



PERS
PUBLIC EMPLOYEES' RETIREMENT SYSTEM

ALASKA DIVISION OF
**Retirement
and Benefits**

INVESTMENT SECTION

FY 2023 ACFR | ALASKA PUBLIC EMPLOYEES' RETIREMENT SYSTEM





Callan Associates Inc.
1900 16th Street
Suite 1175
Denver, CO 80202



Main 303.861.1900
Fax 303.832.8230

www.callan.com

August 28, 2023

Alaska Retirement Management Board
State of Alaska, Department of Revenue
Treasury Division
333 Willoughby Avenue, 11th Floor
Juneau, Alaska 99801

Dear Board Members:

This letter reviews the investment performance of assets under the purview of the Alaska Retirement Management Board (ARMB) for the fiscal year ended June 30, 2023.

Callan LLC (Callan) calculates time-weighted performance statistics based primarily on underlying custodial data provided by the Board's custodian, State Street Bank and Trust Company. Additional manager-level data is obtained directly from the Department of Revenue. The performance calculations were made using a time-weighted return methodology based upon fair values reported by these sources.

Callan serves as ARMB's independent general investment consultant and evaluates ARMB's performance in relation to market benchmarks, appropriate manager peer groups and other public pension systems. The performance calculations are made using a methodology broadly similar to the Global Investment Performance Standards.

ARMB purposely seeks to invest assets prudently, expertly, and according to governing law and industry practices. The objective of this approach is to responsibly invest Plan assets that, in combination with contributions, will be sufficient to pay promised benefits to members and beneficiaries. In pursuit of this objective, ARMB periodically evaluates liabilities, expected contributions and potential earnings. This analysis considers a wide range of potentially viable investment strategies. With thoughtful consideration of multiple factors, ARMB selects a strategic investment policy that balances long-term growth potential and acceptable risk. A policy benchmark is constructed that mirrors ARMB's strategic decision regarding asset allocation policy. The custom policy benchmark comprises equity, fixed income, real estate, and other market indices weighted in proportions corresponding to ARMB's investment policy.

2023 Fiscal Year Market Overview

A recession in the U.S. does not appear imminent, despite the most aggressive rate hikes since the 1980s over the past 15 months. The labor market remains strong, expectations for 2Q23 GDP growth are positive, consumer spending has exceeded expectations, and even housing has shown signs of life. Further good news comes from inflation, which has moderated, though largely due to falling energy prices. We have also successfully weathered a couple of storms this year; regional bank worries have abated after the collapse of Signature Bank, Silicon Valley Bank, and First Republic, and the debt ceiling saga is behind us.

Investment Section

On the good news front: 1Q23 GDP was a robust 2% (raised sharply from the most recent estimate of 1.3%). Consumer spending rose 4.2% in 1Q, the strongest growth seen in nearly two years. In June, the Conference Board reported a sharp 7% monthly jump in its Consumer Confidence Index, bringing it to its highest level since January 2022. New home sales surged more than 12% in May (+20% year-over-year (YOY)) with gains broad-based geographically, according to data from the Census Bureau. Housing prices have risen in 2023 and are now just 2.4% off the June peak, according to the S&P Case-Shiller National Home Price Index. The labor market remained resilient. The Bureau of Labor Statistics reported April job openings, according to the Job Openings and Labor Turnover Survey (JOLTS), remained at just over 10 million with about 6 million unemployed. Unemployment remained low at 3.7% in May and average hourly earnings (\$33.44) were up 4.3% over the past year, a bit higher than core inflation.

But is this all too good to be true? The Fed has not abandoned its rate hike path and goal of 2% inflation and has suggested that further hikes are coming. Higher interest rates have a lagged effect, but the impact can already be seen in some areas. In April, nearly 50% of U.S. banks reported tightening lending standards for loans to small businesses. Rising payments for credit card debt, auto loans, commercial mortgage payments, and corporate debt all have the potential to put the brakes on economic growth. While the default rate for corporations has not ticked up materially, a June report from S&P Global was a bit ominous: "...the tally of companies that have gone bankrupt so far in 2023 is higher than the first four months of any year since 2010." Commercial real estate woes, especially office and retail, are also on the radar of the more pessimistic crowd. The resumption of student loan payments in August could also temper growth later this year. Americans owe roughly \$1.8 trillion in federal and private student loan debt.

And there is mixed news: Headline CPI was up 4.0% over the past 12 months (as of May), the lowest since March 2021, with Core up 5.3% (down from a 6.6% cycle high in September). Headline CPI has benefited from falling energy prices (-12% YOY) while Core has not moderated as much and has the Fed's attention. Within Core, shelter costs (+8% YOY) have been particularly sticky and comprise around 40% of the measure. The Fed's favored inflation metric, the Personal Consumption Expenditures Index, showed progress with a +3.8% gain in May (YOY), down from 5.4% in January. As with CPI, the Core measure remains more stubborn and was up 4.6% in May (YOY), down only slightly from January's 4.7%.

U.S. equity markets finished the fiscal year 2023 in the positive territory after a tumultuous 2022. The Russell 3000 Index, a measure of broad U.S. equity, was down 4.46% at the start of the fiscal year before rising 7.18% in 4Q22, 7.18% in 1Q23, and 8.39% in 2Q23 as investor sentiment improved. Domestic stocks soared over the exuberance for any company associated with AI. Overseas markets also rebounded throughout the fiscal year aided by currency appreciation vs. the U.S. dollar. The MSCI ACWI ex-U.S. IMI (Net) Index, a broad benchmark reflecting developed and emerging markets, but excluding U.S. equities, climbed 2.38% for the quarter and 12.47% for the fiscal year. The MSCI All Country World Index (Net), a broad measure of the total global equity market (including the U.S.), increased 6.18% in the most recent quarter and 16.53% for the fiscal year.

The Fed took a pause at its June meeting, leaving the Fed Funds target at 5.00% – 5.25%. The Fed's median prediction is 4.6% for the end of 2024, but the distribution reflects a wide range of views that range from 3.6% to 5.9%. The Bloomberg U.S. Aggregate Bond Index, a widely-used gauge of the investment grade domestic U.S. bond market, fell modestly for the quarter (-0.84%) and for the fiscal year (-0.94%) as interest rates rose. The 10-year U.S. Treasury yield was 3.81% as of fiscal yearend, up from 3.48% as of 3/31. The yield curve was sharply inverted at quarter-end with the 2-year U.S. Treasury yielding 4.87%.

Private real estate, as measured by the NCREIF Property Index, was negative for the first time since fiscal year 2010. In fiscal year 2023, the NCREIF Property Index returned -6.60% hurt by office property. Publicly traded real estate, as measured by the FTSE NAREIT All Equity Index, outperformed private markets on the downside, returning -4.39% for the fiscal year 2023.

Investment Section

ARMB's actual asset groupings delivered the following one-year returns through June 30, 2023¹:

Domestic Stocks:	17.77%
Global ex-U.S. Stocks:	15.14%
Multi-Asset:	4.09%
Fixed Income:	0.48%
Real Assets:	2.37%
Private Equity:	-3.29%

For the fiscal year ended June 30, 2023, the Public Employees Retirement System (PERS) had a time-weighted total return of 7.03%. The Teachers Retirement System (TRS) had a time-weighted total return of 7.02%. Both systems' gross return trailed their strategic policy target return of 7.53% and the median return for Callan's Public Fund Sponsor database of 11.97%.

Over longer trailing periods, PERS and TRS have outperformed their target index returns. The 5-year annualized return was 7.68% for PERS and 7.67% for TRS, compared to the benchmark return of 6.52% for both Plans. The ten-year annualized return was 8.17% for PERS and 8.18% for TRS. Both were above the 10-year target return of 7.26%. Over 31.75 years – the longest period of available data – PERS and TRS achieved annualized total returns of 7.77% and 7.81%, respectively. Both exceeded the corresponding policy benchmark return of 7.49%.

The 2023 fiscal year returns of the PERS and TRS pension ("DB") and health care ("HC") programs are listed in the table below.

	PERS DB	PERS HC	TRS DB	TRS HC
FY 2023	7.03%	7.11%	7.02%	7.11%

The pension and health care systems are well diversified and currently have asset allocation policies that, in our opinion, are consistent with achieving a long-term "real" (above inflation) return of 4.5%.

In summary, fiscal year 2023 was a year in which ARMB's Total Fund returns were positive, as were those of most broad asset class returns. PERS and TRS produced lower returns than the average public fund, both ranking in the 84th percentile within the Public Fund Sponsor peer group for the one-year period ended June 30, 2023. Lower peer group rankings were a result of the Funds' relative underweight to equities and relative overweight to alternatives vs peers.

Sincerely,



Steve Center
Senior Vice President

c: Zach Hanna
Ivan Cliff

¹Note PERS asset class returns are used to represent the asset class performance of all plans.

Investment Section

**Department of Revenue
Treasury Division Staff
As of June 30, 2023**

Commissioner Adam Crum	Chief Investment Officer Zachary Hanna	Investment Officers Shane Carson James Cheng Casey Colton Victor Djajalie Kevin Elliot Benjamin Garrett Emily Howard Sean Howard	Kevin Liu Robyn Mesdag Mark Moon Cahal Morehouse Nicholas Orr Stephanie Pham Steve Sikes
Deputy Commissioner Fadil Limani	Comptroller Vacant		
Treasury Division Director Pamela Leary, CPA	Cash Management Jesse Blackwell ARMB Liaison Officer Alysia Jones		

External Money Managers and Consultants

Opportunistic Fixed Income Fidelity Investment Asset Management <i>Merrimack, NH</i> MacKay Shields LLC <i>New York, NY</i>	Tactical Asset Allocation Fidelity Investment Asset Management <i>Smithfield, RI</i> PineBridge Investments <i>New York, NY</i>
Global Equities – Large Cap Arrowstreet Capital, LP <i>Boston, MA</i> Baille Gifford Overseas Ltd. <i>Edinburgh, Scotland</i> Brandes Investment Partners, L.P. <i>San Diego, CA</i> Capital Guardian Trust Co. <i>Los Angeles, CA</i> State Street Global Advisors <i>Boston, MA</i> Legal and General Investment Management America <i>Chicago, IL</i> First Eagle Investments <i>New York, NY</i> Acadian Asset Management <i>Boston, MA</i>	Private Equity Abbott Capital Management, L.P. <i>New York, NY</i> Advent International <i>Boston, MA</i> Battery Ventures <i>Boston, MA</i> Clearlake Capital <i>Santa Monica, CA</i> Dyal Capital Partners <i>New York, NY</i> Genstar Capital <i>San Francisco, CA</i> Glendon Capital <i>Santa Monica, CA</i> Insight Partners <i>New York, NY</i> KKR Lending Partners <i>New York, NY</i> Lexington Partners <i>New York, NY</i> Merit Capital Partners <i>Chicago, IL</i> Neuberger Berman <i>New York, NY</i> New Mountain Partners <i>New York, NY</i> NGP <i>Irving, TX</i> Onex Partners <i>New York, NY</i> Pathway Capital Management, LLC <i>Irvine, CA</i> Sentinel Capital Partners <i>New York, NY</i> Summit Partners <i>Boston, MA</i> The Jordan Company <i>New York, NY</i> The Riverside Company <i>New York, NY</i> Warburg Pincus <i>New York, NY</i>
Emerging Markets Legal and General Investment Management America, Inc. <i>Chicago, IL</i>	
Alternative Equity McKinley Capital Management LLC <i>Anchorage, AK</i>	
Alternate Beta Man Group <i>London, UK</i>	
Alternate Fixed Income Ares Management <i>Los Angeles, CA</i> Crestline Investors, Inc. <i>Fort Worth, TX</i> Prisma Capital <i>New York, NY</i>	
Other Opportunities Schroders Investment Management North America <i>New York, NY</i>	

Investment Section

External Money Managers and Consultants (cont.)

Real Assets – Farmland and Timber

Timberland Investment Resources LLC
Atlanta, GA
UBS Farmland Investors, LLC
Hartford, CT

Real Assets – Energy

EIG Global Energy Partners
Washington, D.C.

Real Assets – Infrastructure

IFM
New York, NY
J.P. Morgan Asset Management
New York, NY

Real Assets – Real Estate Core Commingled Accounts

BlackRock Realty
New York, NY
J.P. Morgan Asset Management Inc.
New York, NY
UBS Realty Investors, LLC
Hartford, CT

Real Assets – Real Estate Core Separate Accounts

Sentinel Real Estate Corporation
New York, NY
UBS Realty Investors, LLC
Hartford, CT

Real Assets – Non-Core Commingled Real Estate Funds

Almanac Realty Investors
New York, NY
Clarion Partners
New York, NY
KKR & Co.
New York, NY
Silverpeak Real Estate Partners
New York, NY

Supplemental Benefits System, Deferred Compensation Plan, and Defined Contribution Plans

Baillie Gifford Overseas Ltd.
Edinburgh, Scotland
BlackRock
San Francisco, CA
Brandes Investment Partners
San Diego, CA
J.P. Morgan Asset Management Inc.
New York, NY
Northern Trust
Chicago, IL
State Street Global Advisors
Boston, MA
T. Rowe Price Investment Services
Baltimore, MD

Investment Consultants

Callan Associates, Inc.
Denver, CO

Investment Advisory Council

Jerrold Mitchell
Johns Island, SC
Ruth Traylor
Monument, CO
William Jennings
Colorado Springs, CO

Independent Auditors

KPMG, LLP
Anchorage, AK

Actuaries

Buck, A Gallagher Company
New York, NY
Gabriel, Roeder, Smith & Company
Denver, CO

Global Master Custodian

State Street Bank & Trust Co.
Boston, MA

Investment Section

Public Employees' Retirement System Investment Report

INVESTMENTS

The investment goals of the State of Alaska Public Employees' Retirement System are the long-term return and sustainability of the pension funds under management. Annually, the Alaska Retirement Management Board (ARMB) sets its asset allocation strategy in order to reflect changes in the marketplace while still retaining an expected optimal risk/return level within the set constraints and objectives of the ARMB.

The ARMB categorizes its investments into six asset classes: Broad Domestic Equity, Global Equity Ex-U.S., Fixed Income, Multi-Asset, Real Assets, and Private Equity. The performance of each asset class is compared with a benchmark comprised of one or more market indices. The performance for the total portfolio is compared with its policy portfolio, determined by calculating the weighted performance of the underlying asset class benchmarks at the portfolio's target asset allocation. The asset class benchmarks are illustrated below:

Asset Class	Benchmark
Broad Domestic Equity	Russell 3000
Global Equities Ex-U.S.	MSCI All Country World Ex-U.S. IMI Net
Fixed Income	95% Bloomberg Barclays U.S. Aggregate 5% 3-Month Treasury Bill
Multi-Asset	60% MSCI All Country World IMI Net 40% Bloomberg Barclays U.S. Aggregate
Real Assets	35% NFI-ODCE 15% FTSE-NAREIT 25% NCREIF Farmland 10% NCREIF Timberland 15% CPI+4%
Private Equity	1/3 S&P 500 1/3 Russell 2000 1/3 MSCI EAFE Net

The target asset allocation is determined by the ARMB, utilizing capital market assumptions provided by its independent general investment consultant, Callan LLC. During the fiscal year, the ARMB's target asset allocation was 27% Broad Domestic Equity, 18% Global Equities Ex-U.S., 19% Fixed Income, 8% Multi-Asset, 14% Real Assets, and 14% Private Equity. Over the next 20 years, the target asset allocation is expected to generate a return of 6.90% with a standard deviation of 13.93%.

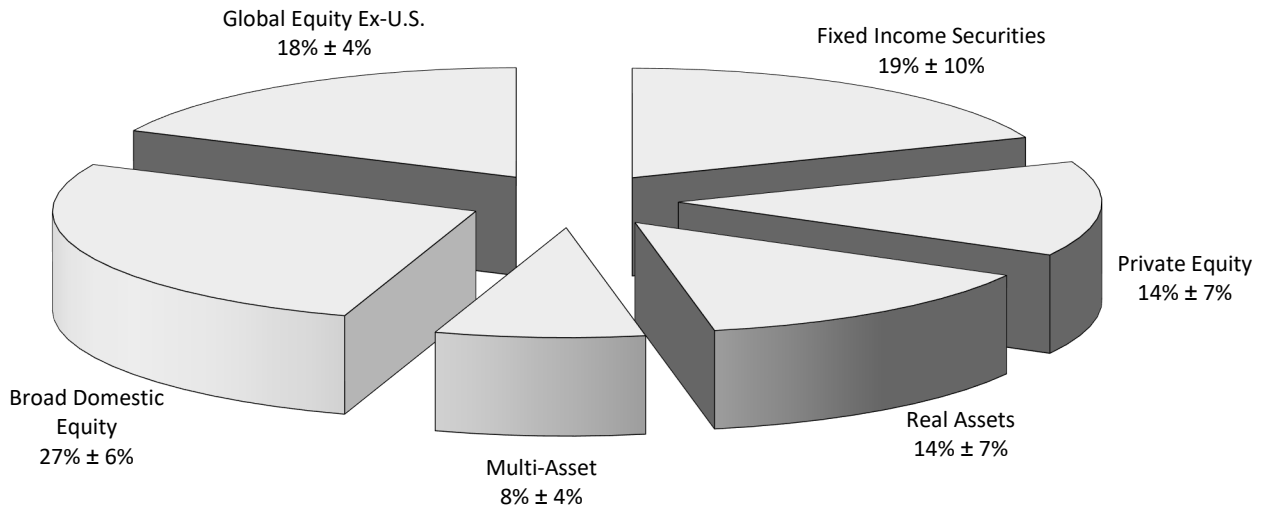
Investment Section

Public Employees' Retirement System Schedule of Investment Results Fiscal Years Ended June 30							
	2019	2020	2021	2022	2023	Annualized	
						3 Year	5 Year
Total Fund							
PERS	6.40%	3.83%	27.62%	(4.08%)	7.03%	9.42%	7.68%
<i>Custom Composite Index</i>	5.65	4.64	24.95	(7.86)	7.53	7.44	6.52
<i>Actuarial Earnings Rate</i>	7.38	7.38	7.38	7.38	7.25	7.25	7.25
Broad Domestic Equity							
PERS	8.41	2.62	42.69	(11.74)	17.77	14.04	10.53
<i>Custom Composite Index</i>	8.98	6.53	44.16	(13.87)	18.95	13.89	11.39
Fixed Income							
PERS	6.34	7.31	2.20	(6.96)	0.48	(1.51)	1.74
<i>Custom Composite Index</i>	6.19	7.67	(0.31)	(9.78)	(0.71)	(3.70)	0.42
Multi-Asset							
PERS	7.21	0.52	23.86	(10.58)	4.09	4.86	4.44
<i>Custom Composite Index</i>	9.72	9.32	23.20	(13.89)	9.14	5.01	6.79
Real Assets							
PERS	6.08	2.06	9.86	14.29	2.37	8.73	6.83
<i>Custom Composite Index</i>	7.23	1.19	4.62	14.80	3.41	8.01	6.53
Global Equity Ex-U.S.							
PERS	(0.08)	(3.59)	38.54	(20.96)	15.14	8.03	3.97
<i>MSCI ACWI ex-U.S.</i>	0.26	(4.74)	37.18	(19.86)	12.47	7.33	3.38
Private Equity							
PERS	17.66	10.47	50.67	26.25	(3.29)	22.53	19.05
<i>Custom Composite Index</i>	2.71	(1.35)	36.80	3.42	(6.83)	9.65	5.96
Absolute Return							
PERS	4.08	-	-	-	-	-	-
<i>3-month Treasury Bill +5%</i>	1.15	-	-	-	-	-	-
Cash Equivalent							
PERS	2.50	-	-	-	-	-	-
<i>3-month Treasury Bill</i>	2.31	-	-	-	-	-	-
<p>MSCI ACWI = Morgan Stanley Capital International All Country World Index Returns for periods longer than one year are reported on an annualized basis. Basis of calculation: Time-Weighted rate of return based on the market rate of return.</p>							

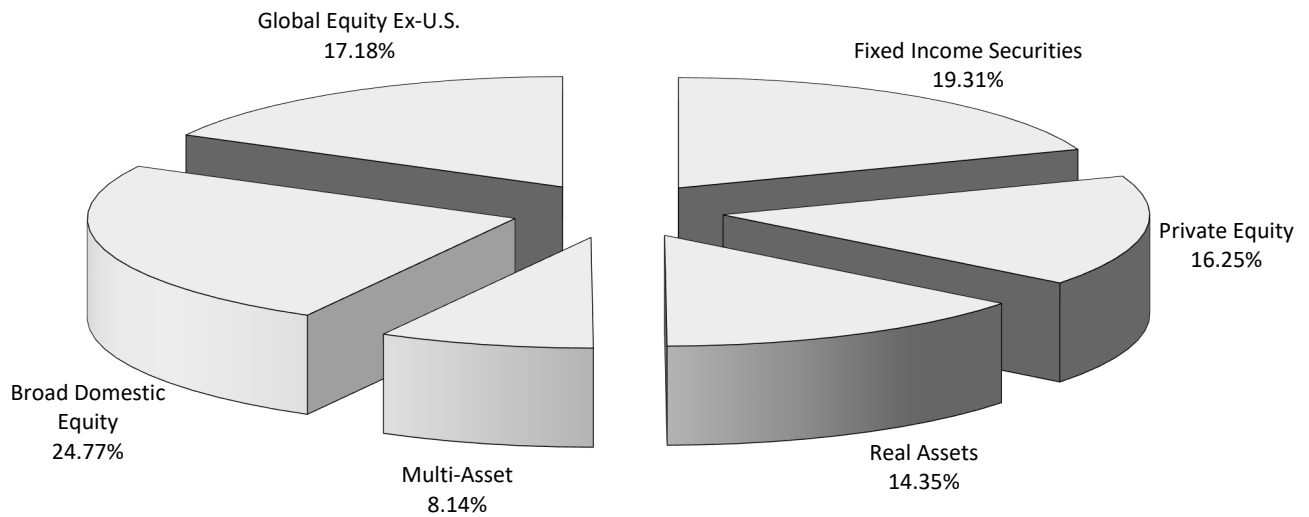
Investment Section

Public Employees' Retirement System Asset Allocation June 30, 2023

Policy

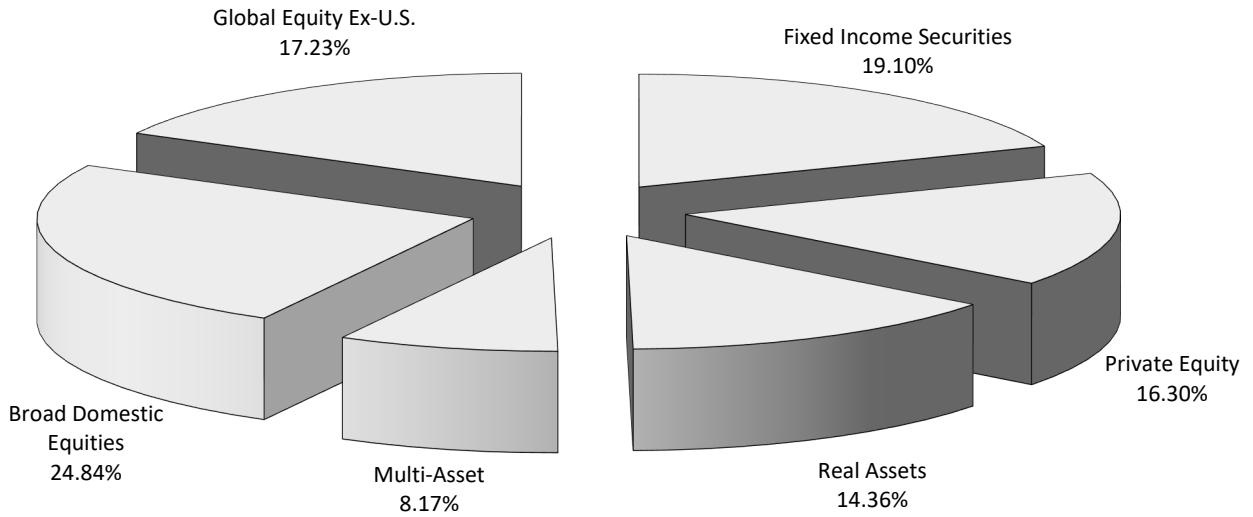


Actual – Defined Benefit Pension

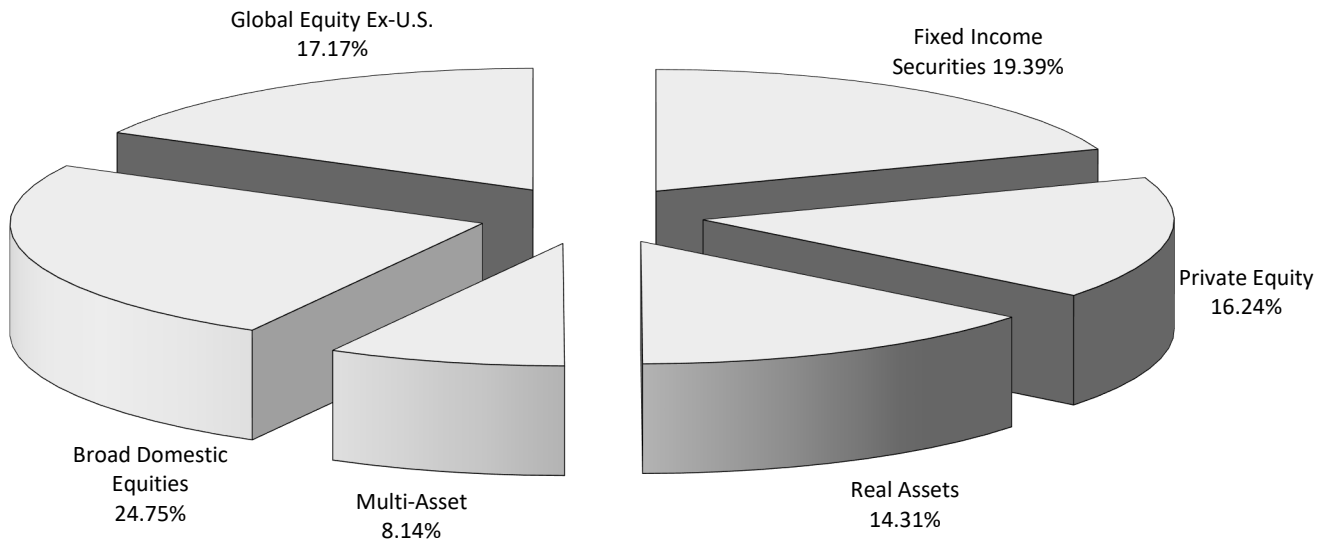


Public Employees' Retirement System Asset Allocation June 30, 2023

Actual – Defined Benefit Alaska Retiree Healthcare Trust



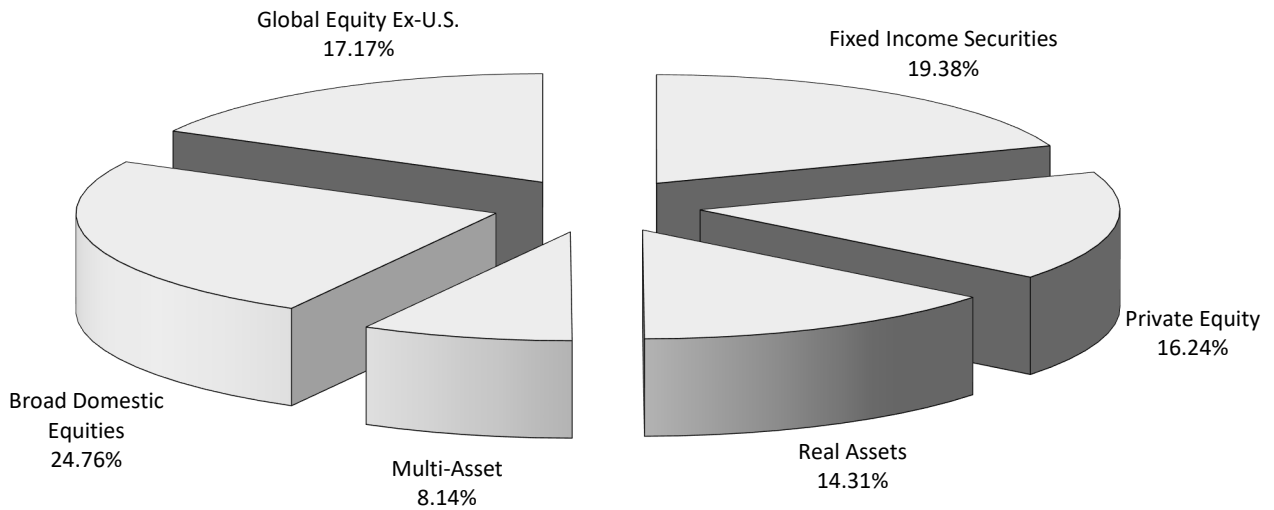
Actual — Occupational Death & Disability



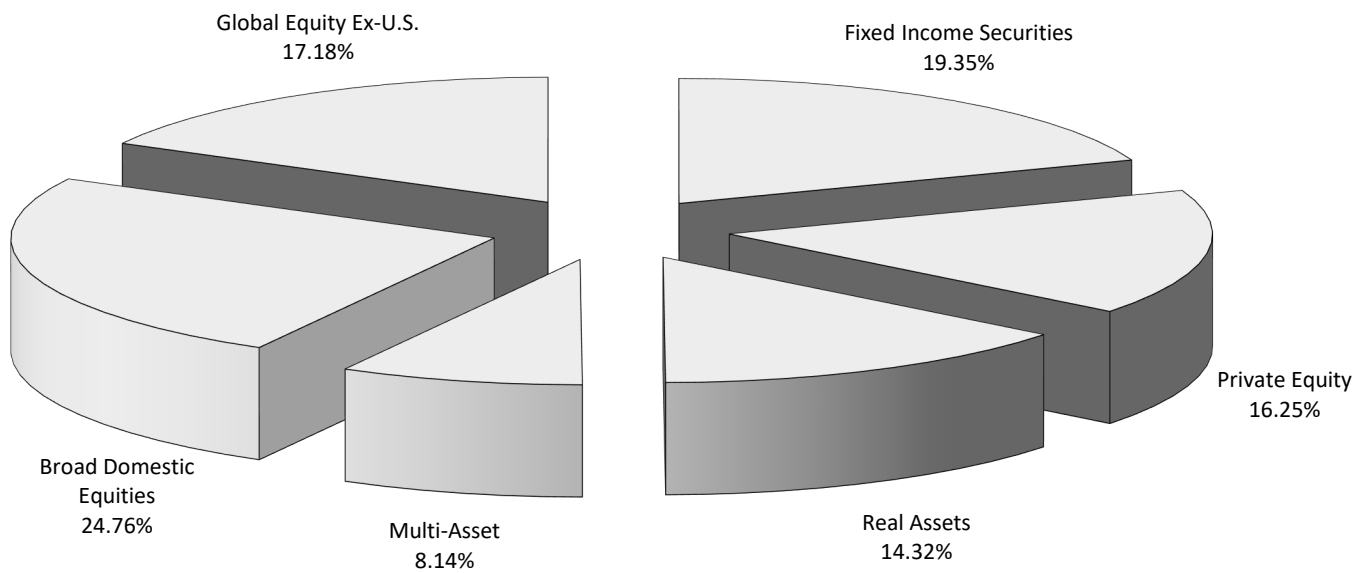
Investment Section

Public Employees' Retirement System Asset Allocation June 30, 2023

Actual — Retiree Medical Plan



Actual — Health Reimbursement Arrangement



Investment Section

Alaska Retirement Management Board Top Ten Holdings by Asset Type June 30, 2023

Invested assets under the fiduciary responsibility of the ARMB have been commingled in various investment pools to manage the overall cost of the program. Using investment pools increases investment efficiency in three ways. First, combining individual funds' cash inflows and outflows to offset each other reduces the amount of cash on hand needed to support daily operations. Second, pooling investments significantly reduces accounting, budgeting, and administrative costs. Finally, the ARMB can achieve economies of scale by making available investment options that could not otherwise be practically provided for smaller retirement funds. Below are the ten largest fixed income and equity holdings.

Fixed Income

Rank	Largest Fixed Income Holdings	Fair Value	Par Value
1	U.S. Treasury N/B 3.875% 5/15/2043	\$119,713,389	\$122,684,658
2	U.S. Treasury N/B 4.125% 6/15/2026	97,592,195	98,585,754
3	U.S. Treasury N/B 4.0% 6/30/2028	87,772,119	88,254,762
4	U.S. Treasury N/B 3.75% 6/30/2030	83,242,910	84,363,361
5	U.S. Treasury N/B 3.625% 2/15/2053	81,524,810	84,949,330
6	U.S. Treasury N/B 1.375% 11/15/2040	74,169,168	110,855,366
7	FNMA Pool CB2662 3.0% 1/1/2052	66,239,403	74,921,977
8	FED HM LN PC Pool SD8230 4.5% 6/1/2052	63,827,237	66,373,555
9	FNMA Pool MA4644 4.0% 5/1/2052	58,401,722	62,196,712
10	U.S. Treasury N/B 3.625% 3/31/2028	57,824,782	59,203,104

Equities

Rank	Largest Equity Holdings	Fair Value	Shares
1	Apple Inc.	\$298,882,334	1,540,869
2	Microsoft Corp.	292,802,565	859,818
3	Amazon.com Inc.	118,823,544	911,503
4	Nvidia Corp.	103,966,094	245,771
5	Meta Platforms Inc. Class A	81,203,773	282,960
6	Alphabet Inc. Class A	80,337,667	671,158
7	Berkshire Hathaway Inc. Class B	75,688,003	221,959
8	Alphabet Inc. Class C	68,553,539	566,699
9	Tesla Inc.	67,292,296	257,066
10	UnitedHealth Group Inc.	56,878,612	118,339

Additional investment information may be obtained from the Department of Revenue, Treasury Division, P.O. Box 110405, Juneau, Alaska 99811-0405.

Investment Section

Public Employees' Retirement System Schedule of Investment Management Fees Year Ended June 30, 2023

	<u>Fair Value</u>	<u>Fees</u>
Investment Management		
Total Fixed Income	\$ 767,114,382	2,410,800
Total Multi-Asset	1,739,894,962	10,039,098
Total Broad Domestic Equity	5,292,695,918	476,923
Total Global Equity Ex-U.S.	3,670,744,913	6,154,025
Total Private Equity	3,472,691,708	13,977,432
Total Real Assets	3,062,783,720	16,507,120
Total Investment Management		<u>49,565,398</u>
Custodian		
State Street Bank		<u>955,417</u>
Investment Advisory and Performance		
Callan Associates		475,321
Investment Advisory Council		52,797
Total Investment Advisory and Performance		<u>528,118</u>
Participant Directed		
Custodian - State Street Bank		251,709
Investment Management		1,907,857
Synthetic Investment Contract Wrap Fees		189,275
Total Participant Directed		<u>2,348,841</u>
	<u>\$ 18,005,925,603</u>	<u>53,397,774</u>

Investment Section

Public Employees' Retirement System Investment Summary Schedule June 30, 2023

Investments (at Fair Value)	Asset Allocation		Fair Value	% of Total Assets
	Policy	Range		
Defined Benefit - Pension				
Fixed Income Securities				
Short-term Fixed Income Pool			\$ 120,367,967	
Securities Lending Cash Pool			52,506	
Opportunistic Fixed Income Pool			399,122,150	
ARMB U.S. Aggregate Fixed Income Transition Pool			1,485,390,888	
			140,646,553	
Total Fixed Income Securities	19.00%	± 10%	2,145,580,064	19.31%
Multi-Asset				
Alternative Equity Strategies Pool			112,220,476	
Tactical Allocation Strategies Pool			384,046,559	
Other Opportunities Pool			(38)	
Alternative Beta Pool			104,466,546	
Alternative Fixed Income			304,517,003	
Total Multi-Asset	8.00%	± 4%	905,250,546	8.14%
Broad Domestic Equity				
Large Cap Pool			2,526,195,265	
Small Cap Pool			227,543,931	
Total Broad Domestic Equity	27.00%	± 6%	2,753,739,196	24.77%
Global Equity Ex-U.S.				
International Equity Pool			1,567,079,285	
Emerging Markets Equity Pool			342,774,162	
Total Global Equity Ex-U.S.	18.00%	± 4%	1,909,853,447	17.18%
Private Equity				
Private Equity Pool			1,806,808,241	
Total Private Equity	14.00%	± 7%	1,806,808,241	16.25%
Real Assets				
Real Estate Pool			586,491,266	
Real Estate Investment Trust Pool			169,924,889	
Infrastructure Private Pool			304,666,537	
Energy Pool			18,999,624	
Farmland Pool			374,317,585	
Timber Pool			140,518,472	
Total Real Assets	14.00%	± 7%	1,594,918,373	14.35%
Total Invested Assets	100.00%		\$ 11,116,149,867	100.00%

Investment Section

Public Employees' Retirement System Investment Summary Schedule June 30, 2023

Investments (at Fair Value)	Asset Allocation		Fair Value	% of Total Assets
	Policy	Range		
Defined Contribution - Pension Participant Directed				
Cash and Cash Equivalents				
Short-Term Fixed Income Pool	N/A	N/A	\$ 2,961,981	
Total Cash and Cash Equivalents			<u>2,961,981</u>	0.14%
Pooled Investment Funds (1)				
T. Rowe Price				
Alaska Balanced Fund Trust			58,643,169	
Long-Term Balanced Fund			56,262,645	
Target 2010 Trust			2,951,543	
Target 2015 Trust			10,647,888	
Target 2020 Trust			38,034,651	
Target 2025 Trust			84,532,362	
Target 2030 Trust			101,877,292	
Target 2035 Trust			132,649,047	
Target 2040 Trust			154,315,497	
Target 2045 Trust			208,705,775	
Target 2050 Trust			252,051,541	
Target 2055 Trust			278,818,806	
Target 2060 Trust			25,985,249	
Target 2065 Trust			15,689,821	
JP Morgan Smart Spending 2015 R6			9,526	
JP Morgan Smart Retirement Blend			58,367	
Total Pooled Investment Funds			<u>1,421,233,179</u>	66.48%
Collective Investment Funds (1)				
State Street Global Advisors				
SSgA Treasury Money Market Fund			21,707,179	
S&P Stock Index Fund			136,044,270	
Russell 3000 Index			66,919,460	
World Equity Ex-U.S. Index			61,454,369	
Passive U.S. Bond Index Fund			86,472,069	
Brandes Institutional				
Alaska International Equity Fund			55,569,105	
BlackRock Institutional Trust Company				
Strategic Completion Fund			36,647,948	
RCM				
Sustainable Core Opportunities Fund			31,264,550	
T. Rowe Price				
Small-Cap Stock Fund			87,172,427	
Total Collective Investment Funds			<u>583,251,377</u>	27.29%
Synthetic Investment Funds (1)				
T. Rowe Price				
Stable Value Fund			130,167,035	
			<u>130,167,035</u>	6.09%
Total Invested Assets			<u>\$ 2,137,613,572</u>	<u>100.00%</u>

(1) Pooled Investment Funds, Collective Investment Funds and Synthetic Investment Funds are participant directed and therefore are not subject to an asset allocation.

Investment Section

Public Employees' Retirement System Investment Summary Schedule June 30, 2023

Defined Benefit - Alaska Retiree Healthcare Trust				
Investments (at Fair Value)	Asset Allocation		Fair Value	% of Total Assets
	Policy	Range		
Fixed Income Securities				
Short-term Fixed Income Pool			\$ 75,485,524	
Securities Lending Cash Pool			43,180	
Opportunistic Fixed Income Pool			328,261,096	
ARMB U.S. Aggregate Fixed Income Transition Pool			1,221,670,324	
			115,675,751	
Total Fixed Income Securities	19.00%	± 10%	1,741,135,875	19.10%
Multi-Asset				
Alternative Equity Strategies Pool			92,296,548	
Tactical Allocation Strategies Pool			315,861,811	
Other Opportunities Pool			(32)	
Alternative Beta Pool			85,919,328	
Alternative Fixed Income			250,452,274	
Total Multi-Asset	8.00%	± 4%	744,529,929	8.17%
Broad Domestic Equity				
Large Cap Pool			2,077,687,136	
Small Cap Pool			187,145,100	
Total Broad Domestic Equity	27.00%	± 6%	2,264,832,236	24.84%
Global Equity Ex-U.S.				
International Equity Pool			1,288,855,526	
Emerging Markets Equity Pool			281,917,110	
Total Global Equity Ex-U.S.	18.00%	± 4%	1,570,772,636	17.23%
Private Equity				
Private Equity Pool			1,486,022,411	
Total Private Equity	14.00%	± 7%	1,486,022,411	16.30%
Real Assets				
Real Estate Pool			479,995,662	
Real Estate Investment Trust Pool			139,755,886	
Infrastructure Private Pool			250,575,133	
Energy Pool			15,626,406	
Farmland Pool			307,860,295	
Timber Pool			115,570,477	
Total Real Assets	14.00%	± 7%	1,309,383,859	14.36%
Total Invested Assets	100.00%		\$ 9,116,676,946	100.00%

Investment Section

Public Employees' Retirement System Investment Summary Schedule June 30, 2023

Investments (at Fair Value)	Occupational Death and Disability			% of Total Assets
	Asset Allocation		Fair Value	
	Policy	Range		
Fixed Income Securities				
Short-term Fixed Income Pool			\$ 857,340	
Securities Lending Cash Pool			336	
Opportunistic Fixed Income Pool			2,569,203	
ARMB U.S. Aggregate Fixed Income			9,561,774	
Transition Pool			905,370	
Total Fixed Income Securities	19.00%	± 10%	13,894,023	19.39%
Multi-Asset				
Alternative Equity Strategies Pool			722,375	
Tactical Allocation Strategies Pool			2,472,211	
Other Opportunities Pool			-	
Alternative Beta Pool			672,449	
Alternative Fixed Income			1,960,221	
Total Multi-Asset	8.00%	± 4%	5,827,256	8.14%
Broad Domestic Equity				
Large Cap Pool			16,261,623	
Small Cap Pool			1,464,789	
Total Broad Domestic Equity	27.00%	± 6%	17,726,412	24.75%
Global Equity Ex-U.S.				
International Equity Pool			10,087,578	
Emerging Markets Equity Pool			2,206,512	
Total Global Equity Ex-U.S.	18.00%	± 4%	12,294,090	17.17%
Private Equity				
Private Equity Pool			11,630,782	
Total Private Equity	14.00%	± 7%	11,630,782	16.24%
Real Assets				
Real Estate Pool			3,756,786	
Real Estate Investment Trust Pool			1,093,890	
Infrastructure Private Pool			1,961,181	
Energy Pool			122,266	
Farmland Pool			2,409,559	
Timber Pool			904,577	
Total Real Assets	14.00%	± 7%	10,248,259	14.31%
Total Invested Assets	100.00%		\$ 71,620,822	100.00%

Investment Section

Public Employees' Retirement System Investment Summary Schedule June 30, 2023

Investments (at Fair Value)	Retiree Medical Plan			% of Total Assets
	Asset Allocation		Fair Value	
	Policy	Range		
Fixed Income Securities				
Short-term Fixed Income Pool			\$ 2,841,829	
Securities Lending Cash Pool			1,134	
Opportunistic Fixed Income Pool			8,687,559	
ARMB U.S. Aggregate Fixed Income			32,331,813	
Transition Pool			3,061,387	
Total Fixed Income Securities	19.00%	± 10%	46,923,722	19.38%
Multi-Asset				
Alternative Equity Strategies Pool			2,442,703	
Tactical Allocation Strategies Pool			8,359,360	
Other Opportunities Pool			(1)	
Alternative Beta Pool			2,273,928	
Alternative Fixed Income			6,628,310	
Total Multi-Asset	8.00%	± 4%	19,704,300	8.14%
Broad Domestic Equity				
Large Cap Pool			54,986,503	
Small Cap Pool			4,952,897	
Total Broad Domestic Equity	27.00%	± 6%	59,939,400	24.76%
Global Equity Ex-U.S.				
International Equity Pool			34,109,934	
Emerging Markets Equity Pool			7,461,037	
Total Global Equity Ex-U.S.	18.00%	± 4%	41,570,971	17.17%
Private Equity				
Private Equity Pool			39,328,028	
Total Private Equity	14.00%	± 7%	39,328,028	16.24%
Real Assets				
Real Estate Pool			12,703,182	
Real Estate Investment Trust Pool			3,698,682	
Infrastructure Private Pool			6,631,511	
Energy Pool			413,562	
Farmland Pool			8,147,591	
Timber Pool			3,058,594	
Total Real Assets	14.00%	± 7%	34,653,122	14.31%
Total Invested Assets	100.00%		\$ 242,119,543	100.00%

Investment Section

Public Employees' Retirement System Investment Summary Schedule June 30, 2023

Investments (at Fair Value)	Health Reimbursement Arrangement			% of Total Assets
	Asset Allocation		Fair Value	
	Policy	Range		
Fixed Income Securities				
Short-term Fixed Income Pool			\$ 9,058,765	
Securities Lending Cash Pool			3,721	
Opportunistic Fixed Income Pool			28,474,375	
ARMB U.S. Aggregate Fixed Income Transition Pool			105,971,501	
			10,034,080	
Total Fixed Income Securities	19.00%	± 10%	153,542,442	19.35%
Multi-Asset				
Alternative Equity Strategies Pool			8,006,107	
Tactical Allocation Strategies Pool			27,398,898	
Other Opportunities Pool			(3)	
Alternative Beta Pool			7,452,921	
Alternative Fixed Income			21,725,010	
Total Multi-Asset	8.00%	± 4%	64,582,933	8.14%
Broad Domestic Equity				
Large Cap Pool			180,225,145	
Small Cap Pool			16,233,530	
Total Broad Domestic Equity	27.00%	± 6%	196,458,675	24.76%
Global Equity Ex-U.S.				
International Equity Pool			111,799,431	
Emerging Markets Equity Pool			24,454,338	
Total Global Equity Ex-U.S.	18.00%	± 4%	136,253,769	17.18%
Private Equity				
Private Equity Pool			128,902,246	
Total Private Equity	14.00%	± 7%	128,902,246	16.25%
Real Assets				
Real Estate Pool			41,636,313	
Real Estate Investment Trust Pool			12,122,879	
Infrastructure Private Pool			21,735,682	
Energy Pool			1,355,495	
Farmland Pool			26,704,819	
Timber Pool			10,024,920	
Total Real Assets	14.00%	± 7%	113,580,108	14.32%
Total Invested Assets	100.00%		\$ 793,320,173	100.00%

Investment Section

Public Employees' Retirement System Recaptured Commission Fees Year Ended June 30, 2023

Fund	Global Equity		Total
	Ex-U.S.	Multi-Asset	
Defined Benefit Plan – Pension	\$ 21	1,408	1,429
Postemployment Benefit – Alaska Retiree Healthcare Trust	17	1,158	1,175
Postemployment Benefit – Occupational Death and Disability	-	9	9
Postemployment Benefit – Retiree Medical Plan	-	29	29
Postemployment Benefit – Health Reimbursement Arrangement	2	95	97
Total Recapture Commission Fees	<u>\$ 40</u>	<u>2,699</u>	<u>2,739</u>

The ARMB's Commission Recapture program has been in place since 1995, first working with various brokers then switching to the State Street program in 2005. Under a commission recapture program, a portion of the commissions and mark-ups on trades (placed through the State Street broker network) flow directly back to the fund.

The program allows managers to place trades for commission recapture purposes. The ARMB has established direction percentages for the managers to strive for, but is only requiring best efforts to meet them given their fiduciary obligation to achieve best execution of transactions.

The current rebate arrangement with State Street Global Markets (SSGM) is: 90% of the commissions received in excess of executing the brokers' execution-only rates; 100% of commissions in excess of its execution-only rates for all trading directed through SSGM.