

FY2020 Q3 Investment Reports

BACKGROUND

The Oregon State University (university) investment reports for the third quarter (Q3, January 1 – March 31, 2020) of fiscal year (FY) 2020 are presented in the following four sections:

- **FY2020 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 FY2020. 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.
- **FY2020 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.
- **FY2020 Q3 Oregon State University Report on Unspent General Revenue Bond Proceeds** – This section provides a summary of unspent revenue bond proceeds as of March 31, 2020.
- **FY2020 Q3 Market Background** – This section provides a general discussion of the investment markets and related performance information during the third quarter of FY2020.

FY2020 Q3 PUBLIC UNIVERSITY FUND INVESTMENT REPORT

(Prepared by the Public University Fund Administrator)

Performance

The PUF gained 1.7% for the quarter and 3.1% for the fiscal year-to-date through March 31, 2020. The PUF’s three-year and five-year average returns were 3.2% and 2.5%, respectively.

The Oregon Short-Term Fund (OSTF) returned 0.5% for the quarter and 1.8% fiscal year-to-date, underperforming its benchmark by 10 basis points for the quarter and outperforming its benchmark by 20 basis points fiscal year-to-date. The Core Bond Fund returned 2.8% for the quarter, in-line with its benchmark and 4.5% fiscal year-to-date, underperforming its benchmark by 20 basis points. The investment yield on the PUF portfolio was 0.6% for the quarter and 2.1% fiscal year-to-date.

In April, Oregon State Treasury fixed income investment officer, Will Hampson, conducted a quarterly performance review with university staff. Mr. Hampson spoke of the significant liquidity constraints that surfaced in the fixed income markets during February and March, constricting daily trading volumes and prompting the Federal Reserve (the Fed) to announce multiple lending, quantitative easing, rate reductions and bond purchase programs to restore confidence and liquidity to market participants. The Fed’s actions helped to lift trader sentiment and propel quality fixed income security prices higher, benefiting the PUF.

Heading into the final quarter of the fiscal year, the State Treasury investment team is maintaining a bias toward high quality securities with government guarantees such as treasuries and agency securities while keeping a lower allocation to corporate bonds given the pandemic-induced financial stresses currently experienced by companies across multiple industries.

Public University Fund Performance

	Quarter Ended 03-31-20	Current Fiscal YTD	Prior Fiscal YTD	3-Year Avg.	5-Year Avg.	Market Value	Asset Allocation	Policy
Oregon Short–Term Fund	0.5%	1.8%	1.9%	2.1%	1.6%	\$344,708,052	52.0%	\$100 million target ¹
<i>Benchmark - 91 day T-Bill</i>	0.6%	1.6%	1.7%	1.8%	1.2%			
PUF Core Bond Fund	2.8%	4.5%	4.1%	3.8%	N/A	317,930,798	48.0%	
<i>Blended Benchmark ²</i>	2.8%	4.7%	4.3%	3.9%	3.0%			
PUF Total Return	1.7%	3.1%	3.4%	3.2%	2.5%	\$662,638,850	100.0%	
<i>PUF Investment Yield</i>	0.6%	2.1%	2.0%	2.5%	2.1%			

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 Attachment 1 of this report.

Investment Income and Participant Ownership

During the quarter, investment earnings distributed to the participants totaled \$3,946,397

	Earnings Distribution ¹	Market Value as of 03/31/20	% Ownership
Portland State University	\$ 1,507,981	\$ 265,196,440	40.0%
Oregon State University ²	1,670,749	254,035,194	38.3%
Western Oregon University	248,096	46,826,376	7.1%
Oregon Institute of Technology	198,659	36,843,871	5.6%
Southern Oregon University	150,875	31,191,100	4.7%
Eastern Oregon University	170,037	28,545,869	4.3%
Grand Total	\$ 3,946,397	\$ 662,638,850	100.0%

¹The earnings available for distribution to participants were earned during the months of December 2019 through February 2020 and distributed to participants in March 2020. 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.

²As of March 31, 2020, Oregon State University’s total PUF market value consisted of operating assets, valued at \$253,701,930, and the land grant endowment, valued at \$333,264.

FY2020 Q3 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 1.7% for the third fiscal quarter and 3.1% for the fiscal year-to-date.

OSU Endowment Asset Performance

The OSU Endowment Assets, including those managed by the OSU Foundation, declined 12.4% for the quarter and declined 7.5% fiscal year-to-date. The three-year average return was 4.1%. The total market value of the OSU endowment assets as of March 31, 2020, was \$49,569,710.

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 declined by 14.1% for the quarter and declined 8.9% fiscal year-to-date, outperforming its benchmark by 330 and 240 basis points, respectively. The three-year average return was 3.2%, outperforming its benchmark by 110 basis points.

Oregon State University
Investment Summary
as of March 31, 2020
 (Net of Fees)

	Quarter Ended 3/31/2020	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									
Assets Invested in the Public University Fund									
Oregon Short - Term Fund	0.5%	1.8%	1.9%	2.1%	1.6%	1.1%	\$ 131,977,016	52.0%	1
Benchmark - 91 day T-Bill	0.6%	1.6%	1.7%	1.8%	1.2%	0.6%			
PUF Core Bond Fund	2.8%	4.5%	4.1%	3.8%	N/A	N/A	121,724,914	48.0%	1
Blended Benchmark ²	2.8%	4.7%	4.3%	3.9%	3.0%	N/A			
Public University Fund Total Return	1.7%	3.1%	3.4%	3.2%	2.5%		253,701,930	100.0%	
Public University Fund Investment Yield	0.6%	2.1%	2.0%	2.5%	2.1%				
OSU Unspent Bond Proceeds									
Oregon Short - Term Fund	0.5%	1.8%	N/A				162,938,897		
Benchmark - 91 day T-Bill	0.6%	1.6%	N/A						
Total Operating Assets							<u>\$ 416,640,827</u>		
OSU Endowment Assets									
OSU Endowment Assets Invested in the OSUF Endowment Pool									
Total Global Equity	-20.7%	-13.4%	1.7%				\$ 22,568,323	52.6%	50.0%
Benchmark - MSCI All Country World Index	-21.4%	-14.3%	2.1%						
Total Global Fixed Income	-11.0%	-8.8%	3.3%				1,810,774	4.2%	5.0%
Benchmark - Bloomberg Barclays Global Agg. Bond Index	-0.3%	0.9%	2.5%						
Total Absolute Return	-5.4%	-4.9%	-2.9%				4,713,150	11.0%	10.0%
Benchmark - HFRI Fund of Funds Index	-7.3%	-5.4%	-0.4%						
Total Real Assets	-16.5%	-15.2%	1.2%				3,321,893	7.8%	10.0%
Benchmark - Real Assets Custom ³	-16.6%	-13.4%	1.6%						
Total Private Capital	4.7%	10.4%	15.2%				7,709,702	18.1%	25.0%
Benchmark - No benchmark provided									
Total Cash	0.0%	0.0%	0.0%				2,684,055	6.3%	0.0%
Total OSU Endowment Assets Invested in OSUF Endow. Pool ⁴	-14.1%	-8.9%	2.6%	3.2%			42,807,897	100.0%	100.0%
Benchmark-80% MSCI ACWI/20% BBG Barclays Global Agg. ⁵	-17.4%	-11.3%	2.3%	2.1%					
Other OSU Endowment Assets									
Land Held as Separately Invested Endowment Funds ⁶	0.0%	0.0%	0.0%	11.1%			6,428,549		
Other Endowment Assets Invested in the PUF	1.7%	3.1%	3.4%	3.2%			333,264		
Total Other OSU Endowment Assets							6,761,813		
Total OSU Endowment Assets	-12.4%	-7.5%	2.2%	4.1%			<u>\$ 49,569,710</u>		

(continued on next page)

Oregon State University
Investment Summary
as of March 31, 2020

- 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.

FY2020 Q3 OREGON STATE UNIVERSITY REPORT ON UNSPENT GENERAL REVENUE BOND PROCEEDS

The schedule of Oregon State University’s unspent revenue bond proceeds as of March 31, 2020, is shown in the summary below.

Unspent Revenue Bond Proceeds

Issuance Year	2015 ¹	2016 ²	2017 ^{3, 4}	2019 ⁴	Total
Unspent Revenue Bond Proceeds	\$475,816	\$1,840,237	\$52,809,793	\$113,013,374	\$168,139,220
<i>Allocated</i> ⁵	\$475,816	\$1,840,237	\$52,809,793	\$85,828,864	\$140,954,710
<i>Unallocated</i> ⁶	\$ -	\$ -	\$ -	\$27,184,510	\$ 27,184,510

- 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 Balance represents Unspent 2017 and 2019 Revenue Bond proceeds as of March 31, 2020, including \$2,884,270 of proceeds invested in the PUF.
- ⁵ Allocated proceeds are proceeds committed to specific projects that have Stage Gate 2 approval by the Board.
- ⁶ Unallocated proceeds have not yet been committed to specific capital projects approved by the Board.

FY2020 Q3 MARKET BACKGROUND

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

Unsettling Times

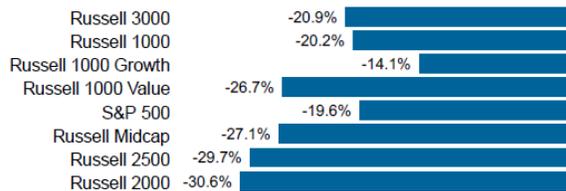
Not to be cliché, but we are living in surreal, disturbing, and unsettled times. Global citizens and the global economy are under stress, and uncertainty is heightened in all aspects of our lives. We have been assaulted by worries over our health and that of friends and family, our clients, our jobs, and the markets. And, we are isolated.

Hits to the global economy have been significant, and the depth and magnitude of the downturn is unknown. Unemployment claims are rapidly increasing and estimates of global gross domestic product decline are bad to really-bad, with some predicting a global depression. Investment portfolios are down sharply with nearly everything in the red. Unprecedented intervention by the U.S. government appears to have stabilized markets as of calendar quarter-end, but uncertainty persists. Now our country is hunkering down and wondering how much worse this viral storm will get. Admittedly, that introduction sounds pretty dire and sets the stage for one really big hangover when we figure out how much all of this is going to cost.

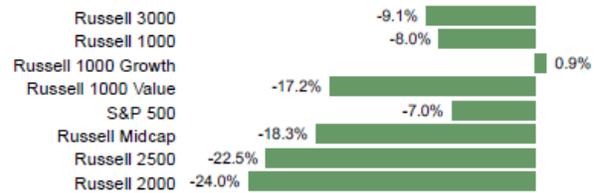
Equity Markets

The S&P 500 Index plunged 19.6% in the first calendar quarter, its worst quarterly return since the Global Financial Crisis (GFC). After falling more than 30% from peak to trough in just a few weeks, the Index rallied 20% going into quarter-end. Every sector experienced double-digit declines, with Information Technology (-11.9%), Consumer Staples (-12.7%), and Health Care (-12.7%) feeling the least pain. Financials (-31.9%) and Energy (-50.5%) fell the most. Financials were hurt by sharp declines in interest rates, and Energy’s performance reflected plummeting oil prices. Oil prices tumbled 66%, with West Texas Intermediate crude ending the quarter at \$20.48, down from roughly \$60 at the start of the calendar year. From a style viewpoint, growth significantly outperformed value (Russell 1000 Growth: -14.1%; Russell 1000 Value: -26.7%). Growth indices benefited from Technology exposure while Value indices struggled with relatively heavy weights in Energy and Financials. Large cap (Russell 1000: -20.2%) outperformed small cap (Russell 2000: -30.6%). Small value (Russell 2000 Value: -35.7%) saw the sharpest decline.

U.S. Equity: Quarterly Returns

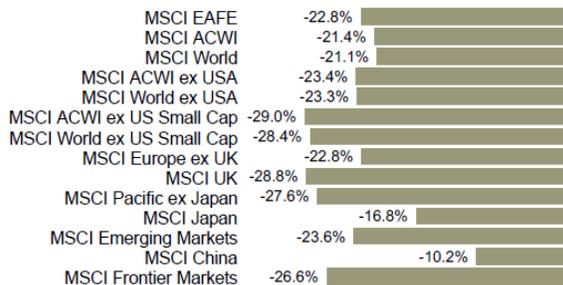


U.S. Equity: One-Year Returns

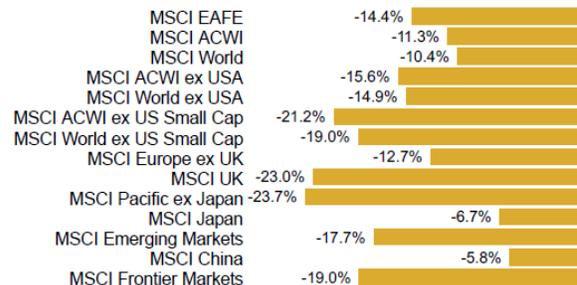


Global ex-U.S. equity indices fell sharply in the first calendar quarter; the Morgan Stanley Capital Indices (MSCI) All Countries World Index (ACWI) ex-USA Index dropped 23.4%. Across developed markets, Canada (-28%), the U.K. (-29%), and Australia (-34%) were among the worst performers while Japan (-17%) fared better, in relative terms. Modest appreciation of the U.S. dollar versus a basket of developed market currencies acted as a headwind for U.S. investors. As in the U.S., growth (MSCI ACWI ex-USA Growth: -18%) outperformed value (MSCI ACWI ex- USA Value: -29%). Also mirroring performance in the U.S., Health Care (-9%) was a top-performing sector while Energy (-38%) was the worst.

Global Equity: Quarterly Returns



Global Equity: Annual Returns



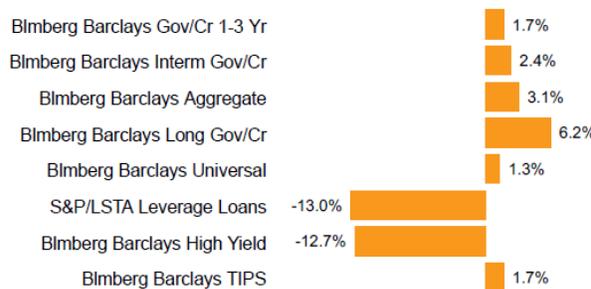
Emerging markets equities (MSCI Emerging Markets Index: -23.6%) also sold off with currency depreciation being a key driver. Collectively, Latin American countries fell 46% in U.S. dollar terms and 32% in local currency terms. Russia dropped 36% in U.S. dollars (-22% local) and

South Africa fell 41% (-24% local). India sank 32% (-27% local) while China performed relatively well, down only 10% in the quarter in U.S. dollar terms.

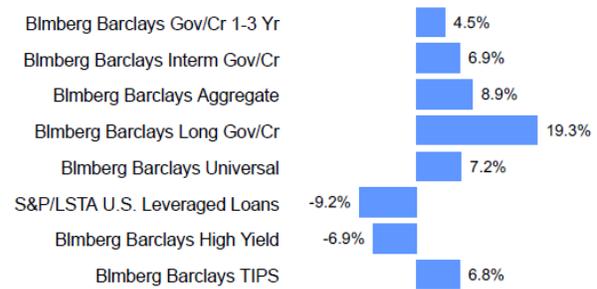
Fixed Income

U.S. Treasury yields fell to record lows in March as investors sought safety and the Federal Reserve (Fed) cut rates to 0%-0.25%. The 10-year U.S. Treasury yield reached a low in March of 0.31% before closing the quarter at 0.70%, down sharply from the calendar year-end level of 1.92%. Most sectors underperformed U.S. Treasuries, hurt both by challenging liquidity conditions as well as a flight to safety. While the Bloomberg Barclays U.S. Aggregate Bond Index rose 3.1% for the quarter, results were driven largely by performance of the Treasury sector (+8.2%). Corporate bonds (-3.6%) and most securitized sectors underperformed U.S. Treasuries. The quality bias was evident in the return for the high quality AAA-rated component (+5.8%) versus lower quality BBBs (-7.4%). Treasury Inflation Protected Securities Index (TIPS) (The Bloomberg Barclays TIPS: +1.7%) sharply underperformed nominal Treasuries as expectations for inflation sank. The 10-year breakeven spread ended the quarter at 87 basis points (bps), down sharply from 177 bps at calendar year-end. High yield corporate bonds (Bloomberg Barclays High Yield: -12.7%) fell sharply and ended the quarter with a yield-to-worst of 9.4% though it topped 10% in mid-March, the highest level since the GFC. Excluding the beleaguered Energy sector, high yield fell 9.1%. Leveraged loans performed even worse (S&P Loan Syndicate and Trading Association: -13.0%) and both high yield and loans experienced heavy outflows.

U.S. Fixed Income: Quarterly Returns



U.S. Fixed Income: Annual Returns



Developed ex-U.S. market returns were relatively flat in broad terms. The Bloomberg Barclays Global Aggregate ex-US Index fell 2.7% unhedged but rose 0.5% on a hedged basis as the U.S. dollar strengthened modestly against a basket of currencies. Emerging market debt underperformed in the risk-off environment. The U.S. dollar-denominated JP Morgan Emerging Market Bond Global Diversified Index dropped 13.4%, with returns varying across its 60 plus constituents. Emerging market currencies were also under pressure. Local currency emerging market debt, as measured by the JP Morgan Global Bond Emerging Markets Diversified Index, fell 15.2% in the quarter, with several local market returns in Latin America dropping about 20% (Brazil, Mexico, and Colombia) and South Africa down 29%.

The municipal bond market experienced extreme volatility in March that is somewhat masked in first calendar quarter returns. The broad Bloomberg Barclays Municipal Bond Index fell 0.6% in the quarter, but notably the index dropped 3.6% in March. Record outflows and a dramatic decline in liquidity drove yields in the muni market sharply higher in mid-March. Yields reversed

course going into quarter-end on the back of Fed announcements that lent support to the market. Cross-market valuations between U.S Treasuries and AAA-rated municipal bonds reached unprecedented levels in March; 5-year AAA municipal yields rose nearly 200 bps during the month to nearly six times the yield of a comparable 5-year U.S. Treasury note. Not surprisingly, higher quality outperformed (AAA: +0.5%; BBB: -4.7%) for the quarter. While fundamentals of some sectors will be challenged in the wake of the economic downturn and downgrades may ensue, recent government stimulus programs should help to mitigate any near-term pressure on finances.

Real Assets

Real asset returns were significantly challenged during the first calendar quarter of 2020, March in particular, as almost the entire space (except gold and TIPS) experienced performance not seen since the GFC. The Master Limited Partnerships (MLP), space (Alerian MLP Index: -57%) and energy-related stocks (S&P 1200 Energy Index: -44%) were among the worst hit as Russia and Saudi Arabia engaged in an oil price war smack in the middle of a global pandemic that was already poised to cripple near-term energy demand. Both listed infrastructure (Dow Jones-Brookfield Global Infrastructure Index: -21%) and real estate (Financial Times Stock Exchange: National Association of Real Estate Investment Trusts Index: -27%) were also hampered by the outlook and immediate impact of the COVID-19 pandemic. Given the sell-off in the fixed income markets, credit in particular, it's likely that many investors fled these sectors to take advantage of higher nominal yields elsewhere. Meanwhile, the impact on real estate is likely to be varied as several sectors are acutely sensitive to the fallout from the coronavirus (e.g., Retail, Hospitality) while other property sectors such as Industrial, Storage, and Office should be more insulated. One silver lining was gold, which served its usual safe-haven role during the depths of March and throughout the first calendar quarter; the Bloomberg Gold sub-Index rose 4.5% in the first calendar quarter while equities of most companies tasked with mining the shiny metal were not so fortunate (GDX-Van Eck Gold Miners ETF: -14.5%).

Perspective

Benchmark Performance for periods ending March 31, 2020

Long-term global equity market returns were significantly impacted by the first calendar quarter's market volatility. Small cap U.S. equities (Russell 2000 Index), developed international equities (MSCI-EAFE) and emerging market equities (MSCI-EM) all reported negative 5-year returns through March 31, 2020.

Despite the harrowing 30% plus equity market declines experienced in 2000, 2009 and 2020, U.S equities have generally kept pace with the less volatile fixed income indices during the last 20 years. The S&P 500 index returned 4.8% while

	Last 5 Years	Last 10 Years	Last 15 Years	Last 20 Years
S&P:500	6.7	10.5	7.6	4.8
Russell:2000 Index	-0.3	6.9	5.7	5.3
MSCI:EAFE	-0.6	2.7	3.1	2.0
MSCI:EM	-0.4	0.7	5.5	--
Blmbg:Aggregate	3.4	3.9	4.4	5.1
Blmbg:Municipal	3.2	4.1	4.3	4.9
Blmbg:HY Corp	2.8	5.6	6.4	6.6
60% S&P/40% Agg	5.7	8.2	6.7	5.3

the Bloomberg Barclays Aggregate Bond index gained 5.1% during the 20-year period. International equities lagged U.S. equities, rising 2.0% for the period.

RECOMMENDATION

Staff recommend the Board accept the FY2020 Q3 Public University Fund Investment Report and the FY2020 Q3 Oregon State University Investment Report.

PUF - Oregon Short Term Fund

March 31, 2020

Portfolio Characteristics	
Market Value 03/31/2020	\$ 344,708,052
Weighted Average Credit Quality	AA
Book Yield (%)	1.91
Weighted Average Maturity (years)	1.07
Duration (years)	0.53
Spread Duration (rate)	0.90

Top 10 Issuers	
United States Treasury	13.9%
Toyota Motor Corporation	3.6%
Wells Fargo & Company	3.4%
Citigroup Incorporated	2.7%
Caterpillar Incorporated	2.7%
Federal Farm Credit Banks Funding Corporation	2.5%
Canada (Government of)	2.3%
Royal Bank of Canada	2.2%
Toyota Auto Receivables Owner Trust TAOT 20-A	2.0%
Sweden (Kingdom of)	1.8%
Total	37.1%

Sector Allocations

- Treasuries: 22%
- Government Related: 14%
- Corporates: 48%
- Securitized: 1%
- Funds: 1%
- Cash Securities: 14%

Maturity Breakdown

Maturity Range	Percentage
0-3m	18.7%
3m-1Yr	21.3%
1-2 Yrs	30.0%
2-3 Yrs	19.5%
3-5 Yrs	10.1%
5-7 Yrs	0.3%
10-15 Yrs	0.1%

Credit Quality Distribution

Credit Rating	Percentage
AAA	43.4%
AA+	1.7%
AA	6.3%
AA-	14.7%
A+	8.3%
A	19.1%
A-	6.2%
BBB+	0.3%

Source: Oregon State Treasury

PUF - Core Bond Fund

March 31, 2020

