

State of Alaska
Department of Revenue
STATE INVESTMENT REVIEW MEETING
May 10, 2023 – 10:30 a.m.

Via Computer or Mobile App Meeting ID: 272 307 421 945 Passcode: oVVyP	Call In (Audio Only): Phone: 1-907-202-7104 Code: 186 137 79#
---	--

- I. Introduction**
Zachary Hanna, Chief Investment Officer
Adam Crum, Commissioner of Revenue

- II. State Investments**
Zachary Hanna, Chief Investment Officer
 - A. March 31, 2023 Performance – Commissioner’s Report**
 - B. Non-Routine Investments**
 - C. FY24 Asset Allocation Discussion**

- III. IAC Comments**
Investment Advisory Council Members

- IV. Future Agenda Items & Calendar Review**
Zachary Hanna, Chief Investment Officer
Alysia Jones, ARMB Liaison

- V. Other Matters for Discussion**

- VI. Adjournment**



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

Market Update, March 2023 Performance, and Asset Allocation Discussion



May 2023

Zachary Hanna, CFA
Chief Investment Officer, Treasury Division
Alaska Department of Revenue

Economic and Market Update

Inflation and Economic Growth

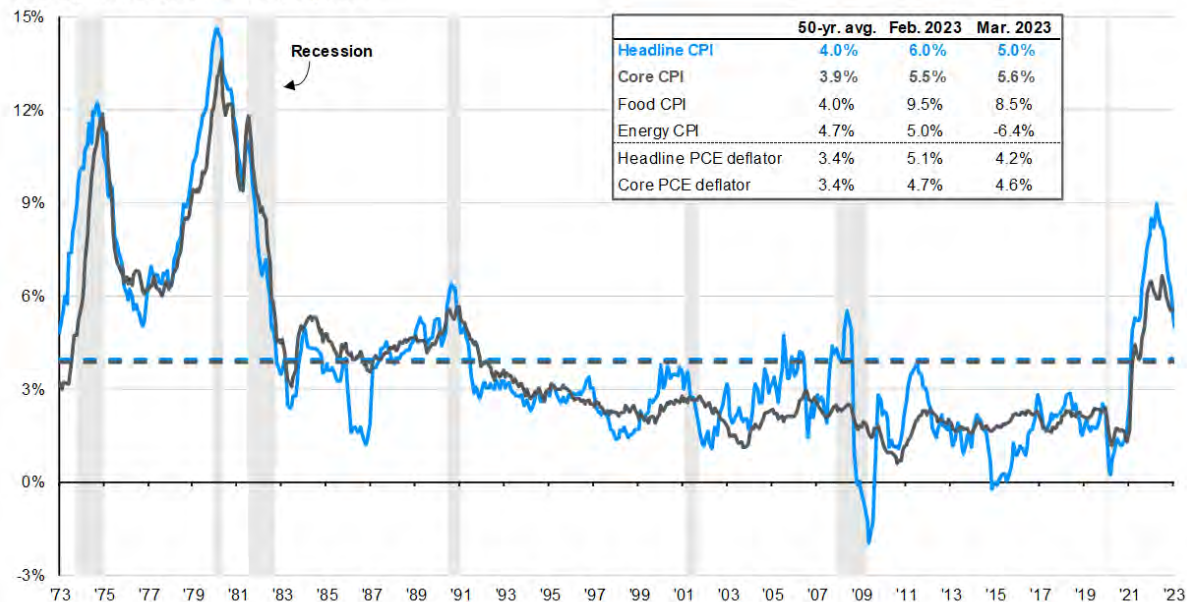
- Early in 2022, the Russia/Ukraine crisis dominated headlines and capital markets. The direct impact to equity markets was initially muted, but the effect on energy inflation and European growth was pronounced.
- Since then, inflation has dominated markets with CPI peaking at 9.1% in June 2022 before declining to 5.0% in March 2023. Despite moderating, employment remains tight with continued wage pressure in some sectors.
- Inflation and rising interest rates have created a challenging dynamic for economic growth.

Inflation

GTM U.S. 29

CPI and core CPI

% change vs. prior year, seasonally adjusted



Source: BLS, FactSet, J.P. Morgan Asset Management. CPI used is CPI-U and values shown are % change vs. one year ago. Core CPI is defined as CPI excluding food and energy prices. The Personal Consumption Expenditure (PCE) deflator employs an evolving chain-weighted basket of consumer expenditures instead of the fixed-weight basket used in CPI calculations. Guide to the Markets – U.S. Data are as of April 30, 2023.

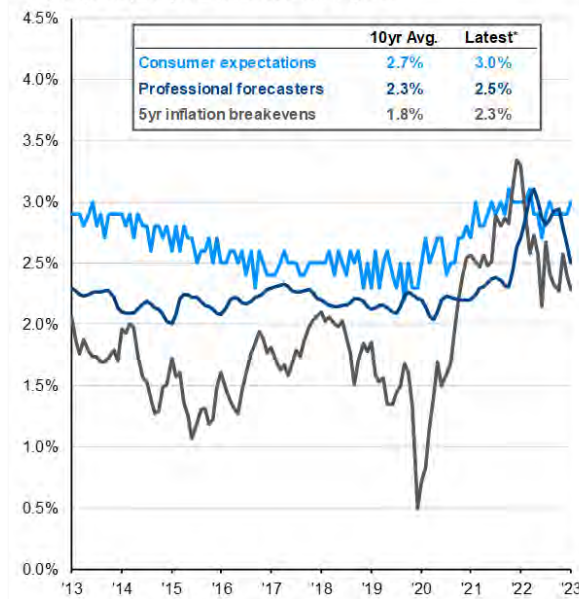
J.P.Morgan
ASSET MANAGEMENT

Inflation expectations

GTM U.S. 31

Inflation expectations, next 5 years

% change vs. prior year, non-seasonally adjusted

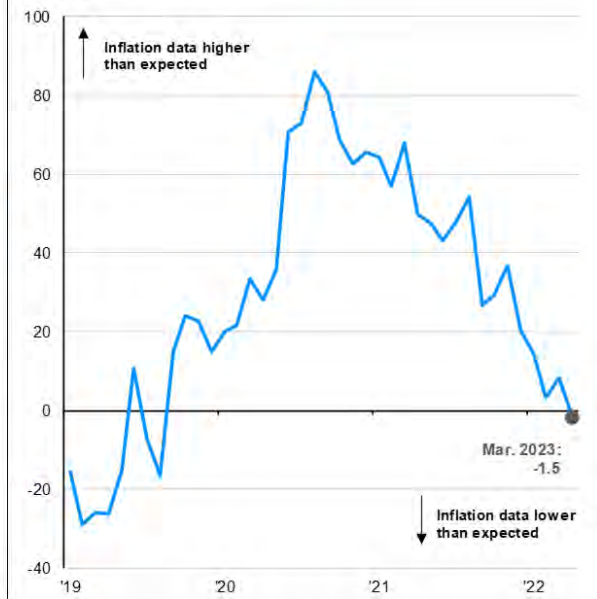


Source: Bureau of Labor Statistics, Citi, FactSet, Federal Reserve Bank of Philadelphia, University of Michigan, J.P. Morgan Asset Management. *Reflects the latest daily 5yr/5yr breakevens, preliminary or final Consumer Sentiment survey, and the quarterly Survey of Professional Forecasters interpolated to a monthly series. The Survey of Professional Forecasters reflects the median estimate by professional forecasters of average CPI inflation over the next 5 years. The series has been adjusted by J.P. Morgan Asset Management to exclude realized inflation readings within the forecast window. Citi Inflation Surprise Index: A reading above 0 means that data are on average coming in above consensus expectations. Guide to the Markets – U.S. Data are as of April 30, 2023.

J.P.Morgan
ASSET MANAGEMENT

Citi Inflation Surprise Index

Monthly



Interest Rates and the Federal Reserve

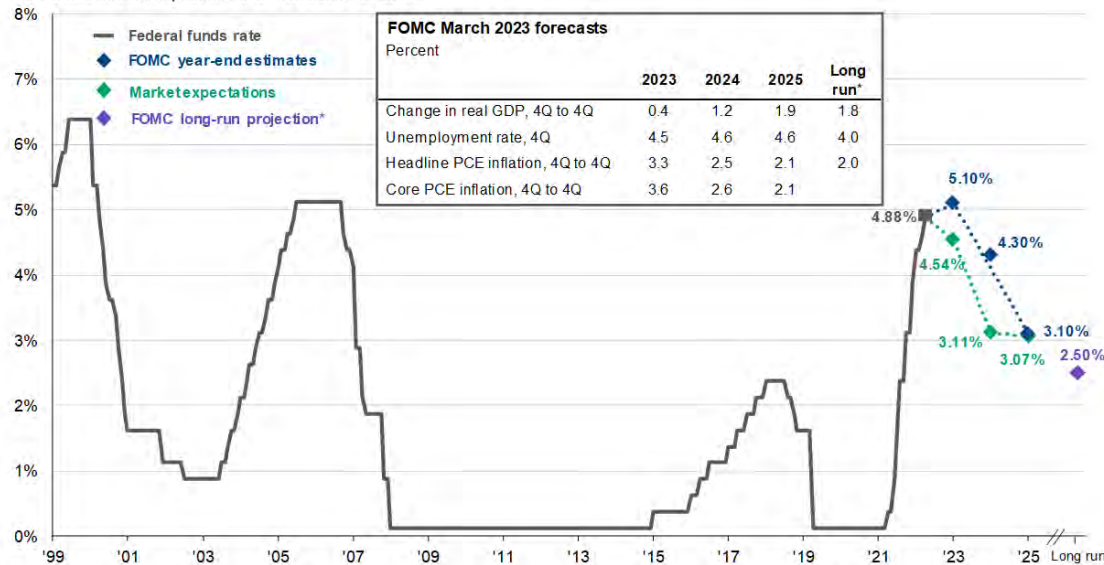
- To combat inflation, the Federal Reserve has raised interest rates from near zero at the start of 2022 to 5.25% in May of 2023.
- This rapid reversal of a 40-year decline in interest rates has had a pronounced effect on capital markets.
- Repercussions such as the failure of some regional banks in early 2023 have also added to market volatility.

The Fed and interest rates

GTM U.S. 34

Federal funds rate expectations

FOMC and market expectations for the federal funds rate



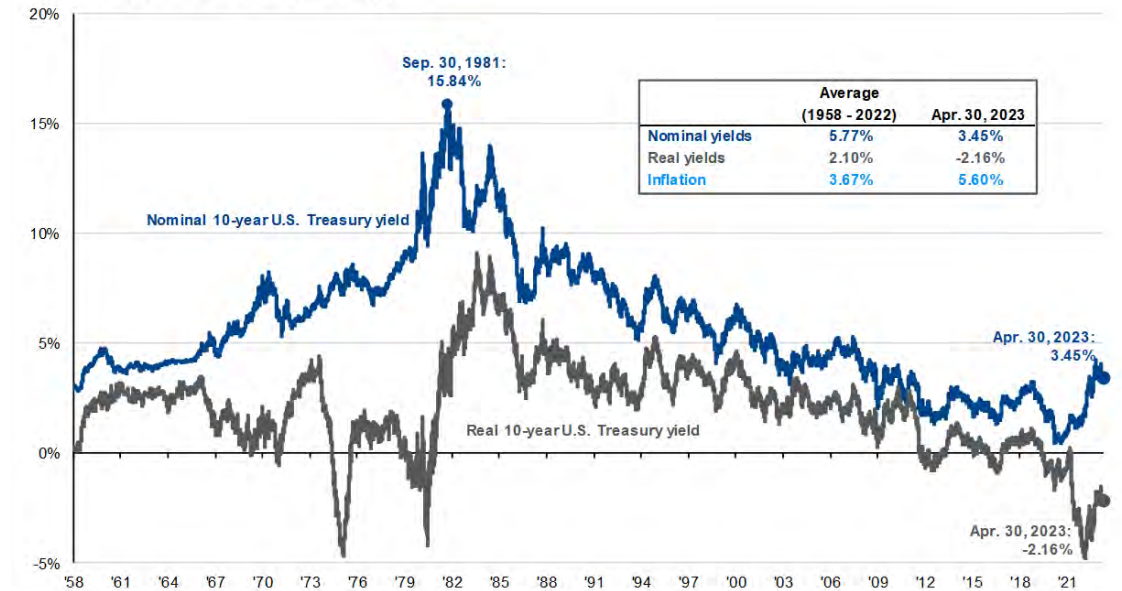
Source: Bloomberg, FactSet, Federal Reserve, J.P. Morgan Asset Management. Market expectations are based off of the respective Federal Funds Futures contracts for December expiry. *Long-run projections are the rates of growth, unemployment and inflation to which a policymaker expects the economy to converge over the next five to six years in absence of further shocks and under appropriate monetary policy. Forecasts are not a reliable indicator of future performance. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecasts, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated. Guide to the Markets – U.S. Data are as of April 30, 2023.

J.P.Morgan
ASSET MANAGEMENT

Interest rates and inflation

GTM U.S. 35

Nominal and real U.S. 10-year Treasury yields



Source: BLS, FactSet, Federal Reserve, J.P. Morgan Asset Management. Real 10-year Treasury yields are calculated as the daily Treasury yield less year-over-year core CPI inflation for that month. For the current month, we use the prior month's core CPI figures until the latest data is available. Guide to the Markets – U.S. Data are as of April 30, 2023.

J.P.Morgan
ASSET MANAGEMENT

Fixed Income

- Yields increased dramatically in reaction to the Fed's rate increase plans but fell during the first quarter of 2023.
- Most bond sectors performed poorly in 2022, but returns improved during the first quarter of 2023.
- Fixed income investments remain exposed to further rate increases but are cushioned by higher starting yields.

Yield curve

GTM U.S. 37

U.S. Treasury yield curve



Source: FactSet, Federal Reserve, J.P. Morgan Asset Management. Guide to the Markets – U.S. Data are as of April 30, 2023.

J.P.Morgan
ASSET MANAGEMENT

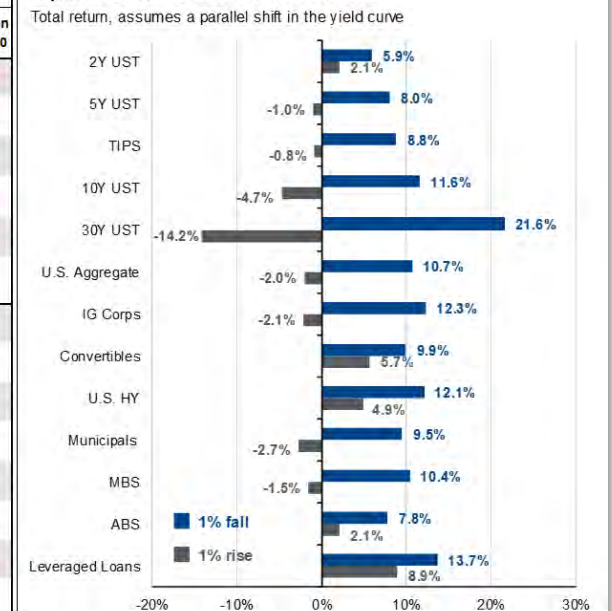
Fixed income market dynamics

GTM U.S. 36

U.S. Treasuries	Yield		Return			
	4/30/2023	12/31/2022	2023 YTD	Avg. Maturity	Correlation to 10-year	Correlation to S&P 500
2-Year	4.04%	4.41%	1.68%	2 years	0.74	-0.14
5-Year	3.51%	3.99%	3.06%	5	0.93	-0.12
TIPS	1.26%	1.58%	3.45%	10	0.60	0.38
10-Year	3.44%	3.88%	4.50%	10	1.00	-0.13
30-Year	3.67%	3.97%	6.16%	30	0.93	-0.17
Sector						
U.S. Aggregate	4.35%	4.68%	3.59%	8.5	0.86	0.22
IG Corps	5.10%	5.42%	4.29%	11.0	0.54	0.47
Convertibles	7.42%	7.58%	2.83%	-	-0.13	0.67
U.S. HY	8.48%	8.96%	4.60%	5.3	-0.09	0.74
Municipals	3.39%	3.55%	2.54%	13.0	0.54	0.22
MBS	4.48%	4.71%	3.06%	7.5	0.78	0.15
ABS	5.60%	5.89%	2.30%	3.6	0.25	-0.05
Leveraged Loans	11.30%	11.41%	4.25%	2.4	-0.33	0.59

Source: Bloomberg, FactSet, Standard & Poor's, U.S. Treasury, J.P. Morgan Asset Management. Sectors shown above are provided by Bloomberg unless otherwise noted and are represented by – U.S. Aggregate; MBS: U.S. Aggregate Securitized - MBS; ABS: J.P. Morgan ABS Index; Corporates: U.S. Corporates; Municipals: Muni Bond; High Yield: Corporate High Yield; Leveraged Loans: J.P. Morgan Leveraged Loan Index; TIPS: Treasury Inflation-Protected Securities; Convertibles: U.S. Convertibles Composite. Convertibles yield is as of most recent month-end and is based on U.S. portion of Bloomberg Global Convertibles Index. Yield and return information based on bellwethers for Treasury securities. Sector yields reflect yield-to-worst. Convertibles yield is based on U.S. portion of Bloomberg Global Convertibles. Correlations are based on 15-years of monthly returns for all sectors. Past performance is not indicative of future results. Guide to the Markets – U.S. Data are as of April 30, 2023.

Impact of a 1% rise or fall in interest rates



J.P.Morgan
ASSET MANAGEMENT

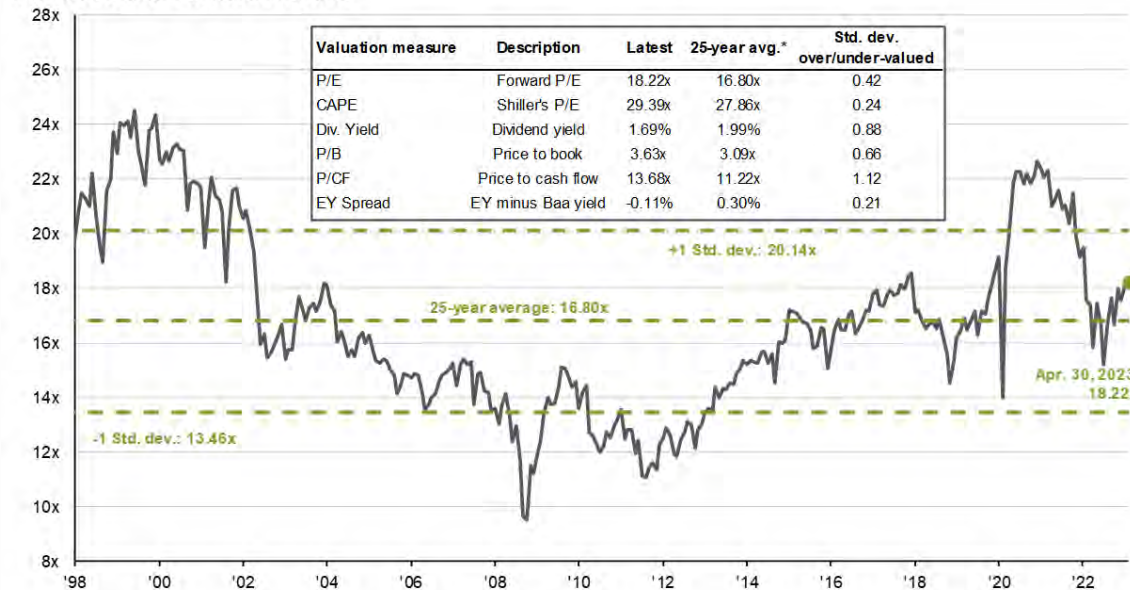
Equity Markets

- With the stock market correction in 2022, U.S. equities are back to more normal valuations.
- Corporate profits are exposed to slowing growth and inflation and may not price in a potential recession.
- International equity valuations remain low relative to the U.S. with high dividend yields.

S&P 500 valuation measures

GTM U.S. 5

S&P 500 Index: Forward P/E ratio



Source: FactSet, FRB, Refinitiv Datastream, Robert Shiller, Standard & Poor's, Thomson Reuters, J.P. Morgan Asset Management. Price-to-earnings is price divided by consensus analyst estimates of earnings per share for the next 12 months as provided by IBES since April 1998 and by FactSet since January 2022. Current next 12-months consensus earnings estimates are \$229. Average P/E and standard deviations are calculated using 25 years of history. Shiller's P/E uses trailing 10-years of inflation-adjusted earnings as reported by companies. Dividend yield is calculated as the next 12-months consensus dividend divided by most recent price. Price-to-book ratio is the price divided by book value per share. Price-to-cash flow is price divided by NTM cash flow. EY minus Baa yield is the forward earnings yield (consensus analyst estimates of EPS over the next 12 months divided by price) minus the Moody's Baa seasoned corporate bond yield. Std. dev. over-/under-valued is calculated using the average and standard deviation over 25 years for each measure. *P/CF is a 20-year average due to cash flow availability. Guide to the Markets – U.S. Data are as of April 30, 2023.

J.P.Morgan
ASSET MANAGEMENT

International valuations and dividend yields

GTM U.S. 47

International: Price-to-earnings discount vs. U.S.



Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management. Guide to the Markets – U.S. Data are as of April 30, 2023.

International: Difference in dividend yields vs. U.S.



J.P.Morgan
ASSET MANAGEMENT

Stock and Bond Returns Strengthen

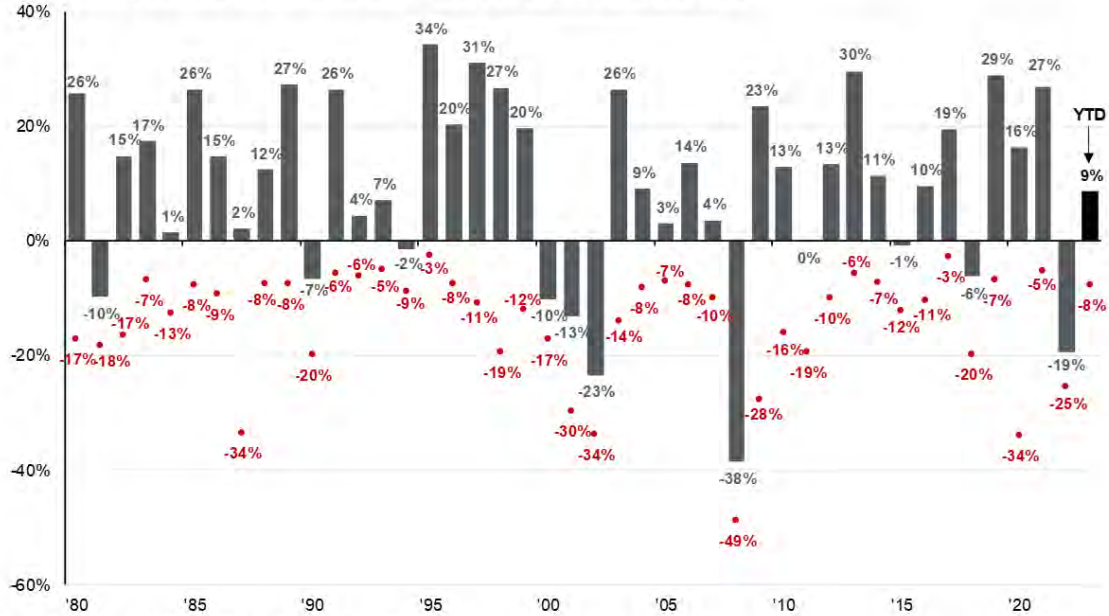
- Stocks fell 19% in 2022, and have returned 9% year to date for 2023.
- Fixed income was down an unprecedented 13% in 2022 after rates increased strongly from a low starting point. Fixed income returns year to date for 2023 have been 4%.

Annual returns and intra-year declines

GTM U.S. 15

S&P intra-year declines vs. calendar year returns

Despite average intra-year drops of 14.3%, annual returns were positive in 32 of 43 years



Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management. Returns are based on price index only and do not include dividends. Intra-year drops refers to the largest market drops from a peak to a trough during the year. For illustrative purposes only. Returns shown are calendar year returns from 1980 to 2022, over which time period the average annual return was 8.7%. Guide to the Markets – U.S. Data as of April 30, 2023.

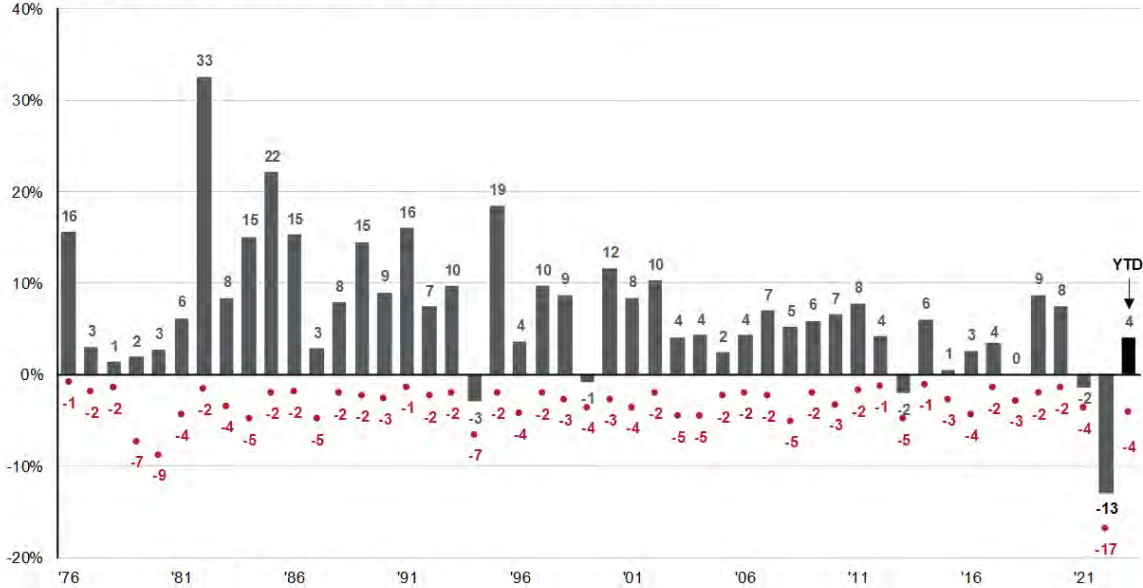
J.P.Morgan
ASSET MANAGEMENT

Bloomberg U.S. Agg. annual returns and intra-year declines

GTM U.S. 43

Bloomberg U.S. Aggregate intra-year declines vs. calendar year returns

Despite average intra-year drops of 3.3%, annual returns positive in 42 of 47 years



Source: Bloomberg, FactSet, J.P. Morgan Asset Management. Returns are based on total return. Intra-year drops refers to the largest market drops from a peak to a trough during the year. For illustrative purposes only. Returns shown are calendar year returns from 1976 to 2022, over which time period the average annual return was 6.6%. Returns from 1976 to 1989 are calculated on a monthly basis; daily data are used afterwards. Guide to the Markets – U.S. Data as of April 30, 2023.

J.P.Morgan
ASSET MANAGEMENT

Capital Market Performance Update

- Investment performance was challenging for both stocks and bonds in 2022.
- U.S. Fixed Income was down 13% and U.S. Equities were down 19%, in 2022, which led to historically difficult conditions for balanced stock and bond portfolios.

Asset Mix	2022 Return
Cash Only	1.5%
U.S. Bonds Only	-13.0%
20% Stock/80%Bond	-14.2%
40% Stock/60%Bond	-15.5%
60% Stock/40%Bond	-16.7%
70% Stock/30%Bond	-17.3%
80% Stock/20%Bond	-18.0%
U.S. Stocks Only	-19.2%

- Losses were concentrated in the first half of the year and markets rebounded modestly in the second half – particularly in the 4th quarter.
- Broad U.S. Equity and International Equity continued their recovery in the first quarter of 2023.

2018	2019	2020	2021	2022	2022-Half1	2022-Half2	FY23 YTD	2023-Q1
Cash Equivalents 1.9%	Broad U.S. Equity 31.0%	Broad U.S. Equity 20.9%	REITs 41.3%	Cash Equivalents 1.5%	Cash Equivalents 0.1%	High Yield 3.5%	International Equity 10.0%	Broad U.S. Equity 7.2%
Core U.S. Fixed Income 0.0%	REITs 28.7%	TIPS 11.0%	Broad U.S. Equity 25.7%	High Yield (11.2%)	TIPS (8.9%)	International Equity 3.0%	Broad U.S. Equity 9.7%	International Equity 6.9%
TIPS (1.3%)	International Equity 21.5%	International Equity 10.7%	International Equity 7.8%	TIPS (11.8%)	Core U.S. Fixed Income (10.3%)	Broad U.S. Equity 2.4%	High Yield 7.2%	High Yield 3.6%
High Yield (2.1%)	High Yield 14.3%	Core U.S. Fixed Income 7.5%	TIPS 6.0%	Core U.S. Fixed Income (13.0%)	High Yield (14.2%)	Cash Equivalents 1.3%	Cash Equivalents 2.4%	TIPS 3.3%
REITs (4.0%)	Core U.S. Fixed Income 8.7%	High Yield 7.1%	High Yield 5.3%	International Equity (16.0%)	International Equity (18.4%)	Core U.S. Fixed Income (3.0%)	TIPS 0.0%	Core U.S. Fixed Income 3.0%
Broad U.S. Equity (5.2%)	TIPS 8.4%	Cash Equivalents 0.7%	Cash Equivalents 0.0%	Broad U.S. Equity (19.2%)	REITs (19.2%)	TIPS (3.2%)	Core U.S. Fixed Income (0.1%)	REITs 1.7%
International Equity (14.2%)	Cash Equivalents 2.3%	REITs (5.1%)	Core U.S. Fixed Income (1.5%)	REITs (24.9%)	Broad U.S. Equity (21.1%)	REITs (7.1%)	REITs (5.5%)	Cash Equivalents 1.1%

Commissioner's Report

March 2023

DOR Commissioner's Report: Market Values for Month Ending 3/31/2023

Market Value

Plan Name	Cash Equivalents	Domestic Equity	Fixed Income	Interm. Fixed Income	Int'l Equity	REITs	Market Value
2008 Transportation Project Government Bonds (AY2Q)	\$781,670						\$781,670
2013B Tax Exempt Education (AY3Z)	\$196,853						\$196,853
2016A - 2012 Transportation Bond Act (AY3Y)	\$2,143,257						\$2,143,257
2016B - 2012 Transportation Bond Act (AY3Q)	\$58,448,664						\$58,448,664
Alaska Higher Education Investment (AY3L)	\$1,745,962	\$145,372,962	\$107,912,049		\$93,702,565	\$17,798,908	\$366,532,446
Alaska Mental Health Trust Reserve (AY2L)	\$256,851	\$22,603,906	\$15,218,289		\$13,742,978		\$51,822,025
ASLC Investment Fund (AY3S)	\$12,027,827	\$20,521,251	\$55,927,060		\$12,925,795	\$3,076,520	\$104,478,454
Constitutional Budget Reserve Fund (AY19)	\$2,586,837,529						\$2,586,837,529
Education Endowment Fund (AY3G)	\$4,714	\$392,079	\$291,005		\$252,663	\$47,977	\$988,439
EVOS Habitat Investment (AY2H)	\$24,432,066			\$47,684,725			\$72,116,791
EVOS Research Investment (AY02)	\$15,448,468			\$28,794,599			\$44,243,068
GeFONSI I (AY01)	\$1,502,798,913			\$251,368,937			\$1,754,167,850
GeFONSI II (AY3F)	\$986,390,072	\$68,366,116		\$540,430,531	\$34,371,948		\$1,629,558,666
Illinois Creek Mine Reclamation (AY9J)	\$6,318	\$525,537	\$390,038		\$338,758	\$64,310	\$1,324,961
International Airports 2006 Non-AMT (AY9X)	\$1,024,865						\$1,024,865
International Airports Repair & Replacement Fund (AY05)	\$513,349						\$513,349
International Airports Revenue Fund (AY04)	\$148,619,445			\$27,018,312			\$175,637,757
International Airports Series 2002 Reserve Account (AY2E)	\$15,198,050						\$15,198,050
International Airports Series 2003 Reserve (AY2U)	\$10,805,099						\$10,805,099
Investment Loss Trust Fund (AY28)	\$3,405,607						\$3,405,607
PCE Endowment Fund (AY13)	\$4,662,112	\$388,214,908	\$288,176,658		\$250,230,544	\$47,531,462	\$978,815,684
Permanent Fund Dividend Holding Account (AY2G)	\$54,370,801						\$54,370,801
Public School Trust Fund (AY08)	\$3,503,687	\$291,666,098	\$216,507,241		\$187,998,304	\$35,710,403	\$735,385,732
RHIF LTC Insurance (AY11)	\$3,125,000	\$261,829,048	\$267,104,609		\$165,487,518	\$35,720,965	\$733,267,140
RHIF Major Medical (AY03)	\$19,274,493						\$19,274,493

*Plans with a market value under \$100,000 are excluded from this report. Information on these plans is available upon request.

DOR Commissioner's Report: Market Values for Month Ending 3/31/2023

Actual Allocation

Plan Name	Cash Equivalents	Domestic Equity	Fixed Income	Interm. Fixed Income	Int'l Equity	REITs
2008 Transportation Project Government Bonds (AY2Q)	100.00%					
2013B Tax Exempt Education (AY3Z)	100.00%					
2016A - 2012 Transportation Bond Act (AY3Y)	100.00%					
2016B - 2012 Transportation Bond Act (AY3Q)	100.00%					
Alaska Higher Education Investment (AY3L)	0.48%	39.66%	29.44%		25.56%	4.86%
Alaska Mental Health Trust Reserve (AY2L)	0.50%	43.62%	29.37%		26.52%	
ASLC Investment Fund (AY3S)	11.51%	19.64%	53.53%		12.37%	2.94%
Constitutional Budget Reserve Fund (AY19)	100.00%					
Education Endowment Fund (AY3G)	0.48%	39.67%	29.44%		25.56%	4.85%
EVOS Habitat Investment (AY2H)	33.88%			66.12%		
EVOS Research Investment (AY02)	34.92%			65.08%		
GeFONSI I (AY01)	85.67%			14.33%		
GeFONSI II (AY3F)	60.53%	4.20%		33.16%	2.11%	
Illinois Creek Mine Reclamation (AY9J)	0.48%	39.66%	29.44%		25.57%	4.85%
International Airports 2006 Non-AMT (AY9X)	100.00%					
International Airports Repair & Replacement Fund (AY05)	100.00%					
International Airports Revenue Fund (AY04)	84.62%			15.38%		
International Airports Series 2002 Reserve Account (AY2E)	100.00%					
International Airports Series 2003 Reserve (AY2U)	100.00%					
Investment Loss Trust Fund (AY28)	100.00%					
PCE Endowment Fund (AY13)	0.48%	39.66%	29.44%		25.56%	4.86%
Permanent Fund Dividend Holding Account (AY2G)	100.00%					
Public School Trust Fund (AY08)	0.48%	39.66%	29.44%		25.56%	4.86%
RHIF LTC Insurance (AY11)	0.43%	35.71%	36.43%		22.57%	4.87%
RHIF Major Medical (AY03)	100.00%					

*Plans with a market value under \$100,000 are excluded from this report. Information on these plans is available upon request.

DOR Commissioner's Report: Market Values for Month Ending 3/31/2023

Target Allocation

Plan Name	Cash Equivalents	Domestic Equity	Fixed Income	Interm. Fixed Income	Int'l Equity	REITs
2008 Transportation Project Government Bonds (AY2Q)	100.00%					
2013B Tax Exempt Education (AY3Z)	100.00%					
2016A - 2012 Transportation Bond Act (AY3Y)	100.00%					
2016B - 2012 Transportation Bond Act (AY3Q)	100.00%					
Alaska Higher Education Investment (AY3L)	1.00%	39.00%	30.00%		25.00%	5.00%
Alaska Mental Health Trust Reserve (AY2L)	1.00%	43.00%	30.00%		26.00%	
ASLC Investment Fund (AY3S)	12.00%	19.00%	54.00%		12.00%	3.00%
Constitutional Budget Reserve Fund (AY19)	100.00%					
Education Endowment Fund (AY3G)	1.00%	39.00%	30.00%		25.00%	5.00%
EVOS Habitat Investment (AY2H)	35.00%			65.00%		
EVOS Research Investment (AY02)	35.00%			65.00%		
GeFONSI I (AY01)	85.00%			15.00%		
GeFONSI II (AY3F)	61.00%	4.00%		33.00%	2.00%	
Illinois Creek Mine Reclamation (AY9J)	1.00%	39.00%	30.00%		25.00%	5.00%
International Airports 2006 Non-AMT (AY9X)	100.00%					
International Airports Repair & Replacement Fund (AY05)	100.00%					
International Airports Revenue Fund (AY04)	85.00%			15.00%		
International Airports Series 2002 Reserve Account (AY2E)	100.00%					
International Airports Series 2003 Reserve (AY2U)	100.00%					
Investment Loss Trust Fund (AY28)	100.00%					
PCE Endowment Fund (AY13)	1.00%	39.00%	30.00%		25.00%	5.00%
Permanent Fund Dividend Holding Account (AY2G)	100.00%					
Public School Trust Fund (AY08)	1.00%	39.00%	30.00%		25.00%	5.00%
RHIF LTC Insurance (AY11)	1.00%	35.00%	37.00%		22.00%	5.00%
RHIF Major Medical (AY03)	100.00%					

*Plans with a market value under \$100,000 are excluded from this report. Information on these plans is available upon request.

DOR Commissioner's Report: Market Values for Month Ending 3/31/2023

Relative Allocation

Plan Name	Cash Equivalents	Domestic Equity	Fixed Income	Interm. Fixed Income	Int'l Equity	REITs
2008 Transportation Project Government Bonds (AY2Q)	0.00% ●					
2013B Tax Exempt Education (AY3Z)	0.00% ●					
2016A - 2012 Transportation Bond Act (AY3Y)	0.00% ●					
2016B - 2012 Transportation Bond Act (AY3Q)	0.00% ●					
Alaska Higher Education Investment (AY3L)	-0.52% ◆	0.66% ◆	-0.56% ◆		0.56% ◆	-0.14% ●
Alaska Mental Health Trust Reserve (AY2L)	-0.50% ◆	0.62% ◆	-0.63% ◆		0.52% ◆	
ASLC Investment Fund (AY3S)	-0.49% ▲	0.64% ◆	-0.47% ▲		0.37% ▲	-0.06% ●
Constitutional Budget Reserve Fund (AY19)	0.00% ●					
Education Endowment Fund (AY3G)	-0.52% ◆	0.67% ◆	-0.56% ◆		0.56% ◆	-0.15% ●
EVOS Habitat Investment (AY2H)	-1.12% ✖			1.12% ✖		
EVOS Research Investment (AY02)	-0.08% ●			0.08% ●		
GeFONSI I (AY01)	0.67% ◆			-0.67% ◆		
GeFONSI II (AY3F)	-0.47% ▲	0.20% ●		0.16% ●	0.11% ●	
Illinois Creek Mine Reclamation (AY9J)	-0.52% ◆	0.66% ◆	-0.56% ◆		0.57% ◆	-0.15% ●
International Airports 2006 Non-AMT (AY9X)	0.00% ●					
International Airports Repair & Replacement Fund (AY05)	0.00% ●					
International Airports Revenue Fund (AY04)	-0.38% ▲			0.38% ▲		
International Airports Series 2002 Reserve Account (AY2E)	0.00% ●					
International Airports Series 2003 Reserve (AY2U)	0.00% ●					
Investment Loss Trust Fund (AY28)	0.00% ●					
PCE Endowment Fund (AY13)	-0.52% ◆	0.66% ◆	-0.56% ◆		0.56% ◆	-0.14% ●
Permanent Fund Dividend Holding Account (AY2G)	0.00% ●					
Public School Trust Fund (AY08)	-0.52% ◆	0.66% ◆	-0.56% ◆		0.56% ◆	-0.14% ●
RHIF LTC Insurance (AY11)	-0.57% ◆	0.71% ◆	-0.57% ◆		0.57% ◆	-0.13% ●
RHIF Major Medical (AY03)	0.00% ●					

*Plans with a market value under \$100,000 are excluded from this report. Information on these plans is available upon request.

DOR Commissioner's Report: Net Pool Performance for Month Ending 3/31/2023

Pool Performance (Net of Fee)	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year
Broad Market Fixed Income Pool	2.28%	3.11%	0.53%	-4.07%	-2.19%	1.22%	1.14%	1.56%
Domestic Equity*	2.68%	7.17%	9.80%	-8.52%	18.51%	10.44%		
Intermediate-term Fixed Income Pool	1.43%	1.56%						
Internally Managed REITs	-1.74%	1.74%	-5.46%	-19.37%				
International Equity*	2.42%	6.88%	9.98%	-5.02%	11.84%	2.53%		
Short-term Fixed Income Pool	0.40%	1.15%	2.67%	2.80%	1.09%	1.55%	1.41%	1.07%
Tactical Bond Pool	1.51%	3.36%	3.33%	-4.03%				
Benchmark Performance	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year
Broad Market Fixed Income Pool	2.54%	2.96%	-0.09%	-4.78%	-2.77%	0.91%	0.88%	1.36%
Domestic Equity*	2.67%	7.18%	9.75%	-8.58%	18.48%	10.45%		
Intermediate-term Fixed Income Pool	1.63%	1.59%						
Internally Managed REITs	-1.74%	1.74%	-5.52%	-19.40%				
International Equity*	2.44%	6.87%	10.03%	-5.07%	11.80%	2.47%		
Short-term Fixed Income Pool	0.43%	1.07%	2.40%	2.50%	0.89%	1.41%	1.21%	0.87%
Tactical Bond Pool	2.54%	2.96%	-0.09%	-4.78%				
Relative Performance (Net of Fee)	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year
Broad Market Fixed Income Pool	-0.26%	0.15%	0.62%	0.72%	0.58%	0.31%	0.25%	0.20%
Domestic Equity*	0.01%	-0.01%	0.05%	0.06%	0.03%	-0.01%		
Intermediate-term Fixed Income Pool	-0.20%	-0.03%						
Internally Managed REITs	0.00%	-0.01%	0.07%	0.03%				
International Equity*	-0.02%	0.02%	-0.06%	0.05%	0.05%	0.05%		
Short-term Fixed Income Pool	-0.03%	0.08%	0.27%	0.29%	0.20%	0.14%	0.19%	0.20%
Tactical Bond Pool	-1.03%	0.40%	3.42%	0.75%				

*Equity performance reflects data as of July 1, 2016 due to accounting structure change.

DOR Commissioner's Report: Net Plan Performance for Month Ending 3/31/2023

Plan Performance (Net of Fee)	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year
2008 Transportation Project Government Bonds (AY2Q)	0.40%	1.15%	2.67%	2.80%	1.09%	1.55%	1.41%	1.07%
2013B Tax Exempt Education (AY3Z)	0.40%	1.15%	2.67%	2.80%	1.09%	1.55%	1.41%	1.07%
2016A - 2012 Transportation Bond Act (AY3Y)	0.40%	1.15%	2.67%	2.80%	1.05%	1.53%	1.40%	1.07%
2016B - 2012 Transportation Bond Act (AY3Q)	0.40%	1.15%	2.67%	2.80%	1.09%	1.55%		
Alaska Higher Education Investment (AY3L)	2.22%	5.58%	6.34%	-6.56%	10.20%	5.89%	7.07%	6.75%
Alaska Mental Health Trust Reserve (AY2L)	2.44%	5.84%	7.18%	-4.28%	8.24%	5.25%	6.48%	6.52%
ASLC Investment Fund (AY3S)	1.95%	4.08%	4.30%	-1.36%				
Constitutional Budget Reserve Fund (AY19)	0.40%	1.15%	2.67%	2.80%	1.48%	2.16%	2.06%	1.70%
Education Endowment Fund (AY3G)	2.22%	5.58%	6.34%	-6.56%	10.21%			
EVOS Habitat Investment (AY2H)	1.06%	1.41%	6.19%	-2.13%	7.57%	5.10%	6.75%	6.99%
EVOS Research Investment (AY02)	1.07%	1.41%	8.34%	-3.04%	8.31%	5.33%	6.91%	7.08%
GeFONSI I (AY01)	0.58%	1.24%	2.45%	1.87%	0.47%	1.33%	1.16%	0.95%
GeFONSI II (AY3F)	0.88%	1.65%	2.47%	0.26%	1.10%	1.90%		
Illinois Creek Mine Reclamation (AY9J)	2.22%	5.58%	6.34%	-6.56%	10.20%	5.87%	7.05%	5.38%
International Airports 2006 Non-AMT (AY9X)	0.40%	1.15%	2.67%	2.80%	1.09%	1.55%	1.41%	1.07%
International Airports Repair & Replacement Fund (AY05)	0.40%	1.15%	2.67%	2.80%	1.09%	1.55%	1.41%	1.07%
International Airports Revenue Fund (AY04)	0.55%	1.21%	2.40%	1.75%	0.90%	1.80%	1.81%	1.50%
International Airports Series 2002 Reserve Account (AY2E)	0.40%	1.15%	2.67%	2.80%	1.09%	1.55%	1.41%	1.07%
International Airports Series 2003 Reserve (AY2U)	0.40%	1.15%	2.67%	2.80%	1.09%	1.55%	1.41%	1.07%
Investment Loss Trust Fund (AY28)	0.40%	1.15%	2.67%	2.80%	1.09%	1.55%	1.41%	1.07%
PCE Endowment Fund (AY13)	2.22%	5.58%	6.34%	-5.14%	6.63%	3.79%	5.54%	6.18%
Permanent Fund Dividend Holding Account (AY2G)	0.40%	1.15%	2.61%	2.73%	1.07%	1.56%	1.49%	1.12%
Public School Trust Fund (AY08)	2.22%	5.59%	6.33%	-6.56%	10.20%	5.88%	6.62%	6.10%
RHIF LTC Insurance (AY11)	2.19%	5.30%	5.73%	-5.90%	5.24%	4.59%	5.06%	5.05%
RHIF Major Medical (AY03)	0.40%	1.15%	2.67%	2.80%	1.09%	1.55%	1.41%	1.07%

*Plans with a market value under \$100,000 are excluded from this report. Information on these plans is available upon request.

DOR Commissioner's Report: Net Plan Performance for Month Ending 3/31/2023

Benchmark Performance	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year
2008 Transportation Project Government Bonds (AY2Q)	0.43%	1.07%	2.40%	2.50%	0.89%	1.41%	1.21%	0.87%
2013B Tax Exempt Education (AY3Z)	0.43%	1.07%	2.40%	2.50%	0.89%	1.41%	1.21%	0.87%
2016A - 2012 Transportation Bond Act (AY3Y)	0.43%	1.07%	2.40%	2.50%	0.89%	1.41%	1.21%	0.87%
2016B - 2012 Transportation Bond Act (AY3Q)	0.43%	1.07%	2.40%	2.50%	0.89%	1.41%		
Alaska Higher Education Investment (AY3L)	2.33%	5.50%	6.06%	-6.76%	10.06%	5.86%	7.03%	6.69%
Alaska Mental Health Trust Reserve (AY2L)	2.55%	5.77%	6.85%	-4.62%	7.94%	5.06%	6.34%	6.17%
ASLC Investment Fund (AY3S)	2.17%	3.97%	3.66%	-1.83%				
Constitutional Budget Reserve Fund (AY19)	0.43%	1.07%	2.40%	2.50%	1.23%	2.02%	1.87%	1.54%
Education Endowment Fund (AY3G)	2.33%	5.50%	6.06%	-6.76%	10.06%			
EVOS Habitat Investment (AY2H)	1.21%	1.41%	5.56%	-2.51%	7.17%	4.95%	6.67%	6.66%
EVOS Research Investment (AY02)	1.21%	1.41%	7.89%	-3.29%	7.97%	5.22%	6.87%	6.79%
GeFONSI I (AY01)	0.61%	1.15%	2.18%	1.55%	0.26%	1.19%	1.00%	0.79%
GeFONSI II (AY3F)	0.96%	1.60%	2.42%	0.27%	0.98%	1.87%		
Illinois Creek Mine Reclamation (AY9J)	2.33%	5.50%	6.06%	-6.76%	10.06%	5.86%	7.03%	5.28%
International Airports 2006 Non-AMT (AY9X)	0.43%	1.07%	2.40%	2.50%	0.89%	1.41%	1.21%	0.87%
International Airports Repair & Replacement Fund (AY05)	0.43%	1.07%	2.40%	2.50%	0.89%	1.41%	1.21%	0.87%
International Airports Revenue Fund (AY04)	0.61%	1.15%	2.18%	1.55%	0.69%	1.69%	1.64%	1.32%
International Airports Series 2002 Reserve Account (AY2E)	0.43%	1.07%	2.40%	2.50%	0.89%	1.41%	1.21%	0.87%
International Airports Series 2003 Reserve (AY2U)	0.43%	1.07%	2.40%	2.50%	0.89%	1.41%	1.21%	0.87%
Investment Loss Trust Fund (AY28)	0.43%	1.07%	2.40%	2.50%	0.89%	1.41%	1.21%	0.87%
PCE Endowment Fund (AY13)	2.33%	5.50%	6.06%	-5.28%	6.51%	3.79%	5.54%	6.03%
Permanent Fund Dividend Holding Account (AY2G)	0.43%	1.07%	2.40%	2.50%	0.89%	1.41%	1.21%	0.87%
Public School Trust Fund (AY08)	2.33%	5.50%	6.06%	-6.76%	10.06%	5.86%	6.58%	6.01%
RHIF LTC Insurance (AY11)	2.33%	5.22%	5.36%	-6.13%	4.97%	4.51%	4.95%	4.89%
RHIF Major Medical (AY03)	0.43%	1.07%	2.40%	2.50%	0.89%	1.41%	1.21%	0.87%

*Plans with a market value under \$100,000 are excluded from this report. Information on these plans is available upon request.

DOR Commissioner's Report: Net Plan Performance for Month Ending 3/31/2023

Relative Performance (Net of Fee)	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year
2008 Transportation Project Government Bonds (AY2Q)	-0.03% ▲	0.08% ●	0.27% ●	0.29% ●	0.20% ●	0.14% ●	0.19% ●	0.20% ●
2013B Tax Exempt Education (AY3Z)	-0.03% ▲	0.08% ●	0.27% ●	0.29% ●	0.20% ●	0.14% ●	0.19% ●	0.20% ●
2016A - 2012 Transportation Bond Act (AY3Y)	-0.03% ▲	0.08% ●	0.27% ●	0.29% ●	0.16% ●	0.13% ●	0.18% ●	0.20% ●
2016B - 2012 Transportation Bond Act (AY3Q)	-0.03% ▲	0.08% ●	0.27% ●	0.29% ●	0.20% ●	0.14% ●	●	
Alaska Higher Education Investment (AY3L)	-0.11% ◆	0.08% ●	0.28% ●	0.20% ●	0.14% ●	0.03% ●	0.04% ●	0.06% ●
Alaska Mental Health Trust Reserve (AY2L)	-0.12% ◆	0.07% ●	0.33% ●	0.34% ●	0.30% ●	0.19% ●	0.14% ●	0.35% ●
ASLC Investment Fund (AY3S)	-0.22% ◆	0.11% ●	0.64% ●	0.47% ●				
Constitutional Budget Reserve Fund (AY19)	-0.03% ▲	0.08% ●	0.27% ●	0.29% ●	0.25% ●	0.14% ●	0.19% ●	0.16% ●
Education Endowment Fund (AY3G)	-0.11% ◆	0.08% ●	0.28% ●	0.20% ●	0.15% ●			
EVOS Habitat Investment (AY2H)	-0.14% ◆	0.00% ●	0.63% ●	0.38% ●	0.41% ●	0.15% ●	0.08% ●	0.33% ●
EVOS Research Investment (AY02)	-0.14% ◆	0.00% ●	0.45% ●	0.25% ●	0.33% ●	0.12% ●	0.04% ●	0.29% ●
GeFONSI I (AY01)	-0.03% ▲	0.09% ●	0.27% ●	0.32% ●	0.21% ●	0.14% ●	0.16% ●	0.16% ●
GeFONSI II (AY3F)	-0.08% ◆	0.05% ●	0.05% ●	-0.02% ▲	0.12% ●	0.03% ●		
Illinois Creek Mine Reclamation (AY9J)	-0.11% ◆	0.08% ●	0.28% ●	0.20% ●	0.15% ●	0.02% ●	0.02% ●	0.09% ●
International Airports 2006 Non-AMT (AY9X)	-0.03% ▲	0.08% ●	0.27% ●	0.29% ●	0.20% ●	0.14% ●	0.19% ●	0.20% ●
International Airports Repair & Replacement Fund (AY05)	-0.03% ▲	0.08% ●	0.27% ●	0.29% ●	0.20% ●	0.14% ●	0.19% ●	0.20% ●
International Airports Revenue Fund (AY04)	-0.06% ◆	0.06% ●	0.23% ●	0.20% ●	0.22% ●	0.10% ●	0.17% ●	0.17% ●
International Airports Series 2002 Reserve Account (AY2E)	-0.03% ▲	0.08% ●	0.27% ●	0.29% ●	0.20% ●	0.14% ●	0.19% ●	0.20% ●
International Airports Series 2003 Reserve (AY2U)	-0.03% ▲	0.08% ●	0.27% ●	0.29% ●	0.20% ●	0.14% ●	0.19% ●	0.20% ●
Investment Loss Trust Fund (AY28)	-0.03% ▲	0.08% ●	0.27% ●	0.29% ●	0.20% ●	0.14% ●	0.19% ●	0.20% ●
PCE Endowment Fund (AY13)	-0.11% ◆	0.08% ●	0.28% ●	0.14% ●	0.12% ●	0.00% ▲	0.01% ●	0.16% ●
Permanent Fund Dividend Holding Account (AY2G)	-0.03% ▲	0.08% ●	0.21% ●	0.23% ●	0.18% ●	0.16% ●	0.28% ●	0.25% ●
Public School Trust Fund (AY08)	-0.11% ◆	0.08% ●	0.27% ●	0.20% ●	0.14% ●	0.02% ●	0.04% ●	0.08% ●
RHIF LTC Insurance (AY11)	-0.14% ◆	0.09% ●	0.37% ●	0.24% ●	0.27% ●	0.08% ●	0.11% ●	0.16% ●
RHIF Major Medical (AY03)	-0.03% ▲	0.08% ●	0.27% ●	0.29% ●	0.20% ●	0.14% ●	0.19% ●	0.20% ●

*Plans with a market value under \$100,000 are excluded from this report. Information on these plans is available upon request.

DOR Commissioner's Report: External Management Fees as of Month Ending 3/31/2023

Plan Fees for the Last Year

Plan	Fee as a %
2008 Transportation Project Government Bonds (AY2Q)	0.0000%
2013B Tax Exempt Education (AY3Z)	0.0000%
2016A - 2012 Transportation Bond Act (AY3Y)	0.0000%
2016B - 2012 Transportation Bond Act (AY3Q)	0.0000%
Alaska Higher Education Investment (AY3L)	0.0173%
Alaska Mental Health Trust Reserve (AY2L)	0.0151%
ASLC Investment Fund (AY3S)	0.0235%
Constitutional Budget Reserve Fund (AY19)	0.0000%
Education Endowment Fund (AY3G)	0.0173%
EVOS Habitat Investment (AY2H)	0.0107%
EVOS Research Investment (AY02)	0.0086%
GeFONSI I (AY01)	0.0011%
GeFONSI II (AY3F)	0.0025%
Illinois Creek Mine Reclamation (AY9J)	0.0173%
International Airports 2006 Non-AMT (AY9X)	0.0000%
International Airports Repair & Replacement Fund (AY05)	0.0000%
International Airports Revenue Fund (AY04)	0.0011%
International Airports Series 2002 Reserve Account (AY2E)	0.0000%
International Airports Series 2003 Reserve (AY2U)	0.0000%
Investment Loss Trust Fund (AY28)	0.0000%
PCE Endowment Fund (AY13)	0.0181%
Permanent Fund Dividend Holding Account (AY2G)	0.0000%
Public School Trust Fund (AY08)	0.0173%
RHIF LTC Insurance (AY11)	0.0196%
RHIF Major Medical (AY03)	0.0000%

**Plans with a market value under \$100,000 are excluded from this report. Information on these plans is available upon request.*

Commissioner's Report: Top GeFONSI Accounts for Month Ending: 3/31/2023

Program	Account Name	End Balance
GeFONSI I	General Fund	\$1,177,913,884.11
	Alaska Clean Water Fund	\$140,693,419.41
	Alaska Drinking Water Fund	\$80,538,360.62
	Public Advocacy Trust	\$47,448,129.36
	Fish & Game Fund	\$46,404,294.81
GeFONSI II	Statutory Budget Reserve Fund	\$445,597,760.11
	Regional Ed Attendance Area School Fund	\$153,154,333.88
	National Petroleum Reserve Fund	\$95,446,126.90
	Public Education Fund	\$94,980,513.38
	Highway Equipment Working Capital Fund For Operating Appropriations	\$94,525,311.33
Sum of 5 Largest GeFONSI I and II Funds		\$2,376,702,133.91

Non-Routine Investments

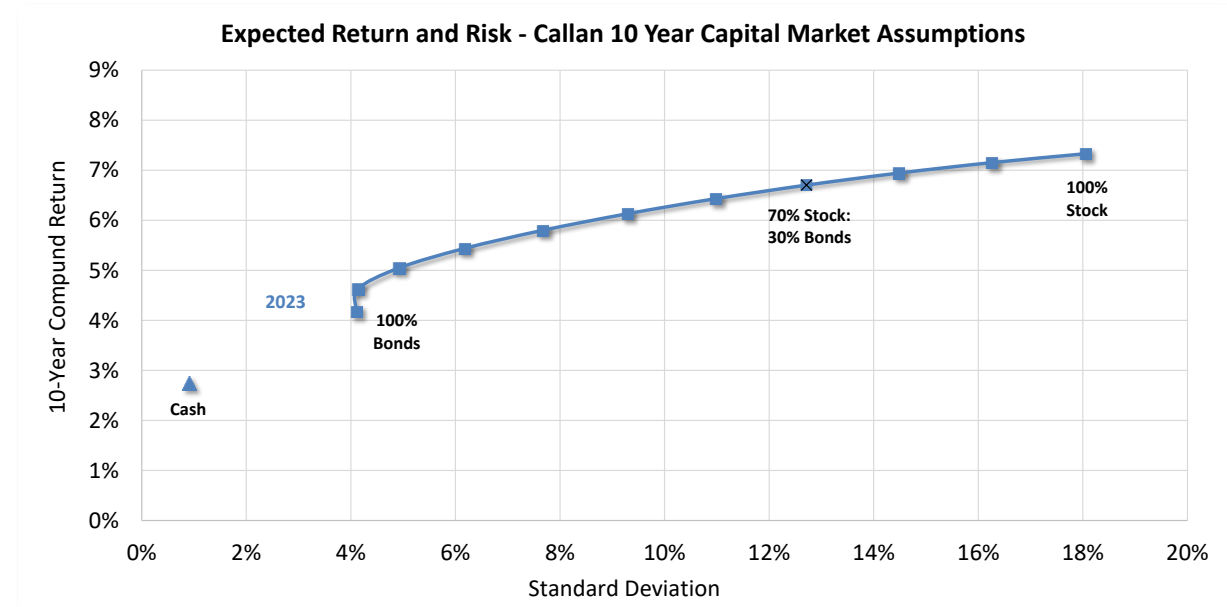
Non-Routine Investments

- The Department of Revenue is presented periodically with non-routine investment opportunities that fall outside the scope of its existing investment opportunity set.
- The state does not currently have any non-routine investments, and none are presently contemplated by investment staff.
- Non-routine investment process summary:
 - Document the investment opportunity and determine if it merits further diligence and/or if it is more suitable for other funding sources.
 - Seek legal advice on DOR eligibility.
 - Seek guidance from external auditors.
 - Use an impartial external expert to evaluate the opportunity and to provide an opinion on the investment.
 - Seek advice from the Investment Advisory Council.
 - Notify the Office of Management and Budget.
 - Complete diligence and investment documentation.
 - Inform the Chairs of the Senate and House Finance Committees of any decision to move forward with an investment.

Investment Policy and Asset Allocation Process

State Investment Policy and Asset Allocation Process

- The Commissioner of Revenue is the fiduciary for over \$9 billion in state assets across 100+ accounts pooled into 24 funds with similar assets or mandates.
- Setting investment policies and asset allocations are key fiduciary duties for these funds.
- Treasury staff reviews and makes recommendations on the investment policy and asset allocation of each fund at least annually.
- Each investment program is designed to balance fund investment objectives, risk tolerance, and other attributes:
 - Time horizon
 - Nominal or real return objectives
 - Cashflows, liquidity, and income needs
 - Capacity for loss or volatility over short, medium, and longer time horizons
- Performance, investment policy, and asset allocations are discussed quarterly in a transparent process with an independent investment advisory committee.

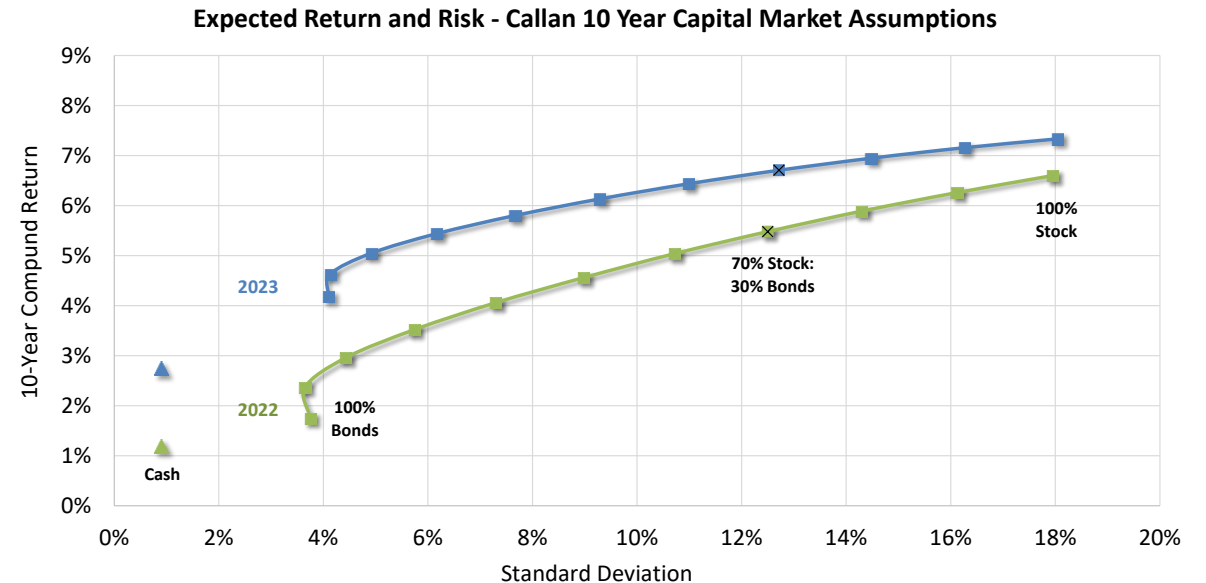


Fund - Account	Assets (3/31/23)	Risk Tolerance
Short-Term Funds	\$166,162,708	Low
CBRF - AY19	\$2,586,837,529	Low
GeFONSI - AY01	\$1,754,167,850	Moderate
International Airport - AY04	\$175,637,757	Moderate
GeFONSI II - AY3F	\$1,629,558,666	Moderate-High
Retiree LTC - AY11	\$733,267,140	5% Return Tgt
PCE Endowment - AY13	\$978,815,684	High/Endowment
Public School Trust Fund - AY08	\$735,385,732	High/Endowment
AK Higher Education - AY3L	\$366,532,446	High/Endowment
Illinois Creek Mine - AY9J	\$1,324,961	High/Endowment
Education Endowment - AY3G	\$988,439	High/Endowment
Total	\$9,128,678,912	

Risk Tolerance Assessment

General Risk Tolerance Assessment	Time Horizon	Probability of Loss (1yr)	Magnitude of Potential Loss	Discussion
Low	Short - Less than 1 year	< 1%	< 0.4%	Unwilling to risk material short-term volatility because of the immediate need for the invested funds. Minimizing exposure of principal to loss is very important.
Moderate	Short to Intermediate - 1 to 2 years	< 5%	< 1.5%	Willing to assume an average amount of market risk and volatility to achieve higher returns.
Moderate-High	Intermediate - 2 to 6 years	< 10%	< 5%	Willing to assume an above average amount of risk, volatility and loss of principal to achieve higher returns.
High - 5% Return Target	Long - Greater than 6 years	> 10%	< 20%	Willing to tolerate an amount of risk, volatility and loss of principal to achieve stated return target over long time periods.
High - Endowment	Long - Greater than 6 years	> 10%	< 20%	Willing to assume a material amount of risk, volatility and loss of principal to take advantage of higher return opportunities.

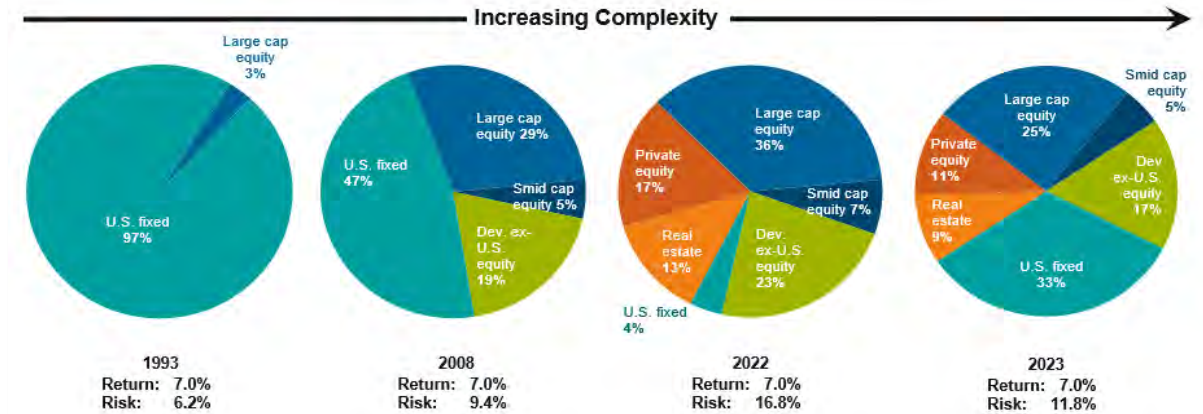
Fund - Account	Assets (3/31/23)	Risk Tolerance
Short-Term Funds	\$166,162,708	Low
CBRF - AY19	\$2,586,837,529	Low
GeFONSI - AY01	\$1,754,167,850	Moderate
International Airport - AY04	\$175,637,757	Moderate
GeFONSI II - AY3F	\$1,629,558,666	Moderate-High
Retiree LTC - AY11	\$733,267,140	5% Return Tgt
PCE Endowment - AY13	\$978,815,684	High/Endowment
Public School Trust Fund - AY08	\$735,385,732	High/Endowment
AK Higher Education - AY3L	\$366,532,446	High/Endowment
Illinois Creek Mine - AY9J	\$1,324,961	High/Endowment
Education Endowment - AY3G	\$988,439	High/Endowment
Total	\$9,128,678,912	



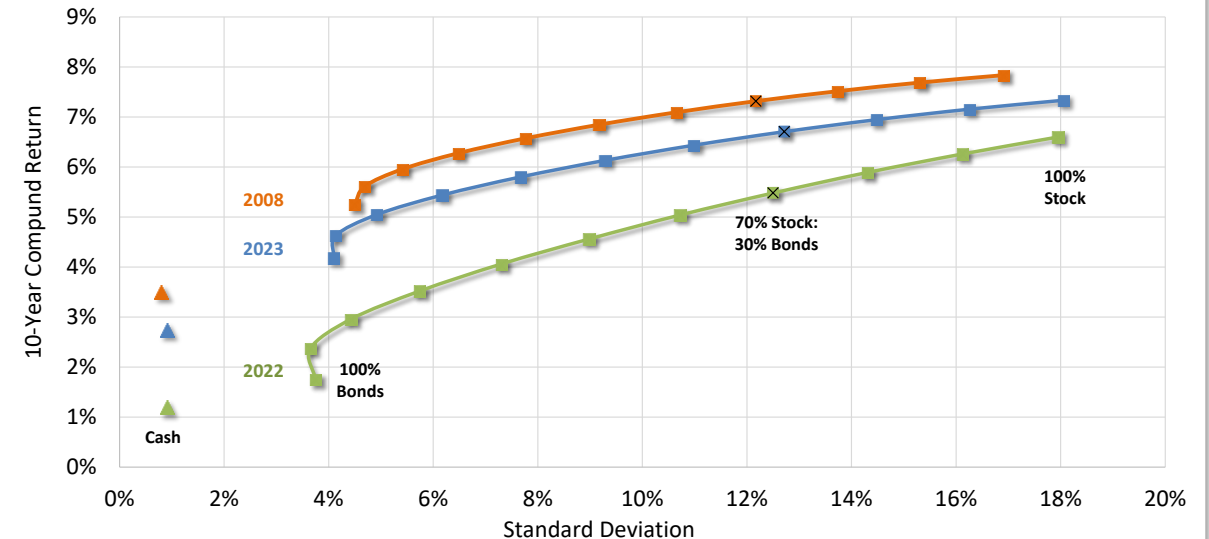
Asset Allocation

- Callan is an investment consultant that annually develops 10-year capital market assumptions for clients including the Alaska Retirement Management Board and the Alaska Permanent Fund Corporation. DOR uses these assumptions for independence and consistency.
- Return expectations have generally fallen over the past 30 years as interest rates, growth, and inflation expectations declined. Forward return expectations have now increased due to inflation, higher starting interest rates and the pullback in equity markets.
- Treasury staff evaluates Callan's capital market assumptions and current market conditions to develop an asset allocation approach for each state fund.
- The goal is to maximize return or minimize risk consistent with investment objectives and risk tolerance using a combination of modern portfolio theory and account specific constraints and characteristics.

7% Expected Returns Over Past 30 Years - Callan



Expected Return and Risk - Callan 10 Year Capital Market Assumptions



2023 Capital Market Assumptions

- In January, Callan released their 10-year capital market assumptions for 2023. Forward return expectations increased due to higher starting interest rates and the pullback in equity markets.
- Staff selects a subset of these asset classes for use in state funds based on risk, return, diversification, complexity, and cost.
- DOR is currently using Broad U.S. Equities, International Equities, Government 1-3 Fixed Income, Broad U.S. Fixed Income, U.S. REITs, and Cash Equivalents for state funds.
- For some portfolios, staff also invests up to 25% of the fixed income allocation in a tactical bond portfolio that opportunistically invests in high yield, TIPS, and other fixed income asset classes in a risk-managed fashion. Staff is recommending increasing the maximum allocation to this fund to 30%.
- Only liquid registered investments are used since State funds were not allowed to purchase unregistered investments, including alternative investments, prior to 2021 due to the SEC's definition of accredited investor – a definition that did not apply to the retirement funds and APFC. Even with the SEC change, illiquid investments are still problematic for State funds subject to annual legislative changes.

Asset Classes	10-Year Geometric Return	Return Change	Standard Deviation	Correlation to Domestic Equity	Real Return
Broad U.S. Equity	7.35%	0.75%	18.05%	1.00	4.85%
<i>Large Cap U.S. Equity</i>	7.25%	0.75%	17.75%	1.00	4.75%
<i>Small/Mid Cap U.S. Equity</i>	7.45%	0.75%	22.15%	0.92	4.95%
International Equity	7.45%	0.65%	21.25%	0.80	4.95%
<i>Developed ex-U.S. Equity</i>	7.25%	0.75%	20.15%	0.75	4.75%
<i>Emerging Market Equity</i>	7.45%	0.55%	25.70%	0.82	4.95%
Cash Equivalents	2.75%	1.55%	0.90%	-0.06	0.25%
Government 1-3 year Bonds	3.80%	2.30%	2.30%	0.04	1.30%
Core U.S. Fixed Income	4.25%	2.50%	4.10%	0.02	1.75%
<i>TIPS</i>	4.00%	2.75%	5.30%	-0.07	1.50%
<i>Emerging Market Sovereign Debt</i>	5.85%	2.25%	10.65%	0.66	3.35%
<i>High Yield</i>	6.25%	2.35%	11.75%	0.76	3.75%
Core Real Estate	5.75%	0.00%	14.20%	0.44	3.25%
REITs	6.90%	0.70%	20.90%	0.79	4.40%
Private Equity	8.50%	0.50%	27.60%	0.80	6.00%
Hedge Funds	5.55%	1.45%	8.45%	0.68	3.05%
Inflation	2.50%	0.25%			
70/30 Portfolio	6.71%	1.23%			

Asset Allocation Discussion

Using March 31, 2023, Assets

State Asset Allocation Approach for FY2024

- Evaluate the current attributes of each fund to identify the best balance of risk and return.
- Use Callan’s capital market assumptions and Modern Portfolio Theory to arrive at asset allocations.
- Set short-term return expectations using current yields (YTW) for short-term and moderate risk profiles.
- Emphasize diversification in a particularly uncertain market.
- Due to the Fed’s effort in combating inflation by raising short-term interest rates, yields on short-term fixed income exceed longer-term capital market expectations for those asset classes.

Asset Classes	Low	Moderate	Moderate +	All SOA	High Risk	Endowment
Broad U.S. Equity			4.0%	12.4%	35.0%	39.0%
Global ex-U.S. Equity			2.0%	7.8%	22.0%	25.0%
U.S. REITs				1.5%	5.0%	5.0%
Core U.S. Fixed Income				9.8%	37.0%	30.0%
Short Duration Gov't/Credit		15.0%	33.0%	9.1%		
Cash Equivalents	100%	85.0%	61.0%	59.3%	1.0%	1.0%
Total	100%	100%	100%	100%	100%	100%
Expected Return	2.75%	2.97%	3.44%	4.28%	6.63%	6.83%
Expected Return - Real/After Inflation	0.25%	0.47%	0.94%	1.78%	4.13%	4.33%
Risk - Standard Deviation	0.90%	1.05%	1.51%	4.02%	11.41%	12.65%
Sharpe Ratio	(0.00)	0.21	0.46	0.38	0.34	0.32
Risk Statistics:						
10% Probable Downside Return - 1 Year	1.2%	1.1%	0.8%	-2.8%	-13.4%	-15.4%
5% Probable Downside Return - 1 Year	0.9%	0.8%	0.3%	-4.0%	-16.9%	-19.3%
5% Probable Downside Return - 3 Year	1.7%	1.7%	1.6%	-0.5%	-7.0%	-8.2%
5% Probable Downside Return - 5 Year	1.9%	2.0%	2.1%	0.6%	-3.9%	-4.8%
Probability of Loss - 1 Year	0.1%	0.2%	1.1%	14.4%	28.1%	29.5%
Prob. Return < -1%	0.0%	0.0%	0.2%	9.5%	25.2%	26.8%
Prob. Return < -5%	0.0%	0.0%	0.0%	1.0%	15.4%	17.5%
Prob. Return < -20%	0.0%	0.0%	0.0%	0.0%	1.0%	1.7%
Probability of Loss - 10 Year	0.0%	0.0%	0.0%	0.0%	3.3%	4.4%
Asset Time Horizon Estimate	0.3	1.1	1.2	2.2	5.9	5.9
Dollars: (\$Millions)						
Assets	2,753.0	1,929.8	1,629.6	9,128.7	733.3	2,083.0
Expected Annual Earnings	75.6	57.3	56.1	390.3	48.6	142.3
1-Year 10% Probable Return (10% cVaR)	32.1	21.7	13.0	(253.4)	(98.2)	(320.2)
1-Year 5% Probable Return (5% cVaR)	24.5	15.5	5.4	(366.2)	(124.0)	(401.4)
3-Year 5% Probable Return (5% cVaR)	46.1	33.2	26.8	(46.5)	(51.0)	(171.6)

Table uses Callan’s long-term CMA’s for all risk profiles for comparability

Low Risk Tolerance Funds

Short Term Funds

FY2023 Short-Term Funds Investment Policy

The Department manages several funds that have high liquidity requirements necessitating investment entirely in short-term fixed income. The following funds are covered by this policy:

AY03 - Retiree Health Insurance Fund	AY3B - International Airports 2010-B
AY05 - International Airport Repair and Replacement Fund	AY3V - 2010-C GO Bonds
AY28 - Investment Loss Trust Fund	AY3Y - 2013-C GO Bonds
AY2E - 2002 Series Reserve Account	AY3Z - 2013-B GO Bonds
AY2G - Permanent Fund Dividend Holding Account	AY9X - 2006B Non-AMT Construction Fund
AY2Q - 2008 Transportation Project GO Bonds	AY9Y - 2006 Series Variable Rate
AY2U - 2003 Series Reserve Account	AY3Q - FY 2017 2016B - 2012 Transportation Bond
AY3A - International Airports 2010-A	

Investment Topic	Proposed Policy	Current Policy
Investment Objective	Very low exposure to principal loss. Modest current income requirement. Little inflation protection needed. High liquidity requirement.	No Change
Risk Tolerance	Low	No Change
Policy Risk/Loss Range	<1%	No Change
Time Horizon	Short	No Change
Asset Allocation	Broad U.S. Equity International Equity Short Duration Gov't/Credit Core U.S. Fixed Income Cash Equivalents 100%	100%
Expected Return - Short-Term	2.39%	0.05% (short-term)
Risk - Standard Deviation	0.90%	
Probability of Loss - 1 Year	0.4%	
5% Probability of Annual Return (5% cVaR)	0.5%	

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

Cash History	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Expected ST Return	2.39%	0.05%	0.17%	1.93%	2.25%	2.25%	2.25%	2.25%	2.25%	2.00%	2.75%
Expected Volatility	0.90%	0.05%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%
10% cVaR	0.80%	0.00%	-1.41%	0.35%	0.67%	0.67%	0.67%	0.67%	0.67%	0.42%	1.17%

State of Alaska Asset Allocation

Asset Classes	FY23	FY24
Broad U.S. Equity		
Global ex-U.S. Equity		
US REITS		
Short Duration Gov't/Credit		
Core U.S. Fixed Income		
Cash Equivalents	100%	100%
Total	100%	100%
Optimization Results:		
Expected Return - Short-Term	2.39%	4.72%
Expected Return - Real/After Inflation		2.22%
Risk - Standard Deviation	0.90%	0.90%
Sharpe Ratio	(0.00)	(0.00)

Risk Statistics:

10% Probable Downside Return - 1 Year	0.8%	3.1%
5% Probable Downside Return - 1 Year	0.5%	2.9%
5% Probable Downside Return - 3 Year		3.6%
5% Probable Downside Return - 5 Year		3.9%
Probability of Loss - 1 Year	0.4%	0.0%
Prob. Return < -1%	0.0%	0.0%
Probability of Loss - 10 Year	0.0%	0.0%
Asset Time Horizon Estimate	0.3	0.3

Dollars: (\$Millions)

Assets	166.2
Expected Annual Earnings	7.8
1-Year 10% Probable Return (10% cVaR)	5.2
1-Year 5% Probable Return (5% cVaR)	4.8
3-Year 5% Probable Return (5% cVaR)	6.1
5-Year 5% Probable Return (5% cVaR)	6.5

AY19: FY2023 CBRF Investment Policy

The investment policies for the Constitutional Budget Reserve Fund (CBRF) have changed over the years as the balance and the expected uses of the CBRF have changed. Declining production of Alaska North Slope crude oil and the inconsistency of future prices are still a concern. The CBRF is the state's "savings account" and as such is responsible for covering fluctuations in the general fund.

Financial planning by the administration and the legislature is highly dependent upon the CBRF balance maintaining stability and high liquidity. Given the short-term expected requirement for these funds, a cash equivalent investment program is warranted.

Investment Topic	Proposed Policy	Current Policy
Investment Objective	Very low exposure to principal loss. Little inflation protection needed. High liquidity requirement.	No Change
Risk Tolerance	Low	No Change
Policy Risk/Loss Range	<1%	No Change
Time Horizon	Short	No Change
Asset Allocation	Broad U.S. Equity International Equity Short Duration Gov't/Credit Core U.S. Fixed Income Cash Equivalents 100%	100%
Expected Return - Short-Term	2.39%	0.05% (short-term)
Risk - Standard Deviation	0.90%	0.05%
Probability of Loss - 1 Year 5% Probability of Annual Return (5% cVaR)	0.4% 0.5%	15.9%

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

CBRF History	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Expected ST Return	2.01%	0.05%	0.17%	2.32%	2.89%	2.89%	2.89%	2.89%	2.38%	2.30%	3.01%
Expected Volatility	0.90%	0.05%	0.90%	1.23%	1.64%	1.62%	1.59%	1.58%	1.58%	2.06%	2.31%
10% cVaR	0.40%	0.00%	-1.41%	0.16%	0.01%	0.05%	0.10%	0.12%	-0.40%	-1.32%	-1.04%
Assets (billions)	1.1	1.1	1.1	2.0	1.8	2.4	3.9	7.3	10.1	6.1	5.8

State of Alaska Asset Allocation

Asset Classes	FY23	FY24
Broad U.S. Equity		
Global ex-U.S. Equity		
US REITS		
Short Duration Gov't/Credit		
Core U.S. Fixed Income		
Cash Equivalents	100%	100%
Total	100%	100%
Optimization Results:		
Expected Return - Short-Term	2.39%	4.72%
Expected Return - Real/After Inflation		2.22%
Risk - Standard Deviation	0.90%	0.90%
Sharpe Ratio	(0.00)	(0.00)

Risk Statistics:

10% Probable Downside Return - 1 Year	0.8%	3.1%
5% Probable Downside Return - 1 Year	0.5%	2.9%
5% Probable Downside Return - 3 Year		3.6%
5% Probable Downside Return - 5 Year		3.9%
Probability of Loss - 1 Year	0.4%	0.0%
Prob. Return < -1%	0.0%	0.0%
Probability of Loss - 10 Year	0.0%	0.0%
Asset Time Horizon Estimate	0.3	0.3

Dollars: (\$Millions)

Assets	2,586.8
Expected Annual Earnings	122.0
1-Year 10% Probable Return (10% cVaR)	81.1
1-Year 5% Probable Return (5% cVaR)	74.0
3-Year 5% Probable Return (5% cVaR)	94.3
5-Year 5% Probable Return (5% cVaR)	100.5

Moderate Risk Tolerance Funds

GeFONSI I and II – Top 30 Participants of Each 3/31/22

GF	Fund Name	Ending Balance	Cum. %/Total	GF	Fund Name	Ending Balance	Cum. %/Total
GFI	General Fund	\$1,177,913,884	63%	GFI	Statutory Budget Reserve Fund	\$445,597,760	28%
GFI	Alaska Clean Water Fund	\$140,693,419	71%	GFI	Regional Ed Attendance Area School Fund	\$153,154,334	37%
GFI	Alaska Drinking Water Fund	\$80,538,361	75%	GFI	National Petroleum Reserve Fund	\$95,446,127	43%
GFI	Public Advocacy Trust	\$47,448,129	78%	GFI	Public Education Fund	\$94,980,513	49%
GFI	Fish & Game Fund	\$46,404,295	80%	GFI	Highway Equipment Working Capital Fund For Operating Appropriations	\$94,525,311	55%
GFI	Oil & Hazardous Substance Release Response Account	\$45,022,566	83%	GFI	Disaster Relief Fund	\$86,083,602	60%
GFI	Exxon Valdez Settlement	\$34,881,218	85%	GFI	Community Revenue Sharing Fund	\$66,415,320	64%
GFI	Renewable Energy Grant Fund	\$26,670,831	86%	GFI	School Construction Fund	\$61,139,726	68%
GFI	DVA Retiree Health	\$21,806,069	87%	GFI	Alaska Comprehensive Health Insurance Fund	\$49,846,818	71%
GFI	Group Health And Life Insurance Fund	\$21,569,908	89%	GFI	Commercial Fishing Revolving Loan Fund	\$49,750,967	74%
GFI	Vaccine Assessment Fund	\$19,325,276	90%	GFI	Alaska Marine Highway System Vessel Replacement Fund	\$44,089,338	77%
GFI	PFD Trust	\$17,710,099	91%	GFI	Major Maintenance Grant Fund	\$43,017,204	79%
GFI	Oil & Hazardous Substance Release Prevention Account	\$14,211,174	91%	GFI	Alaska Capital Income Fund	\$41,448,451	82%
GFI	Bulk Fuel Loans Fund	\$12,606,236	92%	GFI	General Fund Investment Fund	\$38,694,934	84%
GFI	AIA Passenger Facility Charge Revenue Fund Application #2	\$12,179,433	93%	GFI	Alaska Marine Highway System Fund	\$38,456,577	87%
GFI	Bulk Fuel Bridge Loan Fund	\$8,357,437	93%	GFI	Fisheries Enhancement Revolving Loan Fund	\$37,567,276	89%
GFI	Railbelt Energy Fund	\$7,869,004	93%	GFI	Deposits, Suspense & Miscellaneous	\$34,565,713	91%
GFI	School Trust Land Sales-GF Portion	\$7,614,809	94%	GFI	State Insurance Catastrophe Reserve	\$26,089,866	93%
GFI	Memorial Education Revolving Loan Fund	\$7,127,691	94%	GFI	Alaska Public Building Fund	\$19,826,237	94%
GFI	Alaska Drinking Water Administrative Operating Account	\$6,306,710	95%	GFI	Alaska Seafood Marketing Institute	\$16,217,895	95%
GFI	Election Fund	\$5,625,942	95%	GFI	Alaska Fishermen's Fund	\$12,807,083	96%
GFI	Alaska Clean Water Administrative Operating Account	\$5,306,029	95%	GFI	Information Services Fund	\$12,570,827	97%
GFI	Rural Development Initiative Fund	\$5,228,909	95%	GFI	Agricultural Revolving Loan Fund	\$12,475,255	97%
GFI	Mariculture RLF	\$5,094,655	96%	GFI	Unclaimed Property	\$7,686,434	98%
GFI	ATIB Repayment Account	\$4,643,382	96%	GFI	Second Injury Fund	\$6,888,356	98%
GFI	Small Business Economic Development Revolving Loan Fund 4	\$4,439,020	96%	GFI	Commercial Vessel Passenger Tax Account	\$6,291,238	99%
GFI	Alaska Capstone Avionics Revolving Loan Fund	\$4,224,664	96%	GFI	Large Passenger Vessel Gambling Tax Account	\$4,475,816	99%
GFI	MHT Settlement Deferred Maintenance	\$4,027,098	97%	GFI	Recidivism Reduction Fund	\$3,103,260	99%
GFI	Google Cost Sharing Fund	\$3,820,082	97%	GFI	Employee Assistance & Training Program Account	\$2,962,462	99%
GFI	Four Cent Per Barrel Of Oil Produced Surcharge	\$3,584,494	97%	GFI	Alaska Tech & Vocational Education Programs	\$2,338,628	99%

GeFONSI

AY01: FY2023 GeFONSI Investment Policy

The General Fund constitutes the largest element of the General Fund and Other Non-Segregated Investments (GeFONSI) fund. Much of the money in the fund has been appropriated and a material loss could affect the state's ability to fulfill its obligations. Treasury expects much of the money in the pool to be spent in less than one year. Accordingly, the allocation should allow minimal exposure to principal loss. Equities are not recommended for the GeFONSI.

Investment Topic	Proposed Policy	Current Policy
Investment Objective	Minimal exposure to principal loss. Maximize current income within moderate risk tolerance. Minimal inflation protection needed. High liquidity requirement.	No Change
Risk Tolerance	Moderate	No Change
Policy Risk/Loss Range	1 - 5%	No Change
Time Horizon	Short to Intermediate	No Change
Asset Allocation	Broad U.S. Equity International Equity Short Duration Govt/Credit 15% ±10% Core U.S. Fixed Income 15% ±10% Cash Equivalents 85% ±10%	15% ±10% 85% ±10%
Expected Return - Short-Term	2.51%	0.27% (short-term)
Risk - Standard Deviation	0.90%	0.57%
Probability of Loss - 1 Year 5% Probability of Annual Return (5% cVaR)	0.3% 0.7%	32.0%

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

GeFONSI History	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Expected ST Return	0.27%	0.44%	1.91%	2.38%	2.38%	2.36%	2.30%	2.30%	2.14%	2.87%
Expected Volatility	0.57%	1.16%	0.93%	1.08%	1.08%	1.08%	1.08%	1.08%	1.28%	1.33%
10% cVaR	-0.70%	-1.60%	0.28%	0.48%	0.48%	0.46%	0.40%	0.40%	-0.11%	0.54%

State of Alaska Asset Allocation

Asset Classes	FY23	FY24	2/3 ST	ST
Broad U.S. Equity				
Global ex-U.S. Equity				
US REITS				
Short Duration Gov't/Credit	15%	15%	33%	
Core U.S. Fixed Income				
Cash Equivalents	85%	85%	67%	100%
Total	100%	100%	100%	100%
Optimization Results:				
Expected Return - Short-Term	2.51%	4.70%	4.67%	4.72%
Expected Return - Real/After Inflation		2.20%	2.17%	2.22%
Risk - Standard Deviation	0.90%	0.93%	1.10%	0.90%
Sharpe Ratio	0.14	(0.02)	(0.04)	(0.00)

Risk Statistics:

10% Probable Downside Return - 1 Year	0.9%	3.1%	2.7%	3.1%
5% Probable Downside Return - 1 Year	0.7%	2.8%	2.4%	2.9%
5% Probable Downside Return - 3 Year		3.6%	3.4%	3.6%
5% Probable Downside Return - 5 Year		3.8%	3.7%	3.9%
Probability of Loss - 1 Year	0.3%	0.0%	0.0%	0.0%
Prob. Return < -1%	0.0%	0.0%	0.0%	0.0%
Probability of Loss - 10 Year	0.0%	0.0%	0.0%	0.0%
Asset Time Horizon Estimate	0.5	0.5	0.8	0.3

Dollars: (\$Millions)

Assets	1,754.2	1,754.2	1,754.2
Expected Annual Earnings	82.4	82.0	82.7
1-Year 10% Probable Return (10% cVaR)	53.8	48.1	55.0
1-Year 5% Probable Return (5% cVaR)	48.8	42.2	50.2
3-Year 5% Probable Return (5% cVaR)	63.0	59.0	63.9
5-Year 5% Probable Return (5% cVaR)	67.4	64.2	68.2

International Airport Revenue Fund

AY04: FY2023 International Airport Revenue Fund Investment Policy

The Revenue Fund maintains a significant balance and the investment earnings on that balance are a revenue source for the airport system. Airport management and airline representatives want to keep fees as stable and low as practical. Relatively stable investment earnings assist the airport system and the airlines in meeting that goal.

Beginning October 2000, the Revenue Fund contained receipts from passenger facility charges collected at the Anchorage and Fairbanks International Airports. All the airport systems' revenue and expenses flow through the Revenue Fund. This includes normal operating transactions and most repair and maintenance projects. This subjects the Revenue Fund to the possibility of relatively significant cash inflows and outflows.

Investment Topic	Proposed Policy	Current Policy
Investment Objective	Minimal exposure to principal loss. Maximize current income within moderate risk tolerance. Minimal inflation protection needed. High liquidity requirement.	No Change
Risk Tolerance	Moderate	No Change
Policy Risk/Loss Range	1 - 5%	No Change
Time Horizon	Short to Intermediate	No Change
Asset Allocation	Broad U.S. Equity International Equity Short Duration Govt/Credit 15% ±10% Core U.S. Fixed Income 15% ±10% Cash Equivalents 85% ±10%	15% ±10% 85% ±10%
Expected Return - Short-Term	2.51%	0.27% (short-term)
Risk - Standard Deviation	0.90%	0.57%
Probability of Loss - 1 Year	0.3%	32.0%
5% Probability of Annual Return (5% cVaR)	0.7%	

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

State of Alaska Asset Allocation

Asset Classes	FY23	FY24	2/3 ST	ST
Broad U.S. Equity				
Global ex-U.S. Equity				
US REITS				
Short Duration Gov't/Credit	15%	15%	33%	
Core U.S. Fixed Income				
Cash Equivalents	85%	85%	67%	100%
Total	100%	100%	100%	100%
Optimization Results:				
Expected Return - Short-Term	2.51%	4.70%	4.67%	4.72%
Expected Return - Real/After Inflation		2.20%	2.17%	2.22%
Risk - Standard Deviation	0.90%	0.93%	1.10%	0.90%
Sharpe Ratio	0.14	(0.02)	(0.04)	(0.00)

Risk Statistics:

10% Probable Downside Return - 1 Year	0.9%	3.1%	2.7%	3.1%
5% Probable Downside Return - 1 Year	0.7%	2.8%	2.4%	2.9%
5% Probable Downside Return - 3 Year		3.6%	3.4%	3.6%
5% Probable Downside Return - 5 Year		3.8%	3.7%	3.9%
Probability of Loss - 1 Year	0.3%	0.0%	0.0%	0.0%
Prob. Return < -1%	0.0%	0.0%	0.0%	0.0%
Probability of Loss - 10 Year	0.0%	0.0%	0.0%	0.0%
Asset Time Horizon Estimate	0.5	0.5	0.8	0.3

Dollars: (\$Millions)

Assets	175.6	175.6	175.6
Expected Annual Earnings	8.2	8.2	8.3
1-Year 10% Probable Return (10% cVaR)	5.4	4.8	5.5
1-Year 5% Probable Return (5% cVaR)	4.9	4.2	5.0
3-Year 5% Probable Return (5% cVaR)	6.3	5.9	6.4
5-Year 5% Probable Return (5% cVaR)	6.7	6.4	6.8

GeFONSI II

AY3F: FY2023 GeFONSI II Investment Policy

GeFONSI II is comprised of funds that do not benefit from positive investment returns, nor bear the risk of loss in the event of negative returns. The General Fund benefits, or is harmed, by these returns. GeFONSI II is invested more aggressively than is the GeFONSI. The premise for the higher risk posture is that over the course of several years the General Fund will generate more total return, despite having a higher risk of loss in any given year.

Investment Topic	Proposed Policy	Current Policy																									
Investment Objective	Tolerate moderate exposure to principal loss to target modestly higher returns.	No Change																									
Risk Tolerance	Moderate-High	No Change																									
Policy Risk/Loss Range	5 - 10%	No Change																									
Time Horizon	Intermediate	No Change																									
Asset Allocation	<table border="0"> <tr> <td>Broad U.S. Equity</td> <td>4%</td> <td>- 4%/+5%</td> <td>4%</td> <td>- 4%/+5%</td> </tr> <tr> <td>International Equity</td> <td>2%</td> <td>- 2%/+5%</td> <td>2%</td> <td>- 2%/+5%</td> </tr> <tr> <td>Short Duration Gov't/Credit</td> <td>33%</td> <td>±10%</td> <td></td> <td></td> </tr> <tr> <td>Core U.S. Fixed Income</td> <td></td> <td></td> <td>26%</td> <td>±10%</td> </tr> <tr> <td>Cash Equivalents</td> <td>61%</td> <td>±10%</td> <td>68%</td> <td>±10%</td> </tr> </table>	Broad U.S. Equity	4%	- 4%/+5%	4%	- 4%/+5%	International Equity	2%	- 2%/+5%	2%	- 2%/+5%	Short Duration Gov't/Credit	33%	±10%			Core U.S. Fixed Income			26%	±10%	Cash Equivalents	61%	±10%	68%	±10%	
Broad U.S. Equity	4%	- 4%/+5%	4%	- 4%/+5%																							
International Equity	2%	- 2%/+5%	2%	- 2%/+5%																							
Short Duration Gov't/Credit	33%	±10%																									
Core U.S. Fixed Income			26%	±10%																							
Cash Equivalents	61%	±10%	68%	±10%																							
Expected Return - Short-Term	3.01%	0.91% (short-term)																									
Risk - Standard Deviation	1.39%	1.37%																									
Probability of Loss - 1 Year	1.5%	25.3%																									
5% Probability of Annual Return (5% cVaR)	0.2%	1.9%																									

The proposed policy is effective July 1, 2022:

Lucinda Mahoney
Approved

June 28, 2022
Date

GeFONSI II History	2022	2021	2020	2019	2018
Expected ST Return	0.91%	0.94%	2.37%	3.38%	3.38%
Expected Volatility	1.37%	1.47%	1.61%	2.63%	2.58%
10% cVaR	-1.50%	-1.64%	-0.46%	-1.24%	-1.15%

State of Alaska Asset Allocation

Asset Classes	FY23	FY24	GFI	Gen. Fund
Broad U.S. Equity	4%	4%		6%
Global ex-U.S. Equity	2%	2%		3%
US REITS				0%
Short Duration Gov't/Credit	33%	33%	15%	61%
Core U.S. Fixed Income				0%
Cash Equivalents	61%	61%	85%	169%
Total	100%	100%	100%	238%
Optimization Results:				
Expected Return - Short-Term	3.01%	4.92%	4.70%	11.49%
Expected Return - Real/After Inflation		2.42%	2.20%	8.99%
Risk - Standard Deviation	1.39%	1.51%	0.93%	2.75%
Sharpe Ratio	0.45	0.13	(0.02)	2.46

Risk Statistics:

10% Probable Downside Return - 1 Year	0.6%	2.3%	3.1%	6.7%
5% Probable Downside Return - 1 Year	0.2%	1.8%	2.8%	5.8%
5% Probable Downside Return - 3 Year		3.1%	3.6%	8.2%
5% Probable Downside Return - 5 Year		3.5%	3.8%	9.0%
Probability of Loss - 1 Year	1.5%	0.1%	0.0%	0.0%
Prob. Return < -1%	0.2%	0.0%	0.0%	0.0%
Prob. Return < -2%	0.0%	0.0%	0.0%	0.0%
Probability of Loss - 10 Year	0.0%	0.0%	0.0%	0.0%
Asset Time Horizon Estimate	1.2	1.2	0.5	2.1

Dollars: (\$Millions)

Assets	1,629.6	1,629.6	1,177.9
Expected Annual Earnings	80.2	76.5	135.4
1-Year 10% Probable Return (10% cVaR)	37.1	50.0	78.4
1-Year 5% Probable Return (5% cVaR)	29.5	45.4	68.4
3-Year 5% Probable Return (5% cVaR)	50.9	58.5	96.7
5-Year 5% Probable Return (5% cVaR)	57.5	62.6	105.4

High Risk Tolerance Funds

Retiree LTC Insurance

AY11: FY2023 Retiree LTC Insurance Investment Policy

Effective July 1, 1997, the Department of Administration established the Group Health and Life Insurance Fund and the Retiree Health Insurance Fund. The Retiree Health Insurance Fund is further broken down into three plans: 1) medical, 2) dental, vision and audio, and 3) long term care.

The Retiree Long-Term Care Plan consists of premiums paid for retiree long term care. While many retirees are paying premiums into the plan today, at present only a small percentage of the premiums are needed for claims payments. Per the analysis, Actuarial Valuation of the State of Alaska Long-Term Care Program as of June 2021, conducted by Lewis & Ellis, Inc., the actuarial assumed net investment earnings assumption is 5.25%.

Investment Topic	Proposed Policy	Current Policy																		
Investment Objective	To match the fund's assumed actuarial rate of return while minimizing risk	No Change																		
Risk Tolerance	High	No Change																		
Policy Risk/Loss Range	>10%	No Change																		
Time Horizon	Long	No Change																		
Asset Allocation	<table border="0"> <tr> <td>Broad U.S. Equity</td> <td>35% ± 5%</td> <td>33% ± 5%</td> </tr> <tr> <td>International Equity</td> <td>22% ± 5%</td> <td>21% ± 5%</td> </tr> <tr> <td>U.S. REITS</td> <td>5% ± 3%</td> <td>4% ± 3%</td> </tr> <tr> <td>Core U.S. Fixed Income</td> <td>37% ± 5%</td> <td>41% ± 5%</td> </tr> <tr> <td colspan="3"><i>*may include up to 9% in tactical fixed income</i></td> </tr> <tr> <td>Cash Equivalents</td> <td>1% - 1%/+2%</td> <td>1% - 1%/+2%</td> </tr> </table>	Broad U.S. Equity	35% ± 5%	33% ± 5%	International Equity	22% ± 5%	21% ± 5%	U.S. REITS	5% ± 3%	4% ± 3%	Core U.S. Fixed Income	37% ± 5%	41% ± 5%	<i>*may include up to 9% in tactical fixed income</i>			Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%	
Broad U.S. Equity	35% ± 5%	33% ± 5%																		
International Equity	22% ± 5%	21% ± 5%																		
U.S. REITS	5% ± 3%	4% ± 3%																		
Core U.S. Fixed Income	37% ± 5%	41% ± 5%																		
<i>*may include up to 9% in tactical fixed income</i>																				
Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%																		
Expected Return - Long-Term	5.27%	5.10%																		
Risk - Standard Deviation	11.14%	10.25%																		
Probability of Loss - 1 Year	31.8%	31.6%																		
10% Probability of Annual Loss (10% cVaR)	14.3%	13.1%																		

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

LTC	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Expected LT Return	5.10%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.00%	5.00%
Expected Volatility	10.50%	8.08%	6.02%	8.17%	8.15%	7.52%	7.28%	7.27%	7.63%	6.23%
10% cVaR	-13.50%	-8.93%	-5.32%	-9.09%	-9.05%	-7.95%	-7.53%	-7.51%	-8.39%	-5.93%

State of Alaska Asset Allocation

Asset Classes	FY23	Optimized	5yr Avg Risk	5% Return
Broad U.S. Equity	35%	32%	25%	13%
Global ex-U.S. Equity	22%	23%	18%	9%
US REITS	5%	5%	4%	2%
Short Duration Gov't/Credit				
Core U.S. Fixed Income	37%	39%	52%	75%
Cash Equivalents	1%	1%	1%	1%
Total	100%	100%	100%	100%
Optimization Results:				
Expected Return - Long-Term	5.27%	6.57%	6.14%	5.26%
Expected Return - Real/After Inflation		4.07%	3.64%	2.76%
Risk - Standard Deviation	11.14%	11.10%	8.87%	5.37%
Sharpe Ratio	0.37	0.34	0.38	0.47

Risk Statistics:

10% Probable Downside Return - 1 Year	-14.3%	-12.9%	-9.4%	-4.2%
5% Probable Downside Return - 1 Year	-17.7%	-16.3%	-12.1%	-5.8%
5% Probable Downside Return - 3 Year		-6.6%	-4.4%	-1.1%
5% Probable Downside Return - 5 Year		-3.7%	-2.0%	0.3%
Probability of Loss - 1 Year	31.8%	27.7%	24.4%	16.4%
Prob. Return < -5%	17.8%	14.9%	10.4%	2.8%
Prob. Return < -10%	8.5%	6.8%	3.4%	0.2%
Prob. Return < -20%	1.2%	0.8%	0.2%	0.0%
Probability of Loss - 10 Year	6.7%	3.1%	1.4%	0.1%
Asset Time Horizon Estimate	5.9	5.9	5.9	5.9

Dollars: (\$Millions)

Assets	733.3	733.3	733.3
Expected Annual Earnings	48.2	45.1	38.6
1-Year 10% Probable Return (10% cVaR)	(94.7)	(69.1)	(30.5)
1-Year 5% Probable Return (5% cVaR)	(119.7)	(89.1)	(42.6)
3-Year 5% Probable Return (5% cVaR)	(48.8)	(32.4)	(8.3)
5-Year 5% Probable Return (5% cVaR)	(26.9)	(14.9)	2.2

High Risk/Endowment Profile Funds

AY08: FY2023 Public School Trust Fund Investment Policy

The Public School Trust Fund is a fund dedicated to the benefit of Alaska's public schools. The central objective is to provide "increasing returns from capital appreciation and net income over long-term periods to the fund's current beneficiaries." The fund may be invested "on the basis of probable total rate of return to promote the long-term generation of capital appreciate and income."

On July 1 of each year, the commissioner shall determine the monthly average market value of the fund for the previous five fiscal years preceding the previous fiscal year. The legislature may appropriate not more than five percent of the amount determined by the commissioner. Pending signature by the governor, the appropriated amount may be expended the following fiscal year.

Investment Topic	Proposed Policy	Current Policy																		
Investment Objective	High exposure of principal to loss in return for higher expected Longer-term returns. Limited current income requirement. Limited inflation protection needed. Moderate liquidity requirement.	No Change																		
Risk Tolerance	High	No Change																		
Policy Risk/Loss Range	>10%	No Change																		
Time Horizon	Long	No Change																		
Asset Allocation	<table border="0"> <tr> <td>Broad U.S. Equity</td> <td>39% ± 5%</td> <td>39% ± 5%</td> </tr> <tr> <td>International Equity</td> <td>25% ± 5%</td> <td>25% ± 5%</td> </tr> <tr> <td>U.S. REITs</td> <td>5% ± 3%</td> <td>5% ± 5%</td> </tr> <tr> <td>Core U.S. Fixed Income</td> <td>30% ± 5%</td> <td>30% ± 5%</td> </tr> <tr> <td colspan="3"><i>*may include up to 7% in tactical fixed income</i></td> </tr> <tr> <td>Cash Equivalents</td> <td>1% - 1%/+2%</td> <td>1% - 1%/+2%</td> </tr> </table>	Broad U.S. Equity	39% ± 5%	39% ± 5%	International Equity	25% ± 5%	25% ± 5%	U.S. REITs	5% ± 3%	5% ± 5%	Core U.S. Fixed Income	30% ± 5%	30% ± 5%	<i>*may include up to 7% in tactical fixed income</i>			Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%	
Broad U.S. Equity	39% ± 5%	39% ± 5%																		
International Equity	25% ± 5%	25% ± 5%																		
U.S. REITs	5% ± 3%	5% ± 5%																		
Core U.S. Fixed Income	30% ± 5%	30% ± 5%																		
<i>*may include up to 7% in tactical fixed income</i>																				
Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%																		
Expected Return - Long-Term	5.60%	5.62%																		
Risk - Standard Deviation	12.41%	12.50%																		
Probability of Loss - 1 Year	32.6%	32.9%																		
10% Probability of Annual Loss (10% cVaR)	16.2%	16.4%																		

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

High Risk History	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Expected LT Return	5.62%	6.37%	6.58%	6.20%	6.21%	6.55%	6.73%	6.73%	6.25%	6.25%
Expected Volatility	12.50%	12.60%	12.50%	12.70%	12.70%	12.95%	13.23%	13.23%	11.80%	10.55%
10% cVaR	-16.40%	-15.74%	-15.36%	-16.09%	-16.08%	-16.18%	-16.49%	-16.49%	-14.46%	-12.27%

State of Alaska Asset Allocation

Asset Classes	FY23	Optimized	65/35	70/30
Broad U.S. Equity	39%	37%	65%	70%
Global ex-U.S. Equity	25%	27%		
US REITS	5%	5%		
Short Duration Gov't/Credit				
Core U.S. Fixed Income	30%	30%	35%	30%
Cash Equivalents	1%	1%		
Total	100%	100%	100%	100%
Optimization Results:				
Expected Return - Long-Term	5.60%	6.84%	6.57%	6.71%
Expected Return - Real/After Inflation		4.34%	4.07%	4.21%
Risk - Standard Deviation	12.41%	12.70%	11.84%	12.71%
Sharpe Ratio	0.35	0.32	0.32	0.31

Risk Statistics:

10% Probable Downside Return - 1 Year	-16.2%	-15.5%	-14.2%	-15.6%
5% Probable Downside Return - 1 Year	-20.0%	-19.4%	-17.9%	-19.5%
5% Probable Downside Return - 3 Year		-8.3%	-7.5%	-8.4%
5% Probable Downside Return - 5 Year		-4.9%	-4.4%	-5.0%
Probability of Loss - 1 Year	32.6%	29.5%	28.9%	29.9%
Prob. Return < -5%	19.6%	17.6%	16.4%	17.9%
Prob. Return < -10%	10.4%	9.2%	8.1%	9.4%
Prob. Return < -20%	2.0%	1.7%	1.2%	1.8%
Probability of Loss - 10 Year	7.7%	4.4%	4.0%	4.8%
Asset Time Horizon Estimate	5.9	5.9	6.0	6.0

Dollars: (\$Millions)

Assets	2,083.0	2,083.0	2,083.0
Expected Annual Earnings	142.5	136.9	139.7
1-Year 10% Probable Return (10% cVaR)	(321.9)	(296.0)	(325.2)
1-Year 5% Probable Return (5% cVaR)	(403.3)	(372.0)	(406.7)
3-Year 5% Probable Return (5% cVaR)	(172.6)	(156.9)	(175.8)

High Risk/Endowment Profile Funds - Continued

AY13: FY2023 PCE Endowment Investment Policy

AS 42.45.080 as amended, directs the commissioner to apply the prudent-investor rule and invest the assets of the fund considering preservation of the purchasing power of the fund over time while maximizing the expected total return from both income and appreciation.

Investment Topic	Proposed Policy	Current Policy																		
Investment Objective	Returns require relatively high exposure to principal loss in return for higher expected longer-term returns. Limited current income requirement. Long-term inflation protection expectation.	Changed																		
Risk Tolerance	High	No Change																		
Policy Risk/Loss Range	>10%	No Change																		
Time Horizon	Long	Intermediate																		
Asset Allocation	<table border="0"> <tr> <td>Broad U.S. Equity</td> <td>39% ± 5%</td> <td>32% ± 5%</td> </tr> <tr> <td>International Equity</td> <td>25% ± 5%</td> <td>20% ± 5%</td> </tr> <tr> <td>U.S. REITs</td> <td>5% ± 3%</td> <td>4% ± 3%</td> </tr> <tr> <td>Core U.S. Fixed Income</td> <td>30% ± 5%</td> <td>43% ± 5%</td> </tr> <tr> <td colspan="3"><i>*may include up to 7% in tactical fixed income</i></td> </tr> <tr> <td>Cash Equivalents</td> <td>1% - 1%/+2%</td> <td>1% - 1%/+2%</td> </tr> </table>	Broad U.S. Equity	39% ± 5%	32% ± 5%	International Equity	25% ± 5%	20% ± 5%	U.S. REITs	5% ± 3%	4% ± 3%	Core U.S. Fixed Income	30% ± 5%	43% ± 5%	<i>*may include up to 7% in tactical fixed income</i>			Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%	
Broad U.S. Equity	39% ± 5%	32% ± 5%																		
International Equity	25% ± 5%	20% ± 5%																		
U.S. REITs	5% ± 3%	4% ± 3%																		
Core U.S. Fixed Income	30% ± 5%	43% ± 5%																		
<i>*may include up to 7% in tactical fixed income</i>																				
Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%																		
Expected Return - Long-Term	5.60%	5.00%																		
Risk - Standard Deviation	12.41%	10.12%																		
Probability of Loss - 1 Year	32.6%	31.6%																		
10% Probability of Annual Loss (10% cVaR)	16.2%	12.9%																		

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

AY31: FY2023 Alaska Higher Education Investment Policy

The Alaska Higher Education Investment Fund was established to make grants and scholarship payments to qualified postsecondary institutions for students. The Legislature may appropriate up to seven percent of the fund's prior June 30 market value balance each year.

Investment Topic	Proposed Policy	Current Policy																		
Investment Objective	High exposure of principal to loss in return for higher expected Longer-term returns. Limited current income requirement. Limited inflation protection needed. Moderate liquidity requirement.	No Change																		
Risk Tolerance	High	No Change																		
Policy Risk/Loss Range	>10%	No Change																		
Time Horizon	Long	No Change																		
Asset Allocation	<table border="0"> <tr> <td>Broad U.S. Equity</td> <td>39% ± 5%</td> <td>39% ± 5%</td> </tr> <tr> <td>International Equity</td> <td>25% ± 5%</td> <td>25% ± 5%</td> </tr> <tr> <td>U.S. REITs</td> <td>5% ± 3%</td> <td>5% ± 5%</td> </tr> <tr> <td>Core U.S. Fixed Income</td> <td>30% ± 5%</td> <td>30% ± 5%</td> </tr> <tr> <td colspan="3"><i>*may include up to 7% in tactical fixed income</i></td> </tr> <tr> <td>Cash Equivalents</td> <td>1% - 1%/+2%</td> <td>1% - 1%/+2%</td> </tr> </table>	Broad U.S. Equity	39% ± 5%	39% ± 5%	International Equity	25% ± 5%	25% ± 5%	U.S. REITs	5% ± 3%	5% ± 5%	Core U.S. Fixed Income	30% ± 5%	30% ± 5%	<i>*may include up to 7% in tactical fixed income</i>			Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%	
Broad U.S. Equity	39% ± 5%	39% ± 5%																		
International Equity	25% ± 5%	25% ± 5%																		
U.S. REITs	5% ± 3%	5% ± 5%																		
Core U.S. Fixed Income	30% ± 5%	30% ± 5%																		
<i>*may include up to 7% in tactical fixed income</i>																				
Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%																		
Expected Return - Long-Term	5.60%	5.62%																		
Risk - Standard Deviation	12.41%	12.50%																		
Probability of Loss - 1 Year	32.6%	32.9%																		
10% Probability of Annual Loss (10% cVaR)	16.2%	16.4%																		

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

High Risk/Endowment Profile Funds - Continued

AY9J: FY2023 Illinois Creek Mine Reclamation Investment Policy

The Illinois Creek Gold Mine is a remote gold mine located on state land approximately 51 miles south of Galena, Alaska. Construction of the gold mine began in June, 1996. The companies responsible for the mine dissolved, the financier abandoned its ownership rights, and the State of Alaska inherited operating responsibility for the mine in July 1999. Following reclamation of the mine by American Reclamation Group, the State now assumes responsibility to monitor the site and to fix unexpected post-reclamation problems. To fund the post-closure monitoring and any potential maintenance, this trust fund was created. The Department of Revenue will manage the fund and Department of Natural Resources will withdraw funds for monitoring and reclamation obligations.

Investment Topic	Proposed Policy	Current Policy																		
Investment Objective	Maximize return while still being able to fund uncertain maintenance expenditures (amount and size)	No Change																		
Risk Tolerance	High	No Change																		
Policy Risk/Loss Range	>10%	No Change																		
Time Horizon	Long	No Change																		
Asset Allocation	<table border="0"> <tr> <td>Broad U.S. Equity</td> <td>39% ± 5%</td> <td>39% ± 5%</td> </tr> <tr> <td>International Equity</td> <td>25% ± 5%</td> <td>25% ± 5%</td> </tr> <tr> <td>U.S. REITs</td> <td>5% ± 3%</td> <td>5% ± 5%</td> </tr> <tr> <td>Core U.S. Fixed Income</td> <td>30% ± 5%</td> <td>30% ± 5%</td> </tr> <tr> <td colspan="3"><i>*may include up to 7% in tactical fixed income</i></td> </tr> <tr> <td>Cash Equivalents</td> <td>1% - 1%/+2%</td> <td>1% - 1%/+2%</td> </tr> </table>	Broad U.S. Equity	39% ± 5%	39% ± 5%	International Equity	25% ± 5%	25% ± 5%	U.S. REITs	5% ± 3%	5% ± 5%	Core U.S. Fixed Income	30% ± 5%	30% ± 5%	<i>*may include up to 7% in tactical fixed income</i>			Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%	
Broad U.S. Equity	39% ± 5%	39% ± 5%																		
International Equity	25% ± 5%	25% ± 5%																		
U.S. REITs	5% ± 3%	5% ± 5%																		
Core U.S. Fixed Income	30% ± 5%	30% ± 5%																		
<i>*may include up to 7% in tactical fixed income</i>																				
Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%																		
Expected Return - Long-Term	5.60%	5.62%																		
Risk - Standard Deviation	12.41%	12.50%																		
Probability of Loss - 1 Year	32.6%	32.9%																		
10% Probability of Annual Loss (10% cVaR)	16.2%	16.4%																		

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

AY3G: FY2023 Education Endowment Investment Policy

AS 43.23.063(b)(2) directs the commissioner to invest in a manner likely to achieve at least a four percent nominal return over a five-year period.

On July 1 of each year, the "commissioner shall determine the fund balance for the previously closed fiscal year, including the earnings of the fund" and "when the average market value for the fiscal year exceeds \$1,000,000,000, transfer 4.5% of the average fiscal-year-end market value of the balance of the fund for the last five fiscal years, including the fiscal year just ended, and including any unrealized gains and losses."

Investment Topic	Proposed Policy	Current Policy																		
Investment Objective	High exposure of principal to loss in return for higher expected Longer-term returns. Limited current income requirement. Limited inflation protection needed. Moderate liquidity requirement.	No Change																		
Risk Tolerance	High	No Change																		
Policy Risk/Loss Range	>10%	No Change																		
Time Horizon	Long	No Change																		
Asset Allocation	<table border="0"> <tr> <td>Broad U.S. Equity</td> <td>39% ± 5%</td> <td>39% ± 5%</td> </tr> <tr> <td>International Equity</td> <td>25% ± 5%</td> <td>25% ± 5%</td> </tr> <tr> <td>U.S. REITs</td> <td>5% ± 3%</td> <td>5% ± 5%</td> </tr> <tr> <td>Core U.S. Fixed Income</td> <td>30% ± 5%</td> <td>30% ± 5%</td> </tr> <tr> <td colspan="3"><i>*may include up to 7% in tactical fixed income</i></td> </tr> <tr> <td>Cash Equivalents</td> <td>1% - 1%/+2%</td> <td>1% - 1%/+2%</td> </tr> </table>	Broad U.S. Equity	39% ± 5%	39% ± 5%	International Equity	25% ± 5%	25% ± 5%	U.S. REITs	5% ± 3%	5% ± 5%	Core U.S. Fixed Income	30% ± 5%	30% ± 5%	<i>*may include up to 7% in tactical fixed income</i>			Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%	
Broad U.S. Equity	39% ± 5%	39% ± 5%																		
International Equity	25% ± 5%	25% ± 5%																		
U.S. REITs	5% ± 3%	5% ± 5%																		
Core U.S. Fixed Income	30% ± 5%	30% ± 5%																		
<i>*may include up to 7% in tactical fixed income</i>																				
Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%																		
Expected Return - Long-Term	5.60%	5.62%																		
Risk - Standard Deviation	12.41%	12.50%																		
Probability of Loss - 1 Year	32.6%	32.9%																		
10% Probability of Annual Loss (10% cVaR)	16.2%	16.4%																		

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

State Asset Allocation Approach for FY2024 Summary

- Evaluate the current attributes of each fund to identify the best balance of risk and return.
- Use Callan’s capital market assumptions and Modern Portfolio Theory to arrive at asset allocations.
- Set short-term return expectations using current yields (YTW) for short-term and moderate risk profiles.
- Emphasize diversification in a particularly uncertain market.
- Due to the Fed’s effort in combating inflation by raising short-term interest rates, yields on short-term fixed income exceed longer-term capital market expectations for those asset classes.
- Staff has evaluated each portfolio and is comfortable with the recommendations.

Asset Classes	Low	Moderate	Moderate +	All SOA	High Risk	Endowment
Broad U.S. Equity			4.0%	12.4%	35.0%	39.0%
Global ex-U.S. Equity			2.0%	7.8%	22.0%	25.0%
U.S. REITs				1.5%	5.0%	5.0%
Core U.S. Fixed Income				9.8%	37.0%	30.0%
Short Duration Gov't/Credit		15.0%	33.0%	9.1%		
Cash Equivalents	100%	85.0%	61.0%	59.3%	1.0%	1.0%
Total	100%	100%	100%	100%	100%	100%
Expected Return	2.75%	2.97%	3.44%	4.28%	6.63%	6.83%
Expected Return - Real/After Inflation	0.25%	0.47%	0.94%	1.78%	4.13%	4.33%
Risk - Standard Deviation	0.90%	1.05%	1.51%	4.02%	11.41%	12.65%
Sharpe Ratio	(0.00)	0.21	0.46	0.38	0.34	0.32
Risk Statistics:						
10% Probable Downside Return - 1 Year	1.2%	1.1%	0.8%	-2.8%	-13.4%	-15.4%
5% Probable Downside Return - 1 Year	0.9%	0.8%	0.3%	-4.0%	-16.9%	-19.3%
5% Probable Downside Return - 3 Year	1.7%	1.7%	1.6%	-0.5%	-7.0%	-8.2%
5% Probable Downside Return - 5 Year	1.9%	2.0%	2.1%	0.6%	-3.9%	-4.8%
Probability of Loss - 1 Year	0.1%	0.2%	1.1%	14.4%	28.1%	29.5%
Prob. Return < -1%	0.0%	0.0%	0.2%	9.5%	25.2%	26.8%
Prob. Return < -5%	0.0%	0.0%	0.0%	1.0%	15.4%	17.5%
Prob. Return < -20%	0.0%	0.0%	0.0%	0.0%	1.0%	1.7%
Probability of Loss - 10 Year	0.0%	0.0%	0.0%	0.0%	3.3%	4.4%
Asset Time Horizon Estimate	0.3	1.1	1.2	2.2	5.9	5.9
Dollars: (\$Millions)						
Assets	2,753.0	1,929.8	1,629.6	9,128.7	733.3	2,083.0
Expected Annual Earnings	75.6	57.3	56.1	390.3	48.6	142.3
1-Year 10% Probable Return (10% cVaR)	32.1	21.7	13.0	(253.4)	(98.2)	(320.2)
1-Year 5% Probable Return (5% cVaR)	24.5	15.5	5.4	(366.2)	(124.0)	(401.4)
3-Year 5% Probable Return (5% cVaR)	46.1	33.2	26.8	(46.5)	(51.0)	(171.6)

Table uses Callan’s long-term CMA’s for all risk profiles for comparability

Questions?

State of Alaska
Department of Revenue

2023 State Investment Review Meeting Schedule

February 15, 2023 @ 10:00 AM (Videoconference)

1. December 31, 2022 Performance
2. FY2023 Capital Market Assumptions
3. Fixed Income Cash Management

May 10, 2023 @ 10:30 AM (Videoconference)

1. March 31, 2023 Performance
2. FY2024 Asset Allocation Discussion – Asset Allocation Process & 2023 Capital Market Assumptions

August 23, 2023 @ 10:00 AM (Videoconference)

1. June 30, 2023 Performance
2. FY2024 Asset Allocation Discussion

November 8, 2023 @ 10:00 AM (Videoconference)

1. September 30, 2023 Performance

Potential Discussion Topics:

- Endowment-Oriented Accounts, Asset Allocation, and Spending Policy
- Positioning for inflation
- What are reasonable investment objectives?