

Pennsylvania Municipal Retirement System

Quarterly Performance Report
As of March 31, 2023



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Marquette Update



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Marquette Update

2Q 2023



Save the date!

Our Symposium will be held as a hybrid event again this year, with an in-person option in Chicago at the Union League Club and a virtual livestream online. We're excited to welcome Frank Kelly and Ben Mezrich as featured speakers and our research team will also present several flash talks. All clients are invited — full invitation coming in July!

Friday, September 15TH

\$337B

assets under advisement

99%

client retention rate

37th

year in business

100%

employee-owned¹

25

partners

130+

employees



QUARTERLY RESEARCH

▶ April 20

1Q Market Insights
Webinar: 4/20
YouTube: 4/21

▶ April 25

Letter from the Director
of Research

IN THE INDUSTRY

- ▶ Amy Miller was named to Kayo Conference Series' 23 in '23 Women in Endowments & Foundations list ([link](#))
- ▶ Tom Latzke presented at Opal Group's Public Funds Summit 2023 1/12 ([link](#))
- ▶ Catherine Callaghan presented at DePaul University's Females in Finance Initiative 1/18 ([link](#))
- ▶ Dave Smith presented at the Community Foundation of Northeast Iowa's Professional Advisor Education Series 1/18 ([link](#))
- ▶ Kweku Obed presented at the National Association of Securities Professionals' (NASP) Diverse Manager Forum 1/19 ([link](#))
- ▶ Glenn E. Ross presented at the 2023 College Savings Plan Network Prepaid Mini Conference 2/28 ([link](#))
- ▶ Evan Frazier and Frank Valle presented at the Ohio Institutional Forum 3/2 ([link](#))
- ▶ Kweku Obed presented at the Georgia Association of Public Pension Trustees (GAPPT) Annual Conference 3/21 ([link](#))
- ▶ Jessica Noviskis presented at the OCIO Central Summit 3/22 ([link](#))

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Client data as of December 31, 2022; firm data as of April 2023. Client retention rate calculated as the average annual retention rate trailing ten years. ¹By current and former employees. Marquette is an independent investment adviser registered under the Investment Advisers Act of 1940, as amended. Registration does not imply a certain level of skill or training. More information about Marquette including our investment strategies, fees and objectives can be found in our ADV Part 2, which is available upon request and on our website.

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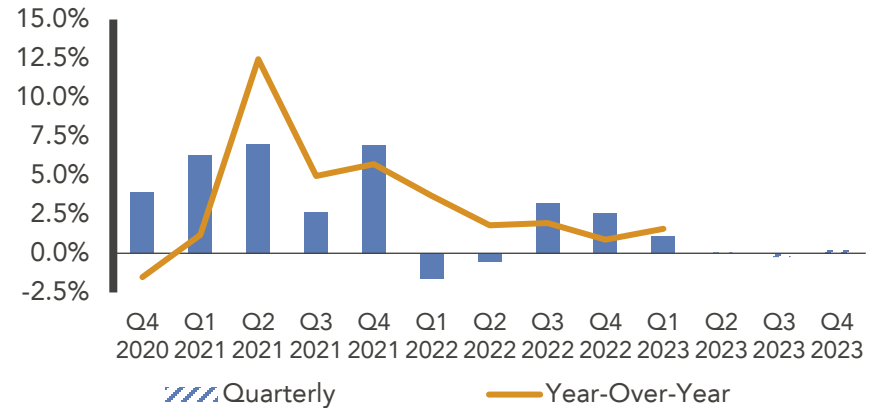
Market Environment



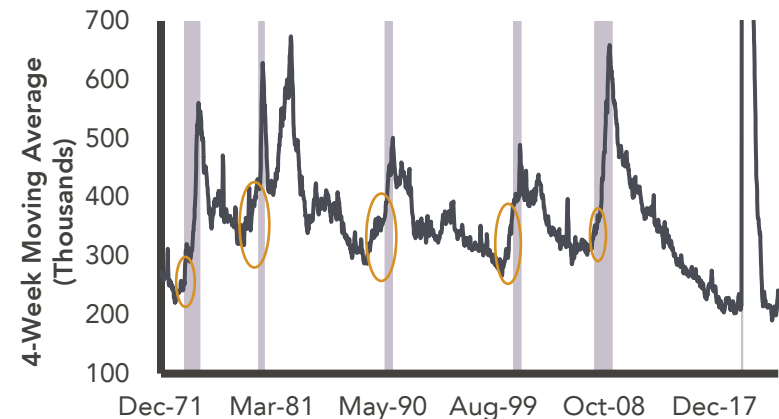
U.S. Economy

- U.S. economic activity continued to decelerate in Q1 as real GDP grew at an annualized rate of just 1.1%. While consumer spending picked up compared to Q4, a slowdown in private inventory investment was a strong headwind to economic growth to begin the year.
- Economic data have generally come in better-than-expected in the first few months of the year. Still, according to an April survey conducted by *The Wall Street Journal*, economists saw a recession more likely than not in the coming 12 months.
- Recently, initial jobless claims have increased slightly. Outside of the pandemic, initial jobless claims have notably increased prior to every recession since the late 1970s.
- Further, the U.S. Manufacturing PMI declined to 46.3 in March from 47.7 in February. All subcomponents were below 50.0, which separates growth from contraction, for the first time since 2009.

U.S. Real GDP Growth



4-Week Moving Average of Initial Jobless Claims and Recessions



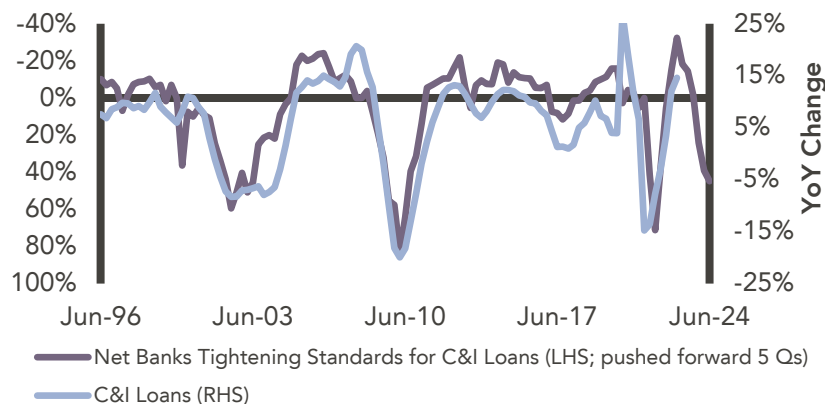
Source: Refinitiv, The Wall Street Journal

Note: In the "Real GDP Growth" chart, striped bars reflect economist estimates from *The Wall Street Journal Economic Forecasting Survey*.

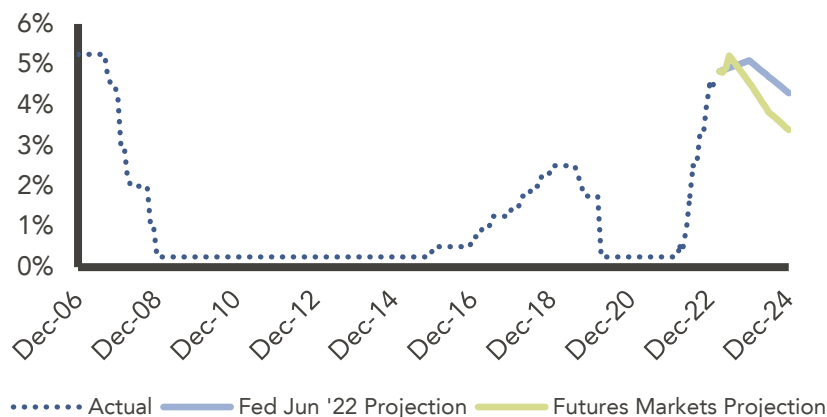
U.S. Economy

- The economic outlook remains on shaky ground as the impact of tighter monetary policy is rippling through the banking sector.
- Even prior to the failures of Silicon Valley Bank and Signature Bank, many banks were reporting tighter lending standards for commercial and industrial loans. This has historically led to negative loan growth over the next 4-5 quarters.
- With small- and medium-sized banks now under pressure to shore up their deposit base and strengthen their balance sheets, loan growth will likely come under additional pressure.
- While the Federal Reserve acknowledged the potential economic impacts from stress in the banking sector at its March meeting, the Board projects that it will raise short-term interest rates one more time this year, before leaving rates at that level through 2023. The market, on the other hand, is now pricing in 2-3 rate cuts before the end of the year.

Banks Tightening Standards of C&I Loans vs. C&I Loan Growth



Short-Term Interest Rates

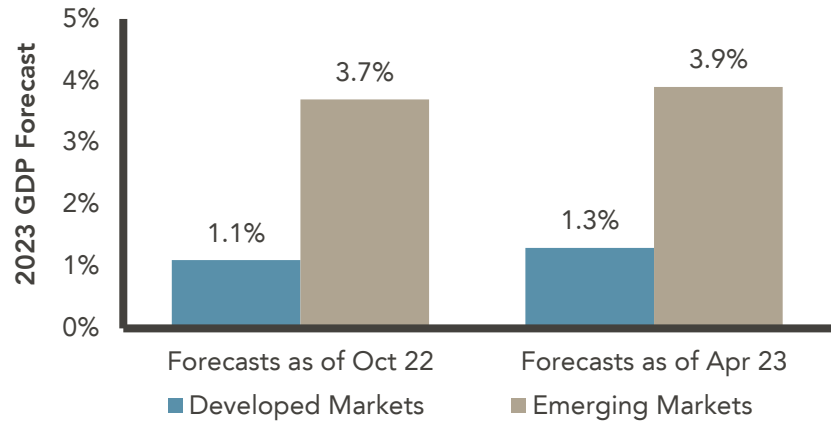


Source: Federal Reserve Bank of San Francisco, Refinitiv

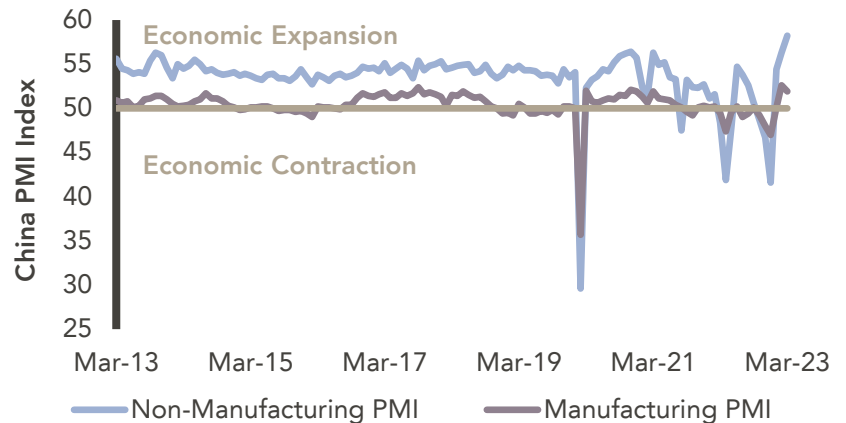
Global Economy

- While the recent bout of instability in the U.S. banking sector has added additional uncertainty to the global economic growth outlook, the IMF has increased its 2023 economic growth forecasts for both developed and emerging market economies.
- Underneath the surface, however, there is notable dispersion across economies, with the eurozone and the United Kingdom expected to slow materially.
- At the other end of the spectrum, economic activity in China appears to be gaining momentum. The official non-manufacturing Purchasing Managers' Index (PMI) soared to 58.2 in March from 56.3 in February, marking the best level since 2011.

2023 Global Economic Growth Forecast



China PMI Data

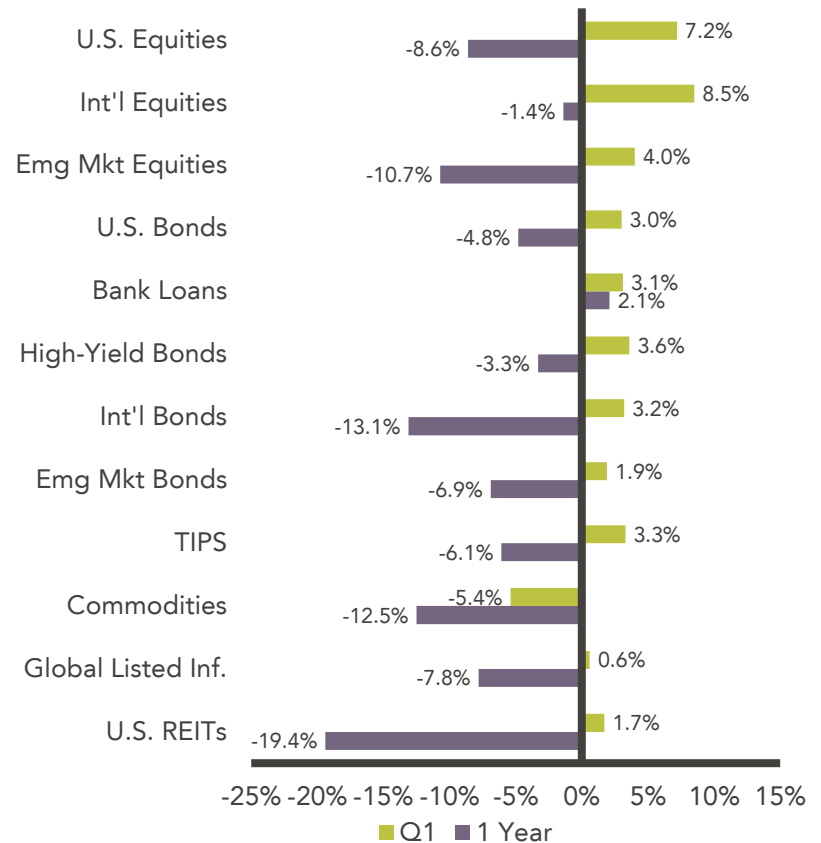


Source: Bloomberg, IMF

Global Asset Class Performance

- Global equities rallied in Q1, continuing their rebound from the end of 2022. U.S equities lagged their international developed counterparts but topped emerging market equities. Stronger-than-expected economic growth, falling interest rates, and seasonal tailwinds drove equity market strength.
- Fixed income markets also saw another strong quarter in Q1. After rising to begin the year, intermediate- and long-term treasury yields ended the quarter 30-40 basis points lower thanks to a dramatic decline amid the last few weeks of March in the wake of two notable bank failures.
- Inflation-sensitive assets performance had mixed performance in Q1. TIPS were firmly in the black, outperforming their nominal government bond counterparts due to rising inflation expectations. Global listed infrastructure and REITs, however, underperformed broad global and U.S. equity markets, respectively. REITs came under heavy pressure due to concerns over the office sector as small- and mid-sized regional banks are a large lender to the asset class. Commodities, meanwhile, were in the red largely due to falling energy prices.

Asset Class Returns: Select Asset Class Performance

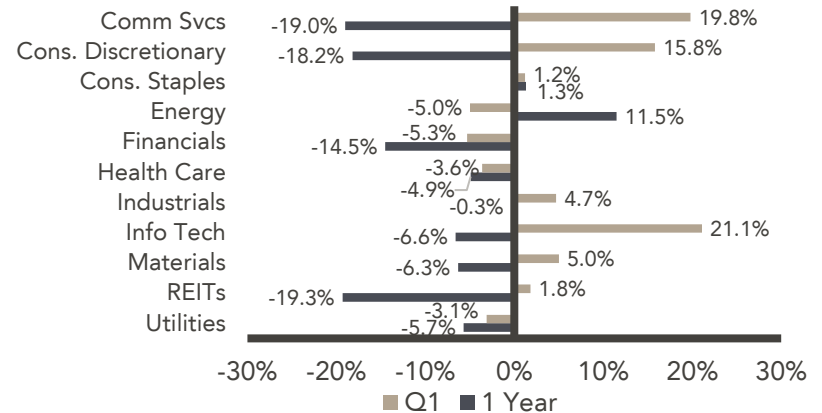


Source: Markov Processes International

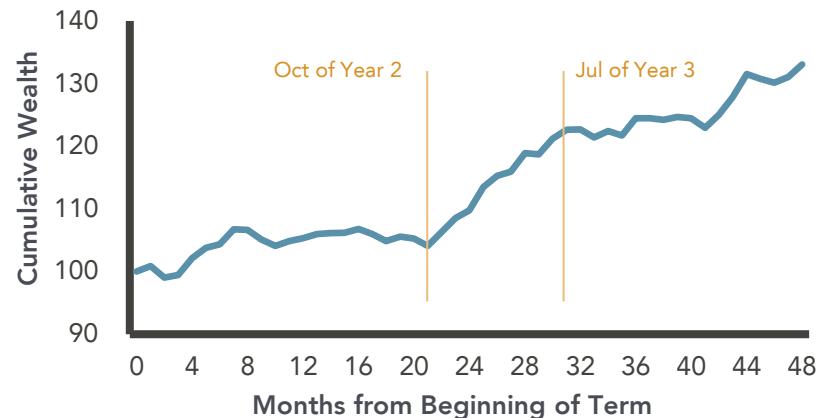
U.S. Equity Markets

- Economic sector performance was mixed in Q1, with seven of eleven sectors posting gains. More defensive sectors lagged the broad markets as Health Care and Utilities were in the red, while Consumer Staples generated a marginal gain. At the other end of the spectrum, Information Technology and Communication Services led the way.
- From a style perspective, growth stocks topped value stocks handily during Q1. Value suffered from the underperformance of Energy and Financials. The latter lagged due to concerns over small- and mid-sized banks, lower interest rates, and the prospect of increased regulatory scrutiny following the failures of Silicon Valley Bank and Signature Bank.
- In addition to decent economic data and falling interest rates, the calendar was quite favorable for equity markets. Since 1900, more than half of the return for the S&P 500 Index has been generated from October in Year two of a President's term through July in Year 3. In the current term, this period began in October 2022, when the market bottomed before beginning its current rally.

Sector Returns



Presidential Cycle and Equity Returns

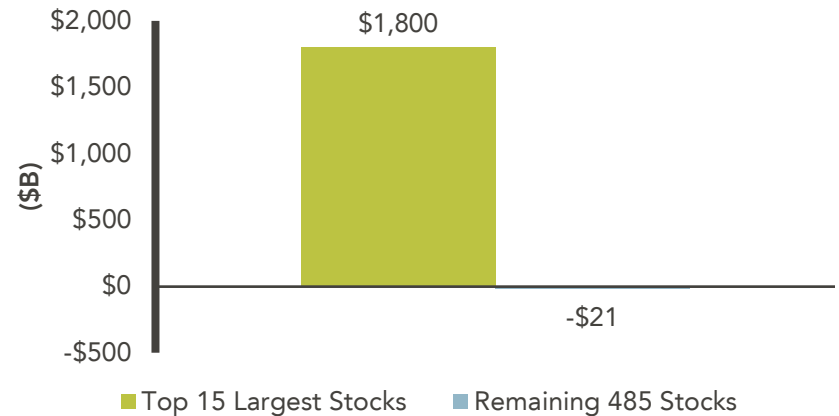


Source: Federal Reserve Bank of St. Louis, Markov Processes International, Refinitiv

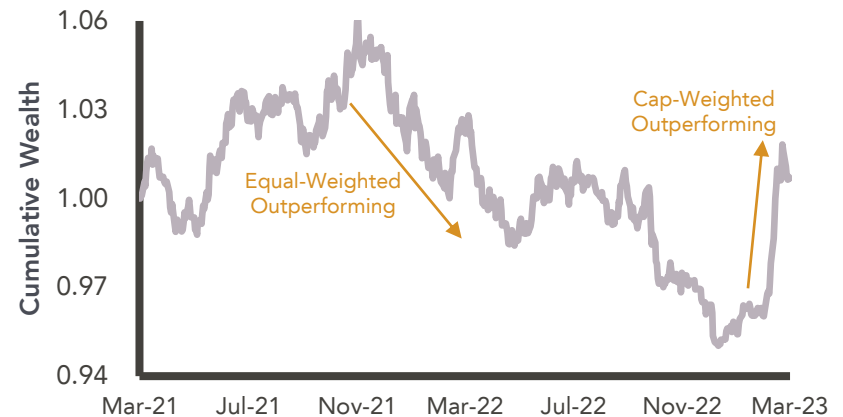
U.S. Equity Markets

- Another notable feature of the market's gains in Q1 was the dramatic outperformance of a handful of the largest stocks. According to Crescat Capital, the top 15 stocks in the S&P 500 Index saw their cumulative market capitalization increase by \$1.8 trillion in the first quarter, compared to a decline of \$21 billion for the remaining 485 stocks.
- The outperformance of the largest stocks is also evident in the relative performance of the S&P 500 Index vs. the S&P 500 Equal-Weighted Index. The former outperformed its equal-weighted counterpart by more than 450 basis points in Q1—the widest outperformance since Q1 2020.
- This was also evident further down the capitalization spectrum as well. The Russell 2000, which has a large exposure to Financials, particularly banks, posted a gain of 2.7%, underperforming the Russell Top 200 by nearly six percentage points in Q1.

S&P 500 Market Capitalization Change in Q1



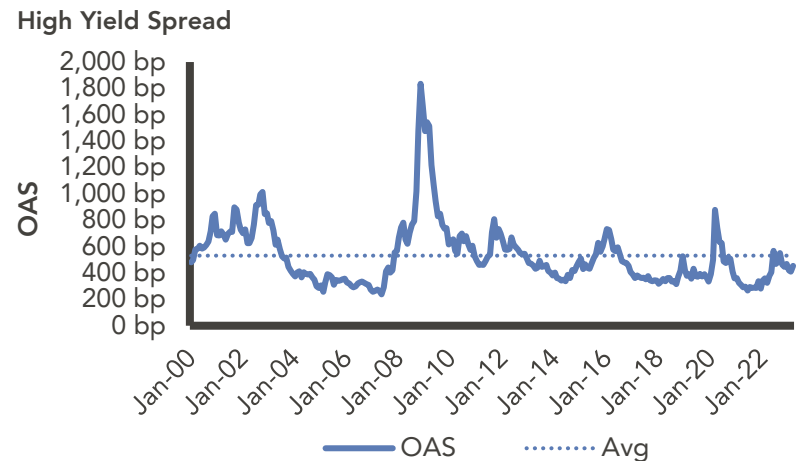
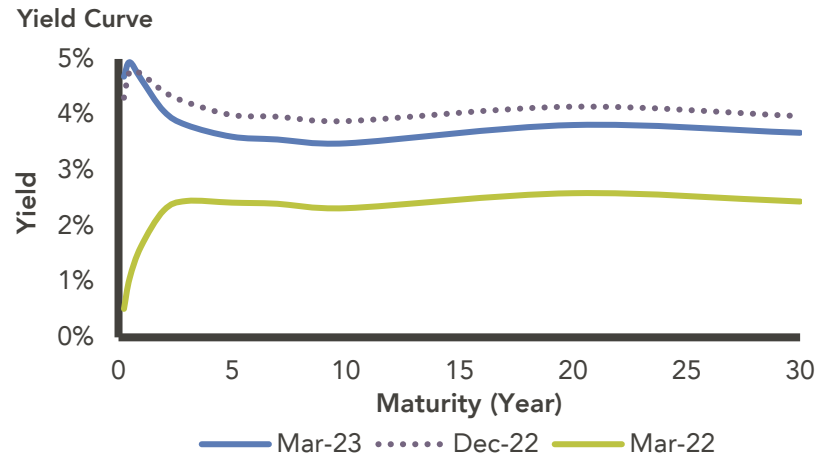
S&P 500 Index vs. the S&P 500 Equal-Weighted Index



Source: Crescat Capital, FactSet, Refinitiv

U.S. Fixed Income

- While T-Bill yields rose in sympathy with the Federal Reserve hiking short-term interest rates, all maturities one-year and longer saw yields decline in Q1 amid the stress in the banking sector.
- The yield curve saw a dramatic bull steepening in the second half of March with the spread between the 2-year note and the 30-year bond falling from -117 basis points in early March to -39 basis points at the end of the quarter.
- The broad investment-grade bond market saw its second straight quarterly gain in Q1, with the Bloomberg Aggregate Index returning 3.0%.
- Sub-investment grade debt marginally outperformed their investment-grade counterparts. Bank Loans slightly outperformed as tighter spreads offset the lack of meaningful duration amid falling rates. High yield also outperformed amid tighter spreads relative to treasuries.



Source: Refinitiv

Global Index Returns

DOMESTIC EQUITY	QTR	YTD	1 Year	3 Year	5 Year	10 Year
S&P 500 Index	7.5	7.5	(7.7)	18.6	11.2	12.2
Russell 3000 Index	7.2	7.2	(8.6)	18.5	10.5	11.7
Russell 3000 Growth Index	13.9	13.9	(10.9)	18.2	13.0	14.2
Russell 3000 Value Index	0.9	0.9	(6.3)	18.1	7.3	9.0
Russell TOP 200 Index	8.7	8.7	(8.3)	18.4	11.9	12.8
Russell TOP 200 Growth Index	15.6	15.6	(11.4)	19.3	14.8	15.6
Russell TOP 200 Value Index	0.8	0.8	(4.2)	16.6	8.0	9.3
Russell 1000 Index	7.5	7.5	(8.4)	18.6	10.9	12.0
Russell 1000 Growth Index	14.4	14.4	(10.9)	18.6	13.7	14.6
Russell 1000 Value Index	1.0	1.0	(5.9)	17.9	7.5	9.1
Russell Mid-Cap Index	4.1	4.1	(8.8)	19.2	8.1	10.1
Russell Mid-Cap Growth Index	9.1	9.1	(8.5)	15.2	9.1	11.2
Russell Mid-Cap Value Index	1.3	1.3	(9.2)	20.7	6.5	8.8
Russell 2000 Index	2.7	2.7	(11.6)	17.5	4.7	8.0
Russell 2000 Growth Index	6.1	6.1	(10.6)	13.4	4.3	8.5
Russell 2000 Value Index	(0.7)	(0.7)	(13.0)	21.0	4.5	7.2
DOMESTIC EQUITY BY SECTOR (MSCI)						
Communication Services	19.8	19.8	(19.0)	9.0	7.4	6.1
Consumer Discretionary	15.8	15.8	(18.2)	19.2	10.5	12.7
Consumer Staples	1.2	1.2	1.3	14.9	10.4	9.5
Energy	(5.0)	(5.0)	11.5	50.3	8.6	3.4
Financials	(5.3)	(5.3)	(14.5)	18.1	4.8	9.8
Health Care	(3.6)	(3.6)	(4.9)	14.4	10.9	12.8
Industrials	4.7	4.7	(0.3)	21.8	8.3	11.0
Information Technology	21.1	21.1	(6.6)	23.1	18.3	19.3
Materials	5.0	5.0	(6.3)	25.1	8.8	9.4
Real Estate	1.8	1.8	(19.3)	10.2	6.3	6.2
Utilities	(3.1)	(3.1)	(5.7)	10.0	9.1	9.3

Source: Markov Processes International

Global Index Returns

INTERNATIONAL/GLOBAL EQUITY	QTR	YTD	1 Year	3 Year	5 Year	10 Year
MSCI EAFE (Net)	8.5	8.5	(1.4)	13.0	3.5	5.0
MSCI EAFE Growth (Net)	11.1	11.1	(2.8)	10.9	4.9	6.0
MSCI EAFE Value (Net)	5.9	5.9	(0.3)	14.6	1.7	3.7
MSCI EAFE Small Cap (Net)	4.9	4.9	(9.8)	12.1	0.9	5.9
MSCI AC World Index (Net)	7.3	7.3	(7.4)	15.4	6.9	8.1
MSCI AC World Index Growth (Net)	13.8	13.8	(10.0)	14.7	9.0	9.9
MSCI AC World Index Value (Net)	1.2	1.2	(5.5)	15.2	4.3	5.9
MSCI Europe ex UK (Net)	11.9	11.9	2.0	15.1	4.8	6.1
MSCI United Kingdom (Net)	6.1	6.1	(0.8)	14.6	3.0	3.4
MSCI Pacific ex Japan (Net)	2.2	2.2	(7.4)	14.0	3.4	3.3
MSCI Japan (Net)	6.2	6.2	(5.2)	7.4	1.3	5.0
MSCI Emerging Markets (Net)	4.0	4.0	(10.7)	7.8	(0.9)	2.0

Source: Markov Processes International

Global Index Returns

FIXED INCOME	QTR	YTD	1 Year	3 Year	5 Year	10 Year
Merrill Lynch 3-month T-Bill	1.1	1.1	2.5	0.9	1.4	0.9
Barclays Intermediate Gov't./Credit	2.3	2.3	(1.7)	(1.3)	1.4	1.3
Barclays Aggregate Bond	3.0	3.0	(4.8)	(2.8)	0.9	1.4
Barclays Short Government	1.3	1.3	1.1	0.0	1.3	0.9
Barclays Intermediate Government	2.3	2.3	(1.5)	(2.3)	1.1	0.9
Barclays Long Government	6.2	6.2	(15.9)	(11.2)	(0.4)	1.4
Barclays Investment Grade Corp.	3.5	3.5	(5.6)	(0.5)	1.6	2.3
Barclays High Yield Corp. Bond	3.6	3.6	(3.3)	5.9	3.2	4.1
Credit Suisse Leveraged Loan	3.1	3.1	2.1	8.4	3.5	3.9
JPMorgan Global ex US Bond	3.2	3.2	(13.1)	(6.5)	(4.4)	(1.5)
JPMorgan Emerging Market Bond	1.9	1.9	(6.9)	0.0	(0.6)	2.0
INFLATION SENSITIVE						
Consumer Price Index	1.7	1.7	5.0	5.4	3.9	2.6
BC TIPS	3.3	3.3	(6.1)	1.8	2.9	1.5
Commodities	(5.4)	(5.4)	(12.5)	20.8	5.4	(1.7)
Gold	8.1	8.1	0.7	5.9	7.1	1.3
REITs	1.7	1.7	(19.4)	10.2	6.3	6.5
FTSE EPRA/NAREIT Global REITs	1.4	1.4	(20.4)	8.6	1.8	2.9
NCREIF ODCE*	(3.3)	(3.3)	(3.9)	7.5	6.6	8.5
NCREIF Farmland**	3.3	9.6	9.6	6.8	6.4	8.8
NCREIF Timberland**	4.9	12.9	12.9	7.5	5.4	5.8

*Data are preliminary.

**Data are as of December 31, 2022.

Source: Markov Processes International.



PREPARED BY MARQUETTE ASSOCIATES

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Portfolio Overview



Observations

- Market Value as of March 31, 2023, was \$3.13 billion.
- 1st Qtr. '23 Return: Total Fund 4.1% (net) vs. Policy Index 4.2%; investment gain of \$124.3 million.
- Contributors to 1st Qtr. Performance:
 - Growth Equity
 - Int'l Developed Equity
 - Opportunistic Credit
 - PGIM Real Estate
- Detractors from 1st Qtr. Performance:
 - Value Equity
 - Small Cap Equity
 - Emerging Market Equity
- Bennett's Creek Timberland property sale completed in February
- Longer term performance has been strong:
 - 5-Year Return: 6.0% (46th percentile) vs. Policy Index 6.0%; investment gain of \$857 million
 - 10-Year Return: 7.4% (24th percentile) vs. Policy Index 7.2%; investment gain of \$1.78 billion
- Low Investment Management Fees: 0.30%

Looking Ahead

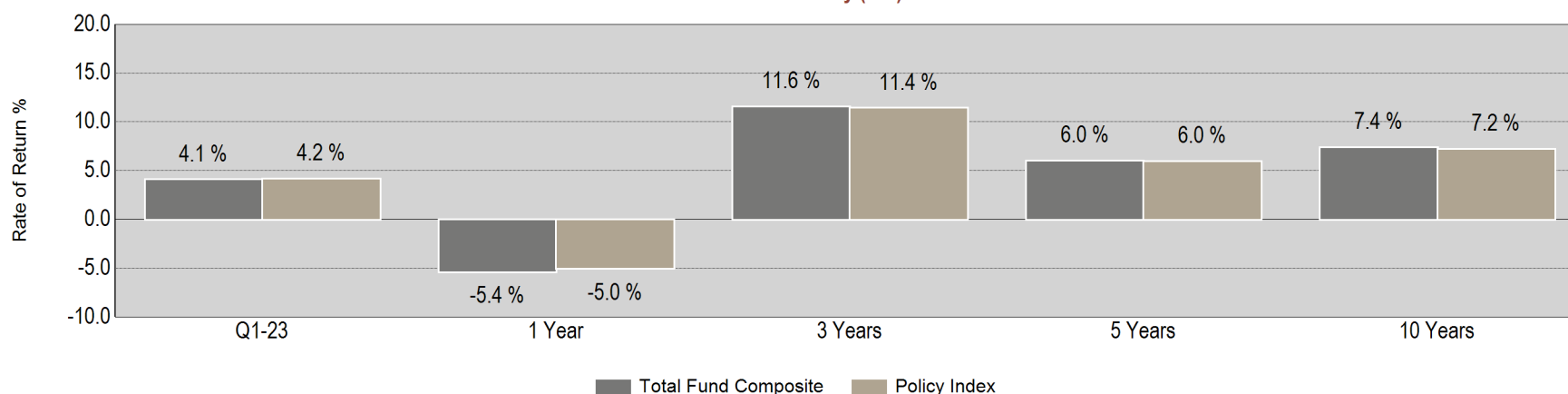
- Timberland Manager Search
- Consider allocations to International Value and Active Emerging Markets

As of March 31, 2023

Summary of Cash Flows

	First Quarter	One Year	Three Years	Five Years	Ten Years
Beginning Market Value	\$3,021,555,622	\$3,377,194,550	\$2,358,476,552	\$2,510,385,776	\$1,740,784,650
Net Cash Flow	-\$13,641,461	-\$65,006,167	-\$146,550,798	-\$235,456,796	-\$385,392,792
Net Investment Change	\$124,291,537	-\$179,982,685	\$920,279,944	\$857,276,718	\$1,776,813,840
Ending Market Value	\$3,132,205,698	\$3,132,205,698	\$3,132,205,698	\$3,132,205,698	\$3,132,205,698

Return Summary (Net)



Asset Allocation vs. Target

	Current	Policy	Difference*
U.S. Equity	31.2%	32.5%	-\$42,146,395
Global Equity	4.8%	5.0%	-\$5,879,356
Non-U.S. Equity	15.8%	15.0%	\$26,031,712
Emerging Markets	2.2%	2.5%	-\$8,495,533
Real Assets	17.8%	15.0%	\$88,197,848
U.S. Fixed Income	27.6%	29.0%	-\$44,216,274
Cash Equivalent	0.6%	1.0%	-\$13,492,002
Total	100.0%	100.0%	

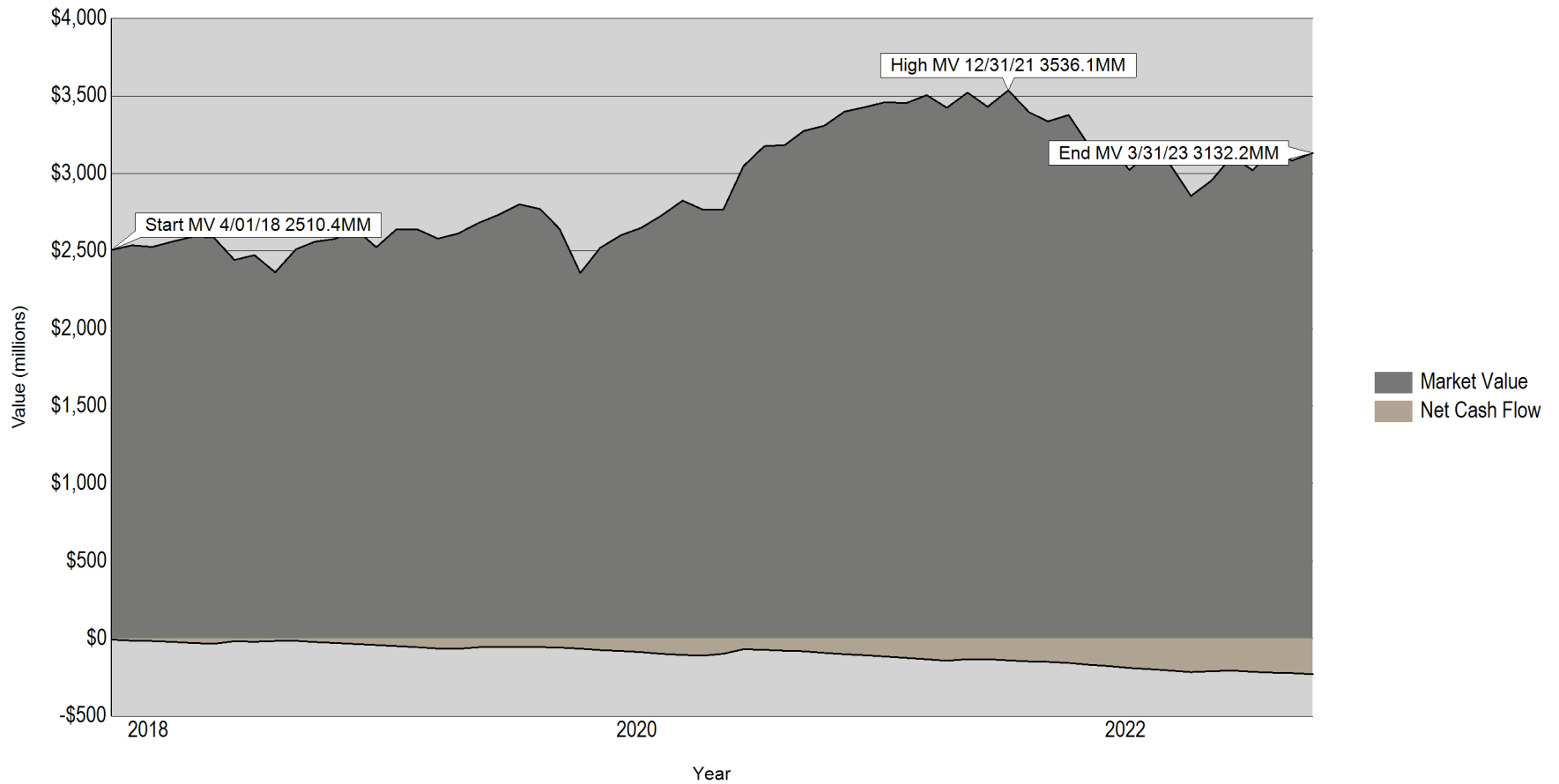
As of March 31, 2023

Cash Flow Summary by Manager From January 01, 2023 to March 31, 2023

	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
MFS Large Cap Value	\$147,391,019	\$0	-\$2,013,131	\$145,377,888
Xpounce S&P 500	\$233,931,035	\$0	\$17,514,377	\$251,445,412
Northern Trust S&P 500	\$237,758,430	\$2,430	\$17,820,177	\$255,581,037
Polen Focus Growth	\$84,876,051	\$0	\$11,936,086	\$96,812,138
Northern Trust Dow Jones Completion Index	\$90,074,903	\$3,493	\$5,184,817	\$95,263,212
Copeland SMID Cap Dividend Growth	\$46,695,267	\$0	\$3,128,218	\$49,823,485
Smith, Graham & Co Small Cap Value	\$42,578,317	\$0	\$271,256	\$42,849,574
Emerald Small Cap Growth	\$37,090,959	\$0	\$1,576,752	\$38,667,711
Rhumblin Global Min. Volatility	\$147,973,431	\$23,866	\$2,733,632	\$150,730,929
SSGA MSCI World ex US	\$247,358,121	\$51,317	\$20,004,520	\$267,413,958
Hardman Johnston Int'l Equity	\$94,779,285	\$0	\$8,615,490	\$103,394,775
HGK Int'l Equity	\$113,775,966	-\$56,948	\$11,146,322	\$124,865,341
Jarislowsky, Fraser Limited	\$302,205	-\$116,921	\$3,209	\$188,493
SSGA MSCI Emerging Markets Index	\$67,042,388	\$18,138	\$2,749,083	\$69,809,609
Forest Investment Associates	\$152,300,787	-\$10,572,961	\$2,344,677	\$144,072,503
PRISA LP	\$66,702,190	\$0	-\$1,284,413	\$65,417,777
PRISA II	\$135,791,777	\$0	-\$3,189,064	\$132,602,713
PennMuni-Nuveen U.S. Real Estate Fund	\$214,506,983	\$0	\$0	\$214,506,983
N. Front Street (Nuveen)	\$1,525,234	-\$96,507	\$0	\$1,428,727
SSGA US Aggregate Bond Index	\$347,356,377	\$31,007	\$10,931,226	\$358,318,610
Federated Hermes Core Aggregate Strategy	\$336,509,249	\$0	\$9,330,588	\$345,839,836
Ares Global Multi-Asset Credit	\$154,754,358	\$0	\$5,210,575	\$159,964,932
Cash Management	\$20,481,290	-\$2,928,375	\$277,140	\$17,830,055
Total	\$3,021,555,622	-\$13,641,461	\$124,291,537	\$3,132,205,698

*PennMuni-Nuveen RE and N. Front St. values as of 12/31/22.

Market Value History



Pennsylvania Municipal Retirement System

Asset Allocation Summary

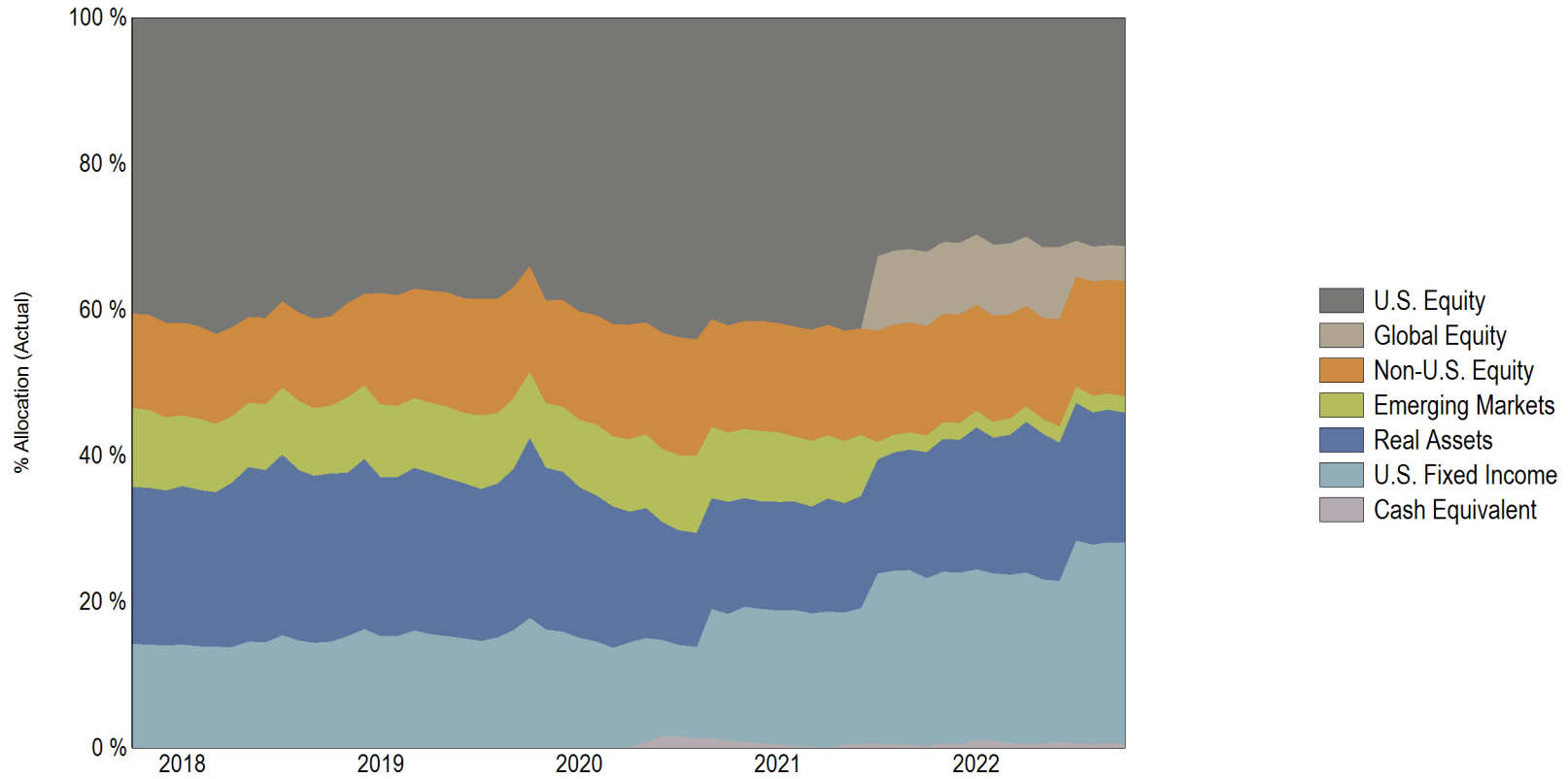
As of March 31, 2023

	Market Value	% of Portfolio	Policy %	Policy Difference
Total Fund Composite	3,132,205,698	100.0	100.0	0
Total Equity Composite	1,692,223,562	54.0	55.0	-30,489,572
U.S. Equity Composite	975,820,457	31.2	32.5	-42,146,395
MFS Large Cap Value	145,377,888	4.6		
Xponance S&P 500	251,445,412	8.0		
Northern Trust S&P 500	255,581,037	8.2		
Polen Focus Growth	96,812,138	3.1		
Northern Trust Dow Jones Completion Index	95,263,212	3.0		
Copeland SMID Cap Dividend Growth	49,823,485	1.6		
Smith, Graham & Co Small Cap Value	42,849,574	1.4		
Emerald Small Cap Growth	38,667,711	1.2		
Global Equity Composite	150,730,929	4.8	5.0	-5,879,356
Rhumblin Global Min. Volatility	150,730,929	4.8		
Non-U.S. Equity Composite	565,672,176	18.1	17.5	17,536,179
SSGA MSCI World ex US	267,413,958	8.5		
Hardman Johnston Int'l Equity	103,394,775	3.3		
HGK Int'l Equity	124,865,341	4.0		
SSGA MSCI Emerging Markets Index	69,809,609	2.2		
Real Assets Composite	558,028,703	17.8	15.0	88,197,848
Forest Investment Associates	144,072,503	4.6		
PRISA LP	65,417,777	2.1		
PRISA II	132,602,713	4.2		
PennMuni-Nuveen U.S. Real Estate Fund	214,506,983	6.8		
N. Front Street (Nuveen)	1,428,727	0.0		
Total Fixed Income Composite	864,123,378	27.6	29.0	-44,216,274
SSGA US Aggregate Bond Index	358,318,610	11.4		
Federated Hermes Core Aggregate Strategy	345,839,836	11.0		
Ares Global Multi-Asset Credit	159,964,932	5.1		
Cash Composite	17,830,055	0.6	1.0	-13,492,002

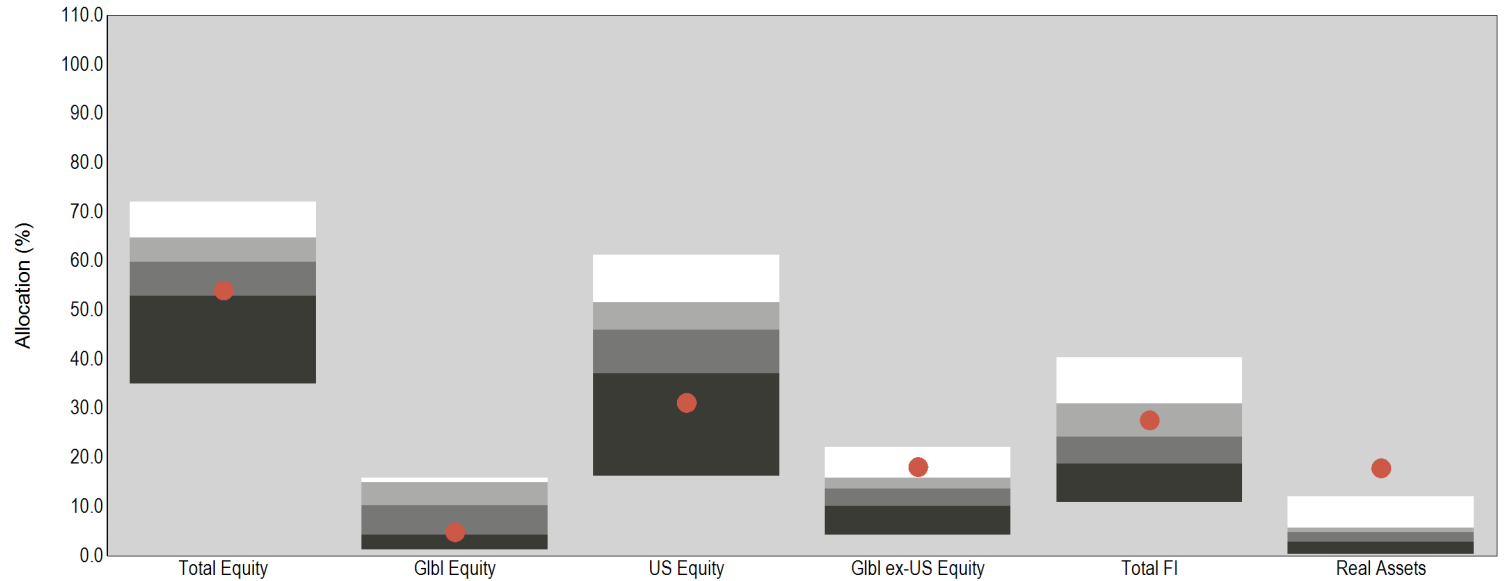
*Residual value for Jarislowsky (approx. \$188k) included in Non-US Equity and Total Fund Composite values.

*PennMuni-Nuveen RE and N. Front St. values as of 12/31/22.

Asset Allocation History



Total Plan Allocation vs. InvMetrics Public DB Net
As of March 31, 2023

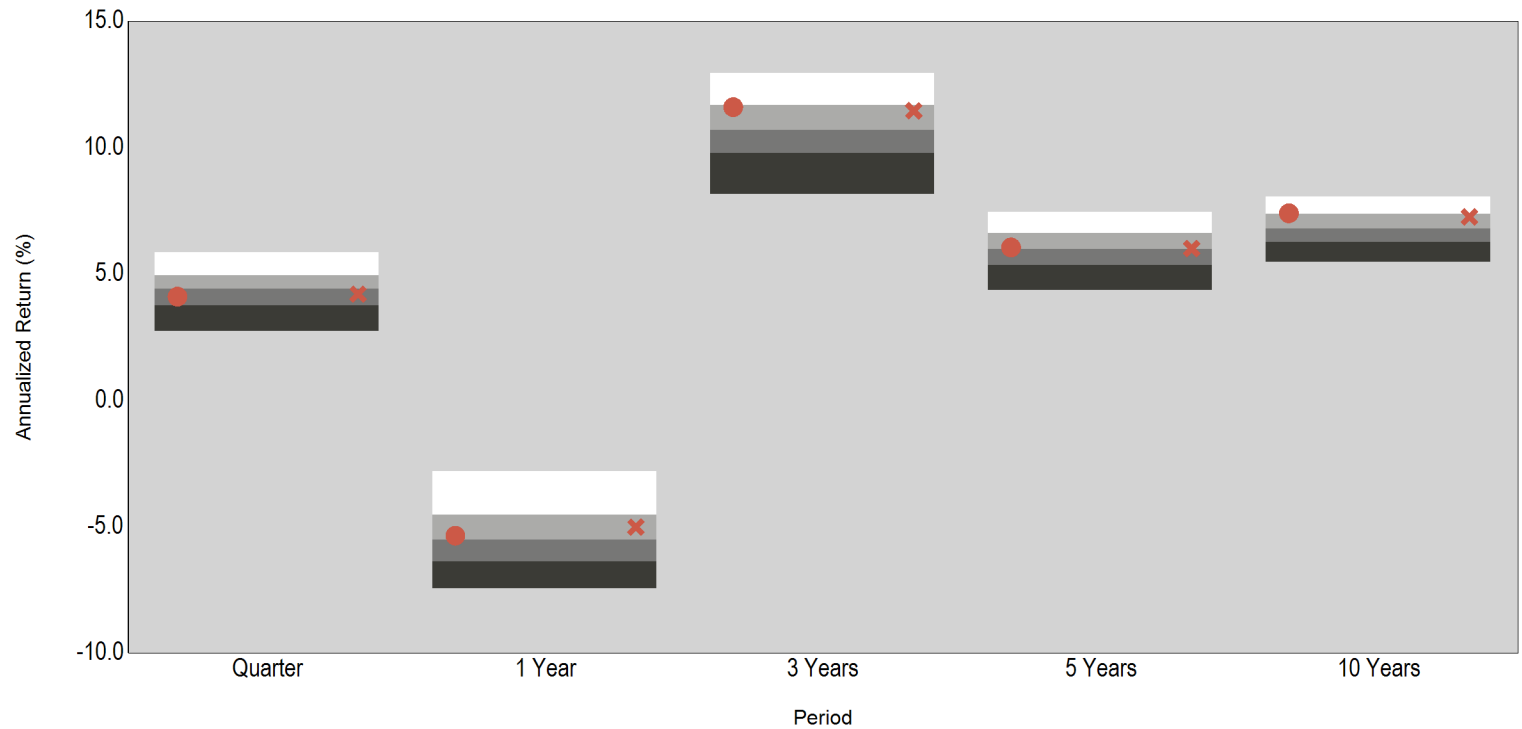


Allocation (Rank)

5th Percentile	72.1	15.9	61.2	22.1	40.4	12.1
25th Percentile	64.7	15.0	51.6	15.8	31.0	5.7
Median	59.8	10.2	46.0	13.7	24.3	4.7
75th Percentile	52.9	4.3	37.1	10.2	18.7	2.8
95th Percentile	35.1	1.2	16.2	4.2	10.9	0.3
# of Portfolios	472	78	418	431	479	68
● Total Fund Composite	54.0 (73)	4.8 (71)	31.2 (83)	18.1 (15)	27.6 (35)	17.8 (1)

As of March 31, 2023

InvMetrics Public DB Net Return Comparison

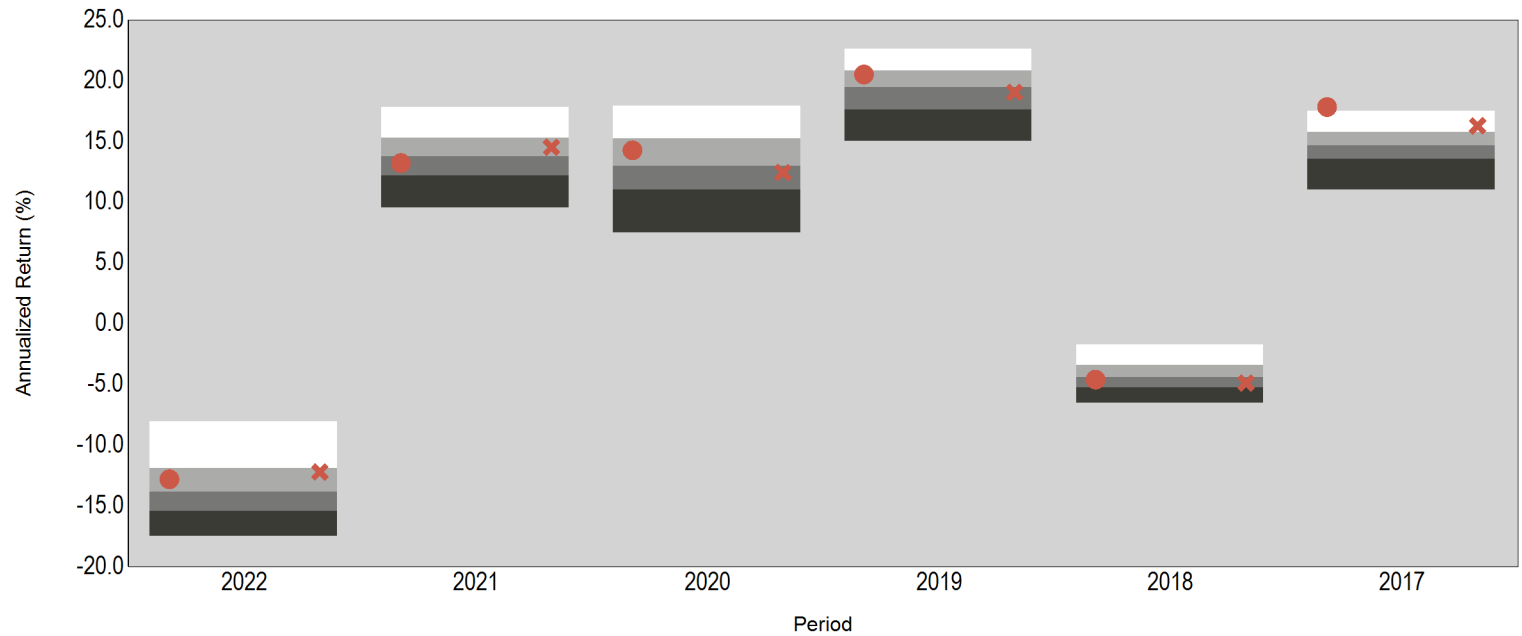


Return (Rank)

5th Percentile	5.8	-2.8	12.9	7.4	8.1					
25th Percentile	4.9	-4.5	11.7	6.6	7.4					
Median	4.4	-5.5	10.7	6.0	6.8					
75th Percentile	3.8	-6.4	9.8	5.3	6.3					
95th Percentile	2.7	-7.5	8.2	4.3	5.5					
# of Portfolios	543	541	526	514	427					
● Total Fund Composite	4.1	(63)	-5.4	(45)	11.6	(28)	6.0	(46)	7.4	(24)
▲ Policy Index	4.2	(60)	-5.0	(37)	11.4	(31)	6.0	(50)	7.2	(31)

As of March 31, 2023

InvMetrics Public DB Net Return Comparison



Return (Rank)

5th Percentile	-8.0	17.8	17.9	22.6	-1.7	17.5
25th Percentile	-11.9	15.3	15.3	20.8	-3.4	15.8
Median	-13.8	13.8	13.0	19.5	-4.4	14.7
75th Percentile	-15.4	12.2	11.0	17.6	-5.2	13.6
95th Percentile	-17.5	9.6	7.5	15.1	-6.5	11.1
# of Portfolios	539	559	596	550	496	269
● Total Fund Composite	-12.8 (36)	13.2 (58)	14.3 (37)	20.5 (32)	-4.6 (56)	17.8 (5)
▲ Policy Index	-12.2 (29)	14.5 (35)	12.4 (57)	19.0 (57)	-4.9 (66)	16.3 (18)

RISK RETURN STATISTICS
April 01, 2018 Through March 31, 2023

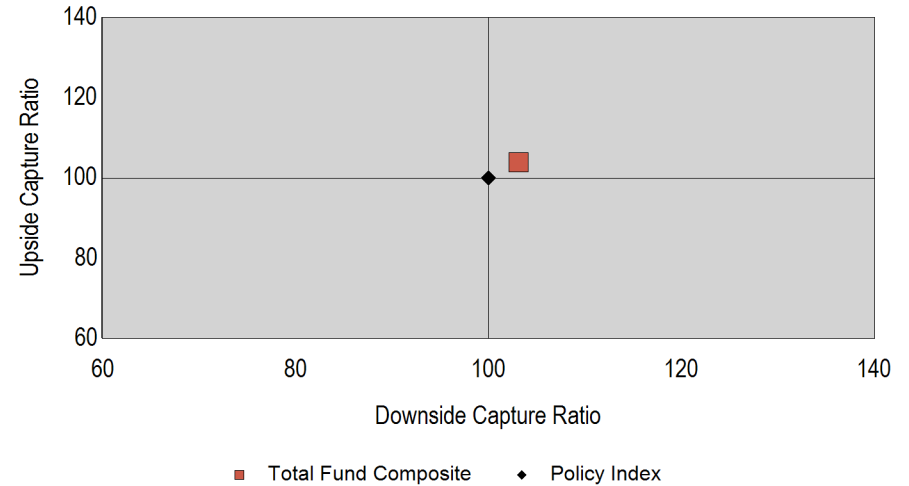
	Total Fund Composite	Policy Index
RETURN SUMMARY STATISTICS		
Number of Periods	20	20
Maximum Return	13.40	12.26
Minimum Return	-15.48	-14.88
Annualized Return	6.04	6.00
Total Return	34.09	33.81
Annualized Excess Return Over Risk Free	4.72	4.67
Annualized Excess Return	0.04	0.00

	Total Fund Composite	Policy Index
RISK SUMMARY STATISTICS		
Beta	1.05	1.00
Upside Deviation	7.61	7.11
Downside Deviation	11.04	10.49

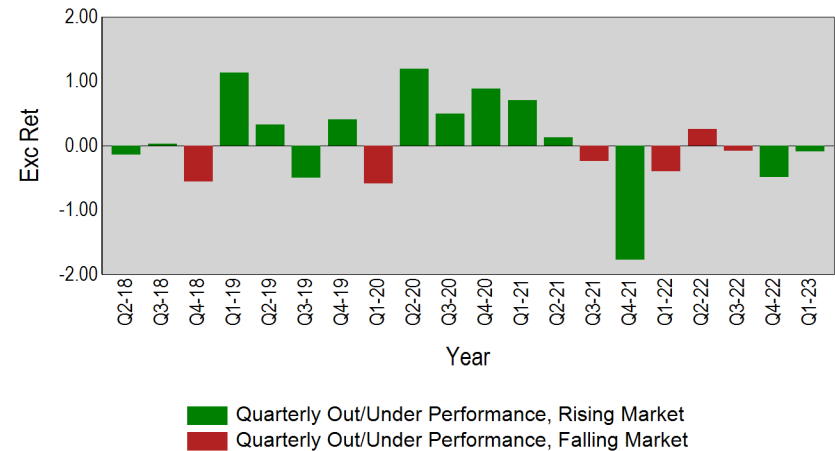
	Total Fund Composite	Policy Index
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	14.87	14.16
Alpha	-0.04	0.00
Sharpe Ratio	0.32	0.33
Excess Return Over Market / Risk	0.00	0.00
Tracking Error	1.39	0.00
Information Ratio	0.03	--

	Total Fund Composite	Policy Index
CORRELATION STATISTICS		
R-Squared	0.99	1.00
Correlation	1.00	1.00

Upside Capture Ratio vs. Downside Capture Ratio
5 Years Ending March 31, 2023



Quarterly Excess Performance
Total Fund Composite vs. Policy Index



Characteristics

	Portfolio	MSCI ACWI IMI Net USD
Number of Holdings	6,399	9,106
Weighted Avg. Market Cap. (\$B)	247.6	313.7
Median Market Cap. (\$B)	5.1	1.9
Price To Earnings	17.9	16.8
Price To Book	3.4	3.2
Price To Sales	1.7	1.6
Return on Equity (%)	18.2	18.4
Yield (%)	2.0	2.3

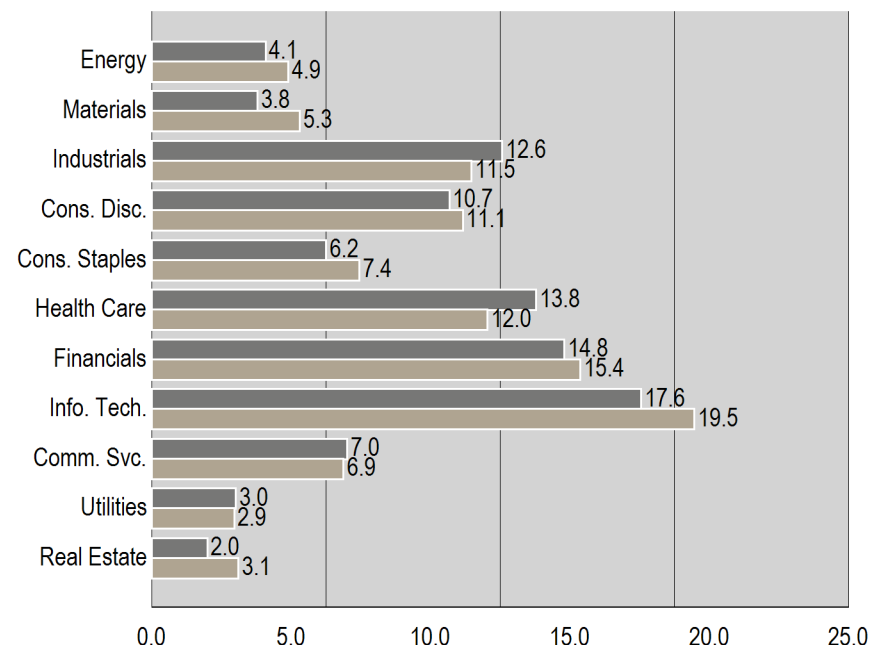
Top Holdings

MICROSOFT CORP	2.4%
APPLE INC	2.2%
AMAZON.COM INC	1.3%
ISHARES MSCI EMERGING MARKETS MIN VOL FACTOR ETF	1.2%
ALPHABET INC	0.8%
JOHNSON & JOHNSON	0.8%
JPMORGAN CHASE & CO	0.7%
VISA INC	0.7%
ALPHABET INC	0.7%
UNITEDHEALTH GROUP INC	0.7%
Total	11.4%

Market Capitalization

	Small Cap	Mid Cap	Large Cap	Unclassified
Total Equity Composite	14.1%	14.6%	65.8%	5.5%
MSCI ACWI IMI Net USD	16.0%	15.5%	68.5%	0.0%
<i>Weight Over/Under</i>	<i>-1.9%</i>	<i>-0.9%</i>	<i>-2.7%</i>	<i>5.5%</i>

Sector Allocation (%) vs MSCI ACWI IMI Net USD



Region Allocation Summary

Region	% of Total	% of Bench	% Diff
North America ex U.S.	3.3%	3.0%	0.2%
United States	62.6%	59.5%	3.1%
Europe Ex U.K.	15.4%	13.0%	2.5%
United Kingdom	3.7%	3.9%	-0.2%
Pacific Basin Ex Japan	3.2%	3.2%	-0.1%
Japan	5.6%	6.0%	-0.5%
Emerging Markets	5.6%	11.0%	-5.4%
Other	0.7%	0.3%	0.3%
Total	100.0%	100.0%	0.0%

Characteristics

	Portfolio	Russell 3000
Number of Holdings	4,041	2,923
Weighted Avg. Market Cap. (\$B)	354.9	470.5
Median Market Cap. (\$B)	2.1	2.5
Price To Earnings	19.5	20.2
Price To Book	3.8	3.9
Price To Sales	1.9	2.2
Return on Equity (%)	20.8	22.4
Yield (%)	1.6	1.6

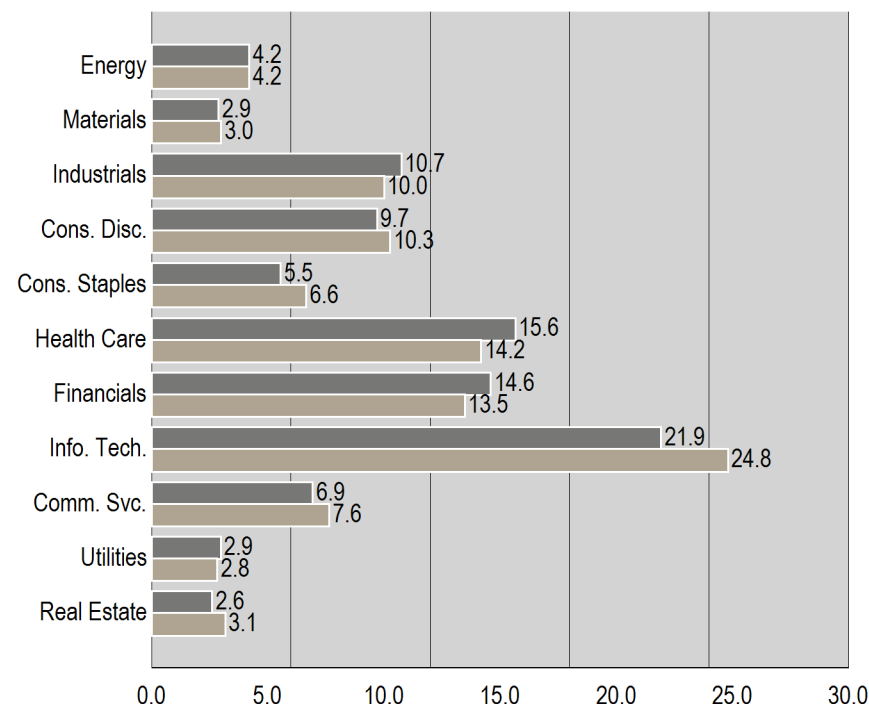
Top Holdings

MICROSOFT CORP	4.1%
APPLE INC	3.8%
AMAZON.COM INC	2.2%
ALPHABET INC	1.3%
JPMORGAN CHASE & CO	1.2%
ALPHABET INC	1.2%
VISA INC	1.1%
UNITEDHEALTH GROUP INC	1.1%
NVIDIA CORPORATION	1.1%
JOHNSON & JOHNSON	1.1%
Total	17.9%

Market Capitalization

	Small Cap	Mid Cap	Large Cap	Unclassified
U.S. Equity Composite	9.2%	21.2%	65.9%	3.7%
Russell 3000	5.5%	22.0%	72.5%	0.0%
<i>Weight Over/Under</i>	3.7%	-0.8%	-6.6%	3.7%

Sector Allocation (%) vs Russell 3000



Common Holdings Matrix

	<i>MFS Large Cap Value</i>		<i>Xponance S&P 500</i>		<i>Northern Trust S&P 500</i>		<i>Polen Focus Growth</i>		<i>Northern Trust Dow Jones Completion Index</i>		<i>Copeland SMID Cap Dividend Growth</i>		<i>Smith, Graham & Co Small Cap Value</i>		<i>Emerald Small Cap Growth</i>	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
MFS Large Cap Value	--	--	63	18	67	18	3	12	1	0	0	0	0	0	0	0
Xponance S&P 500	63	89	--	--	469	93	20	88	3	0	10	13	0	0	0	0
Northern Trust S&P 500	67	93	469	98	--	--	21	92	4	0	11	14	0	0	0	0
Polen Focus Growth	3	5	20	21	21	20	--	--	1	0	0	0	0	0	0	0
Northern Trust Dow Jones Completion Index	1	1	3	0	4	0	1	2	--	--	55	81	66	99	100	89
Copeland SMID Cap Dividend Growth	0	0	10	0	11	0	0	0	55	4	--	--	1	2	5	6
Smith, Graham & Co Small Cap Value	0	0	0	0	0	0	0	0	66	2	1	2	--	--	0	0
Emerald Small Cap Growth	0	0	0	0	0	0	0	0	100	4	5	8	0	0	--	--

Characteristics

	Portfolio	MSCI ACWI ex USA IMI
Number of Holdings	2,356	6,584
Weighted Avg. Market Cap. (\$B)	88.5	78.0
Median Market Cap. (\$B)	8.0	1.7
Price To Earnings	15.4	13.4
Price To Book	2.7	2.4
Price To Sales	1.5	1.1
Return on Equity (%)	14.3	14.1
Yield (%)	2.6	3.3

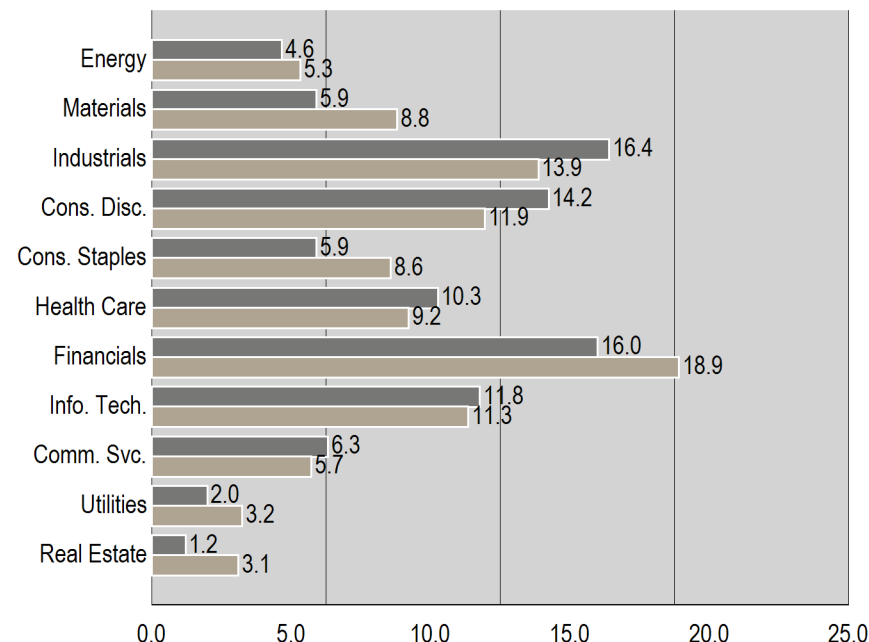
Top Holdings

RHEINMETALL	2.0%
AIA GROUP LTD	1.9%
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	1.9%
ASML HOLDING NV	1.8%
ASTRAZENECA PLC	1.6%
KEYENCE CORP	1.3%
SANOFI	1.3%
AIRBUS SE	1.2%
DEUTSCHE TELEKOM AG	1.2%
LVMH MOET HENNESSY LOUIS VUITTON SE	1.2%
Total	15.3%

Market Capitalization

	Small Cap	Mid Cap	Large Cap	Unclassified
Non-U.S Equity Composite	8.8%	22.7%	58.8%	9.8%
MSCI ACWI ex USA IMI	25.1%	21.7%	53.2%	0.0%
<i>Weight Over/Under</i>	-16.3%	1.0%	5.6%	9.8%

Sector Allocation (%) vs MSCI ACWI ex USA IMI



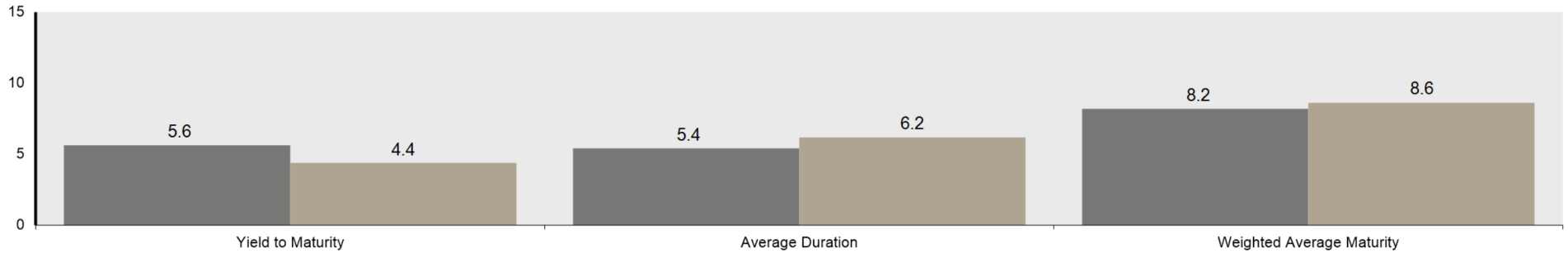
Region Allocation Summary

Region	% of Total	% of Bench	% Diff
North America ex U.S.	9.2%	7.5%	1.7%
United States	1.1%	0.0%	1.1%
Europe Ex U.K.	40.8%	32.0%	8.8%
United Kingdom	9.3%	9.6%	-0.3%
Pacific Basin Ex Japan	8.7%	8.0%	0.7%
Japan	14.4%	14.9%	-0.5%
Emerging Markets	15.1%	27.2%	-12.1%
Other	1.5%	0.8%	0.6%
Total	100.0%	100.0%	0.0%

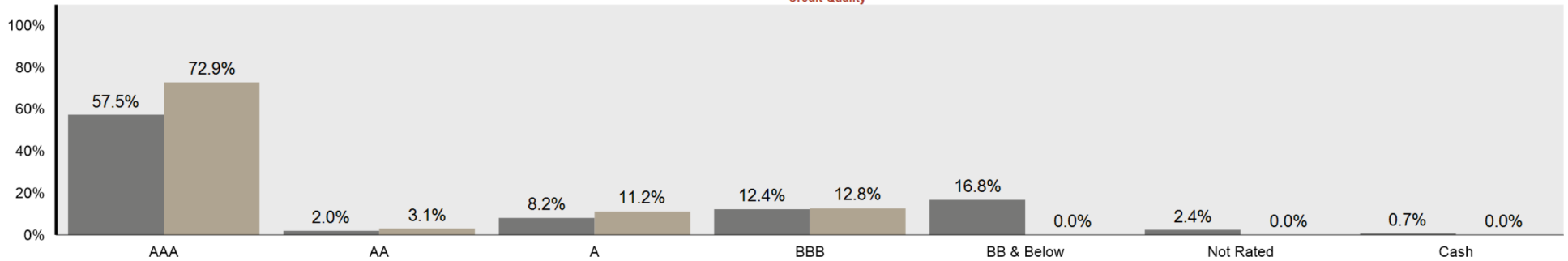
Common Holdings Matrix

	<i>SSGA MSCI World ex US</i>		<i>Hardman Johnston Int'l Equity</i>		<i>HGK Int'l Equity</i>		<i>SSGA MSCI Emerging Markets Index</i>	
	#	%	#	%	#	%	#	%
SSGA MSCI World ex US	--	--	16	57	19	74	0	0
Hardman Johnston Int'l Equity	16	7	--	--	2	9	5	9
HGK Int'l Equity	19	4	2	9	--	--	1	0
SSGA MSCI Emerging Markets Index	0	0	5	15	1	2	--	--

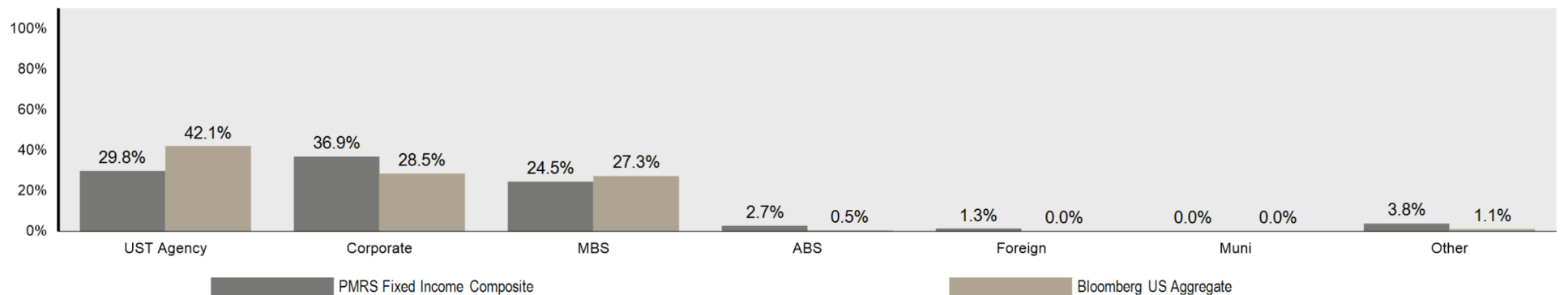
Yield to Maturity



Credit Quality



US Sector



Pennsylvania Municipal Retirement System

Performance Summary (Net)

As of March 31, 2023

	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	Market Value	Inception	Inception Date
Total Fund Composite	4.1	-5.4	11.6	6.0	7.4	3,132,205,698	8.4	Jan-86
Policy Index	4.2	-5.0	11.4	6.0	7.2		8.9	Jan-86
InvMetrics Public DB Net Rank	63	45	28	46	24		25	Jan-86
Total Equity Composite	6.3	-6.2	--	--	--	1,692,223,562	8.6	Oct-20
MSCI ACWI IMI Net USD	6.9	-7.7	--	--	--		7.3	Oct-20
U.S. Equity Composite	6.0	-8.1	19.3	9.6	11.2	975,820,457	8.5	Jan-06
Russell 3000	7.2	-8.6	18.5	10.4	11.7		9.2	Jan-06
InvMetrics Public DB US Eq Net Rank	64	61	23	59	44		50	Jan-06
MFS Large Cap Value	-1.5	--	--	--	--	145,377,888	6.9	Jun-22
Russell 1000 Value	1.0	--	--	--	--		7.2	Jun-22
Russell 1000	7.5	--	--	--	--		9.9	Jun-22
eV US Large Cap Value Equity Net Rank	86	--	--	--	--		55	Jun-22
Xponance S&P 500	7.5	-7.7	--	--	--	251,445,412	-9.7	Dec-21
S&P 500	7.5	-7.7	--	--	--		-9.7	Dec-21
eV US Large Cap Core Equity Net Rank	21	65	--	--	--		54	Dec-21
Northern Trust S&P 500	7.5	-7.7	--	--	--	255,581,037	-9.7	Dec-21
S&P 500	7.5	-7.7	--	--	--		-9.7	Dec-21
eV US Large Cap Core Equity Net Rank	21	65	--	--	--		54	Dec-21
Polen Focus Growth	14.1	-16.4	11.3	11.8	13.7	96,812,138	14.1	Oct-10
Russell 1000 Growth	14.4	-10.9	18.6	13.7	14.6		14.9	Oct-10
eV US Large Cap Growth Equity Net Rank	32	86	89	40	28		22	Oct-10
Northern Trust Dow Jones Completion Index	5.8	-14.1	--	--	--	95,263,212	-18.1	Dec-21
Dow Jones U.S. Completion Total Stock Market	5.8	-14.3	--	--	--		-18.3	Dec-21
eV US Small-Mid Cap Core Equity Net Rank	30	94	--	--	--		96	Dec-21
Copeland SMID Cap Dividend Growth	6.7	-2.1	19.5	9.3	--	49,823,485	9.1	Sep-17
Russell 2500	3.4	-11.0	17.8	4.8	--		5.0	Sep-17
eV US Small Cap Core Equity Net Rank	16	13	66	14	--		15	Sep-17
Smith, Graham & Co Small Cap Value	0.6	-13.5	22.1	4.5	--	42,849,574	4.9	Dec-16
Russell 2000 Value	-0.7	-13.0	21.0	4.5	--		5.0	Dec-16
eV US Small Cap Value Equity Net Rank	71	93	63	76	--		78	Dec-16
Emerald Small Cap Growth	4.3	-11.6	14.6	6.1	10.5	38,667,711	9.9	Oct-98
Russell 2000 Growth	6.1	-10.6	13.4	4.3	8.5		7.3	Oct-98
eV US Small Cap Growth Equity Net Rank	81	53	68	77	49		62	Oct-98

Pennsylvania Municipal Retirement System

Performance Summary (Net)

As of March 31, 2023

	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	Market Value	Inception	Inception Date
Global Equity Composite	1.8	-7.1	--	--	--	150,730,929	-9.1	Dec-21
Global Equity Policy Index	1.5	-8.3	--	--	--		-9.9	Dec-21
InvMetrics Public DB Gbl Eq Net Rank	95	85	--	--	--		51	Dec-21
Rhumbline Global Min. Volatility	1.8	-5.3	--	--	--	150,730,929	-6.7	Dec-21
MSCI ACWI Minimum Volatility Index	1.5	-6.1	--	--	--		-7.2	Dec-21
MSCI ACWI	7.3	-7.4	--	--	--		-10.0	Dec-21
eV Global Low Volatility Equity Net Rank	80	69	--	--	--		71	Dec-21
Non-U.S Equity Composite	8.1	-3.1	13.4	3.2	5.2	565,672,176	6.8	May-12
MSCI ACWI ex USA IMI	6.6	-5.8	12.2	2.4	4.3		6.1	May-12
InvMetrics Public DB ex-US Eq Net Rank	25	27	19	24	19		21	May-12
SSGA MSCI World ex US	8.1	-2.4	13.8	4.2	5.3	267,413,958	5.7	Apr-12
MSCI World ex USA	8.0	-2.7	13.5	3.8	4.9		5.4	Apr-12
eV ACWI ex-US Core Equity Net Rank	34	18	41	21	52		44	Apr-12
Hardman Johnston Int'l Equity	9.1	-2.0	13.4	5.4	7.3	103,394,775	7.9	Apr-12
MSCI EAFE	8.5	-1.4	13.0	3.5	5.0		5.6	Apr-12
eV EAFE All Cap Equity Net Rank	32	48	45	9	7		8	Apr-12
HGK Int'l Equity	9.6	-1.4	17.1	5.5	8.1	124,865,341	8.7	Feb-12
MSCI EAFE	8.5	-1.4	13.0	3.5	5.0		6.0	Feb-12
eV EAFE All Cap Equity Net Rank	25	42	10	8	1		7	Feb-12
SSGA MSCI Emerging Markets Index	4.1	-9.8	7.9	-1.0	1.9	69,809,609	6.2	Nov-08
MSCI Emerging Markets	4.0	-10.7	7.8	-0.9	2.0		6.4	Nov-08
eV Emg Mkts Equity Net Rank	68	55	69	71	72		76	Nov-08

Pennsylvania Municipal Retirement System

Performance Summary (Net)

As of March 31, 2023

	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	Market Value	Inception	Inception Date
Real Assets Composite	-0.4	-1.3	6.1	5.5	7.1	558,028,703	7.5	Apr-93
<i>Real Assets Policy Index</i>	-1.6	1.1	8.9	7.4	8.9		7.7	Apr-93
Forest Investment Associates	1.7	7.7	7.4	4.1	5.2	144,072,503	4.3	Mar-99
<i>NCREIF Timberland Property Index</i>	1.8	11.3	8.1	5.5	5.8		6.3	Mar-99
PRISA LP	-1.9	-2.7	7.7	7.0	8.9	65,417,777	6.4	Jan-86
<i>NFI-ODCE</i>	-3.3	-3.9	7.5	6.6	8.5		6.3	Jan-86
<i>InvMetrics Public DB Real Estate Priv Net Rank</i>	24	32	53	44	51		--	Jan-86
PRISA II	-2.3	-3.7	7.6	7.1	9.6	132,602,713	4.5	Jul-07
<i>NFI-ODCE</i>	-3.3	-3.9	7.5	6.6	8.5		5.2	Jul-07
<i>InvMetrics Public DB Real Estate Priv Net Rank</i>	29	54	54	41	27		68	Jul-07
PennMuni-Nuveen U.S. Real Estate Fund	0.0	-4.7	4.2	5.9	7.9	214,506,983	5.9	Dec-08
<i>NFI-ODCE</i>	-3.3	-3.9	7.5	6.6	8.5		6.1	Dec-08
<i>InvMetrics Public DB Real Estate Priv Net Rank</i>	5	69	98	77	87		68	Dec-08
N. Front Street (Nuveen)	0.0	-22.8	-11.9	-7.8	--	1,428,727	-8.6	Sep-16
<i>Consumer Price Index</i>	1.7	5.0	5.4	3.9	--		3.5	Sep-16
Total Fixed Income Composite	3.0	-5.3	-2.9	0.8	1.3	864,123,378	5.6	Jan-86
<i>Bloomberg US Aggregate TR</i>	3.0	-4.8	-2.8	0.9	1.4		5.7	Jan-86
<i>InvMetrics Public DB US Fix Inc Net Rank</i>	51	94	97	90	61		--	Jan-86
SSGA US Aggregate Bond Index	3.1	-4.8	-2.7	0.9	1.4	358,318,610	4.3	Apr-97
<i>Bloomberg US Aggregate TR</i>	3.0	-4.8	-2.8	0.9	1.4		4.3	Apr-97
<i>eV US Core Fixed Inc Net Rank</i>	36	53	89	76	75		73	Apr-97
Federated Hermes Core Aggregate Strategy	2.7	--	--	--	--	345,839,836	-0.3	Jul-22
<i>Bloomberg US Aggregate TR</i>	3.0	--	--	--	--		-0.1	Jul-22
<i>eV US Core Fixed Inc Net Rank</i>	86	--	--	--	--		87	Jul-22
Ares Global Multi-Asset Credit	3.4	--	--	--	--	159,964,932	3.4	Dec-22
<i>50% Bloomberg HY / 50% CSFB Lev Loans</i>	3.3	--	--	--	--		3.3	Dec-22
<i>eV US High Yield Fixed Inc Net Rank</i>	45	--	--	--	--		45	Dec-22
Cash Composite						17,830,055		

*Penn Muni-Nuveen US Real Estate Fund and N. Front St. values are as of 12/31/22, adjusted for distributions where relevant.

As of March 31, 2023

Investment Manager	Asset Class	Status	Reason
MFS Large Cap Value	US Stock Large Cap Value	In Compliance	---
Xponance S&P 500	US Stock Large Cap Core	In Compliance	---
Northern Trust S&P 500	US Stock Large Cap Core	In Compliance	---
Polen Focus Growth	US Stock Large Cap Growth	In Compliance	---
Northern Trust Dow Jones Completion Index	US Stock SMID Cap Core	In Compliance	---
Smith, Graham & Co Small Cap Value	US Stock Small Cap Value	Alert	Organizational Issues
Copeland Small Cap Dividend Growth	US Stock Small Cap Core	In Compliance	---
Emerald Small Cap Growth	US Stock Small Cap Growth	In Compliance	---
Rhumblin Global Min. Volatility	Global Stock Low Volatility	In Compliance	---
SSGA MSCI World ex US	Non-US Stock All Cap Core	In Compliance	---
Hardman Johnston Int'l Equity	Non-US Stock All Cap Core	In Compliance	---
HGK Int'l Equity	Non-US Stock All Cap Core	In Compliance	---
SSGA MSCI Emerging Markets Index	Non-US Stock Emerging	In Compliance	---
Forest Investment Associates	Real Assets - Timberland	In Compliance	---
PRISA LP	Real Estate	In Compliance	---
PRISA II	Real Estate	In Compliance	---
PennMuni-Nuveen U.S. Real Estate Fund	Real Estate	In Compliance	---
N. Front Street (Nuveen)	Real Estate	In Compliance	---
SSGA US Aggregate Bond Index	US Fixed Income Core	In Compliance	---
Federated Hermes Core Aggregate Strategy	US Fixed Income Core	In Compliance	---
Ares Global Multi-Asset Credit Fund	Opportunistic Credit	In Compliance	---

Investment Manager Evaluation Terminology

The following terminology has been developed by Marquette Associates to facilitate efficient communication between the investment program's responsible parties. Each term signifies a particular status with the investment program.

In Compliance – Marquette has not been notified of any issues or changes to the investment manager that would materially impede upon its ability to execute the investment strategy or adhere to any applicable investment guidelines.

Alert – The investment manager has experienced a problem in performance (usually relative to a benchmark), a change in investment characteristics, an alteration in management style, ownership, or key investment professionals, and/or any other irregularities that may impede upon its ability to execute the investment strategy or adhere to any applicable investment guidelines.

On Notice – The investment manager has experienced continued concern with one or more Alert issues. Failure to improve upon stated issues within a certain time frame may justify termination.

Termination – The investment manager has been terminated and transition plans are in place.

Policy Index History

Total Fund Composite		
12/1/2022	Present	32.5% Russell 3000 / 5% Global Equity Policy Index / 17.5% MSCI ACWI ex USA IMI / 15% Real Assets Policy Index / 29% Bloomberg US Aggregate TR / 1% 91 Day T-Bills
1/1/2022	11/30/2022	32.5% Russell 3000 / 10% Global Equity Policy Index / 17.5% MSCI ACWI ex USA IMI / 15% Real Assets Policy Index / 24% Bloomberg US Aggregate TR / 1% 91 Day T-Bills
10/1/2020	12/31/2021	25% S&P 500 / 15% Russell 2000 / 15% MSCI EAFE / 10% MSCI Emerging Markets / 20% NFI-ODCE / 15% Bloomberg US Aggregate TR
Total Equity Composite		
10/1/2020	Present	MSCI ACWI IMI Net USD
U.S. Equity Composite		
1/1/2006	Present	Russell 3000
Large Cap U.S. Equity Composite		
1/1/1986	Present	S&P 500
SMID Cap U.S. Equity Composite		
1/1/1993	Present	Russell 2000
Global Equity Composite		
12/1/2022	Present	100% MSCI ACWI Minimum Volatility Index
1/1/2022	11/30/2022	50% MSCI ACWI / 50% MSCI ACWI Minimum Volatility Index
Non-U.S Equity Composite		
5/31/2012	Present	MSCI ACWI ex USA IMI
Developed Non-U.S. Equity Composite		
1/1/1993	Present	MSCI EAFE
Emerging Markets Composite		
1/1/2009	Present	MSCI Emerging Markets
Real Assets Composite		
1/1/2022	Present	66.67% NFI-ODCE / 33.33% NCREIF Timberland Property Index
4/1/1993	12/31/2021	100% NFI-ODCE
Total Fixed Income Composite		
1/31/1986	Present	Bloomberg US Aggregate TR
Cash Composite		
	Present	91 Day T-Bills

Pennsylvania Municipal Retirement System

Fee Summary

As of March 31, 2023

Account	Fee Schedule	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
MFS Large Cap Value	0.35% of First 100.0 Mil, 0.33% Thereafter	4.7%	\$497,478	0.34%
Xponance S&P 500	0.02% of Assets	8.1%	\$50,289	0.02%
Northern Trust S&P 500	0.00% of Assets	8.2%	\$10,223	0.00%
Polen Focus Growth	0.50% of First 100.0 Mil, 0.40% Thereafter	3.1%	\$484,061	0.50%
Northern Trust Dow Jones Completion Index	0.02% of Assets	3.1%	\$14,289	0.02%
Copeland SMID Cap Dividend Growth	0.50% of Assets	1.6%	\$249,117	0.50%
Smith, Graham & Co Small Cap Value	0.75% of First 50.0 Mil, 0.60% Thereafter	1.4%	\$321,372	0.75%
Emerald Small Cap Growth	0.60% of First 10.0 Mil, 0.55% of Next 5.0 Mil, 0.50% Thereafter	1.2%	\$205,839	0.53%
Rhumblin Global Min. Volatility	0.07% of Assets	4.8%	\$97,975	0.06%
SSGA MSCI World ex US	0.04% of Assets	8.6%	\$106,966	0.04%
Hardman Johnston Int'l Equity	0.75% of First 25.0 Mil, 0.60% Thereafter	3.3%	\$657,869	0.64%
HGK Int'l Equity	0.65% of Assets	4.0%	\$811,625	0.65%
SSGA MSCI Emerging Markets Index	0.05% of Assets	2.2%	\$34,905	0.05%
Forest Investment Associates	0.75% of Assets	4.6%	\$1,080,544	0.75%
PRISA LP	1.00% of First 25.0 Mil, 0.95% of Next 25.0 Mil, 0.85% of Next 50.0 Mil, 0.75% of Next 100.0 Mil, 0.70% of Next 100.0 Mil, 0.65% Thereafter	2.1%	\$618,551	0.95%

Pennsylvania Municipal Retirement System

Fee Summary

As of March 31, 2023

Account	Fee Schedule	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
PRISA II	1.20% of First 25.0 Mil, 1.15% of Next 25.0 Mil, 1.05% of Next 50.0 Mil, 0.95% of Next 100.0 Mil, 0.90% of Next 100.0 Mil, 0.85% Thereafter	4.3%	\$1,422,226	1.07%
PennMuni-Nuveen U.S. Real Estate Fund	0.85% of Assets	6.9%	\$1,823,309	0.85%
N. Front Street (Nuveen)	0.85% of Assets	0.0%	\$12,144	0.85%
SSGA US Aggregate Bond Index	0.02% of First 100.0 Mil, 0.01% of Next 300.0 Mil, 0.01% Thereafter	11.5%	\$45,832	0.01%
Federated Hermes Core Aggregate Strategy	0.12% of First 100.0 Mil, 0.10% of Next 400.0 Mil, 0.07% Thereafter	11.1%	\$365,840	0.11%
Ares Global Multi-Asset Credit	0.35% of Assets	5.1%	\$559,877	0.35%
Investment Management Fee		100.0%	\$9,470,330	0.30%

Investment Managers



As of March 31, 2023

Manager Summary: Active strategy holding diversified portfolio of 70-80 stocks. Stock selection focuses on bottom-up company analysis seeking to identify high quality undervalued stocks that have durable franchises, significant free cash flow, solid balance sheets and strong management teams.

Characteristics

	Portfolio	Russell 1000 Value
Number of Holdings	74	849
Weighted Avg. Market Cap. (\$B)	121.4	154.6
Median Market Cap. (\$B)	73.0	12.1
Price To Earnings	17.6	16.5
Price To Book	3.1	2.5
Price To Sales	2.2	1.7
Return on Equity (%)	26.3	15.1
Yield (%)	2.5	2.3

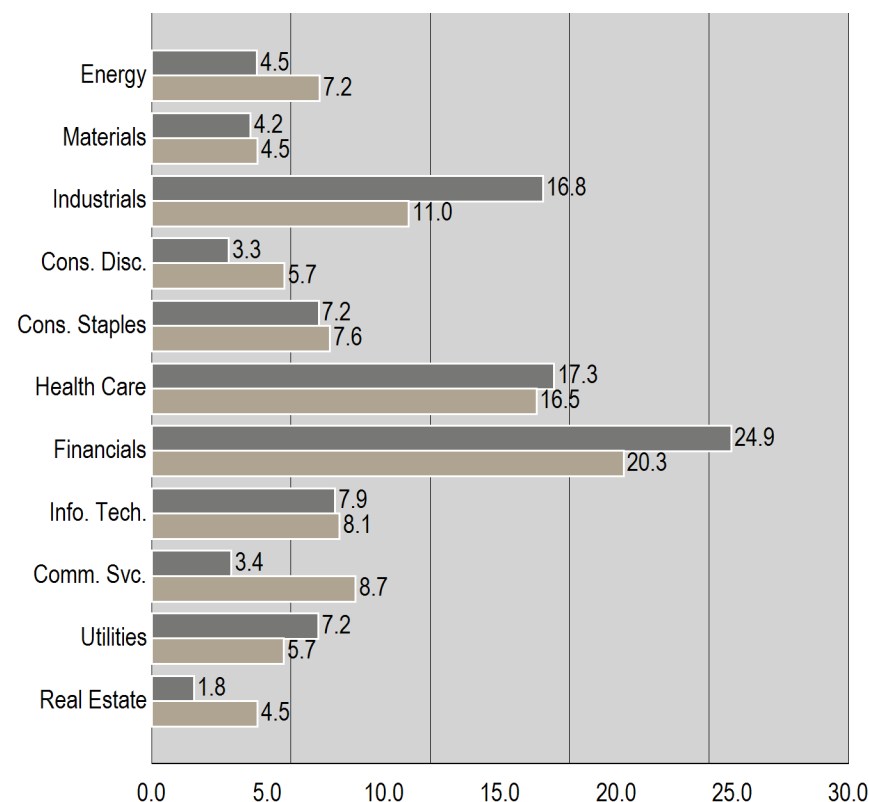
Top Holdings

JPMORGAN CHASE & CO	3.8%
JOHNSON & JOHNSON	2.8%
TEXAS INSTRUMENTS INC	2.6%
PROGRESSIVE CORP (THE)	2.6%
AON PLC	2.6%
NORTHROP GRUMMAN CORP	2.4%
COMCAST CORP	2.4%
THE CIGNA GROUP	2.4%
MARSH & MCLENNAN COMPANIES INC	2.3%
PFIZER INC	2.2%
Total	26.2%

Market Capitalization

	Small Cap	Mid Cap	Large Cap
MFS Large Cap Value	0.0%	6.9%	93.1%
Russell 1000 Value	1.9%	30.1%	68.0%
<i>Weight Over/Under</i>	<i>-1.9%</i>	<i>-23.2%</i>	<i>25.2%</i>

Sector Allocation (%) vs Russell 1000 Value



Manager Summary: Passive strategy that seeks to replicate the return of the Standard & Poor's 500 index. This strategy is a low-cost option to gain diversified exposure to U.S. domiciled companies by owning the 500 largest companies by market capitalization in the U.S.

Characteristics

	Portfolio	S&P 500
Number of Holdings	472	503
Weighted Avg. Market Cap. (\$B)	553.2	539.2
Median Market Cap. (\$B)	29.9	30.4
Price To Earnings	21.2	21.2
Price To Book	4.4	4.2
Price To Sales	2.5	2.5
Return on Equity (%)	29.6	28.5
Yield (%)	1.7	1.7

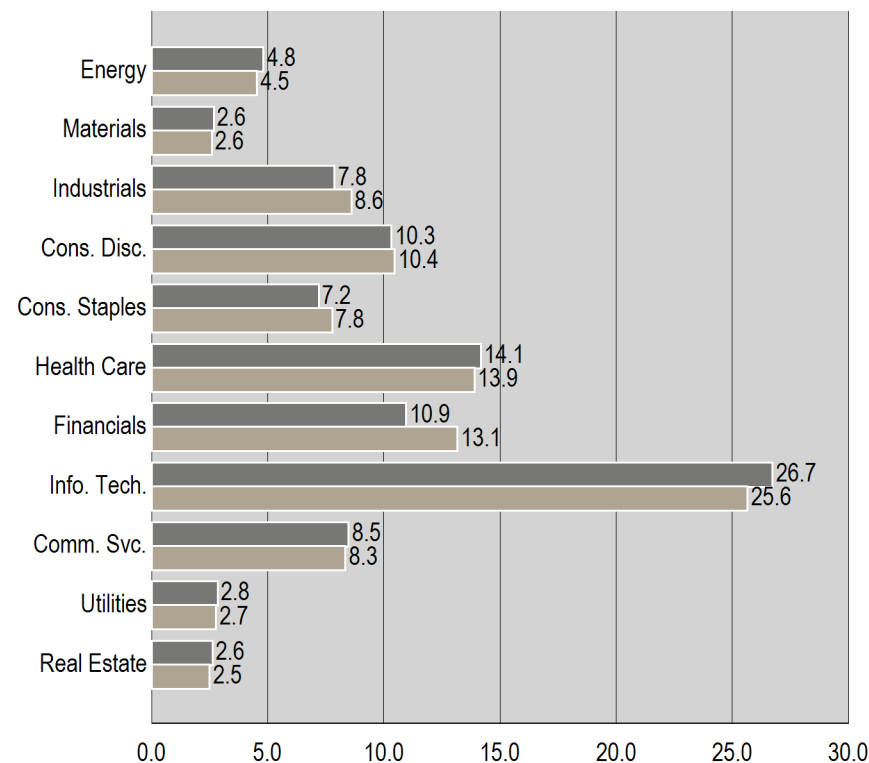
Top Holdings

APPLE INC	7.5%
MICROSOFT CORP	6.6%
AMAZON.COM INC	2.8%
NVIDIA CORPORATION	2.1%
ALPHABET INC	1.9%
TESLA INC	1.7%
ALPHABET INC	1.7%
META PLATFORMS INC	1.5%
EXXON MOBIL CORP	1.4%
UNITEDHEALTH GROUP INC	1.4%
Total	28.6%

Market Capitalization

	Small Cap	Mid Cap	Large Cap
Xpounce S&P 500	0.0%	15.8%	84.2%
S&P 500	0.2%	15.7%	84.1%
<i>Weight Over/Under</i>	-0.2%	0.2%	0.0%

Sector Allocation (%) vs S&P 500



Manager Summary: Passive strategy that seeks to replicate the return of the Standard & Poor’s 500 index. This strategy is a low-cost option to gain diversified exposure to U.S. domiciled companies by owning the 500 largest companies by market capitalization in the U.S.

Characteristics

	Portfolio	S&P 500
Number of Holdings	506	503
Weighted Avg. Market Cap. (\$B)	537.3	539.2
Median Market Cap. (\$B)	30.1	30.4
Price To Earnings	21.1	21.2
Price To Book	4.2	4.2
Price To Sales	2.4	2.5
Return on Equity (%)	28.7	28.5
Yield (%)	1.7	1.7

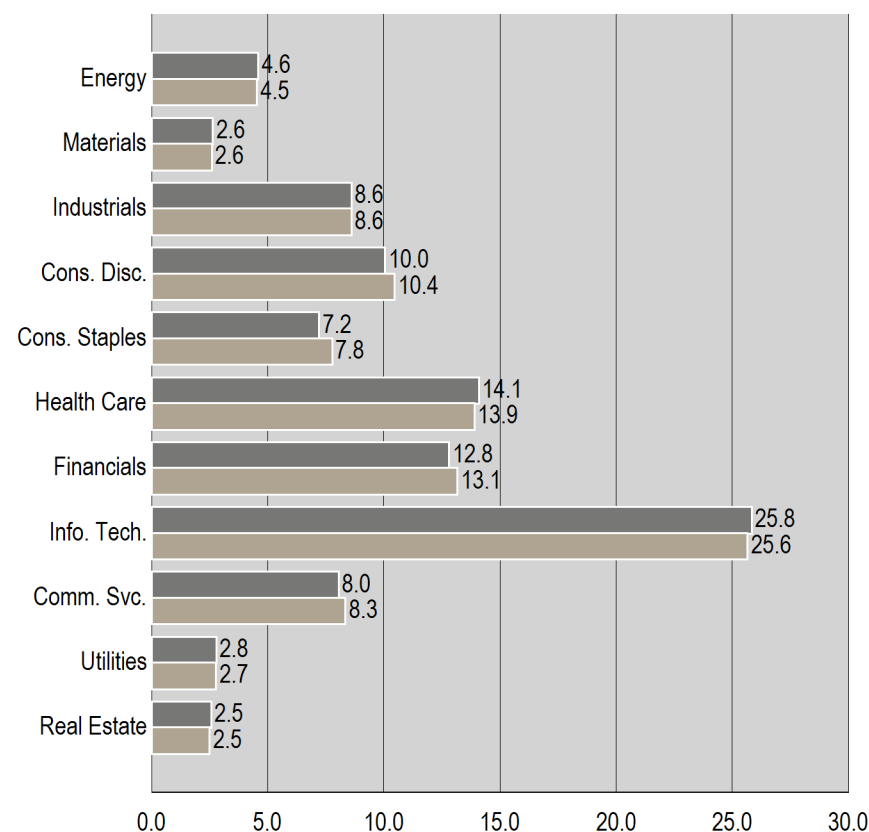
Top Holdings

APPLE INC	7.1%
MICROSOFT CORP	6.2%
AMAZON.COM INC	2.7%
NVIDIA CORPORATION	2.0%
ALPHABET INC	1.8%
TESLA INC	1.6%
BERKSHIRE HATHAWAY INC	1.6%
ALPHABET INC	1.6%
META PLATFORMS INC	1.4%
EXXON MOBIL CORP	1.3%
Total	27.3%

Market Capitalization

	Small Cap	Mid Cap	Large Cap
Northern Trust S&P 500	0.0%	15.9%	84.1%
S&P 500	0.2%	15.7%	84.1%
<i>Weight Over/Under</i>	<i>-0.2%</i>	<i>0.3%</i>	<i>-0.1%</i>

Sector Allocation (%) vs S&P 500



As of March 31, 2023

Manager Summary: Concentrated U.S. large cap growth portfolio with 20-30 names. Investment process begins with negative screening, only including names with robust financials, strong management and attractive earnings growth potential. Then team of generalists perform bottom-up fundamental analysis reviewing industry dynamics, competitive advantage, free cash flow modeling, meet with mgmt. and perform worst case scenarios. High active share. Position limit: 50% limit on sector exposure. Low portfolio turnover (30%).

Characteristics

	Portfolio	Russell 1000 Growth
Number of Holdings	24	509
Weighted Avg. Market Cap. (\$B)	471.2	818.2
Median Market Cap. (\$B)	176.4	17.0
Price To Earnings	37.0	28.0
Price To Book	8.2	9.5
Price To Sales	5.0	3.7
Return on Equity (%)	32.9	42.2
Yield (%)	0.4	1.0

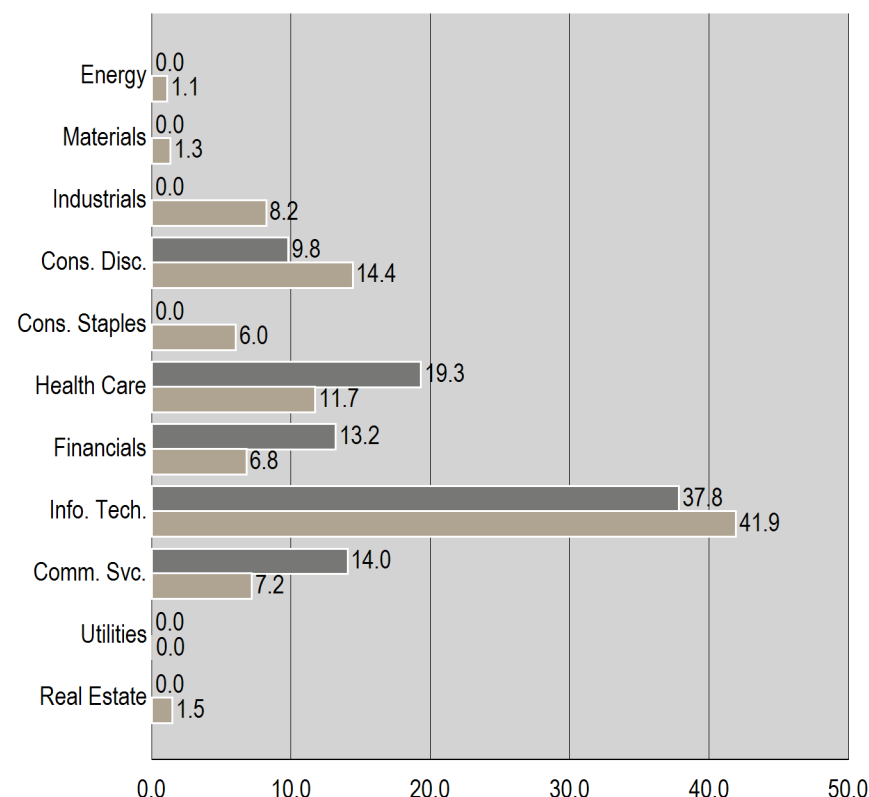
Top Holdings

NETFLIX INC	7.4%
AMAZON.COM INC	7.4%
MICROSOFT CORP	7.3%
SALESFORCE INC	6.6%
SERVICENOW INC	6.0%
MASTERCARD INC	5.4%
ADOBE INC	5.2%
VISA INC	5.2%
ALPHABET INC	4.8%
AUTODESK INC	4.6%
Total	60.0%

Market Capitalization

	Small Cap	Mid Cap	Large Cap
Polen Focus Growth	0.0%	10.0%	90.0%
Russell 1000 Growth	1.3%	13.4%	85.2%
<i>Weight Over/Under</i>	-1.3%	-3.4%	4.7%

Sector Allocation (%) vs Russell 1000 Growth



As of March 31, 2023

Manager Summary: The fund employs a replication technique in order to approximate the risk and return characteristics of the Dow Jones U.S. Completion Total Stock Market Index. This Index is commonly used to represent the small and mid cap segments of the U.S. equity market. The 'completion' index is a sub-set of the DJ US Total Stock Market Index that excludes components of the S&P500.

Characteristics

	Portfolio	Dow Jones U.S. Completion Total Stock Market
Number of Holdings	3,501	3,698
Weighted Avg. Market Cap. (\$B)	10.8	10.8
Median Market Cap. (\$B)	0.7	0.6
Price To Earnings	14.9	14.9
Price To Book	2.8	2.8
Price To Sales	1.4	1.4
Return on Equity (%)	1.5	1.3
Yield (%)	1.5	1.5

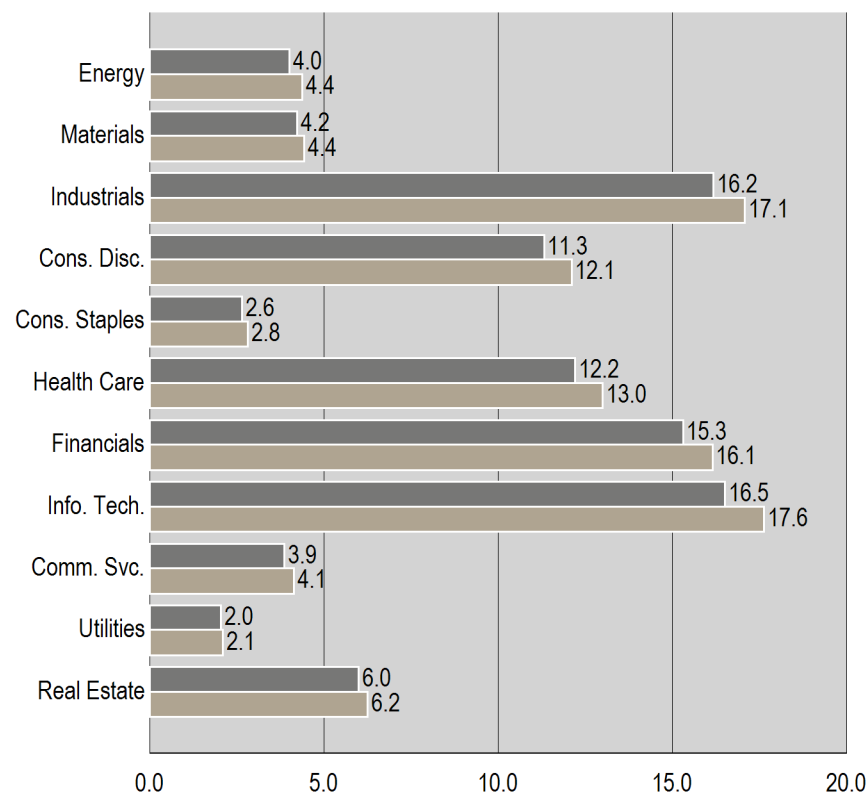
Top Holdings

UBER TECHNOLOGIES INC	1.1%
BLACKSTONE INC	1.0%
PALO ALTO NETWORKS INC	1.0%
AIRBNB INC	0.8%
SNOWFLAKE INC	0.7%
LULULEMON ATHLETICA INC	0.7%
WORKDAY INC	0.7%
CHENIERE ENERGY INC.	0.7%
MARVELL TECHNOLOGY INC	0.6%
BLOCK INC	0.6%
Total	7.9%

Market Capitalization

	Small Cap	Mid Cap	Large Cap
Northern Trust Dow Jones Completion Index	29.4%	63.3%	7.3%
Dow Jones U.S. Completion Total Stock Market	36.7%	56.8%	6.5%
<i>Weight Over/Under</i>	<i>-7.3%</i>	<i>6.5%</i>	<i>0.8%</i>

Sector Allocation (%) vs Dow Jones U.S. Completion Total Stock Market



Manager Summary: Minority-owned investment management firm with fundamental bottom-up process. Stocks are first screened based on earnings, book value, and cash flow criteria with fundamental analysis performed on the top 20% within each respective sector. Sell candidates are companies that have dropped to the bottom 40% of their screen. The strategy holds 50-75 positions and is typically within plus/minus 5% of index sector weightings.

Characteristics

	Portfolio	Russell 2000 Value
Number of Holdings	70	1,358
Weighted Avg. Market Cap. (\$B)	2.7	2.4
Median Market Cap. (\$B)	1.4	0.9
Price To Earnings	10.3	10.5
Price To Book	1.9	1.6
Price To Sales	0.5	0.9
Return on Equity (%)	12.7	5.2
Yield (%)	1.6	2.5

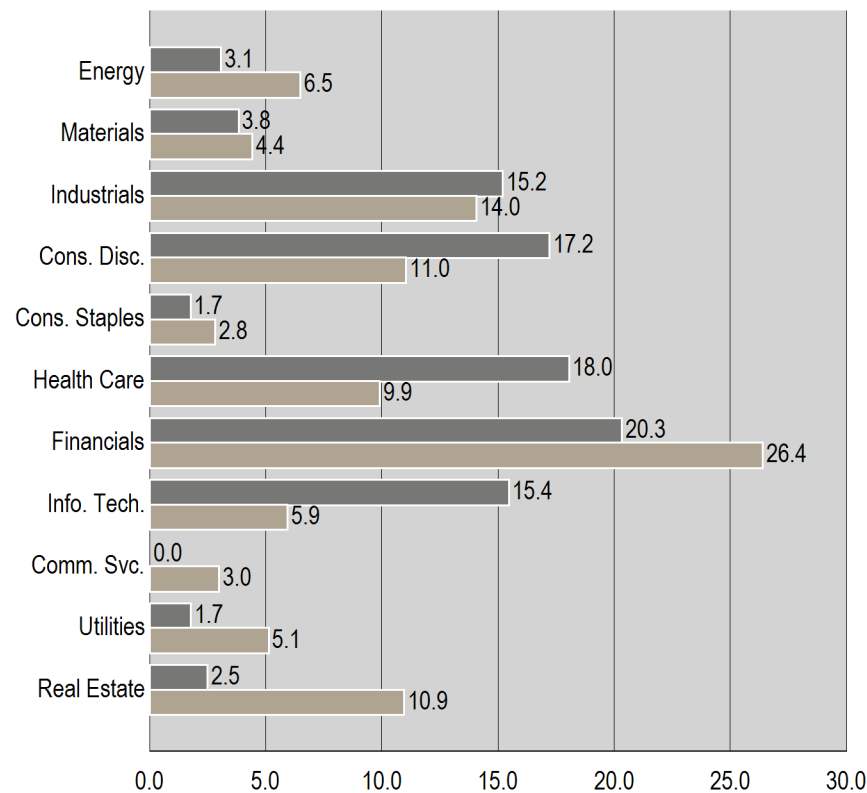
Top Holdings

GROUP 1 AUTOMOTIVE INC.	2.9%
DECKERS OUTDOOR CORP	2.8%
DYCOM INDUSTRIES INC.	2.6%
SELECTIVE INSURANCE GROUP INC	2.5%
CIRRUS LOGIC INC.	2.3%
HIBBETT INC	2.3%
NEXTGEN HEALTHCARE INC	2.2%
SELECT MEDICAL HOLDINGS CORP	2.2%
ULTRA CLEAN HOLDINGS INC	2.2%
KOPPERS HOLDINGS INC	2.2%
Total	24.3%

Market Capitalization

	Small Cap	Mid Cap	Large Cap
Smith, Graham & Co Small Cap Value	78.1%	21.9%	0.0%
Russell 2000 Value	79.8%	20.2%	0.0%
<i>Weight Over/Under</i>	<i>-1.7%</i>	<i>1.7%</i>	<i>0.0%</i>

Sector Allocation (%) vs Russell 2000 Value



Manager Summary: A bottom-up fundamental manager who views dividend growth as a litmus test for earnings quality and focuses on attributes such as dividend coverage, cash flow strength, earnings growth, and return on capital. Fundamental research is focused on identifying companies with strong competitive positions that support steadily rising dividends. Strategy invests in larger, more established small cap firms while tending to underweight the lower market cap ranges. The strategy seeks sector diversification with 45-60 holdings.

Characteristics

	Portfolio	Russell 2000
Number of Holdings	69	1,916
Weighted Avg. Market Cap. (\$B)	6.7	2.9
Median Market Cap. (\$B)	5.4	1.1
Price To Earnings	17.1	12.8
Price To Book	3.4	2.4
Price To Sales	1.7	1.2
Return on Equity (%)	21.2	5.1
Yield (%)	1.8	1.7

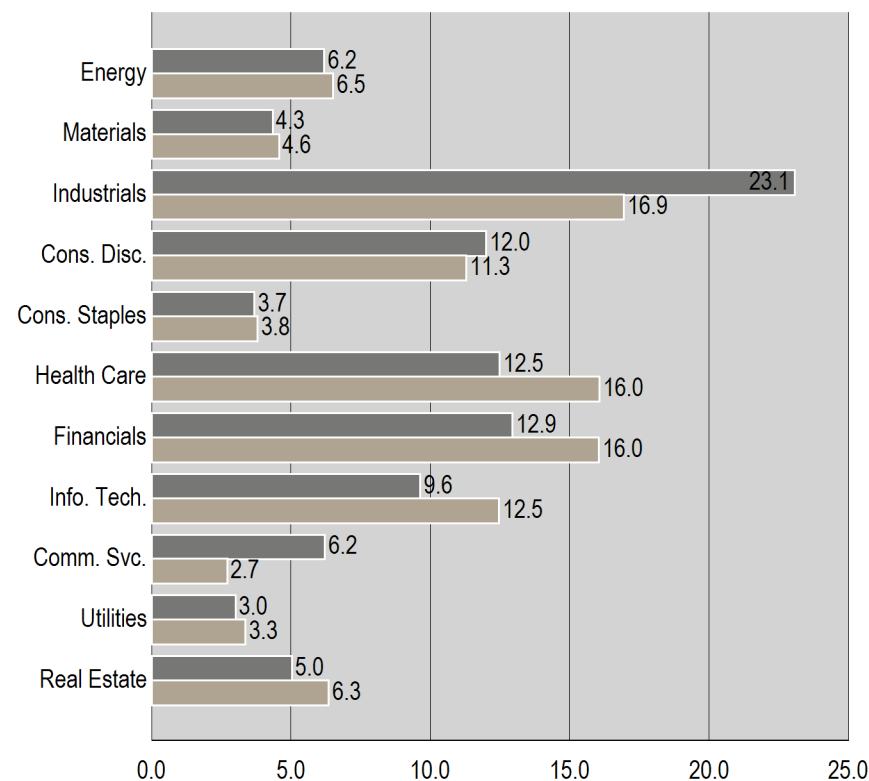
Top Holdings

INTER PARFUMS INC	2.2%
CHURCHILL DOWNS INC	2.1%
ENSIGN GROUP INC (THE)	2.1%
RELIANCE STEEL & ALUMINUM CO	2.0%
UNIVERSAL DISPLAY CORPORATION	2.0%
WINGSTOP INC	2.0%
SHUTTERSTOCK INC	1.9%
GFL ENVIRONMENTAL INC	1.7%
NORTHERN OIL AND GAS INC	1.7%
ENTEGRIS INC	1.7%
Total	19.4%

Market Capitalization

	Small Cap	Mid Cap	Large Cap
Copeland SMID Cap Dividend Growth	27.2%	72.8%	0.0%
Russell 2000	69.9%	30.1%	0.0%
<i>Weight Over/Under</i>	<i>-42.7%</i>	<i>42.7%</i>	<i>0.0%</i>

Sector Allocation (%) vs Russell 2000



As of March 31, 2023

Manager Summary: Core growth strategy, fundamental, bottom-up process seeking companies with a competitive advantage, market leadership, growth rates exceeding peers, differentiated growth drivers, and low research coverage. Analysts work across the market cap spectrum supporting small, mid, and all-cap strategies with coverage of dynamic sectors. The strategy holds 110-125 companies and portfolio construction limits of no more than 15% in any one industry group.

Characteristics

	Portfolio	Russell 2000 Growth
Number of Holdings	116	1,091
Weighted Avg. Market Cap. (\$B)	3.5	3.4
Median Market Cap. (\$B)	2.7	1.4
Price To Earnings	22.1	15.9
Price To Book	3.8	3.6
Price To Sales	2.3	1.5
Return on Equity (%)	-2.4	4.1
Yield (%)	0.5	0.9

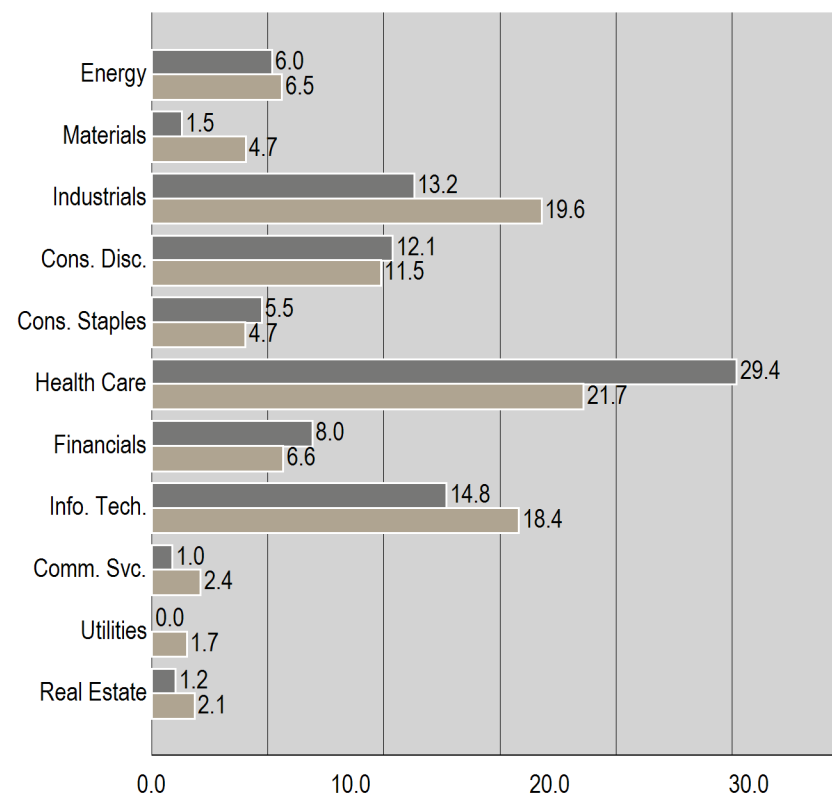
Top Holdings

CHURCHILL DOWNS INC	2.2%
SUPER MICRO COMPUTER INC	2.1%
SIMPLY GOOD FOODS CO (THE)	2.1%
LANTHEUS HOLDINGS INC	2.1%
SHIFT4 PAYMENTS INC	2.1%
TREACE MEDICAL CONCEPTS INC	1.8%
FRESHPET INC	1.7%
TRANSMEDICS GROUP INC	1.7%
PLANET FITNESS INC	1.6%
CARPENTER TECHNOLOGY CORP	1.6%
Total	18.9%

Market Capitalization

	Small Cap	Mid Cap	Large Cap
Emerald Small Cap Growth	60.1%	39.9%	0.0%
Russell 2000 Growth	60.9%	39.1%	0.0%
<i>Weight Over/Under</i>	<i>-0.8%</i>	<i>0.8%</i>	<i>0.0%</i>

Sector Allocation (%) vs Russell 2000 Growth



Manager Summary: The fund invests primarily in U.S. and foreign stocks that are expected to minimize volatility relative to the global equity market. To reduce volatility, the fund will consider stocks' risk and diversification characteristics and seek to hedge away most of the currency exposure resulting from its foreign stock holdings.

Characteristics

	Portfolio	MSCI ACWI
Number of Holdings	259	2,884
Weighted Avg. Market Cap. (\$B)	90.1	351.6
Median Market Cap. (\$B)	20.9	12.3
Price To Earnings	17.3	17.3
Price To Book	3.4	3.4
Price To Sales	1.4	1.8
Return on Equity (%)	21.2	20.7
Yield (%)	2.6	2.3

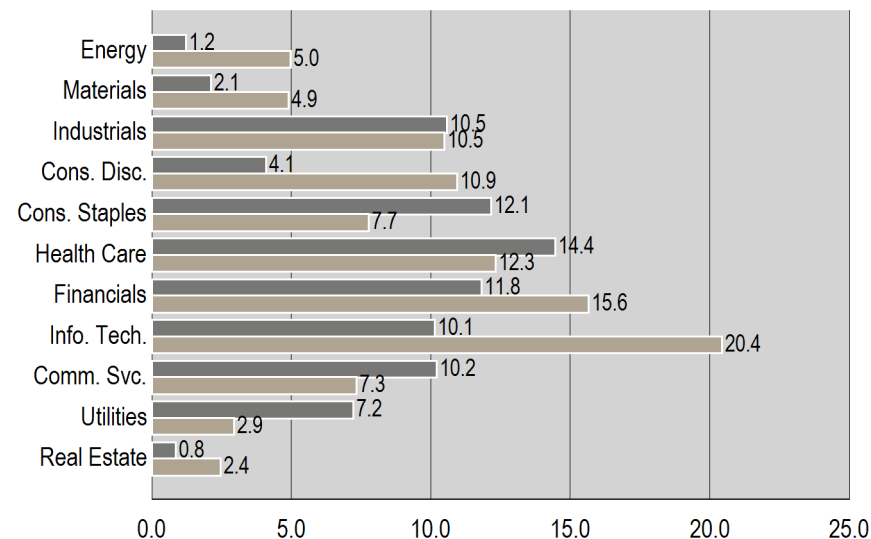
Top Holdings

ISHARES MSCI EMERGING MARKETS MIN VOL FACTOR ETF	13.0%
WASTE MANAGEMENT INC.	1.6%
MERCK & CO INC	1.6%
PEPSICO INC	1.5%
JOHNSON & JOHNSON	1.4%
GILEAD SCIENCES INC	1.3%
MOTOROLA SOLUTIONS INC	1.3%
WALMART INC	1.2%
VERIZON COMMUNICATIONS INC	1.2%
CONSOLIDATED EDISON INC.	1.1%
Total	25.4%

Market Capitalization

	Small Cap	Mid Cap	Large Cap	Unclassified
Rhumblin Global Min. Volatility	17.9%	19.4%	61.2%	1.5%
MSCI ACWI	5.9%	16.8%	77.3%	0.0%
<i>Weight Over/Under</i>	<i>12.0%</i>	<i>2.6%</i>	<i>-16.1%</i>	<i>1.5%</i>

Sector Allocation (%) vs MSCI ACWI



Region Allocation Summary

Region	% of Total	% of Bench	% Diff
North America ex U.S.	1.9%	3.0%	-1.1%
United States	70.3%	60.6%	9.8%
Europe Ex U.K.	3.5%	13.1%	-9.6%
United Kingdom	0.0%	3.8%	-3.8%
Pacific Basin Ex Japan	3.9%	3.0%	0.9%
Japan	11.0%	5.5%	5.5%
Emerging Markets	8.8%	10.8%	-2.0%
Other	0.6%	0.3%	0.3%
Total	100.0%	100.0%	0.0%

Manager Summary: Passive strategy that seeks to replicate the returns of the MSCI ACWI ex US index. This strategy is a low-cost option to gain diversified exposure to internationally based companies.

Characteristics

	Portfolio	MSCI World ex USA
Number of Holdings	1,006	883
Weighted Avg. Market Cap. (\$B)	79.7	81.8
Median Market Cap. (\$B)	10.9	12.7
Price To Earnings	14.1	14.5
Price To Book	2.4	2.5
Price To Sales	1.3	1.3
Return on Equity (%)	14.6	14.4
Yield (%)	3.3	3.3

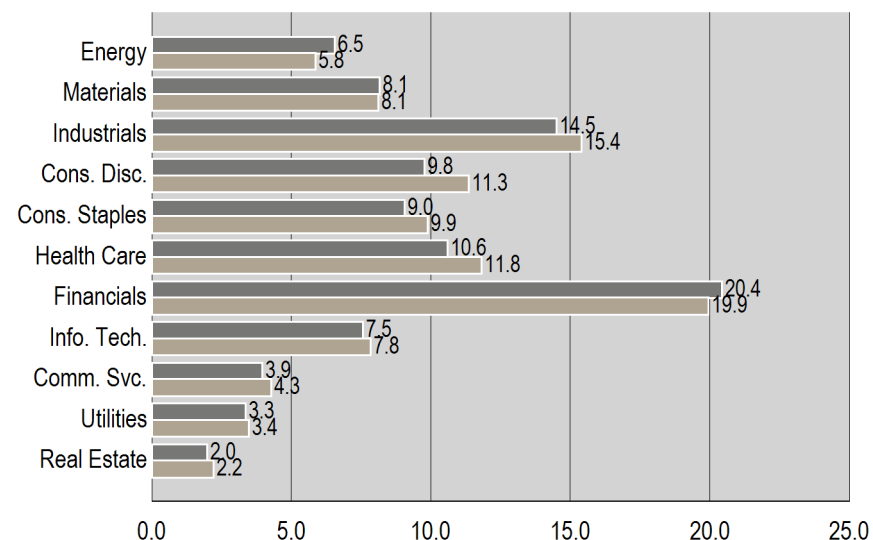
Top Holdings

NESTLE SA, CHAM UND VEVEY	1.8%
ASML HOLDING NV	1.5%
NOVO NORDISK 'B'	1.4%
LVMH MOET HENNESSY LOUIS VUITTON SE	1.4%
ROYAL BANK OF CANADA	1.3%
ASTRAZENECA PLC	1.2%
ROCHE HOLDING AG	1.1%
NOVARTIS AG	1.1%
SHELL PLC	1.1%
TORONTO-DOMINION BANK (THE)	1.0%
Total	12.9%

Market Capitalization

	Small Cap	Mid Cap	Large Cap	Unclassified
SSGA MSCI World ex US	6.5%	23.1%	62.9%	7.5%
MSCI World ex USA	7.8%	24.5%	67.7%	0.0%
<i>Weight Over/Under</i>	-1.3%	-1.4%	-4.9%	7.5%

Sector Allocation (%) vs MSCI World ex USA



Region Allocation Summary

Region	% of Total	% of Bench	% Diff
North America ex U.S.	16.9%	10.4%	6.5%
United States	0.1%	0.0%	0.1%
Europe Ex U.K.	44.5%	45.8%	-1.3%
United Kingdom	10.1%	13.3%	-3.1%
Pacific Basin Ex Japan	9.5%	10.7%	-1.2%
Japan	18.1%	19.3%	-1.2%
Emerging Markets	0.0%	0.0%	0.0%
Other	0.7%	0.6%	0.1%
Total	100.0%	100.0%	0.0%

Manager Summary: Concentrated portfolio (20-30 names). Utilizes fundamental research invests in quality companies with 10% EPS growth and market leaders, invest at attractive valuation. Turnover is between 20-30%. Maximum position is 5%. Given the concentrated nature of the portfolio, high idiosyncratic risk in the portfolio and sizable tracking error. High active share (around 90-95%). No currency hedge.

Characteristics

	Portfolio	MSCI EAFE
Number of Holdings	31	795
Weighted Avg. Market Cap. (\$B)	122.0	85.5
Median Market Cap. (\$B)	63.4	12.5
Price To Earnings	26.9	14.6
Price To Book	4.1	2.6
Price To Sales	2.3	1.2
Return on Equity (%)	9.0	14.5
Yield (%)	0.9	3.3

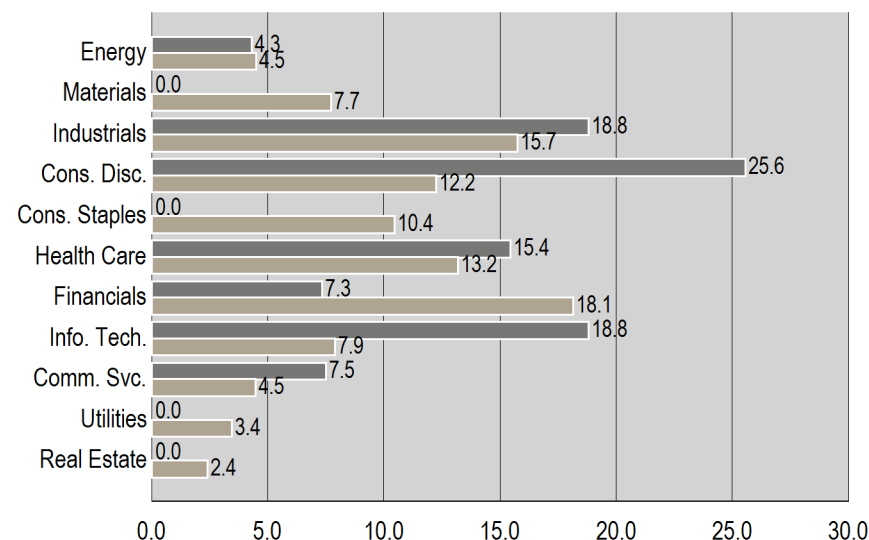
Top Holdings

PROSUS ORD	5.9%
KEYENCE CORP	5.3%
ASML HOLDING NV	5.2%
DEUTSCHE TELEKOM AG	5.1%
AIRBUS SE	5.1%
SAFRAN SA	5.1%
AIA GROUP LTD	5.0%
ASTRAZENECA PLC	5.0%
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	4.9%
TECHNIPFMC PLC	4.4%
Total	50.8%

Market Capitalization

	Small Cap	Mid Cap	Large Cap	Unclassified
Hardman Johnston Int'l Equity	15.9%	11.4%	66.4%	6.3%
MSCI EAFE	7.7%	24.4%	67.9%	0.0%
<i>Weight Over/Under</i>	8.2%	-13.0%	-1.5%	6.3%

Sector Allocation (%) vs MSCI EAFE



Region Allocation Summary

Region	% of Total	% of Bench	% Diff
North America ex U.S.	0.0%	0.0%	0.0%
United States	0.0%	0.0%	0.0%
Europe Ex U.K.	48.2%	51.1%	-2.9%
United Kingdom	11.1%	14.8%	-3.7%
Pacific Basin Ex Japan	13.3%	11.9%	1.4%
Japan	7.7%	21.5%	-13.8%
Emerging Markets	15.7%	0.0%	15.7%
Other	4.0%	0.7%	3.4%
Total	100.0%	100.0%	0.0%

Manager Summary: Bottom-up fundamental manager looking for businesses that are undergoing structural change. Analysts are generalists who are unconstrained in their candidates. Looking for upside over a time horizon of 2-3 years through assessing and predicting earnings estimates. Concentrated portfolio: 25-35 names equally weighted with a max of 5% initial allocation. Sector and countries limits of 30%. Turnover is roughly 30-40%.

Characteristics

	Portfolio	MSCI EAFE
Number of Holdings	26	795
Weighted Avg. Market Cap. (\$B)	56.5	85.5
Median Market Cap. (\$B)	29.3	12.5
Price To Earnings	19.1	14.6
Price To Book	3.1	2.6
Price To Sales	2.4	1.2
Return on Equity (%)	13.6	14.5
Yield (%)	1.8	3.3

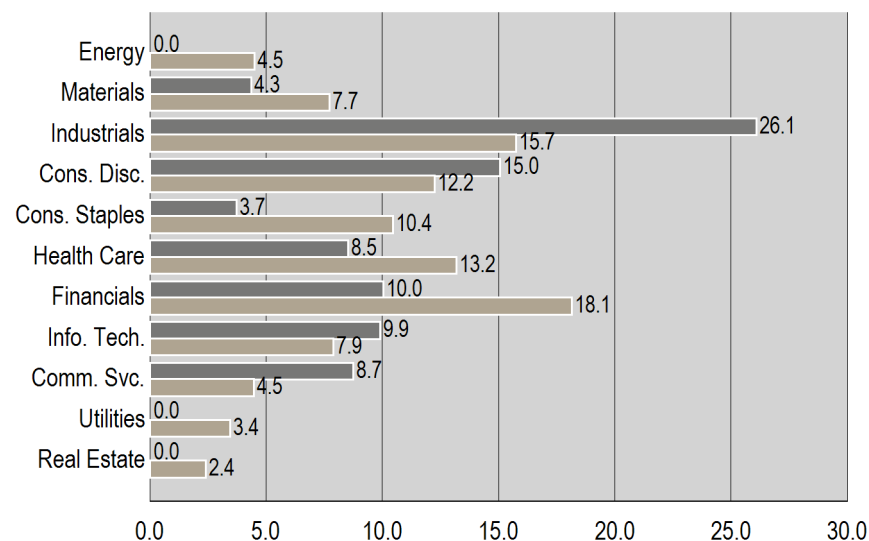
Top Holdings

RHEINMETALL	6.5%
THALES	6.4%
SANOFI	5.3%
COMPASS GROUP PLC	5.2%
VESTAS WIND SYSTEMS A/S	5.2%
DEUTSCHE BOERSE AG	4.9%
FRANCO-NEVADA CORP	4.9%
STMICROELECTRONICS NV	4.7%
SONY GROUP CORPORATION	4.4%
ICON PLC	4.3%
Total	51.7%

Market Capitalization

	Small Cap	Mid Cap	Large Cap	Unclassified
HGK Int'l Equity	0.0%	29.4%	47.5%	23.1%
MSCI EAFE	7.7%	24.4%	67.9%	0.0%
<i>Weight Over/Under</i>	<i>-7.7%</i>	<i>5.0%</i>	<i>-20.3%</i>	<i>23.1%</i>

Sector Allocation (%) vs MSCI EAFE



Region Allocation Summary

Region	% of Total	% of Bench	% Diff
North America ex U.S.	4.8%	0.0%	4.8%
United States	5.6%	0.0%	5.6%
Europe Ex U.K.	50.7%	51.1%	-0.4%
United Kingdom	11.5%	14.8%	-3.3%
Pacific Basin Ex Japan	3.2%	11.9%	-8.8%
Japan	21.5%	21.5%	0.0%
Emerging Markets	2.7%	0.0%	2.7%
Other	0.0%	0.7%	-0.7%
Total	100.0%	100.0%	0.0%

Manager Summary: Passive strategy that seeks to replicate the return of the MSCI Emerging Markets index. This strategy is a low-cost option to gain diversified exposure to emerging market based companies.

Characteristics

	Portfolio	MSCI Emerging Markets
Number of Holdings	1,337	1,375
Weighted Avg. Market Cap. (\$B)	110.3	112.4
Median Market Cap. (\$B)	6.3	6.6
Price To Earnings	11.9	11.7
Price To Book	2.4	2.4
Price To Sales	1.1	1.0
Return on Equity (%)	15.3	15.2
Yield (%)	3.5	3.5

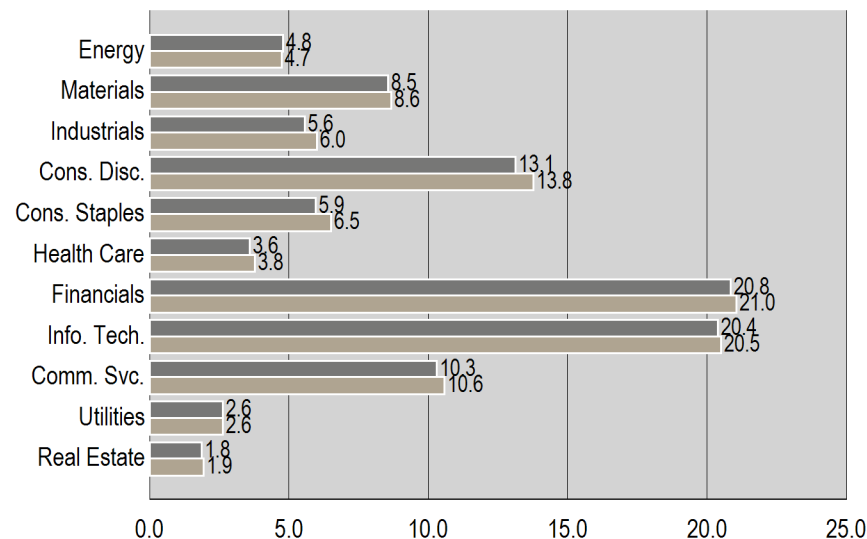
Top Holdings

TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	6.8%
TENCENT HOLDINGS LTD	4.8%
SAMSUNG ELECTRONICS CO LTD	3.8%
ALIBABA GROUP HOLDING LTD	3.0%
MEITUAN DIANPING USD0.00001 A B CLASS ISIN KYG596691041	1.5%
RELIANCE INDUSTRIES LTD	1.4%
CHINA CONSTRUCTION BANK CORP	1.0%
VALE SA	1.0%
INFOSYS LTD	0.9%
HOUSING DEVELOPMENT FINANCE CORP LTD	0.9%
Total	25.0%

Market Capitalization

	Small Cap	Mid Cap	Large Cap	Unclassified
SSGA MSCI Emerging Markets Index	6.3%	25.6%	64.2%	3.8%
MSCI Emerging Markets	14.4%	24.3%	61.3%	0.0%
<i>Weight Over/Under</i>	-8.1%	1.3%	2.9%	3.8%

Sector Allocation (%) vs MSCI Emerging Markets



Region Allocation Summary

Region	% of Total	% of Bench	% Diff
North America ex U.S.	0.0%	0.0%	0.0%
United States	0.1%	0.0%	0.1%
Europe Ex U.K.	0.9%	0.4%	0.5%
United Kingdom	0.0%	0.0%	0.0%
Pacific Basin Ex Japan	6.1%	0.0%	6.1%
Japan	0.0%	0.0%	0.0%
Emerging Markets	90.4%	98.8%	-8.4%
Other	2.4%	0.9%	1.5%
Total	100.0%	100.0%	0.0%

Characteristics

Fund GAV (\$MM)	\$33,780.0
Fund NAV (\$MM)	\$27,189.0
Cash (% of NAV)	1.6%
# of Investments	293
% in Top 10 by NAV	18.7%
Leverage %	20.5%
Occupancy	93.3%
# of MSAs	45
1-Year Dividend Yield	2.8%
As of Date	31-Dec-22

Strategy Breakdown

	% of Portfolio
Pre-Development	0.9%
Development	4.1%
Initial Leasing	1.0%
Operating	94.1%
Re-Development	
Other	

Queue In:	
Contribution Queue (\$MM)	\$131.64
Anticipated Drawdown (Months)	

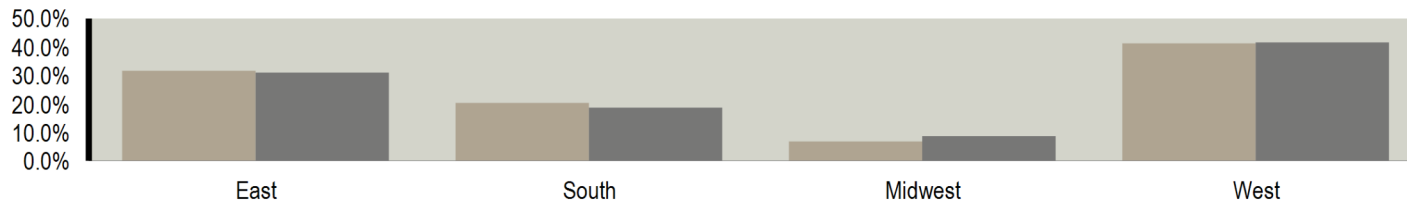
Top Five Metro Areas

	% of NAV
Los Angeles-Long Beach, CA	22.4%
New York-Newark, NY-NJ-CT-F	13.5%
Washington-Baltimore-Arlington	10.2%
San Jose-San Francisco-Oakland	6.7%
Boston-Worcester-Providence,	5.0%

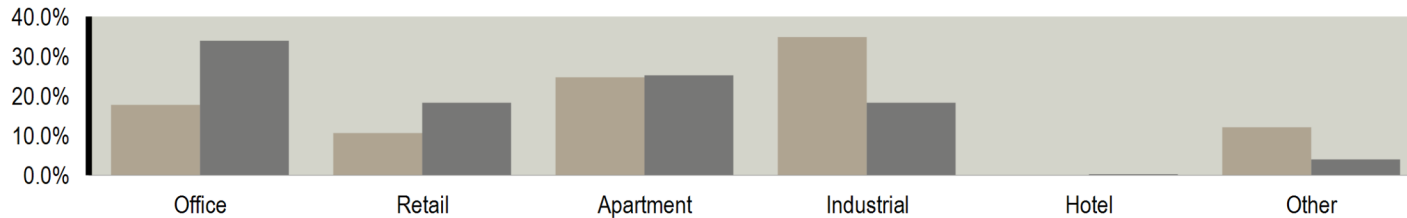
Queue Out:

Redemption Queue (\$MM)	\$3,401.55
Anticipated Payout (Months)	

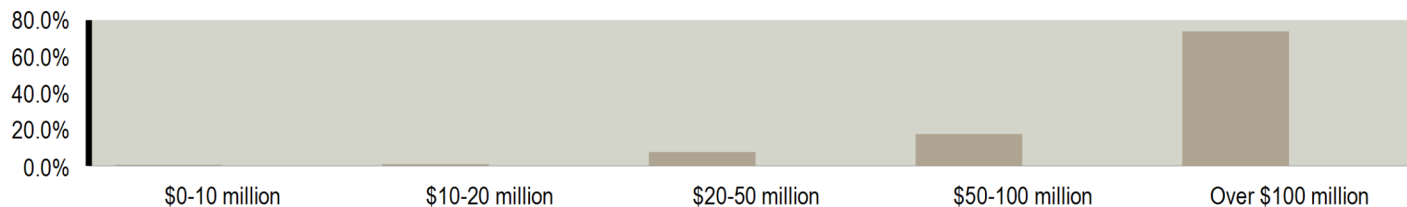
Regional Breakdown by NAV (Excluding Cash & Debt)



Property Type Breakdown by NAV (Excluding Cash & Debt)



Property Size Breakdown by NAV (Excluding Cash & Debt)



■ PRISA ■ NCREIF-ODCE

Characteristics

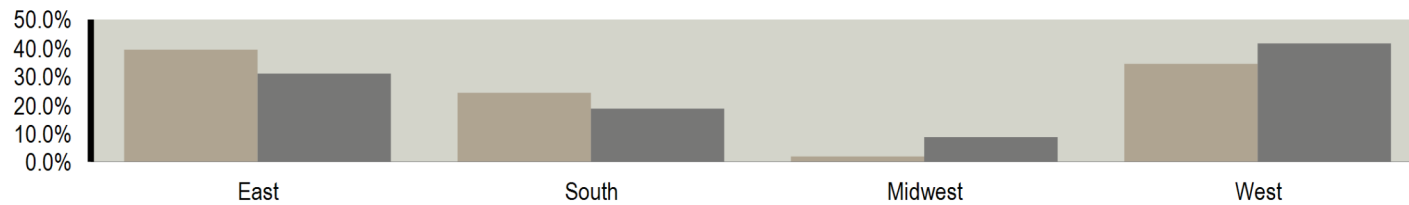
Fund GAV (\$MM)	\$17,217.0
Fund NAV (\$MM)	\$10,176.0
Cash (% of NAV)	1.3%
# of Investments	154
% in Top 10 by NAV	21.2%
Leverage %	34.9%
Occupancy	89.6%
# of MSAs	69
1-Year Dividend Yield	2.6%
As of Date	31-Mar-23

Strategy Breakdown

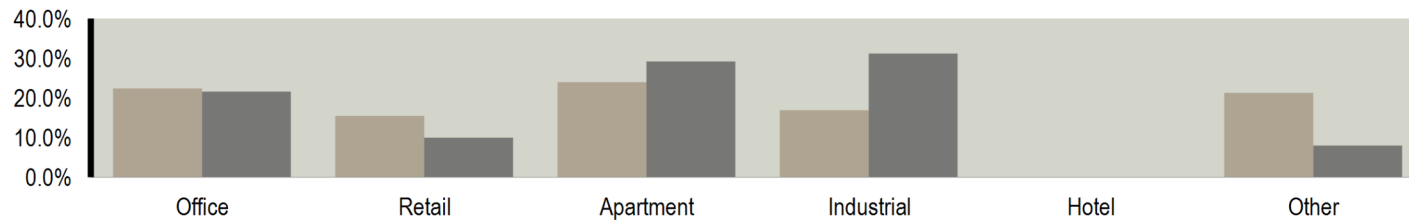
	% of Portfolio
Pre-Development	4.6%
Development	11.9%
Initial Leasing	8.8%
Operating	71.4%
Re-Development	
Other	3.4%
<u>Queue In:</u>	
Contribution Queue (\$MM)	\$0.00
Anticipated Drawdown (Months)	0

Top Five Metro Areas	% of NAV
Northern NJ	8.4%
San Francisco	8.2%
Boston	7.4%
San Jose	5.5%
Fort Lauderdale	5.1%
<u>Queue Out:</u>	
Redemption Queue (\$MM)	\$1,342.00
Anticipated Payout (Months)	0

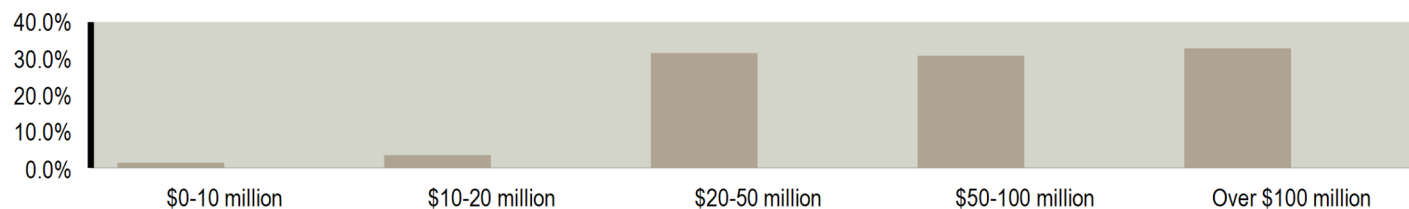
Regional Breakdown by NAV (Excluding Cash & Debt)



Property Type Breakdown by NAV (Excluding Cash & Debt)



Property Size Breakdown by NAV (Excluding Cash & Debt)



■ PRISA II ■ NCREIF-ODCE

Characteristics

Fund GAV (\$MM)	\$279.4
Fund NAV (\$MM)	\$259.7
Cash (% of NAV)	0.0%
# of Investments	8
Occupancy	67.0%
NOI	5.9%
Loan to Value	7.1%
As of Date	6/30/2021

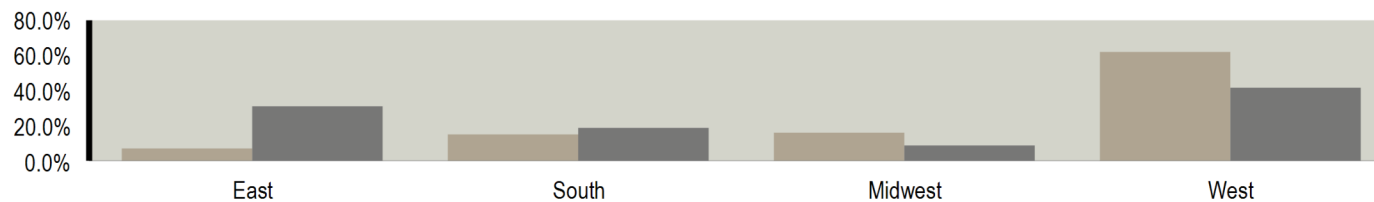
Asset Summary

Property	Acquisition
Copley Corporate Center	2010
SR Ranch	2011
Des Peres Corners	2010
708 Uptown	2014
Fairway Center II	2016
Republic Distribution Center	2013
526 Route 46	2014
Shoppes at Monarch Lakes	2010

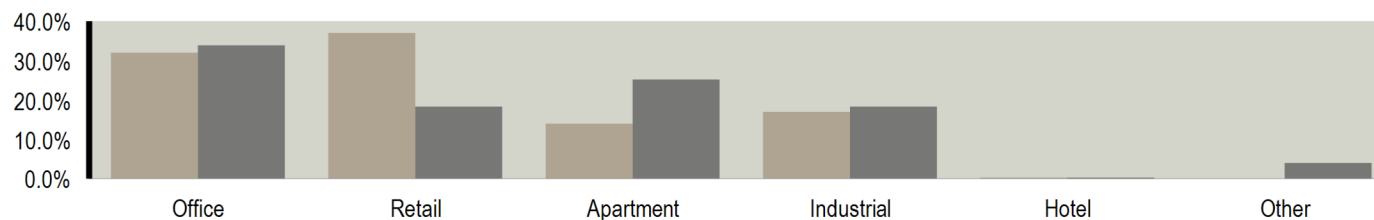
Portfolio Allocation

#	Property	Type	Location	% of Fund NAV
1	Copley Corporate Center	Office	San Diego, CA	18.2%
2	SR Ranch	Retail	San Diego, CA	16.1%
3	Des Peres Corners	Retail	Des Peres, MO	15.8%
4	708 Uptown	Apartment	Seattle, WA	14.6%
5	Fairway Center II	Office	Brea, CA	13.0%
6	Republic Distribution Center	Industrial	Houston, TX	10.3%
7	526 Route 46	Industrial	Teterboro, NJ	6.9%
8	Shoppes at Monarch Lakes	Retail	Miramar, FL	5.0%
Total				100.0%

Regional Breakdown by NAV



Property Type Breakdown by NAV



Net Assets (\$MM) 144.1

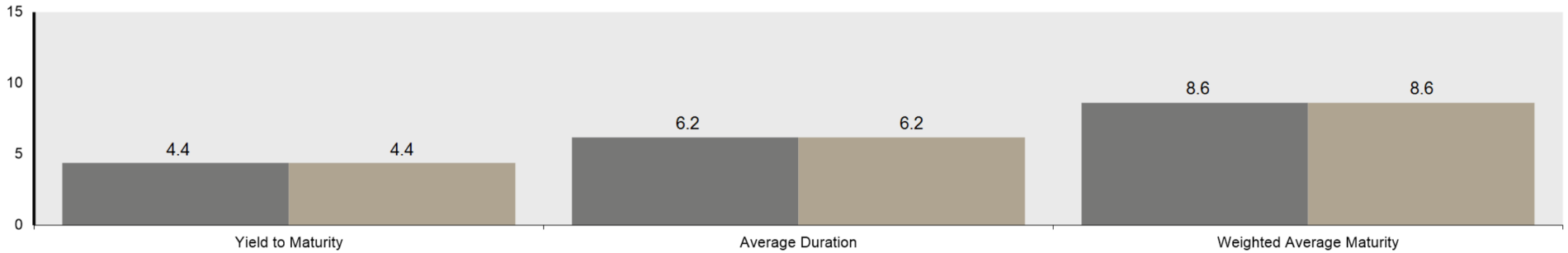
Portfolio Allocation

#	Property	Type	Location	% of Fund NAV
1	Bear Island	Pine	Virginia	5.3%
2	Fitz-Weller	Pine	New York	3.8%
3	Carter Pasture	Douglas Fir/Cedar	Texas	7.5%
4	Dupont	Douglas Fir/Hemlock	Georgia	22.4%
5	Black River	Pine	South Carolina	17.9%
6	Coquille	Pine	Oregon	20.3%
7	Bucktails	Pine	Pennsylvania	8.8%
8	North River	Maple/Oak	Washington	14.1%
Total				100.0%

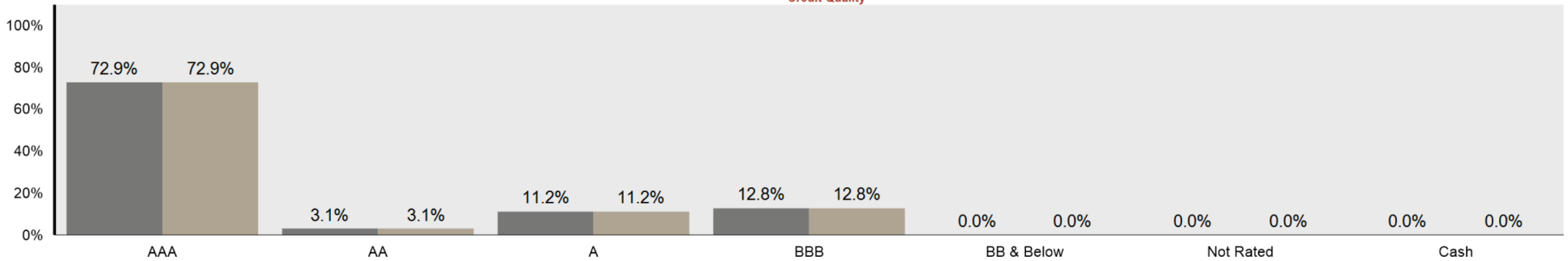
Regional Breakdown by NAV



Yield to Maturity



Credit Quality



US Sector

