

## FY2023 Q2 Investment Reports

### BACKGROUND

The Oregon State University (university) investment reports for the second quarter (Q2, July 1 – December 31, 2022) of fiscal year (FY) 2023 are presented in the following four sections:

- **FY2023 Q2 Public University Fund Investment Report** – This section includes a report on the investments of the Public University Fund (PUF) for the second quarter of FY2023. 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.
- **FY2023 Q2 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 and general revenue bond proceeds invested with multiple managers, board-designated assets, 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.
- **FY2023 Q2 Oregon State University Report on Investments of General Revenue Bond Proceeds** – This section provides a summary of revenue bond proceeds as of December 31, 2022.
- **FY2023 Q2 Market Background** – This section provides a general discussion of the investment markets and related performance information during the second quarter of FY2023.

### FY2023 Q2 PUBLIC UNIVERSITY FUND INVESTMENT REPORT

#### Performance

The PUF increased 1.0% for the quarter and decreased 0.5% fiscal year-to-date. The PUF's three-year and five-year average returns were 0.3% and 1.5%, respectively.

The Oregon Short-Term Fund returned 0.7% for the quarter, underperforming its benchmark by 10 basis points. The Core Bond Fund increased 1.3% for the quarter, underperforming its benchmark by 20 basis points. The PUF investment yield was 0.8% for the quarter and 1.4% fiscal year-to-date.

Managing from the perspective that U.S. economic growth is slowing, and a potential recession is on the horizon, the Oregon State Treasury investment officers increased the Core Bond Fund's allocation to U.S. Treasuries (61.8% versus 56.4% in Q1) and increased the average portfolio duration to 3.97 versus the benchmark's 3.89, during the period. The investment team continues to search for attractively priced corporate bonds and securitized product to enhance

the portfolio's average yield. The Core Bond Fund's annualized book yield was 4.1%, as of December 31, 2022.

### Public University Fund Performance

	Quarter Ended 12-31-22	Current Fiscal YTD	Prior Fiscal YTD	3-Year Avg.	5-Year Avg.	Market Value	Asset Allocation	Policy
<b>Oregon Short-Term Fund</b>	0.7%	1.0%	0.5%	1.1%	1.6%	\$199,847,476	35.2%	\$130 million minimum <sup>1</sup>
<i>Benchmark - 91-day T-Bill</i>	0.8%	1.3%	0.0%	0.7%	1.3%			
<b>PUF Core Bond Fund</b>	1.3%	-1.4%	0.1%	-0.3%	1.2%	\$367,410,843	64.8%	
<i>Benchmark <sup>2</sup></i>	1.5%	-1.6%	-0.5%	-1.3%	0.7%			
<b>PUF Total Return</b>	1.0%	-0.5%	0.3%	0.3%	1.5%	\$567,258,319	100.0%	
<i>PUF Investment Yield</i>	0.8%	1.4%	0.7%	2.1 %	2.3%			

<sup>1</sup> 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.

<sup>2</sup> Benchmark is 100% Bloomberg Barclay's Intermediate U.S. Gov't/Credit Index as of February 1, 2021. From July 1, 2017 to July 31, 2021, the benchmark was 75% Bloomberg Barclay's Aggregate 3-5 Years Index, 25% Bloomberg Barclay's Aggregate 5-7 Years Index.

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 \$4,806,469.

	Earnings Distribution <sup>1</sup>	Market Value as of 12/31/2022	% Ownership
Portland State University	\$2,075,742	\$ 239,135,236	42.2%
Oregon State University <sup>2</sup>	1,822,361	202,517,452	35.7%
Western Oregon University	306,568	39,189,237	6.9%
Oregon Institute of Technology	185,166	38,678,244	6.8%
Eastern Oregon University	245,513	28,949,371	5.1%
Southern Oregon University	171,119	18,788,779	3.3%
Grand Total	\$4,806,469	\$ 567,258,319	100.0%

<sup>1</sup>The earnings available for distribution to participants were earned during the months of September 2022 through November 2022 and distributed to participants in December 2022. 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.

<sup>2</sup>As of December 31, 2022, Oregon State University's total PUF market value consisted of operating assets, valued at \$202,204,759, and the land grant endowment, valued at \$312,693

## **FY2023 Q2 OREGON STATE UNIVERSITY INVESTMENT REPORT**

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

### **Public University Fund Performance**

The majority of Oregon State University's operating assets and the land grant endowment are invested in the Public University Fund. The report on the investment performance of the PUF, provided in the separate section above, shows the PUF increased by 1.0% for the second fiscal quarter ended December 31, 2022.

### **OSU Bond Proceeds Performance**

The report on the investment performance of the unspent bond proceeds, provided in the Investment Summary table below, shows the funds invested in the Oregon Short-Term Fund gained 0.7%. The liquidity and short-duration portfolios, managed by RBC Global Asset Management, recorded returns of 0.9% and 0.7%, respectively. The total market value of the unspent bond proceeds as of December 31, 2022 was \$284,882,406 including \$10,939,076 on deposit in university operating bank accounts, and a receivable from other university funds totaling \$14,759,563, due to the timing of transfers between operating bank accounts at quarter-end.

### **OSU Board Designated Assets Performance**

The Board Designated assets are invested in equities, with a long-term capital appreciation objective. The Bond Repayment Investment portfolio increased 9.5% for the quarter and 2.3% fiscal year-to-date. The Long-Term Equity portfolio increased 9.5% for the quarter and 6.1% fiscal year-to-date. As of December 31, 2022, the total market value of the Bond Repayment Investment and Long-Term Equity portfolios were \$37,334,907 and \$11,888,475, respectively.

The combined market value of the Board Designated assets, as of December 31, 2022, was \$49,223,382, increasing 9.5% for the quarter.

### **OSU Endowment Assets Performance**

The OSU Endowment Assets, including those managed by the OSU Foundation, increased 5.2% for the quarter and 1.3% fiscal year-to-date. The three-year and five-year average return was 7.8% and 5.3%, respectively. The total market value of the OSU endowment assets as of December 31, 2022, was \$63,966,753.

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 increased 6.3% for the quarter and 1.6% fiscal year-to-date. The investment pool underperformed its benchmark by 250 basis points during the quarter and outperformed its benchmark by 20 basis points fiscal year-to-date. The endowment assets recorded a 6.8% average return for both the three-year and five-year time periods.

Oregon State University Investment Summary as of December 31, 2022 (Net of Fees)									
	Quarter Ended 12/31/2022	Current Fiscal YTD	Prior Fiscal YTD	3 Yr Avg	5 Yr Avg	10 Yr Avg	Market Value	Actual Asset Allocation	Policy Allocation Range
<b>OSU Operating Assets</b>									
<b>Assets Invested in the Public University Fund</b>									
Oregon Short - Term Fund	0.7%	1.0%	0.5%	1.1%	1.6%	1.2%	\$ 71,237,581	35.2%	1
Benchmark - 91 day T-Bill	0.8%	1.3%	0.0%	0.7%	1.3%	0.8%			
PUF Core Bond Fund	1.3%	-1.4%	0.1%	-0.3%	1.2%	N/A	130,967,178	64.8%	1
Benchmark - Bloomberg Barclays Intermediate U.S. Gov't./Credit Index <sup>2</sup>	1.5%	-1.6%	-0.5%	-1.3%	0.7%	1.1%			
Total Public University Fund	1.0%	-0.5%	0.3%	0.3%	1.5%	N/A	202,204,759	100.0%	
Public University Fund Investment Yield <sup>3</sup>	0.8%	1.4%	0.7%	2.1%	2.3%	N/A			
<b>OSU Unspent Bond Proceeds</b>									
Oregon Short - Term Fund	0.7%	1.0%	0.5%	N/A	N/A	N/A	30,988,421	11.9%	
Benchmark - 91 day T-Bill	0.8%	1.3%	0.0%	0.7%	1.3%	0.8%			
RBC Liquidity Portfolio <sup>4</sup>	0.9%	1.0%	0.0%	N/A	N/A	N/A	44,810,756	17.3%	
Benchmark - 91 day T-Bill	0.8%	1.3%	0.0%	0.7%	1.3%	0.8%			
RBC Short-Duration Fixed Income Portfolio <sup>5</sup>	0.7%	-0.1%	-0.2%	N/A	N/A	N/A	183,384,590	70.8%	
Benchmark - ICE BofA 1-3 Year US Corporate & Government Index	0.9%	-0.6%	-0.5%	-0.3%	0.9%	0.9%			
Total Unspent Bond Proceeds							259,183,767	100.0%	
OSU Other Cash <sup>6</sup>							16,154,501		
PERS SLGRP <sup>7</sup>	0.0%	0.0%	0.0%	N/A	N/A	N/A	13,362,542		
Total OSU Operating Assets							\$ 490,905,569		
<i>(continued on next page)</i>									

Oregon State University  
Investment Summary  
as of December 31, 2022  
(Net of Fees)

	Quarter Ended 12/31/2022	Current Fiscal YTD	Prior Fiscal YTD	3 Yr Avg	5 Yr Avg	10 Yr Avg	Market Value	Actual Asset Allocation	Policy Allocation Range
<b>OSU Board Designated Assets</b>									
<b>Bond Repayment Investment</b>									
Calvert US Large Cap Core Responsible Index Fund <sup>8</sup>	6.8%	2.1%	10.4%	N/A	N/A	N/A	\$ 20,393,924	54.6%	52% - 100%
Benchmark - Russell 1000 Index	7.2%	2.3%	10.0%	7.4%	9.1%	0.0%			
Calvert International Responsible Index Fund <sup>9</sup>	16.1%	3.5%	2.9%	N/A	N/A	N/A	11,681,880	31.3%	0% - 35%
Benchmark - MSCI World ex USA Index	16.2%	5.5%	2.5%	1.3%	1.8%	0.0%			
Neuberger Berman Genesis <sup>10</sup>	6.5%	N/A	N.A	N/A	N/A	N/A	5,259,103	14.1%	0% - 13%
Benchmark - Russell 2000 Index	6.2%	3.9%	-2.3%	3.1%	4.1%	9.0%			
Total Bond Repayment Investment	9.5%	2.3%	9.6%	N/A	N/A	N/A	37,334,907	100.0%	
<b>Long-Term Equity</b>									
Calvert US Large Cap Core Responsible Index Fund <sup>8</sup>	6.8%	2.1%	10.4%	N/A	N/A	N/A	6,448,566	54.2%	12
Benchmark - Russell 1000 Index	7.2%	2.3%	10.0%	7.4%	9.1%	0.0%			
Calvert International Responsible Index Fund <sup>9</sup>	16.1%	3.5%	2.9%	N/A	N/A	N/A	3,801,316	32.0%	12
Benchmark - MSCI World ex USA Index	16.2%	5.5%	2.5%	1.3%	1.8%	0.0%			
Neuberger Berman Genesis <sup>11</sup>	6.5%	N/A	N.A	N/A	N/A	N/A	1,638,593	13.8%	12
Benchmark - Russell 2000 Index	6.2%	3.9%	-2.3%	3.1%	4.1%	9.0%			
Total Long-Term Equity	9.5%	6.1%	9.7%	N/A	N/A	N/A	11,888,475	100.0%	
<b>Total OSU Board Designated Assets</b>	9.5%	3.2%	9.6%	N/A	N/A	N/A	<b>\$ 49,223,382</b>		

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Oregon State University Investment Summary as of December 31, 2022 (Net of Fees)									
	Quarter Ended 12/31/2022	Current Fiscal YTD	Prior Fiscal YTD	3 Yr Avg	5 Yr Avg	10 Yr Avg <sup>13</sup>	Market Value	Actual Asset Allocation	Policy Allocation Target
<b>OSU Endowment Assets</b>									
<b>OSU Foundation Endowment Pool</b>									
Total Global Equity	10.5%	3.2%	2.3%	3.5%	5.2%	N/A	\$ 25,646,448	47.8%	50.0%
Benchmark - MSCI All Country World Index	9.8%	2.3%	5.6%	4.0%	5.2%	N/A			
Total Global Fixed Income	3.9%	-2.2%	-0.3%	-3.8%	-0.6%	N/A	2,063,076	3.8%	5.0%
Benchmark - Bloomberg Barclays Global Agg. Bond Index	4.5%	-2.7%	-1.5%	-4.5%	-1.7%	N/A			
Total Absolute Return	0.3%	0.7%	0.8%	7.9%	5.2%	N/A	4,619,147	8.7%	10.0%
Benchmark - HFRI Fund of Funds Index	1.8%	1.4%	1.0%	3.7%	3.0%	N/A			
Total Real Assets	4.4%	2.8%	12.2%	5.7%	4.1%	N/A	5,739,103	10.7%	10.0%
Benchmark - Real Assets Custom <sup>14</sup>	3.8%	-3.4%	6.4%	4.0%	3.7%	N/A			
Total Private Capital <sup>15</sup>	2.4%	-0.8%	21.7%	23.2%	21.2%	N/A	12,630,313	23.6%	25.0%
Benchmark - No benchmark provided									
Total Cash	0.0%	0.0%	0.0%	0.0%	0.0%	N/A	2,888,307	5.4%	0.0%
Total OSU Endowment Assets Invested in OSUF Endow. Pool <sup>16</sup>	6.3%	1.6%	6.0%	6.8%	6.8%	N/A	53,586,394	100.0%	100.0%
Benchmark-80% MSCI ACWI/20% BBG Barclays Global Agg. <sup>17</sup>	8.8%	1.4%	4.1%	2.5%	4.0%	6.1%			
<b>Other OSU Endowment Assets</b>									
Land Held as Separately Invested Endowment Funds <sup>18</sup>	0.0%	0.0%	0.0%	16.1%	17.4%	N/A	10,067,666	97.0%	
Other Endowment Assets Invested in the PUF <sup>19</sup>	1.0%	-0.5%	0.3%	0.3%	1.5%	N/A	312,693	3.0%	
Total Other OSU Endowment Assets							10,380,359	100.0%	
<b>Total OSU Endowment Assets</b>	<b>5.2%</b>	<b>1.3%</b>	<b>4.7%</b>	<b>7.8%</b>	<b>5.3%</b>	<b>N/A</b>	<b>\$ 63,966,753</b>		

Note: Outlined returns underperformed their benchmark.

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**Oregon State University  
Investment Summary  
as of December 31, 2022  
(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.
- 2 100% Bloomberg Barclays Intermediate U.S. Gov't./Credit Index as of February 1, 2021. From April 1, 2017 to January 31, 2021, the benchmark was comprised of 75% Bloomberg Barclay's Aggregate 3-5 Years Index, 25% Bloomberg Barclay's Aggregate 5-7 Years Index.
- 3 The reported investment yield for the quarter and fiscal year-to-date represent earned yields for the period and are not annualized rates.
- 4 The Liquidity Portfolio is separately managed by RBC Global Asset Management (U.S.) Inc. per an Investment Management Agreement. Assets invested in the Liquidity Portfolio are anticipated to be expended on capital projects in two years or less.
- 5 The Short-Duration Fixed Income Portfolio is separately managed by RBC Global Asset Management (U.S.) Inc. per an Investment Management Agreement. Assets invested in the Short-Duration Fixed Income Portfolio are projected for expenditure on capital projects two plus years into the future.
- 6 OSU Other Cash includes account balances held at JP Morgan Chase and U.S. Bank for operations.
- 7 During fiscal year 2021, the university funded a PERS Side account totaling \$10,000,000 which represents approximately 2.2% of the university's unfunded actuarial liability as of June 30, 2021. PERS contributed \$2,225,203 matching contributions to the side account. The side account does not impact employee benefits received under PERS, it represents a pre-payment of OSU's on-going contribution. The university will see the benefit of a lower employer contribution rate over the next ten years as the account is amortized. With earnings, the account balance as of December 31, 2021 was \$13.4 million.
- 8 Calvert U.S. Large Cap Core Responsible Index Fund is invested in U.S. equity securities and follows responsible investing principles.
- 9 Calvert International Responsible Index Fund is invested in non-U.S. equity securities and follows responsible investing principles.
- 10 Neuberger Berman Genesis Fund invests in U.S. and non-U.S. small cap equity securities. The initial investment of \$4.9 million was funded on 9/28/22. Performance reporting began on 10/1/2022.
- 11 Neuberger Berman Genesis Fund invests in U.S. and non-U.S. small cap equity securities. The initial investment of \$1.5 million was funded on 9/28/22. Performance reporting began on 10/1/2022.
- 12 The asset allocation ranges for the Long-Term Equity assets are defined per policy as a percentage of the total University operating assets. As of December 31, 2022, the asset allocation for the Neuberger Berman investment exceeded the policy maximum of 13%. A policy change was subsequently approved by the Board on January 20, 2023, resolving the non-compliance issue.
- 13 The OSU Foundation investment advisor, Agility, does not provide a 10-year benchmark for the individual asset classes. The 10-year benchmark is provided at the total pool level only.
- 14 Real Assets Custom Benchmark: 1/3 FTSE EPRA/NAREIT Developed Index, 1/3 Bloomberg Commodity Index, 1/3 Bloomberg U.S. TIPS
- 15 To meet financial period and reporting deadlines, private capital market value and performance figures presented may differ from actual results.
- 16 Investment returns are reported net of investment manager fees; gross of the Foundation's administrative fees.
- 17 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.
- 18 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, and the Roth property. 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.
- 19 Funds provided by the State which are restricted to certain bond investments.

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*April 13-14, 2023 Board of Trustees Meetings*

## FY2023 Q2 OREGON STATE UNIVERSITY REPORT ON UNSPENT GENERAL REVENUE BOND PROCEEDS

The schedule of Oregon State University's unspent revenue bond proceeds as of December 31, 2022, is shown in the summary below.

### Unspent Revenue Bond Proceeds<sup>1</sup>

Issuance Year	2016	2017	2019	2020	Total <sup>1</sup>
<b>Unspent Revenue Bond Proceeds</b>	\$ 154,648	\$ 56,625,840	\$ 39,481,054	\$ 191,560,453	\$ 287,821,995
<i>Allocated <sup>2</sup></i>	\$ -	\$ 56,625,840	\$ 32,367,430	\$ 86,260,453	\$ 175,253,723
Unallocated <sup>3</sup>	\$ 154,648 <sup>4</sup>	\$ -	\$ 7,113,624 <sup>4</sup>	\$ 105,300,000	\$ 112,568,272

<sup>1</sup> Reported value is based on book value and includes \$10,939,076 of allocated proceeds held in the operations bank account plus a \$14,759,563 receivable from other university funds due to the timing of transfers between operating bank accounts at quarter-end.

The market value of the unspent bond proceeds is comprised of the following data elements:

*Book Value (\$287,821,995) - Unrealized Losses (\$4,310,653) + Earnings Receivable (\$1,371,064) = \$284,882,406.*  
The difference between the computed market value and the reported market value from the Investment Summary is attributable to the allocated proceeds held in the operating account (\$10,939,076) and the quarter-end receivable (\$14,759,563).

<sup>2</sup> Allocated proceeds are proceeds committed to specific projects that have Stage Gate 2 approval by the board.

<sup>3</sup> Unallocated proceeds are funds available to commit to projects and/or initiatives approved by the board.

<sup>4</sup> Unallocated amount reflects actual proceeds use below board approval for closed projects.

## FY2023 Q2 MARKET COMMENTARY

*(Prepared by Meketa Investment Group, consultants to the Oregon Investment Council)*

### Report on Investments – as of December 31, 2022 Economic and Market Update

Ending a very tough calendar year, most asset classes posted gains in the fourth calendar quarter on signs that policy tightening would slow given cooling inflation.

- Chairman Powell's testimony in November reiterated previous messaging on persistent and high inflation and the need for an extended period of monetary tightening weighing on assets in December. Markets remained focused though on signs that inflation is falling and that the size of future Federal Reserve (Fed) rate hikes could be lower.
- U.S. equity markets (S&P 500) sold off (-5.8%) in December but returned 7.6% in the fourth calendar quarter as investors balanced the Fed's caution with improving inflation data.
- In developed equity markets outside the U.S., sentiment deteriorated somewhat in December, but they posted a strong fourth calendar quarter return of 17.3% driven by a falling U.S. dollar and results in Europe where inflation started to slow.



- Emerging market equities declined in December (-1.4%) but less than the U.S. and had a strong fourth calendar quarter (+9.7%). A weaker U.S. dollar, declining inflation globally, and signs of China reopening its economy all contributed to the results.
- Bonds experienced one of the worst years on record given inflation levels and the rapid rise in interest rates (Bloomberg US Aggregate -13.0%). Optimism over declining inflation and a slower pace of policy tightening benefited bonds overall in the fourth calendar quarter.

Looking to calendar year 2023, the path of inflation and monetary policy, slowing growth globally, China reopening its economy, and the war in Ukraine will all be key.

### Market Returns<sup>1</sup> December 31, 2022

	Month	Quarter	YTD	1-Year	3-Year	5-Year	7-Year	10-Year
S&P 500	-5.8%	7.6%	-18.1%	-18.1%	7.7%	9.4%	11.5%	12.6%
MSCI EAFE-ND	0.1%	17.3%	-14.5%	-14.5%	0.9%	1.5%	4.5%	4.7%
MSCI EM-ND	-1.4%	9.7%	-20.1%	-20.1%	-2.7%	-1.4%	5.2%	1.4%
MSCI China-ND	5.2%	13.5%	-21.9%	-21.9%	-7.5%	-4.5%	3.0%	2.4%
Bloomberg US Aggregate	-0.5%	1.9%	-13.0%	-13.0%	-2.7%	0.0%	0.9%	1.1%
Bloomberg US TIPS	-1.0%	2.0%	-11.8%	-11.8%	1.2%	2.1%	2.6%	1.1%
Bloomberg US Corporate High Yield	-0.6%	4.2%	-11.2%	-11.2%	0.0%	2.3%	5.0%	4.0%
ICE BofAML US 3-Month Treasury Bill	0.4%	0.8%	1.5%	1.5%	0.7%	1.3%	1.1%	0.8%
ICE BofAML 1-3 Year US Treasury	0.2%	0.7%	-3.6%	-3.6%	-0.4%	0.8%	0.7%	0.7%
ICE BofAML 10+ Year US Treasury	-1.6%	-0.4%	-28.2%	-28.2%	-7.0%	-2.0%	-0.1%	0.7%

<sup>1</sup>Source: Oregon State Treasury

After broad declines in calendar Q3 driven by expectations for further policy tightening, most major asset classes were up in the fourth calendar quarter on hopes of inflation and policy tightening peaking. Outside of commodities, all other public market asset classes declined in calendar year 2022. It was the first time since the 1960s that both stocks and bonds declined together in a calendar year.

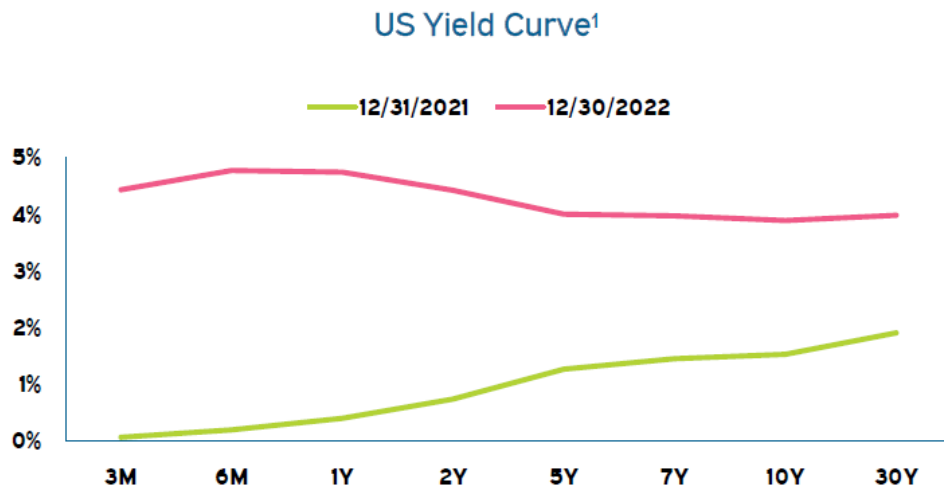
**U.S. Equities:** The S&P 500 Index declined 5.8% for December but gained 7.6% for the quarter. Historic inflation and rapidly rising interest rates led to significant declines (-19.2%) for the full calendar year. U.S. stocks fell broadly in December on the Fed signaling its continued resolve to raise rates but gained overall for the quarter on hopes that interest rates could be peaking soon given slowing inflation. All sectors declined during December, led by consumer discretionary and technology with defensive sectors declining less. For the quarter, most sectors were up led by energy and industrials. In a continuation of the overall trend in calendar year 2022, value stocks outperformed growth stocks in the fourth calendar quarter given higher interest rates and slowing growth.

**International Equities:** Developed international equities (Morgan Stanley Capital International (MSCI) Europe, Australasia and Far East (EAFE)) rose 0.1% in December and an impressive 17.3% in the fourth calendar quarter. Emerging markets (MSCI Emerging Markets) fell -1.4% in December but gained 9.7% for the quarter. Inflation and rising rates also weighed on international equities last year, as well as a strong U.S. dollar for most of the year. International developed market equities, specifically Europe, held up better relative to the rest

of the world in December with the MSCI EAFE up 0.1%. In the fourth calendar quarter, they returned a significant 17.3% due in part to the recent weakness in the U.S. dollar (+8.7% in local terms), leading to lower declines for the calendar year. In December, emerging markets outperformed the U.S. but trailed developed market equities as China's rally was not enough to offset weakness elsewhere (e.g., India -5.5%). For the quarter, a weakening U.S. dollar and China reopening led to strong results (+9.7%), but emerging markets remained the weakest for calendar year 2022 due to China. Like the U.S., value outpaced growth globally in calendar year 2022.

**Fixed Income:** The Bloomberg U.S. Aggregate declined 0.5% in December but rose 1.9% for the fourth calendar quarter. Last year was one of the worst on record, with the broad bond market declining 13%. The Fed reconfirming its commitment to tighten policy in the face of high inflation weighed on U.S. fixed income in December. Riskier bonds outperformed for the quarter due to improving risk sentiment with emerging market bonds performing particularly well.

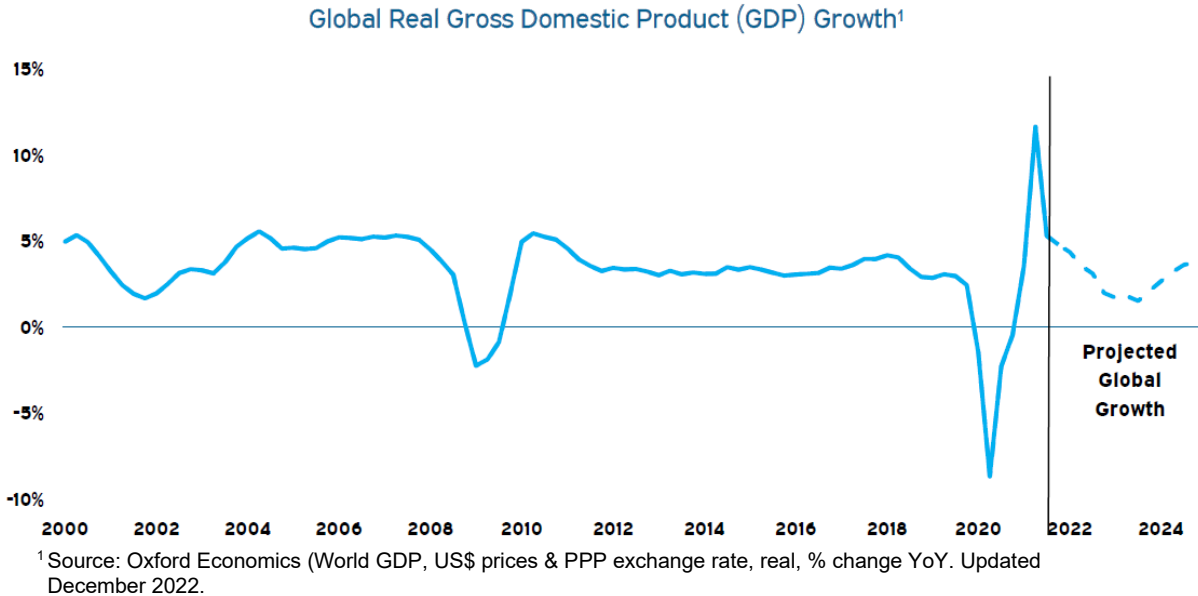
In December, policy-sensitive interest rates at the front-end of the curve continued to rise with the two-year Treasury yield increasing from 4.3% to 4.4%. Longer dated ten-year Treasury yields also increased (3.6% to 3.9%). For the calendar year, the yield curve rose dramatically across maturities and moved from steep to inverted. The Fed remains strongly committed to fighting inflation, as it increased rates another 50 basis points to a range of 4.0% to 4.5% at its December meeting. This brought the total number of increases for calendar year 2022 to seven. The yield spread between two-year and ten-year Treasuries narrowed somewhat to -0.54% after finishing November at -0.70%. The more closely watched measure by the Fed of three-month and ten-year Treasuries also remained inverted. Historically, inversions in the yield curve have often preceded recessions.



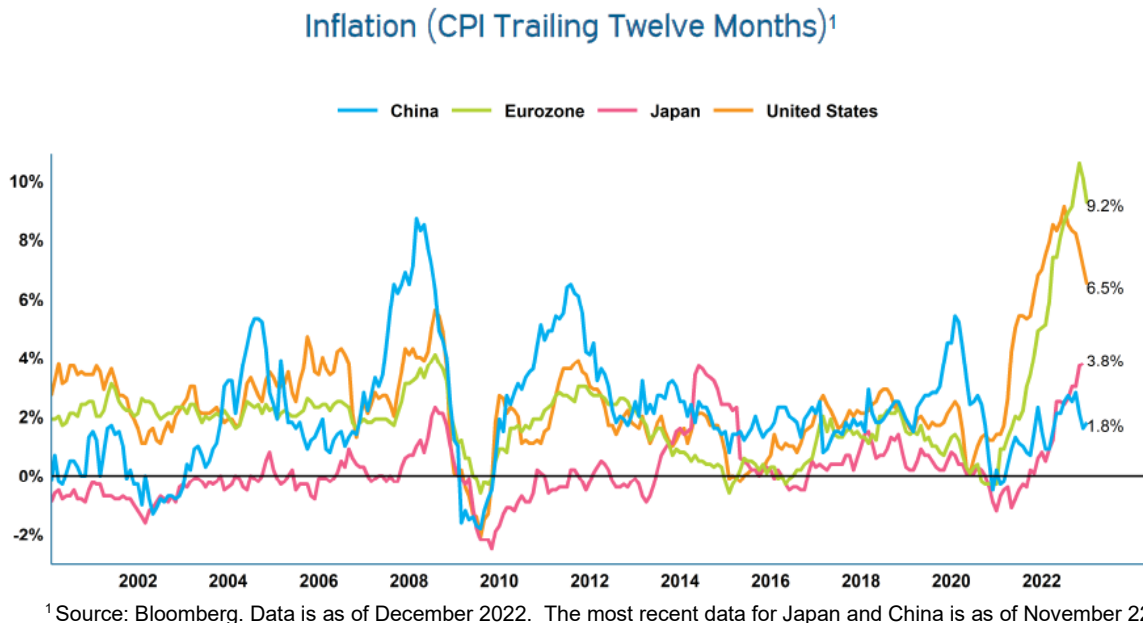
<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2022.

### Global Economic Outlook

Global economies are expected to slow in calendar year 2023 compared to calendar year 2022, with risks of recession increasing given persistently high inflation and related tighter monetary policy. The delicate balancing act of central banks trying to reduce inflation without dramatically impacting growth will remain key.



In calendar 2022, many central banks aggressively reduced pandemic-era policy support in the face of high inflation with the U.S. taking a more aggressive approach. In December, the Bank of Japan relaxed its target yield for the 10-year bond which may mark an incremental step toward policy normalization after eight years of quantitative easing. The one notable central bank outlier is China, where the central bank has lowered rates and reserve requirements in response to slowing growth. The risk remains for a policy error, particularly overtightening, as record inflation and aggressive tightening to date could heavily weigh on global growth. The Fed's policy rate path could diverge from others this year given their strong early start to tightening.



Inflation increased dramatically from the lows of the pandemic, particularly in the U.S. and Eurozone where it has reached levels not seen in many decades. Inflation pressures are slowly

declining in the U.S., but they remain elevated, while in Europe they have reached historic levels due to skyrocketing energy prices and a weak euro. Supply issues related to the pandemic, record monetary and fiscal stimulus, strict COVID-19 restrictions in China, and higher commodity prices driven by the war in Ukraine have been key global drivers of inflation.

As economies have largely reopened, helped by vaccines for the virus, improvements have been seen in the labor market. Despite slowing growth and high inflation, the U.S. labor market remains a bright spot. Unemployment in the U.S., which experienced the steepest rise from the pandemic, has remained in a tight 3.5%-3.7% range for most of the calendar year. The strong labor market and higher wages, although beneficial for workers, motivates the Fed's efforts to fight inflation, likely leading to higher unemployment.

Overall, the U.S. dollar continued to weaken from its recent peak in December as declining inflation supported the case for the Fed to slow its tightening. The dollar finished the calendar year much higher than it started due to the increased pace of policy tightening, stronger relative growth, and safe-haven flows. As we look to 2023, the track of inflation across economies and the corresponding monetary policy will likely be key drivers of currency moves.

### **Summary - Key Trends**

- The impacts of record high inflation will remain key, with market volatility likely to stay high.
- Global monetary policy could diverge in calendar year 2023 with the Fed pausing and others continuing to tighten. The risk of policy errors in both directions remains.
- Growth will continue to slow globally during calendar 2023, with many economies likely falling into recessions. Inflation, monetary policy, and the war will all be key.
- In the U.S., the end of many fiscal programs is expected to put the burden of continued growth on consumers. Higher energy and food prices could weigh on consumer spending.
- Valuations have significantly declined in the U.S. to around long-term averages, largely driven by price declines. The key going forward will be whether earnings can remain resilient if growth continues to slow.
- Outside the U.S., equity valuations remain lower in both emerging and developed markets, but risks remain, including potential continued strength in the U.S. dollar, higher inflation particularly weighing on Europe, and China's rushed exit from COVID-19 restrictions and on-going weakness in the real estate sector.

# Oregon Short Term Fund

## December 31, 2022

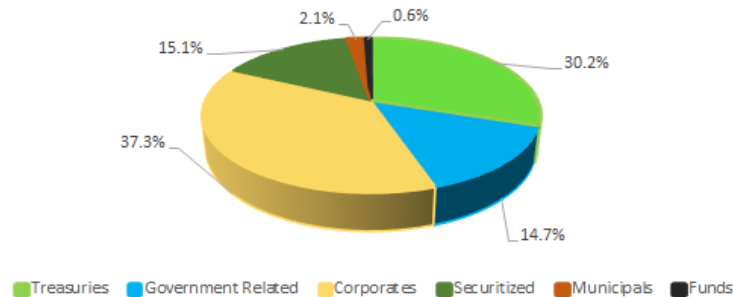
### Portfolio Characteristics

Market Value 12/31/2022	\$ 199,847,476
Weighted Average Credit Quality	AA
Book Yield (%)	3.44%
Weighted Average Maturity (years)	195 Days
Duration (years)	0.41
Spread Duration (rate)	0.64

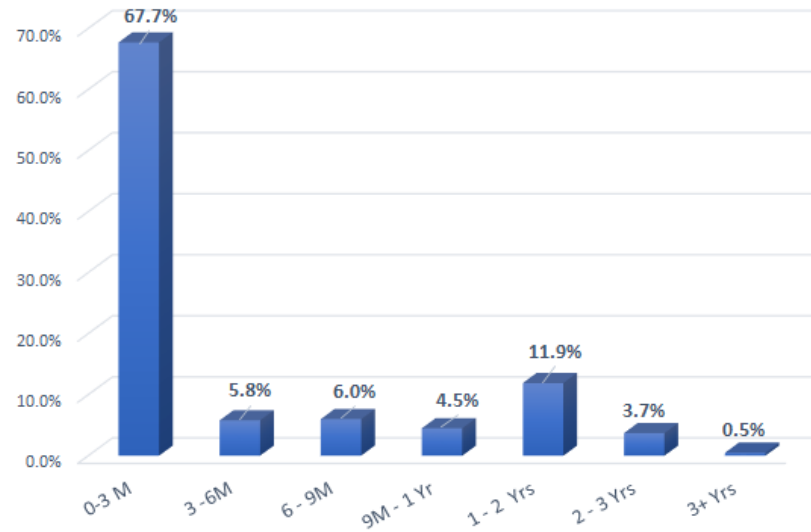
### Top 10 Issuers

United States Treasury	29.9%
Federal Home Loan Banks	3.4%
JPMorgan Chase & Company	2.8%
Royal Bank of Canada	2.4%
CPIB Capital Incorporated	2.2%
Bank of America Corporation	2.0%
Morgan Stanley	1.9%
National Rural Utilities Cooperative Finance Corporation	1.7%
Goldman Sachs Group Incorporated (The)	1.7%
Federal Farm Credit Banks Funding Corporation	1.5%
<b>Total</b>	<b>49.4%</b>

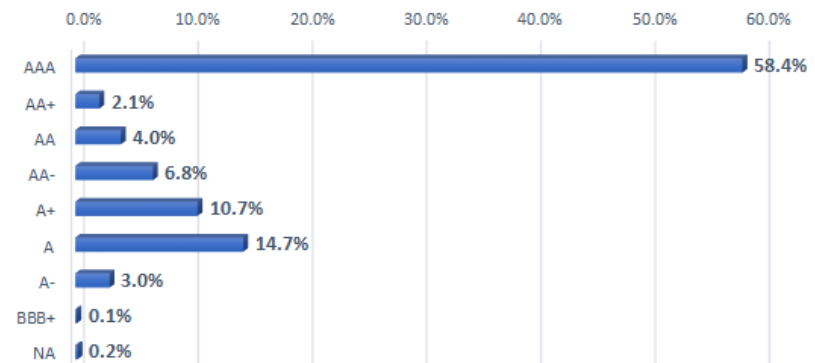
### Sector Allocations



### Maturity Breakdown



### Credit Quality Distribution



Source: Oregon State Treasury

April 13-14, 2023 Board of Trustees Meetings

## Core Bond Fund

December 31, 2022

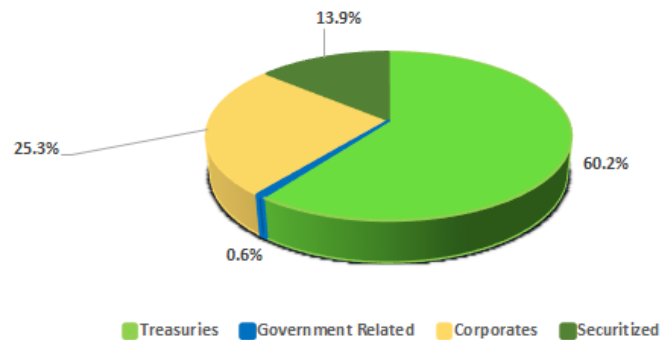
### Portfolio Characteristics

Market Value 12/31/2022	\$ 367,410,843
Weighted Average Credit Quality	AA
Book Yield (%)	4.11%
Weighted Average Maturity (years)	4.58
Duration (years)	3.97
Spread Duration (rate)	1.52

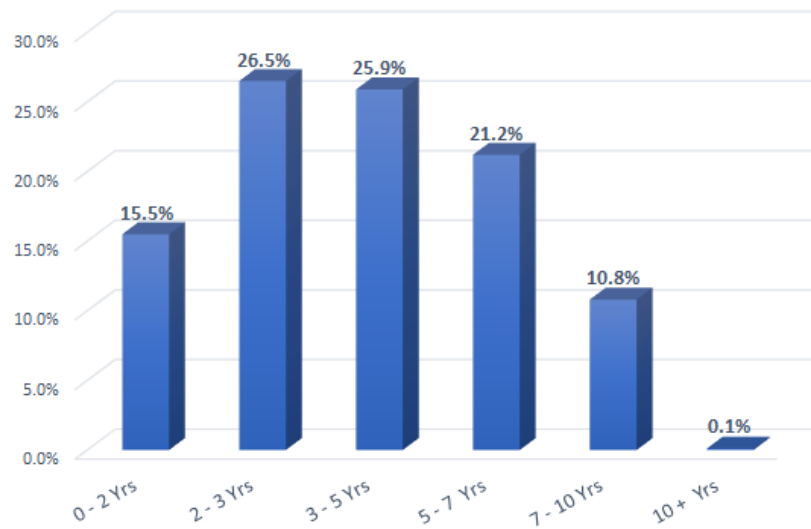
### Top 10 Issuers

United States Treasury	62.5%
Deutsche Telekom AG	2.9%
F&G Global Funding	2.6%
Oscar US Funding Trust	2.3%
Ford Credit Trust 22-C	1.9%
Agree Realty Corporation	1.7%
OCI N.V.	1.6%
Fairfax Financial Holdings Limited Liability Company	1.5%
TRP LLC	1.4%
Ford Credit Trust 22-B	1.3%
<b>Total</b>	<b>79.7%</b>

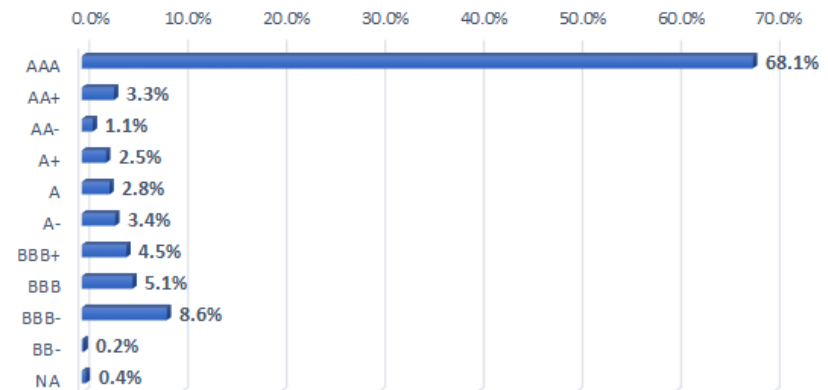
### Sector Allocations



### Maturity Breakdown



### Credit Quality Distribution



Source: Oregon State Treasury

April 13-14, 2023 Board of Trustees Meetings