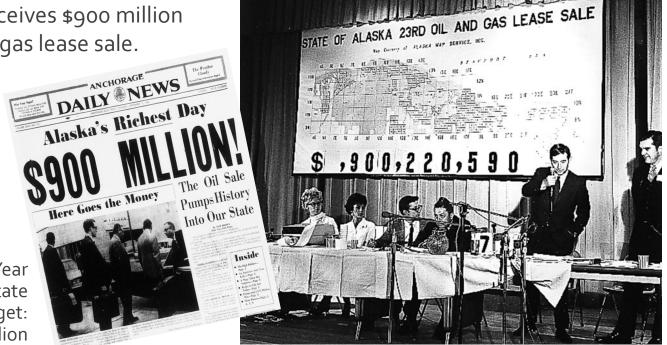


House Budget Subcommittee
History – Governance - Investment
February 2022

1969: Oil Sells, Money Arrives

Alaska receives \$900 million in oil and gas lease sale.



Fiscal Year 1970 state budget: \$173 million



Building the TransAlaska Pipeline

1969–1971 Companies wait for land claims with Alaska Native people to be resolved before developing oil fields President Nixon signs Alaska Native Claims 1971 Settlement Act - ANCSA Congress passes TransAlaska Pipeline 1973 **Authorization Act** 1974–1976 Pipeline Construction, 789 miles across Alaska First barrel of oil through the TransAlaska 1977 Pipeline System in the summer of 1977, with full-scale production by the end of year.

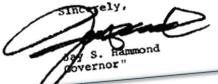
Proposed Constitutional Amendment

HOUSE JOURNAL

January 15, 1976

HJR State. The principal of the fund could not finance capital general state. The principal of the fund could not finance capital expenditures either directly or be purchasing State obtained by the fund could purchase obligations of ligations, but the fund could purchase obligations of ligations, but the fund could purchase of the fund would be separate State authorities. The income of the fund we separate state authorities authorities any permanent fund deposited into the general fund without any permanent

I have introduced this resolution proposing a constitutional amendment because I believe strongly that the revenues from our non-renewable resources belong to future generations of Alaskans as well as ourselves. A permanent fund as I have proposed will set aside a modest portion of the proceeds from the exploitation of our non-renewable resources for investment in our future while leaving sufficient revenues for our present needs. I urge your immediate and favorable for our present needs consideration of this proposed constitutional amendment so consideration of this proposed the voters at the next general that it may be placed before the voters at the next general election.





1976 House Joint Resolution 39

excerpt from transmittal letter

1976: The Alaska Permanent Fund

Alaska Constitution Article IX, Section 15
Alaska Permanent Fund

At least twenty-five percent of all mineral lease rentals, royalties, royalty sale proceeds, federal mineral revenue sharing payments and bonuses received by the state shall be placed in a permanent fund, the principal of which shall be used only for those income-producing investments specifically designated by law as eligible for permanent fund investments. All income from the permanent fund shall be deposited in the general fund unless otherwise provided by law.



1976-1980: The Debate

On February 28, 1977 the Permanent Fund received its first deposit of dedicated oil revenues totaling \$734,000. At first, the Fund is invested entirely in bonds. The Legislature begins four years of public discussions regarding whether the Permanent Fund should be managed as an investment fund or an economic development bank.

After four years of discussion, the Legislature decided the Permanent Fund would be...

An Investment Fund

Converting a non-renewable resource into a renewable financial resource for future generations.



INVESTMENT FUND

To be used for income-producing investments, with the earnings available for legislative appropriation

OR....



DEVELOPMENT BANK

To be used for economic development projects in Alaska

1980: Managing the Fund



Alasha State Legislature

FREE CONFERENCE COMMITTEE REPORT

FCCS for HCS for SB 161

In making their decision on the Alaska Permanent Fund, the Free Conference Committee has focused on a single question --- the management of the Fund's principal.

It is to be an inviolate trust which, in the words of this bill, conserves "...a portion of the state's revenues from mineral resources to benefit all generations of Alaskans..." (page 4).

It is to be an independent trust, yet made accountable in various ways to "...maintain safety of principal while maximizing total return..." (page 4).

The contribution rate has been set at 50% of mineral lease bonuses (except from the Beaufort Sea, which has been left at 25%) and 50% of mineral lease royalties and net profits from the Beaufort Sea and other future sales. The rate for Prudhoe Bay remains at 25% plus any other money appropriated annually by the Legislature.

Three major concerns === safety of principal, accountability, and legislative oversight === are addressed by the legislation.

The Future

As stated earlier, this bill addresses only the question of Fund management and leaves the separate question of how to use the Fund carnings to separate legislation. It merely assures that there will be income and does not preclude any options for its use. Unless another determination is made, the Permanent Fund earnings will be deposited in the general fund. No matter what use(s) are decided for the income, the national financial community that Alaska is following a responsible fiscal policy.

TERRY GARDINER, Chairman Conference Committee

CONFERENCE COmmittee

Alaska State Senate Bill 161

Accountability

Free Conference Committee report on SB161.

The corporation should reside within the Department of Revenue, but would be considered a separate entity managed by the Board of Trustees. Below is an excerpt from the report:

"It was the aim of the Committee to establish a management system for the Alaska Permanent Fund which would be protected from political influences but, at the same time, responsive to changes in state policy and accountable to the people thorough their elected officials. In short, the aim was insulation without isolation. It was agreed that the best way of achieving these ends was not to place the management of the corporation within the Department of Revenue, but to create a public corporation distinct from State government."

Board of Trustees is the designated authority over APFC, but the State of Alaska retains oversight through –

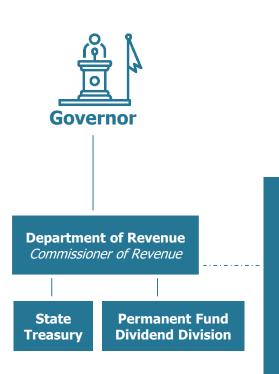
- Appropriation of APFC's Budget
- Duties of the LB&A Committee
- Statutes Governing

 Board Composition
 Investment Responsibilities
 Disposition of Fund Income
 Disclosures

Within these restrictions, the Board may manage APFC and the Permanent Fund as it sees fit in accordance with operations of state government.

Governance

Constitution
Statutes
Regulations
Appropriations
By-Laws
Charters
Investment Policy





APFC

ALASKA PERMANENT FUND CORPORATION

APFC operates as a separate state entity under the oversight of an independent Board of Trustees who serve as fiduciaries of the Alaska Permanent Fund.

APFC's professional staff invests and manages the Fund in accordance with Alaska Statutes and the Board's strategy and policy directives.



Established 1980

Mission

To manage and invest the assets of the permanent fund and other funds designated by law in accordance with AS 37.13.010-37.13.190.

Vision

To deliver outstanding returns for the benefit of all current and future generations of Alaskans.

Alaska Permanent Fund Principal Constitution and AS 37.13.010 Earnings Reserve Account AS 37.13.145 (a)

Amerada Hess Settlement AS 37.13.145 (d) AK Capital Income Fund AS 37.05.565

Alaska Mental Health Trust Fund AS 37.13.300 Alaska Mental Health Trust Authority

Fiduciary Duty

APFC operates as a separate state entity under the oversight of an independent Board of Trustees who serve as fiduciaries of the Alaska Permanent Fund.

In serving Alaska, APFC provides

- Value Adding & Worthy Purpose
- Long-Term Performance & Returns
- Passionate & High Caliber Team
- Stewardship & Accountability

Legislative Findings AS 37.13.020

As the fiduciaries, APFC staff and the Board of Trustees have a duty to Alaskans in assuring that the Alaska Permanent Fund is managed and invested in a manner consistent with legislative findings:

- The Fund should provide a means of conserving a portion of the state's revenue from mineral resources to benefit all generations of Alaskans.
- The Fund's goal should be to maintain safety of principal while maximizing total return.
- The Fund should be used as a savings device managed to allow the maximum use of disposable income from the Fund for the purposes designated by law.

What is a Fiduciary? A fiduciary is a person or entity that acts on behalf of another to manage assets. A fiduciary owes to that other entity the duties of good faith and trust. The highest legal duty of one party to another, being a fiduciary, requires being bound ethically to act in the other's best interests.

Investment Responsibilities AS 37.13.120

Changes Over Time

- 1977 Initial Legislation permitted an investment list that included only fixed income securities such as treasury bonds.
- Following changes to the statutory investment list, the Fund made its first investment in the stock market, and later that year, indirectly held real estate.
- 1990 After the Legislature expanded the statutory investment list, the Fund began to invest in stock and bond markets outside the United States.
- The Legislature made a significant change in how Permanent Fund investments are determined by removing the allowed investment list from state law. The Trustees will make investment decisions under the guidelines of the prudent investor rule.
- The Fund is managed in accordance with the Prudent Investor Rule and the governance provided in Alaska Statutes and APFC's Investment Policy approved by the Board of Trustees to provide risk-adjusted returns across a diversified portfolio for the long-term.

What Is the Prudent Investor Rule?

The prudent investment rule requires a fiduciary to invest trust assets as if they were her or his own.

This managing investor should consider the needs of the trust's beneficiaries and should avoid investments that are excessively risky.

Today the rule is codified in the Uniform Prudent Investor Act (UPIA) of 1992.

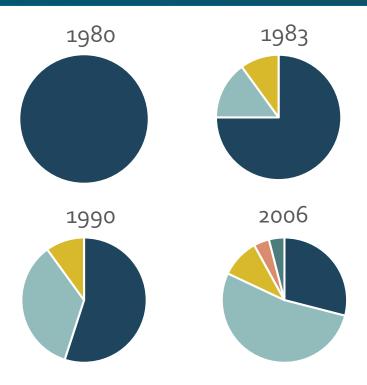
Investment Responsibilities AS 37.13.120

Alaska Administrative Code Title 15 – Chapter 137 – Article 3

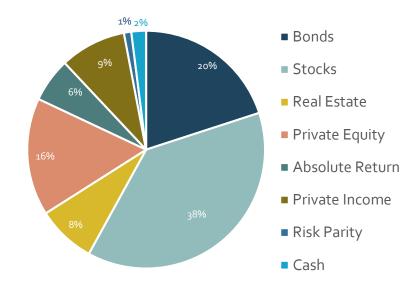
- (a) The board shall adopt regulations specifically designating the types of income-producing investments eligible for investment of fund assets. When adopting regulations authorized by this section or managing and investing fund assets, the prudent-investor rule shall be applied by the corporation. The prudent-investor rule as applied to investment activity of the fund means that the corporation shall exercise the judgment and care under the circumstances then prevailing that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the designation and management of large investments entrusted to it, not in regard to speculation, but in regard to the permanent disposition of funds, considering preservation of the purchasing power of the fund over time while maximizing the expected total return from both income and the appreciation of capital.
- (b) The corporation may not borrow money or guarantee from principal of the fund the obligations of others, except as provided in this subsection. With respect to investments of the fund, the corporation may, either directly or through an entity in which the investment is made, borrow money if the borrowing is nonrecourse to the corporation and the fund.

- c) The board shall maintain a reasonable diversification among investments unless, under the circumstances, it is clearly prudent not to do so. The board shall invest the assets of the fund in in-state investments to the extent that in-state investments are available and if the in-state investments
 - (1) have a risk level and expected return comparable to alternate investment opportunities; and
 - (2) are eligible for investment of fund assets under (a) of this section
- (d) The corporation may enter into and enforce all contracts necessary, convenient, or desirable for managing the fund's assets and corporate operations, including contracts for future delivery to implement asset allocation strategies or to hedge an existing equivalent ownership position in an investment.
- (e) Before adoption of a regulation under (a) of this section, the regulation, in electronic format, shall be provided to the Legislative Budget and Audit Committee for review and comment. The board shall submit investment reports to the committee at least quarterly.

Asset Allocation



2022 Target



Fund Values and Returns

as of December 31, 2021

The Alaska Permanent Fund plays an increasingly vital role in supporting Alaskans today and for generations to come.



Fund Performance

For period ending Fiscal Year to Date 12/31/21

	Total Fund	Passive Index	Performance Benchmark	Objective CPI + 5%
FYTD 22	5.95%	4.24%	6.07%	5.02%
3 Year	15.51%	15.28%	15.09%	8.54%
5 Year	12.12%	10.78%	11.48%	7.92%
10 Year	10.24%	8.52%	9.63%	7.14%

Source: APFC's Monthly Performance Report – December 31, 2021

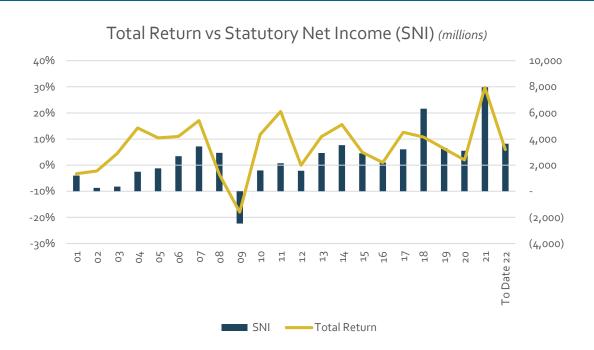
	FYTD 22	3 year	5 year
Total Fund	5.95%	15.51%	12.12%
Performance Benchmark	6.07%	15.09%	11.48%
Public Equity	4.34%	21.16%	14.66%
Benchmark	4.92%	20.20%	14.12%
Fixed Income ⁽¹⁾	-0.25%	5.83%	4.38%
Benchmark	-0.26%	5.06%	3.83%
Private Equity	16.06%	26.96%	26.15%
Benchmark	17.17%	24.50%	21.29%
Real Estate	9.15%	3.34%	3.34%
Benchmark	9.69%	8.58%	7.96%
Private Income	7.08%	9.52%	11.42%
Benchmark	6.79%	7.62%	7.63%
Absolute Return(2)	3.06%	6.86%	5.94%
Benchmark	0.13%	10.84%	7.09%
Risk Parity	4.51%	NA	NA
Benchmark	3.28%	NA	NA
Cash	0.03%	NA	NA
Benchmark	0.02%	NA	NA

^{1.} Fixed Income returns go back 8 years, so last column shows annualized 8-year return.

 $^{{\}tt 2. \ Absolute\ Return\ returns\ go\ back\ g\ years, so\ last\ column\ shows\ annualized\ g-year\ return.}$

Statutory Net Income

AS 37.13.140 (a) directs the net investment earnings of the Fund to the ERA excluding unrealized gains & losses.



Statutory Net Income is the direct result of investment activity:

Monthly cash inflows from stock dividends, bond interest, and real estate

Realized Capital Gains/Losses: The net income generated by the sale of investments. (i.e., realized gains minus realized losses)

FY21 as of June 30, 2021 SNI = \$7,962,400,000

FY 22 as of December 31, 2021 SNI = \$3,638,300,00

Use of Fund Earnings as of December 31, 2021

Savings from ERA to Principal = \$30.3 B

- Inflation Proofing \$18.0 Bl 22.4%
- Special Appropriations \$12.3 B | 15.3%

Paid out of ERA = \$36.9 B

- Dividend Appropriations \$24.4 B | 30.4%
- POMV Distributions to General Fund \$12.1 B | 15.1%
- Alaska Capital Income Amerada Hess \$0.4 B | 1.0%

Current Realized Earnings Balance = \$12.9 B

- FY23 POMV commitment \$3.4 B | 4.2%
- Uncommitted Earnings \$9.5 B | 12.0%

\$80,209,300,000 Savings to Principal \$30.3 B

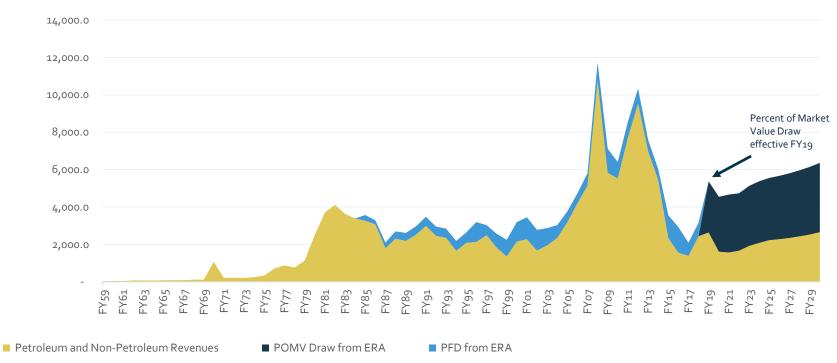
Paid out of ERA

\$36.9 B

TOTAL REALIZED EARNINGS

Current Balance \$12.9 B

State Revenues & ERA Draws 1959-2029



Undesignated General Fund Revenues (in millions)

Fund Value: \$82,412,500,000

Unaudited as of December 31, 2021

PRINCIPAL \$65.8 Billion

\$51.2 \$14.6

■ Permanent Savings: Royalty Deposits & Other Appropriations ■ Unrealized Gains

EARNINGS RESERVE ACCOUNT (ERA) \$16.6 Billion

\$9.5 \$3.4 \$3.7

■ Uncommitted Realized Earnings ■ POMV Commitment FY23 ■ Unrealized Gains

Unrealized gains and losses on invested assets are held until an investment is sold, then the net realized earnings flow to the ERA.

Board Resolutions

oo-13, 03-05, 04-09: Constitutionalize Annual Fund Draw. Limit the annual Fund payout to not more than 5% POMV averaged over a period of 5 years. Assures permanent inflation proofing.

17-01: Identify and pursue legislation or legislative support for some form of inflation-proofing that will preserve the purchasing power of the principal of the permanent fund for all generations.

18-01: Supporting a Rules Based Legal Framework to govern Fund inflows, outflows, and internal transfers. A holistic framework rationalized by policymakers regarding the rules for savings, withdrawals, and growing the real value of the Fund results in a consistent approach to transfers and sustainability of the Fund over the long-term.

18-04: Affirming the importance of formulaic management of transfers into and out of the ERA to ensure sustainability and long-term growth of the Fund, by identifying four key principles: Adherence to Rules, Ensuring Sustainability, Automatic Inflation Proofing, Promoting Real Growth.

20-01: Additional measures to enhance the sustainable use of the Fund include restructuring the Fund from its' current two account system into a single Fund, as well as periodic review of Fund Return Assumption and ERA Balance Buffer (4X Buffer).

Constitutional Amendment to limit the payout to not more than 5% POMV

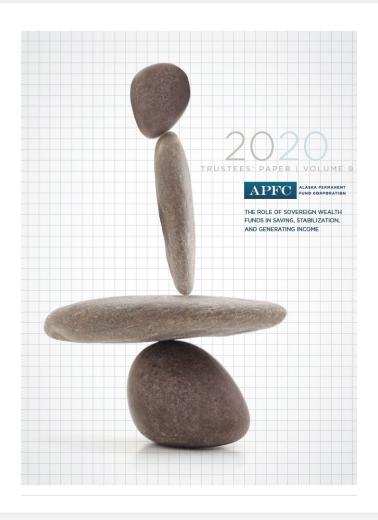
Ensures permanent Inflation Proofing

Legal Rules-Based Framework for Fund Transfers

Adherence - Sustainability Inflation Proofing - Real Growth

Additional Measures to Enhance the Sustainability of the Fund

Single Fund Periodic Review of Return Assumptions



Trustees' Paper Volume 9

Successful SWFs operate within a rules-based system that allows them to perform a combination of saving, stabilization, and income-generation functions.

This paper proposes a number of reforms that will strengthen the stability and sustainability of Alaska's Permanent Fund:

LESSON #1: MISSION CLARITY

LESSON #2: THE IMPORTANCE OF RULES

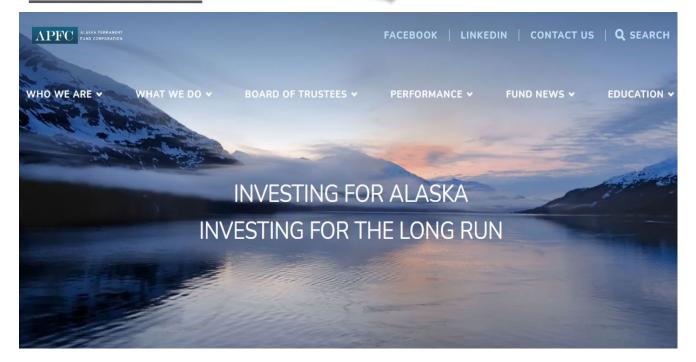
LESSON #3: SUCCESSFUL ENFORCEMENT OF SAVING RULES

LESSON #4: DESIGNING A POMV SPENDING RULE

LESSON #5: REFORMING THE ERA

https://apfc.org/report-archive/#14-33-trustees-papers

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Alusha State Legislature

FREE CONFERENCE COMMITTEE REPORT

FCCS for HCS for SB 161

In making their decision on the Alaska Permanent Fund, the Free Conference Committee has focused on a single question --- the management of the Fund's principal.

It is to be an inviolate trust which, in the words of this bill, conserves "...a portion of the state's revenues from mineral resources to benefit all generations of Alaskans..." (page 4).

It is to be an independent trust, yet made accountable in various ways to "...maintain safety of principal while maximizing total return..." (page 4).

The contribution rate has been set at 50% of mineral lease bonuses (except from the Beaufort Sea, which has been left at 25%) and 50% of mineral lease royalties and net profits from the Beaufort Sea and other future sales. The rate for Prudhoe Bay remains at 25% plus any other money appropriated annually by the Legislature.

Three major concerns === safety of principal, accountability, and legislative oversight === are addressed by the legislation.

Safety of Principal

The Free Conference Committee Permanent Fund bill provides a framework for fiscally conservative and responsible management of the Fund's principal. It assures and emphasizes the safety of the assets while providing the responsible managers with sufficient investment latitude to achieve superior results. Under the terms of this bill, the Alaska Permanent Fund would consist of a wide variety of quality, high-grade investments.

The Fund is designed to be a trust which focuses on the safety of principal first and the maximization of earnings second (page 4). It is a trust held to a more restricted list of investments than most other fiduciary trusts including the Alaska State Pension Funds and it confirms in law the

current state practice of evaluating performance according to nationally recognized and accepted standards. The investment managers are required to maintain investment diversification and are allowed to determine the investment mix of short, intermediate, and long-term investments. The flexibility allowed enables the managers to achieve a sound rate of return on investments.

The bill provides the investment managers with the authority to place funds in direct obligations of the United States Treasury, federal agency securities, certificates of deposit, high-grade corporate bonds, quality short-term investments, and federally guaranteed loans (pages 8-9). The fund is directed to give preference to Alaska investments as long as they meet the standards of quality set out in the bill. Specifically, deposits can be made in Alaska banks,— mutual savings banks, savings and loan associations, and credit unions. Residential real estate (owner-occupied single family dwellings, duplexes, and condominiums) may also be purchased if the mortgage is privately insured by a— Motor Company doing business in Alaska (page 9). The order in which the investments are listed is not meant to express a priority for one type of investment over another.

Importantly, the bill has a minimum of investment restrictions yet provides a very definite and certain framework. It does not authorize investments in stock or bullion, restricts the purchase of corporate bonds to 25% of the Fund's total investments, and limits the purchase of loans and mortgages to 25% of the total. Purchases of residential mortgages may be a further 15% of total assets. The bill allows the Fund to use the futures market to protect investments from the severe declines in value that are being suffered today. These futures contracts, however, may be used only to hedge and not to speculate. The bill also prohibits the Fund from either borrowing or guaranteeing the obligations of others (page 8).

The bill also provides for the handling of gains and losses and income (page 11). Any losses not offset by gains on the sale of securities shall be deducted from income and added to the Fund principal; this protects the Fund principal from erosion. Losses from sales of securities are spread over a period of time equal to the remaining life; this encourages the managers to get rid of bad investments. Capital gains are added to the Fund principal, helping to offset the effects of inflation. The Fund income is defined as the interest received on the investments, and the amount of income available for disbursement will be determined on an averaging basis; this insures a relatively steady income flow.

when?

Accountability

It was the aim of the Committee to establish a management system for the Alaska Permanent Fund which would be protected from political influences but, at the same time, responsive to changes in state policy and accountable to the people through their elected officials. In short, the aim was insulation without isolation. It was agreed that the best way of achieving these ends was not to place the management within the Department of Revenue, but to create a public corporation distinct from state government. Although the Department of Revenue currently manages the pension funds as well as the general fund, it was agreed that the Permanent Fund, with its fundamentally different goals and large size, should not be in the hands of the same people whose primary duty is managing money for day-to-day use by the state. Corporation is placed within the Department of Revenue for administrative matters such as payroll, but has a legal existence independent of and separate from the state.

The proposed Permanent Fund Corporation, therefore, has its own board of trustees which is made accountable in several ways (page 5). The six members of the board will be appointed by the Governor and consist of the Commissioner of Revenue, two other commissioners, and three public members. They will be confirmed by the Legislature, except for the Commissioner of Revenue who serves by right of his office; the other commissioners are to submit to a separate confirmation for their duties as trustees. Terms are three years; staggered, and members may be reappointed subject to confirmation. Members may be removed from the board by the Governor and the Legislature may override this decision in a Joint Session. The public members of the board may not hold any other state or federal office or employment and must have recognized competence and wide experience in finance, investments, or other business management-related fields. They are subject to the conflict of interest law and must disclose any interest in entities in which corporate assets are invested. will be paid honorariums competitive with the largest private corporations in the state. It is intended that every two years the Governor shall make recommendations on adjusting the level of the honorarium. The board will employ an executive director who is also subject to the conflict of interest law and responsible for hiring additional staff with the board's approval.

The corporation's operating budget is from the general fund and is subject to the Executive Budget Act (page 10). This provision offers another check on the management and will prevent such things as the hiring of excessive numbers of employees or uncontrolled expense accounts.

Among the board's responsibilities is the publishing of a yearly report (page 11) including a financial statement reviewed by independent auditors, a statement of earnings from each investment, a market-value appraisal of the investments, and a performance evaluation with recommendations for needed changes. These reports, which must be written in easily understandable language, will be available to the Governor, the Legislature, and the public. The income statement and balance sheet will be published yearly in newspapers and every two years in the election pamphlet.

The bill thus insures that the board of trustees of the Alaska Permanent Fund Corporation will be the best investment managers available in the state, will be accountable to both the executive and legislative branches through appointment and budget processes and oversight by the Legislative Budget and Audit Committee, and will keep the public informed about the Fund's investment performance.

Legislative Oversight

The Free Conference Committee found a need for coordinated, continuing oversight of all the state's investment
efforts. Accordingly, the review will extend beyond the
Alaska Permanent Fund to include the Alaska Renewable Resources
Fund, loan programs, the several authorities, and the general
fund. As well as building up a body of legislators with
detailed knowledge of investments, this new approach will
give the Legislature and the broad public better information
on the policies and efficiency of the various investment
agencies, on the extent to which these agencies conform to
statutory intent, and on the extent to which the economic
and social goals of the various programs are being achieved.

The House Finance Committee had considered providing in the Permanent Fund bill for a new interim committee to handle this oversight function but decided, in the interest of efficiency, to simply expand the powers and duties of the present Legislative Budget and Audit Committee (pages 1-3). As proposed, the Legislative Budget and Audit Committee will review the plans and reports of all state agencies involved in lending or investing, report to the Legislature its findings and recommendations, and provide for audits and performance evaluations of the Alaska Permanent Fund Corporation's investment program.

It is the Committee's intent, however, that these new duties be assigned to the Legislative Budget and Audit Committee on a trial basis and that the committee report back to the Legislature within two years, recommending how best the oversight duty could be carried out and including

consideration of the option of delegating the responsibilities to a separate committee.

The Future

As stated earlier, this bill addresses only the question of Fund management and leaves the separate question of how to use the Fund earnings to separate legislation. It merely assures that there will be income and does not preclude any options for its use. Unless another determination is made, the Permanent Fund earnings will be deposited in the general fund. No matter what use(s) are decided for the income, the very establishment of a secure trust will be a sign to the national financial community that Alaska is following a responsible fiscal policy.

TERRY GARDINER, Chairman Conference Committee

JOHN SACKETT, Chairman Conference Committee



ALASKA PERMANENT FUND FUND FINANCIAL HISTORY & PROJECTIONS

as of December 31, 2021

Projections extend ten years, and are based on best available information (\$ in millions)

							T TOJUGUIONO UX	teria teri years, ar	id die based on best t	available information (\$ in i						
		Nonspen		Balance - Princi	pal			Assigned Fund Balance - Earnings Reserve							TOTAL	
			Inflation		Unrealized					Distributions			Unrealized			FUND
	FY-Begin	Dedicated (1)	Proofing	FY-End	Gain (Loss)	FY-End Non-	Acct.	Statutory		Inflation		FY-End	Gain (Loss)	FY-End		
	Contrib.	State	& Special	Balance	FY-End	spendable	Net	Net	Div/POMV	Prfg & Spec		Balance	FY-End	Assigned		FY-End
FY	Balance	Revenues	Approp.	Contributions	Balance	Balance	Income (2)		Transfer (9)	Approp.	ACIF	Realized	Balance	Balance	FY	Balance
77-12	0	13,670	21,362	35,032	3,220	38,252	41,559	40,348	19,791	18,064	451	1,905	175	2,081	77-12	40,333
13	35,032	840	743	36,615	4,184	40,800	4,314	2,928	604	743	30	3,486	567	4,054	13	44,854
14	36,615	779	546	37,941	7,062	45,002	6,848	3,531	1,235	546	32	5,236	975	6,212	14	51,214
15	37,941	600	624	39,165	6,473	45,638	2,384	2,907	1,373	624	24	6,147	1,016	7,163	15	52,801
16	39,165	284	0 (4,750	44,199	398	2,198	696 ⁽⁷⁾	0 (8)	18	7,649	921	8,571	16	52,770
17	39,449	365	0 (7,155	46,969	6,676	3,214	0	0 (8)	25	10,862	1,952	12,816	17	59,785
18	39,814	353	0 (⁸⁾ 40,167	5,863	46,030	5,526	6,324	726	0 (8)	43	16,460	2,403	18,864	18	64,894
19	40,167	385	989	41,542	6,278	47,821	3,766	3,305	2,723	989	22	16,052	2,426	18,481	19	66,301
20	41,542	319	4,758 (-,-	5,789	52,408	1,637	3,106	2,933	4,758 (10)	21	11,469	1,424	12,894	20	65,302
21	46,619	320	0	46,939	13,810	60,749	19,417	7,962	3,091	0	50	16,341	4,807	21,148	21	81,897
22	46,939	429	4,000 (9,981	61,349	(1,389)	4,540	3,069	4,000 (10)	25	13,812	2,684	16,496	22	77,845
22	46,939	429	4,000 (- ,	13,533	64,901	4,501	5,630	3,069	4,000 (10)	31	14,902	3,926	18,828	22	83,729
22	46,939	429	4,000 (- /	17,651	69,019	11,608	6,961	3,069	4,000 (10)	38	16,233	5,578	21,810	22	90,829
23	51,368	434	1,036	52,838	13,274	66,112	4,873	5,109	3,361	1,036	28	15,614	3,923	19,537	23	85,648
24	52,838	440	1,066	54,343	13,046	67,389	4,978	5,220	3,600	1,066	28	16,168	3,881	20,050	24	87,439
25	54,343	452	1,096	55,891	12,842	68,732	5,076	5,323	3,808	1,096	28	16,588	3,811	20,399	25	89,132
26	55,891	442	1,127	57,460	12,659	70,118	5,168	5,419	4,019	1,127	28	16,862	3,715	20,577	26	90,695
27	57,460	452	1,158	59,070	12,501	71,572	5,250	5,507	4,257	1,158	28	16,953	3,588	20,541	27	92,113
28	59,070	477	1,191	60,738	12,344	73,082	5,329	5,590	4,345	1,191	28	17,007	3,456	20,463	28	93,545
29	60,738	476	1,224	62,439	12,185	74,623	5,407	5,673	4,429	1,224	28	17,026	3,323	20,349	29	94,972
30	62,439	524	1,259	64,222	12,024	76,246	5,487	5,757	4,508	1,259	28	17.016	3,186	20,202	30	96,448
31	64,222	609	1,297	66.127	11.862	77,989	5,571	5,845	4,583	1,297	28	16.981	3,046	20,027	31	98.016
	ative Totals		-,	,	,	,	-,	-,	-,	-,		,	1 -,	,		,
	or FY22-FY31	4,735	14,453				51.641	55.073	39.979	14,453	280					

Assumptions:			Total Return	- Inflation = To	tal Real Return	5	Statutory Return
Lo	FY22		-1.45%	2.00%	-3.45%	Lo	5.94%
Mid	FY22	(3)	5.86%	2.00%	3.86%	Mid	7.30%
Hi	FY22		14.68%	2.00%	12.68%	Hi	8.96%
	FY23-FY31	(4)	6.20%	2.00%	4.20%		6.52%

Notes related to financial history and projections:

- (1) Dedicated State Revenues in current and future fiscal years are based on the Fall 2021 Department of Revenue forecast.
- (2) Accounting net income is based on United States Generally Accepted Accounting Principles (GAAP).
- (3) Current year returns and inflation are based on 2021 Callan capital market assumptions. Actual results will vary.
- (4) Future returns are based on 2021 Callan capital market assumptions and median expected returns (the mid case). Actual results will vary.
- (5) During FY 2009, the ACIF realized losses of \$33.3 million, which are excluded from statutory net income, and are included in the ending unreserved balance as a deficit account. During FY 2010 and FY 2011, the ACIF had realized income of \$20.8 and \$25.3 million, which is excluded from statutory net income, and served to reduce the FY 2009 deficit.
- (6) The statutory inflation calculation for FY 2010 was -.36%; therefore, there was no inflation proofing transfer during FY 2010.
- $\ensuremath{^{(7)}}$ The dividend transfer reported for FY16 was paid out in dividends during FY17.
- (8) There was no appropriation for inflation proofing in FY16, FY17, FY18, FY21, and FY22.
- (9) Per AS 37.13.140, beginning in FY19, transfers are based on a percent of market value (POMV) calculation and are to the General Fund. In previous years, transfers were based on an earnings calculation and were to the Dividend Fund.
- (10) In FY20 and FY22, an additional \$4 billion was appropriated from the ERA to principal.
- (11) All transfers out of the Earnings Reserve are subject to Legislative appropriation

Income Year-to-Date as of December 31, 2021

FY22 YTD Statutory Net Incom	e	
Interest, dividends, real estate & other income	\$	816.6
Realized gains (losses) on the sale of assets		2,909.3
Less operating expenses		(68.4)
Less AK Capital Inc. Fund realized earnings	_	(19.2)
	\$	3.638.3

FY22 YTD Accounting (GAAP) Net Income		
Statutory net income (loss)	\$	3,638.3
Unrealized gains (losses) on invested assets		(284.8)
AK Capital Income Fund realized earnings	_	19.2
Accounting (GAAP) net income (loss)	\$	3,372.7

FY22 POMV (actu		FY22 Statu Transfe	•		
Ending Fund Value (ex Am Hess)			Statutory Ne	et Inc	ome
FY20	\$	64,877.6	FY21	\$	7,962.0
FY19		65,876.8	FY20		3,106.0
FY18		64,470.0	FY19		3,305.0
FY17		59,360.9	FY18		6,324.4
FY16		52,345.3	FY17		3,214.2
			Avail for		
Average Value	\$	61,386.1	Dist (21%)	\$	5,021.4
Statutory			Statutory		
Distribution	\$	3,069.3	Trnsfr Amt	\$	2,510.7

FY23 POMV (actu				FY23 Statu Transfer	•	
nding Fund Value 'ex Am Hess)				Statutory Ne	et Inc	ome
FY21	\$	81,472.6		FY22	\$	5,630.1
FY20		64,877.6		FY21		7,962.0
FY19		65,876.8		FY20		3,106.0
FY18		64,470.0		FY19		3,305.0
FY17		59,360.9		FY18		6,324.4
verage Value	\$	67,211.6		Avail for Dist (21%)	\$	5,528.8
tatutory istribution	\$	3,360.6		Statutory Trnsfr Amt	\$	2,764.4

ALASKA PERMANENT FUND

Balance Sheets		
Unaudited	December 31,	June 30,
(millions of dollars)	2021	2021
Assets		
Cash and temporary investments	\$ 5,668.1	5,828.4
Receivables, prepaid expenses and other assets	748.9	787.7
Investments:		
Marketable debt securities	16,106.4	16,438.4
Preferred and common stock	30,577.8	30,471.8
Real estate	6,591.2	5,662.7
Absolute return	5,352.1	5,170.6
Private credit	2,369.2	2,257.1
Private equity	15,852.6	15,294.4
Infrastructure	2,637.7	2,636.8
Total investments	79,487.0	77,931.8
TOTAL ASSETS	\$ 85,904.0	84,547.9
Liabilities		
Accounts payable	2,092.2	2,601.0
Income distributable to the State of Alaska	1,399.3	50.1
TOTAL LIABILITIES	\$ 3,491.5	2,651.1
1 0 11 11 2 11 12 1 1 1 1 1 1 1 1 1 1 1	\$ 0 ,13110	2,00111
Fund Balances		
Nonspendable:		
Permanent Fund corpus - contributions and appropriations	51,150.7	46,938.4
Unrealized appreciation on invested assets	14,633.9	13,810.0
Total nonspendable	65,784.6	60,748.4
Committed:		
General Fund appropriation	3,360.6	3,069.3
Permanent Fund corpus	-	4,000.0
Current FY AK Capital Income Fund	19.2	-
Total committed	3,379.8	7,069.3
Assigned for future appropriations:	ŕ	
Realized earnings	9,549.2	9,271.4
Unrealized appreciation on invested assets	3,698.9	4,807.7
Total assigned	13,248.1	14,079.1
TOTAL FUND BALANCES	\$ 82,412.5	81,896.8
TOTAL LIABILITIES AND FUND BALANCES	\$ 85,904.0	84,547.9

ALASKA PERMANENT FUND

Statements of Revenues, Expenditures and Changes in Fund Balances

III FUIIU DAIAIICGS		M4 1 - 1	C:41	Fig. 1
Unaudited		Month ended December 31,	Six months ended December 31,	Fiscal year-end audited June 30.
(millions of dollars)		2021	2021	2021
minutes of donars)		2021	2021	2021
Revenues				
Interest	\$	39.3	224.0	436.5
Dividends		91.5	324.1	558.1
Real estate and other income		50.6	268.5	530.2
Total interest, dividends, real estate				
and other income		181.4	816.6	1,524.8
Net increase (decrease) in the fair value of investments:				
Marketable debt securities		15.0	(177.6)	174.4
Preferred and common stock		1,246.2	912.8	11,200.7
Real estate		91.5	401.8	157.8
Absolute return		(42.4)	89.0	686.0
Private credit		(0.1)	65.4	278.4
Private equity		(94.7)	1,230.0	5,823.1
Infrastructure		14.3	129.1	463.6
Derivative instruments		2.5	26.0	(11.3)
Currency		(13.1)	(52.0)	(706.3)
Total net increase (decrease) in the fair value of investments		1,219.2	2,624.5	18,066.4
TOTAL REVENUES	\$	1,400.6	3,441.1	19,591.2
7				
Expenditures		(O =)	(70.4)	(1.66.0)
Operating expenditures		(9.7)	(59.1)	(166.2)
Other legislative appropriations		-	(9.3)	(8.4)
TOTAL EXPENDITURES	\$	(9.7)	(68.4)	(174.6)
Excess (deficiency) of revenues over expenditures		1,390.9	3,372.7	19,416.6
Other Financing Sources (Uses)				
Transfers in		37.3	212.3	319.6
General Fund commitment		200.0	(1,399.3)	317.0
Transfers out		(200.0)	(1,670.0)	(3,141.6)
NET CHANGE IN FUND BALANCES	\$	1,428.2	515.7	16,594.6
NET CHANGE IN FUND DALANCES	φ	1,420.2	313.7	10,394.0
Fund Balances				
Beginning of period		80,984.3	81,896.8	65,302.2
End of period	\$	82,412.5	82,412.5	81,896.8
Statutory Income Calculation				
Excess (deficiency) of revenues over (under) expenditures Adjustments to bring net income to statutory net income:		1,390.9	3,372.7	19,416.6
		(742.7)	204.0	(11 404 1
Unrealized (gains) losses		(742.7)	284.8	(11,404.1
Alaska Capital Income Fund realized income		(3.4)	(19.2)	(50.1)
STATUTORY NET INCOME	\$	644.8	3,638.3	7,962.4

ALASKA PERMANENT FUND

Receivables and Payables

Unaudited (millions of dollars)	De	December 31, 2021	
Accounts Receivable			
Interest receivable	\$	104.3	
Dividends receivable		54.6	
Foreign exchange contracts receivable		-	
Pending sales fixed income		392.9	
Pending sales equities		70.4	
Pending sales alternative investments		82.9	
State dedicated revenues receivable		43.8	
Pending sales real estate/REITs		-	
TOTAL RECEIVABLES	\$	748.9	
Accounts Payable			
Accrued operating payables	\$	25.0	
Pending purchase fixed income		2,012.2	
Pending purchase equities		54.9	
Pending purchase alternative investments		0.1	
Pending purchase real estate/REITs		-	
TOTAL PAYABLES	\$	2,092.2	



Board of Trustees - Monthly Performance Report - December 31, 2021

Returns are provided by Callan LLC, are annualized for periods greater than one year, and are net of fees after 7/1/2020. Also see "Notes and References" below.

Reforms are provided by Canan LLC, are announced i	or perious greater man one 70	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	12/31/21 Market Value*	1 Month	3 Months	FYTD	CYTD	1 Year	3 Years	5 Years
	12/31/21 Marker Value	1 Monin	3 Monins					
1 TOTAL FUND ●	84,530,250,849	2.06%	3.15%	(6 Months) 5.95%	(12 Months) 18.72%	(12 Months) 18.72%	(36 Months) 15.51%	(60 Months)
,	04,330,230,049							
2 Passive Index Benchmark •		3.07%	4.95%	4.24%	13.23%	13.23%	15.28%	10.78%
3 Performance Benchmark ²		2.01%	3.80%	6.07%	17.21%	17.21%	15.09%	11.48%
4 Total Fund Return Objective ³		0.70%	2.81%	5.02%	12.04%	12.04%	8.54%	7.92%
C DUDUC FOUNTY	21 200 420 007	4 E20/	4 020/	4 240/	20 520/	20 520/	21 140/	14 440/
5 PUBLIC EQUITY 6 MSCI ACWI IMI	31,200,429,907	4.53 % 3.97%	4.92 % 6.10%	4.34 % 4.92%	20.53% 18.22%	20.53% 18.22%	21.16% 20.20%	14.66% 14.12%
7 INTERNATIONAL EQUITY	8,172,269,254	4.07%	0.10%	-2.16 %	8.18%	8.18%	14.84%	10.93%
8 MSCI ACWI IMI EX-US	0,17 2,207,201	4.15%	1.64%	-0.96%	8.53%	8.53%	13.62%	9.83%
9 GLOBAL EQUITY	11,876,120,902	4.78%	5.37%	5.00%	21.31%	21.31%	22.12%	15.11%
10 MSCI ACWI IMI		3.97%	6.10%	4.92%	18.22%	18.22%	20.20%	14.12%
11 DOMESTIC EQUITY	11,151,648,903	4.59%	7.87%	8.80%	30.40%	30.40%	25.26%	16.80%
12 RUSSELL 3000 INDEX		3.94%	9.28%	9.17%	25.66%	25.66%	25.79%	17.97%
13 FIXED INCOME	16,647,587,551	0.17%	0.16%	0.25%	-0.45%	-0.45%	5.83%	4.38%
14 FIXED INCOME BENCHMARK ⁴		0.10%	0.15%	0.26%	-0.44%	-0.44%	5.06%	3.83%
15 US FIXED INCOME AGGREGATE	4,952,044,670	-0.20%	0.07%	0.13%	-1.32%	-1.32%	5.50%	3.96%
16 BB AGGREGATE		-0.26%	0.01%	0.06%	-1.54%	-1.54%	4.79%	3.57%
17 US INVESTMENT GRADE CORPORATE	4,606,675,580	0.06%	0.31%	0.30%	-0.68%	-0.68%	8.47%	5.78%
18 BB CORPORATE		-0.08%	0.23%	0.23%	-1.04%	-1.04%	7.59%	5.26%
19 NON US FIXED INCOME	1,378,728,731	-0.66%	-0.13%	-0.23%	-2.38%	-2.38%	2.92%	2.85%
20 BB GLOBAL TREASURY EX-US		-0.78%	0.06%	0.13%	-1.72%	-1.72%	3.06%	2.96%
21 GLOBAL HIGH YIELD	1,720,098,544	1.71%	0.61%	1.41%	4.98%	4.98%	8.24%	5.77%
22 BB US HIGH YIELD 2% ISSUER CAP	000 040 540	1.87%	0.69%	1.59%	5.26%	5.26%	8.81%	6.28%
23 EMERGING MARKET DEBT	892,969,560	1.63%	-1.81%	-3.72%	-5.48%	-5.48%	3.77%	3.48%
24 EMD BENCHMARK ³	0.45 700 005	1.48%	-1.49%	-3.37%	-5.32%	-5.32%	4.03%	3.78%
25 TIPS	845,738,825	0.35%	2.44%	4.49%	6.41%	6.41%	8.37%	5.38%
26 BB US TIPS	074.0/0.100	0.32%	2.36%	4.16%	5.96%	5.96%	8.44%	5.34%
27 FIXED INCOME CASH	974,969,192	0.01%	0.03%	0.04%	0.08%	0.08%	1.31%	
28 90 DAY T-BILLS	1 075 477 400	0.01%	0.01%	0.02%	0.05%	0.05%	0.99%	
29 DOMESTIC STRUCTURED PRODUCTS	1,275,477,420	-0.12 %	-0.29 %	-0.22 %	-1.12%	-1.12%		
30 BB US SECURITIZED		-0.09%	-0.39%	-0.30%	-1.04%	-1.04%		
31 ABSOLUTE RETURN	4,771,845,680	1.54%	0.51%	3.06%	5.57%	5.57%	6.86%	5.94%
32 HFRI TOTAL HFOF UNIVERSE	.,,,.	1.24%	0.52%	0.13%	10.26%	10.26%	10.84%	7.09%
33 RISK PARITY	821,409,389	2.20%	3.90%	4.51%	11.16%	11.16%		
34 HFRI RISK PARITY 12% VOL		3.10%	3.40%	3.28%	10.71%	10.71%		
TOTAL FUND CASH	2,122,508,428	0.01%	-0.02%	0.03%	0.13%	0.13%		
90 DAY T-BILLS		0.01%	0.01%	0.02%	0.05%	0.05%		
OF DRIVATE FOURTY & CRECIAL ORDS	17 107 077 751	NI/A	4.070/	14.040/	E2 0E0/	E2 0E0/	04.040/	04.150/
37 PRIVATE EQUITY & SPECIAL OPPS •	16,187,867,751	N/A	4.27 %	16.06%	53.85%	53.85%	26.96 %	26.15 %
38 CAMBRIDGE PRIVATE EQUITY ●	10.045.410.424	NI/A	5.01%	17.17%	48.82%	48.82%	24.50%	21.29%
39 PRIVATE EQUITY ●	10,965,612,434	N/A	6.97 %	20.28 %	62.76 %	62.76 %	32.97 %	29.05 %
40 CAMBRIDGE PRIVATE EQUITY ● 41 SPECIAL OPPORTUNITIES ●	5,113,908,437	N/A N/A	5.01% -0.44 %	17.17% 8.31%	48.82% 38.23 %	48.82% 38.23%	24.50% 17.21 %	21.29% 20.63 %
	3,113,700,43/	N/A N/A	5.01%	17.17%	48.82%	48.82%	24.50%	21.29%
42 CAMBRIDGE PRIVATE EQUITY ● 43 IN-STATE EMERGING MANAGERS ●	108,346,880	N/A	-20.27 %	8.50%	30.36%	30.36%	24.50 /0	21.27/0
44 CAMBRIDGE PRIVATE EQUITY ●	100,570,000	N/A	5.01%	17.17%	48.82%	48.82%		
CAMBRIDGE I RIVATE EQUIT 9		14/74	3.0170	17.17 70	40.0270	40.0270		
45 REAL ESTATE ●	6,602,949,987	N/A	4.73%	9.15%	9.72%	9.72%	3.34%	3.34%
46 REAL ESTATE CUSTOM ⁶ ●		,	4.62%	9.69%	15.77%	15.77%	8.58%	7.96%
47 RE EQUITY INVESTMENTS ●	5,057,338,637	N/A	5.06%	7.47%	4.16%	4.16%	0.0070	7.7070
48 NCREIF TOTAL INDEX ●	0,000,1000,000	N/A	5.23%	9.01%	12.15%	12.15%		
49 RE DEBT INVESTMENTS ●	271,896,127	N/A	3.91%	7.37%	13.62%	13.62%	11.46%	
50 NCREIF TOTAL INDEX •		N/A	5.23%	9.01%	12.15%	12.15%	6.72%	
51 REITS ●	1,273,715,223	N/A	3.89%	18.48%	40.73%	40.73%	10.89%	7.41 %
52 MSCI US REIT ●		N/A	0.98%	13.09%	37.16%	37.16%	10.10%	6.84%
PRIVATE INCOME	6,175,652,157	N/A	1.37%	7.08%	19.92%	19.92%	9.52%	11.42%
54 PRIVATE INCOME CUSTOM ⁷ ●			2.19%	6.79%	16.64%	16.64%	7.62%	7.63%
55 INFRASTRUCTURE ●	2,774,727,976	N/A	0.72%	6.66%	24.00%	24.00%	9.89%	13.46%
56 CAMBRIDGE GLOBAL PVT INFRASTRUCTURE	•	N/A	2.23%	6.20%	14.77%	14.77%	7.62%	8.07%
57 PRIVATE CREDIT ●	1,670,541,245	N/A	2.42%	8.57%	19.38%	19.38%	8.48%	8.77%
58 CAMBRIDGE PRIVATE CREDIT ●		N/A	2.12%	7.68%	19.47%	19.47%	7.53%	6.89%
59 INCOME OPPORTUNITIES •	1,730,382,936	N/A	1.48%	6.43%	14.79%	14.79%	9.85%	7.02 %
60 PRIVATE INCOME CUSTOM ⁷ ●		N/A	2.19%	6.79%	16.64%	16.64%	7.62%	7.63%
		-						

		12/31/21 Market Value*	(A)	(B) 3 Months	(C)	(D)	(E)	(F) 3 Years	(G) 5 Years
61 P	PUBLIC EQUITY	31,200,429,907	4.53%	4.92%	4.34%	20.53%	20.53%	21.16%	14.66%
	ASCI ACWI IMI	01,200,121,200	3.97%	6.10%	4.92%	18.22%	18.22%	20.20%	14.12%
63	INTERNATIONAL EQUITY	8,172,269,254	4.07%	0.49%	-2.16%	8.18%	8.18%	14.84%	10.93%
64	MSCI ACWI IMI EX-US		4.15%	1.64%	-0.96%	8.53%	8.53%	13.62%	9.83%
65 66	Macquarie Emerging Markets JP Morgan Emerging Markets	224,346,678 371,892,341	3.33% 0.98%	1.39% -3.34%	-8.23% -9.24%	-0.74% -4.89%	-0.74% -4.89%	15.95% 15.09%	14.54% 13.66%
67	Mondrian Investment Partners	363,168,827	2.83%	-3.3 4 %	-11.11%	- 	- 1 .89 %	9.32%	7.66%
68	SSGA MSCI Emerging Markets	143,517,194	1.87%	-1.39%	-9.26%	-2.43%	-2.43%	11.10%	9.86%
69	William Blair Emerging Markets	347,848,735	3.14%	-2.34%	-10.08%	-5.63%	-5.63%	16.53%	13.60%
70	MEASA Fund	107,992,593	-4.31%	-8.13%	-1.06%	20.04%	20.04%	10.79%	
71 72	MSCI Emerging Markets Index DFA Emerging Markets Value	805,513,611	1.88% 4.39 %	-1.31% -0.14%	-9.30% -2.99 %	-2.54% 1 2.96 %	-2.54% 1 2.96 %	10.94% 8.60 %	8.58%
72 73	MSCI Emerging Markets Value Index	003,313,011	3.55%	-0.41%	-5.46%	4.00%	4.00%	7.09%	7.03%
74	DFA Emerging Markets Small Cap	258,458,179	3.77%	0.87%	-2.60%	14.93%	14.93%	14.34%	10.46%
75	MSCI Emerging Markets Small Cap Index		4.21%	1.33%	-0.86%	18.75%	18.75%	16.46%	11.47%
76 	Trustbridge Emerging Markets	154,544,544	-3.95%	-7.12 %	-22.26%	-23.01%	-23.01%	11.22%	13.71%
<i>77</i> 78	MSCI China Index ND Wells Capital	133,616,399	-3.15% 1.79 %	-6.06% 0.60 %	-23.13% -11.44 %	-21.72% -7.88 %	-21.72% -7.88 %	7.76% 16.96%	9.36% 14.91%
79	MSCI China All Shares Idx (USD Net Div)	100,010,077	-1.52%	-2.53%	-15.53%	-12.91%	-12.91%	14.66%	8.08%
80	Mellon MSCI World ex-USA	172,409,849	5.08%	3.18%	2.55%	13.01%	13.01%	13.90%	9.70%
81	DFA International Large Cap	629,038,276	5.41%	2.58%	1.98%	14.30%	14.30%	13.14%	9.19%
82	MSCI World ex US	(15.077./55	5.08%	3.14%	2.46%	12.62%	12.62%	14.07%	9.63%
83 84	DFA International Small Cap Value MSCI World ex-USA Small Cap Value Index	615,077,655	6.32 % 5.37%	1.12% 0.72%	2.39 % 0.84%	17.12% 13.27%	17.12% 13.27%	12.81% 12.59%	7.36 % 8.30%
85	DFA International Small Company	481,893,465	4.96%	1.44%	2.21%	14.92%	14.92%	16.01%	10.67%
86	SSGA International Developed Small Cap	411,990,935	4.23%	0.35%	1.21%	11.24%	11.24%	16.56%	11.33%
87	MSCI World ex-USA Small Cap Index		4.24%	0.39%	1.11%	11.14%	11.14%	16.27%	11.03%
88	Acadian Asset Mgmt	447,128,061	6.65%	3.39%	3.92%	19.73%	19.73%	11.75%	10.34%
89 90	MSCI World ex US Value LSV International Large Cap	918,781,724	6.05% 5.55 %	1.91% 1.31 %	0.81% -0.14 %	13.26% 13.29 %	13.26% 13.29%	8.66% 9.76 %	5.69% 7.31%
91	Schroders International Large Cap	744,465,017	5.27%	2.69%	-0.19%	14.11%	14.11%	11.46%	7.97%
92	MSCI All Country World ex-USA Value Index		5.32%	1.24%	-1.11%	10.46%	10.46%	8.24%	6.00%
93	Johnston International Large Cap	408,503,810	2.01%	-3.39%	-2.28%	1.51%	1.51%	23.14%	17.60%
94	JP Morgan International Large Cap	432,081,360	3.14%	4.05%	4.33%	11.42%	11.42%	24.63%	16.41%
95 96	MSCI World ex-USA Growth Index GLOBAL EQUITY	11,876,120,902	4.15% 4.78 %	4.27% 5.37 %	4.02% 5.00 %	11.57% 21.31 %	11.57% 21.31%	19.11% 22.12 %	13.37% 15.11%
97	MSCI ACWI IMI	11,070,120,702	3.97%	6.10%	4.92%	18.22%	18.22%	20.20%	14.12%
98	AQR Global Equity	1,166,579,004	5.49%	7.66%	5.73%	18.28%	18.28%	17.81%	12.17%
99	SSGA MSCI World	186,322,035	4.32%	7.85%	7.92 %	22.22%	22.22%	21.99%	15.38%
100	CDAM Global Equity	648,133,780	4.61%	6.06%	10.21%	27.67 %	27.67%	23.83%	1.5.020/
101 102	MSCI World Index SSGA Russell Fundamental Developed Lrg Co	1,478,035,760	4.27% 5.94 %	7.77% 5.58%	7.76% 4.68 %	21.82% 23.21 %	21.82% 23.21 %	21.70% 17.81 %	15.03% 12.11%
103	Russell Fundamental Dvlpd Lrg Co Index	1,170,000,700	6.01%	5.64%	4.82%	23.77%	23.77%	18.06%	12.29%
104	Lazard Asset Management	1,080,703,291	4.59%	4.94%	5.06%	17.74%	17.74%	18.36%	12.72%
105	McKinley Capital Management	420,066,273	2.95%	6.57%	6.50%	20.14%	20.14%	28.54%	18.94%
106	RBA Global Equity	483,749,451	4.89%	7.20%	5.51%	19.41%	19.41%	20.88%	
107 108	WCM Global Equity MSCI All-Country World Index	506,485,745	2.40 % 4.00%	6.45% 6.68%	7.30 % 5.55%	16.08% 18.54%	16.08% 18.54%	30.47 % 20.38%	14.40%
109	APF Tactical Tilts	2,324,136,167	4.17%	3.99%	3.31%	22.79%	22.79%	26.27 %	16.76%
110	SSGA MSCI ACWI IMI	701,759,116	3.96%	6.10%	4.98%	18.37%	18.37%	20.33%	14.32%
111	APF Global Equities	148,663,478	2.87%	3.18%	2.08%	18.48%	18.48%	16.86%	
112	Arrowstreet Global Equity	1,469,765,261	4.62%	4.85%	4.05%	22.15%	22.15%	22.66%	
113 114	Longview Global Equity MSCI All-Country World IMI	1,261,719,736	6.69 % 3.97%	4.32% 6.10%	5.74 % 4.92%	21.00 % 18.22%	21.00 % 18.22%	1 6.50% 20.20%	14.12%
115	DOMESTIC EQUITY	11,151,648,903	4.59%	7.87%	8.80%	30.40%	30.40%	25.26%	16.80%
116	RUSSELL 3000 INDEX		3.94%	9.28%	9.17%	25.66%	25.66%	25.79%	17.97%
117	Mellon S&P 500	1,927,442,685	4.48%	10.98%	11.56%	28.47%	28.47%	26.49%	18.71%
118	S&P 500 Index	1 154 200 720	4.48%	11.03%	11.67%	28.71%	28.71%	26.07%	18.47%
119 120	Mellon FTSE RAFI US Large Cap FTSE RAFI US 1000 Index	1,154,302,739	5.92 % 5.94%	8.95% 8.96%	8.11% 8.12%	32.04% 31.60%	32.04% 31.60%	22.20 % 22.07%	14.27% 14.19%
121	AGI - Large Cap	671,252,923	0.55%	9.07%	10.49%	24.96 %	24.96%	37.56%	25.66%
122	SSGA Large Cap	507,283,655	2.55%	9.54%	8.83%	25.60%	25.60%	33.09%	24.52%
123	DSM - Large Cap	821,532,781	1.62%	5.66%	3.86%	22.01%	22.01%	30.20%	24.30%
124	CastleArk - Large Cap	231,696,035	2.87%	12.63%	12.61%	29.69%	29.69%	33.43%	24.88%
125 126	APF SPDR Yield APF SPDR Momentum	566,464,659 289,077,240	7.12% 5.05%	7.86% 8.64%	6.82% 8.24%	34.69% 26.56%	34.69% 26.56%	20.09% 20.94%	12.83% 13.42%
127	APF SPDR Low Vol	507,058,928	7.44 %	10.91%	10.58%	28.85%	28.85%	21.51%	14.95%
128	APF R1000 Low Vol	9,992,862							
129	Russell 1000 Growth Index		2.11%	11.64%	12.93%	27.60%	27.60%	34.08%	25.32%
130	Russell 1000 Index	700 704 105	4.05%	9.78%	10.01%	26.45%	26.45%	26.21%	18.43%
131 132	Lyrical - Large Cap SKBA - Large Cap	789,794,195 346,698,408	6.48% 6.38%	7.22% 5.53%	5.76% 4.29%	28.65% 21.93%	28.65% 21.93%	22.26% 15.56%	11.35% 10.62%
133	LSV - Large Cap Value	827,841,973	6.30%	6.16%	3.84%	26.53%	26.53%	17.00%	10.48%
134	APF Domestic Equity	481,656,561	4.68%	5.91%	6.58%	34.56%	34.56%		
135	APF R1000V Low Vol	9,990,141							
136	Russell 1000 Value Index	<u>.</u>	6.31%	7.77%	6.93%	25.16%	25.16%	17.64%	11.16%
137	Mellon S&P 400	19,754,132	5.08 %	8.02% 8.00%	6.13 %	24.30 %	24.30 %	21.73 %	13.12%
138 139	S&P 400 Index Jennison Associates LLC	321,866,683	5.08% 2.66 %	8.00% 3.83%	6.09% 5.48 %	24.76% 23.41 %	24.76% 23.41 %	21.41% 29.67 %	13.09% 18.41%
140	Russell 2000 Index	021,000,003	2.23%	2.14%	-2.31%	14.82%	14.82%	20.02%	12.02%
141	RBC Asset Mgmt	215,444,724	4.52%	8.79%	8.98%	26.18%	26.18%	26.95%	16.97%
142	Eagle Asset Mgmt	205,961,434	1.63%	-0.77%	-3.34%	1.67%	1.67%	23.33%	18.25%
143	Russell 2000 Growth Index		0.44%	0.01%	-5.64%	2.83%	2.83%	21.17%	14.53%
144	Russell 2000 Index	375,776,256	2.23% 3.89 %	2.14% 5.84 %	-2.31% 5.85 %	14.82% 23.15 %	14.82% 23.15%	20.02% 1 9.71 %	12.02% 11.25%
145 146	T Rowe Price Pzena Investment Mgmt	3/3,//6,236 624,389,712	3.89% 5.28%	5.84% 5.14%	5.85% 4.68%	23.15% 29.57%	23.15% 29.57%	19.71% 18.19%	8.57%
147	Russell 2000 Value Index	,,· · -	4.08%	4.36%	1.24%	28.27%	28.27%	17.99%	9.07%
148	Russell 2000 Index		2.23%	2.14%	-2.31%	14.82%	14.82%	20.02%	12.02%
149	APF US Tactical Tilts	246,370,180	5.07%	6.40%					
150	Russell 3000 Index		3.94%	9.28%					

			(A)	(B)	(C)	(D)	(E)	(F)	(G)
		12/31/21 Market Value*	1 Month	3 Months	FYTD	CYTD	1 Year	3 Years	5 Years
1 FI	XED INCOME	16,647,587,551	0.17%	0.16%	0.25%	-0.45%	-0.45%	5.83%	4.38%
	XED INCOME BENCHMARK ⁴		0.10%	0.15%	0.26%	-0.44%	-0.44%	5.06%	3.83%
53	US FIXED INCOME AGGREGATE	4,952,044,670	-0.20%	0.07%	0.13%	-1.32%	-1.32%	5.50%	3.96%
54	BB AGGREGATE	1,202,011,010	-0.26%	0.01%	0.06%	-1.54%	-1.54%	4.79%	3.57%
55	APF Fixed Income - Aggregate	4,952,044,670	-0.20%	0.07%	0.13%	-1.32%	-1.32%	5.50%	3.96%
6	US INVESTMENT GRADE CORPORATE	4,606,675,580	0.06%	0.31%	0.30%	-0.68%	-0.68%	8.47%	5.78%
57	BB CORPORATE	,,	-0.08%	0.23%	0.23%	-1.04%	-1.04%	7.59%	5.26%
8	APF Corporate Bonds	4,606,675,580	0.06%	0.31%	0.30%	-0.68%	-0.68%	8.47%	5.78%
59	NON US FIXED INCOME	1,378,728,731	-0.66%	-0.13%	-0.23%	-2.38%	-2.38%	2.92%	2.85%
0	BB GLOBAL TREASURY EX-US		-0.78%	0.06%	0.13%	-1.72%	-1.72%	3.06%	2.96%
1	Rogge Global Partners	304,318,126	-0.79%	-0.18%	-0.17%	-2.11%	-2.11%	3.23%	3.05%
2	APF Global Government Bonds	1,074,410,605	-0.62%	-0.12%	-0.25%	-2.46%	-2.46%	2.80%	2.86%
3	GLOBAL HIGH YIELD	1,720,098,544	1.71%	0.61%	1.41%	4.98%	4.98%	8.24%	5.77%
4	BB US HIGH YIELD 2% ISSUER CAP		1.87%	0.69%	1.59%	5.26%	5.26%	8.81%	6.28%
5	Oaktree High Yield	732,030,644	1.26%	0.15%	1.05%	4.61%	4.61%	8.62%	5.79%
6	APF High Yield	489,611,458	2.32%	1.06%	1.83%	5.06%	5.06%	7.36 %	
7	Capital Guardian High Yield	498,456,441	1.77%	0.84%	1.53%	5.31%	5.31%	8.01%	5.85%
8	EMERGING MARKET DEBT	892,969,560	1.63%	-1.81%	-3.72%	-5.48%	-5.48%	3.77%	3.48%
59	EMD BENCHMARK ⁵		1.48%	-1.49%	-3.37%	-5.32%	-5.32%	4.03%	3.78%
0	Ninety One EMD BL	193,160,810	1.63%	-2.12%	-4.53%	-5.65%	-5.65%		
1	PGIM EMD BL	338,609,503	1.44%	-1.83%	-3.44%	-5.44%	-5.44%		
2	EMD Benchmark ⁵		1.48%	-1.49%	-3.37%	-5.32%	-5.32%		
3	Payden EMD HC	185,309,915	1.92%	-1.1 7 %	-1.95%	-2.13%	-3.32 % -2.13%		
4	JPM EMBI Global Diversified	100,007,710	1.40%	-0.44%	-1.14%	-1.80%	-1.80%		
5	Colchester EMD LC	175,885,691	1.69%	-2.12 %	- 5.21 %	-8.72 %	-8.72 %		
6	JPM GBI-EM Global Diversified	17 3,003,071	1.56%	-2.53%	-5.56%	-8.75%	-8.75%		
7	TIPS	845,738,825	0.35%	2.44%	4.49%	6.41%	6.41%	8.37%	5.38%
8	BB US TIPS	0 13,7 00,023	0.32%	2.36%	4.16%	5.96%	5.96%	8.44%	5.34%
7	APF TIPS	845,738,825	0.35%	2.44%	4.51%	6.49%	6.49%	8.74%	5.56%
0	BB US TIPS	0.10), 00,020	0.32%	2.36%	4.16%	5.96%	5.96%	8.44%	5.34%
1	FIXED INCOME CASH	974,969,192	0.01%	0.03%	0.04%	0.08%	0.08%	1.31%	0.0.70
2	90 DAY T-BILLS	,	0.01%	0.01%	0.02%	0.05%	0.05%	0.99%	
3	APF Fixed Income Cash	974,969,192	0.01%	0.03%	0.04%	0.08%	0.08%	1.31%	
4	DOMESTIC STRUCTURED PRODUCTS	1,275,477,420	-0.12%	-0.29%	-0.22%	-1.12%	-1.12%	11017	
35	BB US SECURITIZED	.,, ., .,	-0.09%	-0.39%	-0.30%	-1.04%	-1.04%		
6	APF Dom Struc Prod	1,275,477,420	-0.12%	-0.29%	-0.22%	-1.12%	-1.12%		
	BSOLUTE RETURN	4,771,845,680	1.54%	0.51%	3.06%	5.57%	5.57%	6.86%	5.94%
88 H	FRI TOTAL HFOF UNIVERSE		1.24%	0.52%	0.13%	10.26%	10.26%	10.84%	7.09%
9 R	ISK PARITY	821,409,389	2.20%	3.90%	4.51%	11.16%	11.16%		
	FRI RISK PARITY 12% VOL	0_1,102,002	3.10%	3.40%	3.28%	10.71%	10.71%		
91	PanAgora	430,413,513	1.53%	2.71%	2.68%	8.87%	8.87%		
2	Bridgewater All Weather	390,995,876	2.93%	5.22%	6.56%	13.79%	13.79%		
	OTAL FUND CASH	2,122,508,428	0.01%	-0.02%	0.03%	0.13%	0.13%		
4 9	0 DAY T-BILLS		0.01%	0.01%	0.02%	0.05%	0.05%	0.99%	1.14%
5	APF Internal Cash	1,748,716,170	0.00%	0.01%	0.02%	0.07%	0.07%		
	APF Operating Cash	373,792,258	0.06%	0.11%	0.14%	0.56%	0.56%	1.02%	1.13%

			(A)	(B)	(C)	(D)	(E)	(F)	(G)
	12	2/31/21 Market Value*	1 Month	3 Months	FYTD	CYTD	1 Year	3 Years	5 Years
PI	RIVATE EQUITY & SPECIAL OPPS ●	16,187,867,751	N/A	4.27%	16.06%	53.85%	53.85%	26.96%	26.15%
	AMBRIDGE PRIVATE EQUITY ●	2, 2, ,, 2	,	5.01%	17.17%	48.82%	48.82%	24.50%	21.29%
	PRIVATE EQUITY ●	10,965,612,434	N/A	6.97%	20.28%	62.76%	62.76%	32.97%	29.05%
	CAMBRIDGE PRIVATE EQUITY ●		,	5.01%	17.17%	48.82%	48.82%	24.50%	21.29%
	Pathway Capital Mgmt - Direct PE	5,218,103,672	N/A	10.03%	26.47%	63.61%	63.61%	35.09%	31.51%
	HarbourVest Legacy	1,383,191,827	N/A	-4.47%	-0.28%	62.17%	62.17%	38.61%	35.06%
	Pathway Capital Mgmt - PE	4,009,441,439	N/A	7.82%	22.86%	61.67%	61.67%	30.92%	27.36%
	BlackRock Co-investment Funds	259,532,316	N/A	5.03%	10.15%	49.41%	49.41%	21.45%	24.33%
	Ara Fund I	51,487,487	N/A	33.24%	46.65%	99.76%	99.76%		
	Ara Fund II	6,950,092	N/A	-1.31%					
	TPG Growth V	22,502,202	N/A						
	Arctos Sports I	13,966,060	N/A						
	SPECIAL OPPORTUNITIES •	5,113,908,437	N/A	-0.44%	8.31%	38.23%	38.23%	17.21%	20.63%
	CAMBRIDGE PRIVATE EQUITY ●		·	5.01%	17.17%	48.82%	48.82%	24.50%	21.29%
	IN-STATE EMERGING MANAGERS ●	108,346,880	N/A	-20.27%	8.50%	30.36%	30.36%		
	CAMBRIDGE PRIVATE EQUITY ●		,	5.01%	17.17%	48.82%	48.82%		
	Barings AK	34,779,110	N/A	0.00%	5.16%	0.00%	0.00%		
	McKinley AK	73,567,770	N/A	-27.80%	4.15%	33.78%	33.78%		
			-						
	EAL ESTATE ●	6,602,949,987	N/A	4.73%	9.15%	9.72%	9.72%	3.34%	3.34%
E	EAL ESTATE CUSTOM ⁶ ●			4.62%	9.69%	15.77%	15.77%	8.58%	7.96%
	RE EQUITY INVESTMENTS ●	5,057,338,637	N/A	5.06%	7.47%	4.16%	4.16%		
	NCREIF TOTAL INDEX •		,	5.23%	9.01%	12.15%	12.15%		
	RE EQUITY SEPARATE ACCTS & DIRECTS ●	3,953,936,247	N/A	4.60%	6.49%	1.98%	1.98%	-0.83%	0.83%
	L&B Realty Advisors	1,751,550,832	N/A	1.82%	3.83%	-3.60%	-3.60%	-1.41%	0.74%
	Sentinel Real Estate	508,877,151	N/A	2.64%	5.20%	7.67%	7.67%	4.49%	1.03%
	LaSalle - United Kingdom	101,734,507	N/A	69.30%	34.33%	-402.18%	-402.18%	-36.31%	-21.75%
	Lincoln Industrial	250,365,576	N/A	12.46%	33.86%	56.00%	56.00%	24.09%	20.69%
	CB Richard Ellis - Europe	132,709,768	N/A	-1.25%	1.13%	-2.13%	-2.13%	-1.64%	5.55%
	CS Capital	451,103,329	N/A	3.28%	4.89%	6.25%	6.25%	12.76%	13.23%
	Heitman Direct	610,386,361	N/A	0.64%	-1.27%	-1.37%	-1.37%	1 = 11 0 70	10.20 /0
	APF RE Direct	147,208,722	N/A	6.78%	8.41%	7,0	70		
	RE EQUITY DEVELOPMENT	118,257,003	N/A	J. 70	3 , 11, 70				
	Greystar Dev	118,257,003	N/A						
	RE EQUITY FUNDS & CO-INVESTS	985,145,387	N/A	7.73%	13.19%	27.62%	27.62%	10.30%	
	HIG Europe RE II	61,295,680	N/A	4.49%	11.15%	34.06%	34.06%	21.22%	
	Harbert Europe RE V	78,401,207	N/A	3.49%	14.98%	24.14%	24.14%	3.33%	
	Brookfield RE III	239,715,837	N/A	4.81%	6.85%	21.16%	21.16%	2.20 /0	
	Realterm Log Inc	241,123,958	N/A	12.82%	22.02%	29/0	Z /U		
	Clarion Gables	312,955,908	N/A	9.45%	14.81%				
	CG Riverwalk	25,247,075	N/A	7.10 /0	1 1.01 /0				
	CG Union Market	26,405,721	N/A						
	RE DEBT INVESTMENTS •	271,896,127	N/A	3.91%	7.37%	13.62%	13.62%	11.46%	
	NCREIF TOTAL INDEX •	27 1/070/127	N/A	5.23%	9.01%	12.15%	12.15%	6.72%	
	RE DEBT SEPARATE ACCTS ●	188,858,495	N/A	3.14%	6.21%	9.99%	9.99%	7.69%	
	Heitman Capital	67,441,082	N/A	4.47%	7.31%	10.49%	10.49%	7.85%	
	Mesa West	121,417,413	N/A	2.38%	5.67%	10.77/0	10.77/0	7.00/0	
	RE DEBT FUNDS & CO-INVESTS ●	83,037,632	N/A	4.39%	8.05%	15.05%	15.05%		
	KAROD	83,037,632	N/A	4.39%	8.05%	15.05%	15.05%		
	REITS ●	1,273,715,223	N/A	3.89%	18.48%	40.74%	40.74%	10.89%	7.41%
	MSCI US REIT ●	1,2/3,/13,223	N/A						
		1 140 545 414	NI / A	0.98%	13.09%	37.16%	37.16%	10.10%	6.84%
	AEW Dom RE Securities	1,160,545,416	N/A	3.70%	18.28%	40.72%	40.72%		
	Mellon MSCI US REIT	113,160,630	N/A						

			(A)	(B)	(C)	(D)	(E)	(F)	(G)
		12/31/21 Market Value*	1 Month	3 Months	FYTD	CYTD	1 Year	3 Years	5 Years
PRIV	ATE INCOME ◆	6,175,652,157	N/A	1.37%	7.08%	19.92%	19.92%	9.52%	11.42%
	ATE INCOME CUSTOM ⁷ ●			2.19%	6.79%	16.64%	16.64%	7.62%	7.63%
	IFRASTRUCTURE ◆	2,774,727,976	N/A	0.72%	6.66%	24.00%	24.00%	9.89%	13.46%
C	AMBRIDGE GLOBAL PVT INFRA ●			2.23%	6.20%	14.77%	14.77%	7.62%	8.07%
	PRIVATE INFRASTRUCTURE	2,501,187,890	N/A	0.69%	6.70%	24.89%	24.89%		
	CAMBRIDGE GLOBAL PVT INFRA •	104 204 002	NI/A	2.23% 3.78 %	6.20% 8.76 %	1 <i>4.77</i> % 20.45 %	14.77% 20.45 %	3.64%	0 040/
	GIP II Gateway IFR	106,384,903 53,769,827	N/A N/A	-3.52%	5.14%	12.07%	12.07%	-4.50%	8.94% 0.05%
	LS Power III	171,211,557	N/A	-0.80%	1.24%	7.81%	7.81%	14.16%	21.61%
	North Haven	32,092,316	N/A	1.69%	8.31%	6.15%	6.15%	-8.42%	1.40%
	GIP III	267,019,357	N/A	2.58%	5.35%	18.80%	18.80%	3.88%	6.08%
	GIP III Canary	110,258,585	N/A	-0.63%	5.69%	60.40%	60.40%	4.84%	13.57%
	CIM Fund II	283,788,900	N/A	3.47%	7.70 %	23.89%	23.89%	16.07%	
	IFR Actis Energy 4	57,047,471	N/A	0.60%	3.58%	7.68%	7.68%	14.19%	
	IFR GIP III Zenith	198,408,587	N/A	2.84%	3.16%	17.28%	17.28%	22.89%	
	IFR Encap FM IV	5,897,057	N/A	3.77%	5.41%	11.08%	11.08%	8.89%	
	IFR Infrared V	57,364,932	N/A	-0.39%	5.25%	10.62%	10.62%	1.25%	
	IFR NHIP II Bison	44,816,687	N/A	-0.01%	-0.02%	-0.07%	-0.07%	-7.59%	
	IFR GIP III Stetson	15,855,031	N/A	N/A	N/A	N/A	N/A	N/A	
	IFR EFM Moda	6,012,868	N/A	3.47%	3.68%	17.58%	17.58%	19.17%	
	North Haven India	34,294,305	N/A	11.99%	15.26%	19.26%	19.26%		
	IFR KKR Infrastructure III	114,192,526 23,460,027	N/A N/A	6.27% 0.84%	6.84% -4.31%	8.96% -4.06%	8.96% -4.06%		
	IFR Energy Spec VIII LS Power Bolt	88,196,669	N/A N/A	-0.11%	-4.31 % 24.14%	72.12%	72.12%		
	IFR LS Power IV	181,586,356	N/A	-19.74%	4.85%	202.31%	202.31%		
	IFR EQT IV	153,862,476	N/A	3.92%	9.86%	21.91%	21.91%		
	IFR Meridiam III	18,399,272	N/A	112.53%	134.61%	113.90%	113.90%		
	IFR EQT IV Co-Invest	51,314,512	N/A	-0.25%	2.11%	38.97%	38.97%		
	IFR Peppertree VIII	73,320,177	N/A	4.20%	22.64%	26.34%	26.34%		
	IFR NHIP III	111,961,672	N/A	4.46%	6.94%	20.67%	20.67%		
	IFR GIP IV	87,712,316	N/A	-1.23%	-5.38%				
	IFR KKR Teemo II	22,431,125	N/A	-3.26%					
	Encap ETF	18,645,309	N/A	-1.76%					
	IFR Digital II	33,490,978	N/A	13.42%					
	IFR EQT Infra V	13,482,583	N/A						
	IFR NHIP III Tele	42,731,956	N/A						
	IFR Actis V	167,428	N/A						
	IFR HIG Infra	1,472,857	N/A	0.000/	<i>(</i> 1 <i>(</i> 0 <i>/</i>	14 140/	14 140/	z 410/	7.000/
	LISTED INFRASTRUCTURE •	273,540,085	N/A	0.98%	6.16%	16.14%	16.14%	6.41%	7.22 %
	S&P GLOBAL LISTED INFRASTRUCTURE • Lazard Listed Infrastructure	273,540,085	N/A	1.29% 1.05%	3.44% 6.24 %	22.13% 16.22 %	22.13% 16.22 %	5.78% 8.67 %	5.02% 10.66 %
	FTSE Core Developed Infra (Hedged)	27 3,340,003	14/ 🔼	-0.53%	2.00%	13.71%	13.71%	9.43%	9.49%
PE	RIVATE CREDIT •	1,670,541,245	N/A	2.42%	8.57%	19.38%	19.38%	8.48%	8.77 %
	AMBRIDGE PRIVATE CREDIT •	1,0,0,011,210	11//1	2.12%	7.68%	19.47%	19.47%	7.53%	6.89%
C,	Crestline Credit Opportunities Fund	205,675,276	N/A	5.94%	16.74%	19.97%	19.97%	3.72%	5.37%
	Audax III Mezzanine Debt	10,430,389	N/A	2.60%	8.61%	22.96%	22.96%	15.24%	11.51%
	Crestline Opps Fund	104,446,129	N/A	1.05%	7.13%	8.41%	8.41%	8.23%	9.53%
	Pathway Capital Mgmt - Direct PC	959,240,040	N/A	2.67%	8.50%	21.48%	21.48%	12.64%	11.21%
	Audax IV Mezzanine Debt	22,553,271	N/A	3.33%	9.01%	16.05%	16.05%	11.54%	
	Aurelius II	233,100,519	N/A	-0.84%	5.21%	20.05%	20.05%	5.82%	
	Crestline SLF II	60,707,671	N/A	2.03%	6.44%	17.28%	17.28%		
	CL Opps Fund IV	40,216,109	N/A	2.48%	5.29%	17.15%	17.15%		
	Ares SSG SLO III	4,237,733	N/A						
	Crestline SLF III	16,023,698	N/A	- 400/		- 4 0/	- 4 00/	0.0=0/	= 000/
	ICOME OPPORTUNITIES •	1,730,382,936	N/A	1.48%	6.43%	14.79%	14.79%	9.85%	7.02%
	RIVATE INCOME CUSTOM			2.19%	6.79%	16.64%	16.64%	7.62%	7.63%
	American Homes 4 Rent II	167,010,782	N/A	6.16%	18.15%	28.48%	28.48%	12.37%	7.08%
	Twin Creeks Timber	104,967,126	N/A	0.70%	1.39%	1.01%	1.01%	-0.34%	-0.88%
	INC Athyrium III	14,361,745	N/A	-2.26 %	-0.86% 4.08%	4.96%	4.96%	7.57%	
	INC Broadriver III	73,636,435	N/A	1.30%	4.08%	7.95%	7.95%	1.99%	
	APF ADAC	1,035,174,727	N/A	1.38%	6.09% -0.90%	11.36% 38.52%	11.36%	8.09%	
	Activate Capital	82,180,142 62,292,209	N/A N/A	-11.87% 3.34%	-0.90% -2.71%	38.52% -1.16%	38.52% -1.16%		
	INC OCM Power Opps V TSSP Agriculture	62,292,209 22,239,659	N/A N/A	3.34% -1.16%	-2.71% 13.09%	-1.16% 13.47%	-1.16% 13.47%		
	Sprott Lending II	52,239,639 52,982,939	N/A N/A	1.23%	3.84%	9.00%	9.00%		
	Whitehorse Liquid IV	33,054,345	N/A N/A	1.23%	3.64 % 29.24 %	7.00 70	7.00 70		
	TELLIGIAL LIUUIU IV	ひひんひつてんりつし	13/7	17.50 /0	± 7·4₹ /U				
	-		N/A	3.55%	6.54%				
	Kicking Horse Colnvest INC Viva 3	44,486,871 28,037,760	N/A N/A	3.55% 6.68%	6.54% 8.04%				

		NOTES and REFERENCES
* Market Values	2021, consisting of:	lues represent total fund holdings consistent with Financial Statements as of December 31,
	99.13%	Alaska Permanent Fund
	0.87%	Alaska Mental Health Trust
All Benchmarks	contract (where app	by name reflect the current applicable benchmark per Investment Policy or by manager licable). Benchmark returns greater than one month may include different or additional uring the periods referenced. These can be found in the previous Investment Policies and Reports.
All Returns	All returns are provious of July 1, 2020.	ded by Callan LLC, are annualized for periods greater than one year, and are net of fees
Lagged Returns		n the following asset classes, returns are lagged one quarter. Composites that incorporate d benchmarks associated are also lagged one quarter.
		Real Estate Private Equity and Special Opportunities Private Income
1 Passive Benchmark	60%	MSCI All-Country World Index IMI
09/30/2016 to date	20%	BB Global Aggregate Index
	10% 10%	FTSE EPRA/NAREIT Rental Index US TIPs
2 Performance Benchmark	38.0%	MSCI ACWI IMI
07/01/2021 to date	16.0%	Cambridge Private Equity (1 Q Lagged)
	6.8%	NCREIF Total Index (1 Q Lagged)
	6.0%	HFRI Total HFOF Universe
	5.5%	BB US Corporate
	5.5%	BB US Aggregate
	5.4%	Cambridge Global Private Infrastructure (1 Q Lagged)
	3.6%	Cambridge Private Credit (1 Q Lagged)
	3.0%	90 Day T-Bills
	2.0% 2.0%	BB US High Yield 2% Issuer Cap BB Global Treasury ex-US Hedged
	2.0%	BB US Securitized
	1.0%	BB US TIPS
	1.2%	MSCI US REIT (1 Q Lagged)
	1.0%	HFRI Risk Parity 12% Vol
	0.5%	JPM EMBI Global Diversified
	0.5%	JPM GBI-EM Global Diversified TRI
3 Total Fund Return Objective	100%	Consumer Price Index (All Urban Consumers, U.S. City Average, All Items, Unadjusted Index) plus 5%
4 Fixed Income Benchmark	27.5%	BB US Aggregate
07/01/2020 to date	27.5%	BB US Corporate
	10.0%	BB US Securitized
	10.0%	BB US High Yield 2% Issuer Cap
	10.0% 5.0%	BB Global Treasure ex-US Hedged BB US TIPs
	5.0%	90 Day T-Bills
	2.5%	JPM EMBI Global Diversified
	2.5%	JPM GBI-EM Global Diversified
5 EMD Benchmark	E00/	JPM EMBI Global Diversified
09/30/2016 to date	50% 50%	JPM GBI-EM Global Diversified
(D IF:	2	NORES D
6 Real Estate Custom Benchmark 07/01/2020 to date	85% 1 <i>5</i> %	NCREIF Property (1 Q Lagged) MSCI US REIT (1 Q Lagged)
7 Private Income Custom Benchmark	60%	Cambridge Global Private Infrastructure (1 Q Lagged)
07/01/2020 to date	40%	Cambridge Private Credit (1 Q Lagged)

