BOARD OF UNIVERSITY AND SCHOOL LANDS MARCH 28, 2024 9:00 AM



Governor's Conference Room and Microsoft Teams meeting Join on your computer, mobile app or room device

Click here to join the meeting
Or call in (audio only)

+1 701-328-0950,,448063642# United States, Fargo

Phone Conference ID: 448 063 642#

Meeting Coordinators: Catelin Newell – Dir. Admin Services & IT, Kate Schirado – Exec. Assistant

> = Board Action Requested

1. Approval of Meeting Minutes – Joseph Heringer

Consideration of Approval of Land Board Meeting Minutes by voice vote.

A. February 29, 2024 – minutes available via link

2. **Operations – Joseph Heringer**

- A. Commissioner's Report pg. 2
- B. Financial Dashboard pg. 3
- C. Commissioner Performance & Compensation Committee Update Treasurer Beadle
- ➤ D. Revised Commissioner Performance Review & Compensation Policy pg. 9

3. **Division Reports – Joseph Heringer**

- A. Surface Joseph Stegmiller, Surface Director pg. 11
- B. Minerals Chris Suelzle, Minerals Director pg. 12
- C. Unclaimed Property Susan Dollinger, Unclaimed Property Director pg. 14
- D. Financials Peggy Gudvangen, CFO financial report available via link

4. Investments – Frank Mihail, CIO

- A. Investment Update pg. 15
- B. 4th Quarter 2023 Investment Performance Report Josh Kevan of RVK pg. 18
- > C. Fixed Income Recommendation presented by RVK pg. 44

5. **Litigation – Joseph Heringer – pg. 50**

Next Meeting Date - April 24, 2024



RE: Commissioner's Report (No Action Requested)

- Oil Royalty Deductions achieved settlements with two more major Bakken operators
- Biennial Strategic Planning presentation for executive budget planning process scheduled for April 8, 2024; will send to Board members for review/comment
- Administrative Rules Revisions presented approved package to the Legislative Administrative Rules Committee on March 5, 2024 with no objections; April 1, 2024 effective date
- <u>Servant Leadership Workshop</u> full day, in-person event in Bismarck that all nine members of the DTL Leadership Team will be attending on April 19, 2024
- March 8, 2024 legislative ESG study meeting to finalize investments section draft
- March 15, 2024 attended State Investment Board Investment Committee meeting as a voting member
- March 20-21,2024 attended 11th Annual Mountain States Institutional Investment Forum in Denver
- March 22, 2024 attended full State Investment Board meeting as a voting member
- March 26, 2024 presented to North Dakota TeenPact Annual State Class; youth advocacy group

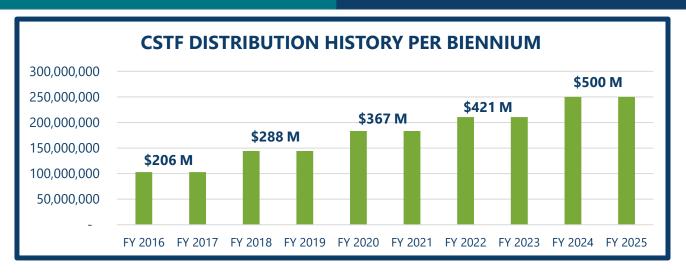
COMMON SCHOOLS TRUST FUND (CSTF) OVERVIEW

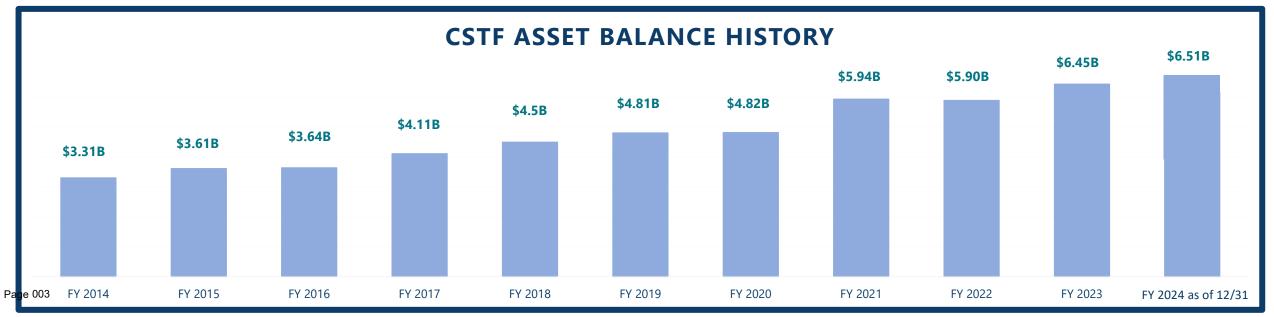


CSTF ASSET BALANCE as of 12/31/2023 (unaudited)

\$6,509,124,584

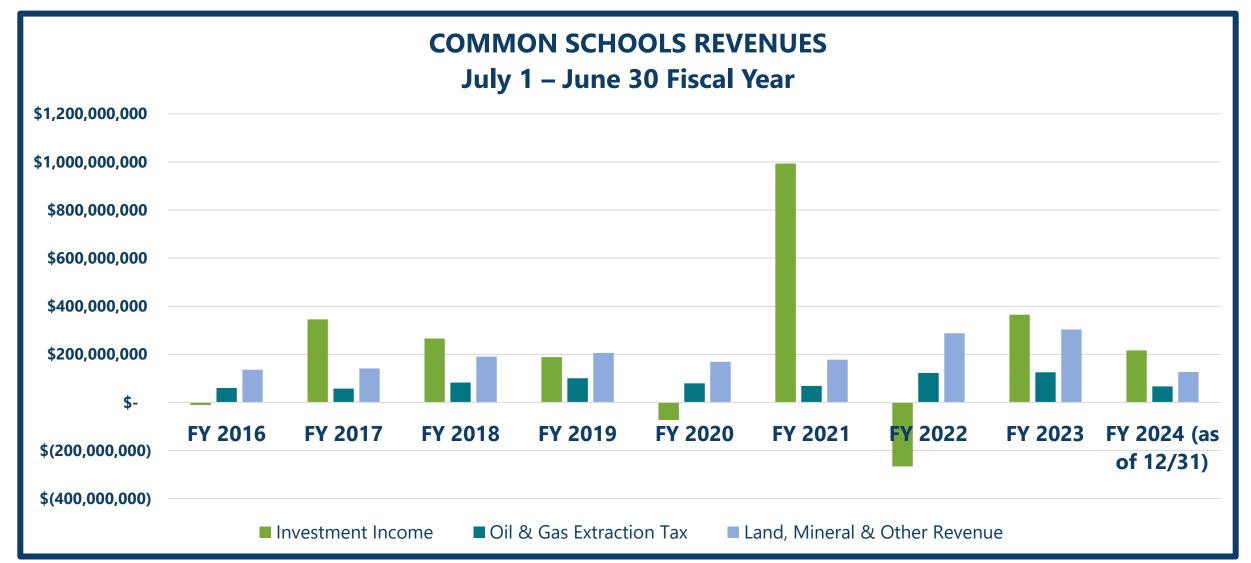
+\$686 million year-over-year from 12/31/22 balance of \$5.82 billion





COMMON SCHOOLS TRUST FUND (CSTF) OVERVIEW





COMMON SCHOOLS TRUST FUND 2023-25 (CSTF) DISTRIBUTIONS



Monthly distribution to the State
Tuition Fund for the
2023-25 biennium

\$27,770,000 =\$2,160/student per year Percentage of North Dakota's \$10,389* total investment per student covered by CSTF

21%

*North Dakota pays 76.5% of the \$13,589 total cost of education per student

Biennial distribution to the State Tuition Fund through 12/31/2023

\$222 million of \$500 million total

CSTF Distributions Since FY 2014

\$1.89 BILLION

Supporting property tax relief for North Dakota citizens



STRATEGIC INVESTMENT & IMPROVEMENT FUND (SIIF) OVERVIEW

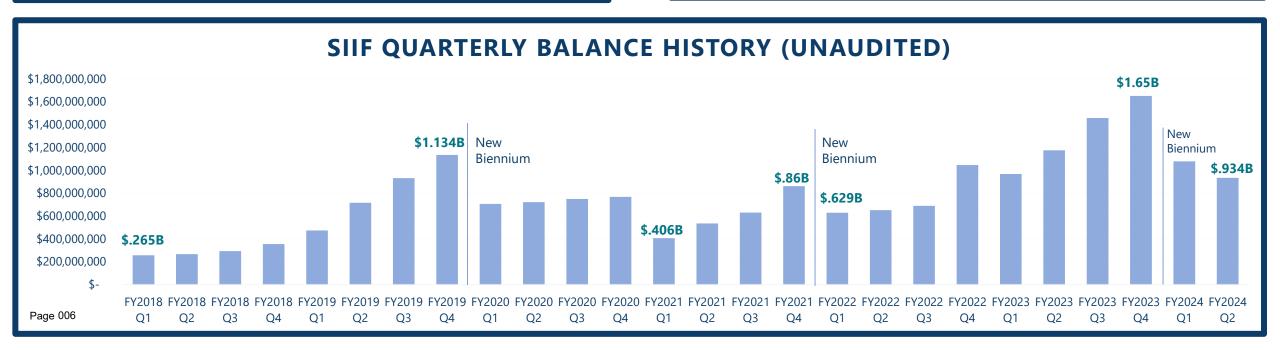


SIIF BALANCE as of 11/30/2023 (unaudited)

- Total Balance \$919,736,002
- Uncommitted Balance \$441,969,969

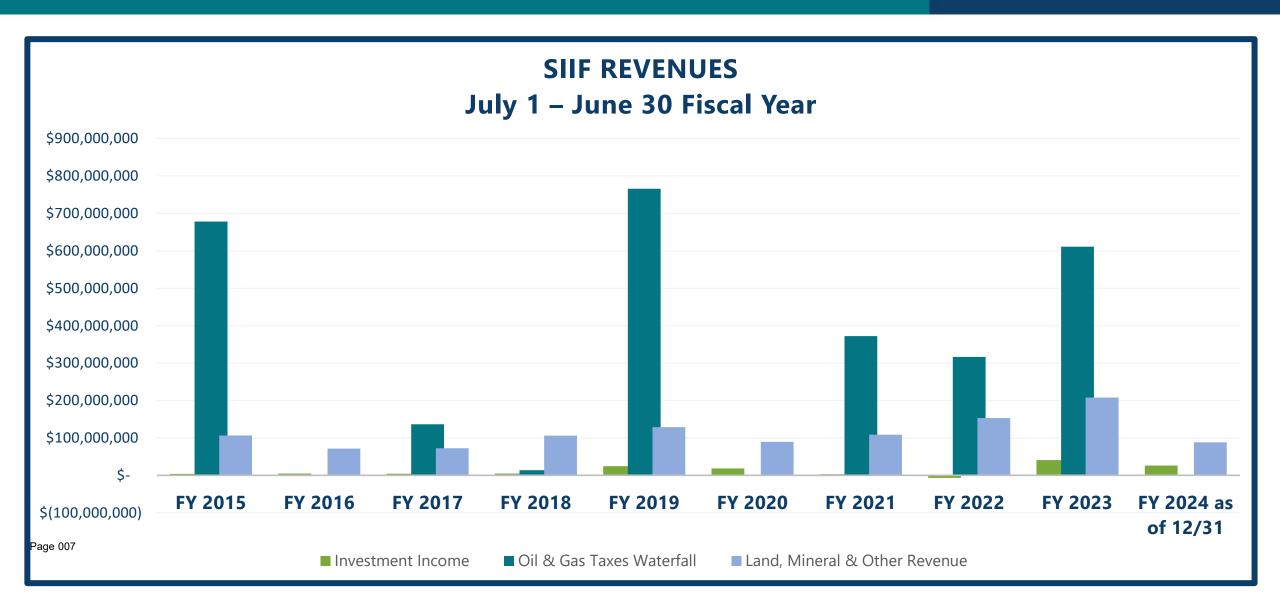
SIIF BALANCE as of 12/31/2023 (unaudited)

- Total Balance \$933,937,064
- Uncommitted Balance \$461,671,031



STRATEGIC INVESTMENT & IMPROVEMENT FUND (SIIF) HIGHLIGHTS





estimated total Net Assets as of 12/31/2023



Mineral Tracker Valuation as of June 30, 2023 on 2.6 million Mineral Acres \$2,568,614,367







RE: Commissioner Annual Performance Review

During the February 29, 2024, meeting the Board approved a first reading of the proposed Commissioner Performance Review & Compensation Policy and directed the Committee to continue its work and report at the March 2024 meeting.

Based on additional feedback received, the Committee brings the following revised policy for a first reading, with a planned final approval vote during the May 30, 2024, meeting. The revisions include categories of review and key performance indicators that may be considered by the Board. This policy would be added to Section 2 (General) of the Board Policies.

Recommendation: The Board approve a first reading the attached Commissioner Performance Review & Compensation Policy and authorize the Committee to proceed with the Fiscal Year 2023-24 Commissioner Performance and Compensation Review.

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Howe					
Superintendent Baesler					
Treasurer Beadle					
Attorney General Wrigley					
Governor Burgum					

Attachment 1 - Draft Board Policy

North Dakota Board of University and School Lands: General

COMMISSIONER PERFORMANCE REVIEW

The Board shall conduct a formal evaluation of the Trust Lands Commissioner and assess the

Commissioner's performance during the first half of each calendar year through surveys and metrics. This

evaluation will be used to determine whether any adjustments to the salary of the Commissioner should be made for the following fiscal year. The Board shall review and approve any recommended adjustments

by June 30th each year. The Board shall consider the following categories of performance and may

consider additional categories at its discretion:

HRMS 360 Surveys - Board Members

Board Meetings and Board Relations

Land Department Operations and Inter-Agency Relations

Stakeholder/Legislative Relations

• Professional Skills and Development

General Feedback

HRMS 360 Surveys – Team Members

Leadership

• Communication

Valuing Team Members

General Feedback

The Board may also consider the following Key Performance Indicators, including any additional metrics

as the Board sees fit:

Key Performance Indicators

• Prior Fiscal Year Unclaimed Property Return Rate

Prior Fiscal Year Number of Holder Reports Filed

• Prior Fiscal Year Investment Performance v. Index

CSTF Growth Since Start of Commissioner Tenure

Gallup Engagement Survey Score Trends Since Start of Commissioner Tenure

General Authority: N.D.C.C. § 15-02-03

Effective Date: May 30, 2024

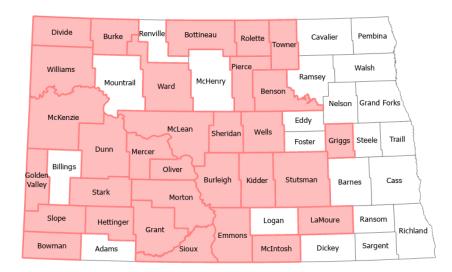
Page 010

SURFACE DIVISION



Encumbrances issued by Commissioner during February 2024: 18 Right of Way Agreements generating \$964,806 in income for the Trusts.

Surface staff is currently conducting spring auctions in the following counties (results reported at the April board meeting):



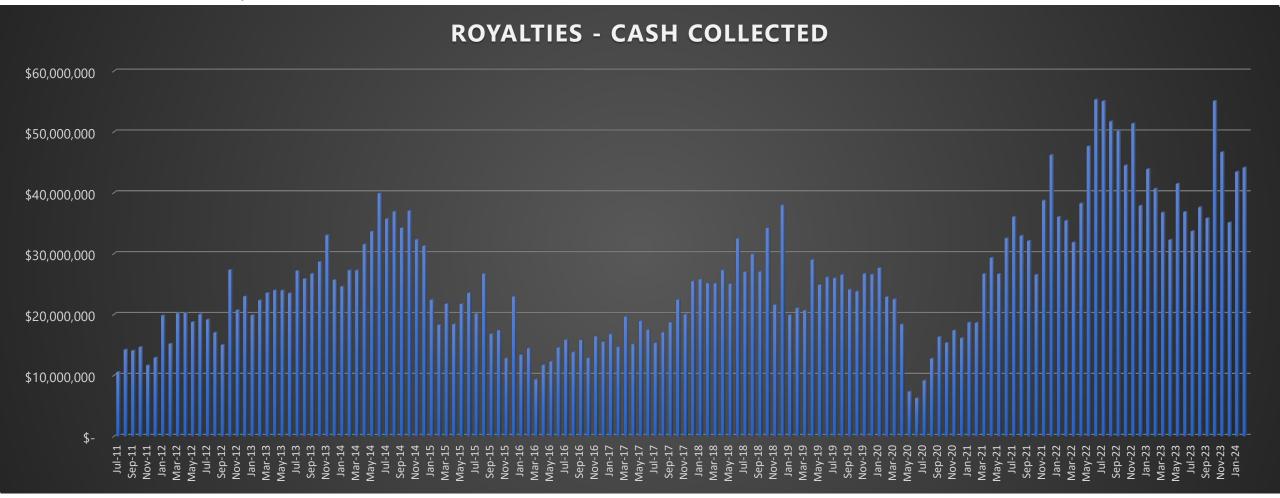
Dotted Gayfeather on Trust Lands Ransom County 134-58-26 taken in August of 2022. Photo Credit: Jacob Lardy



MINERALS DIVISION FISCAL YTD O/G ROYALTIES



As of February 29, 2024*, for fiscal year 2023-24 the Department has received \$331,461,285 in royalties as compared to \$375,132,321 last fiscal year at this time.

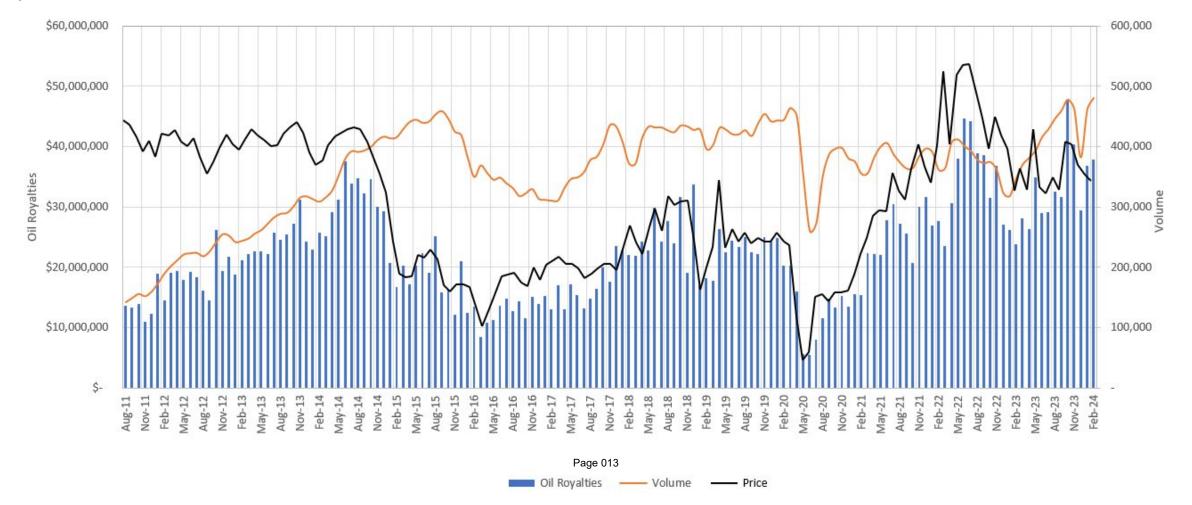


^{*}February royalty revenue is from December gas production and January oil production.

PRICE MAIN DRIVER OF O/G ROYALTIES



In the early years production growth was the driver of the Department's royalty increases. Now that our net monthly production has been more stable, averaging around 450,000 barrels per month this biennium, the price of oil & gas is the main driver of monthly royalty variations.



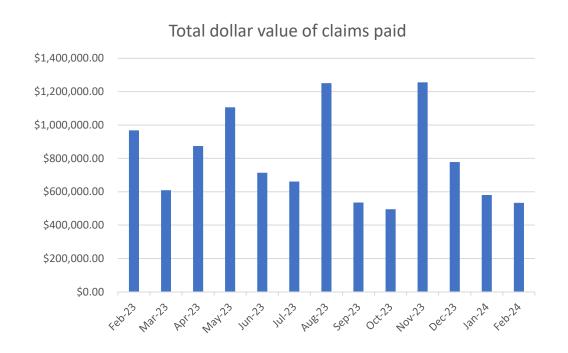
UNCLAIMED PROPERTY DIVISION

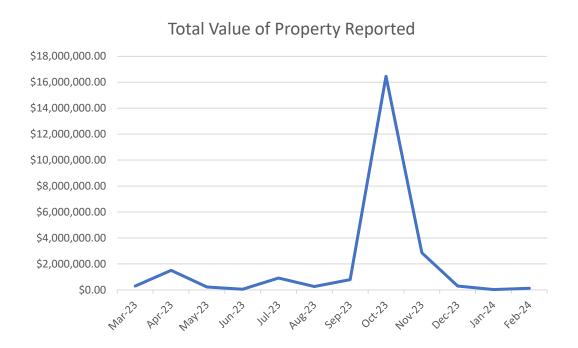
https://unclaimedproperty.nd.gov



For the month of February 2024, the Division paid 723 claims with \$533,550 returned to rightful owners/heirs.

The Division also received 61 holder reports with a dollar value of \$126,130.







RE: Investment Updates (No Action Requested)

Q2 Pipeline

Absolute Return: multi-strat hedge fund recommendation

<u>Infrastructure</u>: infrastructure recommendation

Capital Calls Funded (as of February 29, 2024):

2023 \$80M 2024 YTD \$62M

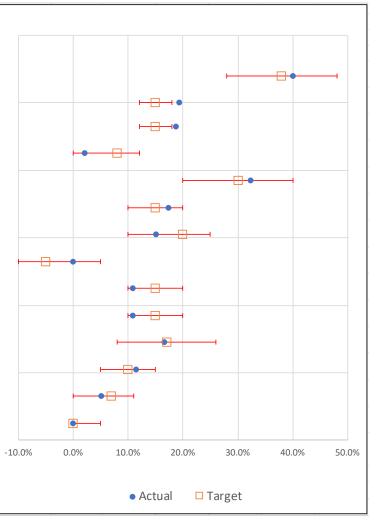
Total Unfunded Commitments Remaining \$544M (as of February 29, 2024):

- 1. Private Credit, \$142M
 - i. Ares Pathfinder Fund, \$21M
 - ii. Owl Rock Diversified Lending, \$55M
 - iii. Monarch Capital VI, \$66M
- 2. Private Equity, \$246M
 - i. GCM Grosvenor Private Equity, \$82M
 - ii. GCM Grosvenor Secondary Opportunities Fund III, \$98M
 - iii. Morgan Stanley Ashbridge TS Fund II, \$10M
 - iv. Khosla Ventures, \$31M
 - v. Blue Owl Strategic Equity, \$25M
- 3. Real Assets, \$5M
 - i. Hamilton Lane Infrastructure Opportunities Fund, \$5M
- 4. Absolute Return, \$150M
 - i. Millennium USA, \$150M



Current Asset Allocation (unaudited)

As of February 29, 2024	Market Value \$	Actual	Target	Lower Range	Upper Range
	*	•		⊢	-
Equity	2,761,272,654	40.0%	38.0%	28.0%	48.0%
Broad US Equity	1,332,008,945	19.3%	15.0%	12.0%	18.0%
Broad Int'l Equity	1,290,114,421	18.7%	15.0%	12.0%	18.0%
Private Equity	139,149,288	2.0%	8.0%	0.0%	12.0%
Fixed Income	2,234,935,669	32.4%	30.0%	20.0%	40.0%
Public Credit	1,198,384,116	17.4%	15.0%	10.0%	20.0%
Private Credit	1,036,551,554	15.0%	20.0%	10.0%	25.0%
Cash / (Implied Leverage)	-	0.0%	-5.0%	-10.0%	5.0%
Absolute Return	754,246,833	10.9%	15.0%	10.0%	20.0%
Multi-Strategy Hedge Fund	754,246,833	10.9%	15.0%	10.0%	20.0%
Real Assets	1,146,746,016	16.6%	17.0%	8.0%	26.0%
Real Estate	796,093,665	11.5%	10.0%	5.0%	15.0%
Private Infrastructure	350,652,352	5.1%	7.0%	0.0%	11.0%
Opportunistic Investments	-	0.0%	0.0%	0.0%	5.0%
Portfolio Total	6,897,201,173	100.0%			





Hypothetical Asset Allocation (after funding all commitments)

As of February 29, 2024	Market Value \$	Actual	Target	Lower Range	Upper Range	
		•		-	-	
Equity	2,761,272,654	40.0%	38.0%	28.0%	48.0%	
Broad US Equity	1,184,008,945	17.2%	15.0%	12.0%	18.0%	
Broad Int'l Equity	1,192,114,421	17.3%	15.0%	12.0%	18.0%	<u> </u>
Private Equity	385,149,288	5.6%	8.0%	0.0%	12.0%	
Fixed Income	2,084,935,669	30.2%	30.0%	20.0%	40.0%	
Public Credit	906,384,116	13.1%	15.0%	10.0%	20.0%	<u> </u>
Private Credit	1,178,551,554	17.1%	20.0%	10.0%	25.0%	
Cash / (Implied Leverage)	-	0.0%	-5.0%	-10.0%	5.0%	
Absolute Return	904,246,833	13.1%	15.0%	10.0%	20.0%	<u> </u>
Multi-Strategy Hedge Fund	904,246,833	13.1%	15.0%	10.0%	20.0%	<u> </u>
Real Assets	1,146,746,016	16.6%	17.0%	8.0%	26.0%	<u> </u>
Real Estate	791,093,665	11.5%	10.0%	5.0%	15.0%	<u> </u>
Private Infrastructure	355,652,352	5.2%	7.0%	0.0%	11.0%	
Opportunistic Investments	-	0.0%	0.0%	0.0%	5.0%	
Portfolio Total	6,897,201,173	100.0%				-10.0% 0.0% 10.0% 20.0% 30.0% 40.0% 50.0%

Assumptions: No other new cash is expected to fund calls. No redemption proceeds or distributions were received. All capital calls came in at the same time.



	February	FYTD	CYTD	1 Year
Total Fund	1.41	5.53	2.17	8.45
Target Allocation Index (Net)	1.24	5.74	1.40	9.03
Difference	0.17	-0.21	0.77	-0.58
S&P 500 Index (Net)	5.29	15.35	7.03	29.82
MSCI EAFE Index (USD) (Net)	1.83	8.44	2.42	14.41
MSCI Emg Mkts Index (USD) (Net)	4.76	4.60	-0.11	8.73
Bloomberg US Agg Bond Index	-1.41	1.63	-1.68	3.33



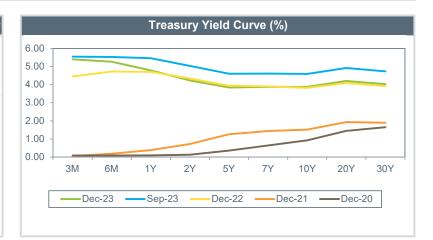
Capital Markets Review As of December 31, 2023

Fourth Quarter Economic Environment

Key Economic Indicators

In Q4, most risk assets rebounded from subdued conditions in the previous quarter to finish the year with significant positive returns—a stark turnaround compared to performance in 2022. For instance, the MSCI All Country World Index, a broad measure of the global stock market, returned 22.2% in 2023 compared to returns of -18.4% in 2022. Fixed income markets also ended the year firmly in positive territory. Despite the positive market performance, some recent indicators of economic activity have provided investors reason for caution. For example, commodity prices and energy stocks broadly declined amidst slowing inflation. The manufacturing Purchasing Managers' Index (PMI) remained in contractionary territory throughout the year. However, other economic indicators were more positive, with the services PMI remaining in expansionary territory and corporate earnings proving more resilient than expected. The labor market remained healthy as the unemployment rate finished the year at 3.7%. The Dec. Consumer Price Index (CPI) report showed a higher than expected uptick in monthly inflation and annual inflation of 3.4%. The annual level represents a significant drop compared to the CPI measure of 6.5% in Dec. 2022. The Federal Open Market Committee (FOMC) anticipates further progress in bringing inflation down to target levels, with the current forecast for their preferred inflation measure, the PCE Price Index, projecting a decline to 2.4% by the end of 2024.

Economic Indicators	Dec-23		Sep-23	Dec-22	Dec-20	20 Yr
Federal Funds Rate (%)	5.33	_	5.33	4.33	0.09	1.48
10 Year US Treasury Yield	3.88	•	4.59	3.83	0.93	2.94
30 Year US Treasury Yield	4.03	•	4.73	3.92	1.65	N/A
Consumer Price Index YoY (Headline) (%)	3.40	•	3.70	6.50	1.40	2.57
Unemployment Rate (%)	3.70	•	3.80	3.50	6.70	5.91
Real Gross Domestic Product YoY (%)	3.10	A	2.90	0.90	-1.50	2.02
PMI - Manufacturing	47.40	•	49.00	48.40	60.50	53.54
US Dollar Total Weighted Index	118.77	•	122.77	121.66	111.33	103.99
WTI Crude Oil per Barrel (\$)	71.65	•	90.79	78.40	48.52	69.26



Market Performance (%)	QTD	CYTD	1 Yr	3 Yr	5 Yr	10 Yr	15 Yr	20 Yr
US Large Cap Equity	11.69	26.29	26.29	10.00	15.69	12.03	13.97	9.69
US Small Cap Equity	14.03	16.93	16.93	2.22	9.97	7.16	11.30	8.11
Developed International Equity	10.42	18.24	18.24	4.02	8.16	4.28	6.93	5.59
Developed International Small Cap Equity	11.14	13.16	13.16	-0.69	6.58	4.80	9.18	7.14
Emerging Markets Equity	7.86	9.83	9.83	-5.08	3.68	2.66	6.56	6.83
US Aggregate Bond	6.82	5.53	5.53	-3.31	1.10	1.81	2.68	3.17
3 Month US Treasury Bill	1.37	5.02	5.02	2.15	1.88	1.25	0.87	1.46
US Real Estate	-4.83	-12.02	-12.02	4.92	4.25	7.29	6.07	7.22
Real Estate Investment Trusts (REITs)	16.22	13.73	13.73	7.21	7.39	7.65	10.52	8.03
Commodities	-4.63	-7.91	-7.91	10.76	7.23	-1.11	-0.24	-0.13

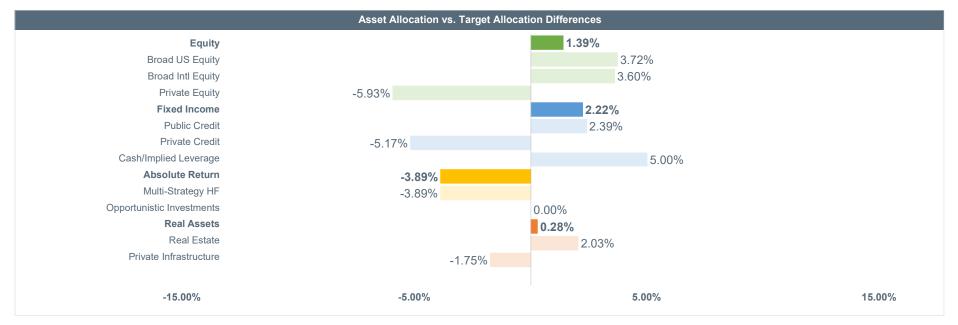
Treasury data courtesy of the US Department of the Treasury. Economic data courtesy of Bloomberg Professional Service. Real Gross Domestic Product YoY (%) is available quarterly. Real estate is reported quarterly; QTD returns are shown as "0.00" on interim-quarter months and until available. Market performance is representative of broad asset class index returns. Please see the addendum for indices used for each asset class.





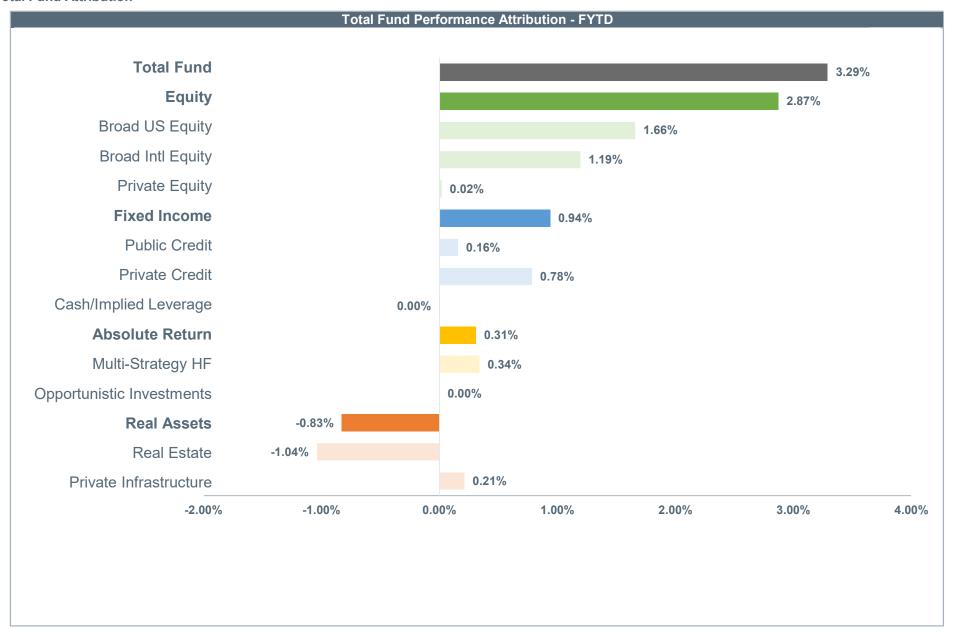
Asset Allocation vs. Long-Term Target Allocation

		Asset Allocation vs. Targ	et Allocation Differences		
	Asset Allocation	Asset Allocation (%)	Target Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)
Equity	2,626,604,408	39.39%	38.00%	28.00%	48.00%
Broad US Equity Broad International Equity Private Equity	1,248,403,662 1,240,269,554 137,931,192	18.72% 18.60% 2.07%	15.00% 15.00% 8.00%	12.00% 12.00% 0.00%	18.00% 18.00% 12.00%
Fixed Income	2,148,598,016	32.22%	30.00%	20.00%	40.00%
Public Credit Private Credit Cash/Implied Leverage	1,159,882,348 988,715,668 0	17.39% 14.83% 0.00%	15.00% 20.00% -5.00%	10.00% 10.00% -10.00%	20.00% 25.00% 5.00%
Absolute Return	741,178,232	11.11%	15.00%	10.00%	20.00%
Multi-Strategy Hedge Fund Opportunistic Investments	741,178,232 0	11.11% 0.00%	15.00%	10.00%	20.00%
Real Assets	1,152,435,937	17.28%	17.00%	8.00%	26.00%
Real Estate Private Infrastructure	802,097,044 350,338,893	12.03% 5.25%	10.00% 7.00%	5.00% 0.00%	15.00% 11.00%
Total Fund	6,668,816,592	100.00%	100.00%	-	-



Allocations shown may not sum up to 100% exactly due to rounding. During the transition to the new target allocations, it is expected that some asset classes will fall outside of policy ranges.





Performance shown is net of fees. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. Allocations shown may not sum up to 100% exactly due to rounding.

North Dakota Board of University and School Lands Comparative Performance

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Total Fund	4.40	3.29	8.75	8.75	3.96	6.37	5.50	4.69	6.35	08/01/1995
Target Allocation Index (Net)	5.52	4.27	10.12	10.12	3.73	7.65	6.57	5.79	N/A	
Difference	-1.12	-0.98	-1.37	-1.37	0.23	-1.28	-1.07	-1.10	N/A	
Broad US Equity	11.60	7.37	22.79	22.79	7.46	14.36	12.24	11.07	13.42	07/01/2009
Russell 3000 Index	12.07	8.43	25.96	25.96	8.54	15.16	12.81	11.48	14.02	
Difference	-0.47	-1.06	-3.17	-3.17	-1.08	-0.80	-0.57	-0.41	-0.60	
Broad International Equity	9.08	5.95	16.55	16.55	3.69	8.09	6.54	3.90	6.15	07/01/2009
MSCI ACW Ex US IM Index (USD) (Net)	9.81	5.98	15.62	15.62	1.53	7.19	6.38	3.97	6.24	
Difference	-0.73	-0.03	0.93	0.93	2.16	0.90	0.16	-0.07	-0.09	
Private Equity	0.02	1.63	11.22	11.22	N/A	N/A	N/A	N/A	14.48	04/01/2021
Cambridge US Prvt Eq Index	0.00	0.89	6.25	6.25	13.60	15.41	15.12	13.61	10.77	
Difference	0.02	0.74	4.97	4.97	N/A	N/A	N/A	N/A	3.71	
Fixed Income	3.60	4.43	9.11	9.11	2.18	4.28	3.69	3.43	5.28	08/01/1995
Global Fixed Income Custom Index	4.99	5.27	10.35	10.35	-0.56	2.78	2.50	N/A	N/A	
Difference	-1.39	-0.84	-1.24	-1.24	2.74	1.50	1.19	N/A	N/A	
Public Credit	4.35	2.40	5.11	5.11	N/A	N/A	N/A	N/A	1.62	07/01/2022
Bloomberg US Agg Bond Index	6.82	3.37	5.53	5.53	-3.31	1.10	1.29	1.81	1.59	
Difference	-2.47	-0.97	-0.42	-0.42	N/A	N/A	N/A	N/A	0.03	
Private Credit	2.43	6.18	12.82	12.82	N/A	N/A	N/A	N/A	11.23	07/01/2022
Credit Suisse Leveraged Loan Index+1.5%	3.23	7.11	14.74	14.74	7.22	7.14	6.30	6.00	12.74	
Difference	-0.80	-0.93	-1.92	-1.92	N/A	N/A	N/A	N/A	-1.51	

Performance shown is net of fees, and annualized for periods greater than one year. Composite inception dates are based on availability of data for each asset class. The Global Fixed Income Custom Index and Absolute Return Custom Index are calculated monthly using beginning of month weights applied to each corresponding primary benchmark return. Please see the Addendum for additional custom index definitions. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. Fiscal year ends 06/30.



North Dakota Board of University and School Lands Comparative Performance

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Absolute Return	1.29	1.88	6.46	6.46	-0.09	2.27	2.51	N/A	1.58	07/01/2014
Absolute Return Custom Index	3.40	3.29	8.40	8.40	-0.73	5.79	5.33	N/A	4.40	
Difference	-2.11	-1.41	-1.94	-1.94	0.64	-3.52	-2.82	N/A	-2.82	
Multi-Strategy Hedge Funds	1.81	4.45	6.33	6.33	N/A	N/A	N/A	N/A	8.21	07/01/2022
HFRI RV Multi Strat Index	2.71	4.47	6.31	6.31	4.14	4.88	4.02	3.85	4.38	
Difference	-0.90	-0.02	0.02	0.02	N/A	N/A	N/A	N/A	3.83	
Real Estate	-4.76	-6.77	-12.42	-12.42	4.76	3.69	5.16	N/A	6.03	07/01/2015
NCREIF ODCE Index (AWA) (Net)	-5.00	-7.00	-12.73	-12.73	4.01	3.34	4.38	6.33	5.30	
Difference	0.24	0.23	0.31	0.31	0.75	0.35	0.78	N/A	0.73	
Private Infrastructure	3.06	4.90	9.09	9.09	N/A	N/A	N/A	N/A	9.71	02/01/2022
MSCI Wrld Infrastructure Index (Net)	10.29	2.20	3.41	3.41	1.55	4.98	4.10	3.72	-0.38	
Difference	-7.23	2.70	5.68	5.68	N/A	N/A	N/A	N/A	10.09	

Performance shown is net of fees, and annualized for periods greater than one year. Composite inception dates are based on availability of data for each asset class. The Global Fixed Income Custom Index and Absolute Return Custom Index are calculated monthly using beginning of month weights applied to each corresponding primary benchmark return. Please see the Addendum for additional custom index definitions. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. Fiscal year ends 06/30.



North Dakota Board of University and School Lands Broad US Equity

		Comp	arative Pe	rformance	!					
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Broad US Equity	11.60	7.37	22.79	22.79	7.46	14.36	12.24	11.07	13.42	07/01/2009
Russell 3000 Index	12.07	8.43	25.96	25.96	8.54	15.16	12.81	11.48	14.02	
Difference	-0.47	-1.06	-3.17	-3.17	-1.08	-0.80	-0.57	-0.41	-0.60	
State Street Russell 1000 Index SL (CF)	11.98	8.45	26.55	26.55	8.95	15.49	N/A	N/A	12.67	06/01/2017
Russell 1000 Index	11.96	8.44	26.53	26.53	8.97	15.52	13.21	11.80	12.70	
Difference	0.02	0.01	0.02	0.02	-0.02	-0.03	N/A	N/A	-0.03	
Jacobs Levy Russell 1000 Index 130/30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.38	12/01/2023
Russell 1000 Index	11.96	8.44	26.53	26.53	8.97	15.52	13.21	11.80	4.94	
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.44	
Arrowstreet US Small Cap Equity Alpha Extension	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18.15	11/01/2023
Russell 2000 Index	14.03	8.18	16.93	16.93	2.22	9.97	7.33	7.16	22.38	
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-4.23	



Performance shown is net of fees. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. Allocations shown may not sum up to 100% exactly due to rounding. Fiscal year ends 06/30. In 10/2023, Arrowstreet US Small Cap Equity Alpha Extension was funded, and NT Small Cap Core and State Street Russell Mid Cap Index were liquidated. In 11/2023, Jacobs Levy Russell 1000 Index 130/30 was funded. The market value shown for NT Small Cap Core (CF) represents residual assets.

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		Compa	rative Perf	formance						
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Broad International Equity	9.08	5.95	16.55	16.55	3.69	8.09	6.54	3.90	6.15	07/01/2009
MSCI ACW Ex US IM Index (USD) (Net)	9.81	5.98	15.62	15.62	1.53	7.19	6.38	3.97	6.24	
Difference	-0.73	-0.03	0.93	0.93	2.16	0.90	0.16	-0.07	-0.09	
State Street World Ex US Index (CF)	10.50	5.96	17.87	17.87	4.30	8.34	6.86	N/A	3.88	07/01/2014
MSCI Wrld Ex US Index (USD) (Net)	10.51	5.97	17.94	17.94	4.42	8.45	6.95	4.32	3.97	
Difference	-0.01	-0.01	-0.07	-0.07	-0.12	-0.11	-0.09	N/A	-0.09	
Acadian Non-US Small Cap Long-Short Equity Fund	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.71	12/01/2023
MSCI EAFE Sm Cap Index (USD) (Net)	11.14	7.24	13.16	13.16	-0.69	6.58	5.98	4.80	7.28	
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-3.57	
Arrowstreet Emerging Market Alpha Extension	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.58	12/01/2023
MSCI Emg Mkts Index (USD) (Net)	7.86	4.71	9.83	9.83	-5.08	3.68	4.98	2.66	3.91	
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.33	



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			С	omparative F	Performance		Comparative Performance												
QTD FYTD CYTD 1 3 5 7 10 Since II Year Years Years Years Years Incep.																			
Private Equity	0.02	1.63	11.22	11.22	N/A	N/A	N/A	N/A	14.48	04/01/2021									
Cambridge US Prvt Eq Index	0.00	0.89	6.25	6.25	13.60	15.41	15.12	13.61	10.77										
Difference	0.02	0.74	4.97	4.97	N/A	N/A	N/A	N/A	3.71										





Performance shown is net of fees. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. Allocations shown may not sum up to 100% exactly due to rounding. Fiscal year ends 06/30. Market values for Private Equity is as of previous quarter end and adjusted for subsequent cash flows until the current quarter's valuations are available. 12/31 market value is unavailable for Grosvenor Secondary Opp Fund III LP, MS Ashbridge TS Fund II LP, and Khosla Ventures Composite. As of 12/31, the Cambridge US Prvt Eq Index is unavailable due to it reporting on a quarter lag basis. In 10/2023, Khosla Ventures Composite was funded.

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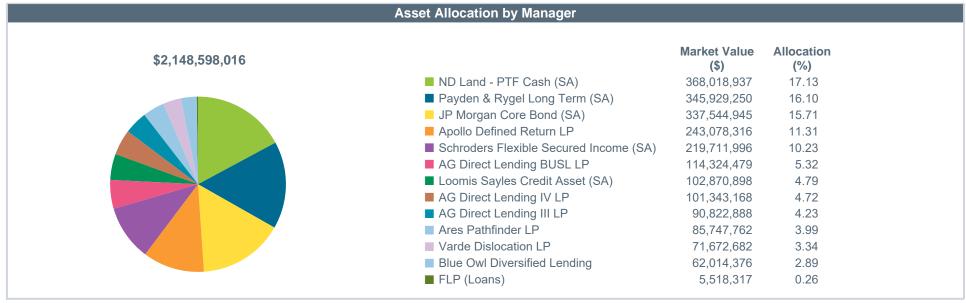


			Comparat	ive Perform	ance					
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income	3.60	4.43	9.11	9.11	2.18	4.28	3.69	3.43	5.28	08/01/1995
Global Fixed Income Custom Index	4.99	5.27	10.35	10.35	-0.56	2.78	2.50	N/A	N/A	
Difference	-1.39	-0.84	-1.24	-1.24	2.74	1.50	1.19	N/A	N/A	
Public Credit	4.35	2.40	5.11	5.11	N/A	N/A	N/A	N/A	1.62	07/01/2022
Bloomberg US Agg Bond Index	6.82	3.37	5.53	5.53	-3.31	1.10	1.29	1.81	1.59	
Difference	-2.47	-0.97	-0.42	-0.42	N/A	N/A	N/A	N/A	0.03	
Payden & Rygel Long Term (SA)	7.28	3.87	6.53	6.53	-2.69	1.64	1.90	2.34	4.99	08/01/1995
Bloomberg US Agg Bond Index	6.82	3.37	5.53	5.53	-3.31	1.10	1.29	1.81	4.38	
Difference	0.46	0.50	1.00	1.00	0.62	0.54	0.61	0.53	0.61	
JP Morgan Core Bond (SA)	6.68	3.48	6.21	6.21	-2.52	0.99	1.24	1.58	1.38	08/01/2012
JP Morgan FI Custom Index	6.82	3.37	5.53	5.53	-2.97	0.76	0.97	1.31	1.14	
Difference	-0.14	0.11	0.68	0.68	0.45	0.23	0.27	0.27	0.24	
Loomis Sayles Credit Asset (SA)	6.92	6.25	9.64	9.64	N/A	N/A	N/A	N/A	0.91	04/01/2021
Loomis Sayles CA Custom Index	6.76	6.13	11.00	11.00	0.30	4.17	3.59	3.78	0.95	
Difference	0.16	0.12	-1.36	-1.36	N/A	N/A	N/A	N/A	-0.04	
FLP (Loans)	1.43	2.88	5.77	5.77	4.95	4.78	5.17	5.43	6.81	08/01/1995
ND Land - PTF Cash (SA)	1.30	2.61	4.75	4.75	2.04	1.80	N/A	N/A	1.75	07/01/2017
ICE BofAML 3 Mo US T-Bill Index	1.37	2.70	5.02	5.02	2.15	1.88	1.73	1.25	1.82	
Difference	-0.07	-0.09	-0.27	-0.27	-0.11	-0.08	N/A	N/A	-0.07	
Private Credit	2.43	6.18	12.82	12.82	N/A	N/A	N/A	N/A	11.23	07/01/2022
Credit Suisse Leveraged Loan Index+1.5%	3.23	7.11	14.74	14.74	7.22	7.14	6.30	6.00	12.74	
Difference	-0.80	-0.93	-1.92	-1.92	N/A	N/A	N/A	N/A	-1.51	
AG Direct Lending III LP	2.40	4.28	8.07	8.07	11.19	10.34	N/A	N/A	10.14	09/01/2018
CS Lvg'd Loan Index	2.85	6.32	13.04	13.04	5.64	5.56	4.73	4.44	4.72	
Difference	-0.45	-2.04	-4.97	-4.97	5.55	4.78	N/A	N/A	5.42	
AG Direct Lending IV LP	2.72	5.58	11.17	11.17	N/A	N/A	N/A	N/A	14.37	06/01/2021
CS Lvg'd Loan Index	2.85	6.32	13.04	13.04	5.64	5.56	4.73	4.44	5.34	
Difference	-0.13	-0.74	-1.87	-1.87	N/A	N/A	N/A	N/A	9.03	

Performance shown is net of fees. The Global Fixed Income Custom Index currently consists of the Bloomberg US Unv Bond Index. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. Fiscal year ends 06/30.



Comparative Performance											
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date	
AG Direct Lending BUSL LP	3.00	10.97	12.74	12.74	N/A	N/A	N/A	N/A	12.05	06/01/2022	
CS Lvg'd Loan Index	2.85	6.32	13.04	13.04	5.64	5.56	4.73	4.44	9.02		
Difference	0.15	4.65	-0.30	-0.30	N/A	N/A	N/A	N/A	3.03		
Blue Owl Diversified Lending	-0.55	2.65	8.89	8.89	N/A	N/A	N/A	N/A	8.42	11/01/2021	
CS Lvg'd Loan Index	2.85	6.32	13.04	13.04	5.64	5.56	4.73	4.44	5.54		
Difference	-3.40	-3.67	-4.15	-4.15	N/A	N/A	N/A	N/A	2.88		
Apollo Defined Return LP	3.91	6.61	17.94	17.94	N/A	N/A	N/A	N/A	11.79	04/01/2022	
CS Lvg'd Loan Index+2%	3.36	7.38	15.30	15.30	7.75	7.67	6.82	6.53	8.80		
Difference	0.55	-0.77	2.64	2.64	N/A	N/A	N/A	N/A	2.99		
Ares Pathfinder LP	1.04	10.55	10.63	10.63	N/A	N/A	N/A	N/A	32.66	03/01/2021	
Schroders Flexible Secured Income (SA)	1.79	4.33	11.00	11.00	N/A	N/A	N/A	N/A	4.09	09/01/2021	
3 Month LIBOR Index (USD)+1.75%	1.82	3.62	6.95	6.95	3.95	3.82	3.69	3.22	4.52		
Difference	-0.03	0.71	4.05	4.05	N/A	N/A	N/A	N/A	-0.43		
Varde Dislocation LP	2.57	5.66	16.54	16.54	7.14	N/A	N/A	N/A	15.43	07/01/2020	

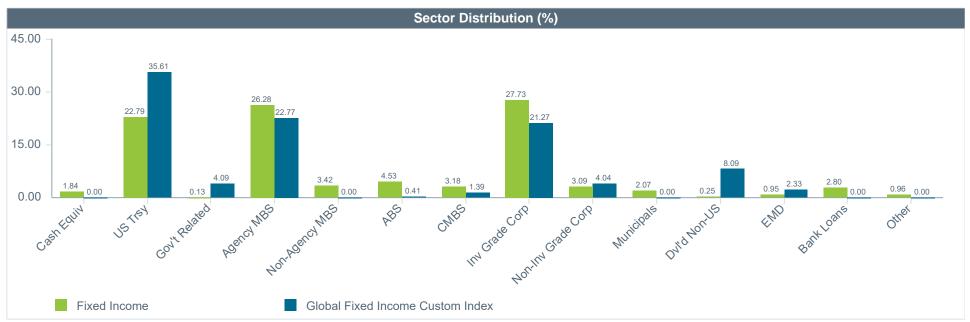


Performance shown is net of fees. The Global Fixed Income Custom Index currently consists of the Bloomberg US Unv Bond Index. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. Fiscal year ends 06/30. 12/31 market value is unavailable for Blue Owl Diversified Lending and Ares Pathfinder LP.



North Dakota Board of University and School Lands Fixed Income vs. Global Fixed Income Custom Index Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	5.91	6.00
Avg. Maturity	7.97	8.25
Avg. Quality	A1	N/A
Coupon Rate (%)	3.75	3.34
Yield To Worst (%)	5.22	4.84
Current Yield (%)	4.17	N/A



Fixed Income characteristics and sector distributions only include Payden & Rygel Long Term (SA), JP Morgan Core Bond (SA), and Loomis Sayles Credit Asset (SA). Allocation to "Other" consists of CDOs and Convertibles.



			Comparativ	e Performa	ınce					
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Absolute Return	1.29	1.88	6.46	6.46	-0.09	2.27	2.51	N/A	1.58	07/01/2014
Absolute Return Custom Index	3.40	3.29	8.40	8.40	-0.73	5.79	5.33	N/A	4.40	
Difference	-2.11	-1.41	-1.94	-1.94	0.64	-3.52	-2.82	N/A	-2.82	
Multi-Strategy Hedge Funds	1.81	4.45	6.33	6.33	N/A	N/A	N/A	N/A	8.21	07/01/2022
HFRI RV Multi Strat Index	2.71	4.47	6.31	6.31	4.14	4.88	4.02	3.85	4.38	
Difference	-0.90	-0.02	0.02	0.02	N/A	N/A	N/A	N/A	3.83	
Millennium USA LP	2.17	6.92	10.01	10.01	N/A	N/A	N/A	N/A	11.22	01/01/2022
HFRI RV Multi Strat Index	2.71	4.47	6.31	6.31	4.14	4.88	4.02	3.85	2.73	
Difference	-0.54	2.45	3.70	3.70	N/A	N/A	N/A	N/A	8.49	
Balyasny Atlas Enhanced Fund LP	0.25	1.65	N/A	N/A	N/A	N/A	N/A	N/A	3.44	03/01/2023
HFRI RV Multi Strat Index	2.71	4.47	6.31	6.31	4.14	4.88	4.02	3.85	3.45	
Difference	-2.46	-2.82	N/A	N/A	N/A	N/A	N/A	N/A	-0.01	
Two Sigma Abs Return Enhanced Fund LP	5.82	8.93	N/A	N/A	N/A	N/A	N/A	N/A	11.28	05/01/2023
HFRI RV Multi Strat Index	2.71	4.47	6.31	6.31	4.14	4.88	4.02	3.85	4.46	
Difference	3.11	4.46	N/A	N/A	N/A	N/A	N/A	N/A	6.82	
Verition Multi-Strategy Fund LP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	01/01/2024
HFRI RV Multi Strat Index	2.71	4.47	6.31	6.31	4.14	4.88	4.02	3.85	N/A	
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

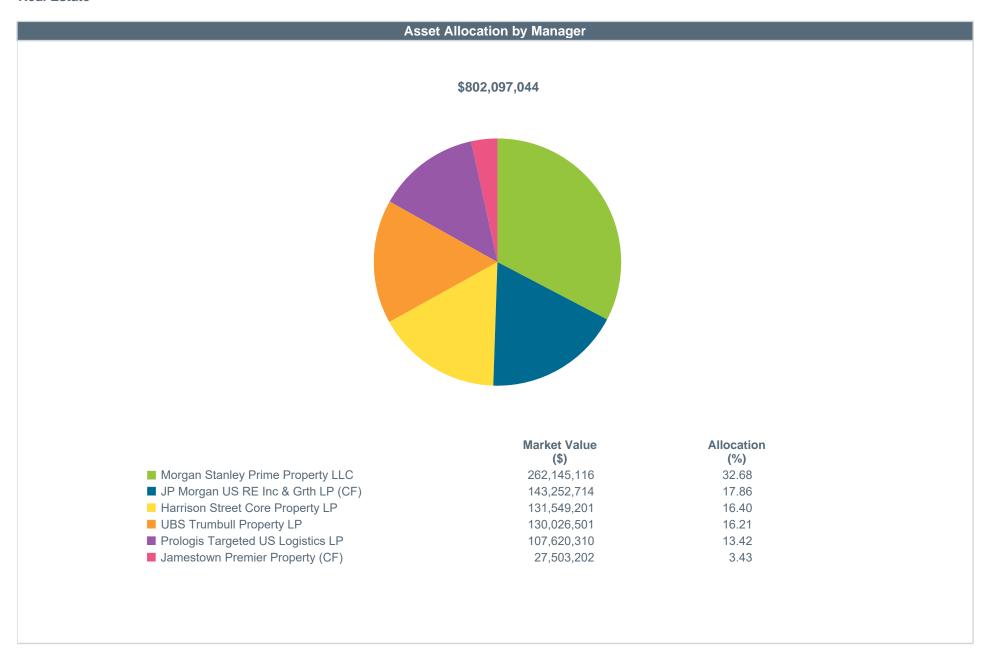


Performance shown is net of fees. The Absolute Return Custom Index consists of 60% MSCI ACW IM Index (USD) (Net) and 40% Bloomberg US Agg Bond Index. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. Allocations shown may not sum up to 100% exactly due to rounding. In 10/2023, PineBridge Dyn AA;Inst (PDAIX) was liquidated. In 11/2023, PIMCO: All Ast Ath;Inst (PAUIX) was liquidated. In 12/2023, Verition Multi-Strategy Fund LP was funded.

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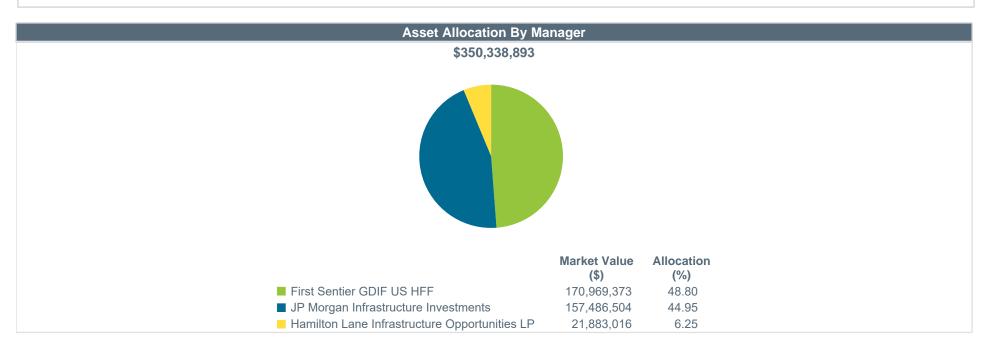


Comparative Performance												
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date		
Real Estate	-4.76	-6.77	-12.42	-12.42	4.76	3.69	5.16	N/A	6.03	07/01/2015		
NCREIF ODCE Index (AWA) (Net)	-5.00	-7.00	-12.73	-12.73	4.01	3.34	4.38	6.33	5.30			
Difference	0.24	0.23	0.31	0.31	0.75	0.35	0.78	N/A	0.73			
Morgan Stanley Prime Property LLC	-2.21	-2.42	-5.79	-5.79	6.70	5.48	6.30	N/A	7.08	07/01/2015		
NCREIF ODCE Index (AWA) (Net)	-5.00	-7.00	-12.73	-12.73	4.01	3.34	4.38	6.33	5.30			
Difference	2.79	4.58	6.94	6.94	2.69	2.14	1.92	N/A	1.78			
UBS Trumbull Property LP	-4.19	-5.74	-15.67	-15.67	0.72	-1.10	0.82	N/A	2.08	07/01/2015		
NCREIF ODCE Index (AWA) (Net)	-5.00	-7.00	-12.73	-12.73	4.01	3.34	4.38	6.33	5.30			
Difference	0.81	1.26	-2.94	-2.94	-3.29	-4.44	-3.56	N/A	-3.22			
Jamestown Premier Property (CF)	-11.48	-17.45	-51.01	-51.01	-25.01	-17.19	-9.97	N/A	-7.00	07/01/2015		
NCREIF ODCE Index (AWA) (Net)	-5.00	-7.00	-12.73	-12.73	4.01	3.34	4.38	6.33	5.30			
Difference	-6.48	-10.45	-38.28	-38.28	-29.02	-20.53	-14.35	N/A	-12.30			
Prologis Targeted US Logistics LP	-7.09	-9.04	-12.89	-12.89	13.24	13.27	14.65	N/A	14.80	04/01/2016		
NCREIF ODCE Index (AWA) (Net)	-5.00	-7.00	-12.73	-12.73	4.01	3.34	4.38	6.33	4.70			
Difference	-2.09	-2.04	-0.16	-0.16	9.23	9.93	10.27	N/A	10.10			
JP Morgan US RE Inc & Grth LP (CF)	-7.80	-12.01	-15.01	-15.01	2.82	1.77	2.90	N/A	3.40	07/01/2016		
NCREIF ODCE Index (AWA) (Net)	-5.00	-7.00	-12.73	-12.73	4.01	3.34	4.38	6.33	4.59			
Difference	-2.80	-5.01	-2.28	-2.28	-1.19	-1.57	-1.48	N/A	-1.19			
Harrison Street Core Property LP	-3.46	-5.54	-5.83	-5.83	N/A	N/A	N/A	N/A	2.01	02/01/2022		
NCREIF ODCE Index (AWA) (Net)	-5.00	-7.00	-12.73	-12.73	4.01	3.34	4.38	6.33	-3.72			
Difference	1.54	1.46	6.90	6.90	N/A	N/A	N/A	N/A	5.73			





Comparative Performance										
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Private Infrastructure	3.06	4.90	9.09	9.09	N/A	N/A	N/A	N/A	9.71	02/01/2022
MSCI Wrld Infrastructure Index	10.29	2.20	3.41	3.41	1.55	4.98	4.10	3.72	-0.38	
Difference	-7.23	2.70	5.68	5.68	N/A	N/A	N/A	N/A	10.09	
JP Morgan Infrastructure Investments	3.31	5.97	11.20	11.20	N/A	N/A	N/A	N/A	10.92	02/01/2022
MSCI Wrld Infrastructure Index	10.29	2.20	3.41	3.41	1.55	4.98	4.10	3.72	-0.38	
Difference	-6.98	3.77	7.79	7.79	N/A	N/A	N/A	N/A	11.30	
First Sentier GDIF US HFF	3.21	4.51	7.53	7.53	N/A	N/A	N/A	N/A	8.50	05/01/2022
MSCI Wrld Infrastructure Index	10.29	2.20	3.41	3.41	1.55	4.98	4.10	3.72	-0.77	
Difference	-7.08	2.31	4.12	4.12	N/A	N/A	N/A	N/A	9.27	
Hamilton Lane Infrastructure Opportunities LP	0.18	0.38	6.96	6.96	N/A	N/A	N/A	N/A	17.55	08/01/2022
MSCI Wrld Infrastructure Index	0.00	-7.33	-6.24	-6.24	-1.71	2.94	2.66	2.71	-7.71	
Difference	0.18	7.71	13.20	13.20	N/A	N/A	N/A	N/A	25.26	



Performance shown is net of fees. RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. Allocations shown may not sum up to 100% exactly due to rounding. Fiscal year ends 06/30. 12/31 market value is unavailable for Hamilton Lane Infrastructure Opportunities LP.





Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
AG Direct Lending III LP	2018	Private Credit - Direct Lending	150,000,000	138,000,000	107,235,349	90,822,888	10.60	N/A	0.56	1.44
AG Direct Lending IV LP	2020	Private Credit - Direct Lending	100,000,000	93,148,632	17,770,435	101,343,168	13.44	N/A	-3.65	1.28
Ares Pathfinder LP	2020	Private Credit - Specialty Finance	100,000,000	73,291,320	5,219,745	85,747,762 *	13.82	N/A	-0.81	1.24
Varde Dislocation LP	2020	Private Credit - Distressed/Special Situations	100,000,000	79,500,000	25,262,426	71,672,682	8.87	N/A	-3.20	1.22
			450,000,000	383,939,952	155,487,955	349,586,501	11.11		-1.13	1.32

Certain valuations (marked with a '*') are preliminary estimates of valuation as of the date of reporting and reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Index IRR represents the dollar-weighted returns calculated using the Barclays US Agg Bond Index assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Fund IRR is the annualized since-inception net internal rate for the indicated fund or composite. Fund Multiple is the since inception sum of distributions and valuation divided by paid in capital. Quartile data is based on information provided by Preqin.



Fund Name	/intage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
Ashbridge Transformational Secondaries II LP	2021	Private Equity - Secondaries	25,000,000	15,302,106	0	19,391,660 *	22.33	N/A	17.45	1.27
Grosvenor BUSL LP	2021	Private Equity - Multi- Stage	130,000,000	49,057,661	2,566,178	51,744,690	7.75	N/A	7.74	1.11
Grosvenor Secondary Opportunities III L	P 2021	Private Equity - Fund of Funds	150,000,000	51,636,257	0	64,029,842 *	18.16	N/A	8.94	1.24
Khosla Ventures Composite	2023	Private Equity - Venture	35,000,000	2,765,000	0	2,765,000 *	N/M	N/A	N/M	1.00
			340,000,000	118,761,024	2,566,178	137,931,192	13.94		9.55	1.18

Certain valuations (marked with a **) are preliminary estimates of valuation as of the date of reporting and reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Index IRR represents the dollar-weighted returns calculated using the Russell 3000 Index assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Fund IRR is the annualized since-inception net internal rate for the indicated fund or composite. Fund Multiple is the since inception sum of distributions and valuation divided by paid in capital. Quartile data is based on information provided by Preqin.



Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
Hamilton Lane Infrastructure Opportunit LP	ties 2019	Real Assets - Core Infrastructure	25,000,000	20,991,699	1,697,391	21,883,016 *	12.45	N/A	2.41	1.12
			25,000,000	20,991,699	1,697,391	21,883,016	12.45		2.41	1.12

Certain valuations (marked with a '*') are preliminary estimates of valuation as of the date of reporting and reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Index IRR represents the dollar-weighted returns calculated using the MSCI Wrld Real Estate Index (USD) (Net) assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Fund IRR is the annualized since-inception net internal rate for the indicated fund or composite. Fund Multiple is the since inception sum of distributions and valuation divided by paid in capital. Quartile data is based on information provided by Preqin.



North Dakota Board of University and School Lands Addendum

Performance Related Comments

- · Manager inception dates shown represent the first full month following initial funding.
- RVK began monitoring the assets of North Dakota Board of University and School Lands in Q3 2014. Prior historical data was provided by North Dakota Board of University and School Lands.
- Real Estate composite, manager, and index performance are available on a quarterly basis. Market values are as of the most recent quarter-end and adjusted for subsequent cash flows. Interim period performance assumes a 0.00% return.
- Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark.
- As of 07/2014, composite and manager performance is provided and calculated by RVK.
- Net performance for FLP bank loans represent Fees Payable.
- During 03/2021, JPM FI Intermediate Bond transitioned from intermediate duration to full duration core mandate.
- During 08/2021. Schroders Securitized Credit transitioned into Schroders Flexible Secured Income.
- During 12/2022, Varde Dislocation LP was moved from the Opportunistic Investments composite into the Private Credit composite.
- RVK cautions that the interpretation of time-weighted returns on non-marketable investments such as Private Equity, Private Real Estate, and Private Credit is imperfect at best, and can potentially be misleading.

Index Comments

- The Target Allocation Index (Net) is a static custom index that is calculated monthly and consists of:
 - From 07/2023 through present: 15% Russell 3000 Index, 15% MSCI ACWI Ex USA IMI, 15% Barclays US Aggregate Index, 20% CS Leveraged Loans Index +1.5%, 15% HFRI RV Multi-Strategy Index, 10% NCREIF ODCE Index (AWA) (Net), 8% Cambridge US Private Equity Index, 7% MSCI World Infrastructure Index, and -5% ICE BofAML 3 Month US Treasury Bill Index.
 - From 07/2022 through 06/2023: 15% Russell 3000 Index, 15% MSCI ACWI Ex USA IMI, 5% Barclays US Universal Index, 20% CS Leveraged Loans Index +1.5%, 5% Global 60/40 (60% MSCI All Country World IMI, 40% Barclays US Aggregate Bond Index), 10% HFRI RV Multi-Strategy Index, 15% NCREIF ODCE Index, 8% Cambridge US Private Equity Index, and 7% MSCI World Infrastructure Index.
 - From 05/2020 through 06/2022: 19% Russell 3000 Index, 19% MSCI ACW Ex US Index (USD) (Net), 22% Global Fixed Income Custom Index, 15% NCREIF ODCE Index (AWA) (Net), 15% Absolute Return Index, 5% Cambridge US Private Equity Index, and 5% MSCI World Infrastructure Index.
 - From 07/2019 through 04/2020: 18.5% Russell 3000 Index, 18.5% MSCI ACW Ex US Index (USD) (Net), 23% Global Fixed Income Custom Index, 15% NCREIF ODCE Index (AWA) (Net), 15% Absolute Return Custom Index, and 10% DIS Custom Index.
 - From 02/2018 through 06/2019: 17% Russell 3000 Index, 17% MSCI ACW Ex US Index (USD) (Net), 21% Global Fixed Income Custom Index, 15% NCREIF ODCE Index (AWA) (Net), 20% Absolute Return Custom Index, and 10% DIS Custom Index.
 - From 07/2016 through 01/2018: 17% Russell 3000 Index, 15% MSCI ACW Ex US Index (USD) (Net), 23% Global Fixed Income Custom Index, 15% NCREIF ODCE Index (AWA) (Net), 20% Absolute Return Custom Index, and 10% DIS Custom Index.
 - From 04/2016 through 06/2016: 17.6% Russell 3000 Index, 15.5% MSCI ACW Ex US Index (USD) (Net), 23.8% Global Fixed Income Custom Index, 12% NCREIF ODCE Index (AWA) (Net), 20.7% Absolute Return Custom Index, and 10.4% DIS Custom Index.
 - From 01/2016 through 03/2016: 17.7% Russell 3000 Index, 15.6% MSCI ACW Ex US Index (USD) (Net), 25.3% Global Fixed Income Custom Index, 10% NCREIF ODCE Index (AWA) (Net), 21% Absolute Return Custom Index, and 10.4% DIS Custom Index.
 - From 10/2015 through 12/2015: 17.9% Russell 3000 Index, 15.9% MSCI ACW Ex US Index (USD) (Net), 25.5% Global Fixed Income Custom Index, 9% NCREIF ODCE Index (AWA) (Net), 21.1% Absolute Return Custom Index, and 10.6% DIS Custom Index.
 - From 07/2015 through 09/2015: 19.5% Russell 3000 Index, 17.4% MSCI ACW Ex US Index (USD) (Net), 26.2% Global Fixed Income Custom Index, 4.1% NCREIF ODCE Index (AWA) (Net), 22% Absolute Return Custom Index, and 10.8% DIS Custom Index.
 - From 07/2014 through 06/2015: The index was calculated monthly using beginning of month asset class weights applied to each corresponding primary benchmark return.
 - From 01/2013 through 06/2014: 18.7% Russell 1000 Index, 12.4% Russell 2500 Index, 7.5% FTSE EPRA/NAREIT US Index, 12.4% MSCI EAFE Index (USD) (Net), 33.3% Bloomberg US Agg Bond Index, 0.70% CS Lyg'd Loan Index, 10% Bloomberg US Corp Hi Yld Index, and 5% Bloomberg Gbl Agg Ex USD Index (Hedged).
 - From 07/2009 through 12/2012: 15% Russell 1000 Index, 10% Russell 2500 Index, 6% FTSE EPRA/NAREIT US Index, 10% MSCI EAFE Index (USD) (Net), 32.3% Bloomberg US Agg Bond Index, 1.70% CS Lvg'd Loan Index, 10% Bloomberg US Corp Hi Yld Index, 5% Bloomberg Gbl Agg Ex USD Index (Hedged), and 10% ICE BofAML Cnvrt Bonds Index (All Qual).

North Dakota Board of University and School Lands Addendum

Cont.

- The Global Fixed Income Custom Index is calculated monthly using beginning of month weights applied to each corresponding primary benchmark return. From 04/2019 through 06/2022, the index consisted of the Bloomberg US Unv Bond Index. Prior to 03/2019, the index consisted of 75% Bloomberg US Unv Bond Index and 25% Bloomberg Multi-Universe Index.
- The Absolute Return Custom Index is calculated monthly using beginning of month weights applied to each corresponding primary benchmark return. Prior to 07/2022, the index consisted of 60% MSCI ACW IM Index (USD) (Net) and 40% Bloomberg US Agg Bond Index.

The All Asset Custom Index (Eql Wtd) is an equal-weighted hybrid created independently by RVK specifically for PIMCO's All Asset strategies, and it consists of the following benchmarks:

- 1. Short Term Strategies: ICE BofAML 1 Yr T-Bill Index
- 2. US Core and Long Maturity Bond Strategies: Bloomberg US Agg Bond Index
- 3. EM and Gbl Bond Strategies: PIMCO GLADI Index*
- 4. Crdt Strategies: ICE BofAML US Hi Yld Master II Index
- 5. Inflation Related Strategies: Bloomberg US Trsy US TIPS Index
- 6. US Equity Strategies: Russell 3000 Index
- 7. Global Equity Strategies: MSCI ACW Index (USD) (Net)
- 8. Alternative Strategies: ICE BofAML 3 Mo US T-Bill Index + 3%

*Performance for the PIMCO GbI Advantage Bond Index (London Close) prior to 01/01/2004 consists of the JPM EMBI GbI Dvf'd Index (TR).

The asset class market performance is represented by the respective indices:

- US Large Cap Equity = S&P 500 Index (Cap weighted)
- US Small Cap Equity = Russell 2000 Index
- Developed International Equity = MSCI EAFE Index (USD) (Net)
- Developed International Small Cap Equity = MSCI EAFE Small Cap Index (USD) (Net)
- Emerging Markets Equity = MSCI Emerging Markets Index (USD) (Net)
- US Aggregate Bond = Bloomberg US Aggregate Bond Index
- 3 Month US Treasury Bill = ICE BofAML 3 Month US T-Bill Index
- US Real Estate = NCREIF ODCE Index (AWA) (Gross)
- Real Estate Investment Trust (REITs) = FTSE NAREIT Equity REITs Index (TR)
- Commodities = Bloomberg Commodities Index (TR)

PORTLAND BOISE CHICAGO NEW YORK

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MEMORANDUM TO THE BOARD OF UNIVERSITY AND SCHOOL LANDS

March 28, 2024

RE: Fixed Income - Public Credit

Actively managed public credit mandates currently make up \$775M or 11% of the total portfolio. The goal of this proposal is to improve operational efficiency, reduce fees and reduce active risk (divergence from benchmark) in the portfolio.

Staff recommends consolidating the public credit portfolio into a passive US Aggregate Bond index. Consolidating the portfolio from three actively managed accounts to one passively managed account will simplify liquidity management when rebalancing is needed.

Compared to other asset classes, public credit active management fees are modest, however a change to passive management will push fees even lower.

Reining in active risk in the public credit portfolio will be offset by risk increases from implied leverage in the bond overlay program. Analysis shows active management, in general, tends to underperform the benchmark during crisis periods, which would add an unintended second layer of risk to the public credit portfolio.

After meeting with existing and potential managers to explore passive bond management capabilities, Staff and RVK make the following recommendations:

- Hire State Street Global Advisors (SSGA) US Aggregate Bond Index (~\$775M).
- SSGA has managed the Land Board's passive public equity strategies for over 20 years and currently manages over \$1.4B in US and International public equities on behalf of the Land Board. SSGA manages \$76B in US Aggregate Bond Index portfolios, \$555B in fixed income and \$4.13T firmwide. They remain one of the top passive investment managers as measured by tracking error efficiency and fee competitiveness.
- Full Redemption Payden & Rygel Long Term (~\$340M).
- Full Redemption JP Morgan Core Bond (~\$333M).
- Full Redemption Loomis Sayles Credit Asset (~\$102M).

Transition management services will be used to wind down three separately managed accounts and roll proceeds into the passive index.

Recommendation: The Board approve (1) full redemption of Payden & Rygel Long Term (2) full redemption of JP Morgan Core Bond (3) full redemption of Loomis Sayles Credit Asset and (4) hire SSGA US Aggregate Bond Index, subject to standard legal review/documentation.

Attachments: RVK Public Credit Structure & Manager Recommendations

Action Record	Motion	Second	Aye	Nay	Absent
Secretary Howe					
Superintendent Baesler					
Treasurer Beadle					
Attorney General Wrigley					
Governor Burgum					



Memorandum

То	North Dakota Board of University and School Lands,
From	RVK Inc. ("RVK")
Subject	Public Credit Manager Recommendation
Date	March 28 th , 2024

Summary

The purpose of this memo is to provide a recommendation on the structure of the North Dakota Board of University and School Lands ("NDBUSL") public credit portfolio.

RVK recommends NDBUSL consolidate current active managers Payden & Rygel Long Term, JP Morgan Core Bond, and Loomis Sayles Credit Asset into a passively managed US Aggregate Bond Index fund, managed by State Street Global Advisors ("SSGA").

RVK recommends a transition to a passive structure for the following reasons:

- 1) As the asset allocation structure of the portfolio has evolved to emphasize a higher level of exposure to private credit assets, with lower allocations to public fixed income, we believe that it is appropriate to simplify the public fixed income portfolio in a lower fee passive approach. Doing so will provide a greater emphasis on the desired fixed income characteristics of safety, liquidity, and equity risk mitigation.
- 2) While NDBUSL's active public credit managers have outperformed their respective benchmarks, data suggests active managers are more prone to underperformance during times of economic weakness. Moving to a passive structure would reduce the portfolio's tracking error.
- 3) By moving to a passive structure, we anticipate fee savings of approximately 17 basis points annually (*which equates to roughly \$1.3M based on current allocation targets).
- 4) As the yield environment has improved markedly over the past several years, active management in pursuit of incremental returns is not as material to the returns available from traditional fixed income portfolios as they were during the era of zero rate interest policies.

^{*}Based on 01/2024 market values.



Primary Fixed Income Characteristics Comparison

The primary reason RVK recommends moving to a passive structure can be attributed to public credit representing a smaller allocation relative to the higher return seeking and more credit oriented private credit assets in the portfolio. We believe a more appropriate complement in the context of portfolio structure would be a passive approach that tracks the US Aggregate Bond Index.

The figures below show a comparison of fixed income characteristics between the current active managers and the proposed passive manager.

Characteristic	Active Manager Composite	Passive Index
Avg Quality (Moody's)	A1	Aa2
Current Yield (%)	4.17	3.26
Yield to Maturity (%)	5.27	4.54

Characteristics shown as of 12/31/2023.

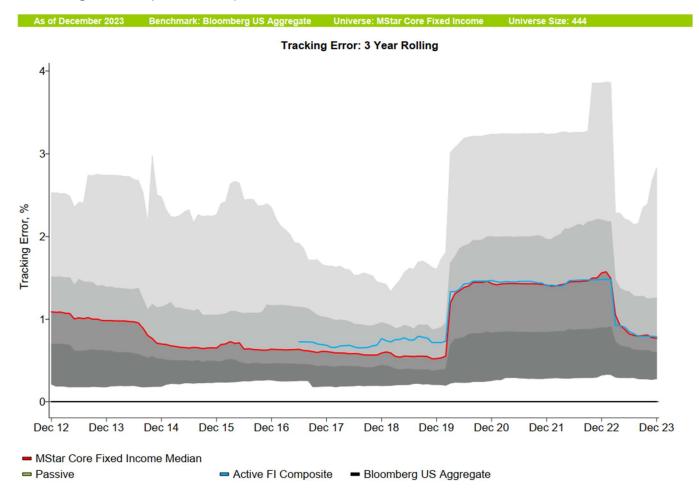
Quality Distribution	Aaa	Aa2	A2	Baa2	Ba2	B2	Caa2	Ca	С	Not Rated/Other
Active Manager Composite	55%	6%	12%	20%	3%	2%	0%	0%	0%	2%
Passive Index	72%	3%	12%	12%	0%	0%	0%	0%	0%	1%

Characteristics shown as of 12/31/2023. Allocations may not sum up to 100% due to rounding.

While the current yield and yield to maturity for the passive mandate are lower than the current active manager composite, the average quality is higher, and the concentration of assets in the highest rated categories is much higher.



Additionally, the figure below shows the 3-year rolling tracking error for the current active manager composite versus the recommended passive mandate. For the active manager composite, tracking error increased during times of market uncertainty (ie. Covid-19 Pandemic) against the Bloomberg US Aggregate Bond Index. The passive mandate exhibits the characteristics of safety, liquidity, and effective downside equity protection to a higher degree than the current active managers in the public credit portfolio.



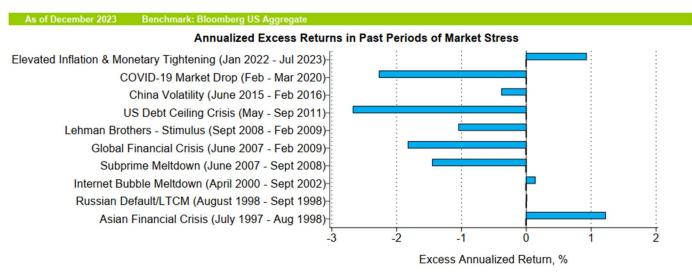
Performance shown is net of fees and client specific. The active manager composite returns date back to July 2014 when RVK took over as consultant. Passive returns reflect the Bloomberg US Aggregate Bond Index less 1 bp annually.



Active vs Passive Management Comparison

The current active managers in the public credit portfolio have underperformed the market index more often than not during periods of economic weakness.

The data below shows the annualized excess returns in notable past periods of market stress. Although the active managers did add value in the monetary tightening period of 2022, this has generally not been the case across other periods, especially those marked by deflationary pressures.



Passive	Active FI	Composite

					Exc	alized ess urns				
	Asian Financial Crisis (July 1997 - Aug 1998)	Russian Default/LTCM (August 1998 - Sept 1998)	Meltdown (April 2000 -	Subprime Meltdown (June 2007 - Sept 2008)	Global Financial Crisis (June 2007 - Feb 2009)	Lehman Brothers - Stimulus (Sept 2008 - Feb 2009)	US Debt Ceiling Crisis (May - Sep 2011)	China Volatility (June 2015 - Feb 2016)	COVID-19 Market Drop (Feb - Mar 2020)	Elevated Inflation & Monetary Tightening (Jan 2022 - Jul 2023)
Passive	-0.01	0.00	-0.01	-0.01	-0.01	0.00	0.00	-0.01	0.00	-0.01
Active FI Composite	1.22	0.01	0.14	-1.45	-1.82	-1.04	-2.67	-0.38	-2.27	0.93

Performance shown is net of fees and client specific. From August 1996 – April 2009, a 50/50 blend of Payden (client specific) and JP Morgan (separate account manager composite) returns are shown. From May 2009 – July 2012 a blend of 44% Payden (client specific), 43% JP Morgan (separate account manager composite), and 13% Loomis (separate account manager composite) returns are shown. From August 2012 – June 2014 a blend of 44% Payden (client specific), 43% JP Morgan (client specific), and 13% Loomis (separate account manager composite) returns are shown. From July 2014 – December 2023 client specific composite returns are shown. The blends are based on the current active manager proportion that NDBUSL currently holds as of 01/2024. Passive returns reflect the Bloomberg US Aggregate Bond Index less 1 bp annually.



Fee Savings Comparison and Investment Operations

Lastly, moving the public credit portfolio to a passive structure would generate management fee savings for the total portfolio. The below table details the current fees for the active managers compared to the passive recommendation.

Manager	Active Manager Composite	Passive Index
*Effective Fee	18 basis points	1 basis point
*Fee in Dollars	\$1,405,417	\$78,597

^{*}Effective fee and fee in dollars are calculated using 01/2024 market values.

The total fee effective fee for the three active managers equates to approximately 18 basis points, or ~\$1.4M. The fee proposed for the State Street US Aggregate Bond Index is 1 basis point, or ~\$78.6K. By moving to a passive structure, NDBUSL would save 17 basis points in fees or approximately ~\$1.3M. The recommended transition meaningfully lowers costs in addition to simplifying investment operations.



RE: Litigation Update (No Action Requested)

• EEE Minerals, LLC v. State of North Dakota, the Board of University and School Lands

Case Summary: (OHWM title dispute / takings claim) – ND Federal District Court issued order May 31, 2022, granting Board's motion to dismiss on all counts: federal preemption, sovereign immunity, takings; Plaintiffs appealed to 8th Circuit; on August 30, 2023, the 8th Circuit three judge panel issued its opinion in our favor affirming the trial court's dismissal on all counts; on September 12, 2023, Plaintiffs requested a rehearing in front of the full 8th Circuit Court which was denied on October 27, 2023; on January 19, 2024, Plaintiffs petitioned the U.S. Supreme Court to hear the case; that petition was denied on March 25, 2024

Commencement: December 2020

ND Assigned Attorney(s): Philip Axt, ND Solicitor General

Counsel For EEE: Joshua Swanson (Vogel Law Firm, Fargo ND)

Court: United States District Court, District of North Dakota

Judge: Magistrate Judge Clare R. Hochhalter

Win = Takings claim dismissed resulting in no liability to state

Lose = Plaintiff's case can proceed resulting in trial to determine validity of claims

• Whitetail Wave LLC v. XTO Energy, Inc.; the Board of University and School Lands

Case Summary: OHWM title dispute / takings claim – On August 22, 2023, Whitetail Wave appealed the trial court's rulings for the state (takings, Wenck Line, quiet title) and the award of attorney fees to co-defendant XTO Energy. North Dakota Supreme Court arguments held January 17, 2024; awaiting decision

Commencement: June 2015

ND Assigned Attorney(s): David Garner, Assistant Attorney General

Counsel for Whitetail Wave: Christopher Sweeney (Moulton Bellingham PC, Billings, MT)

Joshua Swanson (Vogel Law Firm, Fargo, ND)

Counsel for XTO: Lawrence Bender (Fredrikson & Byron P.A., Bismarck, ND)

Court: State District Court, McKenzie County

Judge: Honorable Robin Schmidt

Win = Takings claim dismissed resulting in no liability to state

Lose = Plaintiff's case can proceed resulting in trial to determine validity of claims



Continental Resources, Inc. v. North Dakota Board of University & School Lands and North Dakota Department of Trust Lands

<u>Case Summary:</u> Continental Oil Royalty Deductions – Now that the Newfield gas royalty deductions case has been resolved, this has come off stay and the parties have filed a joint scheduling order laying out the discovery and preparation timeline for trial that is currently scheduled for August 4-8, 2025, in McKenzie County.

Commencement: December 2017

ND Assigned Attorney(s): David Garner, Assistant Attorney General

Counsel for

Continental Resources, Inc.: Jamie Bryan, (K&L Gates, Fort Worth, TX)

Mark Barron (Baker & Hostetler, LLP, Denver, CO)

Court: State District Court, McKenzie County

Judge: Honorable Robin Schmidt

Win = Clarity that Land Board oil & gas lease does not allow for deductions from oil royalties resulting in tens of millions of dollars in deductions being repaid to the state.

Lose = Deductions from oil royalties are allowed under the lease, requiring additional administrative rules/case law to clarify extent

Mandan, Hidatsa, and Arikara Nation v. United States Department of the Interior

<u>Case Summary:</u> Missouri riverbed ownership – On July 7, 2023, the United States filed a motion to amend its pleading to add a quiet title crossclaim against North Dakota as a new Intervenor in the case. We filed a motion requesting a change of venue to North Dakota that the Court is now considering.

Commencement: July 2020

ND Assigned Attorneys: James Auslander, Kathryn Tipple, Peter Schaumberg, and

Nessa Coppinger (Beveridge & Diamond, Washington, D.C.) Charles Carvell, Special Assistant Attorney General (Pearce

Durick PLLC, Bismarck ND)

Matthew Sagsveen, AG Dir. of Natural Resources and Native

American Affairs

Counsel for MHA: Steven D. Gordon (Holland & Knight's Washington, D.C.)

Philip Merle Baker-Shenk (Holland & Knight's Washington,

D.C.)

Timothy Purdon (Robins Kaplan, Bismarck, ND) Timothy Billion (Robins Kaplan, Minneapolis, MN)



Counsel for United States

Department of Interior: Reuben S. Schifman (Washington, D.C.)

Court: United States District Court for the District of Columbia

Judge: Honorable Amy Berman Jackson

Win = North Dakota owns historical Missouri Riverbed (mineral rights) through Fort Berthold Indian Reservation resulting in release to state of tens of millions of dollars in withheld oil & gas royalties.

Lose = U.S. owns the riverbed in trust for MHA Nation so royalties are released to the tribe

Continental Resources, Inc., v. North Dakota Board of University and School Lands and the United States of America (Interpleader)

Case Summary: OHWM fed/state dispute – ND Federal District Court issued opinion March 21, 2023, granting Board's motion for partial summary judgment on "Acquired Federal Lands" issue; this means the Wenck survey controls for establishing the historical ordinary high-water mark of the Missouri River in areas where the uplands were acquired by the federal government, and not original "public domain lands"; federal government appealed and we filed cross appeal; final brief was filed January 10, 2024, with oral arguments to be scheduled thereafter.

Commencement: December 2016

ND Assigned Attorneys: Charles Carvell, Special Assistant Attorney General (Pearce

Durick PLLC, Bismarck ND)
Philip Axt, ND Solicitor General

Counsel for XTO: Lawrence Bender (Fredrikson & Byron P.A., Bismarck, ND)

Spencer Ptacek (Fredrikson & Byron P.A., Bismarck, ND)

Counsel for USA: Shaun Pettigrew (Environment and Natural Resources

Division (ENRD) of the U.S. Department of Justice

Court: United States District Court, District of North Dakota

Judge: Magistrate Judge Clare R. Hochhalter

Win = State survey controls where U.S. lands abut the Wenck line resulting in retention of 2.500 mineral acres

Lose = Federal surveys control resulting in net loss of approximately 2,500 mineral acres



State of North Dakota, ex. rel. v Virginia Leland, et.al.

<u>Case Summary:</u> OHWM river island ownership, trial was held on September 12-16,
 2022; post-trial briefing completed December 2023; awaiting Judge Schmidt's ruling.

Commencement: January 2016

ND Assigned Attorneys: Matthew Sagsveen, AG Dir. of Natural Resources and Native

American Affairs

James Wald, DTL General Counsel

Counsel for Whiting Oil

and Gas Corp:

Paul Forster (Crowley Fleck, PLLP, Bismarck, ND) Shane Hanson (Crowley Fleck, PLLP, Bismarck, ND)

Counsel for Defendant(s): Kevin Chapman (Chapman Law Firm, P.C., Williston, ND)

Ariston Johnson (Johnson & Sundeen, Watford City, ND)

and Others

Court: State District Court, McKenzie County

Judge: Honorable Robin Schmidt

Win = State owns at issue Yellowstone River islands and related mineral interests

Lose = Plaintiffs owns at issue Yellowstone River islands and related mineral interests