

California State Teachers' Retirement System

4Q 2023

Semi-Annual Report



California State Teachers' Retirement System

Semi-Annual Report: Executive Summary

Introduction

The CalSTRS Total Portfolio had an aggregate value of \$327.0 billion as of December 31, 2023. During the latest six-month period, the Total Portfolio increased by \$11.3 billion (net of fees and contributions/benefits). Over the latest one-year period, the Total Portfolio increased by \$24.9 billion (net of fees and contributions/benefits).

Asset Allocation Trends

During the latest six-month period, the **Real Estate** and **Risk Mitigating allocations decreased** by (1%), and the **allocation to Cash** increased by 1%. The allocations to **Global Equity, Fixed Income, Private Equity, Inflation Sensitive, Innovative Strategies,** and **Strategic Overlay remained unchanged**.

During the latest 12-month period, the Global Equity, Fixed Income, Private Equity, Innovate Strategies, and Cash allocations increased by 1%, the Risk Mitigating allocation decreased by (1%), and the Real Estate allocation decreased by (2%). The allocations to Inflation Sensitive and Strategic Overlay remained unchanged.

Trailing Period Investment Performance (Net-of-Manager Fees)

Performance vs. Policy Benchmark ¹								
	10 Year (%)	5 Year (%)	3 Year (%)	1 Year (%)				
Total Portfolio	7.9	9.8	6.0	9.2				
Policy Benchmark	7.5	9.1	5.3	8.4				
Excess Return ²	1 0.3	★ 0.7	★ 0.7	1 0.8				

Performance vs. Median Fund ³								
	10 Year (%)	5 Year (%)	3 Year (%)	1 Year (%)				
Total Portfolio	7.9	9.8	6.0	9.2				
St. Street Median (>\$10B)	7.4	9.3	6.0	11.8				
Excess Return (St. Street4)	1 0.4	1 0.5	1 0.0	₹ -2.6				

¹ The Total Portfolio benchmark consists of passively managed strategic class portfolios held at policy weightings.

² Value discrepancies due to rounding.

³ State Street Universe – Public Funds > \$10 Billion. Mixture of net and gross-of-fees.

⁴ Value Discrepancies due to rounding.



As of December 31, 2023



Capital Markets Outlook

- → With the notable exception of China's markets, global bond and equity markets rallied at the end of the year, posting strong gains as inflation pressures eased and central banks appeared to be turning more dovish.
- → Both the Russell 3000 and the MSCI EAFE gained 5.3% in December. For the year, the broad US market gained 26.0%
- \rightarrow Large cap growth stocks were the big winners for the year, with the Russell 1000 Growth index gaining 42.7%.
- → US small cap stocks both growth and value posted double digit returns in December, and the Russell 2000 index finished up 16.9% for the year.
- → Non-US developed equities benefitted from a slight currency tailwind in 2023, with the MSCI EAFE posting a one-year return of 18.2%.
- → While positive, emerging market equities lagged developed markets in December and for the full year. The MSCI EM index returned 9.8% for the year, with Chinese stocks serving as a drag on performance. The MSCI Emerging Market ex-China index returned 20% for the full year.
- → China's stock markets were one of very few markets that suffered losses for 2023. The MSCI China index returned -11.2% for the calendar year as investors' lack of confidence in the economy and CCP policies continued to weigh on asset prices.

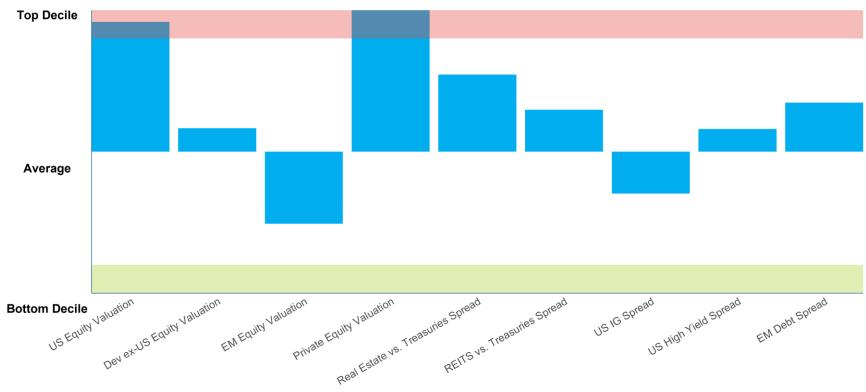


Capital Markets Outlook

- → The Fed's dovish communication at the December FOMC meeting helped to fuel a widespread rally in US bond markets, with the Bloomberg US Aggregate index returning 3.8% in December and finishing up 5.5% for the year.
 Long-duration government bonds capped a volatile year with an 8.6% gain in December, pushing them into positive territory for the year.
- → Public credit finished a solid year, with both the high yield and bank loan indices posting gains of roughly 13%.
- → REIT indices returned over 9% in December, leading to double-digit returns for the full year, while natural resource indices experienced more modest gains.
- \rightarrow Commodity indices were an outlier, with negative returns in December (-2.7%) and for 2023 (-7.9%).





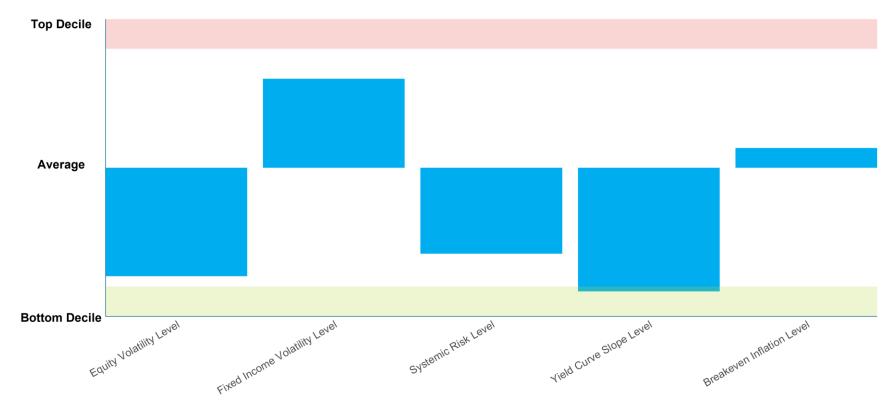


→ Dashboard (1) summarizes the current state of the different valuation metrics per asset class relative to their own history.

¹ With the exception of Private Equity Valuation, that is YTD as of December 31, 2022.



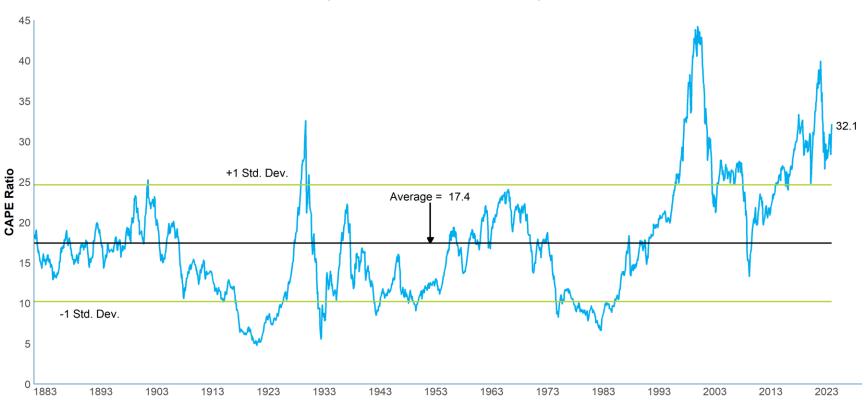




ightarrow Dashboard (2) shows how the current level of each indicator compares to its respective history.







→ 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/E¹ (As of December 31, 2023)

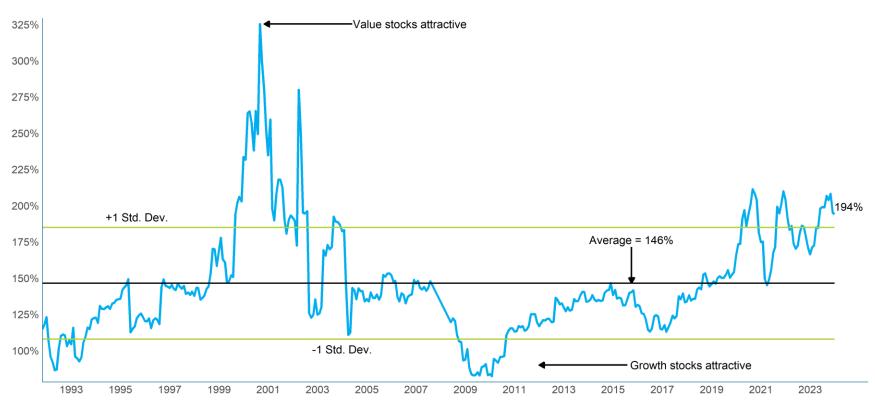


→ This chart compares the relative attractiveness of small cap US equities vs. large cap US equities on a valuation basis. A higher (lower) figure indicates that large cap (small cap) is more attractive.

¹ Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments and Bloomberg. Prior months unavailable on Bloomberg are backfilled with last reported earnings. Earnings figures represent 12-month "as reported" earnings.







→ 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/E¹ (As of December 31, 2023)

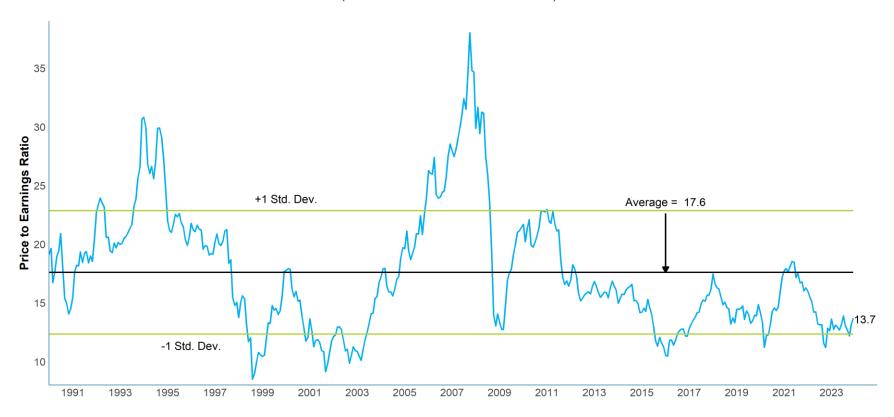


→ This chart details one valuation metric for developed international equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

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/E¹ (As of December 31, 2023)



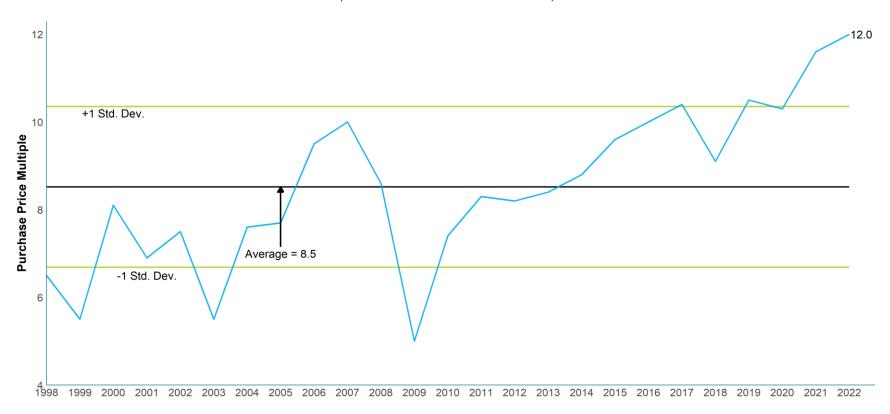
→ This chart details one valuation metric for emerging markets equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

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 Multiples¹

(As of December 31, 2023)

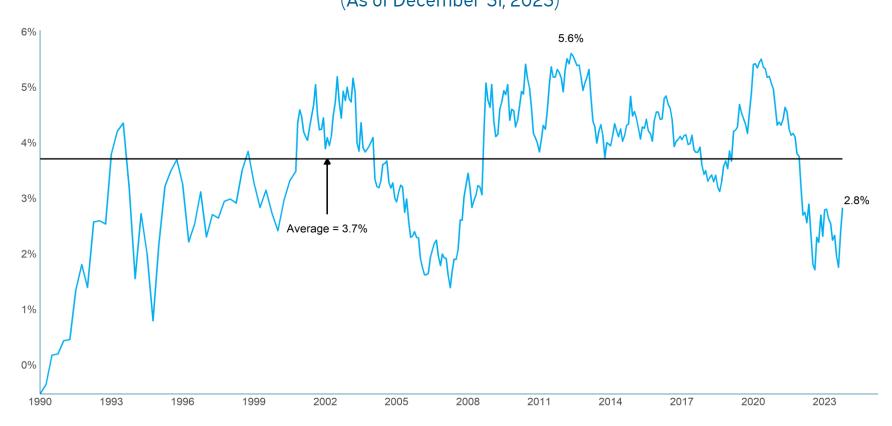


→ This chart details one valuation metric for the private equity market. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

¹ Private Equity Multiples – Source: Pregin Median EBITDA Multiples Paid in All LBOs.



Core Real Estate Spread vs. Ten-Year Treasury¹ (As of December 31, 2023)

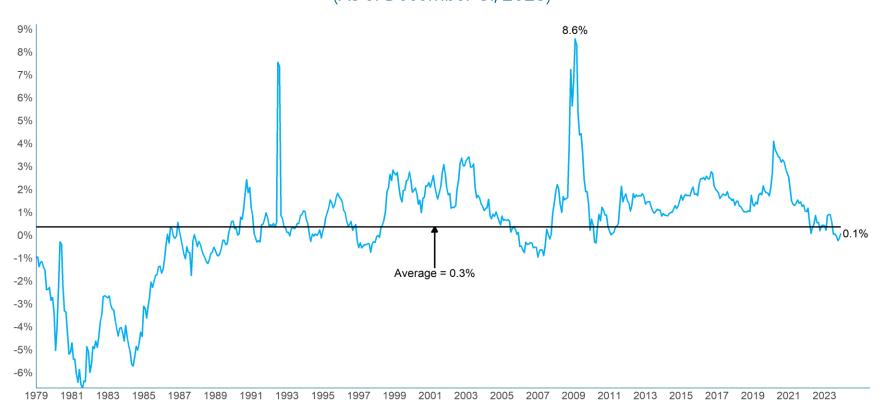


→ This chart details one valuation metric for the private core real estate market. A higher (lower) figure indicates cheaper (more expensive) valuation.

¹ Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, FRED, 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 Treasury¹ (As of December 31, 2023)

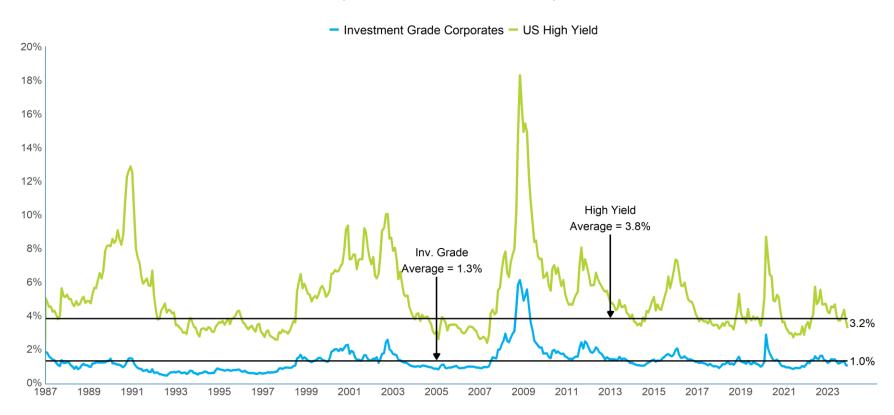


→ This chart details one valuation metric for the public REITs market. A higher (lower) figure indicates cheaper (more expensive) valuation.

¹ REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, Bloomberg, US Treasury. REITs are proxied by the yield for the NAREIT Equity Index.







→ 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: Bloomberg. High Yield is proxied by the Bloomberg High Yield Index and Investment Grade Corporates are proxied by the Bloomberg 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 Spreads¹

(As of December 31, 2023)

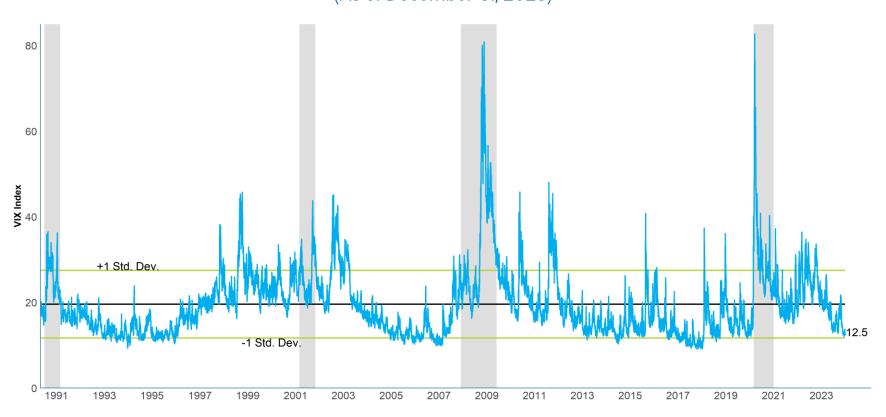


→ This chart details one valuation metric for the EM debt markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

¹ EM Spreads – Source: Bloomberg. Option Adjusted Spread (OAS) for the Bloomberg EM USD Aggregate Index.



Equity and Fixed Income Volatility¹ (As of December 31, 2023)

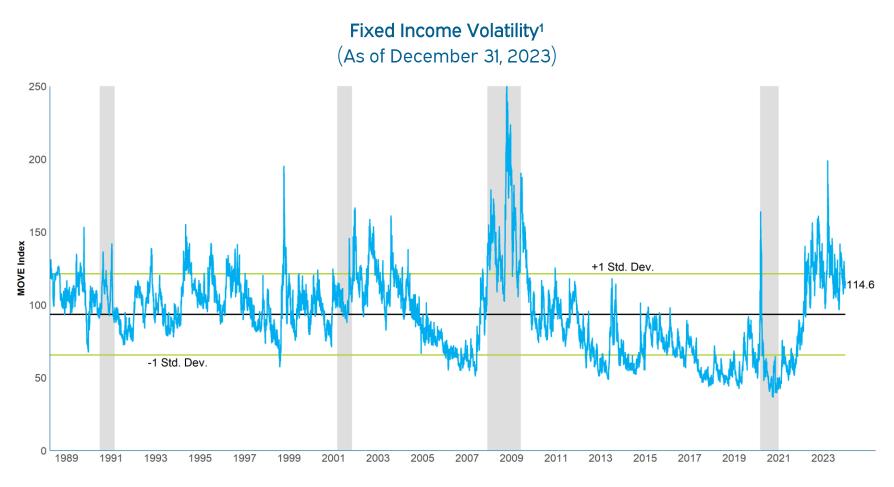


→ This chart details historical implied equity market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

¹ Equity Volatility - Source: FRED, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.

² 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.



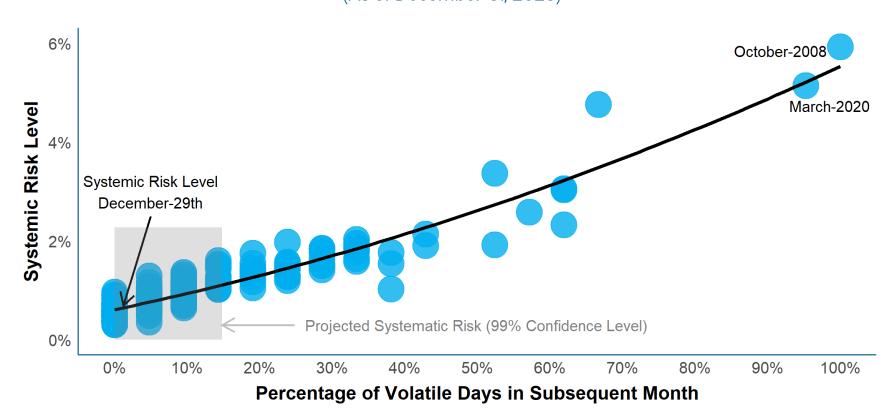


→ This chart details historical implied fixed income market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

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.



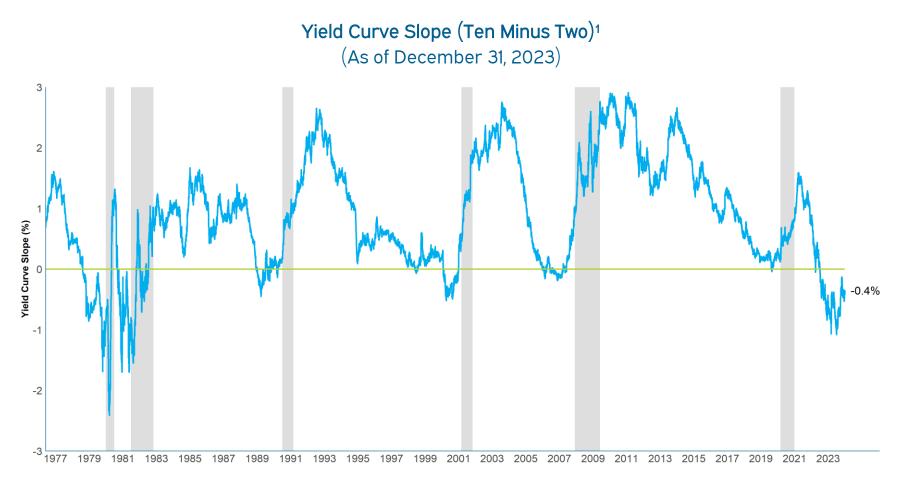
Systemic Risk and Volatile Market Days¹ (As of December 31, 2023)



→ 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.





→ 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: FRED. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.



Ten-Year Breakeven Inflation¹ (As of December 31, 2023)

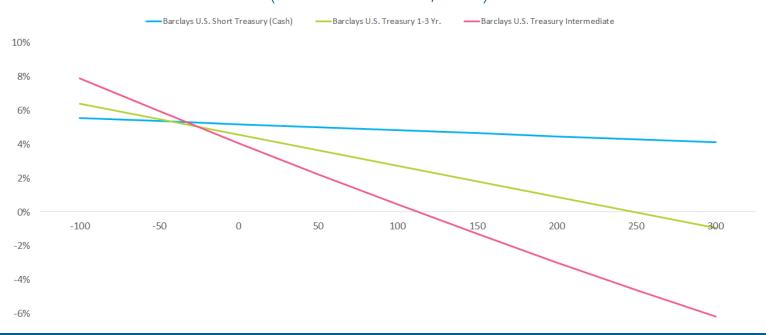


→ This chart details the difference between nominal and inflation-adjusted US Treasury bonds. A higher (lower) figure indicates higher (lower) inflation expectations.

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 December 31, 2023)

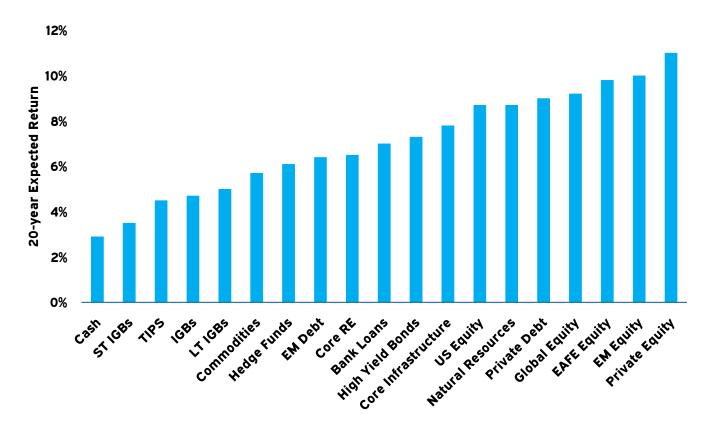


		Total Return for Given Changes in Interest Rates (bps)							Statistics		
	-100	-50	0	50	100	150	200	250	300	Duration	YTW
Barclays US Short Treasury (Cash)	5.6%	5.4%	5.2%	5.0%	4.8%	4.7%	4.5%	4.3%	4.1%	0.36	5.20%
Barclays US Treasury 1-3 Yr.	6.4%	5.5%	4.6%	3.7%	2.7%	1.8%	0.9%	0.0%	-1.0%	1.84	4.58%
Barclays US Treasury Intermediate	7.9%	5.9%	4.1%	2.2%	0.4%	-1.3%	-3.0%	-4.6%	-6.2%	3.72	4.06%
Barclays US Treasury Long	21.4%	12.4%	4.1%	-3.3%	-9.9%	-15.8%	-20.8%	-25.0%	-28.4%	15.69	4.14%

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 Returns¹



→ This chart details Meketa's long-term forward-looking expectations for total returns across asset classes.

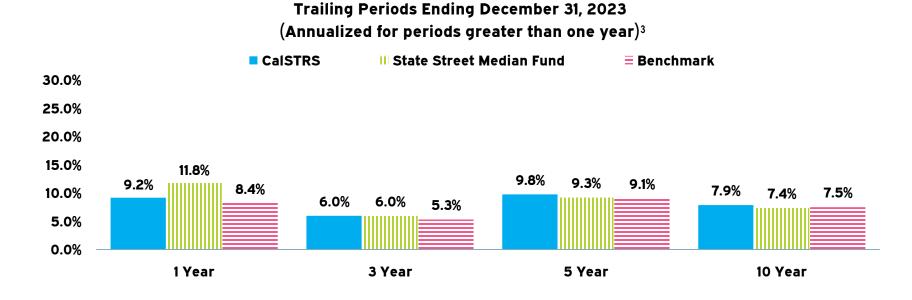
¹ Source: Meketa Investment Group's 2023 Asset Study.

CalSTRS Portfolio Performance

This section includes an overview of the performance of the CalSTRS investment portfolio and a detailed analysis of strategic classes and specific mandates.

Portfolio Performance Overview (Net-of-Manager Fees)

Over the trailing one-year period ending December 31, 2023, the Total Portfolio generated a return of 9.2%, outperforming the policy benchmark¹ return, but trailing the State Street median fund² return of 11.8%. Over the trailing three-, five-, and ten-year periods, the Total Portfolio outperformed both the policy benchmark and the State Street median fund.



¹ The Total Portfolio benchmark consists of passively managed asset class portfolios held at policy weightings.

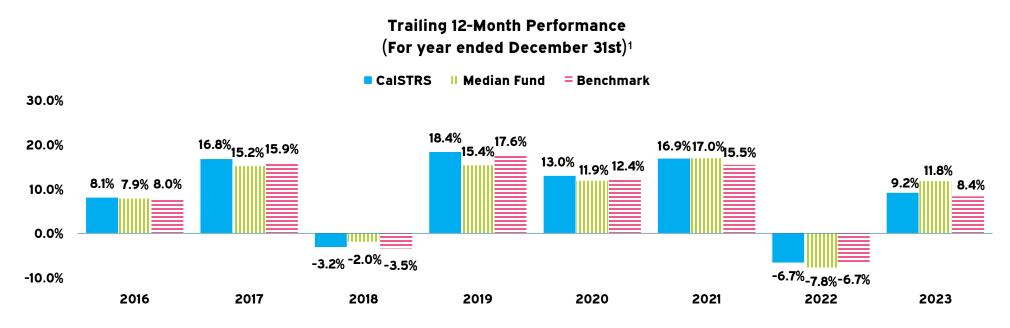
² State Street Universe - Public Funds > \$10 Billion. Mixture of net and gross-of-fees.

³ Source: State Street.



Portfolio Performance Overview (Net-of-Manager Fees) (continued)

The CalSTRS Total Portfolio generated positive absolute results over six of the eight 12-month periods ending December 31. The Total Portfolio has matched or outperformed the policy benchmark in all of the last eight years ending in December. Lastly, the Total Portfolio outperformed the median fund¹ in five of the last eight 12-month periods ending December 31.



¹ Source: State Street. Note: CMA Benchmark is not shown due to lack of comparability





Portfolio Valuation

The CalSTRS Total Portfolio had an aggregate value of \$327.0 billion as of December 31, 2023. During the latest six-month period, the Total Portfolio increased by \$11.3 billion (net of fees and contributions/benefits). Over the latest year, the Total Portfolio increased by \$24.9 billion (net of fees and contributions/benefits).

Portfolio Valuation as of December 31, 2023

	Dec 31, 2023	June 30, 2023	Semi-Annual Change ¹	Percentage Change ²	Dec 31, 2022	Annual Change ²	Percentage Change
CalSTRS	\$327.0B	\$315.6B	\$11.3B	3.6%	\$302.1B	\$24.9	8.2%

¹ Differences due to rounding error.

² Includes investment performance and net contributions.



Actual vs. Target Allocations

The Total Portfolio ended the latest 12-month period overweight Private Markets, Innovative Strategies and Cash, and was underweight Global Equity, Fixed Income, and Risk Mitigating. The Inflation Sensitive and Strategic Overlay asset classes ended the period in line with their respective policy targets.

As of December 31, 2023 (Differences due to rounding)¹

Segment	Actual (\$M)	Actual %	Target %	Variance
Total Portfolio	326,952	100	100	
Global Equity	130,411	40	41	-1
Fixed Income	34,509	11	12	-1
Private Markets	100,384	31	29	2
Real Estate	49,407	15	15	
Private Equity	50,977	16	14	2
Inflation Sensitive	19,934	6	6	
Risk Mitigating	27,028	8	10	-2
Innovative Strategies	5,066	2	0	2
Cash	9,322	3	2	1
Strategic Overlay ²	297	0	0	

¹ Source: State Street.

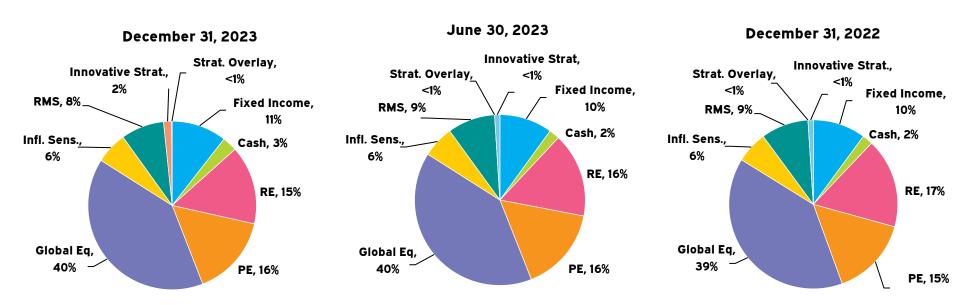
² Strategic Overlay includes Futures Offset.



Actual vs. Target Allocations (continued)

Over the trailing six-month period, the allocation to Real Estate and Risk Mitigating fell by (1%), and the allocation to Cash rose by 1%. During the latest 12-month period, the allocation to Global Equity, Fixed Income, Private Equity, Innovative Strategies, and Cash rose by 1%, the Risk Mitigating allocation fell by (1%), and the Real Estate allocation declined by (2%).

Actual Strategic Allocation Comparison (Differences due to rounding)





Performance of Largest Accounts: US Equity

Manager	Mkt Value (\$000)	Asset Class	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
CalSTRS MSCI USA IMI	41,540,456	Passive US Equity	26.5			
MSCI CalSTRS Index on USA IMI			25.8			
CalSTRS MSCI USA	13,786,804	Passive US Equity	27.4			
MSCI CalSTRS Index on USA			26.7			
CalSTRS Russell 3000	7,718,137	Passive Large Cap	26.3	8.6	15.3	11.6
Custom Russell 3000 Index			26.1	8.5	15.2	11.5
Jacobs Levy 130-30 R3000	1,443,905	Active All Cap	29.1	22.4		
STRS US Equity Index			26.1	8.5		
CalSTRS Russell Top 200	1,072,777	US Equity Special Situations	30.2	10.1		
STRS Custom Russell Top 200			30.1	10.0		

Source: State Street.

- → CalSTRS' five largest US Equity accounts (in terms of market value) ended the period with positive results versus their respective benchmarks over all trailing time periods.
- → CalSTRS' Russell 3000 passive portfolio met expectations over all applicable time periods.
- → CalSTRS' MSCI USA IMI and MSCI USA portfolios continued to generate alpha, posting double digit returns over the latest calendar year.
- → Jacobs Levy 130-30 R3000 outperformed STRS US Equity Index by 2.9% and 13.8% over the trailing one- and three-year periods, respectively.



Performance of Largest Accounts: Non-US Equity

Manager	Mkt Value (\$000)	Asset Class	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
CalSTRS EAFE + Canada Index	15,651,485	Passive EAFE + Canada	18.0	4.2	8.8	
Custom MSCI EAFE + Canada IMI Index			17.4	3.7	<i>8.2</i>	
Schroder GEM Core Equity	1,950,773	Active EM	8.8	-6.3	5.2	
Custom MSCI EM Index			9.6	-5.9	3.6	
Baillie Gifford & Co.	1,831,995	Active EM	10.4	-9.0	6.1	5.1
Custom MSCI EM Index			9.6	-5.9	3.6	2.7
Mondrian Investment	1,653,692	Active EM	13.6	-2.9	4.5	2.4
Custom MSCI EM Index			9.6	-5.9	3.6	2.7
Arrowstreet Capital	1,642,133	Active EAFE + Canada	21.4	8.4	12.4	
Custom MSCI EAFE + Canada Index			18.1	4.4	8.5	

Source: State Street.

- → CalSTRS' five largest Non-US Equity accounts (in terms of market value) ended the period with positive results versus their respective benchmarks over the five-year time period.
- → CalSTRS' largest passive Non-US developed + Canada strategy, an internally managed portfolio, deviated positively from its benchmark by 0.6%, 0.5%, and 0.5% over the one-, three-, and five-year periods, respectively.
- → Schroder GEM Core, the portfolio's largest active Non-US emerging manager, underperformed the relevant custom MSCI EAFE Index over the one- and three-year periods by -0.9% and -0.4%, respectively.
- → Baillie Gifford and Co., the second-largest active Non-US emerging manager, outperformed its benchmark by 0.7%, 2.5%, and 2.5% over the one-, five-, and ten-year periods, respectively.
- → Mondrian, the portfolio's third largest active Non-US emerging manager, outperformed its benchmark by 4.0%, 3.0%, and 0.9% over the one-, three-, and five-year periods, respectively.
- → Arrowstreet Capital, the portfolio's largest active Non-US developed manager, outperformed its benchmark by 3.2%, 4.0% and 3.9% over the one-, three-, and five-year periods, respectively.



Performance of Largest Accounts: Fixed Income

Manager	Mkt Value (\$000)	Asset Class	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
CalSTRS Interest Rate Products	12,449,145	Government	4.4	-3.6	8.0	1.5
CalSTRS Government Index			4.1	-3.7	0.6	1.3
CalSTRS Mortgage Backed	8,035,381	MBS	5.1	-2.8	0.5	1.6
CalSTRS MBS Index			5.0	-2.9	0.3	1.4
CalSTRS Credit	7,946,053	Credit	8.2	-3.1	2.6	3.0
CalSTRS Credit Index			8.2	<i>-3.2</i>	2.4	2.8
CalSTRS Core Plus	1,507,911	Core Plus	7.2	-2.4		
Custom US Universal Index			6.2	-2.9		
Western Asset Management	1,104,449	Core Plus	7.2	-3.7	2.0	2.7
Custom US Universal Index			6.2	-2.9	1.5	2.1

Source: State Street.

- → CalSTRS' five largest Fixed Income portfolios (in terms of market value) ended the period with generally positive results versus their respective benchmarks over all applicable time periods.
- → The CalSTRS Interest Rate Portfolio modestly outperformed its benchmark by roughly 20 basis points over all trailing periods.
- → The CalSTRS Mortgage-Backed Portfolio matched or outperformed its benchmark over all trailing periods.
- → The CalSTRS Credit Portfolio matched or outperformed its benchmark over all trailing periods.
- → The CalSTRS Core Plus Portfolio outperformed its benchmark over the one- and three-year trailing periods by 1.1% and 0.5%, respectively.



Data Sources and Explanations¹

- → 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 December 31, 2023, unless otherwise noted.



Data Sources and Explanations¹

- → 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: Bloomberg High Yield is proxied by the Bloomberg High Yield Index and Investment Grade Corporates are proxied by the Bloomberg 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 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 December 31, 2023, unless otherwise noted



Appendix

Data Sources and Explanations¹

- → 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 December 31, 2023, unless otherwise noted





Meketa Market Sentiment Indicator Explanation, Construction and Q&A



California State Teachers' Retirement System

Appendix

Meketa has created the MIG Market Sentiment Indicator (MIG-MSI) to <u>complement</u> 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?





Appendix

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).

California State Teachers' Retirement System



Appendix

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. 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..}

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.sterm.nyu.edu/~lpederse/papers/TimeSeriesMomentum.pdf

California State Teachers' Retirement System



Appendix

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. 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



WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

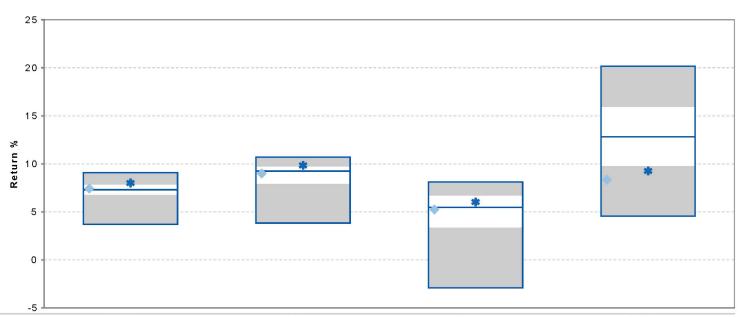
CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE "FORWARD - LOOKING STATEMENTS," WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "EXPECT," "AIM", "ANTICIPATE," "TARGET," "PROJECT," "ESTIMATE," "INTEND," "CONTINUE" OR "BELIEVE," OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

State Street Universe Periods Ending December 31, 2023



State Street Universe - Public Funds Master Trusts

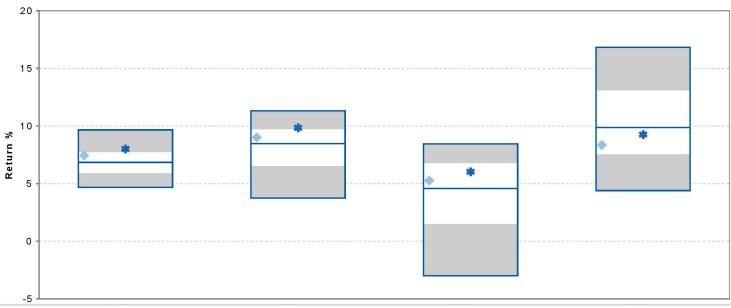


	10 Year	5 Year	3 Year	1 Year
Number of Observations	34	39	41	55
5th Percentile	9.08	10.69	8.12	20.16
25th Percentile	7.80	9.70	6.68	15.89
50th Percentile	7.30	9.24	5.46	12.80
75th Percentile	6.75	7.91	3.35	9.76
95th Percentile	3.69	3.83	-2.92	4.56
* TOTAL FUND	8.05 18	9.88 17	6.07 34	9.30 79
STRS TOTAL FUND INDEX	7.53 29	9.10 58	5.35 52	8.44 86

State Street Universe Periods Ending December 31, 2023



State Street Universe - Public Master Trusts > \$1 Billion

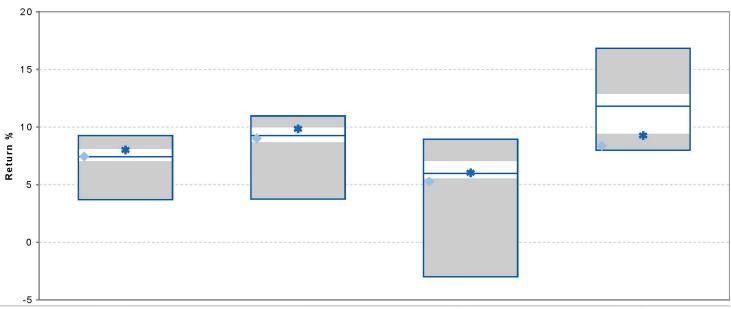


	10 Year	5 Year	3 Year	1 Year
Number of Observations	85	94	94	107
5th Percentile	9.66	11.32	8.44	16.82
25th Percentile	7.72	9.70	6.75	13.08
50th Percentile	6.84	8.48	4.57	9.86
75th Percentile	5.90	6.52	1.50	7.55
95th Percentile	4.68	3.75	-3.00	4.39
*TOTAL FUND	8.05 19	9.88 19	6.07 30	9.30 54
STRS TOTAL FUND INDEX	7.53 28	9.10 42	5.35 44	8.44 61

State Street Universe Periods Ending December 31, 2023



State Street Universe - Public Master Trusts > \$10 Billion

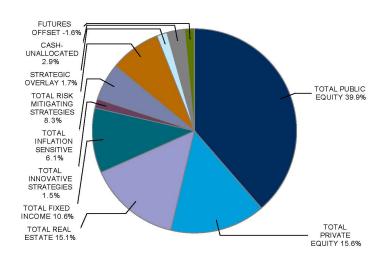


	10 Year	5 Year	3 Year	1 Year
Number of Observations	18	18	18	24
5th Percentile	9.26	10.96	8.93	16.82
25th Percentile	8.09	9.94	7.03	12.86
50th Percentile	7.41	9.25	5.98	11.81
75th Percentile	7.02	8.66	5.53	9.40
95th Percentile	3.69	3.75	-3.00	7.99
*TOTAL FUND	8.05 27	9.88 28	6.07 48	9.30 77
STRS TOTAL FUND INDEX	7.53 36	9.10 68	5.35 80	8.44 88

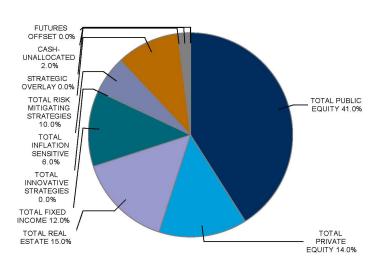
Total Fund - Asset Allocation Periods Ending December 31, 2023



Allocation*



Target Policy



Allocation vs. Target Policy

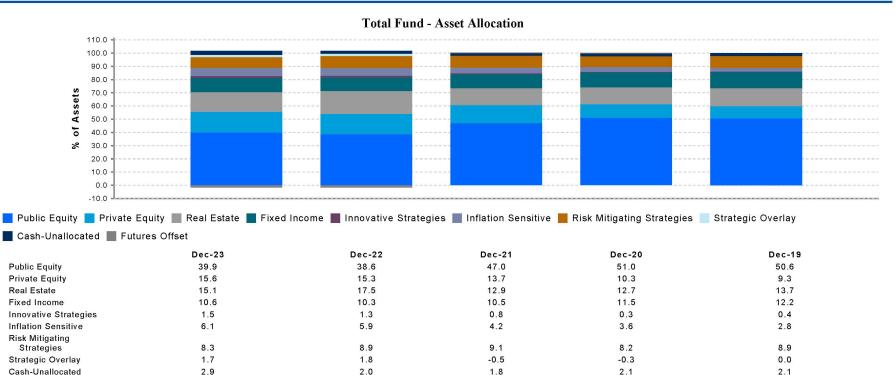
	Actual*	Policy	Difference
TOTAL PUBLIC EQUITY	39.9	41.0	-1.1
TOTAL PRIVATE EQUITY	15.6	14.0	1.6
TOTAL REAL ESTATE	15.1	15.0	0.1
TOTAL FIXED INCOME	10.6	12.0	-1.4
TOTAL INNOVATIVE STRATEGIES	1.5	0.0	1.5
TOTAL INFLATION SENSITIVE	6.1	6.0	0.1
TOTAL RISK MITIGATING STRATEGIES	8.3	10.0	-1.7
STRATEGIC OVERLAY	1.7	0.0	1.7
CASH-UNALLOCATED	2.9	2.0	0.9
FUTURES OFFSET	-1.6	0.0	-1.6

^{*} End of period weights

^{**}Derivatives are not included which provide additional exposure to Public Equity bringing the Asset Allocation range within policy limits. Negative allocation to Futures Offset are represented as positive numbers on the Allocation pie chart. Includes Sustainable Investment & Stewardship Strategies Public and Private investments total of \$4,997 Million.

Total Fund - Historical Asset Allocation Periods Ending December 31, 2023





Ending Market Value (\$ in Millions)

0.6

0.4

-1.6

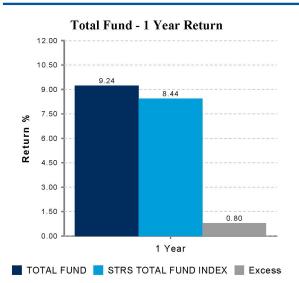
	Public Equity	Private Equity	Real Estate	Fixed Income	Innovative Strategies	Inflation Sensitive	Risk Mitigating Strategies	Strategic Overlay	Cash Unallocated	Futures Offset
Dec 31, 2023	130,411	50,977	49,407	34,509	5,066	19,934	27,028	5,608	9,322	-5,311
Dec 31, 2022	116,698	46,354	52,727	30,987	3,911	17,900	26,963	5,440	6,013	-4,895
Dec 31, 2021	153,944	44,839	42,171	34,310	2,728	13,751	29,813	-1,668	5,913	1,803
Dec 31, 2020	144,462	29,302	36,129	32,609	968	10,086	23,377	-815	6,089	1,221
Dec 31, 2019	128,468	23,690	34,683	31,103	1,047	7,044	22,587	103	5,358	

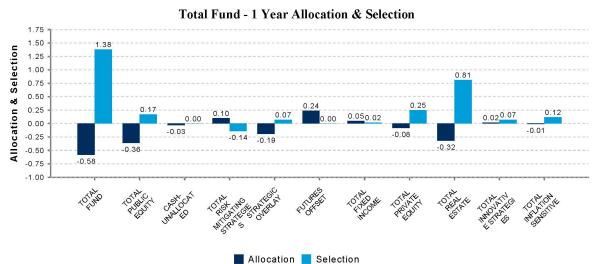
Futures Offset

-1.6

Total Fund Attribution Periods Ending December 31, 2023







To	tal F	und	Attribution	- 1	Year

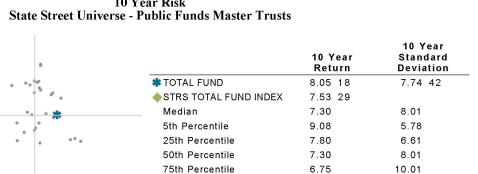
	Portfolio Weight	Benchmark Weight	Beginning Difference	Portfolio Return	Benchmark Return	Return Difference	Weighting	Selection	Timing
TOTAL FUND	100.00	100.00	0.00	9.24	8.44	0.80	-0.58	1.38	0.00
TOTAL PUBLIC EQUITY	38.63	41.00	-3.37	22.20	21.70	0.50	-0.36	0.17	
CASH-UNALLOCATED	1.99	2.00	-0.01	5.23	5.15	0.08	-0.03	0.00	
TOTAL RISK MITIGATING STRATEGIES	8.93	10.00	-1.07	-2.23	-0.38	-1.85	0.10	-0.14	
STRATEGIC OVERLAY	1.80	0.00	1.80	2.61	0.00	2.61	-0.19	0.07	
FUTURES OFFSET	-1.62	0.00	-1.62	0.00	0.00	0.00	0.24	0.00	
TOTAL FIXED INCOME	10.26	12.00	-1.74	6.13	5.90	0.22	0.05	0.02	
TOTAL PRIVATE EQUITY	15.34	14.00	2.34	7.76	6.26	1.50	-0.08	0.25	
TOTAL REAL ESTATE	17.45	15.00	2.45	-9.03	-12.88	3.86	-0.32	0.81	
TOTAL INNOVATIVE STRATEGIES	1.29	0.00	1.29	15.06	9.09	5.97	0.02	0.07	
TOTAL INFLATION SENSITIVE	5.93	6.00	-0.07	3.81	2.01	1.80	-0.01	0.12	

⁴⁷

Total Fund - Risk vs Return Periods Ending December 31, 2023



10 Year Risk



3.69

11.61

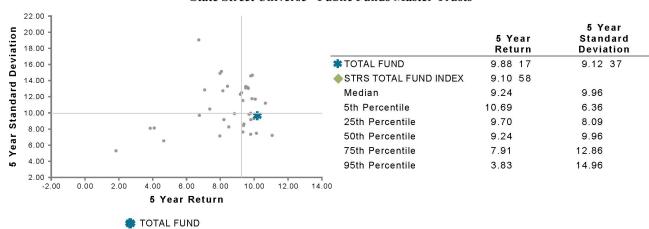
95th Percentile

10 Year Risk **Risk Information & Statistics**

TOTAL FUND Historic Beta 0.99 Information Ratio 0.61 Jensens Alpha 0.57 R-Squared 0.99 Sharpe Ratio 0.88 Tracking Error 0.86 Treynor Ratio 6.85

5 Year Risk State Street Universe - Public Funds Master Trusts

12.00



5 Year **Risk Information & Statistics**

	TOTAL FUND
Historic Beta	0.99
Information Ratio	0.94
Jensens Alpha	0.88
R-Squared	0.99
Sharpe Ratio	0.88
Tracking Error	0.83
Treynor Ratio	8.11

Note: Returns for Universe are gross of fees. Returns greater than 1 year are annualized. * Gross returns are based on best available expense information.

4.00

TOTAL FUND

2.00

6.00

10 Year Return

8.00

10.00

14.00

12.00

10.00

8.00

6.00

4.00

0.00

10 Year Standard Deviation

Performance Summary Periods Ending December 31, 2023



Performance Summary

	Ending Market Value (\$ in Thousands)	Percentage of Plan	30 Year	25 Year	20 Year	10 Year	5 Year	3 Year	1 Year
TOTAL FUND	326,952,148	100.00	7.74	6.74	7.51	7.86	9.78	6.01	9.24
STRS TOTAL FUND INDEX			7.65	6.59	7.44	7.53	9.10	5.35	8.44
TOTAL PUBLIC EQUITY	130,410,798	39.89		6.71	8.19	8.50	11.85	5.69	22.20
TOTAL PUBLIC EQUITY BLENDED INDEX				6.52	8.09	8.38	11.61	5.36	21.70
TOTAL PRIVATE EQUITY	50,977,164	15.59		13.42	13.75	13.37	14.80	16.59	7.76
TOTAL PRIVATE EQUITY INDEX				10.15	10.98	12.53	13.12	15.83	6.26
TOTAL REAL ESTATE	49,406,787	15.11		8.00	7.39	8.85	7.51	8.09	-9.03
STRS REAL ESTATE INDEX				8.27	8.02	7.19	4.72	6.19	-12.88
TOTAL FIXED INCOME	34,508,605	10.55		4.28	3.70	2.36	1.74	-2.78	6.13
STRS US DEBT CUSTOM INDEX				4.04	3.33	1.95	1.32	-3.05	5.90
TOTAL INNOVATIVE STRATEGIES	5,066,351	1.55				6.76	9.69	12.45	15.06
TOTAL INNOVATIVE STRATEGIES INDEX						3.78	4.30	3.22	9.09
TOTAL INFLATION SENSITIVE	19,934,496	6.10				6.71	9.05	9.80	3.81
TOTAL INFLATION SENSITIVE INDEX						5.09	6.53	7.70	2.01
TOTAL RISK MITIGATING STRATEGIES	27,028,227	8.27				2.19	5.03	1.03	-2.23
STRS TOTAL RMS						2.14	5.44	1.66	-0.35
ATDATESIS SVEDI AV	5 000 400	4.70				0.50	0.00	0.45	0.04
STRATEGIC OVERLAY	5,608,168	1.72				0.50	0.83	-0.15	2.61

Note: Returns are net of manager fees. Returns greater than 1 year are annualized.
Includes Sustainable Investment & Stewardship Strategies Public and Private investments total of \$4,997 Million.
* Please see footnote regarding the Innovation strategy under "Performance Summary - Innovative Strategies" section.
**Derivatives are not included which provide additional exposure to Public Equity bringing the Asset Allocation range within policy limits.

Performance Summary Periods Ending December 31, 2023

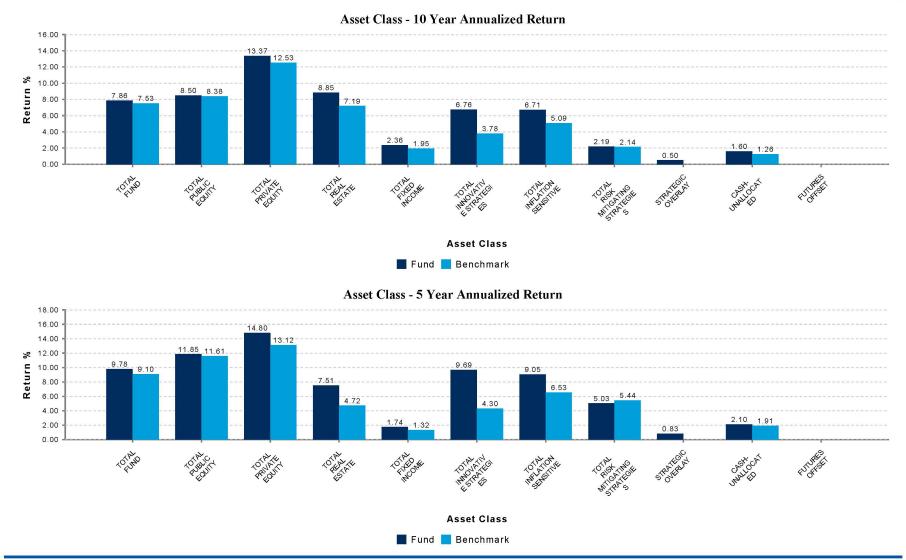


Performance Summary

	Ending Market Value (\$ in Thousands)	Percentage of Plan	30 Year	25 Year	20 Year	10 Year	5 Year	3 Year	1 Year	
CASH-UNALLOCATED	9,322,475	2.85		3.07	2.59	1.60	2.10	2.41	5.23	
Bloomberg U.S. Treasury Bellwethers: 3M				1.89	1.49	1.28	1.92	2.21	5.15	
FUTURES OFFSET	-5,310,924	-1.62						0.00	0.00	

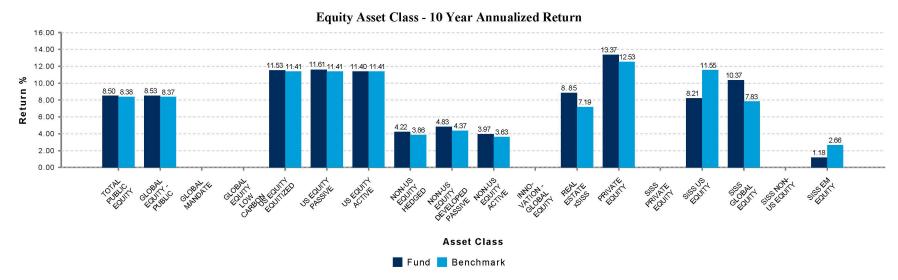
Performance Summary Periods Ending December 31, 2023

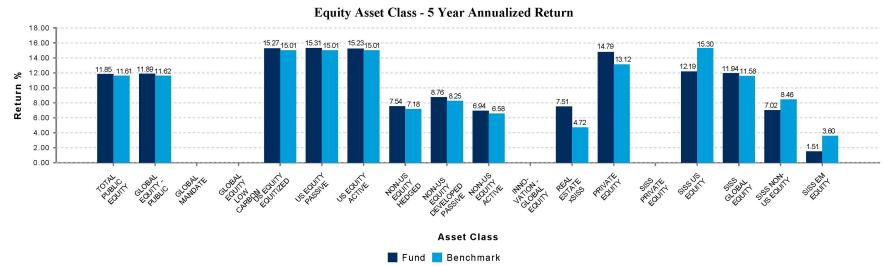




Performance Summary Periods Ending December 31, 2023

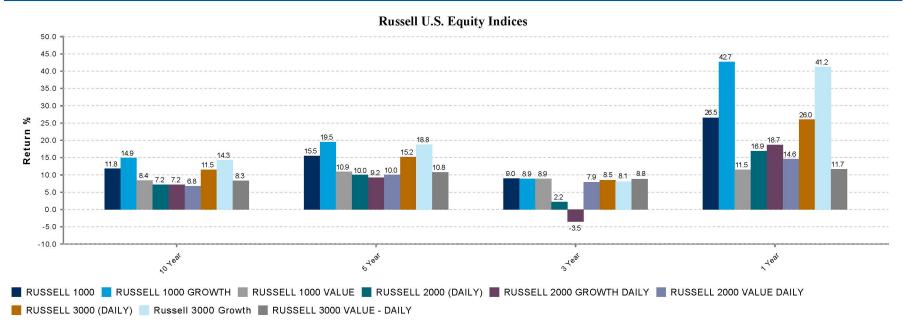






US Equity - Market Review Periods Ending December 31, 2023





Russell U.S. Equity Indices - Market Review Summary

	20 Year	10 Year	5 Year	3 Year	1 Year
RUSSELL 1000	9.78	11.80	15.52	8.97	26.53
RUSSELL 1000 GROWTH	11.29	14.86	19.50	8.86	42.68
RUSSELL 1000 VALUE	7.99	8.40	10.91	8.86	11.46
RUSSELL 2000	8.11	7.16	9.97	2.22	16.93
RUSSELL 2000 GROWTH	8.28	7.16	9.22	-3.50	18.66
RUSSELL 2000 VALUE	7.68	6.76	10.00	7.94	14.65
RUSSELL 3000	9.67	11.48	15.16	8.54	25.96
RUSSELL 3000 GROWTH	11.10	14.33	18.85	8.08	41.21
RUSSELL 3000 VALUE	7.97	8.28	10.84	8.81	11.66

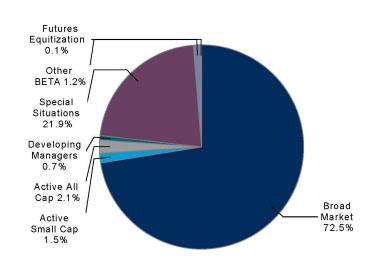
US Equity - Asset Allocation Periods Ending December 31, 2023



Total l	Equity	Fund	All	ocations
---------	--------	------	-----	----------

	Total Equity Fund Allocations			
	Market Value (\$ in Thousands)	Actual Weight (Percentage %)		
Passive				
Broad Market	49,258,593	72.5		
Total US Equity Passive	49,258,593	72.5		
Active				
Active Small Cap	1,047,504	1.5		
Active All Cap	1,443,905	2.1		
Developing Managers	455,457	0.7		
Special Situations	14,865,319	21.9		
Other BETA	806,559	1.2		
Futures Equitization	86,355	0.1		
Total US Equity Active	18,705,100	27.5		
Other				
US Equity Allocation	17,775	0.0		
Total US Equity				
Total US Equity	67,981,468	100.0		

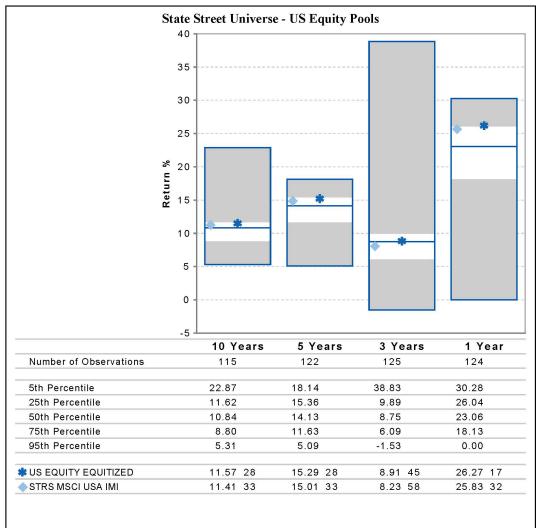
Asset Allocation

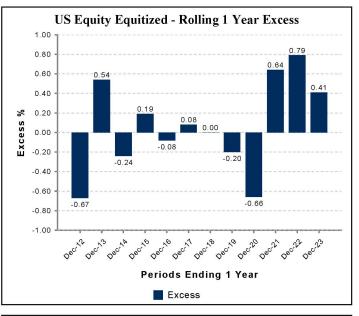




US Equity Equitized Periods Ending December 31, 2023







Top 10 Holdings					
Security Name	Ending Market Value (\$ in Thousands)	Percentage %			
APPLE INC	4,354,999	6.4			
MICROSOFT CORP	3,857,216	5.7			
AMAZON.COM INC	2,008,627	3.0			
NVIDIA CORP	1,765,673	2.6			
ALPHABET INC CL A	1,184,143	1.7			
META PLATFORMS INC CLASS A	1,123,261	1.7			
ALPHABET INC CL C	1,059,771	1.6			
TESLA INC	1,002,134	1.5			
JPMORGAN CHASE + CO	703,819	1.0			
UNITEDHEALTH GROUP INC	702,364	1.0			

US Equity Equitized - Risk vs Return Periods Ending December 31, 2023



US EQUITY EQUITIZED

1.00

0.71

0.19

1.00

0.66

0.22

10.36

10 Year

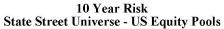
Jensens Alpha

R-Squared

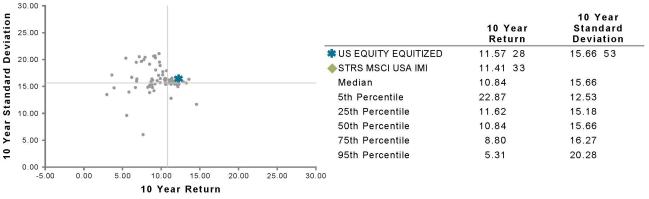
Sharpe Ratio

Tracking Error

Treynor Ratio

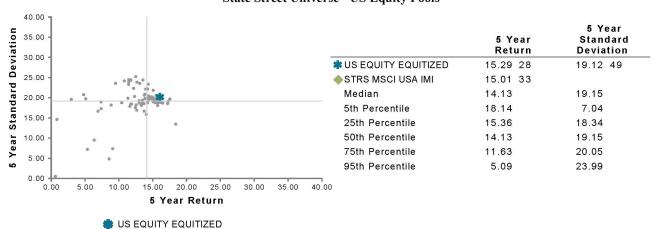






US EQUITY EQUITIZED

5 Year Risk **State Street Universe - US Equity Pools**



5 Year **Risk Information & Statistics**

	US EQUITY EQUITIZED
Historic Beta	0.99
Information Ratio	1.12
Jensens Alpha	0.35
R-Squared	1.00
Sharpe Ratio	0.70
Tracking Error	0.25
Treynor Ratio	13.49

US Equity Equitized - Attribution Periods Ending December 31, 2023

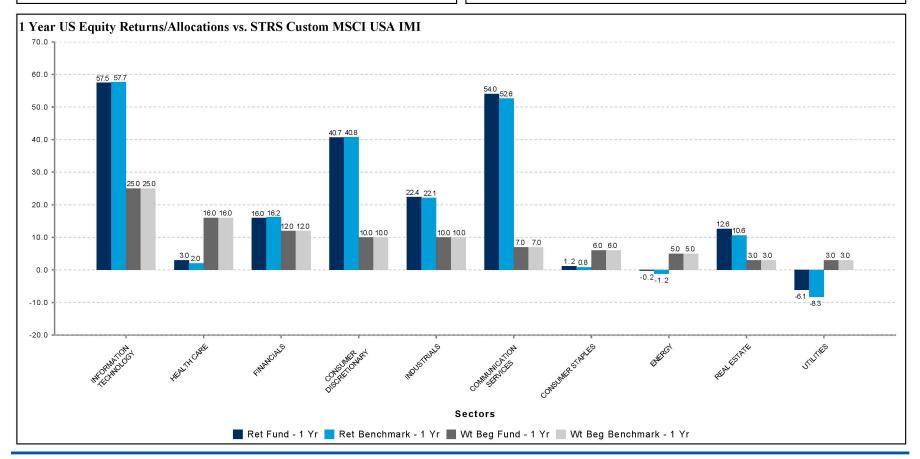


Attribution Highlights

- During the 2023 calendar year, U.S. Equity Equitized outperformed the benchmark, STRS U.S. Equity Index by 44 basis points (26.27% vs. 25.83%).
- Security selection in Health Care, Communication Services, Energy, and Utilities contributed to the overperformance.

1 Year Attribution

Allocation - 1 Yr Selection - 1 Yr
US EQUITY EQUITIZED -0.1 0.5



US Equity - Performance Summary Periods Ending December 31, 2023



Performance Summary - US Equity

	Ending Market Value (\$ in Thousands)	20 Year	10 Year	5 Year	3 Year	1 Year
US EQUITY EQUITIZED	67,981,468	9.64	11.53	15.27	8.89	26.24
STRS MSCI USA IMI		9.57	11.41	15.01	8.23	25.83
US EQUITY UNEQUITIZED	67,981,468	9.64	11.53	15.27	8.89	26.24
STRS MSCI USA IMI		9.57	11.41	15.01	8.23	25.83
US EQUITY ACTIVE	18,705,100	9.72	11.40	15.23	9.75	25.70
STRS MSCI USA IMI		9.57	11.41	15.01	8.23	25.83
US EQUITY ACTIVE - DEV MGR	455,457		6.76	10.03	1.70	13.04
US DEVELOPING MANAGER CUSTOM BENCHMARK			8.40	9.99	2.11	16.92
US EQUITY ACTIVE BIVIUM DEV MGR	455,457		6.20	10.03	1.70	13.04
STRS CUSTOM RUSSELL 2000			7.17	9.99	2.11	16.92
BIV - PHOCAS FINANCIAL CORP	96,352		8.09	12.94	10.99	19.36
STRS CUSTOM RUSSELL 2000 VALUE			6.77	10.02	7.73	14.56
BIV - COVE STREET CAPITAL	67,263		5.66	8.97	7.93	19.61
STRS CUSTOM RUSSELL 2000 VALUE			6.77	10.02	7.73	14.56
BIV - EASTERN SHORE	66,717			8.56	-0.15	15.95
STRS CUSTOM RUSSELL 2000				9.99	2.11	16.92
BIV - AMI ASSET MANAGEMENT	66,427			5.43	-3.11	2.86
STRS CUSTOM RUSSELL 2000 GROWTH				9.26	-3.49	18.76
BIV - ESSEX INVESTMENT MGMT	35,136			10.68	1.35	9.84
STRS CUSTOM RUSSELL 2000				9.99	2.11	16.92
BIV - GRANAHAN	85,049			14.33	-6.78	13.48
STRS CUSTOM RUSSELL 2000 GROWTH				9.26	-3.49	18.76

⁵⁸

US Equity - Performance Summary Periods Ending December 31, 2023



Performance Summary - US Equity

	Ending Market Value (\$ in Thousands)	20 Year	10 Year	5 Year	3 Year	1 Year
BIV-MONARCH	1					
STRS CUSTOM RUSSELL 2000						
BIV-DENALI	38,512					
STRS CUSTOM RUSSELL 2000						
US EQUITY SPECIAL SITUATIONS	14,865,319		12.71	16.51	9.09	27.59
STRS CUSTOM RUSSELL 3000			11.51	15.20	8.53	26.14
CalSTRS Russell Top 200	1,072,777				10.07	30.18
STRS CUSTOM RUSSELL TOP 200					10.04	30.15
US EQUITY SPECIAL SITUATION-A	1					
STRS CUSTOM RUSSELL MIDCAP GRWTH BLENDED						
US EQUITY SPECIAL SITUATION-A1	5,738					
Bloomberg U.S. Treasury Bellwethers: 3M						
CALSTRS MSCI USA	13,786,804					27.38
MSCI CALSTRS Index on USA						26.71
US EQUITY ACTIVE - CORE	2,491,409	9.76	11.50	16.46	13.86	22.21
	2,491,409					
STRS US EQUITY INDEX		9.61	11.51	15.20	8.53	26.14
US EQUITY ACTIVE SMALL SMID	1,047,504	7.64	7.08	9.93	5.05	13.87
US EQ ACT SM Blended		8.73	7.60	10.87	3.47	16.40
US EQUITY ACTIVE SMID VALUE	539,824	6.90	6.61	8.80	4.64	9.25
STRS CUSTOM RUSSELL SMALL/MID (SMID) VALUE BLENDED INDEX		8.29	7.32	10.70	8.85	15.95
SILVERCREST SMIDV	539,824		6.68	8.80	4.64	9.25
STRS Custom Russell Small/Mid (SMID) Value Blended Index	,		7.09	10.70	8.85	15.95

⁵⁹

US Equity - Performance Summary Periods Ending December 31, 2023



Performance Summary - US Equity

	Ending Market Value (\$ in Thousands)	20 Year	10 Year	5 Year	3 Year	1 Year
PANAGORA SMALL CAP	507,680				6.21	19.25
STRS CUSTOM RUSSELL 2000					2.11	16.92
US EQUITY ACTIVE ALL CAP	1,443,905				22.36	29.06
STRS US EQUITY INDEX	1,443,903				8.53	26.14
JACOBS LEVY 130-30 R3000	1,443,905				22.36	29.06
STRS US EQUITY INDEX	1,443,903				8.53	26.14
STAS US EQUITINDEA					8.55	20.14
US EQUITY OTHER BETA	806,559			13.34	9.07	10.51
STRS US EQUITY INDEX				15.20	8.53	26.14
CALSTRS RUSSELL RAFI LARGE CAP	169,809			15.63	13.40	18.55
CALSTRS Russell RAFI US Large Company				15.59	13.41	18.57
AQR DEFENSIVE	636,750			13.35	7.85	8.55
STRS CUSTOM RUSSELL 1000 HEDI MOD				15.44	9.20	22.48
STRS-FUTURES EQUITIZATION-US	86,355		23.79	28.48	15.15	41.11
STRS MSCI USA IMI	55,555		11.41	15.01	8.23	25.83
				70.07	0.20	20.00
US EQUITY PASSIVE	49,258,593	9.71	11.61	15.31	8.65	26.42
STRS MSCI USA IMI		9.57	11.41	15.01	8.23	25.83
CALSTRS RUSSELL 3000	7,718,137		11.60	15.29	8.62	26.26
STRS CUSTOM RUSSELL 3000			11.51	15.20	8.53	26.14
CALSTRS MSCI USA IMI	41,540,456					26.48
MSCI CALSTRS Index on USA IMI						25.83

Note: Returns are net of manager fees. Returns greater than 1 year are annualized. * From inception to 7/31/2021 - STRS US Equity Index. From 8/1/2021 to current - STRS Custom MSCI USA IMI.

US Equity - Performance Summary Periods Ending December 31, 2023



Performance Summary - US Equity

Ending Market Value (\$ in Thousands) 17,775

20 Year

10 Year

5 Year

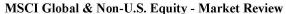
3 Year 1 Year

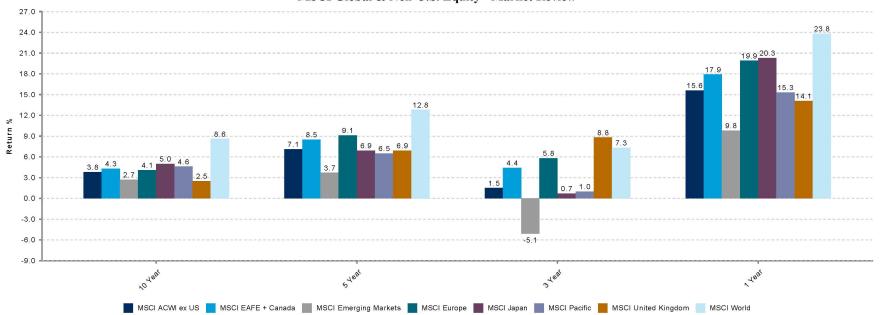
CALSTRS US EQUITY ALLOCATION

STRS MSCI USA IMI97

Non-US Equity - Market Review Periods Ending December 31, 2023







MSCI Global & Non-U.S. Equity - Market Review Summary

	20 Year	10 Year	5 Year	3 Year	1 Year
MSCI ACWI ex US	5.68	3.83	7.08	1.55	15.62
MSCI EAFE + Canada	5.69	4.32	8.45	4.42	17.94
MSCI Emerging Markets	7.59	2.66	3.68	-5.08	9.83
MSCI Europe	5.69	4.13	9.09	5.80	19.89
MSCI Japan	4.60	4.97	6.91	0.66	20.32
MSCI Pacific	5.46	4.62	6.55	0.95	15.27
MSCI United Kingdom		2.49	6.87	8.76	14.09
MSCI World	7.79	8.60	12.80	7.27	23.79

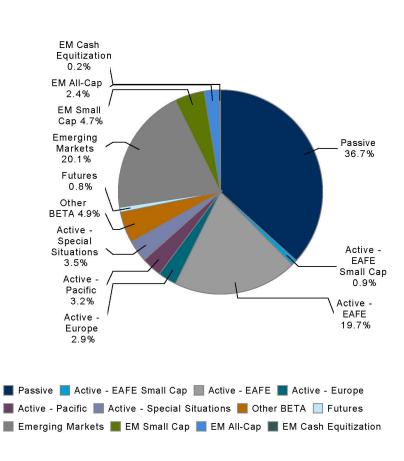
Non-US Equity Periods Ending December 31, 2023



Non-US Equity Fund Allocations

Non-US Equity Fund Allocations				
	Market Value (\$ in Thousnads)	Actual Weight (Percentage %)		
Developed				
Non-US Equity Developed Passive	15,651,485	36.7		
Non-US Equity Developed Active	15,306,037	35.9		
EAFE Small Cap	380,122	0.9		
EAFE	8,396,933	19.7		
Europe	1,235,638	2.9		
Pacific	1,363,018	3.2		
Special Situations	1,505,141	3.5		
Other BETA	2,103,229	4.9		
Futures	321,957	0.8		
Non-US Equity Developed	30,957,523	72.6		
Emerging Markets				
Emerging Markets	8,567,105	20.1		
EM Small Cap	2,002,612	4.7		
EM All-Cap	1,009,278	2.4		
EM Cash Equitization	77,639	0.2		
Non-US Equity Emerging Markets	11,656,633	27.3		
Transition 1	211	0.0		
Transition 2	38	0.0		
Hybrid Transition	18,219	0.0		
Toal Non-US Equity				
Total Non-US Equity	42,632,624	100.0		

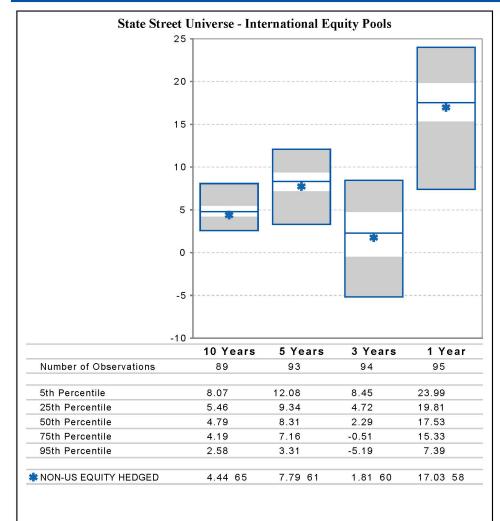
Asset Allocation

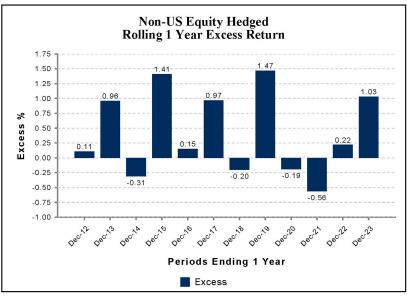


* End of period weights

Non-US Equity Hedged Periods Ending December 31, 2023





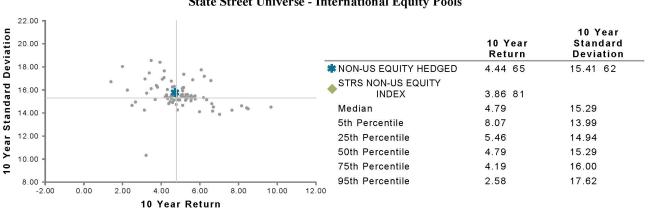


Top 10 Holdings					
Security Name	Ending Market Value (\$ in Thousands)	Percentage %			
TAIWAN SEMICONDUCTOR MANUFAC	649,693	1.5			
SAMSUNG ELECTRONICS CO LTD	558,098	1.3			
MSCI EAFE MAR24	492,262	1.2			
ASML HOLDING NV	440,889	1.0			
NOVO NORDISK A/S B	382,118	0.9			
NESTLE SA REG	370,728	0.9			
TENCENT HOLDINGS LTD	340,063	0.8			
MSCI EMGMKT MAR24	337,296	0.8			
ROCHE HOLDING AG GENUSSCHEIN	308,071	0.7			
ALIBABA GROUP HOLDING LTD	266,017	0.6			

Non-US Equity Hedged - Risk vs Return Periods Ending December 31, 2023





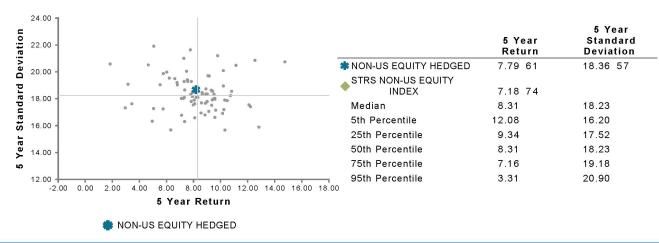


10 Year **Risk Information & Statistics**

	NON-US EQUITY HEDGED
Historic Beta	1.00
Information Ratio	0.80
Jensens Alpha	0.58
R-Squared	1.00
Sharpe Ratio	0.21
Tracking Error	0.74
Treynor Ratio	3.18

NON-US EQUITY HEDGED

5 Year Risk **State Street Universe - International Equity Pools**



5 Year **Risk Information & Statistics**

	NON-US EQUITY HEDGED
Historic Beta	1.01
Information Ratio	0.76
Jensens Alpha	0.55
R-Squared	1.00
Sharpe Ratio	0.32
Tracking Error	0.80
Treynor Ratio	5.85

Note: Returns are gross of fees. Returns greater than 1 year are annualized. * Gross returns are based on best available expense information

Non-US Equity Hedged Periods Ending December 31, 2023



Attribution Highlights

- During the 2022/2023 fiscal year, Non-U.S. Equity Hedged outperformed the benchmark, STRS Non-U.S. Equity Index by 128 basis points (17.03% vs. 15.75%).
- Security selection in Germany, Australia, and Taiwan contributed to the outperformance.

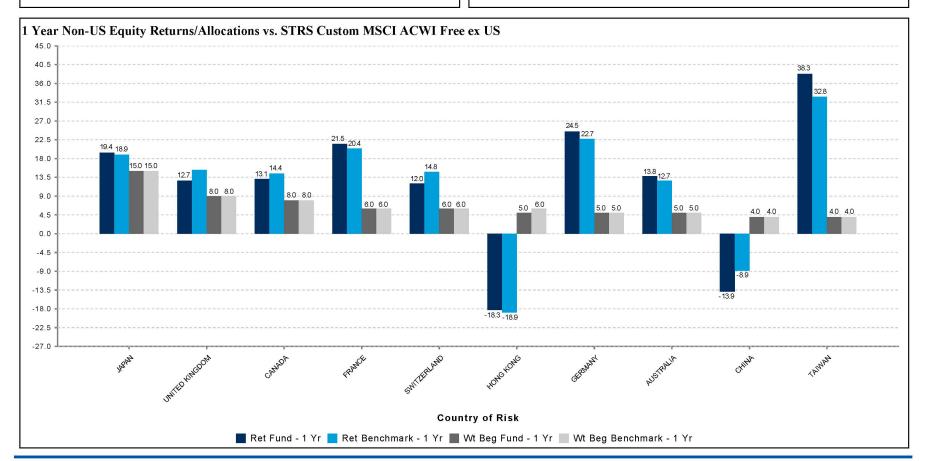
1 Year Attribution

Allocation - 1 Yr

NON-US EQUITY HEDGED

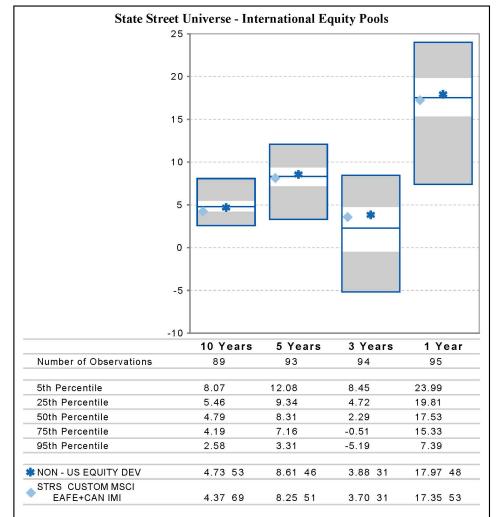
0.6

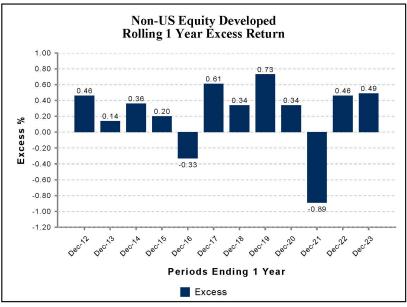
0.7



Non-US Equity Developed Periods Ending December 31, 2023





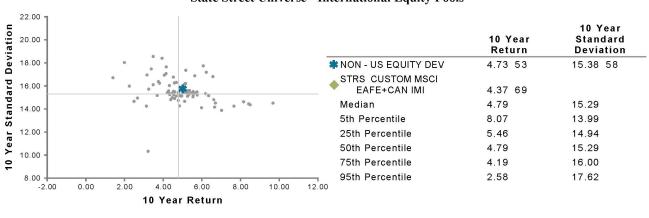


Top 10 Holdings					
Security Name	Ending Market Value (\$ in Thousands)	Percentage %			
MSCI EAFE MAR24	492,262	1.6			
ASML HOLDING NV	440,889	1.4			
NOVO NORDISK A/S B	382,118	1.2			
NESTLE SA REG	370,728	1.2			
ROCHE HOLDING AG GENUSSCHEIN	308,071	1.0			
SAP SE	254,799	0.8			
LVMH MOET HENNESSY LOUIS VUI	253,618	0.8			
SHELL PLC	251,566	0.8			
NOVARTIS AG REG	247,739	0.8			
SANOFI	240,624	8.0			

Non-US Equity Developed - Risk vs Return Periods Ending December 31, 2023



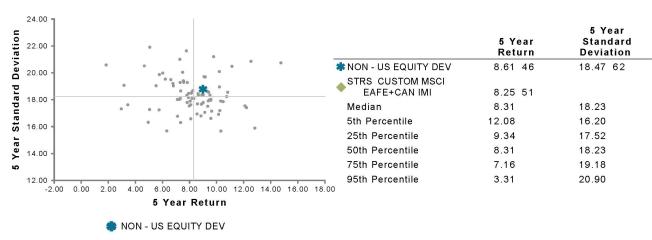
10 Year Risk **State Street Universe - International Equity Pools**



10 Year **Risk Information & Statistics**

	NON - US EQUITY DEV
Historic Beta	0.99
Information Ratio	0.65
Jensens Alpha	0.38
R-Squared	1.00
Sharpe Ratio	0.23
Tracking Error	0.56
Treynor Ratio	3.50

5 Year Risk **State Street Universe - International Equity Pools**



5 Year **Risk Information & Statistics**

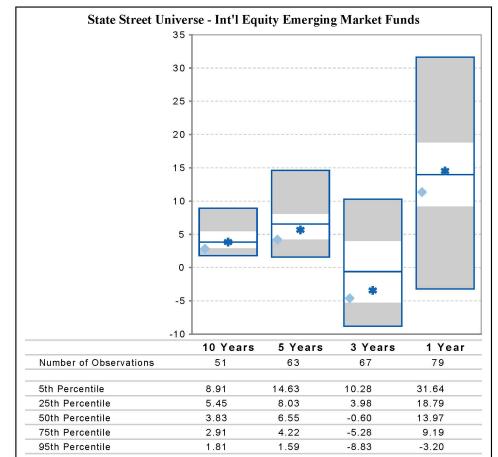
	NON - US EQUITY DEV
Historic Beta	1.00
Information Ratio	0.62
Jensens Alpha	0.39
R-Squared	1.00
Sharpe Ratio	0.36
Tracking Error	0.59
Treynor Ratio	6.76

Note: Returns are gross of fees. Returns greater than 1 year are annualized. * Gross returns are based on best available expense information.

🁛 NON - US EQUITY DEV

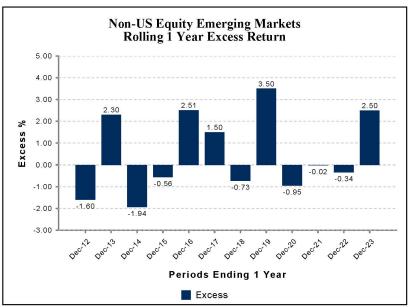
Non-US Equity Emerging Markets Periods Ending December 31, 2023





3.91 47

2.99 74



Top 10 Holdings						
Security Name	Ending Market Value (\$ in Thousands)	Percentage %				
TAIWAN SEMICONDUCTOR MANUFAC	632,660	5.4				
SAMSUNG ELECTRONICS CO LTD	553,370	4.7				
MSCI EMGMKT MAR24	337,296	2.9				
TENCENT HOLDINGS LTD	330,787	2.8				
ALIBABA GROUP HOLDING LTD	235,646	2.0				
HDFC BANK LIMITED	228,778	2.0				
TAIWAN SEMICONDUCTOR SP ADR	197,493	1.7				
PETROLEO BRASILEIRO SPON ADR	177,816	1.5				
RELIANCE INDUSTRIES LTD	173,359	1.5				
SK HYNIX INC	151,985	1.3				

-3.36 59

-4.45 64

14.59 47

11.50 60

5.74 58

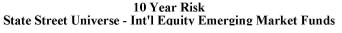
4.37 73

* NON-US EQUITY EM

STRS CUSTOM MSCI EM IMI

Non-US Equity Emerging Markets - Risk vs Return Periods Ending December 31, 2023





10 Year 10 Year Standard Return Deviation NON-US EQUITY EM 17.51 51 3.91 47 STRS CUSTOM MSCI EM IMI 2.99 74 Median 17.48 3.83 5th Percentile 8.91 15.04 25th Percentile 5.45 16.97 50th Percentile 3.83 17.48 75th Percentile 18.00 2.91 95th Percentile 1.81 19.49 25.00

10 Year **Risk Information & Statistics**

	NON-US EQUITY EM
Historic Beta	1.00
Information Ratio	0.40
Jensens Alpha	0.92
R-Squared	0.98
Sharpe Ratio	0.15
Tracking Error	2.28
Treynor Ratio	2.65

🁛 NON-US EQUITY EM

10 Year Return

15.00

20.00

10.00

25.00

20.00

15.00

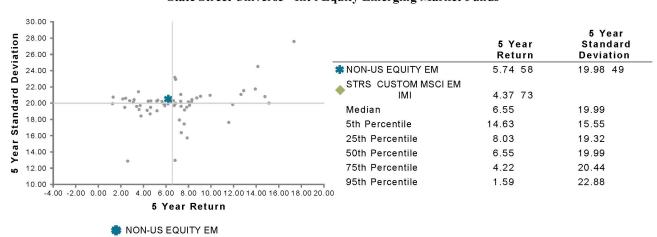
0.00

0.00

5.00

10 Year Standard Deviation

5 Year Risk State Street Universe - Int'l Equity Emerging Market Funds



5 Year **Risk Information & Statistics**

	NON-US EQUITY EM
Historic Beta	1.02
Information Ratio	0.63
Jensens Alpha	1.32
R-Squared	0.99
Sharpe Ratio	0.19
Tracking Error	2.16
Treynor Ratio	3.78

Performance Summary Periods Ending December 31, 2023



Performance Summary	- Non-US Equity
----------------------------	-----------------

1 criormance summary 1 (on es Equity						
	Ending Market Value (\$ in Thousands)	20 Year	10 Year	5 Year	3 Year	1 Year
NON-US EQUITY HEDGED	42,632,624	6.02	4.22	7.54	1.57	16.78
STRS NON-US EQUITY INDEX		5.72	3.86	7.18	1.36	15.75
NON-US EQUITY UN-HEDGED	42,632,624		4.22	7.54	1.57	16.78
STRS NON-US EQUITY INDEX			3.86	7.18	1.36	15.75
NON HO FOURTY DEV	20.057.502	0.40	4.00	0.40	2.70	47.04
NON - US EQUITY DEV	30,957,523	6.13	4.60	8.48	3.76 3.70	17.84
STRS CUSTOM MSCI EAFE+CAN IMI	45.054.405	5.71	4.37	8.25		17.35
NON-US EQUITY DEVELOPED PASSIVE	15,651,485	6.44 5.91	4.83 4.37	8.76 8.25	4.18 3.70	17.92 <i>17.35</i>
STRS Non-US Equity Passive (Daily) NON-USEQ PASS UNHDGD	15,651,485	6.38	4.83	8.76	4.18	17.33
STRS Non-US Equity Passive (Daily)	15,651,465	5.91	4.63 4.37	8.25	3.70	17.35
STRS NOT-US Equity Passive (Daily)		5.91	4.37	0.25	3.70	17.35
NON-US EQUITY PASSIVE EAFE	15,651,485	6.17	4.83	8.76	4.18	17.92
STRS CUSTOM MSCI EAFE+CAN IMI		5.71	4.37	8.25	3.70	17.35
CALSTRS EAFE + CANADA	15,651,485			8.77	4.19	17.95
STRS MSCI EAFE+CAN IMI				8.25	3.70	17.35
NON-US EQUITY DEVELOPED ACTIVE	15,306,037	5.81	4.37	8.20	3.35	17.79
STRS CUSTOM MSCI EAFE+CAN IMI	10,555,557	5.71	4.37	8.25	3.70	17.35
NON-US EQUITY EAFE SMALL CAP	380,122			5.37	-0.39	14.02
MSCI CalSTRS EAFE + CA SC Custom Net	,			7.03	-0.26	12.69
MONDRIAN EAFE SMALL	1,168					
MSCI CalSTRS EAFE + CA SC Custom Net						
PRINCIPAL EAFE SMALL	372,233			5.90	-0.22	14.25
MSCI CalSTRS EAFE + CA SC Custom Net				7.03	-0.26	12.69
SSGA AQE EAFE SMALL	6,721					
MSCI CalSTRS EAFE + CA SC Custom Net						

Performance Summary Periods Ending December 31, 2023



Performance Summary - Non-US Equity

renormance Summary - Non-OS Equity	Ending Market Value (\$ in Thousands)	20 Year	10 Year	5 Year	3 Year	1 Year
NON-USEQ ACT EAFE	8,396,933	6.14	4.88	8.40	3.37	18.84
STRS CUSTOM MSCI EAFE+CAN		5.64	4.35	8.46	4.40	18.13
MONDRIAN EAFE	1,261,219	6.28	4.15	6.68	6.43	21.67
STRS MSCI EAFE + CAN BLENDED INDEX		5.82	4.53	8.46	4.40	18.13
TEMPLETON-FIDUCIARY EAFE	1,039,987	7.61	5.50	7.68	-7.68	15.04
STRS CUSTOM MSCI EAFE+CAN		5.64	4.35	8.46	4.40	18.13
LAZARD ASSET MGMT EAFE	2,630					
STRS CUSTOM MSCI EAFE+CAN						
PZENA INVESTMENT MGMT EAFE	1,531,760			9.10	7.45	19.36
STRS CUSTOM MSCI EAFE+CAN				8.46	4.40	18.13
AQR EAFE EQUITY	5,713					
STRS CUSTOM MSCI EAFE+CAN						
ARROWSTREET CAPITAL EAFE	1,642,133			12.39	8.44	21.35
STRS CUSTOM MSCI EAFE+CAN				8.46	4.40	18.13
PYRFORD EAFE	510,933			8.45	5.28	14.83
STRS CUSTOM MSCI EAFE+CAN				8.46	4.40	18.13
JP MORGAN EAFE	886,364					17.17
STRS CUSTOM MSCI EAFE+CAN						18.13
NON-US EQUITY DEVELOPING MGRS	1,516,195			8.28	2.86	18.92
STRS CUSTOM MSCI EAFE+CAN				8.46	4.40	18.13
XPONANCE	977,395			8.28	3.99	17.46
STRS CUSTOM MSCI EAFE+CAN				8.46	4.40	18.13
LEIA EAFE	538,800			8.44	1.36	21.58
STRS CUSTOM MSCI EAFE+CAN				8.46	4.40	18.13

Performance Summary Periods Ending December 31, 2023



Performance Summary - Non-US Equity

Terror mance Summary - Non-OS Equity	Ending Market Value (\$ in Thousands)	20 Year	10 Year	5 Year	3 Year	1 Year	
NON-US EQUITY SPECIAL SITUATION	1,505,141		5.12	10.23	5.80	14.59	
STRS CUSTOM MSCI ACWI EX US			3.86	7.09	1.37	15.78	
SSGM EAFE BETA	2,332						
STRS CUSTOM MSCI EAFE+CAN							
NON US SPECIAL SITUATION-P	17,013						
STRS CUSTOM MSCI EAFE+CAN							
CALSTRS MSCI CANADA	766,537		5.28	12.33	8.68	15.39	
STRS CUSTOM MSCI CANADA IMI			4.41	11.37	7.81	14.43	
SSGM EAFE SMALL BETA	1,171						
MSCI CalSTRS EAFE + CA SC Custom Net							
CALSTRS MSCI EAFE + CANADA SC	718,088				0.26	13.37	
MSCI CalSTRS EAFE + CA SC Custom Net					-0.26	12.69	
NON-US EQUITY OTHER BETA	2,103,229				4.92	17.29	
STRS CUSTOM MSCI EAFE+CAN					4.40	18.13	
ACADIAN ASSET MANAGEMENT	963,978			6.21	3.71	13.25	
MSCI World ex USA (CALSTRS) Min Vol(USD)				4.02	0.91	10.69	
CALSTRS MSCI WORLD EX USA DMF	1,139,251				6.17	21.43	
MSCI World ex USA Custom DMF					5.69	20.85	
NON-USEQ ACT EUROPE	1,235,638	6.45	4.35	9.19	4.11	18.78	
STRS CUSTOM MSCI EUROPE		5.64	4.17	9.10	5.81	20.29	
FIDELITY	1,235,638	6.95	4.35	9.19	4.11	18.78	
STRS CUSTOM MSCI EUROPE		5.64	4.17	9.10	5.81	20.29	

Performance Summary Periods Ending December 31, 2023



Performance S	Summary - N	Non-US	Equity
---------------	-------------	--------	--------

Performance Summary - Non-US Equity						
	Ending Market Value (\$ in Thousands)	20 Year	10 Year	5 Year	3 Year	1 Year
NON-USEQ ACT PACIFIC	1,363,018	5.16	4.25	6.83	1.17	15.50
STRS CUSTOM MSCI PACIFIC		5.44	4.64	6.55	0.89	15.17
CALSTRS PAC BASIN	1,363,018			6.84	1.17	15.50
STRS CUSTOM MSCI PACIFIC				6.55	0.89	15.17
CALSTRS-FUTURES EQUITIZATION NONUS	321,957		-19.24	-18.30	6.43	23.89
NON-US EQUITY EM	11,656,633		3.37	5.18	-3.88	14.00
STRS CUSTOM MSCI EM IMI			2.99	4.37	-4.45	11.50
NON-US EQUITY ACTIVE EMG MKT	8,567,105		3.05	4.49	-5.20	12.27
STRS CUSTOM MSCI EM			2.66	3.60	-5.87	9.65
BAILLIE GIFFORD & CO	1,831,995		5.14	6.13	-9.02	10.38
STRS CUSTOM MSCI EM			2.66	3.60	-5.87	9.65
LAZARD ASSET MGMT	987,677		3.08	6.12	3.26	22.36
STRS CUSTOM MSCI EM			2.66	3.60	-5.87	9.65
MONDRIAN INVESTMENT	1,653,692		2.45	4.52	-2.88	13.64
STRS CUSTOM MSCI EM			2.66	3.60	-5.87	9.65
T ROWE PRICE	344					
STRS CUSTOM MSCI EM						
J.P.MORGAN GEM OPPORTUNITIES	9,573					
STRS CUSTOM MSCI EM						
SCHRODER GEM CORE EQUITY	1,950,773			5.15	-6.25	8.78
STRS CUSTOM MSCI EM				3.60	-5.87	9.65
AQR EM	1,336,560			5.94	-2.51	18.04
STRS CUSTOM MSCI EM				3.60	-5.87	9.65

Performance Summary Periods Ending December 31, 2023



Performance Summary - Non-US Equity

Performance Summary - Non-US Equity	Ending Market Value					
	(\$ in Thousands)	20 Year	10 Year	5 Year	3 Year	1 Year
SSGA EM	391					
STRS CUSTOM MSCI EM						
CalSTRS EM	796,100					9.97
MSCI CALSTRS INDEX ON EM ESG FOCUS						9.98
NON-US EQUITY EM SMALL CAP	2,002,612			10.02	6.19	22.26
MSCI CalSTRS EM Small Cap Custom				9.68	6.03	23.62
AQR EM SMALL CAP	943,660			11.73	9.55	25.31
MSCI CalSTRS EM Small Cap Custom				9.68	6.03	23.62
JP MORGAN EM SMALL CAP	584,137			6.82	0.48	13.47
MSCI CalSTRS EM Small Cap Custom				9.68	6.03	23.62
SSGA EM SMALL CAP	5,227					
MSCI CalSTRS EM Small Cap Custom						
NORTHERN TRUST EM SMALL CAP	469,587					
MSCI CalSTRS EM Small Cap Custom						
NON-US EQUITY EM ALL CAP	1,009,278					11.31
STRS CUSTOM MSCI EM IMI						11.50
WILLIAM BLAIR EM GROWTH	1,009,278					11.31
STRS CUSTOM MSCI EM IMI						11.50
EM CASH EQUITIZATION	77,639					30.69
BLACKROCK NON-US EQUITY TRANSITION 2	38					
STRS MSCI EAFE + CANADA CUSTOM						
CALSTRS - NON-US EQUITY TRANSITION	211					
STRS CUSTOM MSCI EAFE+CAN						

Performance Summary Periods Ending December 31, 2023



3 Year

Performance Summary - Non-US Equity

Ending Market Value (\$ in Thousands)

20 Year

10 Year

5 Year

1 Year

GE HYBRID TRANSITION

االقي 18,219

Performance Summary Periods Ending December 31, 2023



Performance Summary - Global Mandate

	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year
GLOBAL MANDATE	2,107,462				19.31
MSCI CalSTRS on ACWI IMI Custom					21.78
RBC GLOBAL FOCUS EQUITY	753,740				10.27
MSCI CALSTRS Index on ACWIexSaudi Arabia					22.44
ARROWSTREET GLOBAL EQUITY	1,353,723				24.95
STRS CUSTOM MSCI WORLD IMI					23.06

Performance Summary Periods Ending December 31, 2023



Performance Summary - Global Equity Low Carbon

	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year	
GLOBAL EQUITY LOW CARBON	12,518,033					
MSCI ACWI CUSTOM LOW CARBON TARGET						
CALSTRS LOW CARBON INDEX	12,515,493					
MSCI ACWI CUST LOW CARBON TARGET BLENDED						
CALSTRS LOW CARBON EM INDEX	238				15.69	
LOW CARBON EM BLENDED INDEX					9.88	
CALSTRS LOW CARBON US INDEX	79				38.46	
MSCI USA Custom Low Carbon Target Gross					27.54	
CALSTRS LOW CARBON NON-US INDEX	2,223				13.80	
MSCI WORLD x US CUSTOM LOW CARBON TARGET					18.08	

Performance Summary Periods Ending December 31, 2023



Performance	Summary -	Sustainable	Investment	& Stewardship	Strategies

1 citorinance summary sustainable investment & stewar					
	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year
TOTAL SISS	4,997,300		11.49	4.36	19.84
TOTAL SISS INDEX			11.78	5.32	21.47
TOTAL SISS PUBLIC EQUITY	4,837,036		11.56	4.47	20.21
TOTAL SISS INDEX			11.83	5.40	21.78
SISS PUBLIC EQUITY	4,836,593		11.59	4.48	20.22
SISS INDEX			11.85	5.40	21.78
SISS US EQUITY	1,688,976	8.21	12.19	7.23	19.88
SISS US EQUITY BLENDED INDEX		11.55	15.30	8.68	26.65
SISS US LARGE CAP EQUITY	488,379	8.46	9.45	5.61	13.32
STRS CUSTOM RUSSELL 1000		11.84	15.56	8.97	26.72
TRIAN PARTNERS	99,060	7.88	8.29	3.74	7.43
STRS CUSTOM RUSSELL 1000		11.84	15.56	8.97	26.72
US LC TRANSITION READINESS	389,319				24.80
STRS CUSTOM RUSSELL 1000					26.72
SISS US SMALL CAP EQUITY	1,200,597	12.52	14.10	8.34	21.08
STRS CUSTOM RUSSELL 2000		7.17	9.99	2.11	16.92
STARBOARD VALUE	420,197	11.39	14.85	7.98	18.99
STRS CUSTOM RUSSELL 2000		7.17	9.99	2.11	16.92
IMPACTIVE SIERRA FUND LP	383,057			9.65	10.90
STRS CUSTOM RUSSELL 2000				2.11	16.92
LEGION PARTNERS	397,343		11.38	6.06	34.70
STRS CUSTOM RUSSELL 2000			9.99	2.11	16.92
SISS GLOBAL EQUITY	1,826,967	10.37	11.94	2.27	20.76
SISS GLOBAL EQUITY BLENDED INDEX		7.83	11.58	5.46	21.98

Performance Summary Periods Ending December 31, 2023



Performance Summary - Sustainable Investment & Stewardship Strategies

,	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year
SISS ALL COUNTRY EQUITY	325,708			3.78	17.27
MSCI CalSTRS on ACWI IMI Custom				5.40	21.78
IMPAX LEADERS CALSTRS	325,708			3.78	17.27
MSCI CalSTRS on ACWI IMI Custom				5.40	21.78
SISS WORLD EQUITY	1,501,259	10.27	11.74	1.96	21.54
STRS CUSTOM MSCI WORLD(NET)		8.64	12.85	7.27	24.00
AGF INVESTMENT AMERICA INC	583,979	7.42	12.36	-0.83	11.88
STRS CUSTOM MSCI WORLD(NET)		8.64	12.85	7.27	24.00
GENERATION INV MGMT	917,280	11.77	12.11	3.89	28.62
STRS CUSTOM MSCI WORLD(NET)		8.64	12.85	7.27	24.00
SISS NON-US EQUITY	1,000,158		7.02	2.62	16.92
SISS NON-US EQUITY BLENDED INDEX			8.46	4.40	18.13
SISS EAFE EQUITY	1,000,158			2.62	16.92
STRS CUSTOM MSCI EAFE+CAN				4.40	18.13
SCHRODER INTERNATIONAL EQUITY	835,534			2.56	16.71
STRS CUSTOM MSCI EAFE+CAN				4.40	18.13
NON-US LC TRANSITION READINESS	164,625				16.92
STRS CUSTOM MSCI EAFE+CAN					18.13
SISS EM EQUITY	320,492	1.18	1.51	-9.34	-1.12
SISS EM EQUITY BLENDED INDEX		2.66	3.60	-5.87	9.65
SISS EMERGING EQUITY	320,492	1.18	1.51	-9.34	-1.12
STRS CUSTOM MSCI EM		2.66	3.60	-5.87	9.65
CARTICA CAPITAL	579				
STRS CUSTOM MSCI EM					

Performance Summary Periods Ending December 31, 2023



•	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year
HERMES GLOBAL EM	319,913			-8.54	-3.84
STRS CUSTOM MSCI EM				-5.87	9.65
SISS TRANSITION DEVELOPED	255				
STRS Custom Zero Return					
SISS TRANSITION GLOBAL	187				
STRS Custom Zero Return					
TOTAL SISS PRIVATE ASSETS	160,264				2.10
TOTAL SISS PRIVATE ASSETS INDEX	100,204				4.71
TOTAL GIGGT NIVATE AGGETG INDEX					7.11
SISS PRIVATE EQUITY	64,527				19.52
SISS PRIVATE EQUITY INDEX					6.26
VISTA CO INV	22,974				34.66
SISS PRIVATE EQUITY INDEX					6.26
SOLAR CO INV	23,470				17.41
SISS PRIVATE EQUITY INDEX					6.26
ORCHESTRA COINV (GRIDSPERTISE)	18,084				
SISS PRIVATE EQUITY INDEX					
SISS INNOVATIVE STRATEGIES	89,990				-8.11
SISS INNOVATIVE STRATEGIES INDEX					4.65
SER CAPITAL PARTNERS FUND I	36,305				13.66
STRS Custom 3 month tbill Gross QTR Lag					4.65
CONGRUENT CONTINUITY I	5,786				-10.85
STRS Custom 3 month tbill Gross QTR Lag					4.65

Performance Summary Periods Ending December 31, 2023



Performance Summary - Sustainable Investment & Stewardship Strategies

·	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year
G2VP OPPORTUNITY FUND I	18,784				
STRS Custom 3 month tbill Gross QTR Lag					
JUST CLIMATE	18,614				
STRS Custom 3 month tbill Gross QTR Lag					
AT ONE	4,500				
STRS Custom 3 month tbill Gross QTR Lag					
BGREEN III	6,000				
STRS Custom 3 month tbill Gross QTR Lag					
SISS REAL ESTATE	5,747				-21.88
STRS REAL ESTATE INDEX					-12.88
SOLA CO INV	5,747				-21.88
STRS REAL ESTATE INDEX					-12.88

Performance Summary Periods Ending December 31, 2023

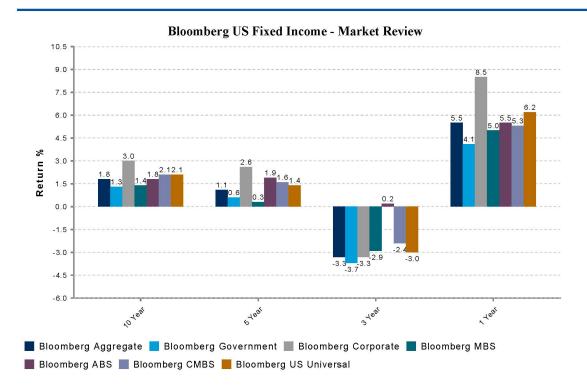


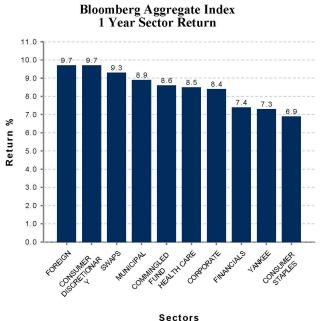
Performance Summary - Innovation Global Equity

	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year
INNOVATION-GLOBAL EQUITY	249				
STABILIZED EQUITY BLENDED INDEX					
STABILIZED EQUITY	249				
STABILIZED EQUITY BLENDED INDEX					
LOW VOLATILITY	249				
LOW VOLATILITY BLENDED INDEX					
LOW VOLATILITY - NON-US	249				
LOW VOLATILITY - NON-US BLENDED INDEX					
ROBECO	249				
MSCI World ex USA (CALSTRS) Min Vol(USD)					

US Fixed Income Market Review Periods Ending December 31, 2023







Ret Benchmark - 1 Yr

Bloomberg U.S. Fixed Income - Market Review Summary

			•		
	20 Year	10 Year	5 Year	3 Year	1 Year
Bloomberg Aggregate	3.17	1.81	1.10	-3.31	5.53
Bloomberg Government	2.70	1.27	0.56	-3.74	4.09
Bloomberg Corporate	4.13	2.95	2.63	-3.29	8.52
Bloomberg MBS	2.99	1.38	0.25	-2.86	5.05
Bloomberg ABS	2.65	1.81	1.92	0.22	5.54
Bloomberg CMBS	3.57	2.11	1.60	-2.41	5.29
Bloomberg US Universal	3.46	2.08	1.44	-2.97	6.17

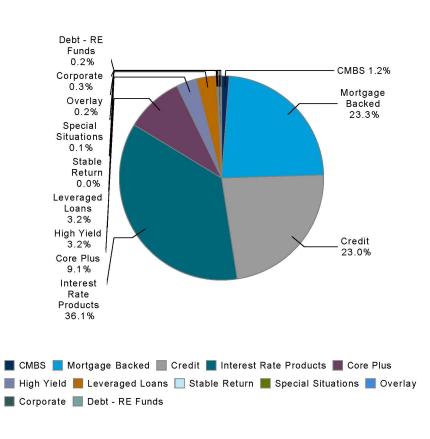
Total Fixed Income - Asset Allocation Periods Ending December 31, 2023



Total Fixed Income Allocations

	Total Fixed Income Allocations	
	Market Value (\$ in Thousands)	Actual Weight (Percentage %)
Core Debt		
CMBS	412,178	1.2
Mortgage Backed	8,035,381	23.3
Credit	7,946,053	23.0
Interest Rate Products	12,449,145	36.1
Total Debt-Core	28,842,757	83.6
Opportunistic Debt		
Core Plus	3,142,140	9.1
High Yield	1,103,081	3.2
Leveraged Loans	1,100,348	3.2
Special Situations	45,643	0.1
Overlay	84,212	0.2
Total Opportunistic Debt	5,475,425	15.9
Stable Return		
STRS-Enhanced HLP	17,151	0.0
Stable Return	17,151	0.0
Debt-Private		
Corporate	97,192	0.3
Debt - RE Funds	76,080	0.2
Total Debt-Private	173,272	0.5
Total Fixed Income		
Total Fixed Income	34,508,605	100.0

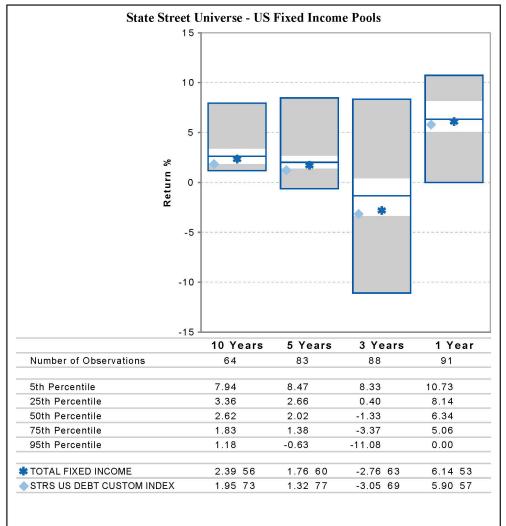
Asset Allocations

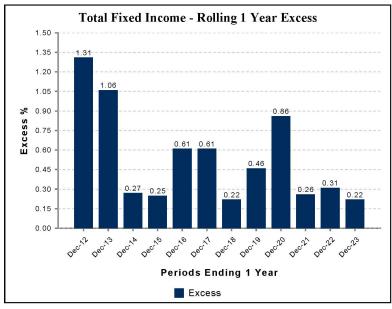


* End of period weights

Total Fixed Income Periods Ending December 31, 2023



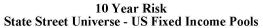




Top 10 Holdings				
Security Name	Maturity Date	Ending Market Value (\$ in Thousands)		
GNMA II TBA 30 YR 2.5	12/01/2099	415,986		
B969ANHG4 CDS USD R V 03MEVENT	12/20/2028	396,000		
US TREASURY N/B	07/15/2026	370,943		
US TREASURY N/B	08/15/2053	338,937		
US TREASURY N/B	03/15/2026	337,493		
US 10YR NOTE (CBT)MAR24	03/19/2024	327,947		
US TREASURY N/B	04/30/2030	315,183		
US TREASURY N/B	07/31/2028	313,696		
US TREASURY N/B	11/15/2032	312,296		
US TREASURY N/B	10/15/2026	307,527		

Total Fixed Income - Risk vs Return Periods Ending December 31, 2023







10 Year **Risk Information & Statistics**

	TOTAL FIXED INCOME
Historic Beta	0.99
Information Ratio	1.30
Jensens Alpha	0.44
R-Squared	0.99
Sharpe Ratio	0.24
Tracking Error	0.33
Treynor Ratio	1.14

TOTAL FIXED INCOME

10 Year Return

45.00

40.00

35.00

30.00

25.00

20.00

15.00

10.00

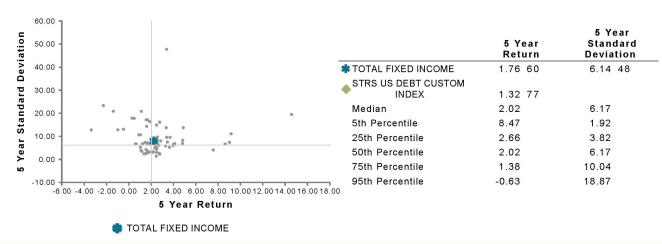
5.00

0.00

Year Standard Deviation

9

5 Year Risk State Street Universe - US Fixed Income Pools



5 Year **Risk Information & Statistics**

	TOTAL FIXED INCOME
Historic Beta	1.00
Information Ratio	1.17
Jensens Alpha	0.44
R-Squared	1.00
Sharpe Ratio	-0.02
Tracking Error	0.38
Treynor Ratio	-0.12

Note: Returns are gross of fees. Returns greater than 1 year are annualized. \ast Gross returns are based on best available expense information.

Total Fixed Income - Performance Summary Periods Ending December 31, 2023



Performance Summary	- Total	Fixed	Income
---------------------	---------	-------	--------

Total Tarea Theome						
	Ending Market Value (\$ in Thousands)	20 Year	10 Year	5 Year	3 Year	1 Year
TOTAL FIXED INCOME	34,508,605	3.70	2.36	1.74	-2.78	6.13
STRS US DEBT CUSTOM INDEX		3.33	1.95	1.32	-3.05	5.90
DEBT-PUBLIC	34,335,334	3.71	2.36	1.75	-2.76	6.19
STRS US DEBT CUSTOM INDEX		3.33	1.95	1.32	-3.05	5.90
DEBT- CORE/OPP	34,318,182	3.72	2.36	1.75	-2.76	6.19
STRS DEBT-CORE/OPPORTUNISTIC CUSTOM INDEX		3.31	1.91	1.23	-3.19	5.58
DEBT - CORE	28,842,757	3.41	2.10	1.38	-3.18	5.66
	26,642,757					
STRS DEBT-CORE CUSTOM INDEX		3.16	1.80	1.09	-3.31	5.51
CORE DEBT - PRE OVERLAY	28,842,757	3.41	2.07	1.37	-3.19	5.66
STRS DEBT-CORE CUSTOM INDEX		3.16	1.80	1.09	-3.31	5.51
CALSTRS INTEREST RATE PRODUCTS	12,449,145	2.91	1.49	0.80	-3.56	4.36
STRS GOVERNMENT INDEX		2.70	1.27	0.56	-3.74	4.09
CALSTRS CREDIT	7,946,053	4.29	2.99	2.58	-3.07	8.22
STRS CREDIT CUSTOM INDEX		4.02	2.82	2.43	-3.21	8.16
US DEBT SECURITIZED	8,447,559	3.12	1.67	0.56	-2.76	5.11
STRS SECURITIZED INDEX	5, 111,555	2.98	1.43	0.37	-2.80	5.08
MBS	8,035,381	3.18	1.61	0.45	-2.81	5.07
STRS MBS INDEX	0,000,001	2.99	1.38	0.25	-2.86	5.05
CMBS	412,178	3.94	2.24	1.77	-2.37	5.46
Bloomberg CMBS: Erisa Eligible	412,170	3.68	2.06	1.68	-2.45	5.42
Diodinating Owids, Linea Eligible		3.00	2.00	1.00	-2.40	J.42

Total Fixed Income - Performance Summary Periods Ending December 31, 2023



Performance Summary - Total Fixed Income

,	Ending Market Value (\$ in Thousands)	20 Year	10 Year	5 Year	3 Year	1 Year
DEBT OPPORTUNISTIC	5,475,425		3.54	3.44	-0.77	8.79
STRS US DEBT CUSTOM INDEX			1.95	1.32	-3.05	5.90
OPPORTUNISTIC DEBT - PRE OVERLAY	5,391,213		3.59	3.59	-0.62	9.30
STRS US DEBT CUSTOM INDEX			1.95	1.32	-3.05	5.90
HIGH YIELD	1,103,081	6.22	4.90	5.74	2.54	13.00
STRS US HYCP 2% CAP CUSTOM INDEX	1,100,001	6.62	4.61	5.39	1.99	13.45
CALSTRS HY	550,834	0.02	4.66	5.39	2.47	12.49
STRS US HYCP 2% CAP CUSTOM INDEX	330,034		4.61	5.39	1.99	13.45
BLACKROCK HIGH YIELD	552,247		5.16	6.09	2.62	13.51
STRS US HYCP 2% CAP CUSTOM INDEX	332,247		4.61	5.39	1.99	13.45
STAS 03 THEF 2% CAF COSTONI INDEA			4.01	3.39	1.99	13.43
DEBT CORE PLUS	3,142,140		2.65	2.27	-3.00	6.99
STRS US UNIVERSAL CUSTOM INDEX			2.09	1.46	-2.91	6.16
WAMCO	1,104,449		2.74	2.04	-3.72	7.22
STRS US UNIVERSAL CUSTOM INDEX			2.09	1.46	-2.91	6.16
LM CAPITAL GROUP	529,781		2.55	2.32	-2.26	6.23
STRS US UNIVERSAL CUSTOM INDEX			2.09	1.46	-2.91	6.16
CALSTRS CORE PLUS	1,507,911				-2.42	7.21
STRS US UNIVERSAL CUSTOM INDEX					-2.91	6.16
LEVERACER LOANS	1 100 240		4.70	E 80	E OE	12.64
LEVERAGED LOANS	1,100,348		4.70	5.82	5.95	13.64
STRS MORNINGSTARLSTA LEVERAGE LOAN INDEX	000 450		4.42	5.80	5.76	13.32
CREDIT SUISSE BL	662,152		4.85	5.77	5.86	13.90
STRS MORNINGSTARLSTA LEVERAGE LOAN INDEX			4.42	5.80	5.76	13.32

Total Fixed Income - Performance Summary Periods Ending December 31, 2023



Performance Summary - Total Fixed Income

2010111101	Ending Market Value (\$ in Thousands)	20 Year	10 Year	5 Year	3 Year	1 Year
ARES BANK LOAN	438,196					13.05
STRS MORNINGSTARLSTA LEVERAGE LOAN INDEX						13.32
	75.00					
SPECIAL SITUATIONS - DEBT	45,643				45.14	16.08
STRS US DEBT CUSTOM INDEX					-3.05	5.90
CALSTRS TAP	45,643				45.94	16.08
STRS US DEBT CUSTOM INDEX					-3.05	5.90
CALSTRS OPPORTUNISTIC OVERLAY	84,212		-0.05	-0.15	-0.15	-0.47
STRS ABSOLUTE RETURN INDEX			0.00	0.00	0.00	0.00
OTABLE DETUBN	47.454		6.50	F 00	6.24	7.40
STABLE RETURN	17,151		6.50	5.99	6.34	7.40
CALSTRS-ENHANCED HLP	17,151	5.86	5.85	5.99	6.34	7.40
Debt Opportunity Policy Benchmark		3.44	1.95	1.32	-3.05	5.90
DEBT-PRIVATE	173,272				-7.04	-10.21
STRS PRIVATE CREDIT CUSTOM INDEX	110,212				-3.72	3.90
CORPORATE	97,192				4.96	5.60
STRS US DEBT CUSTOM INDEX					-3.05	5.90
DEBT - RE Funds	76,080					-71.32
STRS US DEBT CUSTOM INDEX 1 QTR LAG						1.10

Performance Summary Periods Ending December 31, 2023



Performance Summary - In	nflation Sensitive
---------------------------------	--------------------

Performance Summary - Inflation Sensitive					
	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year
TOTAL INFLATION SENSITIVE	19,934,496	6.71	9.05	9.80	3.81
TOTAL INFLATION SENSITIVE INDEX		5.09	6.53	7.70	2.01
INFLATION SENSITIVE XSISS	19,934,496	6.71	9.05	9.80	3.81
STRS TOTAL IS INDEX		5.09	6.53	7.70	2.01
INFLATION SENSITIVE	19,934,496	6.68	9.05	9.80	3.81
STRS INFLATION SENSITIVE		5.10	6.53	7.70	2.01
INFLATION SENSITIVE COMMODITIES	3,845,759		8.78	11.56	-5.04
STRS INFLATION SENSITIVE COMMODITIES INDEX			5.16	8.12	-12.55
PIMCO COMMODITIES	1,398,063		8.59	12.33	-5.45
Bloomberg Commodity Price Index			5.16	8.12	-12.55
INVESCO COMMODITIES	1,094,678		7.95	8.93	-1.94
Bloomberg Commodity Price Index			5.16	8.12	-12.55
BCOM SWAP	1,353,017		10.34	13.58	-6.78
Bloomberg Commodity Price Index			5.16	8.12	-12.55
INFLATION SENSITIVE EX. COMMODITIES	16,088,737	6.97	8.88	8.96	6.92
STRS INFLATION SENSITIVE EX COM		5.50	6.67	7.28	7.04
INFLATION BOND	4,008,798	2.25	3.25	-0.89	4.07
STRS INFLATION BOND INDEX		2.17	3.15	-1.00	3.90
U.S. TIPS	4,008,798		3.25	-0.89	4.07
Bloomberg U.S. Treasury: U.S. TIPS			3.15	-1.00	3.90
TOTAL INFRASTRUCTURE	11,105,833	8.98	11.41	12.70	8.26
INFRASTRUCTURE CUSTOM INDEX		6.89	8.04	9.96	7.83

Performance Summary Periods Ending December 31, 2023



Performance Summary - Inflation Sensitive

eriormance Summary - Innation Sensitive	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year	
INFRASTRUCTURE PRIVATE	11,188,602	9.36	11.40	12.19	8.76	
INFRASTRUCTURE PRIVATE BLENDED		6.92	8.19	9.96	7.83	
CALSTRS INFRA PRIVATE	3,757,333	9.78	11.00	12.02	9.26	
INFRASTRUCTURE PRIVATE BLENDED		6.92	8.19	9.96	7.83	
INFRASTRUCTURE CO-INVEST	2,002,538		14.76	15.48	10.49	
INFRASTRUCTURE PRIVATE BLENDED			8.19	9.96	7.83	
BASALT CO-INVEST	184,335		10.51	9.35	18.99	
INFRASTRUCTURE PRIVATE BLENDED			8.19	9.96	7.83	
STONEPEAK CO-INVEST	1,043,638		15.52	15.90	8.21	
INFRASTRUCTURE PRIVATE BLENDED			8.19	9.96	7.83	
BLACKROCK CO-INVEST	102,925			-2.77	-0.13	
INFRASTRUCTURE PRIVATE BLENDED				9.96	7.83	
ARDIAN CO-INVEST	152,733			10.57	13.64	
INFRASTRUCTURE PRIVATE BLENDED				9.96	7.83	
CAPITAL DYNAMICS CO-INVEST	92,645			24.81	42.99	
INFRASTRUCTURE PRIVATE BLENDED				9.96	7.83	
ISQ CO-INVEST	167,893				8.04	
INFRASTRUCTURE PRIVATE BLENDED					7.83	
ARCLIGHT CO-INVEST	258,369				3.59	
INFRASTRUCTURE PRIVATE BLENDED					7.83	
INFRASTRUCTURE MANAGED ACCOUNT	5,428,732		10.46	10.88	7.90	
INFRASTRUCTURE PRIVATE BLENDED			8.19	9.96	7.83	
ARGO	1,598,610		7.87	8.54	7.43	
INFRASTRUCTURE PRIVATE BLENDED			8.19	9.96	7.83	

Performance Summary Periods Ending December 31, 2023



Performance Summary - Inflation Sensitive

·	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year
AREVON	781,041		2.99	-3.42	0.90
INFRASTRUCTURE PRIVATE BLENDED			8.19	9.96	7.83
STONEPEAK PE	277,851		28.58	22.57	12.65
INFRASTRUCTURE PRIVATE BLENDED			8.19	9.96	7.83
STEPSTONE	719,417		7.80	8.74	19.29
INFRASTRUCTURE PRIVATE BLENDED			8.19	9.96	7.83
UBS	879,042			14.43	2.88
INFRASTRUCTURE PRIVATE BLENDED				9.96	7.83
HARBERT	542,603			7.63	9.49
INFRASTRUCTURE PRIVATE BLENDED				9.96	7.83
JLC	38,324				0.17
INFRASTRUCTURE PRIVATE BLENDED					7.83
OAKTREE	338,236				20.08
INFRASTRUCTURE PRIVATE BLENDED					7.83
ARJUN	253,609				
INFRASTRUCTURE PRIVATE BLENDED					
INFRASTRUCTURE OVERLAY	-82,769		1.02	3.35	-3.08
TIMBERLAND	287,825		4.15	7.46	11.60
NCREIF TIMBERLAND FUND QTR LAG			5.29	8.72	10.41
TIMBERLAND	287,825		4.15	7.46	11.60
NCREIF TIMBERLAND FUND QTR LAG			5.29	8.72	10.41
AGRICULTURE	532,442		-0.46	0.10	-4.34
STRS CUSTOM CPI+300 BPS QTR LAG			7.16	8.91	6.80

Performance Summary Periods Ending December 31, 2023



Performance Summary - Inflation Sensitive

	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year
AG FUNDS	532,442		-0.46	0.10	-4.34
STRS CUSTOM CPI+300 BPS QTR LAG			7.16	8.91	6.80
INFRASTRUCTURE CREDIT	153,837				
STRS INFRASTRUCTURE CREDIT INDEX					
INFRA CREDIT FUND	153,837				
INFRA CREDIT FUND INDEX					

Performance Summary Periods Ending December 31, 2023



1 chormance Summary - innovative Strategies						
	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year	
TOTAL INNOVATIVE STRATEGIES	5,066,351	6.76	9.69	12.45	15.06	
TOTAL INNOVATIVE STRATEGIES INDEX		3.78	4.30	3.22	9.09	
INNOVATIVE STRATEGIES xSISS	4,976,362	6.81	9.78	12.61	15.51	
Innovative Strategies Blended Index		3.79	4.31	3.24	9.15	
INNOVATIVE STRATEGIES	4,976,288	7.73	9.78	12.61	15.51	
INNOVATION INDEX		4.14	4.31	3.24	9.15	
	4.070.000					
INNOVATION PRIVATE ASSETS	4,976,288		10.04	12.61	15.51	
INNOVATION PA BLENDED INDEX			3.34	3.24	9.15	
INNOVATION PRIVATE EQUITY	606,607			38.83	51.94	
PRIVATE EQUITY CUSTOM				1.73	7.28	
BLACKROCK LTPC	606,607			38.83	51.94	
LONGER TERM STRATEGIES BLENDED				1.73	7.28	
INNOVATION PRIVATE CREDIT	4,369,681		8.30	9.73	11.68	
PRIVATE CREDIT CUSTOM BLENDED CM	4,303,001		3.61	3.43	9.40	
PRIVATE CREDIT COSTON BLENDED CIN			3.01	3.43	9.40	
INNOVATION DIRECT LENDING	3,809,071		8.08	10.70	12.84	
PRIVATE DEBT CUSTOM BENCHMARK			2.77	3.03	9.40	
STONE POINT CAPITAL	290,756				14.16	
STRS Custom 3 month tbill Gross QTR Lag					4.65	
ARCMONT STRATEGIC PARTNERSHIP	604,017		10.79	11.67	11.15	
ARCMONT STRATEGIC PARTNERSHIP INDEX			2.86	3.78	14.20	

Performance Summary Periods Ending December 31, 2023



criormance Summary - Innovative Strategies	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year	
ARCMONT EUROPEAN DL FUND	523,562		10.73	11.56	10.45	
MORNINGSTAR LVGRD LOAN QTR LAG+175 BLEND			2.97	3.97	14.97	
ARCMONT CS	80,455				19.44	
STRS Custom 3 month tbill Gross QTR Lag					4.65	
HPS STRATEGIC PARTNERSHIP	564,381			12.02	14.91	
HPS STRATEGIC PARTNERSHIP INDEX				3.56	13.12	
HPS GLOBAL DIRECT LENDING	464,186			11.37	14.57	
MORNINGSTAR LVGRD LOAN QTR LAG+175 BLEND				3.97	14.97	
HPS SSOF	100,195			17.35	16.42	
STRS Custom 3 month tbill Gross Blend				1.76	4.65	
BLUE OWL STRATEGIC PARTNERSHIP	1,247,951			17.13	15.21	
OR STRATEGIC PARTNERSHIP INDEX				1.76	4.65	
OBDC III	490,819			25.35	13.07	
STRS Custom 3 month tbill Gross QTR Lag				1.76	4.65	
OLF	482,336			7.76	10.77	
STRS Custom 3 month tbill Gross QTR Lag				1.76	4.65	
OTF II	274,796				33.05	
STRS Custom 3 month tbill Gross QTR Lag					4.65	
ARES STRATEGIC PARTNERSHIP	1,101,966		5.98	8.12	9.65	
ARES STRATEGIC PARTNERSHIP INDEX			3.50	3.76	11.61	
ARES SSG SLO II	21,879		-12.08	-14.56	-30.19	
STRS Leveraged Loan QTR Lag+300bps Blend			9.21	9.22	16.34	
ARES EUROPEAN DL SMA	691,188		9.12	9.55	10.30	
MORNINGSTAR LVGRD LOAN QTR LAG+175 BLEND			2.97	3.97	14.97	

Performance Summary Periods Ending December 31, 2023



Terrormance Summary - Innovative Strategies	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year	
ARES SSG SLO III	160,104				11.67	
STRS Custom 3 month tbill Gross QTR Lag					4.65	
ARES SME FUND	228,796				13.82	
STRS Custom 3 month tbill Gross QTR Lag					4.65	
INNOVATION REAL ASSETS CREDIT	560,610		6.09	4.38	4.01	
REAL ASSETS CUSTOM			6.38	5.57	9.39	
CASTLELAKE STABLE YIELD	114,072		5.12	3.86	1.29	
STRS Leveraged Loan QTR Lag+300bps Blend			9.21	9.22	16.34	
SPROTT STRATEGIC RELATIONSHIP	446,538			4.88	4.74	
SPROTT STRATEGIC RELATIONSHIP INDEX				2.40	7.55	
SPROTT PRIVATE LENDING FUND II	120,065			6.24	-2.37	
MORNINGSTAR LVRGD LOAN QTR LG+225 BLEND				4.22	15.52	
SPROTT STREAMING AND ROYALTIES	315,375				7.66	
STRS Custom 3 month tbill Gross QTR Lag					4.65	
SPROTT LENDING FUND III	11,099				5.77	
STRS Custom 3 month tbill Gross QTR Lag					4.65	
INNOVATIVE STRATEGIES TRANSITION	74					
Zero Return Index DAILY ONLY						
SISS INNOVATIVE STRATEGIES	89,990				-8.11	
SISS INNOVATIVE STRATEGIES INDEX					4.65	
SER CAPITAL PARTNERS FUND I	36,305				13.66	
STRS Custom 3 month tbill Gross QTR Lag					4.65	

Performance Summary Periods Ending December 31, 2023



	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year
G2VP OPPORTUNITY FUND I	18,784				
STRS Custom 3 month tbill Gross QTR Lag					
CONGRUENT CONTINUITY I	5,786				-10.85
STRS Custom 3 month tbill Gross QTR Lag					4.65
JUST CLIMATE	18,614				
STRS Custom 3 month tbill Gross QTR Lag					
AT ONE	4,500				
STRS Custom 3 month tbill Gross QTR Lag					
BGREEN III	6,000				
STRS Custom 3 month tbill Gross QTR Lag					

Performance Summary Periods Ending December 31, 2023



refler manee summary tush with gating strategies						
	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year	
TOTAL RISK MITIGATING STRATEGIES	27,028,227	2.19	5.03	1.03	-2.23	
STRS TOTAL RMS		2.14	5.44	1.66	-0.35	
RISK MITIGATING STRATEGIES	27,028,207	2.24	5.14	1.05	-2.15	
RMS CUSTOM INDEX		2.14	5.45	1.64	-0.34	
RMS GLOBAL MACRO	3,498,306	2.62	1.45	-0.07	-6.59	
STRS CUSTOM DISCRETIONARY THEMATIC		2.69	5.79	3.32	5.02	
MACRO BW	884,530	1.02	-3.36	5.03	-3.19	
STRS CUSTOM DISCRETIONARY THEMATIC		2.69	5.79	3.32	5.02	
MACRO QM	540,254		1.58	7.23	-5.48	
STRS CUSTOM DISCRETIONARY THEMATIC			5.79	3.32	5.02	
MACRO EM	661,911		1.20	-2.62	8.66	
STRS CUSTOM DISCRETIONARY THEMATIC			5.79	3.32	5.02	
MACRO AS	656,719				12.19	
STRS CUSTOM DISCRETIONARY THEMATIC					5.02	
MACRO CP	513,431					
STRS CUSTOM DISCRETIONARY THEMATIC						
MACRO GM	241,461					
STRS CUSTOM DISCRETIONARY THEMATIC						
RMS TREND FOLLOWING	13,452,279		9.91	9.71	-5.02	
STRS CUSTOM TREND INDEX			9.10	10.01	-4.17	
TREND GM	2,184,855		8.44	7.44	-9.91	
STRS CUSTOM TREND INDEX			9.10	10.01	-4.17	
TREND TT	2,706,376		11.47	14.79	3.64	
STRS CUSTOM TREND INDEX			9.10	10.01	-4.17	

Performance Summary Periods Ending December 31, 2023



Performance Summary - Risk Mitigating Strategies

1 error mance Summary - Kisk Wittigating Strategies					
	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year
TREND AX	2,603,364		11.02	9.72	-11.92
STRS CUSTOM TREND INDEX			9.10	10.01	-4.17
TREND IM	1,649,375		15.81	18.96	0.24
STRS CUSTOM TREND INDEX			9.10	10.01	-4.17
TREND LX	3,019,626		10.49	9.60	-5.60
STRS CUSTOM TREND INDEX			9.10	10.01	-4.17
TREND SM	1,288,683				-7.31
STRS CUSTOM TREND INDEX					-4.17
RMS SYSTEMATIC RISK PREMIA	1,931,557			5.84	9.40
STRS CUSTOM RISK PREMIA	, ,			5.90	6.44
SRP AB	276,218			-0.48	1.91
STRS CUSTOM RISK PREMIA				5.90	6.44
SRP BR	801,683			12.91	16.00
STRS CUSTOM RISK PREMIA				5.90	6.44
SRP MN	853,657				5.00
STRS CUSTOM RISK PREMIA					6.44
RMS LONG US TREASURY	8,146,064		-1.46	-12.05	2.92
Bloomberg U.S. Treasury: 20+ Year			-1.66	-12.21	2.66
LONG DURATION U.S. TREASURIES	8,146,064		-1.46	-12.05	2.92
Bloomberg U.S. Treasury: 20+ Year			-1.66	-12.21	2.66
RMS TRANSITION	20				
STRS RMS TRANSITION INDEX					

Performance Summary Periods Ending December 31, 2023



P	erformance	Summary -	Strat	tegic	Overlay
-	er ror manee	~ william y	~ • • • • • •		O , CI ICI ,

1 criormance summary - strategie overlay					
	Ending Market Value (\$ in Thousands)	10 Year	5 Year	3 Year	1 Year
STRATEGIC OVERLAY	5,608,168	0.50	0.83	-0.15	2.61
CURRENCY - ABSOLUTE RETURN	-10,065	0.03	0.02	0.02	0.19
STRS CURRENCY ABSOLUTE RETURN		0.00	0.00	0.00	0.00
CURRENCY - OPPORTUNISTIC	-7,727	0.22	0.37	0.34	1.89
STRS CURRENCY ABSOLUTE RETURN		0.00	0.00	0.00	0.00
LEE OVERLAY PARTNERS LTD	-5,508	0.73	0.68	0.57	3.16
STRS CURRENCY ABSOLUTE RETURN		0.00	0.00	0.00	0.00
MILLENNIUM GLOBAL INVESTMENTS LTD	1	-0.09	-0.32	-0.33	-0.31
STRS CURRENCY ABSOLUTE RETURN		0.00	0.00	0.00	0.00
CIBC	-2,220			0.34	1.21
STRS CURRENCY ABSOLUTE RETURN				0.00	0.00
CURRENCY - CORE	-2,337	-0.00	-0.03	-0.03	-0.03
STRS CURRENCY ABSOLUTE RETURN		0.00	0.00	0.00	0.00
CALSTRS CURRENCY-NON US EQUITY	-2,337	-0.00	-0.03	-0.03	-0.03
STRS CURRENCY ABSOLUTE RETURN		0.00	0.00	0.00	0.00
DERIVATIVE OVERLAY	5,618,233			-18.53	10.15
STRS CURRENCY ABSOLUTE RETURN				0.00	0.00
CALSTRS EQUITIES	30,391			2.00	0.40
Zero Return Index DAILY ONLY				0.00	0.00
GLOBAL EQUITY OVERLAY	4,323,545			10.41	13.99
Bloomberg U.S. Treasury Bellwethers: 3M				2.21	5.15
RMS OVERLAY	493,271			5.11	-5.25
Bloomberg U.S. Treasury Bellwethers: 3M				2.21	5.15
FIXED INCOME OVERLAY	771,025				
Bloomberg U.S. Treasury Bellwethers: 3M					

Rates of Return Annualized Periods Ending December 31, 2023



ATTRIBUTION

Weighting – Measures the portion of the portfolio return that can be attributed to over/underweighting sectors/countries relative to the benchmark. Positive weighting occurs if the fund was over weighted in sectors/countries that performed well or underweighted in sectors/countries that did not perform well.

Sector weighting = [benchmark return (sector) - benchmark return (total)] x [portfolio beginning weight (sector) - benchmark beginning weight (sector) - benchmark return (total)] x

Selection – Measures the portion of the portfolio return that can be attributed to the selection of securities within a sector/country relative to the benchmark. Positive selection occurs if the portfolio's sector/country return is greater than the benchmark sector/country return.

Sector selection = [portfolio return (sector) - benchmark return (sector)] x [portfolio beginning weight (sector)] /100

RISK

Alpha - A measure of value added after adjusting for risk. Beta is the measure of risk used in the calculation of alpha, so the accuracy of alpha is dependent on the accuracy of beta. Alpha is the difference between the manager's return and what one would expect the manager to return after adjusting for the amount of risk taken. Mathematically, Alpha = Portfolio Return - Risk Free Rate - Beta * (Market Return - Risk Free Rate); Alpha = rp - rf - Beta (rm-rf). A positive alpha is an indication of value added.

Beta - A measure of risk for domestic equities. The market has a beta of 1. A manager with a beta above 1 exhibits more risk than the market, while a manager with a beta below 1 is less risky than the market. Information Ratio – In investing terminology, the ratio of expected return to risk, as measured by standard deviation. Usually, this statistical technique is used to measure a manager's performance against a benchmark.

Jensen's Index – An index that uses the capital asset pricing model to determine whether a money manager outperformed a market index.

R2 (R Squared) – A measure of how well a manager moves with the market. If a manager's performance closely tracks that of the market, the R2 will be closed to 1. Broadly diversified managers have an R2 of 0.90 or greater, while the R2 of undiversified managers will be lower.

Sharpe Ratio – A risk-adjusted measure developed by William F. Sharpe, calculated using standard deviation and excess return to determine reward per unit of risk. The higher the Sharpe ratio, the better the fund's historical risk-adjusted performance.

Standard Deviation – The degree of variability of a time series, such as quarterly returns, relative to the average. Standard deviation measures the volatility of the time series.

Tracking Error - When using an indexing strategy, the amount by which the performance of the portfolio differed from that of the benchmark.

Treynor Index – A measure of a portfolio's excess return per unit of risk, equal to the portfolio's rate of return minus the risk-free rate of return, divided by the portfolio's beta.

FIXED INCOME CHARACTERISTICS

Asset Backed Security (ABS) - A fixed income security which has a specifically pledged collateral such as car loans, credit card receivables, lease loans, etc.

Average Life - The weighted average time to receipt of principal payments (including scheduled pay-downs and prepayments). For non-amortizing securities, the average life equals the time to the stated maturity.

Average Maturity - The market value-weighted average maturity of the bonds in a portfolio, where maturity is defined as Stated Final for bullet maturity bonds and Average Life for amortizing instruments, including mortgage pass-throughs, CMOs, amortizing asset-backed securities and ARMs.

Collateralized Mortgage Obligation (CMO) - A security backed by a pool of pass through securities and/or mortgages. Since CMOs derive their cash flow from the underlying mortgage collateral, they are referred to as derivatives. CMOs are structured so there are several classes of bondholders with varying stated maturities and varying certainty of the timing of cash flows.

Coupon - The coupon rate is the annual coupon (i.e., interest) payment value divided by the par value of the bond.

Duration - A weighted average maturity, expressed in years. All coupon and principal payments are weighted by the present value term for the expected time of payment. Duration is a measure of sensitivity to changes in interest rates with a longer duration indicating a greater sensitivity to changes in interest rates.

Rates of Return Annualized Periods Ending December 31, 2023



Effective Duration – An option-adjusted measure of a bond's (or portfolio's) sensitivity to changes in interest rates. Calculated as the average percentage change in a bond's value (price plus accrued interest) under shifts of the Treasury curve +/- 100 bps. Incorporates the effect of embedded options for corporate bonds and changes in prepayments for mortgage-backed securities (including pass-throughs, CMOs and ARMs).

Maturity - The maturity for an individual bond is calculated as the number of years until principal is paid. For a portfolio of bonds, the maturity is a weighted average maturity, where the weighting factors are the individual security's percentage of the total portfolio.

Mortgage Pass Through - A security which "passes through" to the holder the interest and principal payments on a group of mortgages.

Quality – Relates to the credit risk of a bond (i.e., the issuer's ability to pay). Quality is most relevant for corporate bonds. Several rating organizations publish ratings of bonds including Moody's and Standard & Poor's. AAA is the highest quality rating, followed by AA+, AA, AA-, A+, A, A- and then BBB+, BBB, BBB-, BB+, BB, BB-, etc. Bonds rated above BBB- are said to be of investment grade.

Yield (YTM) - Yield to Maturity unless otherwise indicated. The single Internal Rate of Return which equates a bonds remaining cash flows to its market price. For mortgage pass-throughs, CMOs, asset-backed securities, and ARMs, YTM is calculated using the cash flows generated from the security's lifetime prepayment speed (PSA, CPR, ABS etc.).

Yield to Maturity - The discount rate that equates the present value of cash flows (coupons and principal) to the market price taking into account the time value of money.

EOUITY CHARACTERISTICS GLOSSARY

Debt/Equity Ratio – Total long term debt divided by total common equity.

Dividend Growth 5 Yrs – the annualized growth rate of cash dividends per share for ex-dividend dates occurring during the reporting period, calculated via a least squares fit using the most recent year's DPS data and data from the previous four years. (Expressed in a percent.)

Dividend Yield - The current indicated annual income (dividend or coupon) divided by yesterday's composite closing price, stated as a percentage.

EPS Growth 1 Yr – the percent change, between the year with the most current Compustat data and the previous year, of the primary earnings per share including extraordinary items for the last 12 months ending the fiscal year of the company. (Expressed as a percent).

EPS Growth 5 Yr – The annualized growth rate of primary earnings per share including extraordinary items calculated via a least squares fit using the most recent year's EPS data and data from the previous five years (Expressed as a percent.)

EPS Stability 5 Yr – The mean of the differences between actual EPS and trend line EPS for the past five years (20 quarters), expressed as a percentage of trend line EPS. Trend line EPS is based on a linear regression of the past twenty quarters actual EPS.

Fundamental Beta – An estimate of the security's systematic risk, based on the Vestek Fundamental Risk Model, which includes information on 48 fundamental variables of the company over the past sixty months.

Historical Beta – The beta from a regression of the monthly excess returns of the stock against the excess returns of the S&P 500 for the past sixty months.

Payout Ratio – Indicated annual dividend, based on most recent announced quarterly dividend, times four, plus any additional dividends to be paid during the current year, divided by the most recently reported annual earnings per common share outstanding.

Price/Book Ratio - The current market price of the stock divided by the most recently reported book value for the prior fiscal year.

Price/Earnings Ratio (P/E) – The P/E ratio of a common stock's price divided by earnings per share. The ratio is used as a valuation technique employed by investment managers.

Profit Margin-1Yr – Net income divided by net sales. Value in characteristics file is actual value multiplied by 100.00. (Expressed in hundredths.)

Ouick Ratio – The sum of cash and short term investments plus total receivables divided by total liabilities.

ROA 1 Yr – Net income divided by current assets plus net property plus other noncurrent assets including intangible assets, deferred items, and investments and advances. Value in characteristics file is actual value times 100 (Expressed in hundredths.)

ROE 1 Yr - Net income divided by total common equity. Value in characteristics file is actual value multiplied by 100.00. (Expressed in hundredths.)

UNIVERSE

Cumulative Report – All periods on the report are affixed to the same end period.

Consecutive Report – Shows periods in successive order.

Rates of Return Annualized Periods Ending December 31, 2023



Median – The middle value in a distribution, for which one half of the observations are greater and one half are less; a ranking of 50.

Observations – The number of different plans or portfolios contained within a particular universe.

Percent Allocation - Percent of Total Fund for a particular asset class, based on period ending, security level values.

Percentile – The number between 1 and 100 indicating an observation's position in the universe; derived by dividing the observations into parts in order of magnitude. For example, a score equal to or greater than 95 percent of all observations is in the 95th percentile.

Percentile Rank – A manager's rank signifies the percentage of managers in the universe performing better than the manager. For example, a manager with a rank of 10 means that only 10% of managers had returns greater than the manager's over the period of measurement. Likewise, a rank of 50 (i.e., the median manager) indicates that 50% of managers in the universe did better and 50% did worse.

Public Fund Master Trusts - The Universe that contains all Public Fund plans for which State Street provides performance data.

Public Fund Master Trusts > \$1 Billion - The Universe that contains all Public Fund plans with assets totaling more than \$1 Billion for which State Street provides performance data.

Public Fund Master Trusts > \$10 Billion - The Universe that contains all Public Fund plans with assets totaling more than \$10 Billion for which State Street provides performance data.

Rank – A particular observation's performance relative to others in the universe. The highest ranking is shown as 1, while the lowest is 100.

State Street Universe – The State Street Universe is a proprietary comparative universe service developed by State Street. It is one of the most comprehensive universes available, representing more than \$1 trillion in assets and contains over 5,000 portfolios.

BENCHMARK DEFINITIONS

US Equity = STRS Custom MSCI USA IMI Index

Non-US Equity = STRS Custom MSCI ACWI IMI ex-US

Real Estate = STRS Real Estate Index

US Debt = STRS US Debt Custom Index

Domestic Large Cap = STRS Custom Russell 1000

Domestic Small Cap = STRS Custom Russell 2000

Growth = STRS Custom Russell 3000 Growth Index

Value = STRS Custom Russell 3000 Value Index

Pacific = STRS Custom MSCI Pacific

Europe = STRS Custom MSCI Europe

Emerging = STRS Custom Emerging

Private Real Estate = STRS Real Estate Index

Public Real Estate = STRS Real Estate Index

Credit = STRS Custom Credit

Government = STRS Custom Government

Mortgage = STRS Custom MBS

High Yield = STRS Custom HYCP

*Custom is ex Tobacco, Firearms, and conflict countries

Rates of Return Annualized Periods Ending December 31, 2023



Barclays Capital U.S. Aggregate Bond Index – The Barclays Capital Index covers the U.S. investment grade fixed rate bond market, including government and corporate securities, agency mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis. To qualify for inclusion in the Aggregate Index, a bond or security must meet certain criteria: 1) It must have at least one year to final maturity regardless of call features. Asset-backed securities must have a remaining average life of at least one year while mortgages must have a weighted average maturity (WAM) of at least one year. There is no limit on final maturity; bonds with 50- and 100-year maturities may be included in the Aggregate Index. 2) It must have at least \$150 million par amount outstanding. The amount outstanding may differ from the original issue size due to various factors, including reopenings, sinking schedules, partial calls, and prepayments. 3) It must be rated investment grade (Baa3 or better) by Moody's Investor Services (unless it is a U.S. government or agency security, which are generally not formally rated). If a Moody's rating is unavailable, then Standard & Poor's Corporation rating is used. This implies that the index may include bonds that are split-rated. A bond rated Baa3 by Moody's and BB+ by S&P would be included, however, if Moody's assigns a rating below investment grade the bond will be excluded even if the S&P or Fitch rating is BBB- or better. 4) It must be fixed rate, although it can carry a coupon that steps up or changes according to a predetermined schedule. Adjustable or floating rate securities with periodic coupon changes based on changes in market rates that are excluded. Stripped securities created from coupon securities are excluded, while the underlying coupon security is included. Zero coupon bonds may be included. Medium- term notes are included only if they were underwritten issues and meet other e

Russell 1000 Growth Index – Measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

Russell 1000 Index – Measures the performance of the 1,000 largest companies in the Russell 3000 Index, which represents approximately 92% of the total market capitalization of the Russell 3000 Index.

Russell 1000 Value Index – Measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

Russell 2000 Growth Index – Measures the performance of those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values.

Russell 2000 Index - Measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index.

Russell 2000 Value Index – Measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

Russell 2500 Growth Index – Measures the performance of those Russell 2500 companies with higher price-to-book ratios and higher forecasted growth values.

Russell 2500 Index – Measures the performance of the 2,500 smallest companies in the Russell 3000 Index, which represents approximately 17% of the total market capitalization of the Russell 3000 Index.

Russell 2500 Value Index – Measures the performance of those Russell 2500 companies with lower price-to-book ratios and lower forecasted growth values.

Russell 3000 Index – Measures the performance of the 3,000 largest U.S. companies based on total market capitalization, which represents approximately 98% of the investable U.S. equity market.

Russell Midcap Growth Index – Measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth index.

Russell Midcap Index – Measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 25% of the total market capitalization of the Russell 1000 Index.

Rates of Return Annualized Periods Ending December 31, 2023



Russell Midcap Value Index – Measures the performance of those Russell Midcap companies with lower price-to-book ratios and lower forecasted growth values. The stocks are also members of the Russell 1000 Value index.

Morgan Stanley Capital International (MSCI) Europe, Australia, Far East (EAFE) Index – The Morgan Stanley Capital EAFE Index replicates the industry composition of the stock exchanges in the developed international markets from Europe, Australia, and the Far East: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and the United Kingdom; in addition, the index represents a sampling of large, medium, and small capitalization companies from each market, taking into account the stocks' liquidity.

Morgan Stanley Capital International (MSCI) Emerging Markets Free (EMF) Gross Index – Designation as an "emerging market" is determined by a number of factors. MSCI evaluates factors such as gross domestic product per capita; local government regulations; perceived investment risk; foreign ownership limits and capital controls; or the general perception by the investment community when determining an emerging classification of a market. "Free" reflects investable opportunities for global investors by taking into account local market restrictions on share ownership by foreigners. So the MSCI EMF Index is an arithmetic, market value-weighted average of the performance of securities listed on the stock exchanges of the following 26 countries: Argentina, Brazil Free, Chile, China Free, Colombia, Czech Republic, Egypt, Hungry, India, Indonesia, Israel, Jordan, Korea, Malaysia Free, Mexico, Morocco, Pakistan, Peru, Philippines Free, Poland, Russia, South Africa, Taiwan 80%, Thailand Free, Turkey, Venezuela.

This report was prepared for you by State Street Bank and Trust Company (or its affiliates, "State Street") utilizing scenarios, assumptions and reporting formats as mutually agreed between you and State Street and information or data provided by State Street's third party data sources ("Suppliers"). While reasonable efforts have been made to ensure the accuracy of the information contained in this report, there is no guarantee, representation or warranty, express or implied, as to its accuracy or completeness. This information is provided "as is" and State Street and its Suppliers disclaim any and all liability and makes no guarantee, representation, or warranty with respect to your use of or reliance upon this information in making any decisions or taking (or not taking) any actions. Neither State Street nor its Suppliers verify the accuracy or completeness of any data, including data provided by State Street for other purposes, or data provided by you or third parties. You should independently review the report (including, without limitation, the assumptions, market data, securities prices, securities valuations, tests and calculations used in the report is suitable for your purposes.
State Street provides products and services to professional and institutional clients, which are not directed at retail clients. This report is for informational purposes only and it does not constitute investment research or investment, legal or tax advice, and it is not an offer or solicitation to buy or sell any product, service, or securities or any financial instrument, and it does not transfer rights of any kind (except the limited use and redistribution rights described below) or constitute any binding contractual arrangement or commitment of any kind. You may use this report for your internal business purposes and, if such report contains any data provided by Suppliers, including, but not limited to, market or index data, you may not redistribute this report, or an excerpted portion thereof, to any third party, including, without limitation, your investment managers, investment advisers, agents, clients, investors or participants, whether or not they have a relationship with you or have a reasonable interest in the report, without the prior written consent of each such third party data source. You are solely responsible and liable for any and all use of this report.

Copyright © 2024 State Street Corporation, All rights reserved.