MINNESOTA STATE BOARD OF INVESTMENT

MINNESOTA STATE BOARD
OF INVESTMENT
MEETING
August 25, 2021

Governor Tim Walz

State Auditor Julie Blaha

Secretary of State Steve Simon

Attorney General Keith Ellison

This page intentionally left blank.

STATE BOARD OF INVESTMENT MEETING

AGENDA

August 25, 2021

This page intentionally left blank.

AGENDA
STATE BOARD OF INVESTMENT MEETING

Virtual Meeting
Wednesday, August 25, 2021
10:00 a.m.

		TAB
1.	**Call to Order**	
2.	**Approval of Minutes of May 26, 2021**	
3.	**Performance Summary**	**A**
4.	**Executive Director's Administrative Report** 1. Report on Budget and Travel 2. Sudan Update 3. Iran Update 4. Litigation Update	**B**
5.	**General Investment Consultant Review**	**C**
6.	**Private Markets Investment Program**	**D**
7.	**Public Markets Investment Program**	**E**
8.	**Participant Directed Investment Program and Non-Retirement Investment Program**	**F**
9.	**Other Items**	

REPORTS

SBI Environmental, Social, and Governance (ESG) Report

Aon Market Environment Report

Meketa Capital Markets Outlook & Risk Metrics Report

SBI Comprehensive Performance Report

This page intentionally left blank.

Approval of
May 26, 2021
SBI Meeting Minutes

This page intentionally left blank.

Minutes
State Board of Investment Meeting
May 26, 2021

Notice of Meeting
The State Board of Investment (SBI) met at 10:12 a.m. Wednesday, May 26, 2021. It was determined that an in-person meeting was not practical due to the current health pandemic and on-going peacetime emergency declared under Chapter 12 of the Minnesota Statutes. As is permitted under the Open Meeting Law in these conditions, the meeting of the State Board of Investment was conducted via Microsoft Teams video conferencing and over the phone. The meeting was also live streamed on You Tube. Attendance and all votes were conducted with a roll call.

Call to Order
Governor Tim Walz, Chairperson of the SBI, called the meeting to order. Governor Tim Walz, State Auditor Julie Blaha, Secretary of State Steve Simon, and Attorney General Keith Ellison were present.

Approval of Minutes
The minutes of the February 24, 2021 SBI meeting were approved by roll call vote.

State Board of Investment Public Engagement Policy
Attorney General Ellison moved to approve the Public Engagement Policy included in the meeting material for the SBI. This policy ensures that members of the public have the opportunity to speak and the Board has the opportunity to allocate a fair amount of time to each speaker. The motion passed by roll call vote.

Executive Director's Report
Executive Director Mr. Perry referred members to the March 31, 2021 Performance Summary provided in Tab A of the meeting materials. Mr. Perry informed the Board that as of March 31, 2021 the SBI was responsible for just under $117 billion in assets; and that the Combined Funds represent $84.5 billion of those assets and as of today, the pension funds were at $88 billion in assets. Mr. Perry notified members that the SBI is in the process of investing $1.4 billion of Federal Stimulus money received by Minnesota Management and Budget on May 25, 2021.

Mr. Perry reported that the Combined Funds were ahead of its long-term objectives by outperforming its Composite Index over the ten-year period ending March 31, 2021 (Combined Funds 9.8% vs. Combined Fund Composite Index 9.5%) and providing a real rate of return above inflation over the latest 20 year time-period (Combined Funds 7.9% vs CPI-U 2.1%). The Combined Funds also exceeded the composite index for all time-periods reported (Combined Funds returned 3.8% vs. Combined Funds-Composite Index 3.4% for the quarter and for the year, the Combined Funds returned 35.7% vs. Combined Funds-Composite Index 33.6%). Mr. Perry noted that the asset mix is in-line with the target asset allocation. Mr. Perry then referred members to the Combined Funds Asset Class Performance Summary. He noted the one-year return ending March 31, 2021 for each asset group: the Public Equity Program returned 60.4%, the Total Fixed Income Program reported a -0.8% return, and the Private Markets Program generated a return of

14.1%. Mr. Perry referred members the Volatility Equivalent Benchmark Comparison showing the Combined Funds value added for all time periods listed were positive compared to a benchmark composed of stocks and bonds weighted to represent a portfolio of similar risk. Lastly, Mr. Perry stated that the SBI continues to be in the top quartile for most periods and against most comparisons in the TUCS universe.

State Auditor Blaha asked about the SBI's strategy given rising inflation expectations and long-term and short-term impacts to the portfolio. Mr. Perry stated that as a long-term investor, the SBI has a strong growth portfolio and believes that the SBI's portfolio is well positioned to address inflation risk. In the short-term, Mr. Perry is not convinced that given historical low interest rates that inflation would necessarily be bad. Governor Walz noted the strong performance during a turbulent year and that the pension funds and State accounts are in their strongest position under Mr. Perry's leadership. Attorney General Ellison commended Mr. Perry and Staff for a good job.

Executive Director's Administrative Report
Mr. Perry referred members to Tab B of the meeting materials for the Executive Director's Administrative Report. The administrative budget was provided in Attachment A, to which Mr. Perry noted that the SBI continues to be under budget for the fiscal year. The surplus is mainly from vacant staff positons and not traveling. The SBI anticipates returning money back to the retirement systems who provide the initial funding for the SBI's administrative budget. Next, Mr. Perry noted Attachment B of the meeting materials that provides the status of the legislative bills of interest to the SBI. State Auditor Blaha commented on the work her office is doing with a working group on Volunteer Firefighters and discussions with legislators on how the SBI can invest or help volunteer fire associations more while at the same time preserving some local control. Mr. Perry stated that the Administrative Report included the Iran and Sudan summary and that there was no litigation during the quarter.

Report from the SBI Administrative Committee
Mr. Perry referred members to Tab C of the meeting materials for the SBI Administrative Committee Report. He stated that the Committee met on April 15, 2021 and May 17, 2021 to review the Executive Director's Proposed Work Plan for FY22, the Budget Plan for FY22 and FY23, the Continuing Fiduciary Education Plan, and the Review of the Executive Director's FY21 Evaluation and Salary process. Mr. Perry stated that the Administrative Committee consists of a designee of each Board member, the Pension Fund Directors, and two representatives of the Investment Advisory Council. Attorney General Ellison moved approval of the following recommendations, which reads: "**The Committee recommends that the SBI approve the FY22 Executive Director's Work Plan. Further, the Committee recommends that the Work Plan serve as the basis for the Executive Director's performance evaluation for FY22.**

The Committee recommends that the SBI approve the FY22, and FY23 Administrative Budget Plan, as presented to the Committee, and that the Executive Director have the flexibility to reallocate funds between budget categories if the Executive Director deems necessary.

The Committee recommends that the SBI adopt the attached Continuing Fiduciary Education Plan.

The Committee recommends that the SBI adopt the following performance evaluation and salary process for the SBI Executive Director:

- **Evaluations by each Board member should be completed by October 1.**

- **The evaluations will be primarily based on the results of the Executive Director's Work Plan for the fiscal year ending the previous June 30.**

- **The SBI Deputies/Board designees will develop an appropriate evaluation form for use by each member.**

- **The Governor's Board designee will coordinate distribution of the evaluation forms. Board members will forward completed evaluations to the Executive Director. Board members will also send a copy of the Overall Evaluation (summary page 1) to the Governor's designee. Board members are encouraged to meet individually with the Executive Director to review their own evaluation.**

- **Upon satisfactory performance evaluations from a majority of responding Board Members, the Executive Director's annual salary will be adjusted to include any Cost-of- Living Adjustment (COLA)/Across the Board (ATB)/General Salary Increases and/or any Performance-Based Salary Increases contained in the FY22-23 Managerial Plan, to the extent that the resulting salary is within the Executive Director's salary range. The adjustments shall be effective on the relevant dates set forth in the FY22-23 Managerial Plan (anticipated to be July 1, 2021 for COLA/ATB/General Salary Increases and January 1, 2022 for Performance-Based Increases).**

- **The Governor's Board designee will provide a letter to the Executive Director confirming the status of the Executive Director's evaluation results by November 1."** The motion passed by roll call vote.

Recommendation for New Private Markets Commitments
Mr. Martin, Chairperson of the Investment Advisory Council, delivered the Private Markets Program Report and reviewed six private markets proposals listed in Tab D of the meeting materials. Mr. Martin stated that the following six recommendations are with existing managers with whom the SBI has done extensive due diligence: Blackstone Capital Partners Asia II (Private Equity), KKR MN Partnership (Private Equity), TPG Growth V (Private Equity), TPG Tech Adjacencies II (Private Equity), Carlyle Realty Partners IX (Real Estate), and Brookfield Strategic Real Estate Partners IV (Real Estate). Secretary of State Simon moved approval of the six recommendations which reads: **"The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to $300 million, or 20% of Blackstone Capital Partners Asia II, whichever is less, plus an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Blackstone**

upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Blackstone or reduction or termination of the commitment.

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to $150 million to KKR MN Partnership, plus an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by KKR upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on KKR or reduction or termination of the commitment.

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to $150 million, or 20% of TPG Growth V, whichever is less, plus an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by TPG upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on TPG or reduction or termination of the commitment.

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to $150 million, or 20% of TPG Tech Adjacencies II, whichever is less, plus an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by TPG upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on TPG or reduction or termination of the commitment.

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to $300 million, or 20% of Carlyle Realty Partners IX, whichever is less, plus an additional amount not to exceed one percent of the total

commitment for the payment of required charges at closing. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Carlyle upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Carlyle or reduction or termination of the commitment.

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to $300 million, or 20% of Brookfield Strategic Real Estate Partners IV, whichever is less, plus an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Brookfield upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Brookfield or reduction or termination of the commitment." The motion passed by roll call vote.

Other Items and Reports
Mr. Perry directed members to the remainder of the reports in the meeting materials that included: the Public Markets Investment Program Report in Tab E; the Participant Directed Investment Program and Non-Retirement Program Report in Tab F; the SBI Environmental, Social and Governance (ESG) Report; the Market Environmental Report prepared by AON; the Capital Markets Outlook & Risk Metrics Reports prepared by Meketa; and the SBI Comprehensive Performance Report.

Public Testimony
Governor Walz recognized members of the public who requested to speak before the Board: Ms. Jina Penn-Tracy from the Minnesota Divestment Coalition, who was not present to speak, and Ms. Cristina Erickson with Minnesota Youth for Climate Justice.

Adjournment of Meeting
Attorney General Ellison moved approval to adjourn the meeting. The motion passed by roll call vote. The meeting adjourned at 11:17 a.m.

Respectfully Submitted,

Mansco Perry III

Mansco Perry III
Executive Director and
Chief Investment Officer

This page intentionally left blank.

TAB A

Quarterly Performance Summary

June 30, 2021

This page intentionally left blank.

Performance Summary

June 30, 2021

Description of SBI Investment Programs

The Minnesota State Board of Investment is responsible for the investment management of various retirement funds, trust funds and cash accounts.

Combined Funds

The Combined Funds represent the assets for both the active and retired public employees in the statewide retirement systems, the biggest of which are the Public Employees Retirement Association (PERA), the Teachers Retirement Association (TRA), and the Minnesota State Retirement System (MSRS). The SBI commingles the assets of these plans into the Combined Funds to capture investment efficiencies. All assets in the Combined Funds are managed externally by investment management firms retained by contract.

Fire Plans + Other Retirement Plans

Fire Plans and Other Retirement Plans include assets from volunteer fire relief plans and other public retirement plans with authority to invest with the SBI, if they so choose. Fire Plans that are not eligible to be consolidated with Public Employees Retirement Association (PERA) or elect not to be administered by PERA may invest their assets with the SBI using the same asset pools as the Combined Funds. The Statewide Volunteer Firefighter Retirement Plan is administered by PERA and has its own investment vehicle called the Volunteer Firefighter Account.

Participant Directed Investment Program

The Participant Directed Investment Program (PDIP) provides investment vehicles for a variety of retirement or other tax-advantaged savings plans. Investment goals among the PDIP's many participants are varied. In order to meet the variety of goals, participants may allocate their investments among one or more accounts that are appropriate for their needs within statutory requirements and rules established by the participating organizations.

Non-Retirement

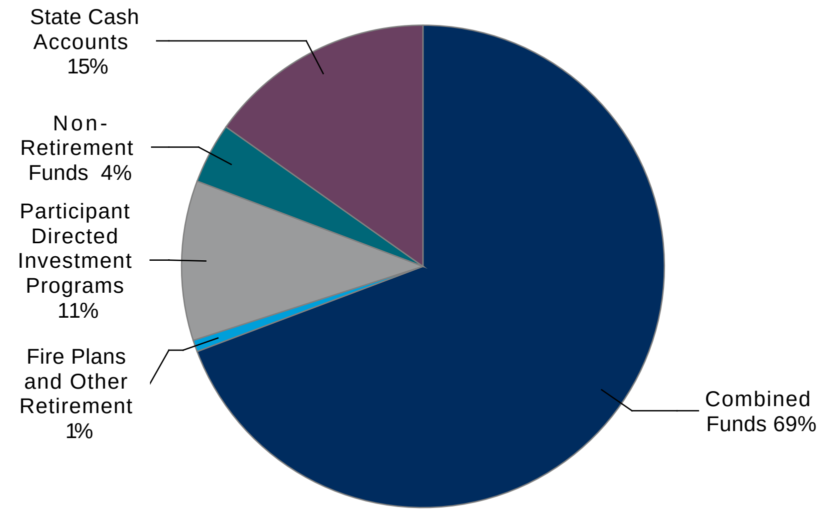
The Non-Retirement Funds are funds established by the State of Minnesota and other government entities for various purposes which include the benefit of public schools, the environment, other post-employment benefits, workers compensation insurance, and other purposes.

State Cash

The State Cash accounts are cash balances of state government funds including the State General Fund. Most accounts are invested by SBI staff through a short-term pooled fund referred to as the Treasurer's Cash Pool. It 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. Because of special legal restrictions, a small number of cash accounts cannot be commingled.

Funds Under Management

	$ Millions
COMBINED FUNDS	$89,494
FIRE PLANS + OTHER RETIREMENT	1,010
PARTICIPANT DIRECTED INVESTMENT PROGRAMS	13,847
State Deferred Compensation Plan	9,646
Health Care Savings Plan	1,628
Unclassified Employees Retirement Plan	402
Hennepin County Supplemental Retirement Plan	191
PERA Defined Contribution Plan	98
Minnesota College Savings Plan	1,860
Minnesota Achieve a Better Life Experience	23
NON-RETIREMENT FUNDS	5,250
Assigned Risk Plan	305
Permanent School Fund	1,940
Environmental Trust Fund	1,641
Closed Landfill Investment Fund	132
Miscellaneous Trust Funds	356
Other Postemployment Benefits Accounts	876
STATE CASH ACCOUNTS	19,553
Invested Treasurer's Cash	19,479
Other State Cash Accounts	74
TOTAL SBI AUM	129,154



Note: Differentials within column amounts may occur due to rounding

STATE STREET.

Combined Funds Long Term Objectives

Comparison to Objective

Match or Exceed Composite Index (10 yr.)

Outperform a composite market index weighted in a manner that reflects the long-term asset allocation of the Combined Funds over the latest 10 year period.

	10 Year
COMBINED FUNDS	10.4%
COMBINED FUNDS - COMPOSITE INDEX	10.1
Excess	0.3

Provide Real Return (20 yr.)

Provide returns that are 3-5 percentage points greater than inflation over the latest 20 year period.

	20 Year
COMBINED FUNDS	8.1%
CPI-U	2.1
Excess	6.0

Note:

Throughout this report performance is calculated net of investment management fees, differentials within column amounts may occur due to rounding, and returns for all periods greater than one year are annualized.

STATE STREET.

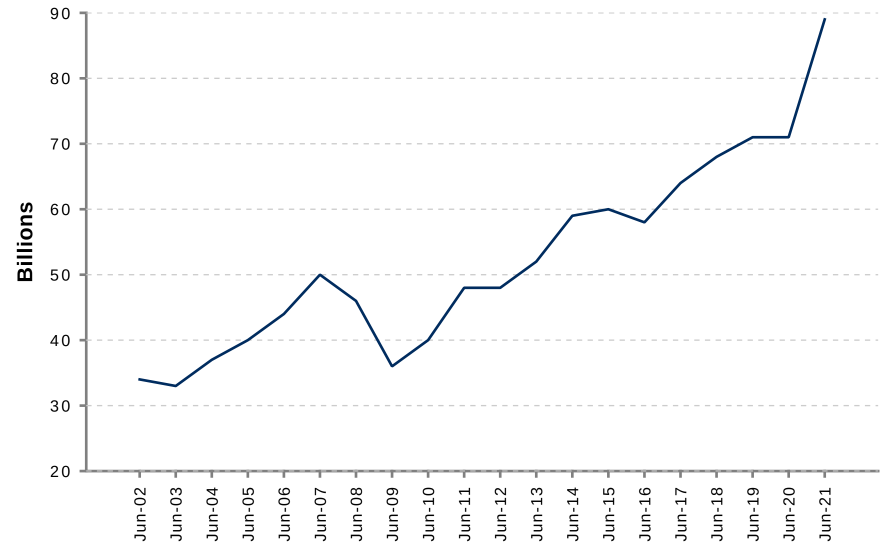
Combined Funds Summary

Combined Funds Change in Market Value ($Millions)

	One Quarter
COMBINED FUNDS	
Beginning Market Value	$84,538
Net Contributions	-654
Investment Return	5,611
Ending Market Value	89,494

The change in market value of the Combined Funds since the end of last quarter is due to net contributions and investment returns.

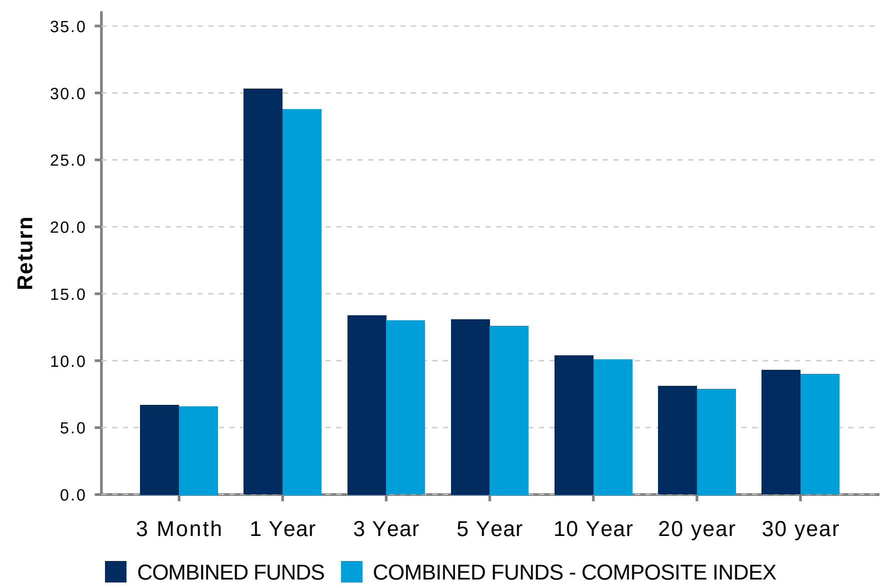
Asset Growth



Performance (Net of Fees)

The Combined Funds' performance is evaluated relative to a composite of public market index and private market investment returns. The Composite performance is calculated by multiplying the beginning of month Composite weights and the monthly returns of the asset class benchmarks.

	Qtr	FYTD	1 Yr	3 Yr	5 Yr	10 Yr	20 Yr	30 Yr
COMBINED FUNDS	6.7%	30.3%	30.3%	13.4%	13.1%	10.4%	8.1%	9.3%
COMBINED FUNDS - COMPOSITE INDEX	6.6	28.8	28.8	13.0	12.6	10.1	7.9	9.0
Excess	0.1	1.5	1.5	0.4	0.5	0.3	0.2	0.3



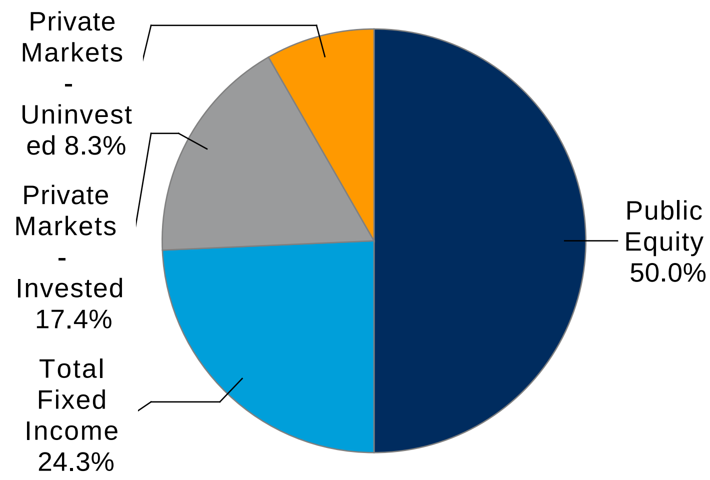
STATE STREET.

Combined Funds Summary

Asset Mix

The Combined Funds actual asset mix relative to the Strategic Asset Allocation Policy Target is shown below. Any uninvested portion of the Private Markets allocation is held in Public Equity.

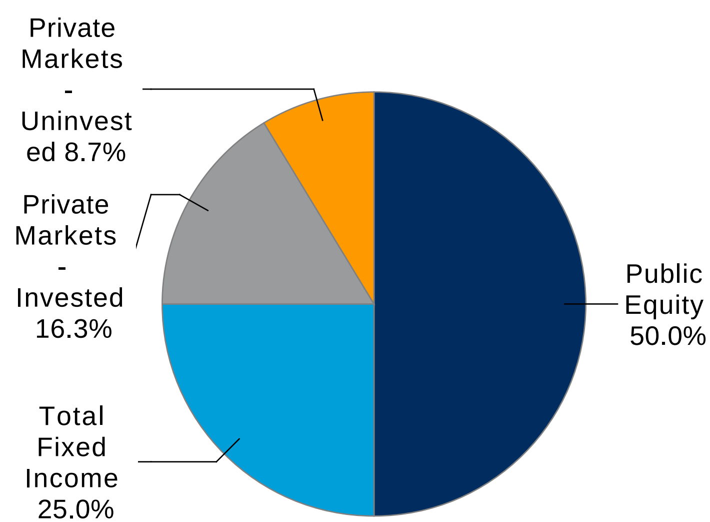
	(Millions)	Actual Mix	Policy Target
Public Equity	$44,792	50.0%	50.0%
Total Fixed Income	21,735	24.3	25.0
Private Markets - Total	22,967	25.7	25.0
Private Markets - Invested	15,533	17.4	
Private Markets - Uninvested	7,434	8.3	
TOTAL	89,494	100.0	



Composite Index Comparison

The Combined Funds Composite is set as the Strategic Asset Allocation Policy Target. Asset class weights for Private Markets - Invested and Private Markets - Uninvested are reset at the start of each month. The Combined Funds Composite weighting shown below is as of the first day of the quarter.

	Policy Weight	Market Index
Public Equity	50.0%	Public Equity Benchmark
Total Fixed Income	25.0	Total Fixed Income Benchmark
Private Markets - Invested	16.3	Private Markets
Private Markets - Uninvested	8.7	S&P 500



Combined Funds Asset Class Performance Summary

Public Equity

The Combined Funds Public Equity includes Domestic Equity, International Equity and Global Equity.

The Public Equity benchmark is 67% Russell 3000 and 33% MSCI ACWI ex US (net).

	Market Value	Actual Weight	Policy Weight	Last Qtr	FYTD	1 Year	3 Year	5 Year	10 Year	20 Year	30 year
Public Equity	$44.8	50.0%	50.0%	7.3%	42.4%	42.4%	15.8%	16.0%	12.3%	8.2%	9.9%
Public Equity Benchmark				7.3	41.6	41.6	15.6	15.6			
Excess				-0.0	0.8	0.8	0.2	0.4			
Domestic Equity	29.6	33.0	33.5	8.2	45.3	45.3	18.7	18.2	14.7	8.8	10.6
Domestic Equity Benchmark				8.2	44.6	44.6	18.6	17.8	14.7	8.9	10.7
Excess				-0.0	0.7	0.7	0.1	0.3	-0.0	-0.1	-0.1
International Equity	14.1	15.7	16.5	5.2	36.8	36.8	9.8	11.3	6.0	6.7	
International Equity Benchmark				5.5	35.6	35.6	9.3	11.1	5.4	6.4	
Excess				-0.3	1.2	1.2	0.5	0.3	0.5	0.3	
Global Equity	1.2	1.3	0.0	10.7							
MSCI AC WORLD INDEX NET				7.4							
Excess				3.3							

Note:

Prior to 6/30/16 the returns of Domestic and International Equity were not reported as a total Public Equity return. For additional information regarding historical asset class performance and benchmarks, please refer to the Combined Funds Performance Report.

STATE STREET.

Combined Funds Asset Class Performance Summary

Total Fixed Income

The Combined Funds Fixed Income program includes Core/Core Plus, Return Seeking Fixed Income, Treasuries and Laddered Bond + Cash.

The Total Fixed Income benchmark is 40% Bloomberg Barclays U.S. Aggregate Index/ 40% Bloomberg Barclays Treasury 5+ Years Index/ 20% ICE BofA US 3-Month Treasury Bill.

	Market Value	Actual Weight	Policy Weight	Last Qtr	FYTD	1 Year	3 Year	5 Year	10 Year	20 Year	30 year
Total Fixed Income	$21.7	24.3%	25.0%	2.4%	-1.3%	-1.3%	6.8%	4.3%	4.3%	5.1%	6.2%
Total Fixed Income Benchmark				2.3	-2.8	-2.8	6.2				
Excess				0.1	1.5	1.5	0.6				
Core/Core Plus	4.8	5.4	5.0	2.1	2.1	2.1	6.4	4.0	4.2	5.1	6.1
Core Bonds Benchmark				1.8	-0.3	-0.3	5.3	3.0	3.4	4.6	5.7
Excess				0.2	2.4	2.4	1.1	1.0	0.8	0.5	0.5
Return Seeking Fixed Income	4.0	4.5	5.0	2.4							
BBG BARC Agg Bd				1.8							
Excess				0.5							
Treasury Protection	8.7	9.7	10.0	3.9	-6.1	-6.1	6.5				
BBG BARC 5Y + Us Tsy Idx				3.9	-6.7	-6.7	6.5				
Excess				-0.0	0.6	0.6	0.0				
Laddered Bond + Cash	4.2	4.7	5.0	0.0	0.2	0.2	1.3	1.2	0.8	1.7	3.3
ICE BofA US 3-Month Treasury Bill				-0.0	0.1	0.1	1.3	1.2	0.6	1.4	2.6
Excess				0.0	0.1	0.1	-0.0	0.1	0.2	0.3	0.7

Note: Since 12/1/2020 the Total Fixed Income includes allocations to Core/Core Plus Bonds, Return Seeking Bonds, Treasuries and Laddered Bond + Cash. From 7/1/2020 to 11/30/2020 Total Fixed Income was Core Bonds, Treasuries and Cash. From 2/1/2018-6/30/20 Total Fixed Income was Core Bonds and Treasuries. Prior to 2/1/2018, Total Fixed Income was Core Bonds. For additional information regarding historical asset class performance and benchmarks, please refer to the Combined Funds Performance Report.

Combined Funds Asset Class Performance Summary

Private Markets

	Last Qtr	FYTD	1 Year	3 Year	5 Year	10 Year	20 Year	25 year	30 year
Private Markets - Invested	9.9%	37.8%	37.8%	14.0%	15.3%	12.3%	12.6%	13.7%	12.9%
Private Markets-Uninvested(1)	8.5								
Private Equity	10.9%	49.4%	49.4%	21.0%	20.3%	16.0%	14.3%	15.6%	
Private Credit	7.9%	18.4%	18.4%	9.6%	12.1%	12.1%	11.9%	12.4%	
Resources	9.4%	16.9%	16.9%	-4.2%	3.2%	1.6%	11.6%	12.8%	
Real Estate	4.7%	14.4%	14.4%	8.9%	9.3%	11.0%	8.5%	9.8%	

Private Markets

The time-weighted rates of return for the Private Markets portfolio are shown here. Private Markets included Private Equity, Private Credit, Resources, and Real Estate. Some of the existing investments are relatively immature and returns may not be indicative of future results.

Private Equity Investments - The objectives of the Private Equity portfolio, which may include leveraged buyouts, growth equity, venture capital and special situations, are to achieve attractive returns and to provide overall portfolio diversification to the total plan.

Private Credit Investments - The objectives of the Private Credit portfolio, which may include mezzanine debt, direct lending, and other forms of non-investment grade fixed income instruments, are to achieve a high total return over a full market cycle and to provide some degree of downside protection and typically provide current income in the form of a coupon. In certain situations, investments in the Private Credit portfolio also provide an equity component of return in the form of warrants or re-organized equity.

Resource Investments - The objectives of the Resources portfolio, which may include energy, infrastructure, and other hard assets, are to provide protection against the risks associated with inflation and to provide overall portfolio diversification to the total plan.

Real Estate Investments - The objectives of the Real Estate portfolio, which may include core and non-core real estate investments, are to achieve attractive returns, preserve capital, provide protection against risks associated with inflation, and provide overall portfolio diversification to the total plan.

The SBI also monitors Private Markets performance using money-weighted return metrics such as Internal Rate of Return and Multiple of Invested Capital. For money-weighted return metrics please refer to the Combined Funds Performance Report.

(1) The Uninvested portion of the Private Markets allocation is invested in a combination of a passively managed S&P 500 Index strategy and a cash overlay strategy invested in equity derivatives and cash

STATE STREET.

SBI Combined Funds Strategic Allocation Category Framework

	6/30/21 ($ millions)	6/30/21 Weights	Category Ranges	
Growth - Appreciation				
Public Equity	$ 52,232.96	58.4%		
Private Equity	$ 9,999.14	11.2%		
Non-Core Real Assets	$ 2,695.10	3.0%		
Distressed/Opportunistic	$ 1,390.92	1.6%		
	$ 66,318.13	**74.1%**	*50%*	*75%*
Growth - Income-oriented				
Core Fixed Income	$ 4,813.62	5.4%		
Private Credit	$ 962.38	1.1%		
Return-Seeking Fixed Income	$ 4,031.12	4.5%		
	$ 9,807.12	**11.0%**	*15%*	*30%*
Real Assets				
Core Real Estate		0.0%		
Real Assets	$ 452.80	0.5%		
	$ 452.80	**0.5%**	*0%*	*10%*
Inflation Protection				
TIPS		0.0%		
Commodities		0.0%		
		0.0%	*0%*	*10%*
Protection				
U.S. Treasuries	$ 8,687.31	9.7%		
	$ 8,687.31	**9.7%**	*5%*	*20%*
Liquidity				
Cash	$ 4,229.01	4.7%		
	$ 4,229.01	**4.7%**	*0%*	*5%*
Opportunity				
Opportunity		**0.0%**	*0%*	*10%*
Total	**$ 89,494.37**	**100.0%**		
Illiquid Asset Exposure	**$ 15,500.35**	**17.3%**	*0%*	*30%*

Volatility Equivalent Benchmark Comparison

Periods Ending 6/30/2021

As of (Date):	6/30/2021							
	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.

Combined Funds Summary

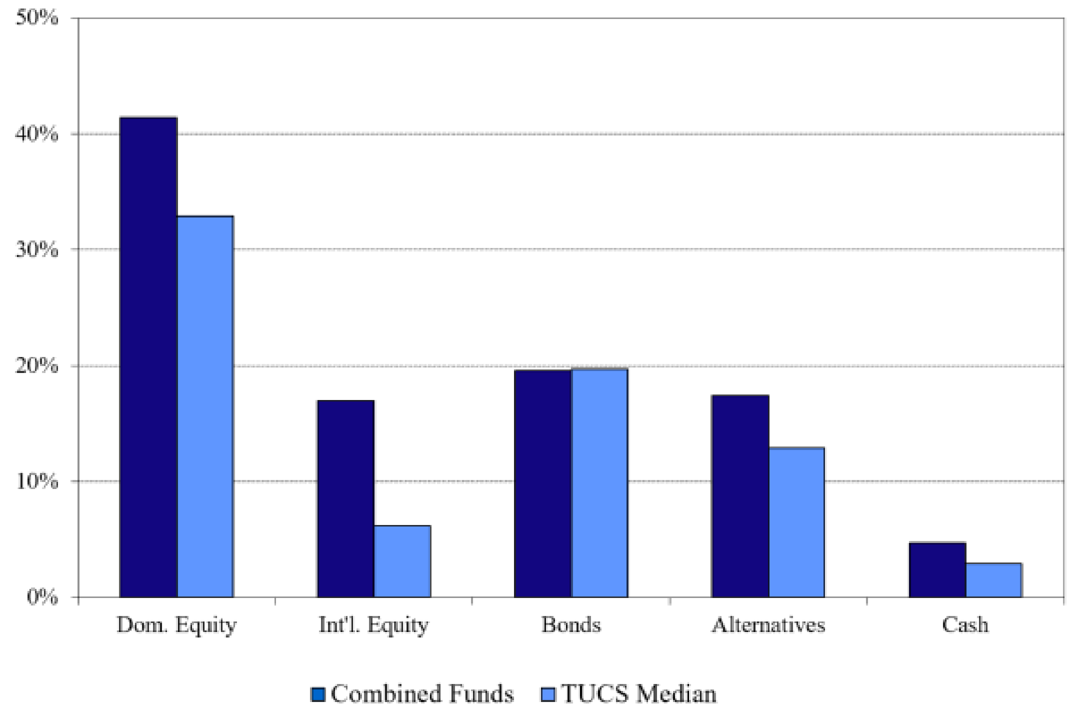
Asset Mix Compared to Other Pension Funds

The comparison universe used by the SBI is the Trust Universe Comparison Service (TUCS). Only funds with assets over $1 billion are included in the comparisons shown in this section.

Comparisons of the Combined Funds' asset mix to the median allocation to stocks, bonds and other assets of the public and corporate funds in TUCS over $1 billion are shown below:

Combined Funds Asset Mix

	($Millions)	Actual Mix
Public Equity	44,792	50.0
Total Fixed Income	21,735	24.3
Private Markets - Invested	15,533	17.4
Private Markets - Uninvested	7,434	8.3
TOTAL	89,494	100.0



	Domestic Equity	International Equity	Bonds	Alternatives	Cash
Combined Funds	41.4%	17.0%	19.6%	17.4%	4.7%
Median in TUCS	32.9%	6.2%	19.7%	12.9%	2.9%

STATE STREET.

Combined Funds Summary

Performance Compared to Other Pension Funds

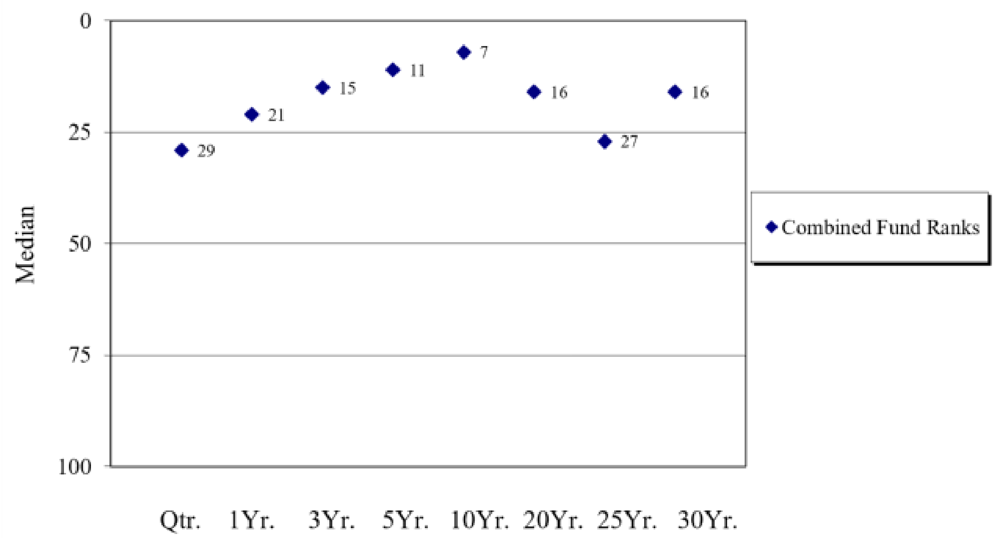
While the SBI is concerned with how its returns compare to other pension investors, universe comparisons should be used with great care. There are several reasons why such comparisons will provide an "apples to oranges" look at performance:

- Differing Allocations. Asset allocation will have a dominant effect on return. The allocation to stocks among the funds in TUCS typically ranges from 20-90%, a very wide range for meaningful comparison. In addition, it appears that many funds do not include alternative asset 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. This will result in different asset mix choices. Since asset mix will largely determine investment results, a universe ranking is not 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 in Trust Universe Comparison Service (TUCS) are shown below.

The SBI's returns are ranked against public and corporate plans with over $1 billion in assets. All funds in TUCS report their returns gross of fees.



Periods Ended 06/30/2021

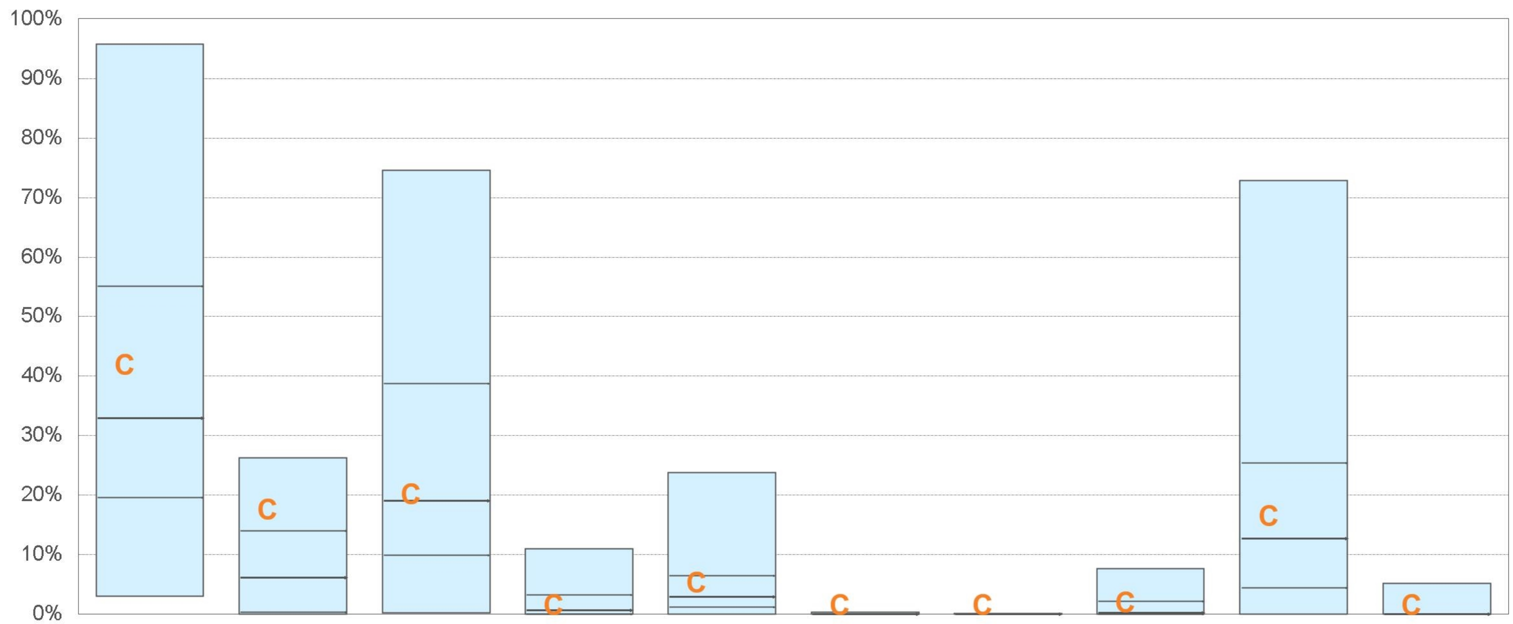
	Qtr	1 Yr	3 Yrs	5 Yrs	10 Yrs	20 Yrs	25 Yrs	30 Yrs
Combined Funds Percentile Rank in TUCS	29th	21st	15th	11th	7th	16th	27th	16th

STATE STREET.

Minnesota State Board of Investments

Asset Allocation of Master Trusts - Plans > $1 Billion

Quarter Ending June 30, 2021



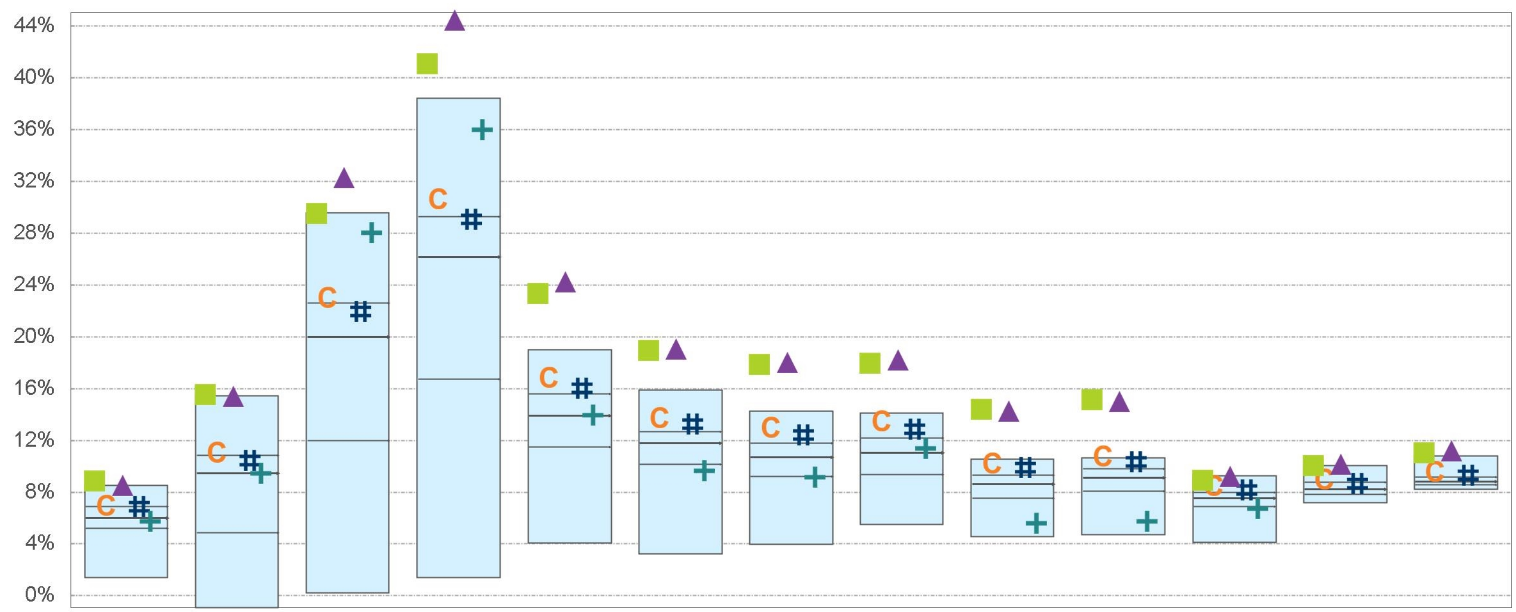
Percentile Rankings	US Equity	Non-US Equity	US Fixed	Non-US Fixed	Cash	Convertible	GIC GAC	Real Estate	Alternative Investments	Other
5th	95.79	26.22	74.55	10.99	23.76	0.27	0.12	7.66	72.88	5.22
25th	55.07	14.03	38.80	3.28	6.50	0.02	0.00	2.11	25.43	0.00
50th	32.89	6.17	19.03	0.67	2.86	0.00	0.00	0.21	12.73	0.00
75th	19.55	0.37	9.87	0.00	1.15	0.00	0.00	0.00	4.41	0.00
95th	3.03	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C Combined Funds	41.35 (37)	17.01 (15)	19.59 (48)	0.00 (100)	4.70 (35)	0.00 (100)	0.00 (100)	1.40 (32)	15.96 (40)	0.00 (100)

Wilshire

Minnesota State Board of Investments
Performance Comparison

Total Returns of Master Trusts - Plans > $1 Billion

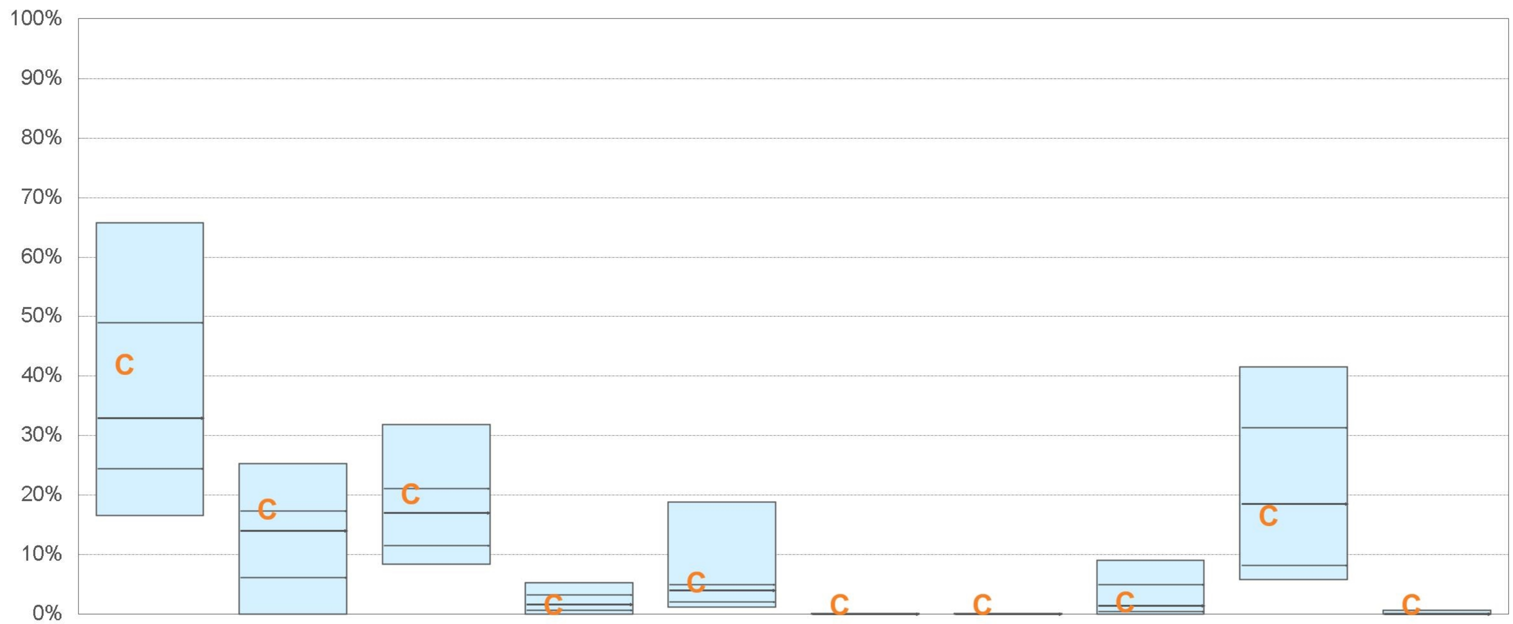
Cumulative Periods Ending : June 30, 2021



Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years	20 Years	25 Years	30 Years
5th	8.51	15.42	29.60	38.42	19.00	15.90	14.25	14.12	10.57	10.66	9.26	10.04	10.78
25th	6.88	10.85	22.59	29.30	15.60	12.67	11.79	12.20	9.33	9.80	8.00	8.76	9.14
50th	5.99	9.47	20.00	26.18	13.92	11.76	10.70	11.06	8.60	9.09	7.55	8.23	8.81
75th	5.22	4.87	12.00	16.75	11.51	10.16	9.20	9.34	7.51	8.06	6.89	7.83	8.59
95th	1.38	-0.92	0.23	1.42	4.05	3.24	3.95	5.49	4.56	4.73	4.14	7.21	8.24
No. Of Obs	159	159	158	158	141	127	124	123	123	122	96	72	35

C Combined Funds	6.70 (29)	10.80 (27)	22.77 (23)	30.37 (21)	16.60 (17)	13.45 (15)	12.70 (15)	13.21 (11)	9.96 (14)	10.48 (7)	8.23 (16)	8.73 (27)	9.33 (16)
# SBI Combined Funds Ind	6.59 (33)	10.17 (38)	21.68 (32)	28.80 (28)	15.73 (23)	12.96 (20)	12.13 (19)	12.58 (19)	9.61 (18)	10.07 (15)	7.89 (29)	8.35 (43)	9.00 (33)
S&P 500	8.55 (4)	15.25 (5)	29.25 (5)	40.79 (2)	23.03 (1)	18.67 (1)	17.58 (1)	17.65 (1)	14.10 (1)	14.84 (1)	8.61 (10)	9.76 (5)	10.73 (5)
+ MSCI World Ex US (N)	5.48 (69)	9.16 (53)	27.73 (6)	35.72 (6)	13.67 (52)	9.38 (86)	8.85 (79)	11.08 (49)	5.33 (92)	5.45 (93)	6.46 (88)		
Russell 3000	8.24 (6)	15.11 (5)	32.01 (2)	44.16 (1)	23.93 (1)	18.73 (1)	17.73 (1)	17.89 (1)	13.95 (1)	14.70 (1)	8.92 (7)	9.87 (5)	10.90 (1)

Minnesota State Board of Investments
Asset Allocation of Master Trusts - Public : Plans > $10 Billion
Quarter Ending June 30, 2021

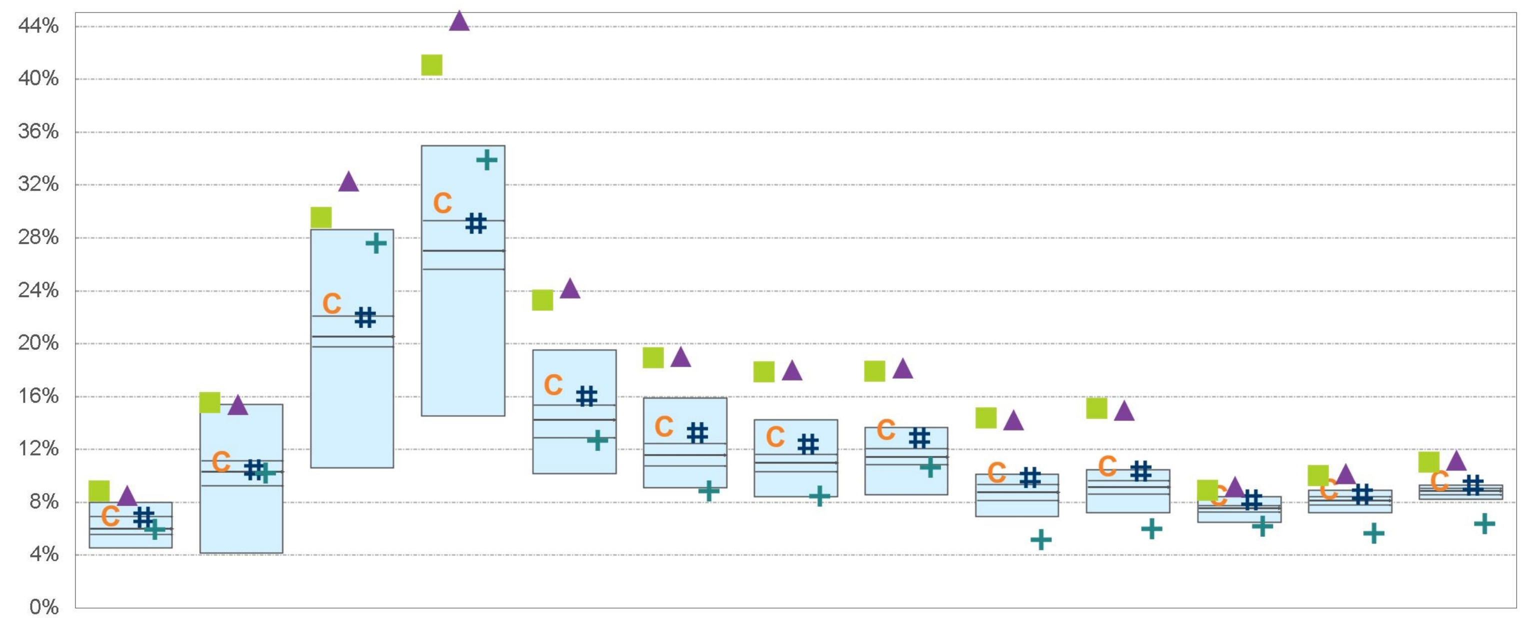


Percentile Rankings	US Equity	Non-US Equity	US Fixed	Non-US Fixed	Cash	Convertible	GIC GAC	Real Estate	Alternative Investments	Other
5th	65.80	25.29	31.88	5.27	18.89	0.08	0.16	9.01	41.60	0.64
25th	48.99	17.35	21.10	3.28	4.92	0.03	0.00	4.92	31.29	0.10
50th	32.89	14.03	17.02	1.66	4.00	0.00	0.00	1.40	18.52	0.00
75th	24.44	6.17	11.53	0.64	2.01	0.00	0.00	0.40	8.17	0.00
95th	16.57	0.01	8.38	0.00	1.15	0.00	0.00	0.00	5.85	0.00
C Combined Funds	41.35 (35)	17.01 (28)	19.59 (32)	0.00 (100)	4.70 (35)	0.00 (100)	0.00 (100)	1.40 (50)	15.96 (57)	0.00 (100)

Minnesota State Board of Investments
Performance Comparison

Total Returns of Master Trusts - Public : Plans > $10 Billion

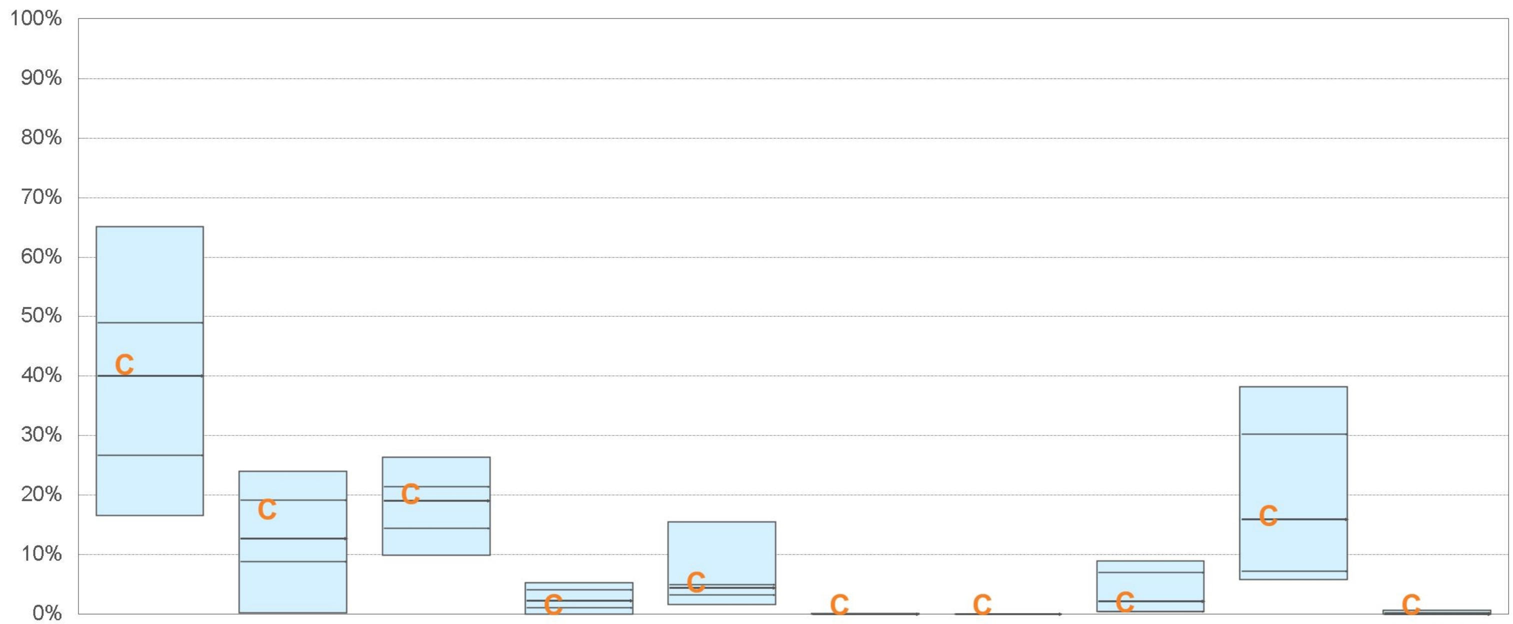
Cumulative Periods Ending : June 30, 2021



Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years	20 Years	25 Years	30 Years
5th	8.01	15.42	28.63	34.97	19.52	15.90	14.25	13.66	10.14	10.48	8.44	8.90	9.31
25th	6.94	11.16	22.11	29.29	15.35	12.45	11.64	12.07	9.34	9.62	7.77	8.42	9.04
50th	6.01	10.32	20.56	27.01	14.23	11.58	10.99	11.42	8.79	9.17	7.55	8.12	8.86
75th	5.55	9.26	19.77	25.63	12.90	10.74	10.32	10.85	8.13	8.61	7.28	7.80	8.59
95th	4.57	4.17	10.59	14.51	10.18	9.11	8.44	8.56	6.92	7.23	6.49	7.24	8.24
No. Of Obs	46	46	46	46	44	43	43	43	43	43	37	32	20

	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years	20 Years	25 Years	30 Years
C Combined Funds	6.70 (31)	10.80 (31)	22.77 (21)	30.37 (19)	16.60 (10)	13.45 (10)	12.70 (10)	13.21 (8)	9.96 (12)	10.48 (5)	8.23 (8)	8.73 (12)	9.33 (1)
# SBI Combined Funds Ind	6.59 (34)	10.17 (52)	21.68 (31)	28.80 (25)	15.73 (10)	12.96 (12)	12.13 (14)	12.58 (12)	9.61 (14)	10.07 (12)	7.89 (15)	8.35 (28)	9.00 (30)
S&P 500	8.55 (1)	15.25 (5)	29.25 (1)	40.79 (1)	23.03 (1)	18.67 (1)	17.58 (1)	17.65 (1)	14.10 (1)	14.84 (1)	8.61 (1)	9.76 (1)	10.73 (1)
+ MSCI Wld Ex US (Net)	5.65 (68)	9.92 (59)	27.34 (5)	33.60 (9)	12.41 (79)	8.57 (99)	8.19 (96)	10.36 (82)	4.90 (99)	5.70 (100)	5.91 (100)	5.37 (100)	6.10 (100)
Russell 3000	8.24 (1)	15.11 (5)	32.01 (1)	44.16 (1)	23.93 (1)	18.73 (1)	17.73 (1)	17.89 (1)	13.95 (1)	14.70 (1)	8.92 (1)	9.87 (1)	10.90 (1)

Minnesota State Board of Investments
Asset Allocation of Master Trusts - Public : Plans > $20 Billion
Quarter Ending June 30, 2021

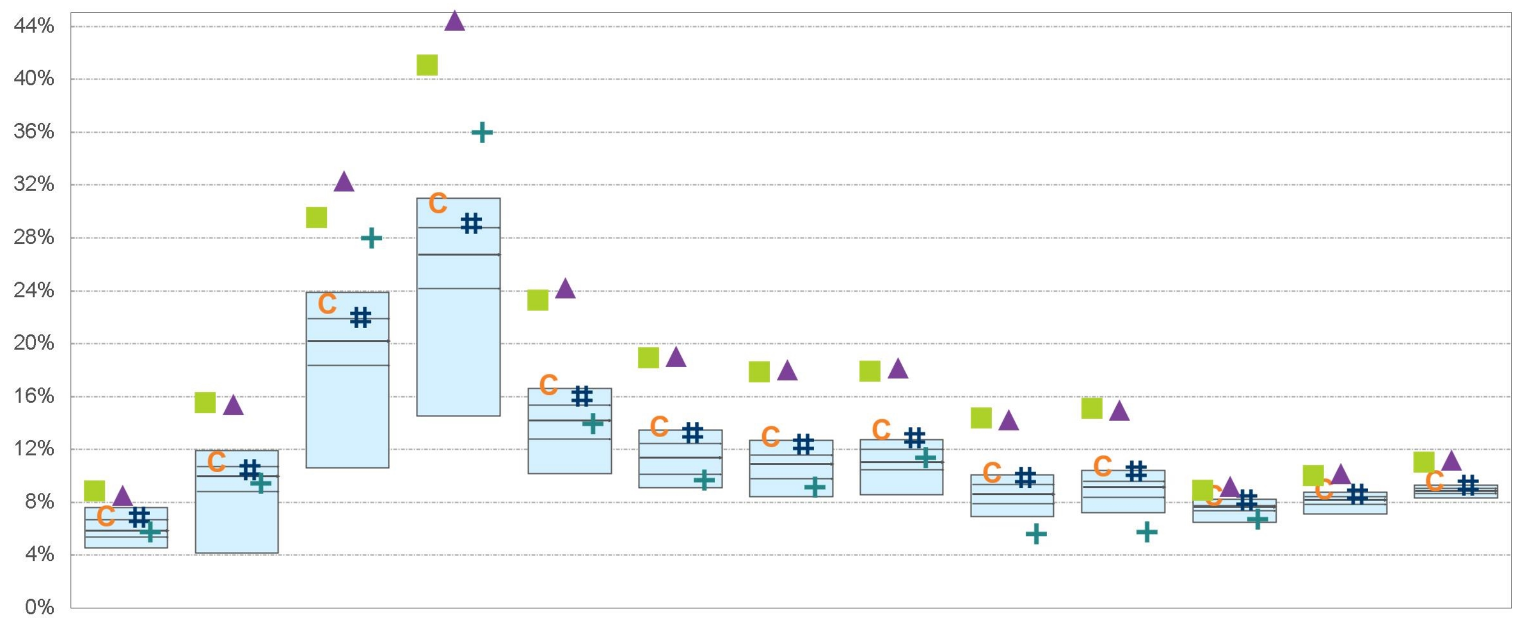


Percentile Rankings	US Equity	Non-US Equity	US Fixed	Non-US Fixed	Cash	Convertible	GIC GAC	Real Estate	Alternative Investments	Other
5th	65.17	23.98	26.39	5.27	15.55	0.07	-	8.94	38.23	0.64
25th	48.99	19.18	21.43	4.14	4.92	0.02	-	7.03	30.26	0.20
50th	40.01	12.67	19.02	2.23	4.45	0.00	-	2.17	15.96	0.02
75th	26.69	8.87	14.38	1.04	3.24	0.00	-	0.44	7.25	0.00
95th	16.57	0.22	9.91	0.00	1.65	0.00	-	0.43	5.85	0.00
C Combined Funds	41.35 (43)	17.01 (37)	19.59 (37)	0.00 (100)	4.70 (37)	0.00 (100)	0.00 (1)	1.40 (58)	15.96 (50)	0.00 (100)

Minnesota State Board of Investments
Performance Comparison

Total Returns of Master Trusts - Public : Plans > $20 Billion

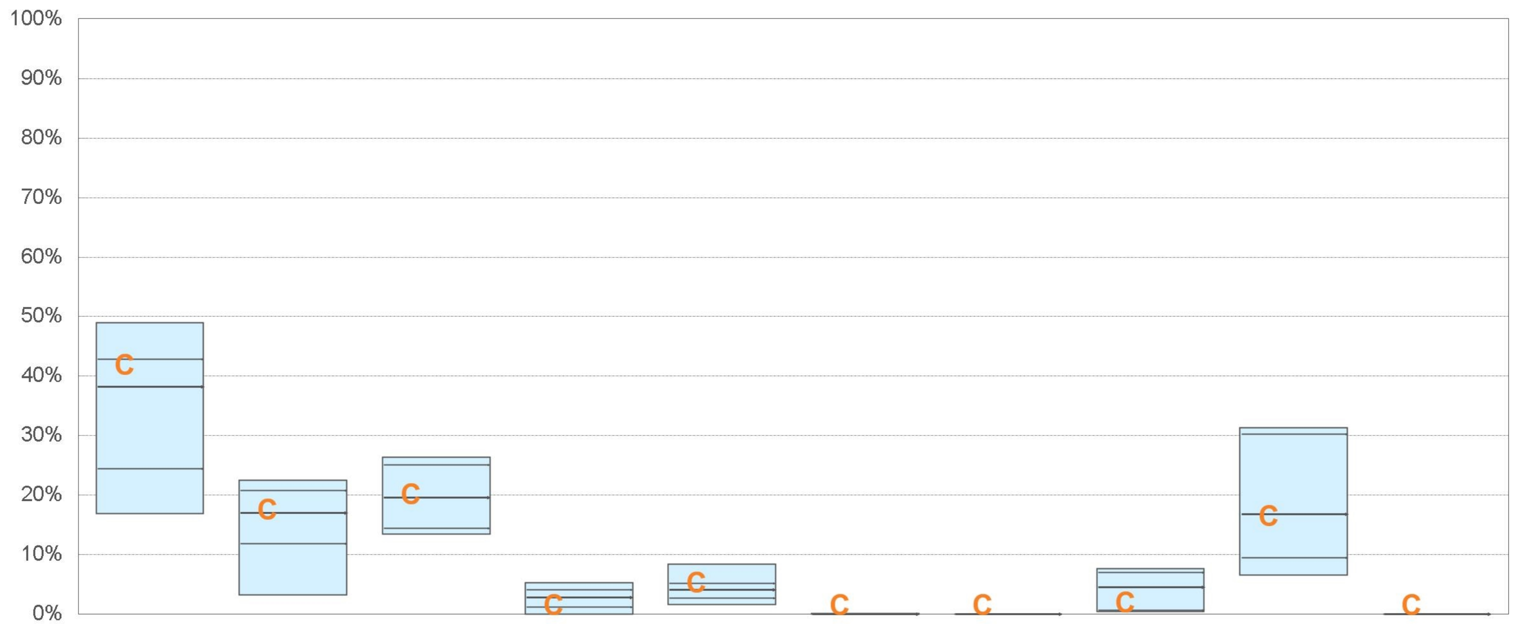
Cumulative Periods Ending : June 30, 2021



Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years	20 Years	25 Years	30 Years
5th	7.59	11.90	23.86	30.99	16.60	13.45	12.70	12.76	10.07	10.42	8.23	8.76	9.31
25th	6.69	10.70	21.88	28.77	15.35	12.45	11.58	12.00	9.34	9.57	7.77	8.42	9.04
50th	5.84	10.00	20.18	26.73	14.19	11.40	10.88	11.06	8.64	9.17	7.64	8.17	8.88
75th	5.38	8.81	18.34	24.18	12.77	10.14	9.79	10.44	7.89	8.40	7.34	7.85	8.68
95th	4.57	4.17	10.59	14.51	10.18	9.11	8.44	8.56	6.92	7.23	6.49	7.11	8.31
No. Of Obs	31	31	31	31	30	29	29	29	29	29	26	22	13

	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years	20 Years	25 Years	30 Years
C Combined Funds	6.70 (21)	10.80 (18)	22.77 (15)	30.37 (12)	16.60 (5)	13.45 (5)	12.70 (5)	13.21 (1)	9.96 (9)	10.48 (1)	8.23 (5)	8.73 (10)	9.33 (1)
# SBI Combined Funds Ind	6.59 (25)	10.17 (43)	21.68 (28)	28.80 (21)	15.73 (5)	12.96 (9)	12.13 (12)	12.58 (9)	9.61 (12)	10.07 (12)	7.89 (13)	8.35 (25)	9.00 (33)
■ S&P 500	8.55 (1)	15.25 (1)	29.25 (1)	40.79 (1)	23.03 (1)	18.67 (1)	17.58 (1)	17.65 (1)	14.10 (1)	14.84 (1)	8.61 (1)	9.76 (1)	10.73 (1)
+ MSCI World Ex US (N)	5.48 (71)	9.16 (67)	27.73 (1)	35.72 (1)	13.67 (57)	9.38 (91)	8.85 (83)	11.08 (46)	5.33 (99)	5.45 (100)	6.46 (99)		
▲ Russell 3000	8.24 (1)	15.11 (1)	32.01 (1)	44.16 (1)	23.93 (1)	18.73 (1)	17.73 (1)	17.89 (1)	13.95 (1)	14.70 (1)	8.92 (1)	9.87 (1)	10.90 (1)

Minnesota State Board of Investments
Asset Allocation of Master Trusts - Public : Plans > $50 Billion
Quarter Ending June 30, 2021

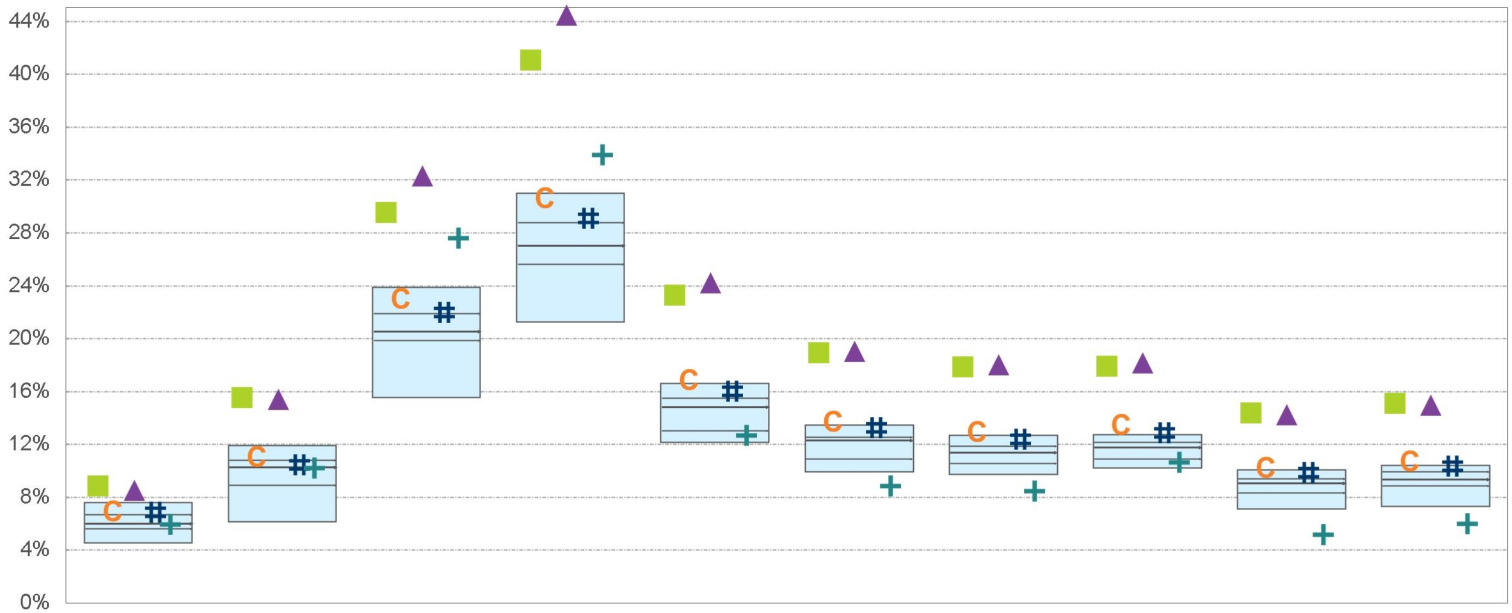


Percentile Rankings	US Equity	Non-US Equity	US Fixed	Non-US Fixed	Cash	Convertible	GIC GAC	Real Estate	Alternative Investments	Other
5th	48.99	22.54	26.39	5.27	8.43	0.08	-	7.66	31.29	-
25th	42.85	20.74	25.08	4.14	5.22	0.01	-	7.03	30.26	-
50th	38.25	17.01	19.59	2.85	4.12	0.00	-	4.48	16.84	-
75th	24.44	11.88	14.38	1.15	2.68	0.00	-	0.62	9.44	-
95th	16.86	3.23	13.41	0.00	1.65	0.00	-	0.43	6.52	-
C Combined Funds	41.35 (33)	17.01 (50)	19.59 (50)	0.00 (100)	4.70 (41)	0.00 (100)	0.00 (1)	1.40 (62)	15.96 (62)	0.00 (1)

Minnesota State Board of Investments
Performance Comparison

Total Returns of Master Trusts - Public : Plans > $50 Billion

Cumulative Periods Ending : June 30, 2021



Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	7.59	11.90	23.86	30.99	16.60	13.45	12.70	12.76	10.07	10.42
25th	6.70	10.80	21.88	28.77	15.52	12.55	11.85	12.15	9.39	9.93
50th	6.01	10.26	20.52	27.01	14.82	12.28	11.39	11.76	9.05	9.33
75th	5.64	8.92	19.86	25.63	13.05	10.90	10.57	10.90	8.33	8.86
95th	4.57	6.15	15.54	21.27	12.14	9.94	9.76	10.22	7.12	7.32
No. Of Obs	21	21	21	21	20	20	20	20	20	20

C Combined Funds	6.70 (25)	10.80 (25)	22.77 (15)	30.37 (15)	16.60 (5)	13.45 (5)	12.70 (5)	13.21 (1)	9.96 (12)	10.48 (1)
# SBI Combined Funds Ind	6.59 (30)	10.17 (50)	21.68 (25)	28.80 (20)	15.73 (5)	12.96 (12)	12.13 (18)	12.58 (12)	9.61 (18)	10.07 (18)
■ S&P 500	8.55 (1)	15.25 (1)	29.25 (1)	40.79 (1)	23.03 (1)	18.67 (1)	17.58 (1)	17.65 (1)	14.10 (1)	14.84 (1)
+ MSCI Wld Ex US (Net)	5.65 (70)	9.92 (55)	27.34 (1)	33.60 (1)	12.41 (87)	8.57 (100)	8.19 (99)	10.36 (93)	4.90 (100)	5.70 (100)
▲ Russell 3000	8.24 (1)	15.11 (1)	32.01 (1)	44.16 (1)	23.93 (1)	18.73 (1)	17.73 (1)	17.89 (1)	13.95 (1)	14.70 (1)

This page intentionally left blank.

TAB B

Executive Director's Administrative Report

This page intentionally left blank.

EXECUTIVE DIRECTOR'S ADMINISTRATIVE REPORT

DATE: August 18, 2021

TO: Members, State Board of Investment

FROM: Mansco Perry III
Executive Director, Chief Investment Officer

1. Reports on Budget and Travel

A report on the SBI's administrative budget for the fiscal year to date through June 30, 2021, is included as **Attachment A**.

2. Sudan Update

Each quarter, staff provides a report to the Board on steps taken to implement *Minnesota Statutes*, section 11A.243 that requires SBI actions concerning companies with operations in Sudan. Staff receives periodic reports from the Vigeo Eiris Conflict Risk Network (CRN) about the status of companies with operations in Sudan.

The SBI is restricted from purchasing stock in the companies designated as highest offenders by the CRN. Accordingly, staff updates the list of restricted stocks and notifies investment managers that they may not purchase shares in companies on the restricted list. Staff receives monthly reports from the SBI's custodian bank concerning SBI holdings of companies on the CRN list and writes letters as required by law.

According to the law, if after 90 days following the SBI's communication, a company continues to have active business operations in Sudan, the SBI must divest holdings of the company according to the following schedule:

- at least 50% shall be sold within nine months after the company appeared on the scrutinized list; and

- 100% shall be sold within fifteen months after the company appeared on the list.

In the second quarter, there was twelve restricted companies on the SBI divestment list, and 229,173 shares were sold due to the restriction.

On June 24, 2021, staff sent a letter to each international equity manager and domestic equity manager containing the most recent restricted list and the list of stocks to be divested in compliance with Minnesota law.

3. Iran Update

Each quarter, staff provides a report to the Board on steps taken to implement *Minnesota Statutes*, section 11A.244 that requires SBI actions concerning companies with operations in Iran.

SBI receives information on companies with Iran operations from Institutional Shareholder Services, Inc. (ISS). Staff receives monthly reports from the SBI's custodian bank concerning SBI holdings of companies on the restricted list and writes letters as required by the law.

According to the law, if after 90 days following the SBI's communication a company continues to have scrutinized business operations, the SBI must divest all publicly traded securities of the company according to the following schedule:

- at least 50% shall be sold within nine months after the company appeared on the scrutinized list; and

- 100% within fifteen months after the company appeared on the scrutinized list.

In the second quarter, there were no restricted companies on the SBI divestment list, therefore no restricted shares to sell.

On June 24, 2021, staff sent a letter to each international equity manager, domestic equity manager and fixed income manager containing the most recent restricted list and the list of companies to be divested in compliance with Minnesota law.

4. Litigation Update

SBI legal counsel will give a verbal update on the status of any litigation at the meeting.

ATTACHMENT A

STATE BOARD OF INVESTMENT
FISCAL YEAR 2021 ADMINISTRATIVE BUDGET REPORT
FISCAL YEAR TO DATE THROUGH JUNE 30, 2021

ITEM	FISCAL YEAR 2021 BUDGET	FISCAL YEAR 2021 6/30/2021
PERSONNEL SERVICES		
FULL TIME EMPLOYEES	$ 6,721,000	$ 4,822,721
PART TIME EMPLOYEES	0	0
MISCELLANEOUS PAYROLL	125,000	0
SUBTOTAL	**$ 6,846,000**	**$ 4,822,721**
STATE OPERATIONS		
RENTS & LEASES	285,000	280,392
REPAIRS/ALTERATIONS/MAINTENANCE	21,000	4,681
PRINTING & BINDING	12,000	7,581
PROFESSIONAL/TECHNICAL SERVICES	360,000	83,264
COMPUTER SYSTEMS SERVICES	200,000	153,893
COMMUNICATIONS	25,000	12,546
TRAVEL, IN-STATE	3,000	0
TRAVEL, OUT-STATE	235,000	0
SUPPLIES	40,000	17,760
EQUIPMENT	188,000	36,970
EMPLOYEE DEVELOPMENT	150,000	92,807
OTHER OPERATING COSTS	185,000	134,599
INDIRECT COSTS	300,000	225,869
SUBTOTAL	**$ 2,004,000**	**$ 1,050,362**
TOTAL ADMINISTRATIVE BUDGET	**$ 8,850,000**	**$ 5,873,083**

This page intentionally left blank.

TAB C

General Investment Consultant Review

This page intentionally left blank.

DATE: August 18, 2021

TO: Members, State Board of Investment

FROM: Mansco Perry III
Executive Director and Chief Investment Officer

SUBJECT: General Investment Consultant Review

The SBI retains consultants to provide independent advice to Board members and technical assistance to SBI staff on a variety of issues related to management of the assets under the SBI's control. Consultants are selected through a periodic Request for Proposal (RFP) process with review and recommendation by the Executive Director.

The SBI's investment consulting contracts with Aon Investments USA Inc. and Meketa Investment Group, LLC expire early 2022. In accordance with SBI policy, Staff prepared and released the Investment Consultant RFP related to the SBI's investment consulting needs. Notice of the RFP was published in the State Register on June 14, 2021. Responses were received by the SBI on July 8, 2021.

The SBI received responses from the following seven consulting firms:

Aon Investments USA Inc. (*current Consultant*)
Callan LLC
Meketa Investment Group, LLC (*current Consultant*)
NEPC: New England Pension Consulting, LLC
RVK
Verus Advisory, Inc.
Wilshire Advisors

Staff developed the RFP and criteria for evaluating responses. The range of tasks included in the RFP was very broad and consultants were encouraged to respond to any area of the RFP in which they have special expertise. The RFP stated that more than one consultant may be required to fulfill all the proposed duties.

Based on the services that the SBI requires from investment management consultants, the Executive Director and Staff determined that continuing to have the services of a generalist and a consultant primarily focusing on special projects is desirable. In reviewing the responses, Staff found that many of the consultants have broad skills and are highly capable consultants. After reviewing the strengths of each responder in relation to the above needs, the Executive Director is recommending the following:

- **Aon Investments USA Inc.** (Aon) should be retained as the SBI's general consultant. Aon can provide general consulting on all asset classes and offer access to in-depth research and a range of sophisticated analytical tools that will assist the SBI Staff in the on-going development and evaluation of its investment programs.

- **Meketa Investment Group, LLC** (Meketa) should be retained as the SBI's special projects consultant. A segment of Meketa's practice has focused primarily on governmental plans similar to the SBI and Minnesota's three statewide pension plans. This group and the organization's traditional investment consulting practice enable Meketa to respond to a variety of tasks and specific needs that the SBI has experienced in the past.

Based on the RFP evaluation criteria, the Executive Director determined that retaining Aon and Meketa as the general and special projects consultants, respectively, is in the best interest of the SBI. Aon and Meketa best serve the SBI's needs and are both cost effective. The Executive Director assembled a Review Committee to discuss the Staff's process and to seek endorsement of the recommendation to retain Aon and Meketa.

The Committee consists of the following members:

Karl Procaccini	Governor's Representative
Ramona Advani	State Auditor's Representative
Bibi Black	Secretary of State's Representative
Luz Frias	Attorney General's Representative
Erin Leonard	Executive Director, MSRS and IAC Representative
Jay Stoffel	Executive Director, TRA and IAC Representative
Susanna Gibbons	IAC Representative
Gary Martin	IAC Representative

The Committee concurred with the Executive Director's recommendation.

A brief synopsis of each organization and their proposed project teams to work with the SBI are presented in **Attachment A**, and the RFP is included as **Attachment B**.

RECOMMENDATION:

The Investment Advisory Council endorsed the Executive Director and Staff's recommendation to authorize the Executive Director, with assistance from SBI's legal counsel, to negotiate and execute contracts with Aon Investments USA Inc. and Meketa Investment Group, LLC for investment consulting services. The contracts should cover a period of five years. The contracts will also be subject to the standard termination provisions required by state statute. Approval of this recommendation is not intended to constitute in any way, a binding legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Aon Investments USA Inc. or Meketa Investment Group, LLC upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on either Aon Investments USA Inc. or Meketa Investment Group, LLC.

ATTACHMENT A

Aon Investments USA Inc. is a division of the AON Company. The firm is headquartered in Chicago, IL. Aon Investments was formerly known as Aon/Hewitt and before that it was known as Ennis Knupp and the firm's origin dates back to 1981. Aon Investments' sole line of business is investment consulting. They are a full service investment consulting firm that services a diverse client base, including public retirement system sponsors, corporate pension funds, defined contribution plans, endowments and foundations. Aon consults to 36 U.S. public pension plan clients representing $1.6 trillion in assets. Their organization consists of 326 employees and has dedicated teams which focus on client consulting, research and portfolio management, and risk management.

The AON project team assigned to the SBI's account would be:

- Kristen Doyle, Partner (lead)
- Katie Comstock, Associate Partner (co-lead)
- Justin Busiel, Support Consultant

Meketa Investment Group, LLC was founded in 1974. The firm is headquartered in Massachusetts and has seven offices worldwide. The SBI account would be serviced primarily out of Portland and Chicago offices. Meketa is a full service investment consulting and advisory firm, independently owned by 72 of its senior professionals. In 2019, Meketa completed its merger with Pension Consulting Alliance (PCA), and currently has a staff of 215 employees, including 142 investment professionals. The SBI previously retained PCA as its international equity and special projects consultant. Meketa currently consults on $1.5 trillion in assets across 81 public fund clients.

The Meketa project team assigned to the SBI's account would be:

- Allan Emkin, Managing Principal/Consultant
- Sarah Bernstein, Managing Principal/Consultant
- Ghiane Jones, Managing Principal/Consultant
- Gordon Latter, Managing Principal/Consultant
- Neil Rue, Managing Principal/Consultant

This page intentionally left blank.

ATTACHMENT B

MINNESOTA STATE BOARD OF INVESTMENT

REQUEST FOR PROPOSAL FOR INVESTMENT CONSULTING SERVICES

Minnesota's Commitment to Diversity and Inclusion

The State of Minnesota is committed to diversity and inclusion in its public procurement process. The goal is to ensure that those providing goods and services to the State are representative of our Minnesota communities and include businesses owned by minorities, women, veterans, and those with substantial physical disabilities. Creating broader opportunities for historically under-represented groups provides for additional options and greater competition in the marketplace, creates stronger relationships and engagement within our communities, and fosters economic development and equality.

To further this commitment, the Department of Administration operates a program for Minnesota-based small businesses owned by minorities, women, veterans, and those with substantial physical disabilities. For additional information on this program, or to determine eligibility, please call 651-296-2600 or go to www.mmd.admin.state.mn.us/mn02001.htm.

This page intentionally left blank.

Minnesota State Board of Investment

Investment Consulting Services Overview

Project Overview

The Minnesota State Board of Investment (SBI) is charged with the investment of approximately $116.9 billion for the State of Minnesota and related constituents.

The selected consultant(s) will report to the Board and its individual members. In carrying out its responsibilities, the consultant(s) will work closely with individual Board members and their staffs, the SBI's Executive Director and SBI staff, and members of the SBI's Investment Advisory Council.

The SBI has established performance objectives for each of the funds under its control. A brief description of each fund and its performance objectives is included as **Exhibit A**. In its efforts to meet or exceed these objectives, the SBI has sought and will continue to seek consultants' advice and recommendations in the design, development and implementation of its investment programs.

The primary advisory responsibilities of the consultant(s) selected through this RFP shall include, but are not limited to, investment objectives and asset allocation, management structures, performance measurement and analytics, manager search and evaluation, risk management and analysis, and other operational needs.

The SBI has retained the services of consulting firms since 1982. Currently, Aon Investments USA, Inc. and Meketa Investment Group, LLC are providing investment consulting services to the SBI.

The SBI is issuing this RFP to comply with State law which requires all consultant contracts be rebid every two years with a potential extension out to a maximum of five years. The SBI is always open to new and creative approaches and encourages consulting organizations to respond to this RFP.

The SBI Executive Director has prepared and is distributing a formal RFP to evaluate available consulting services and will recommend one or more candidates to the SBI for approval. The SBI expects that the process for evaluating and selecting a consultant or consultants will proceed expeditiously and is planning to complete the search during third quarter of 2021.

GOAL

The SBI utilizes qualified consultants to provide independent, objective and creative input in the process of fulfilling its fiduciary responsibility and to maintain performance history for reporting and analysis.

The consultant(s) employed by the SBI through this RFP will be expected to offer analysis, advice and recommendations with respect to one or more of the following:

- Investment Policies
- Investment Strategy
- Investment Management Structures
- Assist in Manager Selection
- Private Markets
- Performance Evaluation
- Risk Management and Analysis
- Operations and Resources
- Special Projects
- On-Site Consultation and Assistance

Detailed requirements are set forth in the Consultant Tasks section starting on page 4 of this RFP.

CONSULTANT RELATIONSHIP

The selected Consultant(s) will report to the Board. However, the Consultant(s) will bear the responsibility for maintaining direct communication with members of the Board and their staffs, the SBI's Executive Director and other SBI staff and members of the SBI's Investment Advisory Council.

The SBI recognizes that more than one consulting firm may be required to fulfill the duties described in the Consultant Tasks section starting on page 4 of this RFP. The SBI's goal is to hire a consultant or consultants whose experience, whether broad-based or specialized, can best satisfy its needs.

Consultants are encouraged to respond to each of the duties cited in the Consultant Tasks section in which they have special expertise.

BACKGROUND REGARDING THE SBI

A. Legal Authorization

The SBI was created pursuant to Article XI, Section 8, of the Minnesota Constitution for the purpose of "administering and directing the investment of all state funds." Statutory provisions relating to fiduciary responsibility, portfolio composition, and the types of securities in which the SBI may legally invest are set forth in Minnesota Statutes

Chapter 11A and 356A (incorporated by reference, a true and correct copy of which can be found at https://www.revisor.mn.gov/pubs/).

B. Composition

By constitutional requirement, the SBI is composed of four (4) elected officials: Governor, State Auditor, Secretary of State, and Attorney General.

The SBI's Executive Director and Staff will prepare and distribute a formal RFP, evaluate submitted RFPs and will make a recommendation to the Board.

C. Investments and Managers

Currently, the SBI invests in public equities, fixed income, cash, private markets and also utilizes cash and currency overlay managers. More information on the SBI's assets and managers can be found in the annual report and other publications, located here: https://mn.gov/sbi/Publications.html

In addition, the SBI utilizes a master custodian, currently State Street Bank, to provide a variety of administrative and management functions.

D. Staffing and Support Services

The SBI has a staff of twenty-six (26) persons supervised by an Executive Director. The staff is responsible for the implementation of Board policies on an on-going basis. The Executive Director reports investment performance and makes policy recommendations to the SBI at quarterly and special meetings. As part of their on-going duties, the SBI staff maintains close contact with the Board members and their staffs, the State Legislature, the state-wide and local retirement systems whose assets are managed by the SBI, and the other organizations with interest in the operations and results of the Board.

The SBI also utilizes the services of its 17-member Investment Advisory Council (IAC) whose duties are set forth in Minnesota Statutes 11A.08. The IAC is composed of the State Commissioner of Management and Budget, the Executive Directors of the three statewide retirement systems, one governor designated retiree representative, two governor designated active employee representatives and ten persons knowledgeable in general investment matters.

The IAC's duties are to advise the SBI on general investment policy matters and perform other advisory tasks as the SBI requests. The IAC meets quarterly prior to the SBI's quarterly meeting.

The SBI has established an Administrative Committee to oversee the Executive Director's annual work plan and administrative budget. The Committee is comprised of each Board member (or his/her designee) as well as the chair and an additional member of the IAC and the Executive Directors of the three statewide retirement systems.

The Proxy Committee establishes guidelines for voting shares held by the SBI.

At times, the SBI may establish ad hoc committees to carry out specific tasks which it may assign.

Charts illustrating the SBI's functional organizational structure and decision-making processes are included as **Exhibits A and B**.

E. Funds Invested by the SBI

Please refer to the latest annual report and other publications at https://mn.gov/sbi/Publications.html for additional information regarding the breakdown of funds invested by the SBI and their descriptions.

Consultant Tasks

I. The SBI has established performance objectives for each of the funds under its control (refer to latest annual report: https://mn.gov/sbi/Publications.html). In its efforts to meet or exceed these objectives, the SBI has sought and will continue to seek consultants' advice and recommendations in the design, development and implementation of its investment programs.

The following list of duties represents the consultant(s) primary areas of responsibility. The SBI expects the consultant(s) selected through this RFP to provide independent, prudent, objective and creative input to its decision-making process.

Most of the duties outlined in this section have been addressed by the SBI in the past or are being addressed now. However, during the contract period the consultant(s) may be required to perform any or all of the following tasks.

A. Investment Policies:

1. Prepare a comprehensive review or analysis of the investment policies established for the Combined Funds (described in the Annual Report) and recommend changes, if appropriate. The review should address investment objectives, asset allocation and management structure. Performance benchmarks at each management level (total fund, asset class segment, individual manager) should be reviewed as well.

2. Conduct a similar review for other funds managed by the SBI, as requested.

B. Investment Strategy:

1. Provide technical assistance in analyzing the investment characteristics of available asset classes and alternative asset mixes for each fund managed by the SBI.

2. Assist in the consideration of asset classes not already included in SBI funds.

3. Advise in the development of guidelines and procedures for rebalancing the asset mix of each fund and for evaluating the effectiveness of such procedures.

4. Assist in developing or updating a comprehensive written investment policy statement for each fund managed by the SBI.

C. Investment Management Structures:

1. Assist in developing an appropriate investment management structure for each fund and asset class considering the role of passive versus active management, the range and mix of available management styles, as well as the number of managers hired.

2. Assist in developing criteria for evaluating the effectiveness of the current investment management structure for each fund and asset class.

3. Inform the SBI of new developments in investment management techniques within each asset class and each fund as a whole. Analyze how these new techniques might enhance the SBI's investment program and how they might best be implemented.

D. Manager Selection:

1. Assist in designing and implementing manager selection processes.

2. Assist in analyzing the SBI's needs for particular managers within each asset class.

3. Provide access to consultant's manager research platform within each asset class, including manager ratings and operational due diligence reviews.

4. Assist in establishing appropriate qualitative and quantitative requirements for reviewing potential candidates.

5. Assist in screening prospective managers and recommending finalists which meet stated requirements.

E. Private Markets:

1. Assist in the development of private market investment policies, investment objectives, investment guidelines, investment procedures and portfolio strategy.

2. Research private market trends and capital market trends and incorporate private markets risk/return expectations in prospective capital markets assumptions.

3. Identify, analyze and report on new investment trends in the private market space.

4. Assist staff in conducting manager due diligence on an as needed basis and assist with the negotiation of partnership terms and legal documents, as needed.

5. Provide quarterly monitoring, performance review and written reporting of the private market portfolio and underlying private market funds.

F. Performance Evaluation:

1. Assist in developing a composite index for each fund to measure total fund performance relative to its established target asset mix.

2. Have the ability to calculate the performance at the total fund, asset class, and individual manager levels based on accounting data provided by the SBI's custodial bank.

3. Analyze actual performance relative to the composite indices established for the Combined Funds on an on-going basis.

4. Assist in analyzing the performance of other SBI funds, as requested.

5. Where appropriate, provide performance attribution for each manager in each asset class utilized in the Combined Funds. Provide an analysis of the individual and aggregate risk positions of the above managers on a periodic basis.

6. Provide a performance database and analytical system that can be accessed by the SBI.

7. Maintain full research and ratings coverage across the SBI's existing investments in each of the public markets asset classes and assist the SBI in the ongoing evaluation of manager performance relative to stated objectives.

8. Assist in establishing appropriate performance benchmarks at the asset class and individual manager level in all asset classes.

9. Assist in evaluating manager performance and consistency relative to guidelines, standards, and desired characteristics.

10. Assist the SBI in continued implementation of performance-based fees. Currently, only active domestic equity managers utilize performance-based fees.

G. Risk Management and Analysis

1. Assist in developing and maintaining comprehensive risk measurement systems for each fund, asset class and individual manager under SBI management.

2. Analyze the risk exposure of each fund, asset class and individual manager under SBI management.

3. Assist the SBI to develop an agency wide risk analysis program that includes both investment and non-investment risk.

H. Operations and Resources:

1. Review the Executive Director's annual work plan and recommend modifications, where appropriate.

2. Comment on the adequacy of the operational resources available to carry out the plan (e.g. budget, staffing, analytical systems technology).

3. Recommend new technologies which may be available to enhance the productivity of the operation.

4. The investment consulting firm must be able to maintain a satisfactory electronic interface with SBI's custodian bank through an online connection at the firm's expense.

I. Special Requests:

1. Prepare comprehensive analyses of specific issues designated by the SBI. These issues may include but are not limited to the following: ESG (Environmental, Social, and Governance) related investments, DEI (Diversity, Equity and Inclusion) initiatives, staff compensation analysis and benchmarking, custodial relationships or data processing needs.

2. Present such analyses to the SBI and IAC, when requested.

J. On-Site Consultation and Assistance:

I. Attend all quarterly and special meetings of the SBI and the Investment Advisory Council (IAC).

   The consultant may be called upon to comment on specific items presented to the SBI for approval and to review trends in the economy and capital markets.

   Board meetings (subject to change) are scheduled for the first Wednesday of March, June, September, and December. The IAC meetings (subject to change) are scheduled for the third Tuesday of February, May, August, and November. A schedule of Board and IAC meetings for the following year is presented to the Board at its December meeting.

1. Be available to meet with each member of the SBI or their designee on a quarterly basis, or as requested, to discuss pertinent investment management issues.

2. Meet with SBI staff, as requested, to assure timely completion of the tasks set forth in this section.

II. The contract shall be for a period of five (5) years commencing on or about July 1, 2022. By Minnesota law, the contract may be canceled by the Minnesota State Board of Investment, the Commissioner of Administration of the State of Minnesota, or the contractor, at any time, with or without cause, upon thirty (30) days written notice to the other party.

III. Responders are encouraged to propose additional tasks or activities if they will substantially improve the results of the project. These items should be separated from the required items on the cost proposal.

IV. This RFP does not obligate the SBI to complete the project and the SBI reserves the right to cancel or postpone the solicitation if the SBI considers it to be in the best interest of the SBI.

V. Questions regarding information to be presented in response to the RFP or requesting clarification about this RFP may only be submitted via email to Andy Christensen at: minn.sbi@state.mn.us no later than Thursday, June 24, 2021. For the subject line in the email, please use "Consultant RFP 2021". SBI will assemble a document addressing questions received by prospective respondents and will distribute the answers no later than June 30, 2021 without divulging the source of each question. The Q&A document will be distributed via e-mail to all firms who have expressed interest.

INFORMATION CONTACTS

The SBI's exclusive agents for purposes of responding to consultants' inquiries on RFP requirements are:

Mansco Perry
Executive Director and Chief Investment Officer

Andy Christensen
Assistant Executive Director, Investment Strategy and Administration

Minnesota State Board of Investment
60 Empire Drive, Suite 355
St. Paul, MN 55103
minn.sbi@state.mn.us

Other Personnel are NOT authorized to discuss this request for proposal with responders, before the proposal submission deadline. Contact regarding this RFP with any personnel not listed above could result in disqualification. The SBI shall not be bound by and responders may not rely on information regarding RFP requirements obtained from non-authorized persons.

Proposal Content

The consultant's response to this RFP shall be organized in the following manner. **Please observe the page limits shown for each section.** Please note that consultants will be evaluated, in part, on their ability to communicate clearly and succinctly. **Brevity will be appreciated and considered in the evaluation of the RFP responses**.

Executive Summary
Page Limit: One

Section 1: Consulting Services Provided
Page Limit: No more than 30 (excluding manager due diligence reports and performance report samples)

Investment Policies and Asset Allocation

1. Describe the theory and methodology of the asset allocation models the firm employs. How often does your firm recommend a formal asset allocation review? Discuss your firm's views, capabilities and experience in the following concepts:

    a. Mean Variance Optimization

    b. Stochastic Analysis

    c. Risk Factor Asset Allocation

    d. Risk Parity

    e. Plan Level Leverage

    f. Liquidity Requirements

    g. Risk Budgeting

    h. Tail Risk Hedging

2. Which asset classes does your firm currently incorporate directly into the asset allocation model? How do you incorporate alternative assets - including real estate, private equity credit, real assets, hedge funds, diversifying strategies, commodities, infrastructure and timber?

3. Discuss your firm's process for analyzing a client's investment portfolio structure. Describe the process for recommending modifications to the portfolio structure as warranted by changes in the long-term expectations of asset markets. Provide examples of such recommendations made to clients and the underlying reasons.

4. Discuss your firm's views on active vs. passive management and when it is appropriate to use each and how to determine the optimum mix. Discuss your firm's views on the following concepts:

   a. Portable Alpha Strategies

   b. Fundamental Indexing and Smart Beta type Strategies

   c. Low Volatility Strategies

5. Describe in detail the methods for determination of capital market assumptions.

   a. How are risk, return, correlation and constraint assumptions determined for the asset allocation model? Please discuss the assumptions for each asset class included.

   b. How often are the numbers updated?

   c. How far forward are projections?

   d. How do the assumptions differ from the market consensus? From the firm's competitors?

   e. Please analyze and discuss the accuracy of your historical, long-term capital market assumption for each asset class and at the total fund level.

   f. To what extent do you involve staff in discussing the economic climate and asset return assumptions that form the basis of your asset allocation model?

6. Discuss your firm's capabilities in performing scenario analysis. Describe the stochastic model framework utilized and how the model is maintained. How are factors for scenario analysis determined? Provide an example.

7. What is your firm's approach to addressing Environmental, Social, and Governance issues for client investment programs? Does your firm provide climate risk and other forms of ESG analysis to clients?

8. Describe your approach to the development of an investment policy statement. Detail your process for the development of asset class structures, investment objective, and risk control policies (including derivative, securities lending etc.).

9. Describe your firm's capabilities and experience in illiquid investments such as real estate, private equity and opportunistic investments. List the factors you would consider in recommending these investments.

10. Describe your firm's capabilities and experience in the area of derivatives. List the factors you would consider in recommending derivative strategies.

11. Describe your firm's methodology for incorporating liabilities into an asset/liability study. What are your firm's capabilities for analyzing the liabilities of a large public pension plan? Does your firm have experience in customizing asset/liability studies for individual clients? How often does your firm recommend that a client should update their asset/liability study?

12. What systems does the firm have, if any, that are accessible to clients so they can evaluate the impact of different scenarios ("what if?") on their funded status?

13. Describe your firm's view of market timing and portfolio rebalancing.

14. Explain your firm's position/approach regarding internal and external investment management.

15. What trends, changes or key issues do you believe will impact public pension funds going forward?

Performance Measurement and Portfolio Analytics

1. Describe your process for evaluation and benchmark selection for individual investment strategies. How are performance benchmarks for the total fund, asset classes and investment managers chosen and constructed? Please differentiate your approach for public and private markets.

2. Describe your access to private market database(s) for benchmarking.

3. Describe your firm's view of the most critical factors and methods of evaluating performance.

4. Do you calculate performance independently of the custodian? If so, do you reconcile your calculated performance to the custodians' reports? If yes, please describe.

5. Describe the methodology of your performance calculations. Describe the firm's ability to modify these conventions.

6. Do you have the capability of using rates of return calculated by the SBI's custodial bank in your performance evaluation reports?

7. What performance and portfolio analytic systems and reports (including attribution analysis) of your firm can be accessed online by the SBI staff?

8. Describe your firm's performance attribution process and provide sample reports with a breakdown of capabilities by total fund, asset class and investment manager level.

9. What portfolio analysis is your firm capable of providing at the total fund, asset class and investment manager level?

10. Describe your capabilities in the development of risk/return characteristics at the total fund, asset class and investment manager level.

11. Do you have the ability to customize reports? Are there charges for additional customization? In general, how long does it take to implement changes?

12. How soon at the end of a month are the reports generally available?

13. Please provide samples of return attribution performance reports.

14. As custodians are the primary source for the SBI's performance data, which custodians have you worked with?

Manager Search and Evaluations

1. Discuss the steps your firm would take to analyze SBI's current investment managers within the portfolio.

2. Describe your firm's philosophy with respect to manager evaluations. Describe in detail the factors considered in manager evaluations, including how your firm evaluates a manager's approach to ESG both within its investment process and within its own organization. How much do ESG factors weigh in your firm's manager ratings?

3. Does your firm maintain a proprietary database of investment manager information? If so, do clients have online access to this information? What is your firm's policy regarding providing coverage for all managers in a client's portfolio? Describe the process by which clients can request adding coverage for new managers under consideration.

4. Are investment managers charged direct or indirect fees to be included in the database? If so, describe the fees. If not, how are managers added/deleted from your database?

5. For firms that have a proprietary database, describe your methodology and criteria for classification of managers. Describe how your firm gathers, verifies, updates and maintains the data collected for managers in the database. How do you monitor consistency of style? How often are the managers reviewed?

6. Provide a copy of a recently completed investment manager research and operational due diligence report for a fixed income, domestic equity, developed international equity and emerging markets equity manager, emphasizing managers in the SBI's portfolio, if applicable.

Private Markets

1. What services are included in a general retainer relationship (or other) related to alternative assets (i.e. real estate, infrastructure, timber, farmland, commodities, private equity, oil and gas, hedge funds, mezzanine funding etc.)?

2. Describe your capabilities to evaluate and monitor alternative asset classes. Describe the resources dedicated to this area including staff and their experience.

3. How does your firm approach asset allocation within a private equity or other private market portfolio?

4. Describe your firm's process for performing investment and operational due diligence on potential managers. Describe the process used to monitor existing manager relationships and client performance.

5. Does your firm advocate allocation of capital to first time funds?

6. Describe our firm's view regarding geographic allocations.

7. Describe your firm's view regarding both fund size and capital commitment size.

8. Provide two (2) due diligence reports within the alternative asset class, one of which should be for a private equity manager.

9. Provide the typical quarterly performance report, and portfolio review, that your firm currently provides to clients with large private equity or private market portfolios.

Risk Management

1. Describe your firm's definition of risk and strategies that have been recommended to mitigate risks. Explain your firm's views on currency hedging, tail risk hedging strategies, factor completion strategies and the use of diversifying strategies (e.g. trend, crisis risk offset, etc.) within client portfolios. List which measurements are used when evaluating risk at the total fund, asset class and investment manager level.

2. What is your firm's opinion on risk allocation and risk budgeting at the total fund, asset class and investment manager level?

SBI Portfolio (Combined Funds Pension Portfolio)

After reviewing the SBI's Combined Funds pension portfolio and other publicly available information, what changes, if any, would your firm recommend the Board and Staff consider to the SBI's strategic asset allocation and manager line-up?

Section 2: Organization and Personnel
Page Limit: No more than 10 (excluding audited financial statements and resumes)

1. Provide the date business commenced.

2. Provide details of the ownership structure including any parent, affiliated or subsidiary company, and any business partners or joint ventures.

3. Describe the services your firm provides. Specify and detail any and all lines of business in which your firm participates.

4. Provide an organizational chart of your firm and describe the relationship between each component and your consulting group. List the address of your corporate headquarters and indicate which office(s) will service the SBI.

5. How many employees does your firm have? Please break this number into specific functions, strategic areas and delineate which are support staff, analysts and investment professionals.

6. Provide a brief description of the firm's growth plan and capacity to undertake this consulting relationship. Discuss limits you have in the "client to consultant ratio."

7. Within the past three years have there been significant changes in your organization such as ownership, restructuring or personnel organization.

8. Describe the firm's financial position and sources of revenue. Include a copy of the firm's most recent audited financial statements.

9. Describe the key features of your firm's business continuation and disaster recovery plans.

10. Describe any litigation against the firm in the last three (3) years.

11. Has there been any SEC or other regulatory action against the firm or its principals/owners/officers?

12. Briefly describe the level of coverage for errors and omissions insurance and any fiduciary or professional liability insurance your firm carries. List the insurance carrier(s) supplying coverage.

13. What limitation on liability, if any, does your firm impose through your contract?

14. Provide a list of current clients, the size of the funds and inception date of the relationships.

15. Provide the number of consulting relationships gained and lost in each of the following periods:

- January - December 2018
- January - December 2019
- January - December 2020
- January - May 2021

16. Provide the number and title of professional personnel gained and lost in the same periods. Explain the circumstance for any departure by investment professionals.

17. Describe the firm's compensation and incentive program, and any other programs for hiring and retaining key personnel. How does the firm tie client performance and satisfaction to a consultant's compensation?

18. Describe the firm's approach to diversity and inclusion. Provide a summary of the metrics used to assess your firm's progress on gender equity and diversity across the organization.

19. Describe your firm's approach to ESG factors within your business. What ESG-related commitments have you made with respect to how your business operates?

20. What is the average and maximum number of clients assigned per consultant? How many clients would the lead consultant to the SBI be assigned? Describe your firm's backup procedures in the event the key personnel in this assignment should leave the firm.

21. Provide a resume′ or biography of each professional staff person to be assigned to this consulting relationship, outlining their qualifications, previous experience in similar tasks or engagements with institutional investors and name the clients they currently service. State whether the individuals assigned to the work have responsibilities other than providing consulting services and, if so, specify those responsibilities.

22. Does your firm accept investment managers as clients? If so, for what products? Does your firm conduct or sponsor investment manager or client conferences? If so, please describe all such conferences in the past two years.

23. What percentage of your clients utilize money managers, investment funds, brokerage service, or other service providers from whom you receive fees?

24. Do you have any arrangements with broker dealers under which you or a related company will benefit if firms place trades for their clients with them?

25. Are there any other circumstance under which your firm, or any individual in your firm receives compensation, finder's fees, or any other benefit from investment managers or third parties? If so, describe in detail.

26. Please describe your policies and/ or procedures to address perceived or actual conflicts of interest when you provide advice to clients?

27. Please describe the evolution of your business and staffing plans throughout the COVID-19 pandemic, noting any changes you anticipate will be long-lasting.

Section 3: Investment Research
Page Limit: No more than 5 (excluding research reports provided)

1. Describe how internal research is structured and organized within your firm. Please describe how your research fits into the overall organizational structure of the firm.

2. Describe how any external resources and sources of information are used in the research process.

3. Describe your ability to provide customized computer based analytical tools for key investment decisions such as asset allocation, manager selection/portfolio construction and risk management.

4. Describe your firm's process for monitoring industry and market trends that impact investment funds.

5. Describe your firm's process for monitoring political, legislative and media environments that may impact a client's investment program.

6. Please provide some recent research reports that will provide an indication of the range and depth of your research.

7. Provide a list of research reports prepared by the consultant for use by its clients within the last three (3) years.

Section 4: Computer Capability
Page Limit: No more than 3

1. Describe the databases, software and hardware that will be used to support the delivery of investment consultant services.

2. Describe how the databases and software will be accessed by SBI staff. Specify the hardware necessary to accomplish such access and comment on the SBI's ability to access information and data via an online portal or website.

3. Describe the plan to keep data processing systems, databases, software and hardware current and secure. Please reference how your organization determines the need to upgrade existing systems and when to introduce new applications.

4. Describe how your organization will maintain an electronic interface with the SBI's custodian bank through an online connection at the organization's expense.

Section 5: Miscellaneous
Page Limit: No more than 2

1. What are your firm's consulting specialties and strengths that differentiates your firm from your competitors? What are your firm's limitations?

2. Describe how your firm will manage its advisory role to the Board with its supportive role with Staff.

3. Please describe educational resources that are available to Board and Staff members.

4. Briefly describe how a new client would transition to your firm. What problems have you encountered in transitioning a new client to your firm from their previous consultant?

Section 6: References
Page Limit: No more than 1

1. Provide a list of at least five references for whom you provide full retainer investment consulting services. It is preferable that at least three of these references be current public pension fund clients that have accounts of similar size and complexity as those described in this RFP. The references shall include the name, title, organization, address, e-mail and phone number of the responder's primary contact at the client organization.

Section 7: Fee Proposal *(Provide one copy of the cost proposal in a separately sealed envelope clearly marked on the outside "Cost Proposal" along with the firm's name).*
Page Limit: No more than 1

1. Proposed fees shall be stated for a time period of July 1, 2022 to June 30, 2027 in one of the following alternatives:

   a. Total fee to be charged and a list of the services to be provided. Please provide quotes for any additional services not included in this fee.

   b. Individual costs related to each service the consultant proposes to provide. (All proposed fees should be all inclusive. No additional charges such as travel will be accepted).

2. A statement that the fee estimate is valid for a minimum of one hundred and eighty (180) days. This period may be extended by mutual agreement between a responder and the SBI Executive Director.

Section 8 Submit the following forms:

- Affidavit of Non Collusion **(Exhibit C)**
- Certificate Regarding Lobbying (if proposal exceeds $100,000, including extension options) **(Exhibit D)**
- Affirmative Action Certification (if proposal exceeds $100,000, including extension options) **(Exhibit E)**
- Equal Pay Certificate Form (if proposals exceeds $500,000, including extension options) **(Exhibit F)**
- Veterans Preference Form (if applicable) **(Exhibit G)**
- Resident Vendor Form (if applicable) **(Exhibit H)**
- Sample Minnesota Professional Technical Services Contract **(Exhibit I)**

Proposal Instructions

Please submit your response via pdf attached to an email to minn.sbi@state.mn.us. Additionally, the responder shall submit one loose hard copy and eight bound copies of its RFP response, along with a pdf on a flash drive to the SBI at the following address:

Andy Christensen
Assistant Executive Director, Investment Strategy and Administration
Minnesota State Board of Investment
60 Empire Drive, Suite 355
St. Paul, MN 55103-3555

minn.sbi@state.mn.us

- All costs incurred in responding to this RFP will be borne by the responder.
- **Proposal submissions are due electronically (emailed) no later than noon (12:00 p.m.) Central Time on Thursday, July 8, 2021.** All submitters who meet the July 8th deadline are also required to send hard copies to arrive to Andy Christensen at the above address within five business days after the deadline. Early submission is encouraged.

1. One (1) copy of the response must be unbound and signed in ink by an authorized officer of the responding firm.

2. In addition to the proposal, provide two copies of the cost proposal in separately sealed envelopes with the hard copies clearly marked on the outside “Cost Proposal” along with the firm’s name. For purposes of completing the Cost Proposal, the state does not make regular payments based upon the passage of time, it only pays for services performed or work delivered after it is accomplished.

Project Timetable

RFP Issued	no earlier than June 14, 2021
Deadline to submit questions	June 24, 2021
SBI will provide responses to questions	June 30, 2021
Consultants' proposals hard copies due	July 15, 2021

NO PROPOSALS RECEIVED AFTER 3:00 P.M. CENTRAL TIME ON July 8, 2021 WILL BE CONSIDERED.

Proposals evaluated	July 2021*
Consultant selected by the SBI	August 2021*
Contract completed and executed	September 2021*

* Projected dates, subject to change.

Proposal Evaluation

All responses received by the deadline will be evaluated the SBI Executive Director and Staff. First, the RFP responses will be evaluated to ensure that the minimum requirements have been met. Proposals that fail to meet the minimum requirements will not be considered. For those proposals that do meet the minimum requirements, the Executive Director and Staff will review the proposals submitted and score the work plan and cost proposals. The State reserves the right, based on the scores of the proposal, to create a short list of proposers receiving the highest scores and subsequently conduct interviews and/or request presentations. All scores will be compiled and the SBI’s Executive Director will then make a final recommendation to the SBI Board based upon the best value to the State. Final selection is subject to approval of the SBI Board and successful contractual negotiation and execution by the SBI Executive Director.

Pass/Fail - Minimum Requirements

The proposer must meet all of the following minimum qualifications to be given further consideration. Failure to satisfy each of the minimum qualifications will result in the immediate rejection of the proposal.

The following will be considered on a pass/fail basis:

1. The primary consultant assigned to the SBI account must have a minimum of five (5) years of experience providing consulting services to large institutional plan sponsors.

2. As of June 30, 2021 and for at least the three (3) most recent continuous years, the firm must have a verifiable operating history with at least three (3) institutional fund clients with at least $20 billion in assets.

3. Proposals must be received on or before the due date and time specified in this solicitation.

The Factors and Weightings on which the Proposals will be judged in are as follows:

1. The consultant's ability to precisely and clearly respond to the Proposal Content section of the RFP as it relates to the prescribed duties. (10%)

The approach, methodology and techniques should be appropriately specific, logical and organized. The consultant must demonstrate the capability to gather the necessary information, develop fully supportable conclusions, and communicate findings and recommendations clearly and succinctly. The consultant's ability to effectively communicate to audiences with varying levels of investment expertise will be evaluated.

2. The consultant's demonstrated knowledge and experience in investment consulting. (25%)

It is imperative that the consultant has been frequently and recently engaged in the field of investment consulting for large pension plan sponsors. In addition, knowledge and experience with respect to endowments, cash accounts, and insurance portfolios is desirable.

3. The quality of staff to be assigned to fulfill this contract and available support. (25%)

The consultant must assign to this contract, in terms of numbers and quality, sufficient staff with experience in the fields of financial and investment analysis, data processing and systems support, and general pension fund management. The consultant should explain to the best of its ability to what extent back-up professional personnel are available to substitute for loss of professional personnel identified as necessary in the proposal.

4. The quality of the data processing and analytical systems necessary to support the consulting services. (10%)

The consultant should demonstrate its ability to manage and maintain the computer software, hardware and databases referenced in its proposal. The consultant's commitment to upgrade existing systems and to introduce new applications which will enhance its ability to perform its duties also will be assessed.

5. **The consultant's demonstrated ability to manage the assignment effectively and assure the successful delivery of the services provided. (20%)**

   The plan for performing and managing the contract, including the framework within which the project team will function relative to the State, will be evaluated. The consultant should demonstrate its ability to manage and control its duties, including specification of the reporting mechanisms and inter-relationships between the consultant, the SBI and its staff, and outside vendors of the SBI.

6. **Cost Detail and Method of Payment (10%)**

   1. All costs relating to the proposal shall be explained in detail.

   2. Payment shall be made on a pro rata quarterly basis billed in arrears.

   3. The evaluation team reserves the right to reject unreasonable costs proposed by responders. Specifically, the evaluation team will not consider any proposed costs that are, at the sole discretion of the state, not rational or are not competitively priced. Such proposals will be regarded as non-responsive and receive no further consideration.

General Requirements

Affidavit of Noncollusion

Each responder must complete the attached Affidavit of Noncollusion and include it with the response.

Conflicts of Interest

Responder must provide a list of all entities with which it has relationships that create, or appear to create, a conflict of interest with the work that is contemplated in this request for proposals. The list should indicate the name of the entity, the relationship, and a discussion of the conflict.

Proposal Contents

By submission of a proposal, Responder warrants that the information provided is true, correct and reliable for purposes of evaluation for potential contract award. The submission of inaccurate or misleading information may be grounds for disqualification from the award as well as subject the responder to suspension or debarment proceedings as well as other remedies available by law.

Disposition of Responses

All materials submitted in response to this RFP will become property of the State and will become public record in accordance with Minnesota Statutes, section 13.591, after the evaluation process is completed. Pursuant to the statute, completion of the evaluation process occurs when the government entity has completed negotiating the contract with the selected vendor. If the Responder submits information in response to this RFP that it believes to be trade secret materials, as defined by the Minnesota Government Data Practices Act, Minnesota Statute § 13.37, the Responder must:

1. clearly mark all trade secret materials in its response at the time the response is submitted,

2. include a statement with its response justifying the trade secret designation for each item, and

3. defend any action seeking release of the materials it believes to be trade secret, and indemnify and hold harmless the State, its agents and employees, from any judgments or damages awarded against the State in favor of the party requesting the materials, and any and all costs connected with that defense. This indemnification survives the State's award of a contract. In submitting a response to this RFP, the Responder agrees that this indemnification survives as long as the trade secret materials are in possession of the State.

The State will not consider the prices submitted by the Responder to be proprietary or trade secret materials.

Notwithstanding the above, if the State contracting party is part of the judicial branch, the release of data shall be in accordance with the Rules of Public Access to Records of the Judicial Branch promulgated by the Minnesota Supreme Court as the same may be amended from time to time.

Contingency Fees Prohibited

Pursuant to Minnesota Statutes Section 10A.06, no person may act as or employ a lobbyist for compensation that is dependent upon the result or outcome of any legislation or administrative action.

Sample Contract

You should be aware of the State's standard contract terms and conditions in preparing your response. A sample State of Minnesota Professional/Technical Services Contract is attached for your reference. Much of the language reflected in the contract is required by statute. If you take exception to any of the terms, conditions or language in the contract, you must indicate those exceptions in your response to the RFP; certain exceptions may result in your proposal being disqualified from further review and evaluation. Only those exceptions indicated in your response to the RFP will be available for discussion or negotiation.

Organizational Conflicts of Interest

The responder warrants that, to the best of its knowledge and belief, and except as otherwise disclosed, there are no relevant facts or circumstances which could give rise to organizational conflicts of interest. An organizational conflict of interest exists when, because of existing or planned activities or because of relationships with other persons, a vendor is unable or potentially unable to render impartial assistance or advice to the State, or the vendor's objectivity in performing the contract work is or might be otherwise impaired, or the vendor has an unfair competitive advantage. The responder agrees that, if after award, an organizational conflict of interest is discovered, an immediate and full disclosure in writing must be made to the Assistant Director of the Office of State Procurement (OSP) which must include a description of the action which the contractor has taken or proposes to take to avoid or mitigate such conflicts. If an organization conflict of interest is determined to exist, the State may, at its discretion, cancel the contract. In the event the responder was aware of an organizational conflict of interest prior to the award of the contract and did not disclose the conflict to OSP, the State may terminate the contract for default. The provisions of this clause must be included in all subcontracts for work to be performed similar to the service provided by the prime contractor, and the terms "contract," "contractor," and "contracting officer" modified appropriately to preserve the State's rights.

Preference to Targeted Group and Economically Disadvantaged Business and Individuals

In accordance with Minnesota Rules, part 1230.1810, subpart B and Minnesota Rules, part 1230.1830, certified Targeted Group Businesses and individuals submitting proposals as prime contractors will receive a six percent preference in the evaluation of their proposal, and certified Economically Disadvantaged Businesses and individuals submitting proposals as prime contractors will receive a six percent preference in the evaluation of their proposal. Eligible TG businesses must be currently certified by the Office of State Procurement prior to the solicitation opening date and time. For information regarding certification, contact the State Procurement Helpline at 651.296.2600, or you may reach the Helpline by email at OSPhelp.line@state.mn.us. For TTY/TDD communications, contact the Helpline through the Minnesota Relay Services at 1.800.627.3529.

Veteran-Owned Small Business Preference

Unless a greater preference is applicable and allowed by law, in accordance with Minn. Stat. § 16C.16, subd. 6a, the Commissioner of Administration will award a 6% preference in the amount bid on state procurement to certified small businesses that are majority owned and operated by veterans.

A small business qualifies for the veteran-owned preference when it meets one of the following requirements. 1) The business has been certified by the Department of Administration/Materials Management Division as being a veteran-owned or service-disabled veteran-owned small business. 2) The principal place of business is in Minnesota AND the United States Department of Veterans Affairs verifies the business as being a veteran-owned or service-disabled veteran-owned small business under Public Law 109-461 and Code of Federal Regulations, title 38, part 74 (Supported By Documentation). *See* Minn. Stat. § 16C.19(d).

Submit the appropriate documentation with the solicitation response to claim the veteran-owned preference. Statutory requirements and documentation must be met by the solicitation response due date and time to be awarded the preference.

Foreign Outsourcing of Work Prohibited

Unless prohibited by the World Trade Organization's Government Procurement Agreement, all services under this contract shall be performed within the borders of the United States. All storage and processing of information shall be performed within the borders of the United States. This provision also applies to work performed by subcontractors at all tiers.

Work Force Certification

For all contracts estimated to be in excess of $100,000, responders are required to complete the attached Affirmative Action Data page and return it with the response. As required by Minnesota Rule 5000.3600, "It is hereby agreed between the parties that Minnesota Statute § 363A.36 and Minnesota Rule 5000.3400 - 5000.3600 are incorporated into any contract between these parties based upon this specification or any modification of it. A copy of Minnesota Statute § 363A.36 and Minnesota Rule 5000.3400 - 5000.3600 are available upon request from the contracting agency."

Equal Pay Certification

If the Response to this solicitation could be in excess of $500,000, the Responder must obtain an Equal Pay Certificate from the Minnesota Department of Human Rights (MDHR) or claim an exemption prior to contract execution. A responder is exempt if it has not employed more than 40 full-time employees on any single working day in one state during the previous 12 months. Please contact MDHR with questions at: 651-539-1095 (metro), 1-800-657-3704 (toll free), 711 or 1-800-627-3529 (MN Relay) or at compliance.MDHR@state.mn.us.

Certification Regarding Lobbying

Federal money will be used or may potentially be used to pay for all or part of the work under the contract, therefore the Proposer must complete the attached **Certification Regarding Lobbying** and submit it as part of its proposal.

Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion.

Federal money will be used or may potentially be used to pay for all or part of the work under the contract, therefore, the Proposer must certify the following, as required by the regulations implementing Executive Order 12549.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – Lower Tier Covered Transactions Instructions for Certification

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective

lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or had become erroneous by reason of changed circumstances.

4. The terms *covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded*, as used in this clause, have the meaning set out in the Definitions and Coverages sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

5. The prospective lower tier participant agrees by submitting this response that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled “Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transaction,” without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from covered transactions, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.

8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 C.F.R. 9, subpart 9.4, suspended, debarred,

ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the federal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Insurance Requirements

A. Contractor shall not commence work under the contract until they have obtained all the insurance described below and the State of Minnesota has approved such insurance. Contractor shall maintain such insurance in force and effect throughout the term of the contract.
B. Contractor is required to maintain and furnish satisfactory evidence of the following insurance policies:

   1. **Workers' Compensation Insurance:** Except as provided below, Contractor must provide Workers' Compensation insurance for all its employees and, in case any work is subcontracted, Contractor will require the subcontractor to provide Workers' Compensation insurance in accordance with the statutory requirements of the State of Minnesota, including Coverage B, Employer's Liability. Insurance **minimum** limits are as follows:

      $100,000 – Bodily Injury by Disease per employee
      $500,000 – Bodily Injury by Disease aggregate
      $100,000 – Bodily Injury by Accident

      If Minnesota Statute 176.041 exempts Contractor from Workers' Compensation insurance or if the Contractor has no employees in the State of Minnesota, Contractor must provide a written statement, signed by an authorized representative, indicating the qualifying exemption that excludes Contractor from the Minnesota Workers' Compensation requirements.

      If during the course of the contract the Contractor becomes eligible for Workers' Compensation, the Contractor must comply with the Workers' Compensation Insurance requirements herein and provide the State of Minnesota with a certificate of insurance.

2. **Commercial General Liability Insurance:** Contractor is required to maintain insurance protecting it from claims for damages for bodily injury, including sickness or disease, death, and for care and loss of services as well as from claims for property damage, including loss of use which may arise from operations under the Contract whether the operations are by the Contractor or by a subcontractor or by anyone directly or indirectly employed by the Contractor under the contract. Insurance **minimum** limits are as follows:

   $2,000,000 – per occurrence
   $2,000,000 – annual aggregate
   $2,000,000 – annual aggregate – Products/Completed Operations

   The following coverages shall be included:

   Premises and Operations Bodily Injury and Property Damage
   Personal and Advertising Injury
   Blanket Contractual Liability
   Products and Completed Operations Liability
   Other; if applicable, please list__________________________________
   State of Minnesota named as an Additional Insured, to the extent permitted by law

3. **Commercial Automobile Liability Insurance:** Contractor is required to maintain insurance protecting it from claims for damages for bodily injury as well as from claims for property damage resulting from the ownership, operation, maintenance or use of all owned, hired, and non-owned autos which may arise from operations under this contract, and in case any work is subcontracted the contractor will require the subcontractor to maintain Commercial Automobile Liability insurance. Insurance **minimum** limits are as follows:

   $2,000,000 – per occurrence Combined Single limit for Bodily Injury and Property Damage

   In addition, the following coverages should be included:

   Owned, Hired, and Non-owned Automobile

4. **Professional/Technical, Errors and Omissions, and/or Miscellaneous Liability Insurance**

   This policy will provide coverage for all claims the contractor may become legally obligated to pay resulting from any actual or alleged negligent act, error, or omission related to Contractor's professional services required under the contract.

Contractor is required to carry the following **minimum** limits:

$2,000,000 – per claim or event
$2,000,000 – annual aggregate

Any deductible will be the sole responsibility of the Contractor and may not exceed $50,000 without the written approval of the State. If the Contractor desires authority from the State to have a deductible in a higher amount, the Contractor shall so request in writing, specifying the amount of the desired deductible and providing financial documentation by submitting the most current audited financial statements so that the State can ascertain the ability of the Contractor to cover the deductible from its own resources.

The retroactive or prior acts date of such coverage shall not be after the effective date of this Contract and Contractor shall maintain such insurance for a period of at least three (3) years, following completion of the work. If such insurance is discontinued, extended reporting period coverage must be obtained by Contractor to fulfill this requirement.

C. Additional Insurance Conditions:

- Contractor's policy(ies) shall be primary insurance to any other valid and collectible insurance available to the State of Minnesota with respect to any claim arising out of Contractor's performance under this contract;

- If Contractor receives a cancellation notice from an insurance carrier affording coverage herein, Contractor agrees to notify the State of Minnesota within five (5) business days with a copy of the cancellation notice, unless Contractor's policy(ies) contain a provision that coverage afforded under the policy(ies) will not be cancelled without at least thirty (30) days advance written notice to the State of Minnesota;

- Contractor is responsible for payment of Contract related insurance premiums and deductibles;

- If Contractor is self-insured, a Certificate of Self-Insurance must be attached;

- Contractor's policy(ies) shall include legal defense fees in addition to its liability policy limits, with the exception of B.4 above;

- Contractor shall obtain insurance policy(ies) from insurance company(ies) having an "AM BEST" rating of A- (minus); Financial Size Category (FSC) VII or better, and authorized to do business in the State of Minnesota; and

- An Umbrella or Excess Liability insurance policy may be used to supplement the Contractor's policy limits to satisfy the full policy limits required by the Contract.

D. The State reserves the right to immediately terminate the contract if the contractor is not in compliance with the insurance requirements and retains all rights to pursue any legal remedies against the contractor. All insurance policies must be open to inspection by the State, and copies of policies must be submitted to the State's authorized representative upon written request.

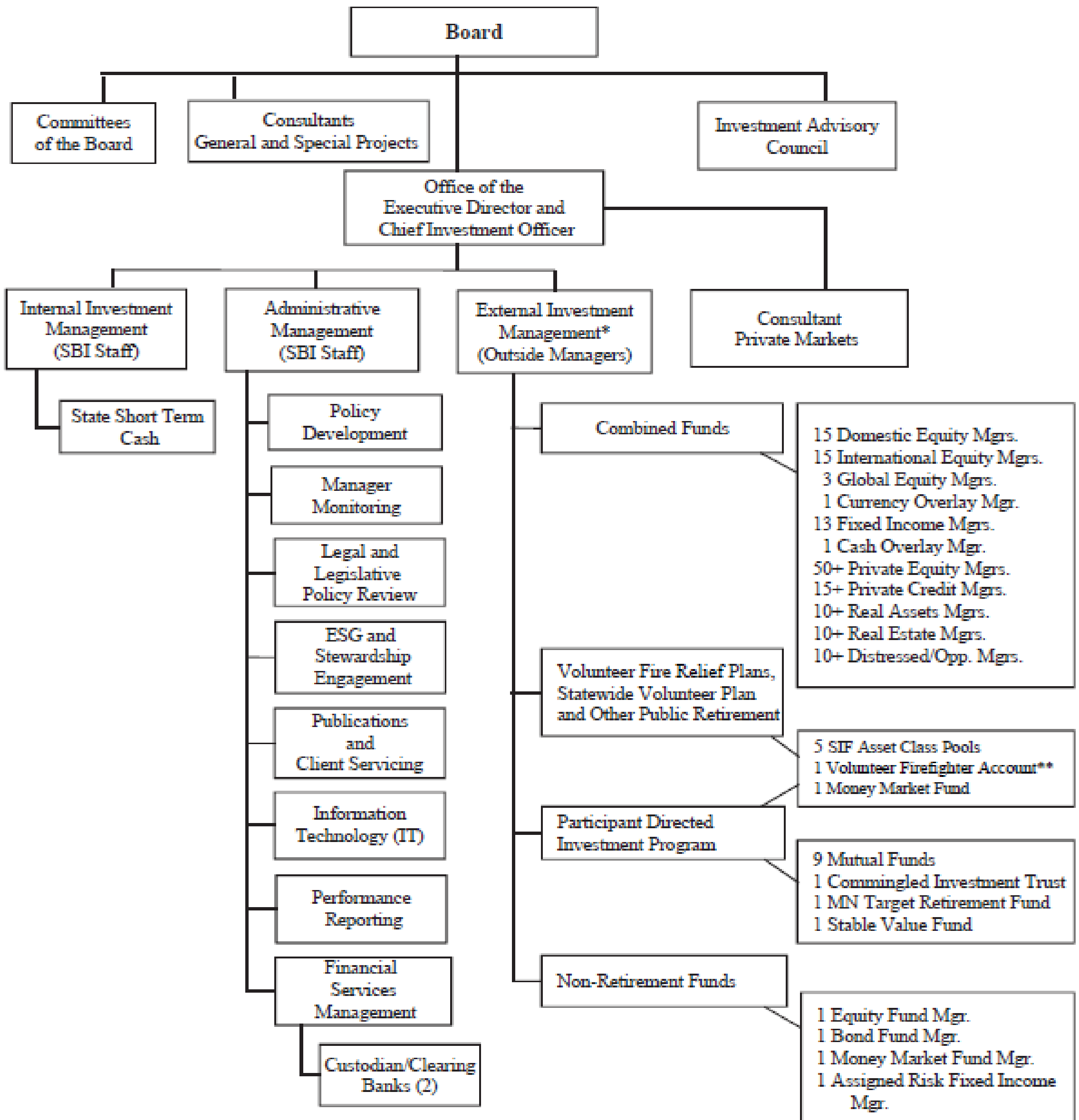
E. The successful responder is required to submit Certificates of Insurance acceptable to the State of MN as evidence of insurance coverage requirements prior to commencing work under the contract.

This page intentionally left blank.

EXHIBIT A

STATE BOARD OF INVESTMENT

Functional Organizational Structure



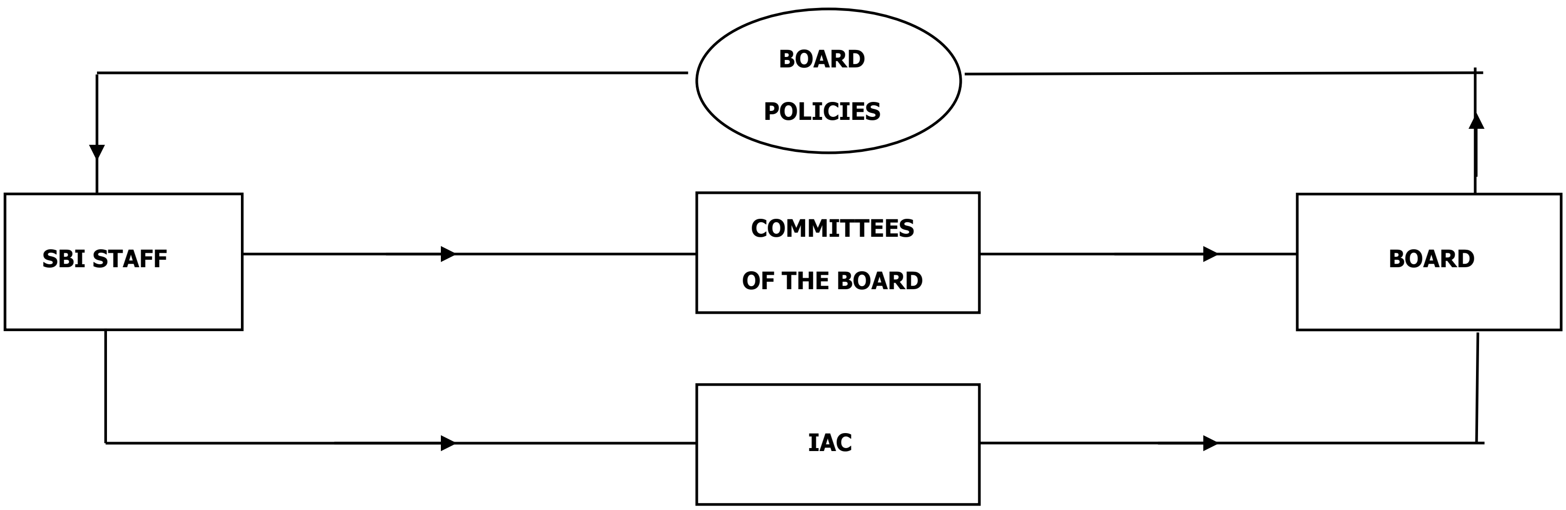
*Includes all managers approved by the Board through 2/24/2021.
**Only available to fire reliefs in the Statewide Volunteer Firefighter Plan

INVESTMENT PROGRAMS MANAGED INTERNALLY	INVESTMENT PROGRAMS FUNDS MANAGED EXTERNALLY
State Cash Accounts	Combined Funds Fire Relief Plans + Other Public Retirement Funds Participant Directed Investment Program Non-Retirement Funds

This page intentionally left blank.

EXHIBIT B

DECISION MAKING PROCESS



Analyze Alternatives and Propose Policies	**Advisory Review and Recommendations**	**Policy Review and Approval**
Implement Approved Policies		

The Board's consultants provide input throughout the decision-making process.

This page intentionally left blank.

EXHIBIT C

Affidavit of Noncollusion

State of Minnesota

Request for Proposals

Firm Name:

Instructions: Please return your completed form as part of the Response submittal.

I swear (or affirm) under the penalty of perjury:

1. That I am the Responder (if the Responder is an individual), a partner in the company (if the Responder is a partnership), or an officer or employee of the responding corporation having authority to sign on its behalf (if the Responder is a corporation).
2. That the attached proposal submitted in response to the ____________ Request for Proposals has been arrived at by the Responder independently and has been submitted without collusion with and without any agreement, understanding or planned common course of action with, any other Responder of materials, supplies, equipment, or services described in the Request for Proposals, designed to limit fair and open competition.
3. That the contents of the proposal have not been communicated by the Responder or its employees or agents to any person not an employee or agent of the Responder and will not be communicated to any such persons prior to the official opening of the proposals.
4. That I am fully informed regarding the accuracy of the statements made in this affidavit.

Authorized Signature

Responder's firm name: ______________________________

Print authorized representative name: ______________________ Title: ____________________

Authorized signature: ______________________ Date (mm/dd/yyyy): ____________________

Notary Public

Subscribed and sworn to before me this:

_____ day of ____________________, ____________________

____

Notary Public signature

____

Commission expires (mm/dd/yyyy)

This page intentionally left blank.

EXHIBIT D

CERTIFICATION REGARDING LOBBYING

For State of Minnesota Contracts and Grants over $100,000

The undersigned certifies, to the best of his or her knowledge and belief that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, Disclosure Form to Report Lobbying in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

____
Organization Name

____
Name and Title of Official Signing for Organization

By: _____________________________________
Signature of Official

____
Date

Rev. 01/16

This page intentionally left blank.

EXHIBIT E

STATE OF MINNESOTA – WORKFORCE CERTIFICATE INFORMATION

Required by state law for ALL bids or proposals that could exceed $100,000

Complete this form and return it with your bid or proposal. The State of Minnesota is under no obligation to delay proceeding with a contract until a company becomes compliant with the Workforce Certification requirements in Minn. Stat. §363A.36.

BOX A – MINNESOTA COMPANIES that have employed more than 40 full-time employees within this state on any single working day during the previous 12 months, check one option below:

☐ Attached is our current Workforce Certificate issued by the Minnesota Department of Human Rights (MDHR).

☐ Attached is confirmation that MDHR received our application for a Minnesota Workforce Certificate on ____________________ (date).

BOX B – NON-MINNESOTA COMPANIES that have employed more than 40 full-time employees on a single working day during the previous 12 months in the state where it has its primary place of business, check one option below:

☐ Attached is our current Workforce Certificate issued by MDHR.

☐ We certify we are in compliance with federal affirmative action requirements. Upon notification of contract award, you must send your federal or municipal certificate to MDHR at compliance.MDHR@state.mn.us. If you are unable to send either certificate, MDHR may contact you to request evidence of federal compliance. The inability to provide sufficient documentation may prohibit contract execution.

BOX C – EXEMPT COMPANIES that have not employed more than 40 full-time employees on a single working day in any state during the previous 12 months, check option below if applicable:

☐ We attest we are exempt. If our company is awarded a contract, we will submit to MDHR within 5 business days after the contract is fully signed, the names of our employees during the previous 12 months, the date of separation, if applicable, and the state in which the persons were employed. Send to compliance.MDHR@state.mn.us.

By signing this statement, you certify that the information provided is accurate and that you are authorized to sign on behalf of your company.

Name of Company: ____ Date: _________________

Authorized Signature: ____ Telephone number: _____________

Printed Name: ____ Title: _________________________

For assistance with this form, contact:

Minnesota Department of Human Rights, Compliance Services

Web: http://mn.gov/mdhr/ TC Metro: 651-539-1095 Toll Free: 800-657-3704
Email: compliance.mdhr@state.mn.us TTY: 651-296-1283

This page intentionally left blank.

State of Minnesota - Equal Pay Certificate

If your response could be in excess of $500,000, please complete and submit this form with your submission. **It is your sole responsibility to provide the information requested and when necessary to obtain an Equal Pay Certificate (Equal Pay Certificate) from the Minnesota Department of Human Rights (MDHR) prior to contract execution. You must supply this document with your submission.** Please contact MDHR with questions at: 651-539-1095 (metro), 1-800-657-3704 (toll free), 711 or 1-800-627-3529 (MN Relay) or email at compliance.MDHR@state.mn.us.

Option A – If you have employed 40 or more full-time employees on any single working day during the previous 12 months in Minnesota or the state where you have your primary place of business, please check the applicable box below:

☐ Attached is our current MDHR Equal Pay Certificate.

☐ Attached is MDHR's confirmation of our Equal Pay Certificate application.

Option B – If you have not employed 40 or more full-time employees on any single working day during the previous 12 months in Minnesota or the state where you have your primary place of business, please check the box below.

☐ We are exempt. We agree that if we are selected we will submit to MDHR within five (5) business days of final contract execution, the names of our employees during the previous 12 months, date of separation if applicable, and the state in which the persons were employed. Documentation should be sent to compliance.MDHR@state.mn.us.

The State of Minnesota reserves the right to request additional information from you. **If you are unable to check any of the preceding boxes, please contact MDHR to avoid a determination that a contract with your organization cannot be executed.**

Your signature certifies that you are authorized to make the representations, the information provided is accurate, the State of Minnesota can rely upon the information provided, and the State of Minnesota may take action to suspend or revoke any agreement with you for any false information provided.

Authorized Signature: ________________________ Date: _____________________

Printed Name: ______________________________ Title: ______________________

Organization: _______________________________ MN/Fed Tax ID: _____________

Issuing Identity: ______________ Project # or Lease Address: ___________________

This page intentionally left blank.

EXHIBIT G

STATE OF MINNESOTA
VETERAN-OWNED PREFERENCE FORM

Unless a greater preference is applicable and allowed by law, in accordance with Minn. Stat. §16C.16, subd. 6a, the state will award a 6% preference on state procurement to certified small businesses that are majority owned and operated by veterans.

Veteran-Owned Preference Requirements - *See* Minn. Stat. § 16C.19(d):

1) The business has been certified by the Department of Administration/Materials Management Division as being a veteran-owned or service-disabled veteran-owned small business.

   or

2) The principal place of business is in Minnesota AND the United States Department of Veterans Affairs verifies the business as being a veteran-owned or service-disabled veteran-owned small business under Public Law 109-461 and Code of Federal Regulations, title 38, part 74 (Supported By Documentation).

Statutory requirements and appropriate documentation must be met **by the solicitation response due date and time** to be awarded the veteran-owned preference.

Claim the Preference

By signing below I confirm that:

My company is claiming the veteran-owned preference afforded by Minn. Stat. § 16C.16, subd. 6a. By making this claim, I verify that:

- The business has been certified by the Department of Administration/Materials Management Division as being a veteran-owned or service-disabled veteran-owned small business.
  or
- My company's principal place of business is in Minnesota **and** the United States Department of Veteran's Affairs verifies my company as being a veteran-owned or service-disabled veteran-owned small business (Supported By Attached Documentation)

Name of Company: ______________________________ Date: _________________________

Authorized Signature: ______________________________ Telephone:______________________

Printed Name: ______________________________ Title: __________________________

Attach documentation, sign, and return this form with your solicitation response to claim the veteran-owned preference.

This page intentionally left blank.

STATE OF MINNESOTA
RESIDENT VENDOR FORM

In accordance with Laws of Minnesota 2013, Chapter 142, Article 3, Section 16, amending Minn. Stat. § 16C.02, subd. 13, a "Resident Vendor" means a person, firm, or corporation that:

(1) is authorized to conduct business in the state of Minnesota on the date a solicitation for a contract is first advertised or announced. It includes a foreign corporation duly authorized to engage in business in Minnesota;
(2) has paid unemployment taxes or income taxes in this state during the 12 calendar months immediately preceding submission of the bid or proposal for which any preference is sought; (3) has a business address in the state; and
(4) has affirmatively claimed that status in the bid or proposal submission.

To receive recognition as a Minnesota Resident Vendor ("Resident Vendor"), your company must meet each element of the statutory definition above by the solicitation opening date and time. If you wish to affirmatively claim Resident Vendor status, you should do so by submitting this form with your bid or proposal.

Resident Vendor status may be considered for purposes of resolving tied low bids or the application of a reciprocal preference.

I HEREBY CERTIFY THAT THE COMPANY LISTED BELOW:

1. Is authorized to conduct business in the State of Minnesota on the date a solicitation for a contract is first advertised or announced. *(This includes a foreign corporation duly authorized to engage in business in Minnesota.)*
   ___**Yes** ___**No (must check yes or no)**

2. Has paid unemployment taxes or income taxes in the State of Minnesota during the 12 calendar months immediately preceding submission of the bid or proposal for which any preference is sought.
   ___**Yes** ___**No (must check yes or no)**

3. Has a business address in the State of Minnesota.
   ___**Yes** ___**No (must check yes or no)**

4. Agrees to submit documentation, if requested, as part of the bid or proposal process, to verify compliance with the above statutory requirements.
   ___**Yes** ___**No (must check yes or no)**

BY SIGNING BELOW, you are certifying your compliance with the requirements set forth herein and claiming Resident Vendor status in your bid or proposal submission.

Name of Company: ______________________________ Date: ______________________

Authorized Signature: ______________________________

Printed Name: ______________________________ Title: ______________________

IF YOU ARE CLAIMING RESIDENT VENDOR STATUS, <u>SIGN AND RETURN</u> THIS FORM WITH YOUR BID OR PROPOSAL SUBMISSION.

Telephone: ______________________

This page intentionally left blank.

If you take exception to any of the terms, conditions or language in the contract, you must indicate those exceptions in your response to the RFP; certain exceptions may result in your proposal being disqualified from further review and evaluation. Only those exceptions indicated in your response to the RFP will be available for discussion or negotiation.

Professional and Technical Services Contract

State of Minnesota

SWIFT Contract No.:

This Contract is between the State of Minnesota, acting through its _________________________________ ("State") and ____ ("Contractor").

Recitals

1. Under Minn. Stat. § 15.061 the State is empowered to engage such assistance as deemed necessary.
2. The State is in need of ____.
3. The Contractor represents that it is duly qualified and agrees to perform all services described in this Contract to the satisfaction of the State.

Contract

1. Term of Contract

1.1 Effective date: ___________________________, or the date the State obtains all required signatures under Minn. Stat. § 16C.05, subd. 2, whichever is later. The Contractor must not begin work under this Contract until this Contract is fully executed and the Contractor has been notified by the State's Authorized Representative to begin the work.

1.2 Expiration date: ___________________________, or until all obligations have been satisfactorily fulfilled, whichever occurs first.

1.3 Survival of terms: The following clauses survive the expiration or cancellation of this Contract: 8. Indemnification;
9. State audits; 10. Government data practices and intellectual property; 14. Publicity and endorsement; 15. Governing law, jurisdiction, and venue; and 16. Data disclosure.

2. Contractor's duties

The Contractor, who is not a State employee, will:

____

____

3. Time

The Contractor must comply with all the time requirements described in this Contract. In the performance of this Contract, time is of the essence.

4. Consideration and payment

4.1 Consideration. The State will pay for all services performed by the Contractor under this Contract as follows:

(a) Compensation. The Contractor will be paid $_____________.

(b) Travel expenses. Reimbursement for travel and subsistence expenses actually and necessarily incurred by the Contractor as a result of this Contract will not exceed $______________; provided that the Contractor will be reimbursed for travel and subsistence expenses in the same manner and in no greater amount than

provided in the current "Commissioner's Plan" established by the Commissioner of Minnesota Management and Budget which is incorporated in to this Contract by reference. The Contractor will not be reimbursed for travel and subsistence expenses incurred outside Minnesota unless it has received the State's prior written approval for out-of-state travel. Minnesota will be considered the home state for determining whether travel is out of state.

(c) *Total obligation.* The total obligation of the State for all compensation and reimbursements to the Contractor under this Contract will not exceed $ _______________.

4.2 Payment.

(a) *Invoices.* The State will promptly pay the Contractor after the Contractor presents an itemized invoice for the services actually performed and the State's Authorized Representative accepts the invoiced services. Invoices must be submitted timely and according to the following schedule:

____

____

(b) *Retainage.* Under Minn. Stat. § 16C.08, subd. 2 (10), no more than 90 percent of the amount due under this Contract may be paid until the final product of this Contract has been reviewed by the State's agency head. The balance due will be paid when the State's agency head determines that the Contractor has satisfactorily fulfilled all the terms of this Contract.

(c) *Federal funds.* (Where applicable, if blank this section does not apply.) Payments under this Contract will be made from federal funds obtained by the State through ____________________________________. The Contractor is responsible for compliance with all federal requirements imposed on these funds and accepts full financial responsibility for any requirements imposed by the Contractor's failure to comply with federal requirements.

5. Conditions of payment

All services provided by the Contractor under this Contract must be performed to the State's satisfaction, as determined at the sole discretion of the State's Authorized Representative and in accordance with all applicable federal, state, and local laws, ordinances, rules, and regulations including business registration requirements of the Office of the Secretary of State. The Contractor will not receive payment for work found by the State to be unsatisfactory or performed in violation of federal, state, or local law.

6. Authorized Representative

The State's Authorized Representative is ____, or his/her successor, and has the responsibility to monitor the Contractor's performance and the authority to accept the services provided under this Contract. If the services are satisfactory, the State's Authorized Representative will certify acceptance on each invoice submitted for payment.

The Contractor's Authorized Representative is ____, or his/her successor. If the Contractor's Authorized Representative changes at any time during this Contract, the Contractor must immediately notify the State.

7. Assignment, amendments, waiver, and contract complete

7.1 Assignment. The Contractor may neither assign nor transfer any rights or obligations under this Contract without the prior consent of the State and a fully executed assignment agreement, executed and approved by the same parties who executed and approved this Contract, or their successors in office.

7.2 Amendments. Any amendment to this Contract must be in writing and will not be effective until it has been executed and approved by the same parties who executed and approved the original Contract, or their successors in office.

7.3 Waiver. If the State fails to enforce any provision of this Contract, that failure does not waive the provision or its right to enforce it.

7.4 Contract complete. This Contract contains all negotiations and agreements between the State and the Contractor. No other understanding regarding this Contract, whether written or oral, may be used to bind either party.

8. Indemnification

In the performance of this Contract by Contractor, or Contractor's agents or employees, the Contractor must indemnify, save, and hold harmless the State, its agents, and employees, from any claims or causes of action, including attorney's fees incurred by the State, to the extent caused by Contractor's:

a) Intentional, willful, or negligent acts or omissions; or
b) Actions that give rise to strict liability; or
c) Breach of contract or warranty.

The indemnification obligations of this section do not apply in the event the claim or cause of action is the result of the State's sole negligence. This clause will not be construed to bar any legal remedies the Contractor may have for the State's failure to fulfill its obligation under this Contract.

9. State audits

Under Minn. Stat. § 16C.05, subd. 5, the Contractor's books, records, documents, and accounting procedures and practices relevant to this Contract are subject to examination by the State and/or the State Auditor or Legislative Auditor, as appropriate, for a minimum of six years from the end of this Contract.

10. Government data practices and intellectual property

10.1 Government data practices. The Contractor and State must comply with the Minnesota Government Data Practices Act, Minn. Stat. ch. 13, (or, if the State contracting party is part of the Judicial Branch, with the Rules of Public Access to Records of the Judicial Branch promulgated by the Minnesota Supreme Court as the same may be amended from time to time) as it applies to all data provided by the State under this Contract, and as it applies to all data created, collected, received, stored, used, maintained, or disseminated by the Contractor under this Contract. The civil remedies of Minn. Stat. § 13.08 apply to the release of the data governed by the Minnesota Government Practices Act, Minn. Stat. ch. 13, by either the Contractor or the State.

If the Contractor receives a request to release the data referred to in this clause, the Contractor must immediately notify and consult with the State's Authorized Representative as to how the Contractor should respond to the request. The Contractor's response to the request shall comply with applicable law.

10.2 Intellectual property rights.

(a) Intellectual property rights. The State owns all rights, title, and interest in all of the intellectual property rights, including copyrights, patents, trade secrets, trademarks, and service marks in the works and documents created and paid for under this Contract. The "works" means all inventions, improvements, discoveries (whether or not patentable), databases, computer programs, reports, notes, studies, photographs, negatives, designs, drawings, specifications, materials, tapes, and disks conceived, reduced to practice, created or originated by the Contractor, its employees, agents, and subcontractors, either individually or jointly with others in the performance of this Contract. "Works" includes documents. The "documents" are the originals of any databases, computer programs, reports, notes, studies, photographs, negatives, designs, drawings, specifications, materials, tapes, disks, or other materials, whether in tangible or electronic forms, prepared by the Contractor, its employees, agents, or subcontractors, in the performance of this Contract. The documents will be the exclusive property of the State and all such documents must be immediately returned to the State by the Contractor upon completion or cancellation of this Contract. To the extent possible, those works eligible for copyright protection under the United States Copyright Act will be deemed to be "works made for hire." The Contractor assigns all right, title, and interest it may have in the works and the documents to the State. The Contractor must, at the request of the State, execute all papers and perform all other acts necessary to transfer or record the State's ownership interest in the works and documents.

(b) Obligations

(1) Notification. Whenever any invention, improvement, or discovery (whether or not patentable) is made or conceived for the first time or actually or constructively reduced to practice by the Contractor, including its employees and subcontractors, in the performance of this Contract, the Contractor will immediately give the State's Authorized Representative written notice thereof, and must promptly furnish the State's Authorized Representative with complete information and/or disclosure thereon.

(2) Representation. The Contractor must perform all acts, and take all steps necessary to ensure that all intellectual property rights in the works and documents are the sole property of the State, and that neither Contractor nor its employees, agents, or subcontractors retain any interest in and to the works and documents. The Contractor represents and warrants that the works and documents do not and will not infringe upon any intellectual property rights of other persons or entities. Notwithstanding Clause 8, the Contractor will indemnify; defend, to the extent permitted by the Attorney General; and hold harmless the State, at the Contractor's expense, from any action or claim brought against the State to the extent that it is based on a claim that all or part of the works or documents infringe upon the intellectual property rights of others. The Contractor will be responsible for payment of any and all such claims, demands, obligations, liabilities, costs, and damages, including but not limited to, attorney fees. If such a claim or action arises, or in the Contractor's or the State's opinion is likely to arise, the

Contractor must, at the State's discretion, either procure for the State the right or license to use the intellectual property rights at issue or replace or modify the allegedly infringing works or documents as necessary and appropriate to obviate the infringement claim. This remedy of the State will be in addition to and not exclusive of other remedies provided by law.

11. Workers' compensation and other insurance
Contractor certifies that it is in compliance with all insurance requirements specified in the solicitation document relevant to this Contract. Contractor shall not commence work under the Contract until they have obtained all the insurance specified in the solicitation document. Contractor shall maintain such insurance in force and effect throughout the term of the Contract.

Further, the Contractor certifies that it is in compliance with Minn. Stat. § 176.181, subd. 2, pertaining to workers' compensation insurance coverage. The Contractor's employees and agents will not be considered State employees. Any claims that may arise under the Minnesota Workers' Compensation Act on behalf of these employees or agents and any claims made by any third party as a consequence of any act or omission on the part of these employees or agents are in no way the State's obligation or responsibility.

12. Debarment by State, its departments, commissions, agencies, or political subdivisions
Contractor certifies that neither it nor its principals is presently debarred or suspended by the State, or any of its departments, commissions, agencies, or political subdivisions. Contractor's certification is a material representation upon which the Contract award was based. Contractor shall provide immediate written notice to the State's Authorized Representative if at any time it learns that this certification was erroneous when submitted or becomes erroneous by reason of changed circumstances.

13. Certification regarding debarment, suspension, ineligibility, and voluntary exclusion
Federal money will be used or may potentially be used to pay for all or part of the work under the Contract, therefore Contractor certifies that it is in compliance with federal requirements on debarment, suspension, ineligibility and voluntary exclusion specified in the solicitation document implementing Executive Order 12549. Contractor's certification is a material representation upon which the Contract award was based.

14. Publicity and endorsement
14.1 Publicity. Any publicity regarding the subject matter of this Contract must identify the State as the sponsoring agency and must not be released without prior written approval from the State's Authorized Representative. For purposes of this provision, publicity includes notices, informational pamphlets, press releases, research, reports, signs, and similar public notices prepared by or for the Contractor individually or jointly with others, or any subcontractors, with respect to the program, publications, or services provided resulting from this Contract.
14.2 Endorsement. The Contractor must not claim that the State endorses its products or services.

15. Governing law, jurisdiction, and venue
Minnesota law, without regard to its choice-of-law provisions, governs this Contract. Venue for all legal proceedings out of this Contract, or its breach, must be in the appropriate state or federal court with competent jurisdiction in Ramsey County, Minnesota.

16. Data disclosure
Under Minn. Stat. § 270C.65, subd. 3 and other applicable law, the Contractor consents to disclosure of its social security number, federal employer tax identification number, and/or Minnesota tax identification number, already provided to the State, to federal and state agencies, and state personnel involved in the payment of state obligations. These identification numbers may be used in the enforcement of federal and state laws which could result in action requiring the Contractor to file state tax returns, pay delinquent state tax liabilities, if any, or pay other state liabilities.

17. Payment to subcontractors
(If applicable) As required by Minn. Stat. § 16A.1245, the prime Contractor must pay all subcontractors, less any retainage, within 10 calendar days of the prime Contractor's receipt of payment from the State for undisputed services provided by the subcontractor(s) and must pay interest at the rate of one and one-half percent per month or any part of a month to the subcontractor(s) on any undisputed amount not paid on time to the subcontractor(s).

18. Termination
18.1 Termination by the State. The State or Commissioner of Administration may cancel this Contract at any time, with or without cause, upon 30 days' written notice to the Contractor. Upon termination, the Contractor will be entitled to payment, determined on a pro rata basis, for services satisfactorily performed.

18.2 Termination for insufficient funding. The State may immediately terminate this Contract if it does not obtain funding from the Minnesota Legislature, or other funding source; or if funding cannot be continued at a level sufficient to allow for the payment of the services covered here. Termination must be by written or fax notice to the Contractor. The State is not obligated to pay for any services that are provided after notice and effective date of termination. However, the Contractor will be entitled to payment, determined on a pro rata basis, for services satisfactorily performed to the extent that funds are available. The State will not be assessed any penalty if the Contract is terminated because of the decision of the Minnesota Legislature, or other funding source, not to appropriate funds. The State must provide the Contractor notice of the lack of funding within a reasonable time of the State's receiving that notice.

19. Non-discrimination (In accordance with Minn. Stat. § 181.59)

The Contractor will comply with the provisions of Minn. Stat. § 181.59 which require:

"Every contract for or on behalf of the state of Minnesota, or any county, city, town, township, school, school district, or any other district in the state, for materials, supplies, or construction shall contain provisions by which the contractor agrees:

(1) that, in the hiring of common or skilled labor for the performance of any work under any contract, or any subcontract, no contractor, material supplier, or vendor, shall, by reason of race, creed, or color, discriminate against the person or persons who are citizens of the United States or resident aliens who are qualified and available to perform the work to which the employment relates;

(2) that no contractor, material supplier, or vendor, shall, in any manner, discriminate against, or intimidate, or prevent the employment of any person or persons identified in clause (1) of this section, or on being hired, prevent, or conspire to prevent, the person or persons from the performance of work under any contract on account of race, creed, or color;

(3) that a violation of this section is a misdemeanor; and

(4) that this contract may be canceled or terminated by the state, county, city, town, school board, or any other person authorized to grant the contracts for employment, and all money due, or to become due under the contract, may be forfeited for a second or any subsequent violation of the terms or conditions of this contract."

[Delete this section if your total Contract value is under $100,000]

20. Affirmative action requirements for contracts in excess of $100,000 and if the Contractor has more than 40 full-time employees in Minnesota or its principal place of business

The State intends to carry out its responsibility for requiring affirmative action by its contractors.

20.1 Covered contracts and contractors. If the Contract exceeds $100,000 and the Contractor employed more than 40 full-time employees on a single working day during the previous 12 months in Minnesota or in the state where it has its principle place of business, then the Contractor must comply with the requirements of Minn. Stat. § 363A.36 and Minn. R. 5000.3400-5000.3600. A contractor covered by Minn. Stat. § 363A.36 because it employed more than 40 full-time employees in another state and does not have a certificate of compliance, must certify that it is in compliance with federal affirmative action requirements.

20.2 Minn. Stat. § 363A.36. Minn. Stat. § 363A.36 requires the Contractor to have an affirmative action plan for the employment of minority persons, women, and qualified disabled individuals approved by the Minnesota Commissioner of Human Rights ("Commissioner") as indicated by a certificate of compliance. The law addresses suspension or revocation of a certificate of compliance and contract consequences in that event. A contract awarded without a certificate of compliance may be voided.

20.3 Minn. R. 5000.3400-5000.3600.

(a) *General*. Minn. R. 5000.3400-5000.3600 implements Minn. Stat. § 363A.36. These rules include, but are not limited to, criteria for contents, approval, and implementation of affirmative action plans; procedures for issuing certificates of compliance and criteria for determining a contractor's compliance status; procedures for addressing deficiencies, sanctions, and notice and hearing; annual compliance reports; procedures for compliance review; and contract consequences for non-compliance. The specific criteria for approval or rejection of an affirmative action plan are contained in various provisions of Minn. R. 5000.3400-5000.3600 including, but not limited to, Minn. R. 5000.3420-5000.3500 and 5000.3552-

5000.3559.

(b) Disabled Workers. The Contractor must comply with the following affirmative action requirements for disabled workers.

(1) The Contractor must not discriminate against any employee or applicant for employment because of physical or mental disability in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified disabled persons without discrimination based upon their physical or mental disability in all employment practices such as the following: employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

(2) The Contractor agrees to comply with the rules and relevant orders of the Minnesota Department of Human Rights issued pursuant to the Minnesota Human Rights Act.

(3) In the event of the Contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with Minn. Stat. § 363A.36, and the rules and relevant orders of the Minnesota Department of Human Rights issued pursuant to the Minnesota Human Rights Act.

(4) The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Commissioner. Such notices must state the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified disabled employees and applicants for employment, and the rights of applicants and employees.

(5) The Contractor must notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Minn. Stat. § 363A.36, of the Minnesota Human Rights Act and is committed to take affirmative action to employ and advance in employment physically and mentally disabled persons.

(c) Consequences. The consequences for the Contractor's failure to implement its affirmative action plan or make a good faith effort to do so include, but are not limited to, suspension or revocation of a certificate of compliance by the Commissioner, refusal by the Commissioner to approve subsequent plans, and termination of all or part of this Contract by the Commissioner or the State.

(d) Certification. The Contractor hereby certifies that it is in compliance with the requirements of Minn. Stat. § 363A.36 and Minn. R. 5000.3400-5000.3600 and is aware of the consequences for noncompliance.

21. E-Verify certification (In accordance with Minn. Stat. § 16C.075)

For services valued in excess of $50,000, Contractor certifies that as of the date of services performed on behalf of the State, Contractor and all its subcontractors will have implemented or be in the process of implementing the federal E-Verify Program for all newly hired employees in the United States who will perform work on behalf of the State. Contractor is responsible for collecting all subcontractor certifications and may do so utilizing the *E-Verify Subcontractor Certification Form* available at http://www.mmd.admin.state.mn.us/doc/EverifySubCertForm.doc. All subcontractor certifications must be kept on file with Contractor and made available to the State upon request.

22. Subcontractor Reporting

If the total value of this contract may exceed $500,000, including all extension options, Contractor must track and report, on a quarterly basis, the amount spent with diverse small businesses. When this applies, Contractor will be provided free access to a portal for this purpose, and the requirement will continue as long as the contract is in effect

23. Certification of Nondiscrimination (In accordance with Minn. Stat. § 16C.053)

The following term applies to any contract for which the value, including all extensions, is $50,000 or more: Contractor certifies it does not engage in and has no present plans to engage in discrimination against Israel, or against persons or entities doing business in Israel, when making decisions related to the operation of the vendor's business. For purposes of this section, "discrimination" includes but is not limited to engaging in refusals to deal, terminating business activities, or other actions that are intended to limit commercial relations with Israel, or persons or entities doing business in Israel, when such actions are taken in a manner that in any way discriminates on the basis of nationality or national origin and is not based on a valid business reason.

1. State Encumbrance Verification
Individual certifies that funds have been encumbered as required by Minn. Stat. §§ 16A.15 and 16C.05

Print name: ______________________________

Signature: ______________________________

Title: ____________________ Date: __________

SWIFT Contract No.:

____

2. Contractor
The Contractor certifies that the appropriate person(s) have executed the Contract on behalf of the Contractor as required by applicable articles, bylaws, resolutions, or ordinances.

Print name: ______________________________

Signature: ______________________________

Title: ____________________ Date: __________

Print name: ______________________________

Signature: ______________________________

Title: ____________________ Date: __________

3. State Agency
With delegated authority

Print name: ______________________________

Signature: ______________________________

Title: ____________________ Date: __________

4. Commissioner of Administration
As delegated to the Office of State Procurement

Print name: ______________________________

Signature: ______________________________

Title: ____________________ Date: __________

Print name: ______________________________

Signature: ______________________________

Title: ____________________ Date: __________

Distribution:
Agency
Contractor
State's Authorized Representative – photo copy

This page intentionally left blank.

TAB D

Private Markets Investment Program

This page intentionally left blank.

DATE: August 18, 2021

TO: Members, State Board of Investment

FROM: Members, Investment Advisory Council and SBI Staff

SUBJECT: Private Markets Commitments for Consideration

Staff has reviewed the following action agenda item:

A. Status of SBI Current Private Markets Commitments
B. Consideration of New Investment commitments

Existing Managers:

Private Equity	Asia Alternatives	MN Asia Investors	$100 Million
Private Equity	Carlyle	Carlyle Partners VIII	$150 Million
Private Equity	Carlyle	Carlyle/MN Co-Invest	$100 Million
Private Equity	Summit Partners	Growth Equity XI	$300 Million
Real Assets	KKR	Global Infrastructure IV	$100 Million
Real Estate	Blackstone	BREP Asia III	$100 Million
Real Estate	KKR	KKR REPA III	$125 Million
Private Credit	Sixth Street	Opportunities Partners V	$75 Million

SBI action is required on item B.

A. Status of SBI Current Private Markets Commitments

Minnesota State Board of Investment

Combined Funds

June 30, 2021

Combined Funds Market Value	$89,494,374,140
Amount Available for Investment	**$6,840,942,081**

	% of Combined Funds	Current Level	Target Level [1]	Difference
Market Value (MV)	17.4%	$15,532,651,454	$22,373,593,535	$6,840,942,081
Policy Target	*25%*			
Statutory Limit	*35%*			
MV +Unfunded	29.9%	$26,746,074,579	$40,272,468,363	$13,526,393,784
Policy Limit	*45.0%*			

Asset Class	% of Combined Funds	Market Value	Unfunded Commitment	Total
Private Equity	11.2%	$9,999,142,460	$6,811,391,898	$16,810,534,357
Private Credit	1.1%	$962,382,267	$1,140,533,212	$2,102,915,480
Real Assets	2.1%	$1,896,613,549	$689,065,024	$2,585,678,573
Real Estate	1.4%	$1,251,285,956	$1,470,868,030	$2,722,153,986
Distressed/Opportunistic	1.6%	$1,390,922,686	$1,101,564,960	$2,492,487,647
Other[2]		$32,304,536		$32,304,536
Total		$15,532,651,454	$11,213,423,124	$26,746,074,579

Cash Flows

June 30, 2021

Calendar Year	Capital Calls	Distributions	Net Invested
2021 (6 months)	$1,097,134,770	($712,629,572)	$384,505,198
2020	$2,786,134,001	($2,318,825,278)	$467,308,723
2019	$2,543,614,503	($2,080,037,860)	$463,576,642
2018	$1,992,000,341	($2,049,733,815)	($57,733,474)
2017	$2,021,595,780	($2,383,863,711)	($362,267,931)

[1] There is no target level for MV + Unfunded. This amount represents the maximum allowed by policy

[2] Represents in-kind stock distributions from the liquidating portfolio managed by T.Rowe Price and cash accruals.

B. Consideration of New Investment Commitments

ACTION ITEMS:

1) **Investment with an existing private equity manager, Asia Alternatives Management ("Asia Alternatives") in a separately managed account established for the benefit of the SBI ("MN Asia Investors, LP").**

In the 3rd quarter of 2020, the Investment Advisory Council and the State Board of Investment approved a commitment with Asia Alternatives Management to invest $200 million across two pools of capital: a "Balanced Pool" which will be invested in parallel with Asia Alternatives Capital Partners VI, and a "Co-Investment Pool," which was established to pursue substantially similar investments as Asia Alternatives Capital Partners VI, subject to investment guidelines or restrictions agreed to by both the Limited Partner and Asia Alternatives. Since closing on the initial $200 commitment, the SBI has been able to participate in a number of attractive opportunities in the co-investment pool. By committing additional capital to MN Asia Investors, LP, designated solely for additional co-investment opportunities, it will ensure that the SBI will be able to participate in attractive co-investment opportunities sourced by Asia Alternatives for the remainder of 2021 and into 2022.

In addition to reviewing the attractiveness of the Asia Alternatives Capital Partners investment offering, staff conducted due diligence, reference checks, a literature database search, and reviewed the potential investor base for the Asia Alternatives Capital Partners VI.

More information on MN Asia Investors is included as **Attachment A beginning on page 9.**

RECOMMENDATION:

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to an additional $100 million to MN Asia Investors, plus an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Asia Alternatives Management upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Asia Alternatives Management or reduction or termination of the commitment.

2) **Investment with an existing private equity manager, The Carlyle Group ("Carlyle"), in Carlyle Partners VIII ("CP VIII") and Carlyle/MN Co-Invest.**

Carlyle is seeking investors for Carlyle Partners VIII to make control-oriented and strategic minority investments in mainly leveraged-buyout transactions in the U.S. CP VIII will generally target investments in market-leading businesses with solid cash flows and attractive fundamentals, where it can obtain majority control or significant influence over the governance of the business and drive further growth and operational improvement. CP VIII will focus on investments within six core industries: Industrial, Technology, Healthcare, Consumer, Aerospace & Defense, and Financial Services.

In conjunction with CP VIII, the SBI intends to pursue a separately managed account with Carlyle, Carlyle/MN Co-Invest that will generally pursue substantially similar investments as CP VIII, subject to potential investment guidelines or restrictions agreed upon by the SBI and Carlyle.

In addition to reviewing the attractiveness of the Carlyle Partners VIII investment offering, staff conducted due diligence, reference checks, a literature database search, and reviewed the potential investor base for the fund.

More information on Carlyle Partners VIII and the Carlyle/MN Co-Invest is included as **Attachment B beginning on page 13.**

RECOMMENDATION:

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to $150 million, or 20% of Carlyle Partners VIII, whichever is less, and up to $100 million to Carlyle/MN Co-Invest, plus an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by The Carlyle Group upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on The Carlyle Group or reduction or termination of the commitment.

3) **Investment with an existing private equity manager, Summit Partners ("Summit"), in Summit Partners Growth Equity Fund XI ("GE XI").**

Summit is establishing GE XI to continue its long history of investing in growth companies within the Technology, Healthcare & Life Sciences, and Growth Products & Services sectors. Summit seeks to identify these companies through its thematic idea generation process, which draws on its deep sector expertise and our direct sourcing capabilities.

Summit targets companies that are generally category-leaders with established business models, healthy free cash flow generation, attractive unit-level economics, and rapid revenue growth. GE XI expects to invest between $75 million and $500 million per investment for a minority or majority position in growth-oriented private companies across these three target sectors.

In addition to reviewing the attractiveness of the Summit Partners Growth Equity Fund XI investment offering, staff conducted due diligence, reference checks, a literature database search, and reviewed the potential investor base for the fund.

More information on Summit Partners Growth Equity Fund XI is included as **Attachment C beginning on page 17.**

RECOMMENDATION:

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to $300 million, or 20% of Summit Partners Growth Equity Fund XI, whichever is less, plus an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Summit Partners upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Summit Partners or reduction or termination of the commitment.

4) Investment with an existing real assets manager, KKR, in KKR Global Infrastructure Investors IV ("Fund IV").

KKR is establishing KKR Global Infrastructure Investors IV to pursue infrastructure investment opportunities with an emphasis on investments in existing assets and businesses located primarily in OECD (Organization for Economic Co-operation and Development) countries in North America and Western Europe. Fund IV will seek to generate attractive risk-adjusted returns by focusing on critical infrastructure investments with low volatility and strong down side protection. KKR's discipline in selecting investments based on risk profile focuses on investments that fall into one of the following three categories each of which provides long-term visibility of cash flows: regulated investments, contracted investments, or investments with market and/or structural protection.

In addition to reviewing the attractiveness of the KKR Global Infrastructure Investors IV investment offering, staff conducted due diligence, reference checks, a literature database search, and reviewed the potential investor base for the fund.

More information on KKR Global Infrastructure Investors IV is included as **Attachment D beginning on page 21.**

RECOMMENDATION:

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to $100 million, or 20% of KKR Global Infrastructure Investors IV, whichever is less, plus an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by KKR upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on KKR or reduction or termination of the commitment.

5) Investment with an existing real estate manager, The Blackstone Group ("Blackstone"), in Blackstone Real Estate Partners Asia III ("BREP Asia III").

Blackstone is forming BREP Asia III to continue its opportunistic real estate strategy focused on opportunities across the Asia-Pacific region. Blackstone believes its competitive advantages of speed and scale, and its ability to navigate complexity are more pronounced in the Asia-Pacific region than anywhere else in the world. BREP Asia III seeks to take advantage of two key macro drivers in the region: 1) middle class expansion and 2) innovation and technology. The Blackstone Real Estate team expects to invest BREP Asia III in Blackstone Real Estate's global high-conviction themes where the Firm expects outsized growth: logistics, IT/Tech office, rental housing, and tourism and hospitality.

In addition to reviewing the attractiveness of the Blackstone Real Estate Partners Asia III investment offering, staff conducted due diligence, reference checks, a literature database search, and reviewed the potential investor base for the fund.

More information on Blackstone Real Estate Partners Asia III is included as **Attachment E beginning on page 25.**

RECOMMENDATION:

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to $100 million, or 20% of Blackstone Real Estate Partners Asia III, whichever is less, plus an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing. Approval of this potential commitment is not intended to be, and does not constitute in

any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by The Blackstone Group upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on The Blackstone Group or reduction or termination of the commitment.

6) Investment with an existing real estate manager, KKR, in KKR Real Estate Partners Americas III ("REPA III").

KKR is seeking investors to pursue opportunistic real estate and real estate-related investment opportunities primarily in the United States. REPA III expects to pursue investments through various transaction types, including 1) transitional assets, 2) real estate companies and platforms, and 3) distressed situations. The KKR Real Estate team takes a thematic approach to investing and seeks to identify attractive demographic and industry trends that affect real estate fundamentals, find markets and asset classes that benefit from these trends, and determine whether current valuations present an attractive investment opportunity. In deploying capital, the decades of real estate investment experience of KKR's dedicated Real Estate Team and the experience, relationships, expertise and operational capabilities that KKR has developed over four decades of investing in private companies, combine to provide what KKR views as the cornerstone of KKR Real Estate's competitive advantage in the asset class.

In addition to reviewing the attractiveness of the KKR Real Estate Partners Americas III investment offering, staff conducted due diligence, reference checks, a literature database search, and reviewed the potential investor base for the fund.

More information on KKR Real Estate Partners Americas III is included as **Attachment F beginning on page 29.**

RECOMMENDATION:

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to $125 million, or 20% of KKR Real Estate Partners Americas III, whichever is less, plus an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by KKR upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on KKR or reduction or termination of the commitment.

7) **Investment with an existing private credit, Sixth Street Partners ("Sixth Street"), in Sixth Street Opportunities Partners V ("Opportunities V").**

Sixth Street is forming Opportunities V to pursue thematic, control-oriented, actively managed investments exhibiting downside protection. These investments will be purchased or originated across the economic and credit cycle by targeting deep value opportunities with embedded complexity that are difficult to source, analyze, or execute. Sixth Street expects to build the Opportunities V portfolio across three major "hunting grounds": 1) control orientation, 2) asset opportunities, and 3) corporate dislocations. When constructing portfolios, Sixth Street seeks top-down investment themes in dislocated sectors as well as bottom-up opportunities where it can provide capital to businesses with capital needs caused by secular or idiosyncratic changes.

In addition to reviewing the attractiveness of the Sixth Street Opportunities Partners V investment offering, staff conducted due diligence, reference checks, a literature database search, and reviewed the potential investor base for the fund.

More information on Sixth Street Opportunities Partners V is included as **Attachment G beginning on page 33.**

RECOMMENDATION:

The Investment Advisory Council concurs with Staff's recommendation that the SBI authorize the Executive Director, with assistance from the SBI's legal counsel, to negotiate and execute a commitment of up to $75 million, or 20% of Sixth Street Opportunities Partners V, whichever is less, plus an additional amount not to exceed one percent of the total commitment for the payment of required charges at closing. Approval of this potential commitment is not intended to be, and does not constitute in any way, a binding or legal agreement or impose any legal obligations on the State Board of Investment and neither the State of Minnesota, the Investment Advisory Council, the State Board of Investment nor its Executive Director have any liability for reliance by Sixth Street Partners upon this approval. Until the Executive Director on behalf of the SBI executes a formal agreement, further due diligence and negotiations may result in the imposition of additional terms and conditions on Sixth Street Partners or reduction or termination of the commitment.

ATTACHMENT A

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. *Background Data*

Name of Fund:	Asia Alternatives Capital Partners VI, L.P.
Type of Fund:	Private Equity
Target Fund Size:	\$1.3 billion
Fund Manager:	Asia Alternatives Management, LLC
Administrative Contact:	Melissa Ma One Embarcadero Center, 16th Floor San Francisco, CA 94111

II. *Organization and Staff*

Asia Alternatives Management LLC ("Asia Alternatives" or the "Firm") is forming Asia Alternatives Capital Partners VI ("AACP VI", "Fund VI" or the "Fund") to pursue investment opportunities with top-performing private equity managers and will hold a diversified portfolio of Asian private equity funds. Like AACP Funds I-V, Fund VI will invest primarily in Greater China, Japan, South Korea, India, Southeast Asia and Australia. The Fund intends to be diversified across buyout, growth and expansion, venture capital and special situations (defined as distressed debt, real estate, corporate restructuring and/or structured transactions).

The Firm was founded in 2006 by Melissa Ma, Laure Wang and Rebecca Xu. Today Firm leadership is comprised of Ms. Ma and Ms. Xu, along with Principals William LaFayette and Akihiko Yasuda and Praneet Garg, and Principals Valerie Leung and Dan Dashiell, who collectively have over 130 years of on-the-ground experience in Asia and over 85 years collective experience investing in Asia private equity.

Currently, the Asia Alternatives Investment team is made up of 19 investment professionals with significant experience evaluating and investing in private equity funds and direct deals in Asia, including investment sourcing, due diligence, negotiation, research and monitoring, accounting and reporting, client service and risk management. The Investment Team is supported by an investment administration team of 36 people performing finance and accounting, investor relations and fund administration duties. The Firm's investment staff are largely based in offices in Hong Kong, Beijing and Shanghai, while the San Francisco office is focused primarily on client service, marketing and corporate financial reporting and governance.

III. Investment Strategy

Asia Alternatives will seek to invest the Fund across approximately 20-25 fund managers, who will form the core fund manager relationships for the Firm. Because the depth of proven private equity managers across Asia is relatively small, Asia Alternatives believes that concentrating the Fund's investments with proven, top-performing managers is necessary to help ensure overall attractive returns.

The Asia Alternatives Investment Team is organized by "buckets" of a combination of geography and sub-sector – for example China small-mid growth or Japan mid-large buyouts. The team produces "Bucket Reports" which are the basis for making a recommendation of risk premium for the bucket. The Bucket Reports are analyses that look at a series of macroeconomic updates (e.g. GDP, regulatory changes, currency, stock market, etc.) and private equity market specific factors (e.g., exits, leverage multiples, valuation levels, number of players, amount of money raised, etc.) as a basis for making risk premium recommendations. Every quarter the Investment Team re-underwrites its views and risk premiums based on recent developments.

The Investment team sets hurdles for (i) geographic risk, (ii) illiquidity risk and (iii) manager risk. The portfolio is constructed based on which buckets the Investment team analyzes and deems have the highest probability to deliver the risk premium hurdles set. Once the Investment team has picked which buckets to concentrate capital in, it screens managers "bottom up" and ranks managers for each bucket. The goal is to invest in the top 3-5 managers, as appropriate, for each of the most attractive buckets.

This investment process will result in a portfolio that has been thoughtfully constructed across three dimensions:

Strategy Type:
The Firm expects that approximately 90+% of the capital of AACP VI will be invested independent, Asia-based firms, with the remainder allocated to fund managers affiliated with U.S. or European private equity firms. These investments will generally be of the following types:

- 50-60% of the capital is expected to be invested with "core managers," who as a team have invested two or more prior iterations together.
- 5-15% of the capital is expected to be invested with first time or emerging managers who have strong potential to generate the top-performing funds among their peer group. A number of these managers are expected to be structured primaries.
- Finally, the Fund expects to invest approximately 20-30% in structured primaries. These are primary commitments in new firms where Asia Alternatives plays an anchor sponsor role and receives economic benefits for this sponsorship. The teams, however, are often experienced groups that have worked together for a prior employer.

- To further enhance returns, the Fund will also allocate approximately 20-30% to pursue direct co-investments and secondary purchases of fund investments. These direct co-investments and secondaries will primarily be with the Fund's existing managers or those fund managers who have strong potential to provide future fund investments.

Geography:
Asia Alternative's allocations for the Fund are based on a rigorous and systematic top-down bucket analysis of the key private equity markets in Asia coupled with a bottom-up screening of the current Asia fund manager universe to identify the most suitable opportunities. The process is centered around assessing the various levels of risk in each market and selecting managers who have historically and/or the Firm believes have the future potential to generate sufficient return to more than justify the risk associated with their chosen investment market and strategy.

Each quarter Asia Alternatives evaluates the attractiveness of each geographical region in Asia and each sub-asset class as a starting point of how to allocate capital within AACP VI. The Investment Team evaluates (i) the economic and business fundamentals of the country's economy, using criteria such as size and growth of GDP, policy and regulatory environment, business fundamentals, public market depth, and corporate governance; and (ii) attractiveness of the private equity environment, considering factors such as the level of buyout, growth and expansion, venture and special situation opportunities, overall quality and depth of fund managers, ability to exit and fundraising momentum.

AACP VI's projected geographic allocation is 45-55% Greater China, 20-40% Japan and South Korea, 15-25% India, and 10-15% Southeast Asia and Australia. Given the growing and dynamic nature of the Asia private equity landscape, these allocations may fluctuate as much as +/-10% during the life of the Fund.

Sub-Asset Class:
To overlay the geographic assessment, the Investment Team performs a separate analysis on the private equity sub-asset classes in Asia, which are buyout, expansion and growth, venture and special situations. The criteria used to evaluate each sub-asset class include investment themes, source of deals, drivers of return, skills required, exit options and country focus. Systematically reviewing sub-asset class in Asia along this framework results in an AACP VI portfolio that is expected to consist of 40-50% buyout opportunities, 25-35% in expansion and growth, 20-25% venture investments, and 5-15% in special situations funds which could include distressed debt, real estate, corporate restructuring and/or structured transactions.

Asia Alternatives believes that responsible corporate behavior with respect to environmental, social and governance ("ESG") factors can generally have a positive influence on long-term financial performance, recognizing that the relative importance of ESG factors varies across industries, geographies and time. In analyzing risks inherent in its portfolio investments, Asia Alternatives looks to identify, monitor, and mitigate ESG issues that are, or could become, material to long-term financial performance. Potential ESG risks and opportunities are appropriately considered as part of Asia Alternatives' overall investment process, including inquiries relating to the status of ESG policies at portfolio funds and reporting processes related to the same. Asia Alternatives became a signatory to the United Nations Principles for Responsible Investment in May 2019.

Asia Alternatives may also create customized parallel investment vehicles which will invest in whole or in part alongside Fund VI. These separate vehicles will be created for certain Limited Partners in Fund VI, and will generally pursue substantially similar investments as the Fund, potentially subject to investment guidelines or restrictions agreed to by both the Limited Partner and Asia Alternatives.

IV. Investment Performance

Previous fund performance as of December 31, 2019 for Asia Alternatives funds are shown below:

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
AACP I	2007	$515 million	--	11.0%	1.8	1.7
AACP II	2008	$950 million	--	17.6%	2.4	1.8
AACP III	2012	$908 million	--	12.9%	1.6	0.8
AACP IV	2015	$948 million	--	12.9%	1.3	0.2
AACP V	2017	$1.52 billion	$100 million	(17.0)%	0.9	0.0

* Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Performance provided by Asia Alternatives Management.

VII. Investment Period and Term

The investment period will be five years from the final close of the Fund. The term will be ten years from the final closing of the fund, subject to automatic extensions to the later of (i) the 7^{th} anniversary of the expiration of the investment period of the portfolio fund whose investment period is the last to expire, and (ii) the 7^{th} anniversary of the date, during the Investment Period, that the last direct private equity investment was made (limited to a maximum of four years).

This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM and any supplemental thereto.

ATTACHMENT B

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

Name of Fund:	Carlyle Partners VIII, L.P.
Type of Fund:	Private Equity
Total Fund Size:	$22 billion target
Fund Manager:	The Carlyle Group
Manager Contact:	Fran Lolli 1001 Pennsylvania Avenue Washington, DC 20004

II. Organization and Staff

The Carlyle Group ("Carlyle" or the "Firm") has formed Carlyle Partners VIII (the "Fund" or "CP VIII") to make control-oriented and strategic minority investments in mainly leveraged-buyout transactions in the U.S. CP VIII is the eighth in a series of funds raised by Carlyle since it was formed in 1987. Since inception, the strategy has invested approximately $58 billion of equity (including co-investment) in 170 transactions and returning $76 billion in distributions as of March 31, 2021.

Carlyle was founded in 1987 by William Conway, Daniel D'Aniello, and David Rubenstein. Today it has grown into a global alternative asset management firm with approximately $260 billion in AUM, more than 690 investment professionals, and over 1800 total employees located in 19 countries worldwide (as of March 31, 2021). The Americas Private Equity team is co-led by Sandra J. Horbach and Brian A. Bernasek, who collectively have over 55 years of private equity experience. Further strengthening the continuity of strategy and personnel is Carlyle Americas Private Equity Chairman Peter J Clare and Vice Chairman Allan M. Holt. In addition to the Co-Heads, Chairman and Vice Chairman, six Sector Heads complete Carlyle's Americas Private Equity senior advisory leadership team, which has an average tenure of 20 years at Carlyle and 24 years of private equity experience.

III. Investment Strategy

Carlyle Partners VIII will seek to make control-oriented and strategic minority investments in mainly leveraged-buyout transactions, with equity investments where the opportunity available to Carlyle is between approximately $300 million and $2 billion of total equity capital. The Fund will generally target investments in market-leading businesses with solid cash flows and attractive fundamentals, where it can obtain majority control or significant influence over the governance of the business and drive further growth and operational improvement.

Carlyle Partners VIII will focus on investments within six core industries: Industrial, Technology, Healthcare, Consumer, Aerospace & Defense, and Financial Services. Carlyle believes that the Americas Private Equity team's in-depth knowledge of these specific industries improves the Firm's ability to source and create transactions, conduct effective and more informed due diligence, and develop strong relationships with management teams to design and implement highly achievable, customized value creation plans.

As Carlyle's Americas Private Equity investment strategy has steadily evolved over its more than 30-year investment history, the Americas Private Equity investment advisory team consistently strives to be creative and look for deals in which Carlyle can leverage its competitive advantages, sector experience and its global platform in order to drive growth. This strategy includes identifying opportunities where Carlyle has an edge, such as:

(i) *Operational Improvements:* Carlyle believes that it has established a differentiated track record in creating value through operational change. CP VIII will seek to pursue investments where improvements in commercial excellence can achieve significant cost reductions, revenue growth, and margin improvement, thereby driving significant earnings growth. In these opportunities, Carlyle will design a strong, transformative improvement plan, often times including selecting the management team.

(ii) *Industry Leaders*: CP VIII will seek to back what Carlyle believes to be market-leading businesses with an already successful business model and a demonstrated ability to take market share. These companies are typically led by highly capable and world-class management teams, with whom Carlyle can partner to take the business to the next level by leveraging the resources of the industry teams, operating executives, and broader global platform.

(iii) *Buy and Build*: Carlyle will seek to invest in platforms that have the opportunity to grow by consolidating a fragmented industry and generating synergies. By thoughtfully supporting M&A and filling in resource gaps, Carlyle will seek to strategically reposition the company in order to achieve a higher exit multiple.

(iv) *High Growth*: Due to the depth of its sector specialization, Carlyle believes it has a differentiated edge in identifying and finding fast-growing business models as they emerge and evolve. Target companies have innovative products, technology or strategies and operate in market segments that exhibit high growth rates or have significant white space. In many instances, these companies are founder-led businesses in which Carlyle can create significant value by scaling the target company to generate attractive returns.

Carlyle believes that the Americas Private Equity track record of strong and consistent investment returns is driven by its unique capabilities to create value through earnings growth. Carlyle aims to accelerate revenue growth and drive margin improvement. The value creation process begins during the assessment of the investment opportunity itself, when the investment advisory team identifies key strengths, opportunities and risks of the business and engages with management, potential new management and Carlyle Operating

Executives to develop a customized and comprehensive value creation plan.[1] Post-investment, the Carlyle Americas Private Equity investment advisory team and Carlyle Operating Executives, through their role on the Board of Directors or as consultants to management, oversee management's execution of this value creation plan. Carlyle's value creation strategy is focused on growing earnings by accelerating revenue (e.g., through international expansion or market share gains) and improving margins (e.g., through operational efficiencies or economies of scale). Furthermore, Carlyle aims to utilize all levers of value creation by employing a robust and flexible toolkit, which includes supporting M&A, optimizing capital structure, skillfully navigating market environments, and creatively structuring transactions.

As a responsible global organization dedicated to serving its investors, Carlyle has made it a priority to invest in a framework and the necessary resources for understanding, monitoring and managing environmental, social and governance ("ESG") risks and opportunities across its portfolio. The key components of Carlyle's ESG framework are as follows:

- Adherence to Carlyle's firm-wide ESG Policy, Investment Exclusions and Parameters Policy, and Guidelines for Responsible Investment;
- ESG review as part of Carlyle's investment due diligence process, and a summary of that diligence incorporated into the Investment Committee Memo and Transaction Dashboard;
- ESG input and expertise provided by a dedicated in-house ESG team and a select group of external ESG consultants, as appropriate;
- Evaluation of opportunities for ESG Value creation during investment hold period;
- Annual board-level discussion on material ESG issues for the company, led by a member of the board with designated accountability for ESG;
- Completion of an ESG diagnostic during onboarding, including engagement with the ESG team to assess the results and establish a plan to address identified areas for value creation, including bespoke Key Performance Indicators. The diagnostic is re-administered annually to monitor progress, and;
- Strong transparency and governance including the publication of an annual ESG Report and Task Force of Climate-Related Financial (TCFD) report.

Carlyle and the SBI may establish a co-investment partnership for the benefit of the SBI, which would have the ability to co-invest in certain investments made by Carlyle funds in which the SBI is also a Limited Partner. Such a partnership would be invested consistent with guidelines around portfolio composition and discretion agreed upon by both Carlyle and the SBI, including the appropriate time horizon. There can be no guarantee that any capital committed to a co-investment partnership will ultimately be invested.

[1] Operating Executives are consultants and not Carlyle personnel for the purposes of the limited partnership agreement of the Fund. Costs of non-employees may be borne by the Fund or the relevant portfolio company. Please see the Fund's limited partnership agreement for further details.

IV. Investment Performance

Previous fund performance as of June 30, 2021 is shown below:

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
Carlyle Partners I	1990	$100 million	--	26%	3.2x	3.2x
Carlyle Partners II	1995	$1.3 billion	--	25%	2.5x	2.5x
Carlyle Partners III	2000	$3.9 billion	--	21%	2.1x	2.1x
Carlyle Partners IV	2005	$7.9 billion	--	13%	2.0x	2.0x
Carlyle Partners V	2007	$13.7 billion	--	14%	1.8x	1.7x
Carlyle Partners VI	2014	$13.0 billion	--	18%	2.0x	0.7x
Carlyle Partners VII	2018	$18.5 billion	$150 million	9%	1.1x	0.0x

* Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR and Multiple of Invested Capital (MOIC) were provided by Carlyle Partners. Figures represent fund only amounts and exclude related co-investments. Past performance is not necessarily indicative of future results and there can be no assurance that the Fund will be able to achieve comparable results, implement its investment strategy or achieve its investment objective.

V. Investment Period and Term

The investment period will run for 6 years, while the Partnership's term will be ten years from the final closing date, subject to extensions approved by the Advisory Committee.

This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM. All terms summarized in this document are subject to negotiation between the Minnesota State Board of Investment and the General Partner.

ATTACHMENT C

PRIVATE EQUITY MANAGER SUMMARY PROFILE

I. Background Data

Name of Fund:	Summit Partners Growth Equity Fund XI-[A/B], L.P.
Type of Fund:	Private Equity – Growth
Target Fund Size:	$7 billion
Fund Manager:	Summit Partners
Manager Contact:	Ross Murphy 222 Berkeley Street Boston, MA 02116

II. Organization and Staff

Summit Partners (the "Firm" or "Summit") is a global alternative investment firm founded in 1984. The Firm serves as the investment manager of growth equity and subordinated debt funds (the "Summit Funds") which seek to invest primarily in rapidly growing, profitable companies. The Firm currently manages $28 billion in assets under management dedicated to US growth equity, European growth equity, venture capital, debt and public equity asset classes. Over the last three decades, the Summit Funds have invested in more than 480 growth equity and venture companies generally within the three industries on which it focuses: Technology, Healthcare & Life Sciences, and Growth Products & Services. These companies have completed more than 380 liquidity events, including over 170 public equity offerings and more than 210 exits through strategic M&A and financial sponsor recapitalizations. The Firm's 100+ investment professionals operate as an integrated team across sectors, strategies and geographies. Summit Partners maintains offices in Boston, Menlo Park, London and Luxembourg.

Summit is raising Summit Partners Growth Equity Fund XI (the "Fund" or "GE XI") to continue its long history of investing in growth companies within the technology, healthcare & life sciences and growth products & services sectors. Summit seeks to identify these companies through its thematic idea generation process, which draws on its deep sector expertise and our direct sourcing capabilities.

Summit believes that effective corporate governance and a commitment to social and environmental responsibility are important components of its growth strategy. As growth focused investors, the Firm recognizes the importance of environmental, social and governance (ESG) factors in creating sustainable growth, and seeks to integrate the consideration of material ESG factors into its investment, portfolio company value creation and business management processes in an effort to build enduring value for the entrepreneurs and investors with whom it partners. Summit values leadership, integrity, initiative and creativity, and seeks to exercise these characteristics in every interaction, to build strong relationships and to effect change in the companies and communities in which it invests.

III. *Investment Strategy*

Since Summit's inception in 1984, its growth equity investment strategy has been grounded in a fundamental belief that profitable growth is the most reliable source of superior risk-adjusted returns across market cycles. Summit targets companies that are generally category-leaders with established business models, healthy free cash flow generation, attractive unit-level economics, and rapid revenue growth. The growth equity team seeks to identify and partner with companies exhibiting these characteristics within three primary sectors: Technology, Healthcare & Life Sciences, and Growth Products & Services, which includes, but is not limited to, financial services, financial technology, business services, branded consumer, industrial technology and other growth industries. The Fund expects to invest between $75 million and $500 million per investment for a minority or majority position in growth-oriented private companies across these three target sectors.

Summit believes it is a pioneer and industry leader in direct sourcing of investments. Today, the Firm continues to innovate and evolve its direct sourcing capabilities with investments in technology, people and process. Teams employ a thematic idea generation process leveraging a 37-year track record and deep sector experience. This process is typically led by Managing Directors and is coordinated across the Summit platform. On average over the last five years, Summit has contacted more than 13,000 companies worldwide each year. Summit believes this expansive market coverage provides early insight into growth trends and helps Summit to identify and productively engage with category leaders across its sectors of focus. The Summit team has historically met with nearly 1,300 companies each year, and these visits enable team members to build long-standing relationships and continue to refine investment theses.

To complement a talented deal team, Summit established a value enhancement services platform in 2007 to serve the operational and financing needs of growth companies in order to support growth and improve investment outcomes. Since that time, the value enhancement capabilities and resources have expanded significantly to include four separate teams:

- ***Peak Performance Group*** – provides support in functional areas such as revenue optimization, growth marketing, technology and M&A with a focus on improving operational efficiency, strengthening corporate infrastructure and executing growth strategies;

- ***Capital Markets Team*** – helps in structuring and executing capital markets transactions to support growth initiatives;

- ***Talent & Recruiting Team*** – assists with capital and talent support, including talent assessment and development, Diversity, Equity & Inclusion (DE&I) support and recruiting experienced and impactful senior executives and board directors, and;

- ***Technology & Data Science Team*** – provides expertise for due diligence, perspective on product organization design and data science and pattern recognition to support key growth initiatives.

Each of these teams is integrated into our investment process from pre-investment due diligence to post-investment value creation.

IV. Investment Performance

Previous fund performance as of March 31, 2021 is shown below:

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
Summit Ventures	1984	$160 million	$10 million	13%	2.0x	2.0x
Summit Ventures II	1988	$230 million	$30 million	30%	2.6x	2.6x
Summit Ventures III	1992	$280 million	--	63%	3.6x	3.6x
Summit Ventures IV	1995	$610 million	--	101%	7.6x	7.6x
Summit Ventures V	1998	$1,120 million	$25 million	8%	1.4x	1.4x
Summit Ventures VI	2001	$2,080 million	--	15%	2.2x	2.2x
Summit Private Equity VII	2006	$3,100 million	--	11%	1.9x	1.7x
Summit Growth Equity VIII	2012	$2,712 million	$100 million	28%	2.5x	1.9x
Summit Growth Equity IX	2016	$3,292 million	$100 million	41%	2.0x	0.3x
Summit Growth Equity X	2019	$4,900 million	$150 million	72%	1.3x	0.0x

* Performance data provided by the General Partner. Previous Fund investments may be relatively immature and returns may not be indicative of future results.

V. Investment Period and Term

The fund will have a six-year investment period and a ten-year term, with options to extend for two additional periods each consisting of two years, each with the consent of the General Partner and two-thirds in interest of the Limited Partners.

This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM.

This page intentionally left blank.

ATTACHMENT D

REAL ASSETS MANAGER SUMMARY PROFILE

I. Background Data

Name of Fund:	KKR Global Infrastructure Investors IV
Type of Fund:	Infrastructure
Target Fund Size:	$16 Billion
Fund Manager:	KKR
Manager Contact:	Ari Barkan 30 Hudson Yards Suite 7500 New York, NY, 10001

II. Organization and Staff

Kohlberg Kravis Roberts & Co L.P. ("KKR, also referred to herein as "KKR or "the firm") is establishing KKR Global Infrastructure Investors IV to pursue infrastructure investment opportunities with an emphasis on investments in existing assets and business located primarily in OECD (Organization for Economic Co-operation and Development) countries in North America and Western Europe. KKR is one of the world's oldest and most experienced private equity firms. The Firm is headquartered in New York, NY and has over twenty office locations globally. Founded in 1976 by Jerome Kohlberg, Henry R. Kravis and George R. Roberts, KKR seek to provide its investors with long-term capital appreciation through multiple business platforms, including private equity, credit, infrastructure and real estate.

Since the establishment of the KKR Infrastructure franchise in 2008, KKR has successfully invested over $25 billion of capital across a variety of infrastructure subsectors, geographies, and asset types. KKR has built an experienced and stable team that has grown from seven investment professionals in 2008 to over 45 investment professionals. Fund IV's senior investment team includes Raj Agrawal (Global Head of Infrastructure), Brandon Freiman (Head of North American Infrastructure), Tara Davies (Co-Head of European Infrastructure and Global Head of Core Infrastructure), Vincent Policard (Co-Head of European Infrastructure), James Cunningham (Partner) and Dash Lane (Partner) and is overseen by Joseph Bae, KKR's Co-President and Co-Chief Operating Officer. Additionally, KKR's Senior Advisors and Industry Advisors have notable infrastructure sub-sectors as well as operating, finance and public affairs expertise.

KKR believes that in order to deliver outstanding investment performance for the investors in its funds, it needs to become more diverse and inclusive than it is today. In 2014, KKR established its Inclusion & Diversity Council to pursue this goal. KKR also became a signatory of the UN-supported Principles for Responsible Investment in 2009 and over the past decade has established itself as a credible leader in driving and protecting value through thoughtful Environmental, Social and Governance ("ESG") management.

III. Investment Strategy

KKR Global Infrastructure Investors IV will seek to generate returns through both long-term capital appreciation and current income generation, targeting an overall gross return in the mid-teens and an overall net return in the low-teens. The Fund will seek to generate attractive risk-adjusted returns by focusing on critical infrastructure investments with low volatility and strong down side protection.

KKR believes focusing on investments with an appropriate risk profile is critical to delivering attractive risk-adjusted returns. To this end, KKR utilizes a risk-based, rather than sector-based, approach when defining the universe of potential investments that are suitable for investment. KKR leverages the deep investing and analytical expertise of their Global Infrastructure Team, their Global Infrastructure Investment Committee and their network of Senior Advisors and Industry Advisors to critically evaluate investments, assess the risk-return profile of each investment, evaluate key value drivers and develop a disciplined investment plan focused on value creation.

KKR's discipline in selecting investments based on risk profile focuses on investments that fall into one of the following three categories each of which provides long-term visibility of cash flows:

Regulated Investments. These assets and businesses may be subject to regulated tariffs or rate of return regulations. Examples may include water and wastewater or renewable power generation.

Contracted Investments. These investments typically involve contracts of 7-10 years or greater with high quality counterparties. Examples may include midstream energy assets, telecom or power generation and utilities.

Investments with Market/and or Structural Protection. These investments may involve irreplaceable assets, and/or assets and companies with significant structural or market protections that mitigate competitive dynamics and pricing pressure. Examples may include asset leasing or parking.

To achieve their targeted risk/return profile in today's environment, they cannot compete for commoditized investments in auction processes. Instead, KKR leans in to complexity – in sourcing, structuring, operations and execution. While complexity often serves as a barrier for entry for other investors, they believe their ability to address its challenges affords them the potential to deliver attractive returns with reasonable risk.

Complexity in Sourcing. KKR has been developing relationships with global corporations for over four decades. Across the Global Infrastructure Strategy, more than 50% of the capital deployed has been sourced through corporate partnerships. Even where they have invested through an auction process, KKR has been the preferred bidder by management in many instances. This has enabled them to have an edge over their competitors in these transactions and to negotiate customized investment structures tailored to their requirements.

Complexity in Structuring: Overcoming complexity in structuring, and doing so with speed, creativity and flexibility has been a key characteristic of several of their infrastructure investments. They migrate towards situations involving complexity in structuring as they find their capabilities here to be a key differentiator. Structuring complexity that they overcome typically falls into one or more of the following: Capital Structure, Contract Structure or Partnership Structure.

Complexity in Operations and Execution: KKR's long history of value creation, coupled with their substantial investment in people, processes, and resources for driving operational improvement, position them to excel in this aspect of infrastructure investing. In seeking to create operational improvements, their Global Infrastructure Team frequently works together with KKR Capstone, a team of over 75 operational professionals. KKR Capstone partners with their investment professionals and portfolio company management team to help define and drive operational improvement in their investments.

IV. *Investment Performance*

Performance of recent prior KKR Global Infrastructure Funds as of December 31, 2020 is shown below:

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
Global Infrastructure Investors	2011	$1.1 Billion	--	15.6%	1.9x	1.9x
Global Infrastructure Investors II	2014	$3.1 Billion	--	18.7%	1.7x	0.8x
Global Infrastructure Investors III	2018	$7.3 Billion	$150 million	3.4%	1.0x	n/m

* Previous Fund investments may be relatively immature and, therefore, returns may not be indicative of future results. Net IRR and Net MOIC provided by the manager.

V. *Investment Period and Term*

The investment period for the Fund will be six years from the date of the first investment. The term of the Fund will be 12 years from the initial investment, subject to up to three additional one-year extensions.

This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM.

This page intentionally left blank.

ATTACHMENT E

REAL ESTATE MANAGER SUMMARY PROFILE

I. Background Data

Name of Fund:	Blackstone Real Estate Partners Asia III L.P.
Type of Fund:	Real Estate - Opportunistic
Target Fund Size:	Currently fundraising
Fund Manager:	The Blackstone Group Inc.
Manager Contact:	Grant Murray 345 Park Avenue New York, NY 10154

II. Organization and Staff

The Blackstone Group Inc. (together with its affiliates "Blackstone" or the "Firm") is sponsoring Blackstone Real Estate Partners Asia III L.P. (the "Fund" or "BREP Asia III") BREP Asia III intends to continue Blackstone Real Estate's proven opportunistic strategy and differentiated investment approach to capitalize on compelling opportunities across the Asia-Pacific region.

Blackstone was founded in 1985 by Stephen A. Schwarzman and Peter G. Peterson and is headquartered in New York, NY. Blackstone's alternative asset management businesses include investment vehicles focused on private equity, real estate, hedge fund solutions, credit, secondary funds, tactical opportunities, infrastructure, and insurance solutions. Blackstone Real Estate was founded in 1991 and is the largest real estate investment manager in the world with $196 billion of investor capital under management.[1] Blackstone Real Estate began investing in the Asia-Pacific region in 2006 and has since deployed $14 billion[2] of opportunistic capital across the region through the course of varying market conditions and cycles. The market leading team of 115 professionals across seven offices – Hong Kong, Mumbai, Singapore, Tokyo, Sydney, Shanghai and Seoul[3] – has executed on a wide range of complex investment opportunities across all major real estate asset classes.

Blackstone believes that a comprehensive ESG program drives value and enhances returns for their investors. Blackstone employs dedicated professionals who are focused on environmental and sustainability initiatives across the Firm and help to educate investment and asset management teams on potential risks as well as best practices. Blackstone is committed

[1] INREV 2020 Fund Manager Survey. Investor capital includes co-investments and Blackstone's general partner and side-by-side commitments, as applicable. As of March 31, 2021.
[2] Includes Blackstone's GP, side-by-side commitments as applicable. Figures include all Blackstone opportunistic invested / committed investments in Asia from initial Asia office opening in 2006, including the applicable BREP Global Fund share, co-investments and investments made prior to BREP Asia I. As of March 31, 2021. There can be no assurance that committed but not yet closed transactions will close as expected or at all.
[3] Seoul office is scheduled to open in 2021.

to continuing to build out its ESG team which is led by Eric Duchon as the Global Head of Real Estate ESG, and in Asia recently hired Nina James as Blackstone Real Estate's Head of Asia ESG who is responsible for the implementation of the global Real Estate ESG strategy across investments in the Asia-Pacific region. Such sustainability programs include investor, staff, industry, and asset engagement programs across the region. The Firm is committed to taking a more holistic and programmatic approach to ESG, focusing on efficiently tracking and monitoring ESG-related data, including for example, energy, water and waste consumption.

III. Investment Strategy

Blackstone Real Estate believes its competitive advantages of speed and scale, and its ability to navigate complexity are more pronounced in the Asia-Pacific region than anywhere else in the world. Blackstone Real Estate has been investing in the Asia-Pacific region for 15 years and has deployed $14 billion[4] of opportunistic investor capital across the region's major economies through over 130 investments.

Pre-COVID-19, Asia GDP was growing at over 2x the rate of the United States and Europe and that disparity is expected to accelerate further.[5] The early actions of many governments across the region to contain the COVID-19 virus has largely led to an effective flattening of the "curve" and re-opening of domestic economies. Consequently, Asia-Pacific countries have generally been less reliant on stimulus and fiscal measures to support their economies, which Blackstone Real Estate believes will position the region to achieve outsized growth over the medium-term. Blackstone seeks to take advantage of two key macro drivers in the region:

- *Middle class expansion*: the Asia-Pacific share of global middle class is projected to grow from 38% in 2016 to 52% in 2025;[6] and
- *Innovation and technology*: economic growth drivers of the Asia-Pacific region continue to shift from labor-intensive exports towards innovation and technology resulting in Asia accounting for 45% of global R&D spending.[7]

In addition, the Asia-Pacific real estate investment landscape is vast, diverse and comprised of both developed and emerging markets. Investing in the Asia-Pacific region requires experience and a deep, local presence. Divergent and volatile listed real estate performance illustrates the complexity of investing in the asynchronous region, underscoring the importance of manager selection. Blackstone Real Estate focuses on investing in key markets and sectors benefitting from long-term macro tailwinds and favorable underlying supply / demand fundamentals.

---

[4] Includes Blackstone's GP, side-by-side commitments as applicable. Figures include all Blackstone opportunistic invested / committed investments in Asia from initial Asia office opening in 2006, including the applicable BREP Global Fund share, co-investments and investments made prior to BREP Asia I. As of March 31, 2021. There can be no assurance that committed but not yet closed transactions will close as expected or at all.
[5] IMF World Economic Outlook, as of January 2021 excluding Asia which is as of October 2020. Data provided represents forecast for 2021.
[6] IHS, as of January 2021.
[7] Represents projected research and development spend in 2020. R&D Magazine, as of August 2020.

The Blackstone Real Estate team expects to invest BREP Asia III in Blackstone Real Estate's high-conviction themes where the Firm expects outsized growth. One area is logistics. The logistics sector continues to outperform, fueled by favorable market fundamentals, rising-e-commerce penetration and robust investor demand, trends that have only accelerated as a result of COVID-19. In Asia, Blackstone Real Estate has made logistics investments in China, Australia, New Zealand, Japan, Korea, India and Singapore. The levels of e-commerce adoption and volumes of investment-grade stock vary significantly from market-to-market, though Blackstone believes its extensive experience investing in logistics globally has allowed it to recognize and capitalize on trends early. Another area is IT / Tech office. Over the past decade, Asia-Pacific companies have accounted for over 50% of global growth in technology company revenues.[8] This exponential growth continues to drive demand for office space in key markets with skilled workers. A third theme is rental housing in supply-constrained markets. Over half of the world's urban inhabitants live in the Asia-Pacific region, which is home to seven of the ten largest cities in world by population.[9] Young professionals are continuing to prioritize living in or nearby city centers, in close proximity to food and beverage offerings, entertainment, public transportation, and jobs. These urbanization trends, coupled with limited new supply and rising house prices in many major cities across the Asia-Pacific region, have created structural housing shortages and increased demand for multifamily rental assets. Another key theme is tourism and hospitality. The combination of a rising middle class in Asia, advancements in digital technology, and a shift in consumer preferences towards experiential spend has driven significant growth in global leisure tourism over the past several years. In the past decade, Asia has accounted for more than 50% of total growth in air passengers and nearly 75% of Asian air travel was within Asia itself.[10]

Once an investment is made, Blackstone Real Estate's experienced asset management professionals proactively seek to drive value at the asset level to generate value for investors in any market and geography. The global team of 144 asset management professionals, including 35 professionals in the Asia-Pacific region, takes a hands-on approach and works closely with the funds' portfolio companies and/or operating partners to seek to ensure business plans are executed seamlessly. Once Blackstone Real Estate has achieved its asset management objectives, it leverages its experience to identify optimal exit strategies. Blackstone Real Estate often has multiple exit options, which may include, for example, individual asset sales, portfolio company sales to private buyers, or public market offerings. Blackstone Real Estate continually evaluates its portfolio for disposition opportunities and believes the strategic harvesting of investments is an important factor in the success of its funds.

[8] McKinsey Global Institute: The Future of Asia. December 2020.
[9] Urban inhabitants: UN-Habitat, as of July 2020. Largest cities: World Population Review as of March 2021.
[10] McKinsey Global Institute: The Future of Asia. December 2019.

IV. Investment Performance

Previous fund performance as of March 31, 2021 is shown below:

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
BREP Asia I	2013	$4.3 billion	-	13%	1.5x	1.0x
BREP Asia II	2017	$7.3 billion	$75 million	11%	1.1x	0.1x

* Performance data provided by the General Partner. Previous Fund investments may be relatively immature and returns may not be indicative of future results. DPI represents realized proceeds divided by invested capital.

V. Investment Period and Term

As described in further detail in the draft Limited Partnership Agreement of the Fund, the investment period is expected to be five years, and the term of the fund is expected to be the later of (i) tenth anniversary of the Effective Date and (ii) the sixth anniversary of the last day of the Investment Period, subject to two one-year extensions unless the L.P. Advisory Committee objects.

This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM.

ATTACHMENT F

REAL ESTATE MANAGER SUMMARY PROFILE

I. Background Data

Name of Fund:	KKR Real Estate Partners Americas III SCSp
Type of Fund:	Real Estate – Value-Add
Target Fund Size:	$3 billion
Fund Manager:	KKR
Manager Contact:	Ari Barkan 30 Hudson Yards Suite 7500 New York, NY, 10001

II. Organization and Staff

Kohlberg Kravis Roberts & Co. ("KKR" or the "Firm"), one of the world's oldest and most experienced private equity firms, is headquartered in New York, NY and has over twenty office locations globally. Founded in 1976 by Jerome Kohlberg, Henry R. Kravis and George R. Roberts, KKR seeks to provide its investors with long-term capital appreciation through multiple business platforms, including private equity, credit, infrastructure and real estate. Across all businesses, KKR has over 540 investment professionals and manages over $367 billion in assets under management ("AUM") as of March 31, 2021.

KKR is establishing KKR Real Estate Partners Americas III (the "Fund" or "REPA III") to pursue opportunistic real estate and real estate-related investment opportunities primarily in the United States. KKR Real Estate, led globally by Ralph Rosenberg, has approximately 114 investment and asset management professionals as of June 2021, with 30 investment and asset management professionals in the U.S. equity business.

KKR maintains that the thoughtful management of environmental, social, and governance (ESG), regulatory, geopolitical, and reputational issues makes KKR a better investor, and is an essential part of long-term business success in a rapidly changing world. The ESG integration process is separated into four steps. First, a pre-screening occurs and the deal team determines whether there are any critical ESG or reputational concerns with regards to a property/investment. Second, KKR conducts diligence on the specific asset/investment and evaluates material ESG risks and opportunities. Third, the investment committee evaluates key risks and opportunities. Fourth, if an investment is made, the asset/investment is monitored to ensure relevant ESG considerations are addressed.

III. Investment Strategy

KKR expects REPA III to focus on investment opportunities for the Fund where the team can trade situational complexity for a more attractive basis in an asset, company, or portfolio. It expects to pursue investments through various transaction types, including:

- **Transitional Assets**: Traditional real estate value creation strategies where, in their view, a significant business plan or capex is required to stabilize the property or portfolio;
- **Real Estate Companies and Platforms**: Platform build-ups, aggregation strategies, public-to-private transactions, and measured exposure to operationally intensive real estate, and;
- **Distressed Situations**: Situations where they believe they can generate appropriate risk-adjusted returns from distressed situations for control or influence, structured investments, bankruptcy or foreclosure and capital market dislocations.

The KKR Real Estate team takes a thematic approach to investing. The research-driven approach to theme development leverages the broader KKR ecosystem, including KKR Private Equity, KKR Credit and the Global Macro and Asset Allocation ("GMAA") team to develop and refine investment themes. The team seeks to identify attractive demographic and industry trends that affect real estate fundamentals, find markets and asset classes that benefit from these trends, and determine whether current valuations present an attractive investment opportunity. Next, the team works on establishing a target investment approach (i.e. joint venture, platform, etc.), identify potential operating partners/management teams, and develop a view on the size of the opportunity, portfolio construction, and ability to scale. In the execution phase, KKR works with best-in-class operators to create a differentiated operating model, develop a differentiated financing approach, and devise a flexible approach to exit that maximizes value.

Once KKR makes an investment, it utilizes its operational toolkit to create value. With transitional assets, examples include signing new tenants at market rents, changing the use of an asset (i.e. making the ground floor of an office building into retail units), or implementing a capital upgrade plan to improve lobbies, common areas, and/or specific units. Real estate companies and platforms can be improved by, for example, aggregating assets in sectors that are more fragmented in nature (like student housing, logistics, or senior housing), converting from a triple net lease to a JV structure, or implementing pricing and care reporting at a senior living property. Value can be created in distressed situations by acquiring a portfolio of assets at a discount through foreclosure or bankruptcy process, or acquiring a property that is only 35% occupied and executing a renovation plan that drives occupancy higher.

KKR believes it has many competitive advantages, but its "One-Firm" approach is highly differentiated. A substantial number of KKR's real estate investments to-date have utilized cross-functional teams. Members of KKR Real Estate have worked collaboratively with other KKR professionals throughout the investment process, ranging from idea generation and sourcing, to the execution, value creation, monitoring and harvesting of investments. In deploying capital, the decades of real estate investment experience of KKR's dedicated Real

Estate Team and the experience, relationships, expertise and operational capabilities that KKR has developed over four decades of investing in private companies combine to provide what KKR views as the cornerstone of KKR Real Estate's competitive advantage in the asset class.

IV. Investment Performance

Previous fund performance as of March 31, 2021 is shown below:

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
REPA I	2013	$1.5 billion	-	11.6%	1.3x	1.2x
REPA II	2017	$2.0 billion	-	17.6%	1.2x	0.3x

* Performance data provided by the General Partner. Previous Fund investments may be relatively immature and returns may not be indicative of future results.

V. Investment Period and Term

The investment period is four years and the term of the fund extends 8 years from the commencement of the investment period, with up to two additional one-year extensions with the consent of the advisory committee.

This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM.

This page intentionally left blank.

ATTACHMENT G

PRIVATE DEBT MANAGER SUMMARY PROFILE

I. Background Data

Name of Fund:	Sixth Street Opportunities Partners V, L.P.
Type of Fund:	Private Debt
Target Fund Size:	$3.5 billion
Fund Manager:	Sixth Street Partners
Manager Contact:	Brian D'Arcy 345 California St., Suite 3300 San Francisco, CA 94104

II. Organization and Staff

Sixth Street is a global investment firm with approximately $52.6 billion in assets under management. Founded in 2009, Sixth Street is led by 20 Partners, who oversee 344 people across offices in San Francisco, New York, Houston, Dallas, Boston, London, Hong Kong, Melbourne, and Luxembourg. Prior to forming Sixth Street, the founding partner group worked together in the largest proprietary investment business at Goldman Sachs & Co. ("Goldman Sachs"), where Alan Waxman was Chief Investment Officer of the Americas Special Situations Group ("AmSSG").

In May 2020, TPG and Sixth Street Partners announced the completion of an agreement to become independent, unaffiliated businesses. TPG has retained a passive minority economic stake in Sixth Street with the substantial majority owned by Sixth Streets group of 20 Managing Partners.

Sixth Street operates under a "one-team" construct, in which team members have key focus areas but frequently act as generalists and are incentivized to share opportunities across the platform, independent of particular vehicles or strategies, when sourcing and underwriting potential investments. The senior leadership team is based in San Francisco, New York, London and Dallas, with additional team members located in Boston, Houston and Melbourne.

Environmental Social & Governance (ESG) Program

Sixth Street is a signatory to the United Nations-supported Principles for Responsible Investments. The mission of Sixth Street is to deliver compelling risk-adjusted returns while managing risks and conducting business with high standards of integrity. They believe that environmental, social and governance ("ESG") factors also affect performance and assess ESG matters together with financial criteria when making investments. Where possible they use their influence to promote sustainable business practices in the companies, platforms and other opportunities in which they invest.

Sixth Street aims to recruit a diverse team through focused sourcing efforts and inclusive interviewing processes. Their Talent Acquisition team engages with specialized recruiters focused on building diverse candidate pipelines. Hiring managers also work with Sixth Street's Talent Acquisition team to utilize diverse interview slates and interviewers across teams and functions. Additionally, Sixth Street sponsors events and internships, and works with external partners who specialize in building pipelines of diverse talent. Their intent is to make sure they are looking beyond the traditional channels for diverse talent.

III. Investment Strategy

Sixth Street Opportunities Funds pursue thematic, control-oriented, actively managed investments exhibiting downside protection. These investments will be purchased or originated across the economic and credit cycle by targeting deep value opportunities with embedded complexity that are difficult to source, analyze, or execute. Investment selection is largely based upon 15-25 migrating themes across the Sixth Street Platform.

Sixth Street expects to build the Opportunities V portfolio across three major Hunting Grounds: "Control Orientation", "Asset Opportunities", and "Corporate Dislocations" each of which are described below.

Control Orientation
Sixth Street gravitates towards situations where it believes it has a high probability of being able to gain control or influence outcomes in order to protect the downside and maximize value creating to the upside. The Opps Fund will target investments in the senior parts of the capital structure. These opportunities typically consist of bank debt secured by a lien on the company's assets. Second, Opps seeks to create last-dollar risk at deep discounts to intrinsic value. Finally, Opps targets Control Orientation investments where Sixth Street has the opportunity to improve the business's trajectory through new management, capital allocation and operation efforts. Operational efforts may include leading the restructuring process and improving operations post-restructuring.

Asset Opportunities
Asset Opportunities involve (i) the acquisition of non-performing, sub-performing, or orphaned loan portfolios and related origination, asset management, and servicing businesses, and (ii) the acquisition of individual real estate assets or portfolios of real estate across a wide range of real estate sectors, as well as structured real estate investments which may include mezzanine debt or preferred equity.

Corporate Dislocations
Corporate Dislocations are highly structured, "new money" transactions. Sixth Street seeks to be a solution provider to companies undergoing some type of dislocation, or to companies confronted with an idiosyncratic issue. Key characteristics of these dislocations include (i) structural changes that create an unmet economic need, (ii) flight of traditional capital providers creating a supply/demand imbalance due to illiquidity, market shocks, negative perception of sectors, or poor regulatory capital treatment of the asset class, and (iii)

complexity in accessing or analyzing the asset class. Sixth Street seeks to identify these areas of dislocation globally and across core sectors that will enable it to leverage their propriety diligence and innovative structures across multiple deals.

Sixth Street seeks top-down investment themes in dislocated sectors as well as bottom-up opportunities where it can provide capital to businesses with capital needs caused by secular or idiosyncratic changes. Sixth Street believes it is well positioned to target under-managed assets or companies which may be operating in an environment that is undergoing change, whether caused by internal or external factors. Its cycle-agnostic investment approach enables it to navigate each opportunity's complexity to create a customized solution and drive value creation. Sixth Street aims to deliver value and/or improve outcomes through active operating and servicing capabilities and by driving or influencing the restructuring process.

Sixth Street's "One Team" approach to sourcing allows all teams to benefit from the collective effort, relationships, and information of Sixth Street's sourcing and deal professionals. Further, the experience and depth of the Sixth Street professionals within the opportunistic credit landscape has created a strong brand name for Sixth Street. Sixth Street believes this brand name allows them to attract high-quality deal flow from both market and off-market sources. Further, Sixth Street has established multiple external platforms and relationships with various groups and individuals, which allow Sixth Street to operate as locals in various geographies, sectors, and asset types in pursuit of opportunities.

IV. *Investment Performance*

Previous fund performance as of March 31, 2021 is shown below:

Fund	Vintage Year	Total Commitments	SBI Investment	Net IRR*	Net MOIC*	Net DPI*
Opps I[1]	2009	$2.2 Billion	--	26.4% (GROSS)	2.4x (GROSS)	2.4x (GROSS)
Opps II	2011	$2.1 Billion	--	16.1%	1.7x	1.6x
Opps III	2014	$3.4 Billion	--	9.9%	1.5x	0.7x
Opps IV	2019	$3.2 Billion	$50 Million	24.1%	1.3x	0.2x

1. Opps I was a carve-out of investments managed by the Sixth Street team out of TPG VI and TPG Financial Partners ("TFP"). As such, Opps I does not report net figures.

* Net IRR and Net MOIC, and Net DPI Values provided by the manager. Net MOIC and Net DPI Values are adjusted for recycling.

V. Investment Period and Term

The commitment period ends four years from the final closing.

The Partnership's term will end following the eight year anniversary of the final closing (subject to early termination under certain circumstances as set forth in the Partnership Agreement), but may be extended by the General Partner with the consent of a majority in interest of the limited partners for up to two consecutive additional one-year periods.

This document is a summary of more detailed information provided in the Confidential Private Placement Memorandum (the "PPM"). It is qualified in its entirety by the more detailed information provided in the PPM.

TAB E

Public Markets Investment Program

This page intentionally left blank.

DATE: August 18, 2021

TO: Members, State Board of Investment

FROM: Members, Investment Advisory Council and SBI Staff

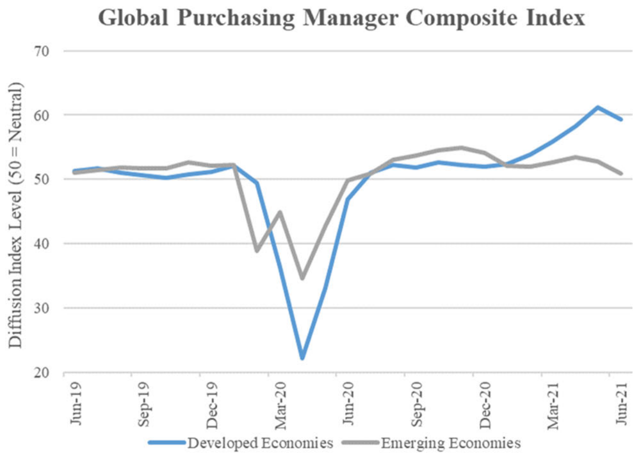
SUBJECT: SBI Public Markets Program

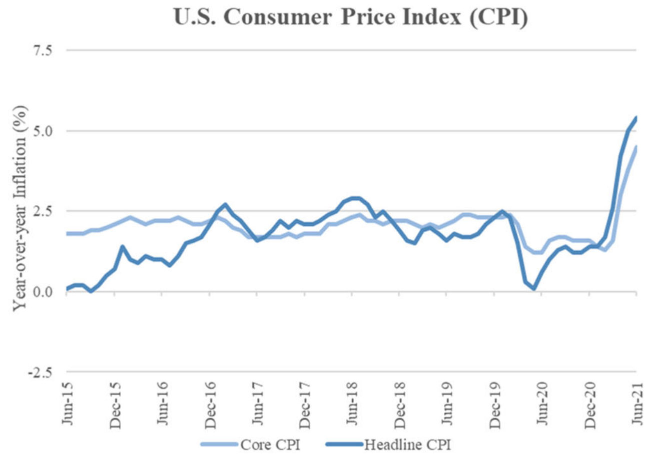
This report provides a brief performance review of the SBI Public Markets portfolio through the second quarter. Included in this section are a short market commentary, manager performance summaries and a report of any organizational updates for the public equity and fixed income managers in the SBI portfolio.

The report includes the following sections:

This page intentionally left blank.

Review of SBI Public Markets Program
Second Quarter 2021





Source: Markit, Bloomberg, U.S. Bureau of Labor Statistics

Market Summary

The broad rally in global equities continued during the second quarter of 2021, with the MSCI All Country World (ACWI) Index gaining +7.4% in dollar terms in Q2. U.S. stocks continued their dominance over global markets, with the Russell 3000 Index gaining +8.2% helped by a rebound in growth stocks during the quarter, led by the technology and communications services sectors. During the quarter, the continued advancement of mass vaccination efforts across the globe produced a sharp decline in COVID-19 infection rates, particularly in developed markets. The resulting economic re-opening gained steam during the quarter as consumer demand for goods and services surged and businesses hired back workers at a rapid clip.

With the global economy still suffering from significant supply chain disruptions, and many companies having shed capacity as demand cratered during the pandemic, the recent spike in demand has produced a dramatic uptick in inflation readings globally. In the U.S., year-on-year headline CPI spiked to +5.4% in June, while core inflation, which excludes the volatile food and energy components, rose at a +4.5% y-o-y pace in June, the fastest since 1991. While much of the recent spike in inflation readings is due to so-called base effects from a period of rapidly declining inflation a year ago caused by the pandemic, the speed and magnitude of the snap-back in prices caught many investors and market observers off guard. Expectations of future inflation rose substantially during the quarter.

Perhaps paradoxically, U.S. interest rates declined during the quarter despite the uptick in near-term growth and inflation expectations. With a lot of re-opening 'good news' having pushed rates up significantly earlier this year since the pandemic lows, the rally back in interest rates during the quarter likely reflected risks to future growth from the spread of the COVID-19 Delta variant, particularly in under-vaccinated areas, as well as concerns that supply chain disruptions and input prices could stymie overall growth. Also, at its June FOMC meeting FOMC members and Chair Powell more explicitly acknowledged the risks of higher-than-expected inflation and reassured markets that it was prepared to act to taper its asset purchases and, ultimately, to hike rates as warranted by incoming data. The Fed's more risk-aware stance on recent inflation data was seen as reinforcing the Fed's inflation fighting credentials and gave support to longer-term rates.

Across other major markets, China and Japan both posted a second straight quarter of weak equity performance. The Chinese government's escalating crackdown on technology companies (most recently its scrutiny of ride-hailing company Didi) and escalating trade tensions between Washington and Beijing have weighed on Chinese stocks. In Japan, poor vaccine rollout and a resurgence of COVID-19 infections have weighed on investor sentiment there.

Commodities continued their post-pandemic rally during the quarter, boosted by increased demand and expectations for continued global economic expansion. Crude oil prices rose over +24% for the quarter, and industrial metals like copper (+7%), aluminum (+13.5%) and nickel (+13.2%) all posted strong gains. Following a sharp rally in Q1, the U.S. dollar fell modestly during the quarter on a trade-weighted basis as expectations for a rebound in global economic growth partially closed the GDP growth gap relative to the U.S. Investors also dialed back their expectations for Fed rate hikes during the quarter, which further weighed on the dollar.

Overall Combined Funds Portfolio - Quarter and One-Year Performance

The overall Combined Funds portfolio returned +6.7% during the second quarter of 2021, outperforming the composite benchmark (which returned +6.6% over the same period) by +0.1%, or 10 basis points. Portfolio outperformance during the quarter was driven primarily by the portfolio's modest overweight to equities and a corresponding underweight to bonds. Positive relative performance within the fixed income portfolio also helped relative performance. The private markets invested portfolio returned +9.9%, outperforming the broader market, led by strong performance from the private equity and resources portfolios.

Public equity performance benefitted from strong relative outperformance from the portfolio's global equity and small cap growth managers, although this was offset by modest underperformance of the portfolio's active developed international and emerging markets equity managers. Within the portfolio's fixed income allocation, the portfolio's return seeking bond strategies continued to perform well relative to the broader policy benchmark as both credit and emerging market spreads rallied during the quarter. The core/core plus portfolio also outperformed the Bloomberg Barclays U.S. Aggregate Index return for the quarter, as the portfolio's credit overweight was rewarded by the continued positive environment for credit.

For the year ending June 30, 2021, the Combined Funds portfolio outperformed the composite benchmark return by +1.5%, or 150 basis points (+30.3% Combined Funds vs. +28.8% Composite Benchmark), aided by both strong underlying performance at the asset class level as well as an overweight to equities – and corresponding underweight to fixed income – maintained for most of the period. Overall, the public equity portfolio posted strong results (+42.4% Portfolio vs. +41.6% Benchmark), helped by active manager outperformance within both the domestic equity and international equity portfolios. Within the fixed income portfolio, the core/core plus portfolio outperformed the Bloomberg Barclays U.S. Aggregate Index return (+2.1% Portfolio vs. -0.3% Benchmark) and the Treasury protection portfolio outperformed the Bloomberg Barclays Treasury 5+ Year Index (Portfolio -6.1% vs. Benchmark -6.7%). The newer return-seeking and ladder portfolios were also accretive to overall portfolio performance. The invested private markets portfolio returned +37.8% for the year, led by the private equity and private credit portfolios which gained +49.4% and +18.4% for the period, respectively.

Domestic Equity
U.S. equities continued their upward climb during the quarter, with the Russell 3000 Index gaining +8.2% as further evidence of a rebound in global growth and corporate earnings lifted investor sentiment. As stocks set new highs, however, the recent broad-based rotation within large cap equities from growth into value stalled during the quarter, most notably in June. Large growth stocks saw renewed buying as fears over faster-than-expected inflation waned and interest rates fell back from recent highs. Emerging risks to the global economic re-opening posed by a resurgence of COVID-19 infections from the Delta variant among unvaccinated populations caused investors to once again favor high-flying growth stocks vs. cyclicals. This drove a strong outperformance of growth names versus value names (Russell 3000 Growth Index +11.4% vs. Russell 3000 Value Index +5.2%), particularly within the large cap space (Russell 1000 Growth Index +11.9% vs. Russell 1000 Value Index +5.2%). Small cap stocks also trailed large caps during the quarter (Russell 2000 Index +4.3% vs. Russell 1000 Index +8.5%).

Gains in technology (+13.7%), energy (+11.6%), real estate (+11.0%), personal goods (+12.9%) and investment banks and brokers (+10.6%) led index sector performance on the quarter. Within healthcare (+8.2%), large cap biotechnology names outperformed. Within pharmaceuticals, growth-oriented names (e.g. Lilly, Zoetis) outperformed, while value-oriented stocks such as Johnson & Johnson lagged. A resurgence of Reddit-fueled buying of so-called “meme stock” AMC Entertainment (+455% in Q2) drove strong performance of the small cap media segment, one of the few areas of small cap outperformance in the quarter.

The Combined Funds’ domestic equity portfolio returned +8.2%, matching the return of the Russell 3000 Index. An overweight to small cap stocks in the portfolio modestly detracted from relative performance; this was partially offset by modest outperformance from the portfolio’s active domestic equity managers versus their benchmark. Large cap active managers performed in-line with their benchmark (+8.5% Portfolio vs. +8.5% Benchmark), and both semi-passive large cap and small cap active managers outperformed their benchmarks during the quarter.

Within active large and all-cap growth managers, performance was mixed. Winslow Capital narrowly beat its benchmark, Sands Capital underperformed by -1.0%. (+10.9% vs. +11.9% Benchmark), while all-cap growth manager Zevenbergen’s performance lagged by -2.4% (+9.0% vs. +11.4% Benchmark) during the quarter. Sands was hurt by an underweight to mega-cap technology names (Microsoft, Apple, Facebook, Alphabet), an underweight to and negative security selection within payment processing services, security selection within real estate (an overweight to Zillow), and exposure to Airbnb (which was down -18.5%). This was offset modestly by strong performance of a large position in Sea, Ltd. (+23.0%), good security selection within healthcare and an overweight to healthcare providers. Zevenbergen was hurt by security selection during the quarter, as an underweight to mega-cap technology names hurt and concentrated position names such as Exact Sciences, Teladoc, Zillow, Uber, and Tesla underperformed. This was modestly offset by winners such as NVIDIA and Shopify. Given the high concentration of the strategy, quarterly performance is in line with expectations. Zevenbergen remains a significant outperformer over the past year (+49.2% vs. +43.0% Benchmark).

Active large cap value managers were mixed during the quarter, with Barrow Hanley trailing the benchmark (+4.6% vs. +5.2% Benchmark) and LSV beating the benchmark modestly (+5.4% vs. +5.2% Benchmark). Both managers have outperformed their benchmarks over the past year.

Semi-passive large cap managers outperformed in the quarter. Blackrock's portfolio contributed nicely, adding +0.4% over its benchmark (+8.9% vs. +8.5% Benchmark) despite its low tracking error design. The quantitatively-driven fund's fundamental and sentiment measures added most to performance, particularly in the prediction of investor flows into ESG products following the passage of President Biden's infrastructure bill. Semi-passive manager JP Morgan also beat its benchmark.

Active small cap growth managers performed best during the quarter, with three of the portfolio's four managers (Arrowmark, Hood River, and Rice Hall James) each outperforming by over +1.0%. Wellington trailed by only -0.8%. Hood River was the largest outperformer over the quarter (+8.4% vs. +3.9% Benchmark) and over the past year (+81.2% vs. +51.4% Benchmark), driven primarily by security selection. The largest contributors to security selection were in industrials, consumer discretionary, and consumer staples, with modest offsets in utilities and information technology.

Active small cap value managers had mixed performance during the quarter. Notably, AMC Entertainment's +455% return for the quarter drove the largest contribution to the Russell 2000 Value Index during the quarter (+1.2 percentage points). None of the portfolio's active small cap value managers held this name. Both Goldman Sachs and Peregrine trailed by over -1.0%, while Martingale and Hotchkis & Wiley outperformed slightly. Goldman Sachs and Peregrine were hurt during the quarter by underweights to energy, overweights to consumer staples, and poor security selection within the consumer discretionary sector.

Global Equity and ACWI ex USA Equity

The portfolio's global equity managers outperformed the MSCI All Country World (ACWI) Index (net) (+10.7% global equity managers vs. +7.4% Benchmark) during the second quarter of 2021. All three global managers share a bottom-up, stock-driven approach, with concentrated portfolios and a high degree of active share, or differentiation from the benchmark. For the quarter, stock selection and overweight positions in the healthcare and technology sectors, which were top performers, along with selection in the consumer discretionary, consumer staples and industrial sectors, were the primary positive contributors to the portfolio's return. The underweight to Japan, one of the few markets to experience negative returns during the quarter, also added value relative to the index over the quarter. The portfolio's ACWI ex USA strategy, managed by Earnest Partners, outperformed its benchmark by +2.3% during the quarter (+7.8% Portfolio vs. +5.5% Benchmark), boosted by good issue selection within healthcare, energy and consumer discretionary sectors as well as an underweight to Japan, an overweight to Brazil and strong relative performance of the portfolio's China holdings.

Developed International Equity and Currency Overlay
International developed markets equities, as measured by the MSCI World ex USA Index (net), advanced +5.6% during the second quarter, with positive returns in nearly every country and sector. Markets were driven primarily by the themes of economic recovery from COVID-19, the continued rollout of vaccination programs and lifting of restrictions, and the ongoing effects of stimulus measures. Concerns over higher inflation expectations occasionally gave markets pause, but were largely outweighed by investor optimism for the improving economic outlook. In contrast, a third wave of virus cases in the United Kingdom highlighted the risk to all countries from proliferating variants that are harder to contain. In Japan, stocks fell slightly in a quarter where a fourth wave of COVID-19 cases led authorities to extend a state of emergency across much of the country.

Nearly all sectors saw prices advance over the quarter. Energy stocks outperformed, boosted by higher oil prices, but other cyclical sectors, such as materials, industrials and financials ceded leadership to more defensive growth sectors such as healthcare and technology amidst an uncertain inflation environment. The U.S. dollar rose against the Japanese yen, but fell against the euro, the Swiss franc, and most other currencies in what was a risk-on trading environment over the quarter. In a reversal from the rally in value names since the fourth quarter of 2020, style performance reversed late in the second quarter, leading to an outperformance of growth over value. Large capitalization names narrowly outperformed small caps.

The active developed markets managers modestly underperformed the MSCI World ex USA Index (net) during the quarter (+5.1% active developed markets managers vs. +5.6% benchmark index). Allocation decisions, by country and by sector, added value to the portfolio's return. However, they were offset by negative contributions from stock selection primarily in the information technology and financials sectors. Overall, stock selection in Canada and the United Kingdom was also negative.

The passive developed markets portfolio tracked the MSCI World ex USA Index (net) within guideline tolerance for the quarter (+5.9% SSgA actual vs. +5.6% developed markets benchmark index). The portfolio's dynamic currency hedging program had a net negative impact during the quarter. Including the impact of the hedging program (-0.5%), the combined passive developed markets portfolio plus hedging program returned +5.4%. Hedging program performance was flat versus the Japanese yen and negative versus all other currencies, most notably the euro and Swiss franc. The U.S. dollar was volatile during the second quarter but generally weakened, resulting in a decrease in the hedging program's overall hedge ratio. During the quarter the hedge ratio, as measured as a percentage of the size of the hedgeable currency exposures in the passive developed markets portfolio, ranged from a high of 45.9% to a low of 6.4%.

Emerging Markets Equity
Emerging market equities, as measured by MSCI Emerging Markets Index (net), gained +5.0% in the second quarter, bolstered by strong demand for raw materials. Commodity-rich countries, such as Brazil and Russia, posted double-digit returns and were among the top performers due to significant gains for the materials and energy sectors. Chinese stocks overall lagged the emerging markets index return as the government withdrew some stimulus measures and increased scrutiny of internet platform companies. Performance was mixed, however, as Chinese companies focused

on domestic consumption posted strong returns while China's biggest technology names declined. Indian equities advanced, overcoming a second wave of COVID-19 infections. Rising inflation led several central banks, including those in Brazil, Russia, and Mexico to raise interest rates. As a result, these currencies strengthened against the U.S. dollar. Value stocks outpaced growth stocks, and small cap securities outperformed large cap securities by a wide margin.

The active emerging markets managers underperformed the MSCI Emerging Markets Index (net), (+4.3% active emerging markets managers vs. +5.0% Benchmark). Key sources of negative relative returns included the portfolio's underweight positions and stock selection in the materials and energy sectors, which were among the strongest performers, as well as selection in the consumer discretionary sector. Stock selection in Taiwan, Brazil, India, and Russia also detracted from performance.

Earnest Partners' dedicated China A-share strategy underperformed the MSCI China A Index (+5.5% Portfolio vs. +9.2% Benchmark). The portfolio did not hold any energy stocks, a top performing sector. Performance was also negatively impacted by holdings in the consumer staples sector.

The passive emerging markets portfolio experienced slight negative tracking error relative to the MSCI Emerging Markets Index (net) within guideline tolerance for the quarter (+4.9% SSgA actual vs. +5.0% Benchmark).

Core/Core Plus and Return Seeking Bonds
Fixed income markets rebounded in the second quarter as interest rates stabilized following the two previous quarters, which were characterized by sharp increases in yields in response to the broad economic re-opening and signs of quickening growth and inflation. The Bloomberg Barclays Aggregate Bond Index gained +1.8% over the quarter. Sector performance across high-grade fixed income was led by corporate bonds, which gained +3.6%, while the Agency MBS sector lagged with a +0.3% return. Across the non-investment grade sectors of the market, emerging market sovereign debt led with a +4.1% return, followed by high yield corporate bonds (+2.7%) and bank loans (+1.4%).

During the quarter, yields on longer maturity U.S. Treasuries actually declined despite incoming data which showed that core inflation rose in June at the fastest pace since 1991. After reaching a post-pandemic high of 1.74% at the end of March, the yield on the 10-year U.S. Treasury note fell -27 basis points to end the quarter at 1.47%. Bond investors took comfort from the tone of communications from Fed's June FOMC meeting, in which the Fed appeared to more explicitly acknowledge the risks of higher-than-expected inflation and indicated the potential for a faster timetable for tapering its asset purchases. The emergence of the COVID-19 Delta variant and its potential impact on economic growth, particularly in under-vaccinated areas, also lent a bid to Treasuries during the quarter as investors weighed the possibility that growth may soon peak or at least face significant near-term headwinds.

Meanwhile, the credit-sensitive sectors of the bond market continued to perform well during the quarter, supported by strong and improving corporate fundamentals. Default rates continued to decline, and the number of credit rating upgrades relative to downgrades rebounded significantly in second quarter 2021 following a spike during the pandemic. As a result, credit spreads tightened and both investment grade and high yield corporate bonds outperformed strongly during the quarter. Emerging market debt also rebounded during the quarter, benefitting from the continued post-COVID global economic recovery, a reopening of tourism and international trade, and the recovery of commodity prices.

Agency mortgage-backed securities (MBS) and Treasury Inflation Protection Securities (TIPS) both underperformed equivalent-duration Treasuries during the quarter. Agency MBS underperformed as increased interest rate volatility weighed on returns, as did the prospect of the Fed tapering its purchases of MBS – currently $40 billion per month – sooner and at a faster pace than had been expected. TIPS valuations fell back during the quarter as the reflation trade lost some steam as growth risks emerged (e.g. Delta variant, supply bottlenecks) and the Fed's relatively hawkish tone at its June FOMC meeting calmed fears that the Fed would fall behind the curve on inflation.

Fixed Income Spread Sector Performance				
	Spread to Treasuries (bps)			Tot Retn
Sector	6/30/21	3/31/21	Change	3 Month
Barc US Inv. Grade Credit	83	94	-11	3.6%
Barc US CMBS	63	76	-13	1.9%
Barc US ABS	27	38	-11	0.3%
Barc US Agency MBS	90	85	+5	0.3%
ICE BofA High Yield	300	331	-31	2.7%
CS Leveraged Loans	362	356	+4	1.4%
JPM EMBI Global Div (EM Sovereign)	340	353	-13	4.1%
US TIPS (10 Yr Break Even)	234	237	-3	3.3%

Source: Bloomberg Barclays, JP Morgan, Credit Suisse, ICE BofA, SBI Staff

The portfolio's core/core plus bond managers outperformed the Bloomberg Barclays Aggregate benchmark during the quarter (+2.1% vs. +1.8% Benchmark). The core plus managers maintained an allocation to high yield and structured credit, both of which contributed to portfolio outperformance. In addition, an overall neutral-to-underweight position in Agency MBS also benefited performance as that sector lagged. Lastly, modest off-benchmark allocations to emerging market debt contributed positively to returns.

Consistent with last quarter, the return-seeking bond segment posted positive returns relative to the Barclays Aggregate Index over the second quarter. The program, which features an emphasis on yield-oriented sectors such as high yield credit, bank loans, securitized assets, and emerging market debt, outperformed both the overall policy benchmark (+2.4% Portfolio vs. +1.8% Barclays Aggregate Index) and the blended benchmark representing the segment's benchmarks weighted by each manager's allocation (+2.4% Portfolio vs. +2.2% Blended Benchmark). Overall, the return seeking managers' allocations to high yield credit, bank loans and securitized credit all benefitted performance. Positive performance relative to the blended benchmark was driven by strong relative performance of the portfolio's dedicated emerging market debt manager, as well as good overall performance from the segment's multi-asset credit and opportunistic fixed income portfolios.

Treasury Protection Portfolio
Long-maturity U.S. Treasuries rallied during the quarter, with the yield on the 30-year U.S. Treasury bond declining over -32 basis points to end the quarter at 2.09%. The yield on the 10-year U.S. Treasury note also declined over -27 basis points to end the quarter at 1.47%. Yields declined despite signs of a rapidly improving labor market and the fastest inflation readings in over a decade. Investors increasingly gained comfort "looking through" the spike in inflation readings as transitory and likely to fade in coming months, a view championed by the Fed and the Biden Administration. Meanwhile, markets instead chose to focus on the Fed's slightly more hawkish tone coming out of its June FOMC meeting, at which the Fed reiterated its inflation fighting credentials and its commitment to react to incoming data, which the market took as signals that the Fed might begin tapering its asset purchases this Fall.

For the three months ending in June, the Treasury protection portfolio matched the return of the Bloomberg Barclays Treasury 5+ Year Index (+3.9% Portfolio vs. +3.9% Benchmark). Overall, the portfolio was positioned slightly short duration versus the benchmark, resulting in modestly negative relative performance as long end yields fell. However, a modest yield advantage generated by positions in U.S. Agencies and TIPS carry during the quarter offset the impact of the portfolio's short duration positioning.

Laddered Bonds + Cash Portfolio
Yields across the front end of the yield curve were little changed on the quarter as the Fed kept its policy rate near zero and investor demand for short maturity paper remained very strong. Over the quarter, the relative lack of supply of short-term paper relative to continued strong demand resulted in a further steady grind towards low single-digit yields in overnight and other very short-term rates at the front end of the market. State and other local units of government received large cash inflows due to income tax receipts in May as well as receiving monies from the recently enacted American Rescue Plan fiscal stimulus package. Assuming a short-term investment horizon for these funds, government entities had to scramble to find suitable, front end investments, further depressing an already low yield environment.

For the quarter ending June 30, 2021, the combined Treasury Ladder + Cash portfolio exceeded the benchmark return (ICE BofA US 3 Month Treasury Bill) by 4 basis points, or +0.04%. The Treasury Ladder portfolio returned +0.05% during the quarter, benefitting from holdings of non-Treasury sectors, particularly high quality corporate and asset-backed securities. These securities bolstered the portfolio's yield and also benefitted from a modest tightening of credit spreads during the quarter. Meanwhile, the more constrained cash portfolio returned +0.02% over the quarter.

Public Markets Managers' Organizational Update

Second Quarter 2021

Barrow Hanley (Domestic Equity)
Donald McLee was added as an ESG Research Coordinator and Analyst for the firm. Monroe Helm, Director and Equity Analyst, retired in the second quarter.

Sands (Domestic Equity)
Sands assigns the role of Director of Stewardship to a Research Analyst to focus on ESG factors. This role will be assumed by Brian Christiansen, CFA, Sr. Portfolio Manager, Research Analyst, and Executive Managing Director following the departure of Davis Catlin, who resigned from the firm in June.

Wellington (Domestic Equity)
On July 1, 2021, Jean Hynes assumed the role of CEO, following the retirement of Brendan Swords. Jean has served as one of the firm's three Managing Partners since 2014 and will continue to serve as health care portfolio manager. Also, effective July 1, 2021, Terry Burgess joined Jean Hynes and Steve Klar as a Managing Partner, replacing Brendan Swords. Terry is the head of Investment Boutiques and will continue in this role in addition to assuming the responsibilities of Managing Partner.

Winslow (Domestic Equity)
Nuveen hired two sector portfolio managers during the quarter: Neela Datta joined on June 1st to cover Technology, and Gary Kapoor joined on June 7th to cover Technology and Communication Services. As of 6/30/21, these two areas of technology represent approximately one-third of the portfolio. They will report to Large Cap Growth portfolio Manager Pat Burton.

Ariel Investments (Global Equity)
Todor Petrov joined the global equity team as a senior research analyst. He has covered many sectors in his 20-year buy-side career, and joined from Lord Abbett where he was a founding member of the international equity business and 17 tear veteran of the firm.

Baillie Gifford (Global Equity)
Effective May 1, 2021, three new partners were named at the firm and two partners retired. None of these partners are part of the portfolio management team of the SBI's mandate.

Acadian (International Equity)
John Chisolm, co-CEO and one of the four founders of Acadian, will retire in June 2022. Co-CEO, Ross Dowd, who has been with Acadian for seventeen years, will continue in the CEO role working closely with CIO Brendan Bradley.

AQR (International Equity)
Ronan Israel, Co-Head of Portfolio Management, Research, Risk, & Trading, announced his intention to retire at the end of the year. Lars Nielsen, Co-Head of Portfolio Management, Research, Risk, & Trading, will move into a business development role at AQR. Cliff Asness, CIO, and John Liew, a founding Principal at AQR, will return to having direct oversight of the investment teams and all investment functions.

Columbia (International Equity)
It was announced in June that William Davies, deputy portfolio manager of the SBI's account and Global Head of Equities, will assume the role of Global Chief Investment Officer upon the retirement of Colin Moore in January 2022.

Marathon (International Equity)
Justin Hill, who joined Marathon at the beginning on 2021 as co-portfolio manager of the Asia ex-Japan portion of the SBI's portfolio, assumed full responsibility for this region effective June 21, 2021. This region represents approximately 5% of the portfolio and was previously co-managed together with David Cull who has left the firm.

SSgA (International Equity)
In June, Lynn Blake, Head of Global Equity Beta Solutions (GEBS) and portfolio manager of the SBI's developed markets index portfolio since inception, announced her retirement effective September 30, 2021. Dwayne Hancock, strategy head of developed markets on the GEBS team, will become the lead portfolio manager on the SBI's account. He has been the back-up portfolio manager on the account for the last ten years. John Tucker, COO of SSgA and a thirty-year veteran of SSgA and the GEBS team, will assume the role of Head of Global Equity Beta Solutions.

Macquarie (Emerging Markets Equity)
Mike Kopfler, Global Head of Equity Trading, joined the firm in May 2021.

Morgan Stanley (Emerging Markets Equity)
During the second quarter, Swanand Kelkar (coverage – India), Shawn Li (coverage – China/health care), Gary Cheung (coverage – China A) and Omair Ansari (coverage – small caps) departed from the firm. The GEM team is robust, which ensures that, in the case of departures, the team has sufficient resources and expertise to cover the regions within their co-lead structure.

Pzena (Emerging Markets Equity)
During the second quarter of 2021, Imola Pinter, a research analyst who had been with Pzena for two years, departed the firm. Her coverage of property and casualty insurers was assumed by other team members.

Dodge & Cox (Fixed Income)
Charles Pohl, Director and Investment Committee member of Dodge & Cox will be retiring on June 30, 2022. Charles will be replaced by Roger Kuo, who will become President of Dodge & Cox, succeeding Dana Emery who will become Chairman and retain the role of CEO. Roger is currently a Senior VP, Global Industry Analysts and Investment Committee member.

Neuberger Berman (Fixed Income)
In second quarter 2021, Tom Sonntag, Lead PM for SBI Treasury Ladder portfolio, announced his upcoming retirement from Neuberger Berman. Tom was also head of structured securities for the core plus fixed income portfolio. In the coming months, Tom will be replaced by co-PM's Michael Foster, Kristian Lind and Matthew McGinnis from the Short Duration Fixed Income Investment Team.

Payden & Rygel (Fixed Income)
Effective at the end of August 2021, Scott Weiner, Investment Policy Committee (IPC) member and co-lead strategist on Payden’s Absolute Return and Multi-Asset Credit strategies intends to retire after 28 years with the firm. Nigel Jenkins, Managing Director and IPC member will fill Scott’s role, while also retaining his responsibilities as lead strategist for the Global Fixed Income team.

2021 Manager Meetings

As a result of the ongoing COVID-19 pandemic and continued restrictions on business travel on the part of managers' and MSBI Staff policies, there were no in-person meetings conducted with Public Markets managers during the second quarter of 2021.

Throughout the quarter, however, Staff utilized teleconference and videoconference technologies to remain in communication with managers as needed. During the quarter, Staff held 22 manager strategy review calls via teleconference or videoconference.

Investment Manager	**Asset Class**
Ashmore Investment Management Limited	Fixed Income
AQR Capital Management, LLC	Developed Markets Equity
Baillie Gifford Overseas Limited	Global Equity
BlackRock Financial Management, Inc.	Fixed Income
BlackRock Institutional Trust Company, N.A.	Domestic Equity
Columbia Management Investment Advisers, LLC	Fixed Income
Earnest Partners LLC	International Equity and China Only Equity
Goldman Sachs Asset Management, L.P.	Domestic Equity Fixed Income
Hotchkis and Wiley Capital Management, LLC	Domestic Equity
KKR Credit Advisors (US) LLC	Fixed Income
Marathon Asset Management LLP	Developed Markets Equity
Macquarie Investment Management Advisers	Emerging Markets Equity
Martin Currie Inc.	Global Equity Emerging Markets Equity
Martingale Asset Management, L.P.	Domestic Equity
Neuberger Berman Investment Advisers LLC	Fixed Income
NISA Investment Advisors, LLC	Cash Overlay
Prudential Global Investment Management (PGIM)	Fixed Income
Pacific Investment Management Company LLC (PIMCO)	Fixed Income
Pzena Investment Management, LLC	Emerging Markets Equity
Record Currency Management Limited	Currency Overlay
The Rock Creek Group, LP	Emerging Markets Equity
Western Asset Management Company	Fixed Income

TAB F

Participant Directed Investment Program and Non-Retirement Investment Program

This page intentionally left blank.

DATE: August 18, 2021

TO: Members, State Board of Investment

FROM: Members, Investment Advisory Council and SBI Staff

SUBJECT: Participant Directed Investment Program and Non-Retirement Program

This section of the report provides commentary on the Participant Directed Investment Program (PDIP) investment options and Non-Retirement Program managers along with the list of due diligence meetings staff conducted during the second quarter.

The report includes the following sections:

Participant Directed Investment Program Fund Commentaries
Second Quarter 2021

Domestic Equities

Vanguard Total Stock Market Index Institutional Plus
The Fund employs an indexing approach designed to track the performance of the CRSP U.S. Total Market Index, which represents approximately 100% of the investable U.S. stock market and includes large-, mid-, small-, and micro-cap stocks. The Fund matched its benchmark return with a +8.3% return for the quarter and slightly outperformed its benchmark with a +44.4% return for the year. The top performing sectors for the quarter were Technology, Health Care, and Consumer Discretionary. For the year, Technology, Consumer Discretionary, and Industrials were the top contributors.

Vanguard Institutional Index Plus
The Fund attempts to employ a full replication indexing approach designed to track the S&P 500 Index. Performance for the Fund matched the S&P 500 Index return for the quarter with a +8.5% return and for the year with a +40.8% return. Information Technology, Communication Services, and Health Care were the top performing sectors for the quarter. For the year, the largest contributors were Information Technology, Financials, and Communication Services. *This option is only available to the Minnesota Deferred Compensation Plan (MNDCP).*

Vanguard Dividend Growth Fund
The Fund is actively managed by Wellington Management and invests in large- and mid- cap equity holdings with an emphasis on high-quality companies with a history of paying stable or increasing dividends. Performance for the fund outperformed the benchmark for the quarter with a +6.6% return compared to a +5.8% return for the NASDAQ US Dividend Achievers Select Index. Positive stock selection in Financials and favorable sector allocation in Real Estate drove the outperformance for the quarter. For the year, the Fund reported a +33.0% return compared to a +34.5% return for the benchmark. Sector allocation and security selection drove the relative underperformance. A heavy underweight in Communication Services, as well as weak selection in Materials and Health Care detracted from relative returns for the year. The Fund does not consider its benchmark sector positioning when constructing the portfolio; weightings result from stock selection.

Vanguard Mid-Cap Index
The Fund attempts to employ a full replication indexing approach designed to track the performance of a broadly diversified pool of medium-size U.S. stocks. The Fund returned +7.6% for the quarter and +46.9% for the year, matching the CRSP US Mid Cap Index return for the quarter and slightly underperforming for the year. Top contributions for the quarter and the year were Technology, Industrials, and Health Care.

T. Rowe Price Institutional Small-Cap Stock Fund
The Fund's investment process emphasizes fundamental research and active, bottom-up stock selection. The Fund outperformed the Russell 2000 for the quarter with a +5.3% return compared to the benchmark return of +4.3% and underperformed for the year with a +54.5% return compared to the benchmark return of +62.0%. Stock selection was the primary driver for relative

underperformance during the year with nine of the eleven sectors reporting negative contribution to returns.

International Equities

Fidelity Diversified International Equity Fund

The Fund's approach actively selects companies based on fundamental analysis, management quality, and attractive valuations over a long time horizon. The Fund returned +6.8% for the quarter, outperforming the MSCI EAFE benchmark return of +5.3%. Relative return during the quarter benefited from stock selection in the Industrials, Health Care, and Communication Services sectors along with an overweight in Information Technology. By region, stock selection in Europe, ex U.K., Japan and the U.K. contributed to relative return. For the year, the Fund returned +29.5%, underperforming the benchmark return of +32.6%. An underweight and weak stock selection in Financials detracted from returns for the year.

Vanguard Total International Stock Index

The Fund attempts to employ an indexing approach designed to track the FTSE Global All Cap ex US Index, a market-cap weighted pool designed to measure performance of developed and emerging market companies. The Fund matched the benchmark return of +5.6% for the quarter and slightly underperformed for the year with a +36.6% return compared to the benchmark return of 37.0%. Health Care, Financials, and Industrials were the top contributors. For the year, the largest contributors to total returns were Financials, Technology, and Consumer Discretionary.

Fixed Income

Dodge & Cox Income Fund

The Fund invests in a diversified portfolio that consists primarily of investment-grade debt securities with a larger allocation to corporate and securitized debt relative to the benchmark. The fixed income fund reported positive relative returns compared to the Bloomberg Barclays U.S. Aggregate Index for the quarter and the year. The fund earned +2.0% compared to the benchmark return of +1.8% for the quarter and for the year returned +3.4% compared to the benchmark return of -0.3%. Relative performance during the quarter benefited from the Fund's overweight to corporate bonds along with security selection within credit and Agency MBS.

Vanguard Total Bond Market Index

The Fund employs a sampling process to its index investment approach to track the performance of the Bloomberg Barclays U.S. Aggregate Index. The Fund slightly outperformed its benchmark for the quarter with a +2.0% return and matched the benchmark return for the year with a -0.3% return. Treasuries, as measured by the Bloomberg Barclays U.S. Treasury Index, returned 1.75%. The Fund has a 43% allocation to Treasury/Agency securities. In general, higher-rated investment grade corporate bonds outperformed their lower-rated counterparts, while bonds with longer maturities fared better than shorter-dated bonds. The average duration for this Fund is 6.8 years.

Stable Value Fund
Galliard Asset Management manages the stable value portfolio in a separate account and invests in investment contracts issued by high quality financial institutions and in a diversified, high quality fixed income portfolio. The portfolio returned +0.5% for the quarter compared to a +0.2% return by its benchmark, the 3-Year Constant Maturity Treasury +45 basis points. For the year, the portfolio returned +2.2% compared to the benchmark return of +0.7%. An overweight to spread sectors drove overall returns for the quarter and the year, as they generally outpaced U.S. Treasuries with similar durations. Curve positioning, with a modest overweight to intermediate maturities was additive for the quarter but detracted from relative return for the year.

Wells Fargo Asset Management (WFAM) recently announced that with the impending sale of the firm to independent ownership, their name will be rebranded to Allspring Global Investments. However, Galliard Capital Management will retain its name. With this sale, which is expected to close second half of 2021, Wells Fargo Asset Management CEO Nico Marais will retire and serve as the firm's senior advisor. Joseph A. Sullivan will become Allspring's chief executive officer in addition to his previously announced role as executive chairman of the Board. Staff will continue to montitor this mandate for any impact to the investment process, team or services provided.

Money Market Fund
State Street Global Advisors manages the money market fund in a commingled pool vs. ICE BofA U.S. 3 Month T-Bill benchmark. In a very low yield environment within short duration fixed income, the Fund earned 2 basis points of excess return for the quarter (+0.02% return vs. benchmark 0.00%) and outperformed for the year with a +0.12% return compared to a +0.09% return for the benchmark.

<u>Asset Allocation Option</u>

Vanguard Balanced
The Balanced Fund seeks capital appreciation, current income, and long-term growth of income. The Fund allocation tracks the investment performance of an index with 60% CRSP US Total Stock Market Index and 40% Bloomberg Barclays U.S. Aggregate Float Adjusted Index. The Balanced Fund slightly underperformed the benchmark for the quarter with a +5.8% return and slightly underperformed for the year with a +24.8% return.

Non-Retirement Fund Program Commentaries
Second Quarter 2021

Assigned Risk Plan Fixed Income Manager
RBC Global Asset Management actively manages the fixed income portfolio for the Assigned Risk Plan to the Bloomberg Barclays U.S. Governmental Intermediate benchmark with a focus on security selection and secondarily on sector allocation. The portfolio matched the benchmark return for the quarter with a 0.6% return and outperformed for the year with a -0.8% return compared to a benchmark return of -1.1%. The quarter and one-year relative performance benefited from the portfolio's overweight to non-Treasury sectors. The portfolio maintains an overweight to U.S. Agencies, Agency MBS and Municipals, and the additional yield offered in these sectors was the primary driver of the portfolio's outperformance relative to the benchmark. The portfolio's modestly shorter duration position detracted from relative performance for the quarter but helped for the year.

Non-Retirement Program Fixed Income Manager
Prudential Global Investment Management (PGIM) actively manages the Non-Retirement Fixed Income portfolio to the Bloomberg Barclays U.S. Aggregate in a separately managed portfolio. The fixed income portfolio outperformed for the quarter with a +2.1% return compared to the benchmark return of +1.8%. For the year, the portfolio outperformed with a +1.2% return compared to the benchmark return of -0.3%. Relative outperformance during the quarter and the year was primarily from the portfolio's sector allocation. An overweight allocation to CMBS, Investment Grade and High Yield Corporate Credit positions benefited relative returns, as well as security selection within Emerging Market Debt.

Non-Retirement Program Domestic Equity Manager
Mellon Investments Corporation passively manages the Non-Retirement Domestic Equity portfolio to the S&P 500 Index in a separately managed portfolio. The portfolio matched the benchmark return for the quarter and the year with a +8.5% return and a +40.8% return, respectively.

Non-Retirement Program Money Market Manager
State Street Global Advisors manages the money market fund in a commingled pool vs. ICE BofA U.S. 3 Month T-Bill benchmark. In a very low yield environment within short duration fixed income, the Fund earned 0.0% for the quarter and returned +0.2% for the year compared to a +0.1% return for the benchmark.

2021 Manager Meetings

As a result of the ongoing COVID-19 pandemic and continued restrictions on business travel on the part of managers' and MSBI Staff policies, there were no in-person meetings conducted during the second quarter of 2021.

Throughout the quarter, however, Staff utilized teleconference and videoconference technologies to remain in communication with managers as needed. During the second quarter staff met with the investment funds noted below.

Investment Manager	Management Style/Asset Class	Investment Program
Ascensus	Multi-Asset Class Platform	PDIP (MN ABLE Plan)
Dodge & Cox	Active, Fixed Income	PDIP
Galliard Capital Management, Inc.	Stable Value Fund	PDIP
Invesco	Stable Value Fund	Bench List
Mellon Investments Corporation	Passive, U.S. Equities	Non-Retirement Program
Prudential Global Investment Mgmt	Active, Fixed Income	Non-Retirement Program
State Street Global Advisors	Target Date Fund	PDIP
TIAA-CREF	Multi-Asset Class Platform	PDIP (MN 529 Plan)
T. Rowe Price	Active, Small Cap Equities	PDIP
	Stable Value Fund	Bench List
Vanguard	Passive, Fixed Income	PDIP
	Passive, Domestic Equities	PDIP
	Passive, International Equities	PDIP
	Passive, Balanced Fund	PDIP
	Active, U.S. Large Cap Equity	PDIP

REPORT

SBI Environmental, Social, and Governance (ESG) Report

This page intentionally left blank.

MINNESOTA STATE BOARD OF INVESTMENT

ENVIRONMENTAL, SOCIAL, GOVERNANCE REPORT

2021 Proxy Season Highlights

2021 has been a historic year for proxy voting and shareholder advocacy. Thirty-one Environmental, Social, and Governance (ESG) related shareholder proposals received majority votes, shattering the impressive 2020 record of 18. 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 Minnesota State Board of Investment (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.

New Directors Elected to ExxonMobil Board of Directors

The 2021 board of director's election at ExxonMobil was one of the most significant ESG-related shareholder events in recent years. Three of four directors nominated by an Exxon shareholder, Engine No. 1, won seats on Exxon'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. All 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.
- Last year, the SBI and some other groups voted against the entire board as part of this engagement.
- This year, 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.

2021 Proxy Season Highlights (Cont.)

Below are some additional highlights from 2021, as well as key metrics to measure the SBI's proxy voting activities.

Governance

- **SBI Proxy Voting:** Over the course of FY 2021, the SBI voted ballots for 2,429 different company meetings on over 20,000 items. The majority of these votes were on director elections but also included 6,105 management proposals and 416 proposals submitted by shareholders.
- **Executive Compensation:** The SBI voted against approximately 70% of advisory votes on executive compensation due to lack of sufficient alignment or transparency with shareholders.
- **Other Corporation Governance Proposals:** The SBI voted for the vast majority of shareholder proposals related to corporate governance practices such as proxy access, independent chairman, 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.

Environmental

- **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, Exxon, Delta Air Lines, Chevron, ConocoPhillips, 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 Exxon, 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 material environmental and climate change issues.

Social

- **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 the racial equity risks that companies might be facing, shareholders submitted proposals requesting Racial Equity Audits at 8 different companies. These proposals received more than 25% but less than 50% of votes at Amazon, JP Morgan, Abbott Labs, Citigroup, State Street, J&J, and Goldman Sachs.

Coalition Highlight

Midwest Investors Diversity Initiative (MIDI)

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 Midwest Investors Diversity Initiative. Since the SBI joined this 16-member alliance in 2019, the SBI has contributed to efforts to increase board diversity at Midwest-based companies.

A recent [MIDI press release] highlights the success of the group since its formation in 2016.

At the 75 companies that have been engaged by members of the MIDI, 90 women and persons of color have received board appointments and 34 have adopted a diverse candidate search policy.

Additional information about MIDI can be found at: [Midwest Investors Diversity Initiative]

Diversity Studies

As part of its ESG risk analysis, the SBI reviews research on how ESG factors impact risk and return in the investments made by the SBI. **Highlighted below are two studies on racial/gender diversity that the SBI reviewed and found to be very informative.**

Racial and gender diversity have repeatedly proven to have a strong correlation with profitability.

McKinsey & Company Study

McKinsey & Company research has found that companies with high levels of ethnic diversity at the executive level outperformed those with low levels of diversity by 36% in terms of profitability.

Diversity Wins: How Inclusion Matters

Knight Foundation Study

Specific to asset management companies, research conducted by the Bella Research Group on behalf of the Knight Foundation has found that there are fewer women and minority owned asset managers than would be expected given the financial returns generated by those firms for their clients.

Diversifying Investments: A Study of Ownership Diversity and Performance in the Asset Management Industry

Minnesota State Board of Investment

Contact

John Mulé, Director, Legal, Legislative Policy and Shareholder Services
Minnesota State Board of Investment
60 Empire Drive, Suite 355
St. Paul, MN 55103

Phone: (651) 296-3328
Fax: (651) 296-9572
Email: minn.sbi@state.mn.us
Website: http://mn.gov/sbi/

The Minnesota State Board of Investment is an Equal Opportunity Employer

This page intentionally left blank.

REPORT

AON Market Environment Report

This page intentionally left blank.

Market Environment

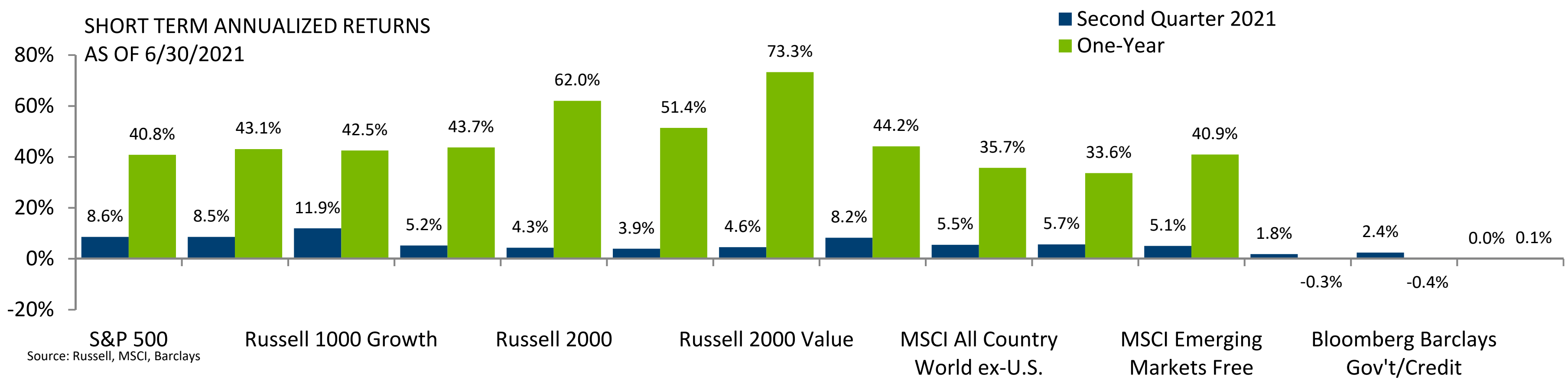
Second Quarter 2021

Aon

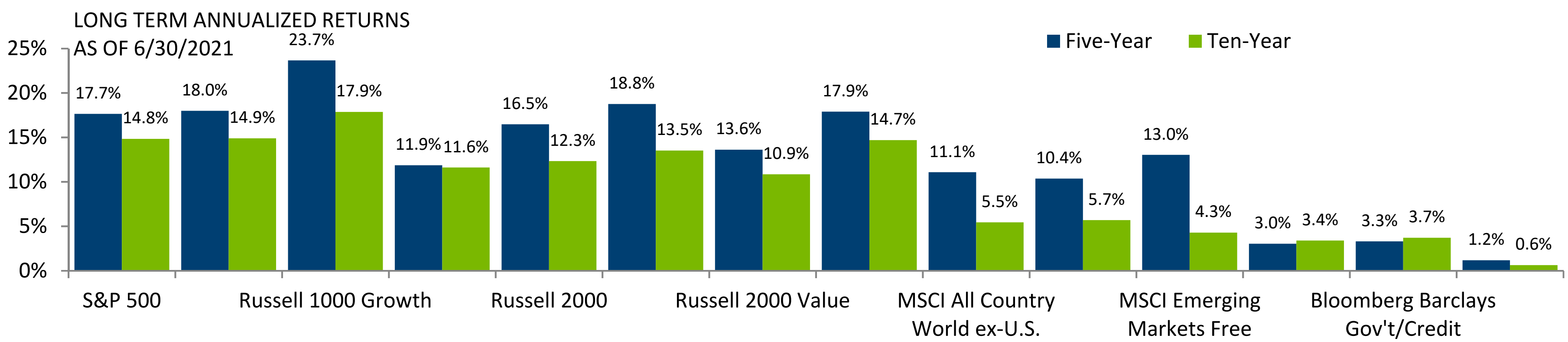
Investment advice and consulting services provided by Aon Investments USA Inc., an Aon Company.

Empower Results®

Market Highlights



Source: Russell, MSCI, Barclays



Source: Russell, MSCI, Barclays

Market Highlights

Returns of the Major Capital Markets

Periods Ending 6/30/2021

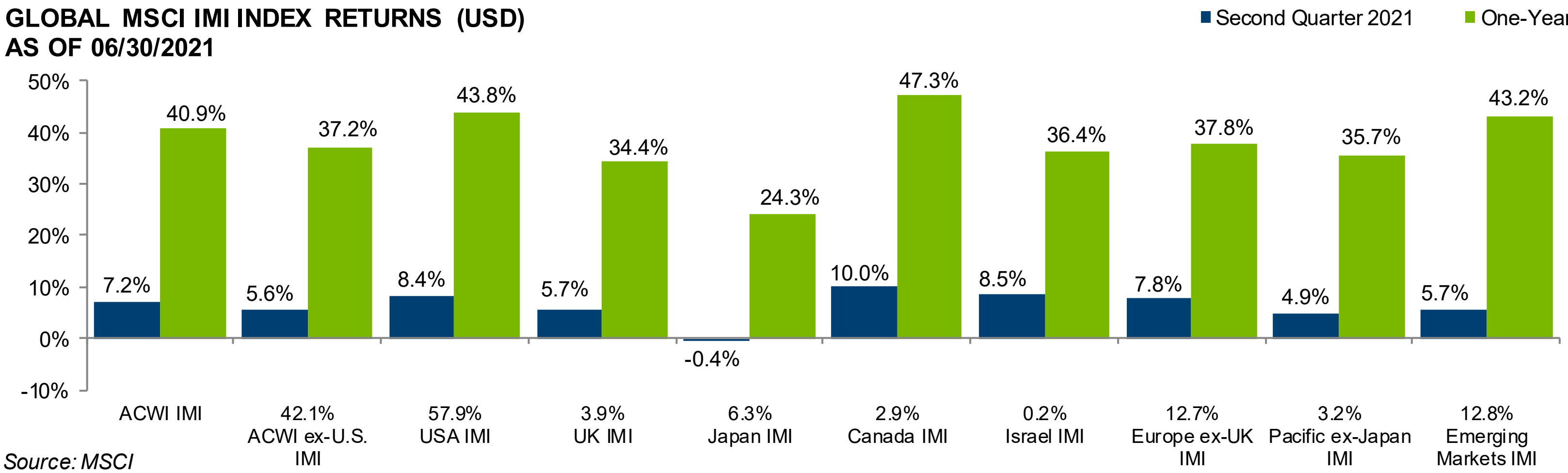
	Second Quarter	Year-to-Date	1-Year	3-Year[1]	5-Year[1]	10-Year[1]
Domestic Equity						
S&P 500	8.6%	15.3%	40.8%	18.7%	17.7%	14.8%
Russell 1000	8.5%	15.0%	43.1%	19.2%	18.0%	14.9%
Russell 1000 Growth	11.9%	13.0%	42.5%	25.1%	23.7%	17.9%
Russell 1000 Value	5.2%	17.1%	43.7%	12.4%	11.9%	11.6%
Russell 2000	4.3%	17.5%	62.0%	13.5%	16.5%	12.3%
Russell 2000 Growth	3.9%	9.0%	51.4%	15.9%	18.8%	13.5%
Russell 2000 Value	4.6%	26.7%	73.3%	10.3%	13.6%	10.9%
Russell 3000	8.2%	15.1%	44.2%	18.7%	17.9%	14.7%
International Equity						
MSCI All Country World ex-U.S.	5.5%	9.2%	35.7%	9.4%	11.1%	5.5%
MSCI World ex USA	5.7%	9.9%	33.6%	8.6%	10.4%	5.7%
MSCI Emerging Markets Free	5.1%	7.5%	40.9%	11.3%	13.0%	4.3%
Fixed Income						
Bloomberg Barclays U.S. Aggregate	1.8%	-1.6%	-0.3%	5.3%	3.0%	3.4%
Bloomberg Barclays Gov't/Credit	2.4%	-2.0%	-0.4%	6.0%	3.3%	3.7%
3 Mo U.S. T-Bills	0.0%	0.0%	0.1%	1.3%	1.2%	0.6%
Inflation						
CPI-U	2.3%	3.6%	5.3%	2.6%	2.4%	1.9%

MSCI Indices show net returns.

All other indices show total returns.

[1] Periods are annualized.

Global Equity Markets



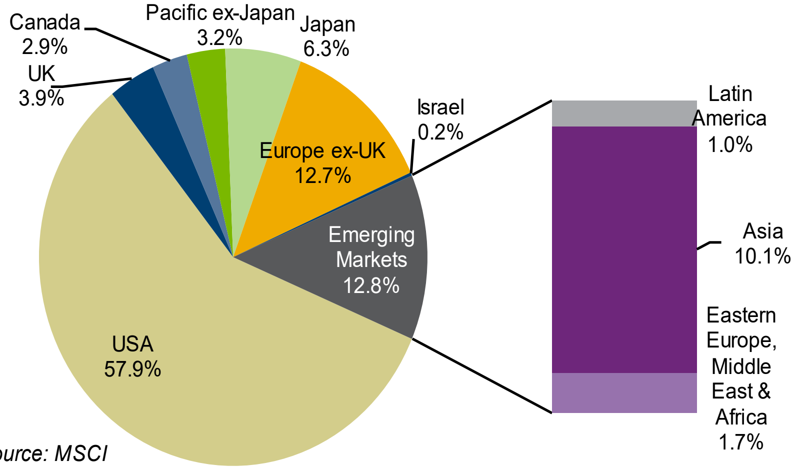
Source: MSCI

- Global equities climbed higher as the economic rebound and falling yields were enough to overcome the worry of emerging COVID-19 variants and uncertainty surrounding the future of U.S. monetary policy. The MSCI All Country World Investable Market Index (ACWI IMI) returned 7.2% for the quarter.
- The U.S. led for the quarter, returning 8.4% compared to 5.6% for non-U.S. equities and outperformed over the trailing one-year period.
- On a regional basis, Canadian equities were the strongest for the quarter, as the Canada IMI returned 10.0%. The index was led higher by its two largest sectors, Financials and Energy. The Energy sector gained 14.0% over the quarter due to rising oil prices.
- Europe ex-UK had a strong quarter as lockdown restrictions eased. All sectors generated positive returns, but Consumer Staples and Health Care were the top contributors to quarterly performance.
- Emerging Markets returned 5.7% for the second quarter but trailed many developed regions.

Global Equity Markets

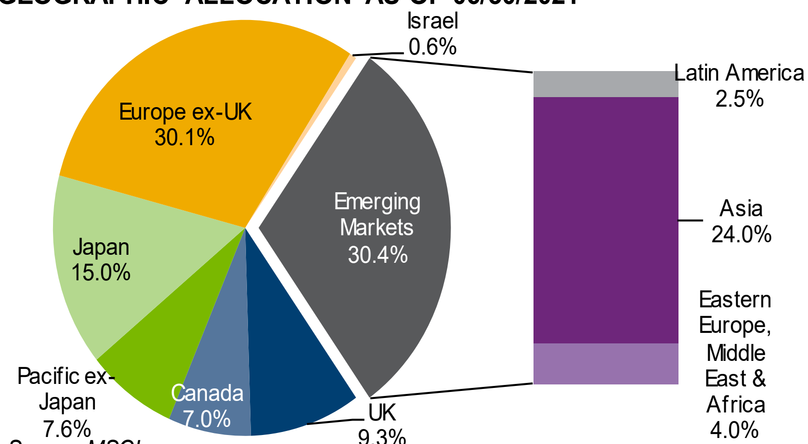
Below is the country/region breakdown of the global and international equity markets as measured by the MSCI All Country World IMI Index and the MSCI All Country World ex-U.S. IMI Index, respectively.

MSCI ALL COUNTRY WORLD IMI INDEX GEOGRAPHIC ALLOCATION AS OF 06/30/2021



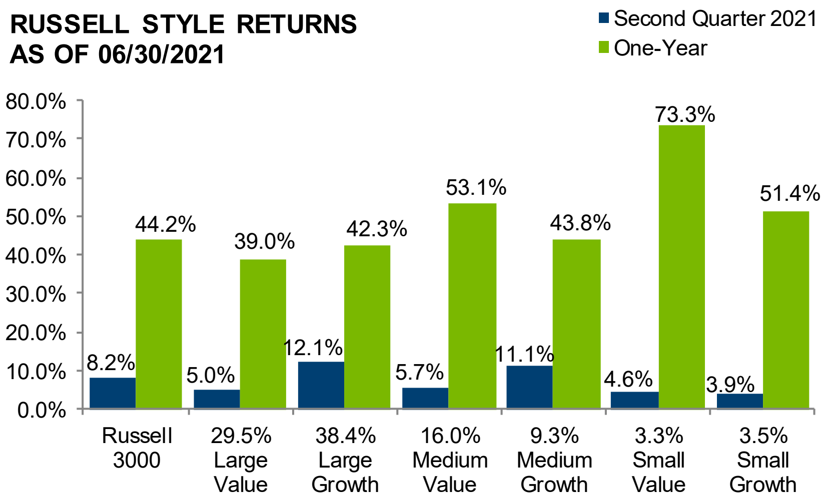
Source: MSCI

MSCI ALL COUNTRY WORLD EX-U.S. IMI INDEX GEOGRAPHIC ALLOCATION AS OF 06/30/2021

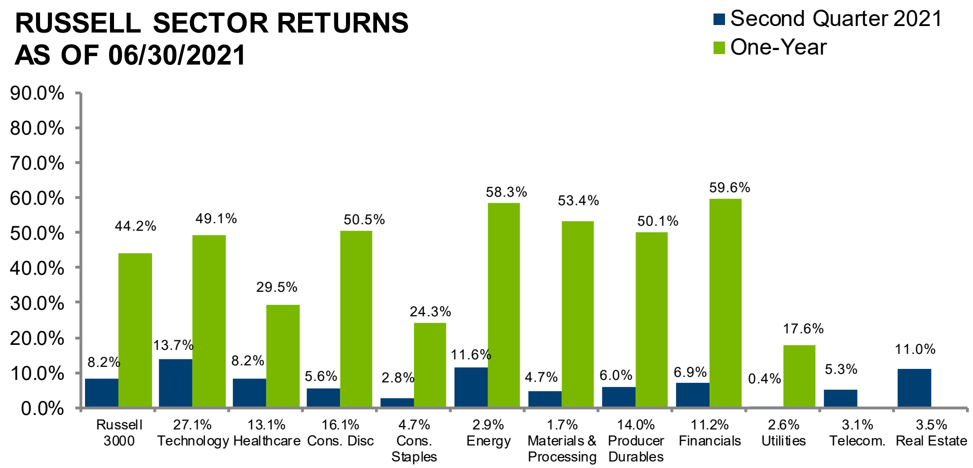


Source: MSCI

U.S. Equity Markets



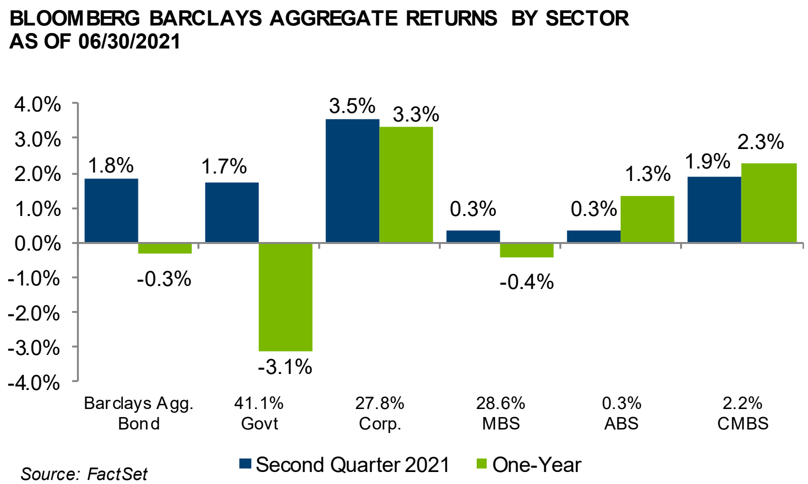
Source: Russell Indexes

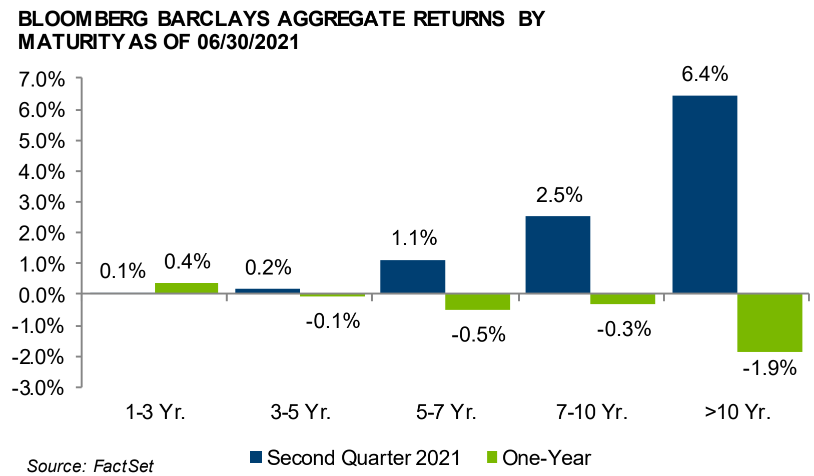


Source: Russell Indexes(New sectors like Telecommunication and Real Estate One-Year chart excluded due to lack of historical data)

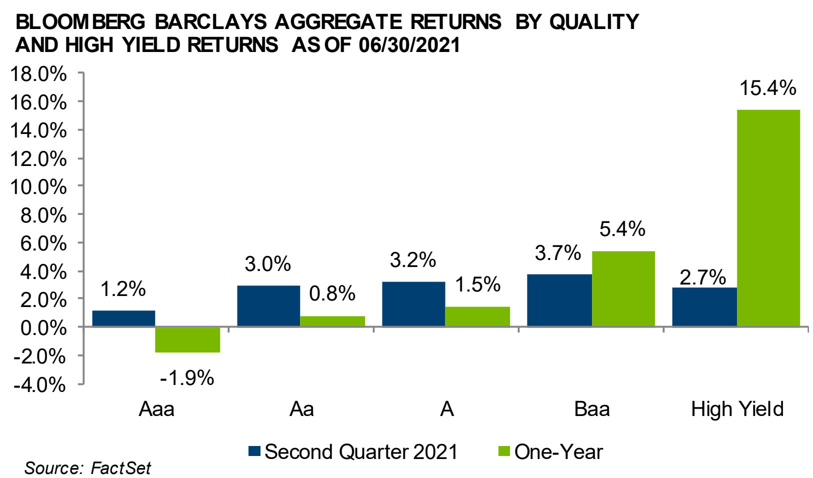
- U.S. equities were up over the quarter, supported by continued progress on the vaccination front and improving economic activity. U.S. Treasury yields declined throughout the quarter, which weighed on much of the reflation trade and value-oriented sectors. Sectors the benefit from falling interest rates, such as Technology and Real Estate, fared well during the second quarter.
- The Russell 3000 Index returned 8.2% during the second quarter and 44.2% over the trailing one-year period. All sectors generated positive returns over the quarter, led by strong returns from the Technology and Energy sectors, which returned 13.7% and 11.6% respectively. Utilities returned the least at 0.4%.
- Large and medium cap stocks outperformed small caps over the quarter. Growth stocks outperformed value within large and medium cap stocks. Over the trailing one-year period growth eclipsed value within large cap stocks but medium and small cap value still led their growth counterparts.

U.S. Fixed Income Markets



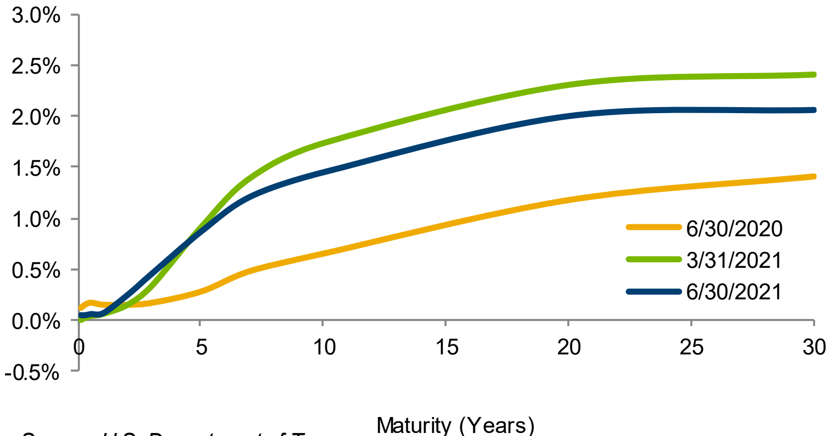


- The Bloomberg Barclays U.S. Aggregate Bond Index rose by 1.8% over the quarter.
- Credit markets benefited from risk-on sentiment during the quarter, with corporate bonds up 3.5% by quarter-end, followed by CMBS bonds which rose by 1.9%.
- Across durations, longer maturity bonds (10+ years) rose the most at 6.4%.
- Within investment grade bonds, lower-credit quality outperformed higher quality issues, with Baa bonds as the best performer returning 3.7%. High yield bonds rose by 2.7%.



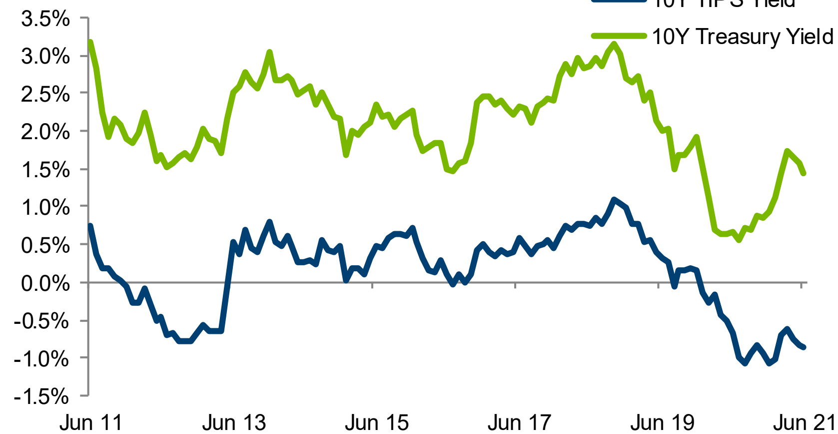
U.S. Fixed Income Markets

U.S. TREASURY YIELD CURVE



Source: U.S. Department of Treasury

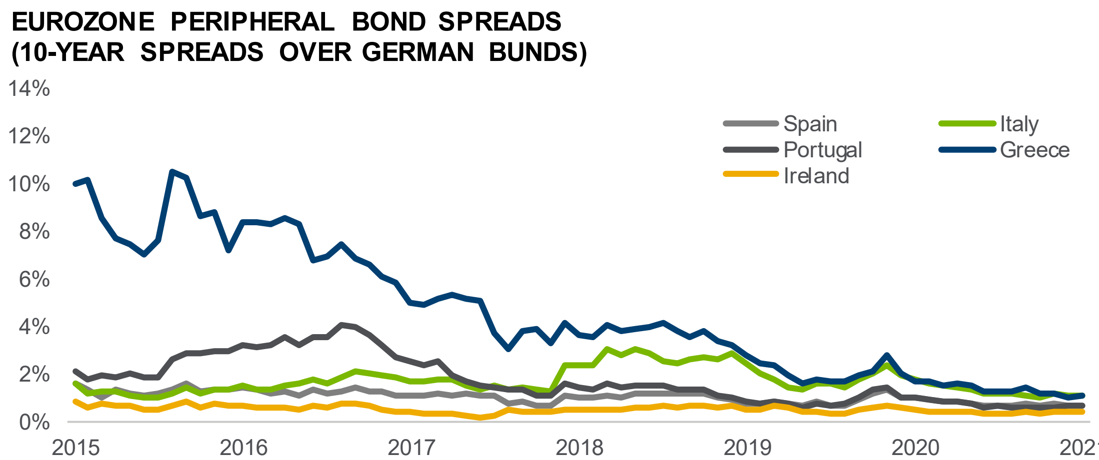
U.S. 10-YEAR TREASURY AND TIPS YIELDS



Source: U.S. Department of Treasury

- The U.S. Treasury curve flattened with yields rising at shorter end but falling across medium to longer maturities, despite an uptick in inflation. The US Federal Reserve (Fed) left interest rates unchanged and held its current pace of asset purchases. However, hawkish sentiment emerged with various members voicing a preference to tighten policy sooner rather than later. The dot plot from the June FOMC meeting showed rate hikes could start in 2023.
- The 10-year U.S. Treasury yield ended the quarter 29bps lower at 1.45% and the 30-year yield decreased by 35bps to 2.06%.
- The 10-year TIPS yield fell by 24bps over the quarter to -0.87%.

European Fixed Income Markets



Source: FactSet

- European government bond spreads over 10-year German bunds generally widened across the Euro Area. The European Commission upgraded the eurozone's growth forecast to 4.3% this year and 4.4% in 2022 from the previous estimates of 3.8% in both years, citing increasing vaccinations and easing lockdown restrictions.
- German government bund yields rose by 9bps to -0.21% over the quarter. The Eurozone economy fell into a double-dip recession due to varying levels of lockdown stringency in response to a third wave of coronavirus. The economy contracted by 0.6% in Q1 2021. Germany was Europe's worst-hit major economy as it contracted by 1.7%, as falling household consumption failed to offset higher manufacturing exports. Elsewhere, the French economy expanded by 0.4% over the same period.
- Portuguese government bond yields rose by 18bps to 0.39% and Italian government bond yields rose by 17bps to 0.83%.

Credit Spreads

Spread (bps)	6/30/2021	3/31/2021	6/30/2020	Quarterly Change (bps)	1-Year Change (bps)
U.S. Aggregate	32	31	68	1	-36
Gov't	0	0	1	0	-1
Credit	77	86	142	-9	-65
Gov't/Credit	34	38	65	-4	-31
MBS	27	12	70	15	-43
CMBS	59	71	132	-12	-73
ABS	22	35	68	-13	-46
Corporate	80	91	150	-11	-70
High Yield	268	310	626	-42	-358
Global Emerging Markets	257	267	393	-10	-136

Source: Barclays Live

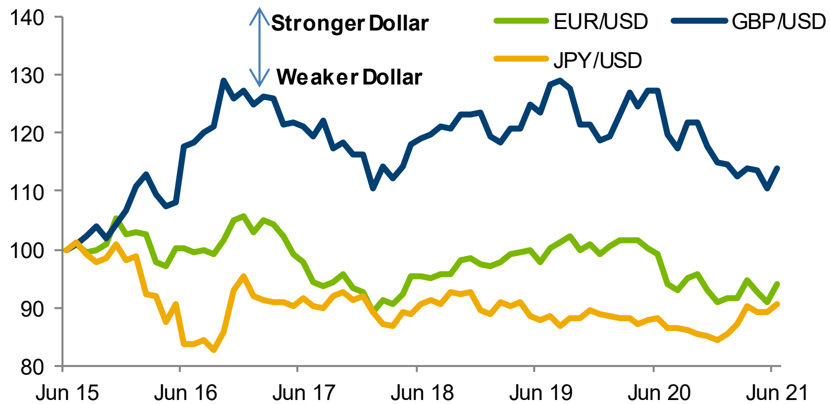
- Credit spreads continued to tighten during the quarter, with credit spreads over U.S. treasuries narrowing across the board in the second quarter.
- High Yield credit spreads and ABS spreads narrowed the most in Q2 2021, decreasing by 42bps and 13bps over the quarter.

Currency

TRADE WEIGHTED U.S. DOLLAR INDEX (2006 = 100)

Source: Federal Reserve

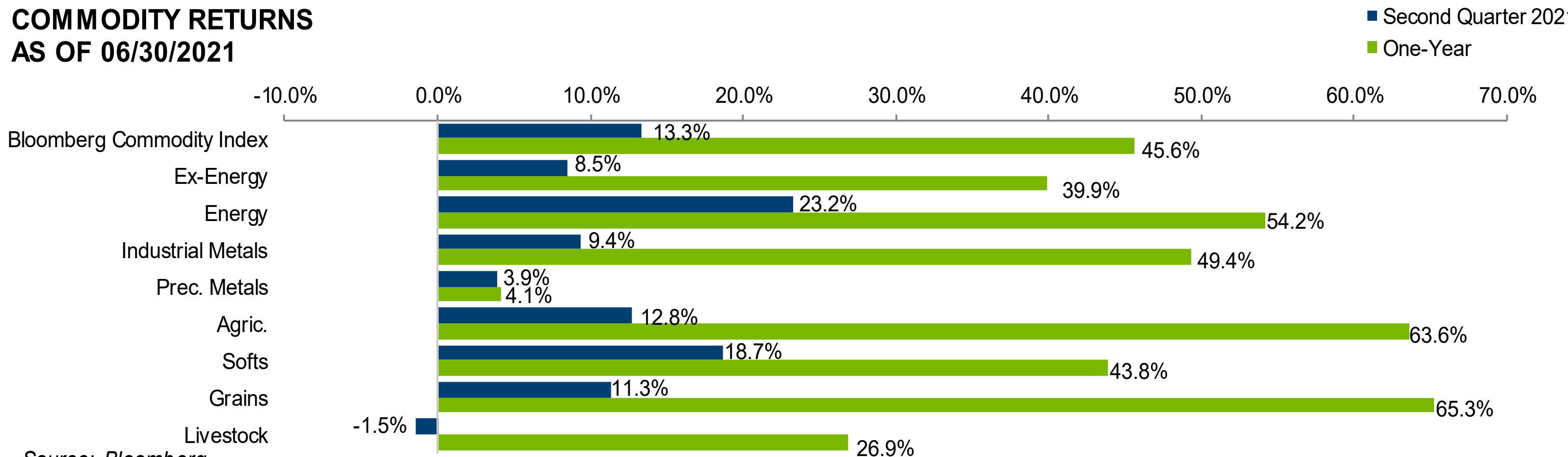
U.S. DOLLAR RELATIVE TO EUR, GBP AND JPY REBASED TO 100 AT 06/30/2015



Source: FactSet

- The U.S. Dollar depreciated against the Euro and Sterling but appreciated against the Yen. The U.S. dollar fell 1.1% on a trade-weighted basis.
- Sterling fell by 0.6% on a trade-weighted basis over the quarter. The Bank of England unanimously kept its base rate unchanged at 0.1% amid fears of rising inflation. The Monetary Policy Committee also upgraded both UK inflation and growth forecasts. The Sterling appreciated by 0.1% against the U.S. dollar.
- The U.S. dollar depreciated by 0.9% against the Euro whilst it appreciated by 0.4% against the Yen.
- The Bank of Japan kept its interest rate unchanged at -0.1% and target for long-term yields around 0%. It also extended its pandemic relief programme by six months.

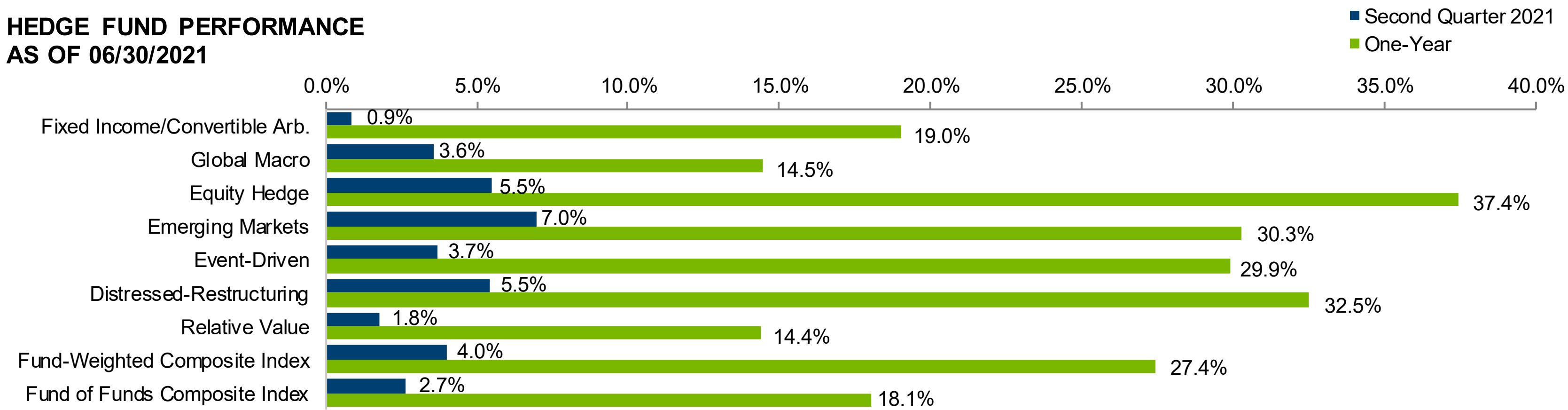
Commodities



Source: Bloomberg
Note: Softs and Grains are part of the wider Agriculture sector

- Commodities had another strong quarter with the Bloomberg Commodity Index up 13.3%. Energy continued to be the standout as consumer demand steadily returned around the world. Agricultural prices also saw large increases over the quarter. Industrial metals continued their positive trend while precious metals rebounded from their first quarter slump.
- Energy was the best performing sector as it rose by 23.2% over the quarter and 54.2% over the trailing one-year period. Crude oil prices rose to their highest level in three years, touching $76 a barrel as the OPEC+ group failed to reach an agreement on raising crude oil production. In July, OPEC+ producers agreed on a slight increase in production, which amounts to an additional 2m barrels a day (b/d) following increases in May and June. Production cuts from 2020 are still in place however, although they were reduced to just under 6m b/d from 10m b/d last year.
- The price of Brent crude oil rose by 18.2% to $75/bbl. while WTI crude oil spot prices rose by 24.2% to $73/bbl.

Hedge Fund Markets Overview

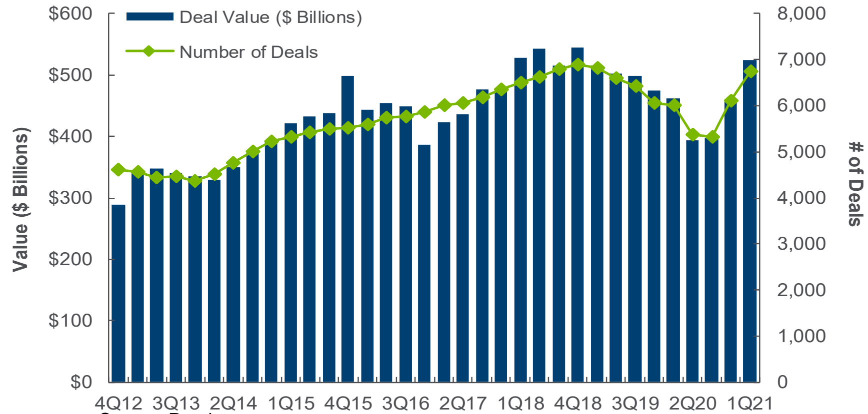


Note: Latest 5 months of HFR data are estimated by HFR and may change in the future.
Source: HFR

- Hedge fund performance was positive across all strategies in the second quarter.
- HFRI Fund-Weighted Composite Index and the HFRI Fund of Funds Composite Index produced returns of 4.0% and 2.7% respectively.
- Over the quarter, Emerging Markets and Equity Hedge strategies were the best performers, returning 7.0% and 5.5% respectively.

Private Equity Market Overview – 1Q 2021

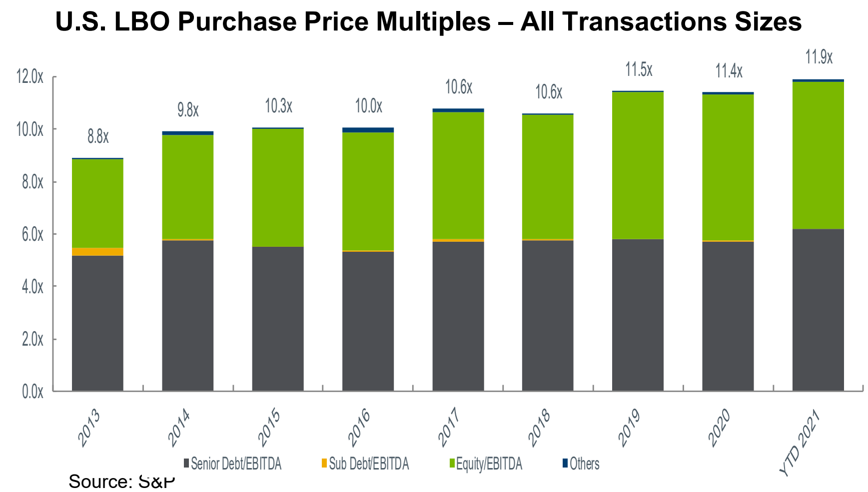
LTM Global Private Equity-Backed Buyout Deal Volume



Source: Preqin

- **Fundraising:** In 1Q 2021, $250.1 billion was raised by 641 funds, which was a decrease of 22.0% on a capital basis and 10.5% by number of funds over the prior quarter. Dry powder stood at nearly $2.1 trillion at the end of the quarter, an increase compared to year-end 2020's total of $2.0 trillion.[1]
- **Buyout:** Global private equity-backed buyout deals totaled $176.4 billion in 1Q 2021, which was up 3.8% on a capital basis and down 0.8% by number of deals from 4Q 2020.[1] Through 1Q 2021, the average purchase price multiple for all U.S. LBOs was 11.9x EBITDA, an increase of 0.5x over 2020's average and higher than the five-year average (10.8x).[2] Large cap purchase price multiples stood at 11.9x through 1Q 2021, up compared to 2020's level of 11.3x.[2] In Europe, the average purchase price multiple across European transactions of greater than €500M averaged 12.0x EBITDA on an LTM basis as of 1Q 2021, down from the 12.6x multiple seen at the end of 4Q 2020. Purchase prices for transactions of greater than €1.0 billion decreased to 12.5x on an LTM basis from 13.1x seen at the end of 2020. Globally, exit value totaled $180.8 billion from 720 deals during the first quarter, down from the $193.1 billion in exits from 719 deals during 4Q 2020. However, 1Q 2021's totals were significantly higher than Q1 2020's total of $72.4 billion in value across 473 deals.[1]
- **Venture:** During the first quarter, 1,735 venture-backed transactions totaling $62.1 billion were completed in the U.S., which was an increase on a capital basis over the prior quarter's total of $38.4 billion across 1,657 deals. This was 140.2% higher than the five-year quarterly average of $25.9 billion and marked the strongest quarter on record.[3] Total U.S. venture-backed exit activity totaled approximately $118.1 billion across an estimated 447 completed transactions in 1Q 2021, down from the $149.4 billion across 401 exits in 4Q 2020. Through 1Q 2021, U.S. exit activity represented 39.2% of 2020's total.[4]
- **Mezzanine:** Two funds closed on $200 million during the first quarter. This was down significantly from the prior quarter's total of $17.9 billion raised by 17 funds, and down from 1Q 2020's total of $3.0 billion raised by 8 funds. Estimated dry powder was $51.3 billion at the end of 1Q 2021, down slightly from the $51.8 billion seen at the end of 4Q 2020.[1]

Private Equity Market Overview – 1Q 2021



Source: S&P

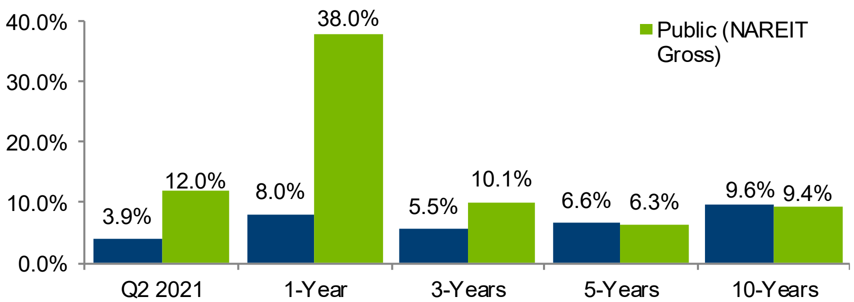
- **Distressed Debt:** The TTM U.S. high-yield default rate was 3.9% at March 2021, which was a decrease from the 4.5% seen at year-end 2020.[5] During the quarter, $12.5 billion was raised by 18 funds, a significant drop from the $38.9 billion raised by 26 funds in 4Q 2020. Distressed funds have raised 17.1% of 2020's total through 1Q 2021.[1] Dry powder was estimated at $143.6 billion at the end of 1Q 2021, which was up from the $135.1 billion seen at the end of 4Q 2020. This remained above the five-year annual average level of $115.0 billion.[1]
- **Secondaries:** 16 funds raised $17.5 billion during the quarter, down significantly from the $32.0 billion raised by 14 funds in 4Q 2020. This was down 20.8% from 1Q 2020.[1] At the end of 1Q 2021, there were an estimated 93 secondary and direct secondary funds in market targeting roughly $43.4 billion.[1] The average discount rate for all private equity sectors finished the quarter at 9.1%, continuing the rebound from the 11.8% discount at the end of 4Q 2020 and from the 18.0% discount at the end of 1Q 2020.[6]
- **Infrastructure:** $21.8 billion of capital was raised by 26 funds in 1Q 2021 compared to $24.0 billion of capital raised by 41 partnerships in 4Q 2020. At the end of the quarter, dry powder stood at an estimated $262.2 billion, up from 4Q 2020's total of $233.8 billion. Infrastructure managers completed 516 deals with an estimated aggregate deal value of $75.9 billion in 1Q 2021 compared to 648 deals totaling $84.5 billion a quarter ago.[1]
- **Natural Resources:** During 1Q 2021, four funds closed on $1.4 billion compared to eight funds totaling $1.5 billion in 4Q 2020. Energy and utilities industry managers completed approximately 29 deals totaling an estimated $6.7 billion through 1Q 2021, which represented 41.0% of energy and utilities deal value during all of 2020.[1]

Sources: [1] Preqin [2] Standard & Poor's [3] PwC/CB Insights MoneyTree Report [4] PitchBook/NVCA Venture Monitor [5] Fitch Ratings [6] Thomson Reuters [7] UBS

Notes: FY=Fiscal year ended 12/31; YTD=Year to date; LTM=Last 12 months (aka trailing 12 months); PPM=Purchase Price Multiples: Total Purchase Price ÷ EBITDA.

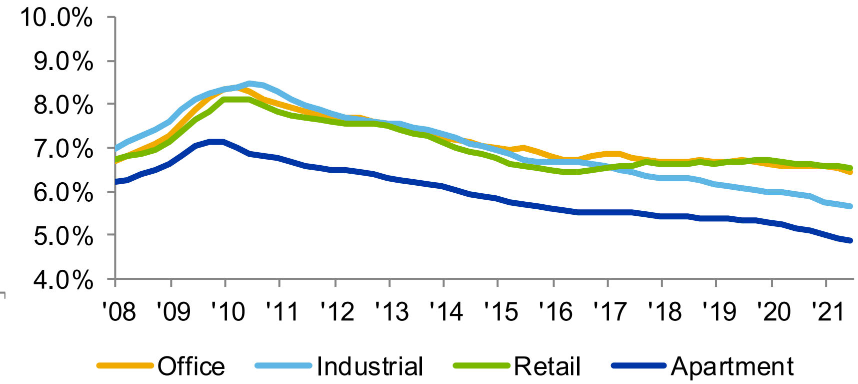
U.S. Commercial Real Estate Markets

PRIVATE VS. PUBLIC REAL ESTATE RETURNS AS OF 6/30/2021



**Second quarter returns are preliminary*
Sources: NCREIF, FactSet

CAP RATES BY SECTOR



Sources: RCA, AON 06/30/2021

- U.S. Core Real Estate returned 3.9%* in the second quarter, equating to an 8.0% total gross return year-over-year, including a 3.9% income return. Limited distressed sales have been witnessed thus far, although plenty of capital has been raised to capitalize on any potential opportunities coming out of COVID-19. Following a sharp contraction in GDP of -3.3% in 2020, the IMF now projects the global economy to expand by 6.0% in 2021. The recovery is forecasted to be swifter and more resilient than the recovery following the 2008 global financial crisis thanks to unprecedented fiscal and monetary policy responses. Real estate capital markets are liquid with transaction volumes picking back up, led in part by ample debt availability.
- Global property markets, as measured by the FTSE EPRA/NAREIT Developed Real Estate Index, returned 6.1% (USD) in aggregate during the second quarter and experienced a cumulative increase of 34.8% over the trailing 1-year period. REIT market performance was driven by Asia Pacific (5.3% USD), North America (11.4% USD), and Europe (8.8% USD). The U.S. REIT markets (FTSE NAREIT Equity REITs Index) returned 12.0% in the second quarter. The U.S. 10-year treasury bond yields decreased 29 bps to 1.45% during the quarter.
- There are now overarching and compelling dynamics benefitting the overall real estate market. Bonds have repriced to record low yields, and now real estate yields present an attractive spread to risk free rates. Rising costs for key real estate construction inputs are driving up replacement costs and are anticipated to quell near-term supply.
- Technology is changing consumption trends and lifestyle preferences globally, driving demand for certain property sectors consistently across regions. The acute circumstances of a recession driven by a virus magnified this effect in 2020. Looking forward, investors should assess what changes to our routines/habits may stick, what regions will they most impact, and how do those impact property specific demand drivers. Townsend is forecasting certain changes to persist post-COVID and has actively re-evaluated our investment strategy to align with the changing economy.
- Townsend has identified high conviction investment themes that are predicated on secular growth trends and strong underlying real estate market fundamentals. These investment themes have commonalities such as anticipated tenant demand growth, natural barriers to supply, and operating complexity that are anticipated to persist medium to long-term.

*Indicates preliminary NFI-ODCE data gross of fees

Notes

1. Preqin
2. Standard & Poors
3. PriceWaterhouseCoopers/CB Insights MoneyTree Report
4. PitchBook/National Venture Capital Association Venture Monitor
5. Fitch Ratings
6. UBS

Notes:
FY: Fiscal year ended 12/31
YTD: Year to date
YE: Year end
LTM: Last twelve months (aka trailing twelve months or TTM)
PPM: Purchase Price Multiples: Total Purchase Price / EBITDA
/bbl: Price per barrel
MMBtu: Price per million British thermal units

(This page left blank intentionally)

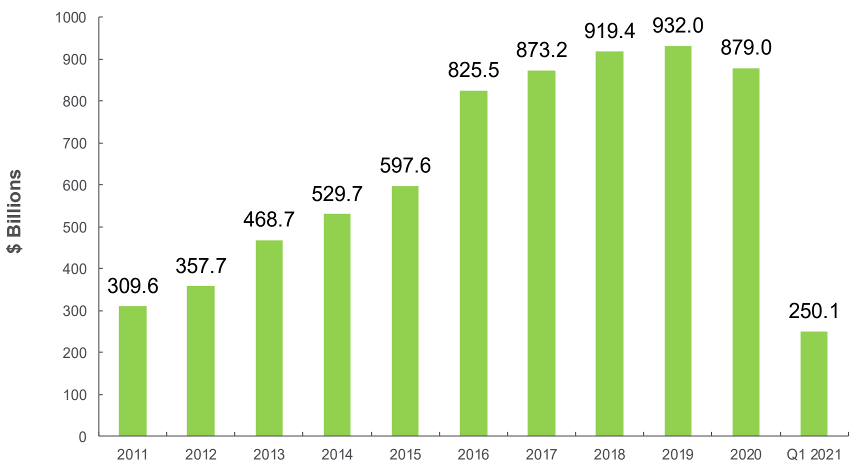
Appendix A:

Global Private Equity Market Overview

1Q 2021

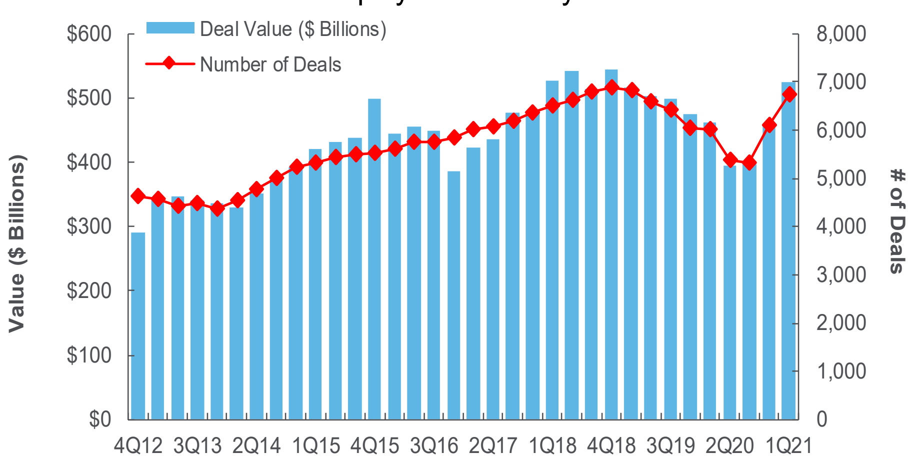
Private Equity Overview

Total Funds Raised



Source: Preqin

LTM Global Private Equity-Backed Buyout Deal Volume



Source: Preqin

Fundraising

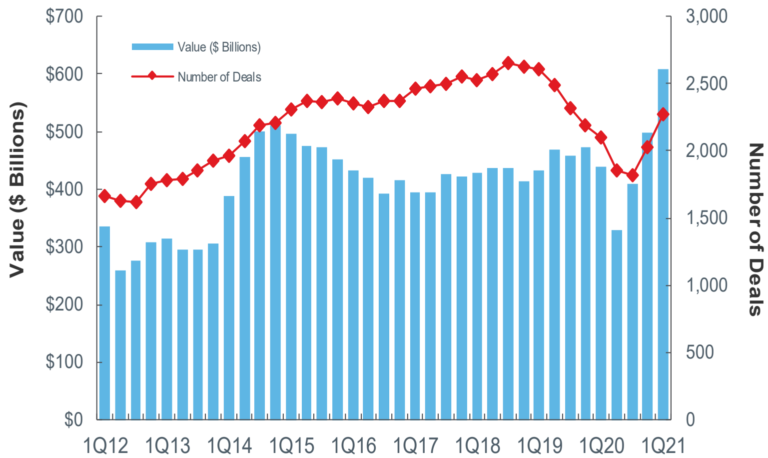
- In Q1 2021, $250.1 billion was raised by 641 funds, which was a decrease of 22.0% on a capital basis and 10.5% by number of funds over the prior quarter. Capital raised through Q1 2021 represented 28.5% of capital raised during calendar year 2020.[1]
  - Q1 2021 fundraising was 9.9% higher, on a capital basis, than the three-year quarterly average, and 2.2% higher by number of funds raised.
  - The majority of capital was raised by funds with target geographies in North America, comprising 65.2% of the quarter's total. This was down slightly from 66.1% in Q4 2020. Capital targeted for Europe made up 22.0% of the total funds raised during the quarter, an increase from 19.2% in Q2 2020. The remainder was attributable to managers targeting Asia and other parts of the world.
- Dry powder stood at nearly $2.1 trillion at the end of the quarter, an increase compared to year-end 2020's total of $2.0 trillion.[1]

Activity

- Global private equity-backed buyout deals totaled $176.4 billion in Q1 2021, which was up 3.8% on a capital basis and down 0.8% by number of deals from Q4 2020.[1]
  - This was 50.5% higher than the five-year quarterly average deal volume of $117.2 billion.
  - Average deal size was $82.4 million in Q1 2021. This was up 12.7% compared to Q1 2020 and up 11.9% relative to the five-year quarterly average.
- European sponsored loan volume totaled €32.0 billion in Q1 2021, up 141.3% compared to Q4 2020's total of €13.3 billion. This was also 108.3% higher than the five-year quarterly average level of €15.4 billion.[3]
- Through Q1 2021, the average purchase price multiple for all U.S. LBOs was 11.9x EBITDA, an increase of 0.5x over 2020's average and higher than the five-year average (10.8x). Large cap purchase price multiples stood at 11.9x through Q1 2021, up compared to 2020's level of 11.3x.[3]
  - Average purchase price multiples for all U.S. LBOs were 1.1x and 1.9x turns (multiple of EBITDA) above the five- and ten-year average levels, respectively.
- In Europe, the average purchase price multiple across European transactions of €500M or greater averaged 12.0x EBITDA on an LTM basis as of Q1 2021, down from the 12.6x multiple seen at the end of Q4 2020. Purchase prices for transactions of greater than €1.0 billion decreased to 12.5x on an LTM basis from the 13.1x seen at the end of 2020.[3]
- Debt remained broadly available in the U.S.
  - The average leverage for U.S. deals in Q1 2021 was 6.2x compared to the five and ten-year averages of 5.7x and 5.5x, respectively.[3]
  - The amount of debt issued supporting new transactions decreased compared to the prior quarter, moving from 62.4% to 54.4%, and was lower than the five-year average of 62.4%.[3]
- In Europe, the average senior debt/EBITDA on an LTM basis ended Q1 2021 at 5.7x, down slightly from the 5.9x observed at Q4 2020.

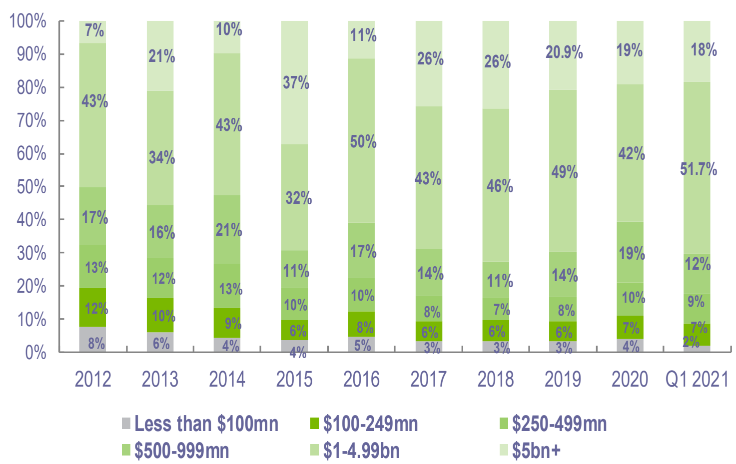
Buyouts / Corporate Finance

LTM PE Exit Volume and Value



Source: Preqin

M&A Deal Value by Deal Size



Source: Preqin

Fundraising

- $109.1 billion was closed on by 162 buyout and growth funds in Q1 2021, compared to $135.9 billion raised by 177 funds in Q4 2020. This was substantially higher than the $79.8 billion raised by 156 funds in Q1 2020.[1]
  - This was above the three-year quarterly average of $102.2 billion and 151 funds.
  - Clayton, Dubilier & Rice XI was the largest fund raised during the quarter, closing on $16.0 billion of commitments.[1]
- Buyout and growth equity dry powder was estimated at $1.1 trillion, up 1.7% from Q4 2020.[1]
- Mega, large, and mid cap buyout funds increased in dry powder compared to Q4 2020 by 10.0%, 22.6% and 14.9%, respectively. Mega cap buyout funds were sitting on $421.3 billion in dry powder at the end of the quarter. Small cap dry powder exhibited the only decrease during the quarter, decreasing to $90.3 billion or a decrease of 50.1% over the prior quarter.[1]
  - An estimated 59.1% of buyout dry powder was targeted for North America, while European dry powder comprised 27.8% and Asia/Rest of World accounted for the remainder.[1]

Activity

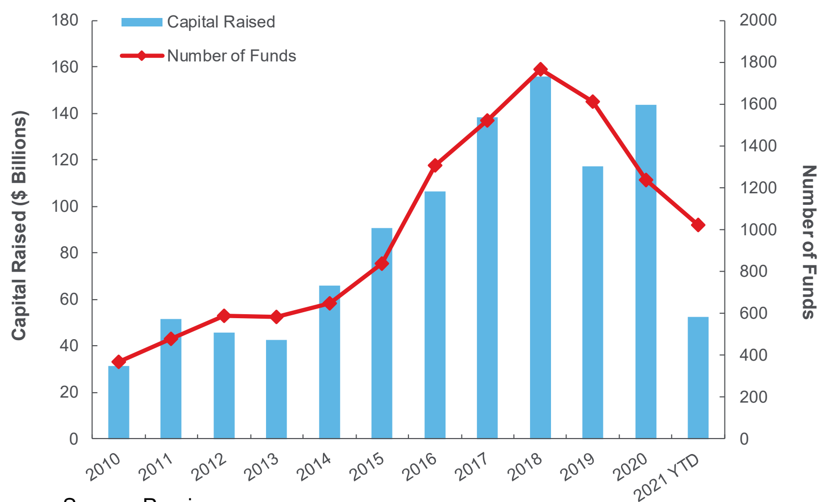
- Global private equity-backed buyout deals totaled $176.4 billion in Q1 2021, which was up 3.8% on a capital basis and down 0.8% by number of deals from Q4 2020.[1] This was 50.5% higher than the five-year quarterly average deal volume of $117.2 billion.
- Through Q1 2021, deal value accounted for 38.6% of 2020's total buyout activity and was 62.9% higher than Q1 2020.
  - Through Q1 2021, deals valued at $5.0 billion or greater accounted for an estimated 18.5% of total deal value compared to 18.9% through 2020 and 20.9% in 2019.[1] Deals valued between $1.0 billion to $4.99 billion represented 51.7% of total deal value through the first quarter.
  - By geography, North American deals accounted for the largest percentage of total deal value at an estimated 62.0% through Q1 2021, while Information Technology deals accounted for the largest percentage by industry at 28.4% of total deal value.
- U.S. Entry multiples for all transaction sizes in Q1 2021 stood at 11.9x EBITDA, up from 2020's level (11.4x).[3]
  - Large cap purchase price multiples stood at 11.9x through Q1 2021, up compared to 11.3x through Q4 2020.[3]
  - In Europe, the average purchase price multiple across European transactions greater than €500M averaged 12.0x EBITDA on an LTM basis as of Q1 2021, down from the 12.6x seen at the end of Q4 2020. Purchase prices for transactions greater than €1.0 billion decreased to 12.5x on an LTM basis from the 13.1x seen at the end of 2020.[3]
  - The portion of average purchase prices financed by equity for all deals was 47.2% through Q1 2021, down from 48.8% in Q4 2020. This remained above the five- and ten-year average levels of 45.7% and 43.6%, respectively.[3]
- Globally, exit value totaled $180.8 billion from 720 deals during the first quarter, down from the $193.1 billion in exits from 719 deals during Q4 2020. However, Q1 2021's totals were significantly higher than Q1 2020's total of $72.4 billion in value across 473 deals.[1]

Opportunity[4]

- Managers targeting the middle and large markets with expertise across business cycles.

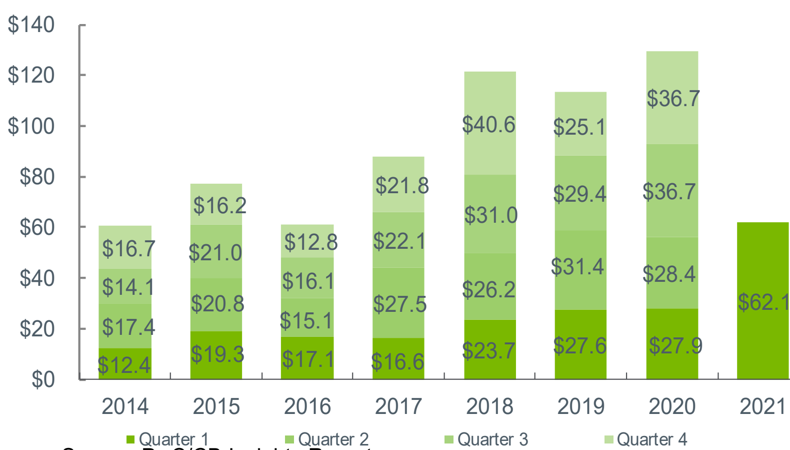
Venture Capital

Venture Capital Fundraising



Source: Preqin

U.S. Venture Capital Investments by Quarter ($B)



Source: PwC/CB Insights Report

Fundraising

- $52.6 billion of capital was raised by 323 funds in Q1 2021, up from the prior quarter's total of $42.6 billion raised by 347 managers. The average fund size increased substantially during the quarter to $174.0 million from $139.0 million.[1]
  - Q1 2021 fundraising was 51.5% higher on a capital basis compared to the three-year quarterly average of $34.7 billion.
  - Tiger Private Investment Partners XIV was the largest fund raised during the quarter, closing on $6.7 billion.
- At the end of Q1 2021, there were an estimated 2,772 funds in market targeting $233.5 billion.[1]
  - Softbank Vision Fund – Latin America was the largest venture fund in market, targeting an estimated $5.0 billion.
  - The majority of funds in market are seeking commitments of $200.0 million or less.
- Dry powder was estimated at $366.0 billion at the end of Q1 2021, up from Q4 2020's total of $331.5 billion and 56.6% higher than the five-year average.[1]

Activity

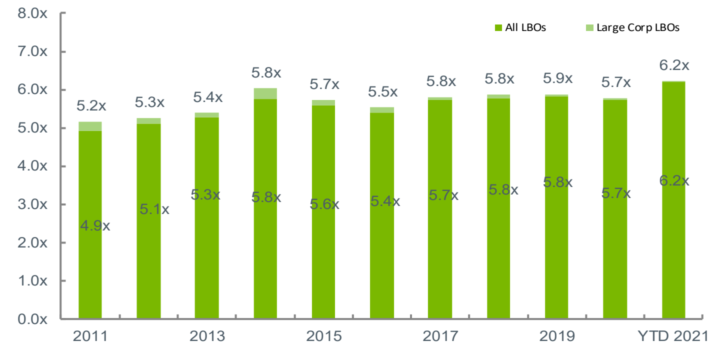
- During the first quarter, 1,735 venture-backed transactions totaling $62.1 billion were completed in the U.S., which was an increase on a capital basis over the prior quarter's total of $38.4 billion across 1,657 deals. This was 140.2% higher than the five-year quarterly average of $25.9 billion and marked the strongest quarter on record.[7]
  - In Q1 2021, there were 107 U.S.-based deals involving unicorn companies, representing roughly $29.5 billion in deal value. This was up by number and value compared to Q4 2020, which saw 72 unicorn-related deals close at a deal value of $13.3 billion. Q1 2021 marked a new record for unicorn-related activity by deal value and number of deals.[8]
- At the end of Q1 2021, median pre-money valuations increased across all series except Series A. Compared to Q4 2020, Seed transactions increased to a median pre-money valuation of $13.7 million from $11.0 million, Series B transactions increased from $113.0 million to $150.0 million, Series C increased from $400.0 million to $450.0 million, and Series D+ increased from $850.0 million to $1.4 billion. Series A median pre-money valuations decreased from $40.0 million to $38.8 million during the quarter.[9]
- Total U.S. venture-backed exit activity totaled approximately $118.1 billion across an estimated 447 completed transactions in Q1 2021, down from the $149.4 billion across 401 exits in Q4 2020. Through Q1 2021, U.S. exit activity represented 39.2% of 2020's total.[8]
  - The number of U.S. venture-backed initial public offerings decreased over Q4 2020, with 50 IPOs completed in Q1 2021. 212 exits occurred by acquisition, marking an increase over the prior quarter, but accounted for only $10.6 billion in exit value. IPOs accounted for $106.5 billion in value compared to $109.5 billion in the prior quarter.[8]

Opportunity [4]

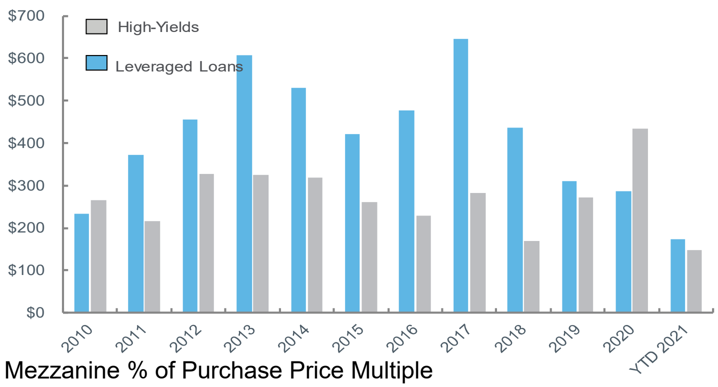
- Early stage continues to be attractive, although we continue to monitor valuations
- Smaller end of growth equity
- Technology sector

Leveraged Loans & Mezzanine

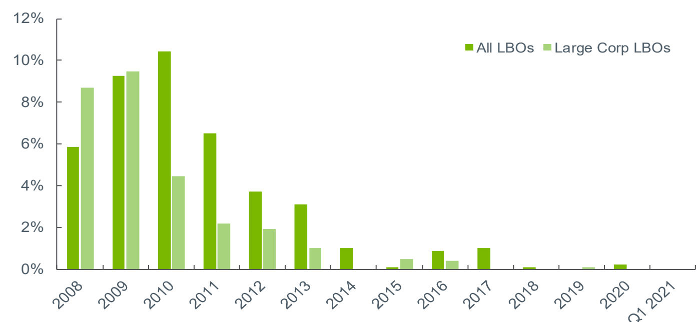
Average Leverage by Deal Size



Debt Issuance ($ Billions)



Mezzanine % of Purchase Price Multiple



Sources from top to bottom: S&P, UBS, & S&P

Leveraged Loans

Fundraising

- New CLO issuance totaled $28.1 billion through Q1 2021 compared to $15.6 billion in Q1 2020.[2]
- High-yield debt issuance totaled $148.0 billion in Q1 2021. 2021's YTD total is 104.5% greater than Q1 2020's total of $72.4 billion.[2]
- Through Q1 2021, leveraged loan mutual fund net flows ended at a net inflow of $9.3 billion.[2]

Activity

- Leverage for all U.S. LBO transactions through Q1 was 6.2x, up from Q4 2020's leverage of 5.7x. Leverage continues to be comprised almost entirely of senior debt. The average leverage level for large cap LBOs was 6.2x through the quarter, down from the 5.7x witnessed in 2020.[3]
- Q1 2021 institutional leveraged loan issuances totaled $172.7 billion, 95.5% greater than the $88.3 billion issued during the same period in 2020.[2]
- 54.5% of new leveraged loans were used to support M&A and growth activity through Q1 2021, down from 62.4% in Q4 2020. This was also below the five-year average of 64.3%.[3]
- European sponsored loan issuance increased substantially to €32.0 during the first quarter compared to €20.8 during Q1 2020. This was 107.2% higher than the five-year quarterly average level of €15.4 billion.[3]

Opportunity

- Funds with the ability to source deals directly and the capacity to scale for large transactions (both sponsored and non-sponsored)
- Funds with an extensive track record, experience through prior credit cycles, and staff with workout experience

Mezzanine

Fundraising

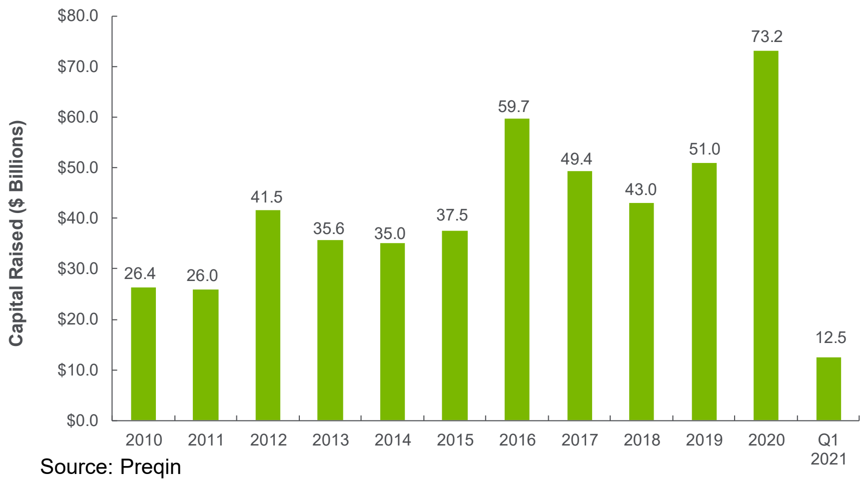
- Two funds closed on $200 million during the first quarter. This was down significantly from the prior quarter's total of $17.9 billion raised by 17 funds, and down from Q1 2020's total of $3.0 billion raised by 8 funds. Through Q1, mezzanine funds have raised only 0.8% of 2020's total of $27.6 billion.[1]
- Estimated dry powder was $51.3 billion at the end of Q1 2021, down slightly from the $51.8 billion seen at the end of Q4 2020.[1]
- An estimated 87 funds are in market targeting $33.2 billion of commitments. GSO Capital Opportunities Fund IV is the largest fund in market targeting commitments of $7.5 billion.[1]

Opportunity [4]

- Funds with the capacity to scale for large sponsored deals

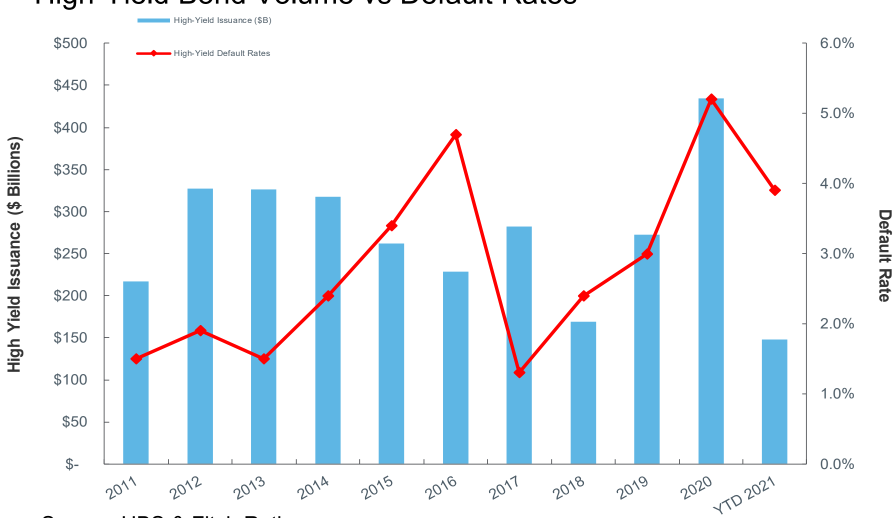
Distressed Private Markets

Distressed Debt, Turnaround, & Special Situations Fundraising



Source: Preqin

High-Yield Bond Volume vs Default Rates



Source: UBS & Fitch Ratings

Fundraising

- During the quarter, $12.5 billion was raised by 18 funds, a significant drop from the $38.9 billion raised by 26 funds in Q4 2020. Distressed funds have raised 17.1% of 2020's total through Q1 2021.[1]
  - Q1 2021's fundraising was 10.2% less than the three-year quarterly average.
  - Capital raised in Q1 2021 represented an increase of 150.0% compared to the $5.0 billion raised in Q1 2020.
  - Atlas Capital Resources IV was the largest fund closed during the quarter, closing on $3.1 billion.
- Dry powder was estimated at $143.6 billion at the end of Q1 2021, which was up from the $135.1 billion seen at the end of Q4 2020. This remained above the five-year annual average level of $115.0 billion.
- Roughly 156 funds were in the market at the end of Q1 2021 seeking $90.0 billion in capital commitments.[1]
  - Distressed debt managers were targeting the most capital, seeking an aggregate $53.3 billion, followed by special situation managers at $33.8 billion.
  - Oaktree Opportunities Fund XI was the largest fund in market with a target fund size of $15.0 billion.

Activity

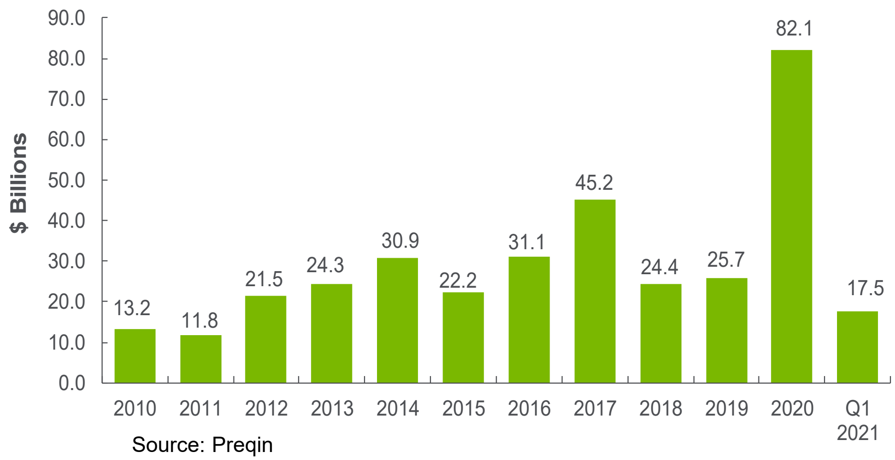
- The TTM U.S. high-yield default rate was 3.9% at March 2021, which was a decrease from the 5.2% seen at year-end 2020.[6]
- The market dislocation caused by COVID-19 is expected to supply an abundance of distressed opportunities in the next several months.

Opportunity [4]

- Funds capable of performing operational turnarounds
- Funds with the flexibility to invest globally

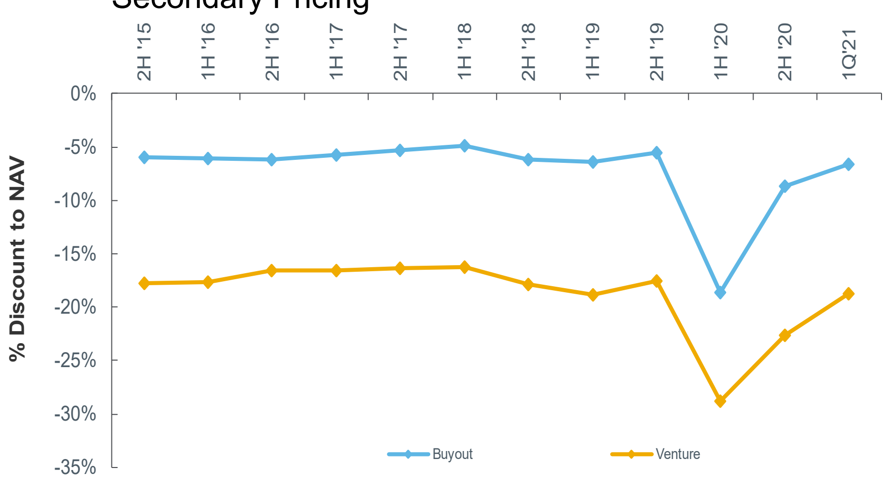
Secondaries

Secondary Fundraising



Source: Preqin

Secondary Pricing



Source: UBS

Fundraising

- 16 funds raised $17.5 billion during the quarter, down significantly from the $32.0 billion raised by 14 funds in Q4 2020. This was down 20.8% from Q1 2020.[1]
  - Coller International Partners VIII was the largest fund raised during the quarter, closing on $9.0 billion.
- At the end of Q1 2021, there were an estimated 93 secondary and direct secondary funds in market targeting roughly $43.4 billion. The majority of secondary funds are targeting North American investments.
  - Six funds are currently in market targeting greater than $3.0 billion in capital commitments. Together, these six funds account for $23.3 billion of the $43.4 billion of capital being raised.
  - Landmark Equity Partners XVII is the largest fund being raised, seeking $6.0 billion in commitments.[1]

Activity

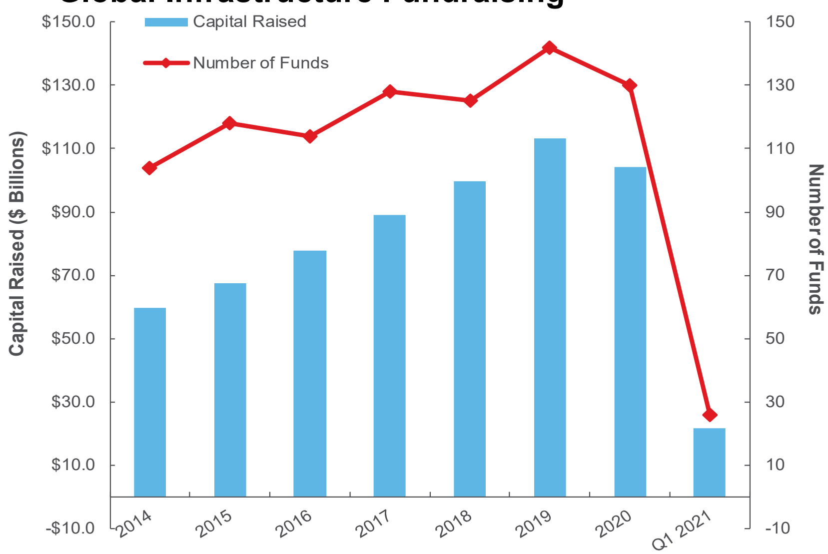
- The market continues to have participation from a broad base of buyers and sellers with opportunistic selling activity from public and private pensions, financial institutions and insurance companies.
- The average discount rate for all private equity sectors finished the quarter at 9.1%, continuing the rebound from the 11.8% discount at the end of Q4 2020 and from the 18.0% discount at the end of Q1 2020. The average buyout pricing discount rebounded to 6.6%, while venture ended at a discount of 18.7%. The average buyout pricing discount for Q1 was up from Q4 2020's 8.7% discount, while the venture discount was up from 22.6%.[2]
- Pricing improvements may continue given the current scarcity of sale portfolios of LP interests combined with the strong fundraising in recent quarters and the pressure to deploy capital.[2]
- Pricing is also expected to strengthen as buyers become more comfortable with the stability of the NAVs used in secondary transactions. Steep discounts may continue for assets of less experienced GPs or for assets in sectors that were more severely impacted by Covid-19.[2]

Opportunity [4]

- Funds that are able to execute complex and structured transactions
- Niche strategies

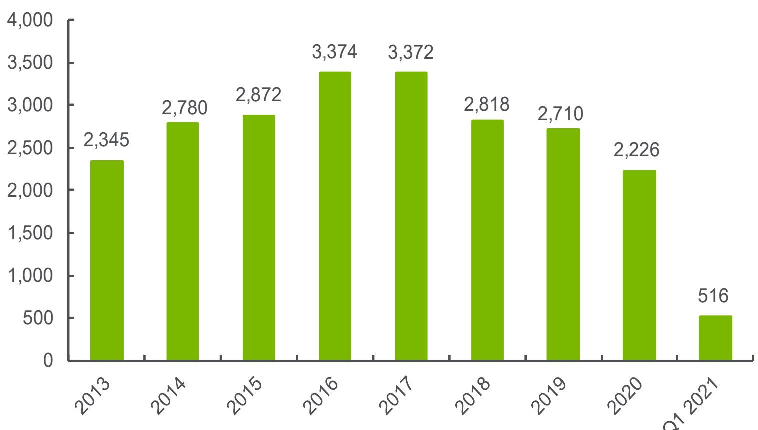
Infrastructure

Global Infrastructure Fundraising



Source: Preqin

Number of Deals Completed



Source: Preqin

Fundraising

- $21.8 billion of capital was raised by 26 funds in Q1 2021 compared to $24.0 billion of capital raised by 41 partnerships in Q4 2020.Through Q1 2021, infrastructure funds have raised 20.9% of 2020's total.[1]
  - BlackRock Global Renewable Power Fund III was the largest fund raised during the quarter, closing on $4.8 billion.[1]
- As of the end of Q1 2021, there were an estimated 281 funds in the market seeking roughly $229.8 billion.[1]
  - EQT Infrastructure V was the largest fund in market and was seeking commitments of €12.5 billion.
- At the end of the quarter, dry powder stood at an estimated $262.2 billion, up from 4Q 2020's total of $233.8 billion.[1]
- Concerns surrounding the relative availability and pricing of assets remain. Fundraising continues to be very competitive given the number of funds and aggregate target level of funds in market. Investor appetite for the asset class persists despite the record levels of dry powder and increased investment activity from strategic and corporate buyers as well as institutional investors.

Activity

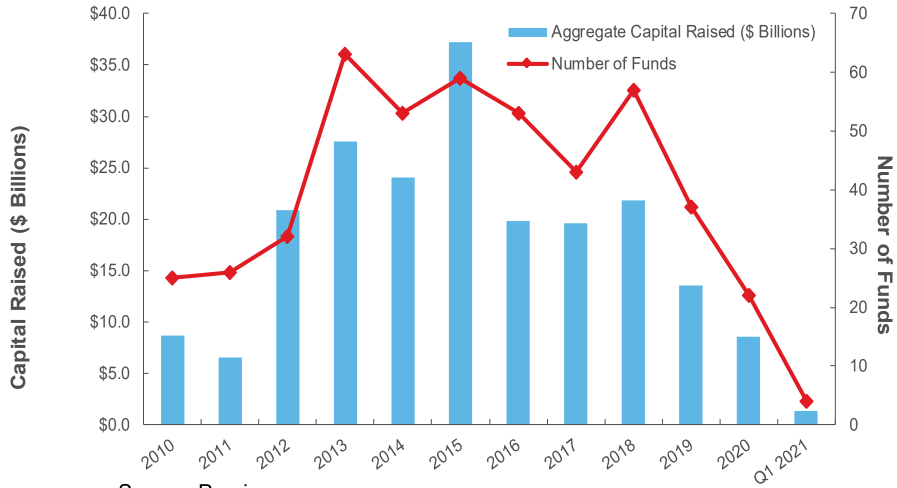
- Infrastructure managers completed 516 deals with an estimated aggregate deal value of $75.9 billion in Q1 2021 compared to 648 deals totaling $84.5 billion a quarter ago.[1]
  - By region, Europe saw the largest number of deals completed, with 42.0% of deals being invested in the region, followed by North America at 30.1%. Asia amassed 9.8% of activity during the quarter.
  - Renewable energy was the dominant industry during the quarter making up 66.0% of transactions, followed by the utilities and conventional energy sectors, which each accounted for 8.2% and 7.6% of deals, respectively. Telecoms accounted for 7.2% of deals during the third quarter.[1]

Opportunity [4]

- Mid-market core+ and value-add infrastructure as well as a platform investing approach continue to offer the best relative value
- Access funds with pre-specified assets with caution due to possible lag in and uncertainty around valuation impact
- Blind-pool funds may be better positioned to take advantage of the market dislocation in certain sub-sectors, however careful review of such strategies is required
- Build-to-core greenfield strategies particularly in the social / PPP infrastructure space offer a premium for investors willing to take on construction / development risk

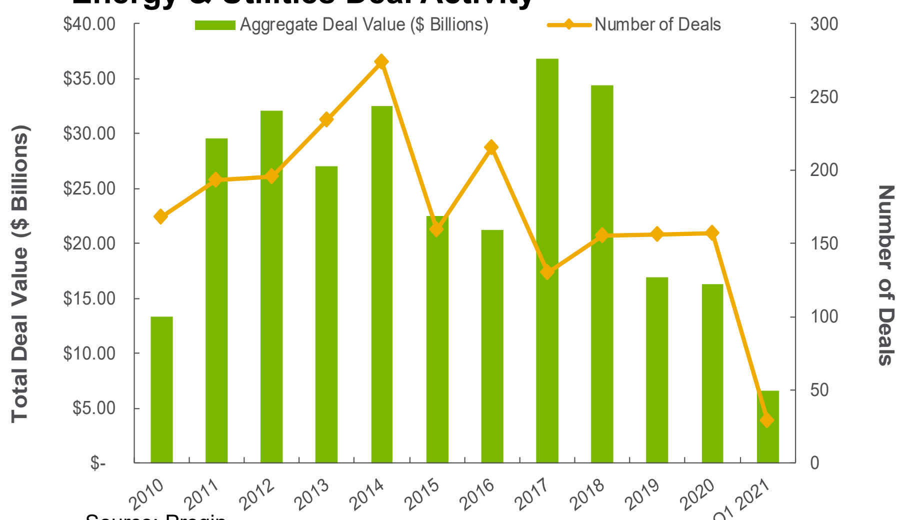
Natural Resources

Natural Resources Fundraising



Source: Preqin

Energy & Utilities Deal Activity



Source: Preqin

Fundraising

- During Q1 2021, four funds closed on $1.4 billion compared to eight funds totaling $1.5 billion in Q4 2020.[1] Through Q1 2021, 16.3% of 2020's total has been raised.
  - Appian Natural Resources Fund II was the largest fund raised during the quarter, securing commitments of $775.0 million.
- At the end of the first quarter, there were roughly 107 funds in the market targeting an estimated $39.9 billion in capital.[1]
  - Quantum Energy Partners VIII was the largest fund raising capital with a target fund size of $5.5 billion.
- Dry powder stood at $40.9 billion at the end of Q1 2021, which was 1.7% lower than Q4 2020's level of $41.6 billion and down from the five-year average level by 19.9%.[1]

Activity

- Energy and utilities industry managers completed approximately 29 deals totaling an estimated $6.7 billion through Q1 2021, which represented 41.0% of energy and utilities deal value during all of 2020.[1]
- Crude oil prices increased during the quarter.
  - WTI crude oil prices increased 32.6% during the quarter to $62.33 per bbl. This was an increase of 113.4% compared to Q1 2020.[11]
  - Brent crude oil prices ended the quarter at $65.41/bbl, up 30.8% compared to the prior quarter, and up 104.3% from Q1 2020.[11]
- Natural gas prices (Henry Hub) finished Q1 2021 at $2.62 per MMBtu, which was up 1.6% from Q4 2020 and up 46.4% from Q1 2020.[11]
- A total of 430 crude oil and natural gas rotary rigs were in operation in the U.S. at the end of the quarter. This was up by 22.5% from the prior quarter but down 35.2% over Q1 2020.[14]
  - Crude oil rigs represented 78.4% of the total rigs in operation. 66.2% of the 337 active oil rigs were in the Permian basin.
  - 47.3% and 33.0% of natural gas rigs at the end of Q1 2021 were operating in the Haynesville and Marcellus basins, respectively.
- The price of iron ore (Tianjin Port) ended the quarter at $168.18 per dry metric ton, up from $155.43 at the end of Q4 2020.[12]

Opportunity [4]

- Acquire and exploit existing oil and gas strategies over early-stage exploration in core U.S. and Canadian basins
- Select midstream opportunities

Notes

1. Preqin
2. UBS
3. Standard & Poor's
4. Aon Investments USA Inc.
5. Moody's
6. Fitch Ratings
7. PriceWaterhouseCoopers/National Venture Capital Association MoneyTree Report
8. PitchBook/National Venture Capital Association Venture Monitor
9. Cooley Venture Financing Report
10. U.S. Energy Information Administration
11. Bloomberg
12. Setter Capital Volume Report: Secondary Market
13. KPMG and CB Insights
14. Baker Hughes

Notes:
FY: Fiscal year ended 12/31
YTD: Year to date
YE: Year end
LTM: Last twelve months (aka trailing twelve months or TTM)
PPM: Purchase Price Multiples: Total Purchase Price / EBITDA
/bbl: Price per barrel
MMBtu: Price per million British thermal units

(This page left blank intentionally)

Appendix B:

Real Estate Market Update

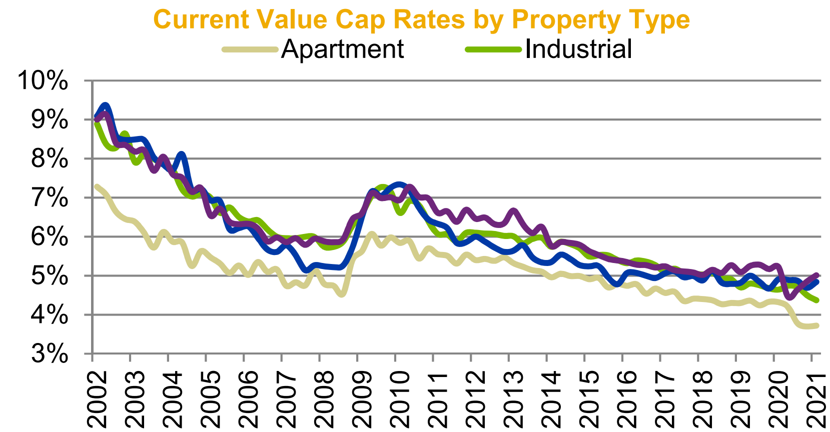
1Q 2021

United States Real Estate Market Update (1Q21)

General

- As a result of the COVID-19 pandemic, national, state and local governments across the world implemented stay-at-home orders, which caused a near complete halt of the world economy in the 1st half 2020. Governments dramatically expanded expenditures in order to protect people and businesses from large-scale disruption. In 1Q21, equity markets continued to bounce back from the March 2020 rout and even exceeded prior highs, and the S&P 500 produced a gross total return of 6.2%. The MSCI US REIT index continued to rebound and produced a return of 8.8% and returned close to pre-COVID levels.

- The U.S. entered a recession in February 2020, but the economy has since rebounded with the accelerated development and rollout of vaccines. In the 1st quarter, GDP grew at an annualized rate of 6.4%. The unemployment rate peaked in April at 14.7% and has since declined to 6.1% at quarter end 1Q21. The Federal Reserve has acted aggressively via quantitative easing and rate cuts, thus far financial markets have stabilized. The world economy shrunk by -3.3% in 2020 but is forecasted to grow 6.0% in 2021.



Source: NCREIF

Commercial Real Estate

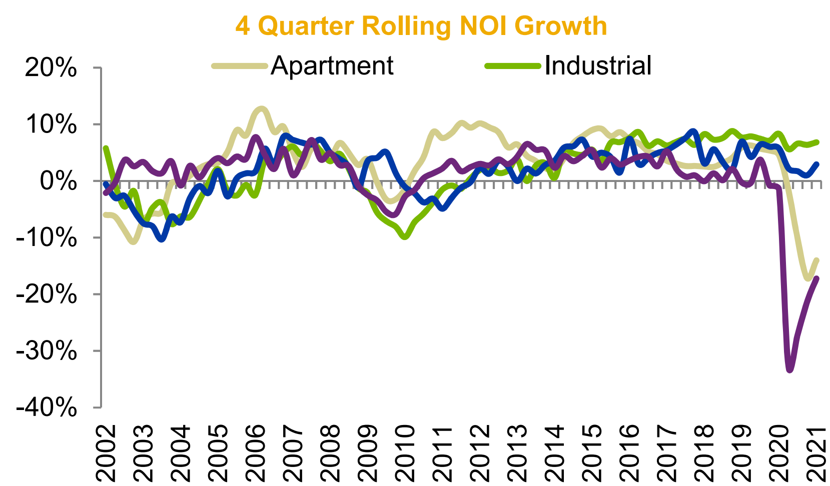
- Through April of 2021, transaction volume was up by 60% YoY, after rebounding from a COVID-19 induced slowdown. Transaction volume has been the strongest in the apartment and industrial sectors.

- Transaction cap rates (5.9%) expanded +34 bps during the quarter. Current valuation cap rates declined for industrial (-13 bps). The office (+15 bps) and retail (+16 bps) property sectors experienced cap rate expansion. Apartment valuation cap rates were flat.

- NOI growth has substantially diverged between property sectors due to the impacts of COVID-19. Retail NOI has contracted substantially (-17%) YoY as rent collections declined and retailers were shutdown. Apartment NOI contracted (-14%), primarily driven by declines in CBD effective market rents.

- In the first quarter of 2021, $34 bn of aggregate capital was raised by real estate funds. There continues to be substantial dry powder,~$362 billion, seeking exposure to private real estate.

- 10-year treasury bond yields rose 80 bps to 1.7% during the quarter as a result of an improving economic growth outlook and growing inflationary pressures.



Source: NCREIF

Sources: Bureau of Economic Analysis, U.S. Census Bureau, St. Louis Fed, NCREIF, Real Capital Analytics, Bloomberg LP., Preqin.

United States Property Matrix (1Q21)

TOWNSEND® GROUP
an Aon company

INDUSTRIAL

- In 1Q21, industrial properties were the highest returning sector at 4.7% and outperformed the NPI by 300 bps.
- Transaction volumes fell to $21.6 billion in the first quarter of the year, resulting in a 23.0% decrease year-over-year. Individual asset sales increased 23.4% year-over-year, while portfolio purchases turned in a year-over-year volume decrease of 21.9%. At slightly over $21.6 billion, the industrial sector decreased a significant $20.1 billion quarter-over-quarter.
- The industrial sector turned in NOI growth of 6.8% over the past year, an increase from the prior periods TTM growth of 6.4% in 4Q20. Market rent growth is expected to decelerate compared to its pre-pandemic levels but remains strong.
- Vacancy increased by 5 bps year-over-year to 3.5%, remaining close to all-time historic lows. E-commerce continues to drive demand.
- Industrial cap rates compressed approximately 30 bps from a year ago, to 4.4%. Industrial overall fundamentals still top all property sectors.

MULTIFAMILY

- The apartment sector delivered a 1.7% return during the quarter, performing in line with the NPI.
- Transaction volume in the first quarter of 2021 fell to $38.1 billion, resulting in a decrease of 6.0% year-over-year. This volume continues to make multifamily the most actively traded sector for the fifteenth straight quarter.
- Cap rates remained steady at 3.7% through the quarter, compressing 60 bps year-over-year. Multifamily cap rates remain at the lowest level observed in years, driven by continued decrease in NOI and increases in valuation.
- The multifamily sector saw increasing vacancy rates throughout the entirety of 2020 due to the global pandemic. As 2021 begins, the sector appears to have shaken the trend as vacancy rates decreased 90 bps quarter-over-quarter, though still 70 bps higher than a year ago. Various rent concessions have helped managers to maintain tenants through out the pandemic, these concessions will continue to have various impacts on NOI over the next few quarters. The aging millennials have begun shifting their desires to suburban living, but continued home price appreciation has deterred the full effect of this migratory trend.

OFFICE

- The office sector returned 1.0% in 1Q21, 70 bps below the NPI return over the period.
- Transaction volumes decreased by 32.0% year-over-year in the first quarter. Transaction volume equaled $21.2 billion for the quarter, a decrease of $9.4 billion quarter-over-quarter. Single asset transactions accounted for 62.0% of volume.
- Office sector vacancy rates have expanded since the beginning of the pandemic due to work from home orders and uncertainty revolving around the future of office space. Office continues to be the highest vacancy property type at close to 12.4%.
- NOI growth in the office sector looks to have begun its recovery, 2.9% TTM growth for the quarter, after falling for three straight periods.
- Office cap rates compressed from a year ago to approximately 4.8%, a compression of just 5 bps. Office-using job growth was stunted significantly in 2020 due to many work from home orders. Though we are beginning to observe a slow but steady flow back to in-office work, there is still uncertainty in the sector as many companies remain hesitant.

Sources: Real Capital Analytics, Green Street, NCREIF

RETAIL

- As of 1Q21, the retail sector delivered a quarterly return of -0.5%, performing 225 bps below the NPI.
- Transaction volumes totaled $8.8 billion in the first quarter, falling 34% year-over-year. Single asset transactions accounted for just over 86.5% of all sales volume for the quarter.
- Cap rates have compressed approximately 20 bps within the sector over the last year, to 5.0%. The current valuation cap rate did expand quarter-over-quarter by 20 bps due to slight downward valuation adjustments made across the sector in general.
- NOI growth slightly increased though still significantly negative, -17.2% over the last year. This is a 4.1% increase from last quarter. Retail is expected to continue to suffer from the shift towards e-commerce and hesitance of the consumer.
- Retail vacancy rates increased 235 bps over the past year to 9.9%. Many big box stores have closed as the need for retail space shrinks, translating to a negative outlook for rent growth. Paired with the global economic crisis, which has had a significant negative impact on this sector.

Global Real Estate Market Update (1Q21)

TOWNSEND® GROUP
an Aon company

- Global investment activity during the first quarter of 2021 was down significantly relative to 4Q20 and by 19% over the year compared to 2020. During 1Q21, transaction volumes recovered significantly in the APAC regions while the EU and US continued to experience significant depression.

- Increased availability of the vaccine has driven an uptick in investor appetite, specifically in regions that were among the first to be affected by the virus such as APAC. Interest in the quarter was concentrated primarily in multifamily properties, as well as senior housing.

Global Total Commercial Real Estate Volume - 2020 - 2021

$ US Billions	Q1 2021	Q1 2020	% Change Q1 21 - Q1 20	Full Year Ending 1Q21	Full Year Ending 1Q20	% Change Full Year
Americas	89	122	-27%	347	560	-38%
EMEA	64	85	-25%	293	396	-26%
Asia Pacific	123	128	-4%	786	802	-2%
Total	275	335	-18%	1426	1758	-19%

Source: Real Capital Analytics, Inc., Q1' 21

- Investment activity in the Americas witnessed a sharp decline and fell by 38% year-over-year. Despite a slow down in COVID cases, the roll out of the vaccine hasn't helped spur investment to pre-COVID levels. Transaction volume in the US decreased 37% relative to 4Q20.

- In the Asia Pacific region, volumes were still slightly down year-over-year, but transaction activity remained the same relative to 4Q20. Singapore, Taiwan, and Hong Kong saw improvements in deal activity during 1Q21, while mainland China overtook Japan as the top market.

- Although investment activity dropped in the EMEA region, it dropped less than the Americas, with a 26% year-over-year decline. Apartment transactions in the region were up a noteworthy double-digit rate.

- In the office sector, global leasing activity declined by over 31% year-over-year and vacancy rates increased by 70 bps to 13.6%. The declines represent a continued uncertainty about future office space needs. US coastal markets have been more affected than lower-cost and high-growth markets. Across the main European markets, leasing activity fell 23% year-over-year. In the APAC region, net absorption increased for the third consecutive quarter.

- Despite a recovery in sales, the retail sector continued to suffer globally as the shutdowns and social distancing measures of the COVID-19 outbreak posed challengers for operators. The bifurcation between property types (necessity-based vs malls/street retail) and markets (urban vs suburban) has continued to widen. However, gateway cities, such as New York and London, have seen noteworthy increases in leasing activity.

- With the multifamily market recording the quarter's only increase in investments globally, the sector remains the most liquid in commercial real estate highlighting its attractiveness. Throughout the world, the re-opening of businesses has contributed to a pickup in urban demand, leading to a growth in asking rents, as the number of tours and leases increased during the quarter.

- Industrial yields continued to compress due to strong market fundamentals and heightened demand. US vacancy rates fell to 5.2% in 1Q21. EMEA vacancy rates slightly climbed to 4.7% for the quarter, while the Asia Pacific region saw a dip to 11.4%.

Global Outlook - GDP (Real) Growth % pa, 2020-2022

	2020	2021	2022
Global	**-3.3**	**6.0**	**4.4**
Asia Pacific	**0.2**	**5.1**	**5.0**
Australia	-2.4	4.5	3.3
China	2.3	8.5	5.5
India	-7.5	9.8	6.8
Japan	-4.7	2.6	2.2
North America	**-3.9**	**6.4**	**4.0**
US	-3.5	6.5	4.0
Middle East	**-2.8**	**3.1**	**4.1**
European Union	**-6.0**	**4.5**	**4.3**
France	-8.1	5.8	3.9
Germany	-4.8	3.4	4.1
UK	-10.1	6.1	5.5

Source: Bloomberg

Sources: Jones Lang LaSalle Research, Real Capital Analytics, Inc., CBRE

Legal Disclosures and Disclaimers

Investment advice and consulting services provided by Aon Investments USA Inc. The information contained herein is given as of the date hereof and does not purport to give information as of any other date. The delivery at any time shall not, under any circumstances, create any implication that there has been a change in the information set forth herein since the date hereof or any obligation to update or provide amendments hereto.

This document does not constitute an offer of securities or solicitation of any kind and may not be treated as such, i) in any jurisdiction where such an offer or solicitation is against the law; ii) to anyone to whom it is unlawful to make such an offer or solicitation; or iii) if the person making the offer or solicitation is not qualified to do so. If you are unsure as to whether the investment products and services described within this document are suitable for you, we strongly recommend that you seek professional advice from a financial adviser registered in the jurisdiction in which you reside. We have not considered the suitability and/or appropriateness of any investment you may wish to make with us. It is your responsibility to be aware of and to observe all applicable laws and regulations of any relevant jurisdiction, including the one in which you reside.

This document is not intended to provide, and shall not be relied upon for, accounting, legal or tax advice. Any accounting, legal, or taxation position described in this presentation is a general statement and shall only be used as a guide. It does not constitute accounting, legal, and tax advice and is based on Aon Investments' understanding of current laws and interpretation.

Aon Investments disclaims any legal liability to any person or organization for loss or damage caused by or resulting from any reliance placed on that content. Aon Investments reserves all rights to the content of this document. No part of this document may be reproduced, stored, or transmitted by any means without the express written consent of Aon Investments.

Aon Investments USA Inc. is a federally registered investment advisor with the U.S. Securities and Exchange Commission. Aon Investments is also registered with the Commodity Futures Trading Commission as a commodity pool operator and a commodity trading advisor, and is a member of the National Futures Association. The Aon Investments ADV Form Part 2A disclosure statement is available upon written request to:

Aon Investments USA Inc.

200 E. Randolph Street

Suite 700

Chicago, IL 60601

ATTN: Aon Investments Compliance Officer

REPORT

Meketa Capital Markets Outlook & Risk Metrics

This page intentionally left blank.

Capital Markets Outlook & Risk Metrics

As of June 30, 2021

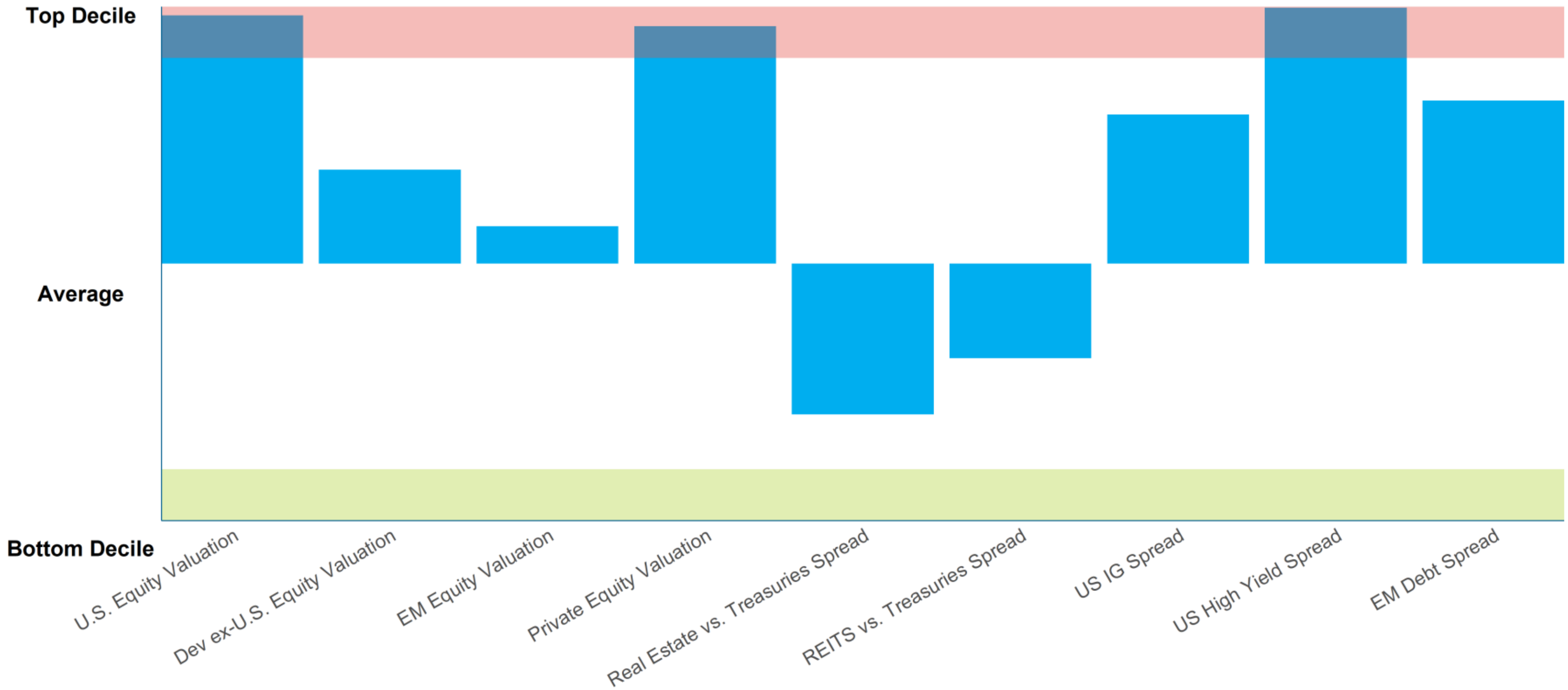
Capital Markets Outlook

Takeaways

- The rotation to value and cyclical stocks took a pause in June, as growth stocks outperformed value stocks.
- Outside the US, emerging market equities outperformed developed market equities, and like the US, growth outperformed value.
- Fixed income markets posted modest positive returns, with the Barclays TIPS index returning 0.6% and the Barclays Aggregate index gaining 0.7%.
- The Bloomberg Commodities index returned 1.9% in June, but commodity-related stocks retraced some of their gains, with the S&P Global Natural Resources index returning -2.2%.
- Global infrastructure stocks posted mixed returns in June, while REITs saw small gains.
- The US vaccination efforts combined with the re-opening of major parts of the US economy have lifted 2021 GDP forecasts for the US to 6.5%.
- COVID-related setbacks have eased in Europe, likewise lifting growth expectations there for 2021.
- According to the World Health Organization, global COVID cases have been falling since January. While the efficacy of many of the vaccines is promising, governments are closely monitoring new COVID variants.
- Questions around the Biden administration's policy agenda and its ability to implements it are paramount on investors' minds, especially on questions related to growth and inflation.
- Investors are likewise keeping an eye on monetary policy, specifically the timing and pace of which the Fed may start to dial back some of its stimulus.

Risk Overview/Dashboard (1)

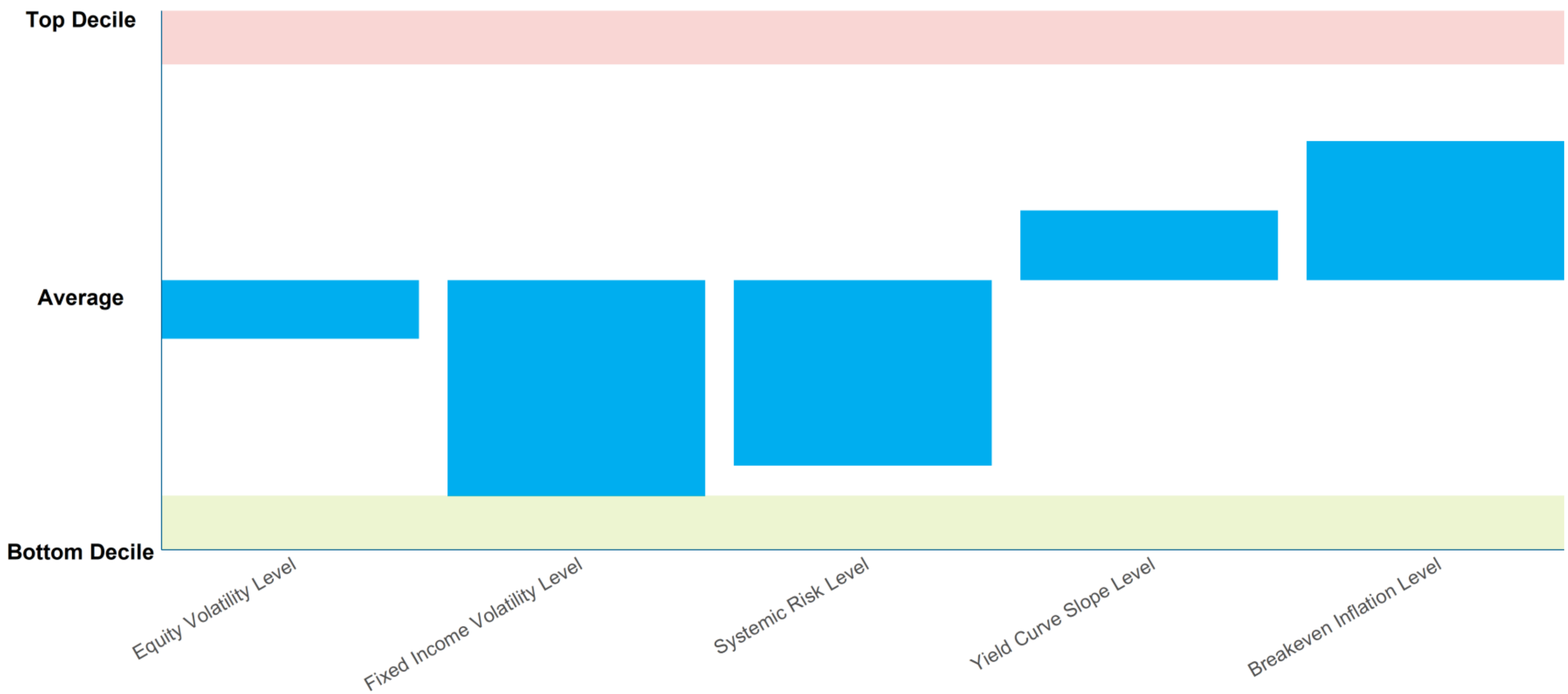
(As of June 30, 2021)[1]



- Dashboard (1) summarizes the current state of the different valuation metrics per asset class relative to their own history.

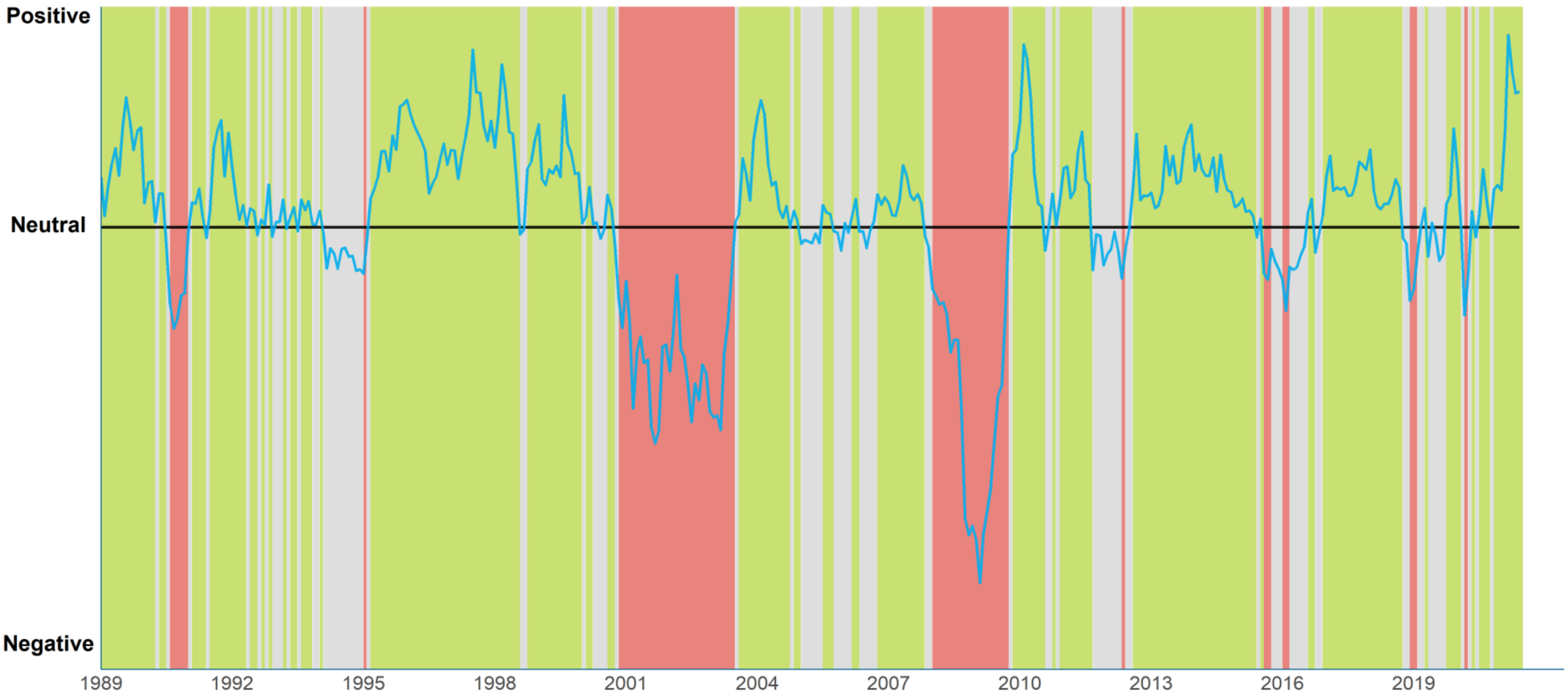
[1] With the exception of Private Equity Valuation, that is YTD as of December 31, 2020.

Risk Overview/Dashboard (2)
(As of June 30, 2021)

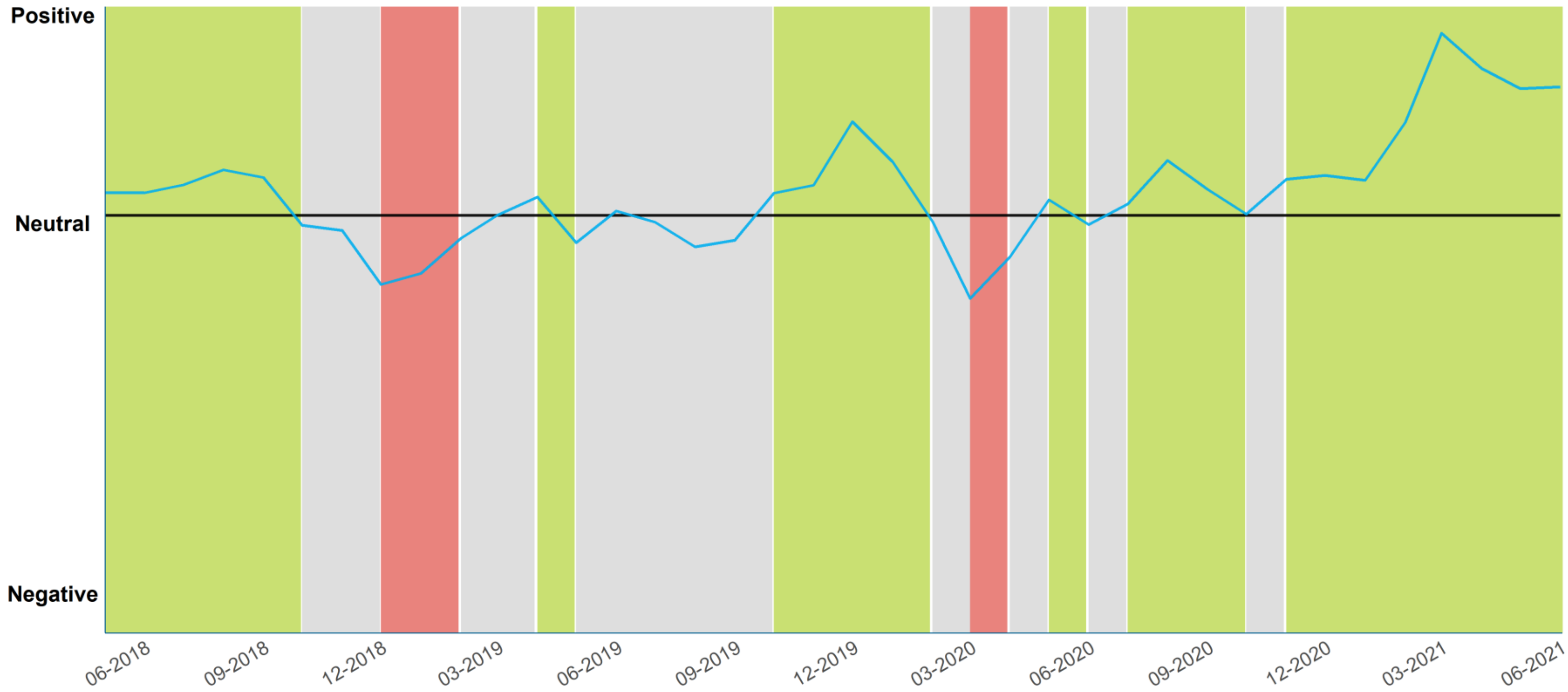


- Dashboard (2) shows how the current level of each indicator compares to its respective history.

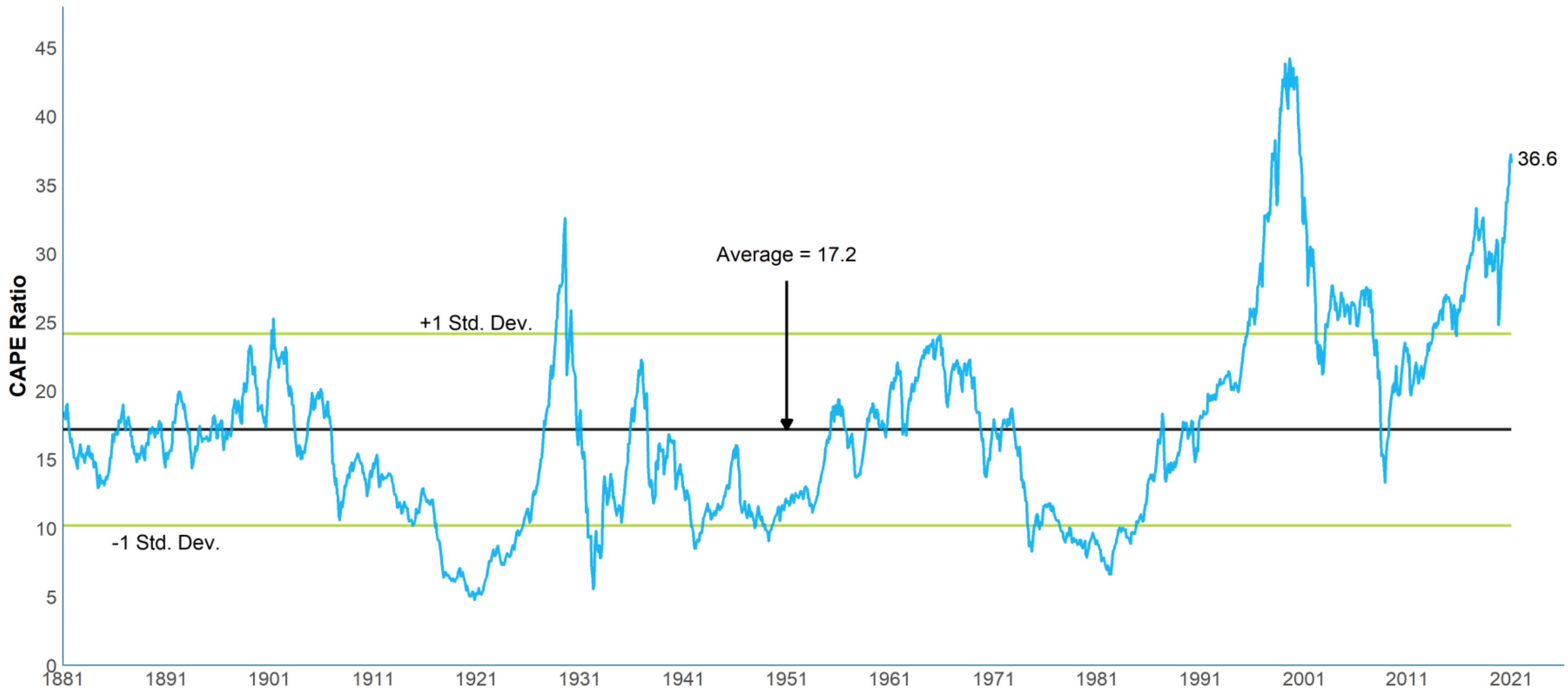
Market Sentiment Indicator (All History)
(As of June 30, 2021)



Market Sentiment Indicator (Last Three Years)
(As of June 30, 2021)



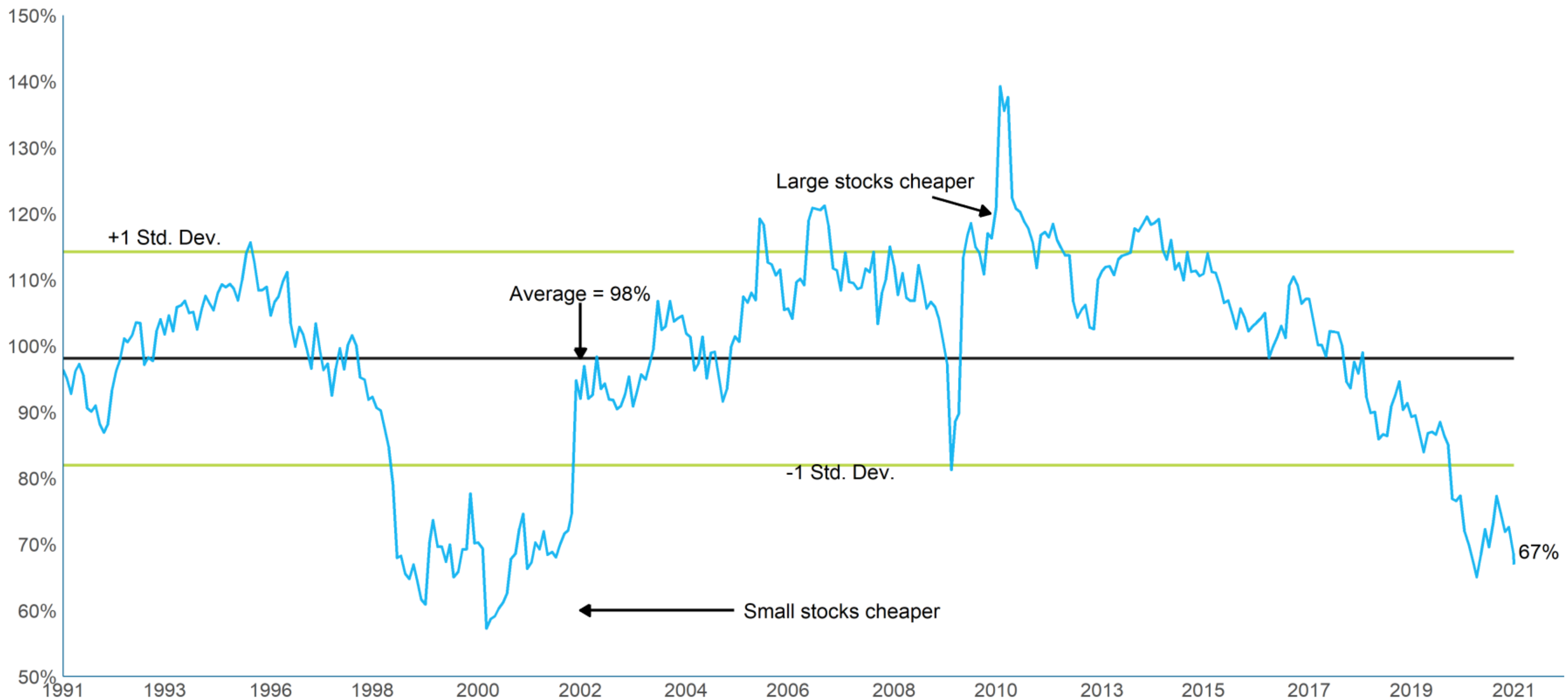
US Equity Cyclically Adjusted P/E[1]
(As of June 30, 2021)



- This chart details one valuation metric for US equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

[1] US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group.

Small Cap P/E vs. Large Cap P/E[1]
(As of June 30, 2021)



- This chart compares the relative attractiveness of small cap US equities vs. large cap US equities on a valuation basis. A higher (lower) figure indicates that large cap (small cap) is more attractive.

[1] Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments. Earnings figures represent 12-month "as reported" earnings.

Growth P/E vs. Value P/E[1]
(As of June 30, 2021)

- This chart compares the relative attractiveness of US growth equities vs. US value equities on a valuation basis. A higher (lower) figure indicates that value (growth) is more attractive.

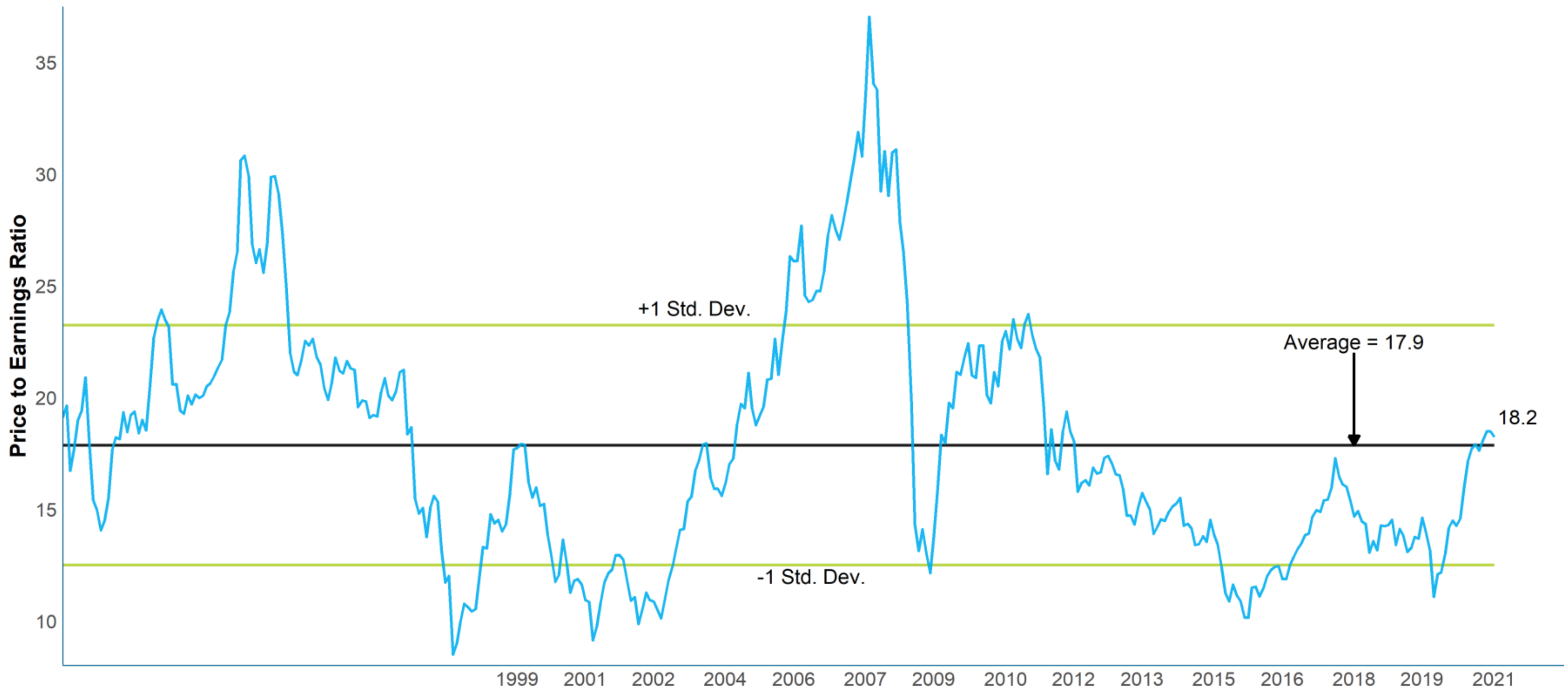
[1] Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month "as reported" earnings.

Developed International Equity Cyclically Adjusted P/E[1]
(As of June 30, 2021)

- This chart details one valuation metric for developed international equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

[1] Developed International Equity (MSCI EAFE Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.

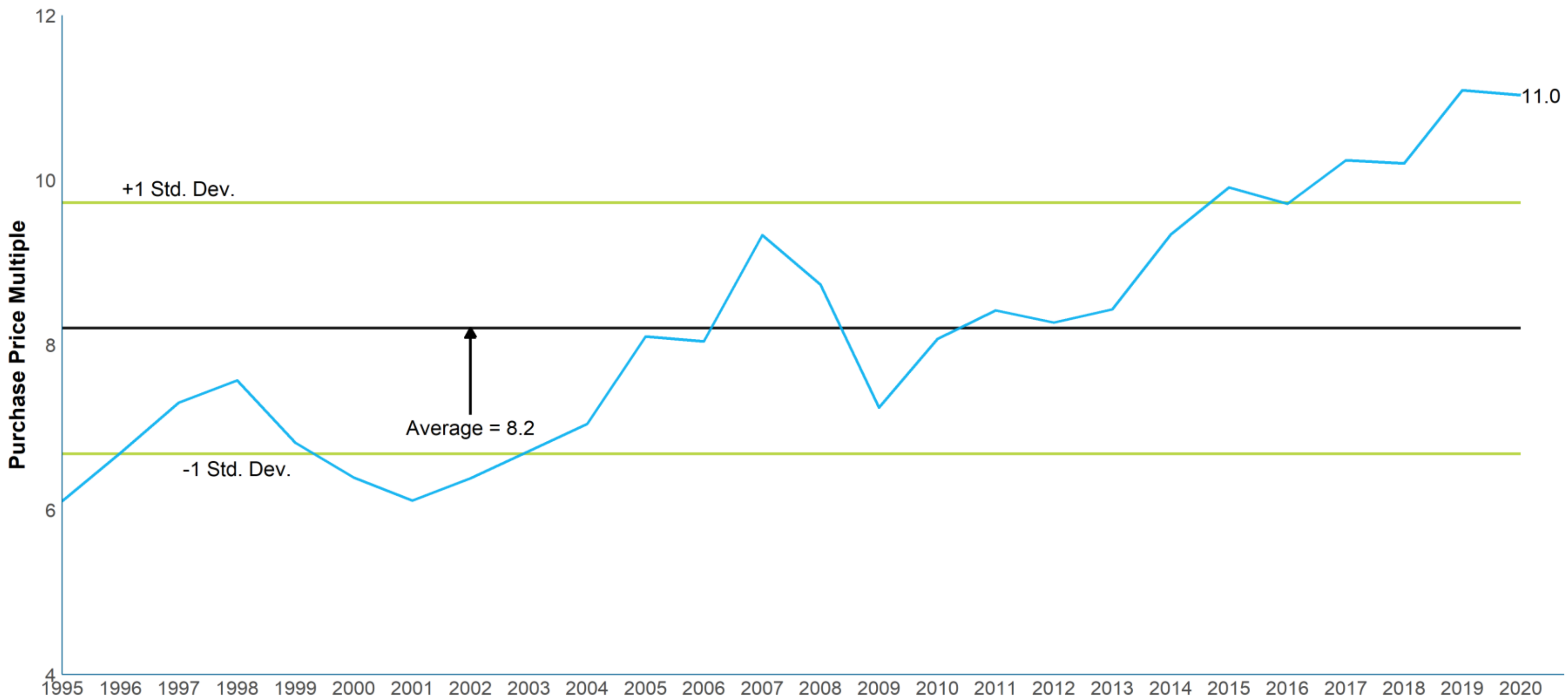
Emerging Market Equity Cyclically Adjusted P/E[1]
(As of June 30, 2021)



- This chart details one valuation metric for emerging markets equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

[1] Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.

Private Equity Multiples[1]
(As of February 28, 2021)[2]

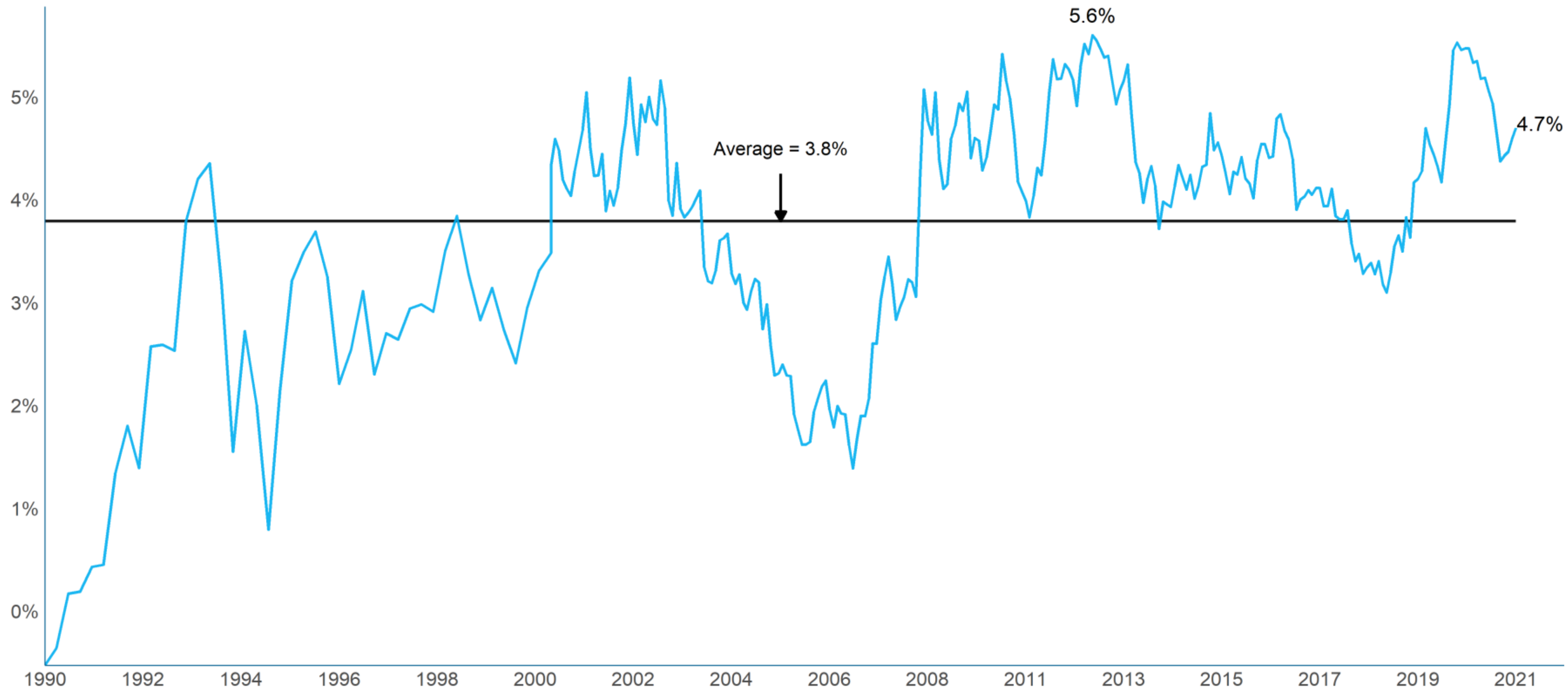


- This chart details one valuation metric for the private equity market. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

[1] Private Equity Multiples – Source: S&P LCD Average EBITDA Multiples Paid in All LBOs.

[2] Annual Data, as of December 31, 2020

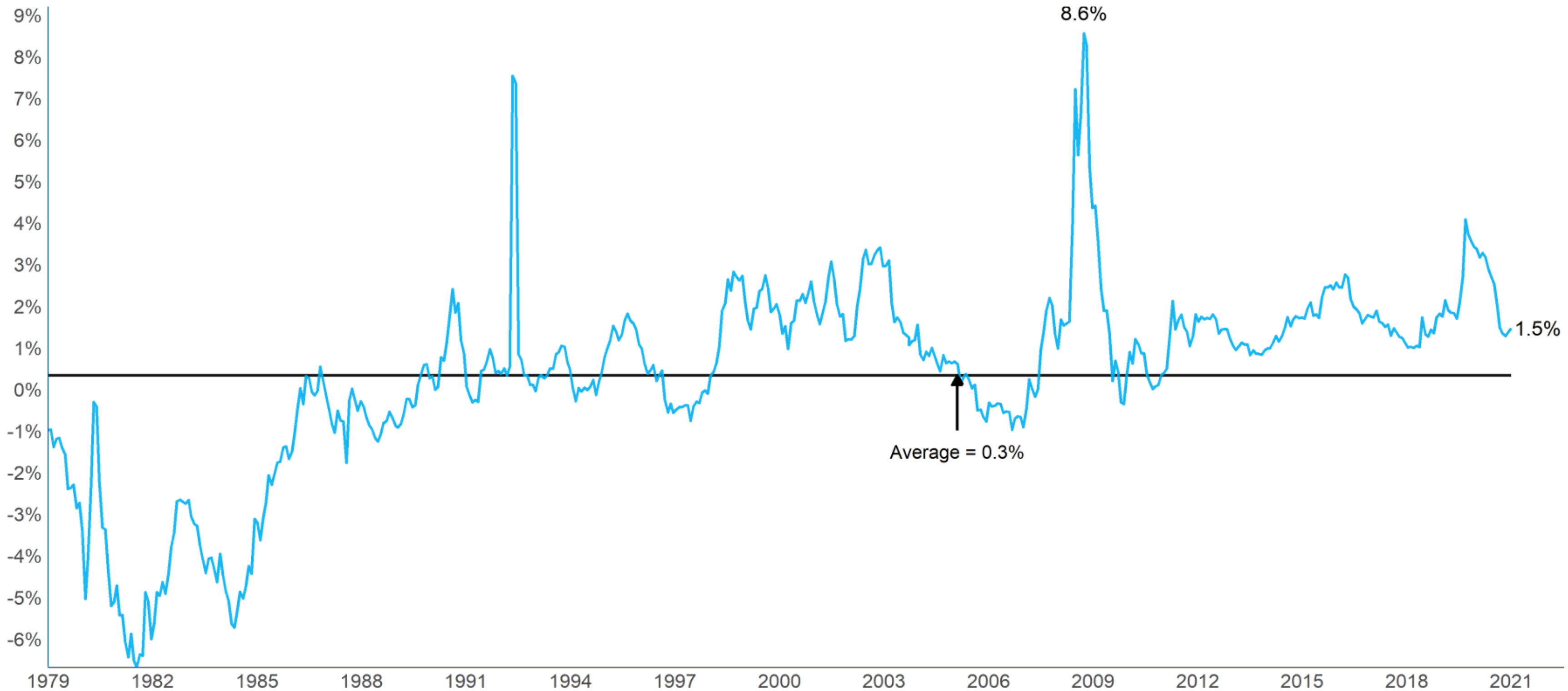
Core Real Estate Spread vs. Ten-Year Treasury[1]
(As of June 30, 2021)



- This chart details one valuation metric for the private core real estate market. A higher (lower) figure indicates cheaper (more expensive) valuation.

[1] Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, US Treasury, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction based indices from Real Capital Analytics and Meketa Investment Group.

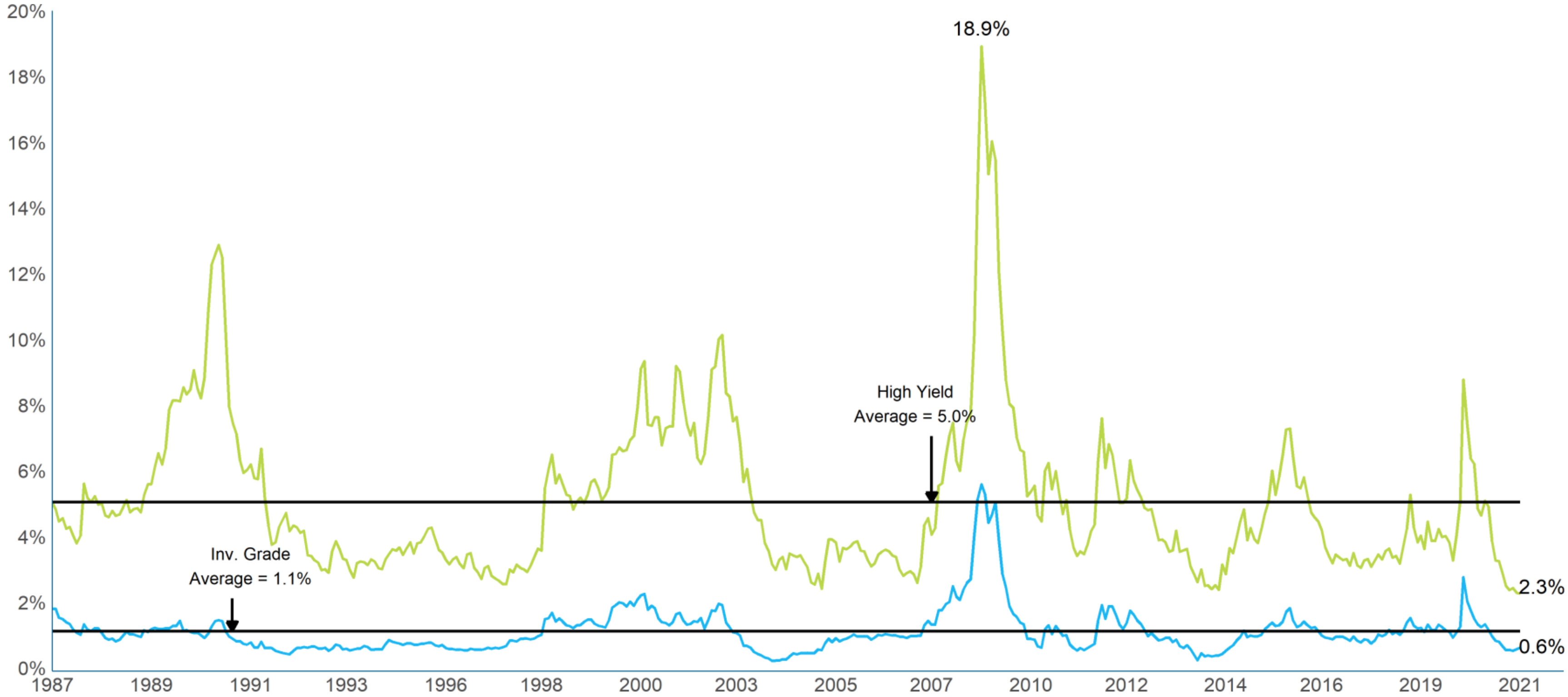
REITs Dividend Yield Spread vs. Ten-Year Treasury[1]
(As of June 30, 2021)



- This chart details one valuation metric for the public REITs market. A higher (lower) figure indicates cheaper (more expensive) valuation.

[1] REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, US Treasury. REITs are proxied by the yield for the NAREIT Equity Index.

Credit Spreads[1]
(As of June 30, 2021)



- This chart details one valuation metric for the US credit markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

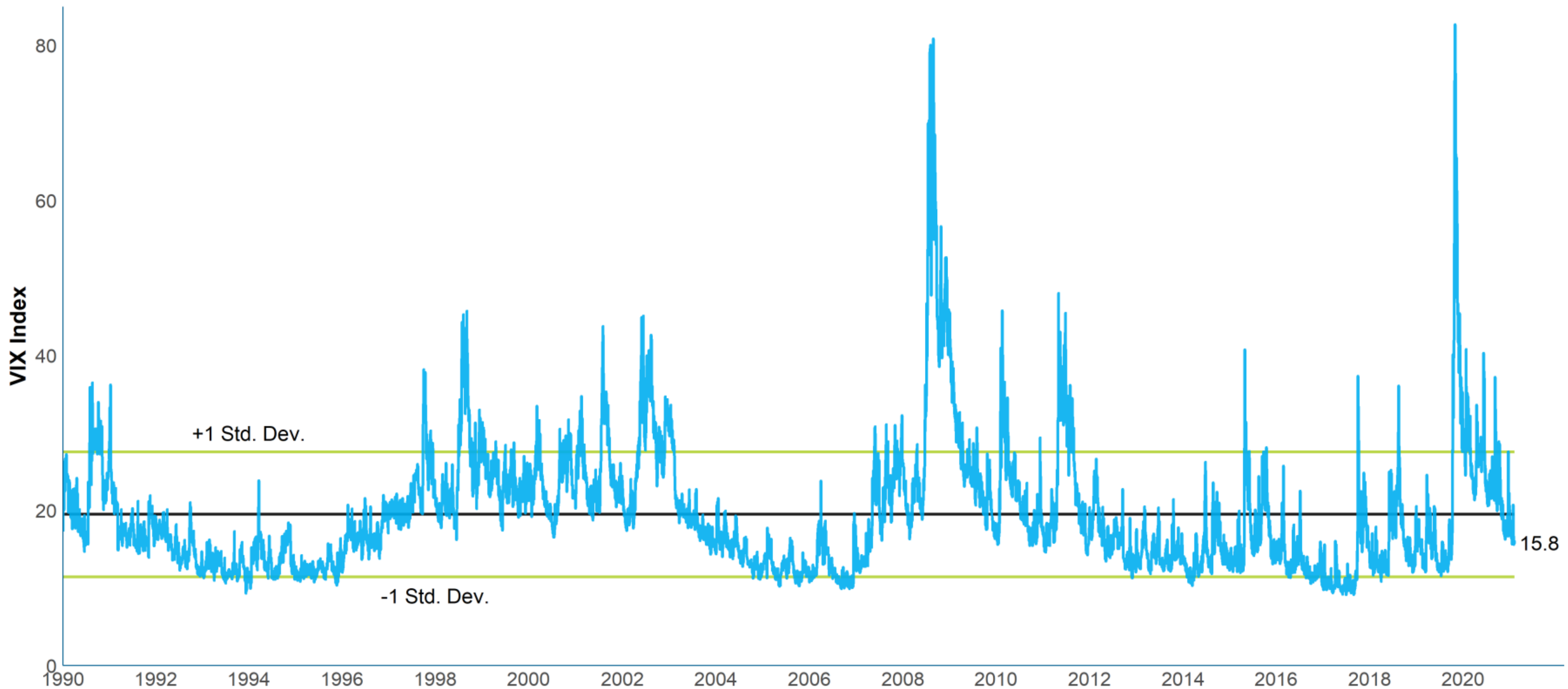
[1] Credit Spreads – Source: Barclays Capital. High Yield is proxied by the Barclays High Yield Index and Investment Grade Corporates are proxied by the Barclays US Corporate Investment Grade Index. Spread is calculated as the difference between the Yield to Worst of the respective index and the 10-Year US Treasury yield.

Emerging Market Debt Spreads[1]
(As of June 30, 2021)

- This chart details one valuation metric for the EM debt markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

[1] EM Spreads – Source: Bloomberg. Option Adjusted Spread (OAS) for the Bloomberg Barclays EM USD Aggregate Index.

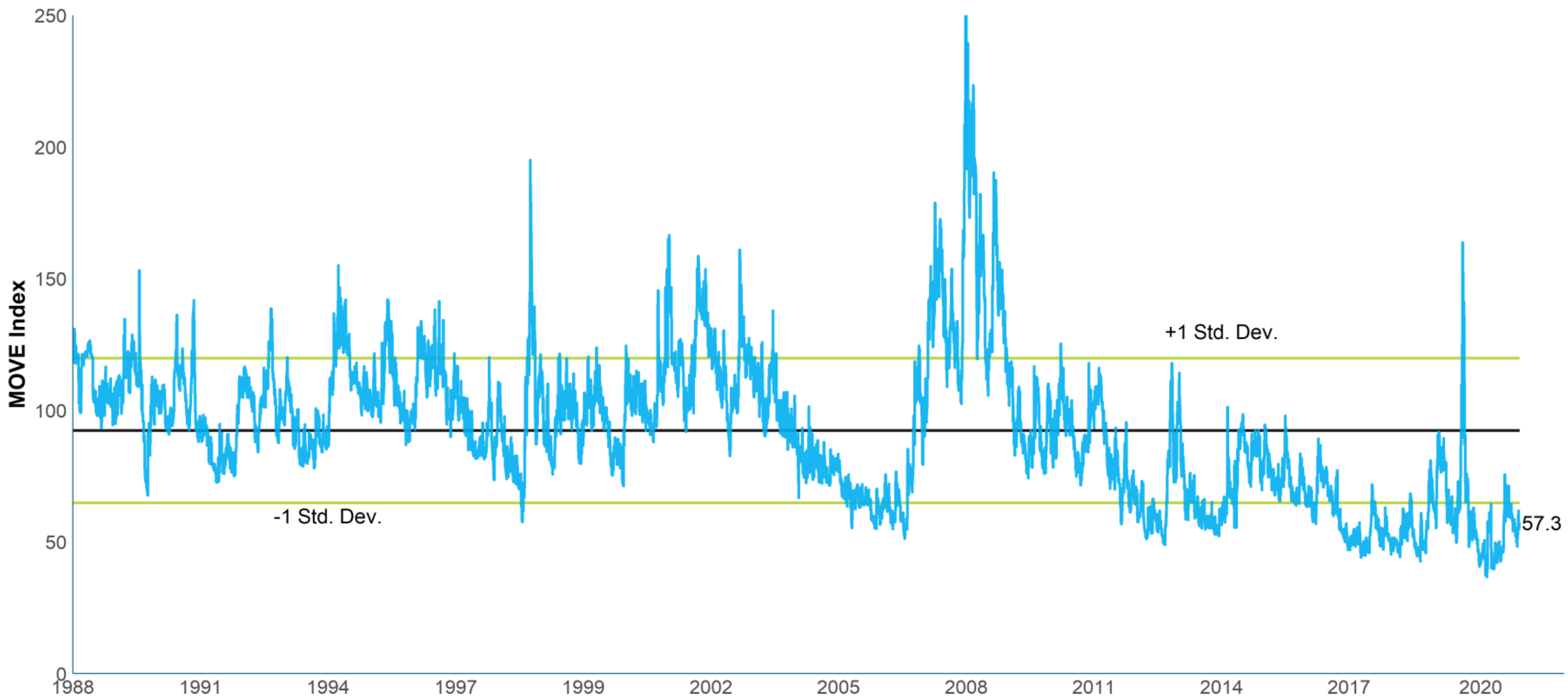
Equity Volatility[1]
(As of June 30, 2021)



- This chart details historical implied equity market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

[1] Equity Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.

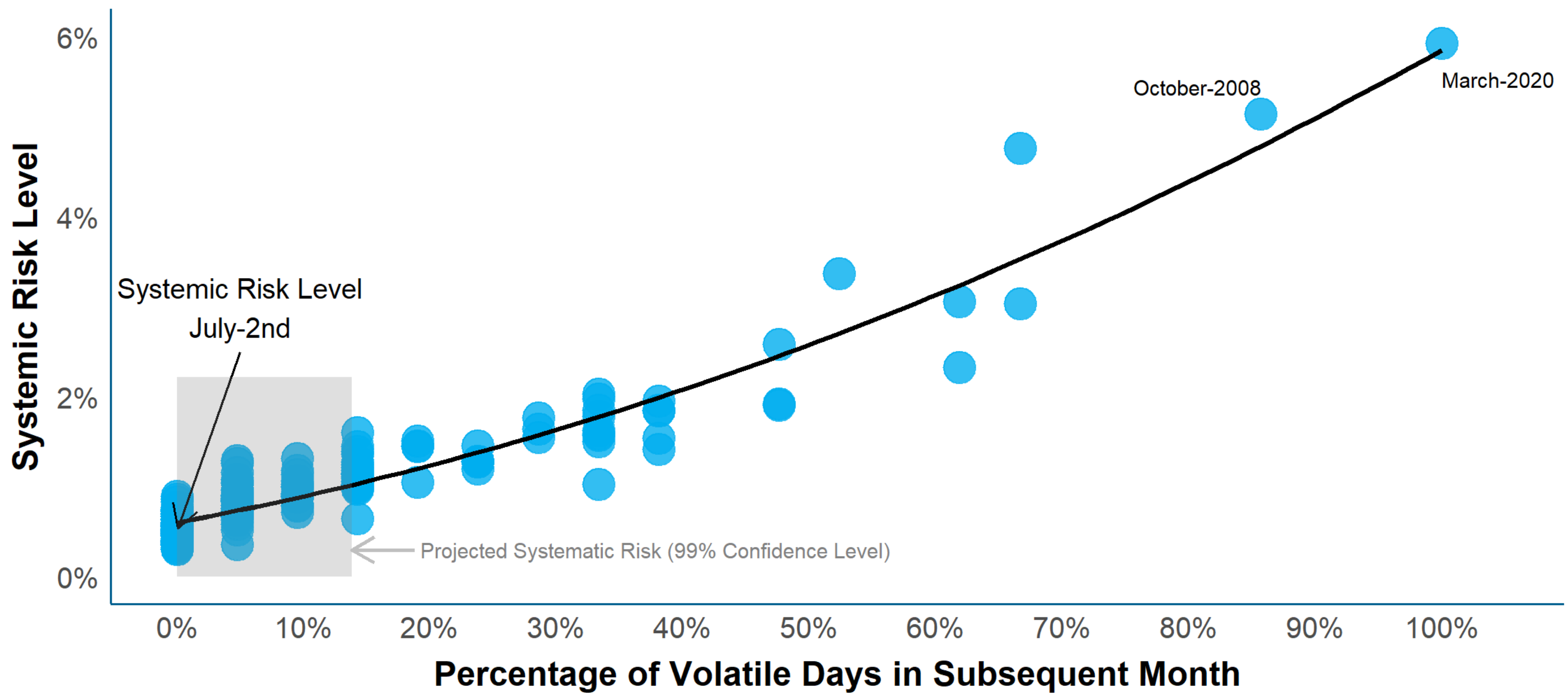
Fixed Income Volatility[1]
(As of June 30, 2021)



- This chart details historical implied fixed income market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

[1] Fixed Income Volatility – Source: Bloomberg, and Meketa Investment Group. Fixed Income Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.

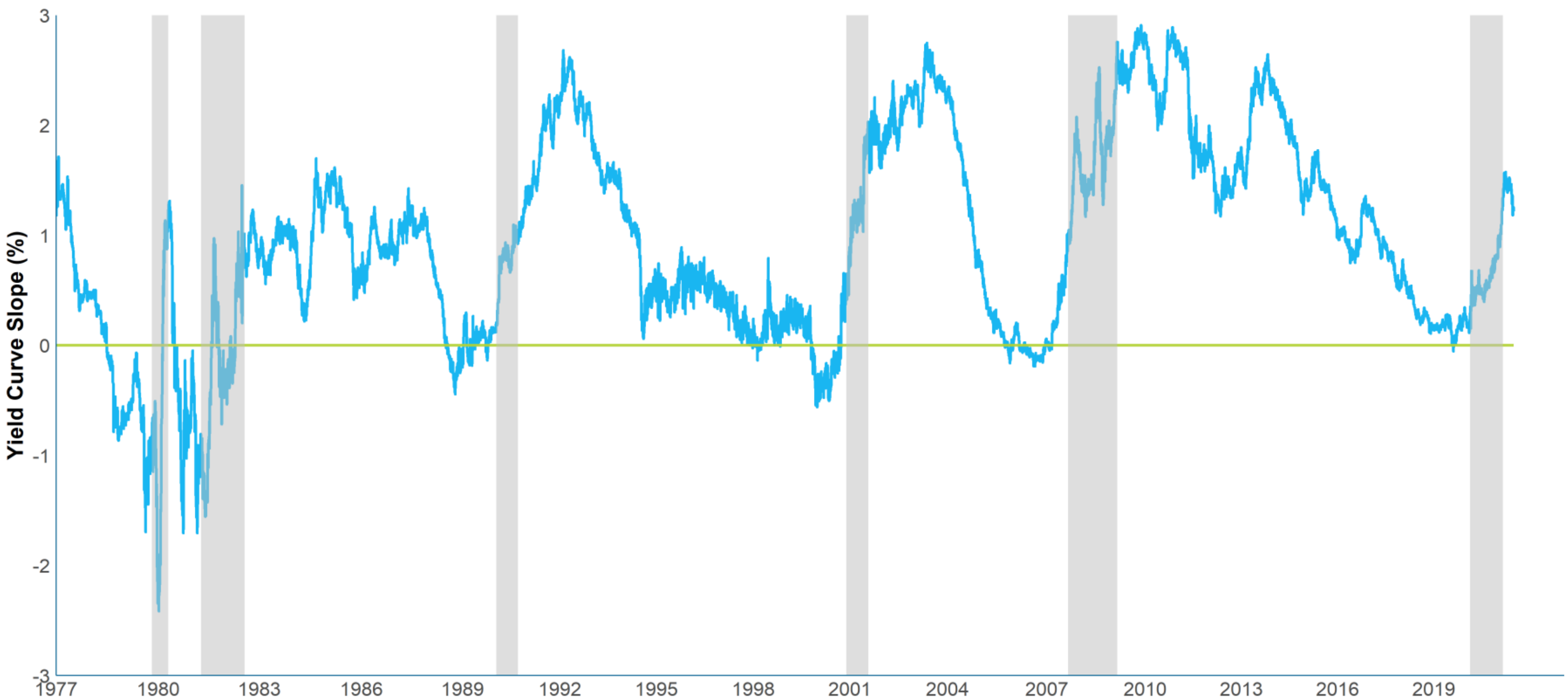
Systemic Risk and Volatile Market Days[1]
(As of June 30, 2021)



- Systemic Risk is a measure of 'System-wide' risk, which indicates herding type behavior.

[1] Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.

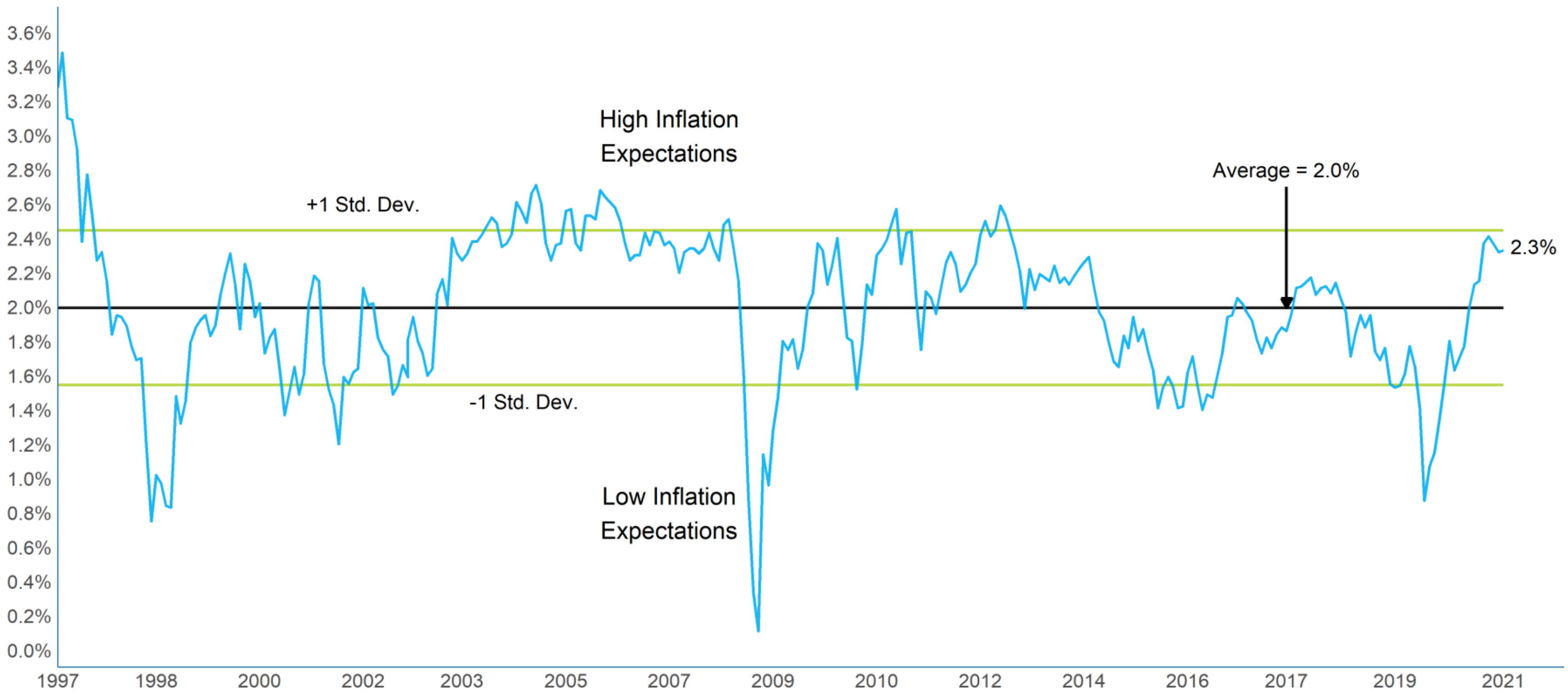
Yield Curve Slope (Ten Minus Two)[1]
(As of June 30, 2021)



- This chart details the historical difference in yields between ten-year and two-year US Treasury bonds/notes. A higher (lower) figure indicates a steeper (flatter) yield curve slope.

[1] Yield Curve Slope (Ten Minus Two) – Source: Bloomberg, and Meketa Investment Group. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.

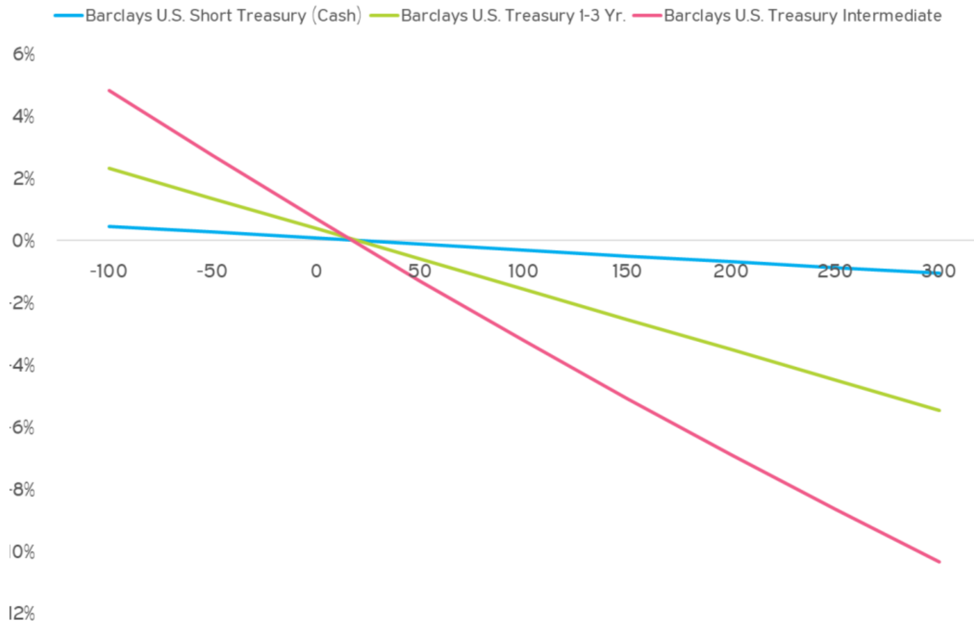
Ten-Year Breakeven Inflation[1]
(As of June 30, 2021)



- This chart details the difference between nominal and inflation-adjusted US Treasury bonds. A higher (lower) figure indicates higher (lower) inflation expectations.

[1] Ten-Year Breakeven Inflation – Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).

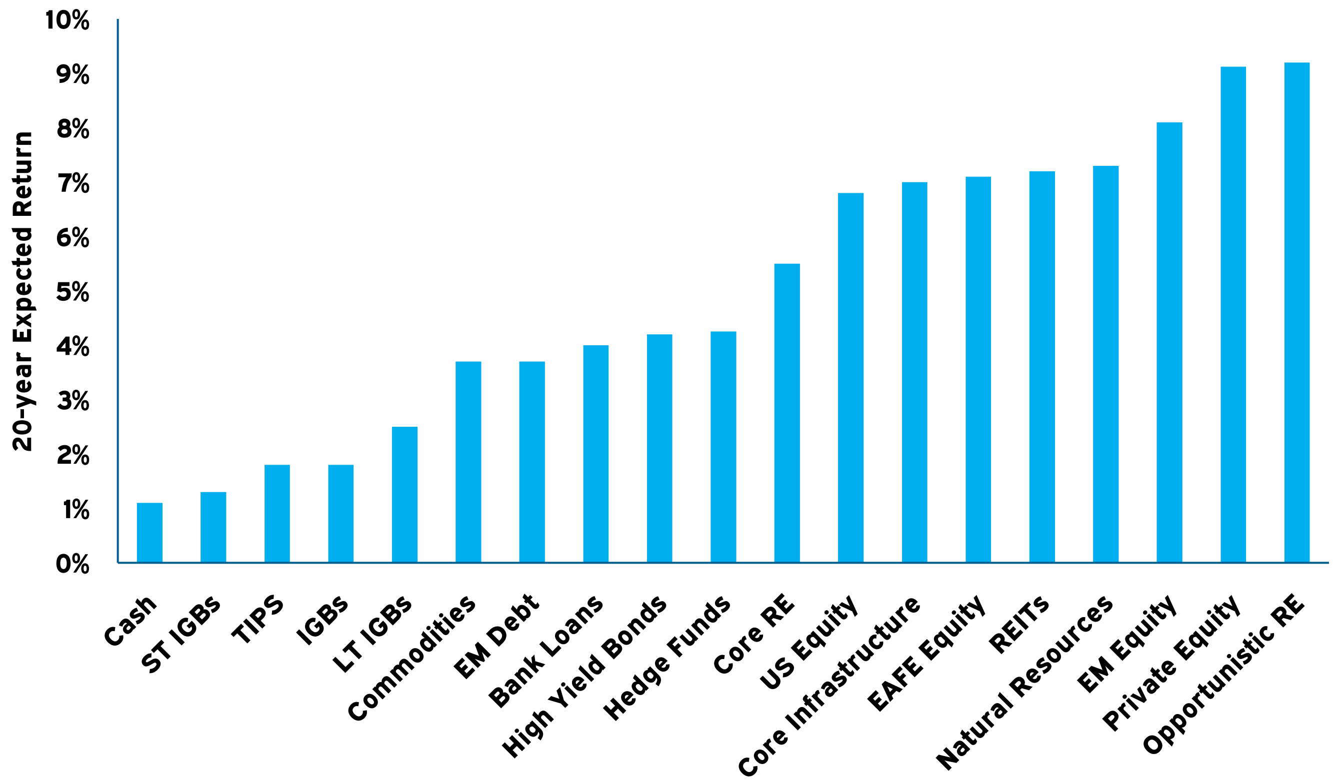
Total Return Given Changes in Interest Rates (bps)[1]
(As of June 30, 2021)



	Total Return for Given Changes in Interest Rates (bps)									Statistics	
	-100	-50	0	50	100	150	200	250	300	Duration	YTW
Barclays US Short Treasury (Cash)	0.4%	0.3%	0.1%	-0.1%	-0.3%	-0.5%	-0.7%	-0.9%	-1.1%	0.38	0.06%
Barclays US Treasury 1-3 Yr.	2.3%	1.3%	0.4%	-0.6%	-1.6%	-2.6%	-3.5%	-4.5%	-5.5%	1.94	0.36%
Barclays US Treasury Intermediate	4.8%	2.7%	0.7%	-1.3%	-3.2%	-5.1%	-6.9%	-8.7%	-10.4%	4.03	0.67%
Barclays US Treasury Long	23.0%	12.0%	2.0%	-6.8%	-14.6%	-21.2%	-26.8%	-31.3%	-34.7%	18.76	2.03%

[1] Data represents the expected total return from a given change in interest rates (shown in basis points) over a 12-month period assuming a parallel shift in rates. Source: Bloomberg, and Meketa Investment Group.

Long-Term Outlook – 20-Year Annualized Expected Returns[1]



- This chart details Meketa's long-term forward-looking expectations for total returns across asset classes.

[1] Source: Meketa Investment Group's 2021 Annual Asset Study.

Appendix

Data Sources and Explanations[1]

- US Equity Cyclically Adjusted P/E on S&P 500 Index – Source: Robert Shiller and Yale University.
- Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments. Earnings figures represent 12-month "as reported" earnings.
- Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month "as reported" earnings.
- Developed International Equity (MSCI EAFE) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.
- Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.
- Private Equity Multiples – Source: S&P LCD Average EBITDA Multiples Paid in All LBOs.
- Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, US Treasury, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction based indices from Real Capital Analytics and Meketa Investment Group.

[1] All Data as of June 30, 2021 unless otherwise noted.

Appendix

Data Sources and Explanations[1]

- REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, US Treasury. REITs are proxied by the yield for the NAREIT Equity Index.
- Credit Spreads – Source: Barclays Capital. High Yield is proxied by the Barclays High Yield Index and Investment Grade Corporates are proxied by the Barclays US Corporate Investment Grade Index.
  - Spread is calculated as the difference between the Yield to Worst of the respective index and the 10-Year Treasury Yield.
- EM Debt Spreads – Source: Bloomberg, and Meketa Investment Group. Option Adjusted Spread (OAS) for the Bloomberg Barclays EM USD Aggregate Index.
- Equity Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.
- Fixed Income Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.
- Systemic Risk and Volatile Market Days – Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.
- Systemic Risk, which measures risk across markets, is important because the more contagion of risk that exists between assets, the more likely it is that markets will experience volatile periods.

[1] All Data as of June 30, 2021 unless otherwise noted.

Appendix

Data Sources and Explanations[1]

- Yield Curve Slope (Ten Minus Two) – Source: Bloomberg, and Meketa Investment Group. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.
- Ten-Year Breakeven Inflation – Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).

[1] All Data as of June 30, 2021 unless otherwise noted.

Meketa Market Sentiment Indicator

Explanation, Construction and Q&A

Meketa has created the MIG Market Sentiment Indicator (MIG-MSI) to complement our valuation-focused Risk Metrics. This measure of sentiment is meant to capture significant and persistent shifts in long-lived market trends of economic growth risk, either towards a risk-seeking trend or a risk-aversion trend.

This appendix explores:

- What is the Meketa Market Sentiment Indicator?
- How do I read the indicator graph?
- How is the Meketa Market Sentiment Indicator constructed?
- What do changes in the indicator mean?

Meketa has created a market sentiment indicator for monthly publication (the MIG-MSI – see below) to complement Meketa's Risk Metrics.

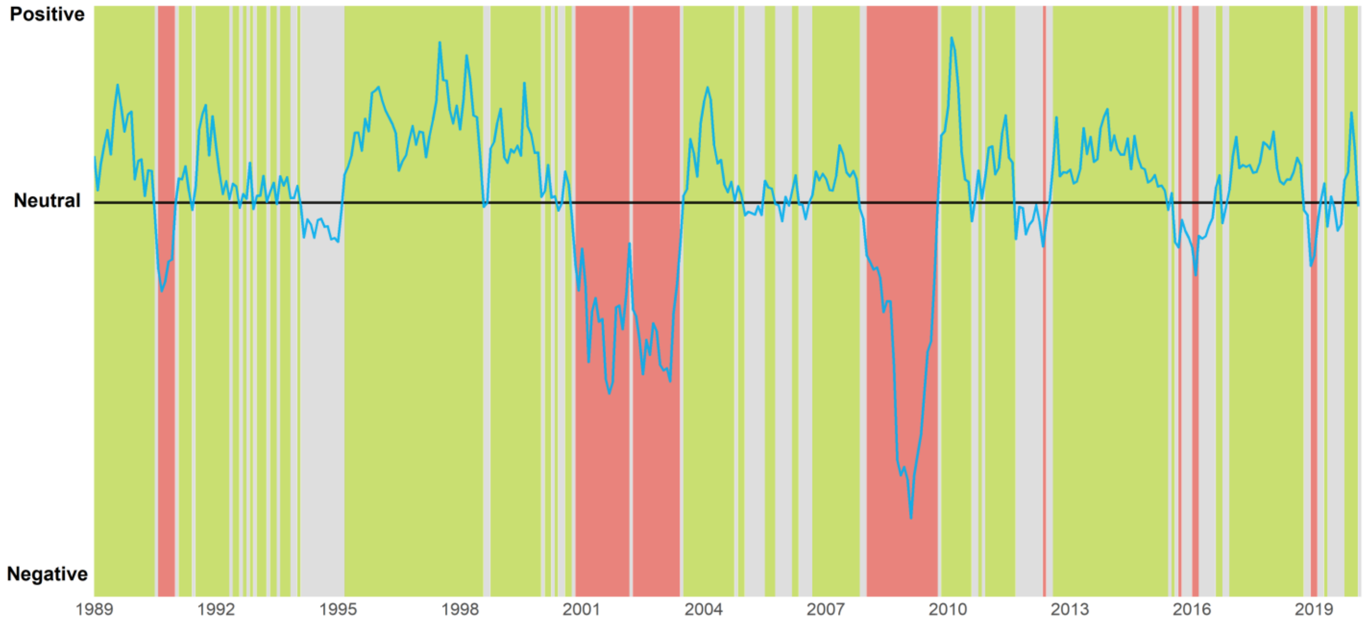
- Meketa's Risk Metrics, which rely significantly on standard market measures of relative valuation, often provide valid early signals of increasing long-term risk levels in the global investment markets. However, as is the case with numerous valuation measures, the Risk Metrics may convey such risk concerns long before a market corrections take place. The MIG-MSI helps to address this early-warning bias by measuring whether the markets are beginning to acknowledge key Risk Metrics trends, and / or indicating non-valuation based concerns. Once the MIG-MSI indicates that the market sentiment has shifted, it is our belief that investors should consider significant action, particularly if confirmed by the Risk Metrics. Importantly, Meketa believes the Risk Metrics and MIG-MSI should always be used in conjunction with one another and never in isolation. The questions and answers below highlight and discuss the basic underpinnings of the Meketa MIG-MSI:

What is the Meketa Market Sentiment Indicator (MIG-MSI)?

- The MIG-MSI is a measure meant to gauge the market's sentiment regarding economic growth risk. Growth risk cuts across most financial assets, and is the largest risk exposure that most portfolios bear. The MIG-MSI takes into account the momentum (trend over time, positive or negative) of the economic growth risk exposure of publicly traded stocks and bonds, as a signal of the future direction of growth risk returns; either positive (risk seeking market sentiment), or negative (risk averse market sentiment).

How do I read the Meketa Market Sentiment Indicator graph?

- Simply put, the MIG-MSI is a color-coded indicator that signals the market's sentiment regarding economic growth risk. It is read left to right chronologically. A green indicator on the MIG-MSI indicates that the market's sentiment towards growth risk is positive. A gray indicator indicates that the market's sentiment towards growth risk is neutral or inconclusive. A red indicator indicates that the market's sentiment towards growth risk is negative. The black line on the graph is the level of the MIG-MSI. The degree of the signal above or below the neutral reading is an indication the signal's current strength.
- Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.



How is the Meketa Market Sentiment Indicator (MIG-MSI) Constructed?

- The MIG-MSI is constructed from two sub-elements representing investor sentiment in stocks and bonds:
  - Stock return momentum: Return momentum for the S&P 500 Equity Index (trailing 12-months).
  - Bond yield spread momentum: Momentum of bond yield spreads (excess of the measured bond yield over the identical duration US Treasury bond yield) for corporate bonds (trailing 12-months) for both investment grade bonds (75% weight) and high yield bonds (25% weight).
  - Both measures are converted to Z-scores and then combined to get an "apples to apples" comparison without the need of re-scaling.
- The black line reading on the graph is calculated as the average of the stock return momentum measure and the bonds spread momentum measure[1]. The color reading on the graph is determined as follows:
  - If both stock return momentum and bond spread momentum are positive = GREEN (positive).
  - If one of the momentum indicators is positive, and the other negative = GRAY (inconclusive).
  - If both stock return momentum and bond spread momentum are negative = RED (negative).

[1] Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.
"Time Series Momentum" Moskowitz, Ooi, Pedersen, August 2010. *http://pages.stern.nyu.edu/~lpederse/papers/TimeSeriesMomentum.pdf*

What does the Meketa Market Sentiment Indicator (MIG-MSI) mean? Why might it be useful?

- There is strong evidence that time series momentum is significant and persistent. In particular, across an extensive array of asset classes, the sign of the trailing 12-month return (positive or negative) is indicative of future returns (positive or negative) over the next 12-month period. The MIG-MSI is constructed to measure this momentum in stocks and corporate bond spreads. A reading of green or red is agreement of both the equity and bond measures, indicating that it is likely that this trend (positive or negative) will continue over the next 12 months. When the measures disagree, the indicator turns gray. A gray reading does not necessarily mean a new trend is occurring, as the indicator may move back to green, or into the red from there. The level of the reading (black line) and the number of months at the red or green reading, gives the user additional information on which to form an opinion, and potentially take action.

Disclaimer Information

This material is provided by Meketa Investment Group, Inc. ("Meketa") for informational purposes only and may contain information that is not suitable for all clients. No portion of this commentary is to be construed as a solicitation or recommendations to buy or sell a security, or the provision of personalized investment advice, tax or legal advice. Past performance may not be indicative of future results and may have been impacted by market events and economic conditions that will not prevail in the future. There can be no assurance that any particular investment or strategy will prove profitable and the views, opinions, and projects expressed herein may not come to pass. Any direct or indirect reference to a market index is included for illustrative purposes only, as an index is not a security in which an investment can be made. Indices are benchmarks that serve as market or sector indicators and do not account for the deduction of management fees, transaction costs and other expenses associated with investable products. Meketa does not make any representation as to the accuracy, timeliness, suitability, completeness or relevance of any information prepared by any unaffiliated third party and takes no responsibility, therefore. Any data provided regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of futures results. Investing involves risk, including the potential loss of principal and clients should be guided accordingly.

This page intentionally left blank.

REPORT

SBI Comprehensive Performance Report

June 30, 2021

This page intentionally left blank.

Comprehensive Performance Report

June 30, 2021

Description of SBI Investment Programs

The Minnesota State Board of Investment is responsible for the investment management of various retirement funds, trust funds and cash accounts.

Combined Funds

The Combined Funds represent the assets for both the active and retired public employees in the statewide retirement systems, the biggest of which are the Public Employees Retirement Association (PERA), the Teachers Retirement Association (TRA), and the Minnesota State Retirement System (MSRS). The SBI commingles the assets of these plans into the Combined Funds to capture investment efficiencies. All assets in the Combined Funds are managed externally by investment management firms retained by contract.

Fire Plans + Other Retirement Plans

Fire Plans and Other Retirement Plans include assets from volunteer fire relief plans and other public retirement plans with authority to invest with the SBI, if they so choose. Fire Plans that are not eligible to be consolidated with Public Employees Retirement Association (PERA) or elect not to be administered by PERA may invest their assets with the SBI using the same asset pools as the Combined Funds. The Statewide Volunteer Firefighter Retirement Plan is administered by PERA and has its own investment vehicle called the Volunteer Firefighter Account.

Participant Directed Investment Program

The Participant Directed Investment Program (PDIP) provides investment vehicles for a variety of retirement or other tax-advantaged savings plans. Investment goals among the PDIP's many participants are varied. In order to meet the variety of goals, participants may allocate their investments among one or more accounts that are appropriate for their needs within statutory requirements and rules established by the participating organizations.

Non-Retirement

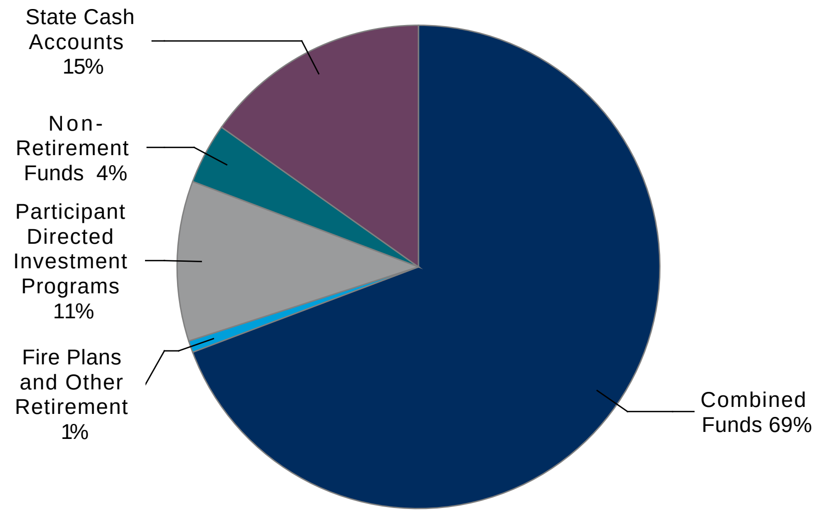
The Non-Retirement Funds are funds established by the State of Minnesota and other government entities for various purposes which include the benefit of public schools, the environment, other post-employment benefits, workers compensation insurance, and other purposes.

State Cash

The State Cash accounts are cash balances of state government funds including the State General Fund. Most accounts are invested by SBI staff through a short-term pooled fund referred to as the Treasurer's Cash Pool. It 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. Because of special legal restrictions, a small number of cash accounts cannot be commingled.

Funds Under Management

	$ Millions
COMBINED FUNDS	$89,494
FIRE PLANS + OTHER RETIREMENT	1,010
PARTICIPANT DIRECTED INVESTMENT PROGRAMS	13,847
State Deferred Compensation Plan	9,646
Health Care Savings Plan	1,628
Unclassified Employees Retirement Plan	402
Hennepin County Supplemental Retirement Plan	191
PERA Defined Contribution Plan	98
Minnesota College Savings Plan	1,860
Minnesota Achieve a Better Life Experience	23
NON-RETIREMENT FUNDS	5,250
Assigned Risk Plan	305
Permanent School Fund	1,940
Environmental Trust Fund	1,641
Closed Landfill Investment Fund	132
Miscellaneous Trust Funds	356
Other Postemployment Benefits Accounts	876
STATE CASH ACCOUNTS	19,553
Invested Treasurer's Cash	19,479
Other State Cash Accounts	74
TOTAL SBI AUM	129,154



Note: Differentials within column amounts may occur due to rounding

Quarterly Report

Table of Contents

Performance Reporting Legend

Manager Level Data

Aggregate Level Data

Sub-Asset Class Level Data

Asset Class Level Data

Note:

Throughout this report performance is calculated net of investment management fees, aggregates include terminated managers, and returns for all periods greater than one year are annualized. Inception Date and Since Inception Returns refer to the date of retention by the SBI. FYTD refers to the return generated by an account since July 1 of the most recent year. For historical benchmark details, please refer to the addendum of this report. Inception to date return information is included for manager accounts and total asset class but not other aggregates becuase of portfolio management decisions to group managers in different aggregates over time.

STATE STREET

Combined Funds

June 30, 2021

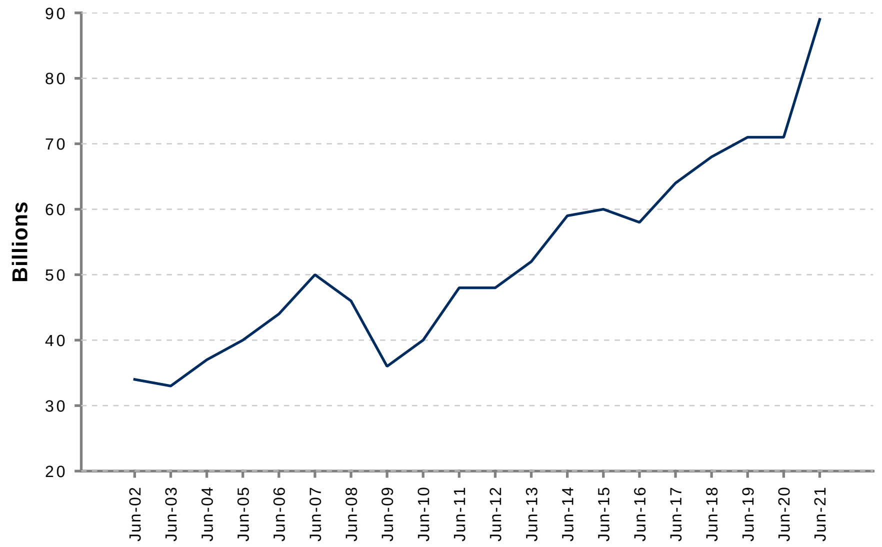
Combined Funds Summary

Combined Funds Change in Market Value ($Millions)

	One Quarter
COMBINED FUNDS	
Beginning Market Value	$84,538
Net Contributions	-654
Investment Return	5,611
Ending Market Value	89,494

The change in market value of the Combined Funds since the end of last quarter is due to net contributions and investment returns.

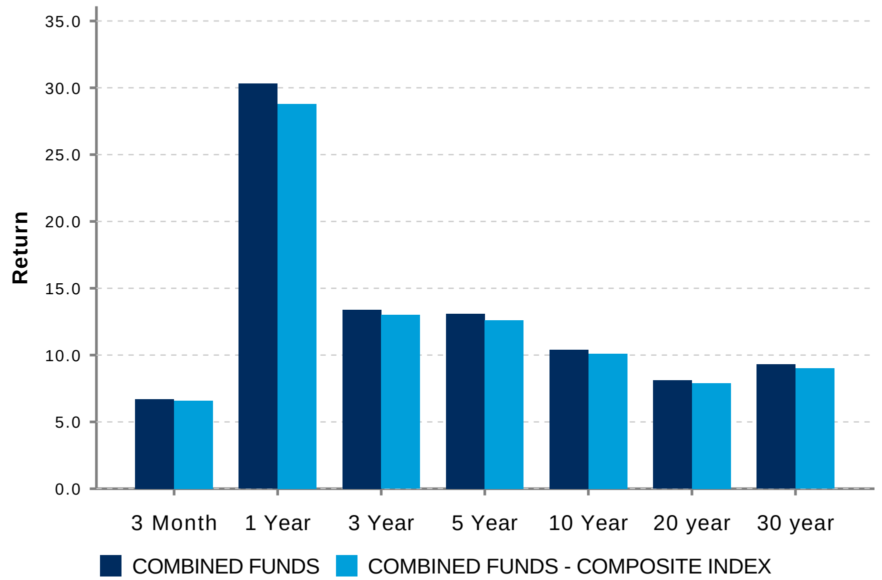
Asset Growth



Performance (Net of Fees)

The Combined Funds' performance is evaluated relative to a composite of public market index and private market investment returns. The Composite performance is calculated by multiplying the beginning of month Composite weights and the monthly returns of the asset class benchmarks.

	Qtr	FYTD	1 Yr	3 Yr	5 Yr	10 Yr	20 Yr	30 Yr
COMBINED FUNDS	6.7%	30.3%	30.3%	13.4%	13.1%	10.4%	8.1%	9.3%
COMBINED FUNDS - COMPOSITE INDEX	6.6	28.8	28.8	13.0	12.6	10.1	7.9	9.0
Excess	0.1	1.5	1.5	0.4	0.5	0.3	0.2	0.3



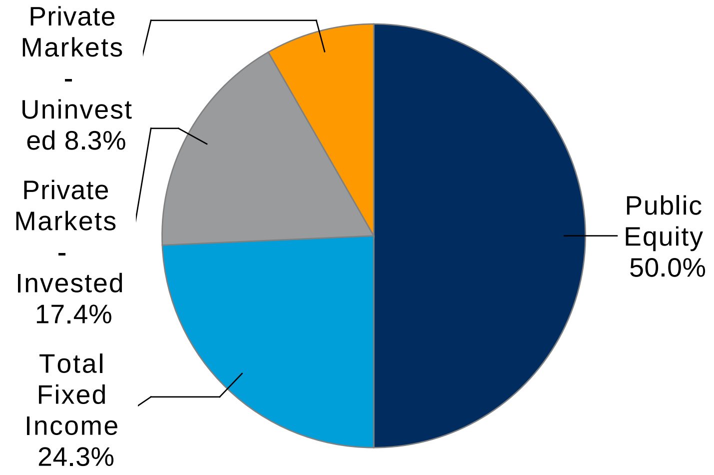
STATE STREET.

Combined Funds Summary

Asset Mix

The Combined Funds actual asset mix relative to the Strategic Asset Allocation Policy Target is shown below. Any uninvested portion of the Private Markets allocation is held in Public Equity.

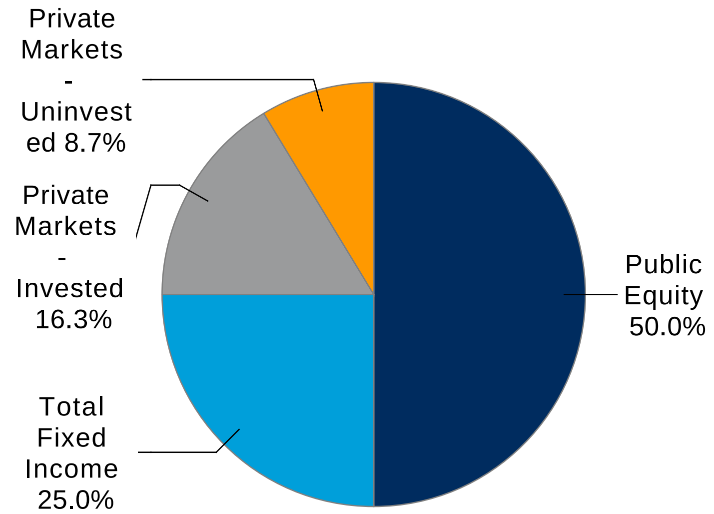
	(Millions)	Actual Mix	Policy Target
Public Equity	$44,792	50.0%	50.0%
Total Fixed Income	21,735	24.3	25.0
Private Markets - Total	22,967	25.7	25.0
Private Markets - Invested	15,533	17.4	
Private Markets - Uninvested	7,434	8.3	
TOTAL	89,494	100.0	



Composite Index Comparison

The Combined Funds Composite is set as the Strategic Asset Allocation Policy Target. Asset class weights for Private Markets - Invested and Private Markets - Uninvested are reset at the start of each month. The Combined Funds Composite weighting shown below is as of the first day of the quarter.

	Policy Weight	Market Index
Public Equity	50.0%	Public Equity Benchmark
Total Fixed Income	25.0	Total Fixed Income Benchmark
Private Markets - Invested	16.3	Private Markets
Private Markets - Uninvested	8.7	S&P 500



STATE STREET

Combined Funds Asset Class Performance Summary

Public Equity

The Combined Funds Public Equity includes Domestic Equity, International Equity and Global Equity.

The Public Equity benchmark is 67% Russell 3000 and 33% MSCI ACWI ex US (net).

	Market Value	Actual Weight	Policy Weight	Last Qtr	FYTD	1 Year	3 Year	5 Year	10 Year	20 Year	30 year
Public Equity	$44.8	50.0%	50.0%	7.3%	42.4%	42.4%	15.8%	16.0%	12.3%	8.2%	9.9%
Public Equity Benchmark				7.3	41.6	41.6	15.6	15.6			
Excess				-0.0	0.8	0.8	0.2	0.4			
Domestic Equity	29.6	33.0	33.5	8.2	45.3	45.3	18.7	18.2	14.7	8.8	10.6
Domestic Equity Benchmark				8.2	44.6	44.6	18.6	17.8	14.7	8.9	10.7
Excess				-0.0	0.7	0.7	0.1	0.3	-0.0	-0.1	-0.1
International Equity	14.1	15.7	16.5	5.2	36.8	36.8	9.8	11.3	6.0	6.7	
International Equity Benchmark				5.5	35.6	35.6	9.3	11.1	5.4	6.4	
Excess				-0.3	1.2	1.2	0.5	0.3	0.5	0.3	
Global Equity	1.2	1.3	0.0	10.7							
MSCI AC WORLD INDEX NET				7.4							
Excess				3.3							

Note:

Prior to 6/30/16 the returns of Domestic and International Equity were not reported as a total Public Equity return. For additional information regarding historical asset class performance and benchmarks, please refer to the Combined Funds Performance Report.

STATE STREET.

Combined Funds Asset Class Performance Summary

Total Fixed Income

The Combined Funds Fixed Income program includes Core/Core Plus, Return Seeking Fixed Income, Treasuries and Laddered Bond + Cash.

The Total Fixed Income benchmark is 40% Bloomberg Barclays U.S. Aggregate Index/ 40% Bloomberg Barclays Treasury 5+ Years Index/ 20% ICE BofA US 3-Month Treasury Bill.

	Market Value	Actual Weight	Policy Weight	Last Qtr	FYTD	1 Year	3 Year	5 Year	10 Year	20 Year	30 year
Total Fixed Income	$21.7	24.3%	25.0%	2.4%	-1.3%	-1.3%	6.8%	4.3%	4.3%	5.1%	6.2%
Total Fixed Income Benchmark				2.3	-2.8	-2.8	6.2				
Excess				0.1	1.5	1.5	0.6				
Core/Core Plus	4.8	5.4	5.0	2.1	2.1	2.1	6.4	4.0	4.2	5.1	6.1
Core Bonds Benchmark				1.8	-0.3	-0.3	5.3	3.0	3.4	4.6	5.7
Excess				0.2	2.4	2.4	1.1	1.0	0.8	0.5	0.5
Return Seeking Fixed Income	4.0	4.5	5.0	2.4							
BBG BARC Agg Bd				1.8							
Excess				0.5							
Treasury Protection	8.7	9.7	10.0	3.9	-6.1	-6.1	6.5				
BBG BARC 5Y + Us Tsy Idx				3.9	-6.7	-6.7	6.5				
Excess				-0.0	0.6	0.6	0.0				
Laddered Bond + Cash	4.2	4.7	5.0	0.0	0.2	0.2	1.3	1.2	0.8	1.7	3.3
ICE BofA US 3-Month Treasury Bill				-0.0	0.1	0.1	1.3	1.2	0.6	1.4	2.6
Excess				0.0	0.1	0.1	-0.0	0.1	0.2	0.3	0.7

Note: Since 12/1/2020 the Total Fixed Income includes allocations to Core/Core Plus Bonds, Return Seeking Bonds, Treasuries and Laddered Bond + Cash. From 7/1/2020 to 11/30/2020 Total Fixed Income was Core Bonds, Treasuries and Cash. From 2/1/2018-6/30/20 Total Fixed Income was Core Bonds and Treasuries. Prior to 2/1/2018, Total Fixed Income was Core Bonds. For additional information regarding historical asset class performance and benchmarks, please refer to the Combined Funds Performance Report.

Combined Funds Asset Class Performance Summary

Private Markets

	Last Qtr	FYTD	1 Year	3 Year	5 Year	10 Year	20 Year	25 year	30 year
Private Markets - Invested	9.9%	37.8%	37.8%	14.0%	15.3%	12.3%	12.6%	13.7%	12.9%
Private Markets-Uninvested(1)	8.5								
Private Equity	10.9%	49.4%	49.4%	21.0%	20.3%	16.0%	14.3%	15.6%	
Private Credit	7.9%	18.4%	18.4%	9.6%	12.1%	12.1%	11.9%	12.4%	
Resources	9.4%	16.9%	16.9%	-4.2%	3.2%	1.6%	11.6%	12.8%	
Real Estate	4.7%	14.4%	14.4%	8.9%	9.3%	11.0%	8.5%	9.8%	

Private Markets

The time-weighted rates of return for the Private Markets portfolio are shown here. Private Markets included Private Equity, Private Credit, Resources, and Real Estate. Some of the existing investments are relatively immature and returns may not be indicative of future results.

Private Equity Investments - The objectives of the Private Equity portfolio, which may include leveraged buyouts, growth equity, venture capital and special situations, are to achieve attractive returns and to provide overall portfolio diversification to the total plan.

Private Credit Investments - The objectives of the Private Credit portfolio, which may include mezzanine debt, direct lending, and other forms of non-investment grade fixed income instruments, are to achieve a high total return over a full market cycle and to provide some degree of downside protection and typically provide current income in the form of a coupon. In certain situations, investments in the Private Credit portfolio also provide an equity component of return in the form of warrants or re-organized equity.

Resource Investments - The objectives of the Resources portfolio, which may include energy, infrastructure, and other hard assets, are to provide protection against the risks associated with inflation and to provide overall portfolio diversification to the total plan.

Real Estate Investments - The objectives of the Real Estate portfolio, which may include core and non-core real estate investments, are to achieve attractive returns, preserve capital, provide protection against risks associated with inflation, and provide overall portfolio diversification to the total plan.

The SBI also monitors Private Markets performance using money-weighted return metrics such as Internal Rate of Return and Multiple of Invested Capital. For money-weighted return metrics please refer to the Combined Funds Performance Report.

(1) (1) The Uninvested portion of the Private Markets allocation is invested in a combination of a passively managed S&P 500 Index strategy and a cash overlay strategy invested in equity derivatives and cash.

Asset Class & Manager Performance
June 30, 2021

The assets of the Combined Funds are allocated to public equity, fixed income, private markets, and cash. Each asset class may be further differentiated by geography, management style, and/or strategy. Managers are hired to manage the assets accordingly. 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.

The Combined Funds consist of the assets of active employees and retired members of the statewide retirement plans. The SBI commingles the assets of these plans into the Combined Funds to capture investment efficiencies. This sharing is accomplished by grouping managers by asset class, geography, and management style, into several Investment Pools. The individual funds participate in the Investment Pools by purchasing units which function much like the shares of a mutual fund.

While the vast majority of the units of these pools are owned by the Combined Funds, the Supplemental Investment Fund also owns units of these pools. The Supplemental Investment Funds are mutual fund-like investment vehicles which are used by investors in the Participant Directed Investment Program. Please refer to the Participant Directed Investment Program report for more information.

The performance information presented on the following pages for Public Equity and Fixed Income includes both the Combined Funds and Supplemental Investment Fund. The Private Markets is Combined Funds only. All assets in the Combined Funds are managed externally by investment management firms retained by contract.

This page intentionally left blank.

Domestic Equity
June 30, 2021

Total Domestic Equity

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
ACTIVE DOMESTIC EQUITY AGGREGATE (1)	**$4,038,331,567**	**13.4%**	**6.3%**	**56.6%**	**56.6%**	**17.3%**	**18.9%**	**14.1%**		
Active Domestic Equity Benchmark			6.3	53.1	53.1	16.1	16.8	13.8		
Excess			0.0	3.5	3.5	1.2	2.1	0.3		
SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)	**3,222,281,979**	**10.7**	**8.8**	**43.3**	**43.3**	**19.3**	**18.2**	**15.1**		
Semi Passive Domestic Equity Benchmark			8.5	43.1	43.1	19.2	18.0	14.9		
Excess			0.2	0.2	0.2	0.2	0.2	0.2		
PASSIVE DOMESTIC EQUITY AGGREGATE (3)	**22,988,487,829**	**76.0**	**8.5**	**43.4**	**43.4**	**19.0**	**18.0**	**14.7**		
Passive Domestic Equity Benchmark			8.5	43.3	43.3	18.9	18.0	14.7		
Excess			0.0	0.1	0.1	0.0	-0.0	0.0		
TRANSITION AGGREGATE DOMESTIC EQUITY (4)	38,288	0.0								
TOTAL DOMESTIC EQUITY (5)	**30,249,139,662**	**100.0**	**8.2**	**45.3**	**45.3**	**18.7**	**18.2**	**14.7**	**11.1**	**01/1984**
Domestic Equity Benchmark			8.2	44.6	44.6	18.6	17.8	14.7	11.3	01/1984
Excess			-0.0	0.7	0.7	0.1	0.3	-0.0	-0.2	

(1) The Active Domestic Equity Benchmark is a weighted composite each of the individual active domestic equity manager’s benchmarks.

(2) The current Semi-Passive Domestic Equity Benchmark is the Russell 1000 index.

(3) The current Passive Domestic Equity Benchmark is a weighted average of the Russell 1000, Russell 2000 and Russell 3000.

(4) The Transition Domestic Equity Aggregate will periodically contain residual Domestic Equity securities from transitions.

(5) The current Domestic Equity Benchmark is the Russell 3000.

Note: All aggregates include the performance of terminated managers. For historical benchmark details please refer to the addendum of this report.

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Total Domestic Equity					
ACTIVE DOMESTIC EQUITY AGGREGATE (1)	**27.3%**	**27.6%**	**-6.5%**	**20.6%**	**10.9%**
Active Domestic Equity Benchmark	19.8	28.2	-8.0	18.3	15.7
Excess	7.5	-0.6	1.4	2.3	-4.8
SEMI PASSIVE DOMESTIC EQUITY AGGREGATE (2)	**21.0**	**30.9**	**-4.9**	**22.5**	**11.1**
Semi Passive Domestic Equity Benchmark	21.0	31.4	-4.8	21.7	12.1
Excess	0.0	-0.5	-0.1	0.8	-1.0
PASSIVE DOMESTIC EQUITY AGGREGATE (3)	**20.8**	**31.3**	**-5.0**	**21.3**	**12.6**
Passive Domestic Equity Benchmark	20.8	31.3	-5.0	21.5	12.5
Excess	0.0	0.0	-0.0	-0.2	0.1
TRANSITION AGGREGATE DOMESTIC EQUITY (4)					
TOTAL DOMESTIC EQUITY (5)	**21.7%**	**30.7%**	**-5.3%**	**21.4%**	**11.5**
Domestic Equity Benchmark	20.8%	30.8%	-5.2%	21.1%	12.7
Excess	0.9%	-0.1%	-0.0%	0.2%	-1.3

(1) The Active Domestic Equity Benchmark is a weighted composite each of the individual active domestic equity manager's benchmarks.

(2) The current Semi-Passive Domestic Equity Benchmark is the Russell 1000 index.

(3) The current Passive Domestic Equity Benchmark is a weighted average of the Russell 1000, Russell 2000 and Russell 3000.

(4) The Transition Domestic Equity Aggregate will periodically contain residual Domestic Equity securities from transitions.

(5) The current Domestic Equity Benchmark is the Russell 3000.

Note: All aggregates include the performance of terminated managers. For historical benchmark details please refer to the addendum of this report.

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Large Cap Growth										
SANDS	**$376,271,975**	**1.2%**	**11.0%**	**47.5%**	**47.5%**	**29.6%**	**29.8%**	**20.2%**	**14.6%**	**01/2005**
Russell 1000 Growth			11.9	42.5	42.5	25.1	23.7	17.9	12.5	01/2005
Excess			-1.0	5.0	5.0	4.5	6.2	2.3	2.1	
WINSLOW	**239,108,038**	**0.8**	**12.0**	**38.5**	**38.5**	**23.9**	**24.3**	**17.1**	**13.1**	**01/2005**
Russell 1000 Growth			11.9	42.5	42.5	25.1	23.7	17.9	12.5	01/2005
Excess			0.0	-4.0	-4.0	-1.3	0.6	-0.7	0.6	
RUSSELL 1000 GROWTH AGGREGATE (1)	**615,380,013**	**2.0**	**11.4**	**52.0**	**52.0**	**33.2**	**32.0**	**20.9**		
Russell 1000 Growth			11.9	42.5	42.5	25.1	23.7	17.9		
Excess			-0.6	9.5	9.5	8.0	8.3	3.0		

(1) Prior to 1/1/2021 the Russell 1000 Growth Aggregate included returns from Zevenbergen, which moved to the Russell 3000 Growth benchmark and is now reported separately.

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Active Large Cap Growth					
SANDS	**71.0%**	**33.5%**	**7.0%**	**35.3%**	**-6.9%**
Russell 1000 Growth	38.5	36.4	-1.5	30.2	7.1
Excess	32.5	-2.8	8.6	5.1	-13.9
WINSLOW	**37.6**	**34.2**	**4.2**	**33.2**	**-1.9**
Russell 1000 Growth	38.5	36.4	-1.5	30.2	7.1
Excess	-0.9	-2.2	5.7	3.0	-9.0
RUSSELL 1000 GROWTH AGGREGATE (1)	**81.3%**	**37.3%**	**4.7%**	**33.4%**	**1.0**
Russell 1000 Growth	38.5%	36.4%	-1.5%	30.2%	7.1
Excess	42.8%	0.9%	6.2%	3.2%	-6.1

(1) Prior to 1/1/2021 the Russell 1000 Growth Aggregate included returns from Zevenbergen, which moved to the Russell 3000 Growth benchmark and is now reported separately.

STATE STREET.

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Semi-Passive Large Cap										
BLACKROCK	**$1,625,331,502**	**5.4%**	**8.9%**	**42.5%**	**42.5%**	**19.1%**	**18.9%**	**15.6%**	**11.0%**	**01/1995**
Semi Passive Domestic Equity Benchmark			8.5	43.1	43.1	19.2	18.0	14.9	10.6	01/1995
Excess			0.4	-0.5	-0.5	-0.1	0.9	0.7	0.4	
J.P. MORGAN	**1,596,950,477**	**5.3**	**8.7**	**44.0**	**44.0**	**19.6**	**18.3**	**15.3**	**10.9**	**01/1995**
Semi Passive Domestic Equity Benchmark			8.5	43.1	43.1	19.2	18.0	14.9	10.6	01/1995
Excess			0.1	0.9	0.9	0.4	0.3	0.4	0.3	
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE	**3,222,281,979**	**10.7**	**8.8**	**43.3**	**43.3**	**19.3**	**18.2**	**15.1**		
Semi Passive Domestic Equity Benchmark			8.5	43.1	43.1	19.2	18.0	14.9		
Excess			0.2	0.2	0.2	0.2	0.2	0.2		

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Semi-Passive Large Cap					
BLACKROCK	**20.7%**	**30.4%**	**-4.1%**	**24.6%**	**12.5%**
Semi Passive Domestic Equity Benchmark	21.0	31.4	-4.8	21.7	12.1
Excess	-0.3	-1.0	0.7	2.9	0.5
J.P. MORGAN	**21.2**	**31.3**	**-5.4**	**21.8**	**12.3**
Semi Passive Domestic Equity Benchmark	21.0	31.4	-4.8	21.7	12.1
Excess	0.3	-0.1	-0.6	0.1	0.2
SEMI-PASSIVE DOMESTIC EQUITY AGGREGATE	**21.0%**	**30.9%**	**-4.9%**	**22.5%**	**11.1**
Semi Passive Domestic Equity Benchmark	21.0%	31.4%	-4.8%	21.7%	12.1
Excess	0.0%	-0.5%	-0.1%	0.8%	-1.0

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Large Cap Value										
BARROW HANLEY	**$396,080,859**	**1.3%**	**4.6%**	**47.1%**	**47.1%**	**13.1%**	**12.6%**	**11.7%**	**8.9%**	**04/2004**
Russell 1000 Value			5.2	43.7	43.7	12.4	11.9	11.6	8.5	04/2004
Excess			-0.6	3.4	3.4	0.7	0.8	0.1	0.4	
LSV	**413,789,020**	**1.4**	**5.4**	**55.5**	**55.5**	**11.6**	**13.4**	**12.8**	**9.6**	**04/2004**
Russell 1000 Value			5.2	43.7	43.7	12.4	11.9	11.6	8.5	04/2004
Excess			0.2	11.8	11.8	-0.8	1.5	1.2	1.1	
RUSSELL 1000 VALUE AGGREGATE	**809,869,879**	**2.7**	**5.0**	**50.6**	**50.6**	**13.0**	**13.9**	**12.0**		
Russell 1000 Value			5.2	43.7	43.7	12.4	11.9	11.6		
Excess			-0.2	7.0	7.0	0.6	2.1	0.4		

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Active Large Cap Value					
BARROW HANLEY	**2.4%**	**26.9%**	**-5.9%**	**14.6%**	**12.8%**
Russell 1000 Value	2.8	26.5	-8.3	13.7	17.3
Excess	-0.4	0.4	2.4	0.9	-4.5
LSV	**-1.3**	**26.9**	**-11.8**	**18.6**	**17.0**
Russell 1000 Value	2.8	26.5	-8.3	13.7	17.3
Excess	-4.1	0.4	-3.6	4.9	-0.4
RUSSELL 1000 VALUE AGGREGATE	**1.6%**	**27.4%**	**-8.7%**	**17.3%**	**15.3**
Russell 1000 Value	2.8%	26.5%	-8.3%	13.7%	17.3
Excess	-1.2%	0.9%	-0.4%	3.7%	-2.1

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Small Cap Growth										
ARROWMARK	**$222,052,555**	**0.7%**	**6.6%**	**55.1%**	**55.1%**	**13.6%**			**19.5%**	**11/2016**
Russell 2000 Growth			3.9	51.4	51.4	15.9			19.6	11/2016
Excess			2.6	3.7	3.7	-2.4			-0.2	
HOOD RIVER	**278,924,171**	**0.9**	**8.4**	**81.2**	**81.2**	**27.1**			**26.3**	**11/2016**
Russell 2000 Growth			3.9	51.4	51.4	15.9			19.6	11/2016
Excess			4.5	29.8	29.8	11.1			6.7	
RICE HALL JAMES	**227,070,601**	**0.8**	**5.0**	**44.8**	**44.8**	**10.7**			**18.6**	**11/2016**
Russell 2000 Growth			3.9	51.4	51.4	15.9			19.6	11/2016
Excess			1.1	-6.5	-6.5	-5.3			-1.0	
WELLINGTON	**311,427,184**	**1.0**	**3.2**	**46.8**	**46.8**	**15.6**			**19.3**	**11/2016**
Russell 2000 Growth			3.9	51.4	51.4	15.9			19.6	11/2016
Excess			-0.8	-4.6	-4.6	-0.4			-0.4	
RUSSELL 2000 GROWTH AGGREGATE	**1,039,474,511**	**3.4**	**5.7**	**57.2**	**57.2**	**16.9**	**18.9**	**12.2**		
Russell 2000 Growth			3.9	51.4	51.4	15.9	18.8	13.5		
Excess			1.8	5.8	5.8	1.0	0.1	-1.4		

STATE STREET.

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Active Small Cap Growth					
ARROWMARK	**21.9%**	**20.1%**	**0.9%**	**26.2%**	
Russell 2000 Growth	34.6	28.5	-9.3	22.2	
Excess	-12.8	-8.4	10.3	4.1	
HOOD RIVER	**61.7**	**24.3**	**-7.0**	**21.3**	
Russell 2000 Growth	34.6	28.5	-9.3	22.2	
Excess	27.0	-4.2	2.3	-0.9	
RICE HALL JAMES	**23.8**	**18.0**	**-6.9**	**27.9**	
Russell 2000 Growth	34.6	28.5	-9.3	22.2	
Excess	-10.8	-10.5	2.4	5.8	
WELLINGTON	**33.1**	**35.6**	**-11.6**	**22.6**	
Russell 2000 Growth	34.6	28.5	-9.3	22.2	
Excess	-1.5	7.1	-2.3	0.4	
RUSSELL 2000 GROWTH AGGREGATE	**35.4%**	**24.6%**	**-6.2%**	**22.0%**	**4.7**
Russell 2000 Growth	34.6%	28.5%	-9.3%	22.2%	11.3
Excess	0.8%	-3.9%	3.2%	-0.1%	-6.6

STATE STREET.

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Small Cap Value										
GOLDMAN SACHS	**$376,805,058**	**1.2%**	**2.9%**	**62.6%**	**62.6%**	**8.8%**	**11.8%**	**11.2%**	**9.8%**	**01/2004**
Russell 2000 Value			4.6	73.3	73.3	10.3	13.6	10.8	8.9	01/2004
Excess			-1.7	-10.7	-10.7	-1.4	-1.8	0.3	0.9	
HOTCHKIS AND WILEY	**220,645,496**	**0.7**	**5.2**	**80.4**	**80.4**	**7.7**	**12.6**	**10.5**	**8.8**	**01/2004**
Russell 2000 Value			4.6	73.3	73.3	10.3	13.6	10.8	8.9	01/2004
Excess			0.7	7.1	7.1	-2.6	-1.0	-0.3	-0.1	
MARTINGALE	**223,710,295**	**0.7**	**4.8**	**67.2**	**67.2**	**7.0**	**11.2**	**11.3**	**8.3**	**01/2004**
Russell 2000 Value			4.6	73.3	73.3	10.3	13.6	10.8	8.9	01/2004
Excess			0.2	-6.1	-6.1	-3.2	-2.4	0.4	-0.5	
PEREGRINE	**329,937,586**	**1.1**	**3.2**	**72.7**	**72.7**	**8.5**	**13.4**	**10.6**	**10.5**	**07/2000**
Russell 2000 Value			4.6	73.3	73.3	10.3	13.6	10.8	10.1	07/2000
Excess			-1.4	-0.6	-0.6	-1.7	-0.3	-0.2	0.4	
RUSSELL 2000 VALUE AGGREGATE	**1,151,098,435**	**3.8**	**3.8**	**69.6**	**69.6**	**7.9**	**12.2**	**10.8**		
Russell 2000 Value			4.6	73.3	73.3	10.3	13.6	10.8		
Excess			-0.8	-3.7	-3.7	-2.4	-1.4	-0.1		

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Active Small Cap Value					
GOLDMAN SACHS	**2.4%**	**23.2%**	**-13.3%**	**12.6%**	**24.6%**
Russell 2000 Value	4.6	22.4	-12.9	7.8	31.7
Excess	-2.3	0.8	-0.5	4.7	-7.1
HOTCHKIS AND WILEY	**-0.2**	**19.7**	**-14.4**	**7.9**	**19.9**
Russell 2000 Value	4.6	22.4	-12.9	7.8	31.7
Excess	-4.8	-2.7	-1.5	0.0	-11.8
MARTINGALE	**-4.6**	**21.1**	**-15.0**	**6.9**	**34.3**
Russell 2000 Value	4.6	22.4	-12.9	7.8	31.7
Excess	-9.2	-1.3	-2.1	-0.9	2.5
PEREGRINE	**7.3**	**21.1**	**-16.1**	**12.5**	**27.8**
Russell 2000 Value	4.6	22.4	-12.9	7.8	31.7
Excess	2.7	-1.3	-3.3	4.7	-3.9
RUSSELL 2000 VALUE AGGREGATE	**1.5%**	**21.3%**	**-14.7%**	**10.2%**	**26.5**
Russell 2000 Value	4.6%	22.4%	-12.9%	7.8%	31.7
Excess	-3.1%	-1.1%	-1.8%	2.3%	-5.2

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active All Cap										
ZEVENBERGEN (1)	**$422,508,728**	**1.4%**	**9.0%**	**49.2%**	**49.2%**	**38.6%**	**37.3%**	**21.5%**	**14.0%**	**04/1994**
Zevenbergen Custom Benchmark			11.4	49.4	49.4	27.1	24.8	18.4		04/1994
Excess			-2.4	-0.2	-0.2	11.5	12.5	3.1		
ACTIVE RUSSELL 3000 GROWTH (2)	**422,508,728**		**9.0**							
RUSSELL 3000 Growth			11.4							
Excess			-2.3							

(1) Effective 1/1/2021, the SBI changed the Zevenbergen Benchmark to the Russell 3000 Growth. Prior to this date it was the Russell 1000 Growth.
(2) Prior to 1/1/2021, Zevenbergen returns were reported as part of the Russell 1000 Growth Aggregate.

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Active All Cap					
ZEVENBERGEN (1)	**126.2%**	**43.0%**	**2.3%**	**35.1%**	**-2.8%**
Zevenbergen Custom Benchmark	38.5	36.4	-1.5	30.2	7.1
Excess	87.7	6.7	3.8	4.9	-9.9

ACTIVE RUSSELL 3000 GROWTH (2)					
RUSSELL 3000 (DAILY)					
Excess					

(1) Effective 1/1/2021, the SBI changed the Zevenbergen Benchmark to the Russell 3000 Growth. Prior to this date it was the Russell 1000 Growth.

(2) Prior to 1/1/2021, Zevenbergen returns were reported as part of the Russell 1000 Growth Aggregate.

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Total Passive Domestic Equity										
BLACKROCK RUSSELL 1000	**$21,826,315,223**	**72.2%**	**8.5%**	**43.1%**	**43.1%**	**19.2%**			**18.9%**	**11/2016**
RUSSELL 1000 (DAILY)			8.5	43.1	43.1	19.2			18.9	11/2016
Excess			0.0	0.0	0.0	-0.0			-0.0	
BLACKROCK RUSSELL 2000	**102,554,252**	**0.3**	**5.0**	**63.4**	**63.4**				**19.7**	**11/2018**
RUSSELL 2000 (DAILY)			4.3	62.0	62.0				18.9	11/2018
Excess			0.7	1.4	1.4				0.8	
BLACKROCK RUSSELL 3000 (1)	**1,059,618,354**	**3.5**	**8.5**	**44.7**	**44.7**	**19.0**	**18.0%**	**14.8%**	**10.4**	**07/1995**
Passive Manager Benchmark			8.2	44.2	44.2	18.7	17.9	14.7	10.3	07/1995
Excess			0.3	0.6	0.6	0.2	0.1	0.1	0.1	
PASSIVE DOMESTIC EQUITY AGGREGATE (2)	**22,988,487,829**	**76.0**	**8.5**	**43.4**	**43.4**	**19.0**	**18.0**	**14.7**		
Passive Domestic Equity Benchmark			8.5	43.3	43.3	18.9	18.0	14.7		
Excess			0.0	0.1	0.1	0.0	-0.0	0.0		

(1) The current Passive Manager Benchmark is the Russell 3000. For historical benchmark details please refer to the addendum of this report.

(2) The current Passive Domestic Equity Benchmark is a weighted average of the Russell 1000, Russell 2000 and Russell 3000.

STATE STREET.

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Total Passive Domestic Equity					
BLACKROCK RUSSELL 1000	**20.9%**	**31.4%**	**-4.8%**	**21.7%**	
RUSSELL 1000 (DAILY)	21.0	31.4	-4.8	21.7	
Excess	-0.0	0.0	-0.0	-0.0	
BLACKROCK RUSSELL 2000	**20.8**	**25.2**			
RUSSELL 2000 (DAILY)	20.0	25.5			
Excess	0.8	-0.3			
BLACKROCK RUSSELL 3000 (1)	**21.2**	**31.1**	**-5.2**	**21.1**	**12.7%**
Passive Manager Benchmark	20.9	31.0	-5.2	21.1	12.7
Excess	0.3	0.0	-0.0	0.0	0.0
PASSIVE DOMESTIC EQUITY AGGREGATE (2)	**20.8%**	**31.3%**	**-5.0%**	**21.3%**	**12.6**
Passive Domestic Equity Benchmark	20.8%	31.3%	-5.0%	21.5%	12.5
Excess	0.0%	0.0%	-0.0%	-0.2%	0.1

(1) The current Passive Manager Benchmark is the Russell 3000. For historical benchmark details please refer to the addendum of this report.
(2) The current Passive Domestic Equity Benchmark is a weighted average of the Russell 1000, Russell 2000 and Russell 3000.

STATE STREET.

This page intentionally left blank.

International Equity
June 30, 2021

Total International Equity

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
DEVELOPED MARKETS (1)	**$9,538,840,694**	**67.0%**	**5.7%**	**34.6%**	**34.6%**	**9.1%**	**10.8%**	**6.4%**		
BENCHMARK DM			5.6	33.6	33.6	8.6	10.4	5.7		
Excess			0.0	1.0	1.0	0.6	0.5	0.7		
EMERGING MARKETS (2)	**4,080,144,769**	**28.7**	**4.5**	**42.7**	**42.7**	**11.8**	**12.7**	**4.2**		
BENCHMARK EM			5.0	40.9	40.9	11.3	13.0	4.3		
Excess			-0.5	1.8	1.8	0.5	-0.3	-0.1		
ACWI EX-US AGGREGATE	**399,133,953**	**2.8**	**7.8**							
MSCI AC WORLD ex US (NET) - DAILY			5.5							
Excess			2.3							
CHINA ONLY AGGREGATE	**207,260,997**	**1.5**	**5.5**							
MSCI China A			9.2							
Excess			-3.7							
TRANSITION AGGREGATE INTERNATIONAL EQUITY (3)	865,644	0.0								
TOTAL INTERNATIONAL EQUITY (4)	**14,233,123,309**	**100.0**	**5.2**	**36.8**	**36.8**	**9.8**	**11.3**	**6.0**	**7.0**	**10/1992**
International Equity Benchmark			5.5	35.6	35.6	9.3	11.1	5.4	6.5	10/1992
Excess			-0.3	1.2	1.2	0.5	0.3	0.5	0.5	

(1) The current benchmak for Developed Markets, Benchmark DM, is the Standard (large + mid) MSCI World ex USA (net).

(2) The current benchmark for Emerging Markets, Benchmark EM, is the Standard (large + mid) MSCI Emerging Markets Free (net).

(3) The Transition Aggregate International Equity contains International Equity securities that are being transitioned to a different manager.

(4) The current International Equity Benchmark is the MSCI ACWI ex USA (net). Does not includes impact of currency overlay on the passive EAFE portfolio from 12/1/95-10/31/00. This impact is included in the return for the Combined Funds portion of the International Equity portfolio.

Note: All aggregates include the performance of terminated managers. For historical benchmark details please refer to the addendum of this report.

STATE STREET.

Total International Equity

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
DEVELOPED MARKETS (1)	**9.1%**	**23.3%**	**-14.2%**	**24.9%**	**1.3%**
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	1.5	0.8	-0.1	0.7	-1.5
EMERGING MARKETS (2)	**17.9**	**20.3**	**-15.4**	**37.7**	**7.5**
BENCHMARK EM	18.3	18.4	-14.6	37.3	11.2
Excess	-0.4	1.9	-0.8	0.4	-3.7
ACWI EX-US AGGREGATE					
MSCI AC WORLD ex US (NET) - DAILY					
Excess					
CHINA ONLY AGGREGATE					
MSCI China A					
Excess					
TOTAL INTERNATIONAL EQUITY (4)	**11.4%**	**22.4%**	**-14.5%**	**27.6%**	**2.6**
International Equity Benchmark	10.5%	21.5%	-14.2%	27.2%	4.5
Excess	0.8%	0.9%	-0.3%	0.4%	-1.8

(1) The current benchmak for Developed Markets, Benchmark DM, is the Standard (large + mid) MSCI World ex USA (net).

(2) The current benchmark for Emerging Markets, Benchmark EM, is the Standard (large + mid) MSCI Emerging Markets Free (net).

(3) The Transition Aggregate International Equity contains International Equity securities that are being transitioned to a different manager.

(4) The current International Equity Benchmark is the MSCI ACWI ex USA (net). Does not includes impact of currency overlay on the passive EAFE portfolio from 12/1/95-10/31/00. This impact is included in the return for the Combined Funds portion of the International Equity portfolio.

Note: All aggregates include the performance of terminated managers. For historical benchmark details please refer to the addendum of this report.

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Developed Markets										
ACADIAN	**$396,681,767**	**2.8%**	**6.5%**	**37.5%**	**37.5%**	**8.8%**	**13.6%**	**8.9%**	**7.5%**	**07/2005**
BENCHMARK DM			5.6	33.6	33.6	8.6	10.4	5.7	5.8	07/2005
Excess			0.8	3.9	3.9	0.3	3.3	3.2	1.8	
COLUMBIA	**411,773,776**	**2.9**	**5.5**	**37.4**	**37.4**	**11.8**	**13.4**	**7.9**	**4.2**	**03/2000**
BENCHMARK DM			5.6	33.6	33.6	8.6	10.4	5.7	4.2	03/2000
Excess			-0.2	3.8	3.8	3.2	3.0	2.2	0.1	
FIDELITY	**410,329,840**	**2.9**	**5.3**	**35.9**	**35.9**	**11.6**	**12.5**	**7.8**	**7.6**	**07/2005**
BENCHMARK DM			5.6	33.6	33.6	8.6	10.4	5.7	5.8	07/2005
Excess			-0.3	2.3	2.3	3.0	2.2	2.1	1.8	
JP MORGAN	**360,397,226**	**2.5**	**6.4**	**33.7**	**33.7**	**10.8**	**12.9**	**6.6**	**6.3**	**07/2005**
BENCHMARK DM			5.6	33.6	33.6	8.6	10.4	5.7	5.8	07/2005
Excess			0.7	0.1	0.1	2.2	2.5	0.9	0.5	
MARATHON	**388,638,745**	**2.7**	**5.2**	**40.1**	**40.1**	**9.0**	**10.7**	**7.6**	**8.4**	**11/1993**
BENCHMARK DM			5.6	33.6	33.6	8.6	10.4	5.7	5.5	11/1993
Excess			-0.5	6.5	6.5	0.4	0.3	1.9	2.8	
MCKINLEY	**291,526,795**	**2.0**	**4.0**	**30.8**	**30.8**	**9.2**	**11.5**	**6.7**	**5.8**	**07/2005**
BENCHMARK DM			5.6	33.6	33.6	8.6	10.4	5.7	5.8	07/2005
Excess			-1.7	-2.8	-2.8	0.6	1.1	1.0	0.1	
AQR CAPITAL MANAGEMENT	**379,137,486**	**2.7**	**2.8**	**34.1**	**34.1**	**6.6**	**8.9**	**5.5**	**5.8**	**07/2005**
BENCHMARK DM			5.6	33.6	33.6	8.6	10.4	5.7	5.8	07/2005
Excess			-2.8	0.5	0.5	-2.0	-1.5	-0.2	0.0	

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Active Developed Markets					
ACADIAN	**11.7%**	**19.1%**	**-13.5%**	**37.0%**	**8.1%**
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	4.2	-3.4	0.6	12.8	5.4
COLUMBIA	**15.0**	**28.9**	**-14.9**	**32.7**	**-5.6**
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	7.4	6.4	-0.8	8.5	-8.3
FIDELITY	**15.4**	**27.1**	**-14.6**	**25.9**	**1.2**
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	7.8	4.6	-0.5	1.7	-1.5
JP MORGAN	**14.2**	**28.5**	**-17.3**	**28.3**	**4.0**
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	6.6	6.0	-3.3	4.1	1.2
MARATHON	**7.6**	**23.5**	**-13.4**	**23.1**	**-1.1**
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	0.1	1.0	0.7	-1.1	-3.8
MCKINLEY	**16.4**	**25.6**	**-15.9**	**28.5**	**-7.5**
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	8.8	3.1	-1.9	4.3	-10.2
AQR CAPITAL MANAGEMENT	**6.5**	**20.8**	**-18.2**	**25.1**	**0.8**
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	-1.1	-1.7	-4.1	0.9	-2.0

STATE STREET.

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Total Developed Markets										
Active Developed Markets Aggregate (1)	**$2,638,485,634**		**5.1%**	**35.9%**	**35.9%**	**9.7%**	**11.6%**	**7.1%**		
BENCHMARK DM			5.6	33.6	33.6	8.6	10.4	5.7		
Excess			-0.5	2.3	2.3	1.1	1.3	1.4		
SSgA DEVELOPED MARKETS PASSIVE	**$6,900,355,060**	**48.5%**	**5.9%**	**34.2%**	**34.2%**	**9.0%**	**10.8%**	**6.1%**	**6.6%**	**10/1992**
BENCHMARK DM			5.6%	33.6%	33.6%	8.6%	10.4%	5.7%	6.3%	10/1992
Excess			0.2%	0.6%	0.6%	0.4%	0.4%	0.4%	0.3%	
RECORD CURRENCY (2)	**$6,877,251**	**0.0%**	**-0.5%**							**10/2020**
DM PASSIVE EQUITY WITH CURRENCY MGMT	**$6,907,232,311**	**48.5%**	**5.4%**	**34.4%**	**34.4%**	**9.1%**	**10.7%**	**6.1%**		**10/1992**
BENCHMARK DM			5.6%	33.6%	33.6%	8.6%	10.4%	5.7%		10/1992
Excess			-0.3%	0.8%	0.8%	0.5%	0.3%	0.4%		
DEVELOPED MARKETS TOTAL	**9,538,840,694**	**67.0**	**5.7**	**34.6**	**34.6**	**9.1**	**10.8**	**6.4**		
BENCHMARK DM			5.6	33.6	33.6	8.6	10.4	5.7		
Excess			0.0	1.0	1.0	0.6	0.5	0.7		

(1) Includes the historical returns of AQR and terminated managers previously classified as "Semi-Passive Developed Markets"

(2) Return for Record Currency is provided by the Manager

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Total Developed Markets					
Active Developed Markets Aggregate (1)	**12.2%**	**24.4%**	**-15.1%**	**26.8%**	**-0.3%**
BENCHMARK DM	7.6	22.5	-14.1	24.2	2.7
Excess	4.6	1.9	-1.0	2.6	-3.0
SSgA DEVELOPED MARKETS PASSIVE	**8.2%**	**23.0%**	**-13.9%**	**24.7%**	**3.2**
BENCHMARK DM	7.6%	22.5%	-14.1%	24.2%	2.7
Excess	0.6%	0.5%	0.2%	0.5%	0.4
DM PASSIVE EQUITY WITH CURRENCY MGMT	**8.0%**	**23.0%**	**-13.9%**	**23.8%**	**3.3**
BENCHMARK DM	7.6%	22.5%	-14.1%	24.2%	2.7
Excess	0.4%	0.5%	0.2%	-0.4%	0.5
DEVELOPED MARKETS TOTAL	**9.1%**	**23.3%**	**-14.2%**	**24.9%**	**1.3**
BENCHMARK DM	7.6%	22.5%	-14.1%	24.2%	2.7
Excess	1.5%	0.8%	-0.1%	0.7%	-1.5

(1) Includes the historical returns of AQR and terminated managers previously classified as "Semi-Passive Developed Markets"

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Emerging Markets										
MARTIN CURRIE	**$534,111,028**	**3.8%**	**5.2%**	**47.8%**	**47.8%**	**15.0%**			**16.2%**	**04/2017**
BENCHMARK EM			5.0	40.9	40.9	11.3			11.4	04/2017
Excess			0.2	6.9	6.9	3.7			4.8	
MACQUARIE	**487,627,545**	**3.4**	**3.8**	**41.1**	**41.1**	**14.7**			**14.1**	**04/2017**
BENCHMARK EM			5.0	40.9	40.9	11.3			11.4	04/2017
Excess			-1.2	0.2	0.2	3.4			2.6	
MORGAN STANLEY	**590,167,895**	**4.1**	**6.5**	**42.2**	**42.2**	**11.5**	**11.7%**	**5.1%**	**10.0**	**01/2001**
BENCHMARK EM			5.0	40.9	40.9	11.3	13.0	4.3	9.8	01/2001
Excess			1.4	1.3	1.3	0.2	-1.3	0.8	0.2	
NEUBERGER BERMAN	**448,808,254**	**3.2**	**2.3**	**33.0**	**33.0**	**8.6**			**10.1**	**04/2017**
BENCHMARK EM			5.0	40.9	40.9	11.3			11.4	04/2017
Excess			-2.7	-7.9	-7.9	-2.7			-1.4	
PZENA	**391,672,765**	**2.8**	**3.3**	**55.7**	**55.7**	**10.6**			**9.3**	**04/2017**
BENCHMARK EM			5.0	40.9	40.9	11.3			11.4	04/2017
Excess			-1.7	14.8	14.8	-0.7			-2.1	
ROCK CREEK	**483,629,672**	**3.4**	**4.1**	**41.9**	**41.9**	**12.4**			**11.2**	**04/2017**
BENCHMARK EM			5.0	40.9	40.9	11.3			11.4	04/2017
Excess			-0.9	1.0	1.0	1.1			-0.2	

STATE STREET

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Active Emerging Markets					
MARTIN CURRIE	**26.5%**	**27.3%**	**-16.6%**		
BENCHMARK EM	18.3	18.4	-14.6		
Excess	8.2	8.8	-2.0		
MACQUARIE	**24.2**	**23.2**	**-13.3**		
BENCHMARK EM	18.3	18.4	-14.6		
Excess	5.9	4.7	1.3		
MORGAN STANLEY	**15.7**	**20.4**	**-16.7**	**37.9%**	**6.1%**
BENCHMARK EM	18.3	18.4	-14.6	37.3	11.2
Excess	-2.6	1.9	-2.2	0.6	-5.1
NEUBERGER BERMAN	**14.2**	**19.7**	**-17.1**		
BENCHMARK EM	18.3	18.4	-14.6		
Excess	-4.1	1.3	-2.6		
PZENA	**7.7**	**13.4**	**-10.8**		
BENCHMARK EM	18.3	18.4	-14.6		
Excess	-10.6	-5.1	3.8		
ROCK CREEK	**22.0**	**22.3**	**-17.6**		
BENCHMARK EM	18.3	18.4	-14.6		
Excess	3.7	3.9	-3.1		

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Total Emerging Markets										
ACTIVE EMERGING MARKETS AGGREGATE	**$2,936,017,159**	**20.6%**	**4.3%**	**43.8%**	**43.8%**	**12.1%**	**12.3%**	**4.1%**		
BENCHMARK EM			5.0	40.9	40.9	11.3	13.0	4.3		
Excess			-0.7	2.9	2.9	0.8	-0.7	-0.2		
SSGA EMERGING MARKETS PASSIVE	**1,144,127,610**	**8.0**	**4.9**	**40.2**	**40.2**	**11.2**	**12.9**		**6.9**	**01/2012**
BENCHMARK EM			5.0	40.9	40.9	11.3	13.0		6.9	01/2012
Excess			-0.1	-0.7	-0.7	-0.1	-0.1		0.0	
EMERGING MARKETS TOTAL	**4,080,144,769**	**28.7**	**4.5**	**42.7**	**42.7**	**11.8**	**12.7**	**4.2**		
BENCHMARK EM			5.0	40.9	40.9	11.3	13.0	4.3		
Excess			-0.5	1.8	1.8	0.5	-0.3	-0.1		

Note: Earnest Partners EM transitioned its portfolio benchmark to the MSCI China A Index (Gross) during December 2020. Post publication of the 12-31-2020 Comprehensive Performance Report, an error was discovered in the performance reported in that period for Earnest Partners EM as it transitioned from the Emerging Markets Total to the China Only Aggregate. The 6-30-2021 returns reflect the following performance that should have been reported for the period ending 12-31-2020:
Earnest Partners EM 4Q20: 26.3, FYTD: 35.1, 1 Year: 9.6, 3 Year: 5.0, Since Inception: 9.7, Ending Market Value: $209,952,131
Active Emerging Markets 4Q20: 20.8, FYTD: 32.9, 1 Year: 17.6, 3 Year: 6.4, 5 Year: 11.7, 10 year: 3.2, Ending Market Value: $3,086,121,450
Emerging Markets Total 4Q20: 20.4, FYTD: 32.2, 1 Year: 17.9, 3 Year: 6.3, 5 Year: 12.2, 10 year: 3.4, Ending Market Value: $4,270,411,993
Total International Equity 4Q20: 17.0, 1 Year: 11.4, Ending Market Value: $14,085,885,523

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Total Emerging Markets					
ACTIVE EMERGING MARKETS AGGREGATE	**17.6%**	**21.4%**	**-15.6%**	**37.2%**	**5.3%**
BENCHMARK EM	18.3	18.4	-14.6	37.3	11.2
Excess	-0.7	3.0	-1.0	-0.1	-5.9
SSGA EMERGING MARKETS PASSIVE	**18.3%**	**18.1%**	**-14.7%**	**37.4%**	**11.1**
BENCHMARK EM	18.3%	18.4%	-14.6%	37.3%	11.2
Excess	0.0%	-0.3%	-0.1%	0.1%	-0.1
EMERGING MARKETS TOTAL	**17.9%**	**20.3%**	**-15.4%**	**37.7%**	**7.5**
BENCHMARK EM	18.3%	18.4%	-14.6%	37.3%	11.2
Excess	-0.4%	1.9%	-0.8%	0.4%	-3.7

Note: Earnest Partners EM transitioned its portfolio benchmark to the MSCI China A Index (Gross) during December 2020. Post publication of the 12-31-2020 Comprehensive Performance Report, an error was discovered in the performance reported in that period for Earnest Partners EM as it transitioned from the Emerging Markets Total to the China Only Aggregate. The 6-30-2021 returns reflect the following performance that should have been reported for the period ending 12-31-2020:
Earnest Partners EM 4Q20: 26.3, FYTD: 35.1, 1 Year: 9.6, 3 Year: 5.0, Since Inception: 9.7, Ending Market Value: $209,952,131
Active Emerging Markets 4Q20: 20.8, FYTD: 32.9, 1 Year: 17.6, 3 Year: 6.4, 5 Year: 11.7, 10 year: 3.2, Ending Market Value: $3,086,121,450
Emerging Markets Total 4Q20: 20.4, FYTD: 32.2, 1 Year: 17.9, 3 Year: 6.3, 5 Year: 12.2, 10 year: 3.4, Ending Market Value: $4,270,411,993
Total International Equity 4Q20: 17.0, 1 Year: 11.4, Ending Market Value: $14,085,885,523

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active ACWI ex-US										
EARNEST PARTNERS ACWI EX US	**$399,133,953**	**2.8%**	**7.8%**						**12.0%**	**01/2021**
MSCI AC WORLD ex US (NET) - DAILY			5.5%						9.2%	01/2021
Excess			2.3%						2.9%	
TOTAL ACWI EX-US AGGREGATE	**$399,133,953**	**2.8%**	**7.8%**							
MSCI AC WORLD ex US (NET) - DAILY			5.5%							
Excess			2.3%							

STATE STREET.

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Active ACWI ex-US					
EARNEST PARTNERS ACWI EX US					
MSCI AC WORLD ex US (NET) - DAILY					
Excess					
TOTAL ACWI EX-US AGGREGATE					
MSCI AC WORLD ex US (NET) - DAILY					
Excess					

Minnesota State Board of Investment
Quarter Ending June 30, 2021
International Equity Managers

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
China Only Managers										
EARNEST PARTNERS CHINA	**$207,260,997**		**5.5%**						**-1.3%**	**01/2021**
MSCI China A			9.2						4.6	01/2021
Excess			-3.7						-5.9	
CHINA ONLY AGGREGATE	**$207,260,997**		**5.5%**							
MSCI China A			9.2%							
Excess			-3.7%							

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
China Only Managers					
EARNEST PARTNERS CHINA					
MSCI China A					
Excess					
CHINA ONLY AGGREGATE					
MSCI China A					
Excess					

This page intentionally left blank.

Global Equity
June 30, 2021

Global Equity Managers

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
ARIEL INVESTMENTS	**$377,330,544**	**32.2%**	**5.3%**						**9.6%**	**01/2021**
MSCI AC WORLD NET USD DAILY			7.4						12.3	01/2021
Excess			-2.1						-2.7	
BAILLIE GIFFORD	**353,585,473**	**30.2**	**14.3**						**11.9**	**01/2021**
MSCI AC WORLD NET USD DAILY			7.4						12.3	01/2021
Excess			6.9						-0.4	
MARTIN CURRIE INVESTMENTS - GLOBAL EQ	**439,209,292**	**37.5**	**12.7**						**11.7**	**01/2021**
MSCI AC WORLD NET USD DAILY			7.4						12.3	01/2021
Excess			5.3						-0.6	
GLOBAL EQUITY	**1,170,125,309**	**100.0**	**10.7**						**11.1**	**01/2021**
MSCI AC WORLD NET USD DAILY			7.4						12.3	01/2021
Excess			3.3						-1.2	

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Global Equity Managers					
ARIEL INVESTMENTS					
MSCI AC WORLD NET USD DAILY					
Excess					
BAILLIE GIFFORD					
MSCI AC WORLD NET USD DAILY					
Excess					
MARTIN CURRIE INVESTMENTS - GLOBAL EQ					
MSCI AC WORLD NET USD DAILY					
Excess					
GLOBAL EQUITY					
MSCI AC WORLD NET USD DAILY					
Excess					

This page intentionally left blank.

Core/Core Plus Bonds

June 30, 2021

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Bonds										
CORE (1)	**$2,009,094,714**	**39.9%**	**2.0%**							
BBG BARC Agg (Dly)			1.8							
Excess			0.1							
CORE PLUS (1)	**3,027,169,557**	**60.1**	**2.1**							
BBG BARC Agg (Dly)			1.8							
Excess			0.3							
TRANSITION AGGREGATE CORE BONDS (2)	19,070	0.0								
TOTAL CORE/CORE PLUS BONDS (3)	**5,036,283,342**	**100.0**	**2.1**	**2.0**	**2.0**	**6.4**	**4.0**	**4.2**	**7.4**	**07/1984**
BBG BARC Agg Bd			1.8	-0.3	-0.3	5.3	3.0	3.4	7.0	07/1984
Excess			0.2	2.4	2.4	1.1	1.0	0.8	0.4	

(1) Prior to 12/1/2020 the Core and Core Plus managers were categorized as Active or Semi-Passive. For historical performance of each manager, see the following pages in this report. For information on the historical performance of the previous groupings refer to the 9/30/2020 Comprehensive Performance Report.

(2) The Transition Aggregate Core Bonds includes core bonds securities that are being transition to a different manager.

(3) The current Core Bonds Benchmark is the Bloomberg Barclays U.S. Aggregate calculated daily: BBG BARC Agg (Dly). For historical benchmark details please refer to the addendum of this report.

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.

STATE STREET.

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Bonds					
CORE (1)					
BBG BARC Agg (Dly)					
Excess					
CORE PLUS (1)					
BBG BARC Agg (Dly)					
Excess					
TRANSITION AGGREGATE CORE BONDS (2)					
TOTAL CORE/CORE PLUS BONDS (3)	**9.7%**	**9.7%**	**-0.0%**	**4.2%**	**3.6**
BBG BARC Agg Bd	7.5%	8.7%	0.0%	3.5%	2.6
Excess	2.2%	1.0%	-0.1%	0.7%	0.9

(1) Prior to 12/1/2020 the Core and Core Plus managers were categorized as Active or Semi-Passive. For historical performance of each manager, see the following pages in this report. For information on the historical performance of the previous groupings refer to the 9/30/2020 Comprehensive Performance Report.

(2) The Transition Aggregate Core Bonds includes core bonds securities that are being transition to a different manager.

(3) The current Core Bonds Benchmark is the Bloomberg Barclays U.S. Aggregate calculated daily: BBG BARC Agg (Dly). For historical benchmark details please refer to the addendum of this report.

Note: All aggregates include the performance of terminated managers. Inception refers to the date of retention by the SBI.

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Active Core										
DODGE & COX	**$1,064,775,145**	**21.1%**	**2.0%**	**3.0%**	**3.0%**	**6.4%**	**4.4%**	**4.4%**	**6.0%**	**02/2000**
BBG BARC Agg (Dly)			1.8	-0.3	-0.3	5.3	3.0	3.4	5.0	02/2000
Excess			0.1	3.4	3.4	1.0	1.4	1.0	1.0	
BLACKROCK	**944,319,569**	**18.8**	**2.0**	**0.2**	**0.2**	**5.8**	**3.3**	**3.7**	**5.2**	**04/1996**
BBG BARC Agg (Dly)			1.8	-0.3	-0.3	5.3	3.0	3.4	5.1	04/1996
Excess			0.1	0.6	0.6	0.4	0.3	0.3	0.1	
CORE	**2,009,094,714**	**39.9**	**2.0**							
BBG BARC Agg (Dly)			1.8							
Excess			0.1							

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Active Core					
DODGE & COX	**9.4%**	**9.6%**	**-0.0%**	**4.2%**	**4.8%**
BBG BARC Agg (Dly)	7.5	8.7	0.0	3.5	2.6
Excess	1.8	0.9	-0.1	0.7	2.2
BLACKROCK	**8.3**	**9.3**	**-0.1**	**3.7**	**2.8**
BBG BARC Agg (Dly)	7.5	8.7	0.0	3.5	2.6
Excess	0.8	0.6	-0.2	0.1	0.1
CORE					
BBG BARC Agg (Dly)					
Excess					

STATE STREET.

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Core Plus Bonds										
GOLDMAN SACHS	**$898,225,979**	**17.8%**	**2.2%**	**0.4%**	**0.4%**	**5.9%**	**3.5%**	**3.9%**	**5.5%**	**07/1993**
BBG BARC Agg (Dly)			1.8	-0.3	-0.3	5.3	3.0	3.4	5.2	07/1993
Excess			0.3	0.7	0.7	0.6	0.5	0.5	0.4	
NEUBERGER	**989,194,322**	**19.6**	**2.0**	**2.0**	**2.0**	**6.5**	**3.7**	**3.9**	**6.4**	**07/1988**
BBG BARC Agg (Dly)			1.8	-0.3	-0.3	5.3	3.0	3.4	6.1	07/1988
Excess			0.2	2.3	2.3	1.1	0.7	0.5	0.3	
WESTERN	**1,139,749,256**	**22.6**	**2.3**	**3.5**	**3.5**	**7.3**	**4.9**	**4.9**	**8.3**	**07/1984**
BBG BARC Agg (Dly)			1.8	-0.3	-0.3	5.3	3.0	3.4	7.0	07/1984
Excess			0.4	3.8	3.8	2.0	1.9	1.5	1.2	
CORE PLUS	**3,027,169,557**	**60.1**	**2.1**							
BBG BARC Agg (Dly)			1.8							
Excess			0.3							

STATE STREET.

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Core Plus Bonds					
GOLDMAN SACHS	**9.0%**	**9.6%**	**-0.0%**	**3.9%**	**3.0%**
BBG BARC Agg (Dly)	7.5	8.7	0.0	3.5	2.6
Excess	1.5	0.9	-0.0	0.4	0.3
NEUBERGER	**9.9**	**9.0**	**-0.1**	**3.6**	**2.7**
BBG BARC Agg (Dly)	7.5	8.7	0.0	3.5	2.6
Excess	2.4	0.3	-0.1	0.0	0.1
WESTERN ASSET MANAGEMENT	**10.9**	**11.1**	**-0.2**	**5.6**	**4.9**
BBG BARC Agg (Dly)	7.5	8.7	0.0	3.5	2.6
Excess	3.4	2.4	-0.3	2.1	2.2
CORE PLUS					
BBG BARC Agg (Dly)					
Excess					

This page intentionally left blank.

Return Seeking Bonds

June 30, 2021

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Return Seeking Bonds Managers										
COLUMBIA CREDIT PLUS	**$936,461,836**	**23.2%**	**2.4%**						**2.2%**	**12/2020**
Credit Plus Benchmark			2.4						-0.1	12/2020
Excess			-0.0						2.4	
PIMCO CREDIT PLUS	**813,035,813**	**20.2**	**2.5**						**1.1**	**12/2020**
Credit Plus Benchmark			2.4						-0.1	12/2020
Excess			0.1						1.3	
CREDIT PLUS	**1,749,497,649**	**43.4**	**2.5**						**1.7**	**12/2020**
Credit Plus Benchmark			2.4						-0.1	12/2020
Excess			0.0						1.8	
BLACKROCK OPPORTUNISTIC	**505,271,699**	**12.5**	**1.0**						**0.9**	**12/2020**
ICE BofA US 3-Month Treasury Bill			-0.0						0.0	12/2020
Excess			1.0						0.9	
ASHMORE EMERGING MARKET	**296,767,510**	**7.4**	**4.3**						**-1.9**	**01/2021**
JPM JEMB Sovereign-only 50-50			3.8						-2.0	01/2021
Excess			0.5						0.1	
TCW SECURITIZED CREDIT	**299,878,902**	**7.4**								
ICE BofA US 3-Month Treasury Bill										
Excess										

Note: Since it was funded in June 2021, the Market Value of TCW Securitized Credit is included in the Return Seeking Bonds Ending Market Value as of June 30, 2021 and its return will be part of the aggregate starting July 1, 2021.

STATE STREET.

Return Seeking Bonds Managers	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
PAYDEN RYGEL	**$307,028,507**	**7.6%**	**2.9%**						**2.1%**	**01/2021**
Multi-Asset Credit Benchmark			2.7						1.9	01/2021
Excess			0.3						0.3	
PGIM	**304,480,415**	**7.6**	**2.9**						**1.1**	**01/2021**
Multi-Asset Credit Benchmark			2.7						1.9	01/2021
Excess			0.2						-0.8	
MULTI-ASSET CREDIT	**611,508,923**	**15.2**	**2.9**						**1.6**	**01/2021**
Multi-Asset Credit Benchmark			2.7						1.9	01/2021
Excess			0.2						-0.3	
KKR	**309,420,135**	**7.7**	**2.5**						**2.7**	**01/2021**
ICE BofA US Cash Pay HY Constrained			2.7						3.6	01/2021
Excess			-0.2						-0.9	
OAKTREE	**258,775,732**	**6.4**	**2.6**						**2.8**	**01/2021**
ICE BofA US Cash Pay HY Constrained			2.7						3.6	01/2021
Excess			-0.2						-0.8	
HIGH YIELD	**568,195,867**	**14.1**	**2.5**						**2.8**	**01/2021**
ICE BofA US Cash Pay HY Constrained			2.7						3.6	01/2021
Excess			-0.2						-0.8	

Minnesota State Board of Investment
Quarter Ending June 30, 2021
Return Seeking Bonds Managers

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Return Seeking Bonds										
CREDIT PLUS	**$1,749,497,649**	**43.4%**	**2.5%**						**1.7%**	**12/2020**
Credit Plus Benchmark			2.4						-0.1	12/2020
Excess			0.0						1.8	
OPPORTUNISTIC FI	**505,271,699**	**12.5**	**1.0**						**0.9**	**12/2020**
ICE BofA US 3-Month Treasury Bill			-0.0						0.0	12/2020
Excess			1.0						0.9	
EMERGING MARKET DEBT	**296,767,510**	**7.4**	**4.3**						**-1.9**	**01/2021**
JPM JEMB Sovereign-only 50-50			3.8						-2.0	01/2021
Excess			0.5						0.1	
Securitized Credit	**299,878,902**	**7.4**								
ICE BofA US 3-Month Treasury Bill										
Excess										
MULTI-ASSET CREDIT	**611,508,923**	**15.2**	**2.9**						**1.6**	**01/2021**
Multi-Asset Credit Benchmark			2.7						1.9	01/2021
Excess			0.2						-0.3	
HIGH YIELD	**568,195,867**	**14.1**	**2.5**						**2.8**	**01/2021**
ICE BofA US Cash Pay HY Constrained			2.7						3.6	01/2021
Excess			-0.2						-0.8	
RETURN SEEKING BONDS	**4,031,120,550**	**100.0**	**2.4**						**1.8**	**12/2020**
Return Seeking Fixed Income Benchmark			2.2						1.1	12/2020
Excess			0.2						0.7	

STATE STREET

Treasuries
June 30, 2021

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Treasuries Managers										
BLACKROCK	**$2,761,320,921**	**31.8%**	**3.9%**	**-6.6%**	**-6.6%**	**6.4%**			**5.6%**	**02/2018**
BBG BARC 5Y + Us Tsy Idx			3.9	-6.7	-6.7	6.5			5.8	02/2018
Excess			0.0	0.1	0.1	-0.1			-0.1	
GOLDMAN SACHS	**2,952,461,435**	**34.0**	**3.9**	**-6.2**	**-6.2**	**6.5**			**5.8**	**02/2018**
BBG BARC 5Y + Us Tsy Idx			3.9	-6.7	-6.7	6.5			5.8	02/2018
Excess			-0.0	0.5	0.5	0.0			0.0	
NEUBERGER	**2,973,529,098**	**34.2**	**3.8**	**-5.8**	**-5.8**	**6.6**			**5.8**	**02/2018**
BBG BARC 5Y + Us Tsy Idx			3.9	-6.7	-6.7	6.5			5.8	02/2018
Excess			-0.1	1.0	1.0	0.1			0.1	
TREASURIES TRANSITION ACCOUNT	0	0.0								
TOTAL TREASURIES	**8,687,311,453**	**100.0**	**3.9**	**-6.1**	**-6.1**	**6.5**			**5.8%**	**02/2018**
BBG BARC 5Y + Us Tsy Idx			3.9	-6.7	-6.7	6.5			5.8%	02/2018
Excess			-0.0	0.6	0.6	0.0			0.0%	

STATE STREET.

	2020 Calendar Return	2019 Calendar Return	2018 Calendar Return	2017 Calendar Return	2016 Calendar Return
Treasuries Managers					
BLACKROCK	**12.5%**	**10.4%**			
BBG BARC 5Y + Us Tsy Idx	12.8	10.4			
Excess	-0.3	-0.1			
GOLDMAN SACHS	**12.7**	**10.6**			
BBG BARC 5Y + Us Tsy Idx	12.8	10.4			
Excess	-0.1	0.1			
NEUBERGER	**12.8**	**10.4**			
BBG BARC 5Y + Us Tsy Idx	12.8	10.4			
Excess	-0.1	-0.0			
TOTAL TREASURIES	**12.7%**	**10.4%**			
BBG BARC 5Y + Us Tsy Idx	12.8%	10.4%			
Excess	-0.2%	0.0%			

This page intentionally left blank.

Laddered Bonds + Cash

June 30, 2021

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Laddered Bond and Cash Managers										
Neuberger Berman Ladder Bond	**$1,392,249,403**	**33.1%**	**0.0%**						**0.2%**	**11/2020**
ICE BofA US 3-Month Treasury Bill			-0.0						0.0	11/2020
Excess			0.0						0.1	
Goldman Sachs Ladder Bond	**1,391,952,372**	**33.1**	**0.1**						**0.1**	**11/2020**
ICE BofA US 3-Month Treasury Bill			-0.0						0.0	11/2020
Excess			0.1						0.1	
Treasury Ladder Aggregate	**2,784,201,776**	**66.2**	**0.1**						**0.1**	**11/2020**
ICE BofA US 3-Month Treasury Bill			-0.0						0.0	11/2020
Excess			0.1						0.1	
COMBINED PLAN CASH (1)	**1,390,401,838**	**33.1**	**0.0**							
iMoneyNet Money Fund Average- All Taxable			0.0							
Excess			0.0							
TEACHERS RETIREMENT CD REPO (1)	**28,823,942**	**0.7**	**0.0**							
iMoneyNet Money Fund Average- All Taxable			0.0							
Excess			0.0							
Laddered Bond + Cash	**4,203,427,555**	**100.0**	**0.0**							
iMoneyNet Money Fund Average- All Taxable			0.0							
Excess			0.0							

(1) Prior to 10/1/2020 the returns for the cash accounts was not reported in this format.

Uninvested Private Markets
June 30, 2021

	Ending Market Value	Portfolio Weight	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
Uninvested Private Markets Managers										
NISA PRIVATE MKT UNINV OVERLAY	**$1,739,825,830**	**23.4%**	**8.2%**						**14.6%**	**01/2021**
S&P 500 INDEX (DAILY)			8.5						15.3	01/2021
Excess			-0.3						-0.6	
BLACKROCK SP INDEX	**5,694,405,811**	**76.6**	**8.6**						**15.4**	**01/2021**
S&P 500 INDEX (DAILY)			8.5						15.3	01/2021
Excess			0.1						0.1	
UNINVESTED PRIVATE PMARKETS	**7,434,231,641**	**100.0**	**8.5**						**15.1**	**01/2021**
S&P 500 INDEX (DAILY)			8.5						15.3	01/2021
Excess			-0.0						-0.1	

Private Markets
June 30, 2021

Combined Funds Asset Class Performance Summary

Private Markets

	Last Qtr	FYTD	1 Year	3 Year	5 Year	10 Year	20 Year	25 year	30 year
Private Markets - Invested	9.9%	37.8%	37.8%	14.0%	15.3%	12.3%	12.6%	13.7%	12.9%
Private Markets-Uninvested(1)	8.5								
Private Equity	10.9%	49.4%	49.4%	21.0%	20.3%	16.0%	14.3%	15.6%	
Private Credit	7.9%	18.4%	18.4%	9.6%	12.1%	12.1%	11.9%	12.4%	
Resources	9.4%	16.9%	16.9%	-4.2%	3.2%	1.6%	11.6%	12.8%	
Real Estate	4.7%	14.4%	14.4%	8.9%	9.3%	11.0%	8.5%	9.8%	

Private Markets

The time-weighted rates of return for the Private Markets portfolio are shown here. Private Markets included Private Equity, Private Credit, Resources, and Real Estate. Some of the existing investments are relatively immature and returns may not be indicative of future results.

Private Equity Investments - The objectives of the Private Equity portfolio, which may include leveraged buyouts, growth equity, venture capital and special situations, are to achieve attractive returns and to provide overall portfolio diversification to the total plan.

Private Credit Investments - The objectives of the Private Credit portfolio, which may include mezzanine debt, direct lending, and other forms of non-investment grade fixed income instruments, are to achieve a high total return over a full market cycle and to provide some degree of downside protection and typically provide current income in the form of a coupon. In certain situations, investments in the Private Credit portfolio also provide an equity component of return in the form of warrants or re-organized equity.

Resource Investments - The objectives of the Resources portfolio, which may include energy, infrastructure, and other hard assets, are to provide protection against the risks associated with inflation and to provide overall portfolio diversification to the total plan.

Real Estate Investments - The objectives of the Real Estate portfolio, which may include core and non-core real estate investments, are to achieve attractive returns, preserve capital, provide protection against risks associated with inflation, and provide overall portfolio diversification to the total plan.

The SBI also monitors Private Markets performance using money-weighted return metrics such as Internal Rate of Return and Multiple of Invested Capital. For money-weighted return metrics please refer to the Combined Funds Performance Report.

(1) The Uninvested portion of the Private Markets allocation is invested in a combination of a passively managed S&P 500 Index strategy and a cash overlay strategy invested in equity derivatives and cash

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Private Equity	**18,187,556,473**	**12,597,844,540**	**11,008,998,026**	**6,811,391,898**	**9,999,142,460**	**1.67**	**13.76**	
Adams Street Partners, LLC	200,000,000	140,814,692	69,193,554	59,185,308	124,213,562	1.37	10.77	
Adams Street Global Secondary Fund 5 LP	100,000,000	77,114,692	52,967,173	22,885,308	47,445,186	1.30	6.39	2012
Adams Street Global Secondary Fund 6	100,000,000	63,700,000	16,226,381	36,300,000	76,768,376	1.46	39.43	2017
Advent International Group	355,000,000	281,185,339	251,578,104	80,574,023	297,315,823	1.95	18.55	
Advent International GPE IX	115,000,000	48,601,383	9,195,408	70,074,025	70,705,754	1.64	53.06	2019
Advent International GPE VI-A, L.P.	50,000,000	52,993,313	103,400,194	0	4,962,696	2.04	16.63	2008
Advent International GPE VII, L.P.	90,000,000	84,690,641	104,146,259	5,400,000	57,516,629	1.91	14.90	2012
Advent International GPE VIII-B	100,000,000	94,900,002	34,836,243	5,099,998	164,130,743	2.10	25.93	2016
Affinity Ventures	9,000,000	9,000,000	3,590,011	0	977,517	0.51	-11.67	
Affinity Ventures IV, L.P.	4,000,000	4,000,000	1,541,970	0	3,279	0.39	-39.75	2004
Affinity Ventures V, L.P.	5,000,000	5,000,000	2,048,042	0	974,239	0.60	-8.09	2008
Apax Partners	500,000,000	411,885,838	381,821,338	148,597,487	378,675,278	1.85	19.72	
Apax IX USD L.P.	150,000,000	149,445,866	59,500,736	16,028,951	239,512,991	2.00	30.52	2016
APAX VIII - USD	200,000,000	233,434,305	322,489,935	11,743,535	98,228,357	1.80	16.18	2013
Apax X USD L.P.	150,000,000	29,005,667	(169,333)	120,825,000	40,933,930	1.41	140.45	2019
Arsenal Capital Partners	75,000,000	52,537,813	2,474,447	24,823,725	62,103,559	1.23	17.12	
Arsenal Capital Partners V, L.P.	75,000,000	52,537,813	2,474,447	24,823,725	62,103,559	1.23	17.12	2019
Asia Alternatives	299,000,000	82,908,062	5,326,224	218,472,920	87,268,915	1.12	10.10	
Asia Alternatives Capital Partners V	99,000,000	72,765,776	5,326,224	28,615,206	77,126,629	1.13	10.30	2017
MN Asia Investors	200,000,000	10,142,286	0	189,857,714	10,142,286	1.00	0.00	2020
Banc Fund	276,801,387	284,105,387	219,830,835	0	193,517,808	1.45	9.36	
Banc Fund IX, L.P.	107,205,932	107,205,932	19,549,737	0	109,174,019	1.20	4.14	2014
Banc Fund VIII, L.P.	98,250,000	98,250,000	200,281,098	0	4,484,785	2.08	12.38	2008
Banc Fund X, L.P.	71,345,455	78,649,455	0	0	79,859,005	1.02	1.11	2018
BlackRock	250,000,000	288,941,529	2,660,745	0	345,752,493	1.21	21.31	
BlackRock Long Term Capital, SCSP	250,000,000	288,941,529	2,660,745	0	345,752,493	1.21	21.31	2019
Blackstone Group L.P.	1,235,000,000	587,319,110	601,657,185	726,840,172	351,046,425	1.62	16.13	
Blackstone Capital Partners Asia II	270,000,000	0	0	270,000,000	0	0.00		2021
Blackstone Capital Partners IV, L.P.	70,000,000	84,459,884	200,546,520	1,832,302	1,084,130	2.39	37.02	2002
Blackstone Capital Partners V L.P.	140,000,000	152,334,321	242,056,247	7,027,560	3,735,777	1.61	8.00	2006
Blackstone Capital Partners VI, L.P.	100,000,000	106,313,194	121,070,894	11,175,309	62,800,180	1.73	12.65	2008
Blackstone Capital Partners VII	130,000,000	135,388,452	30,411,711	10,977,430	157,872,453	1.39	15.68	2015
Blackstone Capital Partners VIII LP	150,000,000	18,737,625	0	133,032,293	19,111,068	1.02	2.26	2019
Blackstone Growth	250,000,000	75,085,635	7,571,813	182,795,278	91,442,817	1.32	84.65	2020
Blackstone Supplemental Account - M	125,000,000	15,000,000	0	110,000,000	15,000,000	1.00		2021
Blackstone Strategic Partners	815,500,000	611,008,022	699,555,287	269,490,184	235,090,429	1.53	11.28	
Strategic Partners III VC, L.P.	25,000,000	25,059,678	33,874,990	1,008,025	293,802	1.36	5.99	2004
Strategic Partners III-B, L.P.	100,000,000	79,629,077	118,509,586	12,304,709	229,439	1.49	6.35	2004
Strategic Partners IV VC, L.P.	40,500,000	42,125,530	61,109,597	2,297,212	3,158,678	1.53	9.17	2008
Strategic Partners IV-B	100,000,000	99,298,586	149,265,064	11,729,144	6,734,490	1.57	12.23	2008

Minnesota State Board of Investment
Private Markets Investments as of June 30, 2021

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Strategic Partners V, LP	100,000,000	86,902,843	128,183,083	21,348,547	13,256,455	1.63	18.64	2011
Strategic Partners VI, L.P.	150,000,000	101,728,787	112,040,780	54,622,199	39,968,364	1.49	15.00	2014
Strategic Partners VII, L.P.	150,000,000	106,414,230	68,822,187	58,458,516	98,741,396	1.57	19.69	2016
Strategic Partners VIII	150,000,000	69,849,293	27,750,000	107,721,832	72,707,806	1.44	47.39	2018
Bridgepoint	174,594,259	90,748,384	13,311,036	83,845,875	91,220,890	1.15	15.02	
Bridgepoint Europe VI L.P.	174,594,259	90,748,384	13,311,036	83,845,875	91,220,890	1.15	15.02	2018
Brookfield Asset Management Inc.	350,000,000	222,377,279	163,721,911	159,398,497	232,382,703	1.78	44.08	
Brookfield Capital Partners Fund IV	100,000,000	99,945,063	152,347,702	20,456,504	100,047,680	2.53	50.47	2015
Brookfield Capital Partners V L.P.	250,000,000	122,432,216	11,374,209	138,941,994	132,335,023	1.17	15.30	2018
CVC Capital Partners	393,862,288	424,349,523	452,524,960	39,824,089	312,924,494	1.80	16.58	
CVC Capital Partners VI	259,852,277	270,536,478	160,082,876	38,130,339	306,941,872	1.73	16.33	2013
CVC European Equity Partners V, L.P.	134,010,011	153,813,045	292,442,084	1,693,749	5,982,622	1.94	16.75	2008
Cardinal Partners	10,000,000	10,000,000	39,196,082	0	30,547	3.92	10.61	
DSV Partners IV	10,000,000	10,000,000	39,196,082	0	30,547	3.92	10.61	1985
Carlyle Group	150,000,000	94,074,232	4,293,406	60,219,174	98,214,972	1.09	7.17	
Carlyle Partners VII, L.P.	150,000,000	94,074,232	4,293,406	60,219,174	98,214,972	1.09	7.17	2017
Chicago Growth Partners	60,000,000	58,347,626	123,371,040	1,652,374	563,204	2.12	19.55	
Chicago Growth Partners II, L.P.	60,000,000	58,347,626	123,371,040	1,652,374	563,204	2.12	19.55	2008
Court Square	500,000,000	431,277,185	462,015,120	105,654,366	254,649,737	1.66	13.98	
Court Square Capital Partners II, L.P.	175,000,000	170,029,204	295,667,586	16,757,741	9,321,045	1.79	12.56	2006
Court Square Capital Partners III, L.P.	175,000,000	184,658,927	162,316,821	11,523,455	160,479,665	1.75	17.82	2012
Court Square Capital Partners IV, L.P.	150,000,000	76,589,054	4,030,713	77,373,170	84,849,028	1.16	19.79	2018
Crescendo	101,500,000	103,101,226	57,982,654	0	198,487	0.56	-4.62	
Crescendo Ventures IV	101,500,000	103,101,226	57,982,654	0	198,487	0.56	-4.62	2000
GTCR	210,000,000	209,767,876	390,134,683	15,509,513	234,705,148	2.98	28.85	
GTCR Fund X	100,000,000	104,934,096	202,619,633	6,751,396	8,943,208	2.02	21.25	2010
GTCR XI	110,000,000	104,833,780	187,515,050	8,758,117	225,761,940	3.94	42.45	2013
Goldman, Sachs & Co.	549,800,000	410,775,806	391,340,962	177,021,820	262,161,187	1.59	14.75	
GS Capital Partners V, L.P.	100,000,000	74,319,006	191,435,136	1,041,099	594,587	2.58	18.24	2005
GS Capital Partners VI, L.P.	100,000,000	110,258,192	134,939,054	2,551,356	10,314,661	1.32	7.21	2007
GS China-US Cooperation Fund	99,800,000	17,140,445	0	82,834,000	20,739,612	1.21	10.94	2018
GS Vintage VII	100,000,000	81,423,688	34,626,483	53,355,459	83,126,394	1.45	17.12	2016
West Street Capital Partners VII, L.P.	150,000,000	127,634,475	30,340,289	37,239,906	147,385,933	1.39	18.54	2016
Goldner Hawn Johnson & Morrison	77,755,138	37,342,022	29,444,283	40,585,083	40,467,988	1.87	17.31	
GHJM TrailHead Fund	20,000,000	16,652,130	29,444,283	3,354,486	20,129,975	2.98	18.49	2012
Goldner Hawn Fund VII, L.P.	57,755,138	20,689,891	0	37,230,598	20,338,013	0.98	-1.95	2018
Green Equity Investors	325,000,000	271,965,590	173,610,323	89,637,774	292,660,124	1.71	14.78	
Green Equity Investors VI, L.P.	200,000,000	220,675,099	173,610,323	15,928,265	242,919,426	1.89	14.95	2012
Green Equity Investors VIII	125,000,000	51,290,491	0	73,709,509	49,740,698	0.97	-7.73	2020
HarbourVest*	21,670,737	20,931,185	22,559,062	825,693	9,013,964	1.51	12.96	
Dover Street VII Cayman Fund L.P.	2,198,112	2,073,906	1,676,852	132,416	210,619	0.91	-4.03	2014

Minnesota State Board of Investment
Private Markets Investments as of June 30, 2021

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
HarbourVest Intl PE Partners V-Cayman US	3,530,349	3,345,452	4,146,340	189,744	394,904	1.36	13.82	2014
Harbourvest Intl PE Partners VI-Cayman	4,244,667	4,039,120	3,891,727	207,533	3,548,391	1.84	16.02	2014
HarbourVest Partners VIII Cayman Buyout	4,506,711	4,387,189	5,260,942	156,000	884,314	1.40	13.42	2014
HarbourVest Partners VIII-Cayman Venture	7,190,898	7,085,519	7,583,201	140,000	3,975,737	1.63	13.27	2014
Hellman & Friedman	650,000,000	343,479,776	452,420,324	307,343,440	164,775,311	1.80	14.82	
Hellman & Friedman Capital Partners VI, L.P.	175,000,000	171,037,755	315,233,005	5,062,369	3,182,181	1.86	12.91	2007
Hellman & Friedman Capital Partners VII, L.P.	50,000,000	49,874,836	136,824,497	2,227,126	23,697,972	3.22	25.01	2009
Hellman & Friedman Capital Partners X	250,000,000	0	0	250,000,000	0	0.00		2021
Hellman & Friedman Investors IX, L.P.	175,000,000	122,567,185	362,822	50,053,945	137,895,159	1.13	16.58	2018
IK Limited	512,595,781	397,476,407	399,123,472	123,249,272	248,038,888	1.63	15.63	
IK Fund IX	161,093,205	47,012,513	0	114,080,316	41,681,208	0.89	-45.85	2019
IK Fund VII	180,702,687	178,607,264	272,031,170	8,994,193	58,538,692	1.85	14.51	2013
IK Fund VIII	170,799,889	171,856,630	127,092,302	174,763	147,818,988	1.60	19.74	2016
Kohlberg, Kravis, Roberts & Co.	1,297,000,000	721,416,319	811,703,830	625,025,007	452,630,781	1.75	13.67	
KKR 2006 Fund L.P.	200,000,000	218,786,463	354,417,654	3,300,979	40,388,001	1.80	9.22	2006
KKR Americas Fund XII L.P.	150,000,000	117,279,730	12,774,468	43,491,298	199,464,944	1.81	34.02	2016
KKR Asian Fund III	100,000,000	78,074,905	17,498,017	30,578,158	105,522,834	1.58	30.12	2017
KKR Asian Fund IV	150,000,000	11,850,929	0	138,149,071	12,050,522	1.02	1.68	2020
KKR Core Investments Partnership	97,000,000	29,082,291	234,159	68,852,487	30,422,768	1.05	5.43	2021
KKR Europe V	100,000,000	61,174,431	1,833,504	40,653,014	64,619,788	1.09	11.81	2018
KKR Millennium Fund	200,000,000	205,167,570	424,946,028	0	161,924	2.07	16.37	2002
KKR North America Fund XIII	300,000,000	0	0	300,000,000	0	0		2021
Lexington Partners	1,245,000,000	755,534,815	581,161,800	544,660,168	558,903,665	1.51	13.66	
Lexington Capital Partners IX, L.P.	150,000,000	56,068,052	14,288,512	102,331,330	66,920,616	1.45	75.37	2018
Lexington Capital Partners VI-B, L.P.	100,000,000	98,374,022	141,937,990	1,634,703	4,764,320	1.49	7.94	2005
Lexington Capital Partners VII, L.P.	200,000,000	172,466,709	244,134,392	38,059,995	39,549,688	1.64	14.58	2009
Lexington Capital Partners VIII, L.P.	150,000,000	136,386,669	101,606,285	32,663,555	108,569,385	1.54	18.14	2014
Lexington Co-Investment Partners IV	200,000,000	204,476,064	65,926,728	12,485,799	248,556,920	1.54	21.97	2017
Lexington Co-Investment Partners V	300,000,000	30,262,831	0	269,985,254	30,129,192	1.00	-0.44	2020
Lexington Co-Investment Partners V Overage	45,000,000	7,326,000	0	37,674,000	7,325,267	1.00	-0.02	2021
Lexington Middle Market Investors IV	100,000,000	50,174,468	13,267,893	49,825,532	53,088,276	1.32	30.45	2016
Madison Dearborn Capital Partners LLC	200,000,000	116,891,224	20,769,344	97,866,550	146,008,802	1.43	15.56	
Madison Dearborn Capital Partners VII, L.P.	100,000,000	94,557,774	20,769,344	20,200,000	118,498,010	1.47	14.57	2015
Madison Dearborn Capital Partners VIII-A, L.P	100,000,000	22,333,450	0	77,666,550	27,510,792	1.23	32.92	2019
Neuberger Berman LLC	625,000,000	309,927,688	216,412,772	492,269,530	281,603,199	1.61	36.06	
Dyal Capital Partners III	175,000,000	192,620,066	163,712,900	107,303,888	137,087,859	1.56	28.34	2015
Dyal Capital Partners IV	250,000,000	106,307,622	52,637,853	195,965,642	131,284,596	1.73	76.49	2018
Dyal Capital Partners V	200,000,000	11,000,000	62,019	189,000,000	13,230,745	1.21	21.05	2020
Nordic Capital	509,817,826	361,884,664	223,417,773	224,695,679	400,369,175	1.72	20.31	
Nordic Capital Fund VIII	177,406,380	220,475,964	214,277,024	29,326,195	170,908,834	1.75	16.65	2013
Nordic Capital Fund X	160,265,843	8,507,976	0	151,757,868	7,536,292	0.89	-11.42	2020

Minnesota State Board of Investment
Private Markets Investments as of June 30, 2021

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Nordic Capital IX Beta, L.P.	172,145,603	132,900,724	9,140,749	43,611,616	221,924,049	1.74	51.15	2017
North Sky Capital*	2,454,339	1,998,089	2,407,407	456,250	523,263	1.47	14.02	
North Sky Capital LBO Fund III, LP	1,070,259	720,259	942,598	350,000	135,332	1.50	14.27	2014
North Sky Capital Venture Fund III, LP	1,384,080	1,277,830	1,464,808	106,250	387,931	1.45	13.87	2014
Oak Hill Capital Management, Inc.	250,000,000	183,047,313	108,871,515	91,366,551	150,034,996	1.41	27.06	
Oak Hill Capital Partners IV Onshore LP	150,000,000	146,322,216	108,836,472	28,091,648	115,218,943	1.53	28.05	2016
Oak Hill Capital Partners V	100,000,000	36,725,097	35,043	63,274,903	34,816,053	0.95	-16.73	2018
Paine & Partners, LLC	225,000,000	110,028,699	37,082,219	117,792,303	92,089,141	1.17	7.05	
Paine Schwartz Food Chain Fund IV	75,000,000	64,218,599	35,334,371	11,854,555	49,705,426	1.32	8.44	2014
Paine Schwartz Food Chain Fund V, L.P.	150,000,000	45,810,100	1,747,848	105,937,748	42,383,715	0.96	-5.24	2018
Permal PE*	5,337,098	4,377,004	4,060,751	1,090,000	661,038	1.08	2.87	
Glouston Private Equity Opportunities IV	5,337,098	4,377,004	4,060,751	1,090,000	661,038	1.08	2.87	2014
Permira	463,158,759	367,433,079	323,720,166	134,289,258	514,702,834	2.28	25.03	
Permira V, L.P.	178,513,104	181,954,007	287,672,383	17,408,020	251,971,662	2.97	25.14	2013
Permira VI, L.P.	138,523,398	124,325,040	36,047,783	31,913,012	194,246,344	1.85	25.86	2016
Permira VII L.P.1	146,122,258	61,154,032	0	84,968,226	68,484,828	1.12	12.86	2019
Public Pension Capital Management	175,000,000	102,237,007	81,060,651	86,794,119	114,854,396	1.92	25.53	
Public Pension Capital, LLC	175,000,000	102,237,007	81,060,651	86,794,119	114,854,396	1.92	25.53	2014
Silver Lake Partners	435,000,000	423,208,020	491,456,857	33,350,680	380,619,525	2.06	16.01	
Silver Lake Partners II, L.P.	100,000,000	90,200,747	171,694,975	11,771,953	44,347	1.90	11.02	2004
Silver Lake Partners III, L.P.	100,000,000	93,729,450	190,188,507	9,528,468	29,865,162	2.35	18.77	2007
Silver Lake Partners IV	100,000,000	114,635,026	104,751,684	2,914,956	169,720,399	2.39	26.39	2012
Silver Lake Partners V, L.P.	135,000,000	124,642,797	24,821,691	9,135,303	180,989,618	1.65	31.71	2017
Split Rock	110,000,000	107,055,906	125,392,564	2,944,094	23,482,685	1.39	4.84	
Split Rock Partners II, LP	60,000,000	59,165,000	66,598,372	835,000	19,680,934	1.46	6.96	2008
Split Rock Partners LP	50,000,000	47,890,906	58,794,192	2,109,094	3,801,751	1.31	3.26	2005
Summit Partners	350,000,000	315,203,711	266,174,238	127,130,460	338,897,385	1.92	29.30	
Summit Partners Growth Equity Fund IX	100,000,000	120,866,521	52,477,659	31,611,138	179,583,295	1.92	36.78	2015
Summit Partners Growth Equity Fund VIII	100,000,000	116,727,192	213,696,579	23,129,320	65,947,943	2.40	27.28	2011
Summit Partners Growth Equity Fund X-A	150,000,000	77,609,998	0	72,390,002	93,366,147	1.20	39.34	2019
TPG Capital	400,000,000	134,932,544	54,998,417	275,391,492	147,129,026	1.50	17.26	
TPG Partners VII, L.P.	100,000,000	97,791,634	52,265,899	9,799,884	110,544,045	1.66	17.91	2015
TPG Partners VIII	150,000,000	37,140,910	2,732,518	115,591,608	36,584,981	1.06	7.25	2018
TPG Tech Adjacencies II, L.P.	150,000,000	0	0	150,000,000	0	0		2021
Thoma Bravo LLC	425,000,000	338,867,407	204,101,753	151,227,321	357,097,397	1.66	24.30	
Thoma Bravo Fund XII, L.P.	75,000,000	81,653,101	19,798,296	13,216,430	118,787,393	1.70	17.27	2016
Thoma Bravo Fund XIII, L.P.	150,000,000	148,220,365	77,245,480	47,004,832	179,043,402	1.73	54.01	2018
Thoma Bravo Fund XIV	150,000,000	58,993,941	37	91,006,059	58,821,856	1.00	-0.95	2020
Thoma Cressey Fund VII, L.P.	50,000,000	50,000,000	107,057,940	0	444,746	2.15	23.58	2000
Thomas H. Lee Partners	400,000,000	185,107,731	160,034,082	238,568,129	210,755,066	2.00	35.62	
Thomas H. Lee Equity Fund IX	150,000,000	0	0	150,000,000	0	0		2021

Minnesota State Board of Investment
Private Markets Investments as of June 30, 2021

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Thomas H. Lee Equity Fund VII, LP.	100,000,000	99,090,805	129,051,091	11,071,352	58,743,002	1.90	25.28	2015
Thomas H. Lee Equity Fund VIII, L.P.	150,000,000	86,016,926	30,982,991	77,496,777	152,012,064	2.13	90.00	2018
Thomas, McNerney & Partners	80,000,000	78,125,000	123,481,847	1,875,000	6,763,084	1.67	8.50	
Thomas, McNerney & Partners I, L.P.	30,000,000	30,000,000	15,087,143	0	3,184,208	0.61	-7.23	2002
Thomas, McNerney & Partners II, L.P.	50,000,000	48,125,000	108,394,704	1,875,000	3,578,876	2.33	16.57	2006
Vestar Capital Partners	380,000,000	290,806,378	351,018,794	98,252,922	119,028,957	1.62	11.47	
Vestar Capital Partners IV, L.P.	55,000,000	55,652,024	102,293,320	57,313	373,925	1.84	14.63	1999
Vestar Capital Partners V, L.P.	75,000,000	76,797,458	98,533,182	0	3,433,303	1.33	3.99	2005
Vestar Capital Partners VI, LP	100,000,000	106,516,978	150,071,483	35,527	48,821,214	1.87	24.11	2011
Vestar Capital Partners VII, L.P.	150,000,000	51,839,918	120,808	98,160,082	66,400,515	1.28	14.96	2017
Vista Equity Partners	200,000,000	69,302,944	0	131,909,959	71,821,375	1.04	2.79	
Vista Equity Partners Perennial	200,000,000	69,302,944	0	131,909,959	71,821,375	1.04	2.79	2020
Warburg Pincus	1,116,000,000	982,200,320	901,923,135	139,748,500	641,408,748	1.57	10.91	
Warburg Pincus China-Southeast Asia II	50,000,000	8,700,000	960,000	41,300,000	11,530,603	1.44	42.24	2019
Warburg Pincus China, L.P.	45,000,000	44,460,000	11,972,700	2,475,000	67,371,142	1.78	22.87	2016
Warburg Pincus Financial Sector	90,000,000	80,817,888	8,930,700	13,455,000	93,098,787	1.26	14.58	2017
Warburg Pincus Global Growth, L.P.	250,000,000	168,648,479	1,812,500	80,750,000	183,968,102	1.10	12.57	2018
Warburg Pincus Private Equity IX, L.P.	100,000,000	100,000,000	170,819,101	0	1,397,111	1.72	9.62	2005
Warburg Pincus Private Equity X, LP	150,000,000	150,000,000	263,436,491	0	3,930,575	1.78	9.45	2007
Warburg Pincus Private Equity XI, LP	200,000,000	200,342,452	233,452,748	0	112,979,099	1.73	12.97	2012
Warburg Pincus Private Equity XII, LP	131,000,000	129,231,500	46,996,643	1,768,500	166,740,415	1.65	17.28	2015
Warburg, Pincus Equity Partners, L.P.	100,000,000	100,000,000	163,542,253	0	392,915	1.64	10.03	1998
Wellspring Capital Partners	125,000,000	82,017,248	0	42,982,752	102,658,447	1.25	17.13	
Wellspring Capital Partners VI, L.P.	125,000,000	82,017,248	0	42,982,752	102,658,447	1.25	17.13	2016
Welsh, Carson, Anderson & Stowe	500,000,000	308,838,158	268,768,361	191,161,842	294,883,811	1.83	17.87	
Welsh, Carson, Anderson & Stowe XI, L.P.	100,000,000	100,000,000	137,471,465	0	27,588,016	1.65	11.61	2008
Welsh, Carson, Anderson & Stowe XII, L.P.	150,000,000	145,877,897	127,024,295	4,122,103	201,386,560	2.25	29.82	2014
Welsh, Carson, Anderson & Stowe XIII, L.P.	250,000,000	62,960,261	4,272,601	187,039,739	65,909,235	1.11	12.94	2018
Whitehorse Capital	200,000,000	148,295,230	57,044,494	80,474,464	123,255,463	1.22	29.23	
Whitehorse Liquidity Partners III	100,000,000	91,752,280	45,751,449	26,142,407	70,190,500	1.26	26.33	2019
Whitehorse Liquidity Partners IV	100,000,000	56,542,949	11,293,045	54,332,056	53,064,963	1.14	26.12	2020
Wind Point Partners	100,000,000	32,067,217	1,721,746	69,659,132	29,323,599	0.97	-3.91	
Wind Point Partners IX	100,000,000	32,067,217	1,721,746	69,659,132	29,323,599	0.97	-3.91	2019
Windjammer Capital Investors	266,708,861	191,320,916	179,476,459	77,658,948	121,667,147	1.57	10.37	
Windjammer Mezzanine & Equity Fund II	66,708,861	55,215,684	84,876,800	1,013,936	62,466	1.54	8.94	2000
Windjammer Senior Equity Fund IV, L.P.	100,000,000	94,740,728	93,392,762	16,802,619	81,885,476	1.85	13.65	2012
Windjammer Senior Equity Fund V, L.P.	100,000,000	41,364,504	1,206,897	59,842,393	39,719,206	0.99	-0.85	2017
Private Credit	**3,080,672,584**	**2,180,127,156**	**1,876,277,457**	**1,140,533,212**	**962,382,267**	**1.30**	**9.76**	
Audax Group	300,000,000	180,172,227	167,722,803	134,178,318	55,955,453	1.24	9.65	
Audax Mezzanine Fund III, L.P.	100,000,000	101,687,301	122,087,222	782	11,083,067	1.31	9.53	2010

Minnesota State Board of Investment
Private Markets Investments as of June 30, 2021

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Audax Mezzanine Fund IV-A, L.P.	100,000,000	78,484,926	45,635,581	34,177,536	44,872,385	1.15	10.13	2015
Audax Mezzanine Fund V	100,000,000	0	0	100,000,000	0	0.00		2020
BlackRock	97,500,000	69,802,405	7,742,530	27,697,595	73,452,234	1.16	8.52	
BlackRock Middle Market Senior Fund	97,500,000	69,802,405	7,742,530	27,697,595	73,452,234	1.16	8.52	2018
Brookfield Asset Management Inc.	200,000,000	0	0	200,000,000	0	0.00		
Brookfield Real Estate Finance Fund VI	200,000,000	0	0	200,000,000	0	0.00		2021
Energy Capital Partners	28,087,500	14,022,144	4,029,385	18,094,741	9,623,060	0.97	-3.54	
Energy Capital Credit Solutions II-A	28,087,500	14,022,144	4,029,385	18,094,741	9,623,060	0.97	-3.54	2018
Gold Hill	65,852,584	65,852,584	112,080,756	0	5,529,660	1.79	11.91	
Gold Hill 2008	25,852,584	25,852,584	46,819,154	0	5,011,548	2.00	14.73	2008
Gold Hill Venture Lending	40,000,000	40,000,000	65,261,602	0	518,112	1.64	10.72	2004
Goldman, Sachs & Co.	250,000,000	261,172,810	315,712,649	47,422,591	1,534,453	1.21	6.80	
GS Mezzanine Partners 2006 Institutional	100,000,000	113,454,150	134,861,849	9,858,563	817,763	1.20	5.00	2006
GS Mezzanine Partners V, L.P.	150,000,000	147,718,660	180,850,800	37,564,028	716,690	1.23	9.09	2007
HPS Investment Partners	100,000,000	66,649,097	9,420,612	40,755,868	64,905,027	1.12	16.87	
HPS Mezzanine Partners 2019, L.P.	100,000,000	66,649,097	9,420,612	40,755,868	64,905,027	1.12	16.87	2019
Kohlberg, Kravis, Roberts & Co.	274,000,000	262,429,722	134,699,538	56,242,894	171,341,832	1.17	9.61	
KKR Lending Partner II L.P.	75,000,000	86,658,994	80,246,773	8,802,924	11,158,794	1.05	2.77	2015
KKR Lending Partners III L.P.	199,000,000	175,770,728	54,452,765	47,439,970	160,183,038	1.22	15.38	2017
LBC Credit Partners	200,000,000	119,467,660	69,877,674	122,827,294	72,486,378	1.19	10.35	
LBC Credit Partners IV, L.P.	100,000,000	89,597,401	67,350,001	52,827,294	41,203,068	1.21	9.20	2016
LBC Credit Partners V, L.P.	100,000,000	29,870,259	2,527,672	70,000,000	31,283,310	1.13	35.02	2019
Marathon	100,000,000	63,022,008	858,534	38,000,000	72,235,456	1.16	13.90	
Marathon Secured Private Strategies Fund II	100,000,000	63,022,008	858,534	38,000,000	72,235,456	1.16	13.90	2019
Merit Capital Partners	320,232,500	226,693,050	266,714,409	93,472,650	99,198,699	1.61	11.26	
Merit Mezzanine Fund IV, L.P.	75,000,000	70,178,571	139,120,463	4,821,429	691,519	1.99	11.58	2004
Merit Mezzanine Fund V, LP	75,000,000	71,044,898	78,853,274	3,955,102	31,020,271	1.55	9.42	2009
Merit Mezzanine Fund VI	100,000,000	85,469,581	48,740,672	14,463,619	67,486,909	1.36	14.40	2016
Merit Mezzanine Fund VII	70,232,500	0	0	70,232,500	0	0.00		2020
Oaktree Capital Management, LLC	200,000,000	42,600,000	1,941,336	157,400,000	46,895,886	1.15	17.79	
Oaktree Real Estate Debt III	200,000,000	42,600,000	1,941,336	157,400,000	46,895,886	1.15	17.79	2020
Portfolio Advisors LLC	100,000,000	80,867,108	96,478,980	936,315	524,490	1.20	7.52	
IP III Mezzanine Partners, L.P.	100,000,000	80,867,108	96,478,980	936,315	524,490	1.20	7.52	2006
Prudential Global Investment Mgmt	550,000,000	452,854,709	457,680,326	140,533,185	174,363,647	1.40	10.37	
PGIM Capital Partners VI, L.P.	100,000,000	0	0	100,000,000	0	0.00		2020
Prudential Capital Partners II, L.P.	100,000,000	97,418,748	136,427,860	11,049,052	7,738,955	1.48	8.92	2005
Prudential Capital Partners III, L.P.	100,000,000	102,414,320	173,348,677	13,880,284	2,615,451	1.72	14.08	2009
Prudential Capital Partners IV	100,000,000	112,152,033	101,336,899	2,136,397	44,126,765	1.30	8.29	2012
Prudential Capital Partners V, L.P.	150,000,000	140,869,607	46,566,890	13,467,452	119,882,477	1.18	8.50	2016
Summit Partners	95,000,000	100,002,497	133,679,035	22,177,023	6,867,790	1.41	9.28	
Summit Subordinated Debt Fund III, L.P.	45,000,000	44,088,494	60,443,093	2,250,000	3,860,623	1.46	8.84	2004

Minnesota State Board of Investment
Private Markets Investments as of June 30, 2021

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Summit Subordinated Debt Fund IV, L.P.	50,000,000	55,914,003	73,235,942	19,927,023	3,007,167	1.36	9.99	2008
TCW	200,000,000	174,519,135	97,638,890	40,794,739	107,468,203	1.18	8.13	
TCW Direct Lending LLC	100,000,000	83,599,652	76,716,774	25,329,409	25,736,535	1.23	7.51	2014
TCW Direct Lending VII	100,000,000	90,919,484	20,922,116	15,465,330	81,731,667	1.13	9.67	2018
Real Assets	**4,147,571,518**	**3,727,603,547**	**2,224,118,915**	**689,065,024**	**1,896,613,549**	**1.11**	**2.86**	
BlackRock	198,500,000	105,495,067	32,323,466	99,968,077	82,459,938	1.09	3.75	
BlackRock Global Renewable Power Fund II	98,500,000	94,413,824	32,142,498	11,049,320	71,994,280	1.10	4.04	2017
BlackRock Global Renewable Power Infra III	100,000,000	11,081,243	180,968	88,918,757	10,465,658	0.96	-4.66	2019
EIG Global Energy Partners	450,000,000	467,885,161	344,525,947	77,704,481	154,134,514	1.07	1.74	
EIG Energy Fund XIV	100,000,000	113,459,470	95,309,310	2,761,129	4,829,726	0.88	-4.57	2007
EIG Energy Fund XV	150,000,000	161,551,718	144,862,109	22,871,323	25,055,012	1.05	1.30	2010
EIG Energy Fund XVI	200,000,000	192,873,974	104,354,527	52,072,029	124,249,775	1.19	5.08	2013
Encap Energy	400,000,000	422,245,829	316,433,439	12,791,131	140,946,757	1.08	3.17	
EnCap Energy Capital Fund VII, L.P.	100,000,000	105,388,244	135,600,209	0	3,334,329	1.32	14.24	2007
EnCap Energy Capital Fund VIII, L.P.	100,000,000	103,335,766	56,609,079	470,044	24,672,284	0.79	-6.26	2010
EnCap Energy Capital Fund X, L.P.	100,000,000	100,508,554	36,059,590	7,722,385	74,383,999	1.10	3.19	2015
Encap Energy Fund IX	100,000,000	113,013,265	88,164,562	4,598,702	38,556,145	1.12	4.21	2012
Energy & Minerals Group	680,000,000	664,387,858	361,544,797	54,240,318	495,530,093	1.29	6.78	
NGP Midstream & Resources, L.P.	100,000,000	103,565,615	179,560,149	17,857	7,254,065	1.80	13.44	2007
The Energy & Minerals Group Fund II, L.P.	100,000,000	106,674,084	104,295,500	170,365	105,228,861	1.96	13.64	2011
The Energy & Minerals Group Fund III, L.P.	200,000,000	201,327,783	22,410,545	1,284,543	92,914,833	0.57	-9.86	2014
The Energy & Minerals Group Fund IV, LP	150,000,000	159,228,226	54,004,206	14,558,323	150,414,857	1.28	8.03	2015
The Energy & Minerals Group Fund V	112,500,000	79,270,469	1,115,700	34,782,014	117,069,783	1.49	25.04	2019
The Energy & Minerals Group Fund V Accordion, LP	17,500,000	14,321,681	158,697	3,427,216	22,647,694	1.59	30.02	2019
Energy Capital Partners	450,000,000	390,964,942	292,115,785	149,358,174	230,167,244	1.34	9.80	
Energy Capital Partners II-A	100,000,000	85,722,480	112,434,332	29,749,110	6,388,598	1.39	9.18	2010
Energy Capital Partners III, L.P.	200,000,000	230,177,453	159,703,900	31,246,414	141,391,843	1.31	8.79	2013
Energy Capital Partners IV-A, LP	150,000,000	75,065,009	19,977,553	88,362,650	82,386,803	1.36	18.74	2017
Enervest Management Partners	100,000,000	98,183,839	52,713,927	9,909,859	66,509,736	1.21	5.40	
EnerVest Energy Institutional Fund XIV-A, L.P.	100,000,000	98,183,839	52,713,927	9,909,859	66,509,736	1.21	5.40	2015
First Reserve	500,000,000	536,887,971	255,411,840	10,138,084	133,438,718	0.72	-8.85	
First Reserve Fund XI, L.P.	150,000,000	150,292,121	100,059,903	0	0	0.67	-8.80	2006
First Reserve Fund XII, L.P.	150,000,000	165,617,044	83,625,426	0	8,301,461	0.56	-14.04	2008
First Reserve Fund XIII, L.P.	200,000,000	220,978,806	71,726,511	10,138,084	125,137,257	0.89	-5.25	2013
Kohlberg, Kravis, Roberts & Co.	149,850,000	74,674,108	6,272,520	83,219,287	71,987,556	1.05	3.20	
KKR Global Infrastructure Investors III	149,850,000	74,674,108	6,272,520	83,219,287	71,987,556	1.05	3.20	2018
Merit Energy Partners	519,721,518	375,497,783	121,654,291	103,746,596	279,968,949	1.07	1.37	
Merit Energy Partners F-II, L.P.	100,000,000	59,522,861	31,810,706	0	5,728,968	0.63	-7.26	2006

Minnesota State Board of Investment
Private Markets Investments as of June 30, 2021

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Merit Energy Partners H	100,000,000	100,000,000	29,668,582	0	46,472,894	0.76	-4.61	2011
Merit Energy Partners I, L.P.	169,721,518	169,721,518	56,039,059	0	167,439,932	1.32	7.04	2014
Merit Energy Partners K, L.P.	150,000,000	46,253,404	4,135,944	103,746,596	60,327,154	1.39	28.81	2019
NGP	599,500,000	557,027,983	418,372,903	74,489,017	217,606,040	1.14	5.02	
Natural Gas Partners IX, LP	150,000,000	173,921,032	245,366,339	605,481	4,892,202	1.44	12.10	2007
NGP Natural Resources X, L.P.	150,000,000	147,769,572	119,289,761	2,230,428	19,584,831	0.94	-1.88	2011
NGP Natural Resources XI, L.P.	150,000,000	151,037,079	53,461,108	6,793,883	109,710,921	1.08	2.43	2014
NGP Natural Resources XII, L.P.	149,500,000	84,300,300	255,695	64,859,225	83,418,087	0.99	-0.32	2017
Sheridan	100,000,000	34,353,005	22,750,000	13,500,000	23,864,005	1.36	9.40	
Sheridan Production Partners III-B, L.P.	100,000,000	34,353,005	22,750,000	13,500,000	23,864,005	1.36	9.40	2014
Real Estate	**3,348,147,868**	**1,998,328,507**	**1,354,347,171**	**1,470,868,030**	**1,251,285,956**	**1.30**	**7.93**	
Angelo, Gordon & Co.	550,000,000	338,528,957	95,790,815	218,678,750	324,153,349	1.24	9.94	
AG Asia Realty Fund III, L.P.	50,000,000	47,587,261	44,875,000	6,196,250	20,708,365	1.38	13.35	2016
AG Asia Realty Fund IV, L.P.	100,000,000	40,610,956	3,000,000	59,390,000	46,262,465	1.21	13.58	2018
AG Europe Realty Fund II, L.P.	75,000,000	69,004,017	28,384	5,250,000	82,930,100	1.20	8.79	2018
AG Europe Realty Fund III	75,000,000	13,809,980	0	60,375,000	13,716,349	0.99	-0.69	2020
AG Realty Fund IX	100,000,000	92,141,126	37,000,000	11,650,000	85,918,712	1.33	8.45	2014
AG Realty Fund X, L.P.	150,000,000	75,375,617	10,887,431	75,817,500	74,617,358	1.13	12.25	2018
Blackstone	824,500,000	686,985,036	712,628,587	247,212,164	358,392,813	1.56	12.34	
Blackstone Real Estate Partners Asia II	74,500,000	48,748,111	3,021,159	31,205,665	51,689,314	1.12	8.65	2017
Blackstone Real Estate Partners IX, L.P.	300,000,000	145,094,191	17,457,905	171,287,723	150,859,412	1.16	17.06	2018
Blackstone Real Estate Partners V	100,000,000	104,213,007	203,364,839	4,174,052	3,484,059	1.98	10.76	2006
Blackstone Real Estate Partners VI, L.P.	100,000,000	109,477,567	216,433,750	4,907,906	3,511,479	2.01	13.08	2007
Blackstone Real Estate Partners VII, LP	100,000,000	111,484,649	147,300,591	11,217,447	38,507,556	1.67	14.40	2011
Blackstone Real Estate VIII.TE.1 L.P.	150,000,000	167,967,510	125,050,344	24,419,370	110,340,992	1.40	13.11	2015
Blackstone Strategic Partners	75,000,000	77,540,750	65,156,183	1,013,966	1,876,892	0.86	-2.14	
Strategic Partners III RE, L.P.	25,000,000	25,987,864	15,252,523	9,006	98,320	0.59	-6.46	2005
Strategic Partners IV RE, L.P.	50,000,000	51,552,886	49,903,660	1,004,960	1,778,572	1.00	0.04	2008
Carlyle Group	450,000,000	77,871,474	35,687,056	403,340,879	50,664,133	1.11	9.14	
Carlyle Realty Partners IX	300,000,000	-	-	300,000,000	-	-		2021
Carlyle Realty Partners VIII, L.P.	150,000,000	77,871,474	35,687,056	103,340,879	50,664,133	1.11	9.14	2017
Landmark Partners	149,500,000	71,519,488	34,243,100	83,806,773	48,953,126	1.16	10.44	
Landmark Real Estate Partners VIII, L.P.	149,500,000	71,519,488	34,243,100	83,806,773	48,953,126	1.16	10.44	2016
Lubert Adler	174,147,868	75,197,162	27,889,754	99,923,264	64,160,457	1.22	10.28	
Lubert-Adler Real Estate Fund VII-B, L.P.	74,147,868	67,585,213	27,889,754	7,414,787	56,668,934	1.25	10.39	2017
Lubert-Adler Recovery and Enhancement Capital Fund	100,000,000	7,611,949	0	92,508,477	7,491,523	0.98	-2.35	2021
Oaktree Capital Management, LLC	200,000,000	19,000,000	19,000,000	200,000,000	9,588,754	1.50	244.11	
Oaktree Real Estate Opportunities Fund VIII	200,000,000	19,000,000	19,000,000	200,000,000	9,588,754	1.50	244.11	2020
Rockpoint	200,000,000	112,137,702	36,095,669	103,415,380	89,180,678	1.12	4.50	

Minnesota State Board of Investment
Private Markets Investments as of June 30, 2021

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Rockpoint Real Estate Fund V, L.P.	100,000,000	96,837,546	36,084,442	18,715,536	72,718,322	1.12	4.36	2014
Rockpoint Real Estate Fund VI, L.P.	100,000,000	15,300,156	11,227	84,699,844	16,462,356	1.08	6.84	2019
Rockwood	200,000,000	125,703,354	26,296,235	75,961,041	113,275,020	1.11	5.10	
Rockwood Capital RE Partners X, L.P.	100,000,000	86,572,864	26,267,724	15,111,665	74,373,473	1.16	5.54	2015
Rockwood Capital RE Partners XI	100,000,000	39,130,490	28,511	60,849,377	38,901,547	0.99	-1.02	2019
Silverpeak Real Estate Partners	225,000,000	143,844,584	106,287,292	7,515,813	8,296,667	0.80	-3.60	
Silverpeak Legacy Pension Partners II, L.P.	75,000,000	73,049,257	92,014,185	7,515,813	525,782	1.27	4.19	2005
Silverpeak Legacy Pension Partners III, L.P.	150,000,000	70,795,327	14,273,108	0	7,770,885	0.31	-11.85	2008
TA Associates Realty	300,000,000	270,000,000	195,272,480	30,000,000	182,744,068	1.40	11.69	
Realty Associates Fund X	100,000,000	100,000,000	151,698,186	0	9,542,793	1.61	12.62	2012
Realty Associates Fund XI	100,000,000	100,000,000	41,163,003	0	100,341,146	1.42	10.11	2015
Realty Associates Fund XII	100,000,000	70,000,000	2,411,291	30,000,000	72,860,130	1.08	12.45	2018
Distressed/Opportunistic	**3,639,714,067**	**2,640,511,570**	**2,329,604,832**	**1,101,564,960**	**1,390,922,686**	**1.41**	**9.98**	
Avenue Capital Partners	200,000,000	200,977,328	44,347,072	0	188,888,556	1.16	3.66	
Avenue Energy Opportunities Fund II	100,000,000	100,000,000	417,420	0	121,091,100	1.22	6.51	2017
Avenue Energy Opportunities Fund, L.P.	100,000,000	100,977,328	43,929,652	0	67,797,456	1.11	2.00	2014
BlackRock	1,774,870	1,774,870	1,796,583	0	175,370	1.11	5.74	
BlackRock Tempus Fund	1,774,870	1,774,870	1,796,583	0	175,370	1.11	5.74	2015
Canyon Partners	125,000,000	71,250,000	8,750,000	62,500,000	74,996,149	1.18	21.87	
Canyon Distressed Opportunity Fund III	125,000,000	71,250,000	8,750,000	62,500,000	74,996,149	1.18	21.87	2020
CarVal Investors	900,000,000	712,703,333	868,231,440	187,500,000	219,659,923	1.53	10.67	
CarVal Credit Value Fund I	100,000,000	95,000,000	213,343,831	5,000,000	498,759	2.25	18.72	2010
CVI Credit Value Fund A II	150,000,000	142,500,000	199,242,174	7,500,000	2,495,871	1.42	8.19	2012
CVI Credit Value Fund A III	150,000,000	142,500,000	134,899,232	7,500,000	51,386,169	1.31	8.26	2015
CVI Credit Value Fund IV	150,000,000	120,203,333	60	30,000,000	142,675,680	1.19	7.09	2017
CVI Credit Value Fund V	150,000,000	22,500,000	0	127,500,000	22,500,000	1.00	0.00	2020
CVI Global Value Fund, L.P.	200,000,000	190,000,000	320,746,143	10,000,000	103,445	1.69	9.53	2007
Carlyle Group	100,000,000	81,070,745	44,726,105	63,603,426	42,773,194	1.08	6.19	
Carlyle Strategic Partners IV, L.P.	100,000,000	81,070,745	44,726,105	63,603,426	42,773,194	1.08	6.19	2016
MHR Institutional Partners	75,000,000	62,246,892	11,113,727	23,808,255	67,420,450	1.26	8.59	
MHR Institutional Partners IV LP	75,000,000	62,246,892	11,113,727	23,808,255	67,420,450	1.26	8.59	2014
Marathon	200,000,000	73,906,171	6,185,200	132,000,000	79,198,580	1.16	41.93	
Marathon Distressed Credit Fund	200,000,000	73,906,171	6,185,200	132,000,000	79,198,580	1.16	41.93	2020
Merced Capital	278,737,500	288,135,966	243,634,646	0	91,813,662	1.16	3.59	
Merced Partners III	100,000,000	103,878,468	132,676,445	0	2,497,339	1.30	5.55	2010
Merced Partners IV	125,000,000	124,968,390	105,597,539	0	35,633,784	1.13	2.74	2013
Merced Partners V	53,737,500	59,289,108	5,360,662	0	53,682,540	1.00	-0.12	2017
Oaktree Capital Management, LLC	650,000,000	263,012,671	56,330,111	420,589,598	284,312,655	1.30	11.99	
Oaktree Opportunities Fund X, L.P.	50,000,000	46,500,021	19,294,660	8,500,000	40,753,914	1.29	8.07	2015
Oaktree Opportunities Fund Xb, L.P.	100,000,000	60,000,000	0	40,000,000	72,723,300	1.21	13.50	2015

Minnesota State Board of Investment
Private Markets Investments as of June 30, 2021

Investments	Commitments	Contributions	Distributions	Remaining Commitment	Market Value	Investment Multiple	IRR	Vintage Year
Oaktree Opportunities Fund XI	300,000,000	30,000,000	0	270,000,000	35,526,180	1.18	25.00	2020
Oaktree Special Situations Fund II, L.P.	100,000,000	28,651,187	16,700,000	87,848,304	28,430,084	1.58	79.46	2018
Oaktree Special Situations Fund, L.P.	100,000,000	97,861,463	20,335,451	14,241,294	106,879,177	1.30	9.15	2014
PIMCO BRAVO*	9,201,697	8,654,933	8,488,982	7,399,997	1,517,070	1.16	4.69	
PIMCO BRAVO Fund Onshore Feeder I	3,958,027	3,958,027	4,016,443	2,385,880	6,656	1.02	1.61	2014
PIMCO Bravo Fund OnShore Feeder II	5,243,670	4,696,906	4,472,539	5,014,116	1,510,414	1.27	5.24	2014
TSSP	200,000,000	108,613,661	22,037,636	113,413,685	110,255,281	1.22	18.21	
TSSP Adjacent Opportunities GenPar, L.P	50,000,000	40,136,737	11,729,716	21,592,979	37,448,950	1.23	12.71	2018
TSSP Adjacent Opportunities Partners (B)	100,000,000	39,921,568	6,578,405	66,656,376	41,782,089	1.21	34.58	2018
TSSP Opportunities Partners IV (A), L.P.	50,000,000	28,555,356	3,729,515	25,164,330	31,024,242	1.22	19.28	2018
Varde Fund	600,000,000	525,000,000	647,665,521	75,000,000	203,215,955	1.62	10.31	
Varde Fund IX, L.P.	100,000,000	100,000,000	216,097,236	0	123,010	2.16	15.01	2008
Varde Fund X, LP	150,000,000	150,000,000	251,421,642	0	18,306,582	1.80	10.52	2010
Varde Fund XI, LP	200,000,000	200,000,000	180,126,605	0	94,098,538	1.37	5.44	2013
Varde Fund XIII, L.P.	150,000,000	75,000,000	20,038	75,000,000	90,687,825	1.21	14.64	2018
Wayzata Investment Partners	300,000,000	243,165,000	366,297,810	15,750,000	26,695,842	1.62	14.32	
Wayzata Opportunities Fund II, LLC	150,000,000	174,750,000	327,229,040	750,000	4,146,659	1.90	16.51	2007
Wayzata Opportunities Fund III	150,000,000	68,415,000	39,068,770	15,000,000	22,549,183	0.90	-2.69	2012
Total	**32,403,662,509**	**23,144,415,320**	**18,793,346,400**	**11,213,423,124**	**15,500,346,918**	**1.48**	**11.38**	
Difference*					32,304,536			
Private Markets Total with Difference					**15,532,651,454**			

Private Markets Portfolio Status	**Managers**	**Funds**
PRIVATE EQUITY	51	149
PRIVATE CREDIT	16	31
REAL ASSETS	11	32
REAL ESTATE	11	30
DISTRESSED / OPPORTUNISTIC	13	32
Total	**102**	**274**

Notes

None of the data presented herein has been reviewed or approved by either the general partner or investment manager. The performance and valuation data presented herein is not a guarantee or prediction of future results. Ultimately, the actual performance and value of any investment is not known until final liquidation. Because there is no industry-standardized method for valuation or reporting comparisons of performance and valuation data among different investments is difficult.

Data presented in this report is made public pursuant to Minn. Stat. Chs. 13 and 13D, and Minn. Stat. § 11A.24, subd. 6(c). Additional information on private markets investments may be classified as non-public and not subject to disclosure.

*Partnership interests transferred to the MSBI during 1Q2015. All data presented as of the transfer date

** Difference is from an in-kind stock distribution liquidating account, cash transactions posted to next day and distributions received in foreign currency during the month.

Participant Directed Investment Program

June 30, 2021

Participant Directed Investment Program

The Participant Directed Investment Program (PDIP) provides investment vehicles for a variety of retirement or other tax-advantaged savings plans. The objective of the Plan is to be competitive in the marketplace by providing quality investment options with low fees to its participants. Investment goals among the PDIP's many participants are varied.

- The Supplemental Investment Fund (SIF) is an investment platform that provides participants with the option to invest in many of the same pools as the Combined Fund in addition to a Stable Value Fund and a Money Market Fund. The Volunteer Firefighter Account is an option in the SIF for local firefighter entities that join the Statewide Voluntary Firefighter Plan administered by PERA. The investment vehicles are structured much like a family of mutual funds where participating entities buy or sell units in each fund. Participants may allocate their investments among one or more funds that are appropriate for their needs and are within statutory requirements and rules established by the participating organizations.
- The Mutual Fund Line-up is an investment platform that offers participants three sets of investment options. The first is a set of actively and passively managed mutual funds, a Stable Value Fund and a Money Market Fund. The second is a set of target date funds called Minnesota Target Retirement Funds. The third is a self-directed brokerage account window which offers thousands of mutual funds. The SBI has no direct management responsibilities for funds within the self-directed brokerage account window. Participants may allocate their investments among one or more accounts that are appropriate for their needs within the statutory requirements and rules established by the participating organizations.
- The SBI is responsible for the investment options provided in the two State Sponsored Savings Plans established under provisions of the Internal Revenue Code 529, the Minnesota College Savings Plan and Minnesota Achieving a Better Life Experience Plan (ABLE). The Minnesota College Savings Plan is an educational savings plan designed to help families save for qualified nationwide college costs. 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. to provide administrative, marketing, communication, recordkeeping and investment management services. The ABLE Plan is a savings plan designed to help individuals save for qualified disability expenses without losing eligibility for certain assistance programs. The plan is administered by the Department of Human Services (DHS). The SBI and DHS have jointly contracted with Ascensus to provide recordkeeping, administrative, and investment management services for the plan.

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. They do not, however, reflect administrative expenses that may be deducted by the retirement systems or other agencies to defray administrative costs.

Supplemental Investment Fund Summary

The Minnesota Supplemental Investment Fund (SIF) is a multi-purpose investment platform that offers a range of investment options to state and local public employees. This investment platform provides some or all of the investment options to the Public Employees Retirement Association (PERA) Defined Contribution Plan, local pension plans and the Statewide Volunteer Firefighter plan.

A wide diversity of investment goals exists among the Fund's participants. In order to meet those needs, the Fund has been structured much like a "family of mutual funds." Participants may allocate their investments among one or more accounts that are appropriate for their needs, within the statutory requirements and rules established by the participating organizations. Participation in the Fund is accomplished through the purchase or sale of shares in each account. All returns are net of investment management fees.

Investment Option Descriptions

- Balanced Fund - a balanced portfolio utilizing both common stocks and bonds
- U.S. Stock Actively Managed Fund - an actively managed, U.S. common stock portfolio.
- U.S. Stock Index Fund - a passively managed, common stock portfolio designed to broadly track the performance of the U.S. stock market.
- Broad International Stock Fund - a portfolio of non-U.S. stocks that incorporates both active and passive management.
- Bond Fund - an actively managed, bond portfolio.
- Money Market Fund - a portfolio utilizing short-term, liquid debt securities.
- Stable Value Fund - a portfolio of stable value instruments, including security backed contracts and insurance company and bank investment contracts.
- Volunteer Firefighter Account - a balanced portfolio only used by the Statewide Volunteer Firefighter Plan.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year	Option Since
BALANCED FUND	$114,562,615	5.9%	26.5%	14.2%	12.5%	10.6%	01/1980
U.S. ACTIVELY MANAGED FUND	95,834,220	8.3	46.6	20.1	19.8	15.3	07/1986
U.S. STOCK INDEX FUND	460,144,272	8.5	44.7	19.0	18.0	14.8	07/1986
BROAD INTERNATIONAL STOCK FUND	160,245,129	5.2	36.8	9.8	11.3	6.0	09/1994
BOND FUND	119,193,291	2.1	2.1	6.4	4.0	4.2	07/1986
MONEY MARKET FUND	579,051,391	0.0	0.2	1.4	1.3	0.8	07/1986
STABLE VALUE FUND	1,704,221,146	0.5	2.2	2.5	2.3	2.3	11/1994
VOLUNTEER FIREFIGHTER ACCOUNT	145,136,075	4.7	20.8	11.5	10.2	8.2	01/2010

Note:

The Market Values for the Money Market Fund, the Stable Value Fund, and the Total Supplemental Investment Fund also include assets held through other plans.

STATE STREET.

Supplemental Investment Fund Performance

Balanced Fund

The primary investment objective of the Balanced Fund is to gain exposure to publicly traded U.S. equities, bond and cash in a diversified investment portfolio. The Fund seeks to maximize long-term real rates of return, while limiting short-run portfolio return volatility. The Balanced Fund is invested in a balanced portfolio of common stocks and bonds. Common stocks provide the potential for significant capital appreciation, while bonds act as a deflation hedge and provide portfolio diversification. The benchmark is a blend of 60% Russell 3000/35% Barclays Aggregate Bond Index/5% T-Bills Composite.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
BALANCED FUND	**$114,562,615**	**5.9%**	**26.5%**	**14.2%**	**12.5%**	**10.6%**
SIF BALANCED FUND BENCHMARK		5.6	24.8	13.5	12.0	10.2
Excess		0.3	1.7	0.7	0.6	0.4

U.S. Actively Managed Fund

The U.S. Stock Actively Managed Fund's investment objective is to generate above-average returns from capital appreciation on common stocks. The U.S. Stock Actively Managed Fund is invested primarily in the common stocks of U.S. companies. The managers in the account also hold varying levels of cash.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
U.S. ACTIVELY MANAGED FUND	**95,834,220**	**8.3**	**46.6**	**20.1**	**19.8**	**15.3**
Russell 3000		8.2	44.2	18.7	17.9	14.7
Excess		0.0	2.4	1.3	1.9	0.6

STATE STREET.

Supplemental Investment Fund Performance

U.S. Stock Index Fund

The investment objective of the U.S. Stock Index Fund is to generate returns that track those of the U.S. stock market as a whole. The Fund is designed to track the performance of the Russell 3000 Index, a broad-based equity market indicator. The Fund is invested 100% in common stock.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
U.S. STOCK INDEX FUND	**$460,144,272**	**8.5%**	**44.7%**	**19.0%**	**18.0%**	**14.8%**
Russell 3000		8.2	44.2	18.7	17.9	14.7
Excess		0.3	0.6	0.2	0.1	0.1

Broad International Stock Fund

The investment objective of the Broad International Stock Fund is to earn a high rate of return by investing in the stock of companies outside the U.S. Portions of the Fund are passively managed and semi-passively managed. These portions of the Fund are designed to track and modestly outperform, respectively, the return of developed markets included in the MSCI World ex USA Index. A portion of the Fund is "actively managed" by several international managers and emerging markets specialists who buy and sell stocks in an attempt to maximize market value. The International Equity Benchmark is currently the MSCI ACWI ex USA (net).

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
BROAD INTERNATIONAL STOCK FUND	**160,245,129**	**5.2**	**36.8**	**9.8**	**11.3**	**6.0**
International Equity Benchmark		5.5	35.6	9.3	11.1	5.4
Excess		-0.3	1.2	0.5	0.3	0.5

STATE STREET.

Supplemental Investment Fund Performance

Bond Fund

The investment objective of the Bond Fund is to exceed the return of the broad domestic bond market by investing in fixed income securities. The Bond Fund invests primarily in high-quality, government and corporate bonds that have intermediate to long-term maturities, usually 3 to 20 years. The Bond Fund benchmark is the Bloomberg Barclays U.S. Aggregate.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
BOND FUND	**$119,193,291**	**2.1%**	**2.1%**	**6.4%**	**4.0%**	**4.2%**
BBG BARC US Agg		1.8	-0.3	5.3	3.0	3.4
Excess		0.2	2.4	1.1	1.0	0.8

Money Market Fund

The investment objective of the Money Market Fund is to protect principal by investing in short-term, liquid U.S. Government securities. The Fund is invested entirely in high-quality, short-term U.S. Treasury and Agency securities. The average maturity of the portfolios is less than 90 days. Please note that the Market Value for the Money Market Fund reflects assets held through the Deferred Compensation Plan as well.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
MONEY MARKET FUND	**579,051,391**	**0.0**	**0.2**	**1.4**	**1.3**	**0.8**
ICE BofA US 3-Month Treasury Bill		-0.0	0.1	1.3	1.2	0.6
Excess		0.0	0.1	0.1	0.1	0.1

STATE STREET.

Supplemental Investment Fund Performance

Stable Value Fund

The investment objectives of the Stable Value Fund are to protect investors from loss of their original investment and to provide competitive interest rates using somewhat longer-term investments than typically found in a money market fund. The Fund is invested in a well-diversified portfolio of high-quality fixed income securities with strong credit ratings. The Fund also invests in contracts issued by highly rated insurance companies and banks which are structured to provide principal protection for the Fund's diversified bond portfolios, regardless of daily market changes. The Stable Value Fund Benchmark is the 3-year Constant Maturity Treasury Bill +45 basis points. Please note that the Market Value for the Stable Value Fund reflects assets held through the Deferred Compensation Plan as well.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
STABLE VALUE FUND	**$1,704,221,146**	**0.5%**	**2.2%**	**2.5%**	**2.3%**	**2.3%**
Fixed Interest Blended Benchmark		0.2	0.7	1.8	1.9	1.5
Excess		0.3	1.5	0.7	0.5	0.8

Volunteer Firefighter Account

The Volunteer Firefighter Account is different than other SIF program options. It is available only to the local entities that participate in the Statewide Volunteer Firefighter Plan (administered by PERA) and have all of their assets invested in the Volunteer Firefighter Account. There are other volunteer firefighter plans that are not eligible to be consolidated that may invest their assets through other SIF program options. The investment objective of the Volunteer Firefighter Account is to maximize long-term returns while limiting short-term portfolio return volatility. The account is invested in a balanced portfolio of domestic equity, international equity, fixed income and cash. The benchmark for this account is 35% Russell 3000, 15% MSCI ACWI ex USA (net), 45% Bloomberg Barclays U.S. Aggregate, 5% 3 Month T-Bills.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
VOLUNTEER FIREFIGHTER ACCOUNT	**145,136,075**	**4.7**	**20.8**	**11.5**	**10.2**	**8.2**
SIF Volunteer Firefighter Account BM		4.5	19.2	10.8	9.5	7.7
Excess		0.2	1.5	0.8	0.7	0.5

Mutual Funds

The mutual fund investment line-up provides investment options to the Minnesota Deferred Compensation Plan (MNDCP), Unclassified Retirement Plan, Health Care Savings Plan, and the Hennepin Country Retirement Plan. The MNDCP is a tax-sheltered retirement savings plan that is supplemental to public employees primary retirement plan. (In most cases, the primary plan is a defined benefit plan administered by TRA, PERA, or MSRS.) Participants can choose from active and passively managed stock and bond funds, a Stable Value Fund, a Money Market Fund, a set of 10 target date retirement fund options, and a brokerage window where participants can choose from hundreds of mutual funds.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year	Option Since
VANGUARD TOTAL STOCK MARKET INSTITUTIONAL INDEX PLUS	$691,449,053	8.3%	44.5%				07/2019
VANGUARD INSTITUTIONAL INDEX PLUS	1,794,785,770	8.5	40.8	18.7%	17.6%	14.8%	07/1999
VANGUARD DIVIDEND GROWTH	907,593,062	6.6	33.0	17.0			10/2016
VANGUARD MID CAP INDEX	772,327,097	7.6	46.9	16.5	15.8	13.2	01/2004
T. ROWE PRICE SMALL-CAP STOCK	1,090,778,061	5.3	54.5	19.5	19.6	15.0	04/2000
FIDELITY DIVERSIFIED INTERNATIONAL	381,078,989	6.9	30.3	13.1	12.7	8.0	07/1999
VANGUARD TOTAL INTERNATIONAL STOCK INDEX	384,285,461	5.5	36.6	9.7	11.2	5.8	07/2011
VANGUARD BALANCED INDEX	1,514,247,436	5.8	24.8	13.7	12.0	10.3	12/2003
DODGE & COX INCOME	336,091,539	2.0	3.4	6.4	4.5	4.3	07/1999
VANGUARD TOTAL BOND MARKET INDEX	386,770,923	2.0	-0.3	5.4	3.0	3.4	12/2003
2025 FUND	237,896,726	4.5	19.6	9.8	8.9	8.0	07/2011
2030 FUND	190,540,638	5.2	23.8	11.7	10.8	9.2	07/2011
2035 FUND	150,164,654	5.7	26.8	12.9	12.0	9.9	07/2011
2040 FUND	120,896,611	6.1	29.6	13.5	12.7	10.2	07/2011
2045 FUND	107,992,632	6.4	32.3	14.0	13.4	10.4	07/2011
2050 FUND	84,954,620	6.6	34.9	14.4	13.9	10.7	07/2011
2055 FUND	55,862,061	6.8	36.4	14.7	14.1	10.8	07/2011
2060 FUND	45,573,936	6.8	36.4	14.7	14.1	10.8	07/2011
2065 FUND	3,085,220	6.8	36.4				04/2020
INCOME FUND	250,432,034	3.8	15.4	8.4	6.9	5.6	07/2011
TD Ameritrade SDB	93,569,876						
TD Ameritrade SDB Roth	2,772,525						

Mutual Funds

LARGE CAP EQUITY

Vanguard Total Stock Market Institutional Index Plus (passive)

A passive domestic stock portfolio of large and small companies that tracks the CRSP US Total Market Index.

Vanguard Index Institutional Plus (passive)

A passive domestic stock portfolio that tracks the S&P 500.

Vanguard Dividend Growth (active) (1)

A fund of large cap stocks which is expected to outperform the Nasdaq US Dividend Achievers Select Index, over time.

MID CAP EQUITY

Vanguard Mid Cap Index (passive) (2)

A fund that passively invests in companies with medium market capitalizations that tracks the CRSP US Mid-Cap Index.

SMALL CAP EQUITY

T Rowe Price Small Cap (active)

A fund that invests primarily in companies with small market capitalizations and is expected to outperform the Russell 2000 Index.

INTERNATIONAL EQUITY

Fidelity Diversified International (active)

A fund that invests primarily in stocks of companies located outside of the United States and is expected to outperform the MSCI index of Europe, Australasia and the Far East (EAFE), over time.

Vanguard Total International Stock Index (passive) (3)

A fund that seeks to track the investment performance of the FTSE Global All Cap ex US Index, an index designed to measure equity market performance in developed and emerging markets, excluding the United States.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since
Large Cap US Equity						
VANGUARD TOTAL STOCK MARKET INSTITUTIONAL INDEX PLUS	**$691,449,053**	**8.3%**	**44.5%**			**07/2019**
CRSP US Total Market Index		8.3	44.3			07/2019
Excess		0.0	0.2			
VANGUARD INSTITUTIONAL INDEX PLUS	**1,794,785,770**	**8.5**	**40.8**	**18.7%**	**17.6%**	**07/1999**
S&P 500		8.5	40.8	18.7	17.6	07/1999
Excess		-0.0	-0.0	-0.0	-0.0	
VANGUARD DIVIDEND GROWTH	**907,593,062**	**6.6**	**33.0**	**17.0**		**10/2016**
NASDAQ US Dividend Achievers Select		5.8	34.5	17.3		10/2016
Excess		0.8	-1.5	-0.3		
Mid Cap US Equity						
VANGUARD MID CAP INDEX	**772,327,097**	**7.6**	**46.9**	**16.5**	**15.8**	**01/2004**
CRSP US Mid Cap Index		7.6	46.9	16.5	15.8	01/2004
Excess		-0.0	-0.0	0.0	-0.0	
Small Cap US Equity						
T. ROWE PRICE SMALL-CAP STOCK	**1,090,778,061**	**5.3**	**54.5**	**19.5**	**19.6**	**04/2000**
Russell 2000		4.3	62.0	13.5	16.5	04/2000
Excess		1.0	-7.6	6.0	3.1	
International Equity						
FIDELITY DIVERSIFIED INTERNATIONAL	**381,078,989**	**6.9**	**30.3**	**13.1**	**12.7**	**07/1999**
MSCI EAFE FREE (NET)		5.2	32.4	8.3	10.3	07/1999
Excess		1.7	-2.1	4.8	2.5	
VANGUARD TOTAL INTERNATIONAL STOCK INDEX	**384,285,461**	**5.5**	**36.6**	**9.7**	**11.2**	**07/2011**
FTSE Global All Cap ex US Index Net		5.6	37.0	9.5	11.1	07/2011
Excess		-0.1	-0.4	0.2	0.0	

STATE STREET

Mutual Funds

BALANCED

Vanguard Balanced Index (passive) (4)

A fund that passively invests in a mix of domestic stocks and bonds. The fund is expected to track a weighted benchmark of 60% CRSP US Total Market Index/40% BB Barclays U.S. Aggregate.

FIXED INCOME

Dodge & Cox Income Fund (active)

A fund that invests primarily in investment grade securities in the U.S. bond market which is expected to outperform the BB Barclays U.S. Aggregate, over time.

Vanguard Total Bond Market Index (passive)

A fund that passively invests in a broad, market weighted bond index that is expected to track the BB Barclays U.S. Aggregate.

Money Market Fund (5)

A fund that invests in short-term debt instruments which is expected to outperform the return on 90-Day U.S. Treasury Bills.

STABLE VALUE

Stable Value Fund (5)

A portfolio composed of stable value instruments which are primarily investment contracts and security backed contracts. The fund is expected to outperform the return of the 3 year Constant Maturity Treasury +45 basis points, over time.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since
Balanced Funds						
VANGUARD BALANCED INDEX	**$1,514,247,436**	**5.8%**	**24.8%**	**13.7%**	**12.0%**	**12/2003**
Vanguard Balanced Fund Benchmark		5.7	24.9	13.8	12.1	12/2003
Excess		0.1	-0.1	-0.1	-0.0	
Fixed Income						
DODGE & COX INCOME	**336,091,539**	**2.0**	**3.4**	**6.4**	**4.5**	**07/1999**
BBG BARC Agg Bd		1.8	-0.3	5.3	3.0	07/1999
Excess		0.2	3.7	1.1	1.5	
VANGUARD TOTAL BOND MARKET INDEX	**386,770,923**	**2.0**	**-0.3**	**5.4**	**3.0**	**12/2003**
BBG BARC Agg Bd		1.8	-0.3	5.3	3.0	12/2003
Excess		0.2	0.1	0.1	-0.0	
MONEY MARKET FUND	**579,051,391**	**0.0**	**0.2**	**1.4**	**1.3**	**07/1986**
ICE BofA US 3-Month Treasury Bill		-0.0	0.1	1.3	1.2	07/1986
Excess		0.0	0.1	0.1	0.1	
Stable Value						
STABLE VALUE FUND	**1,704,221,146**	**0.5**	**2.2**	**2.5**	**2.3**	**11/1994**
Fixed Interest Blended Benchmark		0.2	0.7	1.8	1.9	11/1994
Excess		0.3	1.5	0.7	0.5	

(1) Vanguard Dividend Growth replaced the Janus Twenty Fund in the third quarter of 2016.

(2) Prior to 02/01/2013 the benchmark was the MSCI US Mid-Cap 450 Index

(3) Prior to 06/01/2013 the benchmark was MSCI ACWI ex USA IMI.

(4) Prior to 01/01/2013 the benchmark was 60% MSCI US Broad Market Index and 40% Bloomberg Barclays U.S. Aggregate.

(5) Money Market and Stable Value are Supplemental Investment Fund options which are also offered to eligible plans that invest through other plans.

STATE STREET

Mutual Funds

MN TARGET RETIREMENT ACCOUNTS

Target retirement funds offer a mix of investments that are adjusted over time to reduce risk and become more conservative as the target retirement date approaches. A participant only needs to make one investment decison by investing their assets in the fund that is closest to their anticipated retirement date.

Target Date Retirement Funds

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	Option Since
SSgA						
2025 FUND	**$237,896,726**	**4.5%**	**19.6%**	**9.8%**	**8.9%**	**07/2011**
2025 FUND BENCHMARK		4.5	19.7	9.7	8.9	07/2011
Excess		-0.0	-0.1	0.0	-0.0	
2030 FUND	**190,540,638**	**5.2**	**23.8**	**11.7**	**10.8**	**07/2011**
2030 FUND BENCHMARK		5.2	23.9	11.7	10.9	07/2011
Excess		-0.0	-0.1	0.0	-0.0	
2035 FUND	**150,164,654**	**5.7**	**26.8**	**12.9**	**12.0**	**07/2011**
2035 FUND BENCHMARK		5.7	26.9	12.9	12.0	07/2011
Excess		-0.0	-0.1	0.0	-0.0	
2040 FUND	**120,896,611**	**6.1**	**29.6**	**13.5**	**12.7**	**07/2011**
2040 FUND BENCHMARK		6.1	29.8	13.5	12.8	07/2011
Excess		-0.0	-0.2	0.0	-0.0	
2045 FUND	**107,992,632**	**6.4**	**32.3**	**14.0**	**13.4**	**07/2011**
2045 FUND BENCHMARK		6.4	32.5	14.0	13.4	07/2011
Excess		-0.0	-0.2	0.0	-0.0	
2050 FUND	**$84,954,620**	**6.6%**	**34.9%**	**14.4%**	**13.9%**	**07/2011**
2050 FUND BENCHMARK		6.6	35.1	14.4	14.0	07/2011
Excess		-0.0	-0.2	0.0	-0.1	
2055 FUND	**55,862,061**	**6.8**	**36.4**	**14.7**	**14.1**	**07/2011**
2055 FUND BENCHMARK		6.8	36.6	14.7	14.2	07/2011
Excess		-0.0	-0.2	-0.0	-0.1	
2060 FUND	**45,573,936**	**6.8**	**36.4**	**14.7**	**14.1**	**07/2011**
2060 FUND BENCHMARK		6.8	36.6	14.7	14.2	07/2011
Excess		-0.0	-0.2	-0.0	-0.1	
2065 FUND	**3,085,220**	**6.8**	**36.4**			**04/2020**
2065 FUND BENCHMARK		6.8	36.6			04/2020
Excess		-0.0	-0.2			
INCOME FUND	**250,432,034**	**3.8**	**15.4**	**8.4**	**6.9**	**07/2011**
INCOME FUND BENCHMARK		3.8	15.5	8.3	6.9	07/2011
Excess		-0.0	-0.1	0.0	-0.0	

Note: Each SSgA Fund benchmark is the aggregate of the returns of the Fund's underlying index funds weighted by the Fund's asset allocation

STATE STREET.

MN College Savings Plan Options

The Minnesota College Savings Plan is an education savings plan designed to help families set aside funds for future college costs. 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 contract jointly with TIAA to provide administrative, marketing, communication, recordkeeping and investment management services. Please see the next page for the performance as reported by TIAA.

ENROLLMENT-BASED MANAGED ALLOCATIONS - The Enrollment Year Investment Option is a set of single fund options representing the date your future student needs their college savings. The asset allocation adjusts automatically to a more conservative investment objective and level of risk as the enrollment year approaches. The managed allocation changed from Age-Based to Enrollment-Based on October 28, 2019.

RISK BASED ALLOCATIONS - The Risk Based Allocation Option offers three separate allocation investment options - Aggressive, Moderate and Conservative, each of which has a fixed risk level that does not change as the Beneficiary ages.

ASSET CLASS BASED ALLOCATIONS

U.S. LARGE CAP EQUITY INDEX - A passive domestic stock portfolio that tracks the S&P 500.

INTERNATIONAL EQUITY INDEX - A fund that passively invests in a mix of developed and emerging market equities. The fund is expected to track a weighted benchmark of 80% MSCI ACWI World ex USA and 20% MSCI Emerging Markets Free Index.

U.S. AND INTERNATIONAL EQUITY INDEX - A fund that invests in a mix of equities, both U.S. and international, across all capitalization ranges and real estate-related securities. The fund is expected to track a weighted benchmark of 60% Russell 3000, 24% International, 6% Emerging Markets, and 10% Real Estate Securities Fund.

PRINCIPAL PLUS INTEREST OPTION - A passive fund where contributions 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 which is made by the insurance company to the policyholder, not the account owners. The account is expected to outperform the return of the 3-month T-Bill.

EQUITY AND INTEREST ACCUMULATION - A fund that passively invests half of the portfolio in U.S. equities across all capitalization ranges and the other half in the same Funding Agreement issued by TIAA-CREF Life as described above. The fund is expected to track a weighted benchmark of 50% Russell 3000 and 50% 3-month T-Bill.

100% FIXED INCOME - A fund that passively invests in fixed income holdings that tracks the Bloomberg Barclays U.S. Aggregate and two active funds that invest in inflation-linked bonds and high yield securities. The fund is expected to track a weighted benchmark of 70% BB Barclays Aggregate, 20% inflation-linked bond, and 10% high yield.

MONEY MARKET - An active fund that invests in high-quality, short-term money market instruments of both domestic and foreign issuers that tracks the iMoneyNet Average All Taxable benchmark.

SOCIAL CHOICE EQUITY ALLOCATION – An actively managed fund that seeks to provide a favorable long-term total return that reflects the investment performance of the overall U.S. equity market while giving special consideration to companies whose activities are consistent with certain environmental, social and governance criteria.

MINNESOTA 529
COLLEGE SAVINGS PLAN

MINNESOTA COLLEGE SAVINGS PLAN
Performance Statistics for the Period Ending: June 30, 2021

Total = $1,860 billion

Fund Name	Ending Market	3 Months	1 Year	Annualized 3 Years	5 Years	10 Years	Since Inception	Inception Date
2038/2039 Enrollment Option	$189,162						-0.10%	6/11/2021
2038-2039 Custom Benchmark							0.18%	
2036/2037 Enrollment Option	$43,724,717	6.44%	30.76%				18.04%	10/28/2019
2036-2037 Custom Benchmark		6.21%	31.07%				17.28%	
2034/2035 Enrollment Option	$40,968,052	6.26%	29.38%				17.30%	10/28/2019
2034-2035 Custom Benchmark		6.00%	29.73%				16.58%	
2032/2033 Enrollment Option	$48,235,447	6.05%	27.78%				16.71%	10/28/2019
2032-2033 Custom Benchmark		5.79%	28.15%				15.99%	
2030/2031 Enrollment Option	$59,965,072	5.64%	25.39%				15.48%	10/28/2019
2030-2031 Custom Benchmark		5.43%	25.79%				14.80%	
2028/2029 Enrollment Option	$78,409,537	5.00%	21.71%				13.58%	10/28/2019
2028-2029 Custom Benchmark		4.77%	21.97%				12.81%	
2026/2027 Enrollment Option	$110,363,052	4.24%	17.66%				11.77%	10/28/2019
2026-2027 Custom Benchmark		4.12%	17.99%				11.12%	
2024/2025 Enrollment Option	$154,199,250	3.62%	14.09%				10.00%	10/28/2019
2024-2025 Custom Benchmark		3.39%	14.14%				9.21%	
2022/2023 Enrollment Option	$183,810,183	2.55%	9.96%				7.31%	10/28/2019
2022-2023 Custom Benchmark		2.29%	9.61%				6.43%	
In School Option	$359,944,869	1.94%	6.67%				6.00%	10/28/2019
In School Custom Benchmark		1.69%	6.13%				4.85%	

MINNESOTA 529
COLLEGE SAVINGS PLAN

MINNESOTA COLLEGE SAVINGS PLAN
Performance Statistics for the Period Ending: June 30, 2021

Fund Name	Ending Market	3 Months	1 Year	Annualized 3 Years	5 Years	10 Years	Since Inception	Inception Date
U.S. and International Equity Option	$335,206,352	7.73%	39.69%	15.16%	14.76%	11.57%	8.23%	10/ 1/2001
BB: U.S. and International Equity Option		7.72%	40.69%	14.83%	14.60%	11.62%	8.95%	
Moderate Allocation Option	$96,954,639	5.50%	23.72%	11.57%	10.41%	8.30%	6.54%	8/ 2/2007
BB: Moderate Allocation Option		5.41%	24.26%	11.44%	10.30%	8.52%	7.06%	
100% Fixed-Income Option	$22,197,142	1.96%	1.89%	5.20%	3.16%	2.98%	3.75%	8/16/2007
BB: 100% Fixed-Income Option		1.98%	2.41%	5.56%	3.51%	3.46%	4.36%	
International Equity Index Option	$8,773,768	5.26%	33.31%	8.88%	10.64%		6.52%	6/18/2013
BB: International Equity Index Option		5.15%	34.19%	8.95%	10.89%		6.71%	
Money Market Option	$15,344,054	0.00%	0.09%	1.11%	0.94%	0.47%	0.53%	11/ 1/2007
BB: Money Market Option		0.00%	0.02%	0.97%	0.80%	0.41%	0.47%	
Principal Plus Interest Option	$132,833,896	0.37%	1.58%	1.85%	1.73%	1.60%	2.43%	10/10/2001
Citigroup 3-Month U.S. Treasury Bill		0.01%	0.08%	1.31%	1.14%	0.60%	1.28%	
Aggressive Allocation Option	$62,900,641	6.58%	31.36%	13.31%	12.60%		9.86%	8/12/2014
BB: Aggressive Allocation Option		6.56%	32.28%	13.19%	12.48%		9.75%	
Conservative Allocation Option	$17,115,599	3.28%	12.11%	7.46%	6.39%		5.19%	8/18/2014
BB: Conservative Allocation Option		3.19%	12.30%	7.52%	6.35%		5.23%	
Equity and Interest Accumulation Option	$6,777,266	4.23%	21.30%	10.20%	9.67%		7.79%	8/18/2014
BB: Equity and Interest Accumulation Option		4.08%	20.57%	10.21%	9.55%		7.71%	
U.S. Large Cap Equity Option	$80,062,448	8.51%	40.55%	18.48%	17.44%		14.32%	8/12/2014
BB: U.S. Large Cap Equity Option		8.55%	40.79%	18.67%	17.65%		14.44%	
Social Choice Equity Option	$27,261						1.20%	6/11/2021
BB: Social Choice Equity Option							1.13%	
Matching Grant	$1,913,343	0.37%	1.58%	1.85%	1.73%	1.60%	2.43%	3/22/2002
Citigroup 3-Month U.S. Treasury Bill		0.01%	0.08%	1.31%	1.14%	0.60%	1.28%	

MINNESOTA ABLE plan
A member of The National ABLE Alliance

Performance as of
06/30/21

Total Market Value: **$ 22,651,298**

Fund Name	Market Value	% of Plan	1 Month	3 Months	YTD	1 Year	3 Year	5 Year	10 Year	Inception	Inception Date
Aggressive Option	$ 1,906,137	8.42%	1.79	6.84	12.77	39.27	13.90			13.34	12/15/16
ABLE Aggressive Custom Benchmark			1.74	6.97	12.82	39.94	14.27			13.86	
Variance			**0.05**	**(0.13)**	**(0.05)**	**(0.67)**	**(0.37)**			**(0.52)**	
Moderately Aggressive Option	$ 2,146,315	9.48%	1.53	5.94	10.61	32.32	12.52			11.77	12/15/16
ABLE Moderately Aggressive Custom Benchmark			1.48	6.01	10.65	33.00	12.83			12.24	
Variance			**0.05**	**(0.07)**	**(0.04)**	**(0.68)**	**(0.31)**			**(0.47)**	
Growth Option	$ 3,006,737	13.27%	1.31	5.01	8.47	25.81	10.98			10.13	12/15/16
ABLE Growth Custom Benchmark			1.23	5.06	8.50	26.33	11.32			10.58	
Variance			**0.08**	**(0.05)**	**(0.03)**	**(0.52)**	**(0.34)**			**(0.45)**	
Moderate Option	$ 2,543,134	11.23%	1.05	4.03	6.32	19.39	9.40			8.47	12/15/16
ABLE Moderate Custom Benchmark			0.97	4.11	6.39	19.92	9.73			8.88	
Variance			**0.08**	**(0.08)**	**(0.07)**	**(0.53)**	**(0.33)**			**(0.41)**	
Moderately Conservative Option	$ 2,708,810	11.96%	0.77	2.81	4.28	12.97	6.95			6.21	12/15/16
ABLE Moderately Conservative Custom Benchmark			0.66	2.84	4.25	13.19	7.22			6.53	
Variance			**0.11**	**(0.03)**	**0.03**	**(0.22)**	**(0.27)**			**(0.32)**	
Conservative Option	$ 3,980,438	17.57%	0.35	1.14	1.50	4.64	3.60			3.14	12/15/16
ABLE Conservative Custom Benchmark			0.25	1.14	1.45	4.64	3.76			3.33	
Variance			**0.10**	**0.00**	**0.05**	**0.00**	**(0.16)**			**(0.19)**	
Checking Option	$ 6,359,727	28.08%									03/30/17

MINNESOTA ACHIEVE A BETTER LIFE EXPERIENCE

The Minnesota Achieve a Better Life Experience Plan (ABLE) is a savings plan designed to help individuals save for qualified disability expenses without losing eligibility for certain assistance programs. The plan is administered by the Department of Human Services (DHS).

The SBI and DHS have jointly contracted with Ascensus to provide recordkeeping, administrative, and investment management services for the plan.

RISK BASED ALLOCATIONS

The plan offers seven different allocation investment options: Aggressive, Moderately Aggressive, Growth, Moderate, Moderately Conservative, Conservative, and Checking.
Each allocation is based on a fixed risk level.

This page intentionally left blank.

Non-Retirement

June 30, 2021

Non-Retirement Funds

The SBI manages funds for trusts and programs created by the Minnesota State Constitution and Legislature.

- The Permanent School Fund is a trust established for the benefit of Minnesota public schools.
- The Environmental Trust Fund is a trust established for the protection and enhancement of Minnesota's environment. It is funded with a portion of the proceeds from the state's lottery.
- The Minnesota Workers Compensation Assigned Risk Plan provides worker compensation insurance for companies unable to obtain coverage through private carriers.
- The Closed Landfill Investment Fund is a trust created by the Legislature to invest money to pay for the long-term costs of maintaining the integrity of landfills in Minnesota once they are closed.
- Other Post-Employment Benefits Accounts (OPEB) are the assets set aside by local units of government for the payment of retiree benefits trusteed by the Public Employees Retirement Association.
- Miscellanous Trust Accounts are other small funds managed by the SBI for a variety of purposes.

All equity, fixed income, and cash assets for these accounts are managed externally by investment management firms retained by the SBI.

Non-Retirement

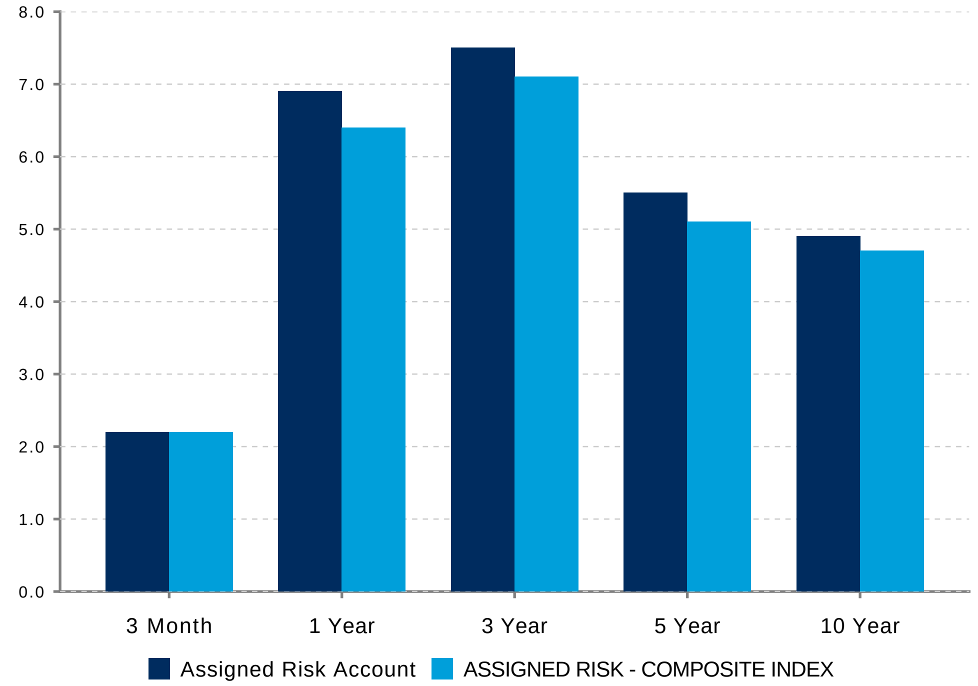
Assigned Risk Plan

The Assigned Risk plan has two investment objectives: to minimize the mismatch between assets and liabilities and to provide sufficient liquidity for the payment of ongoing claims and operating expenses.

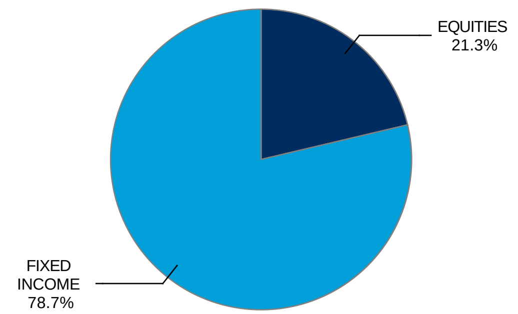
The Assigned Risk Plan is invested in a portfolio of common stocks and bonds

The equity segment is passively managed to track the performance of the S&P 500.

The fixed income benchmark is the Bloomberg Barclays Intermediate Government Index. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the total fund asset allocation targets of 80% fixed income and 20% equities. The actual asset mix will fluctuate and is shown in the graph below.



	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
Assigned Risk Account	$305,468,015	2.2%	6.9%	7.5%	5.5%	4.9%
EQUITIES	64,951,492	8.5	40.8	18.7	18.0	14.3
FIXED INCOME	240,516,523	0.6	-0.8	4.1	2.1	2.2
ASSIGNED RISK - COMPOSITE INDEX		2.2	6.4	7.1	5.1	4.7
Excess		0.1	0.5	0.4	0.4	0.1
S&P 500		8.5	40.8	18.7	17.6	14.8
BBG BARC US Gov: Int		0.6	-1.1	3.9	1.9	2.1



Note: Since 12/1/2017 the Assigned Risk equity segment has been managed by Mellon. From 1/17/2017-11/30/2017 it was managed internally by SBI staff. Prior to 1/17/2017 the equity segment was managed by SSgA (formerly GE Investment Mgmt.). RBC manages the fixed income segment of the Fund.

STATE STREET.

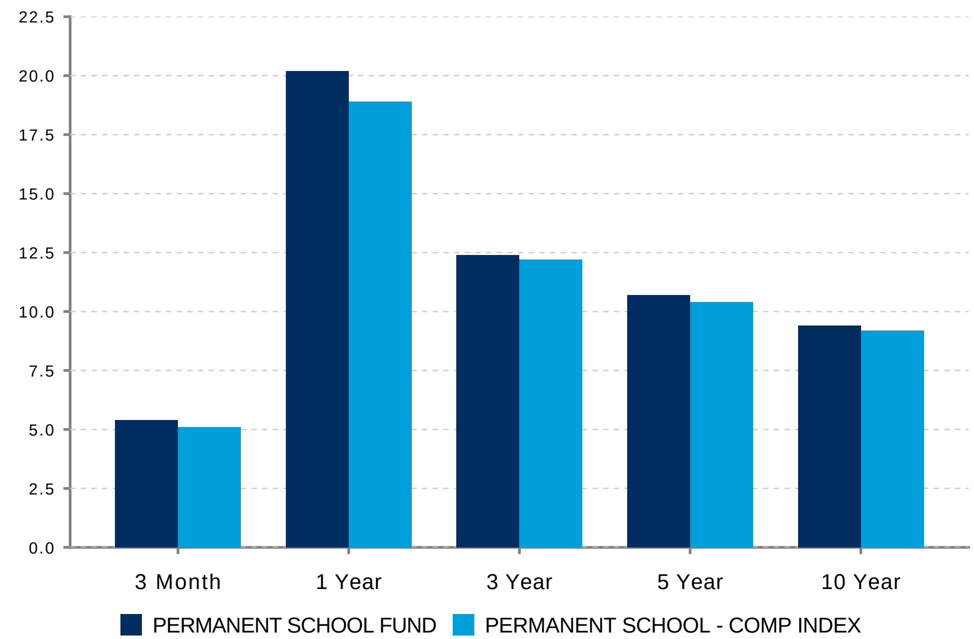
Non-Retirement

Permanent School Fund

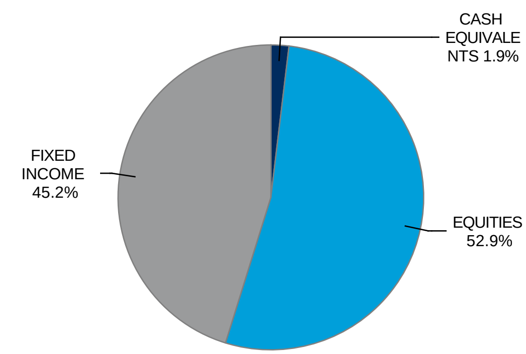
The investment objective of the Permanent School Fund is to produce a growing level of spendable income, within the constraints of maintaining adequate portfolio quality and liquidity. The income from the portfolio is transferred to the school endowment fund and distributed to Minnesota's public schools.

The Permanent School Fund is invested in a balanced portfolio of common stocks and bonds. Common stocks provide the potential for significant capital appreciation, while bonds provide portfolio diversification and a more stable stream of current income.

The stock segment is passively managed to track the performance of the S&P 500. The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The fixed income benchmark is the Bloomberg Barclays U.S. Aggregate. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the total fund asset allocation targets of 2% cash, 50% equity, and 48% fixed income. The actual asset mix will fluctuate and is shown in the graph below.



	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
PERMANENT SCHOOL FUND	$1,939,972,265	5.4%	20.2%	12.4%	10.7%	9.4%
CASH EQUIVALENTS	36,329,397	0.0	0.1	1.3	1.2	0.7
EQUITIES	1,027,173,031	8.5	40.8	18.7	17.6	14.8
FIXED INCOME	876,469,837	2.1	1.2	5.9	3.6	3.9
PERMANENT SCHOOL - COMP INDEX		5.1	18.9	12.2	10.4	9.2
Excess		0.3	1.4	0.2	0.3	0.3
S&P 500		8.5	40.8	18.7	17.6	14.8
BBG BARC US Agg		1.8	-0.3	5.3	3.0	3.4



Note: Since 12/1/2017 the equity segment has been managed by Mellon and the fixed income segment by Prudential. Prior to 12/1/2017 both segments were managed internally by SBI staff. Prior to 7/1/97 the Fund allocation was 100% fixed income.

STATE STREET

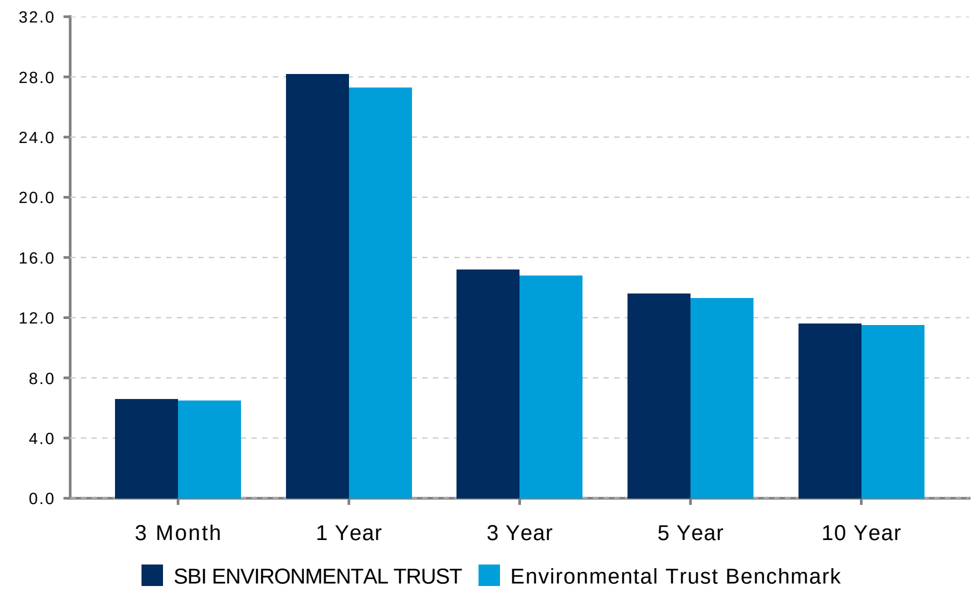
Non-Retirement

Environmental Trust Fund

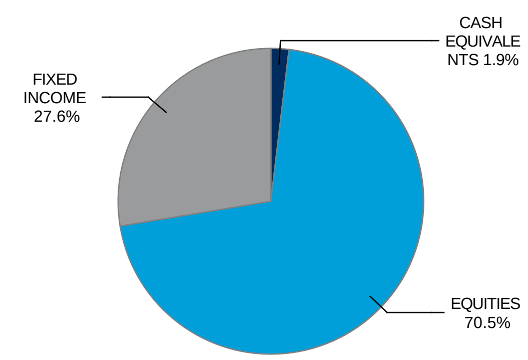
The objective of the Environmental Trust Fund is to increase the market value of the Fund over time in order to increase the annual amount made available for spending within the constraints of maintaining adequate portfolio quality and liquidity.

The Environmental Trust Fund is invested in a balanced portfolio of common stocks and bonds. Common stocks provide the potential for significant capital appreciation, while bonds act as a deflation hedge and provide portfolio diversification.

The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The stock segment is passively managed to track the performance of the S&P 500. The fixed income benchmark is the Bloomberg Barclays U.S. Aggregate. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the total fund asset allocation targets of 2% cash, 70% equities, and 28% fixed income. The actual asset mix will fluctuate and is shown in the graph below.



	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
SBI ENVIRONMENTAL TRUST	$1,641,296,272	6.6%	28.2%	15.2%	13.6%	11.6%
CASH EQUIVALENTS	31,926,783	0.0	0.1	1.3	1.2	0.7
EQUITIES	1,156,601,642	8.5	40.8	18.7	17.6	14.8
FIXED INCOME	452,767,847	2.1	1.2	5.9	3.6	3.9
Environmental Trust Benchmark		6.5	27.3	14.8	13.3	11.5
Excess		0.2	0.9	0.3	0.3	0.2
S&P 500		8.5	40.8	18.7	17.6	14.8
BBG BARC US Agg		1.8	-0.3	5.3	3.0	3.4



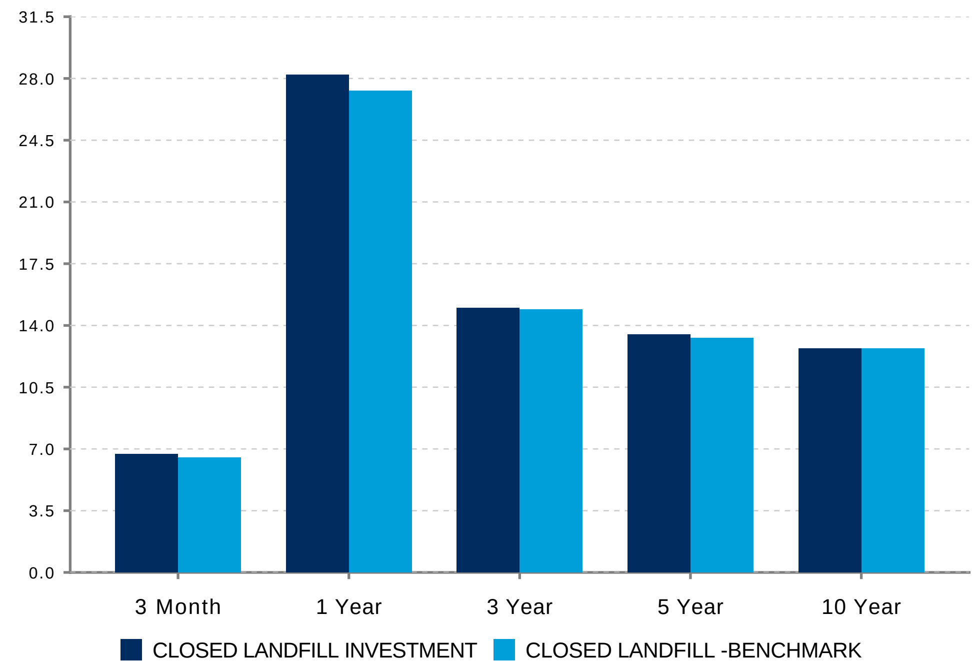
Note: Since 12/1/2017 the equity segment has been managed by Mellon and the fixed income segment by Prudential. Prior to 12/1/2017 both segments were managed internally by SBI staff. From 7/1/94 to 7/1/99, the Fund's target allocation and benchmark was 50% fixed income and 50% stock. Prior to 7/1/94 the Fund was invested entirely in short-term instruments as part of the Invested Treasurer's Cash pool.

Non-Retirement

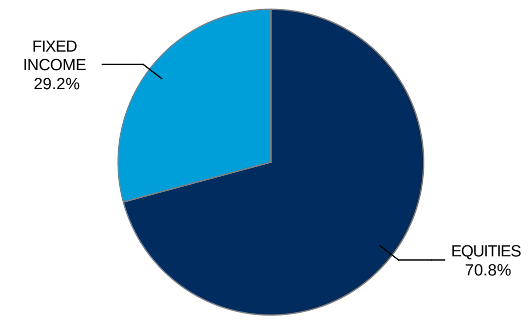
Closed Landfill Investment Fund

The investment objective of the Closed Landfill Investment Fund is to increase the market value of the Fund and to reduce volatility to meet future expenditures. By statute, the assets of the Fund are unavailable for expenditure until after the fiscal year 2020 to pay for long-term costs of maintaining the integrity of landfills in Minnesota once they are closed. In FY 2011, $48 million was transferred out of the general fund leaving a balance of $1 million in the account. Legislation was enacted in 2013 to replenish the principal and earnings back into the fund and in FY 2014 a repayment was made in the amount of $64.2 million. In 2015, legislation was passed which repealed any further repayments.

The bond segment is actively managed to add incremental value through sector, security and yield curve decisions. The stock segment is managed to passively track the performance of the S&P 500. The fixed income benchmark is the Bloomberg Barclays U.S. Aggregate. The total fund benchmark is a combination of the fixed income and equity benchmarks, weighted according to the total fund asset allocation targets of 70% equities and 30% fixed income. The actual asset mix will fluctuate and is shown in the graph below.



	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
CLOSED LANDFILL INVESTMENT	$131,527,906	6.7%	28.2%	15.0%	13.5%	12.7%
EQUITIES	93,173,585	8.5	40.8	18.7	17.6	14.8
FIXED INCOME	38,354,321	2.1	1.2	5.9	3.6	
CLOSED LANDFILL -BENCHMARK		6.5	27.3	14.9	13.3	12.7
Excess		0.2	0.9	0.0	0.1	0.0
S&P 500		8.5	40.8	18.7	17.6	14.8
BBG BARC US Agg		1.8	-0.3	5.3	3.0	3.4



Note: Since 12/1/2017 the equity segment has been managed by Mellon and the fixed income segment by Prudential. Prior to 12/1/2017 both segments were managed internally by SBI staff. Prior to 9/10/14 the Fund's target allocation and benchmark was 100% domestic equity.

	Ending Market Value	Last Qtr	Fiscal YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
NON RETIREMENT EQUITY INDEX - MELLON	**3,232,857,611**	**8.5**	**40.8**	**40.8**	**18.7**	**17.6**	**14.8**	**10.6**	**07/1993**
S&P 500 INDEX (DAILY)		8.5	40.8	40.8	18.7	17.6	14.8	10.5	07/1993
Excess		0.0	0.0	0.0	0.0	-0.0	-0.0	0.1	
NON RETIREMENT FIXED INCOME - PRUDENTIAL	**1,561,344,195**	**2.1**	**1.2**	**1.2**	**5.9**	**3.6**	**3.9**	**5.9**	**07/1994**
BBG BARC Agg (Dly)		1.8	-0.3	-0.3	5.3	3.0	3.4	5.4	07/1994
Excess		0.3	1.6	1.6	0.5	0.6	0.5	0.5	
RBC	**240,516,619**	**0.6**	**-0.8**	**-0.8**	**4.1**	**2.1**	**2.2**	**4.8**	**07/1991**
RBC Custom Benchmark		0.6	-1.1	-1.1	3.9	1.9	2.1	4.8	07/1991
Excess		-0.0	0.4	0.4	0.1	0.1	0.0	-0.1	
MET COUNCIL OPEB BOND POOL	111,259,791	0.8	0.4	0.4	3.0				02/2009
NON RETIREMENT CASH	**157,618,570**	**0.0**	**0.1**	**0.1**	**1.3**	**1.2**	**0.7**	**2.5**	
iMoneyNet Money Fund Average-All Taxable		0.0	0.0	0.0	1.0	0.9	0.4		
Excess		0.0	0.1	0.1	0.3	0.4	0.3		

Note:

RBC is the manager for the fixed income portion of the assigned risk account. RBC changed its name from Voyageur Asset Management on 1/1/2010. The current benchmark is the Bloomberg Barclays Intermediate Government Index. Prior to 7/1/11 the Voyageur Custom Index was 10% 90 day T-Bill, 25% Merrill 1-3 Government, 15% Merrill 3-5 Government, 25% Merrill 5-10 Government, 25% Merrill Mortgage Master.

Prior to 12/1/17 the Non Retirement Equity Index and Non Retirement Fixed Income accounts were managed internally by SBI staff.

In addition to the Non-Retirement Funds listed on the previous pages, the Non Retirement Equity Index and the Non Retirement Fixed Income accounts also include the assets of various smaller Miscellaneous Trust Accounts and Other Post Employment Benefits.

STATE STREET

This page intentionally left blank.

State Cash

June 30, 2021

State Cash Accounts

Invested Treasurer's Cash

The Invested Treasurer's Cash Pool (ITC) represents the balances in more than 400 separate accounts that flow through the Minnesota State Treasury. These accounts vary greatly in size. The ITC contains the cash balances of certain State agencies and non-dedicated cash in the State Treasury.

The investment objectives of the ITC, in order of priority, are as follows:

- Safety of Principal. To preserve capital.
- Liquidity. To meet cash needs without the forced sale of securities at a loss.
- Competitive Rate of Return. To provide a level of current income consistent with the goal of preserving capital.

The SBI seeks to provide safety of principal by investing all cash accounts in high quality, liquid, short term investments. These include U.S. Treasury and Agency issues, repurchase agreements, bankers acceptances, commercial paper, and certificates of deposit.

Beginning in January 2003, the Treasurer's Cash Pool is measured against the iMoneyNet, All Taxable Money Fund Report Average.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
Treasurer's Cash	19,478,766,222	0.1	0.3	1.6	1.4	1.0
iMoneyNet Money Fund Average-All Taxable		0.0	0.0	1.0	0.9	0.4

Other State Cash Accounts

Due to differing investment objectives, strategies, and time horizons, some State agencies' accounts are invested seperately. These agencies direct the investments or provide the SBI with investment guidelines and the SBI executes on their behalf. Consequently, returns are shown for informational purposes only and there are no benchmarks for these accounts.

	Ending Market Value	Last Qtr	1 Year	3 Year	5 Year	10 Year
Debt Service	71,870,589	0.9	1.8	4.0	2.7	
Public Facilities Authority	2,132,157	0.6	2.3	2.2	1.8	

Addendum

Benchmark Definitions

Active Domestic Equity Benchmark:

A weighted composite each of the individual active domestic equity managers' benchmarks. Effective 3/1/2017 the calculation uses the average weight of the manager relative to the total group of active managers during the month. Prior to 3/1/2017 the beginning of the month weight relative to the total group was used.

Benchmark DM:

Since 6/1/08 the developed markets managers' benchmark, "Benchmark DM," is the Standard (large + mid) MSCI World ex USA (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI World ex USA (net). From 10/1/03 to 9/30/07 the benchmark was the MSCI World ex USA (net). Prior to that date, it was the MSCI EAFE Free (net), including from 10/1/01 to 5/31/02 when it was the Provisional MSCI EAFE Free (net).

Benchmark EM:

Since 6/1/08 the emerging markets managers' benchmark, "Benchmark EM,"is the Standard (large + mid) MSCI Emerging Markets Free (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI Emerging Markets Free (net). From 1/1/01 to 9/30/07 the benchmark was the MSCI Emerging Markets Free (net), including from 10/1/01 to 5/31/02 when it was the Provisional MSCI Emerging Markets Free (net). Prior to 1/1/01, it was the MSCI Emerging Markets Free (gross).

Combined Funds Composite Index:

The Composite Index performance is calculated by multiplying the beginning of month Composite weights by the monthly returns of the asset class benchmarks. Asset class weights for Private Markets - Invested and Private Markets - Uninvested are reset at the start of each month. From 1/1/2018-2/28/2019 the Transitional Policy Target was used to reflect the addition of Treasuries to the Fixed Income portfolio. From 7/1/2016-12/31/2016 the composite weights were set to match actual allocation as the portfolio was brought into line with the new Strategic Asset Allocation Policy Target. 7/1/2016 to 12/1/2020 the uninvested portion of Private Markets allocated to Public Equity. Prior to 7/1/2016 the uninvested portion of the Private Markets was invested in Fixed Income and the Composite Index was adjusted accordingly. When the Strategic Asset Allocation Policy Target changes, so does the Composite Index.

Core Bonds Benchmark:

In 2016, the Barclays Agg was rebranded Bloomberg Barclays Agg to reflect an ownership change. Prior to 9/18/2008 this index was called the Lehman Brothers Aggregate Bond Index. From 7/1/84-6/30/94 the asset class benchmark was the Salomon Brothers Broad Investment Grade Index. The SBI name for this benchmark changed from Fixed Income to Core Bonds on March 31, 2020.

Credit Plus Benchmark:

40% Bloomberg Barclays US Corporate Bond Index, 30% Bloomberg Barclays US Mortgage Backed Index, 20% BofA ML US High Yield BB-B Cash Pay Constrained Index, and 10% JPM EMBI Global Diversified Index.

Addendum

Domestic Equity Benchmark:

Since 12/1/2020 the benchmark is the Russell 3000. From 1/1/2019-11/30/2020 the benchmark was 90% Russell 1000 and 10% Russell 2000. From 10/1/2003 to 12/31/2018 it was the Russell 3000. From 7/1/1999 to 9/30/2003, it was the Wilshire 5000 Investable Index. From 11/1/1993 to 6/30/1999, the target was the Wilshire 5000 as reported with no adjustments. Prior to 11/1/1993, the Wilshire 5000 was adjusted to reflect SBI mandated restrictions, which included liquor and tobacco, American Home Products and South Africa.

Fixed Interest Blended Benchmark: Since 6/1/2002, equals 3 Year Constant Maturity Treasury Yield + 45 bps. Prior to this change it was the 3 Year Constant Maturity Treasury Yield + 30 bps.

International Equity Benchmark:

Since 12/1/2020 equals the MSCI ACWI ex-US(Net). From 1/1/2018 to 1/1/2019 it was 75% MSCI World ex USA Index (net) and 25% MSCI Emerging Markets Index (net). From 6/1/08 to 12/31/2018 the International Equity asset class target was the Standard (large + mid) MSCI ACWI ex U.S. (net). From 10/1/07 through 5/31/08 the benchmark was the Provisional Standard MSCI ACWI ex U.S. (net). From 10/1/03 to 9/30/07 the target was MSCI ACWI ex U.S. (net). From 1/1/01 to 9/30/03, the target was MSCI EAFE Free (net) plus Emerging Markets Free (net), and from 7/1/99 to 12/31/00 the target was MSCI EAFE Free (net) plus Emerging Markets Free (gross). From 7/1/99 to 9/30/03, the weighting of each index fluctuated with market capitalization. From 10/1/01 to 5/31/02 all international benchmarks being reported were the MSCI Provisional indices. From 12/31/96 to 6/30/99 the benchmark was fixed at 87% EAFE Free (net)/13% Emerging Markets Free (gross). On 5/1/96, the portfolio began transitioning from 100% EAFE Free (net) to the 12/31/96 fixed weights. Prior to 5/1/96 it was 100% the EAFE Free (net).

Multi-Asset Credit Benchmark:

33.33% ICE BofA High Yield, 33.33% S&P LSTA Leveraged Loan, and 33.33% JPM EMBI Global Diversified Index.

Passive Domestic Equity Benchmark:

A weighted average of the Russell 1000, Russell 2000 and Russell 3000 effective 11/1/2018. From 10/1/2016 to 11/1/2018 it was a weighted average of the Russell 1000 and Russell 3000. From 10/1/2003 to 10/1/2016 it was equal to the Russell 3000. From 7/1/2000 to 9/30/2003, it was the Wilshire 5000 Investable Index. From 11/1/1993 to 6/30/2000, the target was the Wilshire 5000 as reported with no adjustments. Prior to 11/1/1993, the Wilshire 5000 was adjusted to reflect SBI mandated restrictions, which included liquor and tobacco, American Home Products and South Africa.

Passive Manager Benchmark:

Russell 3000 effective 10/1/2003. From 7/1/2000 to 9/30/2003, it was the Wilshire 5000 Investable Index. From 11/1/1993 to 6/30/2000, the target was the Wilshire 5000 as reported with no adjustments. Prior to 11/1/1993, the Wilshire 5000 was adjusted to reflect SBI mandated restrictions, which included liquor and tobacco, American Home Products and South Africa.

Addendum

Public Equity Benchmark:

Since 12/1/2020 it is 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 thru 12/31/2018 it was 67% Russell 3000 and 33% MSCI ACWI ex USA. Prior to 6/30/16 the returns of Domestic and International Equity were not reported as a total Public Equity return. 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 USA until it reached 67% and 33%.

Return Seeking BM:

A weighted composite of each individual return seeking fixed income managers' benchmarks. The calculation uses the average weight of the manager relative to the total group of active managers during the month.

Semi-Passive Domestic Equity Benchmark: Russell 1000 index effective 1/1/2004. Prior to 1/1/2004 it was the Completeness Fund benchmark.

Total Fixed Income Benchmark:

Since 7/1/2020 the Total Fixed Income benchmark is 40% Bloomberg Barclays U.S. Aggregate Index/ 40% Bloomberg Barclays Treasury 5+ Years Index/ 20% ICE BofA US 3-Month Treasury Bill. From 4/1/2019-6/30/2020 it was 50% Bloomberg Barclays Agg and 50% Bloomberg Barclays Treasury 5+ Years Index. From 2/1/2018-3/31/19 the weighting of this benchmark reflected the relative weights of the Core Bonds and Treasuries allocations in the Combined Funds Composite.

Zevenbergen Benchmark: Russell 3000 Growth index effective 1/1/2021. Prior to 1/1/2021 it was the Russell 1000 Growth Index.