



**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**



**PERIOD ENDING: DECEMBER 31, 2022**

Investment Performance Review for

**Western States Office and Professional Employees' International Union Pension Plan**

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A decorative geometric pattern of overlapping triangles in shades of blue and green is overlaid on the left side of the image. A prominent white triangle is positioned to the left of the main title text.

**PERSPECTIVES  
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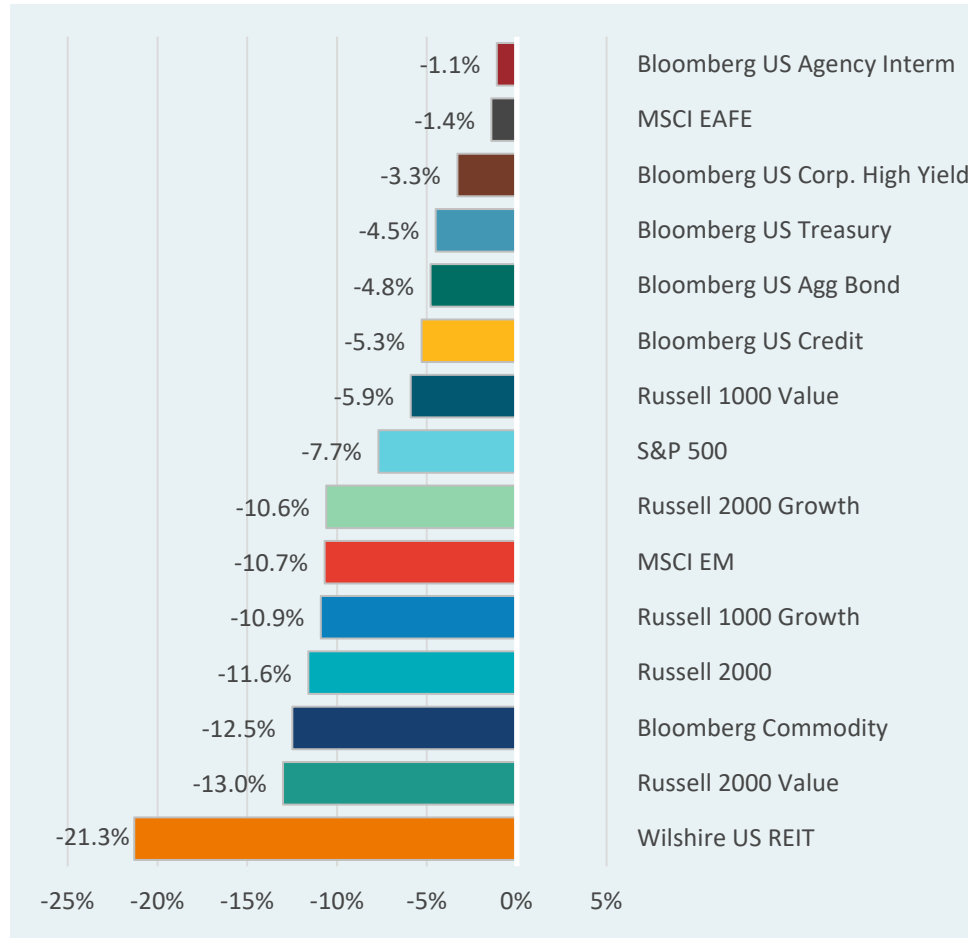
MARCH 2023  
Capital Markets Update

# Market commentary

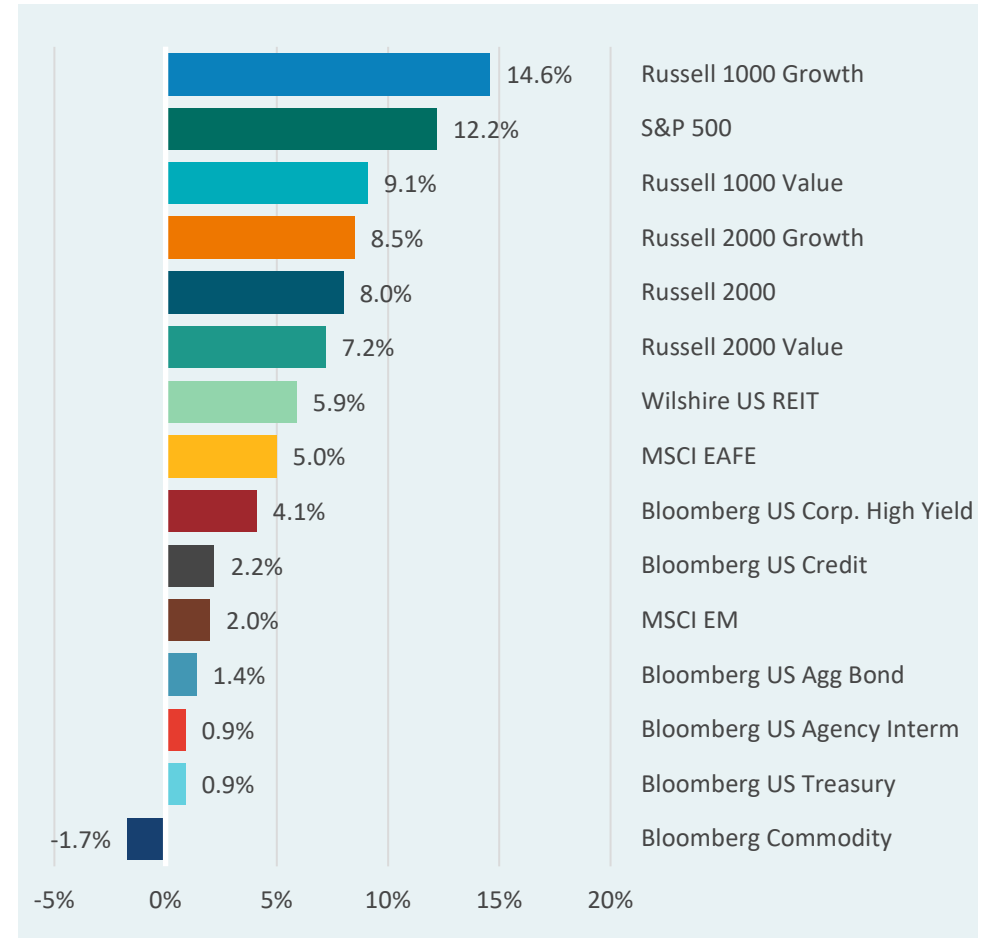


# Major asset class returns

ONE YEAR ENDING MARCH



TEN YEARS ENDING MARCH



# U.S. large cap equities

- The S&P 500 Index rose +3.7% as investors looked beyond stress in the banking system and turned their sights toward a potential Fed pause. Swift government intervention in the wake of the SVB collapse likely helped quell some fears of systemic bank failure.
- Seven of the 11 S&P GICS sectors ended the month higher. Technology stocks (+10.7%) continued to lead index performance, followed by Communication Services (+10.4%) and Utilities (+4.9%). The Financials sector was the largest detractor, falling -9.6%. Real Estate (-1.4%), and Materials (-1.0%) were the next worst performers.
- The Dow Jones Industrial Average (+2.1%) lagged the S&P 500 and NASDAQ for a third consecutive month. Performance has suffered recently due to the Dow's heavier allocation to defensive sectors including Financials and Health Care, and lighter allocation to Technology and Communication Services.
- On March 13<sup>th</sup>, the Cboe VIX Index of implied volatility closed at its highest level (26.5) since October following investors' fearful response to sudden U.S. banking stress. Volatility retreated during the back half of the month and the VIX closed at 18.7, -2 points below February levels.

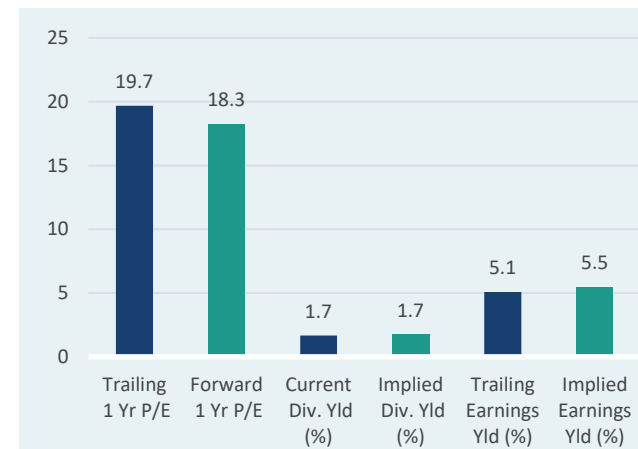
**S&P 500 PRICE INDEX**



**IMPLIED VOLATILITY (VIX INDEX)**



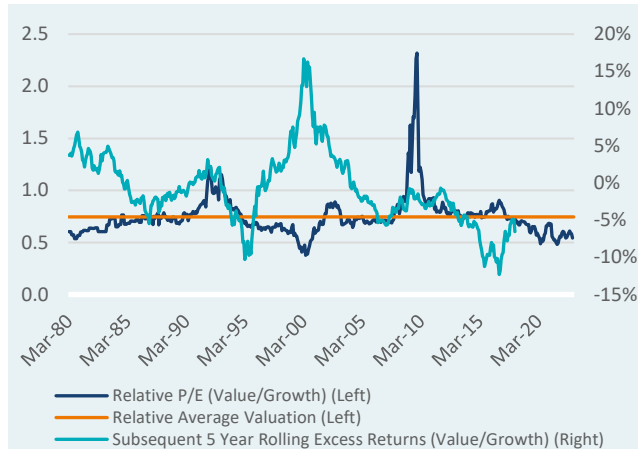
**S&P 500 VALUATION SNAPSHOT**



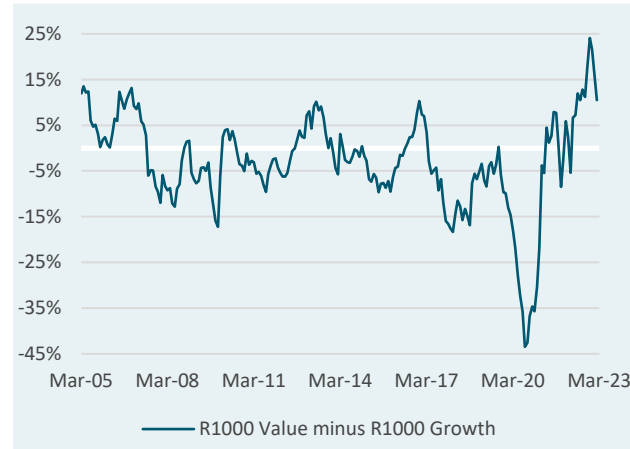
# Domestic equity size and style

- Large-cap growth equities (Russell 1000 Growth +6.8%) continued to dominate the equity landscape. A quick and drastic shift in rate expectations helped support the continued ascent of growth equities while steep declines in the Financials sector pulled value stocks lower (Russell 1000 Value -0.5%).
- Small-cap stocks (-4.8%) suffered a strong sell-off and lagged large-caps (+3.2%), partly driven by heavy exposure to regional banks. The Regional Banks sub-industry represents the largest portion (10.3%) of the Russell 2000 and accounted for roughly one-third of the benchmark's decline.
- The outsized decline in small-caps ended a recent stint of small-cap overperformance and gave way to the largest monthly disparity (+8.0%) between large and small company performance since March 2020.
- The S&P 500 Equal Weighted Index fell -0.9% and now trails the cap-weighted index by -4.6% year-to-date. The recent recovery in growth sectors – which occupy a smaller percentage of the equal-weighted index – along with recent banking turmoil weighed on performance.

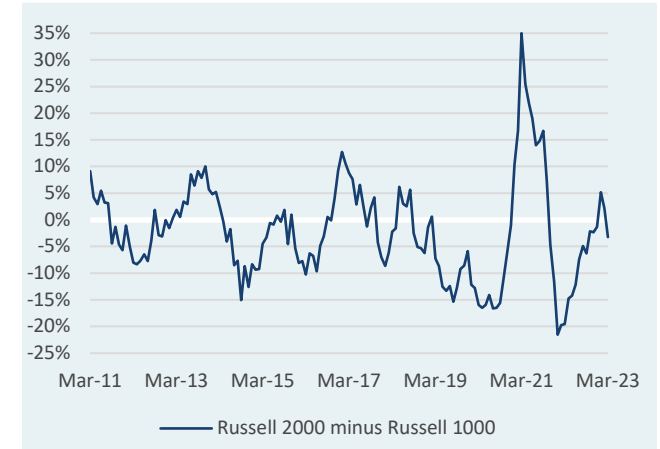
**VALUE VS. GROWTH RELATIVE VALUATIONS**



**VALUE VS. GROWTH 1-YR ROLLING RELATIVE PERFORMANCE**



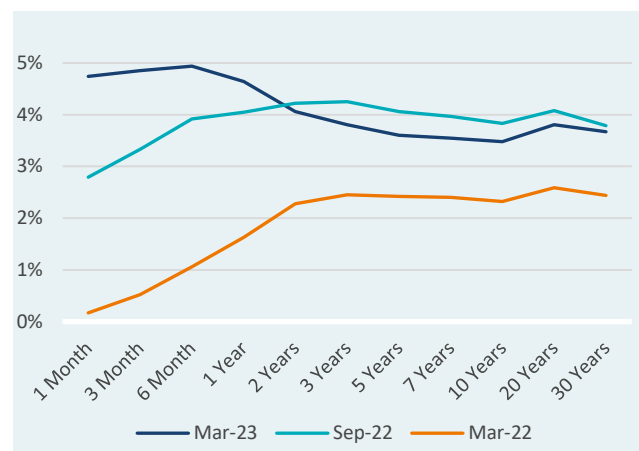
**SMALL VS. LARGE 1-YR ROLLING RELATIVE PERFORMANCE**



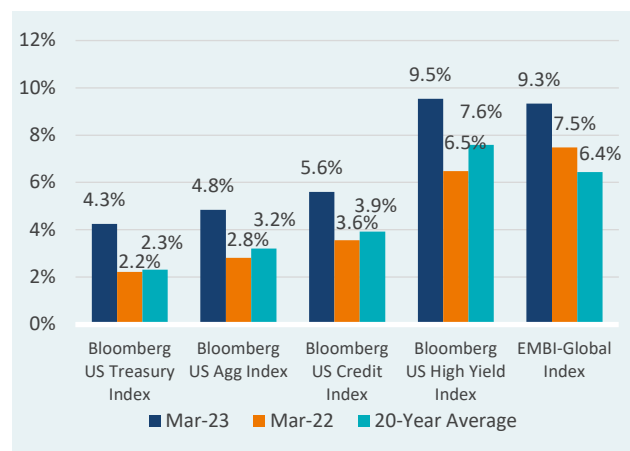
# Fixed income

- In a month marked by volatility, the Bloomberg US Treasury Long Index (4.7%) outperformed the Bloomberg US Treasury (2.9%) and Bloomberg US Treasury 1-3 Year (1.6%) indices as investors moved towards the long end of the yield curve.
- Yields on 2-year Treasuries peaked at 5.05% then quickly fell more than 100 bps between March 8<sup>th</sup> and March 13<sup>th</sup>, marking the largest three-trading-day decline for the tenor since the market crash of 1987. After bottoming at 3.76%, the 2-year rallied in the second half of the month to finish at 4.06%.
- The dollar reversed course and gave up its February gains. The DXY finished -2.3% on the month, now down -1.4% year-to-date and -10.5% from its peak in late September. The dollar has seen losses in five of the last six months.
- Volatility throughout March resulted in widening credit spreads. Riskier segments lagged but still posted positive returns – the Bloomberg US Corporate High Yield Index (+1.1%) was among the worst performers.

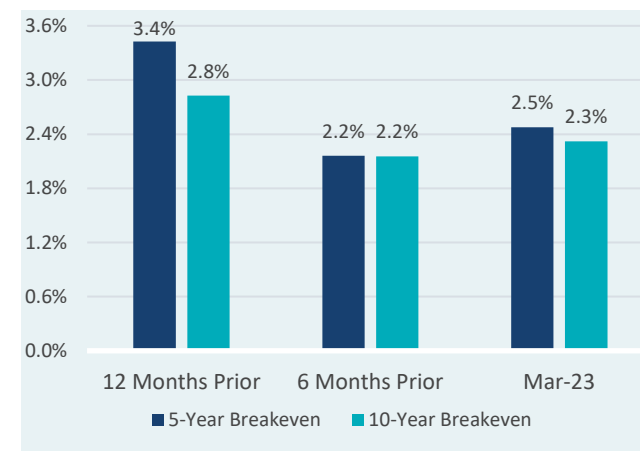
U.S. TREASURY YIELD CURVE



NOMINAL YIELDS



BREAKEVEN INFLATION RATES

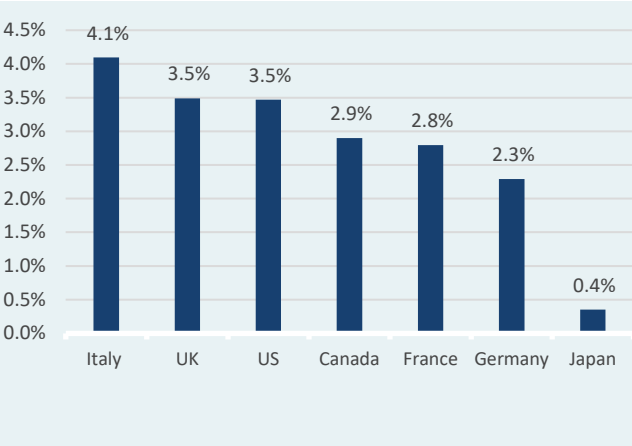




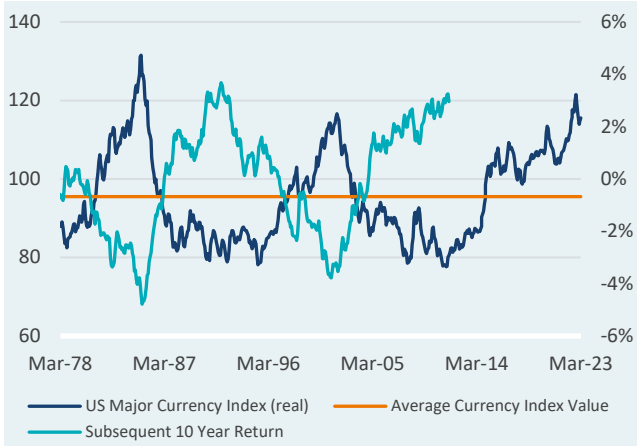
# Global markets

- Global equities (MSCI ACWI Index +3.1%) moved higher alongside falling yields across major markets. Gains were broad, with both developed market equities (+2.5%) and emerging market equities (+3.0%) ending in the green.
- Style trends within international equities have largely mirrored domestic equities to start the year. The MSCI EAFE Growth Index rallied +5.3% while EAFE Value fell -0.3%. This trend likely reflects the rising prospect of a slowdown in rate hikes from major central banks, which would be supportive of growth stock valuations.
- British equities (MSCI UK Index -0.6%) saw the only declines among major equity markets in March. UK-listed equities have faced notably worsening sentiment among English pension funds which transferred liabilities to insurance companies in record volumes in the first quarter of 2023.
- Locally-denominated emerging market debt (JPM GBI-EM Global Diversified +4.1%) jumped as abrupt signals of a closer-than-anticipated pause in U.S. rate hikes helped support global currencies. The index is up +5.2% year-to-date, ahead of all major fixed income indices.

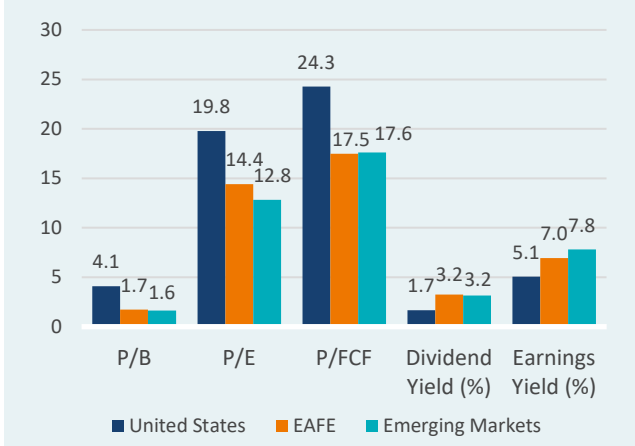
**GLOBAL SOVEREIGN 10-YEAR YIELDS**



**U.S. DOLLAR MAJOR CURRENCY INDEX**



**MSCI VALUATION METRICS (3-MONTH AVG)**



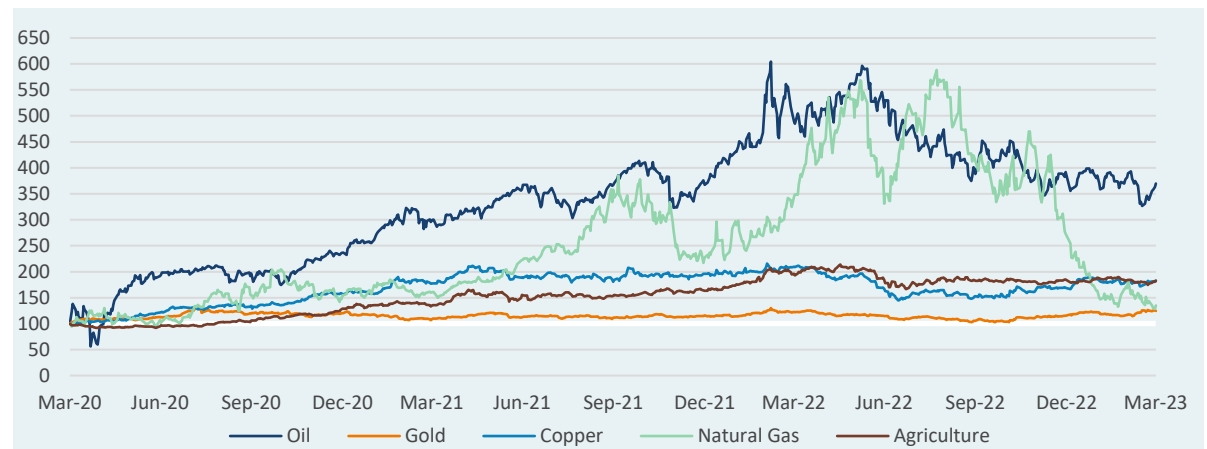
# Commodities

- A continued decline in energy prices drove the Bloomberg Commodity Index (-0.2%) lower for a fourth consecutive month. Noteworthy gains in precious metals (+9.2%) prices helped buoy index performance as market volatility and falling interest rates increased investor appetite for gold and silver.
- Within Softs (+0.2%), sugar (+10.9%) was the only positive performer as coffee (-8.5%) and cotton (-1.5%) were laggards. India's cut in sugar exports was a primary factor in the sharp rise which pushed refined sugar prices to a decade high.

- The Bloomberg Energy Sub-Index fell -6.9% on the month. OPEC+ unexpectedly announced production cuts in excess of 1 million barrels per day at month end. Brent crude erased some of the losses from early in the month to finish at -4.8%. Natural gas continued its fall (-19.3%) and is now down -50.5% year-to-date.
- The Bloomberg Precious Metals sub-index (+9.2%) was the best performer for the month. Prompted by banking stress-induced volatility and a weaker dollar, demand for gold (+8.1%) and silver (+14.6%) as safe-haven assets pushed composite prices higher.

## INDEX AND SECTOR PERFORMANCE

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg Commodity	(0.2)	(5.4)	(5.4)	(12.5)	20.8	5.4	(1.7)
Bloomberg Agriculture	1.0	0.0	0.0	(3.6)	23.7	8.4	(0.5)
Bloomberg Energy	(6.9)	(18.7)	(18.7)	(25.1)	25.4	(1.5)	(9.2)
Bloomberg Grains	3.3	(2.4)	(2.4)	(7.8)	21.5	7.7	(2.0)
Bloomberg Industrial Metals	(0.3)	(2.1)	(2.1)	(22.1)	21.1	5.9	2.1
Bloomberg Livestock	(2.3)	(4.3)	(4.3)	(2.8)	6.0	(2.6)	(3.0)
Bloomberg Petroleum	(2.5)	(5.9)	(5.9)	(4.8)	49.4	6.6	(4.3)
Bloomberg Precious Metals	9.2	6.3	6.3	(0.4)	8.3	7.1	0.3
Bloomberg Softs	0.2	9.3	9.3	(2.3)	23.4	7.1	(1.6)



# Appendix

# Periodic table of returns

BEST  
↑

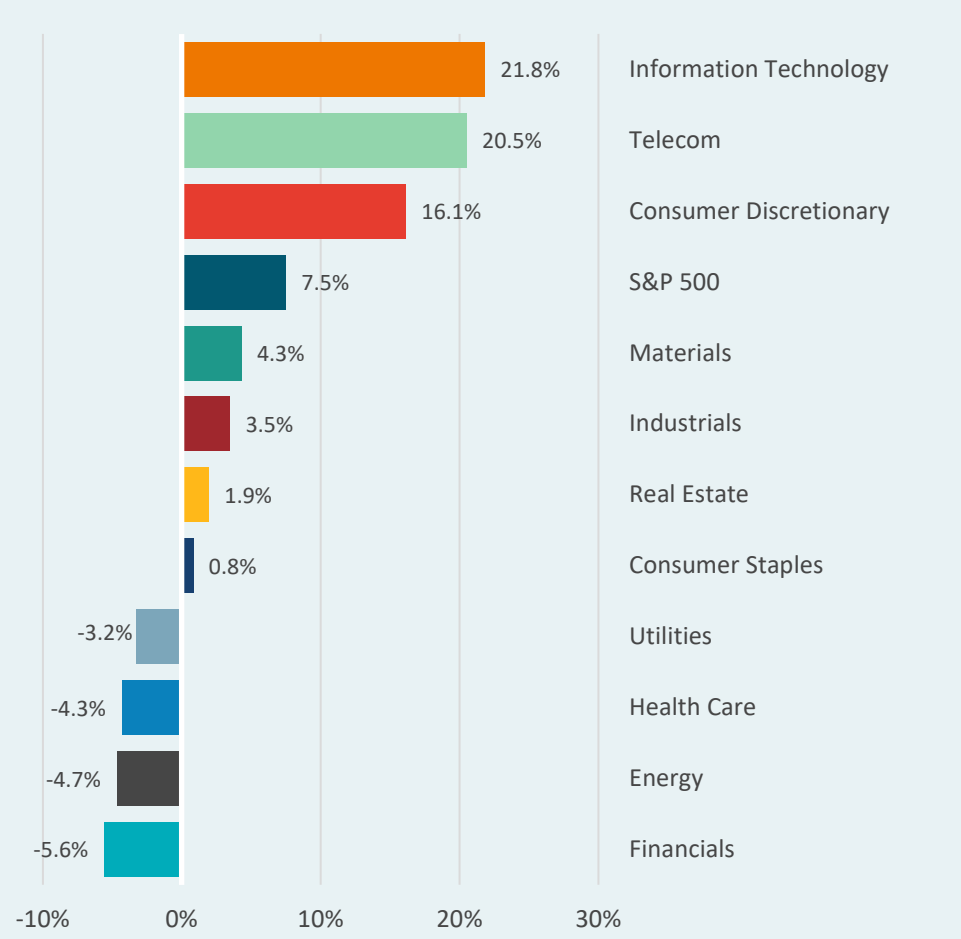
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD	5-Year	10-Year
Large Cap Growth	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	36.4	38.5	28.3	16.1	14.4	13.7	14.6
International Equity	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	31.4	34.6	27.6	9.4	8.5	10.9	12.0
Large Cap Equity	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	0.0	28.5	21.0	27.1	1.5	7.5	7.5	9.1
Small Cap Growth	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	-1.5	26.5	20.0	26.5	-4.7	6.1	7.5	8.8
60/40 Global Portfolio	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	-3.5	25.5	18.3	25.2	-7.5	5.6	5.4	8.5
Emerging Markets Equity	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	-4.8	22.4	14.0	17.7	-13.0	4.0	4.7	8.0
US Bonds	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	-6.0	22.0	10.3	14.8	-14.5	3.0	4.5	7.2
Small Cap Equity	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	-8.3	18.6	7.8	11.3	-14.5	2.7	4.3	5.0
Hedge Funds of Funds	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	-9.3	18.4	7.5	8.9	-17.3	1.6	3.9	5.0
Cash	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	8.7	4.6	6.5	-19.1	1.1	3.5	3.3
Large Cap Value	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	7.0	-11.2	7.8	2.8	2.8	-20.1	1.0	3.3	2.0
Real Estate	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-12.9	7.7	0.5	0.0	-20.4	0.0	1.3	1.4
Small Cap Value	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-13.8	6.4	0.5	-1.5	-26.4	-0.7	0.9	0.8
Commodities	1.0	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-14.6	2.1	-3.1	-2.5	-29.1	-5.4	-0.9	-1.7



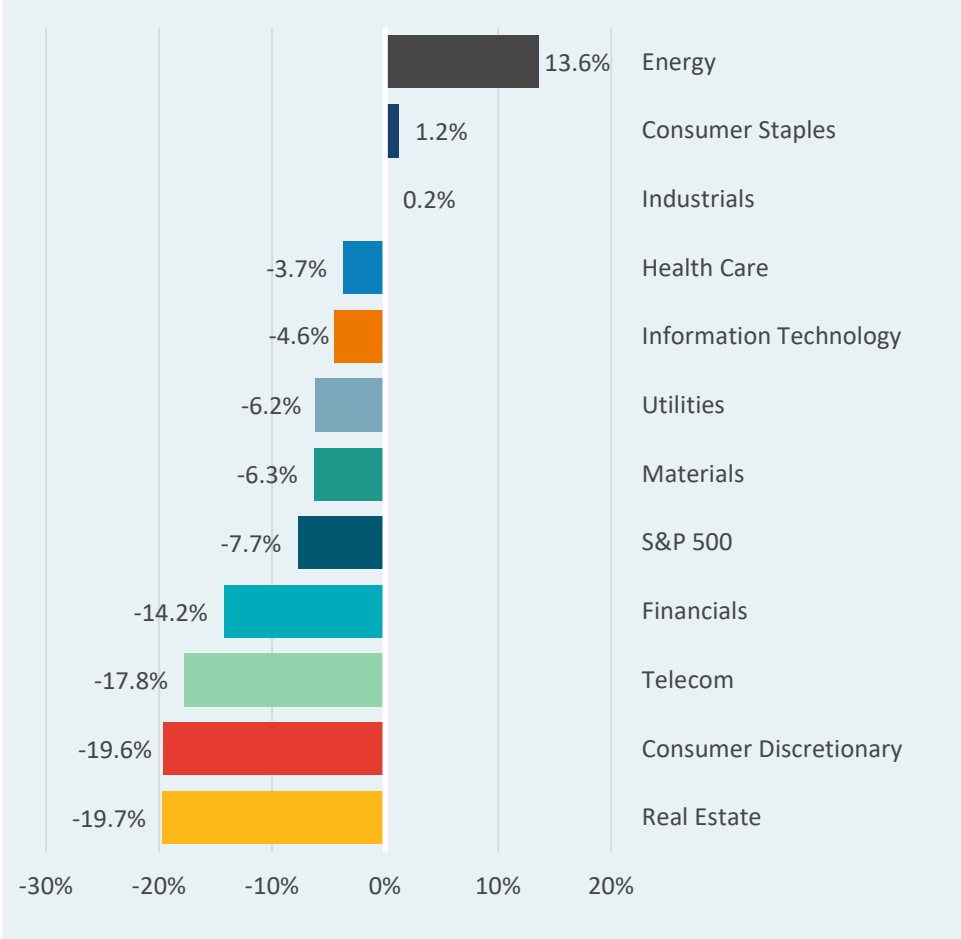


# S&P 500 sector returns

QTD



ONE YEAR ENDING MARCH



# Detailed index returns

## DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Core Index</b>							
S&P 500	3.7	7.5	7.5	(7.7)	18.6	11.2	12.2
S&P 500 Equal Weighted	(0.9)	2.9	2.9	(6.3)	22.1	10.0	11.4
DJ Industrial Average	2.1	0.9	0.9	(2.0)	17.3	9.0	11.1
Russell Top 200	4.9	8.7	8.7	(8.3)	18.4	11.9	12.8
Russell 1000	3.2	7.5	7.5	(8.4)	18.6	10.9	12.0
Russell 2000	(4.8)	2.7	2.7	(11.6)	17.5	4.7	8.0
Russell 3000	2.7	7.2	7.2	(8.6)	18.5	10.5	11.7
Russell Mid Cap	(1.5)	4.1	4.1	(8.8)	19.2	8.1	10.1
<b>Style Index</b>							
Russell 1000 Growth	6.8	14.4	14.4	(10.9)	18.6	13.7	14.6
Russell 1000 Value	(0.5)	1.0	1.0	(5.9)	17.9	7.5	9.1
Russell 2000 Growth	(2.5)	6.1	6.1	(10.6)	13.4	4.3	8.5
Russell 2000 Value	(7.2)	(0.7)	(0.7)	(13.0)	21.0	4.5	7.2

## INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Broad Index</b>							
MSCI ACWI	3.1	7.3	7.3	(7.4)	15.4	6.9	8.1
MSCI ACWI ex US	2.4	6.9	6.9	(5.1)	11.8	2.5	4.2
MSCI EAFE	2.5	8.5	8.5	(1.4)	13.0	3.5	5.0
MSCI EM	3.0	4.0	4.0	(10.7)	7.8	(0.9)	2.0
MSCI EAFE Small Cap	(0.2)	4.9	4.9	(9.8)	12.1	0.9	5.9
<b>Style Index</b>							
MSCI EAFE Growth	5.3	11.1	11.1	(2.8)	10.9	4.9	6.0
MSCI EAFE Value	(0.3)	5.9	5.9	(0.3)	14.6	1.7	3.7
<b>Regional Index</b>							
MSCI UK	(0.6)	6.1	6.1	(0.8)	14.6	3.0	3.4
MSCI Japan	4.0	6.2	6.2	(5.2)	7.4	1.3	5.0
MSCI Euro	4.1	15.6	15.6	7.7	17.1	3.9	6.0
MSCI EM Asia	3.6	4.8	4.8	(9.4)	7.1	0.1	4.2
MSCI EM Latin American	0.8	3.9	3.9	(11.1)	18.1	(1.8)	(1.9)

## FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Broad Index</b>							
Bloomberg US TIPS	2.9	3.3	3.3	(6.1)	1.8	2.9	1.5
Bloomberg US Treasury Bills	0.4	1.1	1.1	2.5	0.8	1.4	0.9
Bloomberg US Agg Bond	2.5	3.0	3.0	(4.8)	(2.8)	0.9	1.4
Bloomberg US Universal	2.3	2.9	2.9	(4.6)	(2.0)	1.0	1.6
<b>Duration</b>							
Bloomberg US Treasury 1-3 Yr	1.6	1.6	1.6	0.2	(0.8)	1.1	0.8
Bloomberg US Treasury Long	4.7	6.2	6.2	(16.0)	(11.3)	(0.4)	1.5
Bloomberg US Treasury	2.9	3.0	3.0	(4.5)	(4.2)	0.7	0.9
<b>Issuer</b>							
Bloomberg US MBS	1.9	2.5	2.5	(4.9)	(3.3)	0.2	1.0
Bloomberg US Corp. High Yield	1.1	3.6	3.6	(3.3)	5.9	3.2	4.1
Bloomberg US Agency Interm	1.8	1.9	1.9	(1.1)	(1.6)	0.9	0.9
Bloomberg US Credit	2.7	3.5	3.5	(5.3)	(0.7)	1.5	2.2

## OTHER

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Index</b>							
Bloomberg Commodity	(0.2)	(5.4)	(5.4)	(12.5)	20.8	5.4	(1.7)
Wilshire US REIT	(2.6)	3.2	3.2	(21.3)	11.0	5.7	5.9
CS Leveraged Loans	(0.1)	3.1	3.1	2.1	8.4	3.5	3.9
S&P Global Infrastructure	2.4	3.9	3.9	(3.5)	15.6	5.9	6.4
Alerian MLP	(0.7)	3.4	3.4	13.9	46.3	6.9	0.6
<b>Regional Index</b>							
JPM EMBI Global Div	1.0	1.9	1.9	(6.9)	(0.0)	(0.6)	2.0
JPM GBI-EM Global Div	4.1	5.2	5.2	(0.7)	0.9	(2.4)	(1.5)
<b>Hedge Funds</b>							
HFRI Composite	(0.8)	1.2	1.2	(2.1)	10.5	4.7	4.4
HFRI FOF Composite	0.1	1.6	1.6	(1.1)	7.5	3.3	3.3
<b>Currency (Spot)</b>							
Euro	2.5	1.8	1.8	(2.4)	(0.3)	(2.5)	(1.7)
Pound Sterling	2.1	2.8	2.8	(6.1)	(0.1)	(2.5)	(2.0)
Yen	2.4	(0.9)	(0.9)	(8.8)	(6.7)	(4.4)	(3.4)

# Detailed private market returns

Private Equity Pooled IRRs	1 Year	3 Year	5 Year	10 Year
Global Private Equity FoFs & Secondary Funds	(1.6)	21.3	17.3	14.0
Global Private Equity Direct Funds *	(5.0)	21.1	18.3	16.2
U.S. Private Equity Direct Funds *	(2.3)	24.2	20.9	17.9
Europe Private Equity Direct Funds *	(11.4)	17.3	15.2	14.1
Asia Private Equity Direct Funds *	(9.5)	11.9	11.2	12.9

## Public Index Time-weighted Returns

MSCI World	(19.6)	4.6	5.3	8.1
S&P 500	(15.5)	8.2	9.2	11.7
MSCI Europe	(24.8)	(1.7)	(1.2)	3.4
MSCI AC Asia Pacific	(27.7)	(1.7)	(0.6)	3.7

## Private Real Estate Pooled IRRs

U.S. All Private Real Estate	15.7	13.5	11.9	13.3
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## Public Index Time-weighted Returns

FTSE NAREIT Equity REIT	(16.4)	(2.0)	2.9	6.3
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Private Credit Pooled IRRs	1 Year	3 Year	5 Year	10 Year
U.S. All Private Debt **	9.9	15.3	12.4	11.6

## Public Index Time-weighted Returns

S&P / LSTA U.S. Leveraged Loan 100 Index	(3.9)	1.4	2.5	3.0
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## Private Real Assets Pooled IRRs

Global Nature Resources ***	25.2	8.7	5.1	3.6
Global Infrastructure	9.4	10.8	10.3	10.7

## Public Index Time-weighted Returns

S&P Global Natural Resources	1.0	9.1	5.7	3.4
S&P Global Infrastructure	(6.0)	(0.1)	2.1	5.7

# Notices & disclosures

**Past performance is no guarantee of future results.** This document is provided for informational purposes only and is directed to institutional clients and eligible institutional counterparties only and is not intended for retail investors. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security or pursue a particular investment vehicle or any trading strategy. This document may include or imply estimates, outlooks, projections and other “forward-looking statements.” No assurance can be given that future results described or implied by any forward looking information will be achieved. Investing entails risks, including possible loss of principal. Additional information about Verus Advisory, Inc. is available on the SEC’s website at [www.adviserinfo.sec.gov](http://www.adviserinfo.sec.gov).

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# Western States Office & Professional Employees Pension Fund

Investment Performance Review  
Period Ending: December 31, 2022



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# 4<sup>th</sup> quarter summary

## THE ECONOMIC CLIMATE

- Real GDP increased at a 2.9% rate in the fourth quarter (1.0% year-over-year growth), slightly exceeding expectations. Consumer spending, private inventory investment, government expenditures, and nonresidential investment were supportive of growth.
- Unemployment remained near historic lows during the quarter, at 3.5% in December. While this figure suggests a strong and resilient job market, the workforce remains much smaller than pre-pandemic times as more than two million workers remain out of the labor force.

## PORTFOLIO IMPACTS

- Inflation fears continue to ease as domestic inflation fell further. Headline inflation was 6.5% year-over-year in December—the lowest since October 2021—while core inflation came in at 5.7%. Prices for most goods and services have moderated with the exception of shelter costs, which increased at a worryingly fast pace of 10.0% annualized in December.
- U.S. real personal spending held steady at 2.0% year-over-year in August. Households focused spending on services over goods, which has removed some stress from supply chains and likely helped to normalize global transportation issues. Relatively strong spending seems to suggest it is possible that inflation moderates without a painful slowdown in the economy.

## THE INVESTMENT CLIMATE

- China’s rapid pivot away from a “Zero Covid” policy towards the end of Q4 added a large tailwind to emerging market equity performance and the global growth outlook. Despite this positive news, an uptick in virus cases poses challenges for China’s reopening.
- Credit performed well in the fourth quarter, as resilient U.S. economic growth combined with expectations for the Fed to ease their tightening cycle helped mitigate investor concerns of a near-term cyclical downturn.

## ASSET ALLOCATION ISSUES

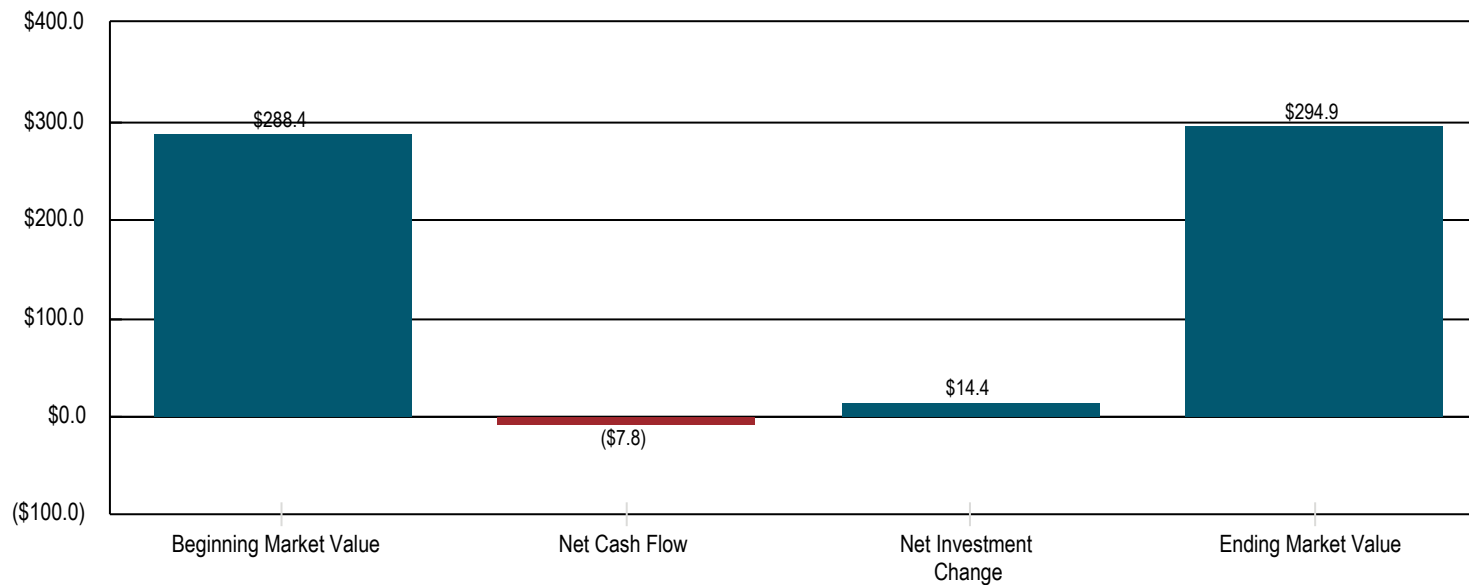
- Calendar year 2022 proved to be a year of *reversal* regarding asset class performance. Top performing investments of the past decade, such as U.S. growth and small cap stocks, suffered some of the largest losses. Meanwhile, many of the worst performing investments of the past decade, including commodities and value stocks, significantly outperformed.
- Value stocks outperformed markedly during 2022, outpacing growth stocks by 10.2% in Q4 and 21.6% for the year. Energy, industrials, and materials—sectors heavily tilted toward value—showed strong returns, with energy ending the year up 64.6%.

Markets have partially recovered as inflation fears eased

Recession risks and an earnings slowdown may come into focus in 2023

Portfolio Reconciliation

	Last Three Months	Year-To-Date
Beginning Market Value	\$288,384,787	\$365,422,662
Net Cash Flow	-\$7,808,973	-\$26,544,432
Net Investment Change	\$14,369,229	-\$43,872,148
<b>Ending Market Value</b>	<b>\$294,945,042</b>	<b>\$294,945,042</b>



Contributions and withdrawals may include intra-account transfers between managers/funds.

Total Fund  
Cash Flow by Manager - Last Three Months

Western States Office & Professional Employees Pension Fund  
Period Ending: December 31, 2022

	Beginning Market Value	Contributions	Distributions	Net Transfers	Net Cash Flows	Net Investment Change	Ending Market Value
BlackRock Equity Index NL	\$25,669,382	\$0	\$0	\$0	\$0	\$1,941,129	\$27,610,511
INTECH US Adaptive Volatility	\$27,812,508	\$0	\$0	-\$3,000,000	-\$3,000,000	\$1,872,201	\$26,684,709
Vanguard Small Cap Index Ins	\$10,228,432	\$0	\$0	\$0	\$0	\$814,635	\$11,043,067
WCM Focused International Growth Fund, L.P.	\$26,474,552	\$0	\$0	\$0	\$0	\$3,300,726	\$29,775,278
Causeway International Value Ins	\$21,635,859	\$0	\$0	\$0	\$0	\$4,919,971	\$26,555,831
Loomis Sayles Core Plus	\$53,795,667	\$0	\$0	-\$2,500,000	-\$2,500,000	\$1,160,974	\$52,456,641
ASB Allegiance Real Estate	\$28,521,482	\$0	\$0	\$0	\$0	-\$1,210,026	\$27,311,456
JPMorgan Special Situation Property	\$19,843,035	\$0	\$0	-\$311,733	-\$311,733	-\$1,347,389	\$18,183,913
IFM Global Infrastructure (US) LP	\$11,997,646	\$0	\$0	\$0	\$0	\$482,416	\$12,480,062
JPMorgan IIF ERISA LP	\$6,776,448	\$0	\$0	-\$172,878	-\$172,878	\$540,528	\$7,144,098
Invesco Balanced-Risk Allocation	\$50,695,424	\$0	\$0	-\$4,000,000	-\$4,000,000	\$1,883,064	\$48,578,488
US Bank Checking Account	\$1,002,671	\$2,284,792	-\$11,107,340	\$9,811,733	\$989,185	\$0	\$1,991,856
US Bank Clearing Account	\$2,666,702	\$9,885,331	-\$8,991,290	\$0	\$894,041	\$0	\$3,560,743
IFM Cash	\$188,698	\$0	\$0	\$0	\$0	\$1,623	\$190,321
JPMorgan IIF Erisa Cash	\$74,027	\$119,535	\$0	\$172,878	\$292,413	\$756	\$367,196
WCM Cash	\$1,002,254	\$0	\$0	\$0	\$0	\$8,619	\$1,010,873
<b>Total Fund</b>	<b>\$288,384,787</b>	<b>\$12,289,658</b>	<b>-\$20,098,630</b>	<b>\$0</b>	<b>-\$7,808,973</b>	<b>\$14,369,229</b>	<b>\$294,945,042</b>

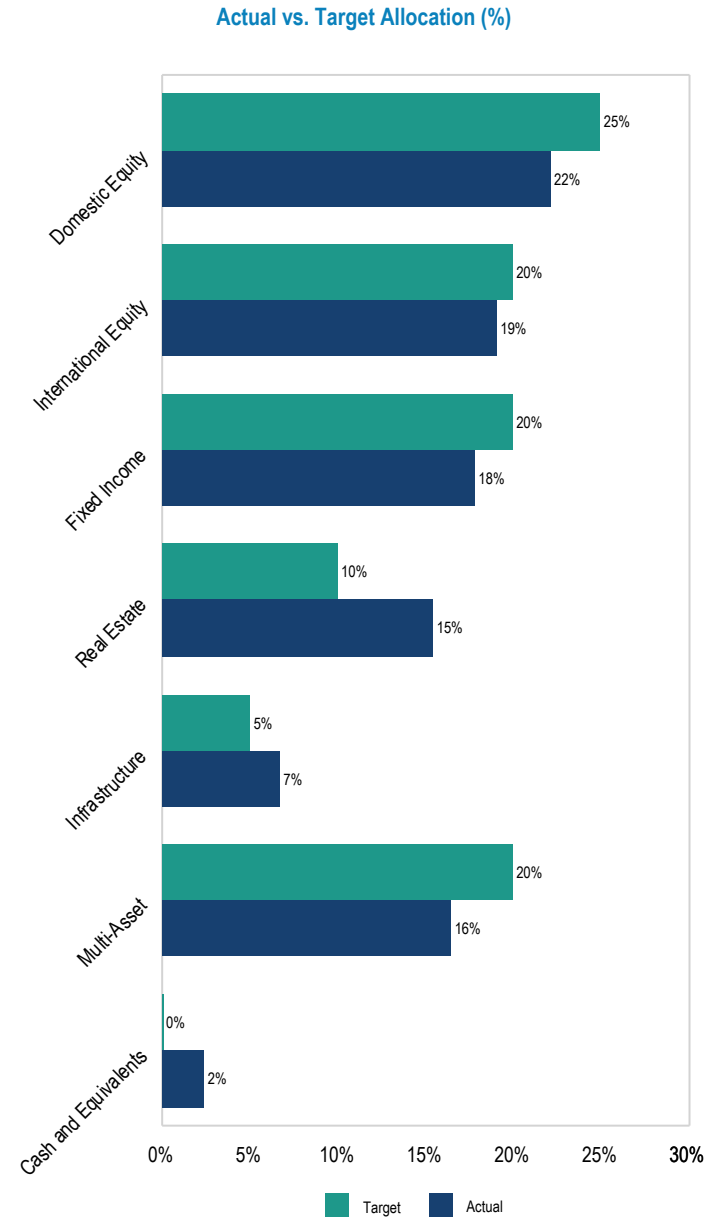
Loomis Sayles Full Discretion liquidated 3/21/2017. Loomis Sayles Core Plus funded 3/21/2017. Parametric liquidated 4/21/2017. Mellon Dynamic liquidated 5/5/2017. Grosvenor Institutional liquidated 4/30/2018. Brandes International Small Cap Equity liquidated 8/31/2019. Invesco Real Estate II liquidated 9/1/2019. Vanguard Small Cap Index Ins replaced PanAgora US Small Cap Core Stock Selector on 4/14/2021.



Total Fund  
Executive Summary (Net of Fees)

Western States Office & Professional Employees Pension Fund  
Period Ending: December 31, 2022

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs
<b>Total Fund</b>	<b>294,945,042</b>	<b>100.0</b>	<b>4.9</b>	<b>-12.4</b>	<b>4.0</b>	<b>5.0</b>	<b>6.4</b>
<i>Total Fund Policy Index</i>			5.8	-14.3	2.9	4.3	6.1
<i>Target Asset Allocation Policy Index</i>			5.2	-13.5	3.9	5.3	7.0
<b>Total Domestic Equity</b>	<b>65,338,288</b>	<b>22.2</b>	<b>7.6</b>	<b>-17.3</b>	<b>5.8</b>	<b>7.3</b>	<b>11.1</b>
<i>Dow Jones U.S. Total Stock Market Index</i>			7.2	-19.5	6.9	8.7	12.0
<b>Total International Equity</b>	<b>56,331,109</b>	<b>19.1</b>	<b>17.1</b>	<b>-20.0</b>	<b>3.7</b>	<b>4.4</b>	<b>5.4</b>
<i>Total Public Int'l Equity Benchmark (MSCI ACWI ex US IMI)</i>			14.1	-16.6	0.2	0.8	4.0
<b>Total Fixed Income</b>	<b>52,456,641</b>	<b>17.8</b>	<b>2.1</b>	<b>-12.7</b>	<b>-1.3</b>	<b>0.9</b>	<b>2.1</b>
<i>Total Fixed Income Benchmark (Bloomberg Aggregate)</i>			1.9	-13.0	-2.7	0.0	1.1
<b>Total Real Estate</b>	<b>45,495,369</b>	<b>15.4</b>	<b>-5.5</b>	<b>4.4</b>	<b>7.6</b>	<b>6.7</b>	<b>8.5</b>
<i>NCREIF ODCE Net</i>			-5.2	6.5	9.0	7.7	9.1
<b>Total Infrastructure</b>	<b>19,624,160</b>	<b>6.7</b>	<b>5.5</b>	<b>6.5</b>	<b>7.8</b>	<b>9.0</b>	<b>7.6</b>
<i>CPI + 5%</i>			1.2	11.8	10.2	9.0	7.7
<b>Total Multi-Asset</b>	<b>48,578,488</b>	<b>16.5</b>	<b>3.4</b>	<b>-13.7</b>	<b>2.0</b>	<b>2.9</b>	<b>4.6</b>
<i>60% MSCI ACWI Net/40% FTSE WGBI</i>			7.4	-18.1	0.3	2.4	4.4
<b>Total Cash</b>	<b>7,120,987</b>	<b>2.4</b>	<b>0.2</b>	<b>0.2</b>	<b>0.1</b>	<b>0.0</b>	<b>-1.2</b>



Policy Index: 45% MSCI World, 25% Bloomberg Aggregate, 10% NCREIF-ODCE net, 20%(60% MSCI ACWI Net/40% CITI WGBI). Target Asset Allocation Policy Index: 25% Dow Jones US Total Stock, 20% MSCI ACWI ex US IMI, 20% Bloomberg Aggregate, 10% NCREIF-ODCE, 5% CPI + 5%, and 20% (60% MSCI ACWI Net/40% CITI WGBI). Data prior to 3Q 2015 is from previous consultant.

Total Fund  
Risk Analysis - 3 & 5 Year (Net of Fees)

Western States Office & Professional Employees Pension Fund  
Period Ending: December 31, 2022

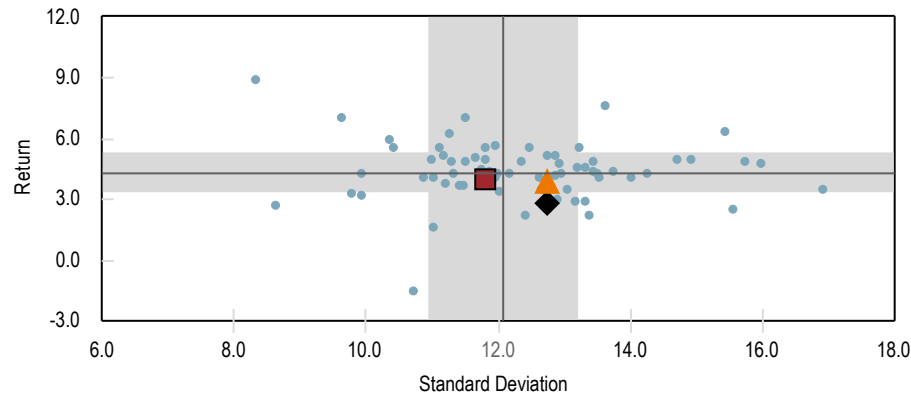
3 Year

	Anlzd Standard Deviation	Ann Excess BM Return	Anlzd Alpha	Beta	R-Squared	Up Mkt Capture Ratio	Down Mkt Capture Ratio	Information Ratio	Tracking Error	Sharpe Ratio
Total Fund	11.8	3.9	1.3	0.9	1.0	96.1	89.1	0.5	1.9	0.3
Total Fund Policy Index	12.7	2.9	0.0	1.0	1.0	100.0	100.0	-	0.0	0.2
Target Asset Allocation Policy Index	12.7	3.9	1.0	1.0	1.0	102.2	96.6	1.4	0.8	0.3

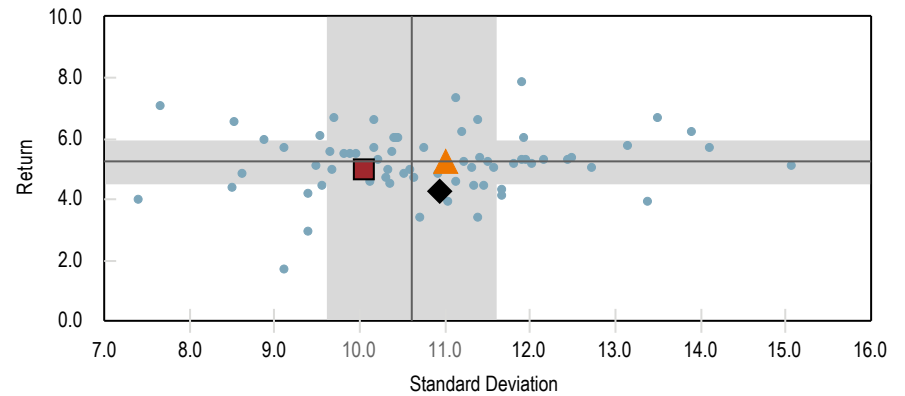
5 Year

	Anlzd Standard Deviation	Ann Excess BM Return	Anlzd Alpha	Beta	R-Squared	Up Mkt Capture Ratio	Down Mkt Capture Ratio	Information Ratio	Tracking Error	Sharpe Ratio
Total Fund	10.0	4.1	1.0	0.9	1.0	93.5	86.5	0.3	1.8	0.4
Total Fund Policy Index	10.9	3.5	0.0	1.0	1.0	100.0	100.0	-	0.0	0.3
Target Asset Allocation Policy Index	11.0	4.5	1.0	1.0	1.0	104.2	98.0	1.3	0.8	0.4

3 Year



5 Year



InvMetrics Taft Hartley DB \$250mm- \$1B Net

	Return	Standard Deviation
Total Fund	4.01	11.82
Total Fund Policy Index	2.85	12.73
Target Asset Allocation Policy Index	3.90	12.73
Median	4.35	12.08
Population	70	70

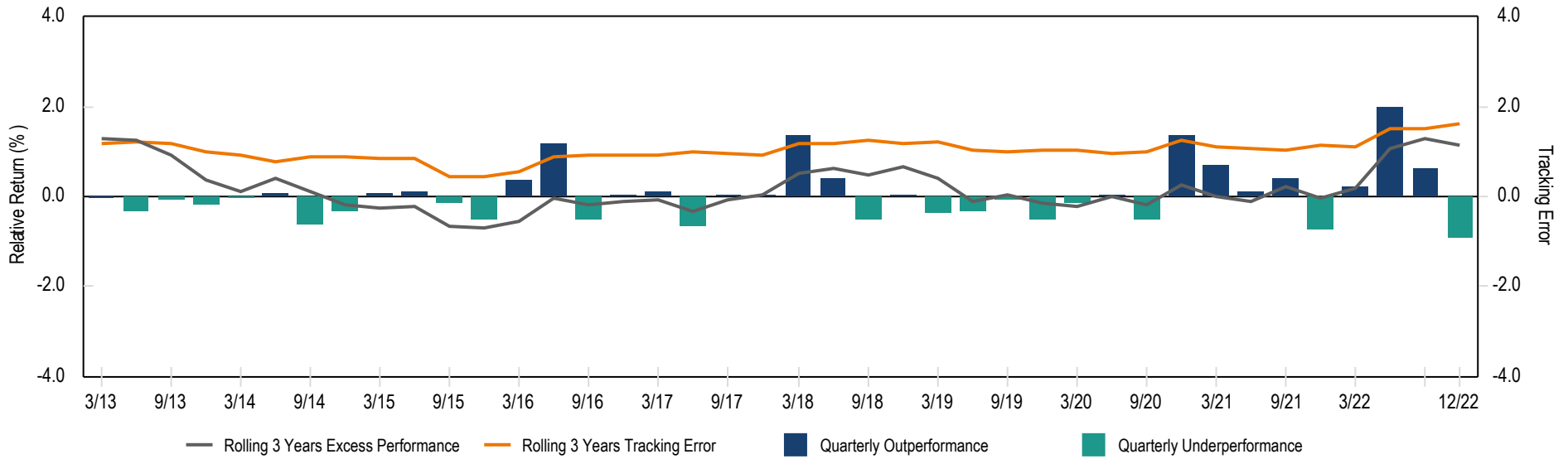
InvMetrics Taft Hartley DB \$250mm- \$1B Net

	Return	Standard Deviation
Total Fund	4.98	10.05
Total Fund Policy Index	4.26	10.93
Target Asset Allocation Policy Index	5.28	11.02
Median	5.24	10.62
Population	70	70

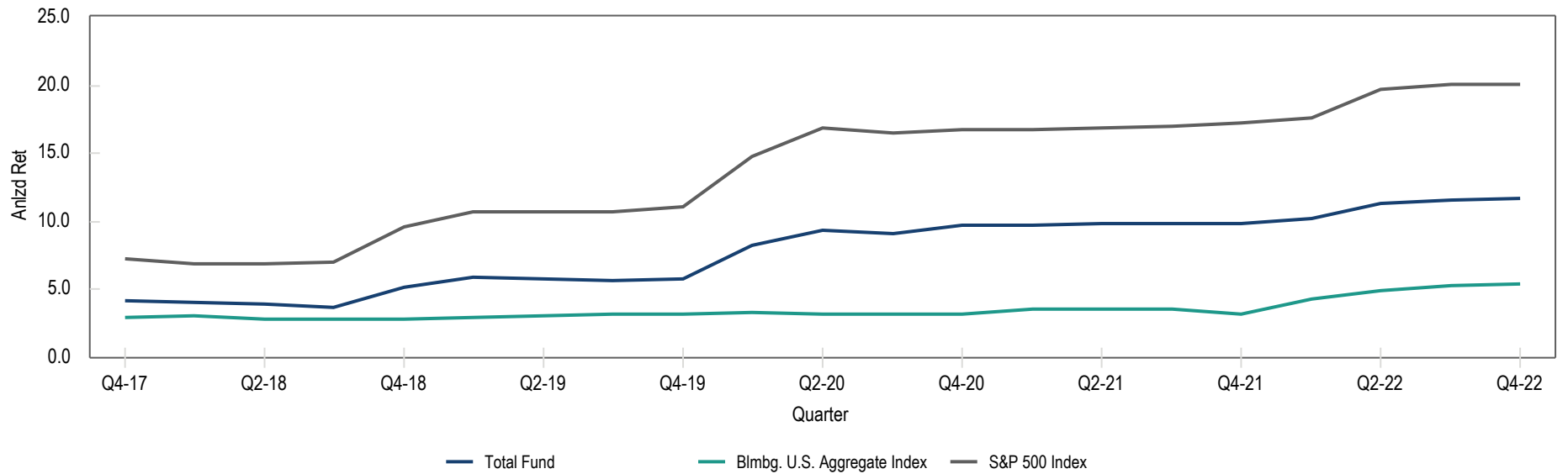
Total Fund  
Rolling Performance Relative to Policy (Net of Fees)

Western States Office & Professional Employees Pension Fund  
Period Ending: December 31, 2022

Rolling Annualized Excess Performance and Tracking Error



Rolling 5 Year Annualized Standard Deviation



Total Fund  
Executive Summary (Net of Fees)

Western States Office & Professional Employees Pension Fund  
Period Ending: December 31, 2022

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2022	2021	2020	2019	2018	Inception	Inception Date
<b>Total Fund</b>	<b>294,945,042</b>	<b>100.0</b>	<b>4.9</b>	<b>-12.4</b>	<b>4.0</b>	<b>5.0</b>	<b>6.4</b>	<b>-12.4</b>	<b>13.4</b>	<b>13.3</b>	<b>17.1</b>	<b>-3.3</b>	<b>7.2</b>	<b>Jan-90</b>
<i>Total Fund Policy Index</i>			5.8	-14.3	2.9	4.3	6.1	-14.3	12.8	12.6	18.6	-4.5	6.4	
<i>Target Asset Allocation Policy Index</i>			5.2	-13.5	3.9	5.3	7.0	-13.5	13.9	13.9	19.1	-3.2	-	
<b>Domestic Equity</b>	<b>65,338,288</b>	<b>22.2</b>												
BlackRock Equity Index NL	27,610,511	9.4	7.6	-18.1	7.6	9.4	12.5	-18.1	28.7	18.4	31.5	-4.4	11.9	May-10
<i>S&amp;P 500 Index</i>			7.6	-18.1	7.7	9.4	12.6	-18.1	28.7	18.4	31.5	-4.4	11.9	
<i>eV US Large Cap Core Equity Rank</i>			67	65	38	35	22	65	30	37	30	39	22	
INTECH US Adaptive Volatility	26,684,709	9.0	7.4	-16.2	4.5	5.8	-	-16.2	19.4	14.0	23.4	-5.8	4.8	Sep-18
<i>Russell 1000</i>			7.2	-19.1	7.3	9.1	12.4	-19.1	26.5	21.0	31.4	-4.8	8.2	
<i>eV US Large Cap Core Equity Rank</i>			71	47	91	94	-	47	92	60	90	57	95	
Vanguard Small Cap Index Ins	11,043,067	3.7	8.0	-17.6	4.9	5.9	10.1	-17.6	17.7	19.1	27.4	-9.3	-9.6	May-21
<i>Vanguard Spliced Small Cap Index</i>			8.0	-17.6	4.9	5.9	10.1	-17.6	17.7	19.1	27.3	-9.3	-9.6	
<i>eV US Small Cap Core Equity Rank</i>			62	58	74	54	49	58	84	35	28	30	71	
<b>International Equity</b>	<b>56,331,109</b>	<b>19.1</b>												
WCM Focused International Growth Fund, L.P.	29,775,278	10.1	12.5	-28.6	3.8	7.0	-	-28.6	17.6	33.1	35.7	-7.4	9.4	Jul-16
<i>MSCI AC World ex USA (Net)</i>			14.3	-16.0	0.1	0.9	3.8	-16.0	7.8	10.7	21.5	-14.2	5.3	
<i>eV ACWI ex-US All Cap Growth Eq Rank</i>			63	57	12	4	-	57	3	37	12	1	12	
Causeway International Value Ins	26,555,831	9.0	22.7	-6.8	2.3	0.9	-	-6.8	9.1	5.4	20.1	-18.6	5.1	Jul-16
<i>MSCI EAFE (Net)</i>			17.3	-14.5	0.9	1.5	4.7	-14.5	11.3	7.8	22.0	-13.8	5.6	
<i>Foreign Large Value Rank</i>			6	28	33	52	-	28	84	23	35	91	49	
<b>Fixed Income</b>	<b>52,456,641</b>	<b>17.8</b>												
Loomis Sayles Core Plus	52,456,641	17.8	2.1	-12.7	-1.3	0.9	-	-12.7	-1.1	11.3	9.4	-0.4	1.4	Apr-17
<i>Bmbg. U.S. Aggregate Index</i>			1.9	-13.0	-2.7	0.0	1.1	-13.0	-1.5	7.5	8.7	0.0	0.5	
<i>eV US Core Plus Fixed Inc Rank</i>			35	22	18	18	-	22	77	10	62	40	18	

Policy Index: 45% MSCI World, 25% Bloomberg Aggregate, 10% NCREIF-ODCE net, 20%(60% MSCI ACWI Net/40% CITI WGBI). Target Asset Allocation Policy Index: 25% Dow Jones US Total Stock, 20% MSCI ACWI ex US IMI, 20% Bloomberg Aggregate, 10% NCREIF-ODCE, 5% CPI + 5%, and 20% (60% MSCI ACWI Net/40% CITI WGBI). August 2018 INTECH moved from managed to adaptive volatility product. Vanguard Small Cap Index Ins replaced PanAgora US Small Cap Core Stock Selector on 4/14/2021. Data prior to 3Q 2015 is from previous consultant.

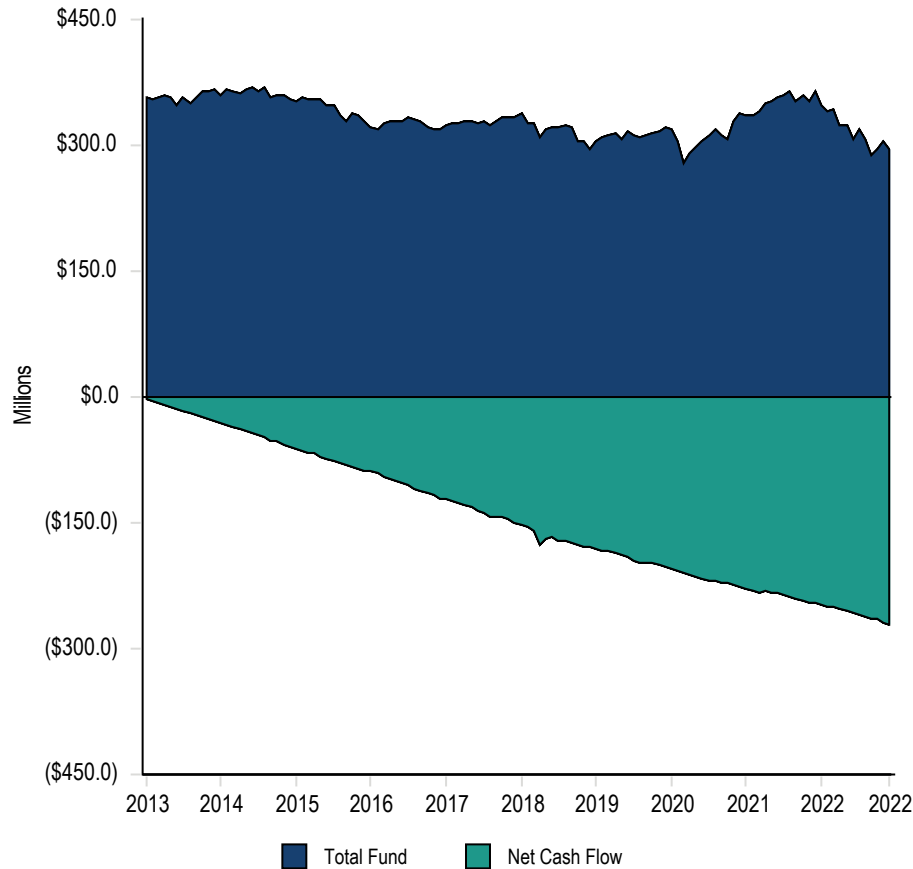
Total Fund  
Executive Summary (Net of Fees)

Western States Office & Professional Employees Pension Fund  
Period Ending: December 31, 2022

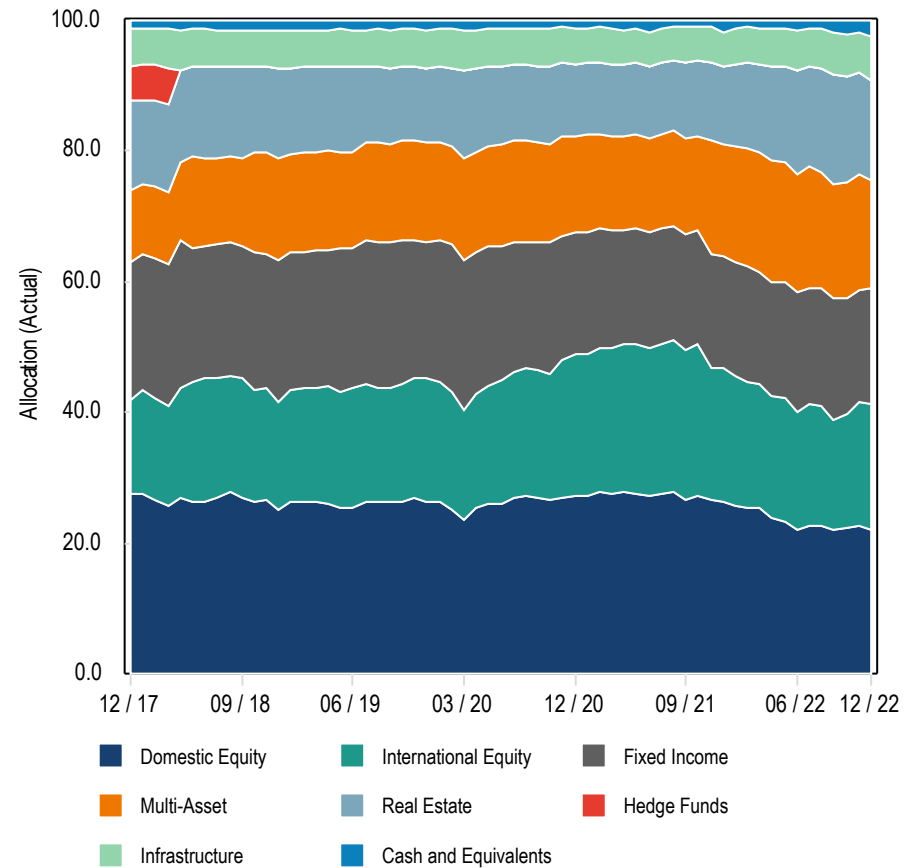
	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2022	2021	2020	2019	2018	Inception	Inception Date
<b>Real Estate</b>	<b>45,495,369</b>	<b>15.4</b>												
ASB Allegiance Real Estate	27,311,456	9.3	-4.2	9.6	8.1	6.7	-	9.6	13.8	1.4	3.1	6.0	7.0	Apr-15
<i>NCREIF ODCE Net</i>			-5.2	6.5	9.0	7.7	9.1	6.5	21.0	0.3	4.4	7.4	8.2	
JPMorgan Special Situation Property	18,183,913	6.2	-7.3	-2.6	6.7	7.0	-	-2.6	22.4	2.0	5.0	9.6	8.7	Jan-15
<i>NCREIF ODCE Net</i>			-5.2	6.5	9.0	7.7	9.1	6.5	21.0	0.3	4.4	7.4	8.4	
<b>Infrastructure</b>	<b>19,624,160</b>	<b>6.7</b>												
IFM Global Infrastructure (US) LP	12,480,062	4.2	4.0	8.2	9.4	11.7	9.8	8.2	17.4	3.1	14.6	15.8	9.8	Feb-09
<i>CPI + 5%</i>			1.2	11.8	10.2	9.0	7.7	11.8	12.4	6.4	7.4	7.0	7.6	
JPMorgan IIF ERISA LP	7,144,098	2.4	8.0	4.0	5.5	5.7	5.2	4.0	4.0	8.4	8.0	4.2	5.6	Oct-10
<i>CPI + 5%</i>			1.2	11.8	10.2	9.0	7.7	11.8	12.4	6.4	7.4	7.0	7.7	
<b>Multi-Asset</b>	<b>48,578,488</b>	<b>16.5</b>												
Invesco Balanced-Risk Allocation	48,578,488	16.5	3.4	-13.7	2.0	2.9	4.2	-13.7	10.9	10.8	15.7	-5.8	6.4	Feb-10
<i>60% MSCI ACWI Net/40% FTSE WGBI</i>			7.4	-18.1	0.3	2.4	4.4	-18.1	7.8	14.5	18.2	-5.8	5.0	
<i>FTSE 3-Month T-bill +6%</i>			2.4	7.6	6.8	7.3	6.8	7.6	6.0	6.6	8.4	8.0	6.6	
<i>eV Global Balanced Rank</i>			87	38	50	47	53	38	51	54	73	31	27	
<b>Cash and Equivalents</b>	<b>7,120,987</b>	<b>2.4</b>												

Policy Index: 45% MSCI World, 25% Bloomberg Aggregate, 10% NCREIF-ODCE net, 20%(60% MSCI ACWI Net/40% CITI WGBI). Target Asset Allocation Policy Index: 25% Dow Jones US Total Stock, 20% MSCI ACWI ex US IMI, 20% Bloomberg Aggregate, 10% NCREIF-ODCE, 5% CPI + 5%, and 20% (60% MSCI ACWI Net/40% CITI WGBI). August 2018 INTECH moved from managed to adaptive volatility product. Vanguard Small Cap Index Ins replaced PanAgora US Small Cap Core Stock Selector on 4/14/2021. Data prior to 3Q 2015 is from previous consultant.

Market Value History

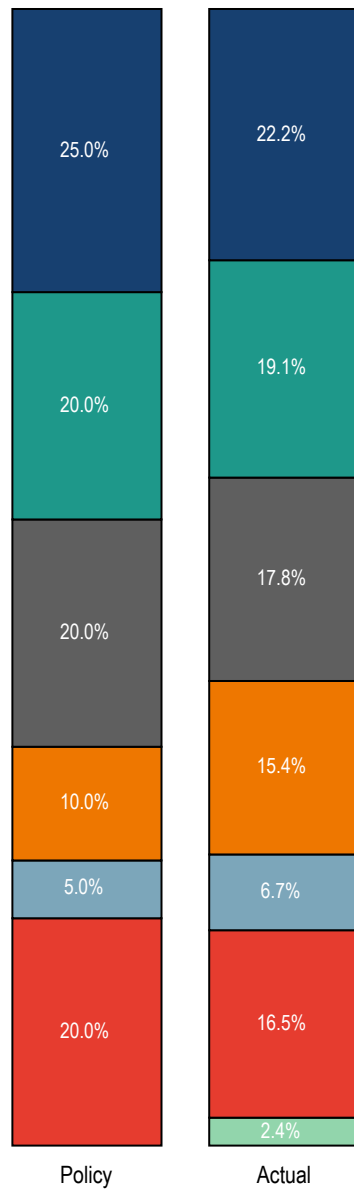


Asset Allocation History

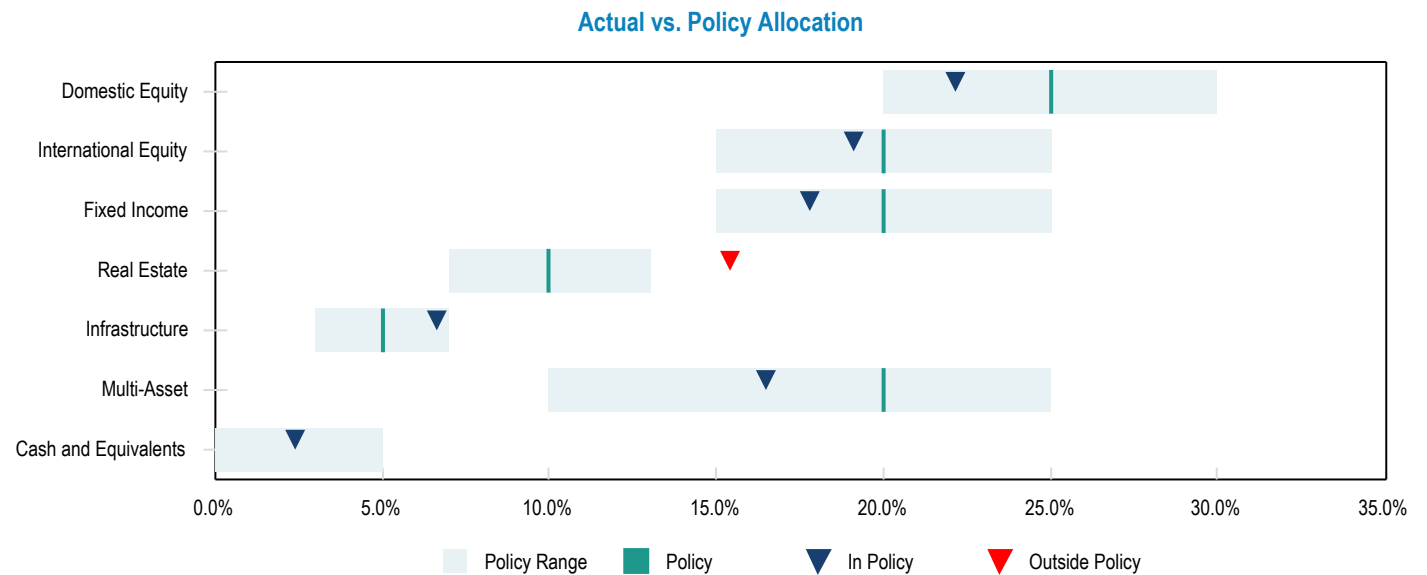


# Total Fund Asset Allocation vs. Policy

## Western States Office & Professional Employees Pension Fund Period Ending: December 31, 2022



	Current Balance (\$)	Current Allocation (%)	Policy Allocation (%)	Excess Allocation (%)	Policy Range (%)	Within IPS Range?
Domestic Equity	65,338,288	22.2	25.0	-2.8	20.0 - 30.0	Yes
International Equity	56,331,109	19.1	20.0	-0.9	15.0 - 25.0	Yes
Fixed Income	52,456,641	17.8	20.0	-2.2	15.0 - 25.0	Yes
Real Estate	45,495,369	15.4	10.0	5.4	7.0 - 13.0	No
Infrastructure	19,624,160	6.7	5.0	1.7	3.0 - 7.0	Yes
Multi-Asset	48,578,488	16.5	20.0	-3.5	10.0 - 25.0	Yes
Cash and Equivalents	7,120,987	2.4	0.0	2.4	0.0 - 5.0	Yes
<b>Total</b>	<b>294,945,042</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>		





Total Fund  
Investment Fund Fee Analysis

Western States Office & Professional Employees Pension Fund  
Period Ending: December 31, 2022

Name	Asset Class	Fee Schedule	Market Value	% of Portfolio	Estimated Fee Value	Estimated Fee (%)
BlackRock Equity Index NL	Domestic Equity	0.03 % of Assets	\$27,610,511	9.4	\$8,283	0.0
INTECH US Adaptive Volatility	Domestic Equity	0.40 % of Assets	\$26,684,709	9.05	\$106,739	0.40
Vanguard Small Cap Index Ins	Domestic Equity	0.04 % of Assets	\$11,043,067	3.7	\$4,417	0.0
WCM Focused International Growth Fund, L.P.	International Equity	0.75 % of Assets	\$29,775,278	10.10	\$223,315	0.75
Causeway International Value Ins	International Equity	0.88 % of Assets	\$26,555,831	9.00	\$233,691	0.88
Loomis Sayles Core Plus	Fixed Income	0.35 % of First \$20 M 0.25 % Thereafter	\$52,456,641	17.79	\$151,142	0.29
ASB Allegiance Real Estate	Real Estate	1.00 % of Assets	\$27,311,456	9.26	\$273,115	1.00
JPMorgan Special Situation Property	Real Estate	1.60 % of Assets	\$18,183,913	6.17	\$290,943	1.60
IFM Global Infrastructure (US) LP	Infrastructure	0.77 % of Assets	\$12,480,062	4.23	\$96,096	0.77
JPMorgan IIF ERISA LP	Infrastructure	1.25 % of First \$50 M 1.15 % of Next \$50 M 1.05 % Thereafter	\$7,144,098	2.42	\$89,301	1.25
Invesco Balanced-Risk Allocation	Multi-Asset	0.38 % of First \$250 M 0.35 % of Next \$500 M 0.33 % of Next \$250 M 0.30 % Thereafter	\$48,578,488	16.47	\$182,169	0.38
<b>Total Fund</b>			<b>\$294,945,042</b>	<b>100.00</b>	<b>\$1,659,211</b>	<b>0.56</b>

Total Fund includes cash amount of \$7,120,987.22

Total Fund  
Watch List (Net of Fees)

Western States Office & Professional Employees Pension Fund  
Period Ending: December 31, 2022

Fund Name	Asset Class	Overall Status	Outperformed Index (3yrs)	Outperformed Median Rank (3yrs)	Outperformed Index (5yrs)	Outperformed Median Rank (5 yrs)	Concern	Index Fund Tracking Error exceeds .25% of Benchmark (1 yr)
BlackRock Equity Index NL	Domestic Equity	■	-	-	-	-	-	✓
INTECH US Adaptive Volatility	Domestic Equity	■	R	R	R	R	-	-
Vanguard Small Cap Index Ins	Domestic Equity	■	-	-	-	-	-	✓
WCM Focused International Growth Fund, L.P.	International Equity	■	✓	✓	✓	✓	-	-
Causeway International Value Ins	International Equity	■	✓	✓	R	R	-	-
Loomis Sayles Core Plus	Fixed Income	■	✓	✓	✓	✓	-	-
ASB Allegiance Real Estate	Real Estate	■	R	-	R	-	-	-
JPMorgan Special Situation Property	Real Estate	■	R	-	R	-	-	-
IFM Global Infrastructure (US) LP	Infrastructure	■	R	-	✓	-	-	-
JPMorgan IIF ERISA LP	Infrastructure	■	R	-	R	-	-	-
Invesco Balanced-Risk Allocation	Multi-Asset	■	✓	✓	✓	✓	-	-

Legend For Overall Status

No Issues	■
Watch	■
Terminate	■

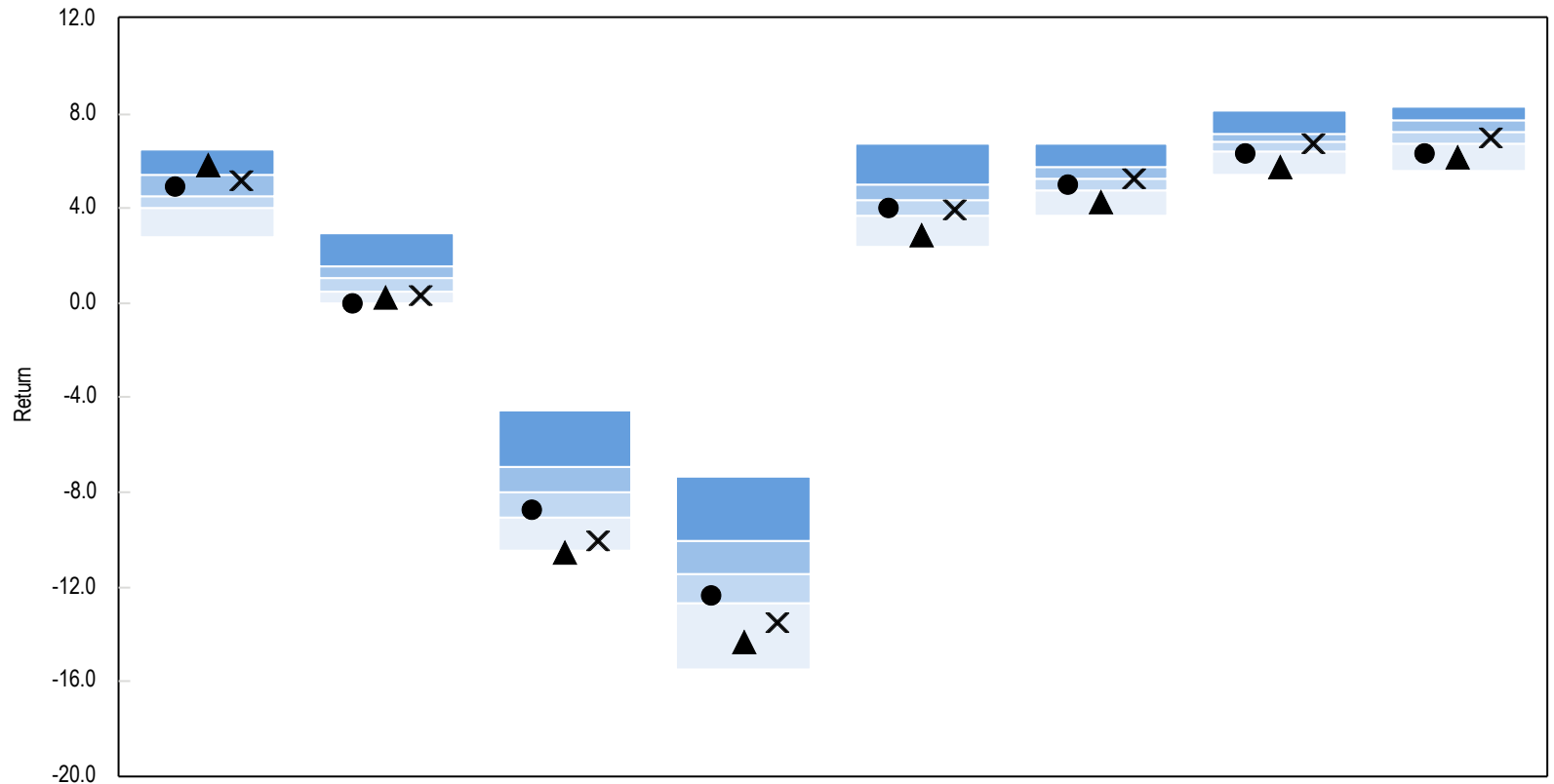
Legend for Standards

Pass	✓
Fail	R

Legend for Concern

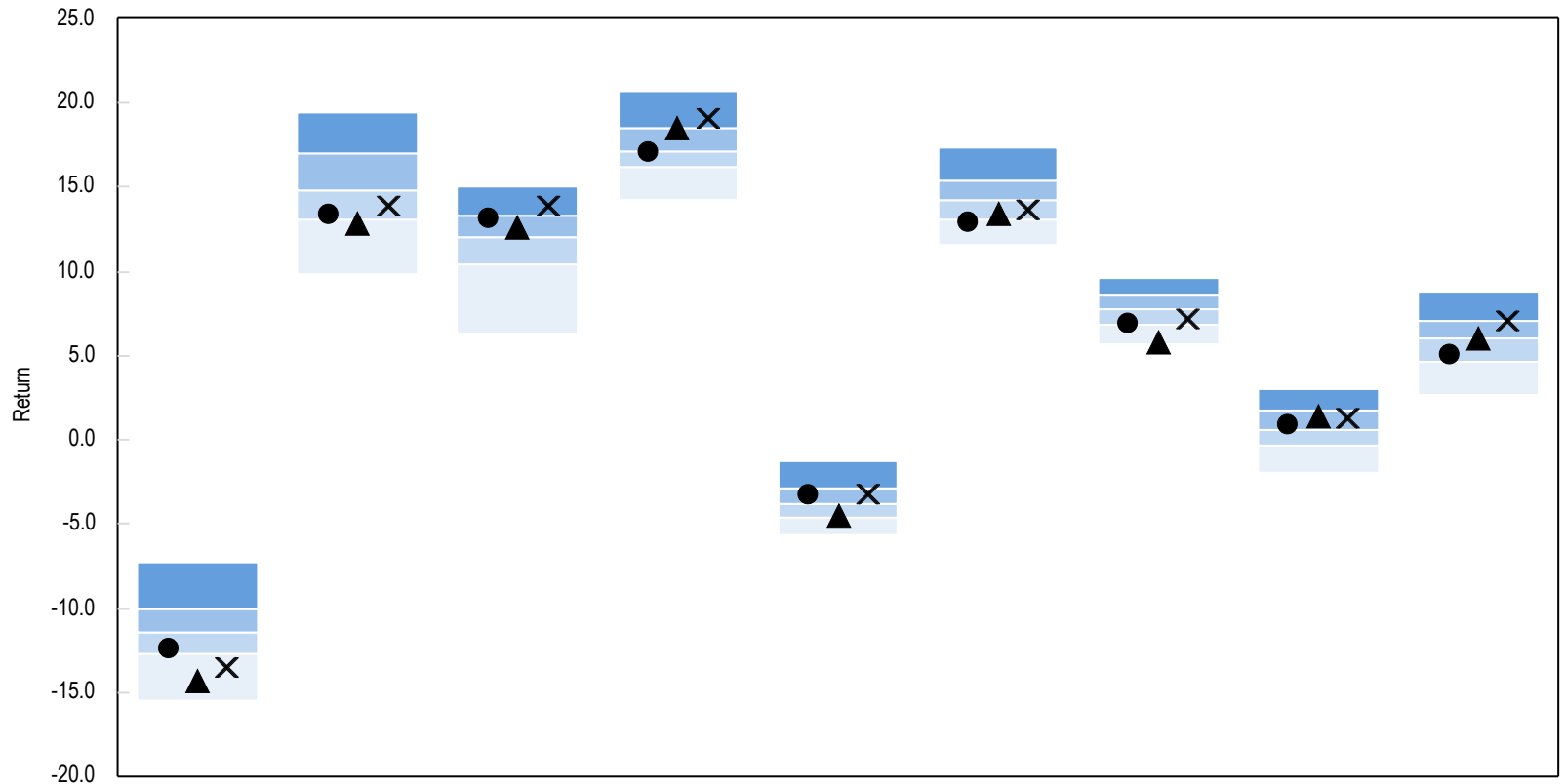
Provisional	P
Restricted	R
No Issues	--

Total Fund vs. InvMetrics Taft Hartley DB \$250mm -\$1B Net



	Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	7 Years	10 Years
● Total Fund	4.90 (38)	0.01 (94)	-8.71 (70)	-12.39 (72)	4.01 (73)	4.98 (67)	6.36 (78)	6.36 (85)
▲ Total Fund Policy Index	5.82 (13)	0.23 (89)	-10.52 (96)	-14.32 (90)	2.85 (91)	4.26 (89)	5.75 (94)	6.14 (91)
× Target Asset Allocation Policy Index	5.21 (30)	0.34 (82)	-10.07 (91)	-13.53 (85)	3.90 (74)	5.28 (48)	6.72 (59)	6.97 (66)
5th Percentile	6.47	2.95	-4.56	-7.30	6.74	6.73	8.12	8.32
1st Quartile	5.38	1.52	-6.95	-10.01	5.01	5.74	7.15	7.70
Median	4.53	1.08	-8.00	-11.48	4.35	5.24	6.85	7.26
3rd Quartile	4.00	0.47	-9.03	-12.71	3.71	4.76	6.38	6.71
95th Percentile	2.82	0.00	-10.43	-15.44	2.36	3.66	5.38	5.59
Population	75	74	72	71	70	70	67	66

Total Fund vs. InvMetrics Taft Hartley DB \$250mm -\$1B Net



	2022	2021	2020	2019	2018	2017	2016	2015	2014
● Total Fund	-12.39 (72)	13.41 (73)	13.25 (27)	17.13 (52)	-3.28 (38)	12.93 (81)	6.93 (70)	0.94 (40)	5.06 (67)
▲ Total Fund Policy Index	-14.32 (90)	12.82 (78)	12.57 (40)	18.58 (25)	-4.52 (66)	13.48 (66)	5.76 (94)	1.41 (30)	6.05 (46)
× Target Asset Allocation Policy Index	-13.53 (85)	13.89 (67)	13.90 (14)	19.13 (18)	-3.20 (37)	13.71 (63)	7.20 (66)	1.32 (32)	7.11 (26)
5th Percentile	-7.30	19.49	15.08	20.75	-1.30	17.38	9.65	3.01	8.82
1st Quartile	-10.01	17.01	13.29	18.52	-2.88	15.41	8.58	1.71	7.12
Median	-11.48	14.84	12.08	17.18	-3.76	14.23	7.72	0.59	6.00
3rd Quartile	-12.71	13.06	10.38	16.23	-4.67	13.03	6.86	-0.30	4.62
95th Percentile	-15.44	9.80	6.30	14.25	-5.68	11.58	5.66	-1.96	2.67
Population	71	116	130	115	99	110	103	106	103

## Total Domestic Equity

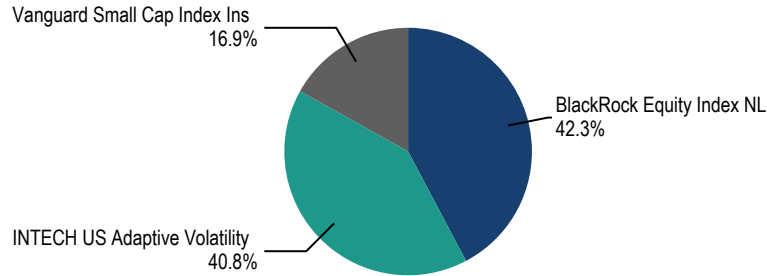
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Total Domestic Equity  
Performance Summary (Net of Fees)

Western States Office & Professional Employees Pension Fund  
Period Ending: December 31, 2022

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2022	2021	2020	2019	2018
<b>Total Domestic Equity</b>	<b>65,338,288</b>	<b>100.0</b>	<b>7.6</b>	<b>-17.3</b>	<b>5.8</b>	<b>7.3</b>	<b>11.1</b>	<b>-17.3</b>	<b>23.6</b>	<b>15.9</b>	<b>27.2</b>	<b>-5.9</b>
<i>Dow Jones U.S. Total Stock Market Index</i>			7.2	-19.5	6.9	8.7	12.0	-19.5	25.7	20.8	30.9	-5.3
<b>Domestic Equity</b>	<b>65,338,288</b>	<b>100.0</b>										
BlackRock Equity Index NL	27,610,511	42.3	7.6	-18.1	7.6	9.4	12.5	-18.1	28.7	18.4	31.5	-4.4
<i>S&amp;P 500 Index</i>			7.6	-18.1	7.7	9.4	12.6	-18.1	28.7	18.4	31.5	-4.4
<i>eV US Large Cap Core Equity Rank</i>			67	65	38	35	22	65	30	37	30	39
INTECH US Adaptive Volatility	26,684,709	40.8	7.4	-16.2	4.5	5.8	-	-16.2	19.4	14.0	23.4	-5.8
<i>Russell 1000</i>			7.2	-19.1	7.3	9.1	12.4	-19.1	26.5	21.0	31.4	-4.8
<i>eV US Large Cap Core Equity Rank</i>			71	47	91	94	-	47	92	60	90	57
Vanguard Small Cap Index Ins	11,043,067	16.9	8.0	-17.6	4.9	5.9	10.1	-17.6	17.7	19.1	27.4	-9.3
<i>Vanguard Spliced Small Cap Index</i>			8.0	-17.6	4.9	5.9	10.1	-17.6	17.7	19.1	27.3	-9.3
<i>eV US Small Cap Core Equity Rank</i>			59	57	80	67	71	57	85	38	35	35

Total Domestic Equity  
Current Allocation

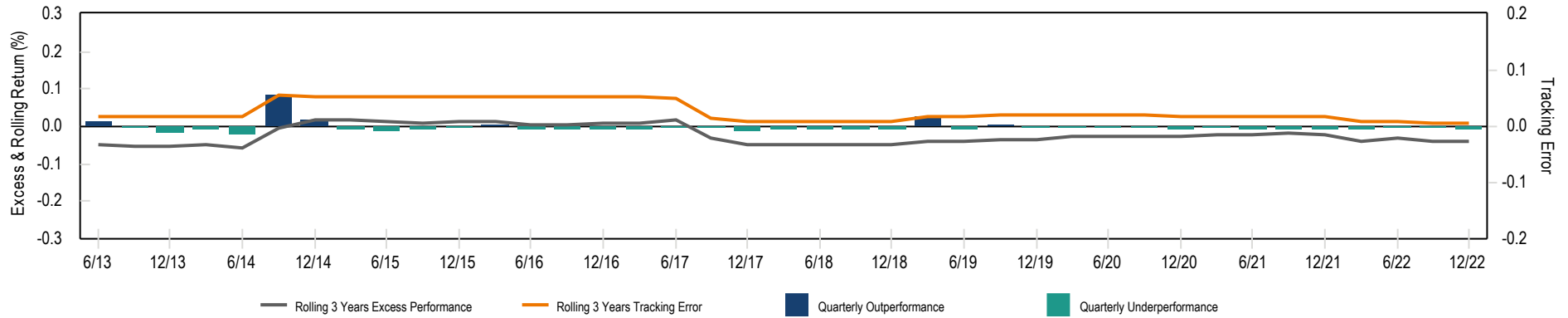


Domestic Effective Style Map  
3 Years

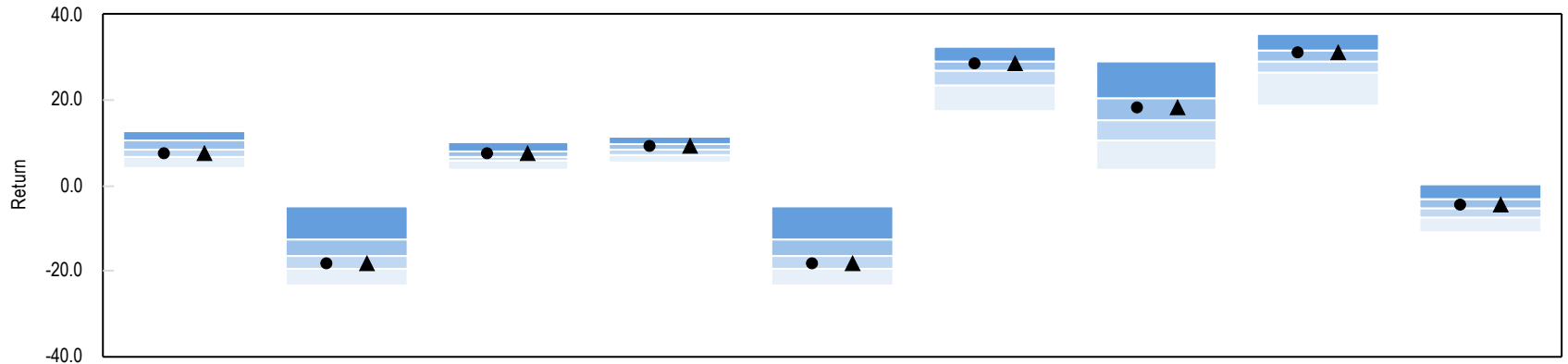


Managers need 3 years of history to be included in the style map.

3 Years Rolling Annualized Excess Performance and Tracking Error



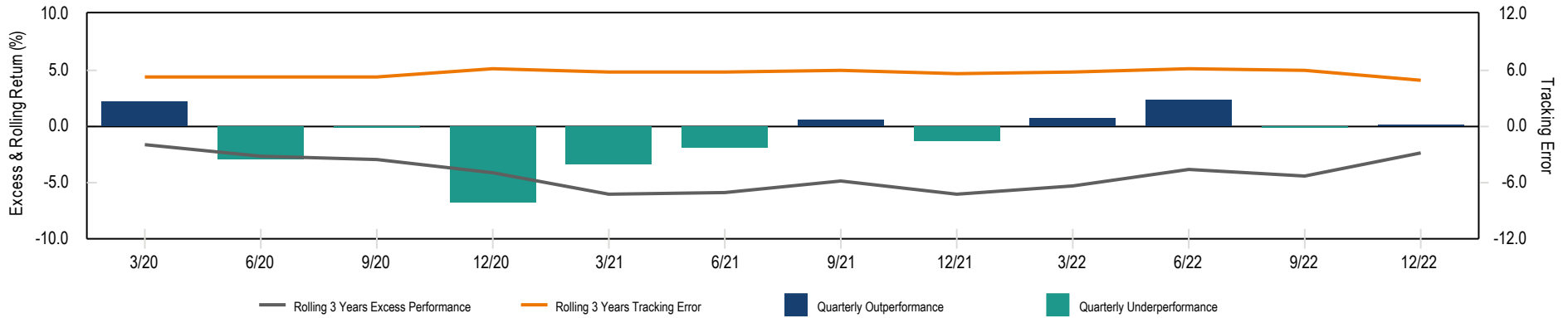
BlackRock Equity Index NL vs. eV US Large Cap Core Equity



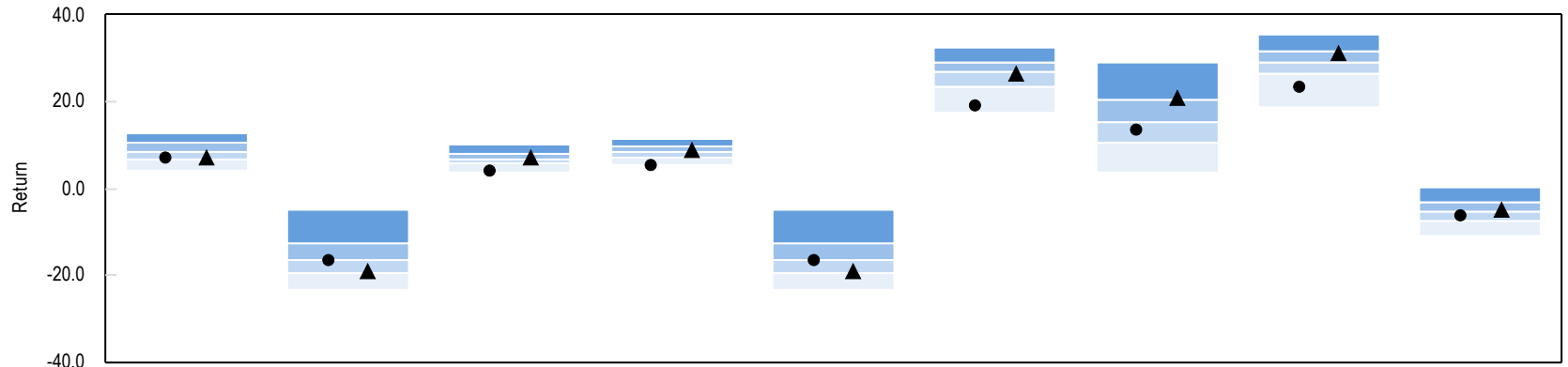
	3 Mo	1 Yr	3 Yrs	5 Yrs	2022	2021	2020	2019	2018
● BlackRock Equity Index NL	7.55 (67)	-18.13 (65)	7.64 (38)	9.40 (35)	-18.13 (65)	28.67 (30)	18.38 (37)	31.50 (30)	-4.42 (39)
▲ S&P 500 Index	7.56 (67)	-18.11 (65)	7.66 (38)	9.42 (34)	-18.11 (65)	28.71 (30)	18.40 (37)	31.49 (31)	-4.38 (39)
5th Percentile	13.03	-4.89	10.25	11.47	-4.89	32.54	29.39	35.85	0.47
1st Quartile	10.60	-12.35	8.33	9.87	-12.35	29.18	20.77	31.98	-3.04
Median	8.53	-16.51	7.09	8.58	-16.51	26.92	15.46	29.38	-5.22
3rd Quartile	6.99	-19.19	5.84	7.27	-19.19	23.44	10.95	26.53	-7.37
95th Percentile	4.49	-23.17	3.72	5.51	-23.17	17.76	3.74	18.76	-10.88
Population	325	323	315	299	323	344	362	372	377



3 Years Rolling Annualized Excess Performance and Tracking Error

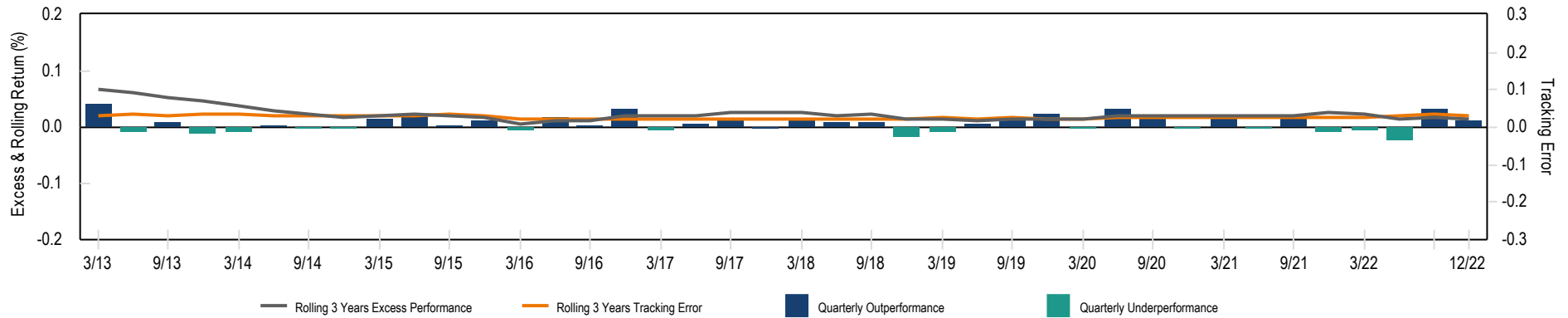


INTECH US Adaptive Volatility vs. eV US Large Cap Core Equity

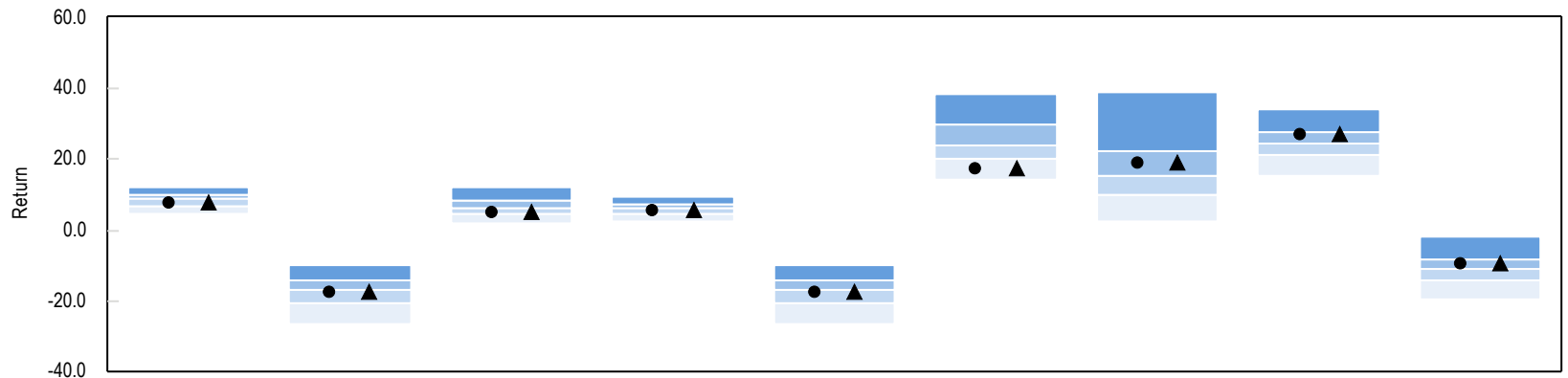


	3 Mo	1 Yr	3 Yrs	5 Yrs	2022	2021	2020	2019	2018
● INTECH US Adaptive Volatility	7.43 (71)	-16.22 (47)	4.48 (91)	5.80 (94)	-16.22 (47)	19.45 (92)	13.97 (60)	23.45 (90)	-5.84 (57)
▲ Russell 1000	7.24 (73)	-19.13 (74)	7.35 (46)	9.13 (39)	-19.13 (74)	26.45 (56)	20.96 (24)	31.43 (32)	-4.78 (45)
5th Percentile	13.03	-4.89	10.25	11.47	-4.89	32.54	29.39	35.85	0.47
1st Quartile	10.60	-12.35	8.33	9.87	-12.35	29.18	20.77	31.98	-3.04
Median	8.53	-16.51	7.09	8.58	-16.51	26.92	15.46	29.38	-5.22
3rd Quartile	6.99	-19.19	5.84	7.27	-19.19	23.44	10.95	26.53	-7.37
95th Percentile	4.49	-23.17	3.72	5.51	-23.17	17.76	3.74	18.76	-10.88
Population	325	323	315	299	323	344	362	372	377

3 Years Rolling Annualized Excess Performance and Tracking Error



Vanguard Small Cap Index Ins vs. eV US Small Cap Core Equity



	3 Mo	1 Yr	3 Yrs	5 Yrs	2022	2021	2020	2019	2018
● Vanguard Small Cap Index Ins	7.96 (62)	-17.63 (58)	4.92 (74)	5.94 (54)	-17.63 (58)	17.73 (84)	19.12 (35)	27.40 (28)	-9.32 (30)
▲ Vanguard Spliced Small Cap Index	7.95 (62)	-17.64 (58)	4.90 (74)	5.92 (54)	-17.64 (58)	17.71 (84)	19.07 (35)	27.35 (28)	-9.33 (30)
5th Percentile	12.05	-10.03	12.17	9.73	-10.03	38.27	38.81	34.01	-2.03
1st Quartile	10.26	-14.07	8.14	7.33	-14.07	30.15	22.47	27.83	-8.54
Median	8.97	-16.66	6.22	6.07	-16.66	24.16	15.34	24.72	-10.98
3rd Quartile	6.94	-20.39	4.72	4.77	-20.39	20.17	10.08	21.36	-14.16
95th Percentile	4.54	-26.43	1.98	2.32	-26.43	14.38	2.32	15.62	-19.51
Population	177	173	168	162	173	183	187	195	205

# International Equity

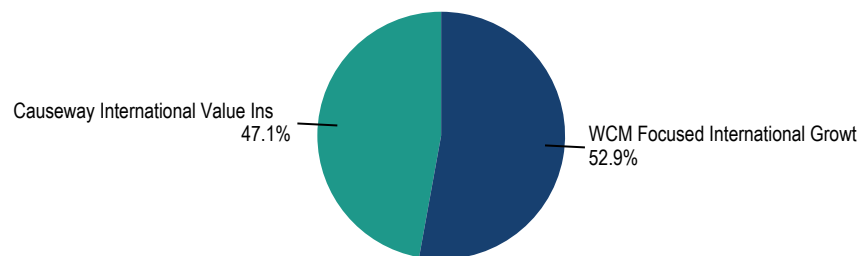
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Total International Equity  
Performance Summary (Net of Fees)

Western States Office & Professional Employees Pension Fund  
Period Ending: December 31, 2022

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2022	2021	2020	2019	2018
<b>Total International Equity</b>	<b>56,331,109</b>	<b>100.0</b>	<b>17.1</b>	<b>-20.0</b>	<b>3.7</b>	<b>4.4</b>	<b>5.4</b>	<b>-20.0</b>	<b>14.6</b>	<b>21.7</b>	<b>27.8</b>	<b>-13.0</b>
<i>Total Public Int'l Equity Benchmark (MSCI ACWI ex US IMI)</i>			14.1	-16.6	0.2	0.8	4.0	-16.6	8.5	11.1	21.6	-14.8
<b>International Equity</b>	<b>56,331,109</b>	<b>100.0</b>										
WCM Focused International Growth Fund, L.P.	29,775,278	52.9	12.5	-28.6	3.8	7.0	-	-28.6	17.6	33.1	35.7	-7.4
<i>MSCI AC World ex USA (Net)</i>			14.3	-16.0	0.1	0.9	3.8	-16.0	7.8	10.7	21.5	-14.2
<i>eV ACWI ex-US All Cap Growth Eq Rank</i>			63	57	12	4	-	57	3	37	12	1
Causeway International Value Ins	26,555,831	47.1	22.7	-6.8	2.3	0.9	-	-6.8	9.1	5.4	20.1	-18.6
<i>MSCI EAFE (Net)</i>			17.3	-14.5	0.9	1.5	4.7	-14.5	11.3	7.8	22.0	-13.8
<i>Foreign Large Value Rank</i>			6	28	33	52	-	28	84	23	35	91

Total International Equity  
Current Allocation

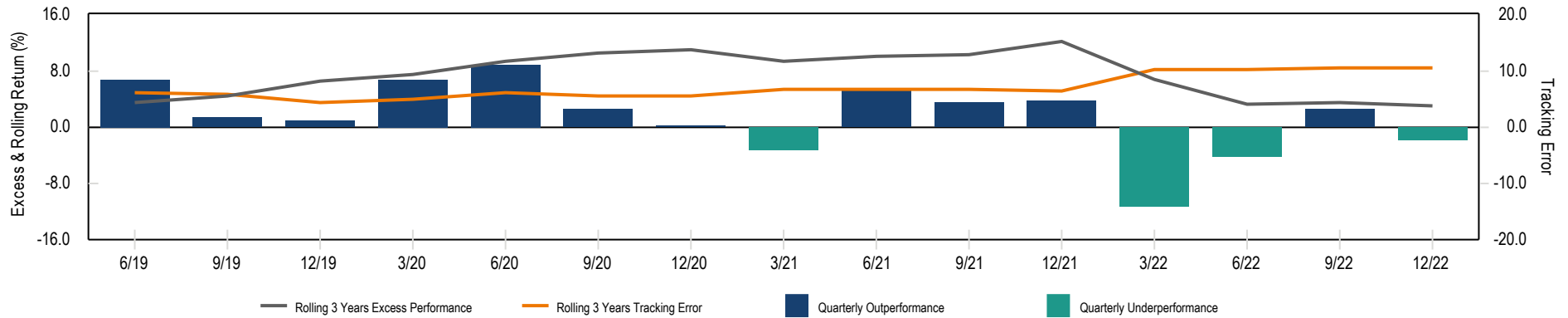


International Equity Effective Style Map  
3 Years

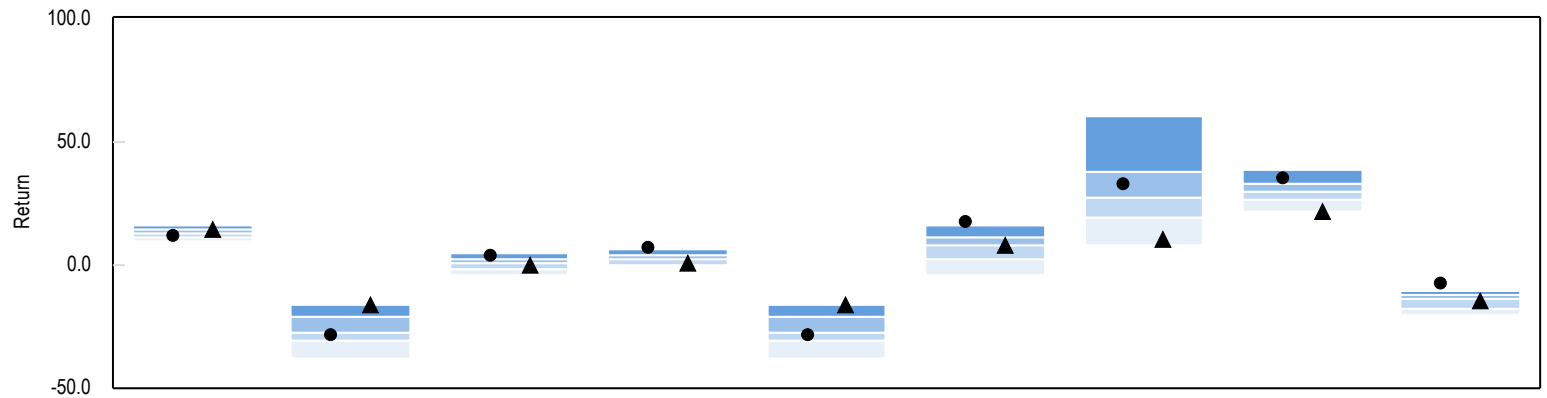


■ WCM Focused International Growth Fund, L.P.  
● Causeway International Value Ins

3 Years Rolling Annualized Excess Performance and Tracking Error

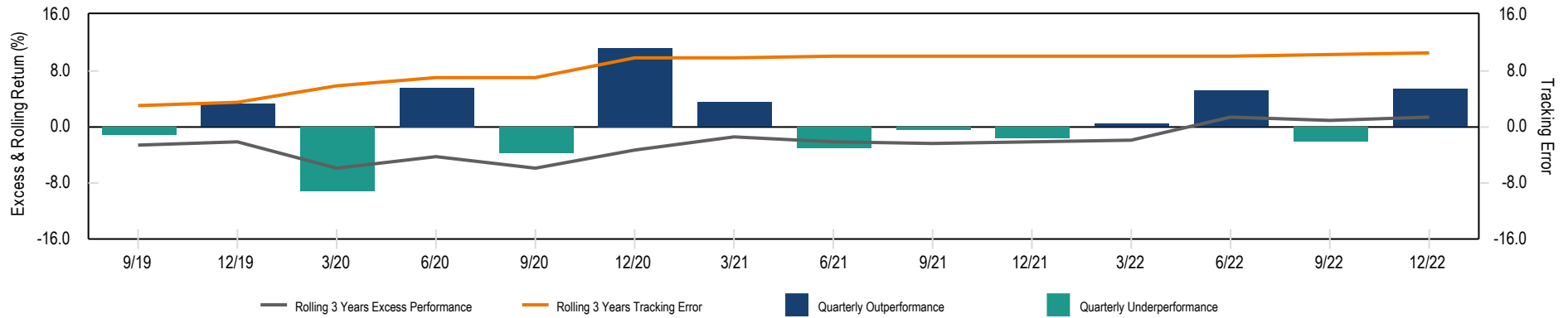


WCM Focused International Growth Fund, L.P. vs. eV ACWI ex-US All Cap Growth Eq

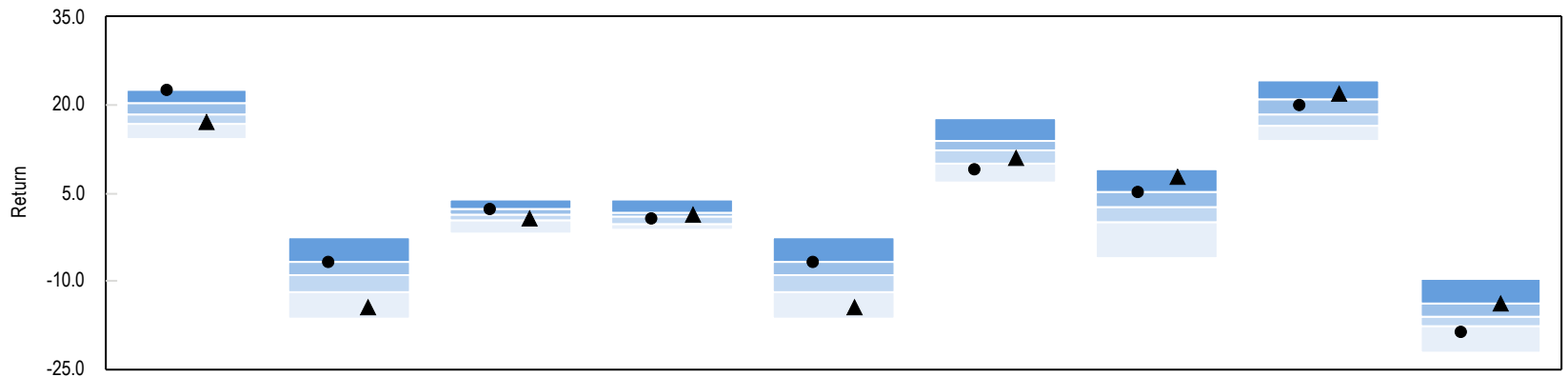


	3 Mo	1 Yr	3 Yrs	5 Yrs	2022	2021	2020	2019	2018
● WCM Focused International Growth Fund, L.P.	12.47 (63)	-28.60 (57)	3.78 (12)	7.03 (4)	-28.60 (57)	17.64 (3)	33.07 (37)	35.73 (12)	-7.40 (1)
▲ MSCI AC World ex USA (Net)	14.28 (28)	-16.00 (5)	0.07 (67)	0.88 (67)	-16.00 (5)	7.82 (49)	10.65 (94)	21.51 (96)	-14.20 (53)
5th Percentile	15.90	-16.43	5.15	6.60	-16.43	16.42	60.55	38.31	-10.18
1st Quartile	14.43	-20.63	2.54	4.08	-20.63	10.90	37.54	32.73	-12.40
Median	12.68	-27.51	1.02	2.31	-27.51	7.78	27.10	29.85	-13.79
3rd Quartile	11.64	-30.90	-1.77	0.29	-30.90	2.39	19.03	26.32	-17.51
95th Percentile	9.89	-37.80	-4.43	-0.57	-37.80	-4.28	8.12	21.88	-20.05
Population	35	35	34	33	35	37	37	39	37

3 Years Rolling Annualized Excess Performance and Tracking Error



Causeway International Value Ins vs. Foreign Large Value



	3 Mo	1 Yr	3 Yrs	5 Yrs	2022	2021	2020	2019	2018
● Causeway International Value Ins	22.74 (6)	-6.76 (28)	2.34 (33)	0.94 (52)	-6.76 (28)	9.07 (84)	5.40 (23)	20.10 (35)	-18.61 (91)
▲ MSCI EAFE (Net)	17.34 (69)	-14.45 (89)	0.87 (63)	1.54 (27)	-14.45 (89)	11.26 (62)	7.82 (7)	22.01 (14)	-13.79 (25)
5th Percentile	22.84	-2.29	4.00	4.08	-2.29	18.00	9.27	24.46	-9.54
1st Quartile	20.48	-6.53	2.58	1.70	-6.53	14.09	5.17	21.17	-13.82
Median	18.46	-8.96	1.34	0.99	-8.96	12.35	2.86	18.48	-15.92
3rd Quartile	16.89	-11.74	0.38	-0.13	-11.74	10.27	0.11	16.67	-17.67
95th Percentile	14.44	-16.29	-1.81	-1.25	-16.29	6.99	-5.90	14.11	-21.96
Population	94	91	82	79	91	91	88	87	83

# Domestic Fixed Income

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Total Fixed Income  
Performance Summary (Net of Fees)

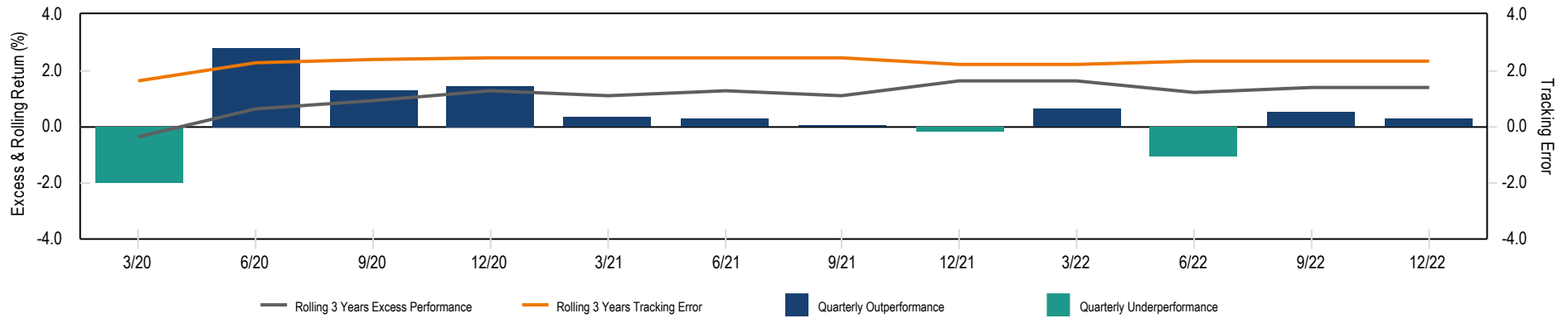
Western States Office & Professional Employees Pension Fund  
Period Ending: December 31, 2022

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2022	2021	2020	2019	2018
<b>Total Fixed Income</b>	<b>52,456,641</b>	<b>100.0</b>	<b>2.1</b>	<b>-12.7</b>	<b>-1.3</b>	<b>0.9</b>	<b>2.1</b>	<b>-12.7</b>	<b>-1.1</b>	<b>11.3</b>	<b>9.4</b>	<b>-0.4</b>
<i>Total Fixed Income Benchmark (Bloomberg Aggregate)</i>			1.9	-13.0	-2.7	0.0	1.1	-13.0	-1.5	7.5	8.7	0.0
Loomis Sayles Core Plus	52,456,641	100.0	2.1	-12.7	-1.3	0.9	-	-12.7	-1.1	11.3	9.4	-0.4
<i>Blmbg. U.S. Aggregate Index</i>			1.9	-13.0	-2.7	0.0	-	-13.0	-1.5	7.5	8.7	0.0
<i>eV US Core Plus Fixed Inc Rank</i>			35	22	18	18	-	22	77	10	62	40

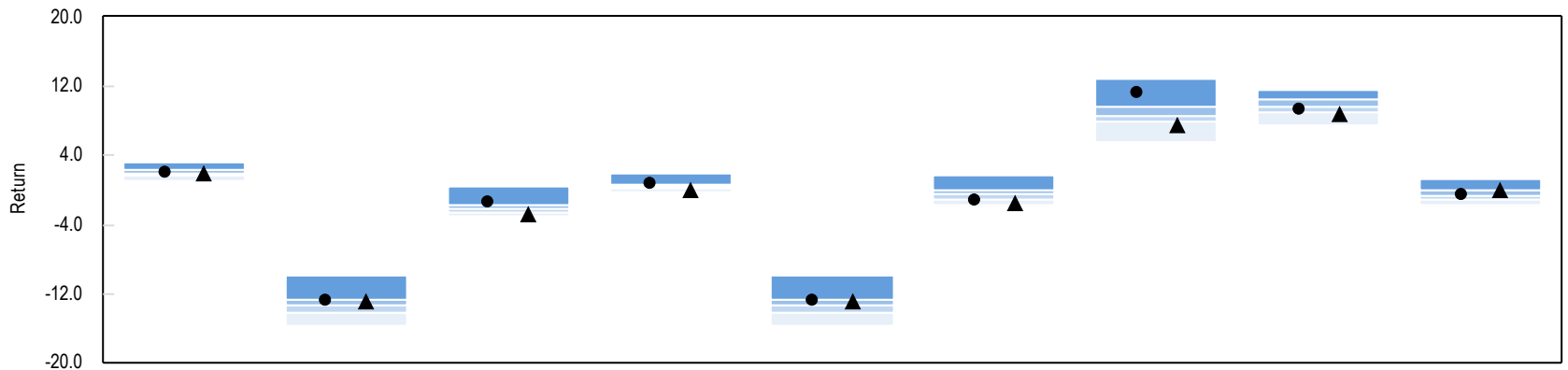
Fixed Income Effective Style Map



3 Years Rolling Annualized Excess Performance and Tracking Error



Loomis Sayles Core Plus vs. eV US Core Plus Fixed Inc



	3 Mo	1 Yr	3 Yrs	5 Yrs	2022	2021	2020	2019	2018
● Loomis Sayles Core Plus	2.14 (35)	-12.66 (22)	-1.29 (18)	0.94 (18)	-12.66 (22)	-1.06 (77)	11.29 (10)	9.43 (62)	-0.42 (40)
▲ Blmbg. U.S. Aggregate Index	1.87 (57)	-13.01 (36)	-2.71 (86)	0.02 (88)	-13.01 (36)	-1.55 (92)	7.51 (82)	8.72 (81)	0.01 (25)
5th Percentile	3.17	-9.88	0.36	1.85	-9.88	1.64	12.84	11.64	1.20
1st Quartile	2.31	-12.76	-1.66	0.75	-12.76	0.08	9.66	10.62	-0.09
Median	1.97	-13.40	-2.14	0.42	-13.40	-0.47	8.65	9.74	-0.61
3rd Quartile	1.63	-14.13	-2.52	0.20	-14.13	-1.01	7.88	9.02	-1.03
95th Percentile	1.17	-15.61	-2.96	-0.16	-15.61	-1.71	5.64	7.53	-1.66
Population	131	130	126	118	130	140	143	144	142

# Alternatives

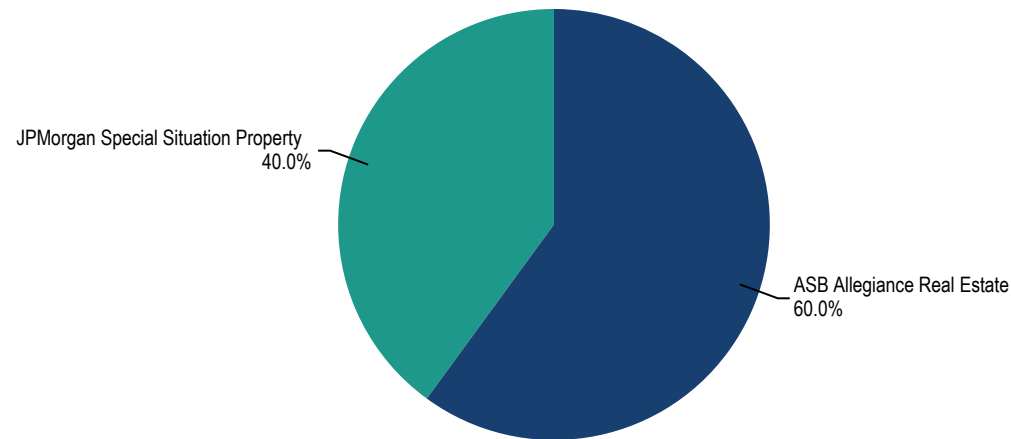
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Total Real Estate  
Performance Summary (Net of Fees)

Western States Office & Professional Employees Pension Fund  
Period Ending: December 31, 2022

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2022	2021	2020	2019	2018
<b>Total Real Estate</b>	<b>45,495,369</b>	<b>100.0</b>	<b>-5.5</b>	<b>4.4</b>	<b>7.6</b>	<b>6.7</b>	<b>8.5</b>	<b>4.4</b>	<b>17.3</b>	<b>1.7</b>	<b>4.0</b>	<b>7.1</b>
<i>NCREIF ODCE</i>			-5.2	6.5	9.0	7.7	9.1	6.5	21.0	0.3	4.4	7.4
ASB Allegiance Real Estate	27,311,456	60.0	-4.2	9.6	8.1	6.7	-	9.6	13.8	1.4	3.1	6.0
<i>NCREIF ODCE</i>			-5.2	6.5	9.0	7.7	-	6.5	21.0	0.3	4.4	7.4
JPMorgan Special Situation Property	18,183,913	40.0	-7.3	-2.6	6.7	7.0	-	-2.6	22.4	2.0	5.0	9.6
<i>NCREIF ODCE</i>			-5.2	6.5	9.0	7.7	-	6.5	21.0	0.3	4.4	7.4

Total Domestic Equity  
Current Allocation

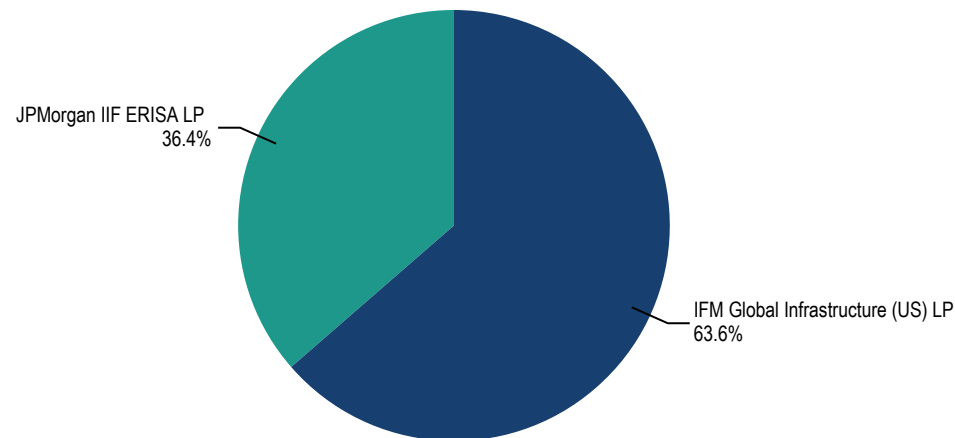


Total Infrastructure  
Performance Summary (Net of Fees)

Western States Office & Professional Employees Pension Fund  
Period Ending: December 31, 2022

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2022	2021	2020	2019	2018
<b>Total Infrastructure</b>	<b>19,624,160</b>	<b>100.0</b>	<b>5.5</b>	<b>6.5</b>	<b>7.8</b>	<b>9.0</b>	<b>7.6</b>	<b>6.5</b>	<b>11.7</b>	<b>5.4</b>	<b>11.5</b>	<b>10.2</b>
<i>CPI + 5%</i>			1.2	11.8	10.2	9.0	7.7	11.8	12.4	6.4	7.4	7.0
IFM Global Infrastructure (US) LP	12,480,062	63.6	4.0	8.2	9.4	11.7	9.8	8.2	17.4	3.1	14.6	15.8
<i>CPI + 5%</i>			1.2	11.8	10.2	9.0	7.7	11.8	12.4	6.4	7.4	7.0
JPMorgan IIF ERISA LP	7,144,098	36.4	8.0	4.0	5.5	5.7	5.2	4.0	4.0	8.4	8.0	4.2
<i>CPI + 5%</i>			1.2	11.8	10.2	9.0	7.7	11.8	12.4	6.4	7.4	7.0

Total Domestic Equity  
Current Allocation

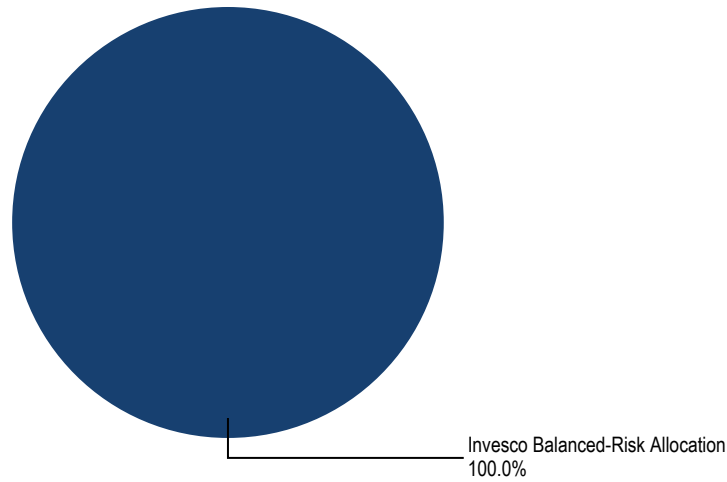


Total Multi-Asset  
Performance Summary (Net of Fees)

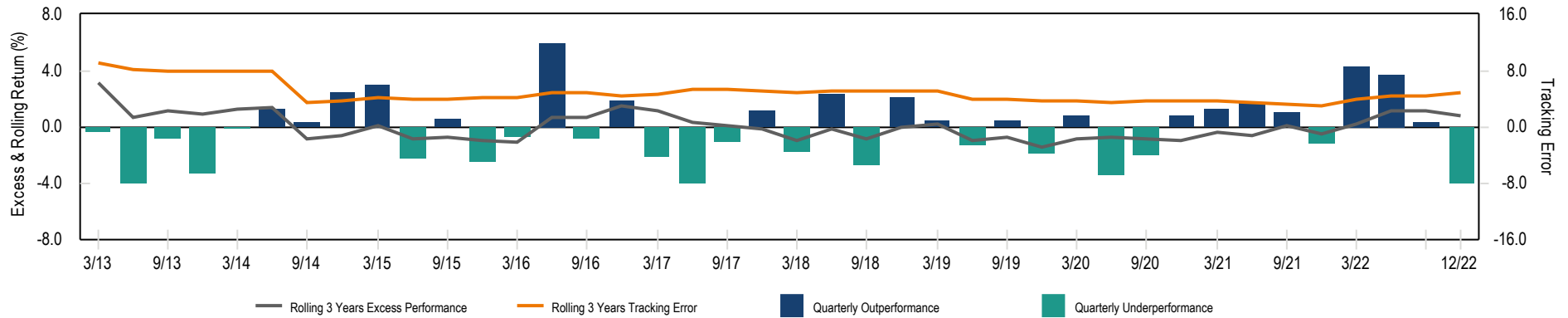
Western States Office & Professional Employees Pension Fund  
Period Ending: December 31, 2022

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2022	2021	2020	2019	2018
<b>Total Multi-Asset</b>	<b>48,578,488</b>	<b>100.0</b>	<b>3.4</b>	<b>-13.7</b>	<b>2.0</b>	<b>2.9</b>	<b>4.6</b>	<b>-13.7</b>	<b>10.9</b>	<b>10.8</b>	<b>15.7</b>	<b>-5.8</b>
60% MSCI ACWI Net/40% FTSE WGBI			7.4	-18.1	0.3	2.4	4.4	-18.1	7.8	14.5	18.2	-5.8
eV Global Balanced Rank			87	38	50	47	46	38	51	54	73	31
Invesco Balanced-Risk Allocation	48,578,488	100.0	3.4	-13.7	2.0	2.9	4.2	-13.7	10.9	10.8	15.7	-5.8
60% MSCI ACWI Net/40% FTSE WGBI			7.4	-18.1	0.3	2.4	4.4	-18.1	7.8	14.5	18.2	-5.8
eV Global Balanced Rank			87	38	50	47	53	38	51	54	73	31

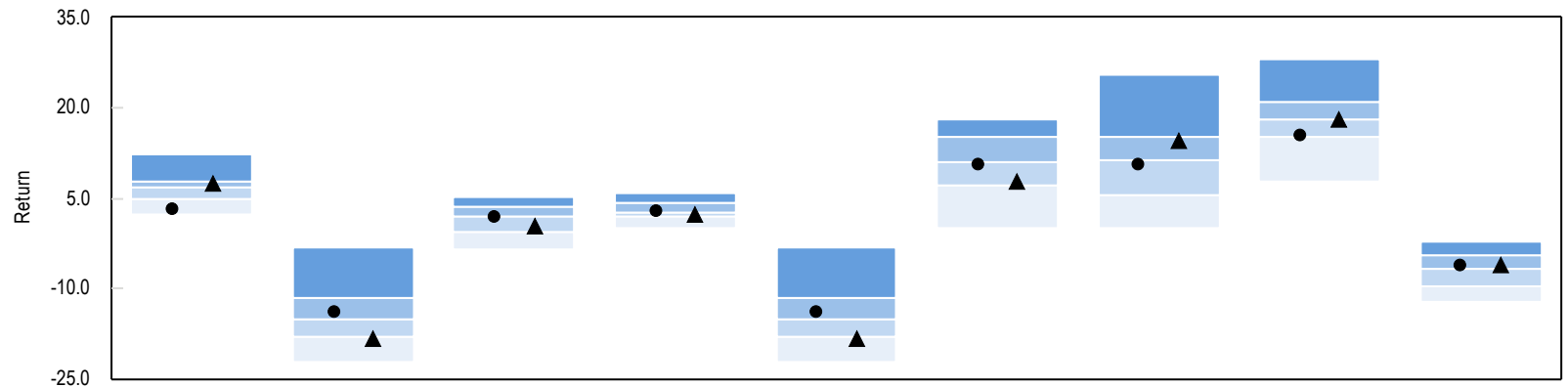
Total Domestic Equity  
Current Allocation



3 Years Rolling Annualized Excess Performance and Tracking Error



Invesco Balanced-Risk Allocation vs. eV Global Balanced



	3 Mo	1 Yr	3 Yrs	5 Yrs	2022	2021	2020	2019	2018
● Invesco Balanced-Risk Allocation	3.41 (87)	-13.70 (38)	1.98 (50)	2.93 (47)	-13.70 (38)	10.89 (51)	10.83 (54)	15.67 (73)	-5.82 (31)
▲ 60% MSCI ACWI Net/40% FTSE WGBI	7.43 (38)	-18.14 (78)	0.34 (66)	2.37 (70)	-18.14 (78)	7.76 (74)	14.53 (35)	18.17 (53)	-5.85 (31)
5th Percentile	12.46	-3.20	5.19	5.99	-3.20	18.18	25.65	28.11	-2.17
1st Quartile	7.90	-11.58	3.63	4.30	-11.58	15.27	15.41	21.25	-4.31
Median	6.91	-14.92	1.97	2.69	-14.92	11.04	11.50	18.27	-6.65
3rd Quartile	4.94	-17.87	-0.62	2.19	-17.87	7.36	5.78	15.47	-9.62
95th Percentile	2.43	-22.06	-3.41	0.24	-22.06	0.13	0.23	8.01	-12.06
Population	42	41	39	37	41	44	49	51	54



### Performance Return Calculations

Performance is calculated using Modified Dietz and for time periods with large cash flow (generally greater than 10% of portfolio value), Time Weighted Rates of Return (TWRR) methodologies. Monthly returns are geometrically linked and annualized for periods longer than one year.

### Data Source

Verus is an independent third party consulting firm and calculates returns from best source book of record data. Returns calculated by Verus may deviate from those shown by the manager in part, but not limited to, differences in prices and market values reported by the custodian and manager, as well as significant cash flows into or out of an account. It is the responsibility of the manager and custodian to provide insight into the pricing methodologies and any difference in valuation.

### Illiquid Alternatives

Due to the inability to receive final valuation prior to report production, closed end funds (including but are not limited to Real Estate, Hedge Funds, Private Equity, and Private Credit) performance is typically reported at a one-quarter lag. Valuation is reported at a one-quarter lag, adjusted for current quarter flow (cash flows are captured real time). Closed end fund performance is calculated using a time-weighted return methodology consistent with all portfolio and total fund performance calculations. For Private Markets, performance reports also include Verus-calculated multiples based on flows and valuations (e.g. DPI and TVPI) and manager-provided IRRs.

### Manager Line Up

<u>Manager</u>	<u>Fund Incepted</u>	<u>Data Source</u>	<u>Manager</u>	<u>Fund Incepted</u>	<u>Data Source</u>
BlackRock Equity Index NL	4/30/2010	BlackRock	JPMorgan SSP	12/31/2014	JP Morgan
INTECH US Adaptive Volatility	8/3/2018	INTECH	IFM Global Infrastructure (US) LP	1/31/2009	IFM
Vanguard Small Cap Index Ins	4/14/2021	US Bank	JPMorgan IIF ERISA LP	9/30/2010	JP Morgan
WCM Focused International Growth	7/1/2016	WCM	Invesco Balanced-Risk Allocation	1/31/2010	Invesco
Causeway International Value	7/27/2016	US Bank	US Bank Checking Account	N/A	US Bank
Loomis Sayles Core Plus	3/21/2017	Loomis Sayles	US Bank Clearing Account	N/A	US Bank
ASB Allegiance Real Estate	3/31/2015	ASB			

### Policy & Custom Index Composition

Policy Index: 45% MSCI World, 25% Bloomberg Aggregate, 10% NCREIF-ODCE Net, 20% (60%MSCI ACWI Net/40% CITI WGBI)

Target Asset Allocation Policy: 25% Dow Jones US Total Stock, 20% MSCI ACWI ex US IMI, 20% Bloomberg Aggregate, 10% NCREIF-ODCE, 5% CPI + 5%, and 20% (60%MSCI ACWI Net/40% CITI WGBI).

# Glossary

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**Allocation Effect:** An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

**Alpha:** The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as:  $\text{Portfolio Return} - [\text{Risk-free Rate} + \text{Portfolio Beta} \times (\text{Market Return} - \text{Risk-free Rate})]$ .

**Benchmark R-squared:** Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R-squared, the more appropriate the benchmark is for the manager.

**Beta:** A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

**Book-to-Market:** The ratio of book value per share to market price per share. Growth managers typically have low book-to-market ratios while value managers typically have high book-to-market ratios.

**Capture Ratio:** A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

**Correlation:** A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of -1 means the returns of two securities move in the exact opposite direction over time. Correlation is used as a measure to help maximize the benefits of diversification when constructing an investment portfolio.

**Excess Return:** A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

**Information Ratio:** A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as:  $\text{excess return} / \text{tracking error}$ .

**Interaction Effect:** An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

**Portfolio Turnover:** The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

**Price-to-Earnings Ratio (P/E):** Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price-to-earnings ratios whereas value managers hold stocks with low price-to-earnings ratios.

**R-Squared:** Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

**Selection Effect:** An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

**Sharpe Ratio:** A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as:  $\text{Portfolio Excess Return} / \text{Portfolio Standard Deviation}$ .

**Sortino Ratio:** Measures the risk-adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

**Standard Deviation:** A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two-thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

**Style Analysis:** A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

**Style Map:** A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two-dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from -1 to 1 on each axis and are dependent on the Style Indices comprising the Map.

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