	4.4%
Basic Industry	1.6%	-0.1%	4.7	4.8	3.5%
Insurance	1.5%	-0.1%	3.2	3.7	3.2%
Technology	0.7%	-0.1%	3.7	3.7	3.7%
Transportation	0.6%	0.0%	4.5	4.5	3.5%
Local Authority	0.5%	0.0%	5.4	6.0	3.4%
Total	**100.0%**	**-1.8%**	**3.7**	**3.0**	**2.9%**

Top Exposures	Market Value Percent
United States Treasury	36.4%
Oregon State Treasury	6.5%
Federal National Mortgage Association	5.2%
Federal Home Loan Mortgage Corporation	5.2%
Federal Farm Credit Banks Funding Corporation	2.3%
European Investment Bank	2.1%
Ford Motor Company	1.9%
Citigroup Incorporated	1.7%
FHLMC Multifamily Structured Pass-Through K716	1.6%
Capital One Multi-Asset Execution Trust	1.6%
Goldman Sachs Group Incorporated (The)	1.4%
FHLMC Multifamily Structured Pass-Through K040	1.4%
Wells Fargo Commercial Mortgage Trust	1.4%
Citibank Credit Card Issuance Trust	1.4%
FHLMC Multifamily Structured Pass-Through K058	1.3%
Dr. Pepper Snapple Group Incorporated	1.3%
Morgan Stanley Capital Trust	1.3%
Sherwin-Williams Company (The)	1.2%
Senior Housing Properties Trust	1.1%
CNH Equipment Trust 2017-A	0.9%

Source: Oregon State Treasury

FY2018 Q3 OREGON STATE UNIVERSITY INVESTMENT REPORT

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

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 declined 0.1% for the third quarter.

OSU Endowment Asset Performance

The OSU Endowment Assets, including those managed by the OSU Foundation, earned a total return of 0.5% during the quarter. The total market value of the OSU endowment assets as of March 31, 2018 was $52,906,261.

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 earned a total return of 0.5% during the quarter, outperforming its benchmark by 100 basis points.

Oregon State University

Investment Summary

as of March 31, 2018

(Net of Fees)

	Quarter Ended 3/31/2018	Prior Fiscal YTD	Current 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	0.5%	0.8%	1.2%	1.0%	0.8%	0.9%	$ 113,200,328	40.1%	[1]
Benchmark - 91 day T-Bill	0.4%	0.3%	0.9%	0.5%	0.3%	0.3%			
PUF Core Bond Fund	-0.8%	N/A	-0.5%	N/A	N/A	N/A	169,396,544	59.9%	[1]
Blended Benchmark [2]	-0.9%	N/A	-0.6%	1.2%	1.4%	N/A			
Public University Fund Total Return	-0.1%	0.3%	0.5%	1.3%			$ 282,596,872	100.0%	
Public University Fund Investment Yield	0.5%	1.3%	1.5%	1.7%					
OSU Endowment Assets									
OSU Endowment Assets Invested in the OSUF Endowment Pool									
Total Global Equity	0.4%	14.7%	12.5%				$ 26,191,272	54.5%	50.0%
Benchmark - MSCI All Country World Index	-1.0%	13.9%	10.1%						
Total Global Fixed Income	1.3%	0.5%	3.9%				5,740,158	11.9%	5.0%
Benchmark - Bloomberg Barclays Global Agg. Bond Index	1.4%	-4.7%	4.3%						
Total Absolute Return	1.8%	6.4%	3.3%				5,538,242	11.5%	10.0%
Benchmark - HFRI Fund of Funds Index	0.6%	5.6%	5.0%						
Total Real Assets	-3.2%	12.2%	-0.8%				4,495,015	9.4%	10.0%
Benchmark - Real Assets Custom [3]	-1.8%	-1.8%	3.1%						
Total Private Capital	3.5%	3.9%	15.2%				5,345,942	11.1%	25.0%
Benchmark - No benchmark provided									
Total Cash	0.0%	0.0%	0.0%				764,393	1.6%	0.0%
Total OSU Endowment Assets Invested in OSUF Endow. Pool [4]	0.5%	10.0%	8.5%				48,075,022	100.0%	100.0%
Benchmark-80% MSCI ACWI/20% BBG Barclays Global Agg.	-0.5%	8.3%	9.0%						
Other OSU Endowment Assets									
Land Held as Separately Invested Endowment Funds [5]	0.0%	0.0%	0.0%				4,507,362		
Other Endowment Assets Invested in the PUF	-0.1%	0.3%	0.5%				323,877		
Total Other OSU Endowment Assets							4,831,239		
Total OSU Endowment Assets	0.5%	8.8%	7.7%				$ 52,906,261		

(continued on next page)

Oregon State University

Investment Summary

as of March 31, 2018

(Net of Fees)

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 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. The Matteson agreement, however, allows an option to sell land 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.

FY2018 Q3 MARKET BACKGROUND

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

Macroeconomic Environment

Rumors of the death of market volatility have been greatly exaggerated. One month into the new calendar year, it seemed as though markets were lining up for another torrid quarter of stock market performance; 2018 saw the biggest January gain since 1997. Market participants continued to digest another dose of impressive quarterly earnings, the profit-enhancing impact of the Tax and Jobs Act, and a host of other positive economic data in the U.S. and abroad. Likewise, across global bond markets, global sovereign yields rose with expectations of monetary policy normalization by major central banks (the Bank of Japan and European Central Bank in particular), while corporate credit markets outperformed given the positive global economic environment. However, much changed during the first week of February; a sharp correction in global markets accompanied a spike in volatility, seemingly triggered by an accumulation of data that reflected a shift in investors' inflation expectations. The S&P 500 Index posted its first monthly loss (-3.7%) and largest weekly decline (more than 10%) since January 2016, while the Chicago Board of Exchange Volatility Index (VIX) soared to its highest level since August 2015. Volatility was exacerbated by anxiety about overly optimistic sentiment, de-risking on the part of systematic investors, and accelerating wage growth. Other noteworthy events and activity on the economic and political fronts included: a new and larger than anticipated spending bill in the U.S.; talk of tariffs and fear of potential trade wars; volatility within the Master Limited Partnership (MLP) sector following changes in tax treatment by Federal Energy Regulatory Commission (FERC); further deterioration of relations between Russia and U.S.; a more hawkish tone by global Central Banks; and continuing changes within the Trump Administration's cabinet, as Veteran Affairs Secretary David Shulkin, Secretary of State Rex Tillerson, and the National Economic Council Director Gary Cohn all vacated key offices during the quarter.

Despite the market gyrations experienced during parts of the first calendar quarter of 2018, U.S. economic data continued to support the view of a relatively healthy, steadily growing economy. Fourth calendar quarter Gross Domestic Product (GDP) in the U.S. was revised upward by 40 basis points, from 2.5% to 2.9%, and the unemployment rate sunk further to 4.1%—the lowest since 2000. Inflation notched higher but has still remained surprisingly low given the length of the current economic expansion and the degree of tightness in labor markets. Estimates for Personal and Disposable Personal Income both increased by 0.4% in February. On the corporate earnings front, the market appears to anticipate another year of strong earnings per share growth (~20% according to Institutional Broker's Estimate System in February), due in some part to the recent tax cuts. The National Association of Realtors' March report offered more supportive data: existing home sales bounced back in February after two straight months of declines, with sales now 1.1% above a year ago. Souring the mostly good news through the first three months, President Trump signed a memorandum targeting up to $60 billion in Chinese goods with tariffs over what his administration says is misappropriation of U.S. intellectual property, in addition to tariffs on steel and aluminum imports. Additional headwinds included expectations of continued rate hikes (two to three by calendar year end), popular companies drawing the ire from the administration (e.g., Facebook, Amazon, Tesla), and continued political tensions with Russia and North Korea.

Overseas, economic activity across the euro zone remained solid throughout the first calendar quarter, though stock market performance was weak in local currency terms. Euro area GDP growth continued to hover above 2%, unemployment still trended lower (8.6% as of January 2018), and credit growth continued to expand while inflation remained manageable at just over 1% as of February. However, lingering political risks remain in place, including uncertainty around Italy's ability to manage coalition talks as well as ongoing British Exit (Brexit)-related negotiations between the United Kingdom (U.K.) and European Union. In Japan, labor markets continued to tighten, wage growth modestly ticked up, and inflation remained tempered. Many market participants expect a GDP boost from 2020 Tokyo Olympics-related spending in the coming quarters. In China, where the government continues to target growth of around 6.5% with a somewhat tighter fiscal stance, the market remained focused on the country's ability to balance much-needed supply-side reform (including an effort to reduce excess capacity in certain segments of the economy and debt levels) without disturbing continued growth. Growing trade-related tensions between the U.S., China and other global trade partners is a key issue to monitor in the near term.

Equity Market Results

Volatility returned to the equity markets in February and March, spurred by an unexpected uptick in wage gains, geopolitical tensions, and the looming threat of a trade war. The S&P 500 Index saw six days of movements greater than 2% during the quarter versus zero 2% swings in all of 2017. The Index fell 0.8%, its first quarterly loss since 2015. This modest loss belied volatile intra-quarter results where the S&P 500 reached a record high on January 26, then fell about 8% to close the quarter. Volatility, as measured by the VIX, spiked 116% on Feb 5 when the market sank 4%, marking the biggest jump ever recorded—albeit from historically low levels. In this environment, performance across styles and sectors was mixed. Growth continued to outperform value (Russell 1000 Growth: +1.4% Russell 1000 Value: -2.8%) across the capitalization spectrum. Small caps outperformed large in both the value and growth spaces. With respect to sectors, Consumer Staples and Telecommunications both fell over 7% for the quarter while Consumer Discretionary and Technology posted gains of more than 3%. Amazon (+24%) and Netflix (+54%) were key drivers in Consumer Discretionary. Amazon and Microsoft were the top contributors in the quarter and added a meaningful 73 basis points to the total return of the S&P 500.

Meanwhile, developed non-U.S. equity market returns were helped by U.S. dollar weakness. The dollar has been hurt by growing worries over a trade war with China as well as signs that rates may be poised to rise in other countries as global economies improve. The yen was the best performing currency among developed markets, hitting a 17-month high as worries over trade policy spurred demand for the safe-haven currency. In local terms, Japan's equity benchmark fell nearly 6%, but the strength of the yen brought returns in U.S. dollar terms to +0.8%. Likewise, Brexit woes sank the local U.K. market (-8%) but the pound's appreciation versus the dollar offset a good portion of the loss for U.S. investors (-4%). Overall, the Morgan Stanley Capital Indices (MSCI) Europe, Australasia, Far East fell 4.3% in local terms, but only lost 1.5% in U.S. Dollar terms. Emerging markets performed relatively well (+1.4%), though there was wide dispersion among individual countries: Poland and India fell roughly 8% and 5%, respectively, China posted a modest gain (+ 1.8%), and Russia and Brazil were up 9% and 12%, respectively.

Fixed Income Market Results

Through the first two months of the first calendar quarter, the 10-year U.S. Treasury yield marched steadily higher on the heels of positive economic data, only to fall through March as equity market weakness and concerns over a looming trade war pushed yields lower. The new Federal Reserve Chair, Jerome Powell, announced his first (widely expected) rate hike in March, raising the Federal Funds rate to 1.50 – 1.75%. Investors are projecting another two hikes this calendar year, and three to four more in calendar year 2019. The 10-year U.S. Treasury yield climbed to a peak of nearly 3% during the quarter before closing at 2.74%, 34 basis points higher than at calendar year-end. Two-year U.S. Treasury yields rose nearly 40 basis points to their highest level since 2008, closing the quarter at 2.27%. The Bloomberg Barclays U.S. Aggregate Index fell 1.5%, with corporate and securitized sectors underperforming Treasuries for the first time in many quarters. High yield corporates suffered outflows and the Bloomberg Barclays High Yield Index fell 0.9%. The S&P/Loan Syndications and Trading Association Leveraged Loan 100 Index benefited from higher rates and rose 1.4%. Conversely, Developed non-U.S. fixed income market returns were also buoyed by U.S. dollar weakness. Generally, currency movements drove global fixed income returns more than interest rate changes in the first calendar quarter, as seen by the return differential in the hedged and unhedged versions of the Bloomberg Barclays Global Aggregate Index (-0.1% and +1.4%, respectively). Credit underperformed government bonds and local currency emerging market debt was a top performing asset class in the first calendar quarter (JP Morgan Global Bond Emerging Market Global Diversified Index: +4.4%). U.S. dollar-denominated emerging market debt did not perform as well (JP Morgan Global Diversified Index: -1.7%) as spreads widened in sympathy with the broader risk-off environment. Finally, municipal bonds underperformed Treasuries in the first calendar quarter in spite of shrinking supply and continued inflows to the sector. As a result, the ratio of the yield of AAA rated 10-year municipals relative to the 10-year U.S. Treasury climbed to 89% as of quarter-end, up from 81% at calendar year-end 2017. The Bloomberg Barclays Municipal Bond Index lost 1.1% and the shorter duration 1-10 Year Blend fell 0.7%.

Other Asset Results

Commodities were among the top-performing major asset classes in the first calendar quarter of 2018 as strong grain and crude-oil prices offset weak livestock and base metal performance. Despite the strength of Energy commodities (+4.8% for the Energy component of the Goldman Sachs Commodity Index), energy-related equities (S&P Energy sector) were down nearly 6% in the first calendar quarter. Across other sub-sectors, agriculture was the largest contributor during the quarter, led by corn, soybeans, and wheat. Meanwhile, precious and industrial metals were about flat, but with wide dispersion (steel was up 33% on strong demand, while palladium, copper, and aluminum were down between -8% and -12%). Both listed infrastructure and real estate suffered negative returns (DJ-Brookfield Global Infrastructure Index: -5.3%, MSCI U.S. REIT Index: -8.4%) throughout the quarter as higher yields and prospects of more rate hikes ahead weighed on these and other rate-sensitive assets. The midstream infrastructure space felt a double whammy (Alerian MLP Index: -11.1%) from rate hike concerns and a negative ruling by FERC on March 14, which led to a widespread sell-off across the sector. Meanwhile, Treasury Inflation Protected Securities (TIPS) outperformed nominal Treasuries in the first calendar quarter, with the Bloomberg Barclays U.S. TIPS Index returning -0.8%.

Closing Thoughts

Reflecting on these last three months, the environment and general mood in the market appear to have shifted to a more cautious state. The broader, macro-oriented stories on which we and many other investors are watching closely include elevated tensions between the U.S. and other, key global trade partners (China chief among them), the pace of rises in both domestic and global interest rates and inflation, the return of equity volatility, currency trends (i.e. continued USD weakening, yen appreciation) as well as further policy normalization by global central banks. While doing so, we continue to suggest that investors temper return expectations, maintain a long-term perspective, and adhere to prudent asset allocation with appropriate levels of diversification.

RECOMMENDATION

Staff recommend the Finance & Administration Committee accept the FY2018 Q3 Public University Fund Investment Report and the FY2018 Q3 Oregon State University Investment Report.