

**State of Alaska**  
**Department of Revenue**  
STATE INVESTMENT REVIEW MEETING  
**October 25, 2022 – 10:00AM**

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<u>Via Computer or Mobile App</u> Meeting ID: 234 308 012 831 Passcode: XXD29C	<u>Call In (Audio Only):</u> Phone: 1-907-202-7104 Code: 106 445 252#
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- I. **Introduction**  
*Deven Mitchell, Commissioner of Revenue*  
*Zachary Hanna, Chief Investment Officer*
  
- II. **State Investments**  
*Zachary Hanna, Chief Investment Officer*
  - A. **September 30, 2022 Performance – Commissioner’s Report**
  - B. **Non-Routine Investments**
  
- III. **IAC Comments**  
*Investment Advisory Council Members*
  
- IV. **Future Agenda Items & 2023 Calendar**  
*Zachary Hanna, Chief Investment Officer*  
*Alysia Jones, ARMB Liaison*
  
- V. **Other Matters for Discussion**
  
- VI. **Adjournment**



THE STATE  
*of* **ALASKA**  
GOVERNOR MIKE DUNLEAVY

# **State Investment Review**

## **for the Quarter Ending**

### **September 30, 2022**

**October 2022**

**Zachary Hanna, CFA**  
**Chief Investment Officer**  
**State of Alaska, Department of Revenue**

# **Economic and Market Update**

# The Economy, Geopolitics, and Inflation

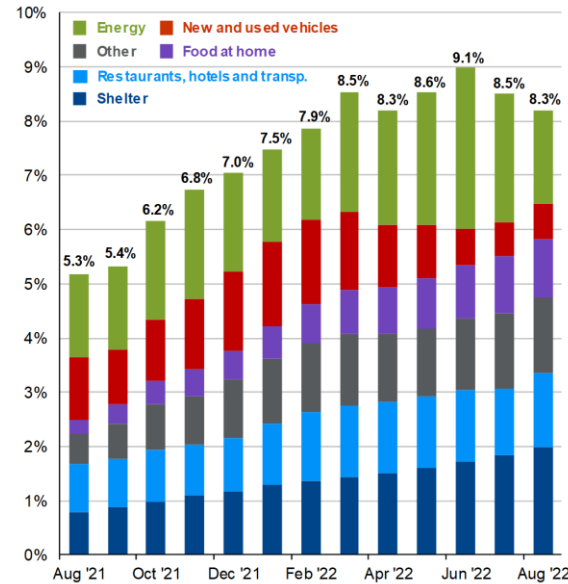
- In the first quarter, the Russia/Ukraine crisis dominated headlines and capital markets. The direct impact to equity markets was muted, but the effect on energy inflation and European growth was pronounced.
- Since then, Inflation has dominated markets with CPI peaking at 9.1% in June before declining modestly to 8.3% in October. Inflation remains sticky and well in excess of the Fed's inflation target driven by energy/commodity prices, wage pressure, and remaining supply chain issues.
- Employment remains tight with 4.5 million more job openings than unemployed workers leading to wage pressure.
- Inflation and rising interest rates has created a challenging dynamic for economic growth with recession increasingly likely.

## Inflation drivers and expectations

GTM U.S. 30

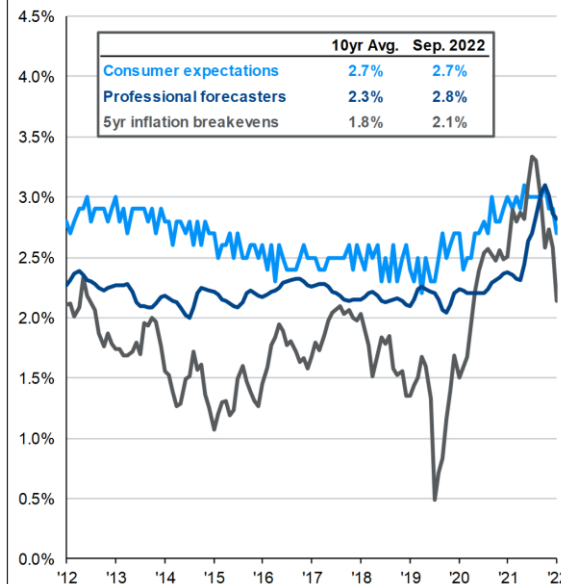
### Contributors to headline inflation

Contribution to y/y % change in CPI, not seasonally adjusted



### Inflation expectations, next 5 years

% change vs. prior year, non-seasonally adjusted



Source: Bureau of Labor Statistics, FactSet, Federal Reserve Bank of Philadelphia, University of Michigan, J.P. Morgan Asset Management. Contributions mirror the BLS methodology on Table 7 of the CPI report. Values may not sum to headline CPI figures due to rounding and underlying calculations. "Shelter" includes owners equivalent rent and rent of primary residence. "Other" primarily reflects household furnishings, apparel, education and communication services, medical care services and other personal services. Professional forecasters reflects the latest quarterly Survey of Professional Forecasters on a 1-month lag. The Survey of Professional Forecasters is conducted by the Federal Reserve Bank of Philadelphia and reflects the median estimate by professional forecasters of average CPI inflation over the next 5 years.  
Guide to the Markets – U.S. Data are as of September 30, 2022.

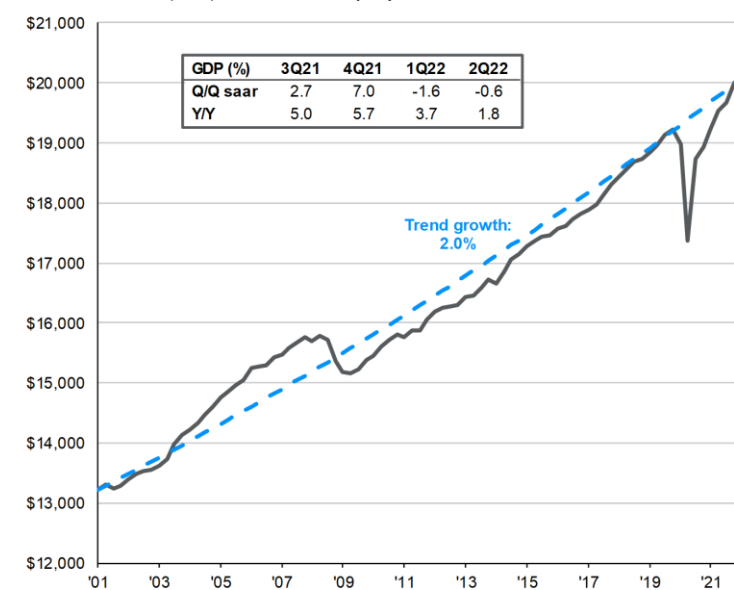
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## Economic growth and the composition of GDP

GTM U.S. 19

### Real GDP

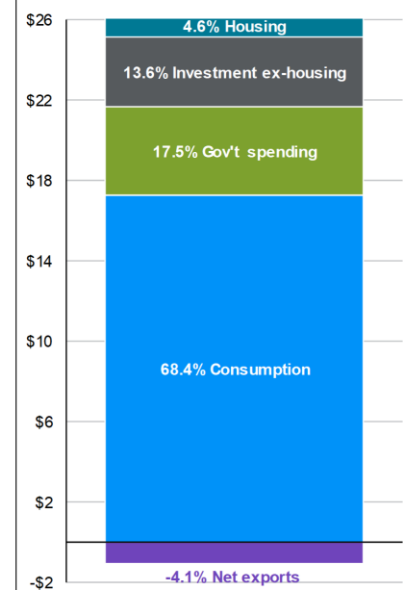
Billions of chained (2012) dollars, seasonally adjusted at annual rates



Source: BEA, FactSet, J.P. Morgan Asset Management. Values may not sum to 100% due to rounding. Trend growth is measured as the average annual growth rate from business cycle peak 1Q01 to business cycle peak 4Q19.  
Guide to the Markets – U.S. Data are as of September 30, 2022.

### Components of GDP

2Q22 nominal GDP, USD trillions



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# Interest Rates and the Federal Reserve

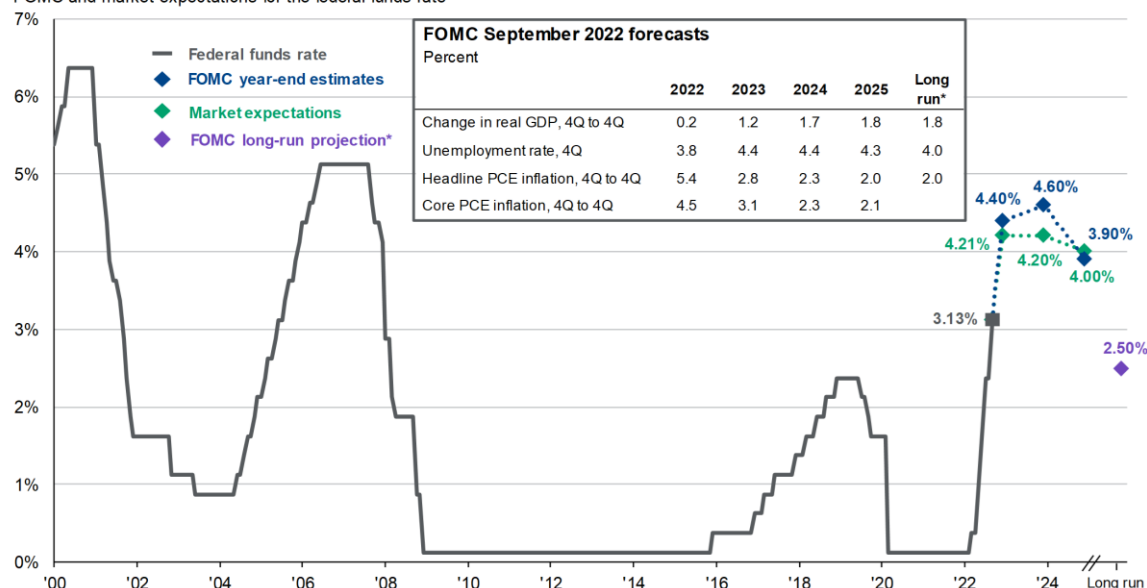
- Energy price increases along with other pressures have catalyzed the Federal Reserve into action to control inflation.
- The Fed has already raised rates from zero to 3.25% this year and additional increases are expected.
- The Fed also plans to decrease the size of its balance sheet, which doubled through the pandemic.
- These actions have had a direct impact on fixed income markets and other capital markets.

## 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 as of September 30, 2022.

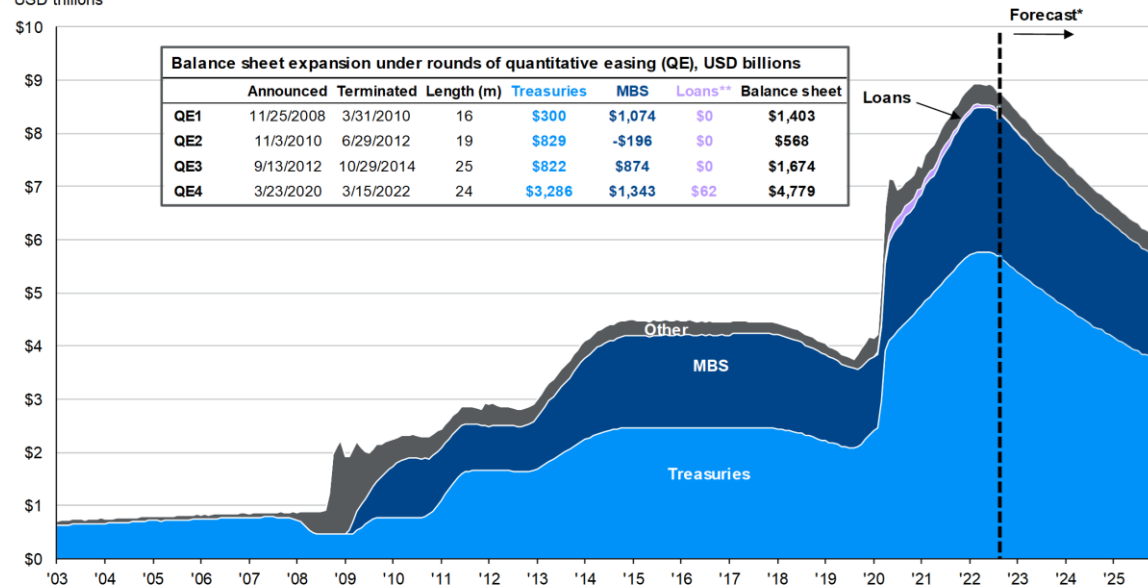
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## The Federal Reserve balance sheet

GTM U.S. 35

### The Federal Reserve balance sheet

USD trillions



Source: FactSet, Federal Reserve, J.P. Morgan Investment Bank, J.P. Morgan Asset Management. At its peak, the balance sheet contained \$5.8tn in Treasuries and \$2.7tn in MBS. \*Per the most recent Federal Reserve policy meeting, the forecast assumes the Federal Reserve began balance sheet runoff in June 2022. From June to August, the committee allowed up to \$30bn in U.S. Treasury securities and \$17.5bn in agency mortgage-backed securities to mature per month, with that pace doubling to \$60bn and \$35bn respectively in September. Any maturing amount in excess of these caps are reinvested. The forecast does not include the active selling of securities from the committee. \*\*Loans include liquidity and credit extended through corporate credit facilities established in March 2020. Other includes primary, secondary and seasonal loans, repurchase agreements, foreign currency reserves and maiden lane securities. 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 as of September 30, 2022.

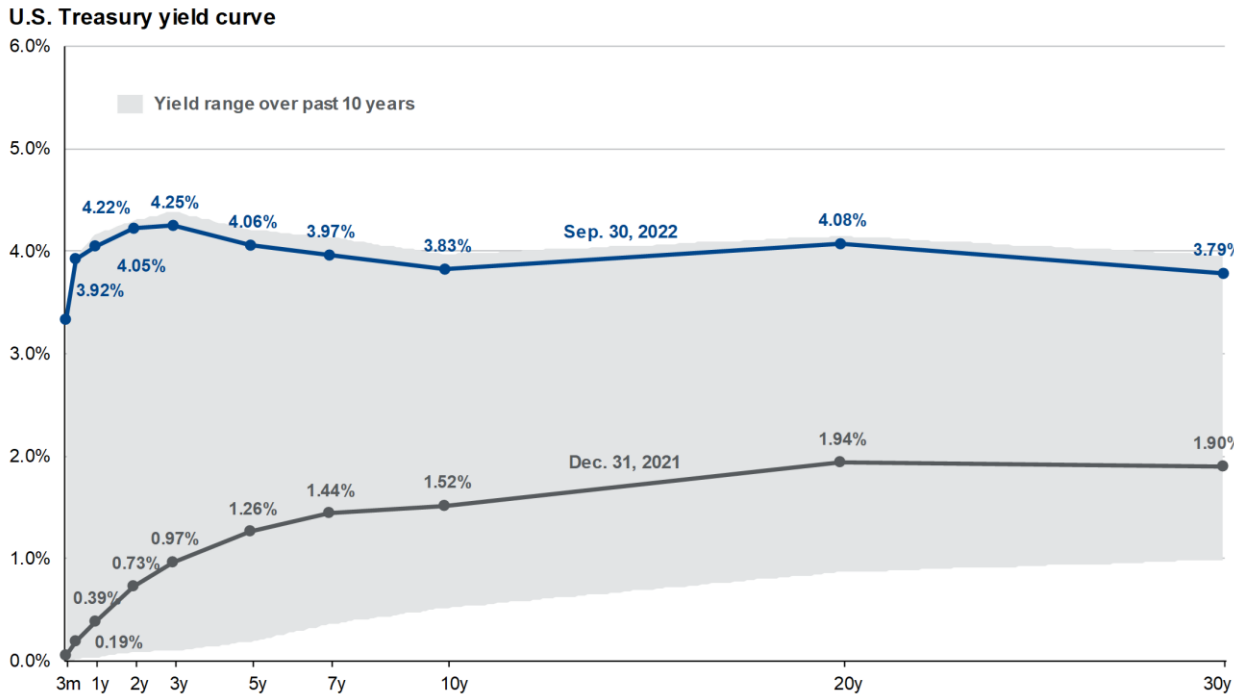
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# Fixed Income

- Yields have increased dramatically in reaction to the Fed's rate increase plans and are at 10-year high levels.
- Spreads have also increased, and most bond sectors have performed poorly.
- Fixed income investments remain exposed to further rate increases but are cushioned by higher starting yields.

## Yield curve

GTM U.S. 38



Source: FactSet, Federal Reserve, J.P. Morgan Asset Management. Guide to the Markets – U.S. Data are as of September 30, 2022.

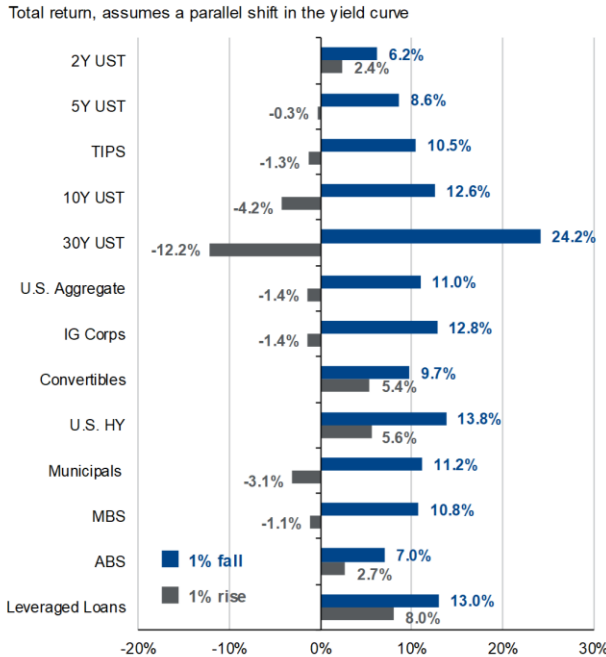
## Fixed income market dynamics

GTM U.S. 37

U.S. Treasuries	Yield		Return			
	9/30/2022	12/31/2021	2022 YTD	Avg. Maturity	Correlation to 10-year	Correlation to S&P 500
2-Year	4.22%	0.73%	-4.59%	2 years	0.71	-0.25
5-Year	4.06%	1.26%	-10.79%	5	0.93	-0.21
TIPS	1.68%	-1.04%	-13.61%	10	0.61	0.30
10-Year	3.83%	1.52%	-16.85%	10	1.00	-0.19
30-Year	3.79%	1.90%	-31.49%	30	0.93	-0.20
<b>Sector</b>						
U.S. Aggregate	4.75%	1.75%	-14.61%	8.5	0.85	0.18
IG Corps	5.69%	2.33%	-18.72%	11.0	0.50	0.46
Convertibles	7.14%	3.66%	-19.85%	-	-0.20	0.87
U.S. HY	9.68%	4.21%	-14.74%	5.7	-0.14	0.75
Municipals	4.04%	1.11%	-12.13%	12.8	0.47	0.20
MBS	4.83%	1.98%	-13.66%	8.1	0.78	0.09
ABS	5.50%	1.96%	-3.66%	2.3	0.11	-0.03
Leveraged Loans	10.52%	4.60%	-2.66%	2.5	-0.04	0.24

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 September 30, 2022.

### Impact of a 1% rise or fall in interest rates



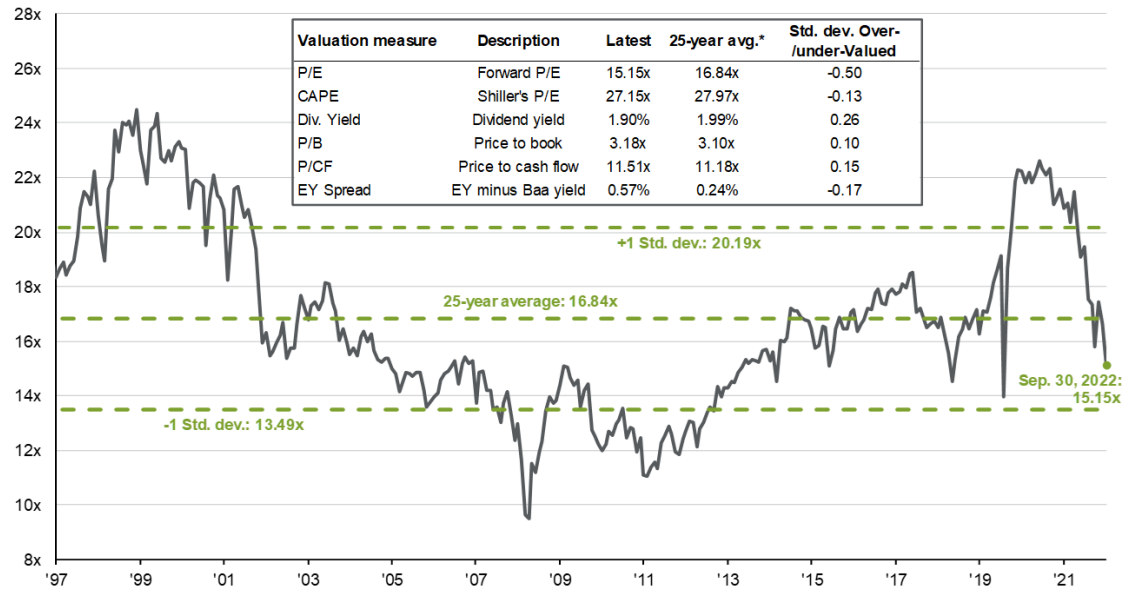
# Equity Markets

- With the recent stock market correction, U.S. equities are back to more normal valuations.
- After breaking records in 2021, corporate profits are exposed to slowing growth and inflation.
- International equity valuations are close to all time lows 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 August 1997 and by FactSet since January 2022. Current next 12-months consensus earnings estimates are \$241. 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 September 30, 2022.

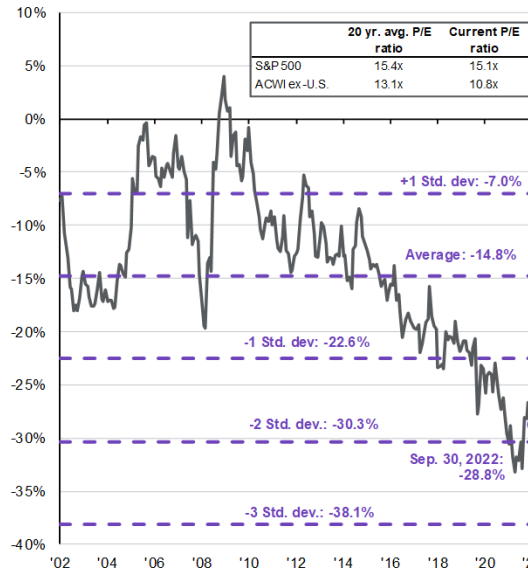
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## International valuations and dividend yields

GTM U.S. 48

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

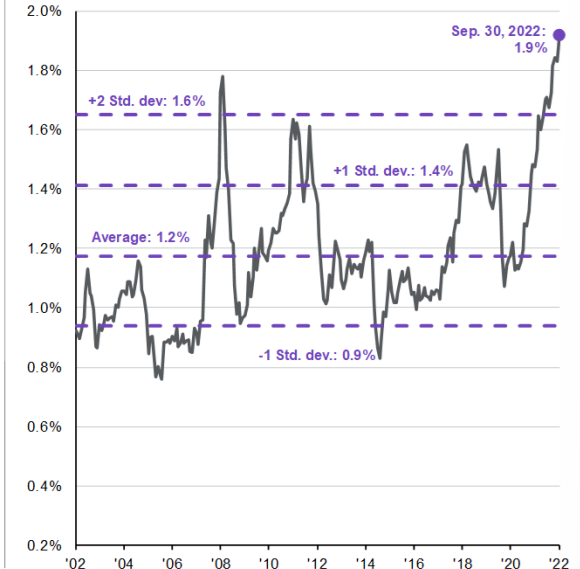
MSCI AC World ex-U.S. vs. S&P 500 Indices, next 12 months



Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management.  
 Guide to the Markets – U.S. Data are as of September 30, 2022.

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

MSCI AC World ex-U.S. minus S&P 500 Indices, next 12 months



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# Historical Stock and Bond Declines

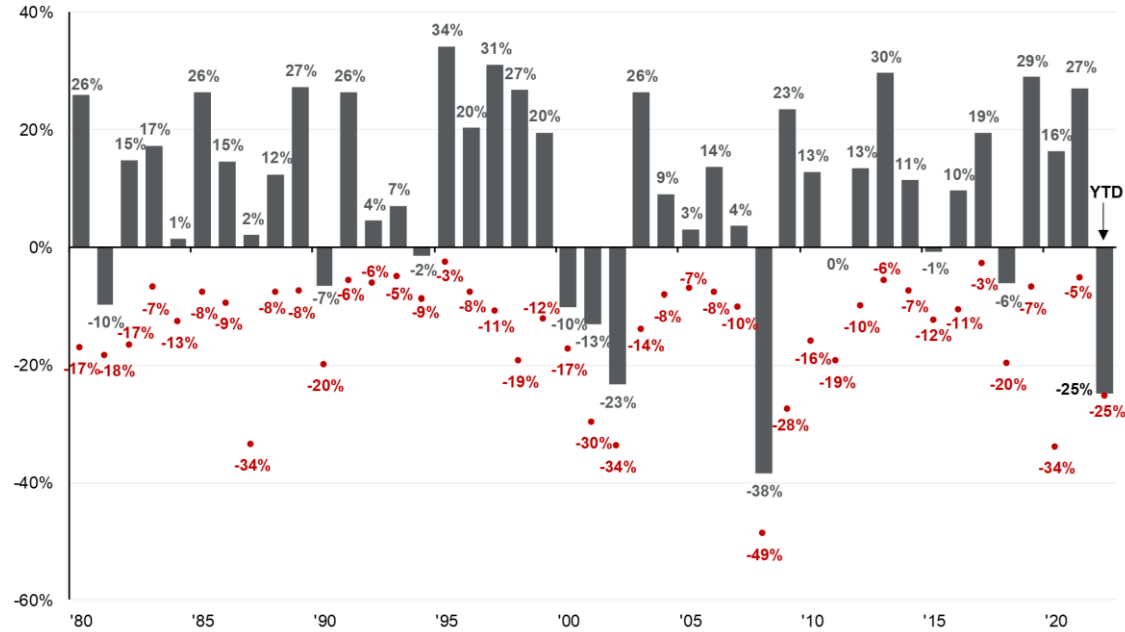
- After a period of very strong equity performance, stocks are down 25% year-to-date.
- Fixed income is down 15%, which is unprecedented since rates have risen strongly from a low starting point.

## 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 14.0%, annual returns were positive in 32 of 42 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 2021, over which time period the average annual return was 9.4%. Guide to the Markets – U.S. Data are as of September 30, 2022.

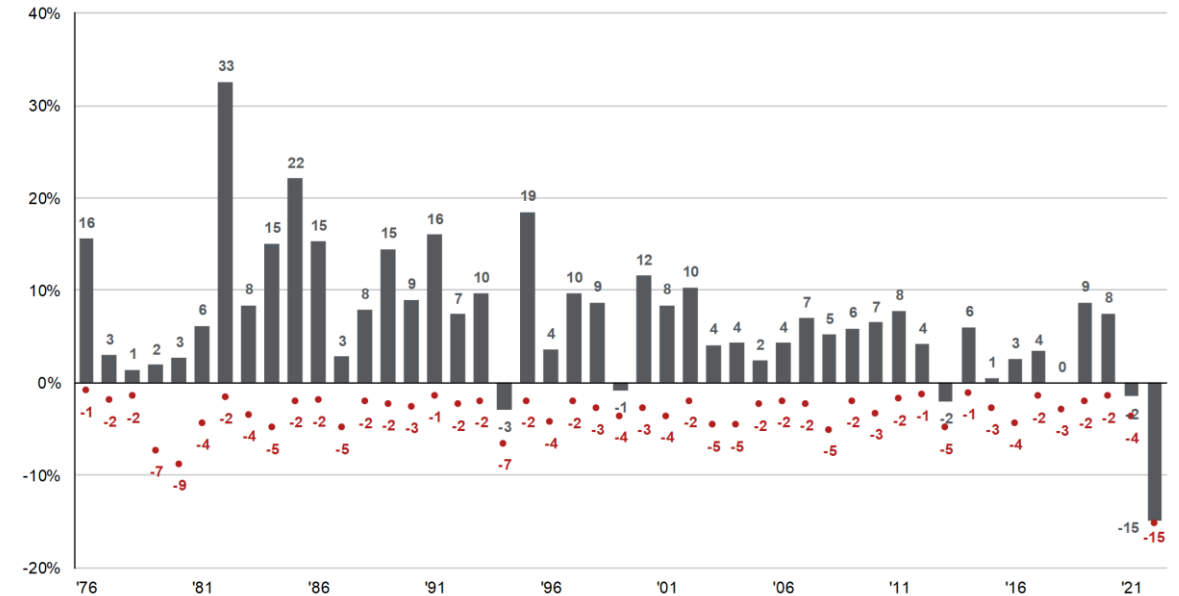
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## Bloomberg U.S. Agg. annual returns and intra-year declines

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

Despite average intra-year drops of 3.1%, annual returns positive in 42 of 46 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 2021, over which time period the average annual return was 7.1%. Returns from 1976 to 1989 are calculated on a monthly basis; daily data are used afterwards. Guide to the Markets – U.S. Data are as of September 30, 2022.

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# Capital Market Performance Update

2017	2018	2019	2020	2021	Last 5 Yrs.	Q1 2022	Q2 2022	Q3 2022	YTD 2022
International Equity 27.2%	Cash Equivalents 1.9%	Broad U.S. Equity 31.0%	Broad U.S. Equity 20.9%	REITs 41.3%	Broad U.S. Equity 8.6%	Cash Equivalents 0.0%	Cash Equivalents 0.1%	Cash Equivalents 0.5%	Cash Equivalents 0.6%
Broad U.S. Equity 21.1%	Core U.S. Fixed Income 0.0%	REITs 28.7%	TIPS 11.0%	Broad U.S. Equity 25.7%	REITs 4.1%	TIPS (3.0%)	Core U.S. Fixed Income (4.7%)	High Yield (0.7%)	TIPS (13.6%)
REITs 8.7%	TIPS (1.3%)	International Equity 21.5%	International Equity 10.7%	International Equity 7.8%	TIPS 2.0%	High Yield (4.8%)	TIPS (6.1%)	Broad U.S. Equity (4.5%)	Core U.S. Fixed Income (14.6%)
High Yield 7.5%	High Yield (2.1%)	High Yield 14.3%	Core U.S. Fixed Income 7.5%	TIPS 6.0%	High Yield 1.6%	REITs (5.3%)	High Yield (9.8%)	Core U.S. Fixed Income (4.8%)	High Yield (14.7%)
Core U.S. Fixed Income 3.5%	REITs (4.0%)	Core U.S. Fixed Income 8.7%	High Yield 7.1%	High Yield 5.3%	Cash Equivalents 1.1%	Broad U.S. Equity (5.3%)	International Equity (13.7%)	TIPS (5.1%)	Broad U.S. Equity (24.6%)
TIPS 3.0%	Broad U.S. Equity (5.2%)	TIPS 8.4%	Cash Equivalents 0.7%	Cash Equivalents 0.0%	Core U.S. Fixed Income (0.3%)	International Equity (5.4%)	REITs (14.7%)	International Equity (9.9%)	International Equity (26.5%)
Cash Equivalents 0.9%	International Equity (14.2%)	Cash Equivalents 2.3%	REITs (5.1%)	Core U.S. Fixed Income (1.5%)	International Equity (0.8%)	Core U.S. Fixed Income (5.9%)	Broad U.S. Equity (16.7%)	REITs (10.8%)	REITs (27.9%)

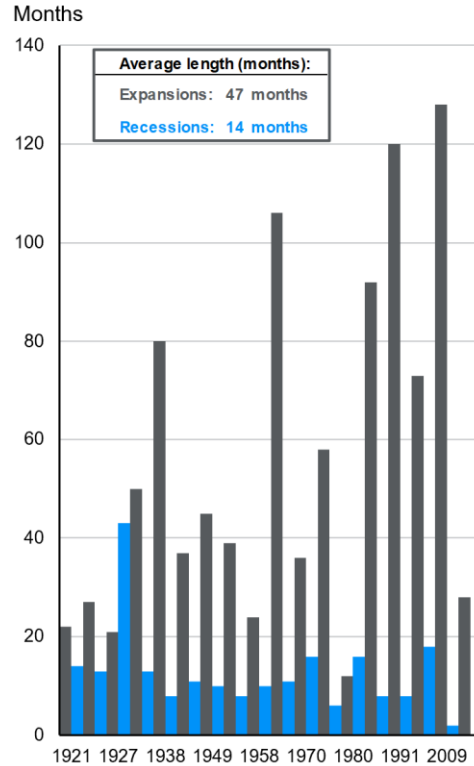
# Where do we go from here?

- Global uncertainty is high and market volatility will likely remain elevated.
- Investment performance will be challenging in the near term.
- For markets to improve, inflation needs to stabilize. This may take time since housing and labor markets correct slowly and supply chain issues and energy prices are not easily influenced by monetary policy.
- Other factors also increase uncertainty:
  - War in Ukraine and related energy/economic impact on Europe.
  - Strength of the U.S. Dollar and impact on global trade and other economies.
  - Impact of credit contraction on markets and economy. Debt will be less available and more expensive.
  - Potential recession severity.

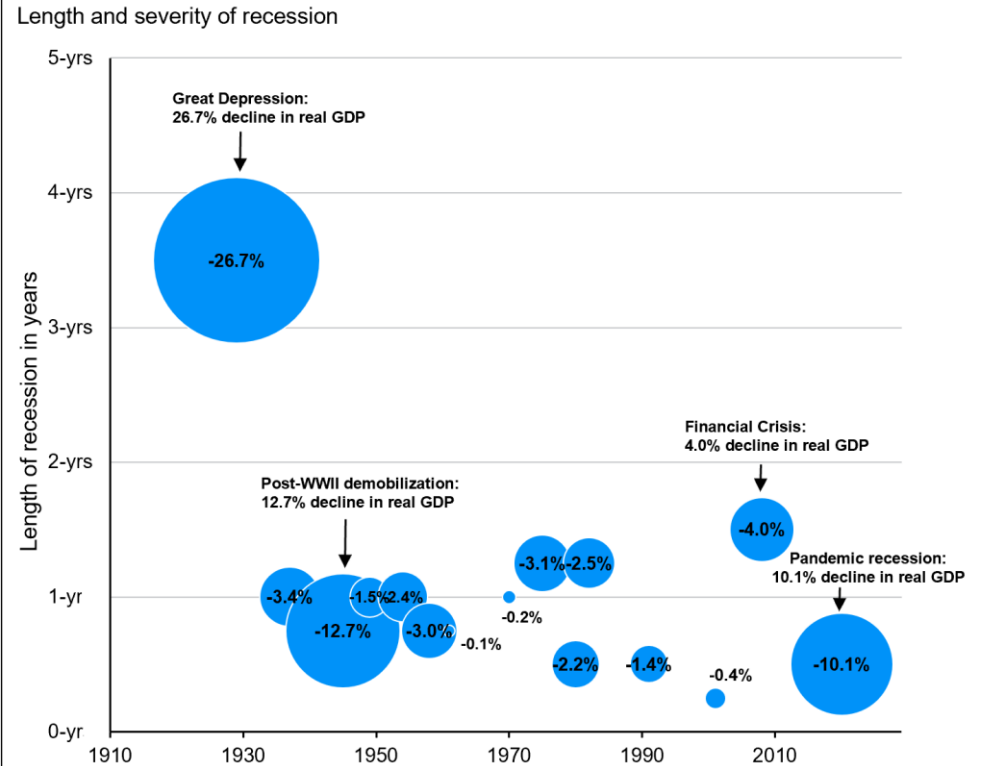
## U.S. expansions and recessions

GTM U.S. 18

### Length of expansions and recessions



### The Great Depression and post-war recessions



Source: BEA, NBER, J.P. Morgan Asset Management.  
 (Left) Chart assumes the current expansion lasted until at least September 2022. (Right) Bubble size reflects the severity of the recession, which is calculated as the decline in real GDP from the peak quarter to the trough quarter except in the case of the Great Depression, where it is calculated from the peak year (1929) to the trough year (1933), due to a lack of available quarterly data. Data for length of economic expansions and recessions obtained from the National Bureau of Economic Research (NBER). Past performance is not a reliable indicator of current and future results.  
 Guide to the Markets – U.S. Data are as of September 30, 2022.

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# **Commissioner's Report**

**September 2022**

# COMMISSIONER'S REPORT

As of September 30, 2022

## DOR Commissioner's Report: Market Values for Month Ending 9/30/2022

### 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)	\$765,462						\$765,462
2013B Tax Exempt Education (AY3Z)	\$192,771						\$192,771
2016A - 2012 Transportation Bond Act (AY3Y)	\$1,401,176						\$1,401,176
2016B - 2012 Transportation Bond Act (AY3Q)	\$63,359,433						\$63,359,433
Alaska Higher Education Investment (AY3L)	\$1,512,943	\$129,696,994	\$98,541,854		\$78,397,510	\$15,483,367	\$323,632,667
Alaska Mental Health Trust Reserve (AY2L)	\$396,512	\$21,219,019	\$14,807,209		\$12,099,923		\$48,522,663
ASLC Investment Fund (AY3S)	\$22,003,124	\$10,574,022	\$47,044,139		\$6,648,648	\$1,642,613	\$87,912,545
Constitutional Budget Reserve Fund (AY19)	\$1,004,212,303						\$1,004,212,303
Education Endowment Fund (AY3G)	\$4,074	\$344,862	\$261,995		\$208,461	\$41,167	\$860,558
EVOS Habitat Investment (AY2H)	\$28,426,904			\$53,341,747			\$81,768,650
EVOS Research Investment (AY02)	\$19,479,385			\$36,567,813			\$56,047,198
GeFONSI I (AY01)	\$2,043,539,233			\$362,672,400			\$2,406,211,633
GeFONSI II (AY3F)	\$1,027,759,458	\$63,682,102		\$525,597,113	\$30,025,060		\$1,647,063,733
Illinois Creek Mine Reclamation (AY9J)	\$5,272	\$468,879	\$356,293		\$283,435	\$56,001	\$1,169,881
International Airports 2006 Non-AMT (AY9X)	\$1,108,061						\$1,108,061
International Airports Repair & Replacement Fund (AY05)	\$502,705						\$502,705
International Airports Revenue Fund (AY04)	\$161,585,189			\$27,076,726			\$188,661,915
International Airports Series 2002 Reserve Account (AY2E)	\$16,508,985						\$16,508,985
International Airports Series 2003 Reserve (AY2U)	\$10,581,057						\$10,581,057
Investment Loss Trust Fund (AY28)	\$3,334,992						\$3,334,992
PCE Endowment Fund (AY13)	\$4,156,848	\$358,016,147	\$272,015,266		\$216,408,908	\$42,740,276	\$893,337,444
Permanent Fund Dividend Holding Account (AY2G)	\$397,116,410						\$397,116,410
Public School Trust Fund (AY08)	\$3,284,197	\$263,046,156	\$199,858,591		\$159,002,722	\$31,402,620	\$656,594,286
RHIF LTC Insurance (AY11)	\$5,780,044	\$229,979,767	\$240,136,001		\$136,314,279	\$30,592,914	\$642,803,005
RHIF Major Medical (AY03)	\$19,132,334						\$19,132,334

\*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 9/30/2022

### 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)	0.47%	40.08%	30.45%		24.22%	4.78%
Alaska Mental Health Trust Reserve (AY2L)	0.82%	43.73%	30.52%		24.94%	
ASLC Investment Fund (AY3S)	25.03%	12.03%	53.51%		7.56%	1.87%
Constitutional Budget Reserve Fund (AY19)	100.00%					
Education Endowment Fund (AY3G)	0.47%	40.07%	30.44%		24.22%	4.78%
EVOS Habitat Investment (AY2H)	34.77%			65.23%		
EVOS Research Investment (AY02)	34.76%			65.24%		
GeFONSI I (AY01)	84.93%			15.07%		
GeFONSI II (AY3F)	62.40%	3.87%		31.91%	1.82%	
Illinois Creek Mine Reclamation (AY9J)	0.45%	40.08%	30.46%		24.23%	4.79%
International Airports 2006 Non-AMT (AY9X)	100.00%					
International Airports Repair & Replacement Fund (AY05)	100.00%					
International Airports Revenue Fund (AY04)	85.65%			14.35%		
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)	0.47%	40.08%	30.45%		24.22%	4.78%
Permanent Fund Dividend Holding Account (AY2G)	100.00%					
Public School Trust Fund (AY08)	0.50%	40.06%	30.44%		24.22%	4.78%
RHIF LTC Insurance (AY11)	0.90%	35.78%	37.36%		21.21%	4.76%
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 9/30/2022

### 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)	24.00%	12.00%	54.00%		8.00%	2.00%
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 9/30/2022

### 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)	-0.53% ◆	1.08% ✖	0.45% ▲		-0.78% ✖	-0.22% ●
Alaska Mental Health Trust Reserve (AY2L)	-0.18% ●	0.73% ◆	0.52% ◆		-1.06% ✖	
ASLC Investment Fund (AY3S)	1.03% ✖	0.03% ●	-0.49% ▲		-0.44% ▲	-0.13% ●
Constitutional Budget Reserve Fund (AY19)	0.00% ●					
Education Endowment Fund (AY3G)	-0.53% ◆	1.07% ✖	0.44% ▲		-0.78% ✖	-0.22% ●
EVOS Habitat Investment (AY2H)	-0.23% ●			0.23% ●		
EVOS Research Investment (AY02)	-0.24% ●			0.24% ●		
GeFONSI I (AY01)	-0.07% ●			0.07% ●		
GeFONSI II (AY3F)	1.40% ✖	-0.13% ●		-1.09% ✖	-0.18% ●	
Illinois Creek Mine Reclamation (AY9J)	-0.55% ◆	1.08% ✖	0.46% ▲		-0.77% ✖	-0.21% ●
International Airports 2006 Non-AMT (AY9X)	0.00% ●					
International Airports Repair & Replacement Fund (AY05)	0.00% ●					
International Airports Revenue Fund (AY04)	0.65% ◆			-0.65% ◆		
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)	-0.53% ◆	1.08% ✖	0.45% ▲		-0.78% ✖	-0.22% ●
Permanent Fund Dividend Holding Account (AY2G)	0.00% ●					
Public School Trust Fund (AY08)	-0.50% ▲	1.06% ✖	0.44% ▲		-0.78% ✖	-0.22% ●
RHIF LTC Insurance (AY11)	-0.10% ●	0.78% ✖	0.36% ▲		-0.79% ✖	-0.24% ●
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 9/30/2022

<b>Pool Performance (Net of Fee)</b>	<b>1 Month</b>	<b>3 Month</b>	<b>FYTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>6 Year</b>	<b>10 Year</b>
Broad Market Fixed Income Pool	-4.45%	-4.60%	-4.60%	-14.28%	-2.93%	-0.05%	-0.01%	1.04%
Domestic Equity*	-9.26%	-4.45%	-4.45%	-17.47%	7.67%	8.61%	10.18%	
Intermediate-term Fixed Income Pool	-1.10%							
Internally Managed REITs	-12.67%	-10.79%	-10.79%	-16.21%				
International Equity*	-9.95%	-9.93%	-9.93%	-25.02%	-1.57%	-0.66%	2.25%	
Short-term Fixed Income Pool	0.22%	0.54%	0.54%	0.63%	0.67%	1.26%	1.22%	0.87%
Tactical Bond Pool	-4.37%	-2.70%	-2.70%					
<b>Benchmark Performance</b>	<b>1 Month</b>	<b>3 Month</b>	<b>FYTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>6 Year</b>	<b>10 Year</b>
Broad Market Fixed Income Pool	-4.32%	-4.75%	-4.75%	-14.60%	-3.26%	-0.27%	-0.21%	0.89%
Domestic Equity*	-9.27%	-4.46%	-4.46%	-17.63%	7.70%	8.62%	10.24%	
Intermediate-term Fixed Income Pool	-1.17%							
Internally Managed REITs	-12.72%	-10.83%	-10.83%	-16.27%				
International Equity*	-9.99%	-9.91%	-9.91%	-25.17%	-1.52%	-0.81%	2.33%	
Short-term Fixed Income Pool	0.25%	0.46%	0.46%	0.62%	0.59%	1.15%	1.07%	0.68%
Tactical Bond Pool	-4.32%	-4.75%	-4.75%					
<b>Relative Performance (Net of Fee)</b>	<b>1 Month</b>	<b>3 Month</b>	<b>FYTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>6 Year</b>	<b>10 Year</b>
Broad Market Fixed Income Pool	-0.13%	0.15%	0.15%	0.32%	0.32%	0.22%	0.20%	0.15%
Domestic Equity*	0.01%	0.02%	0.02%	0.16%	-0.03%	-0.01%	-0.06%	
Intermediate-term Fixed Income Pool	0.07%							
Internally Managed REITs	0.05%	0.04%	0.04%	0.06%				
International Equity*	0.04%	-0.02%	-0.02%	0.15%	-0.05%	0.16%	-0.08%	
Short-term Fixed Income Pool	-0.03%	0.08%	0.08%	0.02%	0.08%	0.11%	0.15%	0.19%
Tactical Bond Pool	-0.05%	2.06%	2.06%					

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

## DOR Commissioner's Report: Net Plan Performance for Month Ending 9/30/2022

Plan Performance (Net of Fee)	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	6 Year	10 Year
2008 Transportation Project Government Bonds (AY2Q)	0.22%	0.54%	0.54%	0.63%	0.67%	1.26%	1.22%	0.87%
2013B Tax Exempt Education (AY3Z)	0.22%	0.54%	0.54%	0.63%	0.67%	1.26%	1.22%	
2016A - 2012 Transportation Bond Act (AY3Y)	0.22%	0.54%	0.54%	0.63%	0.65%	1.25%	1.21%	
2016B - 2012 Transportation Bond Act (AY3Q)	0.22%	0.54%	0.54%	0.63%	0.67%	1.26%	1.22%	
Alaska Higher Education Investment (AY3L)	-8.15%	-6.10%	-6.10%	-18.08%	2.37%	3.83%	5.18%	
Alaska Mental Health Trust Reserve (AY2L)	-7.95%	-5.79%	-5.79%	-17.72%	1.29%	3.21%	4.50%	5.84%
ASLC Investment Fund (AY3S)	-4.54%	-3.71%	-3.71%	-11.55%				
Constitutional Budget Reserve Fund (AY19)	0.22%	0.54%	0.54%	0.63%	1.01%	1.80%	1.83%	1.51%
Education Endowment Fund (AY3G)	-8.15%	-6.10%	-6.10%	-18.08%				
EVOS Habitat Investment (AY2H)	-0.65%	3.79%	3.79%	-7.09%	4.81%	5.39%	6.58%	7.53%
EVOS Research Investment (AY02)	-0.65%	5.90%	5.90%	-7.09%	5.19%	5.61%	6.77%	7.62%
GeFONSI I (AY01)	0.03%	0.25%	0.25%	-1.25%	0.13%	0.95%	0.92%	0.75%
GeFONSI II (AY3F)	-0.81%	-0.62%	-0.62%	-4.18%	0.25%			
Illinois Creek Mine Reclamation (AY9J)	-8.15%	-6.10%	-6.10%	-18.08%	2.37%	3.81%	5.15%	4.30%
International Airports 2006 Non-AMT (AY9X)	0.22%	0.54%	0.54%	0.63%	0.67%	1.26%	1.22%	0.87%
International Airports Repair & Replacement Fund (AY05)	0.22%	0.54%	0.54%	0.63%	0.67%	1.26%	1.22%	0.87%
International Airports Revenue Fund (AY04)	0.03%	0.24%	0.24%	-1.28%	0.40%	1.44%	1.55%	1.30%
International Airports Series 2002 Reserve Account (AY2E)	0.22%	0.54%	0.54%	0.63%	0.67%	1.26%	1.22%	0.87%
International Airports Series 2003 Reserve (AY2U)	0.22%	0.54%	0.54%	0.63%	0.67%	1.26%	1.22%	0.87%
Investment Loss Trust Fund (AY28)	0.22%	0.54%	0.54%	0.63%	0.67%	1.26%	1.22%	0.87%
PCE Endowment Fund (AY13)	-8.15%	-6.11%	-6.11%	-17.62%	-0.98%	1.77%	3.42%	5.74%
Permanent Fund Dividend Holding Account (AY2G)	0.21%	0.48%	0.48%	0.57%	0.64%	1.41%	1.33%	0.93%
Public School Trust Fund (AY08)	-8.15%	-6.11%	-6.11%	-18.08%	2.38%	3.69%	4.73%	5.30%
RHIF LTC Insurance (AY11)	-7.76%	-5.89%	-5.89%	-17.52%	0.37%	2.43%	3.18%	4.22%
RHIF Major Medical (AY03)	0.22%	0.54%	0.54%	0.63%	0.67%	1.26%	1.22%	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 9/30/2022

<b>Benchmark Performance</b>	<b>1 Month</b>	<b>3 Month</b>	<b>FYTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>6 Year</b>	<b>10 Year</b>
2008 Transportation Project Government Bonds (AY2Q)	0.25%	0.46%	0.46%	0.62%	0.59%	1.15%	1.07%	0.68%
2013B Tax Exempt Education (AY3Z)	0.25%	0.46%	0.46%	0.62%	0.59%	1.15%	1.07%	
2016A - 2012 Transportation Bond Act (AY3Y)	0.25%	0.46%	0.46%	0.62%	0.59%	1.15%	1.07%	
2016B - 2012 Transportation Bond Act (AY3Q)	0.25%	0.46%	0.46%	0.62%	0.59%	1.15%	1.07%	
Alaska Higher Education Investment (AY3L)	-8.08%	-6.18%	-6.18%	-18.22%	2.37%	3.81%	5.16%	
Alaska Mental Health Trust Reserve (AY2L)	-7.92%	-5.92%	-5.92%	-17.96%	1.03%	3.00%	4.36%	5.54%
ASLC Investment Fund (AY3S)	-4.47%	-4.00%	-4.00%	-11.70%				
Constitutional Budget Reserve Fund (AY19)	0.25%	0.46%	0.46%	0.62%	0.88%	1.70%	1.67%	1.36%
Education Endowment Fund (AY3G)	-8.08%	-6.18%	-6.18%	-18.22%				
EVOS Habitat Investment (AY2H)	-0.67%	3.30%	3.30%	-7.77%	4.53%	5.23%	6.49%	7.26%
EVOS Research Investment (AY02)	-0.67%	5.58%	5.58%	-7.51%	4.97%	5.50%	6.72%	7.39%
GeFONSI I (AY01)	0.04%	0.19%	0.19%	-1.27%	0.07%	0.85%	0.80%	0.60%
GeFONSI II (AY3F)	-0.82%	-0.52%	-0.52%	-3.99%	0.28%			
Illinois Creek Mine Reclamation (AY9J)	-8.08%	-6.18%	-6.18%	-18.22%	2.37%	3.81%	5.16%	4.20%
International Airports 2006 Non-AMT (AY9X)	0.25%	0.46%	0.46%	0.62%	0.59%	1.15%	1.07%	0.68%
International Airports Repair & Replacement Fund (AY05)	0.25%	0.46%	0.46%	0.62%	0.59%	1.15%	1.07%	0.68%
International Airports Revenue Fund (AY04)	0.04%	0.19%	0.19%	-1.27%	0.32%	1.36%	1.39%	1.14%
International Airports Series 2002 Reserve Account (AY2E)	0.25%	0.46%	0.46%	0.62%	0.59%	1.15%	1.07%	0.68%
International Airports Series 2003 Reserve (AY2U)	0.25%	0.46%	0.46%	0.62%	0.59%	1.15%	1.07%	0.68%
Investment Loss Trust Fund (AY28)	0.25%	0.46%	0.46%	0.62%	0.59%	1.15%	1.07%	0.68%
PCE Endowment Fund (AY13)	-8.08%	-6.18%	-6.18%	-17.70%	-0.93%	1.78%	3.44%	5.61%
Permanent Fund Dividend Holding Account (AY2G)	0.25%	0.46%	0.46%	0.62%	0.59%	1.15%	1.07%	0.68%
Public School Trust Fund (AY08)	-8.08%	-6.18%	-6.18%	-18.22%	2.37%	3.68%	4.72%	5.22%
RHIF LTC Insurance (AY11)	-7.72%	-6.04%	-6.04%	-17.67%	0.26%	2.38%	3.11%	4.08%
RHIF Major Medical (AY03)	0.25%	0.46%	0.46%	0.62%	0.59%	1.15%	1.07%	0.68%

\*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 9/30/2022

Relative Performance (Net of Fee)	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	6 Year	10 Year
2008 Transportation Project Government Bonds (AY2Q)	-0.03% ▲	0.08% ●	0.08% ●	0.02% ●	0.08% ●	0.11% ●	0.15% ●	0.19% ●
2013B Tax Exempt Education (AY3Z)	-0.03% ▲	0.08% ●	0.08% ●	0.02% ●	0.08% ●	0.11% ●	0.15% ●	
2016A - 2012 Transportation Bond Act (AY3Y)	-0.03% ▲	0.08% ●	0.08% ●	0.02% ●	0.06% ●	0.10% ●	0.14% ●	
2016B - 2012 Transportation Bond Act (AY3Q)	-0.03% ▲	0.08% ●	0.08% ●	0.02% ●	0.08% ●	0.11% ●	0.15% ●	
Alaska Higher Education Investment (AY3L)	-0.07% ◆	0.08% ●	0.08% ●	0.13% ●	0.00% ●	0.03% ●	0.02% ●	
Alaska Mental Health Trust Reserve (AY2L)	-0.03% ▲	0.13% ●	0.13% ●	0.24% ●	0.27% ●	0.21% ●	0.14% ●	0.29% ●
ASLC Investment Fund (AY3S)	-0.07% ◆	0.29% ●	0.29% ●	0.15% ●				
Constitutional Budget Reserve Fund (AY19)	-0.03% ▲	0.08% ●	0.08% ●	0.02% ●	0.12% ●	0.11% ●	0.15% ●	0.15% ●
Education Endowment Fund (AY3G)	-0.07% ◆	0.08% ●	0.08% ●	0.13% ●				
EVOS Habitat Investment (AY2H)	0.03% ●	0.50% ●	0.50% ●	0.68% ●	0.28% ●	0.15% ●	0.09% ●	0.28% ●
EVOS Research Investment (AY02)	0.03% ●	0.32% ●	0.32% ●	0.42% ●	0.21% ●	0.11% ●	0.05% ●	0.23% ●
GeFONSI I (AY01)	-0.01% ▲	0.06% ●	0.06% ●	0.02% ●	0.06% ●	0.10% ●	0.12% ●	0.15% ●
GeFONSI II (AY3F)	0.01% ●	-0.10% ◆	-0.10% ◆	-0.19% ◆	-0.02% ▲			
Illinois Creek Mine Reclamation (AY9J)	-0.07% ◆	0.08% ●	0.08% ●	0.13% ●	0.00% ●	0.00% ●	0.00% ▲	0.10% ●
International Airports 2006 Non-AMT (AY9X)	-0.03% ▲	0.08% ●	0.08% ●	0.02% ●	0.08% ●	0.11% ●	0.15% ●	0.19% ●
International Airports Repair & Replacement Fund (AY05)	-0.03% ▲	0.08% ●	0.08% ●	0.02% ●	0.08% ●	0.11% ●	0.15% ●	0.19% ●
International Airports Revenue Fund (AY04)	-0.01% ▲	0.05% ●	0.05% ●	-0.01% ▲	0.08% ●	0.09% ●	0.16% ●	0.16% ●
International Airports Series 2002 Reserve Account (AY2E)	-0.03% ▲	0.08% ●	0.08% ●	0.02% ●	0.08% ●	0.11% ●	0.15% ●	0.19% ●
International Airports Series 2003 Reserve (AY2U)	-0.03% ▲	0.08% ●	0.08% ●	0.02% ●	0.08% ●	0.11% ●	0.15% ●	0.19% ●
Investment Loss Trust Fund (AY28)	-0.03% ▲	0.08% ●	0.08% ●	0.02% ●	0.08% ●	0.11% ●	0.15% ●	0.19% ●
PCE Endowment Fund (AY13)	-0.07% ◆	0.07% ●	0.07% ●	0.08% ●	-0.04% ▲	-0.02% ▲	-0.02% ▲	0.13% ●
Permanent Fund Dividend Holding Account (AY2G)	-0.04% ▲	0.02% ●	0.02% ●	-0.05% ▲	0.05% ●	0.26% ●	0.26% ●	0.24% ●
Public School Trust Fund (AY08)	-0.07% ◆	0.07% ●	0.07% ●	0.14% ●	0.01% ●	0.01% ●	0.01% ●	0.08% ●
RHIF LTC Insurance (AY11)	-0.05% ▲	0.14% ●	0.14% ●	0.16% ●	0.10% ●	0.05% ●	0.07% ●	0.14% ●
RHIF Major Medical (AY03)	-0.03% ▲	0.08% ●	0.08% ●	0.02% ●	0.08% ●	0.11% ●	0.15% ●	0.19% ●

\*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 9/30/2022

### 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)	0.0113%
Alaska Mental Health Trust Reserve (AY2L)	0.0083%
ASLC Investment Fund (AY3S)	0.0114%
Constitutional Budget Reserve Fund (AY19)	0.0000%
Education Endowment Fund (AY3G)	0.0111%
EVOS Habitat Investment (AY2H)	0.0135%
EVOS Research Investment (AY02)	0.0115%
GeFONSI I (AY01)	0.0013%
GeFONSI II (AY3F)	0.0029%
Illinois Creek Mine Reclamation (AY9J)	0.0113%
International Airports 2006 Non-AMT (AY9X)	0.0000%
International Airports Repair & Replacement Fund (AY05)	0.0000%
International Airports Revenue Fund (AY04)	0.0014%
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)	0.0116%
Permanent Fund Dividend Holding Account (AY2G)	0.0000%
Public School Trust Fund (AY08)	0.0113%
RHIF LTC Insurance (AY11)	0.0121%
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: 9/30/2022

Program	Account Name	End Balance
GeFONSI I	General Fund	\$1,798,975,444.14
	Alaska Clean Water Fund	\$128,790,705.40
	Alaska Drinking Water Fund	\$73,984,912.77
	Fish & Game Fund	\$49,746,841.86
	Public Advocacy Trust	\$45,661,677.57
GeFONSI II	Statutory Budget Reserve Fund	\$451,905,725.82
	Public Education Fund	\$145,025,247.38
	Regional Ed Attendance Area School Fund	\$139,027,413.88
	Disaster Relief Fund	\$106,224,094.42
	Highway Equipment Working Capital Fund For Operating Appropriations	\$96,277,110.58
<b>Sum of 5 Largest GeFONSI I and II Funds</b>		<b>\$3,035,619,173.82</b>

# **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.



**Questions?**

# **APPENDIX**

**FY2023 Asset Allocation Process**

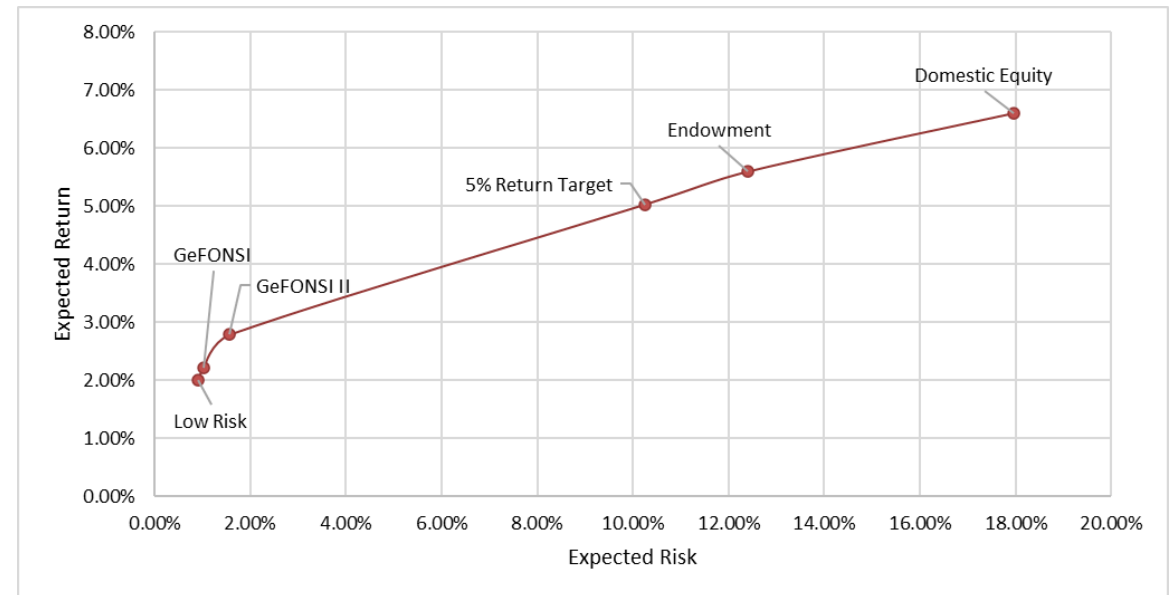
**and**

**2022 Capital Market Assumptions**

# State 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.
- 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

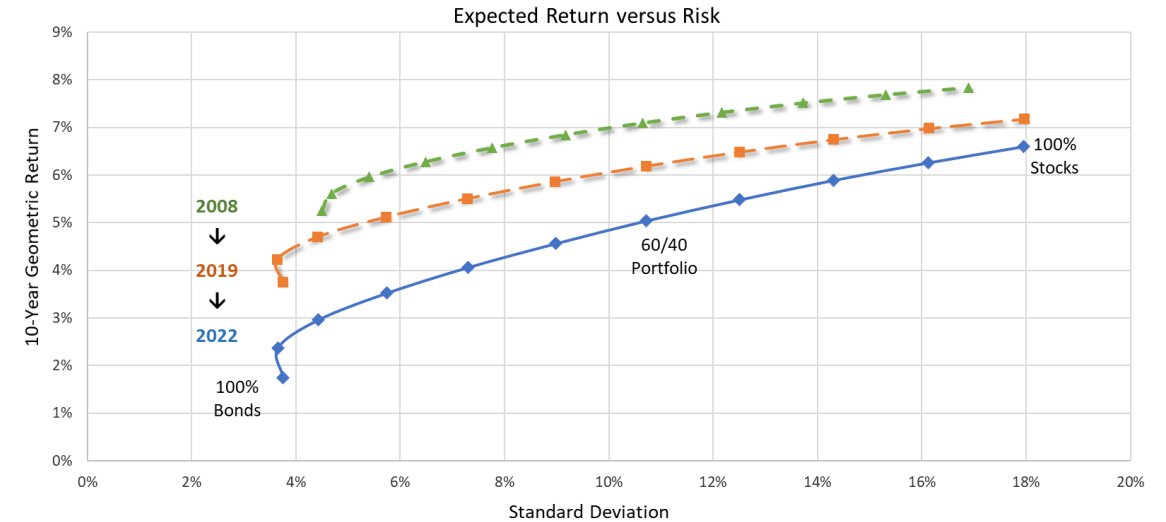
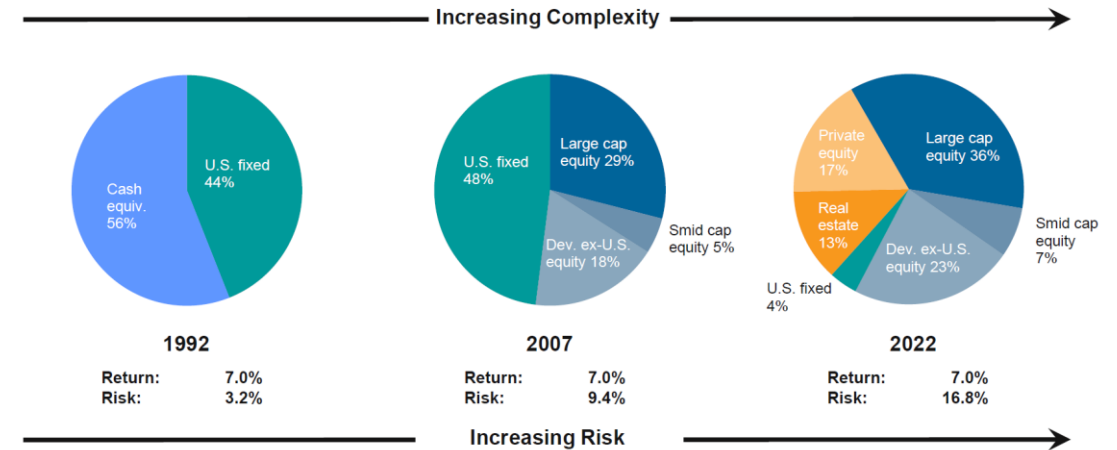
Fund - Account	Assets (6/30/22)	Risk Tolerance	Policy 1yr Risk/Loss	Loss Magnitude
Short-Term Funds	\$150,816,195	Low	< 1%	< 0.4%
CBRF - AY19	\$914,499,659	Low	< 1%	< 0.4%
GeFONSI - AY01	\$3,776,664,505	Moderate	< 5%	< 1.5%
International Airport - AY04	\$155,582,987	Moderate	< 5%	< 1.5%
GeFONSI II - AY3F	\$1,424,194,362	Moderate-High	< 10%	< 5%
PCE Endowment - AY13	\$967,415,665	5% Return Tgt	> 10%	< 20%
Retiree LTC - AY11	\$677,764,738	5% Return Tgt	> 10%	< 20%
Public School Trust Fund - AY08	\$711,946,884	Endowment	> 10%	< 20%
AK Higher Education - AY3L	\$344,733,938	Endowment	> 10%	< 20%
Illinois Creek Mine - AY9J	\$1,275,285	Endowment	> 10%	< 20%
Education Endowment - AY3G	\$710,671	Endowment	> 10%	< 20%
<b>Total</b>	<b>\$9,125,604,889</b>			



# Asset Allocation

- Callan LLC, annually develops 10-year capital market assumptions for risk, return, and correlations using a building block approach.
- Return expectations have steadily declined over time due to lower rates, growth and inflation expectations due largely to global trade, technology, and the transition toward a service economy.
- Staff evaluates Callan's capital market assumptions, other provider's assumptions, and current market conditions to develop an asset allocation approach for each state fund.
- The goal is generally to maximize return or minimize risk consistent with investment objectives and risk tolerance using a combination of Modern Portfolio Theory and investment judgment.

7% Expected Returns Over Past 30 Years



# 2022 Capital Market Assumptions

- In January, Callan released their 10-year capital market assumptions (CMAs) for 2022. Risk and correlation assumptions were largely unchanged from 2021. Long-term inflation expectations did increase which impacts real return forecasts.
- Staff selects a subset of these asset classes for use in state funds based on risk, return, diversification, complexity, and cost.
- For FY23, staff recommends continuing with the use of Broad U.S. Equities, International Equities, Core U.S. Fixed Income U.S. REITs, and Cash Equivalents for state funds.
- In FY22, staff incorporated up to 20% of the fixed income allocation in a tactical bond portfolio that can opportunistically invest in high yield, TIPS, and other fixed income asset classes in a risk-managed fashion. For FY23, staff recommends targeting 20% to this strategy with a 25% maximum.
- Staff is also evaluated additional improvements to both fixed income and equities.

Asset Classes	2022 1-Year Arithmetic Return	2022 10-Year Geometric Return	Return Change	2022 Standard Deviation	2022 Correlation to Domestic Equity	2022 Real Return
<b>Broad U.S. Equity</b>	<b>8.0%</b>	<b>6.6%</b>	<b>0.0%</b>	<b>18.0%</b>	<b>1.00</b>	<b>4.4%</b>
Large Cap U.S. Equity	7.9%	6.5%	0.0%	17.7%	1.00	4.3%
Small/Mid Cap U.S. Equity	8.8%	6.7%	0.0%	21.3%	0.93	4.5%
<b>International Equity</b>	<b>8.7%</b>	<b>6.8%</b>	<b>0.0%</b>	<b>20.7%</b>	<b>0.82</b>	<b>4.6%</b>
Developed ex-U.S. Equity	8.3%	6.5%	0.0%	19.9%	0.78	4.3%
Emerging Market Equity	9.8%	6.9%	0.0%	25.2%	0.80	4.7%
<b>Cash Equivalents</b>	<b>1.2%</b>	<b>1.2%</b>	<b>0.2%</b>	<b>0.9%</b>	<b>-0.06</b>	<b>-1.1%</b>
Government 1-3 year Bonds	1.6%	1.5%	0.2%	3.5%	-0.25	-0.8%
<b>Core U.S. Fixed Income</b>	<b>1.2%</b>	<b>1.8%</b>	<b>0.0%</b>	<b>3.8%</b>	<b>-0.10</b>	<b>-0.5%</b>
TIPS	1.4%	1.3%	-0.5%	5.1%	-0.08	-1.0%
Emerging Market Sovereign Debt	4.0%	3.6%	0.1%	9.5%	0.56	1.4%
High Yield	4.4%	3.9%	-0.5%	10.8%	0.72	1.7%
Core Real Estate	6.6%	5.8%	0.0%	14.2%	0.64	3.5%
<b>REITs</b>	<b>8.2%</b>	<b>6.2%</b>	<b>-0.1%</b>	<b>20.7%</b>	<b>0.80</b>	<b>4.0%</b>
Private Equity	11.5%	8.0%	0.0%	27.6%	0.77	5.8%
Hedge Funds	4.4%	4.1%	0.1%	8.2%	0.79	1.9%
Inflation		2.3%	0.3%			
<b>60/40 Portfolio</b>		<b>5.0%</b>	<b>0.0%</b>			

# 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 (6/30/22)	Risk Tolerance	Policy 1yr Risk/Loss	Loss Magnitude
Short-Term Funds	\$150,816,195	Low	< 1%	< 0.4%
CBRF - AY19	\$914,499,659	Low	< 1%	< 0.4%
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<b>Total</b>	<b>\$9,125,604,889</b>			

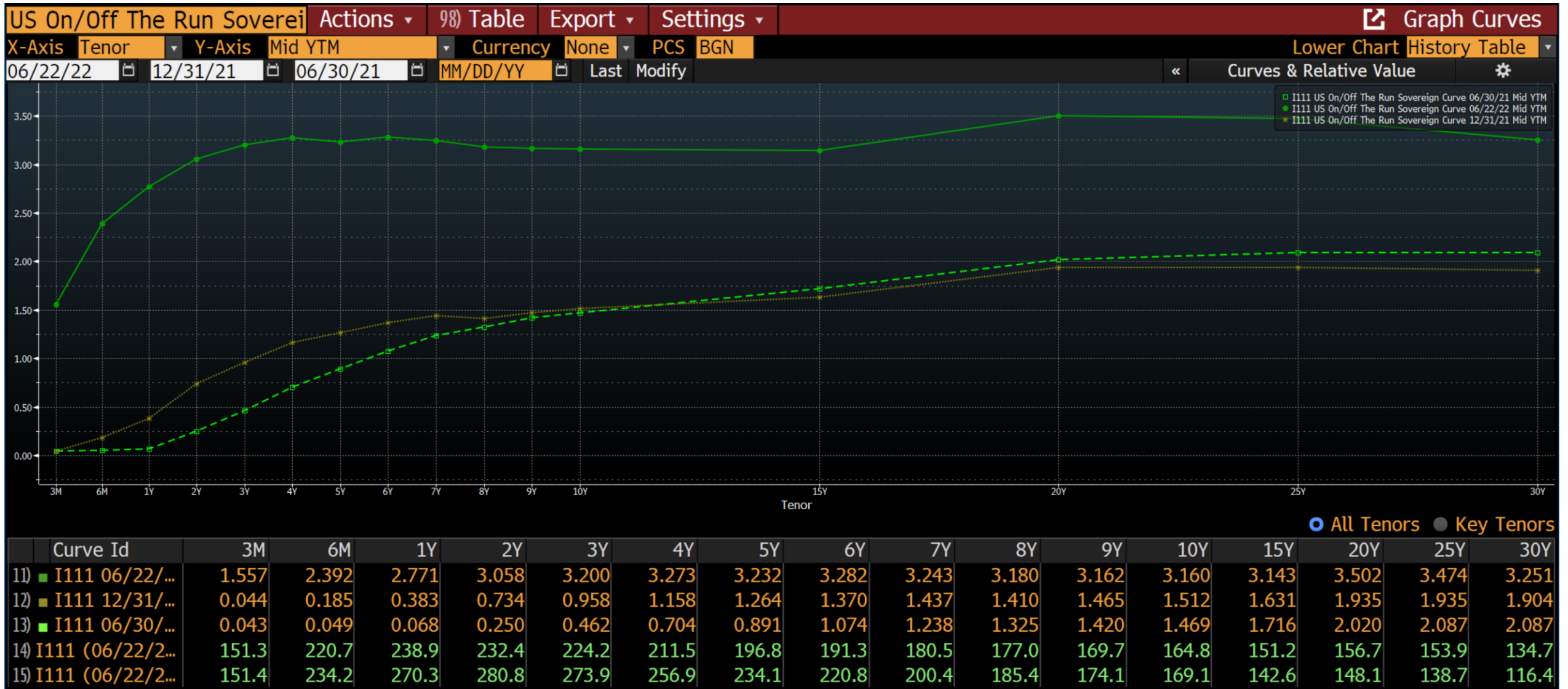


# 2022 Asset Allocation Recommendation Summary

- Markets are particularly volatile and inflation and its impact on both fixed income and equities is highly uncertain, particularly in the shorter term.
  - Yields are now much higher and longer duration bonds offer comparatively low yield increases for significant increases in interest rate exposure.
  - With shorter-term yields, staff recommended material duration exposure only in portfolios with a longer time horizon.
  - Equity valuations are now lower but remain volatile and staff generally recommended no changes to equity exposure.
- For shorter time horizon portfolios, staff recommended restarting the lower duration, Government 1-3 bond portfolio (AY72). This portfolio was used by GeFONSI and other funds for many years prior to short rates moving toward zero. Now that rates are higher, it is once again a good fit.
- Staff recommended increasing the risk exposure of PCE to the same endowment-level as public schools and other higher risk funds due to legislative changes.
- Staff also recommended targeting 20% of fixed income for the tactical bond portfolio for funds with a long time horizon and Aggregate bond exposure.

<b>Portfolio</b>	<b>Cash - 6M Treasury</b>	<b>AY72</b>	<b>AY73</b>
Benchmark	90d Tbill	BB US Gov 1-3	BB US Aggregate
<b>Yield (YTW) 6/22/22</b>	<b>2.39%</b>	<b>3.06%</b>	<b>3.81%</b>
Yield (YTW) 6/30/21	0.05%	0.26%	1.50%
<b>Duration (OAS)</b>	<b>0.25</b>	<b>1.91</b>	<b>6.43</b>
Maturity (WAM)	0.25	1.97	8.65
Returns - 6/24/22:			
QTD Return	0.10%	0.69%	5.32%
YTD Return	0.14%	-3.17%	-10.94%
FYTD	0.16%	-3.66%	-10.88%

# Fixed Income – Updated Yield Curve 6/22/22





# High Risk Tolerance Funds

Fund balances as of March 31, 2022

# 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

## State of Alaska FY2023 Asset Allocation

Asset Classes	Asset Mix Alternatives					Prior Year	Endowment	70/30
	1	2	3	4	5			
Broad U.S. Equity	39.3%	39.5%	39.9%	40.5%	40.9%	39%	39%	70%
Global ex-U.S. Equity	24.2%	24.5%	24.7%	24.6%	24.8%	25%	25%	0%
US REITS	5.0%	5.0%	5.0%	5.0%	5.0%	5%	5%	0%
Core U.S. Fixed Income	30.5%	30.0%	29.4%	28.9%	28.3%	30%	30%	30%
Cash Equivalents	1.0%	1.0%	1.0%	1.0%	1.0%	1%	1%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%
Optimization Results:								
Expected Return - Long-Term	5.57%	5.60%	5.62%	5.65%	5.67%	5.62%	5.60%	5.48%
Risk - Standard Deviation	12.30%	12.40%	12.50%	12.60%	12.70%	12.50%	12.41%	12.50%
Sharpe Ratio	0.36	0.35	0.35	0.35	0.35	0.35	0.35	0.34
Risk Statistics:								
10% Probable Annual Return (10% cVaR)	-16.0%	-16.2%	-16.3%	-16.5%	-16.6%	-16.4%	-16.2%	-16.5%
5% Probable Annual Return (5% cVaR)	-19.8%	-20.0%	-20.2%	-20.3%	-20.5%	-20.3%	-20.0%	-20.3%
Probability of Loss - 1 Year	32.5%	32.6%	32.6%	32.7%	32.8%	32.9%	32.6%	33.1%
Prob. Return < -1%	29.7%	29.7%	29.8%	29.9%	30.0%	30.1%	29.7%	30.2%
Prob. Return < -2%	26.9%	27.0%	27.1%	27.2%	27.3%	27.4%	27.0%	27.5%
Prob. Return < -3%	24.3%	24.4%	24.5%	24.6%	24.7%	24.8%	24.4%	24.9%
Prob. Return < -4%	21.8%	21.9%	22.1%	22.2%	22.3%	22.3%	22.0%	22.4%
Prob. Return < -5%	19.5%	19.6%	19.8%	19.9%	20.0%	20.0%	19.6%	20.1%
Prob. Return < -10%	10.3%	10.4%	10.6%	10.7%	10.9%	10.7%	10.4%	10.8%
Prob. Return < -20%	1.9%	1.9%	2.0%	2.1%	2.2%	2.1%	2.0%	2.1%
Probability of Loss - 10 Year	7.6%	7.7%	7.7%	7.8%	7.9%	7.8%	7.7%	8.3%
Asset Time Horizon Estimate	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0
Return Statistics:								
Short-Term Expected Return	6.08%	6.10%	6.12%	6.13%	6.15%	5.52%	6.10%	5.97%
Long-Term Expected Return	5.57%	5.60%	5.62%	5.65%	5.67%	5.62%	5.60%	5.48%
Long-Term Real Return	3.32%	3.35%	3.37%	3.40%	3.42%	3.62%	3.35%	3.23%
Long-Term Yield	2.41%	2.41%	2.41%	2.40%	2.39%	2.45%	2.42%	2.06%
Capital Gain	3.16%	3.19%	3.22%	3.25%	3.28%	3.17%	3.19%	3.42%
Dollars: (\$Millions)								
Assets	1,202.7	1,202.7	1,202.7	1,202.7	1,202.7		1,202.7	1,202.7
Expected Annual Earnings	67.0	67.3	67.6	67.9	68.2		67.4	65.9
10% Probable Annual Return (10% cVaR)	(192.6)	(194.4)	(196.2)	(198.0)	(199.9)		(194.6)	(197.9)

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%

# High Risk/Endowment Profile Funds - Continued

**AY08: FY2022 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

**AY3G: FY2022 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

**AY9J: FY2022 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

**AY3L: 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

# PCE Endowment - \$1.1 Billion

## 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%	
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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

## State of Alaska FY2023 Asset Allocation

Asset Classes	Asset Mix Alternatives					Prior Year	PCE	70/30
	1	2	3	4	5			
Broad U.S. Equity	36.8%	38.4%	39.9%	41.8%	43.5%	32%	39%	70%
Global ex-U.S. Equity	22.3%	23.4%	24.7%	25.5%	26.6%	20%	25%	
US REITS	5.0%	5.0%	5.0%	5.0%	5.0%	4%	5%	
Core U.S. Fixed Income	34.9%	32.2%	29.4%	26.7%	23.9%	43%	30%	30%
Cash Equivalents	1.0%	1.0%	1.0%	1.0%	1.0%	1%	1%	
Total	100%	100%	100%	100%	100%	100%	100%	100%
Optimization Results:								
Expected Return - Long-Term	5.37%	5.50%	5.62%	5.75%	5.86%	5.00%	5.60%	5.48%
Risk - Standard Deviation	11.50%	12.00%	12.50%	13.00%	13.50%	10.12%	12.41%	12.50%
Sharpe Ratio	0.36	0.36	0.35	0.35	0.35	0.39	0.35	0.34
Risk Statistics:								
10% Probable Annual Return (10% cVaR)	-14.8%	-15.6%	-16.3%	-17.1%	-17.8%	-12.9%	-16.2%	-16.5%
5% Probable Annual Return (5% cVaR)	-18.4%	-19.3%	-20.2%	-21.1%	-22.0%	-16.0%	-20.0%	-20.3%
Probability of Loss - 1 Year	32.0%	32.3%	32.6%	32.9%	33.2%	31.6%	32.6%	33.1%
Prob. Return < -1%	29.0%	29.4%	29.8%	30.2%	30.6%	28.1%	29.7%	30.2%
Prob. Return < -2%	26.1%	26.6%	27.1%	27.6%	28.0%	24.9%	27.0%	27.5%
Prob. Return < -3%	23.3%	23.9%	24.5%	25.1%	25.6%	21.9%	24.4%	24.9%
Prob. Return < -4%	20.8%	21.4%	22.1%	22.7%	23.2%	19.1%	22.0%	22.4%
Prob. Return < -5%	18.4%	19.1%	19.8%	20.4%	21.0%	16.5%	19.6%	20.1%
Prob. Return < -10%	9.1%	9.8%	10.6%	11.3%	12.0%	7.1%	10.4%	10.8%
Prob. Return < -20%	1.4%	1.7%	2.0%	2.4%	2.8%	0.7%	2.0%	2.1%
Probability of Loss - 10 Year	7.0%	7.4%	7.7%	8.1%	8.5%	5.9%	7.7%	8.3%
Asset Time Horizon Estimate	5.9	5.9	5.9	5.9	5.9	5.9	5.9	6.0
Return Statistics:								
Short-Term Expected Return	5.95%	6.04%	6.12%	6.19%	6.27%	4.86%	6.10%	5.97%
Long-Term Expected Return	5.37%	5.50%	5.62%	5.75%	5.86%	5.00%	5.60%	5.48%
Long-Term Real Return	3.12%	3.25%	3.37%	3.50%	3.61%	3.00%	3.35%	3.23%
Long-Term Yield	2.45%	2.43%	2.41%	2.38%	2.36%	2.46%	2.42%	2.06%
Capital Gain	2.92%	3.07%	3.22%	3.37%	3.51%	2.53%	3.19%	3.42%
Arithmetic Return	5.93%	6.11%	6.29%	6.46%	6.64%	5.43%	6.25%	6.14%
Dollars: (\$Millions)								
Assets	1,098.1	1,098.1	1,098.1	1,098.1	1,098.1		1,098.1	1,098.1
Expected Annual Earnings	59.0	60.4	61.7	63.1	64.4		61.5	60.1
10% Probable Annual Return (10% cVaR)	(162.7)	(170.9)	(179.2)	(187.5)	(195.8)		(177.7)	(180.7)

# Retiree LTC Insurance - \$755 Million

## 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

## State of Alaska FY2023 Asset Allocation

Asset Classes	Asset Mix Alternatives					Prior Year	5.25% Tgt
	1	2	3	4	5		
Broad U.S. Equity	34.3%	34.7%	35.0%	35.4%	35.8%	33%	35%
Global ex-U.S. Equity	21.1%	21.3%	21.6%	21.7%	21.8%	21%	22%
US REITs	5.0%	5.0%	5.0%	5.0%	5.0%	4%	5%
Core U.S. Fixed Income	38.6%	38.0%	37.5%	36.9%	36.3%	41%	37%
Cash Equivalents	1.0%	1.0%	1.0%	1.0%	1.0%	1%	1%
Total	100%	100%	100%	100%	100%	100%	100%
Optimization Results:							
Expected Return - Long-Term	5.20%	5.22%	5.25%	5.28%	5.30%	5.10%	5.27%
Risk - Standard Deviation	10.85%	10.95%	11.05%	11.15%	11.25%	10.50%	11.14%
Sharpe Ratio	0.37	0.37	0.37	0.37	0.36	0.39	0.37

## Risk Statistics:

10% Probable Annual Loss (10% cVaR)	-13.8%	-14.0%	-14.1%	-14.3%	-14.4%	-13.5%	-14.3%
5% Probable Annual Loss (5% cVaR)	-17.2%	-17.4%	-17.5%	-17.7%	-17.9%	-16.7%	-17.7%
Probability of Loss - 1 Year	31.6%	31.7%	31.7%	31.8%	31.9%	31.8%	31.8%
Prob. Return < -1%	28.4%	28.5%	28.6%	28.7%	28.8%	28.5%	28.7%
Prob. Return < -2%	25.4%	25.5%	25.6%	25.7%	25.8%	25.3%	25.7%
Prob. Return < -3%	22.5%	22.6%	22.8%	22.9%	23.0%	22.4%	22.9%
Prob. Return < -4%	19.8%	20.0%	20.1%	20.3%	20.4%	19.6%	20.3%
Prob. Return < -5%	17.4%	17.5%	17.7%	17.8%	18.0%	17.1%	17.8%
Prob. Return < -10%	8.1%	8.2%	8.4%	8.5%	8.7%	7.7%	8.5%
Prob. Return < -20%	1.0%	1.1%	1.1%	1.2%	1.2%	0.9%	1.2%
Probability of Loss - 10 Year	6.5%	6.6%	6.6%	6.7%	6.8%	6.2%	6.7%
Asset Time Horizon Estimate	5.9	5.9	5.9	5.9	5.9	5.9	5.9

## Return Statistics:

Short-Term Expected Return	5.84%	5.86%	5.88%	5.90%	5.91%	4.97%	5.89%
Long-Term Expected Return	5.20%	5.22%	5.25%	5.28%	5.30%	5.10%	5.27%
Long-Term Real Return	2.95%	2.97%	3.00%	3.03%	3.05%	3.10%	3.02%
Long-Term Yield	2.49%	2.48%	2.48%	2.47%	2.46%	2.46%	2.47%
Capital Gain	2.71%	2.75%	2.78%	2.81%	2.84%	2.64%	2.80%
Arithmetic Return	5.70%	5.73%	5.77%	5.80%	5.84%	5.57%	5.80%

## Dollars: (\$Millions)

Assets	755.0	755.0	755.0	755.0	755.0	755.0	755.0
Expected Annual Earnings	39.2	39.4	39.6	39.8	40.0	39.8	39.8
10% Probable Annual Loss (10% cVaR)	(104.5)	(105.6)	(106.8)	(107.9)	(109.0)	(107.8)	(107.8)

# **Low/Moderate Risk Tolerance Funds**

Fund balances as of March 31, 2022

# GeFONSI I and II – Top 60 Participants 3/31/22

GF	Fund Name	Ending Balance	Cum. %/Total	GF	Fund Name	Ending Balance	Cum. %/Total
GFI	General Fund	\$1,048,415,352	62%	GFI	Statutory Budget Reserve Fund	\$161,412,802	14%
GFI	Alaska Clean Water Fund	\$126,065,878	70%	GFI	Public Education Fund	\$109,006,160	23%
GFI	Alaska Drinking Water Fund	\$77,782,459	74%	GFI	Highway Equipment Working Capital Fund For Operating Appropriations	\$100,881,717	31%
GFI	Oil & Hazardous Substance Release Response Account	\$43,363,558	77%	GFI	Disaster Relief Fund	\$66,832,005	37%
GFI	Public Advocacy Trust	\$42,153,132	79%	GFI	School Construction Fund	\$66,764,957	42%
GFI	Fish & Game Fund	\$38,995,769	82%	GFI	Community Revenue Sharing Fund	\$64,948,219	48%
GFI	Mental Health Trust Income Settlement Account	\$27,799,800	83%	GFI	Regional Ed Attendance Area School Fund	\$59,062,757	53%
GFI	DVA Retiree Health	\$24,409,431	85%	GFI	National Petroleum Reserve Fund	\$55,963,577	57%
GFI	Renewable Energy Grant Fund	\$21,324,611	86%	GFI	Alaska Comprehensive Health Insurance Fund	\$49,846,818	62%
GFI	Vaccine Assessment Fund	\$20,251,078	87%	GFI	Commercial Fishing Revolving Loan Fund	\$48,491,668	66%
GFI	Group Health And Life Insurance Fund	\$19,214,972	88%	GFI	Alaska Marine Highway System Vessel Replacement Fund	\$46,489,912	70%
GFI	Oil & Hazardous Substance Release Prevention Account	\$14,720,687	89%	GFI	Major Maintenance Grant Fund	\$46,058,781	73%
GFI	Bulk Fuel Loans Fund	\$14,426,888	90%	GFI	Deposits, Suspense & Miscellaneous	\$38,362,641	77%
GFI	PFD Trust	\$12,630,247	91%	GFI	Fisheries Enhancement Revolving Loan Fund	\$36,075,927	80%
GFI	Railbelt Energy Fund	\$11,281,420	91%	GFI	Alaska Capital Income Fund	\$28,117,156	82%
GFI	Bulk Fuel Bridge Loan Fund	\$8,362,704	92%	GFI	Alaska Marine Highway System Fund	\$20,616,789	84%
GFI	School Trust Land Sales-GF Portion	\$7,547,627	92%	GFI	Tobacco Use Education & Cessation	\$19,301,860	85%
GFI	Liquified Natural Gas Fund/Alaska Gasline Development Corp	\$7,067,436	93%	GFI	Unclaimed Property	\$19,227,061	87%
GFI	Alaska Drinking Water Administrative Operating Account	\$6,828,631	93%	GFI	Alaska Public Building Fund	\$17,162,310	89%
GFI	Memorial Education Revolving Loan Fund	\$6,622,323	94%	GFI	Due To Fund 21685	\$16,926,759	90%
GFI	AIA Passenger Facility Charge Revenue Fund Application #2	\$6,462,536	94%	GFI	Alcohol & Other Drug Abuse Treatment & Prevention	\$13,353,952	91%
GFI	Small Business Economic Development Revolving Loan Fund 4	\$5,962,099	94%	GFI	Agricultural Revolving Loan Fund	\$12,922,880	92%
GFI	Alaska Clean Water Administrative Operating Account	\$5,921,069	95%	GFI	Alaska Fishermen's Fund	\$12,676,109	93%
GFI	Google Cost Sharing Fund	\$5,616,731	95%	GFI	State Insurance Catastrophe Reserve	\$11,839,909	94%
GFI	ATIB Repayment Account	\$4,602,416	95%	GFI	Employee Assistance & Training Program Account	\$7,695,943	95%
GFI	Rural Development Initiative Fund	\$4,601,320	96%	GFI	Information Services Fund	\$7,241,931	95%
GFI	Mariculture RLF	\$4,544,082	96%	GFI	Second Injury Fund	\$6,547,223	96%
GFI	Election Fund	\$4,430,131	96%	GFI	School Fund	\$6,526,413	97%
GFI	Alaska Capstone Avionics Revolving Loan Fund	\$4,381,425	96%	GFI	State Land Disposal Income	\$6,307,160	97%
GFI	Workers' Comp Benefits Guaranty Fund	\$4,299,478	97%	GFI	Recidivism Reduction Fund	\$4,794,793	97%

# GeFONSI - \$1.6 Billion

## 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 Equivalentents 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 FY2023 Asset Allocation

Asset Classes	Asset Mix Alternatives					Prior Year	GF FY22	GF+AY72	Old GF	AY70
	1	2	3	4	5					
Broad U.S. Equity	0.0%	0.0%	0.0%	0.0%	0.0%					
Global ex-U.S. Equity	0.0%	0.0%	0.0%	0.0%	0.0%					
Short Duration Gov't/Credit	17.6%	27.6%	34.4%	40.1%	45.2%			15%	34%	
Core U.S. Fixed Income	0.0%	0.0%	0.0%	0.0%	0.0%	15%	15%			
Cash Equivalentents	82.4%	72.4%	65.6%	59.9%	54.8%	85%	85%	85%	66%	100%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Optimization Results:										
Expected Return - Short-Term	2.54%	2.62%	2.68%	2.73%	2.77%	0.27%	2.62%	2.51%	2.67%	2.39%
Risk - Standard Deviation	0.91%	0.97%	1.03%	1.09%	1.15%	0.57%	1.02%	0.90%	1.03%	0.90%
Sharpe Ratio	0.16	0.24	0.28	0.31	0.33	0.38	0.23	0.14	0.28	(0.00)
Risk Statistics:										
10% Probable Annual Return (10% cVaR)	0.9%	0.9%	0.9%	0.8%	0.8%	-0.7%	0.8%	0.9%	0.9%	0.8%
5% Probable Annual Return (5% cVaR)	0.7%	0.6%	0.6%	0.5%	0.4%	-0.9%	0.5%	0.7%	0.6%	0.5%
Probability of Loss - 1 Year	0.3%	0.3%	0.5%	0.6%	0.8%	32.0%	0.5%	0.3%	0.5%	0.4%
Prob. Return < -1%	0.0%	0.0%	0.0%	0.0%	0.1%	1.3%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -10%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -20%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Probability of Loss - 10 Year	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Asset Time Horizon Estimate	0.6	0.7	0.9	1.0	1.0		1.1	0.5	0.8	0.3
Return Statistics:										
Short-Term Expected Return	2.54%	2.62%	2.68%	2.73%	2.77%	0.27%	2.62%	2.51%	2.67%	2.39%
Long-Term Expected Return	1.25%	1.28%	1.30%	1.32%	1.33%	1.12%	1.29%	1.24%	1.30%	1.20%
Long-Term Real Return	-1.00%	-0.97%	-0.95%	-0.93%	-0.92%	-0.88%	-0.96%	-1.01%	-0.95%	-1.05%
Long-Term Yield	1.28%	1.32%	1.35%	1.38%	1.40%	1.23%	1.46%	1.27%	1.35%	1.20%
Capital Gain	1.26%	1.30%	1.32%	1.35%	1.37%	-0.96%	1.17%	1.25%	1.32%	1.19%
Dollars: (\$Millions)										
Assets	1,627.2	1,627.2	1,627.2	1,627.2	1,627.2		1,627.2	1,627.2	1,627.2	1,627.2
Expected Annual Earnings	41.3	42.6	43.6	44.4	45.0		42.7	40.9	43.5	38.8
10% Probable Annual Loss (10% cVaR)	15.3	14.9	14.2	13.2	12.2		13.7	15.2	14.2	13.1

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%



# International Airport Revenue Fund - \$165 Million

## 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 FY2023 Asset Allocation

Asset Classes	Asset Mix Alternatives					Prior Year	Intl Airport
	1	2	3	4	5		
Broad U.S. Equity	0.0%	0.0%	0.0%	0.0%	0.0%		
Global ex-U.S. Equity	0.0%	0.0%	0.0%	0.0%	0.0%		
US REITS	0.0%	0.0%	0.0%	0.0%	0.0%		
Short Duration Govt/Credit	17.6%	27.6%	34.4%	40.1%	45.2%		15%
Core U.S. Fixed Income	0.0%	0.0%	0.0%	0.0%	0.0%	15%	
Cash Equivalents	82.4%	72.4%	65.6%	59.9%	54.8%	85%	85%
Total	100%	100%	100%	100%	100%	100%	100%
Optimization Results:							
Expected Return - Short-Term	2.54%	2.62%	2.68%	2.73%	2.77%	0.27%	2.51%
Risk - Standard Deviation	0.91%	0.97%	1.03%	1.09%	1.15%	0.57%	0.90%
Sharpe Ratio	0.16	0.24	0.28	0.31	0.33	0.38	0.14

## Risk Statistics:

10% Probable Annual Return (10% cVaR)	0.9%	0.9%	0.9%	0.8%	0.8%	-0.7%	0.9%
5% Probable Annual Return (5% cVaR)	0.7%	0.6%	0.6%	0.5%	0.4%	-0.9%	0.7%
Probability of Loss - 1 Year	0.3%	0.3%	0.5%	0.6%	0.8%	32.0%	0.3%
Prob. Return < -1%	0.0%	0.0%	0.0%	0.0%	0.1%	1.3%	0.0%
Prob. Return < -2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -10%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -20%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Probability of Loss - 10 Year	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Asset Time Horizon Estimate	0.6	0.7	0.9	1.0	1.0		0.5

## Return Statistics:

Short-Term Expected Return	2.54%	2.62%	2.68%	2.73%	2.77%	0.27%	2.51%
Long-Term Expected Return	1.25%	1.28%	1.30%	1.32%	1.33%	1.12%	1.24%
Long-Term Real Return	-1.00%	-0.97%	-0.95%	-0.93%	-0.92%	-0.88%	-1.01%
Long-Term Yield	1.28%	1.32%	1.35%	1.38%	1.40%	1.23%	1.27%
Capital Gain	1.26%	1.30%	1.32%	1.35%	1.37%	-0.96%	1.25%

## Dollars: (\$Millions)

Assets	164.8	164.8	164.8	164.8	164.8		164.8
Expected Annual Earnings	4.2	4.3	4.4	4.5	4.6		4.1
10% Probable Annual Loss (10% cVaR)	1.5	1.5	1.4	1.3	1.2		1.5

# GeFONSI II - \$1.2 Billion

## 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 Govt/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 Govt/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 Govt/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

## State of Alaska FY2023 Asset Allocation

Asset Classes	Asset Mix Alternatives					Prior Year	GFII FY22	GFII+AY72	GF+50
	1	2	3	4	5				
Broad U.S. Equity	3.0%	3.0%	3.0%	3.0%	3.0%	4%	4%	4%	4%
Global ex-U.S. Equity	1.0%	1.0%	1.4%	1.8%	2.1%	2%	2%	2%	2%
Short Duration Govt/Credit	36.9%	46.6%	52.6%	58.2%	63.5%			26%	33%
Core U.S. Fixed Income	0.0%	0.0%	0.0%	0.0%	0.0%	26%	26%		
Cash Equivalents	59.1%	49.4%	43.0%	37.0%	31.4%	68%	68%	68%	61%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
Optimization Results:									
Expected Return - Short-Term	2.93%	3.01%	3.09%	3.16%	3.22%	0.91%	3.14%	2.95%	3.01%
Risk - Standard Deviation	1.20%	1.30%	1.40%	1.50%	1.60%	1.37%	1.52%	1.35%	1.39%
Sharpe Ratio	0.45	0.48	0.50	0.51	0.52	0.63	0.50	0.42	0.45
Risk Statistics:									
10% Probable Annual Return (10% cVaR)	0.8%	0.7%	0.6%	0.5%	0.4%	-1.5%	0.5%	0.6%	0.6%
5% Probable Annual Return (5% cVaR)	0.5%	0.3%	0.2%	0.1%	-0.1%	-1.9%	0.0%	0.2%	0.2%
Probability of Loss - 1 Year	0.7%	1.0%	1.4%	1.8%	2.2%	25.3%	2.0%	1.4%	1.5%
Prob. Return < -1%	0.1%	0.1%	0.2%	0.3%	0.4%	8.2%	0.3%	0.2%	0.2%
Prob. Return < -2%	0.0%	0.0%	0.0%	0.0%	0.1%	1.7%	0.0%	0.0%	0.0%
Prob. Return < -3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%
Prob. Return < -4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -10%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -20%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Probability of Loss - 10 Year	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Asset Time Horizon Estimate	1.1	1.3	1.4	1.5	1.7	2.1	2.1	1.1	1.2
Return Statistics:									
Short-Term Expected Return	2.93%	3.01%	3.09%	3.16%	3.22%	0.91%	3.14%	2.95%	3.01%
Long-Term Expected Return	1.58%	1.61%	1.66%	1.70%	1.74%	1.64%	1.77%	1.69%	1.71%
Long-Term Real Return	-0.67%	-0.64%	-0.59%	-0.55%	-0.51%	-0.36%	-0.48%	-0.56%	-0.54%
Long-Term Yield	1.39%	1.44%	1.47%	1.50%	1.53%	1.46%	1.69%	1.36%	1.40%
Capital Gain	1.53%	1.57%	1.62%	1.66%	1.69%	-0.55%	1.46%	1.59%	1.62%
Dollars: (\$Millions)									
Assets	1,169.4	1,169.4	1,169.4	1,169.4	1,169.4		1,169.4	1,169.4	1,169.4
Expected Annual Earnings	34.3	35.2	36.1	36.9	37.7		36.8	34.5	35.2
10% Probable Annual Loss (10% cVaR)	9.6	8.6	7.4	6.1	4.8		5.5	6.9	6.8

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%

# Low Risk Tolerance Funds

Fund balances as of March 31, 2022

# Short Term Funds - \$167 Million

## 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 Govt/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

## State of Alaska FY2023 Asset Allocation

Asset Classes	Asset Mix Alternatives					Prior Year	ST Funds
	1	2	3	4	5		
Broad U.S. Equity	0.0%	0.0%	0.0%	0.0%	0.0%		
Global ex-U.S. Equity	0.0%	0.0%	0.0%	0.0%	0.0%		
Short Duration Govt/Credit	0.0%	5.0%	10.0%	15.0%	20.0%		
Core U.S. Fixed Income	0.0%	0.0%	0.0%	0.0%	0.0%		
Cash Equivalents	100.0%	95.0%	90.0%	85.0%	80.0%	100%	100%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Expected Return - Short-Term</b>	<b>2.39%</b>	<b>2.43%</b>	<b>2.47%</b>	<b>2.51%</b>	<b>2.56%</b>	<b>0.05%</b>	<b>2.39%</b>
Risk - Standard Deviation	0.90%	0.89%	0.89%	0.90%	0.92%	0.05%	0.90%
Sharpe Ratio	(0.00)	0.04	0.09	0.14	0.18		(0.00)

## Risk Statistics:

10% Probable Annual Return (10% cVaR)	0.8%	0.9%	0.9%	0.9%	0.9%	0.0%	0.8%
5% Probable Annual Return (5% cVaR)	0.5%	0.6%	0.6%	0.7%	0.7%	-0.1%	0.5%
Probability of Loss - 1 Year	0.4%	0.3%	0.3%	0.3%	0.3%	15.9%	0.4%
Prob. Return < -1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -10%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -20%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Probability of Loss - 10 Year	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
Asset Time Horizon Estimate	0.3	0.3	0.4	0.5	0.6	0.3	0.3

## Return Statistics:

Short-Term Expected Return	2.39%	2.43%	2.47%	2.51%	2.56%	0.05%	2.39%
Long-Term Expected Return	1.20%	1.21%	1.23%	1.24%	1.26%	0.05%	1.20%
Long-Term Real Return	-1.05%	-1.04%	-1.02%	-1.01%	-0.99%		-1.05%
Long-Term Yield	1.20%	1.22%	1.25%	1.27%	1.29%		1.20%
Capital Gain	1.19%	1.21%	1.23%	1.25%	1.27%		1.19%
Arithmetic Return	2.39%	2.43%	2.48%	2.52%	2.56%		2.39%

## Dollars: (\$Millions)

Assets	167.1	167.1	167.1	167.1	167.1		167.1
Expected Annual Earnings	4.0	4.1	4.1	4.2	4.3		4.0
5% Probable Annual Return (5% cVaR)	0.9	1.0	1.1	1.1	1.1		0.9

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

# CBRF – \$1.1 Billion

## 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 Govt/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	0.4%	15.9%
5% Probability of Annual Return (5% cVaR)	0.5%	

The proposed policy is effective July 1, 2022:

*Lucinda Mahoney*

Approved

June 28, 2022

Date

## State of Alaska FY2023 Asset Allocation

Asset Classes	Asset Mix Alternatives				
	1	2	3	4	5
Broad U.S. Equity	0.0%	0.0%	0.0%	0.0%	0.0%
Global ex-U.S. Equity	0.0%	0.0%	0.0%	0.0%	0.0%
Short Duration Gov't/Credit	0.0%	5.0%	10.0%	15.0%	20.0%
Core U.S. Fixed Income	0.0%	0.0%	0.0%	0.0%	0.0%
Cash Equivalents	100.0%	95.0%	90.0%	85.0%	80.0%
Total	100%	100%	100%	100%	100%
<b>Expected Return - Short-Term</b>	<b>2.39%</b>	<b>2.43%</b>	<b>2.47%</b>	<b>2.51%</b>	<b>2.56%</b>
Risk - Standard Deviation	0.90%	0.89%	0.89%	0.90%	0.92%
Sharpe Ratio	(0.00)	0.04	0.09	0.14	0.18

## Risk Statistics:

10% Probable Annual Return (10% cVaR)	0.8%	0.9%	0.9%	0.9%	0.9%
5% Probable Annual Return (5% cVaR)	0.5%	0.6%	0.6%	0.7%	0.7%
Probability of Loss - 1 Year	0.4%	0.3%	0.3%	0.3%	0.3%
Prob. Return < -1%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -2%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -3%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -4%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -5%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -10%	0.0%	0.0%	0.0%	0.0%	0.0%
Prob. Return < -20%	0.0%	0.0%	0.0%	0.0%	0.0%
Probability of Loss - 10 Year	0.0%	0.0%	0.0%	0.0%	0.0%
Asset Time Horizon Estimate	0.3	0.3	0.4	0.5	0.6

## Return Statistics:

Short-Term Expected Return	2.39%	2.43%	2.47%	2.51%	2.56%
Long-Term Expected Return	1.20%	1.21%	1.23%	1.24%	1.26%
Long-Term Real Return	-1.05%	-1.04%	-1.02%	-1.01%	-0.99%
Long-Term Yield	1.20%	1.22%	1.25%	1.27%	1.29%
Capital Gain	1.19%	1.21%	1.23%	1.25%	1.27%
Arithmetic Return	2.39%	2.43%	2.48%	2.52%	2.56%

## Dollars: (\$Millions)

Assets	1,088.0	1,088.0	1,088.0	1,088.0	1,088.0
Expected Annual Earnings	26.0	26.4	26.9	27.4	27.8
5% Probable Annual Return (5% cVaR)	5.8	6.5	6.9	7.1	7.1

Prior Year	CBRF	GeFONSI I	GeFONSI II
			4%
			2%
		15%	33%
100%	100%	85%	61%
100%	100%	100%	100%
0.05%	2.39%	2.51%	3.01%
0.05%	0.90%	0.90%	1.39%
	(0.00)	0.14	0.45

0.0%	0.8%	0.9%	0.6%
-0.1%	0.5%	0.7%	0.2%
15.9%	0.4%	0.3%	1.5%
0.0%	0.0%	0.0%	0.2%
0.0%	0.0%	0.0%	0.0%
0.0%	0.0%	0.0%	0.0%
0.0%	0.0%	0.0%	0.0%
0.0%	0.0%	0.0%	0.0%
0.0%	0.0%	0.0%	0.0%
0.0%	0.0%	0.0%	0.0%
0.0%	0.0%	0.0%	0.0%
0.1%	0.0%	0.0%	0.0%
0.3	0.3	0.5	1.2

CBRF History	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Expected ST Return	0.05%	0.17%	2.32%	2.89%	2.89%	2.89%	2.89%	2.38%	2.30%	3.01%
Expected Volatility	0.05%	0.90%	1.23%	1.64%	1.62%	1.59%	1.58%	1.58%	2.06%	2.31%
10% cVaR	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	2.0	1.8	2.4	3.9	7.3	10.1	6.1	5.8