



ALASKA RETIREMENT MANAGEMENT BOARD

Invested Assets

June 30, 2019

(With Independent Auditors' Report Thereon)

ALASKA RETIREMENT MANAGEMENT BOARD

Invested Assets

June 30, 2019

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KPMG LLP
Suite 600
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Anchorage, AK 99501

Independent Auditors' Report

Alaska Retirement Management Board and
State of Alaska Department of Revenue
Treasury Division:

We have audited the accompanying schedules of the State of Alaska Retirement and Benefit Plans Invested Assets (the Plans) as of June 30, 2019, and of investment income and changes in investment assets of the Plans for the year then ended, and the related notes to the schedules (collectively referred to as "the Schedules").

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of the Schedules in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the Schedules that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on the Schedules based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the Schedules are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Schedules. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the Schedules, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the Schedules in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the Schedules.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the Schedules referred to above present fairly, in all material respects, the invested assets of the Plans as of June 30, 2019, and the results of their investment income and changes in invested assets for the year then ended, in accordance with U.S. generally accepted accounting principles.

Emphasis of Matter

We draw attention to note 1 to the Schedules, which describes that the accompanying Schedules were prepared to present the invested assets of the Plans and changes therein. The presentation of the Schedules is not intended to be a complete presentation of the financial status of the Plans.

KPMG LLP

October 8, 2019

ALASKA RETIREMENT MANAGEMENT BOARD
SCHEDULE OF INVESTED ASSETS
June 30, 2019

	Pooled Investments	Participant Directed Investments	Total ARMB Assets
Investments (at Fair Value)			
Cash and Cash Equivalents	\$ 499,950,464	-	499,950,464
Fixed Income Securities	2,818,804,891	-	2,818,804,891
Broad Domestic Equity	6,179,869,980	-	6,179,869,980
Global Equity Ex-U.S.	5,864,146,762	-	5,864,146,762
Opportunistic	2,599,995,845	-	2,599,995,845
Private Equity	2,810,695,897	-	2,810,695,897
Absolute Return	1,538,194,097	-	1,538,194,097
Real Assets	4,409,015,057	-	4,409,015,057
Participant Directed	-	6,185,365,506	6,185,365,506
Synthetic Investment Contracts (at cost)	-	644,685,745	644,685,745
Securities Lending Collateral Invested	45,654,227	-	45,654,227
Securities Lending Collateral Payable	(45,654,227)	-	(45,654,227)
Total Invested Assets	\$ 26,720,672,993	6,830,051,251	33,550,724,244

ALASKA RETIREMENT MANAGEMENT BOARD
SCHEDULE OF INVESTMENT INCOME AND CHANGES IN INVESTED ASSETS
June 30, 2019

	Pooled Investments	Participant Directed Investments	Total ARMB Assets
Investment Income (Loss)			
Cash and Cash Equivalents	\$ 8,064,705	-	8,064,705
Fixed Income Securities	165,857,479	-	165,857,479
Broad Domestic Equity	465,162,869	-	465,162,869
Global Equity Ex-U.S.	14,169,923	-	14,169,923
Opportunistic	169,801,727	-	169,801,727
Private Equity	423,112,532	-	423,112,532
Absolute Return	40,753,864	-	40,753,864
Real Assets	252,071,232	-	252,071,232
Participant Directed	-	412,515,114	412,515,114
Synthetic Investment Contracts (at cost)	-	14,449,655	14,449,655
Securities Lending Income	2,252,442	-	2,252,442
Less: Securities Lending Expense	(403,185)	-	(403,185)
Net Securities Lending Income	1,849,256	-	1,849,256
Total Investment Income	\$ 1,540,843,587	426,964,769	1,967,808,356
Total Invested Assets, Beginning of Year	26,162,960,812	6,328,211,674	32,491,172,486
Total Contributions	989,067,812	432,924,874	1,421,992,686
Total (Withdrawals)	(1,972,199,218)	(358,050,066)	(2,330,249,284)
Total Invested Assets, End of Year	\$ 26,720,672,993	6,830,051,251	33,550,724,244

See accompanying notes to Schedules

Alaska Retirement Management Board

Invested Assets

Notes to Schedules

June 30, 2019

(1) THE ACCOUNTING ENTITY

The Alaska Retirement Management Board (Board) is the investment oversight authority for the State of Alaska's Retirement and Benefits Plans (Plans). These Plans are made up of six systems: the Public Employees' Retirement System (PERS), Teachers Retirement System (TRS), Judicial Retirement System (JRS), National Guard and Naval Militia Retirement Systems (MRS), Supplemental Benefits System (SBS), and Deferred Compensation Plan (DCP). The systems comprise a mix of individual Defined Benefit and Defined Contribution Retirement Plans. These schedules of invested assets and of investment income and changes in invested assets (the Schedules) are those of the six systems' invested assets and not the systems as a whole. Fiduciary responsibility for the Board's Invested Assets is pursuant to Alaska Statutes 37.10.210-390.

Alaska Statute 37.10.071 provides that investments shall be made with the judgment and care under circumstances then prevailing that an institutional investor of ordinary professional prudence, discretion and intelligence exercises in managing large investment portfolios.

(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting

The Schedules are prepared using the accrual basis of accounting for investment income. Investment income includes realized and unrealized gains and losses and interest income on investments. Assets are reported at fair value. Investment purchases and sales are recorded on a trade-date basis. Contributions represent contributions from employers and employees. Withdrawals represent benefits paid to plan participants and administrative and investment management expenses. Contributions, benefits paid and all expenses are recorded on a cash basis.

Investments in collective investment funds and pooled investment funds are stated at fair value based on the unit value multiplied by the number of units held by the Plan. The unit value is based on the fair value of the underlying assets.

Valuation of Synthetic Investment Contracts (SICs)

The Plan's investments in fully benefit-responsive SICs are stated at contract value.

Investments and Related Policies

Carrying value of investments

Securities are valued each business day using prices obtained from a pricing service when such prices are available; otherwise, such securities are valued at the most current sale price or based on a valuation provided by investment managers. Fair values of investments that have no readily determinable fair value are generally reported by using the net asset value per share (or its equivalent) of the investment. Pooled participant directed accounts and the collective investment funds, held in trust, are valued based on a unit value determined by the Trustees multiplied by the total units held by the Plan. The unit value is determined by the Trustees based on the fair value of the underlying assets.

(3) FAIR VALUE MEASUREMENTS

Various inputs are used in valuing the investments held by the Board. U.S. generally accepted accounting principles (GAAP) establishes a hierarchy of inputs used to value investment emphasizing observable inputs and minimizing unobservable inputs. These inputs are summarized as follows:

Level 1 – Quoted prices for identical assets in an active market

Level 2 – Inputs, other than quoted prices, that are observable for the asset, either directly or indirectly

Level 3 – Unobservable inputs. Unobservable inputs should only be used to the extent that observable inputs are not available for a particular asset.

Alaska Retirement Management Board

Invested Assets

Notes to Schedules

June 30, 2019

(3) FAIR VALUE MEASUREMENTS (Cont.)

The Board categorizes fair value measurements within the fair value hierarchy established by GAAP. The Board has the following fair value measurements at June 30, 2019 (in thousands):

Investment by fair value level	Total	Level 1	Level 2	Level 3
Cash Equivalents				
Certificate of Deposit	\$ 8,041	-	8,041	-
Deposits	63,028	63,028	-	-
Money Market	218,730	-	218,730	-
Repurchase Agreement	73,293	-	73,293	-
Short-term Investment Fund	837	-	837	-
Total Cash Equivalents	363,929	63,028	300,901	-
Debt Securities				
Bank Loans	562	-	562	-
Commingled Debt Funds	1,204,494	1,085,675	110,021	8,798
Convertible Bonds	698	-	698	-
Corporate Bonds	338,628	-	338,628	-
Foreign Government Bonds	79,299	-	79,299	-
Mortgage Backed	26,963	-	26,963	-
Municipal Bonds	62,297	-	62,297	-
Other Asset Backed	363,933	-	350,360	13,573
U.S. Government Agency	3,932	-	3,933	-
U.S. Treasury Bills, Notes, and Bonds	2,612,995	-	2,612,995	-
Yankee Corporate Bonds	91,720	-	90,688	1,032
Yankee Government Bonds	27,375	-	27,375	-
Total Debt Securities	4,812,896	1,085,675	3,703,819	23,403
Equity				
Commingled Equity Funds	4,604,308	4,604,308	-	-
Common and Preferred Equity	10,058,927	10,058,738	13	176
Depository Receipts	221,099	221,099	-	-
Futures	(1,623)	(1,623)	-	-
Master Limited Partnership	537,082	537,082	-	-
Options	(6,351)	(6,351)	-	-
Real Estate Investment Trust	712,963	712,963	-	-
Rights	106	103	-	3
Warrants	18,511	18,511	-	-
Total Equity	16,145,022	16,144,830	13	179
Other				
Balanced Funds	2,004,727	-	2,004,727	-
Target Date Funds	1,799,955	-	1,799,955	-
Securities Lending Collateral Invested	45,654	-	45,654	-
Total Other	3,850,336	-	3,850,336	-
Total investments by fair value level	\$ 25,172,183	17,293,533	7,855,069	23,582
Investment measured at Net Asset Value (NAV)				
Absolute Return	1,538,194			
Energy	90,006			
Farmland	856,427			
Infrastructure	567,959			
Private Equity	2,804,389			
Real Estate	1,517,068			
Timber	364,937			
Total Investment measured at NAV	7,738,980			
Total Investments measured at fair value	\$ 32,911,163			
Synthetic Investment Contracts at Cost				
Synthetic Investment Contracts at Cost	644,686			
Net Receivables / (Payables)	(5,125)			
Total Invested Assets	\$ 33,550,724			

Alaska Retirement Management Board

Invested Assets

Notes to Schedules

June 30, 2019

(3) FAIR VALUE MEASUREMENTS (Cont.)

Securities classified as level 1 are valued using prices quoted in active markets for those securities. Securities classified as level 2 are valued using matrix pricing. Each balanced and target date options classified as level 2 are priced daily by the investment managers based on the prevailing market values of the underlying security portfolios. Pricing is sourced from various sources. Securities classified as level 3 are valued using the last traded price or a price determined by the investment manager's valuation committee.

Investments in absolute return, energy, farmland, infrastructure, private equity, real estate, and timber are measured at net asset value (NAV) with additional information listed in the following table (in thousands).

	Fair Value	Unfunded Commitments	Redemption Frequency (if currently available)
Absolute Return	\$ 1,538,194	55,546	Quarterly
Energy	90,006	34,899	No redemptions
Farmland	856,427	-	Unlimited
Infrastructure	567,959	52,789	Quarterly
Private Equity	2,804,389	1,787,772	No redemptions
Real Estate	1,517,068	227,175	Varied
Timber	364,937	-	Unlimited
Total investments measured at NAV	\$ <u>7,738,980</u>		

Absolute Return: This type includes investments in eight fund of funds. Investment strategies include pooled investment vehicles and securities in a variety of markets including structured notes and swaps. The fair values of the investments have been determined using the NAV per share of the investments (or its equivalent) of the capital account balance nearest to the balance sheet date, adjusted for subsequent contributions and distributions. Absolute return investments undergo annual independent financial statement audits.

Energy: This type includes investments in three energy funds which invest in the debt and equity of energy related companies. The fair values of the investments have been determined using the NAV per share of the investments (or its equivalent) of the capital account balance nearest to the balance sheet date, adjusted for subsequent contributions and distributions. Energy fund investments undergo annual independent financial statement audits. These investments can never be redeemed. The nature of these investments is such that distributions are received through the liquidation of underlying assets of the funds. These investments are expected to be funded through the fiscal year 2022.

Farmland: This type includes investments in two wholly owned agriculture funds. These two funds are for the purpose of owning and managing real estate property devoted to agricultural use. Investment properties include row crops, permanent crops and vegetable crops. The fair values of the investments have been determined using the NAV per share of the investments (or its equivalent) of the capital account balance nearest to the balance sheet date, adjusted for subsequent contributions and distributions. These investments are funds of one, therefore they can be liquidated at any time. Farmland investments undergo annual independent financial statement audits.

Infrastructure (Private): This type includes investments in two open-ended infrastructure funds. Investments include electricity generation, transmission, toll roads, pipelines, bridges, and other infrastructure-related assets. The fair values of the investments have been determined using the NAV per share of the investments (or its equivalent) of the capital account balance nearest to the balance sheet date, adjusted for subsequent contributions and distributions. Infrastructure investments undergo annual independent financial statement audits. Funds can be redeemed on a quarterly basis with proper notice.

Alaska Retirement Management Board

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Notes to Schedules

June 30, 2019

(3) FAIR VALUE MEASUREMENTS (Cont.)

Private Equity: This type includes investments in 23 private equity funds including two gatekeeper managers who invest on behalf of the Alaska Retirement Management Board. These funds are diversified in various sectors including but not limited to venture capital, acquisitions, debt, and special situations. The fair values of the investments have been determined using the NAV per share of the investments (or its equivalent) of the capital account balance nearest to the balance sheet date, adjusted for subsequent contributions and distributions. Private equity funds undergo annual independent financial statement audits. These investments can never be redeemed. The nature of these investments is such that distributions are received through the liquidation of underlying assets of the funds. These investments are expected to be funded through the fiscal year 2028.

Real Estate: This type includes investments in 20 real estate funds that invest in primarily in U.S. commercial real estate including value-added, opportunistic and core investments. The fair values of the investments have been determined using the NAV per share of the investments (or its equivalent) of the capital account balance nearest to the balance sheet date, adjusted for subsequent contributions and distributions. Real estate investments undergo annual independent financial statement audits. Three of these funds are funds of one, therefore they can be liquidated at any time. For the remaining 16 funds, investments can never be redeemed. The nature of these investments is such that distributions are received through the liquidation of underlying assets of the funds. These investments are expected to be funded through the fiscal year 2031.

Timber: This type includes investments in two wholly owned timber funds that invest, acquire, manage, and dispose of timberland property and associated timber. The fair values of the investments have been determined using the NAV per share of the investments (or its equivalent) of the capital account balance nearest to the balance sheet date, adjusted for subsequent contributions and distributions. These investments are funds of one, therefore they can be liquidated at any time. Timber investments undergo annual independent financial statement audits.

Synthetic Investment Contracts: The Board's investment manager entered into investment contracts, on behalf of the Board, with four financial institutions. These institutions provide wrap contracts that cover separately managed SIC portfolios. The accounts are credited with earnings and investment deposits, less administrative expenses charged by the financial institutions and investment withdrawals. The contracts are included in the Board's statements at contract value. They are fully benefit-responsive. There are no reserves against contract value for the credit risk of the contract issuer or otherwise. The crediting interest rate is based on the approximate rate of interest that will amortize differences between contract and market value over the portfolio's average duration. Accounts and terms of SICs in effect at June 30, 2019, are as follows:

As of June 30, 2019		
	Contract Provider	Alaska Retirement Management Board
Contract Value of Investment Contract	Prudential Insurance Company of America	176,767,177
Market Value of Portfolio	Prudential Insurance Company of America	180,957,266
Average Crediting Rate	Prudential Insurance Company of America	2.62%
Contract Value of Investment Contract	Royal Bank of Canada	106,698,077
Market Value of Portfolio	Royal Bank of Canada	107,914,514
Average Crediting Rate	Royal Bank of Canada	2.62%
Contract Value of Investment Contract	Pacific Life Insurance Co.	131,179,521
Market Value of Portfolio	Pacific Life Insurance Co.	134,504,553
Average Crediting Rate	Pacific Life Insurance Co.	2.73%
Contract Value of Investment Contract	State Street Bank & Trust Co.	177,561,501
Market Value of Portfolio	State Street Bank & Trust Co.	182,062,186
Average Crediting Rate	State Street Bank & Trust Co.	2.73%

Alaska Retirement Management Board

Invested Assets

Notes to Schedules

June 30, 2019

(4) DEPOSIT AND INVESTMENT RISK

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The ARMB invests its cash in the State of Alaska, Treasury Division's (Treasury) Short-Term Fixed Income Pool. As a means of limiting its exposure to fair value losses arising from increasing interest rates, Treasury's investment policy limits individual fixed rate securities to 14 months to maturity or 14 months expected average life upon purchase. Floating rate securities are limited to three years to maturity or three years expected average life upon purchase. At June 30, 2019, the expected average life of individual fixed rate securities ranged from 2 days to 1.7 years and the expected average life of floating rate securities ranged from 14 days to 3.0 years.

Duration is a measure of interest rate risk. It measures a security's sensitivity to a 100-basis point change in interest rates. The duration is the average fair value weighted duration of each security taking into account all related cash flows. At June 30, 2019, the effective duration of the Board's fixed income investments by type, was as follows:

	Effective Duration (in years)
Corporate Bonds	2.51
Foreign Government Bonds	8.15
Mortgage Backed	3.35
Municipal Bonds	9.58
Other Asset Backed	0.30
U.S. Government Agency	5.90
U.S. Treasury Bills, Notes, and Bonds	4.17
Yankee Corporate Bonds	3.06
Yankee Government Bonds	6.66
Total Portfolio	3.93

Synthetic Investment Contracts

The Board contracts with an external investment manager who is given the authority to invest in SICs and a reserve. This external manager also manages the securities underlying the SICs. In the case of the Board's constant duration SICs, duration is the fair value weighted average term to maturity of all fixed income securities underlying the contracts and their related cash flows. Duration of the Plan's structured payout SICs is the weighted average maturity of the contract payments. Through the Board's investment policy, exposure to fair value losses arising from increasing interest rates is managed by limiting the duration on SICs as follows:

For constant duration SICs, duration cannot exceed the longer of six years or the duration of the Barclays Capital Intermediate Aggregate Index plus one-half year. The aggregate duration of the constant duration SICs was 3.57 years at June 30, 2019. The duration of the Barclays Capital Intermediate Aggregate Index was 3.62 years at June 30, 2019. The Board does not have a policy to limit interest rate risk for the reserve. The balance of the reserve is invested in the custodian's Institutional Treasury Money Market Fund.

Alaska Retirement Management Board

Invested Assets

Notes to Schedules

June 30, 2019

(4) DEPOSIT AND INVESTMENT RISK (Cont.)

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. At June 30, 2019, the Board's Invested Assets consisted of fixed income securities with credit quality ratings issued by nationally recognized statistical rating organizations. Securities lending collateral was invested in a registered 2(a)-7 money market fund that was not rated. Using Standard & Poor's Corporation rating scale, the values for each rating are as follows (in thousands):

Rating	US Dollar	Foreign
A	\$ 228,266	7,348
A-1	3,479	-
AA	141,783	4,467
AAA	304,303	1,291
B	7,956	-
BB	33,037	4,769
BBB	90,890	3,510
CCC	209	-
D	617	-
Not Rated	183,847	57,914
U.S. Government Agency	3,932	-
U.S. Treasury Bills, Notes, and Bonds	2,612,995	-
	<u>\$ 3,611,314</u>	<u>79,299</u>

Synthetic Investment Contracts

The Board's investment policy has the following credit risk limitations for SICs, investments underlying the synthetic investment contracts and the reserve:

Synthetic investment contract issuers must have an investment grade rating.

Supranational Agency and Foreign Government entity investments must have a minimum rating of A- or equivalent.

Corporate debt securities must have a minimum rating of BBB- or equivalent.

Asset-backed securities must have a minimum rating of AAA or equivalent.

The ratings assigned to issuers of money market instruments must have the highest rating of any nationally recognized statistical rating organization. This limitation does not apply to the investment funds maintained by the custodian.

Custodial Credit Risk – Deposits

Custodial credit risk is the risk that deposits may not be returned in the event of a bank failure. The Board does not have a policy in relation to custodial credit risk for deposits. At June 30, 2019, the Board's Invested Assets had uncollateralized and uninsured foreign currency deposits of \$9,128,000.

Alaska Retirement Management Board

Invested Assets

Notes to Schedules

June 30, 2019

(4) DEPOSIT AND INVESTMENT RISK (Cont.)

Foreign Currency Risk

Foreign Currency Risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. The Board's Stable Value Fund policy requires that all investments underlying a synthetic investment contract be denominated in U.S. dollars. For all other funds, through its asset allocation, the Board limits total investments in foreign currencies to the following:

<u>Pension System</u>	<u>Opportunistic</u>	<u>Global Equity Ex-U.S.</u>	<u>Private Equity Pool</u>	<u>Real Assets Pool</u>
PERS	15%	26%	14%	25%
TRS	15%	26%	14%	25%
JRS	15%	26%	14%	25%
MRS	15%	21%	-	-

At June 30, 2019, the Board had exposure to foreign currency risk with the following deposits and investments (in thousands):

		<u>Deposits</u>	<u>Equity</u>	<u>Foreign Government Bonds</u>	<u>Rights & Warrants</u>	<u>Private Equity</u>
Argentine Peso	\$	-	-	137	-	-
Australian Dollar		79	80,421	2,139	-	1,335
Brazilian Real		133	60,557	2,595	-	-
Canadian Dollar		180	81,853	1,208	3	-
Chilean Peso		-	1,129	1,094	23	-
Colombian Peso		-	-	1,929	-	-
Czech Koruna		-	-	1,050	-	-
Danish Krone		14	61,668	113	-	-
Euro Currency		1,312	999,945	21,103	81	174,503
Hong Kong Dollar		235	141,256	-	-	-
Hungarian Forint		3	2,366	1,085	-	-
Indian Rupee		354	25,275	-	-	-
Indonesian Rupiah		1	409	2,656	12	-
Japanese Yen		2,663	501,084	18,799	-	-
Malaysian Ringgit		-	4,198	2,725	-	-
Mexican Peso		15	26,422	4,299	-	-
New Israeli Sheqel		9	16,580	-	-	-
New Taiwan Dollar		88	46,337	-	-	-
New Zealand Dollar		32	12,838	4,208	-	-
Norwegian Krone		3	27,238	83	-	-
Peruvian Sol		-	-	1,049	-	-
Philippine Peso		1	1,177	526	-	-
Polish Zloty		26	686	2,382	-	-
Pound Sterling		1,335	571,281	2,650	-	39,078
Russian Ruble		-	10,760	1,839	-	-
Singapore Dollar		27	35,160	-	-	-
South African Rand		5	15,277	2,174	-	-
South Korean Won		-	92,596	-	-	-
Swedish Krona		116	78,197	-	-	6,732
Swiss Franc		6	195,553	-	-	-
Thailand Baht		-	3,029	2,027	-	-
Turkish Lira		10	1,297	1,429	-	-
UAE Dirham		3	-	-	-	-
Yuan Renminbi		2,478	24,029	-	-	-
Grand Total	\$	<u>9,128</u>	<u>3,118,618</u>	<u>79,299</u>	<u>119</u>	<u>221,648</u>

Alaska Retirement Management Board

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(4) DEPOSIT AND INVESTMENT RISK (Cont.)

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. At June 30, 2019, the Board's Invested Assets did not have exposure to any one issuer greater than 5% of total invested assets.

Synthetic Investment Contracts

The Board's policy with regard to concentration of credit risk for synthetic investment contracts, investments underlying the synthetic investment contracts and the reserve is as follows:

No investment will be made if, at the time of purchase, total investment in any single issuer of investment contracts would exceed thirty-five percent of the synthetic investments contracts' total value.

No investment will be made if, at the time of the purchase, the investment could cause any single issuer or all issuers of the securities held as supporting investments under the synthetic investment contracts to exceed the thresholds in the table below. The maximum exposure to securities rated BBB is limited to twenty percent of the total value underlying synthetic investment contracts.

Investment Type	Issuer	All Issuers
U.S. Treasury and Agencies	100%	100%
U.S. Agency Securities	100%	100%
Agency Mortgage-Backed Securities	50%	50%
Non-Agency Mortgage-Backed Securities	5%	50%
Asset-backed Securities	5%	50%
Domestic and Foreign Corporate Debt Securities	5%	50%
Supranational Agency and Foreign Government entity securities	5%	50%
Money Market Instruments – Non Gov/Agency	5%	100%
Custodian Short-term Investment Fund	100%	100%

For the reserve, the total investment of any single issuer of money market instruments may not exceed 5% of the total value underlying synthetic investment contracts. This limitation does not apply to the investment funds maintained by the custodian.

(5) DERIVATIVES, FOREIGN EXCHANGE, AND COUNTERPARTY CREDIT RISK

The Board is exposed to credit risk on investment derivative instruments that are in asset positions. The Board has no policy of requiring collateral or other security to support derivative instruments subject to credit risk. Additionally, the Board has no policy regarding entering into netting arrangements when it enters into derivative instrument transactions with a counterparty, nor does the Board have a policy for contingencies. On June 30, 2019, the Board had the following derivative instruments outstanding:

Changes in Fair Value			Fair Value		
	Classification	Amount	Classification	Amount	Notional
Commodity Futures Long	Investment Income	\$ (12,138)	Futures	\$ -	\$ 1,450,000
Fixed Income Futures Long	Investment Income	(105,734)	Futures	-	-
Fixed Income Futures Short	Investment Income	(216,887)	Futures	-	(7,100,000)
FX Forwards	Investment Income	457,652	Long Term Instruments	(438,044)	125,830,917
Index Futures Long	Investment Income	34,566,863	Futures	-	172,015
Index Futures Short	Investment Income	21,967,295	Futures	-	(225,000)
Index Options Bought	Investment Income	5,557,014	Options	-	-
Index Options Written	Investment Income	(37,978,019)	Options	(6,351,055)	(133,100)
Rights	Investment Income	836,796	Common Stock	106,442	1,715,113
Warrants	Investment Income	(1,650,518)	Common Stock	18,510,753	3,475,257

Alaska Retirement Management Board

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Notes to Schedules

June 30, 2019

(5) DERIVATIVES, FOREIGN EXCHANGE, AND COUNTERPARTY CREDIT RISK (Cont.)

The International Equity Pool includes foreign currency forward contracts to buy and sell specified amounts of foreign currencies at specified rates on specified future dates for the purpose of hedging existing security positions. The counterparties to the foreign currency forward contracts consist of a diversified group of financial institutions. Credit risk exposure exists to the extent of nonperformance by these counterparties; however, the risk of default is considered to be remote. The market risk is limited to the difference between contractual rates and forward rates at the balance sheet date. At June 30, 2019, the Board had the following Foreign Currency risk related to derivatives:

Currency Name	Right & Warrant Options	Net Receivables	Net Payables	Total Exposure
Australian Dollar	\$ -	13,926	9,337	23,263
Canadian Dollar	3,021	50,960	(42,298)	11,683
Chilean Peso	22,919	-	-	22,919
Danish Krone	-	-	(5,012)	(5,012)
Euro Currency	80,647	256,700	(265,000)	72,347
Indian Rupee	-	15,627	-	15,627
Indonesian Rupiah	12,018	-	-	12,018
Japanese Yen	-	86,843	(516,621)	(429,778)
Mexican Peso	-	28	201	229
New Zealand Dollar	-	-	(58,780)	(58,780)
Norwegian Krone	-	-	(2,425)	(2,425)
Polish Zloty	-	-	(10,525)	(10,525)
Pound Sterling	-	19,868	(6,092)	13,776
Singapore Dollar	8	-	(998)	(990)
South African Rand	-	-	(10,075)	(10,075)
Swedish Krona	-	7,256	-	7,256
Swiss Franc	-	(105)	-	(105)
Yuan Renminbi Offshore	-	19,141	-	19,141
	\$ 118,613	470,244	(908,288)	(319,431)

At June 30, 2019, the Board had no counterparty credit and counterparty concentration risk associated with its investment derivative positions.

(6) SECURITIES LENDING

Alaska Statute 37.10.071 authorizes the Board to lend assets, under an agreement and for a fee, against deposited collateral of equivalent fair value. The Board lends marketable debt and equity securities through a contract with State Street Bank and Trust (the Bank). International equity security loans were collateralized at not less than 105 percent of their fair value. All other security loans were collateralized at not less than 102 percent of their fair value. Loaned securities and collateral were marked to market daily and collateral was received or delivered the following day, as necessary, to maintain collateral levels. The Board cannot pledge or sell collateral received until and unless a borrower defaults. At year-end, the Board had no credit risk exposure to the borrowers because the amounts the Board owed to the borrowers exceeded the amounts the borrowers owed the Board.

The fair value of securities on loan at June 30, 2019, was approximately \$43.5 million. At June 30, 2019, cash collateral received totaling \$45.7 million is reported as a securities lending payable and the fair value of the re-invested cash collateral totaling \$45.7 million is reported as security lending collateral invested in the Schedule of Invested Assets.

Cash collateral was invested in a registered 2(a)-7 money market fund. Maturities of investments in the money market fund generally did not match the maturities of the loaned securities because the lending agreements were terminable at will. Securities under loan, cash collateral and cash collateral payable are recorded on the financial schedules at fair value. The Bank and the Board received a fee from earnings on invested collateral. The Bank and the Board shared the fee paid by the borrower.

Alaska Retirement Management Board

Invested Assets

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There was limited credit risk associated with the lending transactions since the Board was indemnified by the Bank against any loss resulting from counterparty failure or default on a loaned security or its related income distributions. The Bank further indemnified the Board against loss due to borrower rebates in excess of earnings on cash collateral. Indemnifications were subject to limitation relating to a force majeure event as outlined in the contract.

For the year ended June 30, 2019 there were no losses incurred as a result of securities lending transactions and there were no significant violations of legal or contractual provisions nor failures by any borrowers to return loaned securities.