Minnesota

State Board of Investment

2021 ANNUAL REPORT

Table of Contents

INTRODUCTION

Letter from the Executive Director/Chief Investment Officer A1
Governance of Agency A2
SBI Investment Beliefs A7

INVESTMENT PROGRAMS

Overview of Investment Programs B1
Funds Under Management B3
Capital Markets B4

COMBINED FUNDS
Overview of Investment Program B5
Investment Vehicles B13

FIRE RELIEF PLANS + OTHER PUBLIC RETIREMENT PLANS
Overview of Investment Program B89
Investment Vehicles B91

PARTICIPANT DIRECTED INVESTMENT PROGRAM
Overview of Investment Program B101
Investment Vehicles B104

NON-RETIREMENT PROGRAM
Overview of Investment Program B115
Investment Vehicles B117

STATE CASH ACCOUNTS B131

ESG STEWARDSHIP REPORT

Letter from the Executive Director/Chief Investment Officer C1
Introduction C3
Stewardship: Proxy Voting C7
Stewardship: Engagement C13
ESG Incorporation: ESG Integration C19
ESG Incorporation: Screening C23
Conclusion C25

FINANCIAL REPORTS

Notes to the Financial Schedules D1
Supplemental Fund Schedules D2
Retirement Plans Participation D3
Non-Retirement Funds Participation D12
Investment Manager Fees D13
Investment Commission and Trading Volume Data D16

Important Notes

Readers should note that the SBI's returns in this report are shown ***after*** transaction costs and fees are deducted. Performance is computed and reported after all applicable charges to assure that the Board's focus is on true net returns.

Due to the large number of individual securities owned by the funds managed by the SBI, this report does not include asset listings. **A complete list of securities is available on the SBI's website at http://mn.gov/sbi**. Asset listings are updated semi-annually as the new data becomes available.

INTRODUCTION

Letter from the Executive Director/Chief Investment Officer A1

Governance of Agency A2

SBI Investment Beliefs A7

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Letter from Executive Director and Chief Investment Officer

Board Members:
Governor Tim Walz, Chair
State Auditor Julie Blaha
Secretary of State Steve Simon
Attorney General Keith Ellison

Executive Director & Chief Investment Officer:
Mansco Perry III

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An Equal Opportunity Employer

January 2022

The Minnesota State Board of Investment (SBI) is pleased to present its Annual Report for the fiscal year ending June 30, 2021.

On June 30, 2021, SBI assets under management totaled $129.2 billion.
The total of $129.2 billion in assets under the SBI's responsibility is the aggregate of various pension assets, tax-advantaged savings plans, state sponsored savings plans, non-retirement funds, and state cash accounts. Similar to last fiscal year, several environmental, social, and governance ("ESG") issues such as climate change, social justice/diversity, and corporate governance continue to be addressed within the investment policies and operations of the SBI.

Fiscal Year 2021 Market Review

The global equity markets rallied during the fiscal year, with the Russell 3000 Index of U.S. stocks gaining +44.2% while the MSCI All Country World ex U.S. Index of foreign shares rose +35.6%. The continued advancement of mass vaccination efforts across the globe has fostered a significant economic re-opening of the global economy versus a year ago, resulting in a dramatic rebound in economic activity amid surging consumer demand for goods and services. By the end of the fiscal year, businesses were hiring back workers at a rapid clip, and the U.S. unemployment rate fell to 5.9% in June from a high of over 11% a year earlier. Inflation rose sharply as commodity prices rebounded and the spike in consumer and business demand produced supply shortages in some areas of the economy. Bond market returns were muted as the rebound in growth and inflation led to a rise in interest rates, particularly in the U.S. (Bond prices move inversely to changes in interest rates.)

Combined Funds Results for Fiscal Year 2021

The statewide public retirement systems assets managed in the Combined Funds returned 30.3% at fiscal year-end 2021. Over the recent fiscal 10-year and 20-year time periods, the Combined Funds generated annualized returns of 10.4% and 8.1%, respectively. The Combined Funds investment results are provided in the Investment Programs Section of this report on page B8.

Combined Funds Asset Allocation and Liquidity

During the 2021 fiscal year, staff implemented policy and portfolio changes to the Combined Funds as the result of a Board Resolution Concerning the Management of the Combined Funds Asset Allocation and Liquidity passed in May of 2020. These changes included the restructuring of the asset class groups and resetting the target allocations, implementing a currency hedging program, funding a global equity allocation, adding sub-asset class groups to the Fixed Income Program to optimize the distribution of the active risk budget, and segregating the Private Markets uninvested dollars from the Public Equity Program. These items are explained in more detail within the respective areas of this report.

Lastly, I have decided that I will retire in 2022. This will be my last formal communication regarding the annual activities of the various investment programs which have been entrusted to me. Be assured that the capable staff of the SBI will continue to seek to enhance the management and performance of the assets under the control of the Board.

Respectfully submitted,

Mansco Perry III
Executive Director and Chief Investment Officer
Minnesota State Board of Investment

State Board of Investment – Governance of Agency

Board Members

The Minnesota State Board of Investment (SBI) serves the state of Minnesota by investing the assets of state and local employee benefit plans along with other tax advantaged savings plans as mandated in statutes. The primary responsibility of the Board is to monitor and evaluate the investment programs as a fiduciary with the goal of making sound investment decisions. The Board delegates responsibility through the retention of the Executive Director, staff, consultants, investment professionals, and with the advice of various committees.

Governor
Tim Walz, Chair

State Auditor
Julie Blaha

Secretary of State
Steve Simon

State Attorney General
Keith Ellison

Executive Director

Mansco Perry III

The Executive Director for the Minnesota State Board of Investment is retained by the Board and is responsible for the implementation, administration and review of the investment policies established by the Board. The Executive Director employs investment and administrative staff to assist in meeting the objectives of the Board.

A listing of the SBI Staff is provided on page A4.

Investment Advisory Council

The Minnesota Legislature (*Minnesota Statutes*, Section 11A.08) has established a seventeen member Investment Advisory Council (IAC) to advise the Board and its staff on investment-related matters. All proposed investment policies are reviewed by the IAC before they are presented to the Board for action. A listing of the IAC members is on page A3.

Custodial Banks

The Board retains two custodian banks, one for retirement and trust funds and the other for state cash accounts.

Retirement and Trust Funds
State Street Corporation

State Cash Accounts
Wells Fargo Bank, National Association*

**Trustee business sold to Principal Bank during FY21, name change effective FY22*

Consultants

The SBI retains consultants to assist the Board and Executive Director in the on-going development and evaluation of its investment programs.

General Consultants
Aon Investments
Meketa Investment Group

Private Markets Consultant
Albourne Partners

External Investment Managers

The majority of the assets are managed externally by professional investment managers. Information is provided in the respective areas of the Annual Report for each of the investment managers retained by the SBI.

Investment Advisory Council

The IAC fulfills its statutory duty to the SBI by providing advice and independent due diligence review of the investment policy and implementation recommendations that guide the SBI's investment of assets.

Public Members

The Board appoints ten members from the public experienced in finance and investment. These members traditionally have come from the Minneapolis and St. Paul investment community.

Gary Martin, Chair
Chief Investment Officer,
Macalester College

Kim Faust, Vice Chair
Vice President and Treasurer,
Fairview Health Services

Dennis Duerst
President, 3M Investment Management Corporation
3M Company (Retired)

Susanna Gibbons
Managing Director,
Carlson Funds Enterprise
Carlson School of Management

Morris Goodwin, Jr.
Sr. Vice President and CFO,
American Public Media Group

Dan McConnell
Business Manager,
Building & Construction Trades Council of Minneapolis

Nancy Orr
Chief Investment Officer,
Fiduciary Counselling, Inc.

Carol Peterfeso
Chief Treasury and Investment Officer,
University of St. Thomas

Shawn Wischmeier
Chief Investment Officer,
Margaret A. Cargill Philanthropies

Permanent Members

The Commissioner of Minnesota Management and Budget and the Executive Directors of the three statewide retirement systems are permanent members of the IAC.

Jim Schowalter
Commissioner,
Minnesota Management and Budget

Erin Leonard
Executive Director,
Minnesota State Retirement System

Doug Anderson
Executive Director,
Public Employees Retirement Association

Jay Stoffel
Executive Director,
Teachers Retirement Association

Jennifer Hassemer
Commissioner's Designee
Assistant Commissioner

Employee and Retirement Representatives

The Governor appoints two active employee representatives and one retiree representative to the IAC.

Denise Anderson
Governor's Appointee
Active Employee Representative

Martha Sevetson Rush
Governor's Appointee
Active Employee Representative

Peggy Ingison
Governor's Appointee
Retiree Member Representative

Public Member Emeritus

Malcolm W. McDonald
Director & Corporate Secretary,
Space Center, Inc. (Retired)

As of January 2022

SBI Staff

SBI staff provide recommendations to the Board and the IAC on strategic planning alternatives and executes the Board's asset allocation decisions. A list of the SBI staff is provided below.

Executive Director and Chief Investment Officer

Mansco Perry III

Executive Assistant and Head of Office Services

Charlene Olson

Assistant Executive Directors

Andy Christensen
Assistant Executive Director,
Investment Strategy and Administration

Erol Sonderegger
Assistant Executive Director,
Portfolio Management and Risk Analysis

Directors

Patricia Ammann
Director,
Participant Directed and Non-Retirement Investments

Paul T. Anderson
Director,
Financial Services and Operations

Andrew Krech
Director,
Private Markets

John Mulé
Director,
Legal and Policy Services

Investment Staff

Nathan Blumenshine
Investment Officer,
Stewardship and ESG

Tammy Brusehaver
Investment Officer,
Public Markets

Dan Covich
Investment Officer,
Public Markets

Stephanie Gleeson
Investment Officer,
Public Markets

Aaron D. Griga
Sr. Investment Officer,
Public Markets and Cash Management

Steven P. Kuettel
Investment Officer,
Public Markets and Cash Management

S. Emily Pechacek
Investment Officer,
Public Markets

Jonathan Stacy
Sr. Investment Officer,
Private Markets

David Velasquez
Investment Officer,
Performance Analytics

Jeffrey Weber
Investment Officer,
Legal and Policy Services

Financial Services Staff

Kailee Anderson
Accounting Officer,
Senior

Shirley Baribeau
Controller

Stephanie Bui
Account Clerk, Senior

Lani Hattling
Accounting Officer,
Senior

William J. Nicol
Investment Accounting Specialist

Narmada Ramaswami
Accounting Officer,
Principal

Iryna Shafir
Compliance Analyst

Office Services Staff

Melissa Mader
Office Administrative Specialist, Senior

Kelly Nordstrom
Office Administrative Specialist, Intermediate

Information Technology Services Staff

Todd Lauf
Information Technology Manager

As of January 2022

State Board of Investment – Governance of Agency

The Minnesota State Board of Investment was established in 1885 by Article XI of the Minnesota Constitution for the purpose of administering and directing the investment of all state funds. Its membership, as specified in the Constitution, is comprised of the Governor, State Auditor, Secretary of State and Attorney General.

Statutory Authority

All investments undertaken by the SBI are governed by the prudent person rule and other standards codified in *Minnesota Statutes*, Chapter 11A and Chapter 356A.

Prudent Person Rule

The prudent person rule, as codified in *Minnesota Statutes,* Section 11A.09, requires all members of the Board, Investment Advisory Council, and SBI staff to *"...act in good faith and ...exercise that degree of judgment and care, under circumstances then prevailing, which persons of prudence, discretion, and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived therefrom."* *Minnesota Statutes,* Section 356A.04 contains similar codification of the prudent person rule applicable to the investment of pension fund assets.

Authorized Investments

In addition to the prudent person rule, *Minnesota Statutes,* Section 11A.24 contains a specific list of asset classes available for investment including common stocks, bonds, short-term securities, real estate, private equity, and resource funds. The section prescribes the maximum percentage of fund assets that may be invested in various asset classes and contains specific restrictions to ensure the quality of the investments.

Investment Policies

Within the requirements defined by state law, the SBI, in conjunction with its staff and the IAC, establishes investment policies for all funds under its control. These investment policies are tailored to the particular needs of each fund and specify investment objectives, risk tolerance, asset allocation, investment management structure and specific performance standards.

The Board, its staff, and the IAC have conducted detailed analyses that address investment objectives, asset allocation policy and management structure of each of the funds under the SBI's control. The policies guide the on-going management of these funds and are updated periodically.

Investment Beliefs

The SBI adopted a set of Investment Beliefs, in 2018, for managing the assets of the Combined Funds (those funds utilized to support the defined benefit plans of the State's employees). The primary purpose of these Beliefs is to guide the SBI toward sound investing principles related to investing on behalf of the Combined Funds. In this respect, the Investment Beliefs help provide context for SBI's actions, reflect SBI's investment values, and acknowledge SBI's role in supporting the State's broader retirement systems. When relevant, the SBI also uses these Beliefs as a guide when investing the assets of the other investment programs that it manages, as deemed appropriate.

The SBI Investment Beliefs are available on the SBI's website and are provided on page A7 of this report.

ESG Stewardship Report

In accordance with the Resolution Concerning Environmental, Social, and Governance Initiatives adopted by the Board in February of 2020, the SBI published its inaugural ESG Stewardship Report for fiscal year 2021.

The SBI's Stewardship Report is available on the SBI's website and is provided on page C1 of this report.

Board Activity

During the course of a year, members of the Board undertake numerous activities in their oversight of the SBI. Examples of Board activities during fiscal year 2021 include:

- Authorized the hiring of investment managers to execute strategic initiatives outlined in the May 2020 Resolution Concerning Management of Combined Funds Asset Allocation and Liquidity. Sub-asset groups were added and a number of strategic asset allocation changes were implemented.

- Added an ESG investment option, TIAA-CREF Social Choice Equity Fund, for the Minnesota 529 College Savings Plan.

- Standardized the defined contribution (DC) investment menu by offering a broad stock mandate, Total Stock Market Index Fund, within the mutual fund platform.

- Authorized the hiring of Albourne Partners, a Private Markets Consultant, as an additional resource to assist the monitoring and management of the private markets program.

- Re-authorized the Proxy Committee and delegated proxy voting responsibilities according to established guidelines.

- Authorized the Executive Director to negotiate investment in 24 private market investment deals, totaling up to $4.5 billion.

Legislative Update

The SBI did not propose any legislation in Fiscal Year 2021.

During the year, the SBI monitored several pieces of legislation which would have impacted the SBI, including but not limited to authorizing the Department of Natural Resources to invest with the SBI financial assurance money related to mining projects, and creating an account for payments in lieu of property taxes. No legislation significantly impacting the SBI was passed into law.

SBI Investment Beliefs

The SBI adopted a set of Investment Beliefs for managing the assets of the Combined Funds (those funds utilized to support the defined benefit plans of the State's employees). The primary purpose of these Beliefs is to guide the SBI toward sound investing principles related to investing on behalf of the Combined Funds. In this respect, the Beliefs help provide context for SBI's actions, reflect SBI's investment values, and acknowledge SBI's role in supporting the State's broader retirement systems. When relevant, the SBI also uses these Beliefs as a guide when investing the assets of the other investment programs that it manages, as deemed appropriate.

The SBI is a long-term investor whose primary mission is to maintain the viability of the retirement systems it supports.

When determining an appropriate level of risk that the systems' assets should bear the SBI must reflect the nature of those systems' liabilities and funding policy.

The SBI's strategic allocation policy is the primary determinant of (i) the asset portfolio's long-term investment return and (ii) asset portfolio's risk.

While the SBI can sacrifice some short-term liquidity to pursue a greater long-term return, the investment portfolio's net cash flows and ability to pay benefits on a year-by-year basis are key risk considerations.

Diversification improves the risk-adjusted return profile of the SBI investment portfolio.

Diversification of the SBI investment portfolio takes place across several critical dimensions, such as allocation across global regions and country markets (e.g., U.S. versus Europe, Asia, emerging markets, etc.), allocation among different types of assets (equities, bonds, real estate, etc.), spreading assets across various sectors and industries (e.g., technology, financials, consumer-oriented, etc.), and weighting of different risk factor premiums (e.g., value vs. growth, small companies vs. big companies, carry, illiquidity, etc.). If the correlation (i.e., relationship) among the returns generated by these factors is less than perfect (i.e., less than 1.0), then diversification is beneficial.

There are long-term benefits to SBI managing investment costs.

The equity risk premium is significantly positive over a long-term investment horizon although it can vary over time.

The equity risk premium is also pervasive across several asset classes and its overall exposure should be managed accordingly.

Private market investments have an illiquidity premium that the SBI can capture.

This risk premium can increase the portfolio's long-term compound return and help diversify the portfolio's risk.

It is extremely challenging for a large institutional investor to add significant value over market-representative benchmarks, particularly in the highly-competitive public global equity markets.

Passive management should be utilized when there is low confidence that active management can add value. Active management can have potential to add value where information processing is difficult and challenging, allowing for market inefficiencies that are potentially exploitable.

SBI Investment Beliefs

The SBI benefits significantly when roles and levels of authority are clearly defined and followed.

The role of the members of the State Board of Investment (Board) is to establish investment policies that are in compliance with state statute and guide the ongoing management of the funds. The Board delegates implementation of that policy to the Executive Director/CIO, and exercises oversight with respect to the Executive Director/CIO's implementation activities and the portfolio's active risk level in the context of the portfolio's strategic allocation policy. The Board also ensures adequate resources are available to the SBI staff to perform their work;

The Investment Advisory Council (IAC) key role is advising the Board and Executive Director/CIO on general policy matters and methods to enhance the management of the investment portfolio;

The Executive Director's/CIO's key role is implementing SBI investment policies and setting the portfolio's active risk level in a prudent manner to achieve value-added over policy benchmarks.

Utilizing engagement initiatives to address environmental, social, and governance-related (ESG) issues can lead to positive portfolio and governance outcomes.

In addition to specific engagement strategies the SBI might apply, proxy rights attached to shareholder interests in public companies are also "plan assets" of the SBI and represent a key mechanism for expressing SBI's positions relating to specific ESG issues. By taking a leadership role in promoting responsible corporate governance through the proxy voting process, SBI can contribute significantly to implementing ESG best practices which should, in turn, add long-term value to SBI's investments.

INVESTMENT PROGRAMS

Overview of SBI Investment Programs B1

Funds Under Management B3

Capital Markets B4

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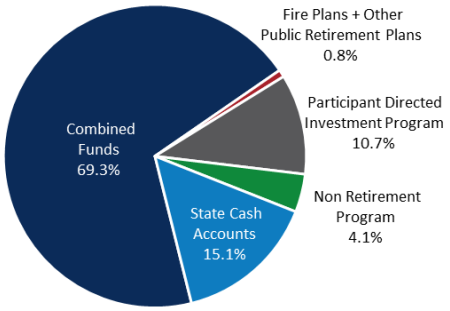
SBI Investment Programs

The SBI is responsible for the management of various retirement savings plans, tax-advantaged savings plans, non-retirement accounts, and state cash accounts. On June 30, 2021, the SBI was responsible for the management of $129.2 billion in assets. Each investment program has its own investment platform that reflects its unique requirements. This allows the SBI to establish a comprehensive management program to assist participating plans and agencies best reach their savings goals.

SBI Investment Programs	In Millions
Combined Funds	$ 89,494.4
Fire Plans + Other Public Retirement Plans	1,009.6
Participant Directed Investment Program	13,846.6
Non Retirement Program	5,250.0
State Cash Accounts	19,552.8
Total Funds Under Management	**$129,153.5**

Figure 1 shows the allocation of assets by investment program as of June 30, 2021.

Figure 1. Composition of SBI Investment Programs as of June 30, 2021



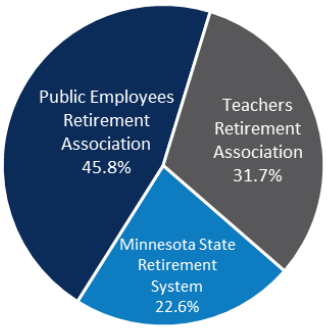
Combined Funds

The SBI manages the assets of the three Statewide Retirement Systems in the **Combined Funds**.

Combined Funds	In Millions
Minnesota State Retirement System	$ 20,190.1
Public Employees Retirement Association	40,974.9
Teachers Retirement Association	28,329.4
Total Combined Funds	**$ 89,494.4**

Figure 2 shows the allocation to the retirement systems that make up the Combined Funds as of June 30, 2021.

Figure 2. Composition of Combined Funds as of June 30, 2021



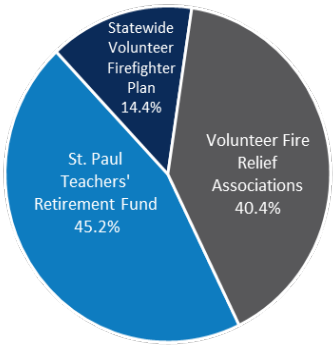
Fire Relief Plans + Other Public Retirement Plans

The SBI is responsible for providing investment options to participating **Fire Relief Plans + Other Public Retirement Plans.**

Fire Plans + Other Public Retirement Plans	In Millions
St. Paul Teachers' Retirement Fund	$ 456.4
Statewide Volunteer Firefighter Plan	145.1
Volunteer Fire Relief Associations	408.1
Total Fire Plans and Other Retirement Plans	**$ 1,009.6**

Figure 3 shows the allocation to various plans in the Fire Relief + Other Public Retirement Investment Program as of June 30, 2021.

Figure 3. Composition of Fire Relief + Other Public Retirement Plans as of June 30, 2021



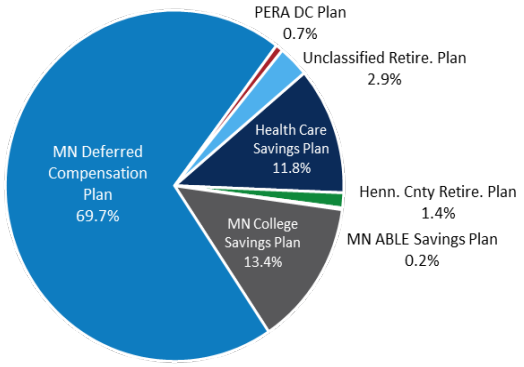
Participant Directed Investment Program

Participants in the **Participant Directed Investment Program (PDIP)** allocate their assets among the investment options offered that meet the requirements of their plan.

Participant Directed Investment Program	In Millions
Health Care Savings Plan	$ 1,627.7
Henn. Cnty Retire. Plan	190.5
MN ABLE Savings Plan	22.7
MN College Savings Plan	1,859.9
MN Deferred Compensation Plan	9,645.7
PERA DC Plan	98.0
Unclassified Retire. Plan	402.2
Total PDIP	**$ 13,846.6**

Figure 4 provides the allocation to the various plans in the PDIP as of June 30, 2021.

Figure 4. Composition of Participant Directed Investment Program as of June 30, 2021



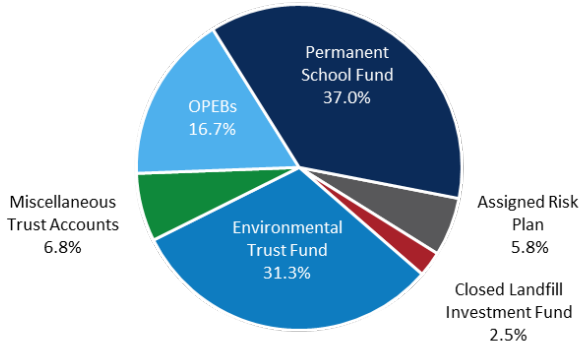
Non-Retirement Program

The **Non-Retirement Program** provides broad asset class options to state and public sector entities authorized to invest with the SBI.

Non Retirement Funds	In Millions
Assigned Risk Plan	$ 305.5
Closed Landfill Investment Fund	131.5
Environmental Trust Fund	1,641.3
Miscellaneous Trust Accounts	355.7
OPEBs	876.1
Permanent School Fund	1,940.0
Total Non-Retirement Funds	**$ 5,250.0**

Figure 5 provides the composition of the largest Non-Retirement Trusts and other eligible entities as of June 30, 2021. In aggregate, Trust accounts represent over 83% of the program.

Figure 5. Composition of Non-Retirement Program as of June 30, 2021



State Cash Accounts

State Cash Account assets are invested in the Invested Treasurer's Cash (ITC) Pool (which represent over 99% of the assets) or in Other State Cash Accounts. SBI Staff internally manage these assets.

Funds Under Management

The SBI's total Plan assets are listed on the next page (Figure 6). The majority of retirement assets are externally managed by institutional investment managers in a separate account and are required to adhere to the investment guidelines for the portfolio.

Capital Markets

Investment risk and return profiles vary across entities that invest with the SBI. Figure 7 on page B4 provides benchmark returns for some of the major asset class groups along with a chart of the cumulative returns from investing in the respective asset classes over the last thirty years.

State Board of Investment
Funds Under Management

Figure 6: Market Values as of June 30, 2021

Total Assets[1] Invested by the SBI

$129.2 billion

Combined Funds

Minnesota State Retirement System (MSRS)[2]	
Correctional Employees Fund	$1,575.4 million
Highway Patrol Retirement Fund	954.2 million
Judges Retirement Fund	275.6 million
State Employees Retirement Fund	17,384.9 million
Public Employees Retirement Association (PERA)	
Correctional Fund	1,035.3 million
General Employees Retirement Fund	28,550.6 million
Police and Fire Fund	11,389.0 million
Teachers Retirement Fund (TRA)	$ 28,329.4 million
	$ 89.5 billion

Fire Plans + Other Public Retirement Plans

St. Paul Teachers' Retirement Fund Assoc.	$456.4 million
Statewide Vol. Firefighter Retirement Plan	145.1 million
Volunteer Fire Relief Plans	408.1 million
	$ 1.0 billion

Participant Directed Investment Program (PDIP)

Health Care Savings Plan	$1,627.7 million
Hennepin County Supplemental Retirement Plan	190.5 million
Minnesota Achieving a Better Life Experience (ABLE) Plan	22.7 million
Minnesota College Savings Plan	1,859.9 million
Minnesota Deferred Compensation Plan	9,645.7 million
Public Employees Retirement Association Defined Contribution Plan	98.0 million
Unclassified State Employees Retirement Plan	402.2 million
	$ 13.8 billion

*Subtotal of Retirement Assets and Other Tax-Advantaged Savings Plans:

Combined Funds	$89.5 billion
Fire Plans + Other Public Retirement Plans	$1.0 billion
Participant Directed Investment Program	$13.8 billion
	$104.3 billion*

State Cash Accounts

State Cash Accounts	$19,478.8 million
Miscellaneous State Accounts[3]	74.0 million
	$ 19.6 billion

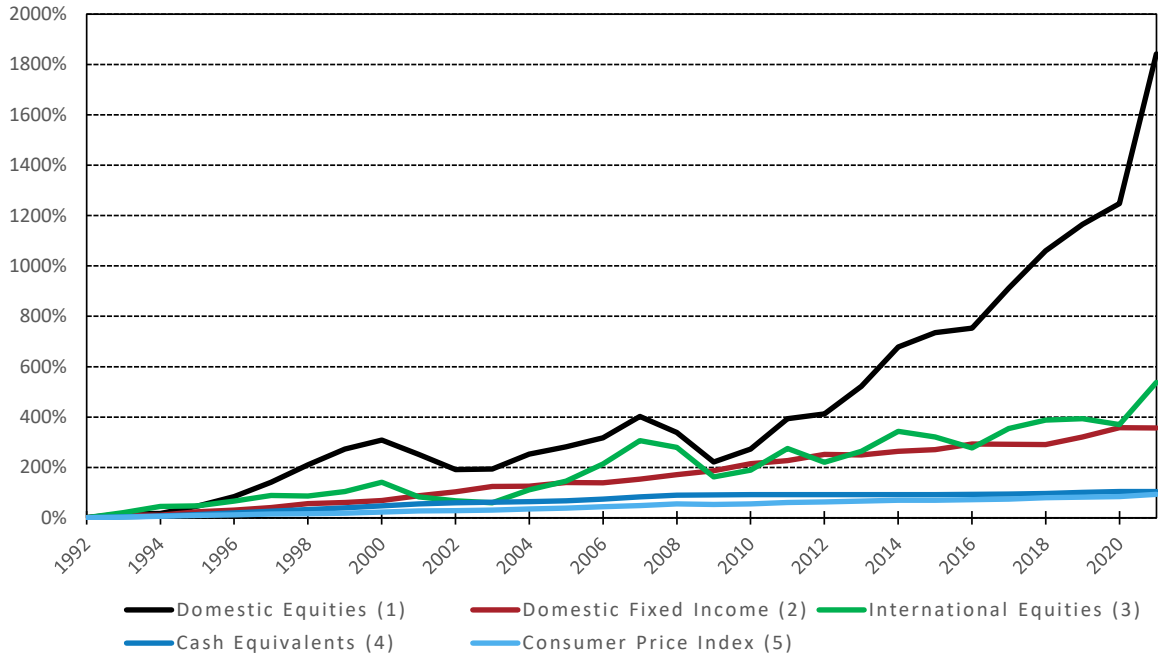
Non-Retirement Funds

Assigned Risk Plan	$305.5 million
Closed Landfill Investment Fund	131.5 million
Environmental Trust Fund	1,641.3 million
Miscellaneous Trust Accounts[4]	355.7 million
Other Postemployment Benefit (OPEB) Accts.	876.1 million
Permanent School Fund	1,940.0 million
	$ 5.3 billion

[1]Totals may not add due to rounding.
[2]The MSRS Legislative Plan is a closed plan that is funded by the General Fund on a "pay-as-you-go" basis.
[3]Includes Debt Service and Public Facilities Authority (PFA) assets.
[4]Includes Qualifying Governmental Entities.

Figure 7.

PERFORMANCE OF CAPITAL MARKETS
Cumulative Returns--30 years ending June 30, 2021



Benchmark Returns for Time-Periods Ending June 30, 2021

		Annualized Returns (%)					
		1 Yr	3 Yrs	5 Yrs	10 Yrs	20 Yrs	30 Yrs
	Domestic Equity						
(1)	Russell 3000-- *Large and Small Cap Stocks*	44.2	18.7	17.9	14.7	8.9	10.9
	Russell 1000	43.1	19.2	18.0	14.9	8.9	11.0
	Russell 2000	62.0	13.5	16.5	12.3	9.3	10.7
	Domestic Fixed Income						
(2)	Bloomberg Barclays U.S. Aggregate	-0.3	5.3	3.0	3.4	4.6	5.7
	Bloomberg Barclays 5+ Yr. U.S.Treasury	-6.7	6.5	2.7	4.6	5.6	NA
(3)	**International Equity**						
	MSCI ACWI ex USA (net)--*Developed & Emerging*	35.7	9.4	11.1	5.4	6.5	NA
	MSCI World ex USA (net)--*Developed*	33.6	8.6	10.4	5.7	5.9	6.1
	MSCI Emerging Market Index	40.9	11.3	13.0	4.3	10.9	NA
	Cash						
(4)	ICE BofA 3 Month U.S. Treasury Bill	0.1	1.3	1.2	0.6	1.4	2.6
	Inflation Measure						
(5)	Consumer Price Index CPI-U	5.3	2.6	2.4	1.9	2.1	2.3

(3) International equity cumulative return for graph represents: MSCI ACWI ex US (Net) from 6/30/21-1/1/99, MSCI ACWI Free Ex US (Net) from 12/31/98-10/1/92, and MSCI EAFE (Net) from 9/30/92-7/1/92.

COMBINED FUNDS

Overview of Combined Funds Program B5
Strategic Allocation Category Framework B11
Volatility Equivalent Benchmark B12

Investment Vehicles

Public Equity Program B13
Domestic Equity B14
Investment Manager Summaries B18
International Equity B25
Investment Manager Summaries B29
Global Equity B36
Investment Manager Summaries B38

Total Fixed Income Program B39
Core/Core Plus Bond B40
Investment Manager Summaries B43
Return Seeking Fixed Income B45
Investment Manager Summaries B46
Treasury Portfolio B50
Investment Manager Summaries B51
Laddered Bond + Cash B52
Investment Manager Summaries B54

Private Markets Program B55
Private Markets Invested Allocation B56
Private Markets Uninvested Allocation B58
Invested Investment Manager Summaries B59
Uninvested Investment Manager Summaries B87

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Combined Funds
Investment Program Overview

The Combined Funds represent the assets of both active and retired public employees who participate in the defined benefit plans of three statewide retirement systems: Teachers Retirement Association (TRA), Public Employees Retirement Association (PERA) and the Minnesota State Retirement System (MSRS). On June 30, 2021, the Combined Funds had a market value of $89.5 billion.

Overview

The SBI commingles the assets of the state retirement systems into the Combined Funds to capture investment efficiencies. The composition of public retirement plans in the Combined Funds is provided in Figure 8. To gain greater operating efficiency, external managers are grouped into several "Investment Pools" which are segregated by asset class. Retirement plans participate in the asset class pools by purchasing units which function much like shares of a mutual fund. This structure allows the SBI to offer one or more of the investment pools to other investment programs. The Combined Funds and the Supplemental Investment Fund share many of the same asset class pools, but some asset class pools are exclusive to the Combined Funds.

Investment Objectives

One overriding responsibility of the SBI with respect to the management of the Combined Funds is to ensure that sufficient funds are available to finance promised benefits.

Actuarial Assumed Return

Employee and employer contribution rates are specified in state law as a percentage of an employee's salary. The rates are set so that contributions plus expected investment earnings will cover the projected cost of promised pension benefits. The investment returns needed to meet these projected pension costs are set by statute. The 7.5% annual actuarial interest rate assumption for the three statewide retirement systems was approved during the 2018 Legislative Session.

Time Horizon

In general, pension assets will accumulate in the Combined Funds for 30 to 40 years during an employee's years of active service. A typical retiree can be expected to draw benefits for an additional 15 to 20 years. This provides the Combined Funds with a long investment time horizon and permits the Board to take advantage of the long-run return opportunities offered by common stocks and other equity investments in order to meet the actuarial return target.

Asset Allocation

The allocation of assets among equities, fixed income, private markets (private market investments include private equity, private credit, real estate, and real assets) has a dramatic impact on investment results. In fact, asset allocation decisions overwhelm the impact of individual security selection within a total portfolio.

Historical evidence indicates that U.S. Stocks have provided the greatest opportunity to maximize investment returns over the long-term. As a result, the Board has chosen to incorporate a large commitment to Public Equity (common stocks) and Private Equity in the asset allocation policy for the retirement funds. In order to

Figure 8. Composition of Combined Funds as of June 30, 2021

		Combined Funds %
Minnesota State Retirement System (MSRS)[1]		
State Employees Retirement Fund	19.4%	
Correctional Employees Fund	1.8%	
Highway Patrol Retirement Fund	1.1%	
Judges Retirement Fund	0.3%	
Total MSRS		**22.6%**
Public Employees Retirement Association (PERA)		
General Plan	31.9%	
Police and Fire Fund	12.7%	
Correctional	1.2%	
Total PERA		**45.8%**
Teachers Retirement Association (TRA)		**31.7%**
Combined Funds Total[2]		**100.0%**

[1] Includes the MSRS Legislative Plan, which is a closed plan that is funded by the MSRS General Fund on a "pay-as-you-go" basis.
[2] Totals may not add due to rounding

limit the short-run volatility of returns exhibited by common stocks, the Board includes other asset classes such as fixed income (bonds), as well as other private market investments such as real estate, real assets, and private credit investments in the total portfolio. This diversification is intended to reduce wide fluctuations in investment returns on a year-to-year basis and enhances the Funds' ability to meet or exceed the actuarial return target over the long-term.

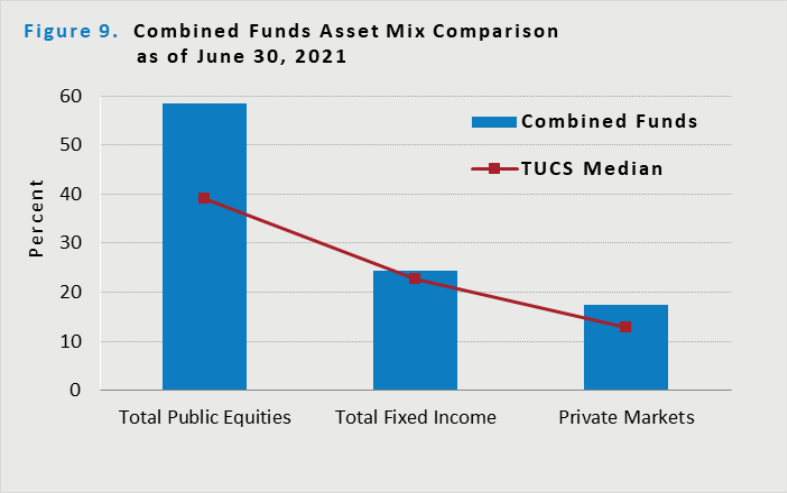
Long-Term Allocation Policy

The Combined Funds have a policy asset allocation that is based on the investment objectives of the Combined Funds and the expected long-run performance of the capital markets. The SBI periodically reviews this policy allocation. In May of 2020, the Board passed a Resolution Concerning the Management of the Combined Funds Asset Allocation and Liquidity. The following **strategic asset allocation** became effective July 1, 2020:

Public Equity	50%
Total Fixed Income	25
Private Markets	25
Total	100%

The Board approved an increase to the Fixed Income asset allocation target from 20% to 25% with the transition of the 2% Cash allocation to Fixed Income and reducing the Public Equity allocation by 3%.

The Board Resolution Concerning the Management of the Combined Funds Asset Allocation and Liquidity approved in May of 2020 is available on the SBI website.



Asset Group	Combined Funds Market Value ($ Millions)	Actual Allocation[1]	TUCS* Median Allocation[2]
Public Equity	$52,226	58.4%	39.1%
Fixed Income	$21,707	24.3%	22.6%
Private Markets - Invested	$15,533	17.4%	12.9%
Total	**$89,466**	**100.0%**	

[1] Totals may not add due to rounding.
[2] Represents the median allocation by asset class, which will not add to 100%.
* TUCS may categorize assets differently than the SBI.

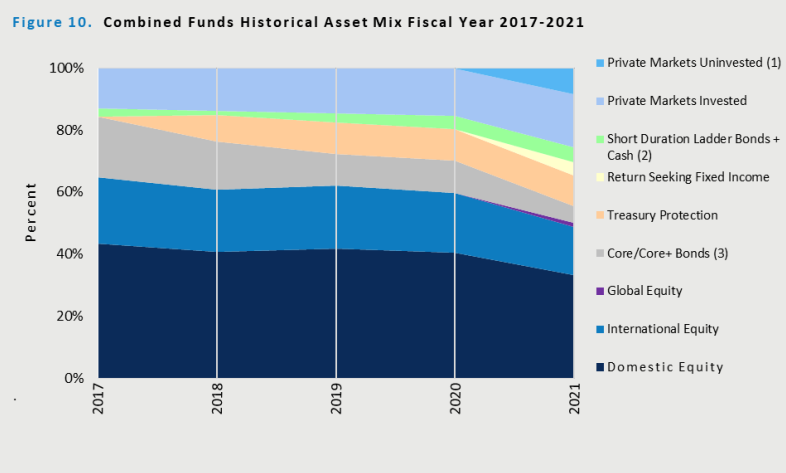
Asset Mix Compared to Other Pension Funds

The Board finds it instructive to review asset mix and performance of the Combined Funds relative to other pension fund investors. The comparison universe used by the SBI is the Master Trust portion of the Trust Universe Comparison Service (TUCS). This universe contains information on public and corporate pension and trust funds with diversified asset mixes and more than $1 billion in assets.

Comparisons of the Combined Funds' actual asset mix to the median allocation to stocks, bonds and other assets of the funds in TUCS on June 30, 2021, is displayed in Figure 9. On average, the Combined Funds allocation relative to the TUCS median allocation had larger weights to public equity, fixed income (includes cash), and private markets. Historical allocation to underlying asset classes in the Combined Funds is displayed on the next page in Figure 10.

Total Return Vehicles

The SBI invests the majority of the Combined Funds' assets in ***Public Equity*** (domestic, international, and global). Such an allocation is consistent with the investment time horizon of the Combined Funds and the advantageous long-term risk-return characteristics of common equities. Including international equities in the asset mix allows the SBI to diversify holdings across world markets and offers the opportunity to enhance returns and reduce the volatility of the total portfolio. The rationale underlying the inclusion of ***Private Equity*** is similar.



Footnotes:
Strategic allocation enhancements implemented as of December 2020 include the following:
(1) Private Markets Uninvested segragated from Public Equity and managed to S&P 500 mandate.
(2) Short Duration Ladder Bond strategy added to Cash allocation.
(3) Core Plus mandate added to Core Bond allocation.

The Board recognizes that this sizable policy allocation to public and private equities likely will produce more volatile portfolio returns than a more conservative policy focused on fixed income securities. It is understood that this policy may result in quarters or even years of relative underperformance. Nevertheless, the long-run return benefits of this policy have in the past and are expected in the future to compensate for the additional volatility.

Diversification Vehicles

The Board includes other asset classes in the Combined Funds to provide some protection against highly inflationary or deflationary environments and for portfolio diversification to reduce extreme return volatility.

The allocation to ***Fixed Income*** is to act as a hedge against a deflationary economic environment. In the event of substantial deflation, high quality fixed income assets are expected to protect principal and generate significant capital gains. Fixed income, like real estate and real assets, under normal financial conditions, helps to diversify the Combined Funds, thereby moderating return volatility. The Treasury portfolio also provides strong downside protection during a period of equity volatility.

Real Estate and ***Real Assets*** investments provide an inflation hedge that other financial assets cannot offer. Under normal financial conditions, such as low to moderate inflation, the returns on these assets are not highly correlated with common stocks. As a result, inclusion of these assets in the Combined Funds serves to dampen return volatility.

Private Credit investments provide the opportunity for higher long-term returns than those typically available from bonds, yet still generate sufficient current income. Typically, these investments (e.g., subordinated debt, mezzanine debt, or resource income investments such as producing properties) are structured more like fixed income securities with the opportunity to participate in the appreciation of the underlying assets. While these investments may have an equity component, they display a return pattern more like a bond. Therefore, they will help reduce the volatility of the total portfolio, but should also generate higher returns relative to more traditional bond investments.

Investment Management

All assets in the Combined Funds are managed externally by investment management firms retained by contract. More information on the structure, management and performance of the various investment managers is included in the respective areas of the **Investment Program** sections.

Return Objectives

The Board measures the performance of the Combined Funds relative to the following total rate of return objectives:

— ***Provide Real Returns.*** Over a twenty year period, the Combined Funds are expected to produce returns that exceed inflation by three to five percentage points on an annualized basis.

— ***Match or Exceed Market Returns.*** Over a ten year period, the Combined Funds are expected to match or exceed a composite of market indices weighted using the asset allocation of the Combined Funds.

Performance is reported net of all fees and expenses to assure that the Board's focus is on true net return.

Investment Results

Comparison to Inflation

Over the last twenty years, the Combined Funds exceeded inflation by 6.0 percentage points. Historical results compared to inflation are shown in Figure 11.

Comparison to Market Returns

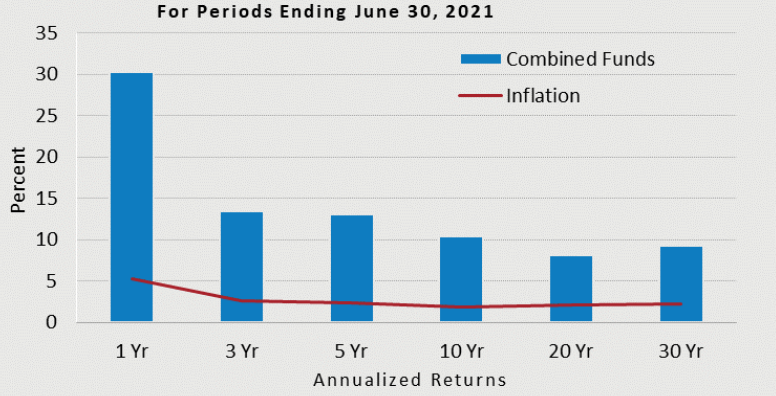
The Combined Funds' performance is also evaluated relative to a composite of market indices which is weighted in a manner that reflects the asset allocation of the Combined Funds. Performance relative to this standard will measure two effects:

— The ability of the managers selected by the SBI, in aggregate, to add value to the returns available from the broad capital markets.

— The impact of the SBI's rebalancing activity. The SBI rebalances the Combined Funds when asset segments are above or below their long-term asset allocation targets. This policy imposes a low risk discipline of "buy low-sell high" among asset classes on a total fund basis.

Historical performance results for the Combined Funds relative to its composite index are shown in Figures 12A and 12B. The Combined Funds exceeded the composite index over the last ten years by 0.3 percentage point and, therefore, met the stated performance goal. The Funds met or exceeded the composite index over all time-periods shown except for fiscal year 2019. These results are largely a measure of value added or lost from active management after all fees and expenses have been

Figure 11. Combined Funds Returns vs. Inflation For Periods Ending June 30, 2021



	Annualized Returns (%) Ending June 30, 2021					
	1 Yr.	3 Yr.	5 Yr.	10 Yr.	20 Yr.	30 Yr.
Combined Funds	30.3	13.4	13.1	10.4	8.1	9.3
Inflation	5.3	2.6	2.4	1.9	2.1	2.3

Figure 12A. Combined Funds Fiscal Year Ending Returns For Periods Ending June 30

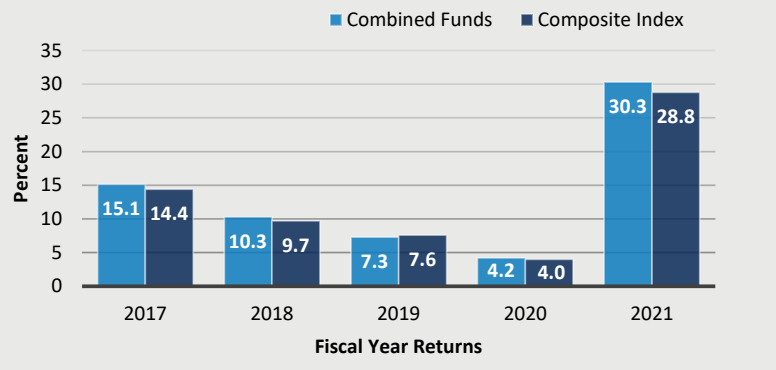
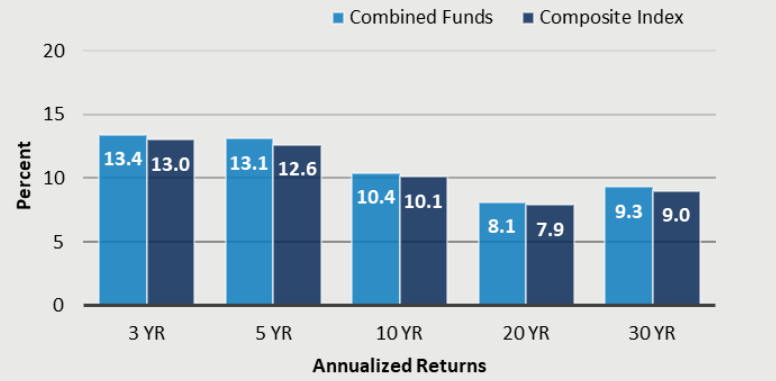


Figure 12B. Combined Funds Annualized Returns For Periods Ending June 30, 2021



taken into consideration. The breakdown of the composite index is provided in Figure 13.

Comparison to Other Funds

While the SBI is concerned with how its returns compare to other pension investors, universe comparison data should be used with great care. There are two primary reasons why such comparisons will provide an "apples-to-oranges" look at performance:

— ***Differing Allocations.*** Asset allocation has a dominant effect on returns. The allocation to equities among the funds in TUCS typically ranges from 20% to 90%, too wide a range for meaningful comparison. In addition, it appears that many funds do not include private market holdings in their reports to TUCS. This further distorts comparisons among funds.

— ***Differing Goals/Liabilities.*** Each pension fund structures its portfolio to meet its own liabilities and risk tolerance, leading to different choices on asset mix. Since asset mix will largely determine investment results, a universe ranking may not be relevant to a discussion of how well a plan sponsor is meeting its long-term liabilities.

With these considerations in mind, the performance of the Combined Funds compared to other public and corporate pension funds with over $20 billion in assets in the Master Trust portion of TUCS is displayed in Figure 14. It shows that the Combined Funds have ranked in the top quartile for all time-periods listed.

Figure 13. Composite Index For Period Ending June 30, 2021

Asset Class	Market Index	Composite Index Weights %[1]
Public Equity	Public Equity Composite Benchmark[2]	50.0
Fixed Income	Fixed Income Composite Benchmark[3]	24.3
Private Markets	Private Markets-Invested	17.4
Public Equity	Private Markets-Uninvested[4]	8.3
Total		**100.0**

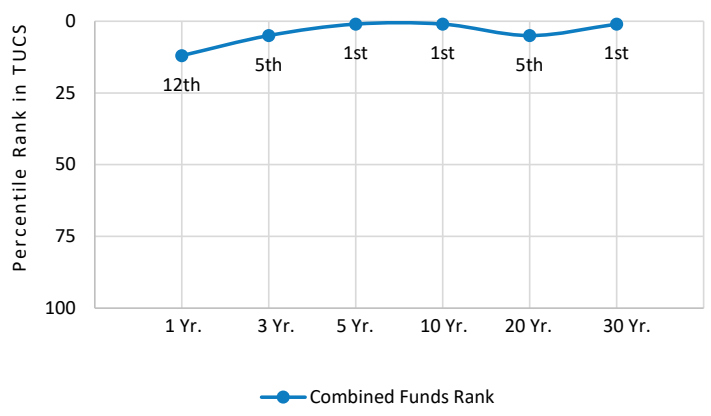
[1] Weights are reset in the composite index at the start of each month to reflect the combined allocation policies of the Combined Funds.

[2] Since 12/1/2020 the benchmark represents 67% Russell 3000 and 33% MSCI ACWI ex-US (net). From 1/1/2019 to 12/1/2020 it was 60.3% Russell 1000, 6.7% Russell 2000, 24.75% MSCI World Ex US (net), and 8.25% MSCI EM (net). From 7/1/2017 to 12/31/2018 it was 67.0% Russell 3000 and 33.0% MSCI ACWI ex USA (net). From 6/30/16-6/30/17 the Public Equity benchmark adjusted by 2% each quarter from 75% Russell 3000 and 25% MSCI ACWI ex US until it reached 67% and 33%. Prior to 6/30/2016 the returns of Domestic and International Equity were not reported as a total Public Equity return.

[3] Since 7/1/2020 the benchmark represents 40% Bloomberg Barclays U.S. Aggregate Index, 40% Bloomberg Barclays Treasury 5+ Years Index, 20% ICE BofA U.S. 3 Month Treasury Bill. From 4/1/2019 to 6/30/2019 it was 50% Bloomberg Barclays U.S. Aggregate and 50% Bloomberg Barclays Treasury 5+ Years Index. From 2/1/2018 to 3/31/2019 the weighting reflected the relative weights of Core Bonds and Treasuries allocations in Combined Funds Composite.

[4] Benchmark is the S&P 500

Figure 14. Combined Funds Returns Compared to Other Public Funds For Periods Ending June 30, 2021



	1 Yr.	3 Yr.	5 Yr.	10 Yr.	20 Yr.	30 Yr.
Combined Funds[1]	12th	5th	1st	1st	5th	1st

[1] Percentile rank in Trust Universe Comparison Service (TUCS) compared to other public plans greater than $20 billion, gross in fees.

Combined Funds
Strategic Allocation Category Framework

The SBI adopted a **Strategic Allocation Category Framework** and a **Volatility Equivalent Benchmark** in September 2017 for the purpose of increasing the focus on the investment risk within the Combined Funds portfolio.

Objective

The objective of the Strategic Allocation Category Framework is to provide better guidance in determining the risk profile during the portfolio construction process. This approach allows for greater awareness of the portfolio's expected volatility while managing for the variance in projected portfolio returns.

The Board approved the adoption of the Strategic Allocation Category Framework to better define the different roles that asset classes play in the portfolio. This approach focuses less in terms of "what we invest in" and rather on "why we invest." Such approaches were developed as a response to the "Great Recession" when it was observed that supposedly diversifying asset classes could still be highly correlated to public equities during periods of market stress.

Many institutional investors have advocated approaches similar to the Strategic Allocation Category Framework to recognize that while certain asset classes may be different (e.g., public equities versus private equity), some asset classes respond to the same underlying fundamental factors and economic drivers, are highly correlated, and have limited ability to counter the investment risk of one another. The perspective that the inclusion of a number of different asset classes in a portfolio provides adequate risk reduction has now evolved to an understanding that risk reducing diversification comes from having assets which behave differently during various economic regimes. Some investors refer to this approach as a risk-based allocation approach.

Key factors in the development of a Strategic Allocation Category Framework for the SBI are 1) defining the role of the strategic allocation categories and 2) grouping asset classes that respond to similar economic drivers into the same strategic allocation category.

Allocation Categories

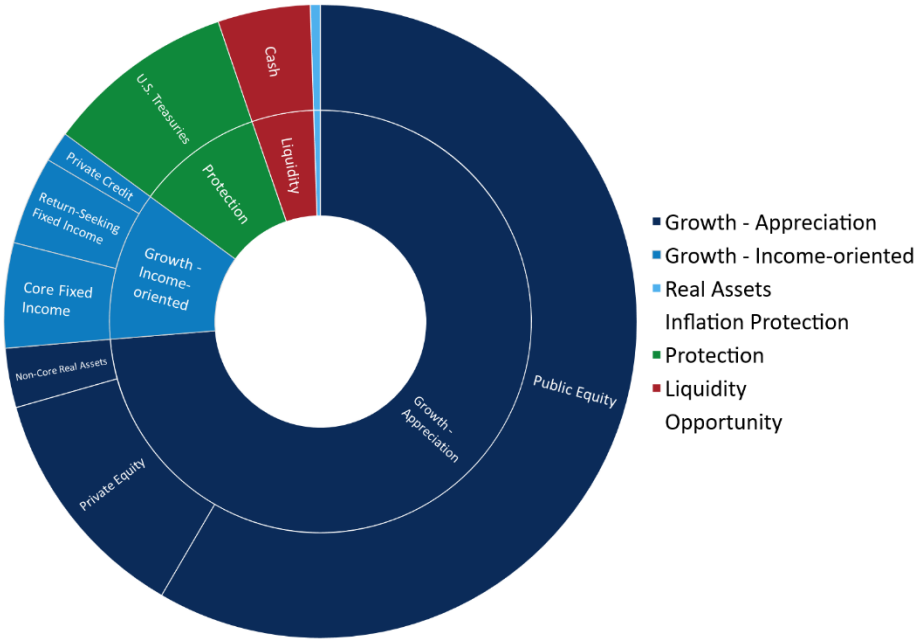
The following are the strategic allocation categories within the Framework and their intended roles within the portfolio. Please note that while considerable thought has gone into the approach, there is not a unique set of strategic allocation categories. As a result, the Framework is based on judgement and some conclusions are arbitrary and subject to change.

- **Growth-Appreciation:** represents the primary reason one invests, which is to achieve attractive returns. Growth is the primary return-seeking strategic allocation category with the objective of generating long-term capital appreciation by participating in global economic growth driven primarily by exposure to the equity risk premium.
- **Growth-Income-oriented:** attributes of this category include generation of stable levels of current income and capital appreciation at lower levels of risk than Growth-Appreciation assets, preservation of the principal value of assets, and diversification to the primary drivers of assets in the Growth category. (Please note for some asset classes there may be a "fine line" between whether it should be in the Growth or Income category. Out of necessity, final judgements may be arbitrary.)
- **Real Assets:** to provide diversification through investments in "hard" assets which have inflation-sensitive characteristics or the ability to provide a hedge against inflation.
- **Inflation Protection:** to provide diversification through investments in "soft" assets (e.g., Inflation-linked securities, commodities) which have a direct link to inflation. These assets provide a hedge against inflation.
- **Protection:** provides stability, protection during crisis, and can act as a hedge against deflation.
- **Liquidity:** provides liquidity to meet daily obligations; primarily benefit payments and capital calls. Consists of cash and cash equivalents.
- **Opportunity:** the purpose of this bucket is to allow for investments in interesting opportunities or new strategies that do not fit within clearly-defined asset class lines. Asset allocation constraints should not preclude investors from accessing interesting and attractive opportunities.

Combined Funds
Strategic Allocation Category Framework

The **Strategic Allocation Category Framework** is an integral part of developing and managing the asset allocation of the Combined Funds. Figure 15 shows the breakdown of assets within each strategic allocation category by their intended roles within the Combined Funds to help provide better guidance in determining the risk profile during the portfolio construction process.

Figure 15: Status of Strategic Allocation Category Framework as of June 30, 2021



	6/30/2021 ($ millions)	6/30/2021 Weights	Category Ranges			6/30/2021 ($ millions)	6/30/2021 Weights	Category Ranges	
Growth - Appreciation					**Inflation Protection**				
Public Equity	$ 52,232.96	58.4%			TIPS	$ -	0.0%		
Private Equity	$ 10,975.93	12.3%			Commodities	$ -	0.0%		
Non-Core Real Assets	$ 2,695.10	3.0%				**$ -**	**0.0%**	*0%*	*10%*
	$ 65,903.99	**73.6%**	*50%*	*75%*	**Protection**				
Growth - Income-oriented					U.S. Treasuries	$ 8,687.31	9.7%		
Core Fixed Income	$ 4,813.62	5.4%				**$ 8,687.31**	**9.7%**	*5%*	*20%*
Private Credit	$ 1,376.52	1.5%			**Liquidity**				
Return-Seeking Fixed Income	$ 4,031.12	4.5%			Cash	$ 4,229.01	4.7%		
	$ 10,221.26	**11.4%**	*15%*	*30%*		**$ 4,229.01**	**4.7%**	*0%*	*5%*
Real Assets					**Opportunity**				
Core Real Estate		0.0%			Opportunity	$ -	**0.0%**	*0%*	*10%*
Real Assets	$ 452.80	0.5%							
	$ 452.80	**0.5%**	*0%*	*10%*					
		Total	**$89,494.37**		**100.0%**				
Illiquid Asset Exposure	**$ 15,500.35**	**17.3%**	*0%*	*30%*					

Volatility Equivalent Benchmark

The **Volatility Equivalent Benchmark** was introduced as a metric to compare the longer-term (5 years or greater) investment performance of the Combined Funds' portfolio relative to a passively managed equity and bond portfolio which had a similar level of risk (as measured by its standard deviation) over the same time period. The comparison is an evaluation of how well our decisions made for the portfolio match up against a passively managed index strategy (which we would be unable to define on a prospective basis). When the comparison of the Combined Funds portfolio exceeds the Volatility Equivalent Benchmark, the positive value added is a validation of how well our investment process performs.

Figure 16 shows a comparison of the Combined Funds portfolio versus the Volatility Equivalent Benchmark and indicates the value added by the SBI's approach to managing the investment program versus a simple buy and hold passive strategy. As can be seen in the comparison, the SBI's management results have yielded positive long-term results.

Figure 16. Volatility Equivalent Benchmark Comparison Periods Ending June 30, 2021

	As of June 30, 2021							
	1-year	*3-year*	*5-year*	*10-year*	*15-year*	*20-year*	*25-year*	*30-year*
SBI Combined Funds Return	**30.3%**	**13.4%**	**13.1%**	**10.4%**	**8.7%**	**8.1%**	**8.6%**	**9.3%**
Volatility Equivalent Benchmark Return			**10.4%**	**7.6%**	**6.6%**	**6.5%**	**6.8%**	**7.6%**
Value Added			**2.7%**	**2.8%**	**2.0%**	**1.6%**	**1.8%**	**1.7%**
Standard Deviation: Benchmark = Combined Funds			**9.2%**	**8.6%**	**9.7%**	**9.4%**	**9.8%**	**9.3%**
Benchmark Stock Weight			**63%**	**61%**	**59%**	**60%**	**62%**	**62%**
Benchmark Bond Weight			**37%**	**39%**	**41%**	**40%**	**38%**	**38%**

The Volatility Equivalent Benchmark stock and bond weights are adjusted to equal the standard deviation of the SBI Combined Funds portfolio. Then a return is calculated. The bond return used is the Bloomberg U.S. Aggregate. The stock return used is the MSCI AC World Net Return Index. Prior to 12/31/98 it was the MSCI ACWI Total Return Index and pre-11/1/1993 it was the Wilshire 5000 adjusted for various SBI divestment mandates.

Public Equity Program

The Combined Funds has a 50% target allocation to public equities invested with domestic, international, and global equity investment managers. A description of each sub-asset group within the Public Equity Program is described in the respective sections of this annual report.

Allocation

Current target allocations within the Public Equity Program became effective July 1, 2020.

Figure 17 provides the target allocation and asset mix as of June 30, 2021. Global Equities, which includes both domestic and international holdings, does not have a target allocation at this time.

Figure 17. Policy Allocation and Asset Mix as of June 30, 2021

Sub Asset Groups	Target Allocation	Actual Asset Mix	Actual Assets In millions
Domestic Equity	67%	66%	$29,571.2
International Equity	33%	31%	14,050.5
Global Equity	0%	3%	1,170.1
Public Equity Program	**100%**	**100%**	**$44,791.8**

Benchmark

The benchmarks used to monitor the aggregate returns of the sub-asset groups are below. The Public Equity Program composite return consists of the respective benchmarks weighted by the target allocation.

Domestic Equity	Russell 3000
International Equity	MSCI ACWI ex U.S. (net)
Global Equity	MSCI ACWI (net)

Performance

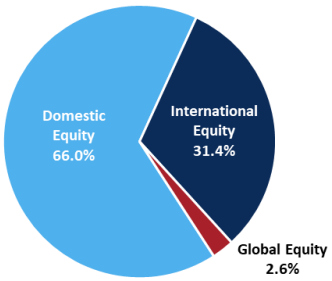
Figure 18 provides the performance of the Public Equity Program as of June 30, 2021. The Global Equity sub-asset group was funded in January of 2021 and therefore a full year of performance is not yet available.

Figure 18. Performance of Public Equity Program as of June 30, 2021

	1 Yr. %		3 Yrs. %		5 Yrs. %	
	Actual	BM	Actual	BM	Actual	BM
Domestic Equity	45.3	44.6	18.7	18.6	18.2	17.8
International Equity	36.8	35.6	9.8	9.3	11.3	11.1
Global Equity	NA		NA		NA	
Public Equity Program	**42.4**	**41.6**	**15.8**	**15.6**	**16.0**	**15.6**

BM = benchmark, identified above under Benchmark Section

Public Equity Asset Mix as of June 30, 2021



Fiscal Year 2021 Changes

The following changes were implemented during the fiscal year:

- Reduced the target allocation to Public Equity from 53% to 50%.
- Updated the Public Equity asset class target to re-establish a market-capitalization weighted allocation within domestic equities between large-cap versus small-cap equities and within international equities between developed markets and emerging markets.
- Funded the global equity allocation.
- Implemented a currency hedging program.
- Adjusted the active versus passive mix for each sub-asset class within public equities to optimize the distribution of the active risk budget.
- Reviewed and revised current manager guidelines and benchmarks to align with changes to manager strategy assignments.

These changes were in response to the Board Resolution Concerning the Management of the Combined Funds Asset Allocation and Liquidity passed in May of 2020. This resolution is available on the SBI's website.

Domestic Equity

The Domestic Equity Program is the broad U.S. equity investment option for the Combined Funds and shares many of the same managers with the Supplemental Investment Fund (SIF) equity options. This sharing is accomplished by grouping managers by asset class into several investment pools. The active and semi-passively managed pools in the Domestic Equity Program represents the SIF U.S. Equity Actively Managed Fund option and the Russell 3000 Index pool is the SIF U.S. Equity Index Fund option.

As of June 30, 2021, the Domestic Equity Program market value was $30.2 billion comprised of the following funds:

- Combined Funds
  $29.6 billion
- U.S. Equity Actively Managed Fund
  $95.8 million
- U.S. Equity Index Fund
  $460.1 million
- Balanced Fund
  (U.S. Equity Index Fund)
  $70.4 million
- Volunteer Firefighter Acct.
  (U.S. Equity Index Fund)
  $51.6 million

Objective

The goal of the Domestic Equity Program is to outperform the asset class target, the Russell 3000. The Russell 3000 Index can be segmented into sub-indexes or Russell style indexes. Assets of the Domestic Equity Program are allocated based on the Russell style indexes. Assets within each style are then allocated to managers within the designated style. This allocation is done to minimize the style bias within the Domestic Equity Program.

The Board's ***return objectives*** are measured against the published Russell style and market capitalization indices that represent the managers' specific investment approaches. These indices take into account the equity market forces that affect certain investment styles. Thus, a Russell style index or benchmark is a more appropriate return target against which to judge these managers' returns than the Russell 3000 broad market index. Active managers are expected to exceed their benchmark by an amount appropriate for their active risk level. This active risk level varies by manager and is influenced by the manager's stated strategy and style.

Portfolio sector characteristics for each of the respective Russell benchmarks are shown in Figure 19 below.

Figure 19. Domestic Equity Program Allocation to Russell Global (U.S.) Sector Weights as of June 30, 2021

	SBI Portfolio Aggregates				Benchmarks		
Russell Global U.S. Sector Classification	Active Mgmt	Semi-Passive Mgmt	Passive Mgmt	Total Domestic Equity Portfolio	Russell 1000	Russell 2000	Russell 3000
Basic Materials	2.7	1.3	2.0	1.9	2.0	4.2	2.1
Consumer Discretionary	18.6	16.3	16.0	16.3	16.0	17.4	16.1
Consumer Staples	3.0	5.1	5.1	4.8	5.0	3.0	4.9
Energy	3.7	2.7	2.7	2.7	2.7	3.5	2.8
Financials	16.5	11.3	11.2	11.5	11.2	15.5	11.5
Health Care	9.1	11.8	12.6	12.5	12.5	18.2	12.9
Industrials	16.0	15.7	14.3	14.8	14.3	15.8	14.4
Real Estate	4.7	2.5	3.3	3.3	3.3	6.3	3.5
Technology	14.3	27.2	26.8	25.2	27	11.2	25.9
Telecommunications	2.2	2.6	3.3	3.0	3.3	1.6	3.2
Utilities	1.9	2.6	2.7	2.6	2.7	3.3	2.7
Cash	1.2	0.3	0.0	0.5	N/A	N/A	N/A
Unassigned[1]	6.1	0.6	0.0	0.9	N/A	N/A	N/A
Assigned Benchmark	Custom[2]	Russell 1000	Custom[3]	Custom[4]			

[1] Holdings not included in benchmark.
[2] The Active Domestic Equity Benchmark is a weighted composite each of the individual active domestic equity manager's benchmark.
[3] The current Passive Domestic Equity Benchmark is a weighted average of the Russell 1000, Russell 2000 and Russell 3000.
[4] As of 12/1/2020 the Domestic Equity Program benchmark is the Russell 3000; from 1/1/2019-11/30/2020 it was 90% Russell 1000 and 10% Russell 2000.

Management Structure

The SBI uses three styles of management to invest the assets of the Domestic Equity Program: active, semi-passive, and passively managed portfolios. All portfolios are managed by external investment managers.

— ***Active Management***
At the end of fiscal year 2021, approximately 13% of the Domestic Equity Program was actively managed by a group of 13 investment managers. The assets allocated to each of the managers ranged in size from approximately $221 million to $422 million.

Each ***active*** manager is expected to add value over the long run relative to the Russell style index, which reflects its investment approach or style.

— ***Semi-Passive Management***
At the end of fiscal year 2021, approximately 11% of the Domestic Equity Program was managed by two semi-passive investment managers each managing a portfolio valued at approximately $1.6 billion.

The ***semi-passive*** managers are expected to add incremental value relative to the Russell 1000 Index. However, they employ a strategy that more closely tracks the benchmark than active management and are generally more consistent at generating modest excess returns.

— ***Passive Management***
At the end of fiscal year 2021, approximately 76% of the Domestic Equity Program was passively managed by one external manager across three distinct investment mandates, Russell 3000 Index, Russell 2000 Index and Russell 1000 Index, with portfolio values ranging from $103 million to $21.8 billion.

The ***passive*** managers in the Domestic Equity Program manage their portfolios to consistently and inexpensively track their respective Russell indices.

Investment Manager Summaries

A description of each domestic equity manager's investment approach is included in the **Investment Manager Summaries** section beginning on page B18.

Investment Performance

A comprehensive monitoring system has been established to ensure that the many elements of the Domestic Equity Program conform to the SBI's investment policies. Published performance benchmarks are used for each domestic equity manager. These benchmarks enable the SBI to evaluate the managers' results, both individually and in aggregate, with respect to risk incurred and returns achieved.

Two primary long-term ***risk objectives*** have been established for the domestic equity managers:

— ***Investment Approach***
Each manager (active, semi-passive, or passive) is expected to hold a portfolio that is consistent, in terms of risk characteristics, with the manager's stated investment approach. In the short-run, market fluctuations may result in a departure from the active managers' risk targets as part of their specific investment strategies.

— ***Diversification***
The passive and semi-passive managers are expected to hold highly diversified portfolios, while each active domestic stock manager may hold a more concentrated portfolio, appropriate for the particular investment strategy and style.

The domestic equity managers successfully fulfilled their long-term risk objectives during fiscal year 2021. In general, the managers constructed portfolios consistent with their stated investment approaches and maintained levels of diversification that were appropriate for their respective active, semi-passive and passive approaches.

Figure 20A and 20B on the following page provides the historical performance results of the Domestic Equity Program.

In aggregate, the Domestic Equity Program outperformed its asset class target by 0.7 percentage point for the fiscal year. The active and semi-passive manager groups outperformed their respective asset class targets by 3.5 percentage points and by 0.2 percentage point, respectively.

Relative to the aggregate benchmark, the outperformance of the active manager group was due to overall stock selection, especially in the Consumer Discretionary and Financial Services sectors. The semi-passive manager's performance

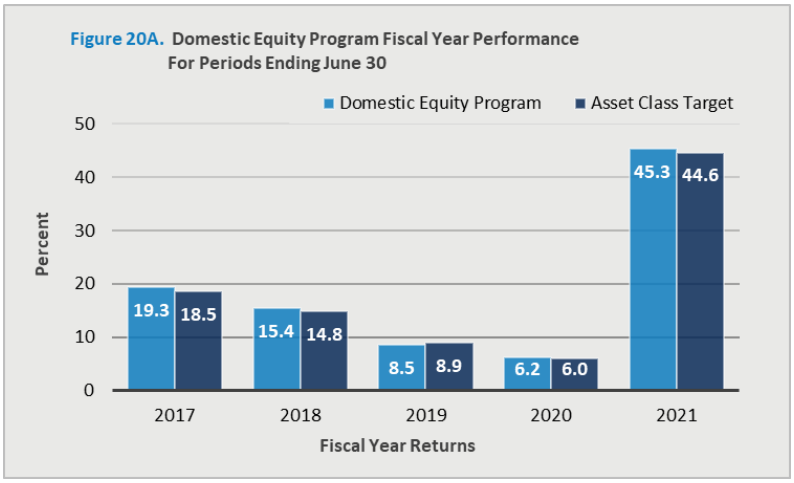
benefited from stock selection and positive sector allocation.

Individual manager performance for fiscal year 2021 is shown in Figure 21 on the following page.

Manager performance relative to the respective benchmarks for the fiscal year end was mixed. Six of the 13 active managers outperformed their assigned benchmarks, while seven managers underperformed. One semi-passive manager outperformed and the other semi-passive manager underperformed the Russell 1000 Index. For the fiscal year, the Russell 1000 Index portfolio matched its benchmark return and the Russell 3000 and Russell 2000 Index portfolios outperformed their respective benchmarks.

Fiscal Year 2021 Changes

As part of a significant rebalance at the end of November 2020 to move the uninvested private markets funds from public equities to its own asset class, Earnest Partners large-cap portfolio was liquidated; and on January 1, 2021, Zevenbergen's large-cap growth portfolio transitioned to an all-cap growth portfolio.



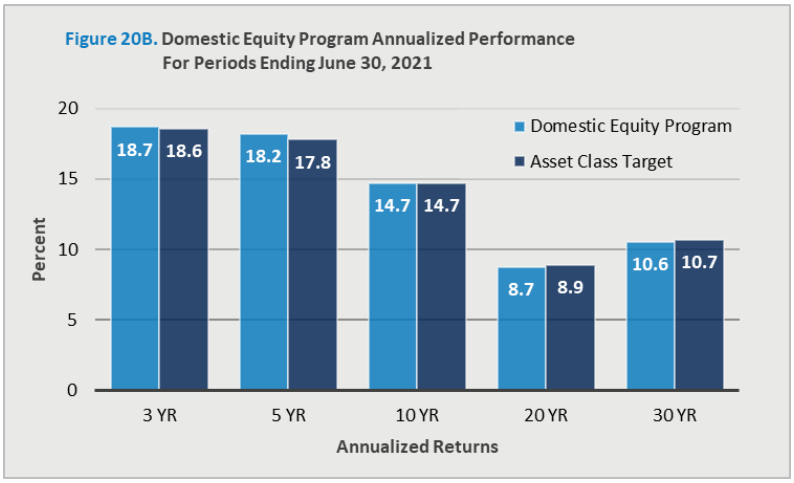


Figure 21. Domestic Equity Program Manager Performance for Periods Ending June 30, 2021

	Annualized Returns						
	1 Year		3 Years		5 Years		Market
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Value[1]
Manager Strategy *(Benchmark)*	%	%	%	%	%	%	(In Millions)
Active Management							
All Cap Growth *(Russell 3000 Growth)*[2]							
Zevenbergen Capital	49.2	49.4	38.6	27.1	37.3	24.8	$422.5
Large Cap Growth *(Russell 1000 Growth)*							
Sands Capital Management	47.5	42.5	29.6	25.1	29.8	23.7	376.3
Winslow Capital Management	38.5	42.5	23.9	25.1	24.3	23.7	239.1
Large Cap Value *(Russell 1000 Value)*							
Barrow, Hanley	47.1	43.7	13.1	12.4	12.6	11.9	396.1
LSV Asset Management	55.5	43.7	11.6	12.4	13.4	11.9	413.8
Small Cap Growth *(Russell 2000 Growth)*							
ArrowMark	55.1	51.4	13.6	15.9			222.1
Hood River	81.2	51.4	27.1	15.9			278.9
Rice Hall James	44.8	51.4	10.7	15.9			227.1
Wellington	46.8	51.4	15.6	15.9			311.4
Small Cap Value *(Russell 2000 Value)*							
Goldman Sachs	62.6	73.3	8.8	10.3	11.8	13.6	376.8
Hotchkis & Wiley	80.4	73.3	7.7	10.3	12.6	13.6	220.6
Martingale Asset Management	67.2	73.3	7.0	10.3	11.2	13.6	223.7
Peregrine Capital Management	72.7	73.3	8.5	10.3	13.4	13.6	329.9
Semi-Passive Management *(Russell 1000)*							
BlackRock Institutional	42.5	43.1	19.1	19.2	18.9	18.0	1,625.3
J.P. Morgan Investment Management	44.0	43.1	19.6	19.2	18.3	18.0	1,597.0
Passive Management							
All Cap *(Russell 3000)*							
BlackRock Institutional	44.7	44.2	19.0	18.7	18.0	17.9	1,059.6
Large Cap *(Russell 1000)*							
BlackRock Institutional	43.1	43.1	19.2	19.2			21,826.3
Small Cap *(Russell 2000)*							
BlackRock Institutional	63.4	62.0					102.6
Total Domestic Equity Program[3]	**45.3**	**44.6**	**18.7**	**18.6**	**18.2**	**17.8**	**$30,249.1**

[1] Market values include Supplemental Investment Fund (SIF) assets.

[2] As of 1/1/2021 Zevenbergen's benchmark is the Russell 3000 Growth Index, prior to that it was the Russell 1000 Growth.

[3] As of 12/1/2020 the Domestic Equity Program benchmark is the Russell 3000; from 1/1/2019-11/30/2020 it was 90% Russell 1000 and 10% Russell 2000; from 10/1/2003 - 12/31/2018 it was the Russell 3000. The SBI Domestic Equity Program return includes the performance of terminated managers.

Active All-Cap Growth (Russell 3000 Growth) Manager

Zevenbergen Capital Investments LLC

Product Name:	Growth Equity	**Benchmark:**	Russell 3000 Growth
Product Inception Date:	January 1987	**Investment Style:**	All-Cap Growth
Firm Assets (6/30/21):	$5.7 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$4.6 billion	**Investment Process:**	Bottom-up
Product Location:	Seattle, WA	**Expected # of Holdings:**	35-60
Date Funded:	April 1994	**Expected Ann. Turnover:**	35-40%

Zevenbergen's investment philosophy is founded on the principles that superior fundamentals drive stock price appreciation and exceptional management combined with balance sheet strength provides capital protection. The firm employs a forward-looking, bottom-up investment process designed with focus on long-term results. Portfolios are constructed with companies presenting compelling growth profiles – both established and prospective – across revenues, cashflows and earnings.

Active Large-Cap Growth (Russell 1000 Growth) Managers

Sands Capital Management, LLC

Product Name:	Select Growth	**Benchmark:**	Russell 1000 Growth
Product Inception Date:	February 1992	**Investment Style:**	Large-Cap Growth
Firm Assets (6/30/21):	$77.6 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$25.3 billion	**Investment Process:**	Bottom-up
Product Location:	Arlington, VA	**Expected # of Holdings:**	25-30
Date Funded:	January 2005	**Expected Ann. Turnover:**	20-30%

Sands invests in concentrated portfolios of high-quality, seasoned and growing businesses. Bottom-up, company-focused, and long-term oriented research are the cornerstones of the firm's investment process. To be considered as a potential holding, companies must demonstrate superior historical and projected sales and earnings growth; have the potential for wealth creation; and reside in a growing sector. The strategy focuses on six key investment criteria which the firm uses to consistently judge a potential investment's ability to sustain above average earnings growth as well as its ability to build and maintain a long-term competitive advantage in order to drive shareholder value.

Winslow Capital Management, LLC

Product Name:	U.S. Large-Cap Growth	**Benchmark:**	Russell 1000 Growth
Product Inception Date:	June 1992	**Investment Style:**	Large-Cap Growth
Firm Assets (6/30/21):	$29.9 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$28.3 billion	**Investment Process:**	Bottom-up
Product Location:	Minneapolis, MN	**Expected # of Holdings:**	45-55
Date Funded:	January 2005	**Expected Ann. Turnover:**	50%

Winslow believes that investing in quality large-cap companies with above-average revenue and EPS growth provides the best opportunity for achieving superior portfolio returns over the long-term. The firm's investment philosophy is founded on bottom-up, fundamental research. The strategy seeks to identify companies that can grow earnings above consensus expectations and builds portfolios with expected forward earnings growth in the range of 15-20% annually.

Active Large-Cap Value (Russell 1000 Value) Managers

Barrow, Hanley, Mewhinney & Strauss, LLC

Product Name:	Large-Cap Value	**Benchmark:**	Russell 1000 Value
Product Inception Date:	October 1979	**Investment Style:**	Large-Cap Value
Firm Assets (6/30/21):	$50.6 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$17.5 billion	**Investment Process:**	Bottom-up
Product Location:	Dallas, TX	**Expected # of Holdings:**	40-50
Date Funded:	April 2004	**Expected Ann. Turnover:**	25-35%

Barrow Hanley believes that markets are inefficient and can best be exploited through adherence to a value-oriented investment process dedicated to the selection of securities on a bottom-up basis. Stocks must be attractive according to the firm's dividend discount and relative return models in order to warrant consideration for investment. The team's research analysts conduct independent fundamental analysis to identify the best investment opportunities. Barrow Hanley's overall portfolio will always reflect all three value characteristics: price/earnings and price/book ratios below the market, and dividend yields above the market.

LSV Asset Management

Product Name:	U.S. Large-Cap Value Equity	**Benchmark:**	Russell 1000 Value
Product Inception Date:	December 1993	**Investment Style:**	Large-Cap Value
Firm Assets (6/30/21):	$112.4 billion	**Fundamental/Quant:**	Quantitative
Product Assets (6/30/21):	$31.3 billion	**Investment Process:**	Bottom-up
Product Location:	Chicago, IL	**Expected # of Holdings:**	150-175
Date Funded:	April 2004	**Expected Ann. Turnover:**	25%

LSV's philosophy is that superior long-term results can be achieved by systematically exploiting the judgmental biases and behavioral weaknesses that influence the decisions of many investors. The firm's processes use quantitative techniques to rank securities based on fundamental measures of value, past performance, and indicators of near-term appreciation potential. Portfolio construction seeks to systematically overweight securities that rank most attractive on these measures while underweighting securities with lower scores. The firm employs a rigorous risk control discipline limit the portfolio's industry, sector and issuer concentrations.

Active Small-Cap Growth (Russell 2000 Growth) Managers

ArrowMark Colorado Holdings, LLC

Product Name:	Small-Cap Growth	**Benchmark:**	Russell 2000 Growth
Product Inception Date:	December 2013	**Investment Style:**	Small-Cap Growth
Firm Assets (6/30/21):	$23.7 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$2.6 billion	**Investment Process:**	Bottom-up
Product Location:	Denver, CO	**Expected # of Holdings:**	90-120
Date Funded:	November 2016	**Expected Ann. Turnover:**	40-50%

ArrowMark manages a fundamentally driven small-cap growth portfolio and prioritizes downside risk while maintaining a long-term investment horizon. ArrowMark believes that companies with sustainable competitive advantages, growing from a low share of a large market at returns on capital that exceed cost of capital, can compound for longer and create more value than is often priced into small-cap stocks. The team undertakes both quantitative analysis and qualitative assessments including interviews with management. The core of the fundamental research process is extensive financial modeling to forecast cash flow generation and value creation potential.

Active Small-Cap Growth (Russell 2000 Growth) Managers

Hood River Capital Management, LLC

Product Name:	Small-Cap Growth	**Benchmark:**	Russell 2000 Growth
Product Inception Date:	June 2002	**Investment Style:**	Small-Cap Growth
Firm Assets (6/30/21):	$3.4 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$3.2 billion	**Investment Process:**	Bottom-up
Product Location:	Palm Beach Gardens, FL	**Expected # of Holdings:**	80-100
Date Funded:	October 2016	**Expected Ann. Turnover:**	100-160%

Hood River believes the small-cap market is relatively inefficient and that small-cap stocks are scrutinized less closely than large-cap companies, which creates an opportunity for research to add value within the asset class. In-depth, original research can uncover companies whose future fundamentals, such as sales or earnings, are likely to exceed the market's expectations. The investment team calls this difference between reality and the market's perception the "information gap." Hood River is intently focused on identifying and capturing the information gap in the small-cap market. Hood River aggressively pursues a research advantage by speaking to management teams, customers, competitors, suppliers and other primary sources.

Rice Hall James & Associates, LLC

Product Name:	RHJ Small-Cap Opportunities	**Benchmark:**	Russell 2000 Growth
Product Inception Date:	October 1994	**Investment Style:**	Small-Cap Growth
Firm Assets (6/30/21):	$3.1 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$1.6 billion	**Investment Process:**	Bottom-up
Product Location:	Los Angeles, CA	**Expected # of Holdings:**	50-70
Date Funded:	November 2016	**Expected Ann. Turnover:**	30-40%

Rice Hall James Small-Cap Opportunities strategy employs a fundamental, bottom-up analytical process to identify companies that meet three primary criteria; high earnings growth, high or improving return on invested capital (ROIC), and sustainable competitive advantages. The team's investment philosophy is rooted in historical analysis indicating the high relative return potential of these factors in combination. The team believes that superior results can be achieved by owning companies that exhibit not only high earnings growth, but also the ability to sustainably generate high ROIC over long periods of time.

Wellington Management Company LLP

Product Name:	Disciplined U.S. Small-Cap Growth	**Benchmark:**	Russell 2000 Growth
Product Inception Date:	May 2001	**Investment Style:**	Small-Cap Growth
Firm Assets (6/30/21):	$1.4 trillion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$5.3 billion	**Investment Process:**	Bottom-up
Product Location:	Boston, MA	**Expected # of Holdings:**	150-200
Date Funded:	November 2016	**Expected Ann. Turnover:**	40-60%

Wellington's investment philosophy is based on three core beliefs: 1) changes in the quality of a company's fundamentals are often not reflected in its stock price; 2) the persistence of a company's fundamentals is frequently underestimated by the market; and 3) active managers frequently underestimate the range of possible outcomes. Central to the investment process is fundamental research focused on uncovering companies with improving quality metrics, business momentum and attractive relative valuations.

Active Small-Cap Value (Russell 2000 Value) Managers

Goldman Sachs Asset Management, L.P.

Product Name:	U.S. Small-Cap Value Strategy	**Benchmark:**	Russell 2000 Value
Product Inception Date:	September 1997	**Investment Style:**	Small-Cap Value
Firm Assets (6/30/21):	$2.1 trillion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$9.6 billion	**Investment Process:**	Bottom-up
Product Location:	New York, NY	**Expected # of Holdings:**	175-225
Date Funded:	January 2004	**Expected Ann. Turnover:**	50-80%

Goldman Sachs manages a small-cap value portfolio using a strong valuation discipline to purchase well-positioned, cash generating businesses run by shareholder-oriented management teams. The team's portfolio managers are organized by industry, and use industry-specific valuation measures to evaluate companies within their area. They dissect historical financial reports, meet with management teams to evaluate a company's competitive position within its industry, and evaluate each company's valuation attractiveness relative to other comparable companies within the sector.

Hotchkis and Wiley Capital Management, LLC

Product Name:	Small-Cap Value	**Benchmark:**	Russell 2000 Value
Product Inception Date:	January 1985	**Investment Style:**	Small-Cap Value
Firm Assets (6/30/21):	$35.9 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$2.0 billion	**Investment Process:**	Bottom-up
Product Location:	Los Angeles, CA	**Expected # of Holdings:**	50-80
Date Funded:	January 2004	**Expected Ann. Turnover:**	30-50%

Hotchkis and Wiley seeks to exploit mispriced securities in the small-cap market by investing in "undiscovered" and "out of favor" companies. They invest in stocks of which the present value of the company's future cash flows exceeds the current market price. Industry analysts determine a company's normal earnings power, or sustainable earnings level under equilibrium economic and competitive market conditions, which becomes the basis for security valuation.

Martingale Asset Management, L.P.

Product Name:	Small-Cap Value	**Benchmark:**	Russell 2000 Value
Product Inception Date:	July 1996	**Investment Style:**	Small-Cap Value
Firm Assets (6/30/21):	$9.2 billion	**Fundamental/Quant:**	Quantitative
Product Assets (6/30/21):	$255 million	**Investment Process:**	Multi-factor Systematic
Product Location:	Boston, MA	**Expected # of Holdings:**	250-350
Date Funded:	January 2004	**Expected Ann. Turnover:**	80-100%

Martingale employs a systematic, quantitatively-driven investment approach that seeks to exploit behavioral biases of investors. Martingale's investment opinion for a stock—the stock's alpha forecast—is derived from the weighted average score of investment characteristics organized into three broad themes: value, quality and momentum. Martingale also generates an industry alpha to identify industries experiencing favorable or unfavorable economic and market conditions. The industry and stock alphas are combined to create the composite alpha score used in portfolio construction.

Active Small-Cap Value (Russell 2000 Value) Managers

Peregrine Capital Management

Product Name:	Small Cap Value	**Benchmark:**	Russell 2000 Value
Product Inception Date:	January 1996	**Investment Style:**	Small-Cap Value
Firm Assets (6/30/21):	$7.0 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$1.7 billion	**Investment Process:**	Bottom-up
Product Location:	Minneapolis, MN	**Expected # of Holdings:**	90-110
Date Funded:	July 2000	**Expected Ann. Turnover:**	50-80%

Peregrine's small-cap value investment process begins with their proprietary valuation analysis, which is designed to identify the small-cap value stocks most likely to outperform. The valuation analysis identifies the most underpriced securities on a sector-by-sector basis. The firm analyzes sixty fundamental factors to identify the most relevant factors in each sector. The focus of the team's fundamental research is to determine if one or more of the style's "Value Buy Criteria" are present. These include resolvable short-term problems, unrecognized assets, take-over potential, fundamental undervaluation and catalysts for change. The portfolio is well diversified by issue and sector weights are aligned closely to the benchmark allowing stock selection to drive performance.

Semi-Passive (Russell 1000) Managers

BlackRock Institutional Trust Company, N.A.

Product Name:	Alpha Tilts Low-Risk	**Benchmark:**	Russell 1000 Index
Product Inception Date:	December 1994	**Investment Style:**	Large-Cap Core
Firm Assets (6/30/21):	$9.5 trillion	**Fundamental/Quant:**	Quantitative
Product Assets (6/30/21):	$1.6 billion	**Investment Process:**	Multi-factor Systematic
Product Location:	San Francisco, CA	**Expected # of Holdings:**	280-350
Date Funded:	January 1995	**Expected Ann. Turnover:**	80-150%

BlackRock has a disciplined, rigorous and repeatable investment process incorporating a unique blend of bottom-up stock selection insights across relative value, earnings quality and sentiment while combining broader top-down thematic insights to generate risk controlled and consistent active returns. Research is incorporated through top-down thematic insights to capture macro views as well as through a program which utilizes big data techniques to capture alpha from the large volumes of unstructured data (text, internet search and social media). Implementation costs are also considered when balancing return potential with risk profile of trades.

J.P. Morgan Investment Management Inc.

Product Name:	Research Enhanced Index 100 Strategy	**Benchmark:**	Russell 1000 Index
Product Inception Date:	December 1988	**Investment Style:**	Large-Cap Core
Firm Assets (6/30/21):	$2.6 trillion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$10.9 billion	**Investment Process:**	Bottom-up
Product Location:	New York, NY	**Expected # of Holdings:**	350-500
Date Funded:	January 1995	**Expected Ann. Turnover:**	45-65%

J.P. Morgan believes that superior stock selection is necessary to achieve excellent investment results. To accomplish this objective, the firm uses fundamental research and a systematic valuation model. Analysts forecast earnings and dividends for the stock universe and enter these into a stock valuation model that calculates a dividend discount rate for each security. The stocks are ranked according to this valuation measure within their economic sectors. Stocks most undervalued are placed in the first quintile. The portfolio takes overweight positions in stocks in the first and second quintiles, while underweighting stocks in the fourth and fifth quintiles. In addition, the portfolio will closely approximate the sectors and style of the benchmark.

Passive (Russell 3000) Manager

BlackRock Institutional Trust Company, N.A.

Product Name:	Russell 3000 Equity Index	**Benchmark:**	Russell 3000 Index
Product Inception Date:	June1995	**Investment Style:**	All-Cap Core
Firm Assets (6/30/21):	$9.5 trillion	**Fundamental/Quant:**	N/A
Product Assets (6/30/21):	$66.1 billion	**Investment Process:**	Optimized Indexing
Product Location:	San Francisco, CA	**Expected # of Holdings:**	2,800-3,000
Date Funded:	July 1995	**Expected Ann. Turnover:**	2-5%

For the passive account, BlackRock seeks to match the total rate of return of the Russell 3000 Index. BlackRock uses their proprietary risk management and optimization tools to identify a portfolio with characteristics that closely match those of the benchmark with less exposure to some of the less liquid stocks in the index.

Passive (Russell 1000) Manager

BlackRock Institutional Trust Company, N.A.

Product Name:	Russell 1000 Equity Index	**Benchmark:**	Russell 1000 Index
Product Inception Date:	January 1987	**Investment Style:**	Large-Cap Core
Firm Assets (6/30/21):	$9.5 trillion	**Fundamental/Quant:**	N/A
Product Assets (6/30/21):	$183.9 billion	**Investment Process:**	Index Replication
Product Location:	San Francisco, CA	**Expected # of Holdings:**	Approx. 1000
Date Funded:	October 2016	**Expected Ann. Turnover:**	5-10%

For this passive account, BlackRock seeks to match the total rate of return of the Russell 1000 Index. BlackRock aims to fully replicate the benchmark when managing against this index. BlackRock uses their proprietary risk management and optimization tools to help manage day-to-day activity in an attempt to keep transaction costs low.

Passive (Russell 2000) Manager

BlackRock Institutional Trust Company, N.A.

Product Name:	Russell 2000 Equity Index	**Benchmark:**	Russell 2000 Index
Product Inception Date:	June 1997	**Investment Style:**	Small-Cap Core
Firm Assets (6/30/21):	$9.5 trillion	**Fundamental/Quant:**	N/A
Product Assets (6/30/21):	$92.8 billion	**Investment Process:**	Optimized Indexing
Product Location:	San Francisco, CA	**Expected # of Holdings:**	1,900-2,000
Date Funded:	October 2018	**Expected Ann. Turnover:**	10-15%

For this passive account, BlackRock seeks to replicate the return of the Russell 2000 Index as closely as possible. Proprietary risk management and optimization tools are utilized to identify a portfolio with characteristics that closely match those of the Russell 2000 Index with less exposure to some of the less liquid stocks in the index.

International Equity

The International Equity Program is the broad non-U.S. equity investment option for the Combined Funds. The International Equity Program also shares the same managers with the Supplemental Investment Fund (SIF) Broad International Equity Fund option. This sharing is accomplished by grouping managers by asset class into several investment pools.

As of June 30, 2021, the International Equity Program market value was $14.2 billion allocated to the following funds:

- Combined Funds
  $14.1 billion
- Broad International Equity Fund
  $160.2 million
- Volunteer Firefighter Account
  $22.4 million

Objective

The goal of the International Equity Program is to outperform the asset class target, the Morgan Stanley Capital International (MSCI) All Country World Index (ACWI) ex U.S. (net).

The Board's ***return objectives*** are stated relative to the MSCI Standard indices which includes large and mid-capitalization stocks. The indices are capitalization weighted and measured in U.S. dollar terms, with currencies unhedged.

Individual active managers are expected to exceed their benchmark by an amount appropriate for their level of active risk. The active risk level varies by manager and is influenced by the manager's stated strategy and style.

Two long-term ***risk objectives*** exist for the international equity managers:

— ***Investment Approach***. Each manager (active or passive) is expected to hold a portfolio that is consistent with the manager's stated investment approach.

— ***Diversification***. The index manager is expected to hold a well-diversified portfolio which closely tracks its target index and each active manager is expected to hold a portfolio which represents best ideas for outperforming their respective index.

The international equity managers successfully fulfilled their long-term risk objectives during fiscal year 2021. In general, the managers constructed portfolios consistent with their stated investment approaches and maintained appropriate levels of diversification.

Management Structure

Currently, the SBI uses two styles of management (active and passive) to invest the assets of the International Equity Program. At the end of fiscal year 2021, the breakout of the International Equity Program was 69% invested in developed markets and 31% in emerging markets.

Active Management

At the end of fiscal year 2021, approximately 44% of the program was actively managed in 15 separate portfolios. Not including the currency overlay program, these portfolios range in size from $207 million to over $590 million.

The active managers may address currency management as part of their investment process. Their views on currency may be factored into their country and security selection, they may explicitly hedge currency exposure on an opportunistic basis, or they may seek to add value by actively managing currency positions. Managers are not required to hedge currency risk.

— ***Developed Markets***
Seven of the 15 ***active*** managers invest entirely in developed markets and use a variety of investment approaches in an effort to maximize the value added to the MSCI World ex U.S. Index (net) over time.

— ***Emerging Markets***
Six of the 15 ***active*** managers invest entirely in emerging markets. They are expected to add incremental value, over time, relative to the MCSI Emerging Markets Index (net) which is made up of markets in developing countries throughout the world.

— ***Opportunistic Investment Strategies***
Other ***actively*** managed investment strategies that are expected to add incremental value, over time, are the non-U.S. all country portfolio, which is measured against the MSCI ACWI ex U.S. (net) Index return and the China A-share portfolio, which is measured against the MSCI China A Index return.

Passive Management

At the end of fiscal year 2021, approximately 56% of the

International Equity Program was passively managed by State Street Global Advisors (SSGA). SSGA manages two separate passive portfolios: a developed markets equity index portfolio and an emerging markets equity index portfolio, with market values of $6.9 billion and $1.1 billion, respectively.

The ***passive*** manager in the International Equity Program manages the developed markets equity index portfolio to consistently and inexpensively track the developed markets MSCI World ex USA Index (net), and manages the emerging markets equity index portfolio to track the MSCI Emerging Markets Index (net).

Currency Overlay Program

The currency overlay program was introduced during the fiscal year. The goal of the currency overlay program is to:

— Explicitly manage the currency risk inherent within the passive international equity portfolios.

— Seek to provide a hedge against a decline in the value of the Funds' international equity investments caused by currency fluctuations.

Investment Manager Summaries

A description of each international equity manager's investment approach is included in the **Investment Manager Summaries** section beginning on page B29.

Investment Performance

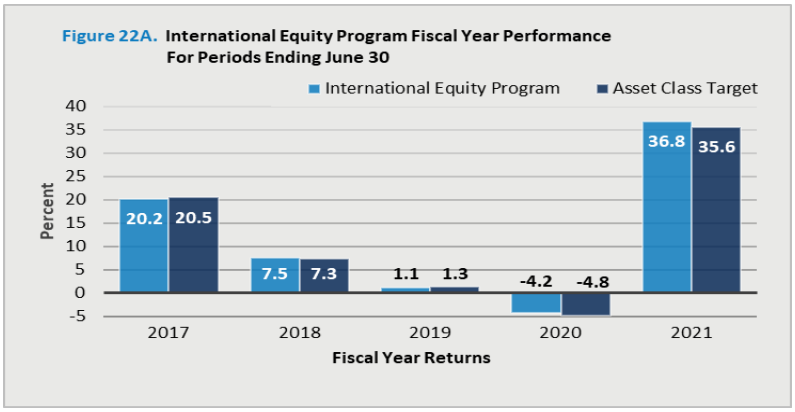
The program outperformed its target by 1.2 percentage points for the 2021 fiscal year and exceeded the benchmark over the last ten years by 0.6 percentage point. Performance results for the International Equity Program are shown below in Figures 22A and 22B.

Within developed markets, six of the seven active managers outperformed the benchmark, and the passively managed portion of the developed markets program had positive tracking error relative to the MSCI World ex U.S. Index (net) for the fiscal year. Within emerging markets, five of the six active managers outperformed and the emerging markets passively managed portion of the program had slight negative tracking error relative to the return of the MSCI Emerging Markets Index (net).

Individual manager performance during fiscal year 2021 is shown in Figure 23 on the following page. The International Equity Program's country weights are displayed in Figure 24 on page B28.

Fiscal Year 2021 Changes

In October of 2020, the currency overlay program was launched to hedge non-dollar currency exposure in the passive developed market portfolio. During the fiscal year, the developed international equity portfolio managed by AQR was re-classified from semi-passive to actively managed to better reflect its style. In January of 2021, the Earnest Partners actively managed emerging market portfolio was transitioned to a dedicated China A-share portfolio. Earnest Partners was also retained to invest in a non-U.S. all country portfolio benchmarked to the MSCI ACWI ex U.S. (net) Index.



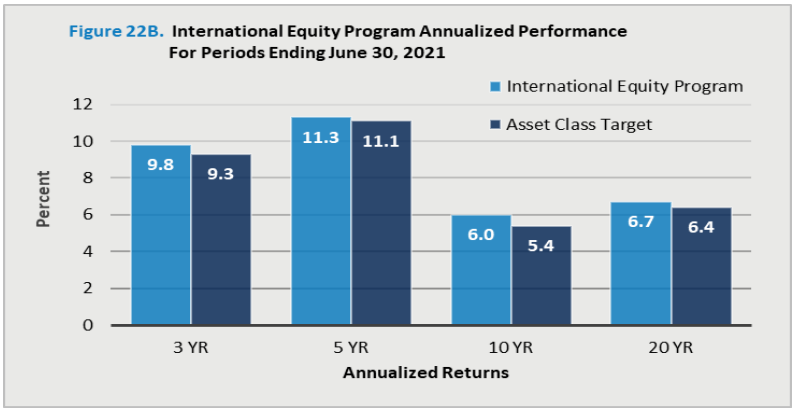


Figure 23. International Equity Program Manager Performance for Periods Ending June 30, 2021

	Annualized Returns						
	1 Year		3 Years		5 Years		Market
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Value[1]
Manager Strategy (Benchmark)	%	%	%	%	%	%	(In Millions)
Developed Markets (MSCI World ex U.S. net)							
Active Management							
Acadian Asset Management	37.5	33.6	8.8	8.6	13.6	10.4	$396.7
Columbia Mgmt. Investment Advisers	37.4	33.6	11.8	8.6	13.4	10.4	411.8
Fidelity Institutional Asset Management	35.9	33.6	11.6	8.6	12.5	10.4	410.3
J.P. Morgan Investment Management	33.7	33.6	10.8	8.6	12.9	10.4	360.4
Marathon Asset Management	40.1	33.6	9.0	8.6	10.7	10.4	388.6
McKinley Capital Management	30.8	33.6	9.2	8.6	11.5	10.4	291.5
AQR Capital Management	34.1	33.6	6.6	8.6	8.9	10.4	379.1
Passive Management							
State Street Global Advisers	34.2	33.6	9.0	8.6	10.8	10.4	6,900.4
Emerging Markets (MSCI Emerging Markets net)							
Active Management							
Macquarie Investment Management Advisers	41.1	40.9	14.7	11.3			487.6
Martin Currie	47.8	40.9	15.0	11.3			534.1
Morgan Stanley Investments Management	42.2	40.9	11.5	11.3	11.7	13.0	590.2
Neuberger Berman Investment Advisers	33.0	40.9	8.6	11.3			448.8
Pzena Investment Management	55.7	40.9	10.6	11.3			391.7
Rock Creek	41.9	40.9	12.4	11.3			483.6
Passive Management							
State Street Global Advisers	40.2	40.9	11.2	11.3	12.9	13.0	1,144.1
Opportunistic Investment Strategies (benchmark)							
Active Management							
Earnest Partners (MSCI ACWI ex U.S. net)							399.1
Earnest Partners (China A Index)							207.3
Record Currency Management							6.9
Total International Equity Program[2]	**36.8**	**35.6**	**9.8**	**9.3**	**11.3**	**11.1**	**$14,232.3**

[1] Market Value includes assets of the SIF Broad International Equity Fund.

[2] The International Equity Program benchmark is the MSCI ACWI ex. U.S. Index (net) since 1/1/2020, prior to that it was 75% MSCI World ex U.S. Index (net) and 25% MSCI Emerging Markets Index (net). From 6/1/08 to 12/31/18 the target was the MSCI ACWI ex U.S. (net). The SBI International Equity Aggregate includes the performance of terminated managers.

Figure 24. International Equity Program Aggregate Country Weights for Period Ending June 30, 2021

Country[1]	Program Weights %	Benchmark Weights %[2]
Argentina	0.1	0.0
Australia	3.9	4.4
Austria	0.3	0.1
Belgium	0.6	0.6
Brazil	1.4	1.6
Canada	6.4	7.0
Chile	0.0	0.1
China	9.1	11.7
Czech Republic	0.1	0.0
Denmark	1.9	1.6
Finland	0.6	0.7
France	7.0	7.1
Germany	5.4	5.8
Hong Kong	2.3	2.0
Hungary	0.2	0.1
India	1.6	3.1
Indonesia	0.3	0.3
Ireland	0.4	0.4
Israel	0.4	0.4
Italy	1.4	1.5
Japan	13.8	14.3
Kuwait	0.0	0.2
Malaysia	0.1	0.4
Mexico	0.4	0.5
Netherlands	3.1	2.7
New Zealand	0.1	0.1
Norway	0.6	0.4
Peru	0.1	0.1
Philippines	0.1	0.2
Poland	0.2	0.2
Portugal	0.1	0.1
Qatar	0.1	0.2
Russia	0.4	1.0
Saudi Arabia	0.2	0.9
Singapore	0.8	0.7
South Africa	0.7	1.1
South Korea	3.8	4.1
Spain	1.5	1.5
Sweden	2.1	2.3
Switzerland	5.7	6.0
Taiwan	3.5	4.4
Thailand	0.1	0.5
Turkey	0.1	0.1
United Arab Emirates	0.1	0.2
United Kingdom	8.5	8.9
United States	0.6	-
U.S. Dollar	1.3	-
Other	8.3	-
Total[3]	100.0	100.0

[1] Grouped by country of domicile. Source: Factset.
[2] Benchmark listed is the MSCI ACWI ex U.S. Index (net).
[3] Totals may not add due to rounding.

Active Developed Markets Managers

Acadian Asset Management LLC

Product Name:	Non-U.S. Equity	**Benchmark:**	MSCI World ex. USA Index
Product Inception Date:	January 1995	**Investment Style:**	Core
Firm Assets (6/30/21):	$117.7 billion	**Fundamental/Quant:**	Quantitative
Product Assets (6/30/21):	$9.1 billion	**Investment Process:**	Multi-factor Systematic
Product Location:	Boston, MA	**Expected # of Holdings:**	200-700
Date Funded:	July 2005	**Expected Ann. Turnover:**	50 - 100%

Acadian first uses a quantitative process to rank their universe of 43,000 stocks by relative attractiveness. The process uses a wide range of factors including valuation, earnings, quality, size and price movements. Acadian also applies separate models to forecast how well each stock's region/industry peer group will perform relative to world equities. The stock and peer forecasts are combined to determine an overall relative return forecast. Country and sector weights fall out of the bottom-up stock selection process.

AQR Capital Management, LLC

Product Name:	Int'l 3-Alpha Equity	**Benchmark:**	MSCI World ex USA Index
Product Inception Date:	February 2000	**Investment Style:**	Value
Firm Assets (6/30/21):	$136.9 billion	**Fundamental/Quant:**	Quantitative
Product Assets (6/30/21):	$6.0 billion	**Investment Process:**	Bottom-up
Product Location:	Greenwich, CT	**Expected # of Holdings:**	150-500
Date Funded:	July 2005	**Expected Ann. Turnover:**	80-120%

The AQR International 3-Alpha Equity Strategy is a diversified strategy that aims for consistent and meaningful excess returns over the benchmark. The strategy pursues distinct alpha opportunities within three primary views: securities, countries and currencies. AQR combines many similar or correlated signals into themes (e.g., Value, Momentum, Quality and Sentiment) and combines themes to create their overall model. AQR creates separate model views for securities, countries and currencies to precisely capture opportunities and manage risks within each component as well as at the total portfolio level.

Columbia Threadneedle Investments

Product Name:	Institutional Int'l Equity EAFE	**Benchmark:**	MSCI World ex USA Index
Product Inception Date:	December 2003	**Investment Style:**	Core/Growth
Firm Assets (6/30/21):	$596.7 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$3.0 billion	**Investment Process:**	Bottom-up
Product Location:	London, England	**Expected # of Holdings:**	50-80
Date Funded:	March 2000*	**Expected Ann. Turnover:**	20-65%

** Reflects SBI's initial funding date with Columbia Threadneedle predecessor firm IDS International.*
*** Includes all developed markets assets managed by this team and underpinned by a comparable investment strategy.*

Columbia Threadneedle Investments is a bottom-up, fundamental investor with a preference for companies with high and/or rising returns on capital and the ability to compound earnings at above market-average rates over the long-term. Its research applies a long-term perspective, with efforts directed to understanding how industries will develop and companies will perform over the next three to five years and longer. Research draws on the regional equity capability at the firm and is centered on understanding the source and the sustainability of a company's competitive advantage and its ability to maintain high returns. ESG considerations are additional element of the framework, as these can represent both a risk to a company's competitive position or indeed an opportunity to further enhance it.

Active Developed Markets Managers

Fidelity Institutional Asset Management LLC

Product Name:	International Growth	**Benchmark:**	MSCI World ex USA Index
Product Inception Date:	December 1995	**Investment Style:**	Growth
Firm Assets (6/30/21):	$295.8 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$6.5 billion	**Investment Process:**	Bottom-up
Product Location:	Boston, MA/Smithfield, RI	**Expected # of Holdings:**	150-175
Date Funded:	July 2005	**Expected Ann. Turnover:**	25-75%

The FIAM International Growth strategy is a core, growth-focused international equity strategy benchmarked to the MSCI World ex USA Index. The investment process combines active stock selection and regional asset allocation. Three portfolio managers construct regional sub-portfolios, selecting stocks based on Fidelity analysts' fundamental research as well as their own judgment and expertise. Final portfolio allocation to the regional portfolios is determined by the lead portfolio manager.

J.P. Morgan Investment Management Inc.

Product Name:	EAFE Plus	**Benchmark:**	MSCI World ex USA Index
Product Inception Date:	March 1982	**Investment Style:**	Quality/Growth
Firm Assets (6/30/21):	$2.6 trillion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$15.6 billion	**Investment Process:**	Bottom-up
Product Location:	New York, NY	**Expected # of Holdings:**	70-100
Date Funded:	July 2005	**Expected Ann. Turnover:**	20-40%

J.P. Morgan's international equity process focuses on stock selection as the primary source of added value and seeks to build a portfolio diversified by both sector and region. Regional analyst teams generate local market insights and conduct research on companies; the highest conviction regional stocks are further analyzed by a team of London-based Global Sector Specialists looking to identify global "industry winners". Finally, a team of senior portfolio managers are responsible for constructing risk controlled portfolios that capture the best thinking of both the local and global teams.

Marathon Asset Management LLP

Product Name:	World ex U.S. Strategy	**Benchmark:**	MSCI World ex USA Index
Product Inception Date:	June 1997	**Investment Style:**	Core
Firm Assets (6/30/21):	$60.8 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$3.3 billion	**Investment Process:**	Bottom-up
Product Location:	London, England	**Expected # of Holdings:**	300-400
Date Funded:	November 1993*	**Expected Ann. Turnover:**	10-20%

** Reflects SBI's initial funding date in Marathon's MSCI EAFE strategy with an earlier product inception date.*

At the heart of Marathon's investment philosophy is the "capital cycle" approach to investment, based on the idea that the prospect of high returns will attract excessive capital and vice versa. Marathon believes that an assessment of how management responds to the forces of the capital cycle, (i.e. particularly whether they curtail investment when returns have been poor) and how they are incentivized, are critical to the investment outcome. The approach results in strong views versus the market and long holding periods of more than five years. The investment philosophy guides a focused team of investment generalists who seek investment opportunities in the growth and value universes and across the capitalization spectrum.

Active Developed Markets Managers

McKinley Capital Management, LLC

Product Name:	Non-U.S. Developed Core Growth	**Benchmark:**	MSCI World ex USA Index
Product Inception Date:	May 2004	**Investment Style:**	Growth
Firm Assets (6/30/21):	$4.3 billion	**Fundamental/Quant:**	Quantitative
Product Assets (6/30/21):	$940.7 million	**Investment Process:**	Bottom-up
Product Location:	Anchorage, AK	**Expected # of Holdings:**	60-75
Date Funded:	July 2005	**Expected Ann. Turnover:**	50-80%

Using proprietary quantitative models, McKinley's investment process identifies companies that have signs of accelerating growth. The initial universe consists of all publicly traded non-U.S. stocks from all capitalization categories in more than 60 countries. Their primary model includes a risk-adjusted relative return measurement that is designed to identify inefficiently priced common stocks relative to the market. After the risk-adjusted relative return process has been applied the remaining candidates must then pass through liquidity and earnings acceleration tests. For final portfolio construction, McKinley examines a variety of qualitative factors which could ultimately impact earnings including a qualitative data check and street research analysis of economic factors, specific industry themes and company fundamentals.

Passive Developed Markets Manager

State Street Global Advisors

Product Name:	MSCI World ex USA Index Strategy	**Benchmark:**	MSCI World ex USA Index
Product Inception Date:	October 1992	**Investment Style:**	Core
Firm Assets (6/30/21):	$3.9 trillion	**Fundamental/Quant:**	N/A
Product Assets (6/30/21):	$54.6 billion	**Investment Process:**	Index Replication
Product Location:	Boston, MA	**Expected # of Holdings:**	900-1000
Date Funded:	October 1992	**Expected Ann. Turnover:**	2-8%

State Street Global Advisors uses a replication strategy to construct the portfolio. Exchange-traded stock index futures are also used to minimize tracking error and trade cash flows in order to minimize transactions costs.

Active Emerging Markets Managers

Macquarie Investment Management Advisers

Product Name:	Emerging Markets Equity	**Benchmark:**	MSCI Emerging Markets Index
Product Inception Date:	September 2005	**Investment Style:**	Growth
Firm Assets (6/30/21):	$360.8 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$10.3 billion	**Investment Process:**	Bottom-up
Product Location:	Philadelphia, PA	**Expected # of Holdings:**	70-90
Date Funded:	April 2017	**Expected Ann. Turnover:**	10-40%

Macquarie invests in companies with sustainable franchises that trade sufficiently below the team's intrinsic value estimate. The team's approach is grounded in bottom-up, fundamental analysis of individual companies, placed in the context of evolving secular trends in the global economy. The team defines a sustainable franchise as a business that is well-placed to capture secular growth opportunities, resistant to competitive pressures, and that demonstrates rising earnings power over the long-term. Macquarie tends to focus on mid/large-cap companies due to their competitive advantages and dominant market share, combined with greater market liquidity. Regarding valuation, the team takes a long-term perspective of what they feel the company will be worth based on a shared vision of its future.

Martin Currie Inc.

Product Name:	Global Emerging Markets	**Benchmark:**	MSCI Emerging Markets Index
Product Inception Date:	October 2010	**Investment Style:**	Quality/Growth
Firm Assets (6/30/21):	$22.5 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$6.9 billion	**Investment Process:**	Bottom-up
Product Location:	Edinburgh, Scotland, UK	**Expected # of Holdings:**	45-60
Date Funded:	April 2017	**Expected Ann. Turnover:**	10-30%

The Martin Currie Global Emerging Markets (GEMs) team aims to deliver long-term capital growth by investing in companies with exposure to developing economies. Based on a philosophy that the market frequently undervalues the long-term, value-creation potential of sustainable growth businesses, the team use fundamental research to identify high-quality companies with industry-leading profitability, robust balance sheets and demonstrable growth potential. Rigorous ESG analysis is embedded in the process, enabling Marin Currie to identify material risks and long-term opportunities.

Morgan Stanley Investment Management Inc.

Product Name:	Global Emerging Markets Equity	**Benchmark:**	MSCI Emerging Markets Index
Product Inception Date:	November 1991	**Investment Style:**	Quality/Growth
Firm Assets (6/30/21):	$1.5 trillion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$7.4 billion	**Investment Process:**	Bottom-up
Product Location:	New York, NY	**Expected # of Holdings:**	70-90
Date Funded:	January 2001	**Expected Ann. Turnover:**	30-50%

The Morgan Stanley Investment Management (MSIM) Emerging Markets Equity team seeks to own quality growth stocks in attractive countries and/or in compelling themes. The team's original macro-thematic and fundamental research seeks companies with the potential to deliver strong, sustainable growth over the next three to five years. Their proprietary "Rules of the Road" framework includes rigorous currency, credit, and inflation analysis to help guide the portfolio's allocations, identifying countries where growth is likely to accelerate and avoiding or underweighting countries with significant macro risks.

Active Emerging Markets Managers

Neuberger Berman Investment Advisers LLC

Product Name:	Emerging Markets Equity	**Benchmark:**	MSCI Emerging Markets Index
Product Inception Date:	February 1997	**Investment Style:**	Quality/Growth
Firm Assets (6/30/21):	$433.2 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$6.3 billion	**Investment Process:**	Bottom-up
Product Location:	New York, NY	**Expected # of Holdings:**	80-110
Date Funded:	April 2017	**Expected Ann. Turnover:**	30-50%

Neuberger Berman seeks to maximize performance by constructing its portfolios with high quality, growing companies trading at attractive valuations, which have the potential to outperform the benchmark at comparable levels of risk. It is their belief that emerging markets are less efficient than developed ones and, because of this lack of market transparency, mispricing opportunities should exist. The team's main emphasis is on bottom-up stock picking and fundamental analysis, which includes qualitative and quantitative processes, but also has an element of top-down macro analysis at times during portfolio construction.

Pzena Investment Management, LLC

Product Name:	Emerging Markets Focused Value	**Benchmark:**	MSCI Emerging Markets Index
Product Inception Date:	January 2008	**Investment Style:**	Value
Firm Assets (6/30/21):	$53.1 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$5.9 billion	**Investment Process:**	Bottom-up
Product Location:	New York, NY	**Expected # of Holdings:**	55
Date Funded:	April 2017	**Expected Ann. Turnover:**	20-40%

Pzena is the SBI's deepest value-style Emerging Markets Equity manager. As such, they focus on companies that are underperforming their historically demonstrated earnings power. Pzena applies fundamental research to these companies to determine whether the problems that caused the earnings shortfall are temporary or permanent. Using a proprietary screening tool, Pzena focuses research on the cheapest 20% of its universe. The subsequent decision to dedicate further research resources to evaluate a given security is made by the four co-portfolio managers who make an initial judgement as to whether the causes of the under-valuation are likely temporary or permanent, and whether the research process is likely to reasonably forecast the company's normalized earnings power.

The Rock Creek Group, LLC

Product Name:	Emerging Markets Equity	**Benchmark:**	MSCI Emerging Markets Index
Product Inception Date:	August 2009	**Investment Style:**	Core/Fund-of-Funds
Firm Assets (6/30/21):	$18.1 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$4.0 billion	**Investment Process:**	Top-down/Bottom-up
Product Location:	Washington, D.C.	**Expected # of Holdings:**	15-20 local investment teams
Date Funded:	April 2017	**Expected Ann. Turnover:**	40-60%

Rock Creek's Emerging Markets Equity strategy utilizes an actively managed all-cap approach in which their top-down views drive country and sector selection. Sub-sector and issue selection is managed by 15-17 local investment teams via a fund-of-funds structure that provides on-the-ground stock picking talent to drive security selection. The emerging markets investment team then adjusts the bottom-up derived portfolio using an overlay strategy to reflect top-down views on country exposures and betas. RockCreek's local investment teams are located in the markets in which they invest, which tends to result in a focus on small/mid-cap size companies. RockCreek's location in Washington, D.C. supports its ability to interact with policy makers, economists and strategists that help define their top-down views and themes.

Passive Emerging Markets Manager

State Street Global Advisors

Product Name:	MSCI Emerging Markets Index Strategy	**Benchmark:**	MSCI Emerging Markets Index
Product Inception Date:	January 2012	**Investment Style:**	Core
Firm Assets (6/30/21):	$3.9 trillion	**Fundamental/Quant:**	N/A
Product Assets (6/30/21):	$62.2 billion	**Investment Process:**	Optimized Indexing
Product Location:	Boston, MA	**Expected # of Holdings:**	1100-1500
Date Funded:	December 2011	**Expected Ann. Turnover:**	5-15%

State Street Global Advisors (SSGA) manages an emerging markets equity index portfolio designed to track the Morgan Stanley Capital International MSCI Emerging Markets Index. SSGA uses an optimized strategy to construct the portfolio. Exchange traded stock index futures are also used to minimize tracking error, obtain exposure where local access is inaccessible, and to trade cash flows in order to minimize transactions costs.

Opportunistic Investment Strategies

ACWI ex-US Manager

Earnest Partners LLC

Product Name:	EARNEST Partners International	**Benchmark:**	MSCI AWCI ex US Index
Product Inception Date:	May 1999	**Investment Style:**	Core
Firm Assets (6/30/21):	$28.2 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$5.8 billion	**Investment Process:**	Bottom-up
Product Location:	Atlanta, GA	**Expected # of Holdings:**	59
Date Funded:	January 2021	**Expected Ann. Turnover:**	20-25%

EARNEST Partners is a fundamental, bottom-up investment manager that utilizes a proprietary screen to identify fundamental characteristics that predispose a company to outperformance based on the industry in which it operates. The fundamental characteristics fall into the following six categories – valuation measures, operating trends, market trends, growth measures, profitability measures and macroeconomic measures. The team's fundamental review generally includes conversations with the company's management team and industry specialists, a rigorous review of the company's financial reports, deep analysis of industry and company-specific studies, as well as independent field research. They control risk using a statistical approach designed to measure and minimize the prospects of substantially underperforming the benchmark. The portfolio is diversified across industry groups and geographic regions.

Opportunistic Investment Strategies

China A-Share Manager

Earnest Partners LLC

Product Name:	EARNEST Partners China A-share	**Benchmark:**	MSCI China A Index
Product Inception Date:	April 2013	**Investment Style:**	Dedicated China A-share
Firm Assets (6/30/21):	$28.2 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$672.0 million	**Investment Process:**	Bottom-up
Product Location:	Atlanta, GA	**Expected # of Holdings:**	23
Date Funded:	January 2021	**Expected Ann. Turnover:**	20-25%

EARNEST Partners is a fundamental, bottom-up investment manager that utilizes a proprietary screen to identify fundamental characteristics that predispose a company to outperformance based on the industry in which it operates. The fundamental characteristics fall into the following six categories – valuation measures, operating trends, market trends, growth measures, profitability measures and macroeconomic measures. Fundamental review generally includes conversations with the company's management team and industry specialists, a rigorous review of the company's financial reports, deep analysis of industry and company-specific studies, as well as independent field research. They control risk using a statistical approach designed to measure and minimize the prospects of substantially underperforming the benchmark. The portfolio is diversified across industry groups.

Currency Overlay Manager

Record Currency LLC

Product Name:	Currency Overlay	**Benchmark:**	N/A
Product Inception Date:	March 1985	**Investment Style:**	Active Currency Hedging
Firm Assets (6/30/21):	$84.5 billion	**Fundamental/Quant:**	Quantitative
Product Assets (6/30/21):	$12.8 billion	**Investment Process:**	Systematic
Product Location:	Windsor, England, UK	**Expected # of Holdings:**	N/A
Date Funded:	October 2020	**Expected Ann. Turnover:**	4-8x hedgeable currency exposure

Record Currency's overlay program aims to reduce currency risk embedded in the international equity exposures of the SBI's international equity portfolio and to add value over a mid-term currency cycle. In order to protect against currency losses, the program uses a systematic investment process to adjust strategy hedge ratios in response to currency movements. Subject to the hedge ratios in place and the costs of their adjustments, the program will generate positive value when the U.S. dollar is strengthening vis-à-vis hedged currencies and will generate negative- to flat-value when the U.S. dollar is weakening. Periodic resetting of the program positions and/or their adjustment as part of risk management oversight contribute to an asymmetric payoff profile over time.

Global Equity

The Global Equity Program is made up of actively managed global equity portfolios. This program is exclusive to the Combined Funds.

As of June 30, 2021, the program had a market value of $1.2 billion.

Objective

The goal of the Global Equity Program is to outperform the asset class target, the MSCI ACWI (net) Index.

The Board's ***return objectives*** for the Global Equity Program are stated relative to the Morgan Stanley Capital International (MSCI) ACWI (net) Index, which includes large and mid-capitalization stocks, across the developed and emerging markets, including the United States. The index is capitalization weighted and measured in U.S. dollar terms, with currencies unhedged.

Individual active managers are expected to exceed their benchmark by an amount appropriate for their level of active risk. The active risk level varies by manager and is influenced by the manager's stated strategy and style.

Two long-term ***risk objectives*** exist for the global equity managers:

— ***Investment Approach***. Each manager is expected to hold a portfolio that is consistent with the manager's stated investment approach.

— ***Diversification***. Each manager is expected to hold a portfolio of the manager's best ideas for outperforming their respective index.

Figure 25. Global Equity Portfolio Manager Performance and Market Value as of June 30, 2021

Manager	1 Year Return (%) Actual[1]	Bmk[2]	Market Value (In Millions)
Active Management			
Ariel Investments	NA	NA	$377.3
Baillie Gifford	NA	NA	353.6
Martin Currie Investments	NA	NA	439.2
Total Global Equity Program	**NA**	**NA**	**$1,170.1**

[1] Inception date is December 2020
[2] The Global Equity benchmark is the MSCI ACWI (net)

Management Structure

The entire program is actively managed by three external investment managers with portfolios ranging in size between $354 million and $439 million.

Each investment manager's fiscal year ending portfolio value is shown above in Figure 25.

Investment Manager Summaries

A description of each global equity manager's investment approach is included in the **Investment Manager Summaries** section beginning on page B38.

Investment Performance

The Global Equity Program's country weights are displayed in Figure 26 on the following page. One-year performance will be available at the end of fiscal year 2022.

Fiscal Year 2021 Changes

The Global Equity Program was initiated during fiscal year 2021. The three active global equity mandates were funded in December 2020.

Figure 26. Global Equity Program Aggregate Country Weights for Period Ending June 30, 2021

Country[1]	Program Weights %	Benchmark Weights %[2]
Australia	1.0	1.8
Belgium	0.0	0.2
Brazil	1.0	0.7
Canada	0.0	2.9
Chile	0.0	0.1
China	12.2	4.8
Denmark	1.2	0.7
Finland	0.5	0.3
France	6.1	2.9
Germany	3.1	2.4
Hong Kong	1.4	0.8
India	0.0	1.3
Indonesia	0.0	0.1
Ireland	2.9	0.2
Israel	0.2	0.2
Italy	3.1	0.6
Japan	2.4	5.9
Kuwait	0.0	0.1
Malaysia -EM	0.0	0.2
Mexico	0.1	0.2
Netherlands	2.1	1.1
New Zealand	0.0	0.1
Norway	0.0	0.2
Peru	0.4	0.0
Philippines	0.0	0.1
Poland	0.0	0.1
Qatar	0.0	0.1
Russia	0.0	0.4
Saudi Arabia	0.0	0.4
Singapore	0.0	0.3
South Africa	0.1	0.5
South Korea	0.0	1.7
Spain	0.8	0.6
Sweden	3.2	1.0
Switzerland	2.6	2.5
Taiwan	2.1	1.8
Thailand	0.0	0.2
United Arab Emirates	0.0	0.1
United Kingdom	2.7	3.7
United States	40.7	58.7
U.S. Dollar	3.0	-
Other	7.1	-
Total[3]	**100.0**	**100.0**

[1] Grouped by country of domicile. Source: Factset.
[2] Benchmark listed is the MSCI ACWI (net).
[3] Totals may not add due to rounding.

Global Equity Managers

Ariel Investments, LLC

Product Name:	Ariel Global Product	**Benchmark:**	MSCI ACWI Index (net)
Product Inception Date:	December 2011	**Investment Style:**	Quality/Value
Firm Assets (6/30/21):	$16.8 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$2.7 billion	**Investment Process:**	Bottom-up
Product Location:	Chicago, IL	**Expected # of Holdings:**	50-75
Date Funded:	January 2021	**Expected Ann. Turnover:**	25-40%

Ariel's Global Product investment philosophy is biased toward owning undervalued, out-of-favor, franchise-quality companies. The investment process seeks to identify high-quality businesses with sustainably high returns relative to the risk of the business. The process also emphasizes consistency and incorporates risk management at every step in the process—regardless of the current market backdrop. Ariel's team seeks to understand both the upside and the downside of any potential investment and takes a contrarian approach that seeks to invest in companies that are out-of-favor.

Baillie Gifford Overseas Limited

Product Name:	Long-Term Global Growth	**Benchmark:**	MSCI ACWI Index (net)
Product Inception Date:	February 2004	**Investment Style:**	Growth
Firm Assets (6/30/21):	$72.7 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$486.8 million	**Investment Process:**	Bottom-up
Product Location:	Edinburgh, Scotland, UK	**Expected # of Holdings:**	30-60
Date Funded:	January 2021	**Expected Ann. Turnover:**	10-20%

Baillie Gifford's Long Term Global Growth (LTGG) strategy is purely stock-driven, investing in unconstrained global equity, with a focus on taking committed, long-term holdings in exceptional growth companies from around the world. Investing is driven by in-depth analyst research, team debate and a framework of consistent questions designed to consistently identify the most attractive investment opportunities. They place emphasis on the use of alternative sources of information such as academia. Portfolio holding sizes are based purely on the magnitude of the potential upside and the associated level of conviction.

Martin Currie Inc.

Product Name:	Global Long-Term Unconstrained	**Benchmark:**	MSCI ACWI Index (net)
Product Inception Date:	June 2016	**Investment Style:**	Quality/Growth
Firm Assets (6/30/21):	$22.5 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$2.0 billion	**Investment Process:**	Bottom-up
Product Location:	Edinburgh, Scotland, UK	**Expected # of Holdings:**	20-40
Date Funded:	January 2021	**Expected Ann. Turnover:**	< 25%

The Martin Currie Global Long-Term Unconstrained (GLTU) team aim to create a portfolio with exposure to sustainable quality growth stocks that can provide attractive, long-term risk adjusted alpha. The Martin Currie team believes that a combination of upside capture and limited negative exposure in downward markets will compound over time to generate a real rate of return for investors, as well as a relative rate of return in excess of the wider equity market. In order to deliver such expected outcomes, GLTU takes a genuinely long-term, unconstrained investment approach with a proprietary ESG risk assessment fully integrated into the process.

Total Fixed Income

The Total Fixed Income Program has a 25% target allocation in the Combined Funds. The assets are invested with core and core plus bond managers, return seeking fixed income managers, treasury protection managers, laddered bond and a cash manager. A description of each sub-asset class within the Total Fixed Income Program is described in the respective sections of this annual report.

Allocation

The target weights within the Total Fixed Income Program, which became effective July 1, 2020, are shown below in Figure 27 with the June 30, 2021 actual asset mix.

Figure 27. Policy Allocation and Asset Mix as of June 30, 2021

	Target Allocation	Actual Asset Mix	Assets In Billions
Core/Core Plus*	40%	22%	$4.8
Return Seeking*		19%	$4.0
Treasury Protection	40%	40%	$8.7
Laddered Bond + Cash	20%	19%	$4.2
Total Fixed Income	**100%**	**100%**	**$21.7**

**Combined has a target weight of 40%*

Benchmark

The performance of the Total Fixed Income Program is measured against the Bloomberg Barclays U.S. Aggregate Index return. Benchmarks for each sub asset group within the fixed income segment are listed below.

Core/Core Plus	BBG Barclays U.S. Aggregate
Return Seeking	BBG Barclays U.S. Aggregate
Treasury Protection	BBG Barclays 5+Yr. Treasury
Laddered Bond + Cash	ICE BofA 3 Month T-Bill

Performance

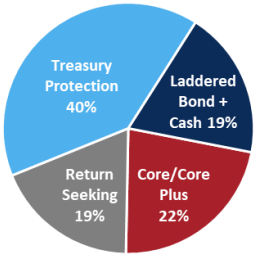
Figure 28 provides the performance of the Total Fixed Income Program as of June 30, 2021. A full year of performance for Return Seeking Fixed Income will be available fiscal year 2022.

Figure 28. Performance of Total Fixed Income Program as of June 30, 2021

	1 Yr.%		3 Yrs. %		5 Yrs. %	
	Actual	BM	Actual	BM	Actual	BM
Core/Core Plus Bonds	2.1	-0.3	6.4	5.3	4.0	3.0
Return Seeking	NA		NA		NA	
Treasury Protection	-6.1	-6.7	6.5	6.5	NA	
Laddered Bond + Cash	0.2	0.1	1.3	1.3	1.2	1.2
Total Fixed Income	**-1.3**	**-0.3**	**6.8**	**5.3**	**4.3**	**3.0**

BM = benchmark and are identified under Benchmark of this section

Fixed Income Asset Mix As of June 30, 2021



Fiscal Year 2021 Changes

The following changes were implemented during the fiscal year:

- Increased the allocation to Total Fixed Income from 20% to 25%.
- Transitioned the 2% Cash allocation to the Laddered Bond + Cash sub-asset group.
- Funded Laddered Bond managers.
- Funded Return Seeking Fixed Income managers.
- Reviewed and revised current manager guidelines and benchmarks to align with changes to manager strategy assignments.

These changes were in response to the Board Resolution Concerning the Management of the Combined Funds Asset Allocation and Liquidity passed in May of 2020. This resolution is available on the SBI's website.

Core/Core Plus Bonds

The Core/Core Plus Bond Progam is one of the segments of the Combined Funds Total Fixed Income asset group. The Core/Core Plus Bond Program also shares the same managers for the Supplemental Investment Fund (SIF) Bond Fund option. This sharing is accomplished by grouping managers by asset class into several investment pools.

As of June 30, 2021, the Core/Core Plus Bond Program had a market value of $5.0 billion comprised of the following funds:

- Combined Funds
  $4.8 billion
- Bond Fund
  $119.2 million
- Balanced Fund
  $38.9 million
- Volunteer Firefighter Account
  $64.6 million

Objective

The goal of the Core/Core Plus Bond Program is to outperform the Bloomberg Barclays U.S. Aggregate Bond Index.

The SBI constrains the ***risk*** of the Core/Core Plus bond managers' portfolios to help ensure that the program meets its goals of both acting as a deflation hedge and providing diversification at the total fund level. As noted above, managers are constrained in terms of both overall portfolio duration and the extent to which they may invest in lower credit quality securities. The Core/Core Plus managers successfully fulfilled their long-term risk objectives during fiscal year 2021.

The managers constructed portfolios consistent with stated investment approaches and maintained appropriate levels of quality and duration.

Management Structure

The SBI uses active management for both the Core and Core Plus mandates.

— ***Core Bond Segment***
At the end of fiscal year 2021, approximately 40% of the Program was invested in the Core Bond segment, which was managed by two external investment managers.

The Core Bond segment invests in high quality fixed income securities across all sectors of the market. Managers seek to add value primarily through superior bond selection and sector allocation rather than through actively managing the portfolio's interest rate exposure. Portfolios are constrained to a +/- 20% range around the benchmark's duration. Managers have authority to invest a limited portion of their portfolios in non-investment grade rated dollar-denominated debt and in non-dollar denominated bonds on a tactical basis. Each manager has the goal of outperforming the Bloomberg Barclays U.S. Aggregate Bond Index.

— ***Core Plus Bond Segment***
At the end of fiscal year 2021, approximately 60% of the Program was invested in the Core Plus Bond segment, which was managed by three managers.

The Core Plus segment also invests primarily in high quality fixed income securities, but is given additional flexibility to allocate a larger portion of the portfolio to non-investment grade debt, including both dollar- and non-dollar denominated debt. The managers vary, however, in the emphasis they place on interest rate anticipation (duration) and in the manner in which they approach security selection and sector weighting decisions. The managers use this additional authority on a tactical basis. Each manager has the goal of outperforming the Bloomberg Barclays U.S. Aggregate Bond Index

In keeping with the objective of utilizing the Core/Core Plus Bond Program as a deflation hedge, the Core Plus managers are constrained regarding the duration of their portfolios. This requirement is designed to prevent the dilution of the deflation hedge of the total program from an excessively short duration position. In addition, the duration constraint helps to avoid excess variability in total returns relative to the benchmark. The SBI constrains the duration range of the Core Plus portfolios to a band of plus or minus 20% of the Bloomberg Barclays U.S. Aggregate duration.

Investment Manager Summaries

A description of each core/core plus bond manager's investment approach is included in the **Investment Manager Summaries** section beginning on page B43.

Investment Performance

The ***returns*** of each of the core/core plus bond managers are compared to the Bloomberg Barclays U.S. Aggregate Bond Index. Individual managers are expected to exceed the target, net of fees, on an annualized basis. In total, the program outperformed the Bloomberg Barclays U.S. Aggregate Bond Index by 2.3 percentage points for the recent fiscal year.

Relative to the benchmark, the program benefited from shorter duration positioning vs. the benchmark, as yields generally rose in response to broad economic re-opening and signs of quickening growth and inflation. In addition, the program's yield advantage and overweight to credit sectors also benefited relative returns.

Over the last fiscal year, all managers outperformed the benchmark. Over longer time periods, the Core/Core Plus Program has consistently outperformed the asset class target.

Figure 29A and 29B provides the historical performance results for the Core/Core Plus Program. Individual results for each of the Core and Core Plus managers is shown in Figure 30 on the following page.

The aggregate portfolio sector weights and portfolio characteristics for the Core/Core Plus Bond Program as of June 30, 2021, is provided on the following page in Figure 31 and Figure 32, respectively.

Fiscal Year 2021 Changes

During the fiscal year, the following changes were implemented:

- Semi-passive managers Goldman Sachs and Neuberger Berman migrated their portfolios to actively managed Core Plus, and the BlackRock semi-passive portfolio was transitioned to actively managed Core.
- Western Asset Management's actively managed Core portfolio was transitioned to Core Plus and PIMCO and Columbia's actively managed Core portfolios were transitioned to the Return Seeking Fixed Income segment.

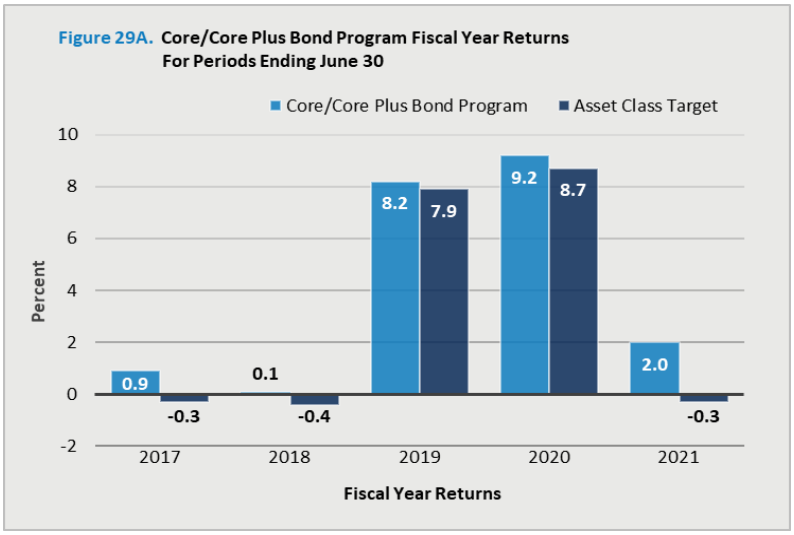


Figure 29A. Core/Core Plus Bond Program Fiscal Year Returns For Periods Ending June 30

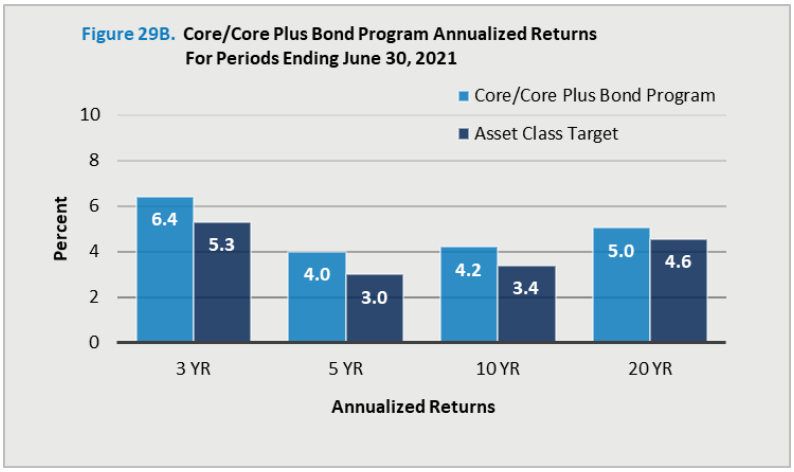


Figure 29B. Core/Core Plus Bond Program Annualized Returns For Periods Ending June 30, 2021

Figure 30. Core/Core Plus Bond Manager Performance for Periods Ending June 30, 2021

	Annualized Returns						
	1 Year		3 Years		5 Years		Market
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Value[1]
Manager Strategy	%	%	%	%	%	%	(In Millions)
Core Bond							
Dodge & Cox	3.0	-0.3	6.4	5.3	4.4	3.0	$1,064.8
BlackRock Financial Management	0.2	-0.3	5.8	5.3	3.3	3.0	944.3
Core Plus Bond							
Goldman Sachs Asset Management	0.4	-0.3	5.9	5.3	3.5	3.0	898.2
Neuberger Investment Management	2.0	-0.3	6.5	5.3	3.7	3.0	989.2
Western Asset Management	3.5	-0.3	7.3	5.3	4.9	3.0	1,139.7
Total Core/Core Plus Bond Program [2]	**2.0**	**-0.3**	**6.4**	**5.3**	**4.0**	**3.0**	**$5,036.3**

[1] Market value includes assets of SIF Funds.

[2] Returns are net of investment management fees. In Oct. 2020, Core Bond allocation was re-structured from active and semi-passive portfolios to Core and Core Plus portfolios. There is no change to the benchmark, which continues to be the BBG U.S. Aggregate Bond Index (since July 1994).

Figure 31. Core/Core Plus Program Sector Weights as of June 30, 2021

	Core Managers %	Core Plus Managers %	Aggregate Core/Core Plus Program %	BBG Barclays U.S. Aggregate Bond %
Treasury	25.6	16.3	22.9	39.7
Government-Related	2.4	5.8	4.6	3.3
Corporate	31.8	40.7	35.4	26.6
U.S. Mortgage	29.9	25.7	27.1	27.2
Commercial Mortgage	1.7	3.4	2.3	2.1
Asset Backed	6.3	5.5	5.0	0.4
Municipal	1.3	0.3	0.7	0.7
Other	1.0	2.3	2.0	0.0

Note: May not equal 100% due to rounding.
Source: Factset

Figure 32. Core/Core Plus Bond Program Portfolio Characteristics for Period Ending June 30, 2021

	Core Managers %	Core Plus Managers %	Aggregate Core/Core Plus Program %	BBG Barclays U.S. Agg. Bmk %
Average Quality	A1	A2	A1	Aa2
Average Yield to Maturity (%)	1.9%	2.4%	2.2%	1.5%
Effective Duration[1] (yrs)	5.7	6.3	6.1	6.3
Weighted Average Life[2] (yrs)	7.9	9.1	8.6	8.3

[1] Measures the interest rate sensitivity of a bond. It is the approximation of the percentage price change of the bond per 100 bp increase or decrease in prevailing market interest rates. Effective duration takes into consideration how the cashflows of the bonds change when interest rates change. This measure is most appropriate for bonds (and portfolios) with optionality, such as callable bonds and mortgage bonds.

[2] The Weighted Average Life (WAL) of a bond is the average number of years for which each dollar of unpaid principal of a bond remains outstanding. Once calculated, WAL tells how many years it will take to pay half of the outstanding principal.

Source: Factset

Core/Core Plus Bond Managers

BlackRock Financial Management, Inc.

Product Name:	U.S. Core Fixed Income	**Benchmark:**	Bloomberg Barclays U.S. Aggregate
Product Inception Date:	March 1996	**Investment Style:**	Active Core Bond
Firm Assets (6/30/21):	$9.5 trillion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$19.0 billion	**Investment Process:**	Top-down/Bottom-up
Product Location:	New York, NY	**Expected # of Holdings:**	600-1200
Date Funded:	April 1996	**Expected Ann. Turnover:**	50-300%

BlackRock employs a team approach where a top-down multi-sector asset allocation framework is combined with sector specialists and traders with responsibility for relative value sub-sector rotation and security selection. The team seeks to add value through managing portfolio duration relative to the benchmark, relative value sector/sub-sector rotation and security selection, rigorous quantitative analysis of the valuation of each security and of the portfolio as a whole, intense credit analysis and review, and the judgment of experienced portfolio managers.

Dodge & Cox

Product Name:	Core Fixed Income	**Benchmark:**	Bloomberg Barclays U.S. Aggregate
Product Inception Date:	January 1978	**Investment Style:**	Active Core Bond
Firm Assets (6/30/21):	$361.8 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$103.0 billion	**Investment Process:**	Bottom-up
Product Location:	San Francisco, CA	**Expected # of Holdings:**	150-250
Date Funded:	February 2000	**Expected Ann. Turnover:**	20-40%

Dodge & Cox manages a diversified portfolio of securities that are selected through bottom-up, fundamental analysis. The firm believes that by combining fundamental research with a long-term investment horizon it is possible to uncover and act upon inefficiencies in the valuation of market sectors and individual securities. Dodge & Cox's strategy tends to emphasize corporate credit and often maintains a relatively concentrated issuer profile within that sector.

Goldman Sachs Asset Management

Product Name:	GS U.S. Core Plus Fixed Income.	**Benchmark:**	Bloomberg Barclays U.S. Aggregate
Product Inception Date:	September 1990	**Investment Style:**	Active Core Plus Bond
Firm Assets (6/30/21):	$2.1 trillion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$83.0 billion	**Investment Process:**	Top-down/Bottom-up
Product Location:	New York, NY	**Expected # of Holdings:**	700-1300
Date Funded:	July 1993	**Expected Ann. Turnover:**	75-150%

Goldman Sachs (GSAM) manages portfolios actively, combining fundamental economic analysis together with quantitative analysis and short-term market dynamics to determine portfolio positioning. GSAM's top down strategy teams generate macro decisions on duration and broad sector allocation, while their bottom up strategy teams drive sub-sector allocations and individual security selection. Portfolios are diversified among various sectors and individual securities, while the assigned portfolio manager ensures the team's best ideas are reflected in client portfolios, subject to unique objectives and constraints.

Core/Core Plus Bond Managers

Neuberger Berman Investment Advisers LLC

Product Name:	Core Plus	**Benchmark:**	Bloomberg Barclays U.S. Aggregate
Product Inception Date:	October 1998	**Investment Style:**	Active Core Plus Bond
Firm Assets (6/30/21):	$333.0 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$6.0 billion	**Investment Process:**	Top-down/Bottom-up
Product Location:	Chicago, IL	**Expected # of Holdings:**	300-500
Date Funded:	July 1988*	**Expected Ann. Turnover:**	75-150%

** Date reflects SBI's initial funding of semi-passive strategy.*

Neuberger Berman's Core Plus team builds fixed income portfolios with an emphasis on broad diversification by sector, industry and security. Key sources of expected alpha are sector allocation/rotation and security selection, followed by a disciplined use of active duration/yield curve positioning. Sector allocation/rotation, duration/yield curve exposures and portfolio risk levels are determined using a proprietary asset allocation framework which seeks to identify relative value and risk across fixed income subsectors. Once sector allocations have been determined, security selection decisions are made by the portfolio managers, research analysts and traders on sector-specialty teams within these defined sector exposure constraints.

Western Asset Management Company, LLC

Product Name:	U.S. Core Plus	**Benchmark:**	Bloomberg Barclays U.S. Aggregate
Product Inception Date:	January 1982	**Investment Style:**	Active Core Plus Bond
Firm Assets (6/30/21):	$491.3 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$122.3 billion	**Investment Process:**	Bottom up
Product Location:	Pasadena, CA	**Expected # of Holdings:**	1000-1800
Date Funded:	July 1984	**Expected Ann. Turnover:**	50-100%

Western believes that markets often misprice securities relative to their true fundamental fair value, and that a disciplined investment process can systematically identify and exploit security mispricings over time. Western Asset's approach seeks diversified sources of returns to maximize consistency across different market environments and so that no single strategy dominates performance. The team's investment process starts with a top-down macroeconomic and market investment outlook over a six- to nine- month horizon, formulated by the team's senior professionals. Portfolio managers incorporate this outlook into their strategy within the constraints and guidelines of each individual portfolio. Fundamental research is conducted by a large, highly experienced team of research professionals organized by sector specialization. Portfolio managers work closely with the sector specialist teams to ensure the firm's best ideas are fully implemented in client portfolios.

Return Seeking Fixed Income

The Return Seeking Fixed Income segment within the Total Fixed Income Program is used exclusively for the Combined Funds.

As of June 30, 2021, the program had a market value of $4.0 billion.

Objective

The objective of the Return Seeking Fixed Income segment is to generate incremental total return and provide interest rate risk mitigation through an emphasis on diversified credit exposure.

Each manager has been given a mandate with the goal of outperforming their respective benchmark and to hold a portfolio that is consistent with the manager's stated investment approach.

Prior to implementation of the Return Seeking Fixed Income allocation, SBI Staff conducted a series of portfolio optimization studies with its consultant to determine the specific market sectors with the most potential for both enhanced returns and diversification relative to the Bloomberg Barclays Aggregate Index and Bloomberg Barclays Treasury 5+ Year Index.

The Return Seeking Fixed Income allocation includes both dedicated single sector mandates (securitized credit, emerging markets debt, high yield corporate bonds) as well as blended mandates that allow managers to allocate investments across a range of sectors (credit plus, multi-asset credit, opportunistic).

During fiscal year 2021, the managers constructed portfolios consistent with their stated investment approaches and maintained appropriate levels of diversification.

Management Structure

Nine investment managers actively manage the Return Seeking Fixed Income segment with portfolios that range in size from $259 million to over $936 million.

Investment Manager Summaries

A description of the manager's investment approach is included in the **Investment Manager Summaries** section beginning on page B46.

Investment Performance

The Return Seeking Fixed Income Aggregate benchmark is the Bloomberg Barclays U.S. Aggregate Index.

Managers are also tracked relative to their specific benchmarks for evaluation purposes. The specific benchmark and portfolio value for each manager is provided in Figure 33. One-year performance will be available at the end of fiscal year 2022.

Fiscal Year 2021 Changes

The SBI began funding the Return Seeking Fixed Income segment in November 2020. A total of nine portfolios were funded during the fiscal year.

Figure 33. Return Seeking Fixed Income Portfolio Market Values as of June 30, 2021

Manager Strategy	Benchmark	1 Yr. Return Actual[1] %	1 Yr. Return Bmk %	Market Value (In Millions)
Credit Plus				
Columbia	Credit Plus Benchmark[2]	NA	NA	$936.5
PIMCO	Credit Plus Benchmark[2]	NA	NA	813.0
Multi-Asset Credit				
Payden & Rygel	Multi Asset Credit[3]	NA	NA	307.0
PGIM Fixed Income	Multi Asset Credit[3]	NA	NA	304.5
High Yield				
KKR	High Yield Credit[4]	NA	NA	309.4
Oaktree	High Yield Credit[4]	NA	NA	258.8
Opportunistic and Other				
Ashmore (EM Market Debt)	Emerging Market Blended Debt Total Return[5]	NA	NA	296.8
BlackRock (Opportunistic)	ICE BofA US 3 Month T Bill	NA	NA	505.3
TCW (Securitized Credit)	ICE BofA US 3 Month T Bill	NA	NA	299.9
Total Return Seeking Portfolio	**Bloomberg Barclays U.S. Agg.**	**NA**	**NA**	**$4,031.2**

[1] Return Seeking managers were funded in either December of 2020 or January of 2021.

[2] Credit Plus Benchmark represents: 40% Bloomberg U.S.Corporate Index, 30% Bloomberg U.S. Mortgage-Backed Securities Index, 20% BofA ML High Yield BB-B Cash Pay, and 10% JPM EMBI Global Diversified Index.

[3] Multi Asset Credit Benchmark represents: 1/3 BofA ML High Yield BB-B Cash Pay, 1/3 Credit Suisse Leverage Loan Index, and 1/3 JPMorgan EMBI Global Diversified Index.

[4] High Yield Credit Benchmark is the ICE BofA High Yield Cash Pay Constrained.

[5] Emerging Market Blended Debt Benchmark represents 50% JPMorgan EMBI Global Diversified Index and 50% JPMorgan GBI-EM Global Diversified Index.

Return Seeking Fixed Income Managers – Credit Plus Mandates

Columbia Threadneedle Investments

Product Name:	Multisector Fixed Income	**Benchmark:**	Custom Credit Plus Benchmark*
Product Inception Date:	November 2020	**Investment Style:**	Active Multi-Sector Bond
Firm Assets (6/30/21):	$596.7 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$935 million	**Investment Process:**	Bottom up
Product Location:	Minneapolis, MN	**Expected # of Holdings:**	700-900
Date Funded:	November 2020	**Expected Ann. Turnover:**	25-35%

** Benchmark is 40% BB Barc US Corp Bond Index, 30% BB Barc US MBS Index, 20% ICE BofA BB-B High Yield Index, 10% JPMorgan EMBI Global Div Index*

Columbia Threadneedle Investments manages portfolios using a bottom-up, relative value approach in combination with a top-down, macro outlook that guides the firm's relative value decisions. The team emphasizes security selection and sector allocation as the primary drivers of relative return, while active duration and yield curve positioning are utilized sparingly. The fixed income team is divided into sector specialists which provide input to the portfolio managers in determining an overall investment strategy. The overall investment objective is to deliver positive relative returns within a risk-managed approach, striving for competitive risk-adjusted performance over time.

Pacific Investment Management Company LLC (PIMCO)

Product Name:	Diversified Income	**Benchmark:**	Custom Credit Plus Benchmark*
Product Inception Date:	July 2003	**Investment Style:**	Active Multi-Sector Bond
Firm Assets (6/30/21):	$1.66 trillion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$34.3 billion	**Investment Process:**	Bottom up
Product Location:	Newport Beach, CA	**Expected # of Holdings:**	850-1000
Date Funded:	November 2020	**Expected Ann. Turnover:**	40-75%

** Benchmark is 40% BB Barc US Corp Bond Index, 30% BB Barc US MBS Index, 20% ICE BofA BB-B High Yield Index, 10% JPMorgan EMBI Global Div Index*

PIMCO's Diversified Income strategy is a global multi-sector strategy that seeks to outperform the benchmark by capturing best ideas across corporate credit, emerging markets and structured credit. The strategy seeks to add value from tactical allocation among global credit sectors and combining bottom-up fundamental research and top-down macroeconomic analysis. Sector allocations, as well as duration and yield curve positioning, are guided by PIMCO's global macro outlook. Sector specialist teams focus on sub-sector and security level fundamental research and manage portfolio implementation at the direction of the strategy portfolio managers. The approach targets consistent excess returns by focusing on diversified sources of value add rather than relying on concentrated risks.

Return Seeking Fixed Income Managers – Multi-Asset Credit Mandates

Payden & Rygel

Product Name:	Payden Multi Asset Credit (PMAC) Strategy	**Benchmark:**	Custom Multi-Asset Credit Benchmark*
Product Inception Date:	October 2008	**Investment Style:**	Active Multi-Sector Bond
Firm Assets (6/30/21):	$145.5 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$14.1 billion	**Investment Process:**	Top-Down/Bottom-up
Product Location:	Los Angeles, CA	**Expected # of Holdings:**	200-400
Date Funded:	December 2020	**Expected Ann. Turnover:**	70-90%

** Benchmark is 1/3 ICE BofA High Yield Index, 1/3 LSTA Leveraged Loan Index, 1/3 JPMorgan EMBI Global Index.*

Payden & Rygel's PMAC portfolios are managed with an emphasis on active management, risk control, downside protection, and ESG considerations. The top-down process resides with the firm's 10-member Investment Policy Committee (IPC) which reviews the global macro environment, forming broad-based views on growth, inflation and other key factors. Bottom-up security selection within PMAC is driven by ideas from the firms' research team of strategists, credit analysts and sector analysts shared across all strategies. The sector specialist teams continually identify the firm's best ideas from a broad multi-sector opportunity set and support the construction of a "core income stream" portfolio, while the strategy's portfolio managers oversee portfolio implementation.

PGIM Fixed Income

Product Name:	Strategic Credit	**Benchmark:**	Custom Multi-Asset Credit Benchmark*
Product Inception Date:	June 2019	**Investment Style:**	Active Multi-Sector Bond
Firm Assets (6/30/21):	$954.3 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$1.1 billion	**Investment Process:**	Bottom up
Product Location:	Newark, NJ	**Expected # of Holdings:**	500-800
Date Funded:	December 2020	**Expected Ann. Turnover:**	50-100%

** Benchmark is 1/3 ICE BofA High Yield Index, 1/3 LSTA Leveraged Loan Index, 1/3 JPMorgan EMBI Global Index.*

PGIM Fixed Income manages multi-sector portfolios based on the philosophy that diversified portfolios, built through the integration of macroeconomic research, credit research, quantitative research, and risk management can achieve consistent excess returns for clients with a high information ratio or Sharpe ratio. Risk budgeting is central to the firm's investment approach. The Strategic Credit Strategy seeks to generate alpha from multiple sources through active allocation across spread sectors, with an intense focus on industry and issuer credit research. The team uses a collaborative bottom-up, research-driven security selection process where managers and analysts make joint decisions. Allocations are made within risk thresholds established by a 'risk budget' created specifically for each portfolio.

Return Seeking Fixed Income Managers – High Yield Mandates

KKR (Kohlberg, Kravis and Roberts)

Product Name:	KKR High Yield Credit Strategy	**Benchmark:**	ICE BofA Cash Pay High Yield Constrained Index
Product Inception Date:	April 2011	**Investment Style:**	Active High Yield Bond
Firm Assets (6/30/21):	$170.1 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$7.2 billion	**Investment Process:**	Bottom up
Product Location:	New York, NY	**Expected # of Holdings:**	150-200
Date Funded:	December 2020	**Expected Ann. Turnover:**	40-80%

The KKR High Yield Strategy focuses on income-generating high yield bonds and places a significant focus on principal protection. The strategy utilizes KKR's extensive credit research team to vet credits for creditworthiness and to identify the best risk-adjusted investments. The team builds portfolios from the bottom-up and relies heavily on security selection to generate alpha. KKR's process also utilizes their deep experience in private credit and private equity underwriting to supplement the experienced public high yield investment team.

Oaktree

Product Name:	Oaktree U.S. High Yield Bond	**Benchmark:**	ICE BofA Cash Pay High Yield Constrained Index
Product Inception Date:	January 1986	**Investment Style:**	Active High Yield Bond
Firm Assets (6/30/21):	$156.4 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$15.1 billion	**Investment Process:**	Bottom up
Product Location:	Los Angeles, CA	**Expected # of Holdings:**	190-220
Date Funded:	December 2020	**Expected Ann. Turnover:**	40-50%

Oaktree believes that the foundations of successful high yield bond investing are the conscious bearing of credit risk for profit and acting as a prudent lender rather than a securities trader. Oaktree believes that strong long-term performance can only be achieved through superior knowledge of companies. Oaktree's team of experienced credit analysts conduct extensive fundamental credit analysis to determine an issuer's credit worthiness and assess relative value. Analyst opinions are summarized and communicated using a proprietary Credit Scoring Matrix. Portfolio managers and analysts work together to construct well-diversified portfolios of quality high yield names that offer the best combination of downside protection and income potential.

Return Seeking Fixed Income Managers – Other Mandates

Ashmore Investment Management Ltd. (Emerging Markets Debt)

Product Name:	EM Blended Debt Total Return	**Benchmark:**	Custom EM Blended Debt Benchmark*
Product Inception Date:	June 2003	**Investment Style:**	Active Emerging Markets Bond
Firm Assets (6/30/21):	$94.4 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$10.4 billion	**Investment Process:**	Top Down
Product Location:	London, England, UK	**Expected # of Holdings:**	300-500
Date Funded:	December 2020	**Expected Ann. Turnover:**	35-60%

** Benchmark is 50% JPMorgan EMBI Global, 50% JPMorgan GBI-EM Index*

Ashmore's Blended Debt strategy was launched in 2007 based on the firm's experience that no one theme consistently outperforms year after year, and that tactical rotation between U.S. dollar-denominated external government debt, hard currency corporate debt and local currency sovereign debt offers the widest opportunity to add value for client portfolios. The team uses a combination of top-down macro insight and bottom-up country and security level research conducted by firm's extensive research teams to construct portfolios. Over time, the team seeks to diversify sources of value across macro/theme allocation (40%), country/credit selection (40%) and currency allocation (20%).

BlackRock Financial Management, Inc. (Opportunistic)

Product Name:	Multi-Sector Opportunistic Fixed Income	**Benchmark:**	ICE BofA 3Mth T-Bill Index
Product Inception Date:	November 2020	**Investment Style:**	Active Opportunistic Bond
Firm Assets (6/30/21):	$9.5 trillion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$6.3 billion	**Investment Process:**	Top-Down/Bottom-up
Product Location:	New York, NY	**Expected # of Holdings:**	1000-1500
Date Funded:	November 2020	**Expected Ann. Turnover:**	60-70%

BlackRock's multi-sector opportunistic fixed income strategy is managed by the firm's Multi-Sector Portfolio Investment Team and led by Blackrock's CIO of Global Fixed Income. The strategy seeks alpha by strategically allocating between three alpha sources: (1) macro strategies, (2) sector allocation and (3) security selection. The Team's investment process is systematic, disciplined, research-driven and rooted in the firm's culture of teamwork and information sharing. Within the process, the multi-sector team is responsible for setting the top-down asset allocation framework for portfolio construction, and the sector specialists and traders are responsible for bottom-up idea generation (including research, analysis, and security selection) and trade execution.

TCW (Securitized Credit)

Product Name:	TCW Securitized Opportunities	**Benchmark:**	ICE BofA 3Mth T-Bill Index
Product Inception Date:	December 1991	**Investment Style:**	Active Securitized Credit Bond
Firm Assets (6/30/21):	$265.8 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$4.8 billion	**Investment Process:**	Bottom-up
Product Location:	Los Angeles, CA	**Expected # of Holdings:**	300-500
Date Funded:	June 2021	**Expected Ann. Turnover:**	10-50%

The TCW Securitized Opportunities strategy is an opportunistic, total return fixed income strategy that invests in across agency and non-agency mortgage backed securities, commercial mortgage backed securities and asset-backed securities. The strategy is managed without a prescribed duration or credit limitation and may vary significantly over time. The strategy focuses on bottom-up security selection across the securitization market. TCW applies a disciplined fundamental-based research effort to distinguish opportunities among security types in order to achieve its total return target over a full credit cycle.

Treasury Portfolio

The Treasury Portfolio was commenced in early 2018 and is used exclusively by the Combined Funds.

As of June 30, 2021, the program had a market value of $8.7 billion.

Objectives

The primary objective of the Treasury Portfolio is to provide downside protection during periods of significant equity drawdowns, to protect the portfolio against deflation risk and to act as a hedge to the credit risk inherent in the Total Fixed Income Program.

Each manager has been given a modest risk budget with the goal of outperforming the Bloomberg Barclays Treasury 5+ Years Index total return over time, while largely retaining the primary characteristics of the benchmark.

The SBI constrains the risk of the Treasury portfolio managers to ensure that their accounts continue to be comparable to the benchmark and fulfill their total fund diversification roles.

Management Structure

A group of three managers were retained for their complementing investment styles.

The managers are required to remain within +/- 0.5 years of the overall benchmark duration (currently 11.8 years). Managers may hold out-of-benchmark Treasury securities with maturities of less than five years. Managers may also invest in U.S. Agencies, dollar-denominated supranational debt, and Treasury Inflation Protected Securities (TIPS) on a limited basis as they seek to outperform the benchmark.

Investment Manager Summaries

A description of each treasury manager's investment approach is included in the **Investment Manager Summaries** section on page B51.

Investment Performance

Since inception in February 2018, the Treasury portfolio returned 5.8% through June 30, 2021 matching the benchmark return for the same time-period.

During the fiscal year, the Treasury portfolio returned -6.1% outperforming its benchmark return of -6.7% for the same time-period.

Outperformance over the fiscal year was driven by shorter-than-benchmark duration positioning, as well as the relative outperformance of the manager's U.S. agency and TIPS positions.

Figure 34 provides historical performance results for the Treasury Portfolio and individual results for each of the Treasury managers.

Portfolio characteristics for the Treasury Portfolio as of June 30, 2021,are shown in Figure 35.

Figure 34. Treasury Portfolio Manager Performance and Market Value as of June 30, 2021

Manager	1 Yr. Return (%) Actual	1 Yr. Return (%) Bmk[1]	3 Yr. Return (%) Actual	3 Yr. Return (%) Bmk[1]	Market Value (In Millions)
Active Management					
BlackRock Financial Mgmt.	-6.6	-6.7	6.4	6.5	$2,761.3
Goldman Sachs Asset Mgmt.	-6.2	-6.7	6.5	6.5	2,952.5
Neuberger Investment Mgmt.	-5.8	-6.7	6.6	6.5	2,973.5
Total Treasury Portfolio	**-6.1**	**-6.7**	**6.5**	**6.5**	**$8,687.3**

[1] Treasury Portfolio benchmark is the Bloomberg Barclay 5+ Year U.S. Treasury Index.

Figure 35. Treasury Portfolio Characteristics as of June 30, 2021

	Total Portfolio	Benchmark[1]
Effective Duration (yrs)	11.7	11.8
Convexity	2.1	2.1
Coupon Rate (%)	2.2	2.1
Yield to Maturity (%)	1.6	1.6
Option Adjusted Spread (bps)	6.0	3.0

[1] The Treasury benchmark is the Bloomberg Barclay 5+ Year U.S. Treasury Index.
Source: Factset

Treasury Portfolio Managers

BlackRock Financial Management, Inc.

Product Name:	Long Duration Treasury	**Benchmark:**	Bloomberg Barclays Treasury 5+ Year Index
Product Inception Date:	January 2018	**Investment Style:**	Active Fundamental Fixed Income
Firm Assets (6/30/21):	$9.5 trillion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$4.0 billion	**Investment Process:**	Bottom-up
Product Location:	New York, NY	**Expected # of Holdings:**	50-150
Date Funded:	January 2018	**Expected Ann. Turnover:**	50-300%

BlackRock manages a fixed income protection portfolio that closely tracks the Bloomberg Barclays Treasury 5+ Year Index. BlackRock employs a risk controlled approach that keeps active duration and yield curve positions within tight limits, while using modest sector rotation and security selection positioning to add incremental value within the constraints of the mandate.

Goldman Sachs Asset Management

Product Name:	U.S. Government Fixed Income	**Benchmark:**	Bloomberg Barclays Treasury 5+ Year Index
Product Inception Date:	February 1993	**Investment Style:**	Active Fundamental Fixed Income
Firm Assets (6/30/21):	$2.1 trillion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$4.1 billion	**Investment Process:**	Bottom-up
Product Location:	New York, NY	**Expected # of Holdings:**	35-55
Date Funded:	January 2018	**Expected Ann. Turnover:**	75-150%

Goldman manages a fixed income protection portfolio that closely tracks the Bloomberg Barclays U.S. Treasury 5+ Year Index. Goldman manages the portfolio within a risk-controlled framework. The firm relies primarily on security selection strategies, term structure and highly controlled interest rate anticipation strategies to generate incremental return relative to the benchmark. Tactical trades between U.S. Treasuries, agencies, supranationals and TIPS may be implemented to take advantage of short-term relative value opportunities.

Neuberger Berman Investment Advisers LLC

Product Name:	Protection Portfolio	**Benchmark:**	Bloomberg Barclays Treasury 5+ Year Index
Product Inception Date:	January 2018	**Investment Style:**	Active Fundamental Fixed Income
Firm Assets (6/30/21):	$433.2 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$3.0 billion	**Investment Process:**	Bottom up
Product Location:	Chicago, IL	**Expected # of Holdings:**	50-100
Date Funded:	December 2017	**Expected Ann. Turnover:**	75-150%

Neuberger manages a fixed income protection portfolio that seeks to replicate the interest rate risk characteristics of the Bloomberg Barclays Treasury 5+ Year Index. Neuberger's Global Rates Team oversees strategy implementation, determining the appropriate active duration and yield curve positioning based on their outlook for the economy and their evaluation the expectations for growth, inflation and Fed policy reflected in prevailing interest rates. The team utilizes out-of-benchmark positions in U.S. agencies and TIPS on a tactical basis when such securities offer value relative to nominal U.S. Treasuries.

Combined Funds
Total Fixed Income/ Laddered Bond + Cash Portfolio

Laddered Bond + Cash Portfolio

The Laddered Bond + Cash portfolio is used exclusively for the Combined Funds.

As of June 30, 2021, there was over $4.2 billion invested in the Laddered Bond and Cash portfolio.

Objective

The Combined Funds Laddered Bond + Cash portfolio is used to meet the monthly liquidity requirements of the state retirement systems to pay benefits and to meet investment obligations. The Cash portfolio also temporarily holds the unspent cash of the Combined Fund's public equity and fixed income managers.

The SBI measures the performance of each manager against a specific benchmark. The Cash portfolio is measured against the iMoneyNet All Taxable Money Fund Average. The Laddered Bond portfolios are measured against the ICE BofA 3-month T-Bill benchmark. For reporting purposes, the aggregate pool is shown against the ICE BofA 3-month T-Bill Benchmark.

Management Structure

The Laddered Bond + Cash allocation is an ***actively*** managed program.

— The ***Laddered Bond*** allocation is invested in a separately managed account with two managers: Neuberger Berman and Goldman Sachs.

— The ***Cash Pool*** is managed by State Street Global Advisors and is invested in a separate account.

Investment Manager Summaries

A description of each manager's investment approach is included in the **Investment Manager Summaries** section on page B54.

Investment Performance

The portfolio values for each manager and performance, if available, are provided in Figure 36. The Laddered Bond + Cash aggregate includes the returns of the Laddered Bond managers funded in October 2020, Cash, and the CD Repo portfolios. Historical returns provided in Figures 37A and 37B represent the return of the aggregate portfolio.

Figure 36. Laddered Bond + Cash Managers Performance and Market Values as of June 30, 2021

Manager Strategy	1 Yr. Return % Actual	1 Yr. Return % Bmk	3 Yr. Return % Actual	3 Yr. Return % Bmk	Market Value (In Millions)
Laddered Bond[1]					
Neuberger Berman	NA		NA		$1,392.2
Goldman Sachs Asset Mgmt.	NA		NA		1,392.0
Cash[2]					
State Street Global Advisors	0.1	0.0	1.3	1.0	1,390.4
CD Repo[1]					
SBI Internal Portfolio	0.2	0.1	1.5	1.2	28.8
Total Laddered Bond + Cash[1]	**0.2**	**0.1**	**1.3**	**1.3**	**$4,203.4**

[1] Benchmark is the ICE BofA 3 Mo. T-Bill

[2] Benchmark is the iMoneyNet All Taxable Money Fund Average

Figure 37A. Combined Funds Laddered Bond + Cash Portfolio Performance For Periods Ending June 30

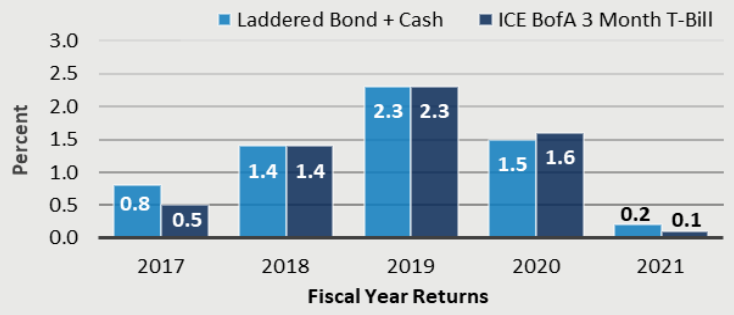
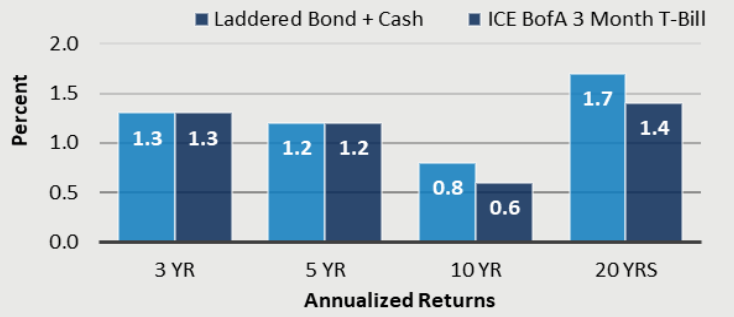


Figure 37B. Combined Funds Laddered Bond + Cash Portfolio Performance for Periods Ending June 30, 2021



One-year performance will be available at the end of fiscal year 2022 for the Laddered Bond managers.

Fiscal Year 2021 Changes
During fiscal year 2021, the SBI changed the asset allocation targets and reallocated the Cash allocation within the Total Fixed Income allocation. As part of this change, the Laddered Bond mandate was added to this sub-asset group. In aggregate, the Laddered Bond + Cash allocation represents 20% of the Total Fixed Income allocation.

Neuberger Berman and Goldman Sachs were retained during the 2021 fiscal year to each manage a Laddered Bond portfolio.

Combined Funds Cash Related Programs

The SBI staff internally manages a portfolio of Certificate of Deposit (CD) securities. As of June 30, 2021, the market value of the portfolio was $28.8 million. In addition to the CD program, the SBI has a Security Repurchase Program.

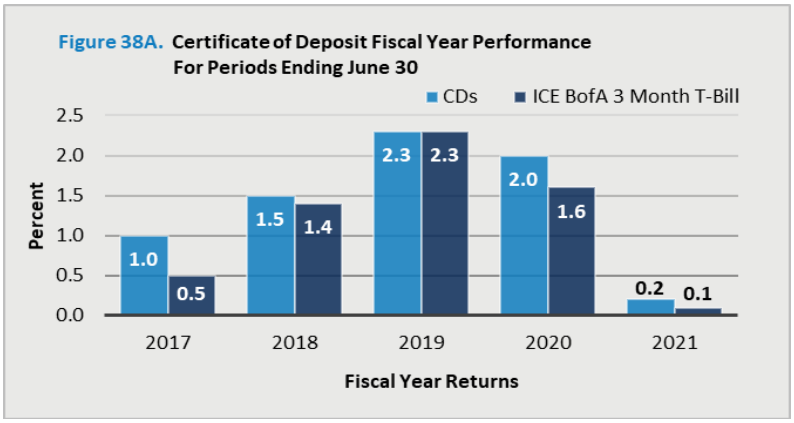
Certificate of Deposit Program
The SBI manages a Certificate of Deposit (CD) Program in which it purchases CDs from Minnesota financial institutions. The return the SBI receives is based on CD rates quoted in the national market. The SBI's CD program provides a reliable source of capital to Minnesota financial institutions, regardless of size, many of which do not have access to the national CD market. The Board designed the program so that no single institution is favored in the allocation of assets. The only assets invested in the CD program are a portion of the Combined Funds Cash pool.

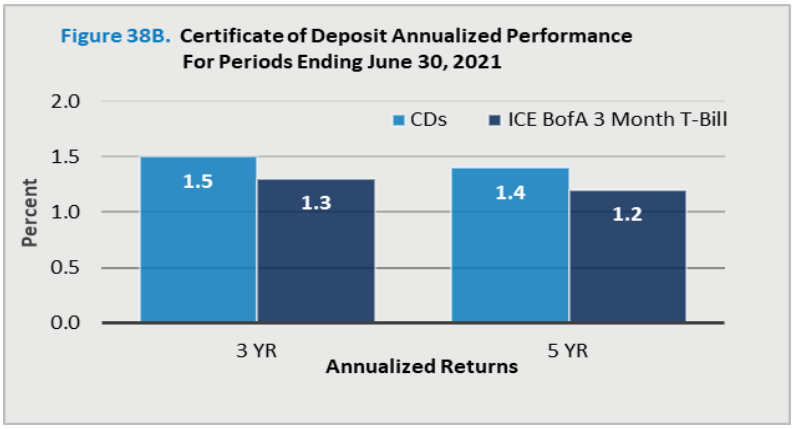
Management Structure
The CD Program is internally managed by SBI investment staff. During fiscal year 2021, the SBI purchased $94.6 million of CDs from Minnesota financial institutions.

Investment Performance
The SBI measures the performance of the CD Program against the ICE BofA 3 Month Treasury Bill Index. Historical performance results are shown in Figures 38A and 38B. The CD Program outperformed its benchmark for the one, three and five year time-period ending June 30, 2021.

Securities Repurchase Program
The SBI created the Securities Repurchase (Repo) Program to supplement the CD program in order to help meet the increased needs of some banks throughout the state of Minnesota. During fiscal year 2021, the SBI did not enter into any repo transactions with Minnesota financial institutions.

Securities Lending
The SBI participates in a Securities Lending Program in which securities held by the SBI on behalf of the Combined Funds are loaned to banks and security dealers for a daily fee. These loans are fully collateralized. Currently, the SBI's securities lending activity is undertaken by the SBI's master custodian bank, State Street Corporation. State Street generated additional income for the retirement systems of approximately $13.2 million during fiscal year 2021.





Laddered Bond Managers

Goldman Sachs Asset Management

Product Name:	US Short Duration Fixed Income	**Benchmark:**	ICE BofA 3Mth T-Bill Index
Product Inception Date:	September 1988	**Investment Style:**	Active Short Duration Bond
Firm Assets (6/30/21):	$2.09 trillion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$116.0 billion	**Investment Process:**	Bottom-up
Product Location:	New York, NY	**Expected # of Holdings:**	50-100
Date Funded:	October 2020	**Expected Ann. Turnover:**	50-150%

Goldman manages a short duration fixed income ladder portfolio intended to preserve the value and safety of principal and provide liquidity consistent with the maturity profile of the custom liability benchmark provided by the SBI. The firm relies primarily on security selection strategies in rates sensitive asset classes tied to the liability benchmark such as Treasuries and U.S. Agencies, though Goldman also attempts to add incremental yield in credit and municipal bonds, when the technical and fundamental backdrop for these asset classes is constructive.

Neuberger Berman Investment Advisers LLC

Product Name:	Short Duration/Enhanced Cash	**Benchmark:**	ICE BofA 3Mth T-Bill Index
Product Inception Date:	November 2004	**Investment Style:**	Active Short Duration Bond
Firm Assets (6/30/21):	$433.2 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$8.0 billion	**Investment Process:**	Bottom-up
Product Location:	Chicago, IL	**Expected # of Holdings:**	50-100
Date Funded:	October 2020	**Expected Ann. Turnover:**	75-150%

Neuberger manages a fixed income short duration treasury ladder portfolio that seeks to preserve the value and safety of principal and provide liquidity consistent with the maturity profile of the custom liability benchmark provide by SBI. While emphasizing these objectives, Neuberger seeks to maximize the rate of return on investment with the goal of outperforming the benchmark on a net of fees basis.

Cash Manager

State Street Global Advisors (SSGA)

Product Name:	Money Market Strategy	**Benchmark:**	iMoneyNet All Taxable Money Fund Average
Product Inception Date:	May 1978	**Investment Style:**	Cash Management
Firm Assets (6/30/21):	$3.9 trillion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$142.0 billion	**Investment Process:**	Bottom-up
Product Location:	Boston, MA	**Expected # of Holdings:**	50-125
Date Funded:	August 1990	**Expected Ann. Turnover:**	N/A

SSGA manages the cash portfolio to provide safety of principal, a high level of liquidity and a competitive yield. The Cash portfolio is invested in high quality, short-term securities generally less than 397 days. Principal protection and same-day liquidity are priorities. Holdings include U.S. Treasury and Agency issues, repurchase agreements, banker's acceptances, commercial paper, short-term corporates, and certificates of deposit.

Private Markets Program

The Combined Funds has a 25% target allocation to private market investments within equity, credit, real assets, and real estate funds. A description of each sub-asset group within the Private Markets Program is described in the respective sections of this annual report.

Allocation

Asset mix and market values for the Private Markets Program as of June 30, 2021 are shown in Figure 39.

The Private Markets Program consists of an invested allocation and an uninvested allocation. The uninvested portion is managed to an S&P 500 mandate in a combination of a passive index strategy and a cash overlay strategy invested in equity derivatives and cash.

Figure 39. Private Markets Program as of June 30, 2021

Sub-Asset Groups	Market Value In Millions	Asset Mix
Private Equity	$10,975.9	48%
Private Credit	1,376.5	6%
Real Assets	1,896.6	8%
Real Estate	1,251.3	5%
Stock Distributions and Accruals	32.3	0%
Total Private Markets Invested	**$15,532.7**	**68%**
S&P 500 Physicals	5,694.4	25%
S&P 500 Cash Overlay	1,739.8	8%
Total Private Markets Uninvested	**$7,434.2**	**32%**
Total Private Markets Program	**$22,966.9**	100%

Benchmark

The following asset class targets are used to calculate the Private Markets composite benchmark:

Private Markets Invested	Private Markets return
Private Markets Uninvested	S&P 500

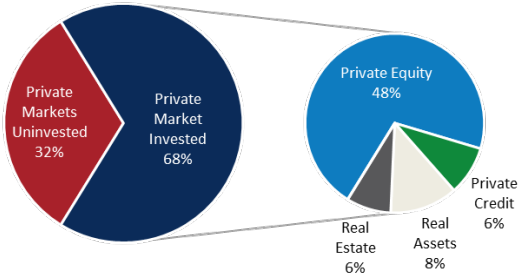
Performance

Figure 40 provides the performance of the Private Markets sub-asset groups as of June 30, 2021. A full year of performance is not available for the Private Markets Uninvested allocation.

Figure 40. Performance of Private Markets Invested as of June 30, 2021

	Annualized		
Sub-Asset Group	**1 Yr. %**	**3 Yrs. %**	**5 Yrs. %**
Private Equity	49.4	21.0	20.3
Private Credit	18.4	9.6	12.1
Real Assets	16.9	-4.2	3.2
Real Estate	14.4	8.9	9.3
Total Private Market Invested	**37.8**	**14.0**	**15.3**

Private Markets Asset Mix as of June 30, 2021



Fiscal Year 2021 Changes

The following changes were implemented during the fiscal year:

- Investment funds in the Distressed/ Opportunistic sub-asset group have been reallocated to either private equity or private credit, as appropriate.
- Albourne Partners, a private markets consultant was hired and will assist staff in strategic initiatives, due diligence on prospective funds, and with Environmental, Social and Governance (ESG) and Diversity, Equity & Inclusion (DEI) work.
- The Board approved a resolution increasing the Combined Funds maximum allowable market value plus unfunded commitments for private markets from the current limit of 35% to a maximum of 45%.
- The Private Market Uninvested allocation was separated from the Public Equity Program and is invested in an S&P 500 mandate.
- The private markets managers ESG initiatives and DEI activities were incorporated into the investment fund recommendation material when presented to the Board for approval.

The Board Resolution Concerning the Management of the Combined Funds Asset Allocation and Liquidity is available on the SBI's website.

Private Markets Invested Allocation

The invested portion of the Private Markets Program consists of funds that make an equity or debt investment with a private business. The Private Markets Program is exclusive to the Combined Funds.

As of June 30, 2021, the market value of the Private Markets Invested allocation was $15.5 billion.

Statutory Constraints

The SBI's private markets investments are generally subject to the following Statutory constraints:

— Each investment must involve at least four other investors.

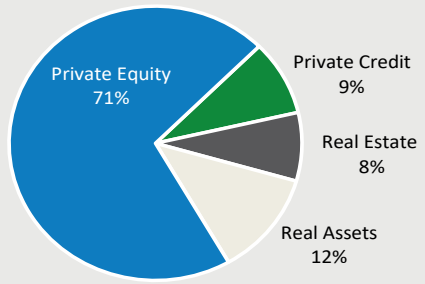
— SBI's participation in an investment may not exceed 20% of the total investment.

The foregoing statutory constraints do not apply to the SBI's private market investments in co-investment or separate account vehicles, which allow the SBI to leverage its scale to obtain cost savings and access to opportunities typically reserved for institutional investors.

Management Structure

Given their long investment time horizon, the Combined Funds are especially well suited for private markets investments. Up to 25% of the market value of the Combined Funds is targeted for private markets investments. Market value plus unfunded commitments may be up to 35% (temporarily increased to 45% during fiscal year 2021) of the total market value of the Combined Funds.
A breakdown of the private markets invested program by segment is shown in Figure 41.

Figure 41. Private Markets Invested Allocation Asset Mix as of June 30, 2021



The SBI does not establish an allocation target for each segment. Categorization of the private markets segments has evolved over time. More recently, the Distressed/ Opportunistic investments have been reallocated to either private equity or private credit, as appropriate.

Private Markets Segments

Private Equity

The private equity investment strategy is to establish and maintain a broadly diversified private equity portfolio comprised of investments that provide diversification by industry type, stage of corporate development and location. The private equity category also includes certain investments previously included in the Distressed/Opportunistic category. Prospective private equity managers are reviewed and selected based, primarily, on the manager's experience, investment strategy, diversification potential and performance history.

During fiscal year 2021, the SBI approved private equity commitments with Adams Street Partners, Asia Alternatives Management, Blackstone, Canyon Capital Advisors, Dyal Capital Partners, Hellman & Friedman LLC, KKR, Nordic Capital, PPC Enterprises LLC, TPG, Thoma Bravo, Thomas H. Lee Equity Partners, and Whitehorse Liquidity Partners. The SBI will continue to review and add new private equity investments as attractive opportunities are identified.

Private Credit

The strategy for private credit investments is to target funds that typically provide a current return and may have an equity component. Structures such as subordinated debt, mezzanine, and direct lending investments are typical private credit investments. The private credit category also includes certain investments previously included in the Distressed/Opportunistic category. Managers are selected based on the manager's performance, experience and investment strategy.
During fiscal year 2021, the SBI approved private credit commitments with Brookfield Asset Management, Merit Capital, and Oaktree. The SBI will continue to review private credit investment opportunities for inclusion in the program.

Real Estate

The real estate investment strategy calls for the

establishment and maintenance of a broadly diversified real estate portfolio comprised of investments that provide overall diversification by property type and location. The main components of this portfolio consist of investments in closed-end commingled funds. The remaining portion of the portfolio may include investments in less diversified, more focused (specialty) commingled funds and REITs. Prospective real estate managers are reviewed and selected based on the manager's experience, investment strategy and performance history.

During fiscal year 2021, the SBI approved real estate commitments with Brookfield Asset Management, Lubert-Adler Partners, Oaktree, and The Carlyle Group. The SBI will continue to review real estate managers for possible inclusion in the program.

Real Assets

The strategy for real asset investments is to establish and maintain a diversified portfolio of investment vehicles comprised of tangible assets, which provide an inflation hedge and additional diversification. Real asset investments may include natural resources, infrastructure, and agricultural and timber assets. The portfolio will be diversified by geographic area as well as by type. Real asset investments are selected based on the manager's experience, investment strategy and performance history.

There were no commitments made to real asset investments during the 2021 fiscal year, but the SBI continues to review for possible inclusion in the program.

Investment Manager Summaries

Descriptions of each of the private markets investments are included in the **Investment Manager Summaries** section beginning on page B59.

Investment Performance

The SBI reviews performance of its private markets investments relative to inflation, as measured by changes in the Consumer Price Index (CPI), and expects that private markets investments in aggregate will be accretive to other investments in the Combined Funds.

The Private Markets Program provided a 37.8% return in fiscal year 2021. Over a ten year period ending June 30, 2021, the annualized return was 12.3%, which provided a positive contribution to the overall performance for the Combined Funds.

At this time, benchmarks have not been established for the private markets fund managers. The long-term nature of these investments and the lack of comprehensive data on the returns provided by the private markets investments preclude comprehensive performance evaluation.

Historical performance results are shown below in Figures 42A and 42B.

Fiscal Year 2021 Changes

Changes outlined on page B55 are to provide additional flexibility to the Private Markets Program allocation.

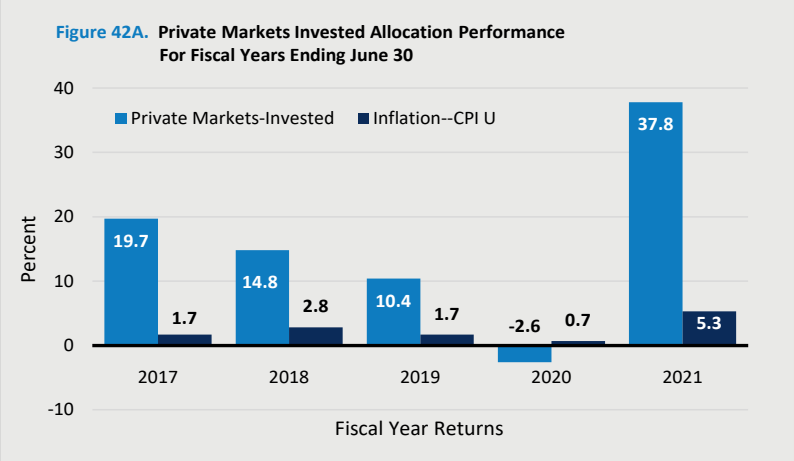


Figure 42A. Private Markets Invested Allocation Performance For Fiscal Years Ending June 30

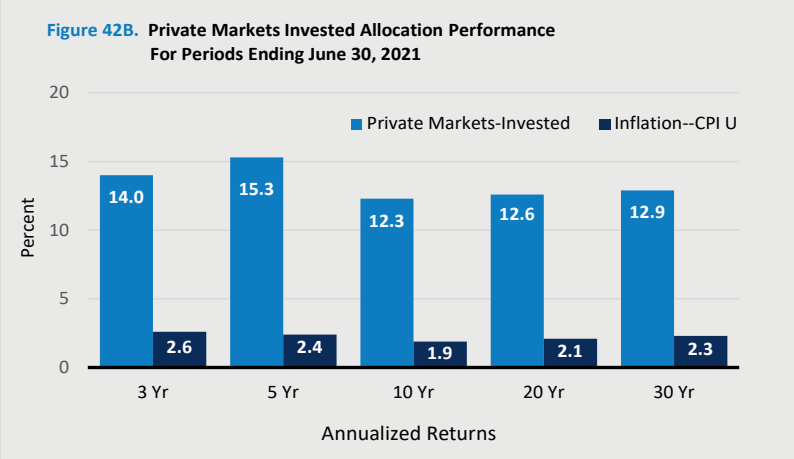


Figure 42B. Private Markets Invested Allocation Performance For Periods Ending June 30, 2021

Private Markets Uninvested Allocation

The uninvested portion of the Private Markets Program represents the amount by which the actual value of the Private Markets allocation lags the target allocation. The difference is invested in public equities until needed for investment.

As of June 30, 2021, the Private Markets Uninvested allocation market value was $7.4 billion.

Management Structure

The Uninvested portion of the Private Markets allocation is invested in two separate portfolios managed to the S&P 500 using physical securities and an overlay program fully collateralized by cash.

The cash overlay manager may utilize both equity and interest rate derivatives to replicate desired market exposures. The physical portion of the portfolio is invested in public equities.

A breakdown of the managers that execute this investment strategy is shown in Figure 43.

Objective

The initial mandate for the cash overlay manager is to equitize a portion of the uninvested private market dollars held in cash for liquidity purposes.

An investment strategy that uses physical assets and a fully collateralized cash overlay program serves many purposes.

- Disentangles the assets from the Public Equity Program and records assets within the targeted asset class to improve operational efficiencies.

Figure 43. Private Markets Uninvested Performance and Market Value as of June 30, 2021

Managers	Strategy	1 Year Return (%) Actual[1]	1 Year Return (%) Bmk[2]	Market Value (In Millions)
BlackRock	Physical Securities	NA	NA	$5,694.4
NISA	Cash Overlay	NA	NA	1,739.8
Total Private Market - Uninvested		**NA**	**NA**	**$7,434.2**

[1] Inception date is January 2021

[2] Benchmark is the S&P 500

- Facilitates rebalancing and enhances portfolio liquidity to reduce the transitions necessary to fund commitment drawdowns.

- Provides a low cost option in a comparable public market mandate so that the portfolio remains fully invested.

Investment Manager Summaries

Descriptions of the private markets investment managers are included in the **Investment Manager Summaries** section beginning on page B59.

Investment Performance

The cash overlay and physical securities investment strategy was funded in January of 2021. Performance is not available for a full fiscal year.

Fiscal Year 2021 Changes

During fiscal year 2021, SBI staff implemented changes as outlined in the Board Resolution Concerning the Management of the Combined Funds Asset Allocation and Liquidity. This involved disentangling the uninvested allocation from the public markets program and creating its own allocation within the Private Market Program managed to an S&P 500 mandate.

Private Equity

Adams Street Partners

Adams Street (formerly Brinson Partners) Global Secondary Funds invest in private equity limited partnership interests, which are sold by investors who, for a variety of reasons, have decided to sell some or all of their partnership interests.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Secondaries
Strategy Location: Chicago, IL

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Adams Street Global Secondary Fund 5	$ 100,000,000	$ 77,114,692	$ 47,445,186	$ 52,967,173	2012	6.39	1.30
Adams Street Global Secondary Fund 6	100,000,000	63,700,000	76,768,376	16,226,381	2017	39.43	1.46

Advent International

Advent International Global Private Equity ("GPE") program focuses on investing primarily in buyout and recapitalization opportunities in upper middle-market companies with a focus on value creation through business transformation and earnings growth. Advent's geographic focus is Europe and North America and selectively in Asia. Advent has regional headquarters in Boston, MA and London.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Buyout
Strategy Location: Boston, MA and London

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Advent International GPE VI	$ 50,000,000	$ 52,993,313	$ 4,962,696	$ 103,400,194	2008	16.63	2.04
Advent International GPE VII	90,000,000	84,690,641	57,516,629	104,146,259	2012	14.90	1.91
Advent International GPE VIII	100,000,000	94,900,002	164,130,743	34,836,243	2016	25.93	2.10
Advent International GPE IX	115,000,000	48,601,383	70,705,754	9,195,408	2019	53.06	1.64

Affinity Ventures

Affinity Ventures makes venture capital investments exclusively in the health care industry, with a focus on companies in the medical device, health care service, health care information technology, and biotechnology sectors.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Venture Capital
Strategy Location: Minneapolis, MN

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Affinity Ventures IV	$ 4,000,000	$ 4,000,000	$ 3,279	$ 1,541,970	2004	-39.75	0.39
Affinity Ventures V	5,000,000	5,000,000	974,239	2,048,042	2008	-8.09	0.60

Apax Partners

Apax Partners flagship funds invest in buyouts globally across its four sectors, Tech & Telco, Services, Healthcare and Consumer, with its digital capability as a horizontal specialization spanning across sectors. Apax is headquartered in London and has additional offices in New York, Munich, Mumbai, Tel Aviv, Shanghai, and Hong Kong.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Buyout
Strategy Location: London

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Apax VIII - USD	$ 200,000,000	$ 233,434,305	$ 98,228,357	$ 322,489,935	2013	16.18	1.80
Apax IX - USD	150,000,000	149,445,866	239,512,991	59,500,736	2016	30.52	2.00
Apax X - USD	150,000,000	29,005,667	40,933,930	(169,333)	2019	140.45	1.41

Private Equity

Arsenal Capital Partners

Arsenal Capital Partners focuses on making private equity investments in in the Specialty Industrials and Healthcare sectors in the lower end of the U.S. middle market. Arsenal has completed more than 150 transactions since its founding in 2000.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Buyout
Strategy Location: New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Arsenal Fund V	$ 75,000,000	$ 52,537,813	$ 62,103,559	$ 2,474,447	2019	17.12	1.23

Asia Alternatives

Asia Alternatives pursues investment opportunities with top-performing private equity managers and will hold a diversified portfolio of Asian private equity funds. The Fund intends to be diversified across buyout, growth and expansion, venture capital and special situations. Asia Alternatives is headquartered in San Francisco, CA, but has regional offices in Hong Kong, Beijing, and Shanghai.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Buyout
Strategy Location: San Francisco, CA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Asia Alternatives Capital Partners V	$ 99,000,000	$ 72,765,776	$ 77,126,629	$ 5,326,224	2017	10.30	1.13
MN Asia Investors	200,000,000	10,142,286	10,142,286	-	2020	1.00	0.00

Banc Fund

Banc Funds invest primarily in sub-regional banks, across the U.S., which have demonstrated above average growth and are likely acquisition targets. Banc Funds also provides value-added counsel to its portfolio companies to improve growth, profitability, and enhance franchise value.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Buyout
Strategy Location: Chicago, IL

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Banc Fund VIII	$ 98,250,000	$ 98,250,000	$ 4,484,785	$ 200,281,098	2008	12.38	2.08
Banc Fund IX	107,205,932	107,205,932	109,174,019	19,549,737	2014	4.14	1.20
Banc Fund X	71,345,455	78,649,455	79,859,005	-	2018	1.11	1.02

BlackRock

BlackRock Long Term Private Capital makes equity investments in established businesses with strong, recurring revenues, prudent capital structures and stable growth potential over a long-term horizon. The Fund is focused on longer-term themes than traditional private equity investments. The Long Term Private Capital team is based in New York and London. The BlackRock Tempus Fund was inherited from the Duluth Teachers Retirement Fund Administration in 2015. The Fund seeks to generate returns by making opportunistic investments in debt and equity.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Buyout
Strategy Location: New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
BlackRock Long-Term Private Capital	$ 500,000,000	$ 288,941,529	$ 345,752,493	$ 2,660,745	2019	21.31	1.21
BlackRock Tempus Fund	1,774,870	1,774,870	175,370	1,796,583	2015	5.74	1.11

Private Equity

Blackstone Capital Partners

Blackstone Capital Partners funds make equity investments in the upper end of the middle market globally. Blackstone invests in the majority of sectors in the global economy. Typically, the firm will add value to underlying portfolio companies by using their functional experts and strategic support groups to improve operations.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Buyout
Strategy Location: New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Blackstone Capital Partners IV	$ 70,000,000	$ 84,459,884	$ 1,084,130	$ 200,546,520	2002	37.02	2.39
Blackstone Capital Partners V	140,000,000	152,334,232	3,735,777	242,056,247	2006	8.00	1.61
Blackstone Capital Partners VI	100,000,000	106,313,194	62,800,180	121,070,894	2008	12.65	1.73
Blackstone Capital Partners VII	130,000,000	135,388,452	157,872,453	30,411,711	2015	15.68	1.39
Blackstone Capital Partners VIII	150,000,000	18,737,625	19,111,068	-	2019	2.26	1.02
Blackstone Growth	250,000,000	75,085,635	91,442,817	7,571,813	2020	84.65	1.32
Blackstone Capital Partners Asia II	270,000,000	-	-	-	2021	0.00	1.00
Blackstone Supplemental Account - M	125,000,000	15,000,000	15,000,000	-	2021	0.00	1.00

Blackstone Strategic Partners (BS)

Strategic Partners invests in secondary leveraged buyout, venture capital, and mezzanine debt limited partnership interests which are sold by investors who, for a variety of reasons have decided to liquidate all or a portion of their private equity holdings. In 2013, the Strategic Partners funds platform was sold to The Blackstone Group and is now wholly-owned by Blackstone.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Buyout
Strategy Location: New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
BS Strategic Partners III VC	$ 25,000,000	$ 25,059,678	$ 293,802	$ 33,874,990	2004	5.99	1.36
BS Strategic Partners III-B	100,000,000	79,629,077	229,439	118,509,586	2004	6.35	1.49
BS Strategic Partners IV VC	40,500,000	42,125,530	3,158,678	61,109,597	2008	9.17	1.53
BS Strategic Partners IV-B	100,000,000	99,298,586	6,734,490	149,265,064	2008	12.23	1.57
BS Strategic Partners V	100,000,000	86,902,843	13,256,455	128,183,083	2011	18.64	1.63
BS Strategic Partners VI	150,000,000	101,728,787	39,968,364	112,040,780	2014	15.00	1.49
BS Strategic Partners VII	150,000,000	106,414,230	98,741,396	68,822,187	2016	19.69	1.57
BS Strategic Partners VIII	150,000,000	69,849,293	72,707,806	27,750,000	2018	47.39	1.44

Bridgepoint

Bridgepoint focuses on making equity investments in middle market companies headquartered or with significant operations in Europe. Bridgepoint focuses on companies with sustainable end market growth and high quality of earnings. The firm has offices globally with eight investment offices in Europe, portfolio offices in Shanghai and New York, and a funds management office in Luxembourg.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Buyout
Strategy Location: London

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Bridgepoint Europe VI	$ 174,594,259	$ 90,748,384	$ 91,220,890	$ 13,311,036	2018	15.02	1.15

Private Equity

Brookfield Asset Management

Brookfield Asset Management is a global operator and asset manager of real assets related businesses. The Capital Partners strategy targets investments in complex situations, out of favor sectors and companies that require operational changes.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Buyout
Strategy Location: Toronto, Ontario

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Brookfield Capital Partners IV	$ 100,000,000	$ 99,945,063	$ 100,047,680	$ 152,347,702	2015	50.47	2.53
Brookfield Capital Partners V	250,000,000	122,432,216	132,335,023	11,374,209	2018	15.30	1.17

Canyon Partners

Canyon is a global value-oriented alternative asset manager that employs a variety of credit strategies across a broad spectrum of asset classes. Canyon invests across the capital structure in instruments including leveraged loans, Debtor-in-Possession (DIP) loans, revolving credit facilities, privately negotiated financings, high yield bonds, trade claims, convertibles, credit derivatives and equities, among others. Canyon is headquartered in the United States in Los Angeles, California

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Non-Control
Strategy Location: Los Angeles, CA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Canyon Distressed Opportunity Fund III	$ 125,000,000	$ 71,250,000	$ 74,996,149	$ 8,750,000	2020	21.87	1.18

Cardinal Partners

DSV focuses on start-up and early stage investments.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Growth
Strategy Location: Princeton, NJ

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Cardinal Partners DSV Partners IV	$ 10,000,000	$ 10,000,000	$ 30,547	$ 39,196,082	1985	10.61	3.92

Carlyle Group

Carlyle Partners funds seek to make control-oriented and strategic minority equity investments, targeting market-leading businesses with solid cash flows and attractive fundamentals, where it looks to drive further growth and operational improvement. Carlyle Strategic Partners intends to invest in the debt and/or equity of proprietarily sourced companies affected by market- and company-specific dislocations. The firm expects the majority of companies will be based in the United States and Europe, with a small proportion of the fund invested in Asia.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Buyout
Strategy Location: Washington, DC

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Carlyle Partners VII	$ 150,000,000	$ 94,074,232	$ 98,214,972	$ 4,293,406	2017	7.17	1.09
Carlyle Strategic Partners IV	100,000,000	81,070,745	42,773,194	44,726,105	2016	6.19	1.08

Private Equity

CarVal Investors (CVI)

CarVal is based in Minneapolis, MN with offices in Beijing, Buenos Aires, London, Copenhagen, Delhi, Luxembourg, Paris, Singapore, Shanghai and Tokyo. The Funds will make investments in loan portfolios, corporate securities, international real estate and real estate loans and special opportunities.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Non-Control
Strategy Location: Minneapolis, MN

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
CVI Global Value Fund	$ 200,000,000	$ 190,000,000	$ 103,445	$ 320,746,143	2007	9.53	1.69
CVI Global Value Fund I	100,000,000	95,000,000	498,759	213,343,831	2010	18,72	2.25
CVI Global Value Fund A II	150,000,000	142,500,000	2,495,871	199,242,174	2012	8.19	1.42
CVI Global Value Fund A III	150,000,000	142,500,000	51,386,169	134,899,232	2015	8.26	1.31
CVI Global Value Fund IV	150,000,000	120,203,333	142,675,680	60	2017	7.09	1.19
CVI Global Value Fund V	150,000,000	22,500,000	22,500,000	-	2020	0.00	1.00

Chicago Growth Partners (William Blair)

Chicago Growth Partners ("CGP") funds focus on buyouts of small growth companies across the Education, Tech-Enabled Services, Healthcare, and Industrial Growth sectors. CGP seeks to partner with entrepreneurs attempting to maintain or accelerate revenue and EBITDA growth in their businesses.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Growth
Strategy Location: Chicago, IL

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Chicago Growth Partners II	$ 60,000,000	$ 58,347,626	$ 563,204	$ 123,371,040	2008	19.55	2.12

Court Square Capital Partners

Court Square Capital Partners invests in North American middle-market growth companies in the Business Services, Healthcare, Industrial, and Technology & Telecommunications sectors. Established in 2001, Court Square traces its roots back to 1979 where senior members of the team worked together at Citigroup Venture Capital.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Buyout
Strategy Location: New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Court Square Capital Partners II	$ 175,000,000	$ 170,029,204	$ 9,321,045	$ 295,667,586	2006	12.56	1.79
Court Square Capital Partners III	175,000,000	184,658,927	160,479,665	162,316,821	2012	17.82	1.75
Court Square Capital Partners IV	150,000,000	76,589,054	84,849,028	4,030,713	2018	19.79	1.16

Crescendo

Crescendo Ventures makes venture capital investments in companies throughout the U.S. The firm has offices in Minneapolis and Palo Alto, CA.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Venture
Strategy Location: Minneapolis, MN

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Crescendo IV	$ 101,500,000	$ 103,101,226	$ 198,487	$ 57,982,654	2000	-4.62	0.56

Private Equity

CVC Capital Partners

CVC focuses on making control-oriented buyout investments in Western Europe and North America. CVC seeks to invest in high quality businesses with competitive leadership positions and to work with management to create sustainable long-term value. The firm was established in 1981 and currently has 15 offices across Europe and the Americas and 9 offices in the Asia Pacific region.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** London

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
CVC European Equity Partners V	$ 134,010,011	$ 153,813,045	$ 5,982,622	$ 292,442,084	2008	16.75	1.94
CVC Capital Partners VI	259,852,277	270,536,478	306,941,872	160,082,876	2013	16.33	1.73

Goldman Sachs Capital Partners (GS)

Goldman Sachs Capital Partners and West Street Capital Partners funds seek long-term capital gains through the creation of a diversified global portfolio of direct or indirect investments in equity, equity-related and similar securities. The Vintage Fund series focuses on acquiring and structuring portfolios of private equity partnerships and assets in the secondary market.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
GS Capital Partners V	$ 100,000,000	$ 74,319,006	$ 594,587	$ 191,435,136	2005	18.24	2.58
GS Capital Partners VI	100,000,000	110,258,192	10,314,661	134,939,054	2007	7.21	1.32
GS Vintage VII	100,000,000	81,423,688	83,126,394	34,626,483	2016	17.12	1.45
GS West Street Capital Partners VII	150,000,000	127,634,475	147,385,933	30,340,289	2016	18.54	1.39
GS China-US Cooperation Fund	99,800,000	17,140,445	20,739,612	-	2018	10.94	1.21

Goldner Hawn Johnson and Morrison

Goldner Hawn Johnson and Morrison ("GHJM") invests primarily in middle market private equity investments located in the Midwest and other parts of the U.S. GHJM has a value-oriented approach to investing and looks to add value by executing add-on acquisitions, facilitating new strategic initiatives, and/or solving company issues that previously detracted from company value.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** Minneapolis, MN

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
GHJM TrailHead Fund	$ 20,000,000	$ 16,652,130	$ 20,129,975	$ 29,444,283	2012	18.49	2.98
Goldner Hawn Fund VII	57,755,138	20,689,891	20,338,013	-	2018	-1.95	0.98

Private Equity

GTCR

GTCR focuses on building diversified private equity funds by partnering with exceptional management leaders, developing deep domain expertise in the sectors on which they focus, and executing transformational opportunities. The firm was founded in 1980.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** Chicago, IL

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
GTCR Fund X	$ 100,000,000	$ 104,934,096	$ 8,943,208	$ 202,619,633	2010	21.25	2.02
GTCR Fund XI	110,000,000	104,833,780	225,761,940	187,515,050	2013	42.45	3.94

HarbourVest

The HarbourVest funds were inherited from the Duluth Teachers Retirement Fund Administration in 2015. HarbourVest is a global investment firm with multiple investment products. The following funds were formed to make direct or secondary investments in established buyout and venture capital funds.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** Boston, MA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Dover Street VII Cayman Fund	$ 2,198,112	$ 2,073,906	$ 210,619	$ 1,676,852	2014	-4.03	0.91
HarbourVest Intl PE V-Cayman US	3,530,349	3,345,452	394,904	4,146,340	2014	13.82	1.36
HarbourVest Intl PE VI-Cayman	4,244,667	4,039,120	3,548,391	3,891,727	2014	16.02	1.84
HarbourVest VIII Cayman Buyout	4,506,711	4,387,189	884,314	5,260,942	2014	13.42	1.40
HarbourVest VIII-Cayman Venture	7,190,898	7,085,519	3,975,737	7,583,201	2014	13.27	1.63

Hellman and Friedman

Hellman and Friedman ("H&F") seeks to build diversified private equity funds by making large-scale investment that are high quality, growing businesses in the developed markets. The firm operates in the Software, Financial Services, Internet and Media, Business and Information Services, Healthcare, Insurance, Retail and Consumer, and Energy and Industrials sectors. H&F has offices in San Francisco, New York, and London.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** San Francisco, CA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Hellman & Friedman Capital Partners VI	$ 175,000,000	$ 171,037,755	$ 3,182,181	$ 315,233,005	2007	12.91	1.86
Hellman & Friedman Capital Partners VII	50,000,000	49,874,836	23,687,972	136,824,497	2009	25.01	3.22
Hellman & Friedman Investors IX	175,000,000	122,567,185	137,895,159	362,822	2018	16.58	1.13
Hellman & Friedman Investors X	250,000,000	-	-	-	2021	0.00	0.00

Private Equity

IK Investment Partners

IK Investment Partners make equity investments in lower middle-market business in Europe's northern countries. IK's primary focus is businesses in the Consumer Industrial, Businesses Services and Healthcare Sectors. Once IK makes an investment in a business, it seeks to expand the business internationally through a combination of organic growth and via mergers and acquisitions.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** London

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
IK Fund VII	$ 180,702,687	$ 178,607,264	$ 58,538,692	$ 272,031,170	2013	14.51	1.85
IK Fund VIII	170,799,889	171,856,630	147,818,988	127,092,302	2016	19.74	1.60
IK Fund IX	161,093,205	47,012,513	41,681,208	-	2019	-45.85	0.89

Kohlberg, Kravis, Roberts (KKR)

KKR's private equity funds engage primarily in buyouts, build-ups, control, growth and other private equity investments globally. Private equity teams are supported by a global network of KKR consultants, operational professionals, and capital markets professionals. The Millennium, 2006, and Americas Funds invest across North America, and the Asia and Europe funds invest in their respective continents.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** Respective Continents: New York, Hong Kong, London

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
KKR Millennium Fund	$ 200,000,000	$ 205,167,570	$ 161,924	$ 424,946,028	2002	16.37	2.07
KKR 2006 Fund	200,000,000	218,786,463	40,388,001	354,417,654	2006	9.22	1.80
KKR Americas Fund XII	150,000,000	117,279,730	199,464,944	12,774,468	2016	34.02	1.81
KKR Asian Fund III	100,000,000	78,074,905	105,522,834	17,498,017	2017	30.12	1.58
KKR Europe V	100,000,000	61,174,431	64,619,788	1,833,504	2018	11.81	1.09
KKR Asian Fund IV	150,000,000	11,850,929	12,050,522	-	2020	1.68	1.02
KKR Core Investments Partnership	97,000,000	29,082,291	30,422,768	234,159	2021	5.43	1.05
KKR North America Fund XIII	300,000,000	-	-	-	2021	0.00	0.00

Leonard Green & Partners

Leonard Green & Partners ("LGP") focuses on investing in market-leading companies with attractive growth prospects across a broad range of industries with a preference for companies providing services, including Consumer, Business, and Healthcare Services, as well as Retail, Distribution, and Industrials.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** Los Angeles, CA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Green Equity Investors VI	$ 200,000,000	$ 220,675,099	$ 242,919,426	$ 173,610,323	2012	14.78	1.89
Green Equity Investors VIII	125,000,000	51,290,491	49,740,698	-	2020	-7.73	0.97

Private Equity

Lexington Capital Partners

Lexington Capital Partners funds seek to make investments in established buyout, mezzanine, and venture capital funds, primarily through secondary transactions. Lexington Middle Market funds seek to acquire U.S. growth capital, small and middle market buyout interests through negotiated secondary market purchases. Lexington Co-Investment Partners funds focus on making equity co-investments in transactions alongside leading buyout sponsors in U.S., European, and Asian companies.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Secondaries | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Lexington Capital Partners VI	$ 100,000,000	$ 98,374,022	$ 4,764,320	$ 141,937,990	2005	7.94	1.49
Lexington Capital Partners VII	200,000,000	172,466,709	39,549,688	244,134,392	2009	14.58	1.64
Lexington Capital Partners VIII	150,000,000	136,386,669	108,569,385	101,606,285	2014	18.14	1.54
Lexington Middle Market Investors IV	100,000,000	50,174,468	53,088,276	13,267,893	2016	30.45	1.32
Lexington Co-Investment Partners IV	200,000,000	204,476,064	248,556,920	65,926,728	2017	21.97	1.54
Lexington Capital Partners IX	150,000,000	56,068,052	66,920,616	14,288,512	2018	75.37	1.45
Lexington Co-Investment Partners V	300,000,000	30,262,831	30,129,192	-	2020	-0.44	1.00
Lexington Co-Investment Partners V Overage	45,000,000	7,326,000	7,325,267	-	2021	-0.02	1.00

Madison Dearborn Capital Partners

Madison Dearborn Capital Partners is a medium-sized private equity investment firm. The firm makes buyout and growth equity investments in established middle and upper middle-market companies located primarily in the United States.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** Chicago, IL

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Madison Dearborn Capital Partners VII	$ 100,000,000	$ 94,557,774	$ 118,498,010	$ 20,769,344	2015	14.57	1.47
Madison Dearborn Capital Partners VIII	100,000,000	22,333,450	27,510,792	-	2019	32.92	1.23

Marathon

Founded in 1998, Marathon Asset Management is a global asset manager that focuses on investing in public and private credit markets. Marathon's Distressed Credit strategy will seek to construct a portfolio of distressed, dislocated, and restructuring corporate credit opportunities in complex situations with attractive risk-adjusted return characteristics.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Non-Control | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Distressed Credit Fund GP, LLC	$ 200,000,000	$ 73,906,171	$ 79,198,580	$ 6,185,200	2020	41.93	1.16

Private Equity

Merced Capital

Merced Partners expects to invest in securities with strong downside protection from identifiable asset value and compelling return potential from some combination of current income, asset value appreciation, secondary market instrument appreciation, and enterprise value creation or appreciation.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Non-Control | **Strategy Location:** Minneapolis, MN

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Merced Partners III	$ 100,000,000	$ 103,878,468	$ 2,497,339	$ 132,676,445	2010	5.55	1.30
Merced Partners IV	125,000,000	124,968,390	35,633,784	105,597,539	2013	2.74	1.13
Merced Partners V	53,737,500	59,289,108	53,682,540	5,360,662	2017	-0.12	1.00

MHR Institutional Partners (MHR)

MHR is a medium-sized private equity investment firm. The firm invests in distressed companies with the goal of gaining influence or control of the company and creating value through the restructuring process and revenue growth.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Distressed for Control | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
MHR Institutional Partners IV	$ 75,000,000	$ 62,246,892	$ 67,420,450	$ 11,113,727	2014	8.59	1.26

Neuberger Berman (NB)

Neuberger Berman formed the Dyal Capital Partners strategy to make minority equity investments in established investment management companies. The firm seeks to build a portfolio that will be diversified by investment strategy, vintage year, and geography.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
NB Dyal Capital Partners III	$ 175,000,000	$ 192,620,066	$ 137,087,859	$ 163,712,900	2015	28.34	1.56
NB Dyal Capital Partners IV	250,000,000	106,307,622	131,284,596	52,637,853	2018	76.49	1.73
NB Dyal Capital Partners V	200,000,000	11,000,000	13,230,745	62,019	2020	21.05	1.21

Nordic Capital

Nordica Capital performs buyouts of middle-market businesses, primarily in the Nordic region of Europe. Nordic focuses on healthcare and information technology businesses where they can use their expertise in these sectors to create value.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** Stockholm, Sweden

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Nordic Capital Fund VIII	$ 177,406,380	$ 220,475,964	$ 170,908,834	$ 214,277,024	2013	16.65	1.75
Nordic Capital Fund IX Beta	172,145,603	132,900,724	221,924,049	9,140,749	2017	51.15	1.74
Nordic Capital Fund X	160,265,843	8,507,976	7,536,292	-	2020	-11.42	0.89

Private Equity

North Sky Capital

North Sky Capital funds were inherited from the Duluth Teachers Retirement Fund Administration in 2015. North Sky manages several different investment strategies. The following funds were formed to make direct investments in established buyout and venture capital funds.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** Minneapolis, MN

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
North Sky Capital LBO Fund III	$ 1,070,259	$ 720,259	$ 135,332	$ 942,598	2014	14.27	1.50
North Sky Capital Venture Fund III	1,384,080	1,277,830	387,931	1,464,808	2014	13.87	1.45

Oak Hill Capital Management, Inc

Oak Hill Capital seeks to make middle-market buyout investments across the Consumer, Retail & Distribution, Industrials, Media & Communications, and Services sectors. The firm began its investment activities in 1986 as the family office of Robert M. Bass and raised its first outside capital and formed its first fund in 1999. The firm is based in New York, NY and has offices in Menlo Park, CA and Stamford, CT.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Oak Hill Capital Partners IV	$ 150,000,000	$ 146,322,216	$ 115,218,943	$ 108,836,472	2016	28.05	1.53
Oak Hill Capital Partners V	100,000,000	36,725,097	34,816,053	35,043	2018	-16.73	0.95

Oaktree Capital Management

Oaktree Capital Management is a global private equity firm. The Oaktree Principal and Special Situations strategies seek to invest in the debt or equity of companies experiencing a significant element of distress or dislocation or that are otherwise out of favor.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Non-Control | **Strategy Location:** Los Angeles, CA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Oaktree Special Situations Fund	$ 100,000,000	$ 97,861,463	$ 106,879,177	$ 20,335,451	2014	9.15	1.30
Oaktree Special Situations Fund II	100,000,000	28,651,187	28,430,084	16,700,000	2018	79.46	1.58

Paine Schwartz

Paine Schwartz is a small private equity firm with offices in New York, Chicago and San Mateo, CA. Paine Schwartz seeks to make control investments in companies involved in the global food and agribusiness sectors. The firm has a focus on innovation and sustainability and carries it out with a proactive and thesis-driven approach.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Paine Schwartz IV	$ 75,000,000	$ 64,218,599	$ 49,705,426	$ 35,334,371	2014	8.44	1.32
Paine Schwartz V	150,000,000	45,810,100	42,383,715	1,747,848	2018	-5.24	0.96

Private Equity

Permal PE (formerly Glouston Capital Partners)

Glouston Private Equity Opportunities Fund was inherited from the Duluth Teachers Retirement Fund Administration in 2015. Glouston is a small investment firm and was formed to purchase small portfolios of private equity investments on the secondary market.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Secondaries | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Glouston PE Opportunities IV	$ 5,337,098	$ 4,377,004	$ 661,038	$ 4,060,751	2014	2.87	1.08

Permira

Permira performs buyouts of middle-market companies in Europe, North America, and Asia. Permira typically makes investments in the Retail, Consumer & Business Services, Healthcare and Telecom, and Media and Technology sectors. Headquartered in London, Permira has 13 additional offices across Europe, the U.S., and Asia.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** London

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Permira V	$ 178,513,104	$ 181,954,007	$ 251,971,662	$ 287,672,383	2013	25.14	2.97
Permira VI	138,523,398	124,325,040	194,246,344	36,047,783	2016	25.86	1.85
Permira VII	146,122,258	61,154,032	68,484,828	-	2019	12.86	1.12

Public Pension Capital Management

Public Pension Capital developed an innovated approach to private equity investing, tailored to the needs and demands of modern public pensions in the United States. The fund's evergreen structure allows flexibility, increased transparency and alignment of interests of the GP and LPs. The fund invests in middle market businesses in the Technology, Financial and Industrial sectors.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Public Pension Capital Fund	$ 175,000,000	$ 102,237,007	$ 114,854,396	$ 81,060,651	2014	25.53	1.92

Silver Lake Partners

Silver Lake Partners seeks to achieve superior risk-adjusted returns by pursuing large-scale growth and private equity investments in companies within the technology, technology-enabled and related growth industries. Silver Lake was founded in 1999 and has offices in Silicon Valley, New York, London, and Hong Kong.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** Menlo Park, CA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Silver Lake Partners II	$ 100,000,000	$ 90,200,747	$ 44,347	$ 171,694,975	2004	11.02	1.90
Silver Lake Partners III	100,000,000	93,729,450	29,865,162	190,188,507	2007	18.77	2.35
Silver Lake Partners IV	100,000,000	114,635,026	169,720,399	104,751,684	2012	26.39	2.39
Silver Lake Partners V	135,000,000	124,642,797	180,989,618	24,821,691	2017	31.71	1.65

Private Equity

Split Rock Partners

Split Rock Partners Management (formerly part of St. Paul Venture Capital) formed the Split Rock Partners funds to focus on private equity investments in seed and early-stage healthcare and software companies. The firm has offices in Minneapolis and Menlo Park.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Venture Capital
Strategy Location: Minneapolis, MN

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Split Rock Partners I	$ 50,000,000	$ 47,890,906	$ 3,801,751	$ 58,794,192	2005	3.26	1.31
Split Rock Partners II	60,000,000	59,165,000	19,680,934	66,598,372	2008	6.96	1.46

Summit Partners (SP)

Summit Partners sources and partners with exceptional entrepreneurs to help them accelerate their growth. Summit Partners has a flexible investment approach and investments range from structured transactions to control buyouts. The firm was founded in 1984 and currently has more than 100 investment professionals across their Boston, Menlo Park, and London offices.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Buyout
Strategy Location: Boston, MA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
SP Growth Equity Fund VIII	$ 100,000,000	$ 116,727,192	$ 65,947,946	$ 213,696,579	2011	27.28	2.40
SP Growth Equity Fund IX	100,000,000	120,866,521	179,583,295	52,477,659	2015	36.78	1.92
SP Growth Equity Fund X	150,000,000	77,609,998	93,366,147	-	2019	39.34	1.20

Thoma Bravo

Thoma Bravo is a successor firm to the private equity firm of Golder, Thoma, Cressey and Rauner ("GTCR"). Thoma Bravo pursues buy-and-build control buyouts of software and technology companies in North America. The firm has offices in San Francisco and Chicago.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Buyout
Strategy Location: San Francisco, CA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Thoma Bravo Fund XII	$ 75,000,000	$ 81,653,101	$ 118,787,393	$ 19,798,296	2016	17.27	1.70
Thoma Bravo Fund XIII	150,000,000	148,220,365	179,043,402	77,245,480	2018	54.01	1.73
Thoma Bravo Fund XIV	150,000,000	58,993,941	58,821,856	37	2020	-0.95	1.00

Thoma Cressey

Thoma Cressey Bravo is a successor firm to the private equity firm of Golder, Thoma, Cressey and Rauner ("GTCR"). The funds focus primarily on a wide variety of private equity investments in consolidating and fragmented industries.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Buyout
Strategy Location: Chicago, IL

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Thoma Cressey Fund VII	$ 50,000,000	$ 50,000,000	$ 444,746	$ 107,057,940	2000	23.58	2.15

Private Equity

Thomas H. Lee Partners

Thomas H. Lee invests in growth-oriented businesses, headquartered primarily in North America, through buyout transactions. The firm was founded in 1974 and has invested in more than 140 portfolio companies and completed over 350 add-on acquisitions since inception. The firm has more than 40 investment professionals.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Buyout
Strategy Location: Boston, MA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Thomas H. Lee Equity Fund VII	$ 100,000,000	$ 99,090,805	$ 58,743,002	$ 129,051,091	2015	25.28	1.90
Thomas H. Lee Equity Fund VIII	150,000,000	86,016,926	152,012,064	30,982,991	2018	90.00	2.13
Thomas H. Lee Equity Fund IX	150,000,000	-	-	-	2021	0.00	0.00

Thomas, McNerney & Partners

Thomas, McNerney & Partners is based in Connecticut with additional offices in Minneapolis and San Francisco. The Thomas, McNerney & Partners funds were formed to make venture capital investments in all stages of development and across all sectors of the health care industry.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Venture Capital
Strategy Location: Stamford, Connecticut

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Thomas, McNerney & Partners Fund I	$ 30,000,000	$ 30,000,000	$ 3,184,208	$ 15,087,143	2002	-7.23	0.61
Thomas, McNerney & Partners Fund II	50,000,000	48,125,000	3,578,876	108,394,704	2006	16.57	2.33

TPG Capital

TPG Partners seeks attractive risk-adjusted returns by investing in traditional buyouts, transformational transactions, and off-the-beaten-path transactions. Founded in 1993, TPG has over 90 investment professionals and can leverage the broader TPG platform, which has over 570 professionals located in 17 offices globally.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Buyout
Strategy Location: San Francisco, CA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
TPG Partners VII	$ 100,000,000	$ 97,791,634	$ 110,544,045	$ 52,265,899	2015	17.91	1.66
TPG Partners VIII	150,000,000	37,140,910	36,584,981	2,732,518	2018	7.25	1.06
TPG Tech Adjacencies II	150,000,000	-	-	-	2021	0.00	0.00

Värde Partners

Värde will invest in credit and value-oriented opportunities across a broad range of markets, including corporate and traded credit, specialty finance, real estate and real assets and infrastructure. Värde is headquartered in Minnesota with regional headquarters in London and Singapore. Värde also maintains offices in Asia Pacific, Europe and North America.

Asset Class: Private Equity
Strategic Allocation Category: Growth Appreciation
Strategy: Non-Control
Strategy Location: Minneapolis, MN

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Värde Fund IX	$ 100,000,000	$ 100,000,000	$ 123,010	$ 216,097,236	2008	15.01	2.16
Värde Fund X	150,000,000	150,000,000	18,306,582	251,421,642	2010	10.52	1.80
Värde Fund XI	200,000,000	200,000,000	94,098,538	180,126,605	2013	5.44	1.37
Värde Fund XIII	150,000,000	75,000,000	90,687,825	20,038	2018	14.64	1.21

Private Equity

Vestar Capital Partners

Vestar Capital Partners is a middle-market private equity firm specializing in management buyouts, recapitalizations, and growth equity investments. Vestar has completed over 80 platform investments and 200 add-on acquisitions since its inception in 1988. The firm is headquartered in New York and has offices in Denver and Boston.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Vestar Capital Partners IV	$ 55,000,000	$ 55,652,024	$ 373,925	$ 102,293,320	1999	14.63	1.84
Vestar Capital Partners V	75,000,000	76,797,458	3,433,303	98,533,182	2005	3.99	1.33
Vestar Capital Partners VI	100,000,000	106,516,978	48,821,214	150,071,483	2011	24.11	1.87
Vestar Capital Partners VII	150,000,000	51,839,918	66,400,515	120,808	2017	14.96	1.28

Vista Equity Partners

Vista Equity Partners was founded in 2000 to focus on buyout transactions of enterprise software businesses and technology-enabled solutions companies. Vista Perennial will pursue operationally mature enterprise software businesses on a global scale.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** Chicago, IL

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Vista Equity Partners Perennial, L.P.	$ 200,000,000	$ 69,302,944	$ 71,821,375	$ -	2020	2.79	1.04

Warburg Pincus

Warburg Pincus has a global presence with seven additional offices around the world. These funds will invest private equity in a wide variety of businesses located domestically and abroad. The Warburg Pincus China and China-Southeast-Asia funds are companion funds and will invest alongside the current Warburg Pincus global fund. Similarly, the Warburg Pincus Financial Sector fund will invest alongside the current global and China funds.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Growth | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Warburge Pincus Equity Partners, L.P.	$ 100,000,000	$ 100,000,000	$ 392,915	$ 163,542,253	1998	10.03	1.64
Warburg Pincus Private Equity IX	100,000,000	100,000,000	1,397,111	170,819,101	2005	9.62	1,72
Warburg Pincus Private Equity X	150,000,000	150,000,000	3,930,575	263,436,491	2007	9.45	1.78
Warburg Pincus Private Equity XI	200,000,000	200,342,452	112,979,099	233,452,748	2012	12.97	1.73
Warburg Pincus Private Equity XII	131,000,000	129,231,500	166,740,415	46,996,643	2015	17.28	1.65
Warburg Pincus China	45,000,000	44,460,000	67,371,142	11,972,700	2016	22.87	1.78
Warburg Pincus Financial Sector, L.P.	90,000,000	80,817,888	93,098,787	8,930,700	2017	14.58	1.26
Warburg Pincus Global Growth	250,000,000	168,648,479	183,968,102	1,812,500	2018	12.57	1.10
Warburg Pincus China-Southeast Asia II	50,000,000	8,700,000	11,530,603	960,000	2019	42.24	1.44

Private Equity

Wayzata Investment Partners

Wayzata Investment Partners focuses on making investments in distressed securities where it can expect to exert significant influence on the restructuring process and potentially control the reorganized company.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Distressed for Control | **Strategy Location:** Wayzata, MN

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Wayzata Opportunities Fund II	$ 150,000,000	$ 174,750,000	$ 4,146,659	$ 327,229,040	2007	16.51	1.90
Wayzata Opportunities Fund III	150,000,000	68,415,000	22,549,183	39,068,770	2012	-2.69	0.90

Wellspring Capital Partners

Wellspring Capital Partners seeks to make value-oriented, control investments in undermanaged, but strong middle-market companies based principally in North America. Wellspring looks to employ executional expertise to transform businesses and create significant value.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Wellspring Capital Partners VI	$ 125,000,000	$ 82,017,248	$ 102,658,447	$ -	2016	17.13	1.25

Welsh, Carson, Anderson and Stowe (WCAS)

Founded in 1979, Welsh, Carson, Anderson and Stowe is a private equity investor focused on growth businesses in the healthcare and business/information services industries. They seek to partner with outstanding management teams and build value through a combination of operational improvements, growth initiatives, and strategic acquisitions.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
WCAS Fund XI	$ 100,000,000	$ 100,000,000	$ 27,588,016	$ 137,471,465	2008	11.61	1.65
WCAS Fund XII	150,000,000	145,877,897	201,386,560	127,024,295	2014	29.82	2.25
WCAS Fund XIII	250,000,000	62,960,261	65,909,235	4,271,601	2018	12.94	1.11

Whitehorse Capital (WHC)

Founded in 2015, Whitehorse Liquidity Partners creates preferred equity securities underpinned by private equity portfolios. Whitehorse develops these structures as a liquidity solution for both general and limited partners.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Secondaries | **Strategy Location:** Toronto, Onatrio

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
WHC Liquidity Partners III, LP	$ 100,000,000	$ 91,752,280	$ 70,190,500	$ 45,751,449	2019	26.33	1.26
WHC Liquidity Partners IV	100,000,000	56,542,949	53,064,963	11,293,045	2020	26.12	1.14

Private Equity

Wind Point Partners

Founded in 1984, Wind Point makes private equity investments in North American middle-market companies. Wind Point focuses on companies in the Consumer Products, Industrial Products, and Business Services sectors.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** Chicago, IL

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Wind Point Partners IX	$ 100,000,000	$ 32,067,217	$ 29,323,599	$ 1,721,746	2019	-3.91	0.97

Windjammer Capital Investors

Windjammer Capital Investors ("Windjammer") invests equity, minority equity, and subordinated debt as a control investor in leading middle market businesses and in partnership with their management teams. Since its inception in 1990, the firm has completed over 50 platform investments and 100 add-on acquisitions.

Asset Class: Private Equity | **Strategic Allocation Category:** Growth Appreciation
Strategy: Buyout | **Strategy Location:** Waltham, MA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Windjammer Mezzanine & Equity Fund II	$ 66,708,861	$ 55,215,684	$ 62,466	$ 84,876,800	2000	8.94	1.54
Windjammer Senior Equity Fund IV	100,000,000	94,740,728	81,885,476	93,392,762	2012	13.65	1.85
Windjammer Senior Equity Fund V	100,000,000	41,364,504	39,719,206	1,206,897	2017	-0.85	0.99

Private Credit

Audax Group

Audax invests in a diversified portfolio of mezzanine securities, with a specific focus on the middle market. Audax's deal flow is generated through a combination of direct marketing efforts to middle market private equity sponsors and long-standing relationships with numerous deal intermediaries.

Asset Class: Private Credit | **Strategic Allocation Category:** Growth Appreciation
Strategy: Mezzanine | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Audax Mezzanine Fund III	$ 100,000,000	$ 101,687,301	$ 11,083,067	$ 122,087,222	2010	9.53	1.31
Audax Mezzanine Fund IV	100,000,000	78,484,926	44,872,385	45,635,581	2015	10.13	1.15
Audax Mezzanine Fund V	100,000,000	-	-	-	2020	NA	NA

Avenue Capital Partners

Avenue Capital is a mid-sized global investment firm that makes investments in debt, equity and other obligations of North American energy and utility companies experiencing financial distress.

Asset Class: Private Credit | **Strategic Allocation Category:** Growth Appreciation
Strategy: Non-Control | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Avenue Energy Opportunities Fund	$ 100,000,000	$ 100,977,328	$ 67,797,456	$ 43,929,652	2014	2.00	1.11
Avenue Energy Opportunities Fund II	100,000,000	100,000,000	121,091,100	417,420	2017	6.51	1.22

Private Credit

BlackRock (BR)

BlackRock Middle Market Senior Fund was formed to invest primarily in a portfolio of senior secured income-generating debt and debt-related instruments. It is expected the investments will be in medium-sized companies domiciled in, or exercising the main part of their economic activity in, the United States.

Asset Class: Private Credit
Strategic Allocation Category: Growth Appreciation
Strategy: Direct Lending
Strategy Location: New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
BR Middle Market Senior Fund	$ 97,500,000	$ 69,802,405	$ 73,452,234	$ 7,742,530	2018	8.52	1.16

Brookfield Asset Management

Brookfield's lending activities will be focused principally on high-quality commercial real estate assets in strategic locations in the U.S and selectively in Europe. As one of the world's largest leading real estate managers, Brookfield will seek to finance commercial properties in markets and sectors in which they have significant experience and operating platforms.

Asset Class: Private Credit
Strategic Allocation Category: Growth Appreciation
Strategy: Direct Lending
Strategy Location: New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Brookfield Real Estate Finance Fund VI	$ 200,000,000	$ -	$ -	$ -	2021	0.00	0.00

Energy Capital Partners

Energy Capital Partners Credit Solutions strategy is focused on primarily credit-oriented opportunities in high quality North American-based assets and business across the entire energy infrastructure value chain. Examples include traditional and renewable power, midstream pipeline, storage, transportation assets, environmental infrastructure, and energy-related assets and equipment. The firm is headquartered in Short Hills, New Jersey, and has offices in San Diego, Houston, and New York, NY.

Asset Class: Private Credit
Strategic Allocation Category: Growth Appreciation
Strategy: Specialty Finance
Strategy Location: Short Hills, NJ

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Energy Capital Credit Solutions II	$ 28,087,500	$ 14,022,144	$ 9,623,060	$ 4,029,385	2018	-3.54	0.97

Goldman Sachs Mezzanine Partners (GS)

Based in New York, the Funds' investment objectives are to achieve long-term capital appreciation and current returns through investments in mezzanine securities. These securities will principally include fixed income securities such as debt and preferred stock, often with an equity component, such as warrants, options, a convertible feature, or common stock associated with the debt or preferred stock purchase.

Asset Class: Private Credit
Strategic Allocation Category: Growth Appreciation
Strategy: Mezzanine
Strategy Location: New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
GS Mezzanine Partners 2006	$ 100,000,000	$ 113,454,150	$ 817,763	$ 134,861,849	2006	5.00	1.20
GS Mezzanine Partners V	150,000,000	147,718,660	716,690	180,850,800	2007	9.09	1.23

Private Credit

Gold Hill Venture Lending

Gold Hill Venture Lending Partners generate returns through secured loans, gains on the sales of securities acquired upon the exercise of warrants, and through the disposition of direct equity investments. Prior to forming Gold Hill, the partners executed a similar mandate for Silicon Valley Bank, and they expect to continue a close relationship for purposes of deal-sourcing. Gold Hill has offices in Santa Clara, CA and Boston, MA.

Asset Class: Private Credit | **Strategic Allocation Category:** Growth Appreciation
Strategy: Mezzanine | **Strategy Location:** Santa Clara, CA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Gold Hill Venture Lending	$ 40,000,000	$ 40,000,000	$ 518,112	$ 65,261,602	2004	10.72	1.64
Gold Hill 2008	25,852,584	25,852,584	5,011,548	46,819,154	2008	14.73	2.00

HPS Investment Partners

HPS Investment Partners is a global credit investment firm. Founded in 2007, HPS manages various strategies that invest across the capital structure, from syndicated loans and high yield bonds to privately negotiate senior secured debt and mezzanine investments, asset-based leasing and private equity.

Asset Class: Private Credit | **Strategic Allocation Category:** Growth Appreciation
Strategy: Mezzanine | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
HPS Mezzanine Partners 2019	$ 100,000,000	$ 66,649,097	$ 64,905,027	$ 9,420,612	2019	16.87	1.12

Kohlberg, Kravis, Roberts (KKR)

Based in New York, KKR is a large global investment firm with a variety of private equity investment products. KKR Lending Partners will make investments primarily in the senior debt securities of middle-market U.S. companies. The funds will focus on originated transactions into both sponsored and non-sponsored companies.

Asset Class: Private Credit | **Strategic Allocation Category:** Growth Appreciation
Strategy: Direct Lending | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
KKR Lending Partners II	$ 75,000,000	$ 86,658,994	$ 11,158,794	$ 80,246,773	2015	2.77	1.05
KKR Lending Partners III	199,000,000	175,770,728	160,183,038	54,452,765	2017	15.38	1.22

LBC Credit Partners

LBC Credit Partners originates and manages a diversified portfolio of high-yielding loans in the middle market. LBC will originate and manage investments with maturities ranging generally from three to seven years. LBC is headquartered in Philadelphia, PA with offices in Chicago, IL and Greenwich, CT.

Asset Class: Private Credit | **Strategic Allocation Category:** Growth Appreciation
Strategy: Direct Lending | **Strategy Location:** Philadelphia, PA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
LBC Credit Partners IV	$ 100,000,000	$ 89,597,401	$ 41,203,068	$ 67,350,001	2016	9.20	1.21
LBC Credit Partners V	100,000,000	29,870,259	31,283,310	2,527,672	2019	35.02	1.13

Private Credit

Marathon

Founded in 1998, Marathon Asset Management is a global asset manager that focuses on investing in public and private credit markets. Marathon Secured Private Strategies seeks to provide capital solutions to creditworthy and underserved borrowers and to capitalize on complexity and illiquidity premiums found within non-traditional lending channels.

Asset Class: Private Credit | **Strategic Allocation Category:** Growth Appreciation
Strategy: Speciality Finance | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Secured Private Strategies Fund II, L.P.	$ 100,000,000	$ 63,022,008	$ 72,235,456	$ 858,534	2019	13.90	1.16

Merit Capital Partners

Merit Capital Partners will invest primarily in fixed rate subordinated debt securities. These securities generally will be purchased with a significant equity component in the form of warrants, common stock or contingent interest.

Asset Class: Private Credit | **Strategic Allocation Category:** Growth Appreciation
Strategy: Mezzanine | **Strategy Location:** Chicago, IL

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Merit Mezzanine Fund IV	$ 75,000,000	$ 70,178,571	$ 691,519	$ 139,120,463	2004	11.58	1.99
Merit Mezzanine Fund V	75,000,000	71,044,898	31,020,271	78,853,274	2009	9.42	1.55
Merit Mezzanine Fund VI	100,000,000	85,469,581	67,486,909	48,740,672	2016	14.40	1.36
Merit Mezzanine Fund VII	70,232,500	-	-	-	2020	0.00	0.00

Oaktree Capital Management (OCM)

Oaktree Capital Management's real estate debt strategy seeks to achieve attractive risk-adjusted returns and generate current income through investments in real estate-related debt with an emphasis on the United States. The investment themes for the strategy are: private loan origination, regulatory-driven opportunities, real estate structured credit, and real estate-related corporate debt. The Oaktree Opportunities Funds invest in the debt or equity of companies during periods of financial distress.

Asset Class: Private Credit | **Strategic Allocation Category:** Growth Appreciation
Strategy: Direct Lending | **Strategy Location:** Los Angeles, CA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Oaktree Opportunities Fund X	$ 50,000,000	$ 46,500,021	$ 40,753,914	$ 19,294,660	2015	8.07	1.29
Oaktree Opportunities Fund Xb	100,000,000	60,000,000	72,723,300	-	2015	13.50	1.21
OCM Real Estate Debt Fund, III L.P.	200,000,000	42,600,000	46,895,886	1,941,336	2020	17.79	1.15
Oaktree Opportunities Fund XI	300,000,000	30,000,000	35,526,180	-	2020	25.00	1.18

Pimco Bravo

The Pimco Bravo funds were inherited from the Duluth Teachers Retirement Fund Administration in 2015. Pimco is a global investment management firm with a variety of public and private investment products. The Pimco Bravo Funds primarily invest in distressed commercial and residential mortgage credit.

Asset Class: Private Credit | **Strategic Allocation Category:** Growth Appreciation
Strategy: Non-Control | **Strategy Location:** Newport Beach, CA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Pimco Bravo Fund OnShore Feeder I	$ 3,958,027	$ 3,958,027	$ 6,656	$ 4,016,443	2014	1.61	1.02
Pimco Bravo Fund OnShore Feeder II	5,243,670	4,696,906	1,510,414	4,472,539	2014	5.24	1.27

Private Credit

Portfolio Advisors (PA)

Portfolio Advisors will invest in a variety of securities, including subordinated debt with warrants, preferred stock with warrants, common stock or other securities, including interests in joint ventures. Credit Suisse sold the DLJ Investment Partners platform to Portfolio Advisors in 2013.

Asset Class: Private Credit | **Strategic Allocation Category:** Growth Appreciation
Strategy: Mezzanine | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
PA DLJ Investment Partners III	$ 100,000,000	$ 80,867,108	$ 524,490	$ 96,478,980	2006	7.52	1.20

Prudential Global Investment Management

Prudential makes mezzanine investments, typically including convertible debt, preferred stock and warrants, with a specific focus on middle market companies. Investments will generally be made to facilitate the financing of recapitalizations, acquisitions, internal growth opportunities and buyouts.

Asset Class: Private Credit | **Strategic Allocation Category:** Growth Appreciation
Strategy: Mezzanine | **Strategy Location:** Chicago, IL

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Prudential Capital Partners II	$ 100,000,000	$ 97,418,748	$ 7,738,955	$ 136,427,860	2005	8.92	1.48
Prudential Capital Partners III	100,000,000	102,414,320	2,615,451	173,348,677	2009	14.08	1.72
Prudential Capital Partners IV	100,000,000	112,152,033	44,126,765	101,336,899	2012	8.29	1.30
Prudential Capital Partners V	150,000,000	140,869,607	119,882,477	46,566,890	2016	8.50	1.18
Prudential Capital Partners VI	100,000,000	-	-	-	2020	0.00	0.00

Summit Partners

The funds invest in many of the same companies as the Summit Venture funds. Investments by those partnerships principally take the form of subordinated debt with equity features. These yield-oriented investments provide current income over the life of the investment with the potential for additional returns.

Asset Class: Private Credit | **Strategic Allocation Category:** Growth Appreciation
Strategy: Mezzanine | **Strategy Location:** Boston, MA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Summit Subordinated Debt Fund III	$ 45,000,000	$ 44,088,494	$ 3,860,623	$ 60,443,093	2004	8.84	1.46
Summit Subordinated Debt Fund IV	50,000,000	55,914,003	3,007,167	73,235,942	2008	9.99	1.36

TCW Asset Management

TCW is a large asset management firm that makes investments in public and private companies. TCW Direct Lending pursues a strategy of originating and investing in loans to middle-market companies primarily in the United States. The loans are generally structured as senior-secured, floating rate loans.

Asset Class: Private Credit | **Strategic Allocation Category:** Growth Appreciation
Strategy: Direct Lending | **Strategy Location:** Los Angeles, CA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
TCW Direct Lending	$ 100,000,000	$ 83,599,652	$ 25,736,535	$ 76,716,774	2014	7.51	1.23
TCW Direct Lending VII	100,000,000	90,919,484	81,731,667	20,922,116	2018	9.67	1.13

Private Credit

TSSP

TSSP Adjacent Opportunities Partners seeks to make global credit and credit-related investments, generally in opportunities with significant downside protection and cash yield. Headquartered in San Francisco, the team also has offices in New York, NY, London, Boston, MA, Houston, TX, Dallas, TX, Melbourne and Luxembourg

Asset Class: Private Credit	**Strategic Allocation Category:** Growth Appreciation
Strategy: Non-Control	**Strategy Location:** San Francisco, CA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
TSSP Adjacent Opportunities	$ 50,000,000	$ 40,136,737	$ 37,448,950	$ 11,729,716	2018	12.71	1.23
TSSP Adjacent Opportunities (Contingent)	100,000,000	39,921,568	41,782,089	6,578,405	2018	34.58	1.21
TSSP Opportunities Partners IV	50,000,000	28,555,356	31,024,242	3,729,515	2018	19.28	1.22

Real Assets

BlackRock (BR)

BlackRock Global Renewable Power strategy seeks to invest in a diversified portfolio of renewable power generation projects in countries within the Organization for Economic Cooperation and Development (OECD). The Global Renewable Power strategy has offices in New York, Dublin, London, Seattle and Stockholm.

Asset Class: Real Asset	**Strategic Allocation Category:** Real Assets
Strategy: Infrastructure	**Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
BR Global Renewable Power Fund II	$ 98,500,000	$ 94,413,824	$ 71,994,280	$ 32,142,498	2017	4.04	1.10
BR Global Renewable Power Infrastructure III	100,000,000	11,081,243	10,465,658	180,968	2019	-4.66	0.96

EIG Global Energy Partners

Energy Partners focuses on making mezzanine and equity investments in energy and energy-related infrastructure projects and companies on a global basis. The funds operate from offices in Washington D.C., Los Angeles, Houston, New York, and London. EIG was formally spun out of TCW in 2011.

Asset Class: Real Asset	**Strategic Allocation Category:** Real Assets
Strategy: Energy	**Strategy Location:** Los Angeles, CA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
EIG Energy Fund XIV	$ 100,000,000	$ 113,459,470	$ 4,829,726	$ 95,309,310	2007	-4.74	0.88
EIG Energy Fund XV	150,000,000	161,551,718	25,055,012	144,862,109	2010	1.30	1.05
EIG Energy Fund XVI	200,000,000	192,873,974	124,249,775	104,354,527	2013	5.08	1.19

Real Assets

EnCap Energy

EnCap Energy Capital Funds were formed for the purpose of making privately negotiated equity and equity-linked investments in the independent sector of the oil and gas industry. EnCap Investments is based in Houston, TX and has offices in Dallas, TX.

Asset Class: Real Asset
Strategic Allocation Category: Real Assets
Strategy: Energy
Strategy Location: Houston, TX

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
EnCap Energy Capital Fund VII	$ 100,000,000	$ 105,388,244	$ 3,334,329	$ 135,600,209	2007	14.24	1.32
EnCap Energy Capital Fund VIII	100,000,000	103,335,766	24,672,284	56,609,079	2010	-6.26	0.79
EnCap Energy Capital Fund IX	100,000,000	113,013,265	38,556,145	88,164,562	2012	4.21	1.12
EnCap Energy Capital Fund X	100,000,000	100,508,554	74,383,999	36,059,590	2015	3.19	1.10

Energy Capital Partners

Energy Capital Partners seeks to make value-added, primarily control investments in existing and new-build energy infrastructure projects, primarily in North America. Their focus is on power and renewable generation, midstream, and environmental infrastructure assets.

Asset Class: Real Asset
Strategic Allocation Category: Real Assets
Strategy: Energy
Strategy Location: Short Hills, NJ

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Energy Capital Partners II	$ 100,000,000	$ 85,722,480	$ 6,388,598	$ 112,434,332	2010	9.18	1.39
Energy Capital Partners III	200,000,000	230,177,453	141,391,843	159,703,900	2013	8.79	1.31
Energy Capital Partners IV	150,000,000	75,065,009	82,386,803	19,977,553	2017	18.74	1.36

Energy & Minerals Group (EMG)

Energy & Minerals Group seeks to make direct investments in selected areas of the Energy Infrastructure and Natural Resources sectors, primarily targeting the midstream energy sector and all facets of the mining, minerals and related power sectors.

Asset Class: Real Asset
Strategic Allocation Category: Real Assets
Strategy: Energy
Strategy Location: Houston, TX

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
NGP Midstream & Resources	$ 100,000,000	$ 103,565,615	$ 7,254,065	$ 179,560,149	2007	13.44	1.80
The EMG Fund II	100,000,000	106,674,084	105,228,861	104,295,500	2011	13.64	1.96
The EMG Fund III	200,000,000	201,327,783	92,914,833	22,410,545	2014	-9.86	0.57
The EMG Fund IV	150,000,000	159,228,226	150,414,857	54,004,206	2015	8.03	1.28
The EMG Fund V	112,500,000	79,270,469	117,069,783	1,115,700	2019	25.04	1.49
The EMG Fund V Accordion	17,500,000	14,321,681	22,647,694	158,697	2019	30.02	1.59

Real Assets

EnerVest Energy

EnerVest Energy focuses on acquiring and operating oil and gas properties, aggressively managing and developing the properties, reducing costs, and selling the assets. On occasion the firm may also invest in equity interests of companies in order to acquire their assets.

Asset Class: Real Asset
Strategic Allocation Category: Real Assets
Strategy: Energy
Strategy Location: Houston, TX

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
EnerVest Energy Institutional Fund XIV	$ 100,000,000	$ 98,183,839	$ 66,509,736	$ 52,713,927	2015	5.40	1.21

First Reserve

The First Reserve funds investment strategy is to create diversified portfolios of oil and gas and other energy-related investments. The firm focuses on the resources, equipment and services, midstream, and downstream areas of the energy industry. First Reserve is headquartered in Greenwich, CT with another office in Houston, TX.

Asset Class: Real Asset
Strategic Allocation Category: Real Assets
Strategy: Energy
Strategy Location: Greenwich, CT

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
First Reserve Fund XI	$ 150,000,000	$ 150,292,121	$ -	$ 100,059,903	2006	-8.80	0.67
First Reserve Fund XII	150,000,000	165,617,044	8,301,461	83,625,426	2008	-14.04	0.56
First Reserve Fund XIII	200,000,000	220,978,806	125,137,257	71,726,511	2013	-5.25	0.89

Kohlberg, Kravis, Roberts & Co. (KKR)

KKR Global Infrastructure Investors seeks to generate attractive risk-adjusted returns by focusing on critical infrastructure investments with low volatility and strong downside protection. KKR intends to make investments in existing assets and businesses located in OECD countries. KKR is headquartered in New York and has over twenty office locations around the world.

Asset Class: Real Asset
Strategic Allocation Category: Real Assets
Strategy: Infrastructure
Strategy Location: New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
KKR Global Infrastructure Investors III	$ 149,850,000	$ 74,674,108	$ 71,987,556	$ 6,272,520	2018	3.20	1.05

Merit Energy Partners

Merit Energy Partners funds invest in producing oil and gas properties operated by the company. Merit's goal is to provide low-risk energy exposure and attractive long-term returns by acquiring, developing, and operating high quality, mature producing oil and gas properties.

Asset Class: Real Asset
Strategic Allocation Category: Real Assets
Strategy: Energy
Strategy Location: Dallas, TX

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Merit Energy Partners F	100,000,000	59,522,861	5,728,968	31,810,706	2006	-7.26	0.63
Merit Energy Partners H	100,000,000	100,000,000	46,472,894	29,688,582	2011	-4.61	0.76
Merit Energy Partners I	169,721,518	169,721,518	167,439,932	56,039,059	2014	7.04	1.32
Merit Energy Partners K	150,000,000	46,253,404	60,327,154	4,135,944	2019	28.81	1.39

Real Assets

Natural Gas Partners

Natural Gas Partners ("NGP") makes investments primarily in the sectors of the energy industry that are related to the production and development of crude oil and natural gas in North America. NGP focuses on companies that acquire and operate assets in "core" areas within oil and gas basins that NGP believes can generate attractive rates of return with a lower relative risk profile.

Asset Class: Real Asset
Strategic Allocation Category: Real Assets
Strategy: Energy
Strategy Location: Irving, TX

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Natural Gas Partners IX	$ 150,000,000	$ 173,921,032	$ 4,892,202	$ 245,366,339	2007	12.10	1.44
NGP Natural Resources X	150,000,000	147,769,572	19,584,831	119,289,761	2011	-1.88	0.94
Natural Gas Capital Resources XI	150,000,000	151,037,079	109,710,921	53,461,108	2014	2.43	1.08
NGP Natural Resources XII	149,500,000	84,300,300	83,418,087	255,695	2017	-0.32	0.99

Sheridan Production Partners

Sheridan Production Partners funds pursue a strategy of acquiring a portfolio of currently producing oil and gas properties and optimizing the operations of those properties through production acceleration and recovery enhancement, appropriate use of capital reinvestment and aggressive cost control.

Asset Class: Real Asset
Strategic Allocation Category: Real Assets
Strategy: Energy
Strategy Location: Houston, TX

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Sheridan Production Partners III	$ 100,000,000	$ 34,353,005	$ 23,864,005	$ 22,750,000	2014	9.40	1.36

Real Estate

Angelo, Gordon & Co.

Angelo Gordon & Co.'s real estate equity strategies focus on acquiring sub-performing commercial real estate across a range of geographies and product types. The flagship Realty funds invest in the U.S. and receive pro-rata shares of Asia and Europe transactions, subject to a cap. The Asia Realty and Europe Realty funds invest in their respective geographies. Angelo Gordon has over 500 employees working across their four disciplines – corporate credit, real estate, direct lending, and securitized products.

Asset Class: Real Estate
Strategic Allocation Category: Growth Appreciation
Strategy: Opportunistic
Strategy Location: New York, NY, London, Seoul

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
AG Realty Fund IX	$ 100,000,000	$ 92,141,126	$ 85,918,712	$ 37,000,000	2014	8.45	1.33
AG Asia Realty Fund III	50,000,000	47,587,261	20,708,365	44,875,000	2016	13.35	1.38
AG Europe Realty Fund II	75,000,000	69,004,017	82,930,100	28,384	2018	8.79	1.20
AG Realty Fund X	150,000,000	75,375,617	74,617,358	10,887,431	2018	12.25	1.13
AG Asia Realty Fund IV	100,000,000	40,610,956	46,262,465	3,000,000	2018	13.58	1.21
AG Europe Realty Fund III	75,000,000	13,809,980	13,716,349	-	2020	-0.69	0.99

Real Estate

Blackstone Real Estate Partners

Blackstone Real Estate Partners makes a broad range of opportunistic real estate and real estate-related investments globally. They have a "buy it, fix it, sell it" strategy of targeting complicated assets and situations, creating value through hands-on ownership, and selling assets once asset management objectives are achieved. The flagship funds focus primarily on the U.S. and Canada and will also participate in 20% of the amount of each real estate investment to be made by the BREP Europe and BREP Asia strategies. BREP Europe and BREP Asia funds invest in their respective continents.

Asset Class: Real Estate
Strategic Allocation Category: Growth Appreciation
Strategy: Opportunistic
Strategy Location: New York, NY, Hong Kong

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Blackstone Real Estate Partners V	$ 100,000,000	$ 104,213,007	$ 3,484,059	$ 203,364,839	2006	10.76	1.98
Blackstone Real Estate Partners VI	100,000,000	109,477,567	3,511,479	216,433,750	2007	13.08	2.01
Blackstone Real Estate Partners VII	100,000,000	111,484,649	38,507,556	147,300,591	2011	14.40	1.67
Blackstone Real Estate Partners VIII	150,000,000	167,967,510	110,340,992	125,050,344	2015	13.11	1.40
Blackstone Real Estate Partners Asia II	74,500,000	48,748,111	51,689,314	3,021,159	2017	8.65	1.12
Blackstone Real Estate Partners IX	300,000,000	145,094,191	150,859,412	17,457,905	2018	17.06	1.16

Blackstone Strategic Partners

Blackstone Strategic Partners funds focus on purchasing secondary interests of real estate funds. The funds follow a strategy similar to that of the Strategic Partners private equity funds, in which the SBI is also an investor. Credit Suisse sold the Strategic Partners funds platform to The Blackstone Group in 2013.

Asset Class: Real Estate
Strategic Allocation Category: Growth Appreciation
Strategy: Secondaries
Strategy Location: New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Blackstone Strategic Partners III RE	$ 25,000,000	$ 25,987,864	$ 98,320	$ 15,252,523	2005	-6.46	0.59
Blackstone Strategic Partners IV RE	50,000,000	51,552,886	1,778,572	49,903,660	2008	0.04	1.00

Carlyle Group

Carlyle Realty Partners focuses on making opportunistic real estate investments in the United States. The strategy predominantly focuses on demographic-driven sectors and property types that are less correlated with the economic cycle. Carlyle Realty Partners investment professionals are based in Washington, DC, New York, San Francisco, and Los Angeles.

Asset Class: Real Estate
Strategic Allocation Category: Growth Appreciation
Strategy: Opportunistic
Strategy Location: New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Carlyle Realty Partners VIII	$ 150,000,000	$ 77,871,474	$ 50,664,133	$ 35,687,056	2017	9.14	1.11
Carlyle Realty Partners IX	300,000,000	-	-	-	2021	0.00	0.00

Real Estate

Landmark Partners

Landmark Partners makes secondary investments in various types of real estate and real estate-related entities. The strategy intends to be diversified across global geography, fund vintage, property sector, and financial sponsor. Landmark is headquartered in Simsbury, CT; with offices in Boston, New York, and London.

Asset Class: Real Estate | **Strategic Allocation Category:** Growth Appreciation
Strategy: Secondaries | **Strategy Location:** Boston, MA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Landmark Real Estate Partners VIII	$ 149,500,000	$ 71,519,488	$ 48,953,126	$ 34,243,100	2016	10.44	1.16

Lubert-Adler

Lubert-Adler seeks to invest in U.S. commercial real estate across the following property types: Multifamily, Retail, Hospitality, Office, and Industrial. Lubert-Adler's history of investing value-add real estate funds dates back to 1997. The firm has offices in Philadelphia and Atlanta.

Asset Class: Real Estate | **Strategic Allocation Category:** Growth Appreciation
Strategy: Value-Add | **Strategy Location:** Philadelphia, PA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Lubert-Adler Real Estate Fund VII	$ 74,147,868	$ 67,585,213	$ 56,668,934	$ 27,889,754	2017	10.39	1.25
Lubert-Adler Recovery & Enhancement Capital Fund	100,000,000	7,611,949	7,491,523	-	2021	-2.35	0.98

Oaktree Capital Management

Oaktree's opportunistic real estate strategy targets attractive risk-adjusted opportunities in value and growth investments across the team's five areas of investment focus: commercial, residential, opportunistic credit, corporate platforms and global ex-U.S. investments.

Asset Class: Real Estate | **Strategic Allocation Category:** Growth Appreciation
Strategy: Opportunistic | **Strategy Location:** Los Angeles, CA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
OT Real Estate Opportunities Fund VIII	$ 200,000,000	$ 19,000,000	$ 9,588,754	$ 19,000,000	2020	244.11	1.50

Rockpoint

Rockpoint seeks to invest in high-quality commercial real estate properties located in U.S. gateway coastal markets typically with the opportunity to increase value through asset management, revenue enhancement, and expense reduction. Rockpoint is headquartered in Boston and has offices in Dallas and San Francisco.

Asset Class: Real Estate | **Strategic Allocation Category:** Growth Appreciation
Strategy: Opportunistic | **Strategy Location:** Boston, MA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Rockpoint Real Estate Fund V	$ 100,000,000	$ 96,837,546	$ 72,718,322	$ 36,084,442	2014	4.36	1.12
Rockpoint Real Estate Fund VI	100,000,000	15,300,156	16,462,356	11,227	2019	6.84	1.08

Real Estate

Rockwood

Rockwood focuses on making value-add investments in commercial real estate in the U.S. Rockwood targets Office and other workspace, Retail, Hotel, and Multifamily residential assets. The firm seeks to employ an active asset management strategy to reposition, re-lease, rehabilitate, and/or develop real estate assets. Rockwood has over 70 professionals located in Los Angeles, New York City, and San Francisco.

Asset Class: Real Estate | **Strategic Allocation Category:** Growth Appreciation
Strategy: Value-Add | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Rockwood Capital RE Partners X	$ 100,000,000	$ 86,572,864	$ 74,373,473	$ 26,267,724	2015	5.54	1.16
Rockwood Capital RE Partners XI	100,000,000	39,130,490	38,901,547	28,511	2019	-1.02	0.99

Silverpeak Real Estate Partners

Silverpeak seeks to invest in properties, real estate companies, and service businesses ancillary to the real estate industry on a global basis. The funds' worldwide headquarters are in New York with regional headquarters in London and Tokyo. (In 2010, the funds were renamed Silverpeak Legacy Pension Partners II and III to reflect the General Partner ownership change after the Lehman Brothers bankruptcy in 2008.)

Asset Class: Real Estate | **Strategic Allocation Category:** Growth Appreciation
Strategy: Opportunistic | **Strategy Location:** New York, NY

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
Silverpeak Legacy Pension Partners II	$ 75,000,000	$ 73,049,257	$ 525,782	$ 92,014,185	2005	4.19	1.27
Silverpeak Legacy Pension Partners III	150,000,000	70,795,327	7,770,885	14,273,108	2008	-11.85	0.31

TA Associates Realty

TA Realty funds invest in small to medium-sized properties in the U.S. diversified by property type, geography, industry exposure, and tenancy. TA Realty has been managing value-add real estate funds since its inception in 1982. The firm has offices in Boston, Newport Beach, Palm Beach Gardens, FL, and Dallas.

Asset Class: Real Estate | **Strategic Allocation Category:** Growth Appreciation
Strategy: Value-Add | **Strategy Location:** Boston, MA

Fund	SBI Commitment	Total Contribution	Market Value	Distributions	Vintage Year	IRR[1]	Net MOIC[2]
The Realty Associates Fund X, L.P.	$ 100,000,000	$ 100,000,000	$ 9,542,793	$ 151,698,186	2012	12.62	1.61
The Realty Associates Fund XI, L.P.	100,000,000	100,000,000	100,341,146	41,163,003	2015	10.11	1.42
The Realty Associates Fund XII, L.P.	100,000,000	70,000,000	72,860,130	2,411,291	2018	12.45	1.08

[1]IRR: The Internal Rate of Return is a discount rate calculated from making the net present value of all cash flows equal to zero over the life of the investment.

[2]MOIC: Multiple of Invested Capital is calculated by dividing the sum of the fund's realized and unrealized value by the total dollar amount invested.

Stock Distributions Manager

T. Rowe Price

T. Rowe Price manages stock distributions from the SBI's private markets limited partnerships. T. Rowe Price has extensive research capabilities in the small capitalization company area. In addition, the firm has a large trading staff with particular expertise in the trading of small capitalization and illiquid stocks.

Asset Class: In-Kind Stock Distribution Manager

Strategy Location: Baltimore, MD

Fund	Beginning Balance	Receipts	Sales	Unrealized G/L	Ending Balance
One Year Summary	$ 18,331,019	$ 24,221,717	$ (29,105,906)	$ 2,540,899	$ 15,987,729

Private Markets Uninvested Allocation Managers

S&P 500 Mandate

BlackRock Institutional Trust Company, N.A.

Product Name:	S&P 500 Passive Equity	**Benchmark:**	S&P 500 Index
Product Inception Date:	December 1977	**Investment Style:**	Large-Cap Core
Firm Assets (6/30/21):	$9,496.0 billion	**Fundamental/Quant:**	N/A
Product Assets (6/30/21):	$828.4 billion	**Investment Process:**	Index Replication
Product Location:	San Francisco, CA	**Expected # of Holdings:**	Approx. 500
Date Funded:	October 2016	**Expected Ann. Turnover:**	3-5%

For this passive account, BlackRock seeks to match the total rate of return of the S&P 500 Index. BlackRock aims to fully replicate the benchmark when managing against this index. BlackRock uses their proprietary risk management and optimization tools to help manage day-to-day activity in an attempt to keep transaction costs low.

Cash Overlay Mandate

NISA Investment Advisors, LLC

Product Name:	Beta Overlay	**Benchmark:**	S&P 500 Index
Product Inception Date:	November 1998	**Investment Style:**	Large-Cap Core
Firm Assets (6/30/21): [1]	$307.1 billion (physical) + $172.5 billion (notional)	**Fundamental/Quant:**	N/A
Product Assets (6/30/21):	$77.8 billion (notional)	**Investment Process:**	Futures-based Cash Securitization
Product Location:	St. Louis, Missouri	**Expected # of Holdings:**	<10
Date Funded:	December 2020	**Expected Ann. Turnover:**	N/A

NISA manages a futures-based cash securitization program. In this program, derivatives are used to reduce cash drag and seek to increase expected returns of the overall Plan using a flexible and lower cost separately managed account framework. NISA's investment philosophy for overlay strategies is to seek to achieve specified market performance and carefully manage costs through efficient execution, rather than initiating active risk in pursuit of excess market returns.

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Fire Relief Plans + Other Public Retirement Plans

Overview of Fire Relief Plans + Other Public Retirement Plans B89

SIF Investment Platform/Vehicles B91

SIF Fund Summaries

Balanced Fund B93

U.S. Equity Actively Managed Fund B94

U.S. Equity Index Fund B95

Broad International Equity Fund..... B96

Bond Fund B97

Volunteer Firefighter Account B98

Money Market Fund B99

Stable Value Fund B100

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Volunteer Firefighter Associations, the Statewide Volunteer Firefighter (SVF) Plan, and Other Public Retirement Plans invested over $1.0 billion in assets with the SBI as of June 30, 2021.

Overview

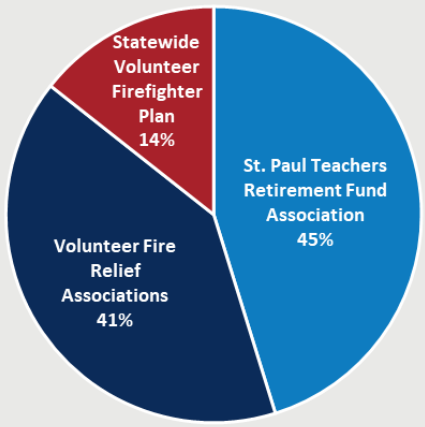
As of June 30, 2021, the SBI invested over $1.0 billion in assets from Fire Relief Plans, the Statewide Volunteer Firefighter (SVF) Plan, and a participating public retirement plan. Figure 44 provides the market value for each plan sponsor as of June 30, 2021. Figure 45 shows the plan allocations within the Program.

The SBI is responsible for determining and making investment vehicles available to fire relief plans, the SVF Plan, and other public retirement plans. These plans are responsible for their own investment and asset allocation decisions and can invest some or all of their assets in one or more of the investment options available. In contrast, fire relief plans invested in the SVF Plan are no longer responsible for the investment decisions of their plan as the assets are invested in the Volunteer Firefighter Account which is managed to an asset allocation target.

Figure 44. Fire Relief Plans and Other Public Retirement Plans Investment Program as of June 30, 2021

Plan Sponsor	Market Value ($ in 000's)
Fire Relief Associations	$408,113.4
St. Paul Teachers' Retirement Fund Association	456,383.9
Statewide Volunteer Firefighter (SVF) Plan	145,136.1
Total	**$1,009,633.4**

Figure 45. Allocation of Assets to Fire Relief Plans + Other Public Retirement Plans as of June 30, 2021



Investment Vehicles

The Supplemental Investment Fund (SIF) platform was established to allow eligible plans to invest with the SBI. The SIF platform offers a variety of investment vehicles. These investment vehicles include:

- SIF Asset Class Pools
- Volunteer Firefighter Account
- Money Market Fund

Participating Plans

Fire Relief Plans

Fire relief plans that are not eligible to be consolidated by the Public Employees Retirement Association (PERA) or elect not to be administered by PERA in the SVF Plan may invest their assets with the SBI. There are approximately 534 volunteer firefighter plans with investment authority to invest with the SBI, if they so choose, in the following options:

- SIF Asset Class Pools
- Money Market Fund

Volunteer firefighter relief associations are governed under *Minnesota Statutes*, Chapter 424A. Per *Minnesota Statutes*, Chapter 356, the SBI provides the fire relief plan with reports showing annual returns and market values of all SIF investment options. Fire relief associations are responsible for providing their specific data to the Office of the State Auditor.

As of June 30, 2021, there were 165 volunteer relief associations invested with the SBI with approximately $408 million in assets.

Other Public Retirement Plans or Funds

Per *Minnesota Statutes*, Section 11A.17, any public retirement plan or fund is authorized to invest its assets in the Supplemental Investment Fund. Participating public funds can choose from the following options:

- SIF Asset Class Pools
- Money Market Fund

As of June 30, 2021, the St. Paul Teachers' Retirement Fund had over $456 million invested with the SBI.

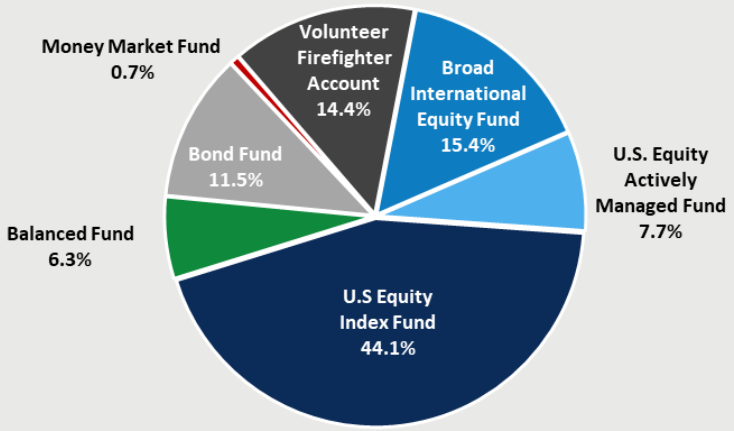
Statewide Volunteer Firefighter (SVF) Plan

The Statewide Volunteer Firefighter (SVF) Plan was established January 1, 2010 under *Minnesota Statutes*, Chapter 353G. Volunteer firefighters who provide service to a municipal fire department or an independent nonprofit firefighting corporation are eligible to join. Participating fire reliefs in the SVF Plan invest in the following:

- Volunteer Firefighter Account

The Volunteer Firefighter Account is an investment option available only for those firefighter entities that participate in the SVF Plan. Participation in the Plan is effective on December 31 of a given year.

Figure 46. Fire Plans + Other Public Retirement Plans Allocation to SIF Investment Options of June 30, 2021



In fiscal year 2021, seven volunteer fire plans joined the plan transferring over $2.3 million to the SBI for investment. At the close of fiscal year 2021, 194 fire entities, representing over $145 million in assets, were in the SVF Plan.

Public Employees Retirement Association (PERA) is the Plan Administrator for the SVF Plan.

Allocation to Investment Options

Figure 46 provides the distribution of assets among the investment options that are available to the Fire Relief Plans and Other Public Retirement Plans as of June 30, 2021.

Fund summaries for each of these investment options are provided on pages B93-B100. The Stable Value Fund SIF investment option on page B100 is not an eligible option for these plans.

Investment Platform
Supplemental Investment Fund (SIF)

The Supplemental Investment Fund (SIF) is a multi-purpose investment platform that offers broad asset class options to the Fire Relief Plans + Other Public Retirement Plans Investment Program, the PERA Defined Contribution Plan, and eligible participants in the Participant Directed Investment Program (PDIP).

Overview

The Supplemental Investment Fund (SIF), established in *Minnesota Statutes,* Section 11A.17, allows the SBI to offer different investment options to a variety of plans.

The SIF platform has eight investment options (listed in Figure 47) for eligible plans to invest in. As of June 30, 2021, it provided some or all of the investment options for the Fire Relief + Other Public Retirement Plans Investment Program and the Participant Directed Investment Program (PDIP). In aggregate, the SIF investment options represent over $3.4 billion in assets.

Figure 48 provides the percentage that each participating plan represents in the SIF investment platform as of June 30, 2021.

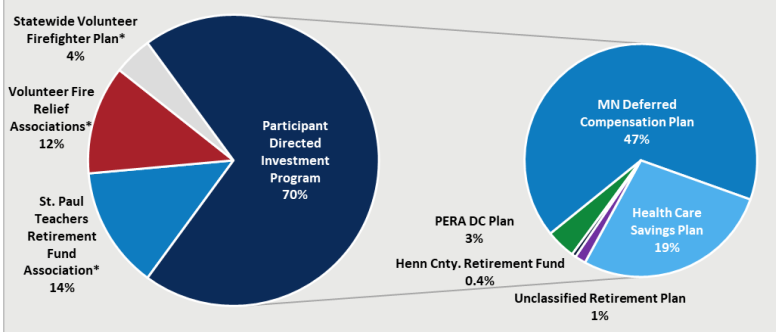
Figure 47. Investment Options offered in the SIF Platform

Balanced Fund	a balanced portfolio of U.S.common equity, fixed income, and cash
U.S. Equity Actively Managed Fund	an actively and semi-passively managed portfolio of U.S. common equity
U.S. Equity Index Fund	a passively managed portfolio of U.S. common equity
Broad International Equity Fund	a portfolio of actively, semi-passively, and passively managed non-U.S. common equity
Bond Fund	a portfolio of both actively and semi-passively managed fixed income securities
Volunteer Firefighter Account [1]	a balanced portfolio of U.S. and international equity, fixed income and cash
Stable Value Fund [2]	a high quality fixed income portfolio including a portfolio of stable value instruments, security backed contracts, insurance company investment contracts and bank investment contracts
Money Market Fund	a portfolio of short-term, liquid debt securities

[1] The Volunteer Firefighter Account is only available to local fire relief plans that join the SVF Plan.

[2] The Stable Value Fund is not available to the Fire Relief Plans + Other Public Retirement Plans Investment Program.

Figure 48. Participation in SIF Investment Options by Plan Sponsor as of June 30, 2021



* Fire Relief + Other Public Retirement Program assets represents 30% of the SIF platform

SIF Share Values

A share value is established daily for each account and participants buy or sell shares based on the most recent share value. Shares in the asset class pools are priced based on the market value of the underlying manager portfolio. Performance of these Funds is a function of the income and capital appreciation (or depreciation) generated by the securities in the Funds.

In the Stable Value Fund, shares are priced based on the blended crediting rates of the contracts and yields from the liquid investments. Performance is calculated based on changes in these share values.

In the Money Market Fund, share values remain constant and the accrued interest income is credited to the Fund through the purchase of additional shares.

Investment Platform
Supplemental Investment Fund (SIF)

SIF Performance

Performance results as of June 30, 2021, for the participants in the SIF investment platform are provided in Figure 49. Two of the SIF investment options, the Stable Value and Money Market Funds, are offered in both the SIF and Mutual Fund investment platforms; market values are reported in their respective platform to eliminate duplication.

The investment returns shown in this report are calculated using a time-weighted rate of return formula. These returns are net of investment management fees and transaction costs, but do not reflect administrative expenses that may be deducted by the retirement systems to defray administrative costs.

Figure 49. Supplemental Investment Fund Platform as of June 30, 2021

	Annualized Returns[1]							
	1 Year		3 Years		5 Years		Market	
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Value[2]	Option
Fund/Benchmark	%	%	%	%	%	%	($ In 000's)	Since
SIF Asset Class Pools								
Balanced Fund	26.5	24.8	14.2	13.5	12.5	12.0	$114,562.6	1/1980
Balanced Fund Composite Benchmark								
U.S. Equity Actively Managed Fund	46.6	44.2	20.1	18.7	19.8	17.9	95,834.2	7/1986
Russell 3000								
U.S. Equity Index Fund	44.7	44.2	19.0	18.7	18.0	17.9	460,144.3	7/1986
Russell 3000								
Broad International Equity Fund	36.8	35.6	9.8	9.3	11.3	11.1	160,245.1	9/1994
MSCI ACWI ex USA Index (net)								
Bond Fund	2.1	-0.3	6.4	5.3	4.0	3.0	119,193.3	7/1986
Bloomberg Barclays U.S. Aggregate								
Volunteer Firefighter Account	20.8	19.2	11.5	10.8	10.2	9.5	145,136.1	1/2010
Volunteer Firefighter Composite Benchmark								
Money Market Fund								
Money Market Fund[3]	0.2	0.1	1.4	1.3	1.3	1.2	8,498.4	7/1986
ICE BofA 3 Month Treasury Bill								
Stable Value Fund								
Stable Value Fund[3]	2.2	0.7	2.5	1.8	2.3	1.9	3,979.1	11/1994
3 Year Constant Maturity Treasury + 0.45 bps								
SIF Investment Platform							**$1,107,593.1**	

[1]All returns are reported net of Investment Management fees.

[2]Represents the market value of the Fire Relief Plans + Other Public Retirement Plans and the PERA DC Plan assets.

[3]Money Market and Stable Value Funds are offered in two different investment platforms. In aggregate, total investment in the Money Market Fund and Stable Value Fund was $579.1 million and $1,704.2 million respectively, for a total of $3,378.4 million invested in SIF investment vehicles as of June 30, 2021.

SIF *Asset Class Pools*

The Combined Funds and the SIF Asset Class Pools share many of the same equity and fixed income managers. This sharing is accomplished by grouping managers by asset class into several different investment pools much like a family of mutual funds. These asset class pools provide participating entities with broad market exposure and the returns from these funds are based on the underlying investment managers portfolio from the respective Combined Funds pools.

Fund summaries are provided on pages B93-B100.

Volunteer Firefighter

The Volunteer Firefighter Account is only available to participants in the SVF Plan. The fund summary is provided on pages B98.

Money Market Fund

All participating entities are eligible to invest in the Money Market Fund. The Fund summary is provided on pages B99.

Stable Value Fund

The Stable Value Fund is not available to Fire Relief Plan + Other Public Retirement Plans. A summary of the Stable Value Fund is provided on page B100.

Balanced Fund

Objective

The investment objective of the Balanced Fund is to earn a return both from capital appreciation (increases in market value) and current yield (dividends from stock and interest on bonds). The Balanced Fund pursues these objectives within the constraints of protecting against adverse financial environments and limiting short-run portfolio return volatility.

The SBI invests the Balanced Fund in a portfolio of domestic equities, fixed income (bonds) securities, and cash.

The Balanced Fund long-term strategic asset allocation is:

Domestic Equity	60%
Fixed Income	35%
Cash Equivalent	5%
Total	100%

Domestic equity provides the potential for significant long-term capital appreciation, while bonds provide both a hedge against deflation and the diversification needed to limit excessive portfolio return volatility.

At the close of fiscal year 2021, the value of the Balanced Fund was $114.6 million.

Management

The Balanced Fund assets are invested by external institutional investment managers. The equity segment is passively managed by BlackRock Institutional Trust in the U.S. Equity Index Fund. This Fund is managed to track the return of the Russell 3000 Index. The fixed income assets are invested in the Bond Fund, managed by active external investment managers retained by the SBI. The cash portion of the Fund is actively managed by State Street Global Advisors.

Performance

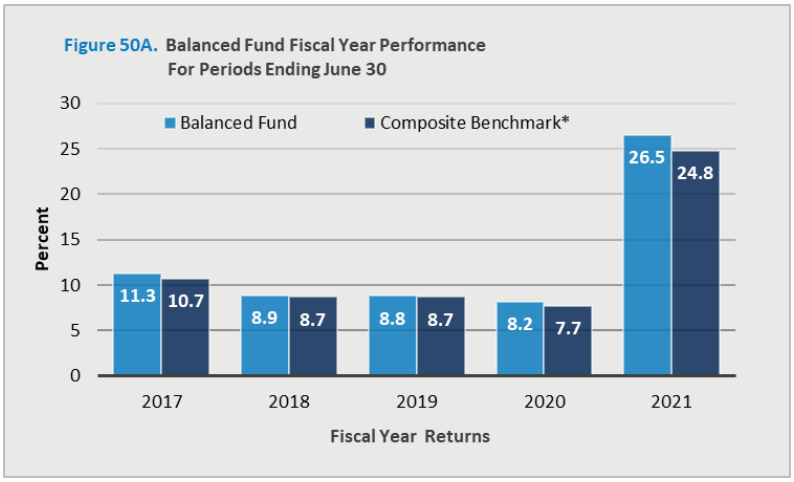
As with the other SBI funds which use a multi-manager investment structure, the Board evaluates the performance of the Balanced Fund on two levels:

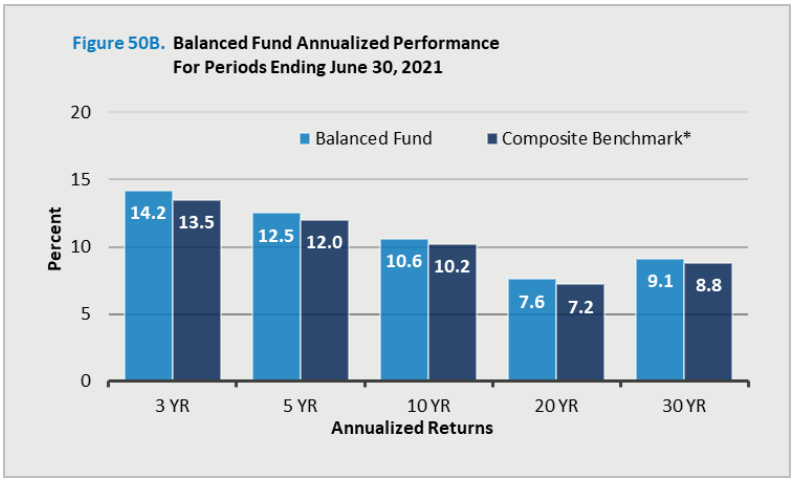
— ***Total Fund.*** The Balanced Fund is expected to exceed the returns of a composite of market indices weighted in the same proportion as its long-term asset allocation.

— ***Individual Manager.*** The passive stock manager is expected to closely track the performance of the Russell 3000. The group of external bond managers for the Fund are expected to exceed the performance of the Bloomberg Barclays U.S. Aggregate Bond Index. The cash manager for the Fund is expected to exceed the performance of ICE BofA 3 Month U.S. Treasury Bill Index.

The Balanced Fund provided a return of 26.5% for fiscal year 2021, outperforming its benchmark. Over the most recent ten years, the Balanced Fund exceeded its benchmark by 0.4 percentage point per annum.

Figures 50A and 50B below show the historical performance results for this Fund.





U.S. Equity Actively Managed Fund

Objective

The investment objective of the U.S. Equity Actively Managed Fund is to generate high returns from capital appreciation. To achieve this objective, the Fund is invested primarily in domestic equities.

At the close of fiscal year 2021, the value of the Fund was $95.8 million.

Management

The assets of the U.S. Equity Actively Managed Fund consists of an all-cap manager, and large-cap, small-cap, and semi-passive managers. These are actively managed asset groups within the Domestic Equity Program. This allocation reflects a more aggressive investment than is available through passive management. The Fund may hold a small amount of cash that represents new contributions received prior to investment in the market and cash that may be held by the individual managers in the Fund.

Performance

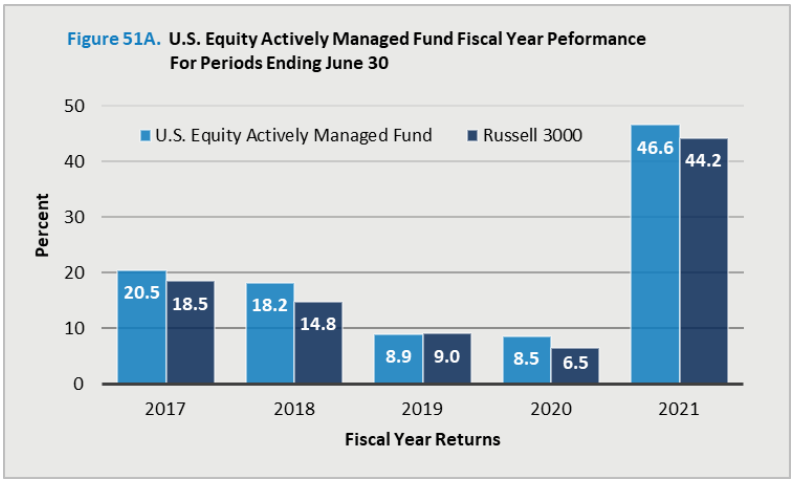
The Board evaluates the performance of the U.S. Equity Actively Managed Fund on two levels:

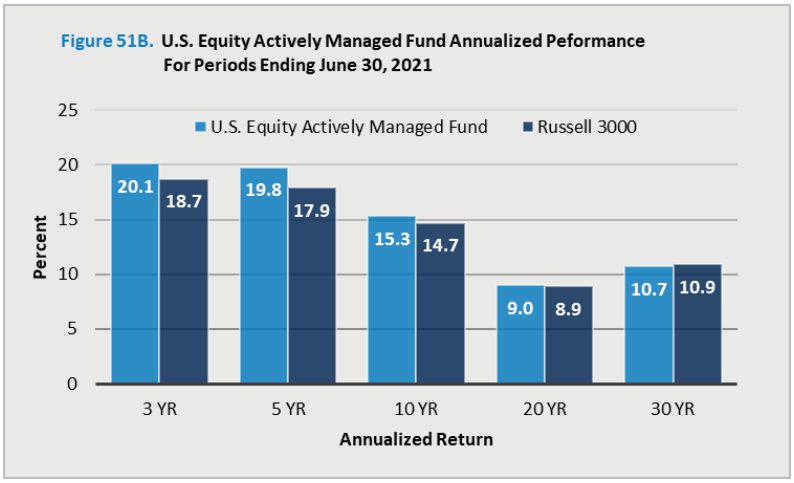
— ***Total Fund.*** The U.S. Equity Actively Managed Fund is expected to exceed the returns of the Russell 3000 Index.

— ***Individual Manager.*** Performance objectives for the individual managers are described beginning on page B17 of this report.

The U.S. Equity Actively Managed Fund provided a return of 46.6% for the fiscal year, outperforming its benchmark by 2.4 percentage points. Over the last ten-year period, the Fund outperformed its benchmark by 0.6 percentage point.

Historical performance results for this Fund are shown below in Figures 51A and 51B.





U.S. Equity Index Fund

Objective

The investment objective of the U.S. Equity Index Fund is to generate returns that track the performance of the broad U.S. common stock market as represented by the Russell 3000 Index. To accomplish this objective, the SBI allocates all of the assets of the Fund to passively managed domestic equities.

As of June 30, 2021, the value of the Fund was $460.1 million.

Management

The U.S. Equity Index Fund invests in the Russell 3000 passively managed segment of the Domestic Equity Program.

The assets of the U.S. Equity Index Fund are passively managed by BlackRock Institutional Trust Company.

The passively managed mandate of the Domestic Equity Program provides the equity allocation in the Balanced Fund and Volunteer Firefighter Account.

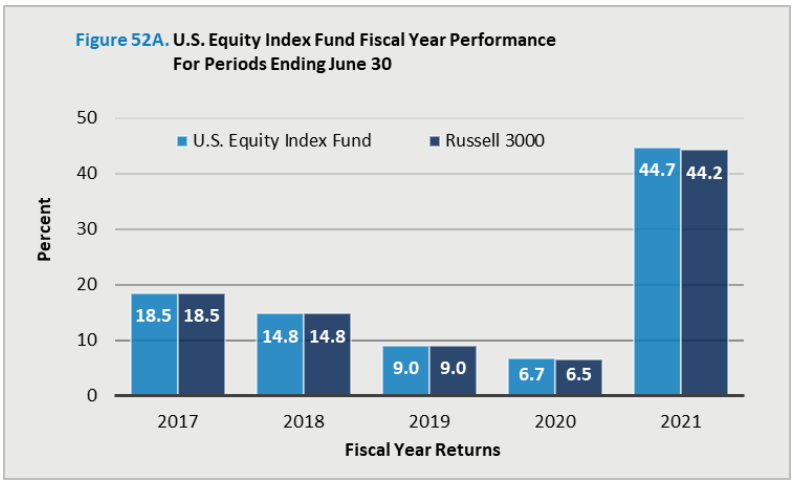
Performance

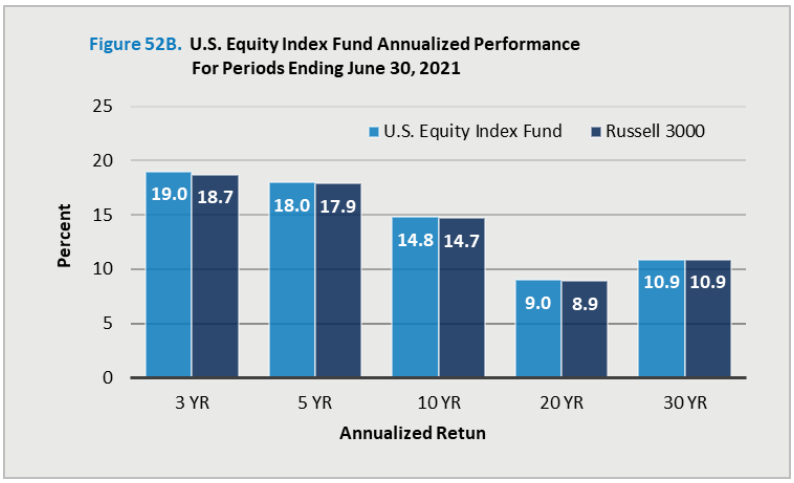
The performance objective of the U.S. Equity Index Fund is to track the performance of the Russell 3000. The SBI recognizes that the Fund's returns may deviate slightly from those of the Russell 3000 due to the effects of management fees, trading costs and cash flows.

Performance objectives for the Russell 3000 Index manager are described on page B24 of this report.

The U.S. Equity Index Fund outperformed the Russell 3000 Index for the fiscal year with a 44.7% return compared to the benchmark return of 44.2%. The Fund closely tracked the benchmark over longer time-periods.

Historical performance results for this Fund are shown below in Figures 52A and 52B.





Broad International Equity Fund

Objective

The investment objective of the Broad International Equity Fund is to earn a high rate of return by investing in the equity of companies outside the U.S.

Typically, a majority of the Fund is invested in the largest international stock markets (Japan, United Kingdom, France, Switzerland and Canada). Most of the remainder is invested in other well-established markets in Europe and the Pacific region. In addition, the Fund invests in emerging markets around the world, including those in Asia, Latin America, Eastern Europe, the Middle East and Africa.

At the end of fiscal year 2021, the Fund had a market value of $160.2 million.

Management

The Broad International Equity Fund invests in the same pool of investment managers of the International Equity Program in the Combined Funds. The International Equity Program retains active and passive managers. Active managers use a variety of investment styles and approaches to buy and sell equities in an attempt to maximize market value. The passively managed portfolio's objective is to approximate the returns of the international markets in both the developed and emerging markets. Overall, the Fund is designed to consistently track the return of the MSCI ACWI ex USA Index (net), a developed and emerging markets index.

Fiscal Year 2021 Changes

A currency overlay strategy was incorporated during the 2021 fiscal year to effectively manage the portfolio's non-dollar exposure in the passively managed portfolios.

Performance

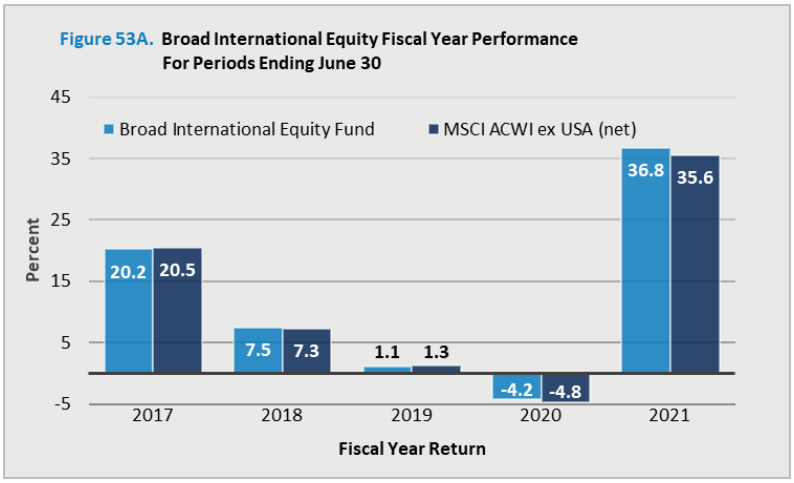
The Board evaluates the performance of the Broad International Equity Fund on two levels:

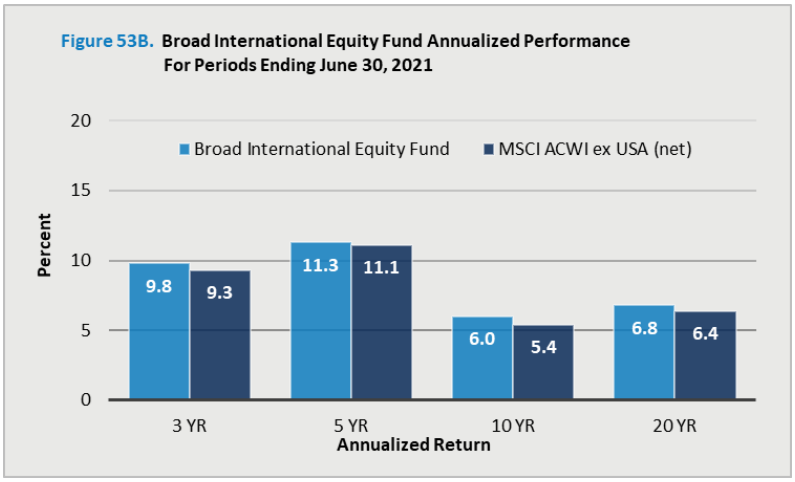
— ***Total Fund.*** The Broad International Equity Fund is expected to exceed the returns of the MSCI ACWI ex USA Index (net).

— ***Individual Manager.*** Performance objectives for the individual managers are described beginning on page B29 of this report.

During fiscal year 2021, the Broad International Equity Fund, with a return of 36.8%, outperformed the MSCI ACWI ex USA Index (net) by 1.2 percentage points. Over the most recent ten year period, the Broad International Equity Fund exceeded its benchmark by 0.6 percentage point.

Historical performance results for this Fund are shown below in Figures 53A and 53B.





Bond Fund

Objective

The objective of the Bond Fund is to maximize total return with investments that provide current income and long-term growth while still focusing on preservation of capital. The risk in the Bond Fund is constrained to ensure the investment managers fulfill their deflation hedge and total fund diversification roles.

At the end of fiscal year 2021, the Fund had a market value of $119.2 million.

The Fund earns investment returns through interest income and capital appreciation. Because bond prices move inversely with interest rates, the Fund entails some risk for investors. Historically, however, it represents a lower risk alternative than the investment options that include common stocks.

Management

The Bond Fund invests in the same managers of the Combined Funds Core/Core Plus Bond Program. The Bond Fund retains active managers with a core and a core plus focus.

The core bond segment of the Fund invests in high quality fixed income securities across all sectors of the market. The core plus bond segment also invests in high quality fixed income and given additional flexibility in their active risk budget.

The Bond Fund also provides the fixed income allocation in the Balanced Fund and the Volunteer Firefighter Account.

Fiscal Year 2021 Changes

Investment managers were allowed expanded investment authorization to incorporate opportunistic sectors of the fixed income market. The addition of a core plus fixed income mandate was incorporated during the 2021 fiscal year to provide additional diversification and an opportunity for enhanced returns. This change also increases the active risk, which means the fund return may deviate more from the benchmark return. The benchmark for the Bond Fund continues to be the Bloomberg Barclays U.S. Aggregate.

Performance

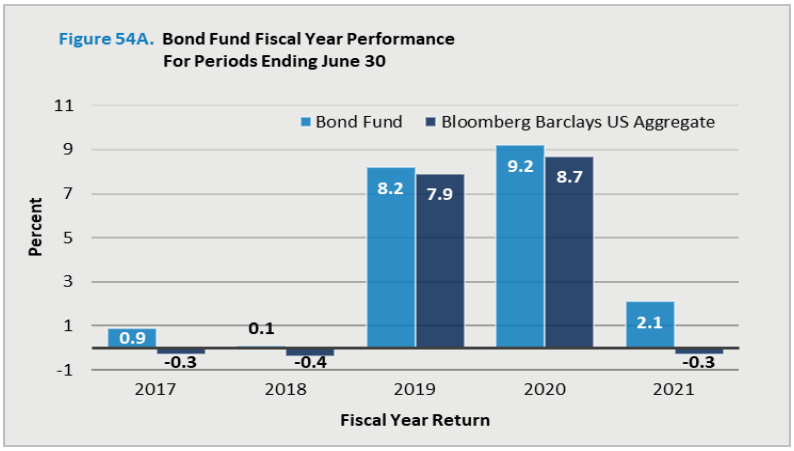
The Board evaluates the performance of the Bond Fund on two levels:

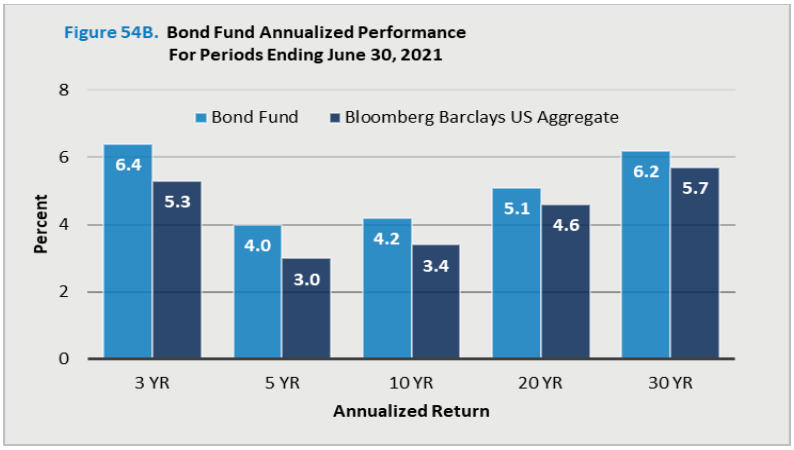
— ***Total Fund.*** The Fund is expected to exceed the returns of the Bloomberg Barclays U.S. Aggregate Bond Index.

— ***Individual Manager.*** Performance objectives for the individual managers are described beginning on page B43 of this report.

For fiscal year 2021, the Bond Fund produced a return of 2.1%, which was 2.4 percentage points above the Bloomberg Barclays U.S. Aggregate Bond Index. For the most recent ten year period, the Fund exceeded its benchmark by 0.8 percentage point.

Historical performance results for this Fund are shown below in Figures 54A and 54B.





Volunteer Firefighter Account

Statewide Volunteer Firefighter Retirement Plan

Minnesota Statutes, Chapter 353G creates a statewide, voluntary plan for local relief associations. The Plan was established January 1, 2010. Local entities may choose to join the statewide plan which is administered by Public Employees Retirement Association (PERA). Assets of the Plan are invested in the Volunteer Firefighter Account. Participation in the Plan is effective on December 31 of each year. The SBI must evaluate the assets of each local entity that seeks to join the Plan. In January of 2021, seven volunteer fire relief plans joined the Statewide Volunteer Firefighter (SVF) Retirement Plan, transferring just under $2.3 million to the SBI for investment. At the close of fiscal year 2021, 194 volunteer fire relief plans, representing over $145.0 million in assets, were in the SVF Plan.

Objective

The investment objective of the Volunteer Firefighter Account is to earn a high rate of return from both capital appreciation (increases in market value) and current yield (dividends from stocks and interest on bonds). The Plan pursues this objective within the constraints of protecting against adverse financial environments and limiting short-run portfolio return volatility.

The SBI invests the Account in a balanced portfolio using the following allocations: U.S. Equity Index Fund 35%, Broad International Equity Fund 15%, Bond Fund 45%, and Money Market Fund 5%.

Domestic equities provide the potential for significant long-term capital appreciation, international equities provide similar potential along with a measure of diversification, and bonds provide both a hedge against deflation and the diversification needed to limit excessive portfolio return volatility.

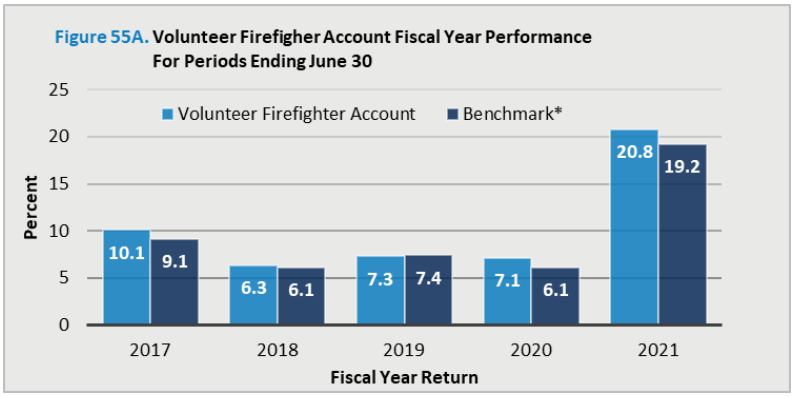
Management

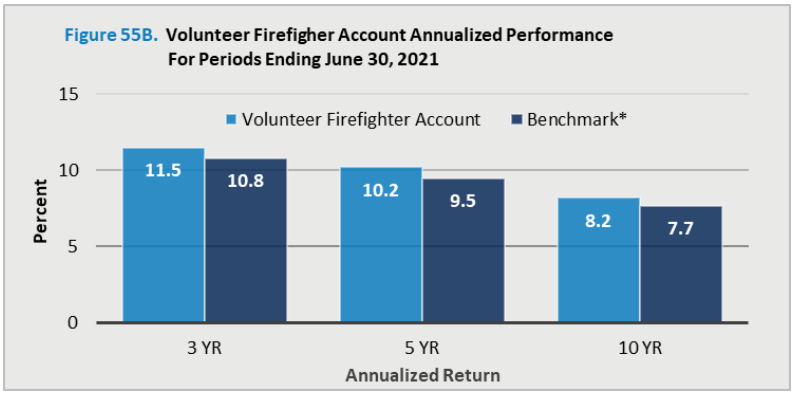
The Account's investment management structure combines active and passive management used by the Combined Funds. The domestic equity segment invests in the U.S. Equity Index Fund, a passively managed portfolio to track the returns of the Russell 3000 Index. The international equity segment invests in the Combined Funds International Equity Program which uses a combination of active and passive management to invest across a broad range of developed and emerging markets. The bond segment invests in the Core/Core Plus Bond Program used by the Combined Funds.

Performance

As with other SBI funds which utilize a multi-manager investment structure, the Board evaluates the performance of the Volunteer Firefighter Account on two levels: total account and by individual manager.

The Account provided a return of 20.8% for fiscal year ending June 30, 2021, which outperformed its composite benchmark by 1.6 percentage points. Over the most recent ten year period, the Plan exceeded its benchmark by 0.5 percentage point. Figures 55A and 55B provide the historical performance results for the Volunteer Firefighter Account.





SIF Investment Vehicle
Investment Option - Money Market Fund

Money Market Fund

Objective

The Money Market Fund invests in high quality, short-term debt instruments. The Fund's investment objectives are to preserve capital and offer competitive money market returns.

The Money Market Fund is available in both the SIF and Mutual Fund Investment Platforms. As of June 30, 2021, there was $579.1 million invested in the Money Market Fund. This amount does not include the cash balances from the Balanced Fund and the Volunteer Firefighter Account, which are reported in their respective Funds.

Figure 56 provides the composition of the plans invested in the Money Market Fund as of June 30, 2021.

Management

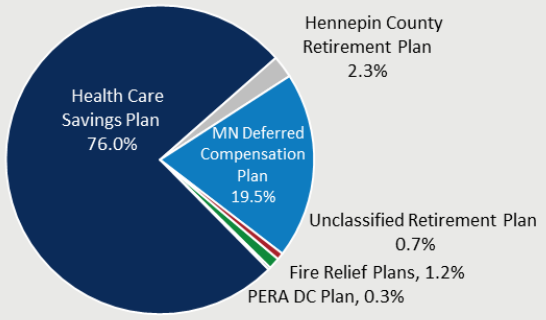
The Money Market Fund uses the same cash manager as the Combined Funds, which is State Street Global Advisors.

Performance

The Money Market Fund is expected to produce returns competitive with those available from short-term debt securities. For fiscal year 2021, the Money Market Fund generated a return of 0.2%, which slightly outperformed its benchmark. Over the most recent ten-year period, the Fund outperformed its target by 0.2 percentage point.

Historical performance results for the Fund are shown in Figures 57A and 57B.

Figure 56. Composition of Money Market Fund by Plan as of June 30, 2021



Allocation of Money Market Fund Assets by Plan as of June 30, 2021

Plan Sponsor	Investment Platform	Market Value ($ in 000's)
Fire Relief Plans	SIF	$7,026.6
PERA DC Plan	SIF	1,471.9
Health Care Savings Plan	Mutual Fund	439,828.1
Hennepin County Retirement Plan	Mutual Fund	13,585.1
MN Deferred Compensation Plan	Mutual Fund	113,025.1
Unclassified Retirement Plan	Mutual Fund	4,114.7
Total Money Market Assets		**$579,051.4**

Figure 57A. Money Market Fund Fiscal Year Performance For Periods Ending June 30

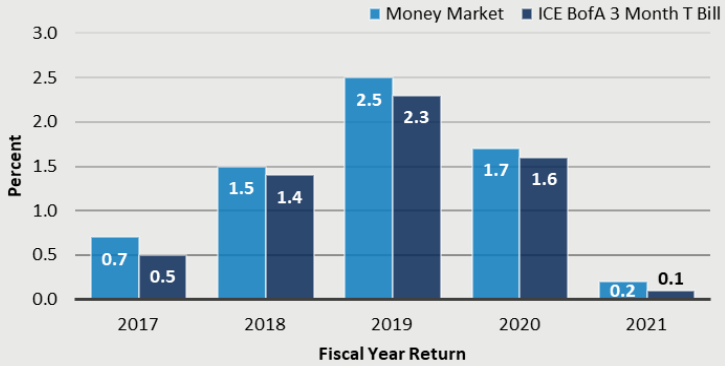
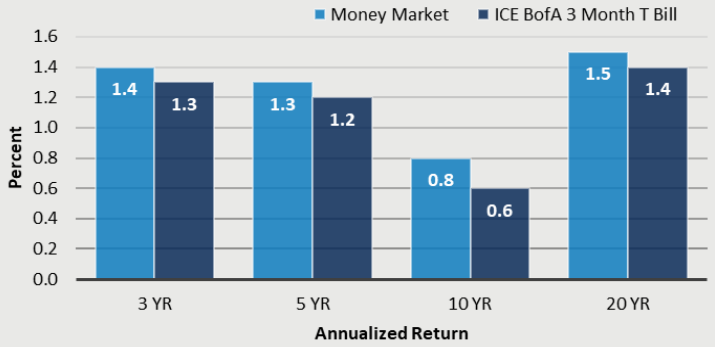


Figure 57B. Money Market Fund Annualized Performance For Periods Ending June 30, 2021



Stable Value Fund

Objective

The investment objectives of the Stable Value Fund are to provide preservation of principal, maintain adequate liquidity, produce a level of income, and provide low volatility of returns.

At the end of fiscal year 2021, the total market value of the Stable Value Fund was approximately $1.7 billion. Figure 58 provides the composition of the plans invested in the Stable Value Fund as of June 30, 2021.

Management

The Stable Value Fund is managed by Galliard Capital Management. Galliard's parent company, Wells Fargo Asset Management, was acquired by GTCR and Reverence Capital Partners during the 2022 fiscal year.

The Fund invests in synthetic Guaranteed Investment Contracts (GICs), each of which is a combination of an underlying fixed income portfolio and a book value wrap contract issued by an insurance company or a bank. These wrap contracts are designed to allow participants to transact at book value (principal plus accrued interest) and provide preservation of principal and a relatively stable return profile.

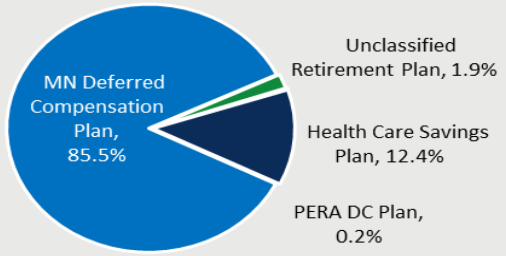
The underlying fixed income portfolio invests in a well-diversified portfolio of U.S. dollar denominated, investment grade fixed income securities.

Performance

Performance reflects the blended crediting rates from all investments in the fund. The Stable Value Fund is expected to exceed the returns of its benchmark, the 3-year Constant Maturity Treasury plus 45 basis points.

During fiscal year 2021, the Stable Value Fund provided a return of 2.2 %, an outperformance of 1.5 percentage points above its benchmark. Figures 59A and 59B provides the historical performance results for the Stable Value Fund.

Figure 58. Composition of Stable Value Fund Participants as of June 30, 2021



Allocation of Stable Value Fund Assets by Plan as of June 30, 2021

Plan Sponsor	Investment Platform	Market Value ($ in 000's)
PERA DC Plan	SIF	$3,979.1
Health Care Savings Plan	Mutual Fund	211,960.7
MN Deferred Compensation Plan	Mutual Fund	1,456,616.6
Unclassified Retirement Plan	Mutual Fund	31,648.1
Total Stable Value Assets		**$1,704,204.5**

Figure 59A. Stable Value Fund Fiscal Year Performance For Periods Ending June 30

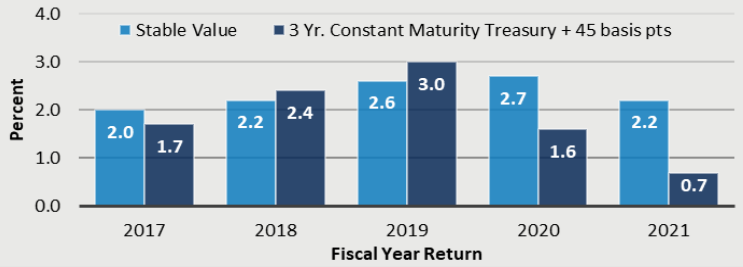
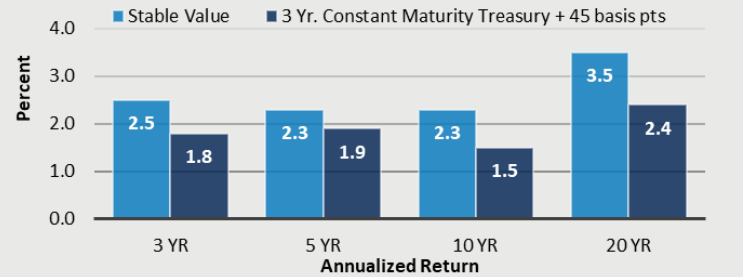


Figure 59B. Stable Value Fund Annualized Performance For Periods Ending June 30, 2021



PARTICIPANT DIRECTED INVESTMENT PROGRAM

Overview of Participant Directed Investment Program B101

Mutual Fund Investment Platform B104

State Sponsored Savings Programs

Minnesota College Savings Plan..... B107

Minnesota ABLE Plan..... B110

Investment Vehicle Fund Summaries

Mutual Funds B111

Target Date Fund B114

Money Market Fund (described in SIF Platform) B99

Stable Value Fund (described in SIF Platform) B100

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Participant Directed Investment Program
Investment Program Overview

The Participant Directed Investment Program (PDIP) consists of retirement or other tax advantaged savings plans where the participant is responsible for making their own investment decisions. As of June 30, 2021, just under $13.8 billion was invested with the various investment platforms offered in PDIP.

Overview

The Participant Directed Investment Program (PDIP) provides investment options for a variety of retirement and tax advantaged savings plans. Investment goals among the participants will vary. In order to meet the variety of goals, participants may allocate their investments among one or more of the eligible investment options offered within the SIF Investment Platform, utilized by the PERA DC Plan; and the Mutual Fund Investment Platform, utilized by the remaining plans in the PDIP program. Eligible investment options depend on the statutory requirements, operational limitations, and other regulations and rules established for the participating organization.

Fiscal Year 2021 Changes

A broad U.S. equity investment option was made available to the Minnesota Deferred Compensation Plan (MNDCP) during the fiscal year.

Investment Objective

The SBI's investment objective for the PDIP platform is to provide quality investment options at a low cost to help participants meet their savings goals. Participants in this program are responsible for their own asset allocation and investment decisions.

Participating Plans

Legislative approval is required for the SBI to invest the assets of any plan. The SBI does not administer plan assets. Figure 60 provides the composition of the plans in PDIP. A brief summary of the eligible entities and participating plans that invest in PDIP are as follows.

Health Care Savings Plan

The Health Care Savings Plan (HCSP) was established under *Minnesota Statutes*, Section 352.98 and is set up as a section 115 Governmental Trust exempt from federal income tax through Private Letter Ruling. The HCSP is available to all public employees in the state of Minnesota. As specified in *Minnesota Statutes*, Section 356.645 the SBI is responsible for determining the investment options for this plan.

Participants in this Plan invest in the following investment vehicles:

- Mutual Funds
- Stable Value Fund
- Money Market Fund

Unless participants direct otherwise, the default investment option is the Money Market Fund.

The Plan is administered by the Minnesota State Retirement System (MSRS) who has contracted with Empower as the record keeper. As of June 30, 2021, approximately $1.6 billion was invested in the Health Care Savings Plan.

Hennepin County Supplemental Retirement Plan

The Hennepin County Supplemental Retirement Plan is governed under *Minnesota Statute*s, Section 383B.48 and is a voluntary, non-qualified deferred compensation plan. This is an optional plan for qualified employees of Hennepin County, Minnesota who were employed prior to April 14, 1982.

Figure 60. Participant Directed Investment Plan Assets as of June 30, 2021

Plans	Market Value ($ in 000's)
Health Care Savings Plan	$1,627,714.2
Hennepin County Supplemental Retirement Plan	190,505.8
Minnesota Deferred Compensation Plan	9,645,681.7
PERA Defined Contribution Plan	97,959.8
Unclassified State Employees Retirement Plan	402,220.1
Minnesota Achieving a Better Life Experience (ABLE) Plan	22,651.3
Minnesota College Savings Plan	1,859,915.8
Total Participant Directed Investment Plan Assets	**$13,846,648.7**

Participants in this Plan invest in the following vehicles:

- Mutual Funds
- Money Market Fund

This is a closed plan. The investment default option was the SIF Bond Fund. The Plan is administered by MSRS who has contracted with Empower as the record keeper. As of June 30, 2021 approximately $190 million was invested in the Hennepin County Supplemental Retirement Plan.

Minnesota Deferred Compensation Plan

The Minnesota Deferred Compensation Plan (MNDCP) was established under *Minnesota Statutes*, Section 352.965 and is classified under section 457(b) of the Internal Revenue Code. The Plan is optional for all public employees in the state of Minnesota and political subdivision employees.

Participants in this Plan have the option to invest in the following vehicles:

- Mutual Funds
- Target Date Fund, named the Minnesota Target Retirement Fund
- Stable Value Fund
- Money Market Fund
- Brokerage Window

Unless participants direct otherwise, the default option is the Minnesota Target Retirement Fund.

The Plan is administered by MSRS who has contracted with Empower as the record keeper. As of June 30, 2021, participants invested a total of $9.6 billion in the Minnesota Deferred Compensation Plan.

Public Employees Retirement Association Defined Contribution (PERA DC) Plan

The PERA DC Plan is governed under *Minnesota Statutes*, Chapter 353D and satisfies the requirements of section 401(a) of the Internal Revenue Code. The defined contribution plan is exclusively for physicians, elected local governmental officials, city managers, and governmental volunteer ambulance service personnel.

Participants in this Plan invest in the Supplemental Investment Fund (SIF) platform which include the following:

- SIF Asset Class Pools
- Stable Value Fund
- Money Market Fund

Unless participants direct otherwise, the default investment option is the SIF Balanced Fund.

PERA is the administrator for the Plan and the SBI provides reports showing annual returns and market value of all SIF investment options. As of June 30, 2021 participants invested $98 million in the PERA DC Plan.

Unclassified Retirement Plan

The Unclassified Retirement Plan was established under *Minnesota Statutes*, Chapter 352D and satisfies the requirements of section 401(a) of the Internal Revenue Code. The Unclassified Retirement Plan is available to specified Minnesota employees in unclassified positions.

Participants in this Plan invest in the following vehicles:

- Mutual Funds
- Target Date Fund, named the Minnesota Target Retirement Fund
- Stable Value Fund
- Money Market Fund

Unless participants direct otherwise, the default investment option is the Minnesota Target Retirement Fund.

The Plan is administered by MSRS who has contracted with Empower as the record keeper. As of June 30, 2021 there was over $402 million invested in the Unclassified Retirement Plan.

Minnesota College Savings Plan (529 Plan)

The Minnesota Legislature authorized establishment of the Minnesota College Savings Plan under *Minnesota Statutes*, Chapter 136G in 1997 and in 2001 the tax advantaged savings plan was launched. The SBI is responsible for the investments and the Minnesota Office of Higher Education (OHE) is responsible for the overall administration of the Plan. The SBI and OHE have contracted jointly with TIAA-CREF Tuition Financing, Inc. (TFI) to provide administrative, marketing, communication, record keeping and investment management services.

A summary of the investment options in this Plan begins on page B107.

As of June 30, 2021, there was approximately $1.9 billion in assets invested in the Minnesota College Savings Plan.

Information on the Minnesota College Savings Plan can be found under www.mnsaves.org.

Minnesota ABLE (Achieving a Better Life Experience) Plan

The Minnesota ABLE Plan was established in 2015 under *Minnesota Statutes*, Chapter 256Q. The Plan is allowed under section 529A of the Internal Revenue Code to encourage and assist individuals to save for qualified disability related expenses in a tax-advantaged savings plan without jeopardizing eligibility for other benefits.

The SBI is responsible for the investment oversight and the Commissioner of the Department of Human Services (DHS) is responsible for the administration of the Plan. The SBI and DHS have contracted jointly with Ascensus to provide record keeping, administrative and investment management services. In 2017, the State of Minnesota joined the National ABLE Alliance Program, which allowed states across the nation to enter an interstate consortium so that the Plan would have scale so that it would benefit from lower fees and operational efficiencies.

Information on the Minnesota ABLE Plan, including the list of states that sponsor an ABLE Plan in the program can be found under www.savewithable.com.

A summary of the investment options in this Plan is found on page B110.

As of June 30, 2021, there was approximately $22 million invested in the Minnesota ABLE Plan.

Investment Vehicles

The investment vehicles offered in PDIP are described in more detail in the respective sections of the annual report. Figure 61 provides a grid of the vehicles available to the participating entities.

Figure 61. Investment Vehicles available to Eligible Plans in the Participant Directed Investment Program

Plans	Mutual Funds	Supplemental Investment Fund			Third-Party Program Manager
		SIF Asset Class Pools	Money Market Fund	Stable Value Fund	
Health Care Savings Plan	✓		✓	✓	
Hennepin County Supplemental Retirement Plan	✓		✓		
Minnesota Deferred Compensation Plan	✓		✓	✓	
PERA Defined Contribution Plan		✓	✓	✓	
Unclassified Employees Retirement Plan	✓		✓	✓	
Minnesota ABLE Plan					✓
Minnesota College Savings Plan					✓

Participant Directed Investment Program Investment Vehicles

The Participant Directed Investment Program (PDIP) provides a variety of investment vehicles to state and local public employees for their retirement or other tax-advantaged savings plans and to individuals and families in the State Sponsored Savings Plans.

Program Structure

The investment platforms used by PDIP participants include the Supplemental Investment Fund (SIF) line-up, Mutual Fund line-up, and the mutual fund line-up provided by a third party program manager used by the State Sponsored Savings Plan.

Over $8.6 billion of PDIP assets are invested in the Mutual Fund investment platform.

Historical performance results for the Mutual Fund investment platform for periods ending June 30, 2021, are provided on page B105 in Figure 62.

A description of the investment approach for the mutual fund and target date fund investment options is included in the **Manager Summaries** section beginning on page B111.

Information and performance results for the two state sponsored savings plans, the Minnesota College Savings Plan and the Minnesota ABLE Plan, begin on page B107 and B110, respectively.

Mutual Fund Investment Vehicles

Actively Managed Options

The platform offers a range of actively managed options that allows participants the flexibility to create an investment program to meet their needs.

- ***Large-Cap Equity***
  This option is a concentrated portfolio of high quality stocks that generally offer current dividends. The fund is expected to outperform the NASDAQ U.S. Dividend Achievers Select Index. The fund currently offered is the Vanguard Dividend Growth Fund.

- ***Small-Cap Equity***
  This option invests primarily in companies with small market capitalizations. The fund is expected to outperform the Russell 2000 over time. T. Rowe Price Small-Cap Stock Fund is the fund currently offered.

- ***Bond Fund***
  This option invests primarily in investment grade securities in the U.S. bond market. The fund is expected to outperform the Bloomberg Barclays U.S. Aggregate Bond Index over time. The fund currently offered is the Dodge & Cox Income Fund.

- ***International Equity Commingled Investment Trust (CIT)***
  This option invests primarily in stocks of companies in developed countries located outside the U.S. The fund is expected to outperform the Morgan Stanley Capital International (MSCI) Index of Europe, Australasia and the Far East (EAFE) over time. The fund currently offered is the Fidelity Diversified International Fund.

Passively Managed Options

The plan offers a range of passively managed options that allows participants the flexibility to create a lower cost investment program to meet their needs.

- ***All-Cap Equity***
  This option is a passive domestic equity portfolio that tracks the CRSP U.S. Stock Market. The fund currently offered is the Vanguard Total U.S. Stock Index Fund.

- ***Large-Cap Equity***
  This option is a passive domestic stock portfolio that tracks the S&P 500. The fund currently offered is the Vanguard Institutional Index Plus Fund.

- ***Mid-Cap Equity***
  This option invests in companies with medium market capitalizations that track the CRSP U.S. Mid-Cap Index. The fund currently offered is the Vanguard Mid-Capitalization Index Institutional Fund.

- ***Balanced Fund***
  This option is a mix of stocks and bonds. The fund is expected to track a weighted benchmark of 60% CRSP U.S. Total Market Index and 40% Bloomberg Barclays U.S. Aggregate Bond Index. The fund currently offered is the Vanguard Balanced Index Fund.

- ***Bond Fund***
  This option invests in a broad range of U.S. fixed income securities. The fund is expected to track the performance of the Bloomberg Barclays U.S. Aggregate Bond Index. The fund currently offered is the Vanguard Total Bond Market Index Fund.

- ***International Equity***
  This option invests in international equities and is expected to track the FTSE Global All Cap ex U.S. Index, an index designed to measure equity market performance in developed and emerging markets, excluding the United States. The fund currently offered is the Vanguard Total International Stock Index Fund.

Figure 62. Mutual Fund Investment Platform[1] as of June 30, 2021

	Annualized Returns[2]							
	1 Year		3 Years		5 Years		Market	
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Value[3]	Option
Fund/*Benchmark*	%	%	%	%	%	%	($ in 000's)	Since
Active Management								
Vanguard Dividend Growth	33.0	34.5	17.0	17.3			$907,593.1	10/2016
NASDAQ U.S. Dividend Achievers Select Index								
T. Rowe Price Small Cap Stock Fund	54.5	62.0	19.5	13.5	19.6	16.5	1,090,778.1	4/2000
Russell 2000								
Fidelity Diversified International Fund	30.3	32.4	13.1	8.3	12.7	10.3	381,079.0	7/1999
MSCI EAFE Net Div								
Dodge & Cox Income Fund	3.4	-0.3	6.4	5.3	4.5	3.0	336,091.5	7/1999
Bloomberg Barclays U.S. Aggregate								
Stable Value Fund[4]	2.2	0.7	2.5	1.8	2.3	1.9	1,700,225.4	11/1994
3 year Constant Maturity Treasury + 45 bps								
Money Market Fund[5]	0.2	0.1	1.4	1.3	1.3	1.2	570,553.0	7/1986
Three Month T-Bill Benchmark								
Passive Management								
Vanguard Total U.S. Stock Index Fund	44.4	44.3					691,449.1	7/2019
CRSP U.S. Total Stock Market								
Vanguard Institutional Index Plus Fund	40.8	40.8	18.7	18.7	17.6	17.6	1,794,785.8	7/1999
S&P 500								
Vanguard Mid Cap Fund	46.9	46.9	16.5	16.5	15.8	15.8	772,327.1	1/2004
CRSP U.S. Mid Cap Benchmark								
Vanguard Total Intl Stock Index	36.6	37.0	9.7	9.5	11.2	11.1	384,285.5	7/2011
FTSE Global All Cap ex U.S.								
Vanguard Balanced Fund	24.8	24.9	13.7	13.8	12.0	12.1	1,514,247.4	12/2003
Composite Benchmark								
Vanguard Total Bond Fund	-0.3	-0.3	5.4	5.3	3.0	3.0	386,770.9	12/2003
Bloomberg Barclays U.S. Aggregate								
Brokerage Window								
Ameritrade Self Directed							96,342.4	
Total Assets in Mutual Fund Platform[1]							**$10,626,528.2**	

[1] Includes Mutual Funds, CIT, Stable Value Fund and Money Market Fund.
[2] Returns are net of Investment Fees and before MSRS Administrative fees.
[3] Market Value of SBI participation in Fund.
[4] Market Value reported does not include PERA DC Plan assets. In aggregate, assets in the Stable Value Fund are $1,704.2 million as of June 30, 2021.
[5] Market Value reported does not include the Fire Relief Plans + Other Retirement Plans and PERA DC Plan. In aggregate, assets in Money Market Fund are $579.1 million

Minnesota Target Retirement Fund

The Minnesota Target Retirement Fund offers a range of target date funds, which are diversified options with allocations that change over time to reduce risk and become more conservative as the target retirement date approaches.

This fund is managed by State Street Global Advisors (SSGA).

Glidepath Construction

The target date funds glide path gradually shifts the asset allocation to specific targets at different stages in a participant's life cycle. The Minnesota Target Date Retirement Fund glide path features investment solutions to provide the participant with opportunities for growth, diversification, capital preservation and, ultimately, real income replacement at retirement.

Underlying Passive Funds in Glidepath

The underlying funds are passively managed in index funds. Over time, the Minnesota Target Retirement Fund will allocate assets across the following underlying strategies:

- ***U.S. Large Cap***: invests in the S&P 500 Index for wealth accumulation.
- ***U.S. Small/Mid Cap Equity***: invests in the Russell Small Cap Completeness Index for diversification and wealth accumulation.
- ***Non-U.S. Developed/ Emerging Equity:*** invests in the MSCI ACWI ex-US IMI Index for wealth accumulation and diversification.
- ***Global Real Estate:*** invests in the Global Real Estate Securities Index for Income, diversification, and inflation protection.
- ***Core Aggregate Bonds:*** invests in the U.S. Aggregate Bond Index for income, and to balance volatility risk.
- ***Long-Term Governmental Bonds:*** invests in Long U.S. Government Bond Index for diversification and matches duration to longer term liabilities for younger participants.
- ***Intermediate Inflation-Protected Bonds:*** invests in 1-10 year U.S. Treasury Inflation Protected Securities (TIPS) for income, inflation protection, volatility risk protection and to mitigate interest rate risk for older participants.
- ***High Yield Bonds:*** invests in U.S. High Yield Very Liquid diversification, and to mitigate longevity risk.
- ***Short-Term Bonds:*** invests in U.S. Short Term Government/Credit Bond Index invest for income, volatility risk protection and mitigate interest rate risk for older participants.
- ***Commodities:*** invests in Bloomberg Roll Select Commodities Index Strategy for diversification and inflation protection.

Performance results for the target date fund option for periods ending June 30, 2021 is shown in Figure 63.

Figure 63. Minnesota Target Retirement Fund Performance For Periods Ending June 30, 2021

	Annualized Returns[1]							
	1 Year		3 Years		5 Years		Market	
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Value[2]	Option
Funds	%	%	%	%	%	%	($ In 000's)	Since
Income Fund	15.4	15.5	8.4	8.3	6.9	6.9	$250,432.0	7/2011
2025 Fund	19.6	19.7	9.8	9.7	8.9	8.9	237,896.7	7/2011
2030 Fund	23.8	23.9	11.7	11.7	10.8	10.9	190,540.6	7/2011
2035 Fund	26.8	26.9	12.9	12.9	12.0	12.0	150,164.7	7/2011
2040 Fund	29.6	29.8	13.5	13.5	12.7	12.8	120,896.6	7/2011
2045 Fund	32.3	32.5	14.0	14.0	13.4	13.4	107,992.6	7/2011
2050 Fund	34.9	35.1	14.4	14.4	13.9	14.0	84,954.6	7/2011
2055 Fund	36.4	36.6	14.7	14.7	14.1	14.2	55,862.1	7/2011
2060 Fund	36.4	36.6	14.7	14.7	14.1	14.2	45,573.9	7/2011
2065 Fund	36.4	36.6					3,085.2	4/2020
Total MN Target Retirement Funds							**$1,247,399.1**	

[1] Returns are net of Investment Fees and before MSRS Administrative fees. The benchmark return for each fund is an aggregate of SSGA's underlying index fund return weighted by its target asset allocation.

[2] Market Value of SBI participation in Fund.

Participant Directed Investment Program
State Sponsored Savings Program: Minnesota College Savings Plan

The Minnesota College Savings Plan is an education savings plan designed to help families save for future college costs. It is established under the provisions of the Internal Revenue Code Section 529, which authorizes these types of savings plans to help families meet the costs of qualified colleges nationwide. On June 30, 2021, the market value of the Plan was just under $1.9 billion.

Program Structure

The Minnesota Legislature authorized establishment of the Minnesota College Savings Plan (the Plan) in 1997 and in 2001 the Plan was launched. The SBI is responsible for the investments and the Minnesota Office of Higher Education (OHE) is responsible for the overall administration of the Plan. The SBI and OHE have contracted jointly with TIAA-CREF Tuition Financing, Inc. (TFI) to provide administrative, marketing, communication, recordkeeping and investment management services.

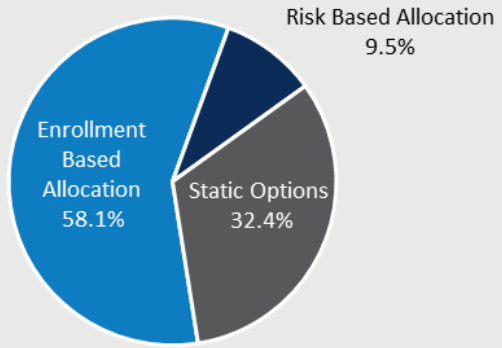
Objective

The objective of the Plan is to be competitive in the market place by providing quality investment options with low fees to its participants. The Plan is a direct-sold plan (i.e. may be purchased directly without an investment advisor) and offers nine Enrollment-Based Managed Allocation Options, three Risk-Based Allocation Options and eight Static Investment Options. The Plan has both active and passive management through TIAA's mutual funds. While all options are priced daily, participants may re-allocate their investment twice per calendar year.

Fiscal Year 2021 Changes

During the 2021 fiscal year, a broad equity option was added that includes Environmental, Social, and Governance (ESG) considerations. The TIAA-CREF Social Choice Equity Fund seeks favorable long-term total return that reflects the investment performance of the overall U.S. stock market while considering certain ESG criteria. The distribution of assets in the Minnesota College Savings Plan investment options as of June 30, 2021, is shown in Figure 64.

Figure 64. MN College Savings Plan Assets by Investment Option as of June 30, 2021



Enrollment-Based Managed Allocation Option

These investment options seek to align the investment objective and level of risk to the investment horizon by taking into account the beneficiary's number of years before the beneficiary is expected to enter college. Depending on the length of time until the beneficiary is expected to attend school, the assets contributed to this option are placed in one of ten enrollment options.

As the beneficiary progresses towards college, the assets transition to a more conservative allocation. The enrollment options for younger beneficiaries seek a favorable long-term return by investing at a higher level of risk but greater potential for higher returns than more conservative investments.

As a beneficiary nears college age, the age bands allocate less to equity and real estate and more to fixed-income and money market securities to preserve capital.

Risk-Based Allocation Option

These investment options provide a fixed risk level and do not change as the beneficiary ages. There are three separate Risk-Based Allocation Options: Aggressive, Moderate and Conservative.

- The **aggressive option** seeks to generate a favorable long-term return by investing in mutual funds that invest primarily in equity securities and, to a lesser extent, invest in debt securities.

Approximately 48% of the fund is allocated to U.S. equity securities; 19% to developed international equities; 5% to emerging markets equities; 8% real estate securities; 14% to public, investment-grade, taxable debt securities denominated in U.S. dollars; 4% to inflation-linked bonds and 2% to high yielding debt securities.

- The **moderate option** seeks to provide moderate growth by investing in a balanced mix of domestic and foreign equity securities, fixed income and real estate-related securities. Approximately 36% of the fund is allocated to U.S. equity securities; 14% to developed international equities; 4% to emerging markets equities; 6% real estate securities; 28% to public, investment-grade, taxable debt securities denominated in U.S. dollars; 8% to inflation-linked bonds and 4% to high yielding debt securities.

- The **conservative allocation option** seeks to provide a conservative to moderate total return by investing in mutual funds that invest primarily in debt securities and, to a lesser extent, invests in equity securities. This option also invests in a funding agreement. Approximately 18% of the fund is allocated to U.S. equity securities; 7% to developed international equities; 2% to emerging markets equities; 3% real estate securities; 32% to public, investment-grade, taxable debt securities denominated in U.S. dollars; 9% to inflation-linked bonds; 4% to high yielding debt securities and 25% in a funding agreement issued by TIAA-CREF Life (see the Principal Plus Interest Option in Figure 65 on the following page for further detail on the funding agreement).

Static Options

The static investment options provide investors with a broad selection of asset classes to create their own portfolio based on their risk and return profile.

- ***International Equity Index Option***
  This investment option seeks to provide a favorable long-term total return, mainly through capital appreciation. Approximately 80% of the fund is allocated to equity securities of issuers located in developed markets and 20% is allocated to equity securities of issuers located in emerging markets.

- ***U.S. and International Equity Option***
  This investment option seeks to provide a favorable long-term total return, mainly from capital appreciation, by allocating primarily to a blend of equity and real estate-related securities.

  Approximately 60% of the fund is allocated to U.S. equity securities, 24% to equity issuers located in developed markets, 6% to equity securities of issuers located in emerging markets and 10% to real estate-related securities.

- ***U.S. Large Cap Equity Option***
  This investment option seeks to provide a favorable long-term total return mainly from capital appreciation. All assets of the fund are invested in an S&P 500 index fund.

- ***Active Social Choice Equity Option***
  This investment option seeks to provide a favorable long-term total return mainly from capital appreciation. The fund's evaluation process favors companies with leadership in ESG performance relative to their peers. The investment process starts with an investable universe of companies from the Russell 3000 that meet defined ESG performance criteria. The process incorporates a company's exposure to ESG-related issues and involvement in certain controversial business activities. Approximately half of the companies evaluated make it to the ESG Eligible Universe.

- ***Equity and Interest Accumulation Option***
  This investment seeks to provide a moderate long-term total return. Approximately half of its assets are invested in an equity index fund and the other half in a funding agreement.

- ***100% Fixed-Income Option***
  This investment option seeks to provide preservation of capital along with a moderate rate of return through a diversified mix of fixed income investments. Approximately 70% of the fund is allocated to public, investment-grade, taxable bonds denominated in U.S. dollars, 20% to inflation-linked bonds and 10% to a high yield fund.

- ***Money Market Option***
  This investment option seeks to provide current income consistent with preserving capital.

  The money market option converted to a "governmental money market fund" in October 2016. As a result, the Fund is limited to U.S. Government securities and will invest at least 99.5% of its total assets in cash, short-term U.S. Government securities and/or repurchase agreements collateralized fully by cash or U.S. Government securities.

- ***Principal Plus Interest Option***
  This investment option seeks to preserve capital and provide a stable return. The contributions into this investment option are invested in a Funding Agreement issued by TIAA-CREF Life. The Funding Agreement provides for a return of principal plus a guaranteed rate of interest.

Historical performance as of June 30, 2021 is shown below in Figure 65.

Figure 65. Minnesota College Savings Plan Performance for Periods Ending June 30, 2021

	Annualized Returns[1]							
	1 Year		3 Years		5 Years		Market	
	Actual	Bmk	Actual	Bmk	Actual	Bmk	Value[2]	Option
Investment Options	%	%	%	%	%	%	($ In 000's)	Since[3]
Enrollment-Based Options								
In School Enrollment	6.7	6.1					$359,944.9	10/2019
2022/2023 Enrollment	10.0	9.6					183,810.2	10/2019
2024/2025 Enrollment	14.1	14.1					154,199.2	10/2019
2026/2027 Enrollment	17.7	18.0					110,363.1	10/2019
2028/2029 Enrollment	21.7	22.0					78,409.5	10/2019
2030/2031 Enrollment	25.4	25.8					59,965.1	10/2019
2032/2033 Enrollment	27.8	28.1					48,235.4	10/2019
2034/2035 Enrollment	29.4	29.7					40,968.1	10/2019
2036/2037 Enrollment	30.8	31.1					43,724.7	10/2019
2038/2039 Enrollment	NA	NA					189.2	6/2021
Risk-Based Allocation Options								
Aggressive Allocation	31.4	32.3	13.3	13.2	12.6	12.5	62,900.6	8/2014
Moderate Allocation	23.7	24.3	11.6	11.4	10.4	10.3	96,954.6	8/2007
Conservative Allocation	12.1	12.3	7.5	7.5	6.4	6.3	17,115.6	8/2014
Static Options								
International Equity Index	33.3	34.2	8.9	8.9	10.6	10.9	8,773.8	6/2013
U.S. and International Equity	39.7	40.7	15.2	14.8	14.8	14.6	335,206.4	10/2001
U.S Large-Cap Equity	40.6	40.8	18.5	18.7	17.4	17.6	80,062.4	8/2014
Social Choice Equity Fund	NA	NA					27.3	6/2021
Equity and Interest Accumulation	21.3	20.6	10.2	10.2	9.7	9.6	6,777.3	8/2014
100% Fixed-Income	1.9	2.4	5.2	5.6	3.2	3.5	22,197.1	8/2007
Money Market	0.1	0.0	1.1	1.0	0.9	0.8	15,344.1	11/2007
Principal Plus Interest[4]	1.6	0.1	1.9	1.3	1.7	1.1	134,747.2	10/2001
Total Minnesota College Saving Plan							$1,859,915.7	

[1] Returns are net of Underlying Fund Expense, TFI Program Management Fee and State Administrative fee of 0.25%. Benchmark of the multi-asset class funds represent the aggregate of the underlying index funds weighted by the target asset allocation.

[2] Market value of SBI participation in fund.

[3] The Managed Allocation Investment Option transitioned from an Age-Based Investment Option to an Enrollment Year Investment Option as of 10/25/2019.

[4] The guaranteed annual crediting rate effective until 8/31/2022 is 1.10%; from 9/1/2020 until 8/31/2021 the crediting rate was 1.50%. Assets from the MN 529 Plan Matching Grant Program are allocated to the Principal Plus Interest option.

Participant Directed Investment Program
State Sponsored Savings Program: Minnesota ABLE Plan

The Minnesota ABLE Plan (Achieving a Better Life Experience) is a tax advantaged savings plan designed to help families set aside funds for eligible disability expenses under Section 529A of the Internal Revenue Code. On June 30, 2021, the market value of the Plan was approximately $22.7 million.

Program Structure

The Minnesota ABLE Plan (Achieving a Better Life Experience) was established to encourage and assist individuals and families to save for the purpose of supporting individuals with disabilities to maintain health, independence, and quality of life. The SBI is responsible for the investment oversight and the Commissioner of the Minnesota Department of Human Services (DHS) is responsible for the overall administration of the Plan. The SBI and DHS have contracted jointly with Ascensus to provide administrative, recordkeeping and investment management services.

Minnesota is one of 18 states in the National ABLE Alliance Program, which is a coalition of States that has partnered to share a Program and Program Manager, while maintaining Member State independence.

Historical performance as of June 30, 2021, is shown in Figure 66.

Objective

The objective of the Plan is to provide multiple financial options at a low cost. There are seven investment options available, six are Target Risk-Based Options and one is a Checking Account Option. Each of the six Target Risk-Based Options seek to meet a specific investment goal and risk tolerance by investing in multiple underlying investment funds.

Aggressive Option

The aggressive option seeks to provide long-term capital appreciation with very low income potential. This option has a mixed allocation of 90% stocks and 10% bonds.

Moderately Aggressive Option

The moderately aggressive option seeks to provide long-term capital appreciation with low income potential. The investments are allocated 75% in stocks and 25% in bonds.

Growth Option

The growth option seeks to provide capital appreciation and low current income. The investments are allocated 60% stocks and 40% bonds.

Moderate Option

The moderate option seeks to provide capital appreciation and secondarily provide moderate current income. The investments are allocated 45% stocks and 55% in bonds.

Moderately Conservative Option

The moderately conservative option seeks to provide moderate current income and low capital appreciation. The investments are allocated 30% stocks, 45% bonds, and 25% cash.

Conservative Option

The conservative option seeks to provide substantial capital preservation, limited current income and very low capital appreciation. The investments are allocated 10% stocks, 30% bonds and 60% cash.

Checking Account Option

The Checking Account Option seeks to provide preservation of principal. It invests 100% of its assets in an FDIC-insured checking account.

Figure 66. Minnesota ABLE Plan Performance for Periods Ending June 30, 2021

	Annualized Returns[1]					
	1 Year		3 Years		Market	
Investment Options	Actual %	Bmk %	Actual %	Bmk %	Value[2] ($ In 000's)	Option Since
Multi-Asset Class Fund Allocation Options						
Aggressive Allocation	39.3	39.9	13.9	14.3	$1,906.1	12/2016
Moderately Aggressive Allocation	32.3	33.0	12.5	12.8	2,146.3	12/2016
Growth Allocation	25.8	26.3	11.0	11.3	3,006.7	12/2016
Moderate Allocation	19.4	19.9	9.4	9.7	2,543.1	12/2016
Moderately Conservative Allocation	13.0	13.2	7.0	7.2	2,708.8	12/2016
Conservative Allocation	4.6	4.6	3.6	3.8	3,980.4	12/2016
Liquid Option						
Checking Option					6,359.7	3/2017
Total Minnesota ABLE Plan					**$22,651.3**	

[1] Returns are net of Total Fund Expense. Benchmark of the multi-asset class funds represent the aggregate of the underlying funds weighted by the target asset allocation.

[2] Market value of SBI participation in fund.

Mutual Fund Investment Platform

Actively Managed Funds

Dodge & Cox Income Fund

Product Name:	Fixed Income	**Benchmark:**	Bloomberg Barclays U.S. Aggregate Bond Index
Added to Platform:	July 1999	**Investment Style:**	Active Core
Firm Assets (6/30/21):	$361.7 billion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$70.5 billion	**Investment Process:**	Bottom-up
Product Location:	San Francisco, CA	**Expected # of Holdings:**	1,132

The objective of this fund is to seek a high and stable rate of current income, consistent with long-term preservation of capital, with capital appreciation being a secondary consideration. This portfolio invests primarily in investment-grade quality corporate and mortgage bonds, government issues, and, to a lesser extent, fixed income securities rated below investment grade. While it invests primarily in the U.S. bond market, the fund may invest up to 25% of its total assets in U.S. dollar-denominated securities of non-U.S. issuers, including emerging market issuers.

Fidelity Diversified International Commingled Pool

Product Name:	International Equity	**Benchmark:**	MSCI EAFE Index
Added to Platform:	July 1999	**Investment Style:**	Large-Cap, Developed Countries
Firm Assets (6/30/21):	$3.9 trillion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$7.3 billion	**Investment Process:**	Bottom-up
Product Location:	Boston, MA	**Expected # of Holdings:**	180

The portfolio's investment objective is to seek capital growth over a market cycle relative to the MSCI EAFE Index, through the active management of primarily, non-U.S. common stock using a bottom-up stock selection process. The portfolio's investment philosophy is that selecting companies based on rigorous fundamental analysis, management quality and attractive valuations creates the best framework to outperform the market over the long-term. Generally, the portfolio's universe includes non-U.S. common stocks with market capitalization consistent with the MSCI EAFE Index, though the portfolio's investable universe extends beyond the EAFE Index to include emerging market, Canadian, U.S., and other international stocks. The fund does not employ currency hedging.

T. Rowe Price Institutional Small-Cap Stock Fund

Product Name:	Small-Cap Equity	**Benchmark:**	Russell 2000
Added to Platform:	April 2000	**Investment Style:**	Core
Firm Assets (6/30/21):	$1.6 trillion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$5.4 billion	**Investment Process:**	Bottom-up
Product Location:	Baltimore, MD	**Expected # of Holdings:**	353

The fund seeks to provide long-term capital growth by investing primarily in stocks of small companies. The fund will normally invest at least 80% of its net assets (including any borrowings for investment purposes) in stocks of small companies. The fund defines a small company as one whose market capitalization falls within or below the current range of companies in either the Russell 2000 Index or the S&P Small-Cap 600 Index. When choosing stocks, the fund manager generally looks for one or more of the following characteristics: capable management, attractive business niches, pricing flexibility, sound financial and accounting practices, a potential or demonstrated ability to grow earnings, revenues, and cash flow consistently, and the potential for a catalyst (such as increased investor attention, asset sales, strong business prospects, or a change in management) to cause the stock's price to rise. In September 2016 the T. Rowe Price Institutional Small-Cap Stock Fund replaced the retail mutual fund vehicle.

Actively Managed Funds

Vanguard Dividend Growth Fund

Product Name:	Domestic Equity	**Benchmark:**	NASDAQ U.S. Dividend Achievers Select Index
Added to Platform:	October 2016	**Investment Style:**	Large-Cap, High Dividend Yield
Firm Assets (6/30/21):	$7.3 trillion	**Fundamental/Quant:**	Fundamental
Product Assets (6/30/21):	$51.2 billion	**Investment Process:**	Bottom-up
Product Location:	Boston, MA	**Expected # of Holdings:**	41

The fund is an actively managed U.S. stock fund and uses the NASDAQ U.S. Dividend Achievers Select Index as its benchmark. The fund investment objective is to provide, primarily, a growing stream of income over time and, secondarily, long-term capital appreciation and current income. The fund invests primarily in stocks that tend to offer current dividends. The fund focuses on high-quality companies that have prospects for long-term total returns as a result of their ability to grow earnings and willingness to increase dividends over time. These stocks typically, but not always, will be undervalued relative to the market and will show potential for increasing dividends. The fund will be diversified across industry sectors.

Passively Managed Funds

Vanguard Institutional Index Fund Institutional Plus

Product Name:	Large-Cap Domestic Equity	**Benchmark:**	S&P 500 Index
Added to Platform:	July 1999	**Investment Style:**	Core
Firm Assets (6/30/21):	$7.3 trillion	**Fundamental/Quant:**	N.A.
Product Assets (6/30/21):	$287.7 billion	**Investment Process:**	Passive
Product Location:	Malvern, PA	**Expected # of Holdings:**	506

The passively managed fund tracks the S&P 500 index. The fund employs an indexing investment approach designed to track the performance of the Standard & Poor's 500 Index, which is dominated by the stocks of large U.S. companies. The fund attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index.

Vanguard Mid-Capitalization Index Institutional Fund Plus

Product Name:	Mid-Cap Domestic Equity	**Benchmark:**	CRSP U.S. Mid-Cap Index
Added to Platform:	January 2004	**Investment Style:**	Core
Firm Assets (6/30/21):	$7.3 trillion	**Fundamental/Quant:**	N.A.
Product Assets (6/30/21):	$154.1 billion	**Investment Process:**	Passive
Product Location:	Malvern, PA	**Expected # of Holdings:**	373

The fund is passively managed to track the performance of the CRSP U.S. Mid-Cap Index, a broadly diversified index of stocks of medium-size U.S. companies. The fund attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index.

Passively Managed Funds

Vanguard Balanced Index Fund Institutional

Product Name:	Diversified Portfolio of 60% stocks and 40% bonds	**Benchmark:**	Stock allocation: CRSP U.S. Total Market Index Bond allocation: Barclays U.S. Aggregate Bond Index
Added to Platform:	December 2003	**Investment Style:**	Core
Firm Assets (6/30/21):	$7.3 trillion	**Fundamental/Quant:**	N.A.
Product Assets (6/30/21):	$57.6 billion	**Investment Process:**	Passive
Product Location:	Malvern, PA	**Expected # of Holdings:**	3,595 stock holdings 8,802 bond holdings

The fund portfolio provides a diversified portfolio of stocks and bonds by investing in a mix of 60 percent stocks and 40 percent bonds. The manager does not change the asset mix. The fund is passively managed with the equity portfolio to track the returns of the CRSP U.S. Total Market Index, which covers all regularly traded U.S. stocks. The bond portfolio is invested to track the returns of the Bloomberg Barclays U.S. Aggregate Float Adjusted Bond Index, which covers virtually all taxable fixed income securities.

Vanguard Total Bond Market Index Fund Institutional Plus

Product Name:	Fixed Income	**Benchmark:**	Bloomberg U.S. Aggregate Float Adjusted Bond Index
Added to Platform:	December 2003	**Investment Style:**	Core
Firm Assets (6/30/21):	$7.3 trillion	**Fundamental/Quant:**	N.A.
Product Assets (6/30/21):	$312.4 billion	**Investment Process:**	Passive
Product Location:	Malvern, PA	**Expected # of Holdings:**	10,138

The fund is passively managed to track the performance of the Bloomberg Barclays U.S. Aggregate Float Adjusted Bond index. The manager uses an index sampling technique to invest in investment-grade corporate, U.S. Treasury, international dollar denominated bonds, mortgage-backed and asset-backed securities of varying maturities in order to create a portfolio of intermediate duration like the Bloomberg Barclays U.S. Aggregate Float Adjusted Bond Index, which currently ranges between 5 and 10 years.

Vanguard Total International Stock Index Fund Plus

Product Name:	International Equity	**Benchmark:**	FTSE Global All Cap ex US Index
Added to Platform:	July 2011	**Investment Style:**	Core
Firm Assets (6/30/21):	$7.3 trillion	**Fundamental/Quant:**	N.A.
Product Assets (6/30/21):	$404.8 billion	**Investment Process:**	Passive
Product Location:	Malvern, PA	**Expected # of Holdings:**	7,526

The fund is passively managed to track the returns of the FTSE Global All Cap ex U.S. Index, a free-float-adjusted market-capitalization-weighted index designed to measure equity market performance in developed markets and emerging markets, excluding the U.S. The fund invests in small, mid and large cap stocks in the market index and includes more than 5,300 stocks of companies located in 46 countries. The fund invests substantially all of its assets in the common stocks included in its target index. Fund assets are allocated based on each regions weighting in the index.

Passively Managed Funds

Vanguard Total Stock Market Index Institutional Plus

Product Name:	All Cap Domestic Equity	**Benchmark:**	CRSP U.S. Total Market Index
Added to Platform:	July 2019	**Investment Style:**	Core
Firm Assets (6/30/21):	$7.3 trillion	**Fundamental/Quant:**	N.A.
Product Assets (6/30/21):	$1.2 trillion	**Investment Process:**	Passive
Product Location:	Malvern, PA	**Expected # of Holdings:**	3,908

The passively managed fund tracks the performance of its benchmark, the CRSP U.S. Total Market Index, which measures the investment return of the overall stock market. The manager uses an index sampling technique to invest in large-, mid-, small and micro-cap U.S. companies diversified across growth and value styles. The key characteristics of the portfolio, in aggregate, will approximate the full index in terms of industry weightings and market capitalization, as well as certain financial measures, such as price/earnings and dividend yield.

Target Date Fund

Minnesota Target Retirement Funds

State Street Global Advisors

Product Name:	Diversified Portfolio that glides the allocation according to participants retirement age	**Benchmark:**	11 Asset Classes
Added to Platform:	July 2011	**Investment Style:**	Target Date Funds
Firm Assets (6/30/21):	$3.9 trillion	**Fundamental/Quant:**	N.A.
Product Assets (6/30/21):	$96.1 billion	**Investment Process:**	Passive
Product Location:	Boston, MA	**Expected # of Holdings:**	N.A.

The MN Target Retirement Funds managed by State Street Global Advisors (SSGA), seek to offer complete, low cost investment strategies with asset allocations, which become more conservative as employees near retirement. Each Fund seeks to achieve its objective by investing in a set of underlying SSGA collective trust funds representing various asset classes. Over time, the allocation to asset classes and funds change according to a predetermined "glide path". (The glide path represents the shifting of asset classes over time and does not apply to the Income Fund.) Each Fund's asset allocation will become more conservative as it approaches its target retirement date. This reflects the need for reduced investment risks as retirement approaches and the need for lower volatility of a portfolio, which may be a primary source of income after retiring.

NON-RETIREMENT PROGRAM

Overview of Non-Retirement Program B115

Investment Vehicles

Non-Retirement Equity Fund B117

Non-Retirement Bond Fund B118

Non-Retirement Money Market Fund B119

Assigned Risk Fixed Income Portfolio B120

Non-Retirement Trust Account Summaries

Permanent School Trust Fund B121

Environmental Trust Fund B123

Closed Landfill Investment Trust Fund B125

Assigned Risk Plan B126

Other Postemployment Benefits (OPEB) B128

Qualifying Governmental Entities B129

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Non-Retirement Funds
Investment Program Overview

The Non-Retirement Program is managed by the SBI for designated trust funds, Other Postemployment Benefit (OPEB) trusts, and programs created by the Minnesota Constitution and Legislature. On June 30, 2021, the market value of all Non-Retirement Assets managed by the SBI was just under $5.3 billion.

Overview

The SBI established the various Non-Retirement Funds to provide certain Minnesota public sector entities the opportunity to invest in a U.S. Equity Fund, a U.S. Bond Fund, or a Money Market Fund to facilitate the achievement of its investment objectives. The funds are available to those non-retirement entities that are authorized to invest in these asset classes with the SBI. Currently, all or some of these options are available to designated trust funds, OPEB trusts, Qualifying Governmental Entities, and other state and public sector entities.

Investment Options

There are three Non-Retirement Fund investment options for eligible participating entities and each one offers different advantages and risks. In addition to these options, the Assigned Risk Plan and Met Council have fixed income portfolios that are specific to their needs. Figure 67 provides the listing of Non-Retirement Fund investment vehicles with market values as of June 30, 2021.

Participating Entities

The participating entities of the Non-Retirement Program are identified either as Trusts, OPEBs, or Qualifying Governmental Entity. Figure 68 provides the composition of assets by participating entity. These entities may allocate their investments among one or more funds that are appropriate for their needs and are within the rules and eligibility established for their account. Figures 69-71, on the next page, provide a breakdown of the participating entities within the Non-Retirement Program.

Investment Management

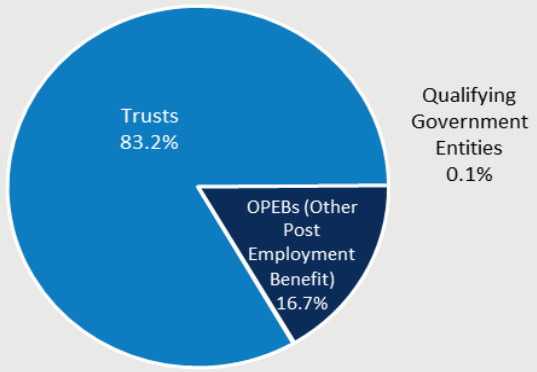
Non-Retirement Equity Fund

The equity segment is passively managed by Mellon Investments Corporation and tracks the performance of the S&P 500

Figure 67. Non-Retirement Fund Assets by Investment Option as of June 30, 2021

Investment Option	Market Value ($ in 000's)	% of Assets
Non-Retirement Equity Fund	$3,236,416.1	61.6%
Non-Retirement Bond Fund	1,564,709.8	29.8%
Non-Retirement Money Market Fund	97,134.6	1.9%
Assigned Risk Plan Intermediate Govt. Bond Fund	240,516.5	4.6%
Met Council Ladder Fixed Income Portfolio	111,259.7	2.1%
Total Non-Retirement Assets	**$5,250,036.8**	**100.0%**

Figure 68. Non-Retirement Fund Participation by Entity as of June 30, 2021



Non-Retirement Fund Participation by Entity as of June 30, 2021

Participating Entity	Market Value ($ in 000's)	% of Assets
Trusts	$4,368,746.7	83.2%
OPEBs (Other Post Employment Benefit)	876,090.9	16.7%
Qualifying Government Entities	5,199.3	0.1%
Total Non-Retirement Assets	**$5,250,036.8**	**100.0%**

Index. The Non-Retirement Equity Fund summary is provided on page B117.

Non-Retirement Bond Fund

The fixed income segment is actively managed by Prudential Global Investment Management (PGIM) to add incremental value through sector, security and yield curve decisions. The Non-Retirement Bond Fund summary is provided on page B118.

Non-Retirement Money Market Fund

The Money Market Fund provides safety of principal by investing in high-quality short-term money market securities. This Fund is managed by State Street Global Advisors. The Fund summary is provided on page B119.

Assigned Risk Plan Fixed Income Portfolio

The Assigned Risk Plan fixed income portfolio is actively managed by RBC Global Asset Management to provide cash for the payment of worker compensation claims. The Fund summary for this portfolio is provided on pages B120.

Figure 69. Participating Trust Accounts as of June 30, 2021

Participating Trust Funds	Market Value ($ in 000's)	% of Assets
Assigned Risk Plan	$305,468.0	7.0%
Closed Landfill Investment Fund	131,527.9	3.0%
Environmental Trust Fund	1,641,296.3	37.6%
Permanent School Fund	1,939,972.3	44.4%
Other Trusts[1]	350,482.2	8.0%
Total	**$4,368,746.7**	**52.4%**

[1] Includes assets of Duluth Community Investment Trust, Emergency Medical Services, Ethel Currey, IRRR (Iron Range Resources and Rehabilitation), Lifetime Fish and Wildlife, Metropolitan Landfill Contingency Action Trust, Mitigation Easement Stewardship, Natural Resources Conservation, Saint Louis County Environmental, Water and Soil Conservation Easement, and Winona State.

Figure 70. Participating OPEB Accounts as of June 30, 2021

Participating OBEB Accounts	Market Value ($ in 000's)	% of Assets
Anoka County (Irrevocable)	$97,756.0	11.2%
Duluth	91,663.7	10.5%
Metropolitan Council	348,972.8	39.8%
Ramsey County (Irrevocable)	112,119.8	12.8%
Washington County	91,288.7	10.4%
Other OPEBs[1]	134,289.8	15.3%
Total	**$876,090.9**	**100.0%**

[1] Includes the assets of Carver County, City of Eagan, City of Virginia, Crosby-Ironton ISD #182, Fillmore Central Schools #2198, Foley Public Schools ISD #51, Hastings ISD #200, Kingsland ISD #2137, Mendota Heights Eg WSP #197, Metro Mosquito Control District, Mounds View ISD #621, Mt. Iron-Buhl District #712, Ogilvie ISD #333, Port Authority of the City of St. Paul, Roseville District #623, Scott County, Staples Motley #2170, and Yellow Medicine ISD #2190.

Figure 71. Participating Qualifying Governmental Accounts as of June 30, 2021

Qualifying Govt Account	Market Value ($ in 000's)	% of Assets
City of Woodbury	$5,199.3	100.0%

Non-Retirement Program
Investment Vehicle: Non-Retirement Equity Fund

Mellon Investments Corporation manages the Non-Retirement Equity Fund used by various state trust funds such as the Permanent School Fund, Environmental Trust Fund, Assigned Risk Plan, and Closed Landfill Investment Fund. On June 30, 2021, the total market value of the Non-Retirement Equity Fund was $ 3.2 billion.

Non-Retirement Equity Fund

The Non-Retirement Equity Fund provides domestic equity exposure to entities with authority to use this investment vehicle. The types of entities that invest in the Non-Retirement Equity Fund include state and other trust funds, OPEB funds, and Qualifying Governmental Entities.

Investment Objectives

The investment objective of the Non-Retirement Equity Fund is to track the S&P 500 index, a large capitalization domestic equity benchmark. The portfolio is expected to have a realized active risk level relative to the benchmark of 0.2 or less, where active risk is the annualized standard deviation of the Manager's excess returns relative to the benchmark. Over time, the annual return shortfall relative to the benchmark, due to fees and trading expenses, should be no more than 0.1%.

Asset Allocation

As a passively managed portfolio, this fund will closely track the benchmark sector and will provide 100% domestic equity exposure.

Investment Management

In 2017, Mellon Investments Corporation was hired to manage the fund. Prior to Mellon, the fund was managed internally by SBI staff.

The strategy replicates the S&P 500 by owning all of the names in the index at the weightings assigned by the index.
To maintain appropriate liquidity for daily cash flows, some cash is held in the portfolio and is equitized by using S&P 500 futures contracts.

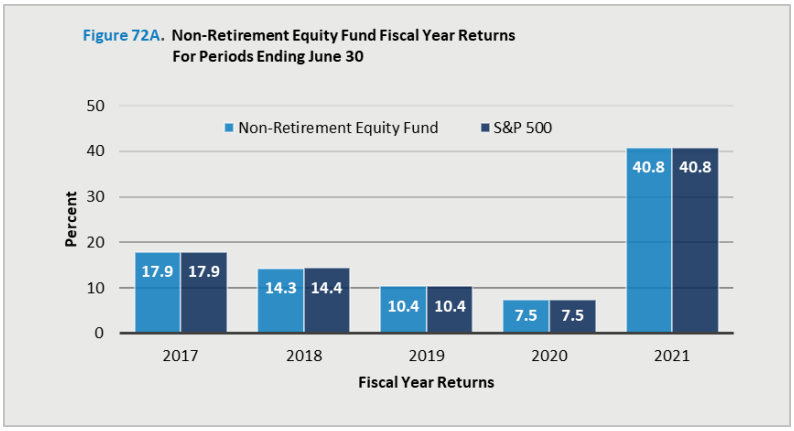
Mellon Investments Corporation is required to adhere to the SBI's investment guidelines in managing the account.

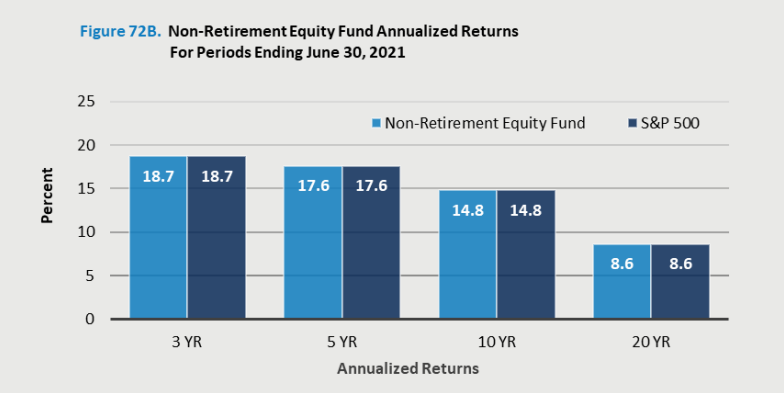
Investment Performance

The SBI measures the Non-Retirement Equity Fund against the S&P 500 Index.

The Non-Retirement Equity Fund matched its benchmark, for all time-periods listed, except for fiscal year 2018 where the fund slightly underperformed.

Historical performance results are shown below in Figures 72A and 72B.





Non-Retirement Program
Investment Vehicle: Non-Retirement Bond Fund

Prudential Global Investment Management manages the Non-Retirement Bond Fund used by various state trust funds such as the Permanent School Fund, Environmental Trust Fund, and Closed Landfill Investment Fund. On June 30, 2021, the total market value of the Non-Retirement Bond Fund was $1.6 billion.

Non-Retirement Bond Fund

The Non-Retirement Bond Fund is an investment vehicle to generate income and preserve capital. This Fund is available to state and other Trust funds and to OPEB entities that have received authority to use this fund.

Investment Objectives

The investment objectives for the Non-Retirement Bond Fund are to deliver cumulative returns in excess of its benchmark, the Bloomberg Barclays U.S. Aggregate Bond Index, and to manage the level and composition of active risk in the portfolio relative to this benchmark. The U.S. Aggregate Bond Index is a broad-based index of investment grade, U.S. dollar denominated, fixed rate taxable bonds.

Asset Allocation

As an actively managed bond fund, the sector allocation will deviate from the benchmark composition. As of June 30, 2021, the Non-Retirement Bond Fund had a higher allocation in Corporate debt securities and Structured Products and less exposure to U.S. Government and Mortgage bonds relative to its benchmark, the Bloomberg Barclays U.S. Aggregate.

Investment Management

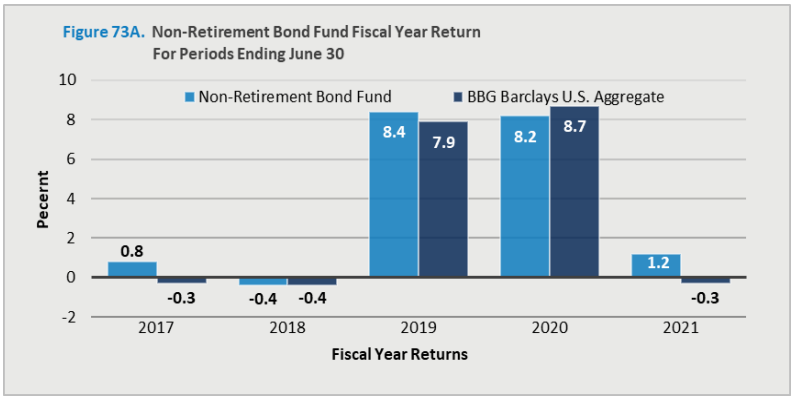
In 2017, Prudential Global Investment Management (PGIM) was hired to manage the fund. Prior to PGIM, the fund was managed internally by SBI staff. PGIM is required to adhere to the SBI's investment guidelines in managing the account. These guidelines give PGIM the flexibility to actively manage the portfolio through duration, yield curve, sector and security selection decisions, while maintaining a maximum five-year active risk level of 1.5, where active risk is the annualized standard deviation of the Manager's excess returns relative to the benchmark. PGIM is required to maintain the duration of the portfolio within +/- one year of the index duration. The Fund primarily invests in U.S. government, corporate, mortgage and structured securities.

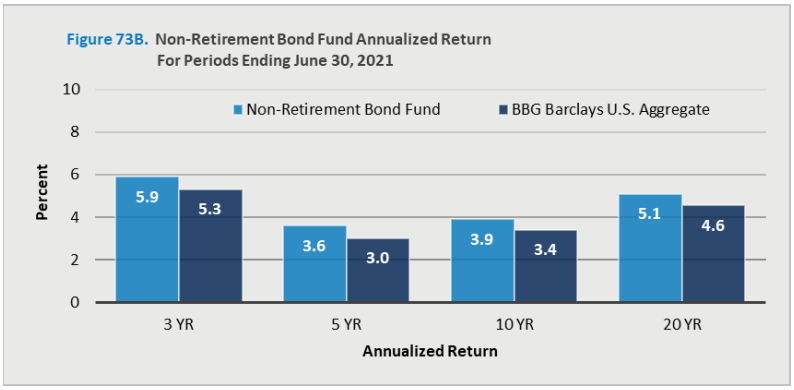
Current Positioning

PGIM has portfolio duration positioned slightly longer than the benchmark with an effective duration of 6.8 years versus the benchmark duration of 6.7 years. The portfolio had an effective yield of 1.7% versus the benchmark 1.5% as of June 30, 2021.

Investment Performance

For fiscal year 2021, the Non-Retirement Bond Fund outperformed its benchmark. Results for longer time-periods show the Fund outperforming its composite index over the ten and twenty-year time periods ending June 30, 2021. Historical performance results are shown below in Figures 73A and 73B.





Non-Retirement Program
Investment Vehicle: Non-Retirement Money Market Fund

State Street Global Advisors manages the Non-Retirement Money Market Fund used by various state trust funds such as the Permanent School Fund and Environmental Trust Fund. On June 30, 2021, the total market value of the Non-Retirement Money Market Fund was $97.1 million.

Non-Retirement Money Market Fund

The Non-Retirement Money Market Fund is an investment vehicle that provides high quality short-term cash exposure to entities that have received authority to use this fund. The types of entities that invest in the Fund include State and other Trust funds and OPEB Accounts.

Investment Objectives

The objective of the Non-Retirement Money Market Fund is to provide safety of principal by investing in high quality, short-term securities. The return of the fund is based on the interest income generated by the fund's investments.

Asset Allocation

The fund invests in high quality short-term money market securities.

At the end of the fiscal year, the Non-Retirement Fund Money Market Fund had a current average yield of 0.08% and a weighted average maturity of 45.8 days.

Investment Management

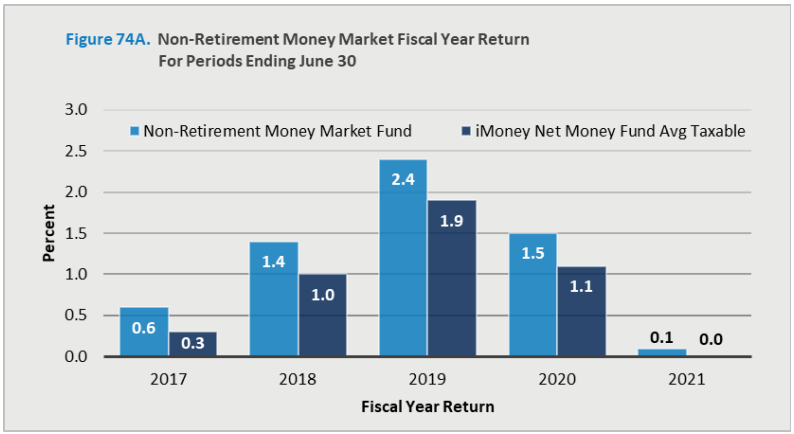
The Non-Retirement Money Market Fund is managed by State Street Global Advisors (SSGA). SSGA provides short-term investment management for a substantial portion of the Board's cash reserves.

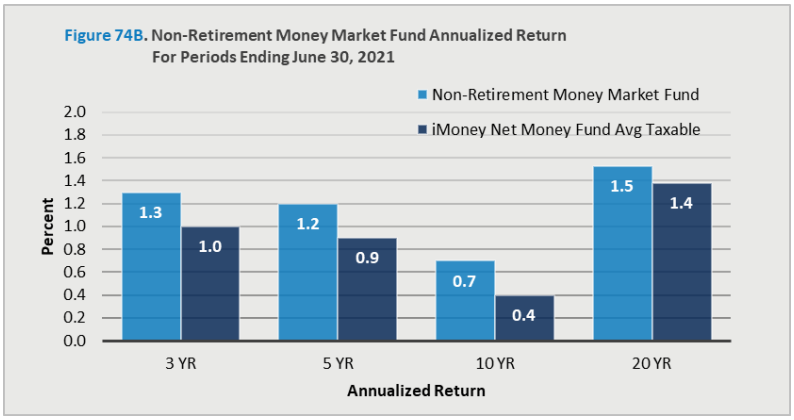
Investment Performance

The SBI measures the Non-Retirement Money Market Fund against the iMoneyNet All Taxable Money Fund Average.

As of June 30, 2021, the Non-Retirement Money Market Fund outperformed its benchmark for all time-periods listed and outperformed the ICE BofA 3 Month Treasury Bill Index for the twenty-year time period ending June 30, 2021.

Historical performance for the Non-Retirement Money Market Fund is provided below in Figures 74A and 74B.





Non-Retirement / Assigned Risk Plan
Investment Vehicle: Fixed Income Portfolio

RBC Global Asset Management manages the fixed income portfolio for the Assigned Risk Plan. On June 30, 2021, the total market value of the fixed income portfolio was $240.5 million.

Assigned Risk Plan Fixed Income Portfolio

The Assigned Risk Plan fixed income portfolio is benchmarked to the Bloomberg Barclays Intermediate Government Index, which consists of high quality, U.S. dollar denominated, fixed rate taxable bonds.

Investment Objectives

The main objective for the fixed income portfolio is to provide cash for the payment of workers compensation claims on the required dates. Because of the uncertainty of premium and liability cash flows, the fund is invested in a conservative portfolio of investment grade debt securities.

Investment Management

RBC Global Asset Management has managed the fixed income portfolio for the Assigned Risk Plan since July 1991. The primary focus for portfolio construction is with security selection and secondarily on sector analysis.

RBC Global Asset Management is required to adhere to the SBI's investment guidelines in managing the account. These guidelines allow RBC Global Asset Management to actively manage the portfolio through duration, yield curve, sector and security selection while closely tracking its benchmark.

Asset Allocation

As an actively managed bond portfolio the sector allocation will deviate from the benchmark composition. As of June 30, 2021, the Assigned Risk Plan fixed income portfolio had a higher allocation in Government Related and Agency Securitized bonds and less exposure to U.S. Treasury bonds relative to the benchmark.

Current Positioning

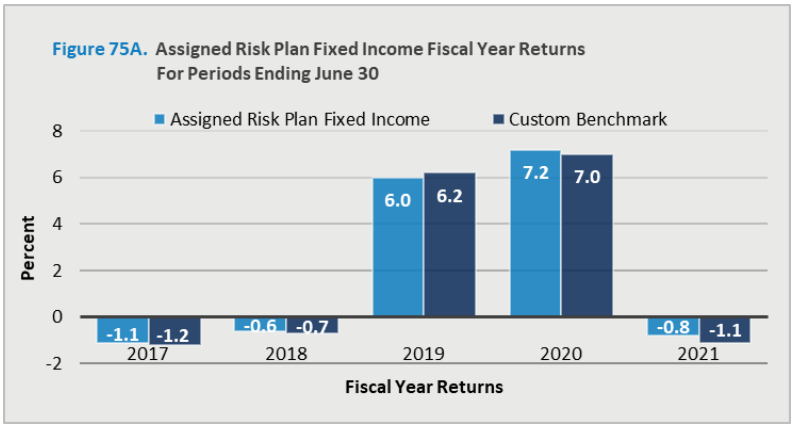
The portfolio effective duration matched the benchmark of 3.82 years. The portfolio earned a higher market yield of 0.40% compared to the benchmark market yield of 0.32% and has similar average credit quality of AAA.

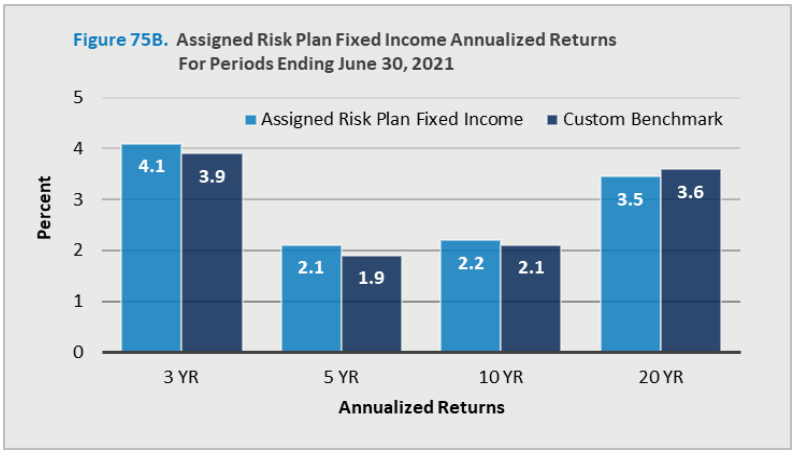
Investment Performance

Performance is measured to the Bloomberg Barclays Intermediate Government Index return since June of 2011. Prior to that, performance was measured to a custom benchmark using target weights to indices with different maturities.

For fiscal year 2021, the Assigned Risk Plan fixed income portfolio outperformed it's benchmark. Results for longer time-periods show the Fund outperforming its composite index over the ten and slightly underperforming the twenty year time-period ending June 30, 2021.

Historical performance results for the Assigned Risk Plan fixed income portfolio are shown in Figures 75A and 75B.





Non-Retirement Account Permanent School Fund

The SBI invests the assets of the Permanent School Fund in the Non-Retirement Equity Fund, Bond Fund, and Money Market Fund. On June 30, 2021, the market value of the Fund was $1.9 billion.

Permanent School Fund

Overview

The Permanent School Fund is a trust fund created by the Minnesota Constitution and is designated as a long-term source of revenue for public schools. Proceeds from land sales, mining royalties, timber sales, lake shore and other leases are invested in the Fund. Income generated by the Fund's assets is appropriated directly to school districts.

Investment Objective

The SBI invests the Permanent School Fund to produce a growing level of spendable income for school districts within the constraints of maintaining adequate portfolio quality and liquidity.

Investment Constraints

The Fund's investment objectives are influenced by the legal provisions under which its investments must be managed. These provisions require that the Fund's principal remain inviolate. Any net realized capital gains from stock or bond investments must be added to the principal. Moreover, if the Fund realizes net capital losses, these losses must be offset against interest and dividend income before such income can be distributed. Finally, all interest and dividend income must be distributed in the year in which it is earned.

Asset Allocation

In order to produce a growing level of spendable income, the Fund has exposure to equities.

The current long-term asset allocation targets for the Fund are:

Domestic Equity	50%
Domestic Bonds	48%
Cash	2%

Prior to fiscal year 1998, the Permanent School Fund had been invested entirely in fixed income securities for more than a decade. While this asset allocation maximized current income, it limited the long-term growth of the Fund and caused the income stream to lose value in inflation adjusted terms, over time.

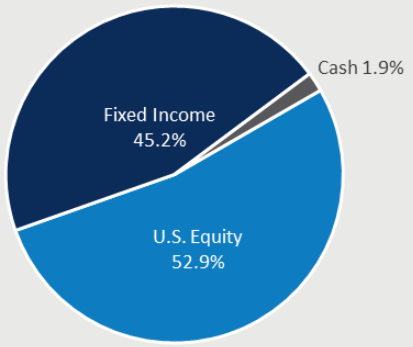
To solve both issues, a proposal to introduce equities to the Fund's asset mix was presented during fiscal year 1997. Since this modification would reduce short-term income and have budgetary implications for the state, the consent of the executive and legislative branches was necessary. It was favorably received by the Minnesota Legislature and incorporated into the K-12 education finance bill. As a result, the Fund allocation was shifted to a 50% stocks/48% bonds/2% cash allocation during July 1997.

Figure 76 presents the actual asset mix of the Permanent School Fund at the end of fiscal year 2021.

Investment Management

Assets of the Permanent School Fund are invested in the Non-Retirement Equity, Bond and Money Market Funds. Fund summaries are provided on pages B117-B119.

Figure 76. Permanent School Fund Asset Mix as of June 30, 2021



Non-Retirement Account
Permanent School Fund

Investment Performance

During the fiscal year, the ***equity*** segment of the Permanent School Fund matched its benchmark, the S&P 500.

The ***bond*** segment outperformed its benchmark, the Bloomberg Barclays U.S. Aggregate, by 1.5 percentage points during the current fiscal year.

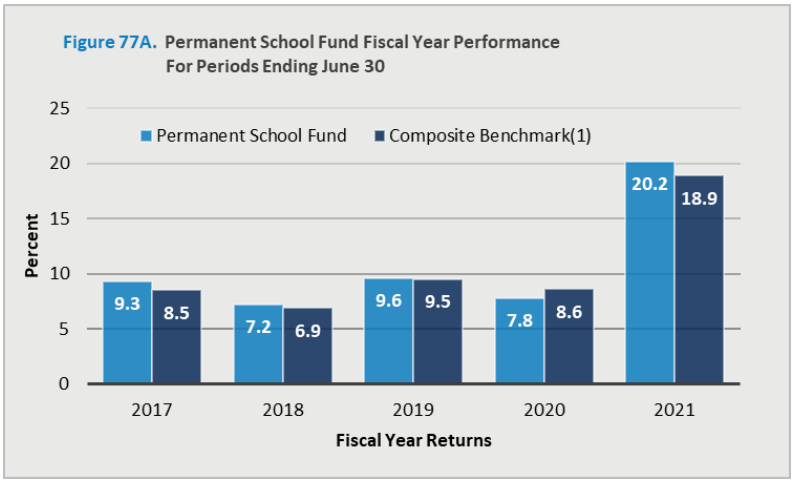
The ***cash*** segment outperformed its benchmark, the iMoneyNet All Taxable Fund, by 0.1 percentage point during the fiscal year.

Overall, the Permanent School Fund provided a return of 20.2% for fiscal year 2021, outperforming its composite index by 1.3 percentage points. Results for longer time-periods show the Fund outperforming its composite index over the ten and twenty year time periods ending June 30, 2021.

Historical performance results for the total Fund and each of the asset class segments are provided in Figure 77A and Figure 77B.

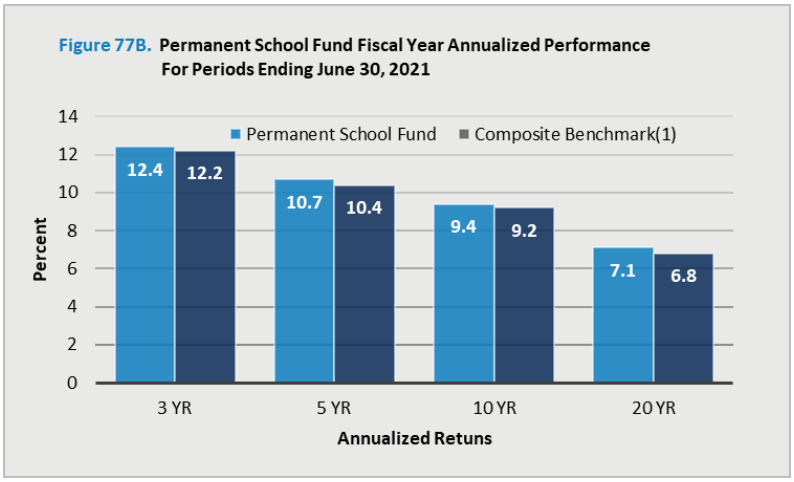
Spendable income generated by the portfolio over the last five fiscal years is shown below:

Fiscal Year	Millions
2017	$30
2018	$33
2019	$36
2020	$39
2021	$36



	Fiscal Year End Return (%)				
	2017	2018	2019	2020	2021
Permanent School Fund Total	**9.3**	**7.2**	**9.6**	**7.8**	**20.2**
Composite Benchmark[1]	8.5	6.9	9.5	8.6	18.9
U.S. Equity Segment	17.9	14.3	10.4	7.5	40.8
S&P 500	17.9	14.4	10.4	7.5	40.8
Bond Segment	0.8	-0.3	8.4	8.2	1.2
BB Barclays Agg	-0.3	-0.4	7.9	8.7	-0.3
Cash Segment	0.6	1.4	2.4	1.5	0.1
iMoney Net All Taxable Fund	0.3	1.0	1.9	1.1	0.0

[1] Represents the aggregate returns of the target allocation: S&P 500 50%, Bloomberg Barclays U.S. Aggregate 48%, and iMoney Net All Taxable Money Fund Avg 2%.



	Annualized Returns (%) as of June 30, 2021			
	3 Yr.	5 Yr.	10 Yr.	20 Yr.
Permanent School Fund Total	**12.4**	**10.7**	**9.4**	**7.1**
Composite Benchmark[1]	12.2	10.4	9.2	6.8
U.S. Equity Segment	18.7	17.6	14.8	8.6
S&P 500	18.7	17.6	14.8	8.6
Bond Segment	5.9	3.6	3.9	5.1
BB Barclays Agg	5.3	3.0	3.4	4.6
Cash Segment	1.3	1.2	0.7	1.5
iMoney Net All Taxable Fund	1.0	0.9	0.4	NA

[1] Represents the aggregate returns of the target allocation: S&P 500 50%, Bloomberg Barclays U.S. Aggregate 48%, and iMoney Net All Taxable Money Fund Avg 2%.

Non-Retirement Account Environmental Trust Fund

The SBI invests the assets of the Environmental Trust Fund in the Non-Retirement Equity Fund, Bond Fund, and Money Market Fund. On June 30, 2021, the market value of the Fund was $1.6 billion.

Environmental Trust Fund

Overview

The Environmental Trust Fund was established in 1988 by the Minnesota Legislature to provide a long-term, consistent and stable source of funding for activities that protect and enhance the environment. By statute, the SBIinvests the assets of the Environmental Trust Fund. The Minnesota Legislature funds environmental projects from a portion of the market value of the Fund.

Investment Objective

The Environmental Trust Fund's investment objective is long-term growth in order to produce a growing level of funding within the constraints of maintaining adequate portfolio liquidity.

A constitutional amendment passed in November 1998 continues the mandate that 40% of the net proceeds from the state lottery be credited to the Fund through 2025.

The amendment provides for spending 5.5% of the Fund's market value annually. The amendment eliminated certain accounting restrictions on capital gains and losses as well as the provision that the principal must remain inviolate.

Asset Allocation

After the constitutional amendment was adopted in November 1998, SBI staff worked with the Legislative Citizen Commission on Minnesota Resources to establish an asset allocation policy that is consistent with the Commission's goals for spending and growth of the Fund. The Fund allocation is positioned for an appropriate long-term growth potential to meet the Fund's objective to produce a growing level of funding.

The current long-term asset allocation targets for the Fund are:

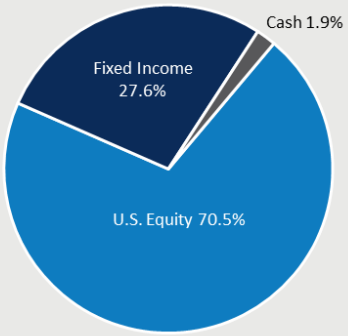
Domestic Equity	70%
Domestic Bonds	28%
Cash	2%

Figure 78 presents the actual asset mix of the Fund at the end of fiscal year 2021.

Investment Management

The Environmental Trust Fund is invested in the Non-Retirement Equity, Bond and Money Market Funds. Fund Summaries are provided on pages B117-B119.

Figure 78. Environmental Trust Fund Asset Mix as of June 30, 2021



Non-Retirement Account Environmental Trust Fund

Investment Performance

During the fiscal year, the ***equity*** segment matched its benchmark, the S&P 500, for the fiscal year.

The ***bond*** segment outperformed its benchmark, the Bloomberg Barclays U.S. Aggregate Index, by 1.5 percentage points during the fiscal year.

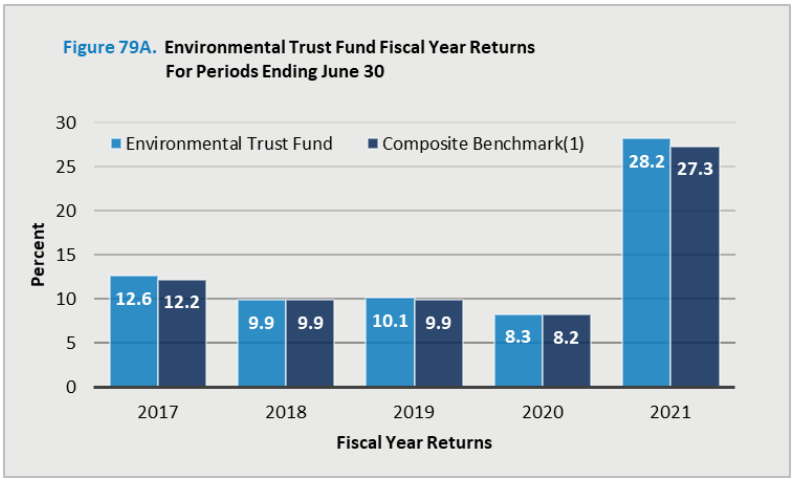
The ***cash*** segment outperformed its benchmark, the iMoneyNet All Taxable Money Fund Average by 0.1 percentage point during the fiscal year.

Overall, the Environmental Trust Fund provided a return of 28.2% for fiscal year 2021, which outperformed its composite index by 0.9 percentage point during the fiscal year. Results for a longer time-periods, show the Fund outperforming its composite index over the ten and twenty year time periods ending June 30, 2021.

Historical performance results for the total Fund and each of the asset class segments are presented in Figures 79A and 79B.

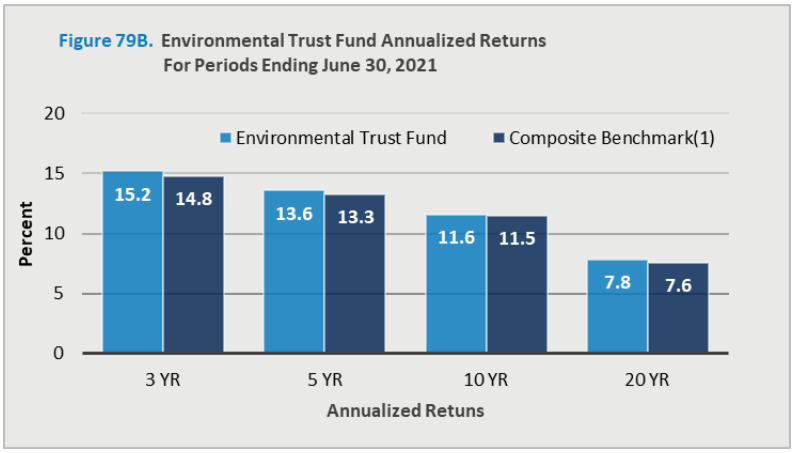
Spendable income generated by the Fund over the last five fiscal years is shown below:

Fiscal Year	Millions
2017	$46
2018	$51
2019	$51
2020	$61
2021	$61



	Fiscal Year End Return (%)				
	2017	2018	2019	2020	2021
Environmental Trust Fund Total	**12.6**	**9.9**	**10.1**	**8.3**	**28.2**
Composite Benchmark[1]	12.2	9.9	9.9	8.2	27.3
Equity Segment	17.9	14.3	10.4	7.5	40.8
S&P 500	17.9	14.4	10.4	7.5	40.8
Bond Segment	0.8	-0.3	8.4	8.2	1.2
BB Barclays Agg	-0.3	-0.4	7.9	8.7	-0.3
Cash Segment	0.6	1.4	2.4	1.5	0.1
iMoney Net All Taxable Fund	0.3	1.0	1.9	1.1	0.0

[1] Represents the aggregate returns of the target allocation: S&P 500 70%, Bloomberg Barclays U.S. Aggregate 28%, and iMoney Net All Taxable Money Fund Avg 2%.



	Annualized Returns (%) as of June 30, 2021			
	3 Yr.	5 Yr.	10 Yr.	20 Yr.
Environmental Trust Fund Total	**15.2**	**13.6**	**11.6**	**7.8**
Composite Benchmark[1]	14.8	13.3	11.5	7.6
Equity Segment	18.7	17.6	14.8	8.7
S&P 500	18.7	17.6	14.8	8.6
Bond Segment	5.9	3.6	3.9	5.1
BB Barclays Agg	5.3	3.0	3.4	4.6
Cash Segment	1.3	1.2	0.7	1.5
iMoney Net All Taxable Fund	1.0	0.9	0.4	NA

[1] Represents the aggregate returns of the target allocation: S&P 500 70%, Bloomberg Barclays U.S. Aggregate 28%, and iMoney Net All Taxable Money Fund Avg 2%.

Non-Retirement Account
Closed Landfill Investment Fund

The SBI invests the assets of the Closed Landfill Investment Fund in the Non-Retirement Equity Fund and Bond Fund. On June 30, 2021, the market value of the Fund was $131.5 million.

Closed Landfill Investment Fund

Overview
The Closed Landfill Investment Fund is a trust fund created by the Minnesota Legislature to invest money to pay for the long-term costs of maintaining the integrity of landfills in Minnesota once they are closed.

Investment Objective
The investment objective of the Closed Landfill Investment Fund is to increase the market value of the Fund and to reduce volatility in order to meet future expenditure needs.

Asset Allocation
Equities provide the potential for capital appreciation, while bonds act as a deflation hedge and provide portfolio diversification.

The current long-term asset allocation targets for the Fund are:

Domestic Equity	70%
Domestic Bonds	30%

Prior to September of 2014, the Closed Landfill Investment Fund had been invested entirely in domestic equity. While this asset class maximized long-term growth opportunities, it did not allocate any assets for capital protection.

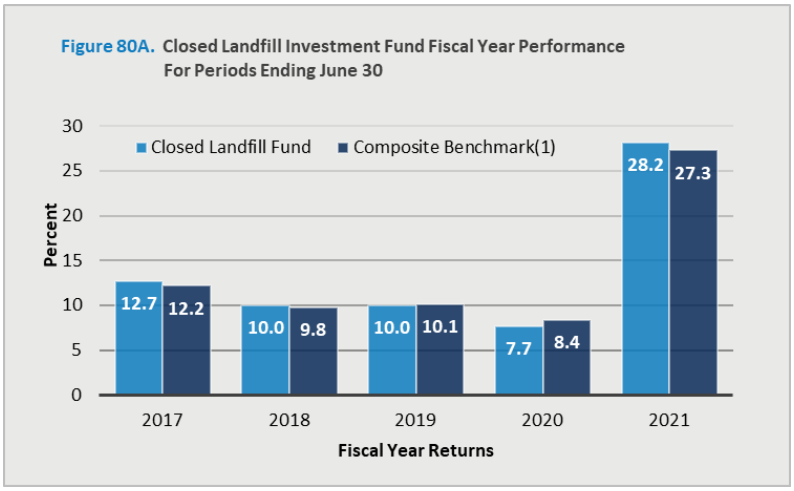
Investment Management
The Closed Landfill Investment Fund is invested in the Non-Retirement Equity and Bond Funds. Fund Summaries are provided on pages B117-B118.

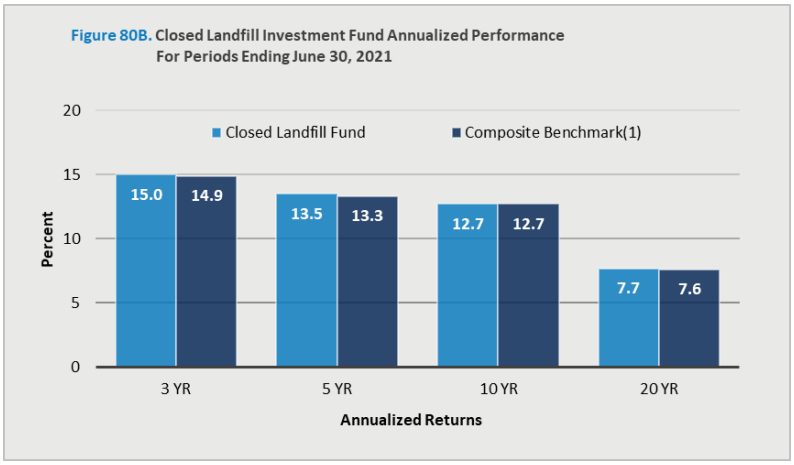
Investment Performance
During the fiscal year, the ***equity*** segment of the Closed Landfill Investment Fund matched the return of its benchmark, the S&P 500.

The ***bond*** segment outperformed its benchmark by 1.5 percentage points during the current fiscal year.

Overall, the Closed Landfill Investment Fund returned 28.2% during the fiscal year 2021, outperforming its composite index by 0.9 percentage point. For the ten and twenty-year time-periods, the Fund matched its composite benchmark.

Historical performance results for the total Fund and each asset class segment are shown in Figures 80A and 80B.





[1] The Composite Benchmark represents the aggregate returns of the target allocation: 70% S&P 500 and 30% Bloomberg Barclays U.S. Aggregate since September 2014; prior to that the target allocation was 100% S&P 500.

Non-Retirement Account Assigned Risk Plan

The SBI invests the Assigned Risk Plan assets in the Non-Retirement Equity Fund and the Assigned Risk Plan fixed income portfolio managed by RBC Global Asset Management. The Plan has a market value of $305.5 million as of June 30, 2021.

Assigned Risk Plan

Overview

The Minnesota Workers Compensation Assigned Risk Plan was established in 1983 to provide workers' compensation coverage to Minnesota employers rejected by a private insurance carrier. The Assigned Risk Plan operates as a non-profit, tax-exempt entity administered by the Department of Commerce. The Plan provides disability income, medical expenses, retraining expenses and death benefits with payments made either periodically or in lump sum.

Investment Objectives

The SBI recognizes that the Assigned Risk Plan has limited tolerance for risk due to erratic cash flows, no allowance for surplus, and generally short duration liabilities.

Therefore, the SBI has established two investment objectives for the Plan:

- To minimize mismatch between assets and liabilities.
- To provide sufficient liquidity (cash) for payment of on-going claims and operating expenses.

Performance relative to these objectives is measured against a composite index that reflects the asset allocation of the portfolio.

Asset Allocation

The SBI believes that due to the uncertainty of premium and liability cash flows, the Plan should be invested very conservatively.

The fixed income portfolio is invested to fund the shorter-term liabilities (less than 10 years) and the equity segment is invested to fund the longer-term liabilities. The result is a high fixed income allocation, which minimizes the possibility of a future fund deficit. The smaller equity exposure provides higher expected returns and hedges some of the inflation risk associated with the future liability stream.

The current long-term asset allocation targets for the Plan are as follows:

Domestic Equity	20%
Domestic Bonds	80%

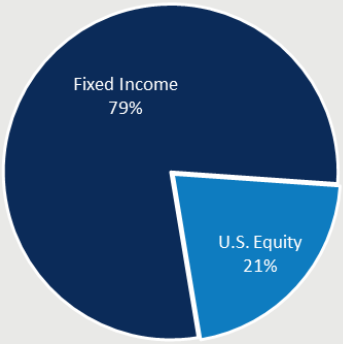
The asset allocation may fluctuate in response to changes in the liability stream projected by the Plan's actuary and further analysis by the SBI staff. Figure 81 presents the actual asset mix of the Assigned Risk Plan at the end of fiscal year 2021.

Investment Management

The ***equity segment*** is managed by Mellon Investments Corporation in the Non-Retirement Equity Fund to fund the longer-term liabilities of the Plan. More detail on the Non-Retirement Equity Fund is provided on page B117.

The ***bond segment*** is managed by RBC Global Asset Management using a fundamental approach, with a focus primarily on security selection and secondarily on sector analysis. More information on the Assigned Risk Plan fixed income portfolio is provided on page B120.

Figure 81. Assigned Risk Plan Asset Mix as of June 30, 2021



Non-Retirement Account Assigned Risk Plan

Investment Performance

Due to the focus on liability matching, the Assigned Risk Plan's investment portfolio is conservatively structured. While active management is utilized in the fixed income portfolio, return enhancement plays a secondary role.

The Assigned Risk Plan is measured against a composite index which is weighted to reflect the asset allocation of the Plan:

- The target for the equity component is the S&P 500.
- The target for the fixed income component is a custom benchmark which reflects the duration target established for the bond segment (approximately three years).

The ***equity*** segment matched the benchmark, the S&P 500, with a 40.8% return at fiscal year-end 2021.

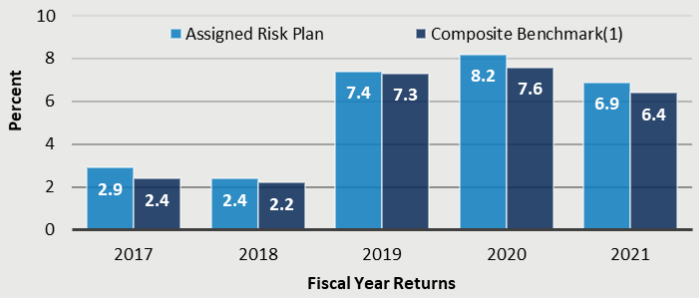
.

The ***bond*** segment outperformed its benchmark, the Bloomberg Barclays U.S. Intermediate Government Index, with a -0.8% return compared to the benchmark return of -1.1% at fiscal year-end 2021.

Overall, the Assigned Risk Plan provided a return of 6.9% for fiscal year 2021, which was 0.5 percentage point above the composite index. For longer time-periods, the ten year outperformed and the twenty year matched the composite benchmark return as of June 30, 2021.

Historical performance results are provided in Figures 82A and 82B.

Figure 82A. Assigned Risk Plan Total Fiscal Year Performance For Periods Ending June 30

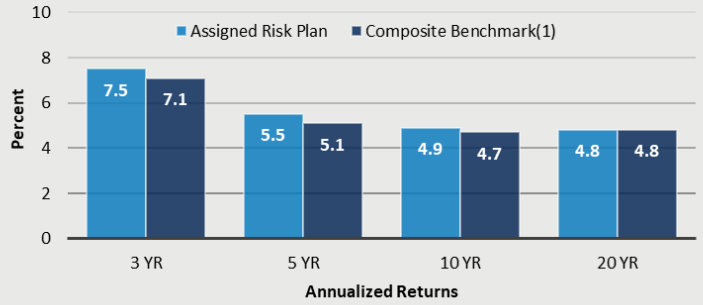


	Fiscal Year End Return (%)				
	2017	2018	2019	2020	2021
Assigned Risk Plan Total	**2.9**	**2.4**	**7.4**	**8.2**	**6.9**
Composite Benchmark[1]	2.4	2.2	7.3	7.6	6.4
Stock Segment	19.6	14.3	10.4	7.5	40.8
S&P 500	17.9	14.4	10.4	7.5	40.8
Bond Segment	-1.1	-0.6	6.0	7.2	-0.8
Benchmark[2]	-1.2	-0.7	6.2	7.0	-1.1

[1] Represents the aggregate returns of the target allocation: 20% equity and 80% fixed income

[2] Fixed income portfolio benchmark since 7/1/11 is the Bloomberg Barclays US Int Govt. From 4/1/02 – 6/30/11 was: 10% ML 91 Day T-Bill, 25% ML 1-3yr Govt., 15% ML 3-5yr Treasury/Agency 25% ML 5-10yr Trsy/Agency, 25% ML Mortgage Master. From 7/1/01 – 3/31/02 was: 10% ML 91 Day T-Bill, 25% ML 1-3yr Govt/Credit, 15% ML 3-5yr Govt/Credit, 25% ML 5-10yr Govt/Credit, and 25% ML Mortgage Master.

Figure 82B. Assigned Risk Plan Total Annualized Performance For Periods Ending June 30, 2021



	Annualized Returns (%) as of June 30, 2021			
	3 Yr.	5Yr.	10 Yr.	20 Yr.
Assigned Risk Plan Total	**7.5**	**5.5**	**4.9**	**4.8**
Composite Benchmark[1]	7.1	5.1	4.7	4.8
Stock Segment	18.7	18.0	14.3	8.4
S&P 500	18.7	17.6	14.8	8.6
Bond Segment	4.1	2.1	2.2	3.5
Benchmark[2]	3.9	1.9	2.1	3.6

[1] Represents the aggregate returns of the target allocation: 20% equity and 80% fixed income

[2] Fixed income portfolio benchmark since 7/1/11 is the Bloomberg Barclays US Int Govt. From 4/1/02 – 6/30/11 was: 10% ML 91 Day T-Bill, 25% ML 1-3yr Govt., 15% ML 3-5yr Treasury/Agency 25% ML 5-10yr Trsy/Agency, 25% ML Mortgage Master. From 7/1/01 – 3/31/02 was: 10% ML 91 Day T-Bill, 25% ML 1-3yr Govt/Credit, 15% ML 3-5yr Govt/Credit, 25% ML 5-10yr Govt/Credit, and 25% ML Mortgage Master.

Non-Retirement Account
Other Postemployment Benefits (OPEB)

Other Postemployment Benefits (OPEB) are the assets set aside by local units of government for the payment of retiree benefits administered by the Public Employees Retirement Association. On June 30, 2021, the total market value of the OPEB accounts was $876.1 million.

Other Postemployment Benefits (OPEB)

Overview

Under the provisions of *Minnesota Statutes*, Chapter 471.6175, local units of government, including school districts, may choose the Public Employees Retirement Association (PERA) to administer their postemployment health benefits.

If PERA is chosen by the local unit, assets of that unit's account are invested by the SBI.

Investment Options

There are three Non-Retirement investment options available to local OPEB trusts: an Equity, Bond, and a Money Market Fund. Fund summaries are provided on pages B117-B119.

Asset Allocation

The SBI does not determine the asset allocation policy for these assets.

Participating Entities

As of June 30, 2021, there were 23 entities with OPEB investment accounts invested by the SBI. In total, these accounts represented $876.1 million. SBI Staff anticipates that the number of these accounts will increase in the future.

Duluth OPEB

The SBI is required to report the returns provided on assets invested by the City of Duluth for this purpose. The City of Duluth made its first investment with the SBI in July 2007.

As of June 30, 2021 the market value of the Duluth OPEB Fund was $91.7 million.

Investment Performance

Overall, the Duluth OPEB portfolio provided a return of 29.8%, which outperformed a composite index that represents a 70% allocation to S&P 500 and 30% allocation to the Bloomberg Barclays U.S. Aggregate.

The ***equity*** segment matched the benchmark, the S&P 500, with a 40.8% return during the fiscal year 2021.

The ***bond*** segment returned 1.2% for the fiscal year, which outperformed its benchmark, the Bloomberg Barclays U.S. Aggregate.

Historical annualized performance results as of June 30, 2021, are provided in Figure 83.

Asset Allocation

Duluth is responsible for the asset allocation decisions in this account and as of June 30, 2021, the asset allocation was the following:

Domestic Equities	78%
Domestic Bonds	22%

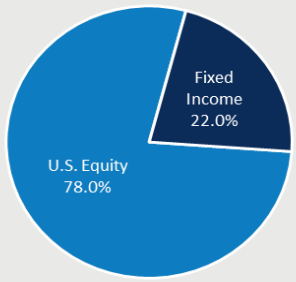
Figure 84 presents the actual asset mix of the Duluth OPEB as of June 30, 2021.

Figure 83. Duluth OPEB Performance for Periods Ending June 30, 2021

	Annualized Returns (%)		
	1 Yr.	3 Yr.	5 Yr.
Duluth OPEB	**29.8**	**15.4**	**13.8**
Composite Benchmark[1]	27.3	14.9	13.3
U.S. Equity Segment	40.8	18.7	17.6
S&P 500	40.8	18.7	17.6
Bond Segment	1.2	5.9	3.6
BB Barclays Agg	-0.3	5.3	3.0

[1] Represents the aggregate returns of a target allocation to 70% S&P 500 and 30% Bloomberg Barclays U.S. Aggregate.

Figure 84. Duluth OPEB Asset Mix as of June 30, 2021



Non-Retirement Account
Qualifying Governmental Entities

Qualifying Governmental Entities have the authority to invest in the Non-Retirement Equity Fund. On June 30, 2021, the total market value of the Qualifying Governmental investment account was $5.2 million.

Qualifying Governmental Entities

Overview
Under the provisions of *Minnesota Statutes*, 118A.09, primarily counties and cities who meet the criteria provided within statute may invest in the Non-Retirement Equity Fund. Statute also authorizes certain self-insurance pools to invest with the SBI.

Investment Objective
An investment in the Non-Retirement Equity Fund should be viewed as a long-term investment. Equity investments carry a risk of loss, and all Qualifying Governmental Entities are responsible for determining their risk tolerance for equities and investing accordingly. Funds needed for operations or short-term obligations should be kept at a local financial institution in an appropriate account; an account with the SBI is not intended for maintaining operating or short-term funds.

Investment Option
At this time, only the Non-Retirement Equity Fund is available as an investment option to Qualifying Governmental Entities.

Information on the Non-Retirement Equity Fund is provided on pages B117.

Asset Allocation
The asset allocation is 100% Domestic Equity.

Participating Entity
As of June 30, 2021, there was one Qualifying Governmental investment account invested with the SBI. This account represented $5.2 million.

Plan Administrator
The Public Employees Retirement Association (PERA) administers the accounts for Qualifying Governmental Entities. Each entity must maintain a Long-Term Equity Investment Account Agreement with PERA in order to invest through the SBI.

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STATE CASH ACCOUNTS

Overview of State Cash Accounts B131

Invested Treasurer's Cash Pool B131

Other State Cash Accounts B132

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State Cash Accounts
Investment Program Overview and Investment Vehicles

The SBI manages the cash balances of more than 400 state agency accounts with the objectives of preserving capital, meeting state agency liquidity needs, and providing competitive money market returns. On June 30, 2021, the total market value of the cash accounts internally managed by the SBI was $19.6 billion.

State Cash Accounts

State Cash Account assets represent funds invested in the Invested Treasurer's Cash (ITC) Pool and in Other State Cash Accounts. State agencies with differing investment objectives, strategies, and time horizons, are not invested in the ITC Pool and are invested in a separate account.

Investment Objectives
The investment objectives for investing state cash accounts are to preserve capital, to meet the state's cash needs without the forced sale of securities at a loss, and to provide a level of current income consistent with the goal of preserving capital.

Investment Management
All State Cash Accounts are managed internally by SBI investment staff.

Invested Treasurer's Cash Pool

The majority of the State Cash Accounts are invested in a short-term pooled fund referred to as the Invested Treasurer's Cash Pool (ITC). ITC assets represent $19.5 billion, or 99.6% of State Cash Account assets as of June 30, 2021. This pool contains the cash balances of special or dedicated accounts necessary for the operation of certain State agencies and non-dedicated cash in the State Treasury.

Figure 85. Invested Treasurer's Cash Fund Distribution as of June 30, 2021

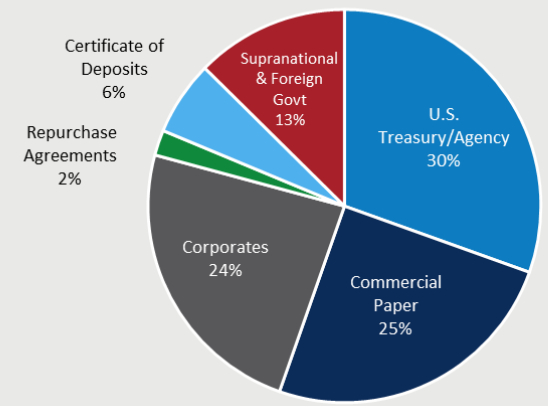


Figure 86A. Invested Treasurer's Cash Pool Fiscal Year Performance For Periods Ending June 30

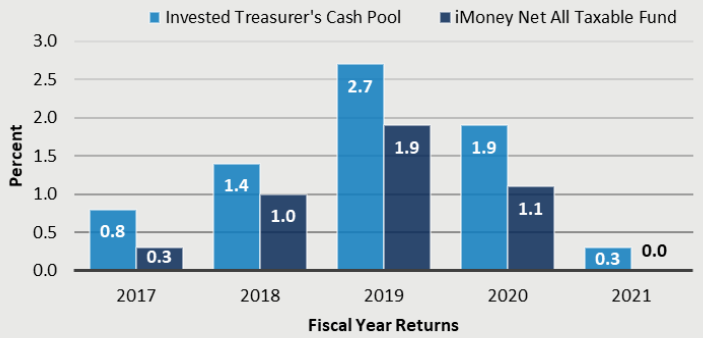
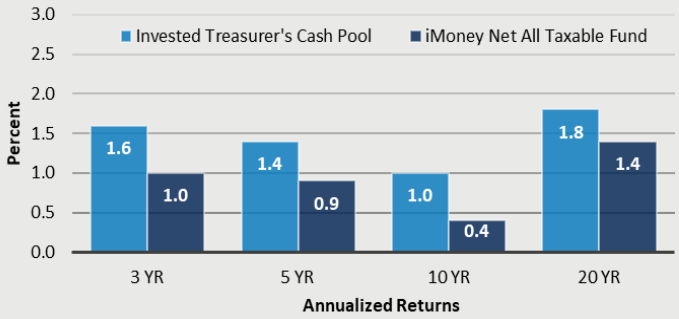


Figure 86B. Invested Treasurer's Cash Pool Annualized Performance For Periods Ending June 30, 2021



Asset Allocation

The ITC portfolio is constructed to generate current income while preserving capital by investing in high quality, liquid, short-term investments. These include U.S. Treasury and Agency issues, repurchase agreements, bankers acceptances, commercial paper, short-term corporates, and certificates of deposit. The composition of the Pool as of June 30, 2021 is shown in Figure 85 on page B131.

At the end of the fiscal year, the Pool had a current yield of 0.26% and a weighted average maturity of 302 days.

Investment Performance

The SBI measures the performance of the ITC Pool against its benchmark the iMoneyNet All Taxable Fund Average, which reflects the investment objectives of the account.

Performance results are shown in Figure 86A and Figure 86B on page B131. For fiscal year 2021, the ITC Pool outperformed its benchmark by 0.3 percentage point and outperformed for all time-periods listed.

Other State Cash Accounts

Approximately $74.0 million of assets are in Other State Cash Accounts, which are separately managed dedicated accounts because of special legal restrictions. These agencies direct the investments or provide the SBI with investment guidelines and the SBI executes on their behalf. The vast majority of these assets are related to state or state agency debt issuance including debt service reserves and proceeds.

Excess Debt Reserve

The SBI manages excess debt reserve accounts separate from the ITC Pool in order to align with requirements related to the issuance of general obligation bonds.

When the full faith and credit of the state has been pledged for the payment of the state's bonds, the Minnesota Constitution and Statutes require the state to have on hand by, December 1 of each year, an amount sufficient to pay principal and interest on the State's general obligation debt for the next nineteen months. The Internal Revenue Code establishes rules surrounding debt issuance, debt service, and yield management.

The SBI complies with these rules by splitting the nineteen months of funds set aside for debt service into two accounts:

- A "bona fide debt service account" to comply with federal regulations; and
- An "excess reserve account," to comply with the Minnesota Constitution and statutes.

The primary investments used for the reserve accounts are U.S. Treasuries and municipal bonds.

As of fiscal year end 2021, the SBI had $71.9 million invested in the Excess Debt Service Reserve.

Minnesota Public Facilities Authority

The SBI additionally invests assets on behalf of and at the direction of the Minnesota Public Facilities Authority.

As of June 30, 2021, $2.1 million was invested on behalf of the Public Facilities Authority.

Minnesota Housing Finance Agency

Minnesota Housing Finance Agency has the authority to invest in a separate cash account with the SBI.

As of June 30, 2021, the SBI did not invest any assets on behalf of the Housing Finance Authority.

ESG STEWARDSHIP REPORT

FISCAL YEAR 2021

Letter from the Executive Director and CIO C1

Introduction C3

Stewardship

- Proxy Voting C7
- Engagement C13

ESG Incorporation

- ESG Integration C19
- Screening C23

Conclusion C25

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LETTER FROM THE EXECUTIVE DIRECTOR AND CIO

January 2022

I am pleased to present the Minnesota State Board of Investment's (SBI) inaugural Stewardship Report.

This Stewardship Report provides information on how the SBI fulfills its fiduciary duty by managing Environmental, Social and Governance (ESG) risks across its investment portfolios through Stewardship and ESG Incorporation.

The primary mission of the SBI is to maintain the long-term viability of various retirement and other state funds for the State of Minnesota, which are governed by the prudent person rule and other standards codified in Minnesota Statutes, Chapter 11A and Chapter 356A. It is the responsibility of the Executive Director and CIO of the SBI to address ESG issues that support the primary mission of the agency.

In 2017, the SBI adopted its Investment Belief that ***"utilizing engagement initiatives to address environmental, social, and governance (ESG) issues can lead to positive portfolio and governance outcomes."*** Since adopting this Belief, the SBI has been on a journey to expand its Stewardship capabilities. In February 2020, the SBI adopted a resolution on ESG that further directed the Executive Director to engage the SBI in a variety of Stewardship activities, including producing a Stewardship Report. At that time, few could have foreseen the events that would transpire throughout the remainder of 2020.

These past two years have been a turbulent time for all of us. Families across Minnesota and the whole world together have faced the challenges of the global COVID-19 pandemic, the murder of George Floyd, drought, widespread wildfires, and much more. At the same time, the prices of securities, properties, and companies across the markets that the SBI invests in experienced significant volatility. These events highlight how much the SBI depends on a healthy global financial system to achieve its goals.

For large, diversified, and long-term investors such as the SBI, broad market returns are the primary driver of the returns experienced by the investor. Market returns depend on the long-term health of the economy, which in turn depends on the productivity of social and environmental systems. Diversification and divestment are not necessarily the most prudent ways to address systemic risk. Instead, along with many other institutional investors, the SBI attempts to address some of these systemic risks with Stewardship activities that promote the long-term sustainability and health of financial markets.

In addition, as a signatory of the Principles of Responsible Investment (PRI), the SBI has committed to incorporating ESG into its investment analysis and decision-making process. In order for the SBI to fulfill this commitment, the SBI evaluates how its managers use ESG information alongside other financial information to determine the enterprise risk at the individual investment level. With both Stewardship and ESG Incorporation, the SBI expects to stay the course through short-term market volatility and fulfill its primary mission to the State of Minnesota.

On behalf of the Board Members, the Investment Advisory Council and the SBI Staff, we would like to thank all SBI stakeholders for your interest in these important topics and continued commitment to the SBI's long-term success.

Sincerely,

Mansco Perry III,
Executive Director and Chief Investment Officer

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Introduction

INTRODUCTION

Throughout this report, the terms "Stewardship" and "ESG Incorporation" are used according to the definitions developed by industry experts in conjunction with the United Nations Principles of Responsible Investing (PRI).

- **STEWARDSHIP**: The use of influence by institutional investors to maximize overall long-term value, including the value of common economic, social and environmental assets, on which returns and clients' and beneficiaries' interests depend.
- **ESG INCORPORATION**: The review and use of ESG information in the investment decision-making process.

STEWARDSHIP

The SBI organizes its Stewardship activities into two main categories: *Proxy Voting* and *Engagement*. These activities are guided by the SBI Investment Beliefs ("Beliefs"). The primary purpose of the Beliefs is to guide the SBI toward sound investing principles related to investing pension funds. In this respect, the Beliefs help provide context for SBI's actions, reflect SBI's investment values, and acknowledge SBI's role in supporting the State's broader retirement systems. Below is one of the Beliefs that relates to ESG:

"Utilizing engagement initiatives to address environmental, social, and governance-related issues can lead to positive portfolio and governance outcomes."

In conjunction with this belief, the SBI votes proxies and participates in engagement initiatives in ways that address both systemic risks to the portfolio (i.e. climate change) and enterprise risks to individual investments (i.e. lack of diversity).

PROXY VOTING

The SBI's proxy voting activities are overseen by the SBI's Proxy Committee which is responsible for voting the SBI's proxy rights with respect to shares owned in publicly traded U.S. companies. By exercising its proxy rights, the SBI influences how companies address ESG issues.

In FY 2021, the SBI voted proxies for 2,429 company meetings. From a shareholder stewardship perspective, 2021 was very successful in terms of passing shareholder proposals. Thirty-one ESG related shareholder proposals received majority votes, surpassing the 2020 record of 18. Some highlights of items receiving majority shareholder support include:

Chevron – A proposal requesting the Company substantially reduce the greenhouse gas emissions of their energy products in the medium- and long-term future.

Phillips 66 – A proposal requesting the Company set and publish emissions reduction targets covering the greenhouse gas emissions of the Company's operations and energy products.

IBM – A proposal requesting an annual report assessing the Company's diversity, equity and inclusion efforts.

DuPont – A proposal requesting the Company to disclose on its website its Consolidated EEO-1 Report, which is a comprehensive breakdown of its workforce by race, ethnicity and gender that the Company is required to submit annually to the U.S. Equal Employment Opportunity Commission.

ExxonMobil – Three shareholder nominated directors were elected to serve on the Company board to address poor performance and the need for the company to evolve in response to climate change.

Additional information on the SBI's Proxy Committee, legislative requirements (as it pertains to Northern Ireland), and fiscal year 2021 in review can be found in the Proxy Voting Section of this report beginning on page C7.

INTRODUCTION

ENGAGEMENT

The SBI's engagement activities are all associated with institutional investor coalitions. The SBI has partnered with several organizations to engage with companies and regulatory authorities on ESG issues. These organizations include:

- Ceres Investor Network
- Climate Action 100+
- Council of Institutional Investors (CII)
- Institutional Limited Partners Association (ILPA)
- Midwest Investors Diversity Initiative (MIDI)
- RFK Compass Initiative
- Thirty Percent Coalition
- United Nations Principles of Responsible Investment (PRI)

These organizations provide research, engagement opportunities, and other resources to help the SBI effectively address ESG issues. Common issues addressed by the coalitions include, but are not limited to, climate; gender, racial, and ethnic diversity; shareholder rights; corporate governance; and workers' rights.

Company Engagements

Engagement opportunities with companies take the form of direct communication, letter writing, and filing of shareholder resolutions. In recent years, the SBI has:

- Engaged with Xcel Energy on climate issues through the Climate Action 100+.
- Helped start a new engagement with Hess Corporation through Ceres.
- Joined MIDI and directly engaged on board diversity with ANI Pharmaceuticals, Inc., Groupon Inc. and Navistar.

Regulatory Engagements

In addition to engaging with companies, the SBI engages with regulatory authorities on ESG issues impacting institutional investors.

● Securities Exchange Commission (SEC) ●

In 2020, the SBI submitted a comment to the SEC opposing new rules regulating SBI's proxy service providers. If enforced, these rules will impair the SBI's access to timely and independent proxy research that greatly aids SBI's exercise of its proxy rights.

In 2021, the SBI co-signed several letters encouraging the SEC to establish public company disclosure standards on climate change risks.

● U.S. Department of Labor ●

The SBI submitted a comment to the U.S. Department of Labor in opposition to amended rules regarding ESG considerations in ERISA regulated investment portfolios. If left unchanged, these rules will narrow consideration of ESG factors in ERISA regulated investment portfolios.

● Russell 3000 Companies ●

The SBI cosigned a letter that was sent to companies included in the Russell 3000 index urging the companies to disclose the racial/ethnic and gender composition of their boards of directors in each company's 2021 proxy disclosure statement.

Additional information on each of the coalitions and the engagement activities that they SBI has participated in can be found in the Engagement Section beginning on page C13.

INTRODUCTION

ESG INCORPORATION

ESG Incorporation is the review and use of ESG information in the investment decision-making process. The SBI currently uses two forms of ESG Incorporation: *ESG integration* and *Screening*.

ESG INTEGRATION

ESG Integration is systematically including ESG issues in investment decisions to manage risks and improve returns. Since the SBI hires external managers to invest the pension plan assets and other funds for the State of Minnesota, it expects its managers to integrate ESG into their investment process. With discussion during meetings and with written questionnaires, SBI staff gathers information to evaluate its managers on their ESG integration practices.

ESG Integration has become widely accepted as best practice for prudent investment decision-making, and the SBI has explicitly recognized its importance. In February 2020, the SBI adopted a ***Resolution on ESG Initiatives*** directing the SBI Executive Director to continue developing the SBI's approach to addressing ESG investment risk throughout its investment portfolios. The resolution stated that SBI believes that corporations and partnerships that do not take ESG risk into consideration may jeopardize their financial viability and decrease their value, and that the SBI encourages managers to enhance their ESG risk analysis.

SCREENING

Screening is using ESG information to remove certain securities from the authorized list of investments. For the SBI, some screens are intended to meet national security objectives, like those regarding Iran. In other cases, the long-term financial risks of certain business activities are so large that the SBI has determined exposure to those risks are inappropriate for the portfolio. A recent example of this is the ***SBI Resolution Concerning Reduction of Investments Associated with Thermal Coal Production.***

In May 2020, the Board adopted a resolution stating that investments in publicly traded companies that derive more than 25% of their revenue from thermal coal were no longer authorized investments in the SBI's Combined Funds investment portfolio. The SBI Executive Director expanded this mandate to the SBI's non-retirement portfolios and Stable Value Fund. Investment managers removed such companies from the SBI's portfolio by the end of calendar year 2020. In addition, the SBI Executive Director began the process of removing investments in fossil fuel companies from the Invested Treasurer's Cash Account (ITC). The ITC will be prohibited from holding such investments in the future.

Additional information on ESG Integration and Screening can be found in the ESG Incorporation Section beginning on page C19 of this report.

STEWARDSHIP

PROXY VOTING

PROXY COMMITTEE

Established

In 1982, the SBI established the Proxy Committee to carry out the SBI's proxy voting responsibilities. As a stockholder, the SBI is entitled to participate in corporate annual meetings through direct attendance or by casting its votes by proxy. Through proxy voting, the SBI votes its shares in a particular way on resolutions under consideration at annual meetings. Many of these proxy votes are on proposals concerning material ESG issues related to subjects such as board of directors, audits, executive compensation, climate change, diversity, opioids and other ESG related risks. In effect, as a shareholder the SBI can participate in shaping corporate policies and practices.

Committee Membership

The SBI Proxy Committee is composed of a representative selected by each member of the SBI and chaired by the designee of the Governor. The Committee meets on an as-needed basis to review and vote on proxy ballot items not covered by existing precedent and establish new precedents. Traditionally, the Board has re-authorized the proxy committee every two years.

The current Proxy Committee membership is:

Karl Procaccini, Governor's designee
Ramona Advani, State Auditor's designee
Bibi Black, Secretary of State's designee
Luz Frias, Attorney General's designee

Proxy Voting – Guidelines and Precedents

The Committee has formulated guidelines by which it votes on a wide range of corporate governance, social responsibility and environmental issues. Each year the Proxy Committee reviews existing guidelines and determines which issues it will review on a case-by-case basis. In accordance with the Proxy Voting Guidelines (approved by the Board) and precedents established by the Committee, SBI staff votes the proxies of all U.S. companies for which the SBI is entitled a vote. The Proxy Voting Guidelines are shared with the SBI's external investment managers to guide their voting decisions for non-U.S. companies. When a proposal at a U.S. company is not covered by the Proxy Voting Guidelines, it is added as a voting item to the agenda of the next Proxy Committee meeting.

Proxy Advisory Services

The SBI currently uses the proxy advisory services firm Glass Lewis to compile large amounts of disparate data and make researching ballot items more efficient. SBI staff and the SBI Proxy Committee use research material provided by Glass Lewis to gain a better understanding of many proposals but do not necessarily rely on the voting recommendations provided by Glass Lewis. Proxy advisory services are integral to the SBI's ability to conduct due diligence on companies and proxy ballot items.

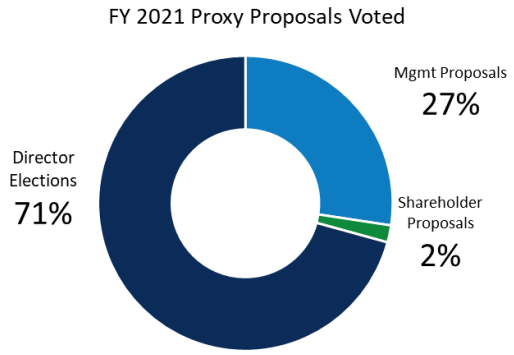
PROXY VOTING - LEGISLATIVE REQUIREMENTS

The SBI monitors investments in Northern Ireland according to *Minnesota Statutes,* § 11A.241. This statute was established in 1988 and requires the SBI to, whenever feasible, sponsor, cosponsor or support shareholder resolutions designed to encourage companies in which the Board has invested to pursue a policy of affirmative action in Northern Ireland. Out of the 148 companies held by the SBI doing business in Northern Ireland, 92 have not adopted the McBride principles as their formal employment practices. The SBI continues to maintain a voting precedent in accordance with this statute. No shareholder resolutions applicable to this statute were submitted this year.

PROXY VOTING 2021 REVIEW

FY 2021 Proxy Voting

2021 was a historic year for SBI proxy voting and for shareholder advocacy across the investment industry. Over the course of fiscal year 2021, the SBI voted ballots for 2,429 different company meetings on over 20,000 items. The majority of these votes were for director elections but there were also 6,105 management proposals and 416 proposals submitted by shareholders.



The number of ESG related shareholder proposals receiving majority votes increased from 18 in 2020 to 31 in 2021. These numbers reflect the increasing investor awareness of the importance of ESG issues. Of the nearly 100 ESG resolutions receiving majority support in the last decade, half have been in the last two years. These numbers do not include the many proposals withdrawn by shareholders after successful engagements with companies.

The SBI, along with many other U.S. public pensions and institutional investors, plays an important role in encouraging improved environmental, social and governance practices that are material to the long-term sustainability of the world's largest corporations.

DIRECTOR ELECTIONS HIGHLIGHT

New Directors Elected to ExxonMobil Board of Directors

The 2021 Board of Directors election at ExxonMobil was one of the most significant ESG-related shareholder events in recent years. Three of four directors nominated by an ExxonMobil shareholder, Engine No. 1, won seats on ExxonMobil's 12 person board. Engine No. 1 offered the candidates (known as dissident directors) in opposition to candidates offered by Exxon's management.

The campaign in favor of these new directors focused on the poor performance of Exxon in recent years and the need for the company's business strategy to evolve in response to climate change and society's transition toward a lower-carbon economy. Many large shareholders believe that the dissident directors have experience that will improve ExxonMobil's chances of succeeding with this effort.

SBI's Role in the ExxonMobil Campaign

- Large U.S. public pensions like the SBI, played a key role in electing these new directors beyond directly voting in favor of the dissident directors.
- The effort to elect shareholder nominated directors came after many years of engagement with Exxon by CalSTRS and groups like the Climate Action 100+, of which the SBI is a member.
- In 2020, the SBI and some other groups voted against the entire board as part of this engagement.
- In 2021, the 3.5 million shares held by the SBI amounted to about 5% of the difference between the 3rd dissident director winning a seat and the closest management nominated candidate who did not win a seat.

PROXY VOTING 2021 REVIEW

MANAGEMENT AND SHAREHOLDER PROPOSALS

GOVERNANCE

It is typical for both shareholders and management to submit proposals addressing governance issues. In general, the SBI supports proposals that preserve or enhance shareholder rights to effect change. Such proposals include requiring independent board chairs, requiring shareholder approval of poison pill plans, repealing classified boards, and adopting majority voting.

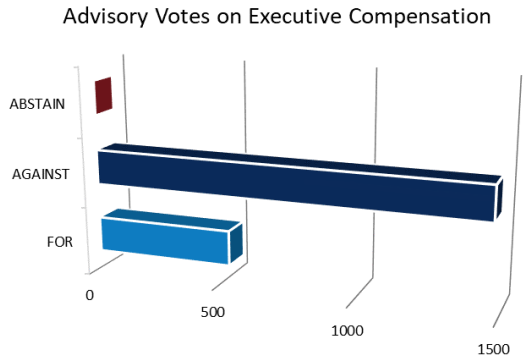
Conversely, the SBI generally opposes proposals that would restrict shareholder ability to effect change. Such proposals include instituting super-majority requirements to ratify certain actions or events, creating classified boards, prohibiting or limiting shareholder action by written consent, and granting certain stockholders superior voting rights over other stockholders.

Executive Compensation alignment with shareholders is another key area of focus for SBI proxy voting activities. In general, the SBI supports efforts to have executive compensation linked to a company's long-term performance and to encourage full disclosure of compensation packages for principal executives. Accordingly, the SBI evaluates compensation packages on a case-by-case basis, including compensation agreements that are contingent upon corporate change in control.

Corporate Governance Proposals: The SBI voted for the vast majority of shareholder proposals related to corporate governance practices such as proxy access, independent chair, declassification of boards, written consent, reports on political spending and majority voting.

Sixteen proposals related to governance issues that increase shareholder rights and information received majority shareholder support.

Executive Compensation: In 2021, the SBI voted against approximately 70% of advisory votes on executive compensation due to lack of sufficient alignment or transparency with shareholders.



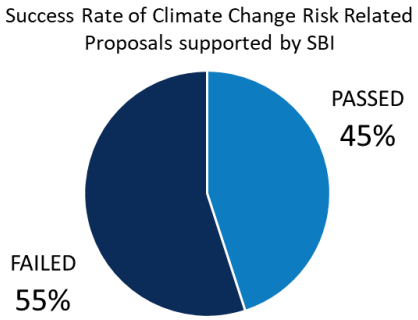
ENVIRONMENTAL

Environmental proposals are most often submitted by shareholders. In general, the SBI supports proposals that require a corporation to report or disclose to shareholders company efforts to address environmental issues, seek to improve a company's environmental practices to protect the world's natural resources, or address climate change. Proposals that request the adoption of various environmental policies are evaluated on a case-by-case basis.

PROXY VOTING 2021 REVIEW

MANAGEMENT AND SHAREHOLDER PROPOSALS

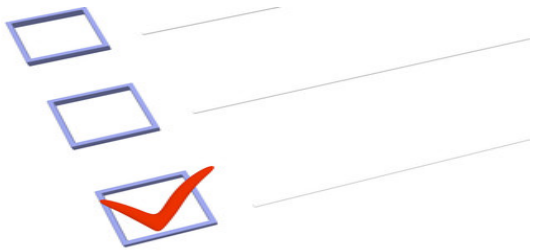
Climate Change Risk: Compared to just two climate change risk related proposals receiving majority support in 2020, nine such proposals received majority votes in 2021. The SBI voted in favor of all nine. These proposals were at General Electric, Norfolk Southern, United Airlines, ExxonMobil, Delta Air Lines, Chevron, Conoco-Phillips, and two at Phillips 66.



Eleven climate change risk related proposals that the SBI supported did not receive majority support. Two of these proposals were at ExxonMobil, the others were Chevron, Caterpillar, Sempra Energy, UPS, Union Pacific Corporation, Berkshire Hathaway, General Motors, Wal-Mart, and Xcel Energy.

Climate Change and Other Environmental Proposals: The SBI also supported 11 other environmental and climate related proposals at DuPont, Alphabet, Amazon, T. Rowe, DTE Energy, Monster Beverages, Proctor & Gamble, Moody's, S&P Global, and two at Booking Holdings.

In total during 2021, the SBI voted for 31 proposals related to environmental and climate change issues.



SOCIAL

Shareholders submit the majority of proposals related to social issues. In general, the SBI supports proposals that require a company to report or disclose to shareholders company efforts concerning diversity, sexual harassment, and human rights.

During 2021, the SBI Proxy Committee established a precedent to vote for shareholder proposals requesting that a company conduct a Racial Equity Audit to analyze a company's impact of its products, services and practices on non-white stakeholders and communities of color. Racial injustice resulting from company activities could result in significant reputational risks and harm to shareholder interests, especially for consumer-facing companies. Controversies related to racial injustice at a company can result in customer and employee attrition, negative press, significant fines and regulatory inquiries.

Diversity: In 2021, the SBI voted for 14 Diversity or Gender/Racial Equality related proposals. Five of these proposals received more than 50% of the vote. These were for IBM, DuPont, American Express, and two at Union Pacific.

Racial Justice: The SBI voted for a total of 14 proposals related to Racial Justice in 2021.

Following the murder of George Floyd and other high profile events in 2020, customers, employees, and investors all increased their focus on racism and racial equity. To get a better understanding of these risks that companies might be facing, shareholders submitted proposals requesting Racial Equity Audits at eight different companies. These proposals received more than 25% but less than 50% of votes at Amazon, JP Morgan, Abbott Labs, Citigroup, State Street, Johnson & Johnson, and Goldman Sachs.

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STEWARDSHIP

ENGAGEMENT

In order to amplify its engagement efforts, the SBI maintained membership in several investor organizations (coalitions) such as:

- Ceres Investor Network
- Climate Action 100+
- Council of Institutional Investors (CII)
- Institutional Limited Partners Association (ILPA)
- Midwest Investors Diversity Initiative (MIDI)
- RFK Compass Initiative
- Thirty Percent Coalition
- United Nations Principles of Responsible Investment (PRI)

Below is a summary of the engagement activities the SBI supports as a member of each of these coalitions.

ENGAGEMENT ACTIVITY WITH COALITIONS

Ceres Investor Network

The SBI became a member of Ceres in 2016.

Ceres is a coalition of various institutional investors that provides resources and advocacy in addressing environmental investment risk. The SBI leverages Ceres organized engagements, educational opportunities, and research.

Along with other institutional investors, the SBI began an engagement with Hess Corporation at the end of 2020.

- The engagement with Hess Corporation focuses on disclosure of its targets to reduce flaring intensity and methane emissions intensity within its broader greenhouse gas emissions reduction goals.

- For the 2021 proxy season, the SBI co-filed a shareholder resolution at the Hess Corporation, which was then withdrawn when Hess Corporation added continued Bakken flaring reduction as one of the performance metrics in the company's annual incentive plan.

Joining in an effort organized by members of Ceres and PRI, the SBI continues to engage with companies about the impact of deforestation in South America. In 2019, the SBI signed on to an investor letter urging large global agricultural companies to require beef producers in their supply chains to eliminate illegal farming operations in the Amazon region. In 2020, the SBI signed on to a similar effort reaching out to soy producers in the region.

Climate Action 100+

The SBI joined Climate Action 100+ in 2019.

Climate Action 100+ is investor-led and seeks to engage with companies to further the Paris Agreement, with support from Ceres and PRI. Climate Action 100+ seeks commitments from companies to implement practices to address risks related to climate change.

As a member of the Climate Action 100+, the SBI supports engagements with many companies on Climate Change risk related topics and is actively participating in an engagement with Xcel Energy.

- The engagement with Xcel Energy focuses on disclosure of its plans to transition to carbon free electricity generation by 2050 and plans to ensure a just transition to carbon free electricity production.

Council of Institutional Investors (CII)

The SBI has been a member of CII since it was founded in 1985.

CII promotes policies that enhance long-term value for U.S. institutional asset owners and their beneficiaries. CII believes the involvement of defined benefit plans, particularly state and local government and union pension systems, in corporate governance issues has benefited investors at large in the U.S. capital markets and contributed to the vitality of the U.S. economy and U.S. corporations.

Pension fund advocacy has resulted in regulatory and legislative reforms to strengthen rights for shareowners, improved corporate governance standards for U.S. companies and boards, increased accountability of corporate directors and executives, and enhanced transparency of governance activities and financial accounting.

In March 2021, the SBI's Executive Director and CIO, Mansco Perry III, was elected Treasurer of the Board of Directors for the CII. As a highly respected leader among institutional investors, Mr. Perry is contributing to this important governance work by volunteering to serve on the CII Board of Directors as Treasurer.

Treasurer: Mansco Perry
Executive Director and CIO
Minnesota State Board of Investment
Member of CII board since 2020

Institutional Limited Partners Association (ILPA)

ILPA engages, empowers and connects limited partners (LPs) to maximize their performance on an individual, institutional and collective basis. Like many other institutional investors, the SBI invests in private markets as a LP. LPs serve as trusted financial stewards who direct critical capital into private equity investments on behalf of their beneficiaries. ILPA members believe that good stewardship is critical to the success of their portfolios. ILPA's stewardship work focuses on ESG issues as well as diversity, equity and inclusion (DEI).

Alignment of economic interests, fair governance and appropriate disclosures from managers to LPs are especially important in private markets. ILPA articulates and amplifies the voice of its members in policy and regulatory discussions on these and other issues globally. Through its industry work and advocacy ILPA also seeks to encourage convergence on its ESG related metrics and works to promote regulatory standardization.

In 2021, the SBI used due diligence questionnaires, based on ILPA recommendations, to gather ESG information on potential private markets investments. ILPA has also developed a questionnaire with a focus on diversity and inclusion. These standard due diligence questionnaires have helped the SBI integrate ESG into its investment process. In addition to using these ILPA developed tools, the SBI also supports ILPA's engagement efforts. Including in 2019, when the SBI signed a letter that was sent from ILPA members to the SEC on the importance of fiduciary duty in private equity.

Midwest Investors Diversity Initiative (MIDI)

The SBI joined MIDI in 2019.

As part of the SBI's effort to promote greater diversity and inclusion on corporate boards and within the investment industry, the SBI is an active member of the MIDI. The coalition engages with companies in the Midwest to promote diverse gender, racial, and ethnic participation on corporate boards.

Since the SBI joined the 16-member MIDI, the SBI has contributed to efforts in order to increase board diversity at Midwest-based companies. Since its formation in 2016, 75 companies have been engaged by members of the MIDI, 90 women and persons of color have received board appointments, and 34 companies have adopted a diverse candidate search policy.

MIDI identifies companies with little or no documented racial, ethnic, and/or gender diversity on their boards of directors and asks the company to adopt a rule to include in the pool of board candidates at least one woman and one person with a racial/ethnically diverse background.

Through its involvement in MIDI, the SBI has led or co-led engagements on board diversity with several target companies in the Midwest region. These engagements included ANI Pharmaceuticals, Navistar, and Groupon, and involved submitting a formal shareholder proposal, having conversations with representatives from these companies asking them to voluntarily adopt this rule. In each case the SBI withdrew the shareholder proposal based on these discussions.

RFK Compass Initiative

As a core program within Robert F. Kennedy Human Rights' Business & Human Rights portfolio, the RFK Compass Investor Program clarifies the human rights issues that investors and asset managers should consider during their investment process as they seek superior risk-adjusted returns. The initiative provides important connections and tools to support actions on the "S" in ESG by focusing on racial and economic inequity. The focus is on catalyzing action that yields both profits and positive impact for people and planet.

The SBI Executive Director has been a long term supporter of the RFK Compass Initiative and is a regular participant in events hosted by the organization.

Thirty Percent Coalition

The SBI joined the Thirty Percent Coalition in 2019.

As part of the SBI's effort to promote greater diversity and inclusion on corporate boards and within the investment industry, the SBI is an active member of the Thirty Percent Coalition. The Thirty Percent Coalition is a global network of investors seeking to increase gender and racial diversity on U.S. corporate boards.

Joining with many members of MIDI and the Thirty Percent Coalition, the SBI cosigned a letter that was sent to companies listed in the Russell 3000 index urging the companies to disclose the racial/ethnic and gender composition of their board of directors in each company's 2021 proxy disclosure statement.

The letter, which was authored jointly by the Illinois and Connecticut State Treasurers' Offices, was signed by investment entities comprising of over three trillion dollars of assets under management. The letter notes that research consistently indicates that diversity on corporate boards enhances long-term value for investors and

that investors continue to develop proxy voting policies that take diversity into account when voting for or against corporate boards. Furthermore, increased voluntary disclosure will provide investors with reliable data to assist investors in making proxy voting decisions and provide additional avenues for direct engagement with companies.

United Nations Principles of Responsible Investment (PRI)

The SBI became a signatory to the PRI in 2019.

PRI works to achieve a global sustainable financial system that benefits the environment and society as a whole.

In 2021 the SBI reported on the SBI's progress towards evaluating and confronting sustainability related investment risk using the PRI framework. As part of this process, the SBI reported on activities related to ESG risk activities, including various ESG related policies and procedures. PRI reviews the data provided and evaluates the SBI's progress toward meeting PRI's minimum requirements for sustainability, including, for example, having public policies on addressing ESG related risk and voting proxy shares in a manner that takes into account potential ESG related risks. Representatives from PRI then work with the SBI to improve best practices and address any shortfalls in the SBI's ESG practices and procedures.

Much of the PRI responsible investment framework is focused on *ESG Incorporation* in the investment process and the *Stewardship* activities of asset owners.

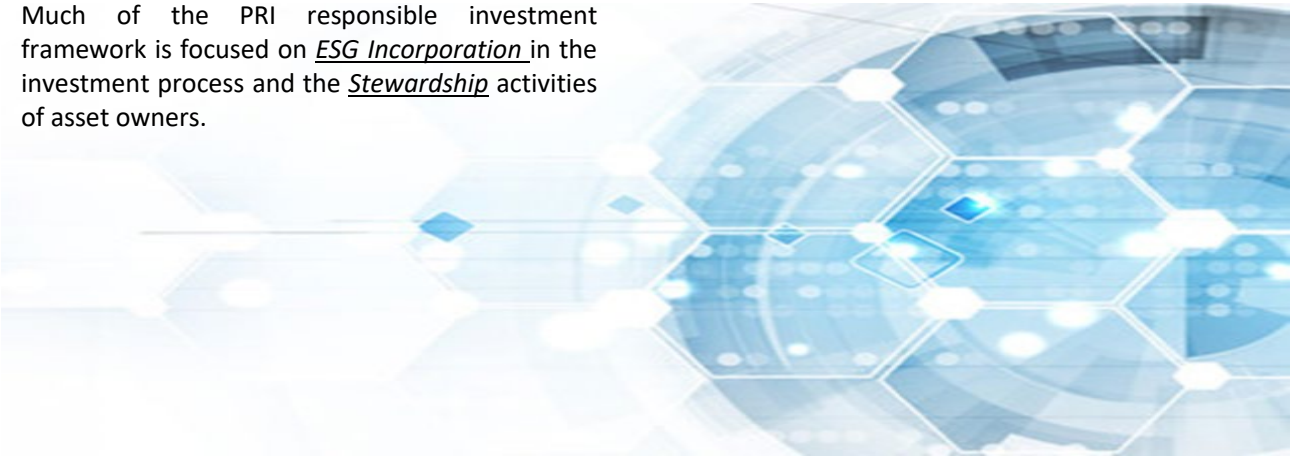
PRI defines *ESG Incorporation* as having three parts: *Integration*, *Screening* and *Thematic*.

- ***Integration*** is systematically including ESG issues in investment decisions to manage risks and improve returns.
- ***Screening*** is prohibiting investments based on certain ESG information.
- ***Thematic*** is seeking investments that combine attractive risk return profiles with social outcomes.

PRI defines *Stewardship* as having two parts: Engagement and Voting.

- ***Engagement*** is interactions between investors and managers/companies in order to improve practices on an ESG issue.
- ***Voting*** is primarily proxy voting.

Also in 2021, the SBI co-signed a letter drafted by PRI to the SEC supporting standardized, mandatory disclosure of ESG data and encouraging the SEC to build a mandatory corporate reporting regime for ESG information so that investors and their fiduciaries can have access to consistent and comparable data to inform their investment decisions.



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ESG Incorporation

ESG Integration

ESG INCORPORATION ESG INTEGRATION

As stated in the 2020 SBI Resolution on ESG Initiatives, SBI staff includes ESG and diversity, equity and inclusion (DEI) information as part of its due diligence and monitoring practices for its external investment managers. As a primarily externally managed plan, the SBI relies heavily on its managers to implement its investment plan. Outlined below are some of the steps the SBI takes in its due diligence process with external investment managers.

Public Markets Program Managers

In public markets, the team sends each external manager a Request for Information (RFI) form to complete and return to the SBI on an annual basis. Included in the RFI are several questions related to ESG and DEI.

RFI ESG/DEI Questions

1. What ESG activities has your firm identified to address as a priority in the upcoming year? Provide details about your objectives, the methodology and how progress will be measured.
2. What other ESG-related organizations is your firm a member of?
3. How are ESG risks captured in the analysis of a company's or security's financial value (including debt)?
   - Does your firm assign each company or security an ESG score?
4. Is your firm a signatory to the UN Principles for Responsible Investment? If so, when did you become a signatory?
5. What ESG data, research, resources, tools and practices does your firm use to integrate ESG factors into your investment process, valuations and decisions? Please address each of the factors (environmental, social and governance) in your response.
   - What ESG reporting does your firm provide current and prospective clients?
6. Does your firm have any official diversity programs in place specifically to recruit, develop, or retain a diverse or inclusive workforce?
   - If so, please provide a short summary of its objectives and provisions.
   - What are the measures taken to ensure effective implementation?
   - How is senior leadership accountable for your diversity and inclusion efforts?
   - If not, why doesn't your firm have one?

Private Markets Program Managers

In 2021, the private markets team included ESG or DEI information in each investment recommendation memo presented to the Board and frequently responded to questions from the Investment Advisory Council regarding the ESG and DEI activities of investment managers in its private markets program.

In recent years, it has become increasingly common for managers to integrate ESG into their investment processes. It is important for managers to both evaluate ESG risks and opportunities prior to making an investment; and add value by improving ESG practices once a company is purchased.

With respect to DEI, many managers are working to identify opportunities where they can make improvements with respect to recruitment, hiring, retention, promotion, and to create a workplace environment that sets people up to succeed from a variety of different backgrounds. While in some cases, the SBI's private markets managers have increased diversity at the junior levels of their organization, there is often less change in diversity at the senior levels given the lower turnover associated with these positions.

In conjunction with the SBI Resolution on ESG Initiatives, the SBI encourages managers to enhance their ESG risk analysis and increase their efforts related to DEI.

Participant Directed Investment Program

MN 529 College Savings Plan

Addition of New ESG Investment Option

In June 2021, the SBI added a new fund option to the Minnesota 529 College Savings Plan that includes ESG considerations. Participants are now able to select the TIAA-CREF Social Choice Equity Fund along with all the pre-existing options.

An ESG option was recommended by the Program Manager as part of the annual asset allocation review conducted with the SBI and the Office of Higher Education, who share responsibility for the Plan. After due diligence was completed by SBI staff, the TIAA-CREF Social Choice Equity Fund was selected as a viable addition to the investment menu.

TIAA-CREF Social Choice Equity Fund
The Social Choice Equity Fund was established in July of 1999 and seeks favorable long-term total return that reflects the investment performance of the overall U.S. stock market while considering certain ESG criteria. The fund's evaluation process favors companies with leadership in ESG performance relative to their peers. The investment process starts with an investable universe of companies that meet defined ESG performance criteria. The process incorporates a company's exposure to ESG-related issues and involvement in certain controversial business activities. Approximately half of the companies evaluated make it into the ESG Eligible Universe.

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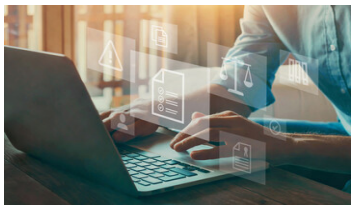
ESG INCORPORATION

SCREENING

ESG INCORPORATION SCREENING



The SBI maintains compliance with various screening obligations as dictated by legislation or Board resolution. The SBI currently does screening on four items:

- Sudan
- Iran
- Tobacco
- Thermal Coal

The screenings for Sudan and Iran are required by state legislation designed to meet human rights and national security objectives. The screenings for Tobacco and Thermal Coal are governed by Board resolutions designed to manage whole portfolio risks to health impacts and stranded assets.

Sudan

Minnesota Statutes, § 11A.243 concerns the SBI's investment in companies with operations in Sudan. The law requires the SBI to make its best efforts to identify all "scrutinized companies" in which the SBI has direct or indirect stock holdings or could possibly have holdings of in the future. The statute also requires that the SBI communicate with those companies, and divest stocks over a specified period of time if the companies continue their restricted business activities in Sudan.

To ensure compliance with the statute, the SBI retains the firm Vigeo EIRIS CRN to provide a list of scrutinized companies. SBI Staff sends this list of restricted Sudan companies to the SBI's equity investment managers quarterly; and has required divestment of those listed companies. SBI Staff reports to the Board each quarter on its actions to implement the law.

Iran

Minnesota Statutes, § 11A.244, requires the SBI to take a series of steps to identify companies that engage in sanctioned business operations in Iran, communicate with those companies, and divest stocks and bonds over a specified period of time if the companies continue these business activities in Iran.

The SBI retains the firm Institutional Shareholder Services, Inc. (ISS) to provide a list of scrutinized companies to implement the law. SBI Staff sends this list of restricted Iran companies to the SBI's equity and fixed income investment managers quarterly; and has required divestment of holdings to maintain compliance with the law. SBI Staff reports to the Board each quarter on its actions to implement the law.

Tobacco

At its September 1998 meeting, the Board adopted a resolution that required each active and semi-passive equity manager to liquidate by September 2001 shares of any company which obtained more than 15% of its revenues from the manufacture of consumer tobacco products upon adoption. SBI Staff notified each active and semi-passive equity manager of the policy.

Since 2001, the SBI has continued to regularly update the list of restricted tobacco companies and communicate this restricted stock listing to its active and semi-passive equity managers accordingly. SBI Staff have monitored compliance with this resolution for over 20 years.

Thermal Coal

In May of 2020, the Board adopted a resolution stating that any publicly traded company that derives more than 25% of its revenue from thermal coal production (exploration or mining) is no longer an authorized investment for the SBI's Combined Funds. The SBI's Executive Director expanded this mandate to the SBI's Non-Retirement Funds and Stable Value Fund; and this past year also began the process of removing fossil fuel companies from the ITC State Cash Account.

Unauthorized thermal coal holdings were removed from the portfolio by December 31, 2020.

The SBI retains Vigeo EIRIS CRN to provide a list of unauthorized thermal coal holdings. SBI Staff updates and communicates the unauthorized thermal coal holdings list annually to all active and passively managed equity and fixed income portfolio managers.

CONCLUSION

CONCLUSION

At the direction of the Board Resolution passed in 2020, SBI staff will continue to develop and refine its approach to addressing ESG investment risk throughout the investment portfolios. Because all of the Combined Funds' assets are externally managed, SBI staff will continue to evaluate whether investment managers appropriately consider ESG risk and encourage managers to enhance their ESG risk analysis. In addition, two special initiatives were introduced in the FY22 SBI Management Plan, a Climate Risk Assessment and a Task Force to address diversity, equity and inclusion.

2022 Initiatives

Climate Risk Assessment

In 2019, the SBI engaged Meketa Investment Group to gather information and review the potential impact of climate change on the SBI's investment portfolio. The SBI's Climate Risk Investment Study, concluded that the SBI should continue its efforts to address and manage climate and other material ESG risks and opportunities. Since then, the SBI has implemented several recommendations from that report such as engaging with companies and participating in coalitions addressing climate change risk.

The 2022 Climate Risk Assessment will review the impact of climate risk and address how best to mitigate its impact on the SBI Investment Assets. While divestment does not necessarily represent the best approach to responsible investing, it should be acknowledged that the SBI will need to transition aspects of the portfolio to meet certain terms of the Paris Agreement. Climate change presents a critical risk to the SBI's investment program and the task of determining the SBI's obligations and corresponding strategy is a complicated one requiring considerable thoughtfulness and rationality.

Diversity, Equity and Inclusion Task Force

In response to the Board directive included in the ESG Resolution dated February 26, 2020, the Executive Director formed the Diversity, Equity and Inclusion (DEI) Task Force to advise and assist in the development of recommendations related to DEI.

The DEI Task Force will review a variety of approaches to the topic, such as:

- engaging with corporations and investment management organizations to promote DEI;
- instituting programs geared towards greater inclusion of diverse asset management teams;
- implementing staffing strategies to increase the diversity profile of the SBI staff; and
- directing fund commitments towards return-seeking funds that will invest in businesses owned and operated by minorities or women, or promote economic prosperity among undercapitalized racial and ethnic groups or communities.

The SBI Executive Director will work with the Task Force to present a potential recommendation to the Board in Fiscal Year 2022.

Stewardship and ESG Incorporation are two key activities that will help the SBI fulfill its mission of maintaining the long-term viability of various retirement and other state funds for the State of Minnesota. As institutional investors continue to evolve in their approaches to ESG issues, the SBI remains committed to actively evaluating the risks and rewards of stewardship in achieving long-term financial sustainability for its funds and incorporating ESG into its investment process.

FINANCIAL REPORTS

Notes to the Financial Schedules D1

Supplemental Fund Schedules D2

Retirement Plans Participation D3

- Total Plan Participation D3
- Combined Funds Plan Participation D3
- Fire Relief Plans + Other Public Retirement Plans D3
- Participant Directed Investment Program Participation in SIF Vehicles D11

Non-Retirement Funds Participation D12

Investment Manager Fees D13

Investment Commission and Trading Volume D16

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NOTES TO THE FINANCIAL SCHEDULES - JUNE 30, 2021

Financial Report Background:
The State Board of Investment (SBI) provides investment management vehicles to numerous retirement plans and non-retirement funds. The assets are separated by legal requirements and grouped into the following five investment programs: Combined Funds, Fire Relief and Other Public Retirement Plans, Participant Directed Investment Plans, Non-Retirement Funds, and State Cash Accounts. The SBI's goal is to provide investment vehicles that will allow each plan to maximize returns given the appropriate level of risk. For each investment program, the assets are further broken down and reported by the entity responsible for the financial accounting and presentation of the funds. The information provided by the SBI is audited in conjunction with the audit of the reporting entities.

Combined Funds: The Combined Funds consist of assets administered by the three Statewide Retirement Systems: Teachers Retirement Association (TRA), Public Employees Retirement Association (PERA), and Minnesota State Retirement System (MSRS). Combined Fund assets by Plan is provided in a schedule on page D3. Comprehensive Annual Financial Reports are prepared by the respective agencies. These reports can be obtained by contacting TRA at (800) 657-

Fire Relief Plans and Other Public Retirement Plans: Fire Relief Plans, Statewide Volunteer Firefighter (SVF) Retirement Plan, and St. Paul Teachers' Retirement Fund use the Supplemental Investment Fund (SIF) investment platform. The SVF Plan, administered by PERA, is included in PERA's Comprehensive Annual Financial Report. SIF Plan Participation is provided in a schedule on pages D3-D11.

The Supplemental Investment Fund (SIF) platform provides all or some of the investment options for a variety of plans. Not all SIF options are available to all plans due to statutory requirements and regulatory rules. A financial schedule on the SIF is provided beginning on page D2 as required by statute.

Participant Directed Investment Program (PDIP): Participants in this investment program are responsible for their own investment choices using investment vehicles from a mutual fund investment platform and eligible options from the SIF investment platform. PDIP participation in the SIF platform is included in the SIF schedule on page D11.

Non-Retirement Funds: The Non-Retirement Funds provide investment vehicles for Trusts, OPEBs, and Qualifying Government Entities. A listing of the Non-Retirement Accounts is provided in the participation schedule on page D12. The Comprehensive Financial Reports for the Trusts are prepared by Minnesota Management and Budget and are available by calling (800) 627-3529. The Comprehensive Financial Reports for the OPEBs are prepared by PERA and are available by calling (800) 652-9026.

State Cash Accounts: The State Cash Account assets are invested by SBI staff in either the Invested Treasurer's Cash (ITC) Account or in Other State Cash Accounts. Other State Cash Accounts include: Debt Service and Public Facilities Authority. Detailed financial statements, supporting schedules, and further breakdown for these assets can be found in the State's Comprehensive Annual Financial Report available from Minnesota Management and Budget at (800) 627-3529.

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:
Financial Reporting: The SBI reporting requirements changed under the legislation passed during the 2012 legislative session. References in *Minnesota Statutes,* Section 11A.07, subdivision 4 and 11A.14, subdivision 14 to fund and participant annual statements prepared in accordance with generally accepted accounting principles were deleted. These requirements were deemed redundant to statements prepared for the State of Minnesota's Comprehensive Financial Statements and those of PERA, MSRS, and TRA retirement systems. As required by state statute the SBI has prepared schedules for the SIF, a schedule of participation for all pooled investments, a schedule of external investment manager fees, and an investment commission report.

Authorized Investments: *Minnesota Statutes*, Section 11A.24 authorizes investments to obligations and stocks of the U.S. and Canadian governments, their agencies and their registered corporations; short-term obligations of specified high quality; international securities; participation in equity, debt, real estate or resource investments through a variety of legal structures; participation in co-investment or separate account vehicles, liquid alternatives, or bank loans; and participation in registered mutual funds.

Security Valuation: All securities are valued at fair value except for short-term securities, which are valued at amortized cost. For fixed income securities, SBI uses an approved hierarchy of pricing sources. For equity securities, SBI uses valuation services provided by quoted prices in active markets throughout an exchange. The basis for determining the fair value of investments that are not based on market quotations may include audited financial statements, analysis of future cash flows, and independent appraisals.

Recognition of Security Transactions: Security transactions are accounted for as of the date the securities are purchased or sold.

Income Recognition: Pool dividend income is recorded on the ex-dividend date. Pool interest and dividend income are accrued monthly. Short-term interest is accrued monthly and is presented as "Accrued Short-Term Gain."

Amortization of Fixed Income Securities: Premiums and discounts on fixed income purchases are amortized over the remaining life of the security using the "Effective Interest Method."

Retirement Plans – Supplemental Investment Accounts
Schedule of Net Positions (Amounts in 000's) – As of June 30, 2021

	Stable Value Fund	Money Market Fund	Bond Fund	Balanced Fund	U.S. Equity Index Fund	U.S. Equity Actively Managed Fund	Broad International Stock Fund	Volunteer Fire Fighter Account	Total Supplemental Investment Fund
Assets									
Short-Term Investments									
Stable Value Fixed Interest	$ 1,704,205								$ 1,704,205
Money Fund		579,051		5,279				6,571	590,901
Fixed Income Investments									
Bond Pool			119,193	38,902				64,570	222,665
Equity Investments									
Domestic Stock Pool				70,381	460,144	95,834		51,587	677,946
International Stock Pool							160,245	22,409	182,654
Net Supplemental Position Assets Held in Trust	$ 1,704,205	$ 579,051	$ 119,193	$ 114,562	$ 460,144	$ 95,834	$ 160,245	$ 145,137	$ 3,378,371

Unaudited

Retirement Plans – Supplemental Investment Accounts
Schedule of Changes in Net Assets (Amounts in 000's) – As of June 30, 2021

	Stable Value Fund	Money Market Fund	Bond Fund	Balanced Fund	U.S. Equity Index Fund	U.S. Equity Actively Managed Fund	Broad International Equity Fund	Volunteer Firefighter Account	Total Supplemental Investment Fund
Investment Income									
Interest, Dividends and Other	$ 3,532	$ 4,458	$ 12,704	$ (452)	$ (24,962)	$ 2,102	$ 8,003	$ 121	$ 5,506
Net Increase in Fair Value of Investments	36,881		2,183	24,231	158,457	30,999	41,630	24,942	319,323
Total Investment Income (Loss)	**$ 40,413**	**$ 4,458**	**$ 14,887**	**$ 23,779**	**$ 133,495**	**$ 33,101**	**$ 49,633**	**$ 25,063**	**$ 324,829**
Expenses									
Administrative Expenses	$ (97)	$ (33)	$ (5)	$ (7)	$ (24)	$ (6)	$ (8)	$ (155)	$ (335)
Investment Expenses	(3,435)		(119)	(41)	(20)	(186)	(377)	(121)	(4,299)
Total Expenses	**$ (3,532)**	**$ (33)**	**$ (124)**	**$ (48)**	**$ (44)**	**$ (192)**	**$ (385)**	**$ (276)**	**$ (4,634)**
Net Income - Supplemental Investments	$ 36,881	$ 4,425	$ 14,763	$ 23,731	$ 133,451	$ 32,909	$ 49,248	$ 24,787	$ 320,195
Participant Transactions									
Additions	$ 108,818	$ 103,181	$ 1,066	$ 3,720	$ 5,058	$ 1,525	$ 6,508	$ 8,110	$ 237,986
Withdrawals	(101,280)	(85,566)	(4,577)	(4,666)	(45,544)	(2,697)	(6,017)	(5,784)	(256,131)
Net Participant Transactions	$ 7,538	$ 17,615	$ (3,511)	$ (946)	$ (40,486)	$ (1,172)	$ 491	$ 2,326	$ (18,145)
Total Change in Assets	**$ 44,419**	**$ 22,040**	**$ 11,252**	**$ 22,785**	**$ 92,965**	**$ 31,737**	**$ 49,739**	**$ 27,113**	**$ 302,050**
Net Supplemental Investment Assets Held in Trust									
Beginning of Fiscal Year	1,659,786	557,011	107,941	91,777	367,179	64,097	110,506	118,024	3,076,321
End of Fiscal Year	$ 1,704,205	$ 579,051	$ 119,193	$ 114,562	$ 460,144	$ 95,834	$ 160,245	$ 145,137	$ 3,378,371

Unaudited

Retirement Plan Participation
Total Plan Participation (Amounts in 000's) – As of June 30, 2021

	Domestic Equity	International Equity	Global Equity	Fixed Income	Cash	Private Markets Invested	Private Markets Uninvested	Stable Value Fund	Total
Retirement Plans Participation									
Combined Funds	$ 29,571,194	$ 14,050,693	$ 1,170,125	$ 20,316,251	$ 1,419,228	$ 15,532,651	$ 7,434,232	$ -	$ 89,494,374
Fire Relief + Other Public Retirement Plans	613,020	178,121		201,952	16,540	-	-	-	1,009,633
Participant Directed Investment Program	64,926	4,533		20,714	574,361	-	-	1,659,786	2,324,320
Total Plan Participation	**$ 30,249,140**	**$ 14,233,347**	**$ 1,170,125**	**$ 20,538,917**	**$ 2,010,129**	**$ 15,532,651**	**$ 7,434,232**	**$ 1,659,786**	**$ 92,828,327**

Retirement Plans
Combined Funds Plan Participation (Amounts in 000's) – As of June 30, 2021

	Domestic Equity	International Equity	Global Equity	Core/Core Plus Bonds	Return Seeking Fixed	Treasury Protection	Short Duration Laddered	Cash	Private Markets Invested	Private Markets Uninvested	Total
Combined Retirement Funds											
MSRS General Employee Retirement Fund	$ 5,752,072	$ 2,733,085	$ 227,699	$ 936,326	$ 784,238	$ 1,689,821	$ 541,572	$ 252,075	$ 3,021,350	$ 1,446,636	$ 17,384,876
Correctional Employees Retirement Fund	522,043	248,048	20,326	84,979	69,935	153,364	49,152	24,244	274,210	129,065	1,575,365
Highway Patrolmen's Retirement Fund	315,701	150,005	12,461	51,390	42,863	92,745	29,724	14,368	165,826	79,157	954,239
Judges Retirement Fund	90,956	43,218	3,629	14,806	12,491	26,721	8,564	4,361	47,776	23,059	275,581
PERA General Employee Retirement Fund	9,441,575	4,486,145	372,813	1,536,906	1,284,427	2,773,709	888,948	438,408	4,959,308	2,368,373	28,550,612
Public Employee Corrections	343,619	163,270	13,223	55,935	45,528	100,947	32,353	15,960	180,490	83,939	1,035,263
Public Employee Police & Fire Fund	3,765,885	1,789,352	148,535	613,013	511,417	1,106,327	354,567	178,262	1,978,079	943,564	11,389,001
Teacher's Retirement Fund	9,339,343	4,437,570	371,440	1,520,264	1,280,222	2,743,676	879,322	491,549	4,905,612	2,360,438	28,329,437
Total Combined Funds Assets	**$ 29,571,194**	**$ 14,050,693**	**$ 1,170,125**	**$ 4,813,618**	**$ 4,031,120**	**$ 8,687,311**	**$ 2,784,202**	**$ 1,419,228**	**$ 15,532,651**	**$ 7,434,232**	**$ 89,494,374**

Retirement Plans – Supplemental Investment Fund Investments
Fire Relief Plans + Other Public Retirement Plans Participation – As of June 30, 2021

	Domestic Equity	International Equity	Fixed Income	Cash	Total
Fire Relief Plans					
Ada	$ 146,064	$ 54,508	$ 59,982	$ 170,878	$ 431,432
Almelund	490,249		103,692	291,983	885,924
Amboy	165,250		13,447		178,697
Argyle	276,465		44,199	5,998	326,662
Arrowhead	163,610		35,872	1,605	201,087
Askov	148,603		27,890	3,785	180,278
Audubon	423,068		323,582	26,865	773,515
Austin	1,517,161		273,718	37,145	1,828,024
Avon	164,646				164,646
Backus	46,199				46,199
Bagley	243,668		116,260	10,255	370,183

	Domestic Equity	International Equity	Fixed Income	Cash	Total
Fire Relief Plans					
Balsam	$ 641,489		$ 134,814	$ 18,295	$ 794,598
Battle Lake	543,526		300,426	40,770	884,722
Beardsley	276,339	55,617	62,259	302	394,517
Beaver Creek	74,754		26,918		101,672
Bemidji	2,299,383	749,452	1,783,362	132,686	4,964,883
Bertha	339,056		64,920	8,810	412,786
Bigfork	488,425	28,143	11,967	1,624	530,159
Bird Island	224,068		39,340	5,339	268,747
Blackduck	32,114	48,078			80,192
Blooming Prairie	262,292		148,136	46,622	457,050
Bloomington	84,329,244	26,771,724	85,675,183		196,776,151
Boyd	72,091		13,683	1,857	87,631
Brooten	509,197				509,197
Buffalo Fire	322,540		20,669	18,820	362,029
Buffalo Lake	658,668		80,040	10,862	749,570
Carlton	340,073	36,485	71,637	3,175	451,370
Ceylon	457,890		57,424	7,793	523,107
Cherry	465,631		58,484	7,937	532,052
Chisago City	1,031,172	329,559	226,164	30,594	1,617,489
Chokio	199,304	49,851	110,162	14,950	374,267
Clarissa	138,849		47,411		186,260
Clarkfield	256,030		153,900	13,580	423,510
Clear Lake	449,644		68,848	489,126	1,007,618
Cloquet (Perch Lake)	620,132	49,118	274,938	5,402	949,590
Columbia Heights	2,985,639		497,298		3,482,937
Coon Rapids	1,938,296		2,388,129	145,392	4,471,817
Courtland	53,943		29,816	9,501	93,260
Cyrus	132,150	21,593	38,196		191,939
Dakota	231,104		112,872	7,650	351,626
Dawson	409,794		160,190	21,739	591,723
Dayton Fire	317,530		45,563	22,537	385,630
Deer Creek	155,313	27,153	41,321	246,269	470,056
Dover	349,487	61,048	107,038	30,905	548,478
East Grand Forks	1,002,640		554,194	75,208	1,632,042
Edgerton	762,696		188,690	25,606	976,992
Elbow Lake	471,822	41,244	103,218	14,220	630,504
Excelsior	4,105,361	1,994,897	2,147,810		8,248,068
Eyota	194,814		182,188	158,554	535,556
Fairmont	1,157,689		639,896	86,838	1,884,423
Fergus Falls	2,025,500	145,653	1,372,705	40,598	3,584,456
Forest Lake	256,783		104,333	14,159	375,275
Franklin	564,499				564,499
Ghent	69,695	9,431	9,805		88,931
Glencoe	600,028				600,028
Glenville	231,069	75,223	86,551	3,755	396,598
Glenwood	925,365		280,869	17,451	1,223,685
Golden Valley	3,867,926	624,828	882,809	81,063	5,456,626
Gonvick	228,568		39,823	5,404	273,795
Good Thunder	599,669		92,099	12,498	704,266
Goodland	84,926		8,291	1,125	94,342
Grand Meadow	562,561		98,378	9,675	670,614
Grey Eagle	226,675	59,369	125,292	17,003	428,339

Retirement Plans Participation – As of June 30, 2021

	Domestic Equity	International Equity	Fixed Income	Cash	Total
Fire Relief Plans					
Hackensack	$ 315,254	$ 204,178	$ 288,168	$ 23,647	$ 831,247
Hanover Regular	550,863		596,806	41,320	1,188,989
Hanska	234,312		119,870	11,469	365,651
Harmony	202,029	43,185	40,132	65,448	350,794
Hawley	250,045			143	250,188
Hayward	145,654	40,306	20,248	475,600	681,808
Hector	764,531		422,584	57,348	1,244,463
Herman	225,467	36,840	43,181		305,488
Hokah	99,177		34,909	11,707	145,793
Holdingford	98,001		10,392	1,410	109,803
Holland	209,270	125,091	79,258	3,205	416,824
Jacobson	196,791	53,543	29,129	11,192	290,655
Kandiyohi	557,288		118,450	8,427	684,165
Kelsey	77,155	38,147	30,993		146,295
Kerkhoven	277,462		76,890	4,006	358,358
Kilkenny	581,106		124,390	95,129	800,625
La Crescent	1,030,270		131,054	12,364	1,173,688
La Salle	119,797		11,228	1,524	132,549
Lafayette	594,843	59,697	144,402	17,437	816,379
Lake City	694,071		373,030	48,867	1,115,968
Lakeville	8,574,886	591,608	1,353,651		10,520,145
Leroy	108,038		87,582	8,104	203,724
Lewiston	493,340		83,995	11,399	588,734
Littlefork	627,543		85,880	11,655	725,078
Long Lake	1,663,698		919,585	124,794	2,708,077
Lonsdale	685,065	151,877	56,425	7,657	901,024
Lowry	234,573				234,573
Lyle	237,903	4,618	34,761	4,571	281,853
Lyle Special				7,385	7,385
Mable	94,144	26,388	34,489	28,828	183,849
Madison	523,289		62,296	28,463	614,048
Madison Lake	39,966	10,201	8,437	1,145	59,749
Maple Hill	289,371		222,121	21,706	533,198
Mapleton	147,891		32,882	1,821	182,594
Mapleview	312,996	47,175	107,632	6,631	474,434
Marietta	245,852		154,915	6,256	407,023
Marine St. Croix	350,890		193,949	188,870	733,709
Maynard	116,210		64,233	8,717	189,160
McDavitt	292,490	18,355	56,818	6,163	373,826
McGrath	53,077		27,684	1,784	82,545
McIntosh	248,865		23,465	13,546	285,876
Medford	768,694	76,452	149,495	4,056	998,697
Medicine Lake	998,838	353,496	245,284		1,597,618
Menahga	197,528		299,571	14,817	511,916
Mendota Heights	3,068,489	480,059	995,024	126,572	4,670,144
Milan	302,623		67,911	5,284	375,818
Minneota	180,900	20,036	67,439	4,656	273,031
Minnetonka	8,128,054	1,255,101	5,253,523	609,685	15,246,363
Mission Twp	379,654		209,848	28,478	617,980
Morristown	1,443,297		226,693	30,764	1,700,754
Morse-Fall Lake	606,285		125,060	51,720	783,065

Retirement Plans Participation – As of June 30, 2021

	Domestic Equity	International Equity	Fixed Income	Cash	Total
Fire Relief Plans					
Murdock	$ 128,609	$ 18,813	$ 13,775	$ 1,869	$ 163,066
Myrtle	180,577		99,811	67,032	347,420
Nassau	382,124	62,986	82,184	2,503	529,797
New Brighton	3,662,911		1,767,700		5,430,611
New Germany	244,001		134,868	18,303	397,172
New Ulm	891,921				891,921
New York Mills	145,952		80,673	10,948	237,573
Nicollet	807,650	231,219	162,917	30,122	1,231,908
Nodine	280,333	30,441	50,871	73,789	435,434
North Branch	334,562	40,819	32,341	4,389	412,111
Northfield	4,625,907	672,158	634,143	1,585,345	7,517,553
Northrop	337,143		56,122	7,616	400,881
Ormsby	31,622	14,092	5,522	749	51,985
Oronoco	371,603		96,020	7,609	475,232
Owatonna					-
Pequot Lakes	1,533,254		532,753	35,585	2,101,592
Pine Island	960,769		361,555	33,238	1,355,562
Pipestone	596,058		102,538	13,915	712,511
Plymouth	3,999,510	1,931,175	3,294,866	533,980	9,759,531
Randolph	1,112,204	88,289	215,739	29,277	1,445,509
Red Lake Falls Regular	129,734		61,874	8,397	200,005
Red Lake Falls Special		12,096			12,096
Redwood Falls			64,384		64,384
Renville	365,345		126,869	6,722	498,936
Robbinsdale	1,676,446	141,575	216,040	661,159	2,695,220
Rose Creek	92,642	6,800	9,800	1,330	110,572
Roseau	4,550				4,550
Rosemount	2,581,329		494,188	798,617	3,874,134
Roseville	11,992,856		3,950,521		15,943,377
Ruthton	233,483		24,276	27,257	285,016
Saint Clair	1,495,311		148,304	17,650	1,661,265
Saint Peter	858,585	172,938	26,509	3,493	1,061,525
Sandstone	27,859		15,399	2,090	45,348
Savage	2,197,841		1,214,825	164,860	3,577,526
Sherburn	517,007		190,728	25,883	733,618
Silver Bay	720,481	513	96,901	13,150	831,045
Starbuck	449,185	14,636	48,363	6,563	518,747
Stewart	288,280		76,029	10,318	374,627
Sturgeon Lake	160,654		10,916		171,570
Taylors Falls		32			32
Tofte	341,055		61,632	8,364	411,051
Truman	407,649		72,850	3,016	483,515
Two Harbors	567,627	95,042	240,043	20,902	923,614
Tyler	329,469		182,109	24,713	536,291
Verndale	77,634				77,634
Viking Fire	103,935	14,751	17,919	3,747	140,352
Warroad Area	585,445		323,596	43,914	952,955
Watkins Fire	577,342	103,364	83,096	16,726	780,528
Williams	289,146		80,472	10,921	380,539
Willow River	271,468		9,931		281,399

Retirement Plans Participation – As of June 30, 2021

	Domestic Equity	International Equity	Fixed Income	Cash	Total
Fire Relief Plans					
Woodbury	$ 8,560,160	$ 2,769,673	$ 6,493,424	$ 622,566	$ 18,445,823
Woodstock	284,917		31,957	4,090	320,964
Wykoff	117,530		64,963	8,816	191,309
Wyoming	462,182		350,707	25,723	838,612
Zumbro Falls	102,033	9,060	156,458	262,305	529,856
Total Fire Relief Plans	**$ 219,462,161**	**$ 41,299,799**	**$ 137,381,944**	**$ 9,969,539**	**$ 408,113,443**
Public Retirement Plan					
SPTRFA	$ 341,971,152	$ 114,412,725	$ -	$ -	$ 456,383,877
Statewide Volunteer Firefighter Plan					
Aitkin Fire	$ 527,106	$ 228,971	$ 659,767	$ 67,141	$ 1,482,985
Alaska	75,965	32,999	95,084	9,676	213,724
Albert Lea	242,452	105,319	303,472	30,883	682,126
Alborn	85,901	37,315	107,520	10,942	241,678
Alden	98,636	42,847	123,460	12,564	277,507
Ashby	258,068	112,103	323,018	32,872	726,061
Aurora	138,301	60,077	173,108	17,616	389,102
Barnum	181,283	78,748	226,908	23,091	510,030
Barrett	103,129	44,798	129,084	13,136	290,147
Belview	113,434	49,275	141,983	14,449	319,141
Benson	227,651	98,890	284,945	28,997	640,483
Biwabik Fire	137,043	59,530	171,533	17,456	385,562
Biwabik Township	126,740	55,055	158,638	16,144	356,577
Blomkest	132,206	57,429	165,479	16,840	371,954
Braham	210,657	91,508	263,674	26,833	592,672
Brandon	168,683	73,274	211,136	21,486	474,579
Breitung	183,285	79,618	229,414	23,346	515,663
Bricelyn	199,778	86,782	250,057	25,447	562,064
Brimson	68,082	29,574	85,217	8,672	191,545
Brook Park	133,697	58,077	167,346	17,030	376,150
Browerville	148,344	64,440	185,679	18,896	417,359
Brownsville	131,748	57,230	164,906	16,782	370,666
Buyck	64,954	28,215	81,301	8,274	182,744
Cambridge Fire	459,373	199,548	574,986	58,513	1,292,420
Canby	287,215	124,764	359,501	36,584	808,064
Canton	46,058	20,007	57,650	5,867	129,582
Carsonville	148,120	64,342	185,399	18,867	416,728
Center City	211,277	91,777	264,451	26,912	594,417
Central Lakes	38,973	16,929	48,781	4,964	109,647
Chatfield	159,492	69,282	199,633	20,315	448,722
Clarks Grove	102,943	44,718	128,851	13,112	289,624
Clifton	272,273	118,273	340,798	34,681	766,025
Colvill	64,853	28,172	81,175	8,261	182,461
Colvin	57,647	25,041	72,155	7,343	162,186
Cosmos	157,631	68,474	197,303	20,078	443,486
Cottage Grove	1,323,255	574,811	1,656,287	168,551	3,722,904
Cotton	157,691	68,499	197,378	20,086	443,654
Cottonwood	250,898	108,988	314,043	31,958	705,887
Crane Lake	93,634	40,674	117,199	11,927	263,434

	Domestic Equity	International Equity	Fixed Income	Cash	Total
Statewide Volunteer Firefighter Plan					
Crookston	$ 396,629	$ 172,292	$ 496,451	$ 50,521	$ 1,115,893
Culver	61,106	26,544	76,485	7,783	171,918
Dalbo Fire Department	201,718	87,625	252,486	25,694	567,523
De Graff	36,624	15,909	45,842	4,665	103,040
Delavan	118,635	51,534	148,492	15,111	333,772
Dent	179,395	77,928	224,544	22,851	504,718
Dunnell Lake	64,064	27,829	80,187	8,160	180,240
Eagle's Nest	26,441	11,486	33,096	3,368	74,391
Echo Fire	125,657	54,585	157,282	16,006	353,530
Elbow Tulaby	55,853	24,262	69,910	7,114	157,139
Elgin	206,175	89,561	258,065	26,262	580,063
Ellsburg	70,622	30,677	88,395	8,995	198,689
Ellsworth	124,256	53,976	155,529	15,827	349,588
Elmore	127,995	55,600	160,208	16,303	360,106
Ely	265,791	115,457	332,684	33,855	747,787
Embarrass	135,080	58,678	169,076	17,206	380,040
Emmons	215,172	93,469	269,325	27,408	605,374
Evansville	114,158	49,589	142,889	14,541	321,177
Evergreen	27,097	11,771	33,916	3,451	76,235
Fairfax	218,250	94,806	273,178	27,800	614,034
Federal Dam	81,677	35,480	102,234	10,404	229,795
Finlayson	101,979	44,299	127,645	12,990	286,913
Forada	297,809	129,366	372,760	37,934	837,869
Foxhome	8,801	3,823	11,016	1,121	24,761
Fredenberg	124,896	54,254	156,330	15,909	351,389
French	90,293	39,222	113,017	11,501	254,033
Frost	120,245	52,234	150,508	15,316	338,303
Garvin	72,507	31,497	90,756	9,236	203,996
Geneva	131,899	57,296	165,095	16,801	371,091
Gilbert	127,431	55,355	159,502	16,232	358,520
Gnesen	147,132	63,913	184,162	18,741	413,948
Goodview Fire	231,953	100,758	290,330	29,545	652,586
Grand Lake	234,595	101,906	293,637	29,882	660,020
Grand Marais	176,407	76,630	220,804	22,470	496,311
Granite Falls	226,477	98,380	283,476	28,848	637,181
Greenwood	317,190	137,785	397,020	40,402	892,397
Hamburg	198,557	86,251	248,529	25,291	558,628
Hardwick	101,345	44,024	126,852	12,909	285,130
Harris	41,027	17,822	51,353	5,226	115,428
Hayfield	297,150	129,079	371,935	37,850	836,014
Henning	209,835	91,151	262,646	26,728	590,360
Hermantown	880,315	382,402	1,101,870	112,131	2,476,718
Hewitt	84,005	36,491	105,147	10,700	236,343
Hill City	137,751	59,838	172,420	17,546	387,555
Hills	130,802	56,820	163,722	16,661	368,005
Hinckley	251,505	109,252	314,803	32,036	707,596
Hitterdal	137,546	59,749	172,163	17,520	386,978
Hollandale	72,585	31,530	90,853	9,246	204,214
Houston	221,427	96,186	277,155	28,204	622,972
Hovland Fire Department	107,616	46,748	134,701	13,708	302,773
Hoyt Lakes	154,005	66,899	192,765	19,617	433,286

	Domestic Equity	International Equity	Fixed Income	Cash	Total
Statewide Volunteer Firefighter Plan					
Industrial Township	$ 206,918	$ 89,884	$ 258,995	$ 26,356	$ 582,153
International Falls	348,774	151,505	436,553	44,426	981,258
Isanti	1,153,561	501,098	1,443,886	146,936	3,245,481
Kabetogama	120,853	52,497	151,268	15,394	340,012
Kelliher	127,747	55,492	159,898	16,272	359,409
Kettle River	72,578	31,527	90,844	9,245	204,194
Kiester	90,182	39,174	112,879	11,487	253,722
Lake Bronson	121,166	52,634	151,661	15,434	340,895
Lake Lillian	56,745	24,649	71,026	7,228	159,648
Lakeland	203,197	88,267	254,336	25,882	571,682
Lakewood	145,541	63,222	182,170	18,538	409,471
Lancaster	91,042	39,548	113,955	11,597	256,142
Leaf Valley	146,735	63,740	183,665	18,691	412,831
Lester Prairie	222,218	96,530	278,145	28,305	625,198
LeSueur	461,127	200,310	577,182	58,737	1,297,356
Lexington	340,495	147,908	426,190	43,371	957,964
Lino Lakes Fire	307,675	133,652	385,110	39,190	865,627
Linwood	370,039	160,742	463,170	47,134	1,041,085
Lutsen	139,741	60,702	174,910	17,800	393,153
Lynd	52,199	22,675	65,337	6,649	146,860
Mahtomedi	825,719	358,686	1,033,533	105,177	2,323,115
Mahtowa	139,012	60,386	173,998	17,707	391,103
Makinen	38,849	16,876	48,626	4,948	109,299
Manchester	112,065	48,680	140,269	14,274	315,288
Mantorville	222,265	96,550	278,204	28,311	625,330
Mayer	393,229	170,815	492,195	50,088	1,106,327
McGregor	439,292	190,825	549,851	55,955	1,235,923
McKinley	66,543	28,906	83,291	8,476	187,216
Melrose	298,286	129,573	373,357	37,994	839,210
Middle River	103,255	44,853	129,242	13,152	290,502
Milaca	331,182	143,863	414,533	42,185	931,763
Miltona	157,719	68,512	197,413	20,090	443,734
Minnesota City	10,587	4,599	13,251	1,348	29,785
Montrose	523,760	227,517	655,578	66,714	1,473,569
Mountain Iron	196,549	85,379	246,015	25,036	552,979
NE Sherburne	300,811	130,670	376,518	38,316	846,315
Newfolden	92,028	39,976	115,189	11,722	258,915
Normanna	45,941	19,956	57,503	5,852	129,252
North Star	56,070	24,357	70,182	7,142	157,751
Northhome	64,560	28,044	80,809	8,223	181,636
Northland Fire	48,191	20,934	60,320	6,138	135,583
Norwood-Young America	289,839	125,904	362,785	36,919	815,447
Oak Grove	720,528	312,991	901,868	91,778	2,027,165
Oakdale	1,381,753	600,222	1,729,508	176,002	3,887,485
Ogilvie	168,647	73,259	211,091	21,482	474,479
Omega	13,296	5,775	16,642	1,694	37,407
Osakis	471,380	204,763	590,015	60,042	1,326,200
Ottertail	264,204	114,768	330,698	33,653	743,323
Palisade	120,717	52,438	151,099	15,376	339,630
Palo	182,063	79,087	227,884	23,190	512,224

Retirement Plans Participation – As of June 30, 2021

	Domestic Equity	International Equity	Fixed Income	Cash	Total
Statewide Volunteer Firefighter Plan					
Parkers Prairie	$ 221,034	$ 96,015	$ 276,663	$ 28,154	$ 621,866
Pennock	194,352	84,425	243,266	24,756	546,799
Pequaywan Lake	56,930	24,730	71,258	7,251	160,169
Pickwick Fire	22,762	9,888	28,491	2,899	64,040
Pike Sandy Britt	150,870	65,537	188,841	19,217	424,465
Plato Fire	199,285	86,568	249,441	25,384	560,678
Porter	266,500	115,765	333,572	33,946	749,783
Princeton	785,140	341,059	982,742	100,008	2,208,949
Raymond	188,308	81,799	235,700	23,986	529,793
Remer	136,901	59,468	171,355	17,438	385,162
Rice Lake	227,664	98,895	284,961	28,999	640,519
Russell	109,956	47,764	137,629	14,006	309,355
Sabin Elmwood Fire	196,963	85,559	246,534	25,088	554,144
Sacred Heart	86,662	37,645	108,473	11,039	243,819
Saint Francis	388,743	168,867	486,581	49,517	1,093,708
Saint Leo Fire	117,367	50,983	146,906	14,950	330,206
Saint Paul Park	383,864	166,747	480,474	48,895	1,079,980
Scandia	340,840	148,058	426,622	43,415	958,935
Scandia Valley	206,384	89,652	258,326	26,288	580,650
Schroeder	101,503	44,092	127,049	12,929	285,573
Shafer	143,892	62,505	180,106	18,328	404,831
Shevlin	171,732	74,599	214,952	21,874	483,157
Silver Lake	159,844	69,435	200,073	20,360	449,712
Solway (Main)	81,863	35,561	102,466	10,427	230,317
Solway(Cloquet)	147,196	63,941	184,242	18,749	414,128
Spring Grove	124,711	54,173	156,098	15,885	350,867
Spring Lake Park	8,045,889	3,495,069	10,070,853	1,024,853	22,636,664
St Anthony	449,340	195,190	562,428	57,235	1,264,193
Stephen	173,643	75,429	217,345	22,118	488,535
Sunburg	126,495	54,948	158,331	16,112	355,886
Taylors Falls	135,803	58,992	169,981	17,298	382,074
Toivola	84,522	36,716	105,795	10,766	237,799
Tower	108,697	47,217	136,053	13,845	305,812
Twin Valley	132,930	57,744	166,386	16,932	373,992
Ulen	161,227	70,036	201,805	20,536	453,604
Vadnais Heights	711,517	309,077	890,590	90,630	2,001,814
Vermilion Lake	132,872	57,719	166,313	16,925	373,829
Vesta	88,048	38,247	110,207	11,215	247,717
Victoria	605,471	263,012	757,854	77,123	1,703,460
Vining	73,559	31,953	92,072	9,370	206,954
Waconia	740,898	321,840	927,365	94,373	2,084,476
Waite Park	325,264	141,292	407,126	41,431	915,113
Wanda	72,842	31,642	91,175	9,278	204,937
Warba - Feeley - Sago	127,708	55,475	159,849	16,267	359,299
Watertown	593,856	257,966	743,316	75,643	1,670,781
Wells	280,764	121,961	351,425	35,763	789,913
White Bear Lake	2,840,000	1,233,673	3,554,762	361,748	7,990,183
Willmar	655,675	284,820	820,693	83,517	1,844,705
Winnebago	292,200	126,929	365,740	37,219	822,088
Winthrop	301,249	130,860	377,066	38,372	847,547

Retirement Plans Participation – As of June 30, 2021

	Domestic Equity	International Equity	Fixed Income	Cash	Total
Statewide Volunteer Firefighter Plan					
Wolf Lake	$ 137,544	$ 59,748	$ 172,161	$ 17,520	$ 386,973
Wood Lake	107,224	46,577	134,210	13,658	301,669
Wrenshall	137,280	59,633	171,830	17,486	386,229
Total Statewide Volunteer Firefighter Assets	$ 51,586,612	$ 22,408,806	$ 64,569,764	$ 6,570,895	$ 145,136,077
Total Fire Relief + Other Public Retirement Plans	**$ 613,019,925**	**$ 178,121,330**	**$ 201,951,708**	**$ 16,540,434**	**$1,009,633,397**

	Stable Value Fund	Domestic Equity	International Equity	Fixed Income	Cash	Total
Participant Directed Investment Program (PDIP) Plan Participation						
MSRS - Empower	$ 1,700,225,388	$ -	$ -	$ -	$ 570,552,983	$ 2,270,778,371
Pera DCP	3,979,122	64,926,352	4,532,603	20,713,512	3,808,165	97,959,754
Total PDIP Participation	**$ 1,704,204,510**	**$ 64,926,352**	**$ 4,532,603**	**$ 20,713,512**	**$ 574,361,148**	**$ 2,368,738,125**
Total Supplemental Investment Fund	**$ 1,704,204,510**	**$ 677,946,277**	**$ 182,653,933**	**$ 222,665,220**	**$ 590,901,582**	**$ 3,378,371,522**

Note: Balanced Fund and Volunteer Firefighter Account assets are recorded in the respective asset group category

Non-Retirement Funds Participation Schedule
As of June 30, 2021

	Non-Retirement Cash Fund	Non-Retirement Bond Fund	Non-Retirement Equity Fund	Assigned Risk Plan Fixed Income	Met Council Laddered Fixed Income Portfolio	Total
Trust Funds						
Assigned Risk			64,951,492	240,516,523		305,468,015
Closed Landfill		38,354,321	93,173,585			131,527,906
Environmental Trust	31,926,783	452,767,847	1,156,601,642			1,641,296,272
Permanent School	36,329,397	876,469,837	1,027,173,031			1,939,972,265
Other Trusts:						
Duluth Community Investment Trust	6	6,946,797	27,117,586			34,064,389
Emergency Med SVC	110,794	780,542	1,370,232			2,261,568
Ethel Currey		679,540	1,334,383			2,013,923
Iron Range Resources		63,405,313	149,917,837			213,323,150
Life Time Fish &Wild Life	866,879	12,539,262	33,331,408			46,737,549
Metro Landfill Contingency Action		4,411,259	10,701,670			15,112,929
Mittigation Easement Stewardship		293,234	691,430			984,664
Natural Resources Conservation		526,674	1,377,675			1,904,349
Saint Louis County Environmental		10,729,213	15,533,004			26,262,217
Water & Soil Conservation Easement		1,188,079	2,872,102			4,060,181
Winona State		1,134,632	2,622,682			3,757,314
Total Trust Fund Assets	$ 69,233,859	$1,470,226,550	$2,588,769,759	$240,516,523	$ -	$ 4,368,746,691
Qualifying Governmental Entities						
City of Woodbury	$ -	$ -	$ 5,199,261			$ 5,199,261
Other Post Employment Benefit Plans (OPEB)						
Anoka County (Irrevocable)	$ -	$ -	$ 97,756,009	$ -	$ -	$ 97,756,009
Carver County		3,547,011	9,387,355			12,934,366
City of Eagan			26,687,939			26,687,939
City of Virginia			2,743,591			2,743,591
Crosby-Ironton ISD#182	84,504	2,316	4,910,416			4,997,236
Duluth		20,132,843	71,530,873			91,663,716
Fillmore Central Schools #2198	325,035					325,035
Foley ISD#51		946,706	1,995,075			2,941,781
Hastings ISD#200	4,820,240					4,820,240
Kingsland ISD#2137			402,666			402,666
Mendota Hgts Eg WSP#197	68,975	7,127,972				7,196,947
Metro Mosquito Control District		36,272	5,157,437			5,193,709
Metropolitan Council	13,204,614		224,508,472		111,259,744	348,972,830
Mounds View ISD#621	1,722,661	7,936,986	19,019,537			28,679,184
Mt. Iron-Buhl District #712		2,131,626				2,131,626
Ogilvie ISD#333	72,113					72,113
Port Authority of the City of St. Paul	153,778	444,847	87,524			686,149
Ramsey County	7,156,112	18,264,313	86,699,418			112,119,843
Roseville District#623		$8,701,659				8,701,659
Scott County		11,536,004	13,202,347			24,738,351
Staples Motley #2170	25,960	590,998	153,424			770,382
Washington County		13,083,681	78,205,023			91,288,704
Yellow Medicine ISD#2190	266,792					266,792
Total OPEB Assets	$ 27,900,784	$ 94,483,234	$ 642,447,106			$ 876,090,868
Non-Retirement Plan Participation	**$ 97,134,643**	**$1,564,709,784**	**$3,236,416,126**	**$240,516,523**	**$ 111,259,744**	**$ 5,250,036,820**

Investment Manager Fees – Total Payments for Fiscal Year 2021

Investment Manager Name		
Domestic Equity Active Managers		
ArrowMark Colorado Holdings, LLC	$	1,581,727
Barrow, Hanley, Mewhinney & Strauss, LLC		652,390
Earnest Partners, LLC		150,777
Goldman Sachs Asset Management, L.P.		2,089,108
Hood River Capital Management, LLC		2,242,389
Hotchkis and Wiley Capital Management, LLC		1,571,487
LSV Asset Management		674,706
Martingale Asset Management, L.P.		1,027,687
Peregrine Capital Management		1,629,793
Rice Hall James & Associates, LLC		1,613,533
Sands Capital Management, LLC		1,829,711
Wellington Management Company LLP		1,875,449
Winslow Capital Management, LLC		690,280
Zevenbergen Capital Investments LLC		1,618,779
Domestic Equity Semi-Passive Managers		
BlackRock Institutional Trust Company, N.A.		1,474,003
J.P. Morgan Investment Management Inc.		1,566,992
Domestic Equity Passive Manager		
BlackRock Institutional Trust Company, N.A. (Passive R3000)		12,513
BlackRock Institutional Trust Company, N.A. (Passive R2000)		57,847
BlackRock Institutional Trust Company, N.A. (Passive R1000)		910,162
Fixed Income Core/Core Plus Managers		
Columbia Threadneedle Investments		355,558
Dodge & Cox		1,130,892
Pacific Investment Management Company LLC (PIMCO)		595,619
Western Asset Management Company		1,202,907
BlackRock Financial Management, Inc.		676,803
Goldman Sachs Asset Management		857,659
Neuberger Berman Investment Advisers LLC		851,651
Fixed Income Return Seeking Managers		
Ashmore Investment Management Limited		685,432
BlackRock Financial Management, Inc.		1,216,435
Columbia Threadneedle Investments		911,703
KKR Credit Advisors (US) LLC		461,321
Oaktree Capital Management, L.P.		471,992
Payden & Rygel		537,670
Prudential Global Investment Management, Inc. (PGIM)		477,243
Pacific Investment Management Company LLC (PIMCO)		1,469,409
TCW Asset Management Company, LLC		76,222

Investment Manager Fees – Total Payments for Fiscal Year 2021

Investment Manager Name		
Treasury Portfolio Managers		
BlackRock Financial Management, Inc.	$	1,136,371
Goldman Sachs Asset Management		1,224,908
Neuberger Berman Investment Advisers LLC		1,083,629
Laddered Bond Managers		
Goldman Sachs Asset Management		329,313
Neuberger Berman Investment Advisers LLC		311,821
International Equity Active Developed Markets Managers		
AQR Capital Management, LLC		1,308,951
Acadian Asset Management LLC		1,542,426
Columbia Threadneedle Investments		1,367,178
Fidelity Institutional Asset Management LLC		1,357,734
J.P. Morgan Investment Management Inc.		1,319,986
Marathon Asset Management LLP		1,298,180
McKinley Capital Management, LLC		1,062,098
International Equity Passive Manager		
State Street Global Advisors (Developed Markets)		690,159
State Street Global Advisors (Emerging Markets)		1,730,041
International Equity Active Emerging Markets Managers		
Macquarie Investment Management Advisers		2,383,581
Martin Currie Inc.		2,557,223
Morgan Stanley Investment Management Inc.		3,942,898
Neuberger Berman Investment Advisers LLC		2,945,520
Pzena Investment Management, LLC		2,466,829
The Rock Creek Group, LLC		3,178,316
International Equity Active Opportunistic Strategies		
Earnest Partners (ACWI ex-US)		608,652
Earnest Partners LLC (China A Index)		852,311
Record Currency LLC (Currency Management)		3,933,459
Global Equity Managers		
Ariel Investments, LLC		946,826
Baillie Gifford Overseas Limited		858,792
Martin Currie Inc.		606,515
Private Markets--Uninvested Allocation		
BlackRock Institutional Trust Company, N.A.		124,469
NISA Investment Advisors, LLC		436,880

Investment Manager Fees – Total Payments for Fiscal Year 2021

Investment Manager Name		
Stable Value Manager		
Galliard Capital Management, Inc. [1]		3,434,905
Assigned Risk Plan		
RBC Global Asset Management (U.S.) Inc.		228,581
Non-Retirement		
BNY Mellon Asset Management North America Corporation		111,111
Prudential Global Investment Management, Inc. (PGIM)		1,389,011
State Street Global Advisors		25,100
Total Investment Manager Fees Paid	**$**	**82,041,627**

(1) Includes Investment Contract fees of $2,629,715 charged by wrap providers.

Commissions and Trading Volume
By Broker for Fiscal Year 2021

	Stock Volume	Stock Commission	Bond Volume	Bond Commission	Short Term Volume
ABEL NOSER	$ 46,236,741	$ 29,415	$ -	$ -	$ -
ABG SECURITIES AS (STOCKHOLM)	35,102.43	-	-	-	-
ABN AMRO BANK N.V.	9,375,005.02	8,045.38	231,048.65	-	-
ACADEMY SECURITIES INC	268,851.95	26.25	-	-	103,151,293.27
ALLEN & COMPANY LLC	278,468.84	141.00	-	-	-
AMHERST PIERPONT SECURITIES LLC	-	-	84,889,982.08	-	104,984,785.69
ANDISA SECURITIES (PTY)LIMITED	736,911.11	736.86	-	-	-
ANTARES HOLDINGS LP	-	-	1,511,875.00	-	-
ARES MANAGEMENT, L.P.	-	-	482,494.56	-	-
ARQAAM SECURITIES LLC	453,350.47	1,136.18	-	-	-
AUERBACH GRAYSON AND CO. INC.	2,118,125.24	927.11	-	-	-
AUSTRALIA AND NEW ZEALAND BANKING GROUP	-	-	1,493,018.66	-	-
B.RILEY & CO., LLC	49,890,053.05	40,480.35	-	-	-
B.T. BANK OF CANADA	112,482.34	-	-	-	-
BANC OF AMERICA SECURITIES LLC, CHAR	-	-	394,000.00	-	-
BANCA POPOLARE DI NOVARA S.C.A	-	-	497,500.00	-	-
BANCO BILBAO VIZCAYA	-	-	19,713,344.17	-	4,887,501.15
BANCO BRADESCO S.A.	-	-	112,113.50	-	-
BANCO BTG PACTUAL SA CAYMAN BRANCH	-	-	993,451.33	-	-
BANCO CHASE MANHATTAN S.A.	-	-	16,320,009.36	-	-
BANCO CITIBANK SA	-	-	10,472,643.44	-	-
BANCO COLPATRIA	-	-	673,170.90	-	-
BANCO DE INVESTIMENTOS CREDIT	66,982.03	40.15	-	-	-
BANCO ITAU SA	8,659,256.94	10,980.22	-	-	-
BANCO PACTUAL S.A.	1,790,538.42	2,432.66	-	-	-
BANCO SANTANDER	1,231,570.53	1,092.77	29,124,722.34	-	2,480,589.61
BANCOLOMBIA S.A.	-	-	1,447,560.91	-	-
BANCROFT CAPITAL LLC	123,824.50	28.82	-	-	-
BANK OF AMERICA	124,565,078.94	179,958.20	677,149,600.98	-	25,001,014.25
BANK OF MONTREAL	-	-	-	-	665,899,854.75
BANK OF NEW YORK	11,217,201.48	-	231,300,536.27	-	39,998,115.00
BANK OF NOVA SCOTIA	694,029.61	1,171.42	1,196,125.00	-	92,141,258.47
BANK OF TOKYO-MITSUBISHI, LTD.	-	-	-	-	24,973,750.00
BANQUE PARIBAS FRANKFURT	300,537.43	90.14	-	-	-
BARCLAYS	608,570,663.03	165,089.09	2,409,981,152.53	-	35,631,788,479.91
BARRINGTON RESEARCH ASSOCIATES	3,087,245.54	3,817.95	-	-	-
BBVA SECURITIES INC.	-	-	11,155,662.02	-	-
BCP SECURITIES LLC	-	-	295,827.50	-	-
BEAR STEARNS SPORE PTE LTD, SP	-	-	768,000.00	-	-
BELTONE SECURITIES BROKERAGE	252,619.36	633.13	-	-	-
BERENBERG CAPITAL MARKETS LLC	3,980,035.89	1,838.46	-	-	-
BERNSTEIN AUTONOMOUS LLP	14,380,706.55	6,267.81	-	-	-
BETZOLD BERG & NUSSBAUM INC.	-	-	24,594,267.37	-	-
BMO CAPITAL MARKETS	111,328,128.89	32,079.39	522,572,493.58	-	3,408,478,926.63
BMO NESBITT BURNS INC	15,856,364.64	9,146.55	-	-	-
BNP PARIBAS	195,978,772.42	58,852.80	1,085,424,451.35	-	55,137,422,484.72
BNY CAPITAL MARKETS, INC.	-	-	4,784,793.50	-	-
BNY MELLON/NOMURA INT'L PLC REPO	-	-	2,329,174.65	-	-
BNY/STANDARD BANK LONDON LTD	-	-	8,521,695.25	-	-
BNY/SUNTRUST CAPITAL MARKETS	-	-	4,317,855.15	-	-
BNYMELLON/MIZUHO INTERNATIONAL	-	-	909,721.50	-	-
BNYMELLON/RE ANZ MELBOURNE	-	-	2,602,499.36	-	-
BNYMELLON/RE HSBC BANK PLC	-	-	10,119,548.55	-	-
BNYMELLON/RE SMBC NIKKO SECURITIES AMERICA	-	-	-	-	75,953,955.83
BOFA SECURITIES, INC	2,369,346,104.81	354,470.83	9,686,040,034.10	179,576.44	45,922,069,783.88

Commissions and Trading Volume
By Broker for Fiscal Year 2021

	Stock Volume	Stock Commission	Bond Volume	Bond Commission	Short Term Volume
BONY MELLON/SOC GEN	$ -	$ -	$ 114,622,274.82	$ -	$ -
BONY/GRIFFIN KUBIK STEPHENS	-	-	4,692,544.21	-	-
BONY/TORONTO DOMINION SECURITIES INC	-	-	557,172,663.60	-	1,919,551,324.28
BRADESCO S.A. CTVM	15,098,767.79	21,415.59	500,198.93	-	-
BREAN CAPITAL LLC	-	-	11,162,152.05	-	-
BTIG LLC	34,138,039.68	48,219.39	304,709.75	-	-
C.L. KING AND ASSOCIATES, INC.	8,291.11	4.86	-	-	-
CABRERA CAPITAL MARKETS	423,204.09	18.75	-	-	-
CAIXA D'ESTALVIS I PENSIONS DE	-	-	257,660.02	-	-
CANACCORD GENUITY	27,383,020.20	18,972.13	-	-	-
CANADIAN DEPOSITORY FOR SECURITIES	112,482.34	-	-	-	-
CANADIAN IMPERIAL BANK OF COMMERCE	-	-	211,925.00	-	-
CANTOR FITZGERALD + CO	102,040,525.90	21,461.95	160,029,642.77	-	29,825,000,000.00
CAPITAL INSTITUTIONAL SERVICES , INC	240,782,044.30	61,995.90	-	-	-
CARNEGIE A S	363,916.21	256.94	-	-	-
CARNEGIE INVESTMENT BANK AB	10,075,948.94	12,049.57	-	-	-
CARNEGIE SECURITIES FINLAND	1,371,093.17	2,059.73	-	-	-
CASTLEOAK SECURITIES LP	4,340,948.36	1,753.90	-	-	-
CESKA SPORITELNA	2,226,826.09	1,782.84	-	-	-
CGS-CIMB SECURITIES (HONG KONG) LTD	56,616.74	70.97	-	-	-
CHINA INTERNATIONAL CAPITAL CO	4,287,245.59	3,257.74	-	-	-
CIBC WORLD MARKETS	24,066,470.30	4,971.59	169,945,833.53	-	302,685,690.93
CIMB BANK BERHAD	-	-	2,167,925.80	-	-
CITADEL SECURITIES	75,087,064.87	9,941.88	1,861,455,076.19	-	-
CITATION GROUP	2,145,324.23	46.53	-	-	-
CITI	-	-	1,383,293.74	-	-
CITIBANK	12,480,235.13	3,051.48	60,096,321.32	-	149,790,159.72
CITIGROUP	6,511,976,055.93	1,100,259.00	8,443,361,319.38	-	50,896,984,791.82
CITIZENS BANK	-	-	389,277.50	-	-
CL SECURITIES TAIWAN COMPANY LIMITED	28,557,895.99	22,204.52	-	-	-
CLEARSTREAM BANKING S.A.,LUXEMBOURG	-	-	410,560.15	-	-
CLSA	147,928,115.54	71,568.49	-	-	-
COMMERCIAL BANK OF QATAR, LTD.	560,562.88	1,404.91	-	-	-
CORMARK SECURITIES INC	136,210.02	26.65	-	-	-
COWEN AND COMPANY, LLC	442,757,956.83	289,884.41	-	-	-
COWEN EXECUTION SERVICES LLC	652,479,608.29	227,045.76	(0.00)	-	-
CPR PARIS	776,768.21	2,445.38	-	-	-
CRAIG-HALLUM	13,189,660.78	22,345.29	-	-	-
CRAIGIE INCORPORATED	-	-	-	-	70,485,263.54
CREDICORP CAPITAL COLOMBIA S.A.	347,832.32	574.56	-	-	-
CREDIT AGRICOLE	-	-	175,984,764.10	-	-
CREDIT LYONNAIS SECURITIES(ASIA)	69,904,637.23	46,552.04	-	-	-
CREDIT SUISSE	945,030,287.57	216,945.12	5,831,181,252.73	-	546,860,779.50
CS FIRST BOSTON (HONG KONG) LIMITED	45,594,585.42	31,490.52	-	-	-
CSFB AUSTRALIA EQUITIES LTD	7,591,273.87	3,509.01	-	-	-
D.A. DAVIDSON AND CO	499,135.89	204.00	-	-	-
DAIWA	22,926,745.68	14,701.25	841,632,227.63	-	656,619,196.78
DANSKE BANK A/S	104,604.84	104.71	-	-	-
DATABANK BROKERAGE LIMITED	-	-	1,002,175.00	-	-
DAVENPORT & CO. OF VIRGINIA, INC.	-	-	231,167.70	-	-
DAVIDSON D.A. + COMPANY INC.	57,247,356.70	50,131.59	3,156,860.45	-	-
DAVY STOCKBROKERS	6,191,388.44	4,458.00	-	-	-
DBS BANK LTD. SINGAPORE	-	-	2,310,450.90	-	-
DBTC AMERICA	-	-	2,794,648.18	-	-
DEN NORSKE BANK	302,410.16	302.34	-	-	-

Commissions and Trading Volume
By Broker for Fiscal Year 2021

	Stock Volume	Stock Commission	Bond Volume	Bond Commission	Short Term Volume
DEUTSCHE ASSET MANAGEMENT	$ -	$ -	$ 1,987,929.30	$ -	$ -
DEUTSCHE BANK	65,516,988.41	6,462.42	1,511,385,633.50	-	1,255,249,966.96
DEUTSCHE MORGAN GRENFELL INC.	-	-	-	-	14,066,774,000.00
DNB MARKETS CUSTODY, A BUSINESS UNIT OF	238,752.01	238.71	-	-	-
DOUGHERTY & COMPANY LLC	8,601,003.88	9,959.57	-	-	-
DREXEL HAMILTONLLC	654,846.51	226.00	-	-	-
DZ BANK AG DEUTSCHE ZENTRAL GENOSSE PLAT	-	-	249,020.51	-	-
EFG EUROBANK SECURITIES S.A.	381,552.59	190.93	-	-	-
ELECTRONIC BROKERAFE SYSTEMS LLC	8,892,800.99	3,812.34	-	-	-
ERSTE BANK BEFEKTETESI RT.	98,046.60	78.50	-	-	-
EUROCLEAR BANK S.A / N.V	-	-	400,034.00	-	-
EVERCORE	66,802,859.83	39,420.94	-	-	-
EXANE S.A.	13,976,412.06	7,385.86	-	-	-
FEDERAL HOME LOAN MORTGAGE CORPORATION	-	-	6,635,721.43	-	-
FIDELITY	185,118,196.00	17,145.25	-	-	-
FIRST ABU DHABI BANK PJSC	-	-	936,778.00	-	-
FIRST HORIZON BANK	-	-	209,152,904.41	-	99,886,619.44
FIRSTRAND BANK LIMITED LONDON BRANCH	-	-	9,958,020.37	-	-
FIS BROKERAGE & SECURITIES SERVICES LLC	13,614,487.71	2,859.74	-	-	-
FLOW CORRETORA DE MERCADORIAS LTDA.	3,375,789.65	3,171.39	-	-	-
FRANK RUSSELL SEC/BROADCORT CAP CLEARING	15,518,980.21	37,725.80	-	-	-
FTN FINANCIAL SECURITIES	-	-	34,924,140.78	-	-
G TRADE SERVICES LLC, PAR FRANCE	534,136.80	267.20	-	-	-
GOLDMAN SACHS	1,567,383,135.74	439,046.15	6,893,066,311.66	290,066.12	35,107,114,889.42
GOODBODY STOCKBROKERS	967,644.70	793.17	-	-	-
GORDON HASKETT CAPITAL CORP	813,267.84	2,361.88	-	-	-
GRIFFITHS MCBURNEY	-	-	49,980.68	-	-
GUGGENHEIM	1,427,319.57	990.67	-	-	-
GUZMAN AND COMPANY	546,559.91	100.00	-	-	-
HANWHA SECURITIES SEOUL	2,690,788.70	808.59	-	-	-
HARRIS TRUST + SAVINGS BANK CHICAGO	-	-	8,601,126.10	62,522.20	-
HIBERNIA SOUTHCOAST CAPITAL INC	4,144,754.25	8,758.42	-	-	-
HILLTOP SECURITIES INC	10,835,885.42	13,873.07	9,380,784.93	-	-
HONGKONG AND SHANGHAI BANKING CORPORATION	1,190,315.99	1,038.38	-	-	-
HSBC	282,535,376.37	152,300.16	429,342,987.35	-	26,992,959,385.22
ICAP CORPORATES LLC	-	-	-	-	41,000,000.00
ICAP/CROSSTRADE	-	-	147,305.84	-	-
ICBC STANDARD BANK PLC	-	-	5,684,695.35	-	-
ICBCFS LLC	-	-	302,976,515.26	-	-
ICE BONDS SECURITY CORP	-	-	223,805.60	-	-
IMPERIAL CAPITAL	-	-	2,116,573.83	-	-
ING BANK NV	-	-	12,858,883.36	-	-
ING BARINGS CORP	-	-	1,092,680.00	-	-
INSTINET	846,619,722.01	258,038.54	-	-	-
INTESA SANPAOLO SPA	-	-	735,210.88	-	-
INTL FCSTONE FINANCIAL INC	2,328,764.19	1,298.91	370,972,377.87	-	574,099.23
INVESTEC BANK PLC	728,573.25	661.34	-	-	-
INVESTMENT PLANNING INC	-	-	366,155.00	-	-
INVESTMENT TECHNOLOGY GROUP INC.	40,977,325.46	24,743.17	-	-	-
IPOPEMA SECURITIES S.A.	855,556.15	1,253.98	-	-	-
IS YATIRIM MENKUL DEGERLER AS	303,115.04	151.63	-	-	-
ITG	79,152,461.73	29,065.36	-	-	-
ITT FINL CORP	-	-	-	-	-
JANE STREET EXECUTION SERVICES, LLC	-	-	2,716,338.75	-	-
JANNEY MONTGOMERY SCOTT INC.	2,525,557.48	2,239.61	3,710,910.22	-	-

Commissions and Trading Volume
By Broker for Fiscal Year 2021

	Stock Volume	Stock Commission	Bond Volume	Bond Commission	Short Term Volume
JEFFERIES	$ 640,245,284.62	$ 253,583.59	$ 576,526,547.89	$ 9,286.64	$ 49,987,866.50
JMP SECURITIES	15,918,219.49	7,371.24	-	-	-
JOH. BERENBERG, GOSSLER & CO. KG	18,980,385.81	16,305.87	-	-	-
JONESTRADING INSTITUTIONAL SERVICES LLC	24,965,456.14	27,531.71	-	-	-
JP MORGAN	1,126,952,437.25	641,722.85	11,655,468,009.35	65,748.02	92,716,650,957.81
JUPITER SECURITIES SDN BHD	210,327.35	161.86	-	-	-
KEEFE BRUYETTE + WOODS INC	36,264,481.57	39,827.93	-	-	-
KEPLER CHEUVREUX	2,945,405.49	3,022.24	-	-	-
KEYBANC	56,900,851.97	41,159.03	4,475,129.88	-	-
KOREA INVESTMENT AND SECURITIES CO., LTD	13,278,459.44	28,281.77	-	-	-
LADENBURG THALMAN + CO	4,066,766.30	2,771.52	-	-	-
LANDESBANK BADEN-WUERTTEMBERG	-	-	249,921.62	-	-
LARRAIN VIAL	4,559,764.86	6,829.55	-	-	-
LEERINK PARTNERS LLC	9,418,122.91	6,115.79	-	-	-
LIBERUM CAPITAL LIMITED	2,796,039.94	2,089.19	-	-	-
LIQUIDITY FINANCE LLP	-	-	10,244,196.25	-	-
LIQUIDNET	146,818,960.14	68,265.87	-	-	-
LLOYDS SECURITIES INC	-	-	1,907,507.81	-	-
LOOP CAPITAL MARKETS	746,790,585.75	99,834.89	87,128,911.36	-	-
LUMINEX TRADING AND ANALYTICS	14,855,179.94	1,720.24	-	-	-
M.L.MEASUREMENT	156,333.88	-	-	-	-
MACQUARIE BANK LIMITED	54,844,685.32	34,729.31	-	-	-
MACQUARIE CAPITAL	71,982,728.10	51,961.86	-	-	-
MACQUARIE SECURITIES LIMITED	11,270,196.76	6,917.16	-	-	-
MAINFIRST BANK DE	394,846.99	296.36	-	-	-
MANUFACTURERS AND TRADERS TRUST COMPANY	-	-	-	-	-
MARKETAXESS	-	-	550,787,671.06	-	-
MAXIM GROUP	1,650,976.42	855.66	-	-	-
MELLON BANK	151,237.93	109.37	-	-	1,073,497,617.36
MERRILL LYNCH	541,000,337.20	263,945.54	44,744,124.80	-	-
MESIROW FINANCIAL INC	-	-	212,420.15	-	-
METZLER SEEL	4,959,936.72	-	-	-	-
MILLENNIUM ADVISORS LLC	-	-	4,881,462.51	-	-
MIRAE ASSET	16,328,822.20	19,806.60	-	-	-
MISCHLER FINANCIAL GROUP	1,747,322.42	569.68	-	-	25,000,000.00
MITSUBISHI UFJ SECURITIES	1,891,775.38	862.61	224,444,407.94	-	509,579,343.89
MIZUHO CORPORATE BANK LTD.	-	-	22,549.80	-	25,000,000.00
MIZUHO INTERNATIONAL PLC	5,271,847.63	3,300.61	5,453,009.95	-	-
MIZUHO SECURITIES	26,319,790.98	19,016.91	844,730,299.20	-	574,402,089.66
MKM PARTNERS LLC	10,539,619.06	10,268.80	-	-	-
MORGAN GRENFELL INVT LDN	-	-	456,610.37	-	-
MORGAN STAN INTERNATIONAL LTD	-	-	3,309,441.32	-	-
MORGAN STANLEY	1,541,163,456.13	458,798.56	10,684,334,239.51	13.84	1,351,989,165.00
MOTSWEDI SECURITIES (PTY) LTD	-	-	380,950.00	-	-
MUFG UNION BANK, N.A./MMI/PIMS/IPA	-	-	-	-	27,000,000.00
NATIONAL BANK FINANCIAL INC./CDS	-	-	8,794,547.10	-	-
NATIONAL BANK OF ABU DHABI	-	-	994,761.12	-	-
NATIONAL FINANCIAL SERVICES CORP	235,101,305.91	132,479.29	392,842,766.49	-	105,998,050.00
NATIXIS	-	-	117,988.10	-	-
NATWEST MARKETS PLC	-	-	3,057,633.41	-	-
NBC CLEARING SERVICES INCORPORATED	1,933,647.27	1,965.47	-	-	-
NEDBANK LTD	-	-	1,586,310.86	-	-
NEEDHAM AND COMPANY LLC	38,526,068.19	17,166.87	-	-	-
NOMURA	-	-	2,359,223,486.54	-	3,047,651,728.52
NORDEA BANK AB (PUBL), FINNISH BRANCH	23,783,126.98	15,877.42	120,987.21	-	-

Commissions and Trading Volume
By Broker for Fiscal Year 2021

	Stock Volume	Stock Commission	Bond Volume	Bond Commission	Short Term Volume
NORTH SOUTH CAPITAL LLC	$ 885,211.40	$ 364.44	$ -	$ -	$ -
NORTHCOAST RESEARCH PARTNERS LLC	884,020.26	1,108.65	-	-	-
NORTHERN TRUST COMPANY, THE	-	-	1,583,868.75	-	-
NORTHLAND SECURITIES INC.	19,416,248.69	6,958.73	-	-	-
NUMIS SECURITIES LIMITED	3,498,895.67	1,080.91	-	-	-
O NEIL, WILLIAM AND CO. INC/BCC CLRG	10,644,563.18	2,849.96	-	-	-
ODDO ET CIE	9,974.49	7.95	-	-	-
OPPENHEIMER	57,798,422.72	56,037.50	32,801,254.00	-	-
PANMURE GORDON AND CO LTD	1,634,194.42	1,310.51	-	-	-
PAREL	7,485,757.55	7,935.20	-	-	-
PAVILLION GLOBAL MARKETS LTD.	3,440,597.36	2,208.38	-	-	-
PAYDEN + RYGEL	-	-	503,750.00	-	-
PEEL HUNT LLP	65,918.67	-	-	-	-
PENSERRA SECURITIES	49,102,029.99	25,160.33	-	-	-
PERSHING LLC	1,601,080,603.93	233,998.82	2,046,340,319.89	-	2,317,149,697.38
PIERPONT SECURITIES LLC	-	-	2,743,406.25	-	-
PIPER JAFFRAY	425,697,746.76	190,358.49	-	-	-
R.W PRESSPRICH	-	-	930,139.80	-	-
RAIFFEISEN ZENTRALBANK OESTERREICH AG	-	-	90,572.00	-	-
RAYMOND JAMES	98,825,602.73	61,729.46	16,705,500.20	-	-
RBC CAPITAL MARKETS LLC	182,023,219.34	76,631.90	1,284,442,317.91	298.00	4,888,755,381.00
RBC DOMINION SECURITIES CAPITAL	41,114,203.16	19,571.44	24,812,103.01	-	-
RBS SECURITIES INC.	-	-	121,505,456.59	-	27,750,000,000.00
REDBURN (EUROPE) LIMITED	18,501,258.14	14,200.55	-	-	-
REGIONS BANK	-	-	-	-	-
RENAISSANCE CAPITAL LTD	92,343.94	92.25	-	-	-
RENCAP SECURITIES INC	3,974,000.75	2,466.48	-	-	-
ROBERT W. BAIRD CO.INCORPORATED	82,012,906.02	68,662.86	66,859,829.31	-	-
ROSENBLATT SECURITIES	33,352,568.71	1,017.34	-	-	-
ROTH CAPITAL PARTNERS LLC	17,906,898.56	10,505.20	-	-	-
ROYAL BANK OF CANADA	2,720,684.28	2,145.03	14,614,643.19	-	-
ROYAL BANK OF SCOTLAND	-	-	560,000.00	-	22,471,711,000.00
SAMSUNG SECURITIES CO LTD	576,512.73	231.27	-	-	-
SANFORD C BERNSTEIN CO LLC	231,337,249.11	74,778.85	850,685.53	-	-
SANTANDER INVESTMENT SECURITIES INC	7,427,154.21	7,217.68	6,954,767.90	-	-
SCOTIA CAPITAL INC	82,632,918.25	12,167.65	60,292,680.63	-	391,285,625.56
SCOTIA MCLEOD INC. LONDON	-	-	1,200,000.00	-	-
SEAPORT GROUP SECURITIES LLC	15,226,246.38	13,603.66	6,498,664.42	-	-
SG AMERICAS SECURITIES LLC	9,870,891.61	4,178.00	420,979,091.10	-	502,127,407.54
SG SECURITIES	47,994,628.72	11,966.21	-	-	-
SIDOTI + COMPANY LLC	6,396,655.61	2,123.80	-	-	-
SKANDINAVISKA ENSKILDA BANKEN	631,960.21	646.04	-	-	-
SMBC NIKKO	20,049,263.88	6,910.37	4,837,785.40	-	-
SOCIETE GENERALE	4,222,283.82	1,409.27	18,323,065.85	-	25,000,000.00
STANDARD CHARTERED BANK, LONDON	-	-	20,942,771.79	-	-
STATE STREET	528,626,880.35	6,807.20	643,092,261.99	-	1,487,577,065.12
STEPHENS INC	48,491,882.55	46,841.30	7,266,930.03	-	-
STIFEL NICOLAUS	60,699,107.54	43,301.19	86,842,187.40	-	-
STONEX FINANCIAL	534,415.20	927.02	3,760.00	-	-
STRATEGAS SECURITIES LLC	273,918.34	306.99	-	-	-
SUMRIDGE PARTNERS LLC	-	-	12,962,243.25	-	-
SUNTRUST CAPITAL MARKETS, INC.	22,489,632.47	15,514.74	-	-	-
SVENSKA HANDELSBANKEN	2,344,603.28	1,174.83	-	-	-
TD SECURITIES (USA) LLC	-	-	21,888,561.99	-	-
TELSEY ADVISORY GROUP	14,611,182.81	17,045.13	-	-	-

Commissions and Trading Volume
By Broker for Fiscal Year 2021

	Stock Volume	Stock Commission	Bond Volume	Bond Commission	Short Term Volume
THE BANK OF NY/DBAG LONDON GLOBAL	$ -	$ -	$ 10,001,621.20	$ -	$ -
THE HONGKONG AND SHANGHAI BANKING	6,806,770.87	11,141.90	-	-	-
THE VERTICAL TRADING GROUP	864,225.96	1,534.48	-	-	-
TORONTO DOMINION BANK	5,338,433.88	2,668.88	77,368,220.24	-	144,444,482.99
TORONTO DOMINION SECURITIES INC	57,279,049.12	13,178.88	3,981,996.80	-	-
TPCG FINANCIAL SERVICES S.A	-	-	4,675.00	-	-
TROIKA DIALOG UK LIMITED	-	-	228,600.00	-	-
TRUIST SECURITIES, INC.	-	-	30,541,161.91	-	20,999,970.83
U.S. BANK N.A./CP	-	-	80,637,361.72	-	691,000,000.00
UBS	1,267,584,549.53	447,680.90	960,284,684.19	-	402,955,685.05
UMB BANK INVESTMENT DIVISION	-	-	136,011.65	-	-
UNICREDIT BANK AG (HYPOVEREINSBANK)	-	-	3,109,835.67	-	-
UNIVERSAL SECURITIES, TOKYO	491,222.64	-	-	-	-
US BANCORP INVESTMENTS INC	-	-	78,449,015.75	-	-
VALEURS MOBILIERES DESJARDINS	770,049.01	322.16	-	-	-
VIRTU AMERICAS	326,949,976.79	37,425.46	-	-	-
VIRTU ITG EUROPE LIMITED	23,635,576.00	26,613.90	-	-	-
VTB BANK EUROPE PLC	-	-	4,910,618.14	-	-
WALL STREET ACCESS	3,486,327.82	914.18	-	-	-
WEDBUSH MORGAN SECURITIES INC	19,247,321.28	11,796.39	-	-	-
WEDBUSH SECURITIES INC	1,454,582.56	1,746.35	-	-	-
WELLS FARGO BANK	402,183,404.65	53,581.79	9,827,380,002.76	10,132.61	2,844,046,619.77
WESSEL ARNOLD AND HENDERSON	8,241,426.00	-	-	-	-
WILLIAM BLAIR & COMPANY L.L.C	32,239,330.66	21,623.72	-	-	-
WILLIAMS CAPITAL GROUP LP (THE)	4,108,317.81	582.10	-	-	-
WINTERFLOOD SECURITIES LTD	759,086.16	452.91	-	-	-
WOOD AND COMPANY	1,264,177.02	1,477.64	-	-	-
XP INVESTIMENTOS CCTVM SA	10,595,569.70	8,927.27	-	-	-
YUANTA SECURITIES CO., LTD.	3,804,087.47	6,198.25	-	-	-
Grand Total	**$ 27,719,570,420**	**$ 8,279,800**	**$ 86,389,508,439**	**$ 617,644**	**$ 466,614,577,714**

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