FY2018 Q4 Investment Reports

BACKGROUND

The Oregon State University (university) investment reports for the fourth quarter (Q4) of fiscal year (FY) 2018 are presented in the following three sections:

- **FY2018 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 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 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.

- **FY2018 Q4 Market Background** – This section provides a general discussion of the investment markets and related performance information during the fourth quarter of FY2018 (i.e., April 1 – June 30, 2018).

FY2018 Q4 PUBLIC UNIVERSITY FUND INVESTMENT REPORT

(Prepared by the Public University Fund Administrator)

Performance

The Public University Fund (PUF) gained 0.4% for the quarter and gained 0.9% for the fiscal year ended June 30, 2018. The PUF's three-year average total return was 1.4%.

The Oregon Short-Term Fund (OSTF) returned 0.5% for the quarter and 1.7% for the fiscal year, in-line with its benchmark for the quarter and outperforming the benchmark by 30 basis points for the fiscal year. The Core Bond Fund returned 0.2% for the quarter and declined 0.3% for the fiscal year, outperforming its benchmark by 20 and 30 basis points, respectively. The annualized yield on the PUF portfolio was 2.1% for the fiscal year.

In July, Oregon State Treasury fixed income portfolio manager, Tom Lofton, conducted a quarterly performance review with university staff. In an effort to mitigate price volatility within the Core Bond Fund, as a result of rising interest rates, Mr. Lofton is actively reducing security positions with high interest rate risk to yield and spread risk to yield ratios. Mr. Lofton is seeking opportunities to deploy the $26 million cash position into the corporate bond sector during the first quarter of fiscal year 2019.

The PUF Administrator invested $15 million of excess liquidity into the Core Bond Fund during the quarter and $65 million during fiscal year 2018.

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

	Quarter Ended 6-30-18	Prior Fiscal YTD	Current Fiscal YTD	3-Year Avg.	Market Value	Asset Allocation	Policy Allocation
Oregon Short–Term Fund	0.5%	1.1%	1.7%	1.2%	$247,168,464	39.7%	$100 million target [1]
Benchmark - 91 day T-Bill	*0.5%*	*0.5%*	*1.4%*	*0.7%*			
PUF Core Bond Fund	0.2%	N/A	-0.3%	N/A	375,495,937	60.3%	
Blended Benchmark [2]	*0.0%*	*-0.6%*	*-0.6%*	*1.5%*			
PUF Total Return	0.4%	0.9%	0.9%	1.4%	$622,664,401	100.0%	
PUF Investment Yield	*0.6%*	*1.8%*	*2.1%*	*1.8%*			

[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 $4,057,448.

	Earnings Distribution [1]	Market Value as of 6/30/18	% Ownership
Oregon State University [2]	$ 2,021,237	$ 319,322,110	51.3%
Portland State University	1,214,960	179,069,947	28.8%
Western Oregon University	332,925	51,747,422	8.3%
Southern Oregon University	172,954	28,272,297	4.5%
Oregon Institute of Technology	174,545	24,882,253	4.0%
Eastern Oregon University	140,827	19,370,372	3.1%
Grand Total	$ 4,057,448	$ 622,664,401	100.0%

[1] The earnings available for distribution to participants were earned during the months of March 2018 through May 2018 and distributed to participants in June 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 June 30, 2018, Oregon State University's total PUF market value consisted of operating assets, valued at $318,999,019, and the land grant endowment, valued at $323,091.

Oregon Short-Term Fund Exposures

June 30, 2018

Sector	Market Value Percent	Gain (Loss) Percent	Duration Rate	Duration Spread	Yield Percent
Corporates	52.4%	-1.0%	0.5	1.1	2.7%
Treasuries	19.5%	-0.2%	0.4	0.0	2.0%
Securitized	13.8%	-0.6%	0.7	1.0	2.6%
Government Related	12.9%	-0.1%	0.3	0.6	2.1%
Investment Funds	1.1%	0.0%	2.7	1.5	3.0%
Cash Securities	0.2%	0.0%	0.1	0.1	2.0%
Municipals	0.1%	0.0%	0.2	0.4	2.4%
Total	**100.0%**	**-1.9%**	**0.5**	**0.8**	**2.5%**

Rating	Market Value Percent	Gain (Loss) Percent	Duration Rate	Duration Spread	Yield Percent
AAA	40.3%	-0.8%	0.5	0.5	2.2%
AA+	0.9%	0.0%	0.6	0.9	2.4%
AA	5.5%	0.0%	0.4	0.8	2.3%
AA-	21.4%	-0.2%	0.4	0.9	2.5%
A+	9.2%	-0.2%	0.5	1.4	2.7%
A	14.3%	-0.3%	0.6	1.1	2.8%
A-	7.2%	-0.3%	0.7	1.3	2.9%
BBB+	0.1%	0.0%	0.2	0.4	2.4%
No Rating	0.1%	0.0%	0.2	0.2	1.9%
Investment Funds	1.0%	-0.1%	2.7	1.5	3.0%
Total	**100.0%**	**-1.9%**	**0.5**	**0.8**	**2.5%**

Industry	Market Value Percent	Gain (Loss) Percent	Duration Rate	Duration Spread	Yield Percent
Banking	36.7%	-0.8%	0.5	1.1	2.7%
Treasuries	19.5%	-0.2%	0.4	0.0	2.0%
ABS	13.8%	-0.6%	0.7	1.0	2.6%
Government Related	12.9%	-0.1%	0.3	0.6	2.1%
Consumer Cyclical	6.5%	-0.2%	0.6	1.2	2.5%
Capital Goods	2.9%	0.0%	0.6	1.6	2.6%
Technology	1.7%	0.0%	0.5	0.9	4.2%
Consumer Non-Cyclical	1.5%	0.0%	0.6	1.0	2.5%
Investment Funds	1.1%	0.0%	2.7	1.5	3.0%
Insurance	0.8%	0.0%	0.7	1.2	2.6%
Utility	0.7%	0.0%	0.2	0.2	2.2%
Industrial Other	0.6%	0.0%	0.1	0.1	1.9%
Financial Other	0.3%	0.0%	0.0	0.0	2.0%
Cash Securities	0.3%	0.0%	0.1	0.1	2.0%
Finance Companies	0.3%	0.0%	2.3	2.3	3.3%
Communications	0.2%	0.0%	0.6	0.9	2.6%
Transportation	0.1%	0.0%	0.7	0.7	2.7%
Municipals	0.1%	0.0%	0.2	0.4	2.4%
Total	**100.0%**	**-1.9%**	**0.5**	**0.8**	**2.5%**

Top Exposures	Market Value Percent
United States Treasury	19.6%
JP Morgan Chase & Company	4.4%
Wells Fargo & Company	3.0%
Toyota Motor Corporation	2.8%
Citigroup Incorporated	2.2%
Royal Bank of Canada	2.0%
Morgan Stanley	2.0%
Federal Home Loan Banks	2.0%
American Express Company	1.8%
Federal Farm Credit Banks Funding Corporation	1.8%
Goldman Sachs Group Incorporated (The)	1.7%
Private Export Funding Corporation	1.7%
Barclays Plc	1.6%
Toronto-Dominion Bank (The)	1.6%
Honda Motor Company Limited	1.5%
American Express Credit Account Master Trust	1.5%
Bank of Nova Scotia	1.4%
Walmart Incorporated	1.3%
Discover Card Execution Note Trust	1.3%
Citi Bank Credit Card Issuance Trust	1.2%

Source: Oregon State Treasury

PUF Core Bond Fund Exposures

June 30, 2018

Sector	Market Value Percent	Gain (Loss) Percent	Duration Rate	Duration Spread	Yield Percent
Treasuries	32.3%	-0.2%	4.3	0.0	2.7%
Securitized	31.1%	-1.2%	3.7	4.4	3.2%
Corporates	19.7%	-0.8%	3.6	4.5	3.6%
Government Related	9.9%	-0.2%	4.3	4.5	2.9%
Cash	7.0%	0.0%	0.5	0.8	2.5%
Total	**100.0%**	**-2.4%**	**3.7**	**2.8**	**3.0%**

Rating	Market Value Percent	Gain (Loss) Percent	Duration Rate	Duration Spread	Yield Percent
AAA	73.3%	-1.7%	4.0	2.5	2.9%
AA+	0.0%	0.0%	0.0	0.0	0.0%
AA	8.1%	0.0%	1.1	1.4	2.6%
AA-	0.2%	0.0%	0.2	3.9	2.7%
A+	0.1%	0.0%	8.3	8.4	3.6%
A	2.3%	0.0%	2.3	4.2	3.3%
A-	5.0%	-0.1%	2.8	4.9	3.3%
BBB+	3.7%	-0.2%	3.6	4.2	3.6%
BBB	5.1%	-0.3%	4.3	4.3	3.9%
BBB-	2.2%	-0.1%	5.0	5.1	4.3%
Total	**100.0%**	**-2.4%**	**3.7**	**2.8**	**3.0%**

Industry	Market Value Percent	Gain (Loss) Percent	Duration Rate	Duration Spread	Yield Percent
Treasuries	32.3%	-0.3%	4.3	0.0	2.7%
MBS Pass-Through	13.7%	-0.7%	4.3	5.0	3.3%
CMBS	8.7%	-0.2%	3.7	4.2	3.1%
Agency	7.4%	-0.2%	4.3	4.6	2.9%
Cash	7.0%	0.0%	0.5	0.8	2.5%
ABS	5.2%	-0.2%	2.4	3.1	2.9%
Consumer Non-Cyclical	4.8%	-0.3%	4.4	4.5	3.7%
Banking	4.2%	0.0%	0.8	4.1	3.2%
CMO	3.4%	-0.1%	3.2	4.6	3.0%
Consumer Cyclical	2.7%	-0.1%	3.4	3.8	3.6%
Capital Goods	2.3%	-0.1%	3.3	4.1	3.4%
Supranational	2.0%	0.0%	3.7	3.8	2.9%
REITs	1.7%	0.0%	7.4	7.5	4.6%
Insurance	1.5%	-0.1%	3.0	3.5	3.4%
Basic Industry	1.3%	-0.1%	4.4	4.5	3.7%
Transportation	0.6%	0.0%	4.3	4.3	3.7%
Local Authority	0.5%	0.0%	5.1	5.8	3.5%
Technology	0.4%	0.0%	5.1	5.2	4.1%
Utility	0.1%	0.0%	7.3	7.4	3.7%
Finance Companies	0.1%	0.0%	4.5	4.6	4.2%
Communications	0.1%	0.0%	4.9	5.0	4.3%
Total	**100.0%**	**-2.4%**	**3.7**	**2.8**	**3.0%**

Top Exposures	Market Value Percent
United States Treasury	40.6%
Oregon State Treasury	7.0%
Federal National Mortgage Association	4.8%
Federal Home Loan Mortgage Corporation	4.8%
Federal Farm Credit Banks Funding Corporation	2.2%
European Investment Bank	2.0%
FHLMC Multifamily Structured Pass-Through K716	1.6%
FHLMC Multifamily Structured Pass-Through K040	1.3%
FHLMC Multifamily Structured Pass-Through K058	1.3%
Capital One Multi-Asset Execution Trust	1.2%
Morgan Stanley Capital Trust	1.2%
Citibank Credit Card Issuance Trust	1.2%
Wells Fargo Commercial Mortgage Trust	1.1%
Ford Motor Company	1.0%
Sherwin-Williams Company (The)	0.9%
Keurig Dr. Pepper Incorporated	0.9%
CNH Equipment Trust 2017-A	0.9%
Citigroup Incorporated	0.8%
Senior Housing Properties Trust	0.8%
Goldman Sachs Group Incorporated (The)	0.8%

Source: Oregon State Treasury

FY2018 Q4 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 gained 0.4% for the fourth quarter and 0.9% for the fiscal year ended June 30, 2018.

OSU Endowment Asset Performance

The OSU Endowment Assets, including those managed by the OSU Foundation, earned a total return of 4.7% during the quarter and 12.6% for the fiscal year ending June 30, 2018. The three year average return was 7.4%. The total market value of the OSU endowment assets as of June 30, 2018 was $54,851,902.

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 0.9% during the quarter and 9.5% for the fiscal year, outperforming its benchmark by 100 basis points for the quarter and 70 basis points for the fiscal year. The three year average return was 7.2%, outperforming its benchmark by 50 basis points.

The separately held forest lands are valued annually, during the fourth fiscal period. The $2.0 million dollar increase in the property valuation is due to the estimated increase in the timber value for both the Cameron and Matteson properties, since the previous valuation.

Oregon State University
Investment Summary
as of June 30, 2018
(Net of Fees)

	Quarter Ended 6/30/2018	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%	1.1%	1.7%	1.2%	0.9%	0.9%	$ 126,627,598	39.7%	[1]
Benchmark - 91 day T-Bill	0.5%	0.5%	1.4%	0.7%	0.4%	0.4%			
PUF Core Bond Fund	0.2%	N/A	-0.3%	N/A	N/A	N/A	192,371,421	60.3%	[1]
Blended Benchmark [2]	0.0%	-0.6%	-0.6%	1.5%	2.0%	N/A			
Public University Fund Total Return	0.4%	0.9%	0.9%	1.4%			$ 318,999,019	100.0%	
Public University Fund Investment Yield	0.6%	1.8%	2.1%	1.8%					
OSU Endowment Assets									
OSU Endowment Assets Invested in the OSUF Endowment Pool									
Total Global Equity	0.0%	21.6%	12.4%				$ 23,983,081	50.0%	50.0%
Benchmark - MSCI All Country World Index	0.5%	18.8%	10.7%						
Total Global Fixed Income	-1.4%	2.0%	2.5%				5,411,665	11.3%	5.0%
Benchmark - Bloomberg Barclays Global Agg. Bond Index	-2.8%	-2.2%	1.4%						
Total Absolute Return	2.5%	8.5%	5.9%				6,078,528	12.7%	10.0%
Benchmark - HFRI Fund of Funds Index	0.8%	6.3%	5.5%						
Total Real Assets	3.9%	11.6%	3.1%				4,245,855	8.9%	10.0%
Benchmark - Real Assets Custom [3]	2.2%	-1.9%	5.4%						
Total Private Capital	5.1%	7.8%	21.0%				5,814,662	12.1%	25.0%
Benchmark - No benchmark provided									
Total Cash	0.0%	0.0%	0.0%				2,441,966	5.0%	0.0%
Total OSU Endowment Assets Invested in OSUF Endow. Pool [4]	0.9%	14.2%	9.5%	7.2%			47,975,757	100.0%	100.0%
Benchmark-80% MSCI ACWI/20% BBG Barclays Global Agg. [5]	-0.1%	12.5%	8.8%	6.7%					
Other OSU Endowment Assets									
Land Held as Separately Invested Endowment Funds [6]	45.4%	-3.9%	45.4%	9.9%			6,553,054		
Other Endowment Assets Invested in the PUF	0.4%	0.9%	0.9%	1.4%			323,091		
Total Other OSU Endowment Assets							6,876,145		
Total OSU Endowment Assets	4.7%	12.0%	12.6%	7.4%			$ 54,851,902		

(continued on next page)

Oregon State University

Investment Summary

as of June 30, 2018

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.

FY2018 Q4 MARKET BACKGROUND

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

Macroeconomic Environment

Summer months are typically a quiet time for the markets. Recent events, however, may disrupt this tradition. Threats of escalating trade wars have cast a pall over equities, and numerous geopolitical uncertainties continue to push investors toward a more cautious stance. A desynchronization in global growth as well as a divergence in central banks' monetary policies have contributed to U.S. dollar strength and wreaked havoc on emerging markets. Currencies of emerging market countries with significant external funding requirements came under particular pressure. Oil prices have risen sharply, and the Chicago Board of Exchange Volatility Index climbed steadily higher through June, signaling increased investor angst. While economic growth in the U.S. has been robust, signs of deceleration have emerged overseas, especially in Europe, Japan, and China. While the summer months are traditionally a good time to take vacation, it seems the summer of 2018 could take a different course.

The U.S. economy continues to thrive. The unemployment rate dropped to 3.8% in May, the lowest since 2000. Wages have been inching up, showing a year-over-year increase of 2.7% in May. Consumer spending has been robust; retail sales topped forecasts in May, rising 0.8% (6% y/y). Housing starts, which have been hindered by high lumber costs and a shortage of labor, surged to near an 11-year high in May. Business optimism and consumer confidence indices remain elevated. The National Federation of Independent Business reported that its index of small business optimism rose in May to its highest level in more than 30 years. While real U.S. Gross Domestic Product (GDP) growth in the first calendar quarter was a mere 2.0% (annualized), expectations for second calendar quarter growth are sharply higher. Some are forecasting an annual rate of more than 4%—the Atlanta Fed expects 4.5%—and most project at least 3.5%.

Inflation is moving up but remains contained. The Producer Price Index jumped 0.5% (3.1% year-over-year) in May with roughly half the increase attributable to higher oil prices. This marked the highest level since 2012. Consumer prices rose 0.2% (2.8% year over year), also the biggest jump since 2012. Energy prices climbed 11.7% year over year, and appear poised to rise further given a sharp drop in supply and President Trump's threats of sanctions on countries that continue to import from Iran. The Federal Reserve's (Fed) favored inflation measure, the Core Personal Consumption Expenditures Index, hit its stated 2% year over year target in May for the first time since 2012.

Against this backdrop, the Fed raised short-term rates for the second time in calendar year 2018, bringing the Federal Funds rate to 1.75% - 2.00%. The Fed expects two more rate hikes this calendar year and three more in calendar year 2019. The U.S. dollar appreciated more than 5% over the course of the quarter (versus a basket of currencies) given higher interest rates, the strength of the U.S. economy, and relative weakness in Europe and Japan.

In the face of all of the good economic news (and perhaps because of it), the White House imposed a 25% tariff on $50 billion of imports from China. While these tariffs are not expected to have a meaningful impact on U.S. GDP (roughly -0.2%), the administration has threatened to apply additional tariffs on at least $200 billion of goods should China retaliate. That move would have a much more significant impact on U.S. GDP as well as add to inflation. Further, the White House announced new tariffs on steel and aluminum from Europe, Mexico, and Canada. In response to President Trump's move, European Union (EU) members unanimously backed a plan to impose import duties on €2.8 billion worth of American products. Discussions are ongoing.

Conversely and in contrast to calendar year 2017, data in Europe suggested slower growth. German factory orders unexpectedly dropped for a fourth month in April. A European Commission Index of consumer sentiment fell to an eight-month low in June. Turmoil in Italy also worried investors. Initial attempts by the Northern League and 5 Star Movement to form an anti-establishment government coalition were rebuffed by the Italian president's veto of the parties' choice of a euro-skeptic finance minister. While a compromise was reached, investors are wary of the new government's fiscal discipline. Italy's national debt is among the highest in the world and growth remains meager; unemployment hovers around 11%, and the new government includes leaders who have talked of leaving the euro. Italian bond yields surged 100 basis points on the news. Finally, British Exit (Brexit) negotiations between Britain and the EU have stalled, raising the threat of a "hard" Brexit come March 2019.

In recognition of these headwinds, euro zone central bankers trimmed their outlook for growth in 2018 to 2.1%, down from the previous forecast of 2.4%. The European Central Bank (ECB) announced plans to cut in half (€30 billion to €15 billion) its monthly asset purchase program beginning in October 2018, and fully stop purchases by the end of 2019. However, this timing was further out than markets had expected, and reinvestment of principal payments from maturing bonds is expected to remain for "an extended period of time after the end of the net asset purchases," according to the ECB. The Bank also kept rates unchanged during the quarter.

China also showed signs of slowing. Both industrial output and retail sales rose less than expected in May and fixed-asset investment growth has also slowed. Japan's economy contracted for the first time in two years. The world's third-largest economy shrank by 0.2% in the first calendar quarter. Stimulus measures are expected to remain in place in Japan as inflation remains significantly below target.

Equity Market Results

The U.S. equity market posted solid returns in the second calendar quarter on the back of strong first calendar quarter earnings, as well as record share buybacks fueled by the Trump Administration's $1.5 trillion tax cut. The S&P 500 Index gained 3.4% in the second calendar quarter. Small cap stocks, seen to be relatively immune to global trade spats, surged nearly 8% (Russell 2000: +7.8%). Large cap growth (Russell 1000 Growth: +5.8%) continued to dominate large cap value (Russell 1000 Value: +1.2%); for the calendar year-to-date period growth (+7.3%) outpaced value (-1.7%) by 9%. Within the S&P 500, rising oil prices fueled the Energy sector (+13.5%), but Consumer Discretionary (+8.2%) and Technology stocks (+7.1%) were not far behind. In spite of a late quarter boost, Financials (-3.2%) were hurt by rising short rates and a flattening yield curve. Industrials (-3.2%) and Consumer Staples (-1.5%) also lost ground during the quarter. The oft-quoted "FANG" (Facebook, Amazon, Netflix, Google) stocks plus Apple and Microsoft accounted for over half of the second quarter total returns for both the Russell 1000 Growth and S&P 500 indices. Notably, the calendar year-to-date contribution from these six stocks accounted for over 70% of the Russell 1000 Growth and over 120% of the S&P 500 total returns; Amazon alone accounted for nearly half of the calendar year-to-date total return for the S&P 500 Index.

U.S. stocks outperformed non-U.S. and (in particular) emerging market equities both in local as well as U.S. dollar terms. The U.S. dollar appreciated roughly 5% over the quarter (versus a basket of developed market currencies), benefitting from higher interest rates and a relatively robust economy. The Morgan Stanley Capital Indices (MSCI) All Country World Index ex-US lost 2.6%, with most countries posting negative returns. The MSCI Emerging Markets Index sank 8.0%, with many countries posting double-digit declines. Regionally, Emerging Europe and Latin America sank about 15% while Emerging Asia fared better with a 3% drop.

Fixed Income Market Results

U.S. rates rose in the second calendar quarter and the yield curve continued its flattening trend. The yield on the 10-year U.S. Treasury note hit an intra-quarter high of 3.11% in May but closed the quarter at 2.85%, only 11 bps higher than March 31. Concerns over mounting trade tensions and slower global growth pushed yields lower going into quarter-end. The 2-year U.S. Treasury note closed at 2.52%, up sharply from 2.27% as of March 31 and its highest level since August 2008. The yield curve continued to flatten and the spread between the 2-year and 10-year ended at its lowest level (33 bps) in more than 10 years. The Fed hiked rates in June, as was widely expected, and expects two more increases in 2018. The Bloomberg Barclays US Aggregate Bond Index fell -0.2%, with investment grade corporates underperforming Treasuries as heavy supply and concerns over heightened Mergers & Acquisitions activity weighed on the market. High yield corporates (Bloomberg Barclays High Yield: +1.0%) outperformed, and leveraged bank loans (S&P Loan Syndications & Trading Association: +0.7%), which carry a floating rate coupon, posted the best returns. Municipals performed relatively well during the quarter; the Bloomberg Barclays Municipal Bond Index was up 0.9%.

Overseas, changes in interest rates were modest (with the exception of Italy, where yields spiked on political news) and currency fluctuations drove returns for unhedged bonds. The dollar strengthened by 5% versus the euro over the quarter and similarly relative to the Japanese yen and U.K. pound. The Bloomberg Barclays Global Aggregate ex-US Bond Index fell 4.8%, largely a result of U.S. dollar strength. Emerging market currencies suffered more as higher interest rates in the U.S. and trade concerns weighed on markets. The JP Morgan Emerging Market Bond Global Diversified Index was down 3.5% with broad-based weakness. Argentina (-11.5%) and Venezuela (-14.5%) were among the weakest performers. The local currency-denominated JP Morgan Global Bond Emerging Markets Diversified Index fared even worse (-10.4%) with several countries posting double digit declines. Argentina (-34%), Turkey (-22%), South Africa (-17%), and Brazil (-16%) were notably poor performers. Countries that rely heavily on external financing were especially hard-hit.

Other Asset Results

As a group, real assets performed relatively well in the second quarter, led by Energy stocks (S&P 500 Energy: +13.5%), Master Limited Partnerships (Alerian MLP Index: +11.8%), and equity Real Estate Investment Trusts (Financial Times Stock Exchange National Association of Real Estate Investment Trusts: +10.0%). The listed infrastructure sector wasn't to be kept away from the party, as the Dow Jones Brookfield Global Infrastructure Index rose 4.2%, while hard commodities saw dispersed returns and a more modest +0.4% return overall for the Bloomberg Commodity Total Return Index. Gold slipped 5.5%. Across the hard commodity complex, the biggest gains came from lean hogs (+45%), crude oil (+14%) in both Brent and West Texas Intermediate, and feeder cattle (+14%). The biggest loser was soybeans, which fell by 18% over the quarter. Treasury Inflation Protected Securities also performed well, in relative terms, rising 0.8% for the quarter as inflation expectations rose. The 10-year breakeven inflation rate was 2.11% as of quarter-end.

Geopolitics influenced the performance of several hard commodities. The tension between the U.S. and North Korea was somewhat eased by a June 12 summit between President Trump and Kim Jong-Un, while the U.S.-Russia relationship continued to stand at a post-Cold War low. Elsewhere, the continued rhetoric and threat of a trade war between the U.S. and China continued to weigh on several commodity sectors, soybeans chief among them (the U.S. is the largest global exporter and China is the largest buyer of American soybeans). As for oil, robust demand and a spate of global oil supply disruptions in Venezuela, Libya, and even Canada pushed the spot price to a multi-year high of $74/barrel despite efforts by the Organization of Petroleum Exporting Countries and others to open the spigot. Recent threats by President Trump to sanction nations importing oil from Iran only exacerbated concerns around this imbalance.

Inflation-sensitive assets traditionally perform well through the later stages of economic growth cycles. However, the Fed expects to hike rates up to five times between now and the end of calendar year 2019, leaving us to wonder how long some of these more rate-sensitive real asset categories can maintain their momentum.

Closing Thoughts

As of the end of the quarter, valuations remained full across most asset classes (emerging markets being the notable exception) and numerous storm clouds loomed on the horizon. Could rising interest rates, higher energy prices, U.S. dollar strength, Brexit woes, looming trade wars and/or other geopolitical concerns derail the 108-month-old economic expansion, the second-longest since data were recorded, or will sunny skies prevail? While we cannot predict the future, 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 Q4 Public University Fund Investment Report and the FY2018 Q4 Oregon State University Investment Report.