El Paso County Retirement Plan
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Meeting of the Board of Directors of the El Paso County Retirement Plan
February 27, 2023 – 8:00am
Microsoft Teams Teleconference

Attendees

Board Members:
Chris Long (Chairman)
Nikki Simmons (Vice Chairman)
Ray Bernier (Secretary)
Ryan Chacon

Associate Members:
Taylor Gross
Heather Laslie
Victoria Bennett

Other attendees:
Greg Kuppenheimer, EPCRP, Executive Director
Linda Fowler, EPCRP, Senior Retirement Counselor
Christopher Del Valle, EPCRP, Retirement Counselor
Tom Toth, Managing Director, Wilshire Advisors
Stan VanderWerf, EPC, County Commissioner

Absent Members

Board Members:
Chuck Broerman (Treasurer)

Associate Members:

Meeting

1. **Chairman Long called the meeting to order at 8:01 am, notes quorum, Secretary Bernier, Vice Chairman Simmons, Board Member Chacon, and Chairman Long.**

2. **Chairman Long noted no public comment.**

3. **Executive Director Kuppenheimer presents Executive Director's Report (see attached).**
   - The Office is working on the Audit and Annual Valuation. The unofficial funding ratio is 63%.
   - Mr. Del Valle presented information from the recent NCEPERS survey. Chairman Long asked if there are any recommendations from the office because of the survey. Executive Director, Kuppenheimer noted that the Plan has already made many changes and is either leading or already following these trends in the industry. He also stated his expectation is discount rates will continue to decrease into the future.
   - Commissioner VanderWerf asked if the board had timing in mind for when they would decrease the discount rate and if the board believes they will recover from this last year's market. Chris Long stated that the Plan decreased its rate ahead of the curve and will stay at 7% at this time. This number comes from our expert advice and our expected returns. Vice-Chairman Simmons noted that the County is in a good spot and that the ratings agencies are happy with our past changes that we have made.

4. **Tom Toth, Managing Director, Wilshire Advisors presents the Market and portfolio performance from Q422 (see attached).**
    - Mr. Toth presents the Market and Portfolio Performance from Q4 2022. The federal reserve has had the most aggressive tightening since the 80's and have stated they are willing to tolerate slowdowns to get inflation under control. This increase in the federal funds rate has primarily impacted fixed income returns. The silver lining is that the portfolio's expected return is higher now than it was 12 or 18 months ago. Mr. Toth stated Wilshire will have firmer expected return numbers for the next board meeting. The portfolio was down 9.8% for the last year, which was better than the policy, which would have been down 10.4%. There was some positive performance in Q4 of 2022 and January 2023, but the market has been grappling with the federal reserve's stance and plan for inflation, which caused a drawdown in February. The Plan was in the top decile for performance last year and remained in the top quartile for Sharpe ratio, indicating the Plan did not take on outsized risk for this higher performance. Commissioner VanderWerf asked how we compare to COPERA. Mr. Toth stated he does not have the numbers off the top of his head but will try to provide them at the next meeting. Chairman Long, Board Member Chacon, and Mr. Toth discussed fixed income and duration, as well as the performance of private assets and smoothing of returns.

5. **Chairman Long presents the Chairman's Report**
    - Chairman Long noted that the election ballots are due March 7th to fill the elected seat. He also noted an appointment for a seat from the County Commissioners is expected by the end of March.
    - Due to the expected lack of a quorum in March, there will be no board meeting then. Vice Chairman Simmons noted that this makes today's meeting Secretary Bernier's last meeting. Ms. Fowler asked Secretary Bernier to attend the April board meeting for an official goodbye.
    - Chairman Long noted that based on legal counsels' advice, much of the day-to-day items are not being voted on in the board packet since they are standard for the course of business, however all the information is still in the board packet given to the board members.

6. **Chairman Long presents the Board packet for ratification by consent.**
    - Approval of the January 23, 2023, Board Meeting Minutes.
      Vice Chairman Simmons moved to approve the Meeting Minutes. Secretary Bernier seconded the motion. The motion carried unanimously.

7. **Adjournment**
    - There being no further business, Chairman Long declared the meeting adjourned. He noted the next board meeting is April 24, 2023, at 8:00 a.m., in person at the Regional Development Center.
      The meeting adjourned at 8:46 am.

William W. Jennings
William W. Jennings (May 23, 2023 13:13 MDT)
William Jennings, Secretary

Christopher Del Valle
Christopher Del Valle, Recording Secretary

El Paso County
COLORADO

Executive Director Report
27 February 2023

Executive Director Report

Plan Funding Summary	Month-End	Year-End 2021
Actuarial Liability Value (YE 2021)	$687 mil	$687 mil
Asset Value (Estimate as of Month End)	$434 mil	$491 mil
Unfunded Liability	$253 mil	$196 mil
Funded Ratio	63%	71%

Highlights for Board:

National Conference on Public Retirement Systems (NCPERS) survey of 195 state and local pensions, 92% of which are defined benefit plans.

Topic	Survey Average	EPCRP	Other Survey Information
Funded Level	78%	63%	71% of plans have or are considering increasing service requirements and/or contributions
Discount Rate	6.9% down from 7.1%	7.0%	74% of plans have or are considering further reductions to discount rate

Wilshire

EL PASO COUNTY COLORADO

El Paso County Retirement Plan

Quarterly Investment Summary

Dec-2022

Quarterly Market Review

December 31, 2022

Market Commentary

U.S. Equity

The U.S. stock market was up 7.1% for the fourth quarter but was down -19.0% for all of 2022. A majority of sectors were up for the quarter. The best performing were Energy (+19.9%), Industrials (+16.6%) and Materials (+14.6%). Consumer Discretionary was down -8.0%. From a size perspective, small-cap outperformed large-cap by 86 basis points. Growth stocks underperformed value for the quarter and also trailed meaningfully for the year.

The Federal Reserve's aggressive action to combat unacceptably high inflation is the story of 2022 with uncertainty around Fed policy poised to drive market volatility in 2023. The FOMC raised rates 4.25%, with increases becoming more dramatic in May. This marks the largest 12-month increase since 1981 (also a period of inflation near or above double-digits). Unsurprisingly, fixed income suffered but so did equities as investors repriced off a higher risk-free rate. The Fed is currently forecasting a rate 0.75% higher by the end of 2023. The open market does not agree – or perhaps doubts their credibility to continue tightening, with a modest change forecasted for the next year. How this disagreement plays out is likely to be a primary market driver this year.

Non-U.S. Equity

Europe faced similar headwinds as the United States in 2022 – surging inflation and aggressive central bank tightening – but also had to more directly contend with the ongoing war in Ukraine. The labor market remains tight in the eurozone and many businesses report that a labor shortage is limiting production. Despite China's zero-COVID policies, including lockdowns, infections continued to surge intermittently. Tension among the country's citizens continued to rise and led to protests not seen in decades. In early December, the central government took definitive steps to ease restrictions.

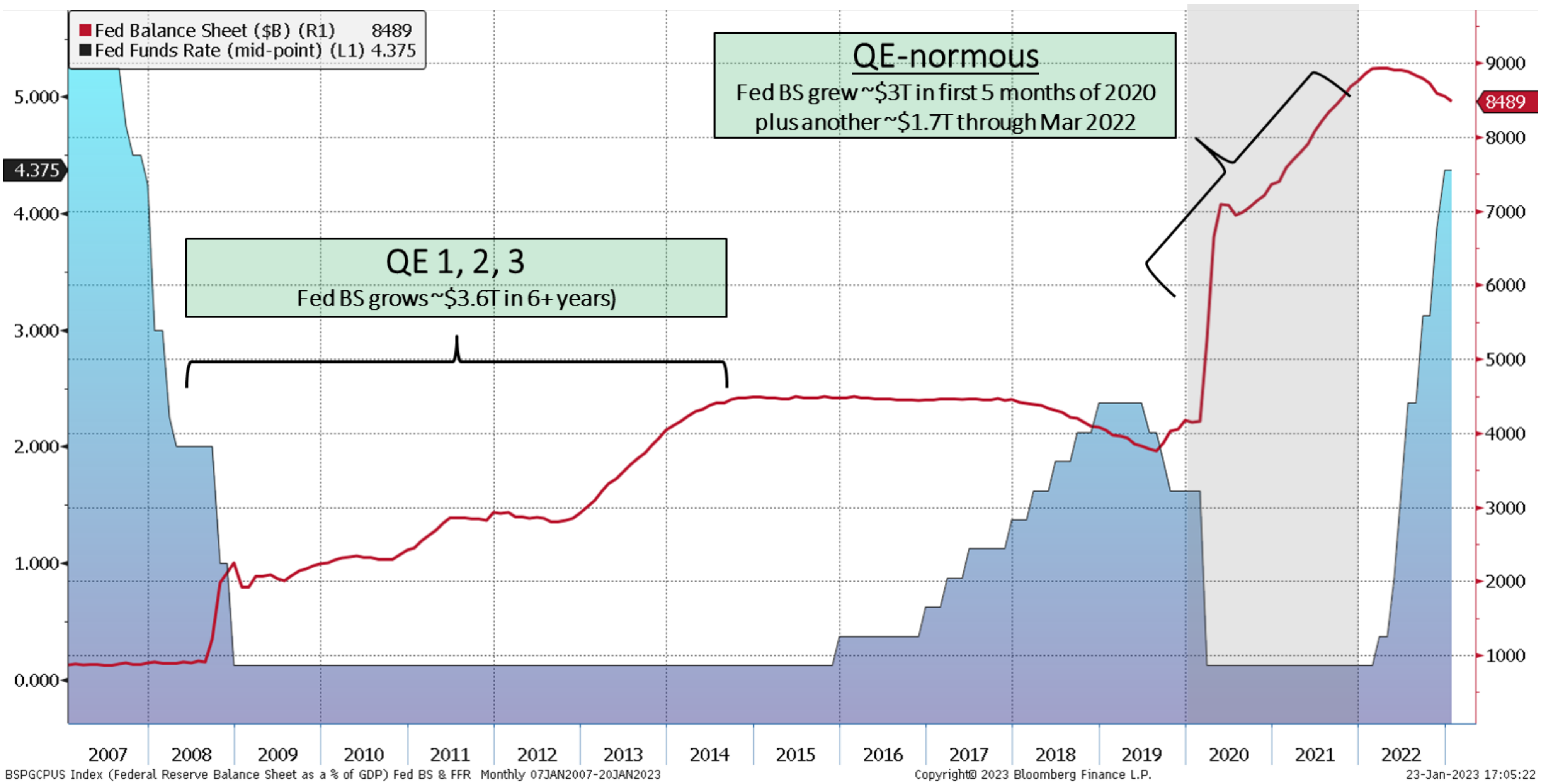
Fixed Income

The U.S. Treasury yield curve was up in the short-end (below 3-years) by 50-135 basis points but largely unchanged across the remainder of the curve. The 10-year Treasury yield ended the quarter at 3.88%, up just 5 basis points from September. The Fed increased the overnight rate by 0.75% in November and 0.50% in December, targeting a range of 4.25% to 4.50%. The Fed's "dot plot" is messaging that the current intent is for another 75 basis points in increases before the end of 2023.

December 2022 Asset Class Assumptions

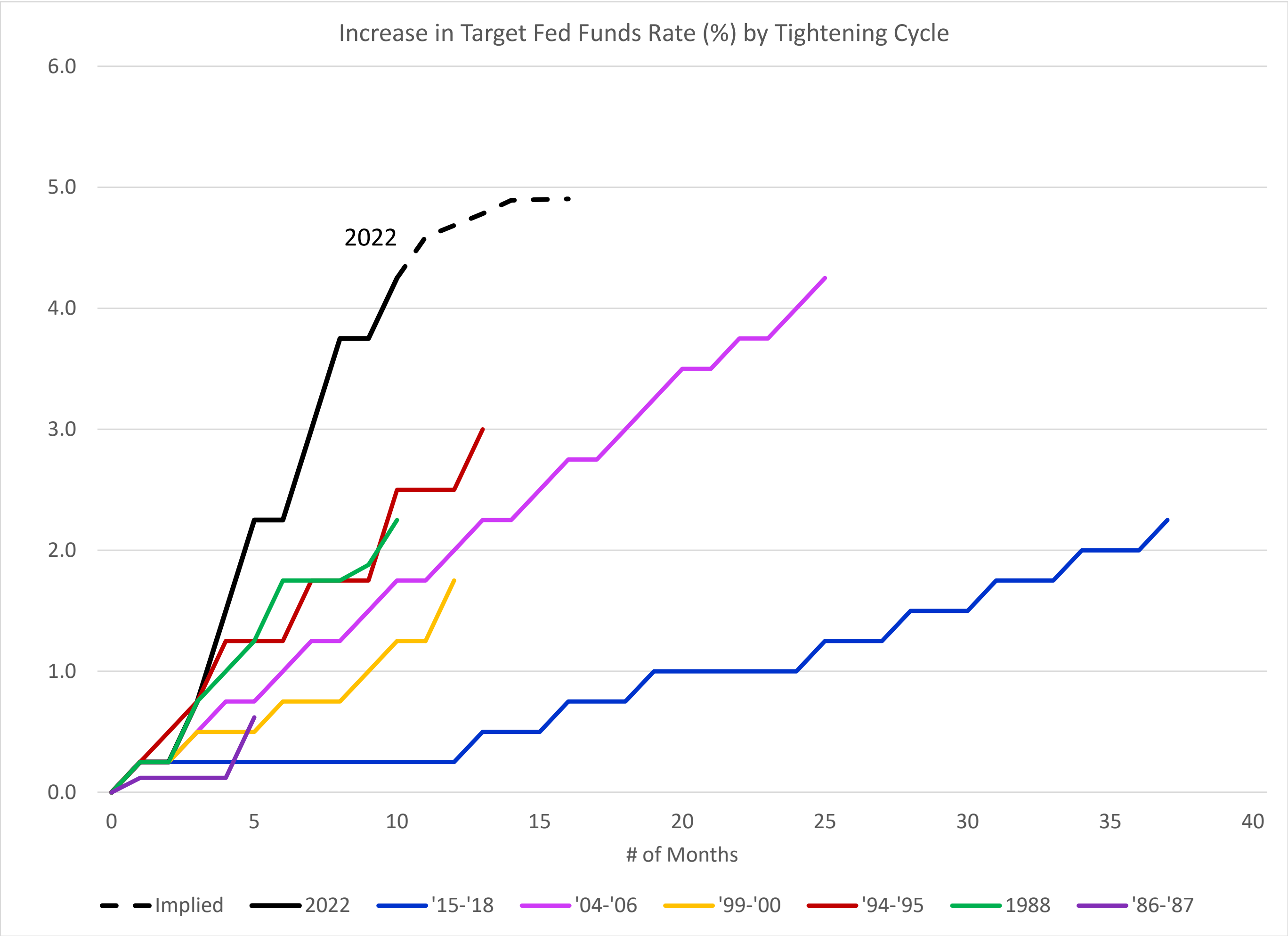
	Equity						Fixed Income							Real Assets					
														Real Estate					
	US Stock	Dev ex-US Stock	Emg Stock	Global ex-US Stock	Global Stock	Private Equity	Cash	Core Bond	LT Core Bond	TIPS	High Yield	Private Credit	Dev ex-US Bond (Hdg)	US RES	Global RES	Private RE	Cmdty	Real Assets	US CPI
Compound Return (%)	6.50	7.25	7.50	7.60	7.05	9.90	4.00	4.90	4.90	3.95	6.55	8.85	3.05	5.65	5.80	6.20	6.25	6.65	2.25
Expected Risk (%)	17.00	18.00	26.00	19.10	17.10	29.00	0.75	4.70	9.80	6.00	10.00	12.75	4.00	17.50	16.45	14.00	16.00	12.35	1.75
Cash Yield (%)	1.75	3.25	2.80	3.10	2.25	0.00	4.00	5.10	5.25	4.40	9.65	5.10	3.75	3.95	3.95	2.25	4.00	3.15	0.00
Growth Exposure	8.00	8.00	8.00	8.00	8.00	14.00	0.00	-0.95	-2.40	-3.00	4.00	5.10	-1.00	6.00	6.00	3.50	0.00	2.70	0.00
Inflation Exposure	-3.00	0.00	5.00	1.45	-1.30	-3.75	0.00	-2.50	-6.80	2.50	-1.00	-1.50	-3.00	1.00	1.80	1.00	12.00	5.25	1.00
Correlations																			
US Stock	1.00																		
Dev ex-US Stock (USD)	0.81	1.00																	
Emerging Mkt Stock	0.74	0.74	1.00																
Global ex-US Stock	0.84	0.95	0.89	1.00															
Global Stock	0.95	0.91	0.84	0.94	1.00														
Private Equity	0.72	0.63	0.61	0.67	0.73	1.00													
Cash Equivalents	-0.05	-0.09	-0.05	-0.08	-0.06	0.00	1.00												
Core Bond	0.28	0.13	0.00	0.08	0.20	0.30	0.18	1.00											
LT Core Bond	0.31	0.15	0.01	0.11	0.24	0.31	0.11	0.94	1.00										
TIPS	-0.05	0.00	0.15	0.06	-0.01	-0.03	0.20	0.60	0.48	1.00									
High Yield Bond	0.54	0.39	0.49	0.46	0.53	0.31	-0.10	0.24	0.32	0.05	1.00								
Private Credit	0.68	0.55	0.58	0.60	0.68	0.44	0.00	0.24	0.30	0.00	0.76	1.00							
Dev ex-US Bond (Hdg)	0.16	0.25	-0.01	0.16	0.17	0.26	0.10	0.68	0.66	0.39	0.26	0.22	1.00						
US RE Securities	0.58	0.47	0.44	0.49	0.57	0.49	-0.05	0.17	0.22	0.10	0.56	0.62	0.05	1.00					
Global RE Securities	0.64	0.57	0.54	0.60	0.65	0.55	-0.05	0.17	0.21	0.11	0.61	0.68	0.04	0.96	1.00				
Private Real Estate	0.55	0.45	0.45	0.49	0.54	0.50	-0.05	0.19	0.25	0.09	0.58	0.63	0.05	0.79	0.78	1.00			
Commodities	0.25	0.34	0.39	0.38	0.32	0.28	0.00	-0.03	-0.03	0.25	0.29	0.29	-0.10	0.25	0.28	0.25	1.00		
Real Assets	0.62	0.63	0.65	0.69	0.67	0.57	-0.03	0.22	0.24	0.30	0.64	0.69	0.04	0.78	0.84	0.76	0.64	1.00	
Inflation (CPI)	-0.10	-0.15	-0.13	-0.15	-0.13	-0.10	0.10	-0.12	-0.12	0.15	-0.08	0.00	-0.08	0.05	0.04	0.05	0.44	0.22	1.00

The Fed: Zero Rates & QE to $8T and Beyond...



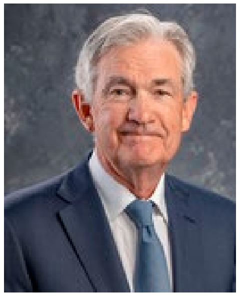
Data Source: Bloomberg

The Shift to Tightening: Most Aggressive in Modern Era: Will "Bring Some Pain"



Data Source: Bloomberg

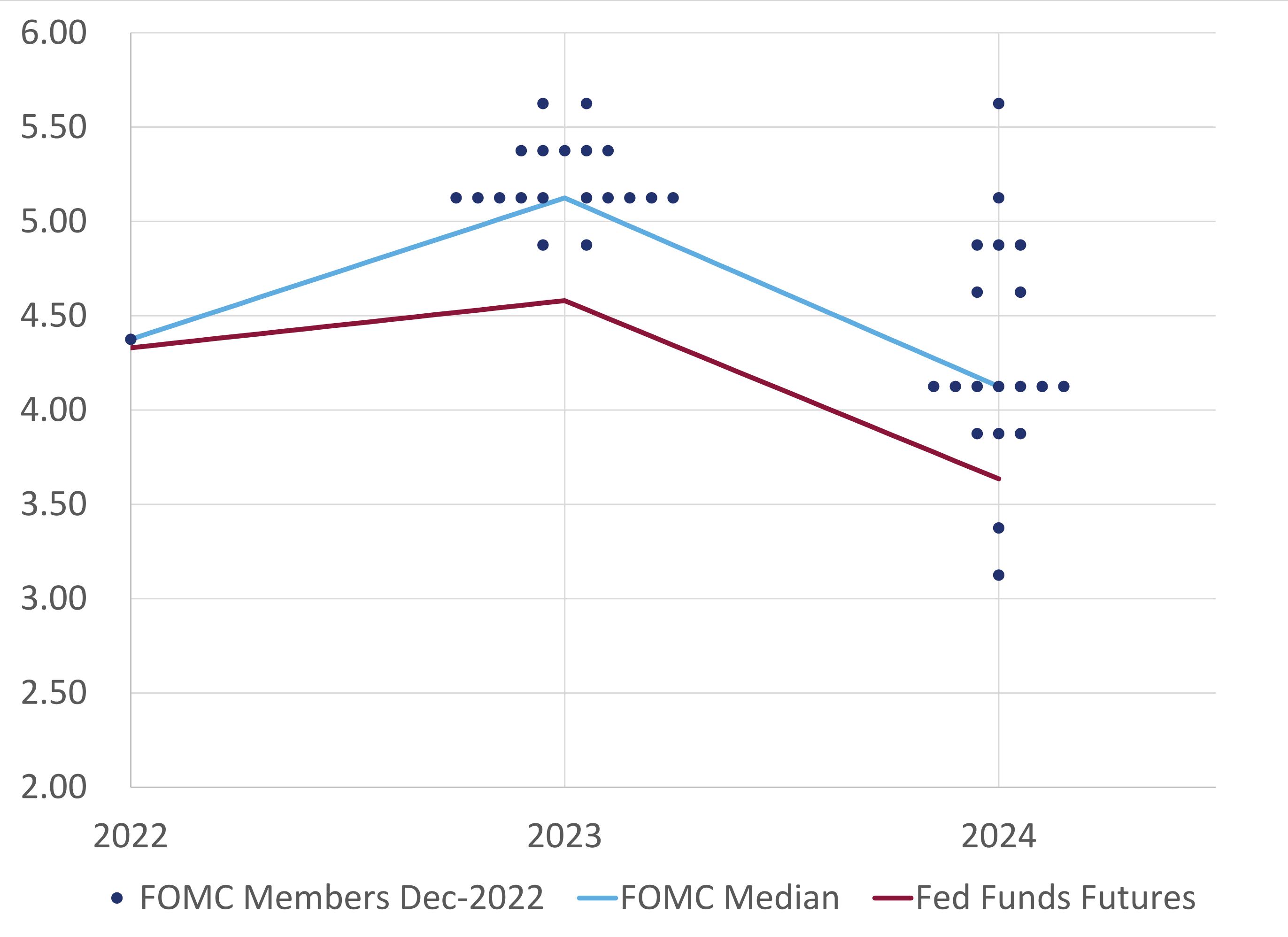
*"While **higher interest rates, slower growth, and softer labor market conditions** will bring down inflation, **they will also bring some pain** to households and businesses. **These are the unfortunate costs of reducing inflation**. But a failure to restore price stability would mean far greater pain."*



Jerome Powell

August 2022, Jackson Hole

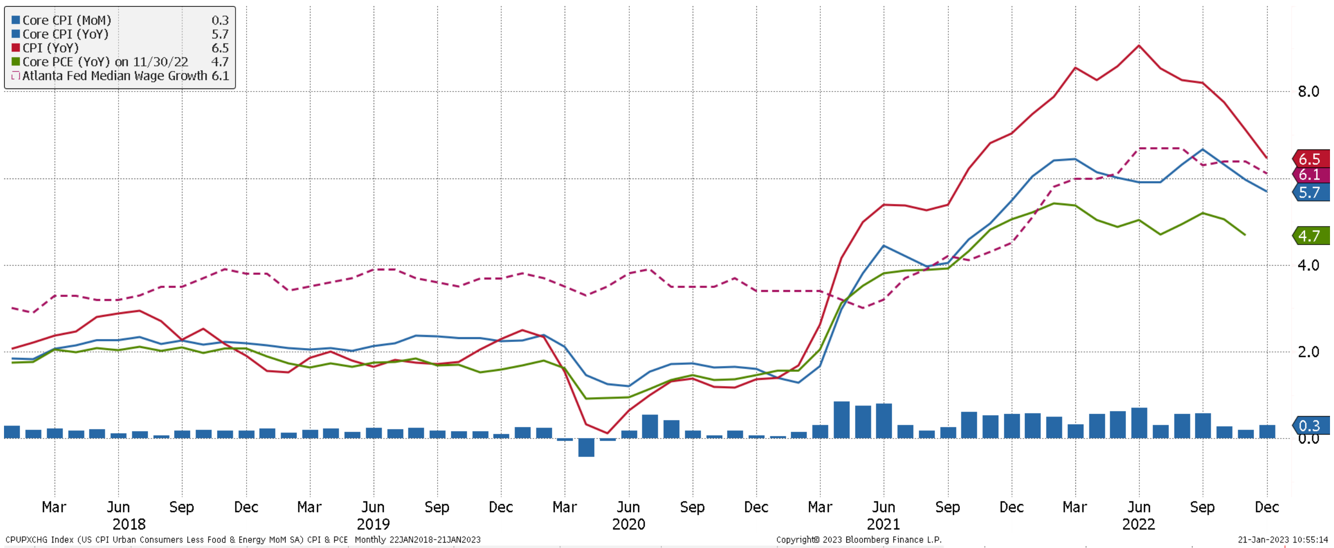
The Fed Outlook vs. Market Consensus



Data Source: Bloomberg

- The market's Dec 2023 implied Fed Funds Rate is below <u>every</u> FOMC member's forecast
- Why the divergence: A Fed credibility issue or just a difference in view?
- How might this play out?
    - What if the Fed's wrong?
    - What if the market is wrong?

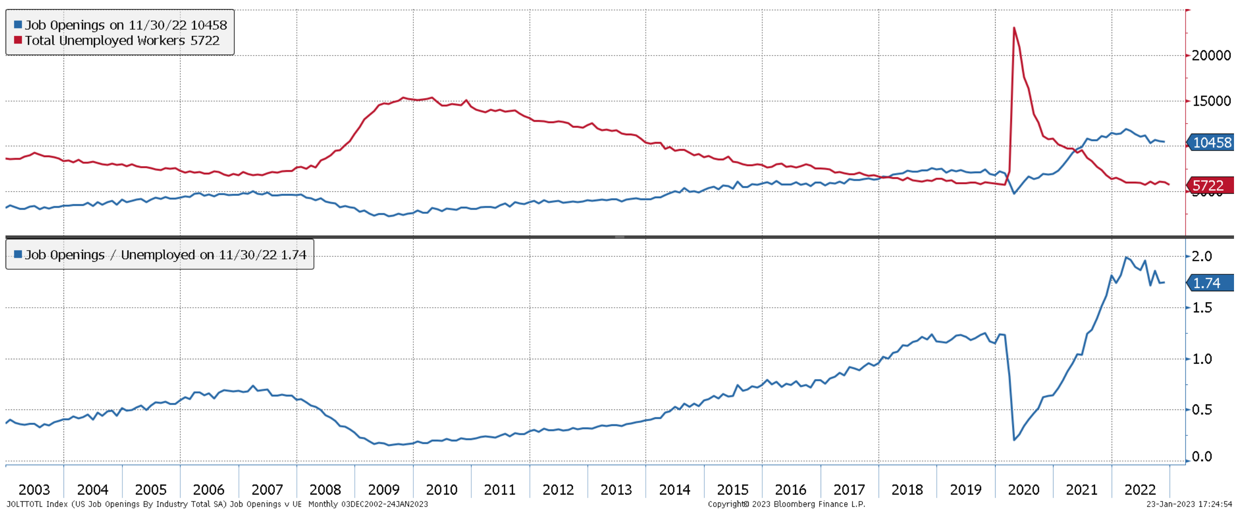
The Fed's Dashboard: Realized & Expected Inflation



Data Source: Bloomberg

- Realized inflation has begun to ease off extreme levels
  - CPI 6.5% v. 9.1% in June 2022
  - Core CPI stabilizing ~5%
  - Wage inflation remains elevated (~6%)
- Inflation expectations remain well-anchored
  - Expectational anchoring at higher levels would make the Fed's job even more challenging
  - These expectations are likely at the heart of the divergence between market and Fed outlooks (i.e., the Fed would likely pause now if they believed these expectations would be realized)

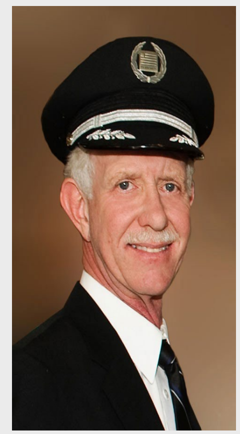
The Fed's Dashboard: Economic Growth & Labor Market



Data Source: Bloomberg

The market seems a bit more confident in the prospects of a "soft landing" as inflation has subsided in recent months

- However, lots more liquidity to be drained
- Powell's "Sully" Sullenberger moment…



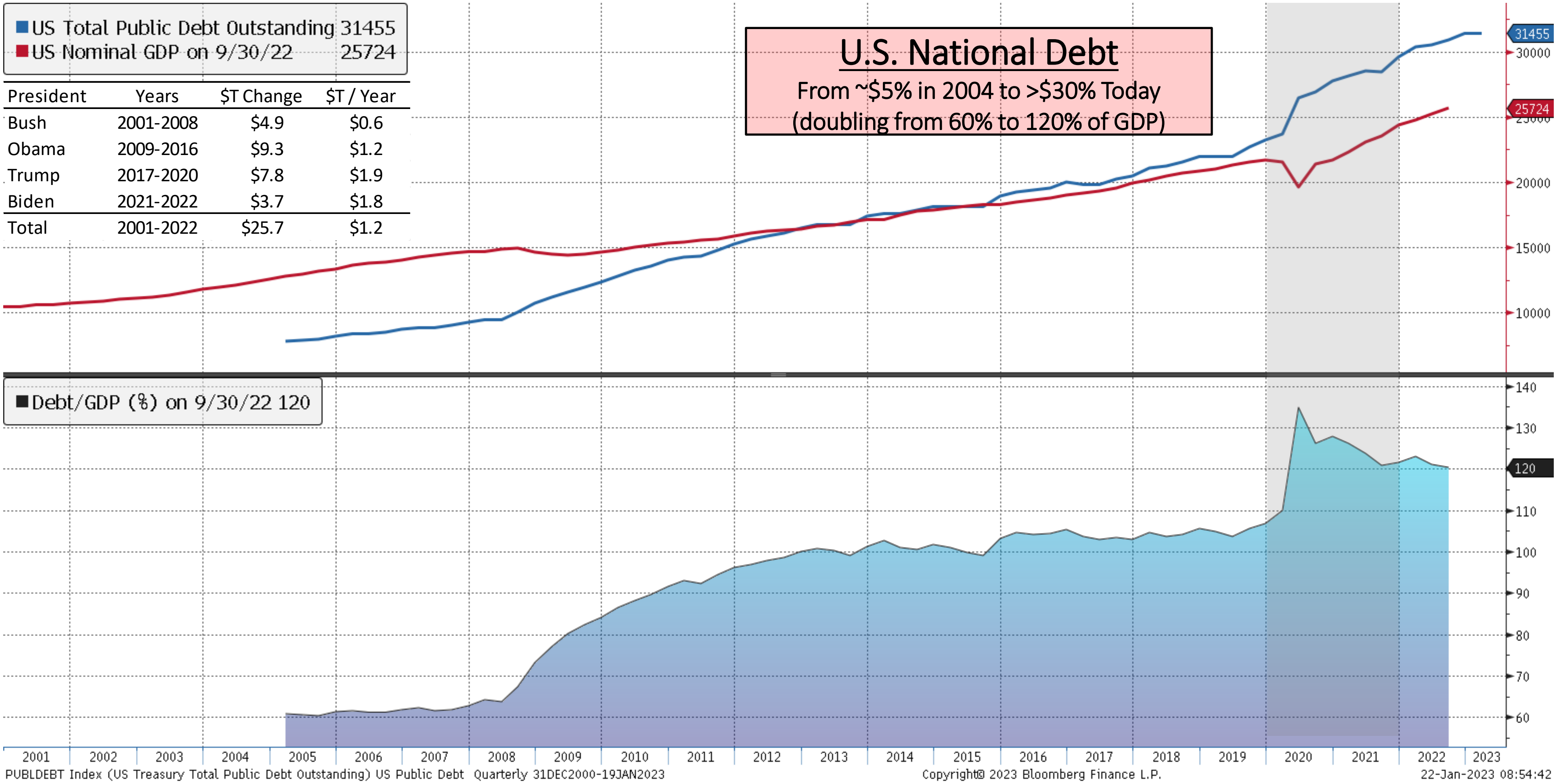
"We're going to be in the Hudson"

Chesley Burnett "Sully" Sullenberger III
Pilot of US Airways 1549, January 15, 2009

Labor markets remain tight

- Difficult to see inflation pressures return to Fed target without these tensions reversing
- Recent jobs reports remain strong (good news for economic resilience but challenges the market's benign inflation expectations)

A Secular Explosion in National Debt: “We’re Not in Kansas Anymore”

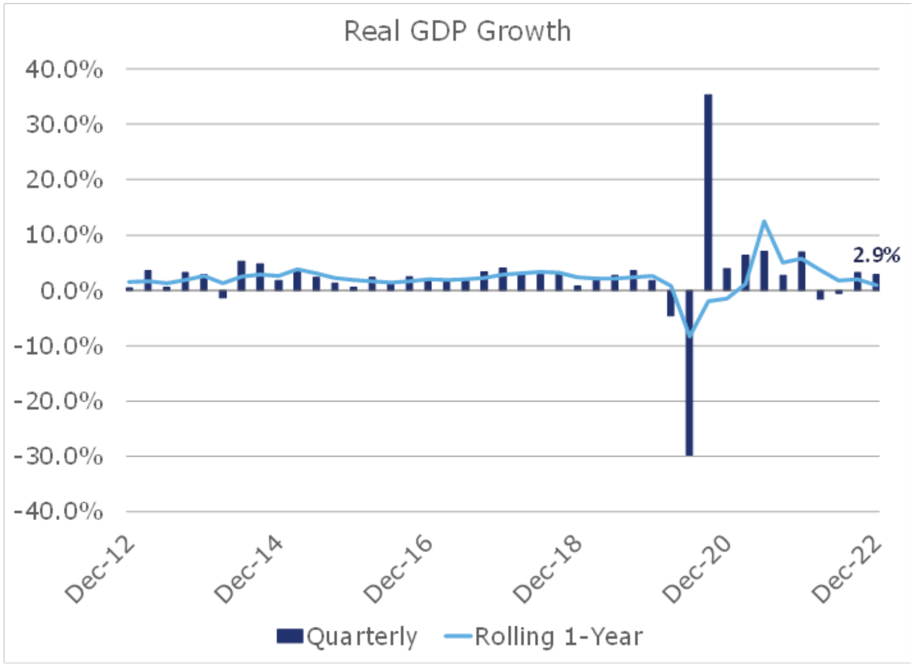


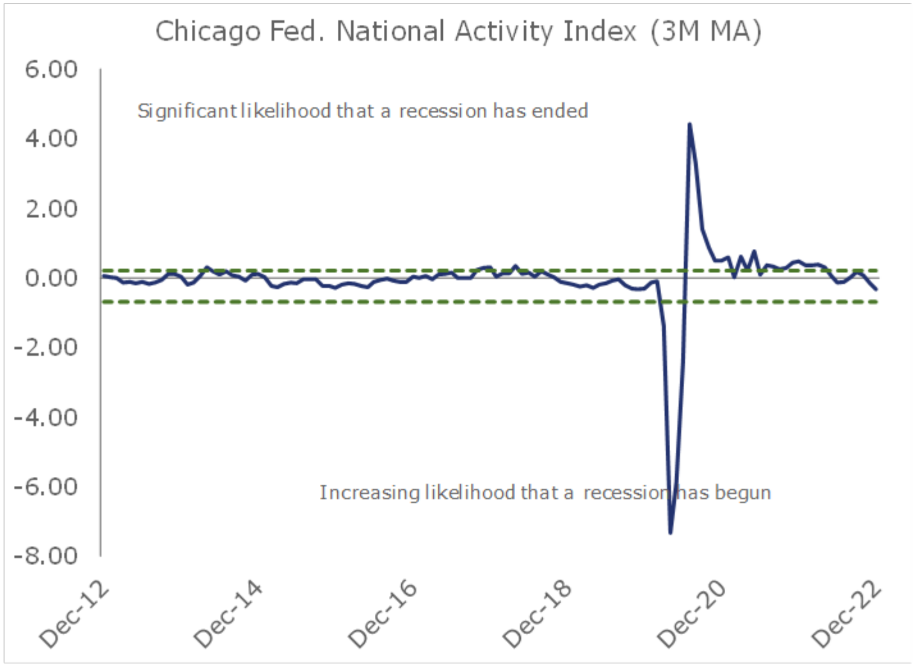
President	Years	$T Change	$T / Year
Bush	2001-2008	$4.9	$0.6
Obama	2009-2016	$9.3	$1.2
Trump	2017-2020	$7.8	$1.9
Biden	2021-2022	$3.7	$1.8
Total	2001-2022	$25.7	$1.2

Data Source: Bloomberg

Economic/Market Activity

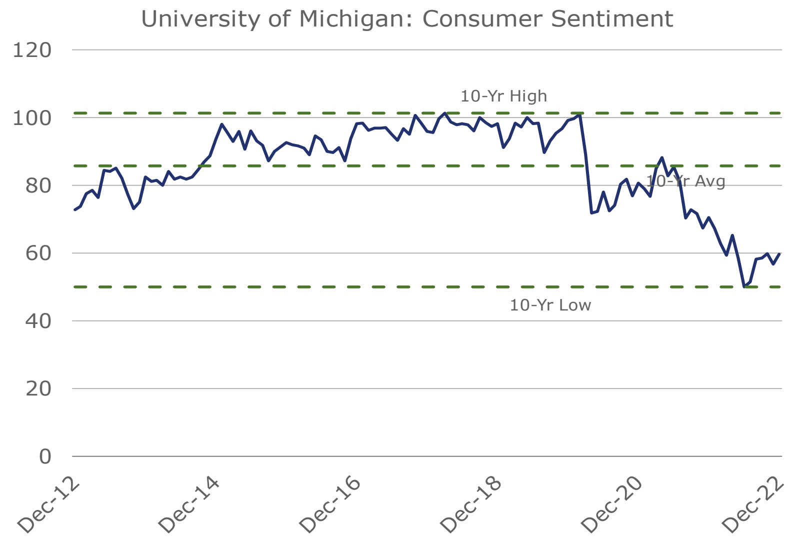
Economic Growth

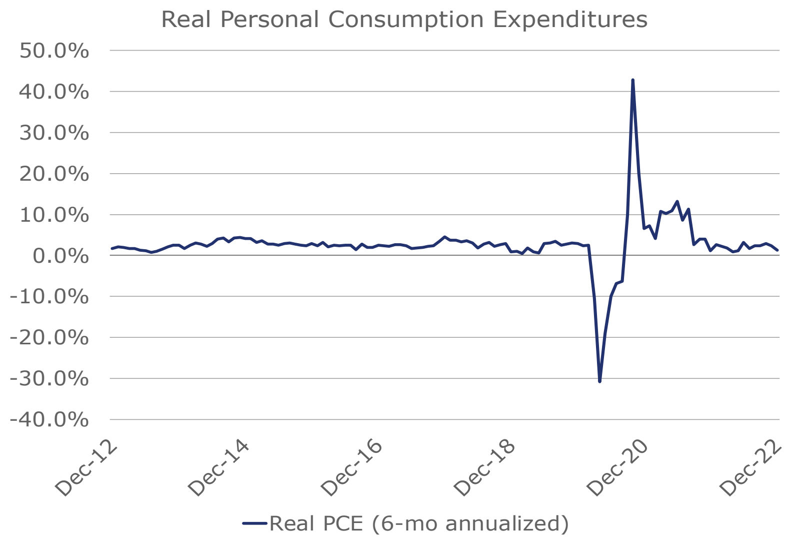


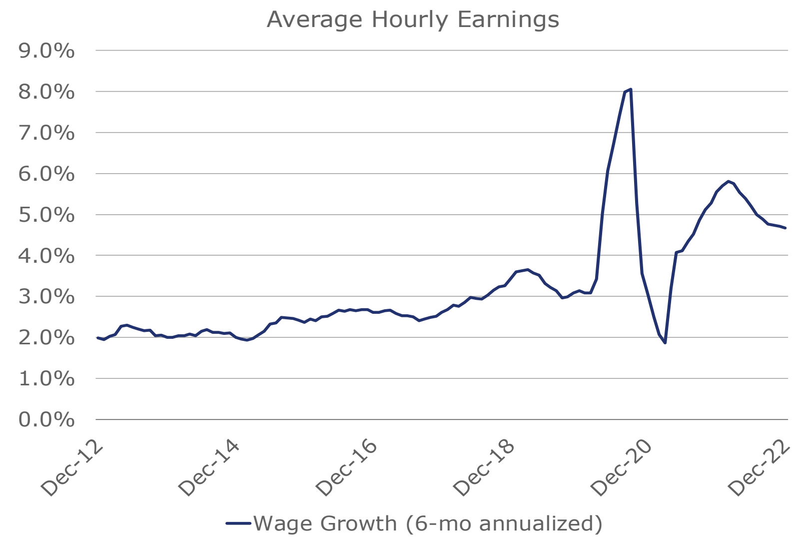


Data Source: Bloomberg

Consumer Activity

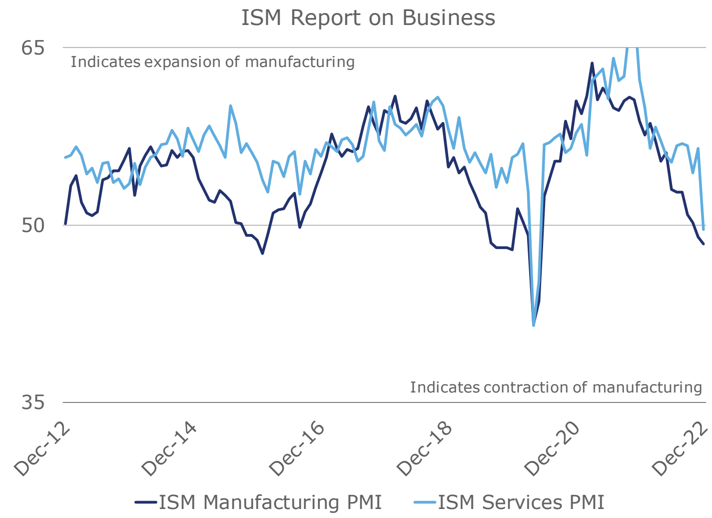


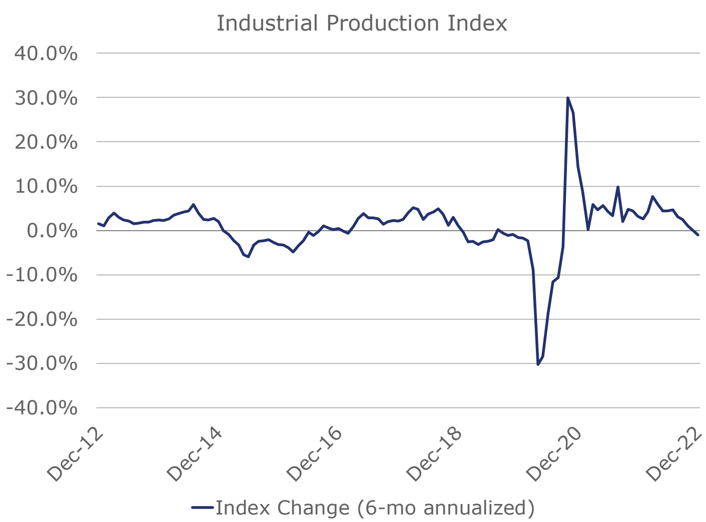


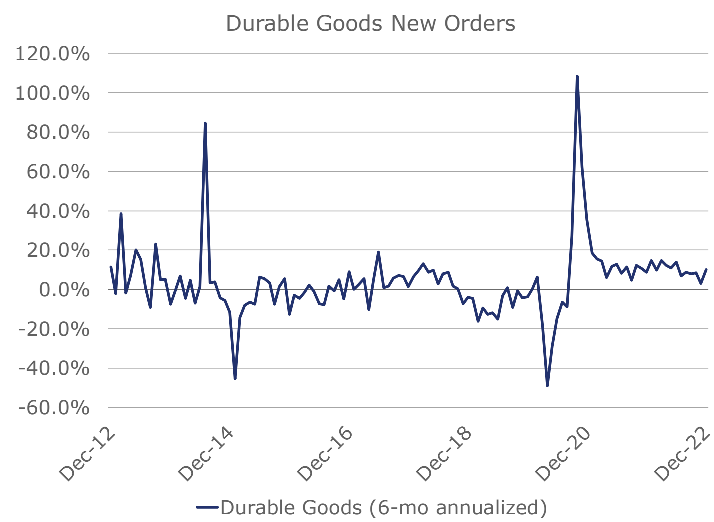


Data Source: Bloomberg

Business Activity

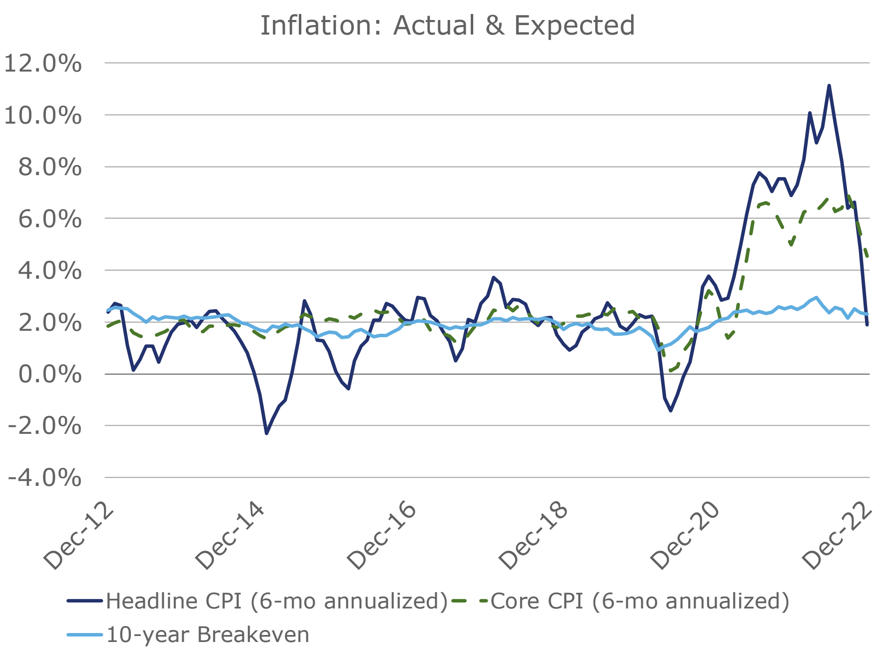


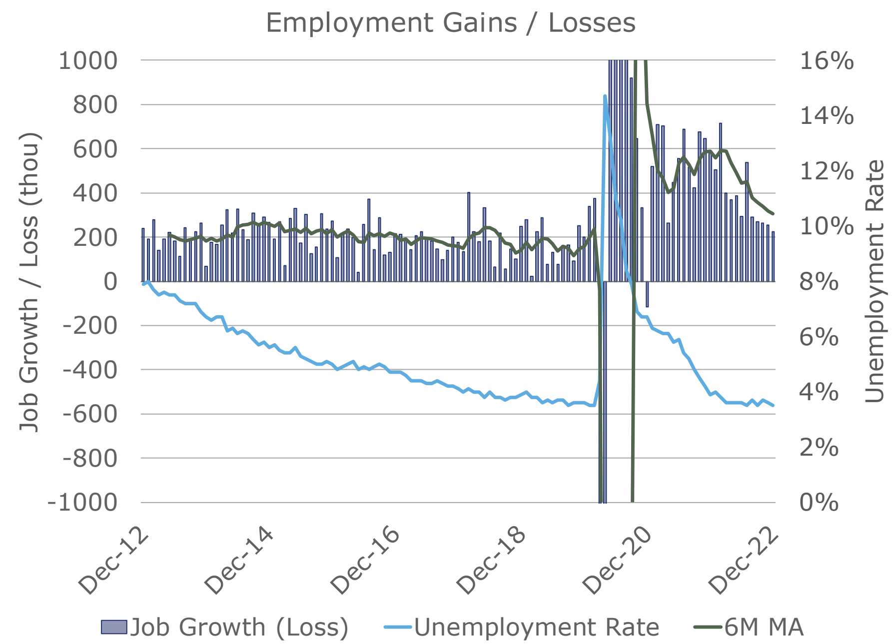




Data Source: Bloomberg

Inflation and Employment

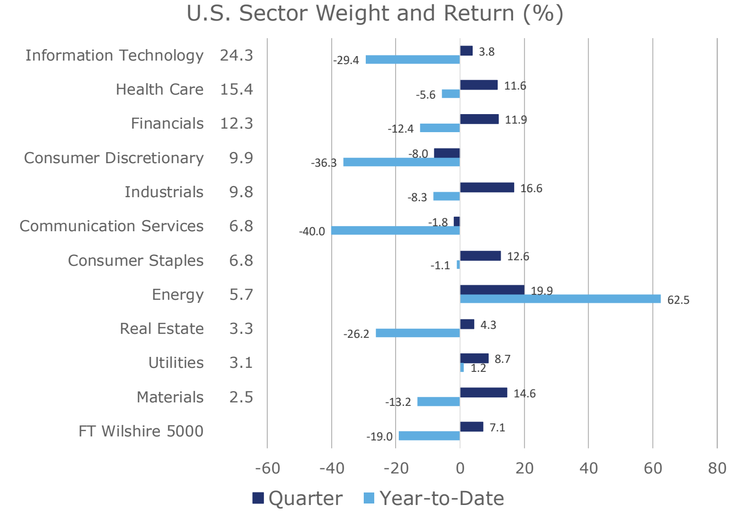


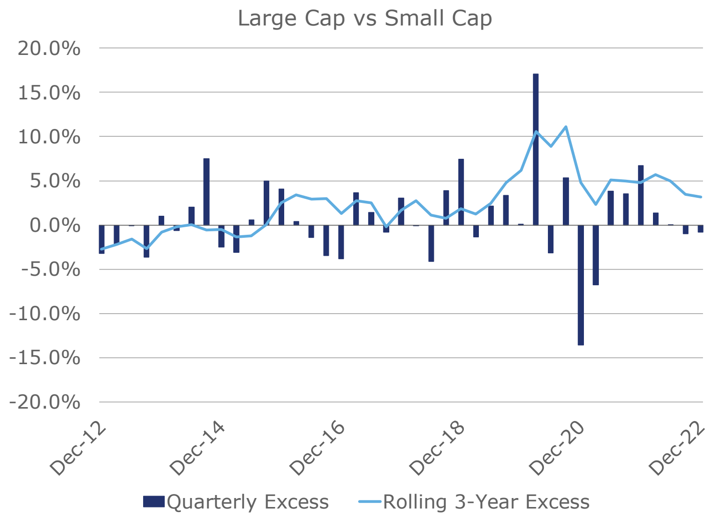


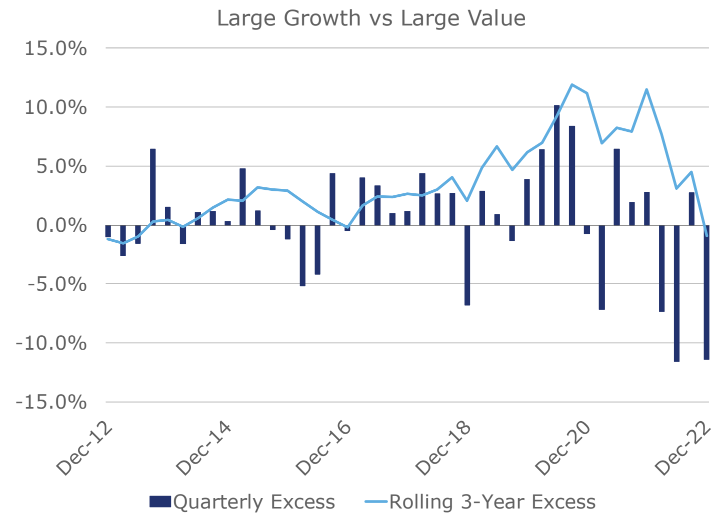
Data Source: Bloomberg

U.S. Equity Market

As of 12/30/2022	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
FT Wilshire 5000	7.1	-19.0	-19.0	7.4	9.0	12.3
Wilshire U.S. Large Cap	7.1	-19.0	-19.0	7.7	9.4	12.6
Wilshire U.S. Small Cap	7.9	-18.7	-18.7	4.4	5.1	9.7
Wilshire U.S. Large Growth	0.8	-29.5	-29.5	7.1	10.0	13.6
Wilshire U.S. Large Value	13.8	-5.5	-5.5	8.1	8.7	11.5
Wilshire U.S. Small Growth	7.1	-23.1	-23.1	3.2	5.1	9.9
Wilshire U.S. Small Value	8.7	-14.2	-14.2	5.6	5.0	9.3
Wilshire REIT Index	4.0	-26.8	-26.8	-0.5	3.4	6.3
MSCI USA Min. Vol. Index	9.8	-9.2	-9.2	5.1	8.6	11.9
FTSE RAFI U.S. 1000 Index	12.5	-7.4	-7.4	9.6	9.1	12.2



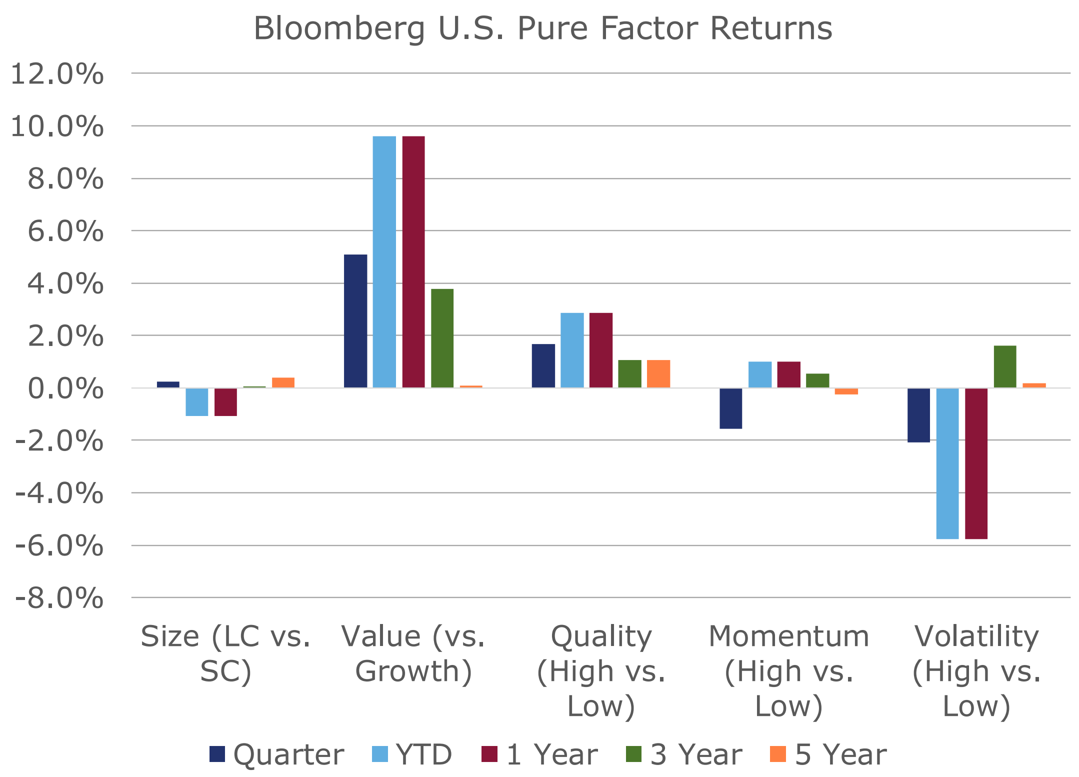




Data Sources: Bloomberg, Wilshire Atlas

U.S. Factor Returns

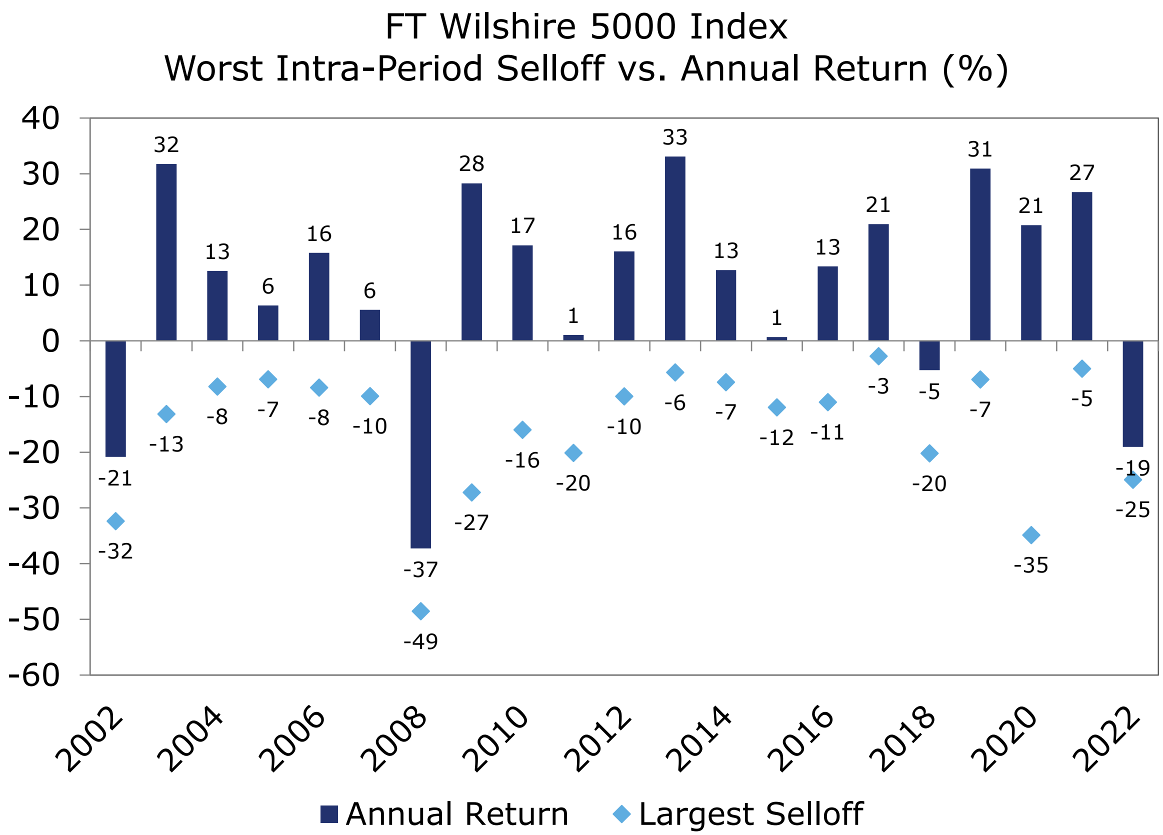
- Factor returns represent the contribution from large cap, value, etc. stocks within Bloomberg's Portfolio & Risk Analytics module
- Value and low volatility have mostly outperformed this year



Data Sources: Bloomberg

Annual Equity Market Selloffs

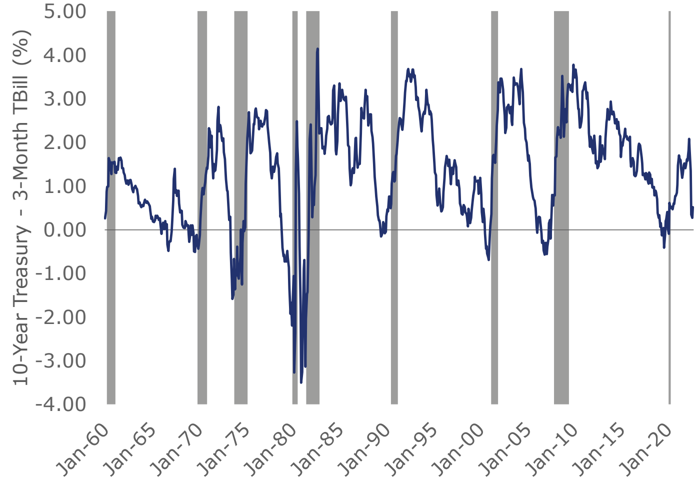
- U.S. equity suffered its worse year since the 2008 global financial crisis



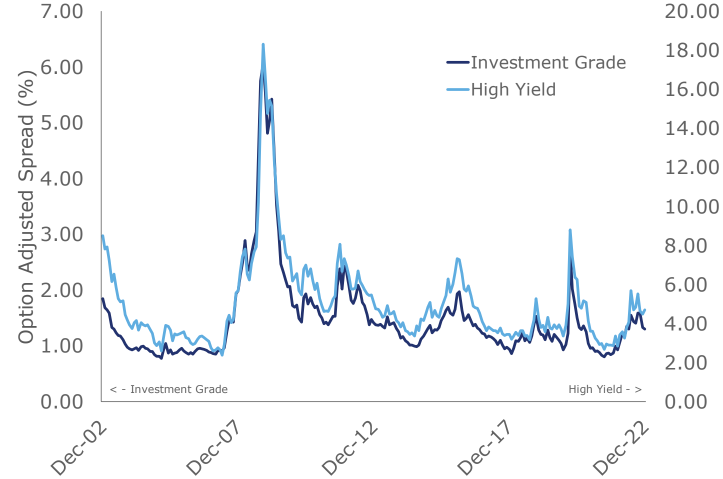
Data Sources: Wilshire Web, Bloomberg

Risk Monitor

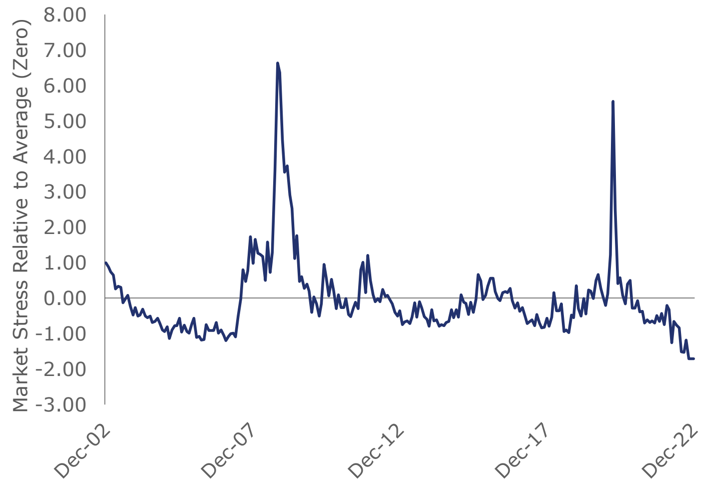
Yield Curve Slope vs Recessions (IN GRAY)



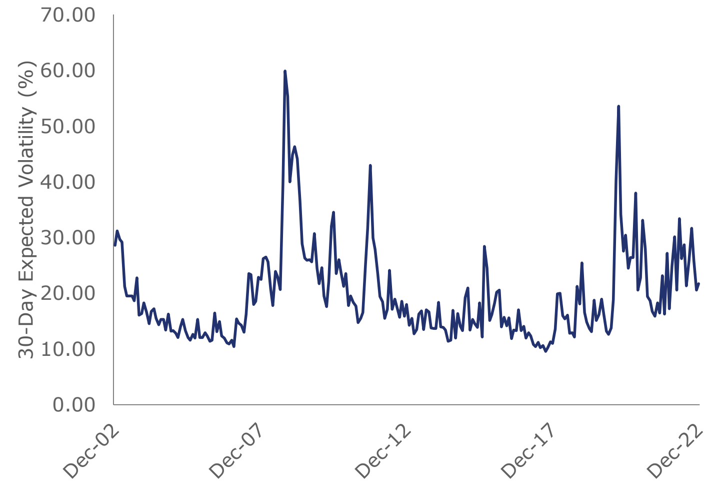
Bloomberg Credit Indexes



St. Louis Fed. Financial Stress Index

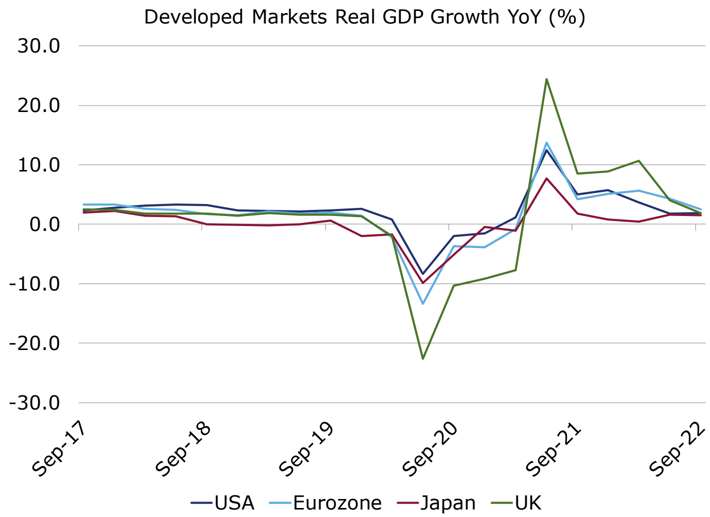


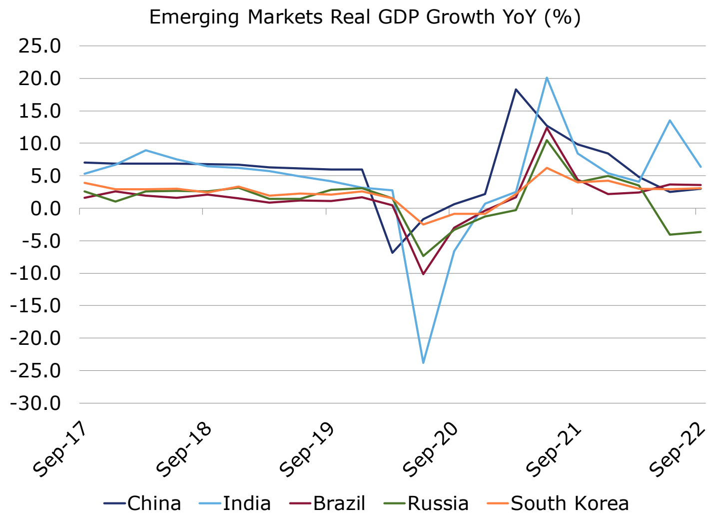
CBOE Volatility Index

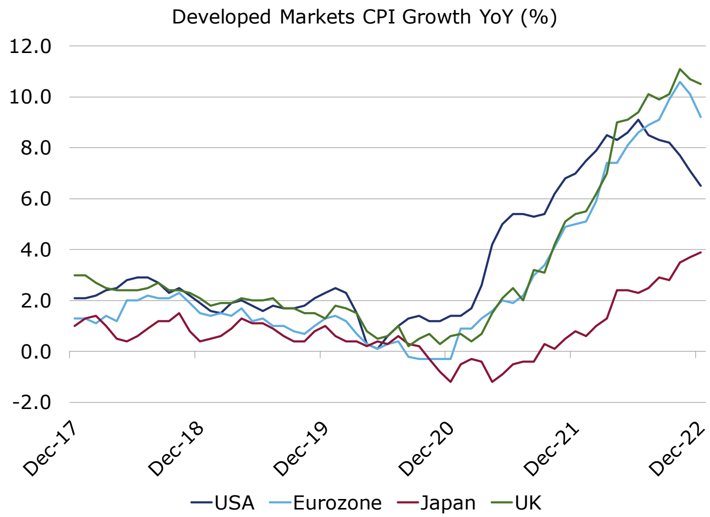


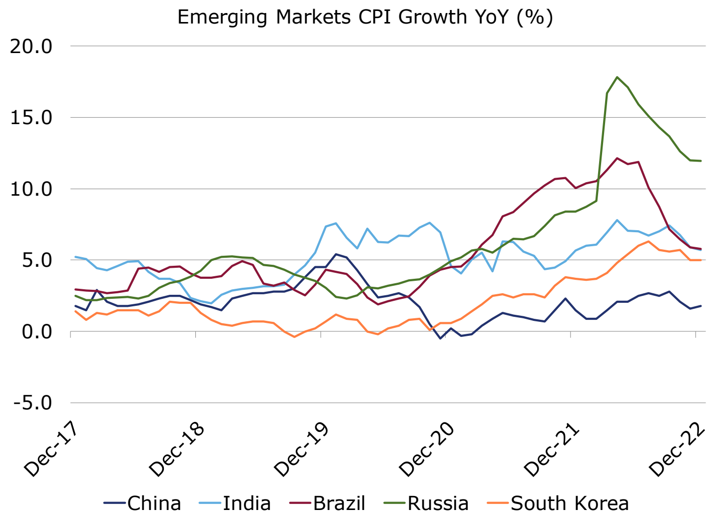
Data Sources: Bloomberg

Non-U.S. Growth and Inflation





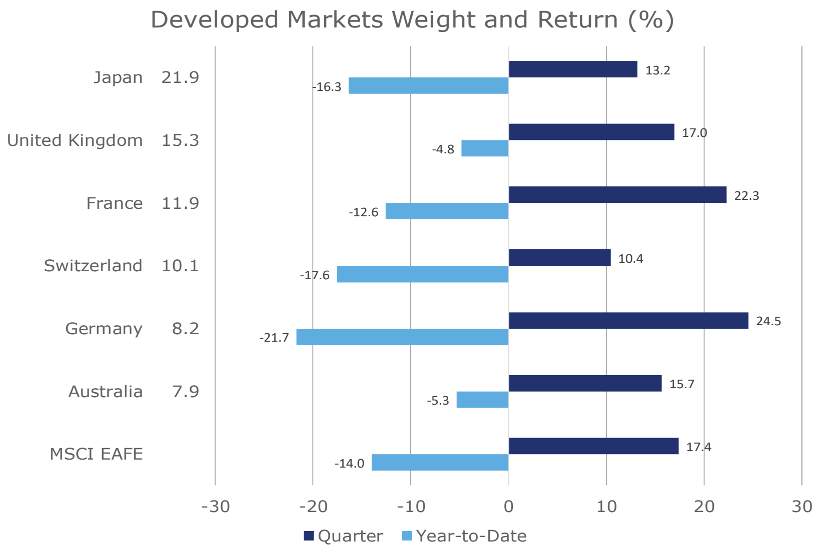


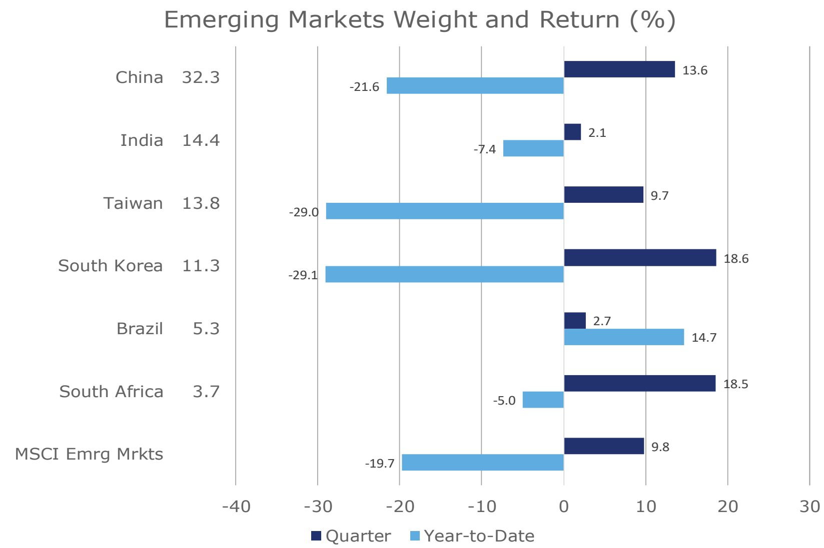


Data Sources: Bloomberg

Non-U.S. Equity Market

As of 12/30/2022	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
MSCI ACWI ex-US ($G)	14.4	-15.6	-15.6	0.5	1.4	4.3
MSCI EAFE ($G)	17.4	-14.0	-14.0	1.3	2.0	5.2
MSCI Emerging Markets ($G)	9.8	-19.7	-19.7	-2.3	-1.0	1.8
MSCI Frontier Markets ($G)	9.2	-17.8	-17.8	-5.7	-3.8	0.2
MSCI ACWI ex-US Growth ($G)	12.9	-22.8	-22.8	-0.1	1.8	5.0
MSCI ACWI ex-US Value ($G)	15.7	-8.7	-8.7	0.8	0.6	3.6
MSCI ACWI ex-US Small ($G)	13.4	-19.6	-19.6	1.5	1.1	5.6
MSCI ACWI Minimum Volatility	8.6	-9.8	-9.8	2.2	5.2	8.4
MSCI EAFE Minimum Volatility	12.5	-14.6	-14.6	-2.6	0.6	5.1
FTSE RAFI Developed ex-US	18.3	-9.0	-9.0	2.7	1.7	4.9
MSCI EAFE LC (G)	8.8	-6.5	-6.5	4.1	4.3	8.1
MSCI Emerging Markets LC (G)	6.7	-15.2	-15.2	0.5	1.7	5.0



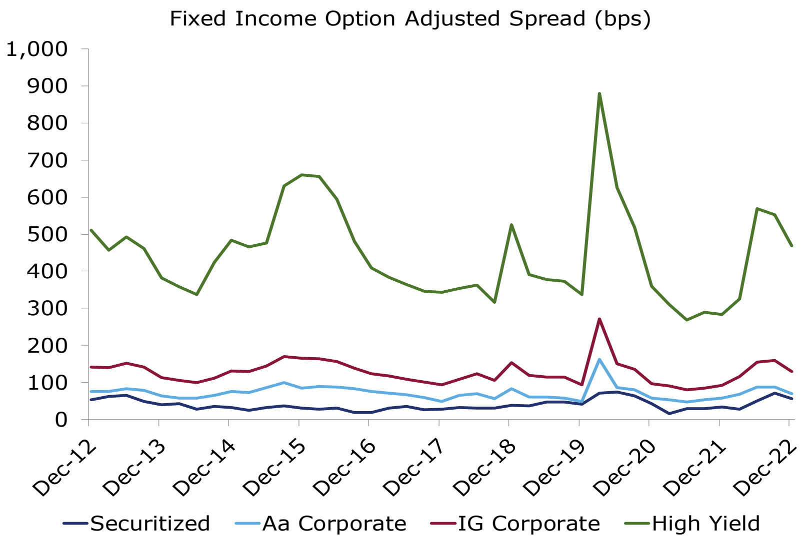


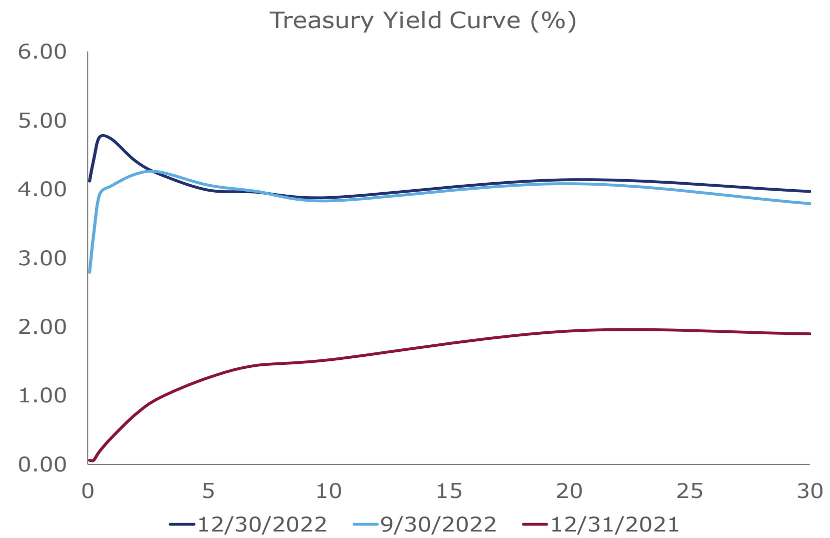
Data Sources: Bloomberg

U.S. Fixed Income

As of 12/30/2022	YTW	DUR.	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Aggregate	4.7	6.2	1.9	-13.0	-13.0	-2.7	0.0	1.1
Bloomberg Treasury	4.2	6.1	0.7	-12.5	-12.5	-2.6	-0.1	0.6
Bloomberg Gov't-Rel.	4.8	5.2	1.9	-11.1	-11.1	-2.4	0.3	1.1
Bloomberg Securitized	4.8	5.7	2.0	-11.7	-11.7	-3.1	-0.4	0.8
Bloomberg Corporate	5.4	7.1	3.6	-15.8	-15.8	-2.9	0.5	2.0
Bloomberg LT Gov't/Credit	4.9	14.3	2.6	-27.1	-27.1	-6.2	-1.2	1.6
Bloomberg LT Treasury	4.1	16.2	-0.6	-29.3	-29.3	-7.4	-2.2	0.6
Bloomberg LT Gov't-Rel.	5.5	11.6	4.2	-22.7	-22.7	-5.9	-0.8	1.6
Bloomberg LT Corporate	5.6	13.0	5.4	-25.6	-25.6	-5.7	-0.8	2.2
Bloomberg U.S. TIPS *	3.8	7.6	2.0	-11.8	-11.8	1.2	2.1	1.1
Bloomberg High Yield	9.0	3.9	4.2	-11.2	-11.2	0.0	2.3	4.0
S&P/LSTA Leveraged Loan	9.1	0.3	2.7	-0.6	-0.6	2.5	3.3	3.7
Treasury Bills	4.4	0.3	0.9	1.3	1.3	0.7	1.2	0.8

* Yield and Duration statistics are for a proxy index based on similar maturity, the Bloomberg Barclays U.S. Treasury 7-10 Year Index



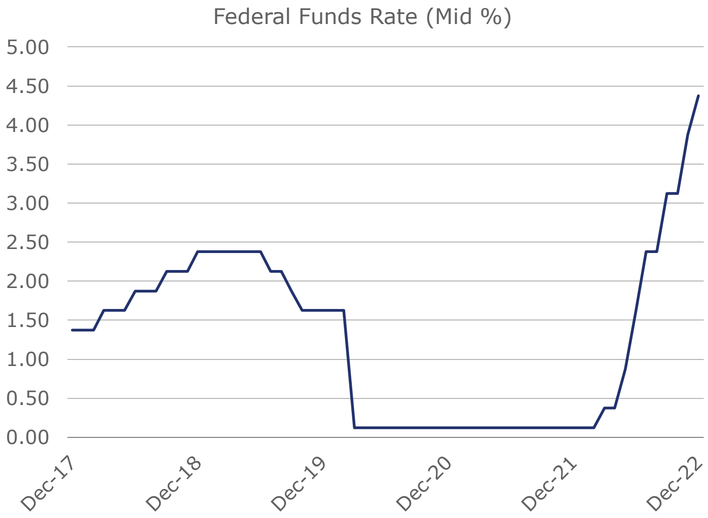


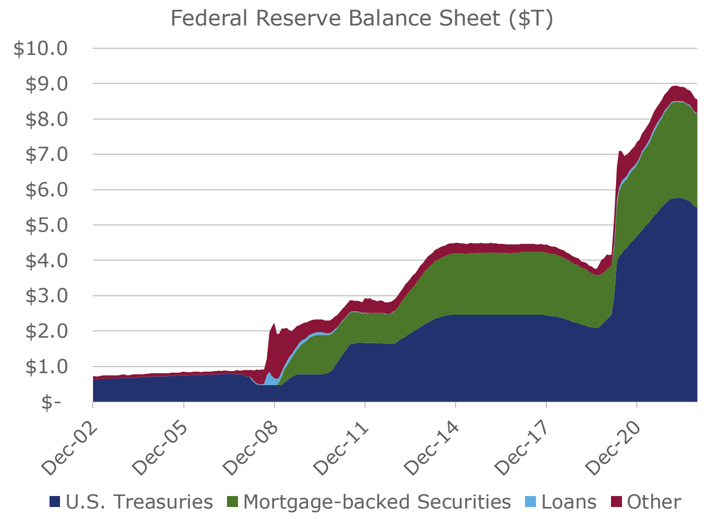
Data Sources: Bloomberg

Federal Reserve

- After 300 basis point increase in the Fed-funds rate through September, the FOMC increased the rate an additional 125 basis points during Q4
- Federal Reserve has added more than $4.5 trillion in assets to their balance sheet during the past two years
- QE4 was larger than the 3 phases of quantitative easing – combined – following the global financial crisis

	Announced	Closed	Amount (bil)
QE1	11/25/2008	3/31/2010	$1,403
QE2	11/3/2010	6/29/2012	$568
QE3	9/13/2012	10/29/2014	$1,674
QE4	3/23/2020	3/15/2022	$4,779



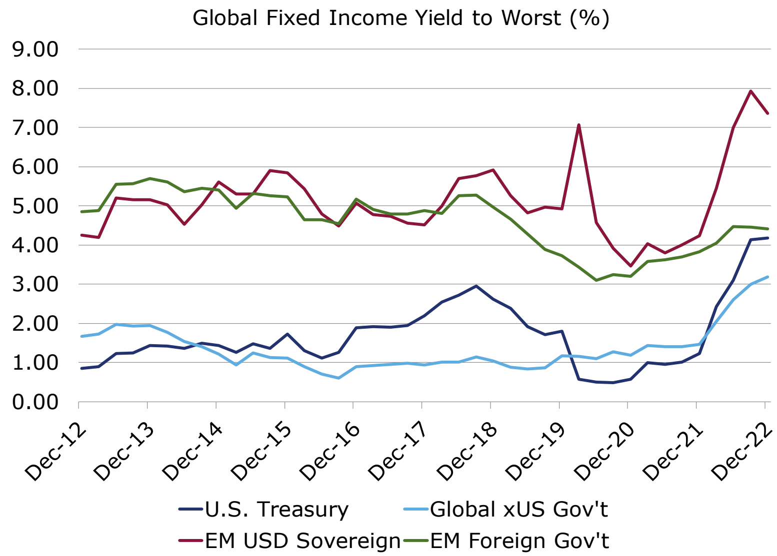


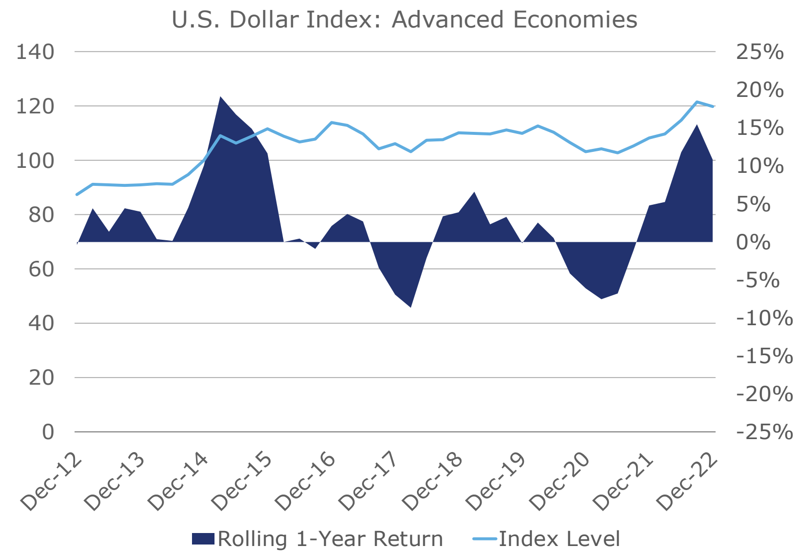
Data Sources: Bloomberg

Non-U.S. Fixed Income

As of 12/30/2022	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
Developed Markets						
Bloomberg Global Aggregate xUS	6.8	-18.7	-18.7	-5.9	-3.1	-1.6
Bloomberg Global Aggregate xUS *	0.2	-9.8	-9.8	-2.6	0.5	2.1
Bloomberg Global Inflation Linked xUS	5.8	-29.6	-29.6	-7.0	-4.0	-0.9
Bloomberg Global Inflation Linked xUS *	-1.7	-21.1	-21.1	-3.5	-0.4	2.7
Emerging Markets (Hard Currency)						
Bloomberg EM USD Aggregate	6.6	-15.3	-15.3	-3.9	-0.4	1.7
Emerging Markets (Foreign Currency)						
Bloomberg EM Local Currency Gov't	5.9	-8.4	-8.4	-1.7	0.1	0.2
Bloomberg EM Local Currency Gov't *	1.9	-2.7	-2.7	-0.3	2.0	1.9
Euro vs. Dollar	9.2	-5.8	-5.8	-1.5	-2.3	-2.1
Yen vs. Dollar	10.4	-12.2	-12.2	-6.1	-3.0	-4.0
Pound vs. Dollar	8.2	-10.7	-10.7	-3.0	-2.2	-2.9

* Returns are reported in terms of local market investors, which removes currency effects.

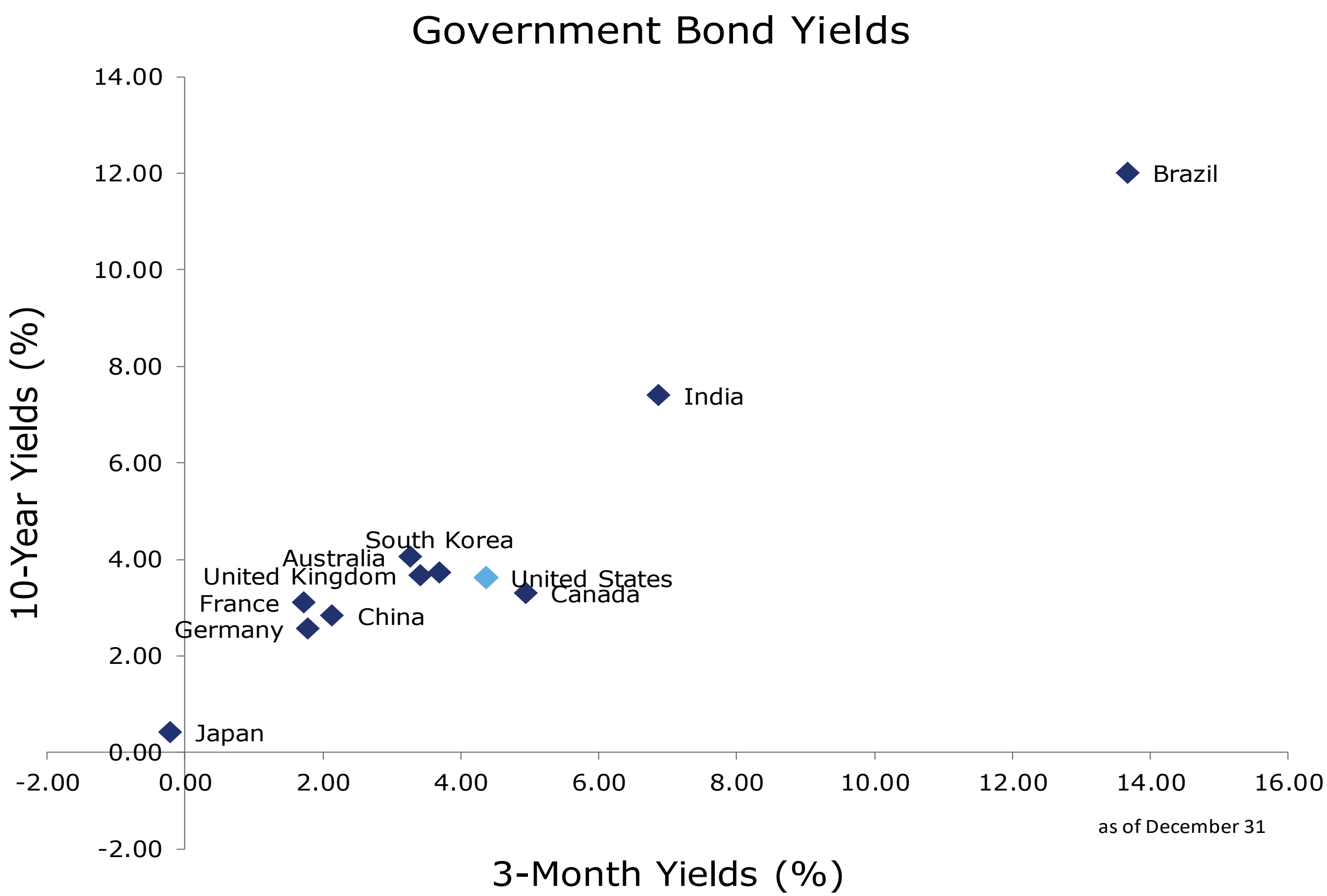




Data Sources: Bloomberg

Global Interest Rates

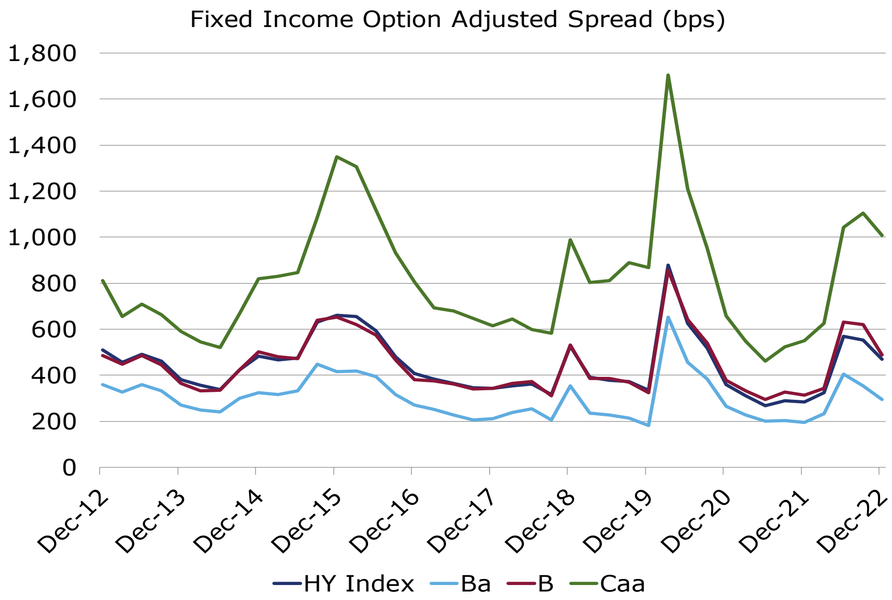
Short-term rates have turned positive in most larger countries; longer-term rates around 4% in the U.K., Australia, South Korea and the U.S.



Data Sources: Bloomberg

High Yield Bond Market

As of 12/31/2022		YTW	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg High Yield		9.0	4.2	-11.2	-11.2	0.0	2.3	4.0
S&P LSTA Leveraged Loan		9.1	3.8	-0.6	-0.6	1.9	3.1	3.2
High Yield Quality Distribution	**Weight**							
Ba U.S. High Yield	49.9%	7.2	4.3	-10.8	-10.8	0.9	3.0	4.4
B U.S. High Yield	38.6%	9.2	4.9	-10.3	-10.3	-0.5	2.2	3.6
Caa U.S. High Yield	10.7%	14.3	0.5	-16.3	-16.3	-2.4	-0.4	3.5
Ca to D U.S. High Yield	0.7%	36.3	13.8	-10.4	-10.4	1.1	0.4	-5.0

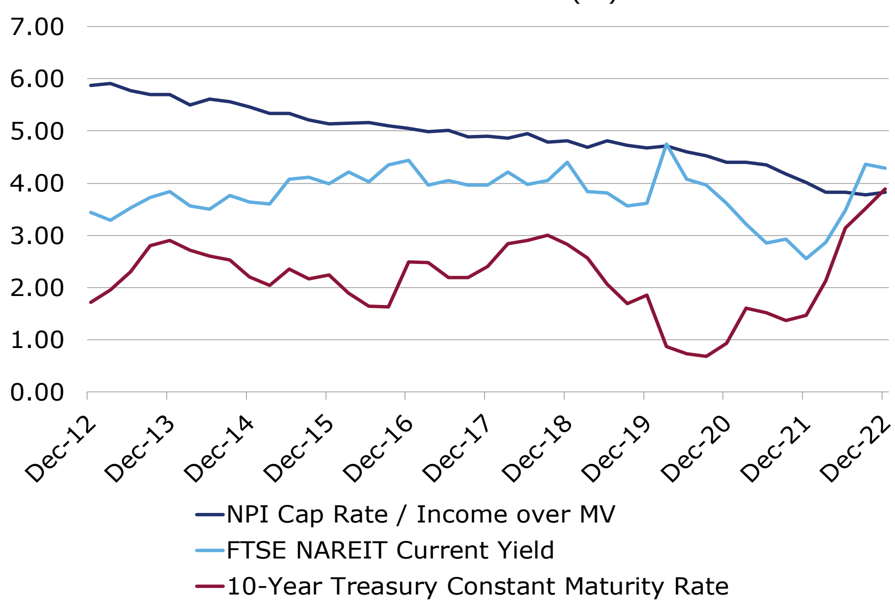


Data Sources: Bloomberg

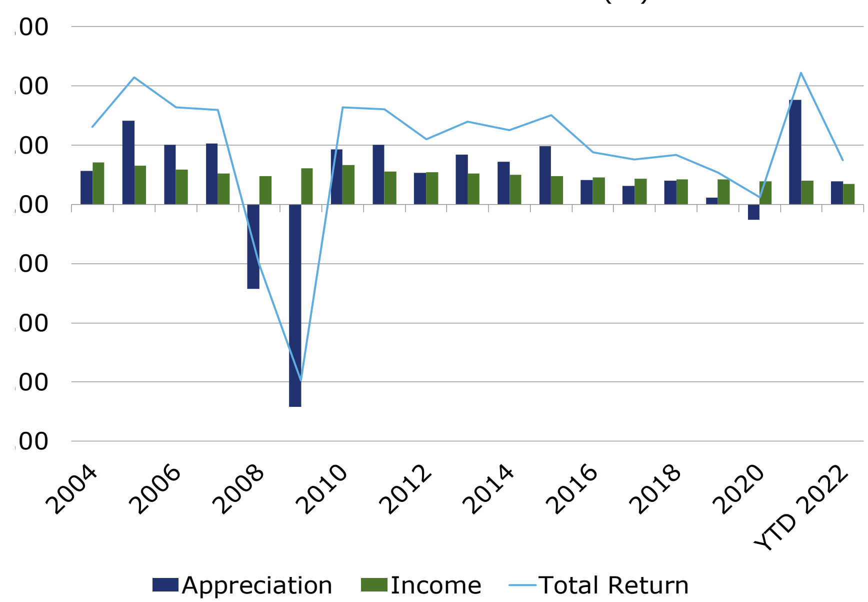
Real Assets

As of 12/30/2022	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg U.S. TIPS	2.0	-11.8	-11.8	1.2	2.1	1.1
Bloomberg Commodity Index	2.2	16.1	16.1	12.7	6.4	-1.3
Bloomberg Gold Index	9.5	-0.7	-0.7	4.7	5.7	0.0
Wilshire Global RESI Index	6.4	-24.9	-24.9	-2.7	1.6	4.8
NCREIF ODCE Fund Index	-5.0	7.5	7.5	9.9	8.7	10.1
NCREIF Timberland Index	4.9	12.9	12.9	7.5	5.4	5.8
FTSE Global Core Infrastructure 50/50	9.2	-4.1	-4.1	2.3	5.5	7.9
Alerian Midstream Energy	8.4	21.5	21.5	8.8	6.8	n.a.
Bitcoin	-14.9	-64.3	-64.3	32.2	3.3	103.6

Real Estate Valuation (%)



NCREIF ODCE Fund Index Return (%)



Data Sources: Bloomberg

Asset Class Performance

Asset Class Returns - Best to Worst

2017	2018	2019	2020	2021	2022 YTD	Annualized 5-Year as of 12/22
Emrg Mrkts 37.7%	T-Bills 1.9%	U.S. Equity 31.0%	U.S. Equity 20.8%	REITs 46.2%	Commodities 16.1%	U.S. Equity 9.0%
Developed 25.6%	Core Bond 0.0%	REITs 25.8%	Emrg Mrkts 18.7%	Commodities 27.1%	T-Bills 1.3%	Commodities 6.4%
U.S. Equity 21.0%	U.S. TIPS -1.3%	Developed 22.7%	U.S. TIPS 11.0%	U.S. Equity 26.7%	High Yield -11.2%	REITs 3.4%
High Yield 7.5%	High Yield -2.1%	Emrg Mrkts 18.9%	Developed 8.3%	Developed 11.8%	U.S. TIPS -11.8%	High Yield 2.3%
REITs 4.2%	REITs -4.8%	High Yield 14.3%	Core Bond 7.5%	U.S. TIPS 6.0%	Core Bond -13.0%	U.S. TIPS 2.1%
Core Bond 3.6%	U.S. Equity -5.3%	Core Bond 8.7%	High Yield 7.1%	High Yield 5.3%	Developed -14.0%	Developed 2.0%
U.S. TIPS 3.0%	Commodities -11.2%	U.S. TIPS 8.4%	T-Bills 0.7%	T-Bills 0.0%	U.S. Equity -19.0%	T-Bills 1.2%
Commodities 1.7%	Developed -13.4%	Commodities 7.7%	Commodities -3.1%	Core Bond -1.5%	Emrg Mrkts -19.7%	Core Bond 0.0%
T-Bills 0.8%	Emrg Mrkts -14.2%	T-Bills 2.3%	REITs -7.9%	Emrg Mrkts -2.2%	REITs -26.8%	Emrg Mrkts -1.0%

Data Sources: Bloomberg

Note: Developed asset class is developed equity markets ex-U.S., ex-Canada

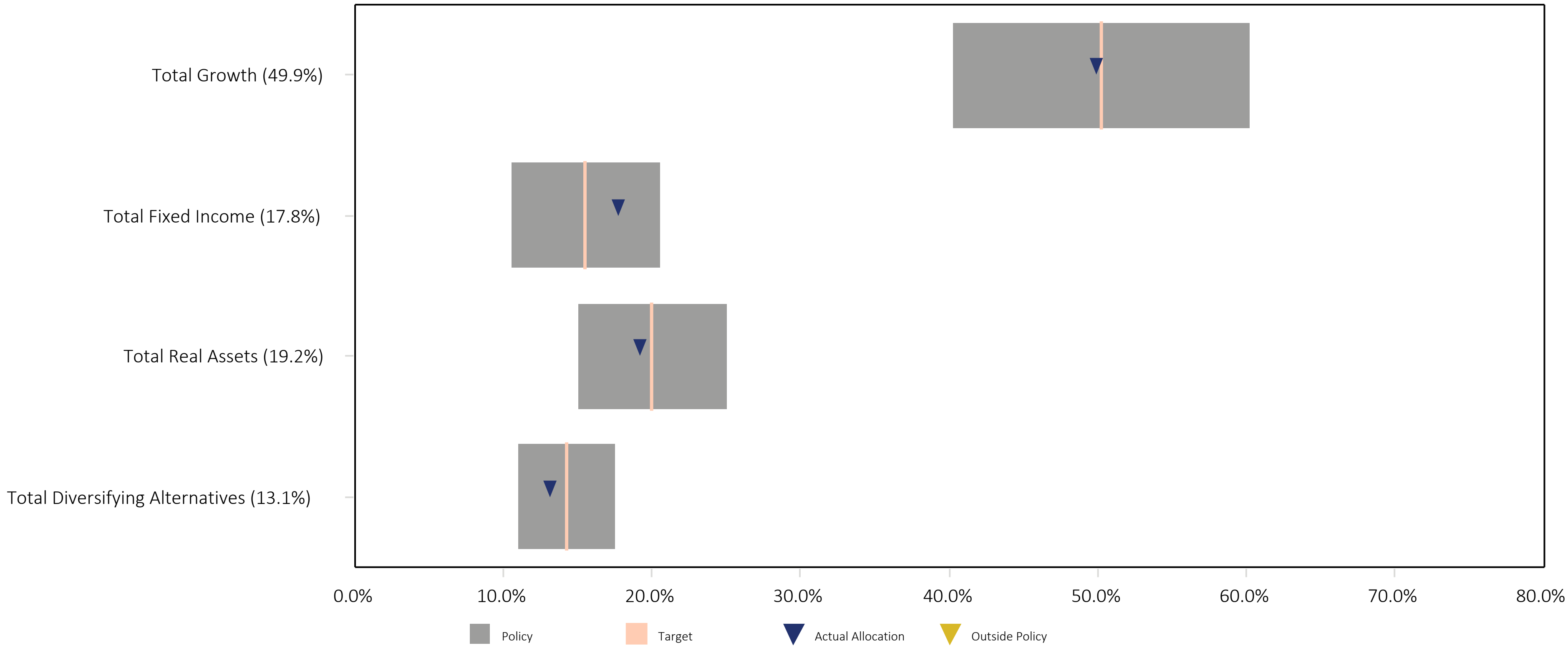
Total Fund

Asset Allocation

Total Fund

Periods Ended As of December 31, 2022

Executive Summary



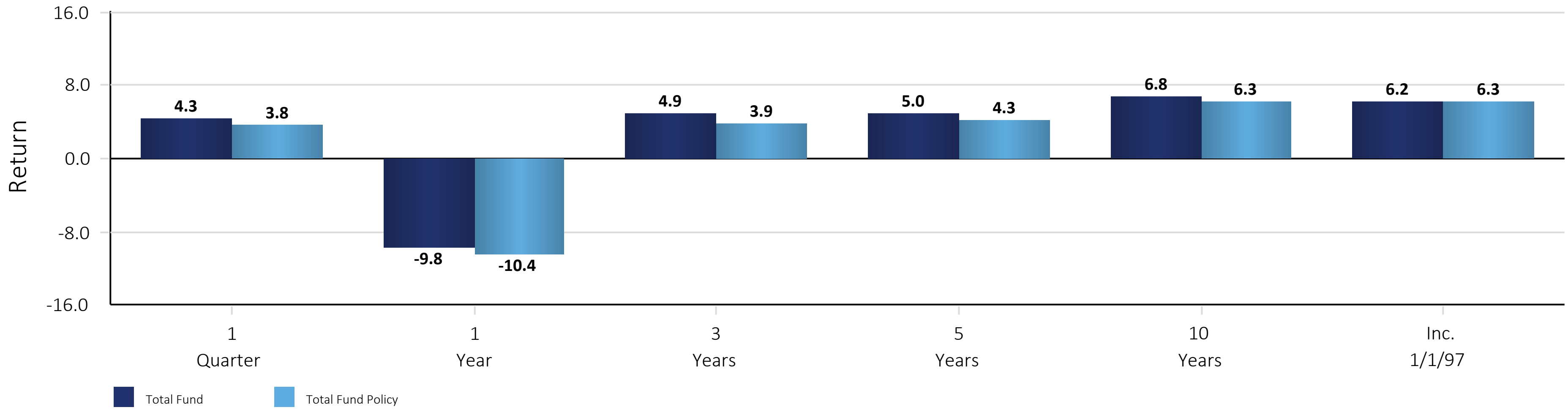
	Asset Allocation $	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Minimum Rebalance $	Maximum Rebalance $
Total Fund	431,526,375	100.0			100.0		
Total Growth	215,474,884	49.9	40.3	60.3	50.3	-41,785,518	44,519,757
Total Fixed Income	76,669,849	17.8	10.5	20.5	15.5	-31,359,580	11,793,057
Total Real Assets	82,843,665	19.2	15.0	25.0	20.0	-18,114,709	25,037,929
Total Diversifying Alternatives	56,537,977	13.1	11.0	17.5	14.3	-9,070,076	18,979,139

Total Fund Summary

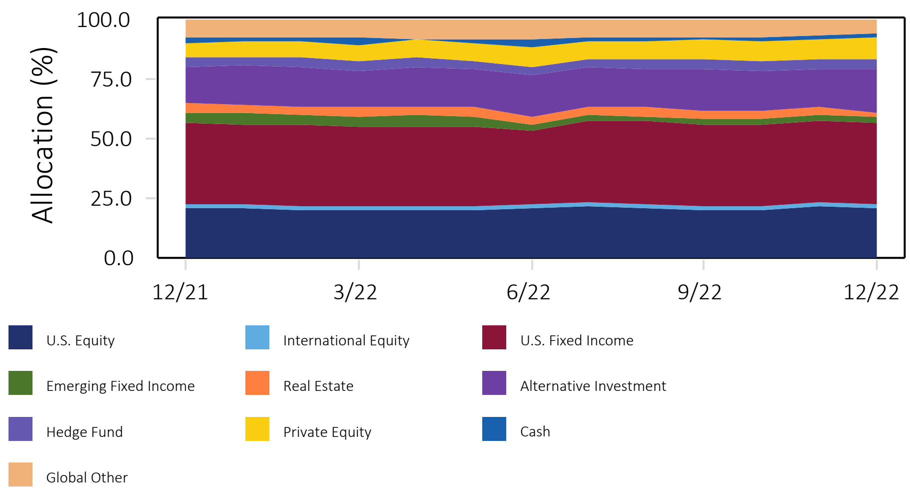
Total Fund

Periods Ended December 31, 2022

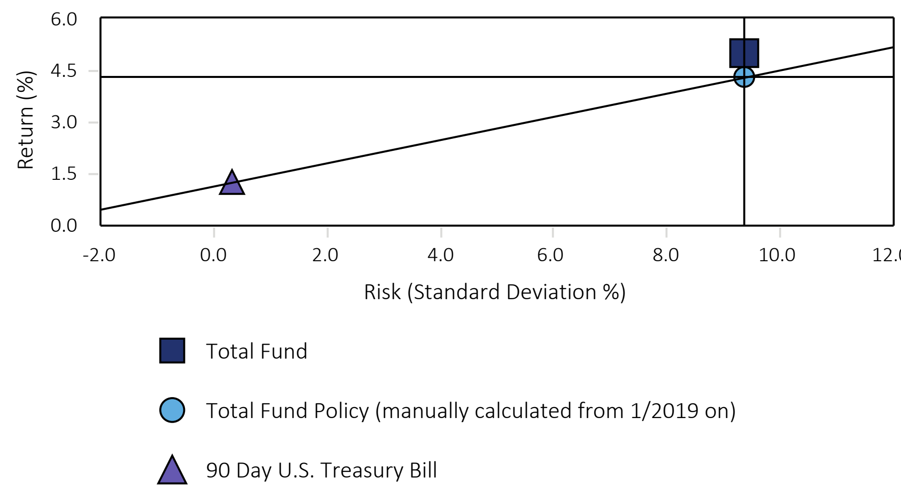
Comparative Performance



Historical Asset Allocation by Segment



Risk and Return 01/1/18 - 12/31/22

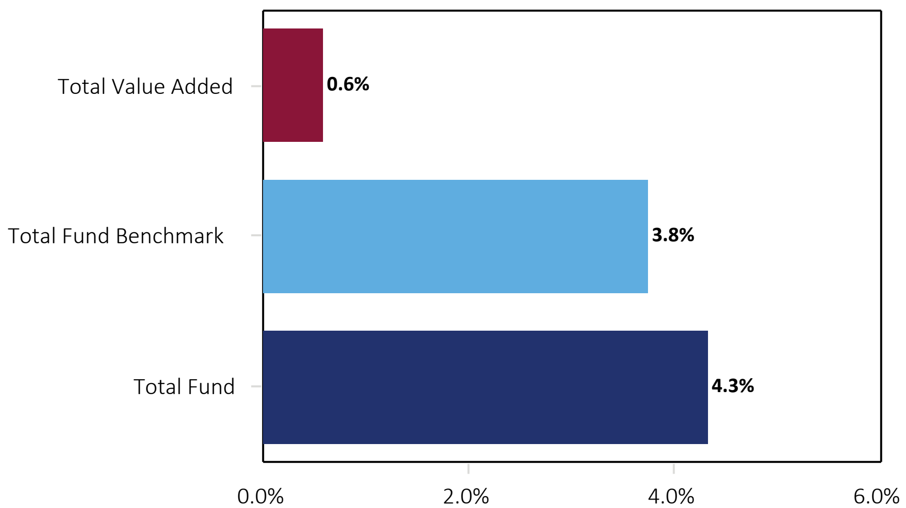


Total Fund Attribution

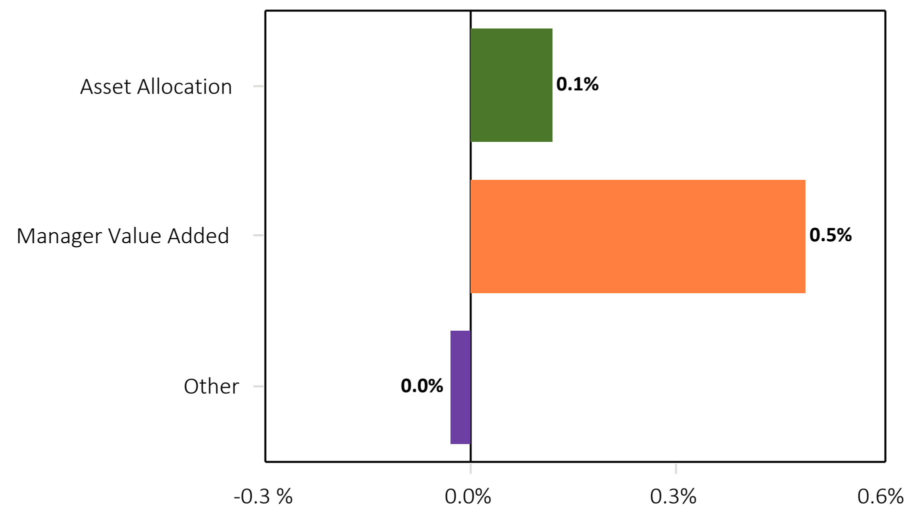
Total Fund

Periods Ended 1 Quarter Ending December 31, 2022

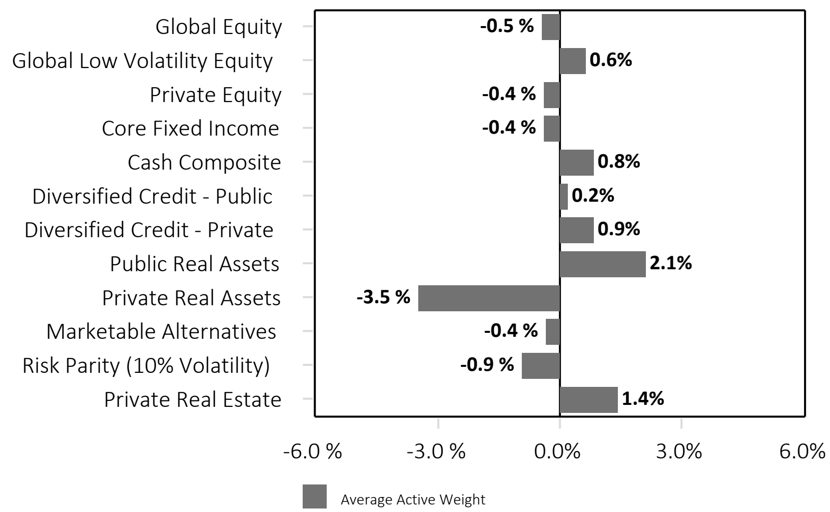
Total Fund Performance



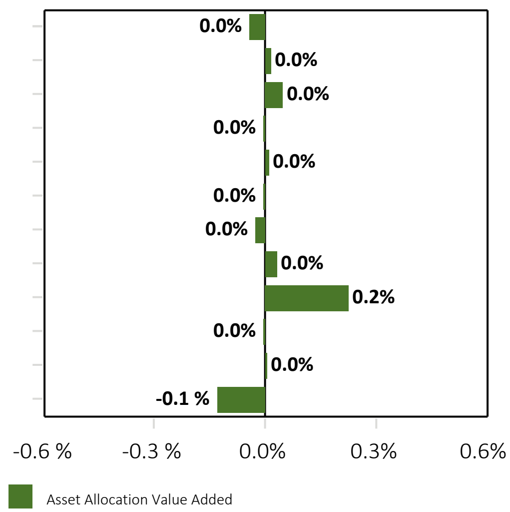
Total Value Added:0.6%



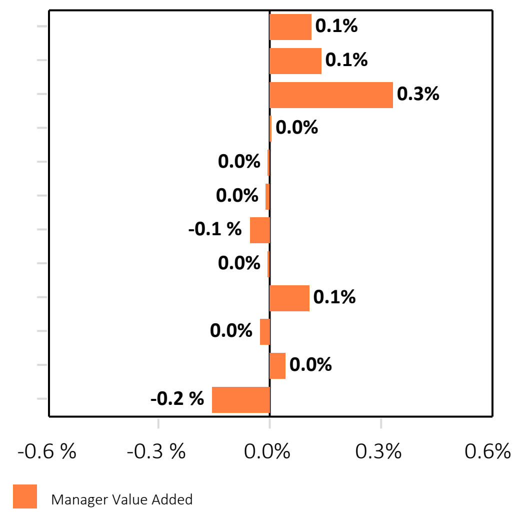
Total Asset Allocation:0.1%



Asset Allocation Value Added:0.1%



Total Manager Value Added:0.5%

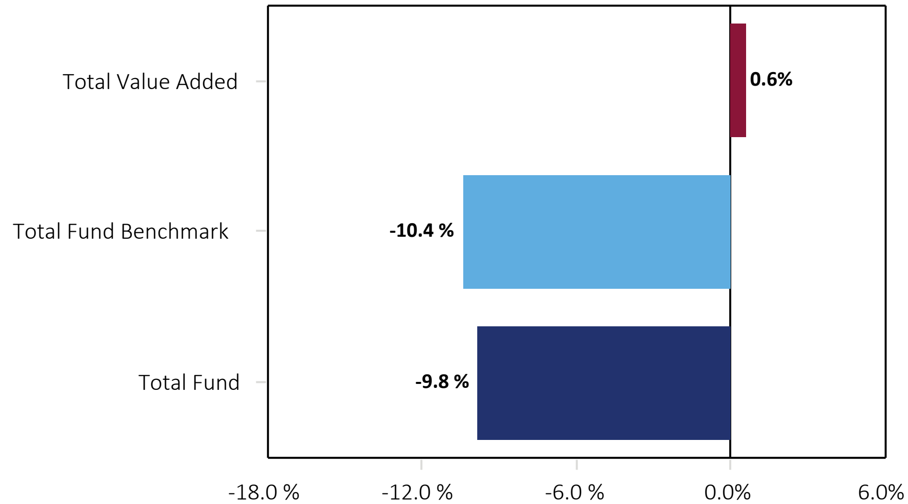


Total Fund Attribution

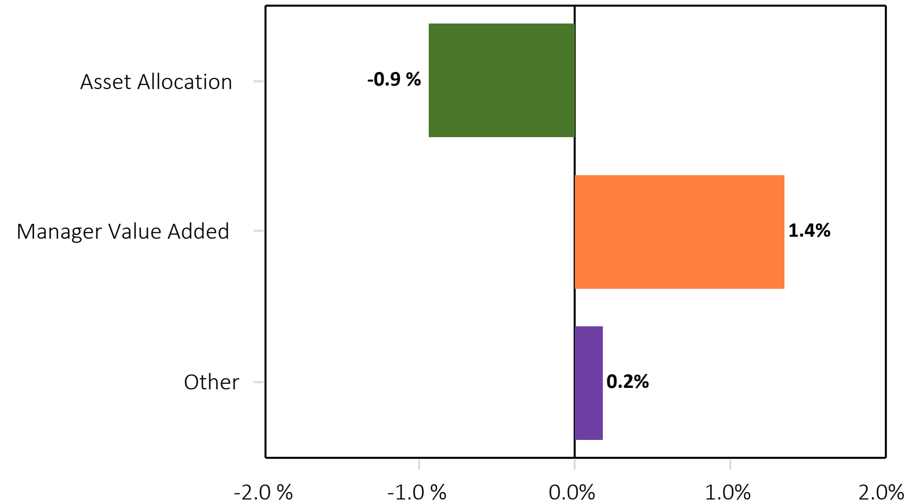
Total Fund

Periods Ended 1 Year Ending December 31, 2022

Total Fund Performance



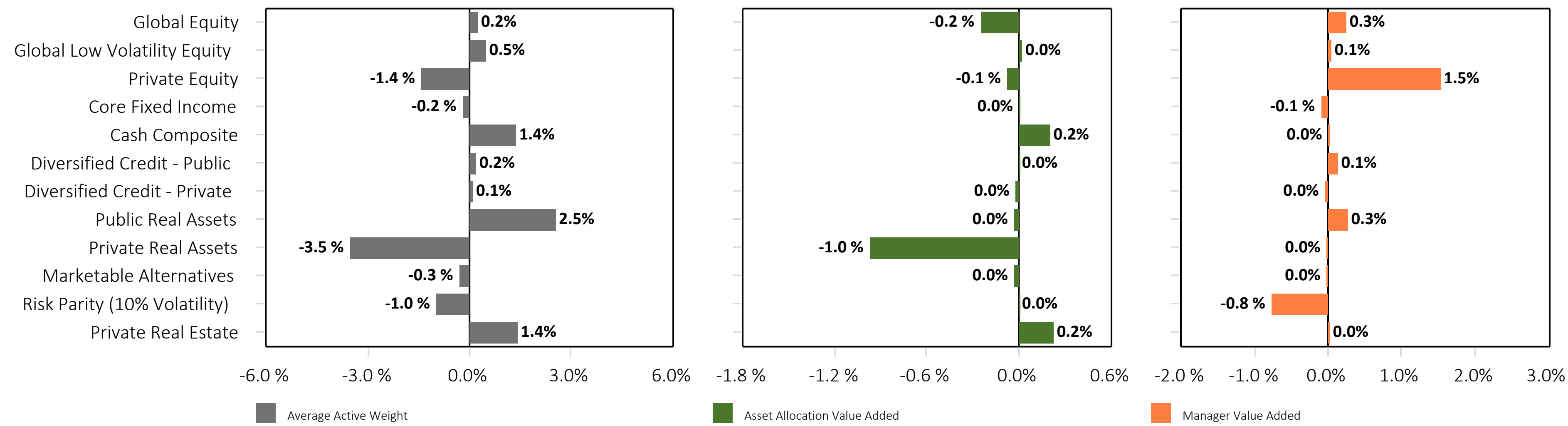
Total Value Added:0.6%



Total Asset Allocation:-0.9 %

Asset Allocation Value Added:-0.9 %

Total Manager Value Added:1.4%



Asset Allocation & Performance

Periods Ended December 31, 2022

	Allocation		Performance (%) net of fees			
	Market Value $	%	1 Quarter	1 Year	3 Years	5 Years
Total Fund	431,526,375	100.00	4.33	-9.83	4.92	4.99
Total Fund Policy			3.75	-10.43	3.95	4.31
Value Added			0.58	0.60	0.97	0.68
Total Growth	215,474,884	49.93	7.52	-12.46	7.62	6.99
Total Growth Policy			6.29	-15.47	4.60	5.01
Value Added			1.23	3.01	3.02	1.98
Total Fixed Income	76,669,849	17.77	2.32	-9.53	0.53	2.12
Total Fixed Income Policy			3.19	-10.00	-0.42	1.37
Value Added			-0.87	0.47	0.95	0.75
Total Real Assets	82,843,665	19.20	-1.24	1.64	6.92	6.02
Total Real Assets Policy			-1.64	5.41	7.95	6.05
Value Added			0.40	-3.77	-1.03	-0.03
Total Diversifying Alternatives	56,537,977	13.10	2.93	-20.35	0.22	0.79
Total Diversifying Alternatives Policy			2.91	-14.17	1.09	1.35
Value Added			0.02	-6.18	-0.87	-0.56

Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2022

	Allocation		Performance (%) net of fees						
	Market Value $	%	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Total Fund	431,526,375	100.00	4.33	-9.83	4.92	4.99	6.80	6.22	1/1/1997
Total Fund Policy			3.75	-10.43	3.95	4.31	6.28	6.28	
Value Added			0.58	0.60	0.97	0.68	0.52	-0.06	
Total Growth	215,474,884	49.93							
Global Equity	126,612,913	29.34	10.18	-17.60	4.92	5.48		6.65	7/1/2014
MSCI AC World Index (Net)			9.76	-18.36	4.00	5.23		6.09	
Value Added			0.42	0.76	0.92	0.25		0.56	
Global Low Volatility Equity	47,256,089	10.95	7.65	-8.78	3.20	4.25		4.68	8/1/2017
Low Volatility Custom Index			6.39	-9.25	3.20	4.17		4.67	
Value Added			1.26	0.47	0.00	0.08		0.01	
Private Equity	41,605,882	9.64	-0.29	1.95	33.95	26.03		13.01	10/1/2014
Russell 3000 Index Lag 1 Quarter			-4.46	-17.63	7.70	8.62		9.11	
Value Added			4.17	19.58	26.25	17.41		3.90	
Total Fixed Income	76,669,849	17.77							
Core Fixed Income	19,437,564	4.50	1.98	-14.65	-2.75	-0.06		0.85	7/1/2014
Blmbg. U.S. Aggregate Index			1.87	-13.01	-2.71	0.02		1.03	
Value Added			0.11	-1.64	-0.04	-0.08		-0.18	
Diversified Credit – Public	22,560,696	5.23	5.36	-11.27				2.15	5/1/2020
Diversified Credit - Public Policy			5.59	-12.50				1.43	
Value Added			-0.23	1.23				0.72	

* Private asset manager performance is lagged by 1 quarter due to manager reporting timelines.

Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2022

	Allocation		Performance (%) net of fees						
	Market Value $	%	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Diversified Credit – Private	27,427,412	6.36	1.43	-0.48				5.71	5/1/2020
CSFB Leveraged Loan Index			2.33	-1.06				6.53	
Value Added			-0.90	0.58				-0.82	
Cash	7,244,177	1.68							
Real Assets	82,843,665	19.20							
Real Assets	39,128,086	9.07	5.16	-4.62	5.87	2.33	3.76	4.37	7/1/2012
Real Assets Policy			1.36	4.05	10.20	3.29	1.60	2.01	
Value Added			3.80	-8.67	-4.33	-0.96	2.16	2.36	
Public Real Assets	30,957,762	7.17	5.34	-6.06	5.89	2.34	3.76	4.37	7/1/2012
Public Real Assets Policy			5.40	-9.99	4.51	0.05	-0.01	0.48	
Value Added			-0.06	3.93	1.38	2.29	3.77	3.89	
Private Real Assets	8,170,324	1.89	4.66	9.59				6.84	3/1/2021
Private Real Assets Policy			13.57	24.50					
Value Added			-8.91	-14.91					
Real Estate	43,715,578	10.13	-5.95	6.09	9.90	8.57		9.34	7/1/2014
Real Estate Policy			-4.62	6.22	8.67	7.67		8.55	
Value Added			-1.33	-0.13	1.23	0.90		0.79	
Private Real Estate	43,715,578	10.13	-5.95	6.09	9.90	8.57		9.34	7/1/2014
Private Real Estate Policy			-4.62	6.22	8.67	7.67		8.55	
Value Added			-1.33	-0.13	1.23	0.90		0.79	
Total Diversifying Alternatives	56,537,977	13.10							

* Private asset manager performance is lagged by 1 quarter due to manager reporting timelines.

Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2022

	Allocation		Performance (%) net of fees						
	Market Value $	%	1 Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Marketable Alternative	16,824,944	3.90	1.04	-6.00	5.92	4.39		3.71	10/1/2014
HFRI Fund of Funds Composite Index			1.74	-5.30	3.69	3.01		2.89	
Value Added			-0.70	-0.70	2.23	1.38		0.82	
Risk Parity (10% Volatility)	39,713,033	9.20	3.82	-26.37	-3.25			-2.99	9/1/2019
Wilshire Risk Parity Index - 10% Target Volatility			3.37	-18.09	-1.32			-0.83	
Value Added			0.45	-8.28	-1.93			-2.16	

* Private asset manager performance is lagged by 1 quarter due to manager reporting timelines.

Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2022

	Allocation		Performance (%) net of fees							
	Market Value $	%	1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Total Fund	431,526,375	100.00	-2.65	4.33	-9.83	4.92	4.99	6.80	6.22	1/1/1997
Total Fund Policy Index			-3.61	3.75	-10.43	3.95	4.31	6.28	6.28	
Value Added			0.96	0.58	0.60	0.97	0.68	0.52	-0.06	
Total Growth	215,474,884	49.93								
Global Equity	126,612,913	29.34	-4.35	10.18	-17.60	4.92	5.48		6.65	7/1/2014
MSCI AC World Index (Net)			-3.94	9.76	-18.36	4.00	5.23		6.09	
Value Added			-0.41	0.42	0.76	0.92	0.25		0.56	
U.S. Equity	78,980,758	18.30	-5.41	8.27	-15.59	8.49	9.09		9.24	7/1/2014
FT Wilshire 5000 Index			-5.87	7.10	-19.04	7.41	8.99		9.94	
Value Added			0.46	1.17	3.45	1.08	0.10		-0.70	
GSAM Active Beta Large Cap	9,297,300	2.15	-5.75	7.75	-18.66	7.14			7.84	12/1/2019
S&P 500 Index			-5.76	7.56	-18.11	7.66			8.49	
Value Added			0.01	0.19	-0.55	-0.52			-0.65	
LGIM Russell 1000	15,681,215	3.63	-5.82	7.24	-19.14	7.40			8.19	12/1/2019
Russell 1000 Index			-5.81	7.24	-19.13	7.35			8.14	
Value Added			-0.01	0.00	-0.01	0.05			0.05	
TRP US Large Cap Growth	19,361,954	4.49	-7.83	-0.18	-35.18	3.67			4.31	12/1/2019
Russell 1000 Growth Index			-7.66	2.20	-29.14	7.79			8.61	
Value Added			-0.17	-2.38	-6.04	-4.12			-4.30	
Mellon Large Cap Value	28,808,057	6.68	-3.13	15.36	3.98	13.41			14.50	12/1/2019
Russell 1000 Value Index			-4.03	12.42	-7.54	5.96			6.73	
Value Added			0.90	2.94	11.52	7.45			7.77	

* Private asset manager performance is lagged by 1 quarter due to manager reporting timelines.

Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2022

	Allocation		Performance (%) net of fees							
	Market Value $	%	1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
PIMCO StocksPlus Small Cap	5,832,233	1.35	-6.47	7.04	-23.90	1.30			2.36	12/1/2019
Russell 2000 Index			-6.49	6.23	-20.44	3.10			3.97	
Value Added			0.02	0.81	-3.46	-1.80			-1.61	
Non U.S. Equity	41,150,910	9.54	-2.37	15.04	-20.25	-0.44	0.98		4.22	9/1/2015
MSCI AC World ex USA (Net)			-0.75	14.28	-16.00	0.07	0.88		4.36	
Value Added			-1.62	0.76	-4.25	-0.51	0.10		-0.14	
Baillie Gifford - EAFE Plus All Cap	15,686,523	3.64	-3.76	15.22	-31.19	-2.90			-1.37	12/1/2019
MSCI EAFE (Net)			0.08	17.34	-14.45	0.87			1.89	
Value Added			-3.84	-2.12	-16.74	-3.77			-3.26	
GSAM Active Beta Intl. Equity	3,289,612	0.76	-0.19	15.98	-15.93	0.88			1.80	12/1/2019
MSCI World ex U.S. (Net)			-0.48	16.18	-14.29	1.27			2.27	
Value Added			0.29	-0.20	-1.64	-0.39			-0.47	
LGIM ACWI x US	7,173,474	1.66	-0.76	14.31	-15.80	0.32			1.70	12/1/2019
MSCI AC World ex USA (Net)			-0.75	14.28	-16.00	0.07			1.46	
Value Added			-0.01	0.03	0.20	0.25			0.24	
Schroders QEP Intl. Value	15,001,301	3.48	-2.13	15.00	-11.58	0.62			1.92	12/1/2019
MSCI AC World ex USA (Net)			-0.75	14.28	-16.00	0.07			1.46	
Value Added			-1.38	0.72	4.42	0.55			0.46	
Emerging Markets	6,481,245	1.50	-4.11	3.49	-21.41	1.80	1.32		1.93	2/1/2013
MSCI Emerging Markets (Net)			-1.41	9.70	-20.09	-2.69	-1.40		1.31	
Value Added			-2.70	-6.21	-1.32	4.49	2.72		0.62	
GQG Partners Emerging Market Equity	6,481,245	1.50	-4.11	3.49	-21.41	1.80			3.42	12/1/2019
MSCI Emerging Markets (Net)			-1.41	9.70	-20.09	-2.69			-0.32	
Value Added			-2.70	-6.21	-1.32	4.49			3.74	

* Private asset manager performance is lagged by 1 quarter due to manager reporting timelines.

Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2022

	Allocation		Performance (%) net of fees							
	Market Value $	%	1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Global Low Volatility Equity	47,256,089	10.95	-1.90	7.65	-8.78	3.20	4.25		4.68	8/1/2017
Low Volatility Custom Index			-2.34	6.39	-9.25	3.20	4.17		4.67	
Value Added			0.44	1.26	0.47	0.00	0.08		0.01	
BlackRock Global Low Volatility Fund	23,839,373	5.52	-1.93	8.59	-10.02	1.97			2.76	10/1/2019
MSCI AC World Minimum Volatility Index (Net)			-1.98	8.48	-10.31	1.62			2.41	
Value Added			0.05	0.11	0.29	0.35			0.35	
Parametric Defensive Equity Fund	23,416,716	5.43	-1.87	6.72	-7.62	4.36	5.11		5.48	8/1/2017
50% S&P 500/50% T-Bills			-2.70	4.31	-8.25	4.72	5.73		6.19	
Value Added			0.83	2.41	0.63	-0.36	-0.62		-0.71	
Private Equity	41,605,882	9.64	-0.29	-0.29	1.95	33.95	26.03		13.01	10/1/2014
Russell 3000 Index Lag 1 Quarter			-9.27	-4.46	-17.63	7.70	8.62		9.11	
Value Added			8.98	4.17	19.58	26.25	17.41		3.90	
Agilitas 2020 Private Equity Fd*	367,755	0.09	-4.06	-4.06	-95.33				-96.61	3/1/2021
Amulet Capital Fund II LP*	1,261,887	0.29	-1.36	-1.36	7.77				38.37	4/1/2021
Blue Sea Capital Fund II*	1,842,762	0.43	-8.39	-8.39	-5.64				6.09	3/1/2021
CaliengerCo-Investors	1,000,000	0.23	0.00						0.00	11/1/2022
Connected Capital & Partners Growth II	864,098	0.20	16.48	16.48	-9.76				-7.41	9/1/2021
Crestview Partners IV, L.P.*	3,355,810	0.78	2.74	2.74	-8.59				89.34	10/1/2020
Greycroft Partners VII, L.P.	657,047	0.15	-2.35	-2.35					-9.27	3/1/2022
Highland Europe Tech LP	1,213,527	0.28	2.47	2.47	-7.83				-16.15	6/1/2021
Horsley Bridge XI Venture*	8,519,775	1.97	-4.03	-4.03	0.08	37.06	27.90		12.75	6/1/2015
J Star 5	22,409	0.01	7.46						7.46	12/1/2022

* Private asset manager performance is lagged by 1 quarter due to manager reporting timelines.

Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2022

	Allocation		Performance (%) net of fees							
	Market Value $	%	1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Lynstone Special Situations Fund II	605,234	0.14	-3.85	-3.85					-0.17	2/1/2022
Mamurroz Random, S.L.	963,450	0.22	9.27	9.27					-2.17	6/1/2022
Middleground Partners II, LP	1,812,335	0.42	-7.88	-7.88	24.67				20.80	11/1/2021
Middleground Piston Co Investment*	1,101,367	0.26	-0.01	-0.01	-14.83				88.81	12/1/2020
Passion Capital I LP*	1,507,945	0.35	15.57	15.57	24.59				280.38	1/1/2021
Pemba Capital*	1,325,728	0.31	4.87	4.87	-4.78				-27.71	8/1/2021
Private Advisors Small Company PE VI*	3,557,017	0.82	-0.11	-0.11	10.03	33.24	25.66		14.39	10/1/2014
Standout Capital II	312,952	0.07	0.40	0.40	-94.13				-89.65	10/1/2021
Strategic Value Special Sit Fd V*	1,244,755	0.29	-4.10	-4.10	7.60				4.21	6/1/2021
Siguler Guff Small Buyout Opp Fund III*	3,329,096	0.77	0.36	0.36	5.84	26.41	21.84		19.03	10/1/2016
TCG Crossover Fund I LP*	1,284,598	0.30	18.81	18.81	-3.70				-2.50	5/1/2021
Valor Equity Partners V LP*	3,050,869	0.71	-0.32	-0.32	5.44				26.65	4/1/2021
Weathergage Venture Capital IV*	3,010,699	0.70	-4.15	-4.15	-4.64	32.53	24.22		10.70	10/1/2016

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Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2022

	Allocation		Performance (%) net of fees							
	Market Value $	%	1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Total Fixed Income	76,669,849	17.77								
Core Fixed Income	19,437,564	4.50	-0.39	1.98	-14.65	-2.75	-0.06		0.85	7/1/2014
Blmbg. U.S. Aggregate Index			-0.45	1.87	-13.01	-2.71	0.02		1.03	
Value Added			0.06	0.11	-1.64	-0.04	-0.08		-0.18	
WAMCO Core Fixed	9,698,929	2.25	-0.24	2.43	-16.70	-3.31			-3.14	12/1/2019
Blmbg. U.S. Aggregate Index			-0.45	1.87	-13.01	-2.71			-2.66	
Value Added			0.21	0.56	-3.69	-0.60			-0.48	
Wedge Core Fixed	9,738,635	2.26	-0.54	1.53	-12.60	-2.21			-2.21	1/1/2020
Blmbg. U.S. Aggregate Index			-0.45	1.87	-13.01	-2.71			-2.71	
Value Added			-0.09	-0.34	0.41	0.50			0.50	
Diversified Credit – Public	22,560,696	5.23	0.39	5.36	-11.27				2.15	5/1/2020
Diversified Credit - Public Policy			-0.07	5.59	-12.50				1.43	
Value Added			0.46	-0.23	1.23				0.72	
Bain Senior Loan Fund	2,324,445	0.54	0.02	1.61	-3.84	2.65	3.25		3.44	10/1/2013
CSFB Leveraged Loan Index			0.36	2.33	-1.06	2.34	3.24		3.63	
Value Added			-0.34	-0.72	-2.78	0.31	0.01		-0.19	
Loomis Sayles High Yield	5,221,517	1.21	-0.50	4.15	-13.08				-1.50	9/1/2020
Blmbg. U.S. Corp: High Yield Index			-0.62	4.17	-11.19				-0.64	
Value Added			0.12	-0.02	-1.89				-0.86	
Neuberger Berman	9,812,393	2.27	1.53	7.89	-13.49				-11.46	12/1/2021
50% JPM GBI-EM Glbl Div; 25% JPM EMBI Glbl Div; 25% JPM CEMB			1.55	7.48	-13.51				-11.54	
Value Added			-0.02	0.41	0.02				0.08	
PGIM High Yield	5,202,341	1.21	-0.66	3.67	-11.54				1.98	7/1/2020
Blmbrg U.S. High Yield 1% Issuer Cap Index			-0.61	4.17	-11.11				1.62	
Value Added			-0.05	-0.50	-0.43				0.36	

* Private asset manager performance is lagged by 1 quarter due to manager reporting timelines.

Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2022

	Allocation		Performance (%) net of fees							
	Market Value $	%	1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Diversified Credit – Private	27,427,412	6.36	1.43	1.43	-0.48				5.71	5/1/2020
CSFB Leveraged Loan Index			0.36	2.33	-1.06				6.53	
Value Added			1.07	-0.90	0.58				-0.82	
ASI Hark Capital III, LP	2,272,223	0.53	2.84	2.84	10.24				9.42	12/1/2021
CSFB Leveraged Loan Index			0.36	2.33	-1.06				-0.40	
Value Added			2.48	0.51	11.30				9.82	
CapitalSpring Investment Partners VI, LP	901,014	0.21	-1.27	-1.27					-7.49	6/1/2022
CSFB Leveraged Loan Index			0.36	2.33					1.42	
Value Added			-1.63	-3.60					-8.91	
Golden Tree Distressed Fund III	2,121,839	0.49	0.15	0.15	6.81				24.38	1/1/2021
CSFB Leveraged Loan Index			0.36	2.33	-1.06				2.12	
Value Added			-0.21	-2.18	7.87				22.26	
Golub Capital Partners Intl 11*	7,000,000	1.62	1.69	1.69	8.00	8.68	8.35		8.47	7/1/2017
CSFB Leveraged Loan Index			0.36	2.33	-1.06	2.34	3.24		3.35	
Value Added			1.33	-0.64	9.06	6.34	5.11		5.12	
Incus Capital European Credit Fd IV	721,484	0.17	-0.69	-0.69					-67.49	8/1/2022
CSFB Leveraged Loan Index			0.36	2.33					1.65	
Value Added			-1.05	-3.02					-69.14	
LBC Credit Partners V LP	1,862,680	0.43	1.35	1.35	10.64				25.20	5/1/2021
CSFB Leveraged Loan Index			0.36	2.33	-1.06				1.03	
Value Added			0.99	-0.98	11.70				24.17	
Pathlight Capital Fund II	2,547,095	0.59	2.32	2.32	8.23				-1.53	4/1/2021
CSFB Leveraged Loan Index			0.36	2.33	-1.06				1.27	
Value Added			1.96	-0.01	9.29				-2.80	

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Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2022

	Allocation		Performance (%) net of fees							
	Market Value $	%	1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Pemberton Strategic Credit Fund II	2,809,061	0.65	4.09	4.09	8.55				16.55	8/1/2021
CSFB Leveraged Loan Index			0.36	2.33	-1.06				0.55	
Value Added			3.73	1.76	9.61				16.00	
Principal Real Estate Debt Fund		0.00	0.00	0.00	0.00	37.31	24.80		17.97	6/1/2014
CSFB Leveraged Loan Index			0.36	2.33	-1.06	2.34	3.24		3.44	
Value Added			-0.36	-2.33	1.06	34.97	21.56		14.53	
Principal Real Estate Debt Fund II	4,490,948	1.04	-0.64	-0.64	0.04	4.80	6.33		7.46	8/1/2017
CSFB Leveraged Loan Index			0.36	2.33	-1.06	2.34	3.24		3.26	
Value Added			-1.00	-2.97	1.10	2.46	3.09		4.20	
Willow Tree Fund II LP	2,095,834	0.49	4.11	4.11					-61.28	7/1/2022
CSFB Leveraged Loan Index			0.36	2.33					3.55	
Value Added			3.75	1.78					-64.83	
Cash	7,244,177	1.68								
Operating Account	7,243,609	1.68	0.24	0.66	1.13	0.53	0.90	0.68	4.37	9/1/2006
Miscellaneous Cash	568	0.00								

* Private asset manager performance is lagged by 1 quarter due to manager reporting timelines.

Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2022

	Allocation		Performance (%) net of fees							
	Market Value $	%	1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Total Real Assets	82,843,665	19.20								
Real Assets	39,128,086	9.07	-1.07	5.16	-4.62	5.87	2.33	3.76	4.37	7/1/2012
Real Assets Policy			-5.37	1.36	4.05	10.20	3.29	1.60	2.01	
Value Added			4.30	3.80	-8.67	-4.33	-0.96	2.16	2.36	
Public Real Assets	30,957,762	7.17	-2.20	5.34	-6.06	5.89	2.34	3.76	4.37	7/1/2012
Public Real Assets Policy			-2.50	5.40	-9.99	4.51	0.05	-0.01	0.48	
Value Added			0.30	-0.06	3.93	1.38	2.29	3.77	3.89	
Brookfield Global Listed Infrastructure	3,937,259	0.91	-3.23	8.20	-5.36	2.11			3.84	12/1/2019
Brookfield Infrastructure Policy			-2.21	9.01	-4.87	1.59			3.32	
Value Added			-1.02	-0.81	-0.49	0.52			0.52	
DFA Global REITs	9,772,615	2.26	-3.35	6.94	-23.83	-2.37			-2.42	11/1/2019
S&P Global REIT Index (Net)			-3.52	6.88	-24.36	-3.33			-3.61	
Value Added			0.17	0.06	0.53	0.96			1.19	
Fidelity - TIPS	4,390,954	1.02	-1.15	1.93	-12.05	1.09			1.18	10/1/2019
Blmbg. U.S. TIPS Index			-1.02	2.04	-11.85	1.21			1.36	
Value Added			-0.13	-0.11	-0.20	-0.12			-0.18	
iShares Gold Trust ETF	2,924,308	0.68	3.34	8.34	-0.67				1.09	12/1/2020
LBMA Gold Price (USD)			2.99	8.35	-0.43				0.53	
Value Added			0.35	-0.01	-0.24				0.56	
PIMCO Commodity Real Return	9,932,625	2.30	-2.65	3.58	8.85	13.57			14.56	10/1/2019
Bloomberg Commodity Index Total Return			-2.45	2.22	16.09	12.65			13.12	
Value Added			-0.20	1.36	-7.24	0.92			1.44	

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Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2022

	Allocation		Performance (%) net of fees							
	Market Value $	%	1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Private Real Assets	8,170,324	1.89	4.66	4.66	9.59				7.18	4/1/2021
Private Real Assets Policy 1QA			-8.23	-2.70	16.59				22.93	4/1/2021
Basalt Infrastructure Partners III*	1,929,050	0.45	0.58	0.58	6.11				-1.97	5/1/2021
BIP III A Project Mars Aiv II LP*		0.00								5/1/2021
Controlled Environment Foods Fd II*	626,146	0.15	4.84	4.84	30.49				-5.88	8/1/2021
Controlled Environment Foods II AIV*		0.00								8/1/2021
Controlled Environment Foods II AIV III*		0.00								8/1/2021
ISQ Global Infrastructure Fund III	188,451	0.04	2.68	2.68					-23.88	6/1/2022
Palistar Comm Infra Onshore Fd II	1,654,812	0.38	3.11	3.11	3.19				6.36	4/1/2021
Palistar Harmoni Co Invest LP	2,284,102	0.53	7.03	7.03	26.64				26.38	4/1/2021
Real Estate	43,715,578	10.13	-5.95	-5.95	6.09	9.90	8.57		9.34	7/1/2014
Private Real Estate Policy			-4.62	-4.62	6.22	8.67	7.67		8.55	
Value Added			-1.33	-1.33	-0.13	1.23	0.90		0.79	
Private Real Estate	43,715,578	10.13	-5.95	-5.95	6.09	9.90	8.57		9.34	7/1/2014
Private Real Estate Policy			-4.62	-4.62	6.22	8.67	7.67		8.55	
Value Added			-1.33	-1.33	-0.13	1.23	0.90		0.79	
Clarion Lion Properties Fund	35,328,947	8.19	-5.92	-5.92	8.72	11.21	9.53	10.16	6.97	1/1/2004
NCREIF - ODCE Index (Net)			-5.17	-5.17	6.55	8.97	7.72	9.11	7.35	
Value Added			-0.75	-0.75	2.17	2.24	1.81	1.05	-0.38	
Clarion Lion Value Fund*	16,442	0.00								

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Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2022

	Allocation		Performance (%) net of fees							
	Market Value $	%	1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Harbert US Real Estate Fund V*	657,564	0.15	-34.50	-34.50	-43.14	-16.30	-8.67		1.14	7/1/2014
NCREIF Property Index			-3.50	-3.50	5.52	8.06	7.46		8.39	
Value Added			-31.00	-31.00	-48.66	-24.36	-16.13		-7.25	
Harbert US Real Estate Fund VI*	7,712,626	1.79	-3.18	-3.18	3.97	10.08	9.10		7.95	4/1/2016
NCREIF Property Index			-3.50	-3.50	5.52	8.06	7.46		7.40	
Value Added			0.32	0.32	-1.55	2.02	1.64		0.55	

* Private asset manager performance is lagged by 1 quarter due to manager reporting timelines.

Asset Allocation & Performance

Total Fund

Periods Ended December 31, 2022

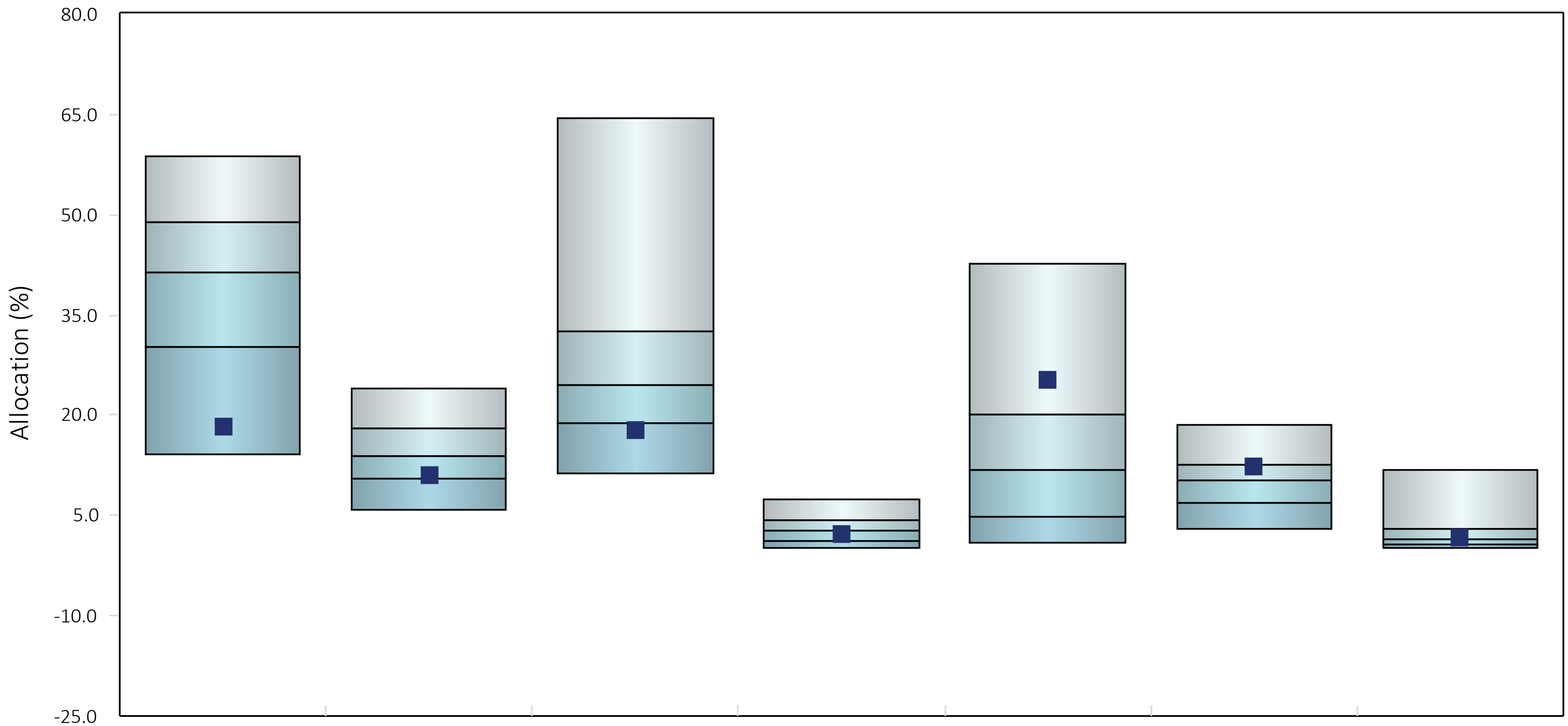
	Allocation		Performance (%) net of fees							
	Market Value $	%	1 Month	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Total Diversifying Alternatives	56,537,977	13.10								
Marketable Alternative	16,824,944	3.90	1.13	1.04	-6.00	5.92	4.39		3.71	10/1/2014
HFRI Fund of Funds Composite Index			0.34	1.74	-5.30	3.69	3.01		2.89	
Value Added			0.79	-0.70	-0.70	2.23	1.38		0.82	
Grosvenor Institutional Partners LP	16,824,944	3.90	1.13	1.04	-6.00	5.92	4.39		3.69	10/1/2014
HFRI Fund of Funds Composite Index			0.34	1.74	-5.30	3.69	3.01		2.89	
Value Added			0.79	-0.70	-0.70	2.23	1.38		0.80	
Risk Parity (10% Volatility)	39,713,033	9.20	-5.14	3.82	-26.37	-3.25			-2.99	9/1/2019
Wilshire Risk Parity Index - 10% Target Volatility			-2.93	3.37	-18.09	-1.32			-0.83	
Value Added			-2.21	0.45	-8.28	-1.93			-2.16	
PanAgora Div. Risk Multi-Asset Fund	39,713,033	9.20	-5.14	3.82	-26.37	-3.25			-2.99	9/1/2019
Wilshire Risk Parity Index - 10% Target Volatility			-2.93	3.37	-18.09	-1.32			-0.83	
Value Added			-2.21	0.45	-8.28	-1.93			-2.16	

* Private asset manager performance is lagged by 1 quarter due to manager reporting timelines.

Plan Sponsor TF Asset Allocation

Total Fund vs All Public Plans-Total Fund

Periods Ended December 31, 2022



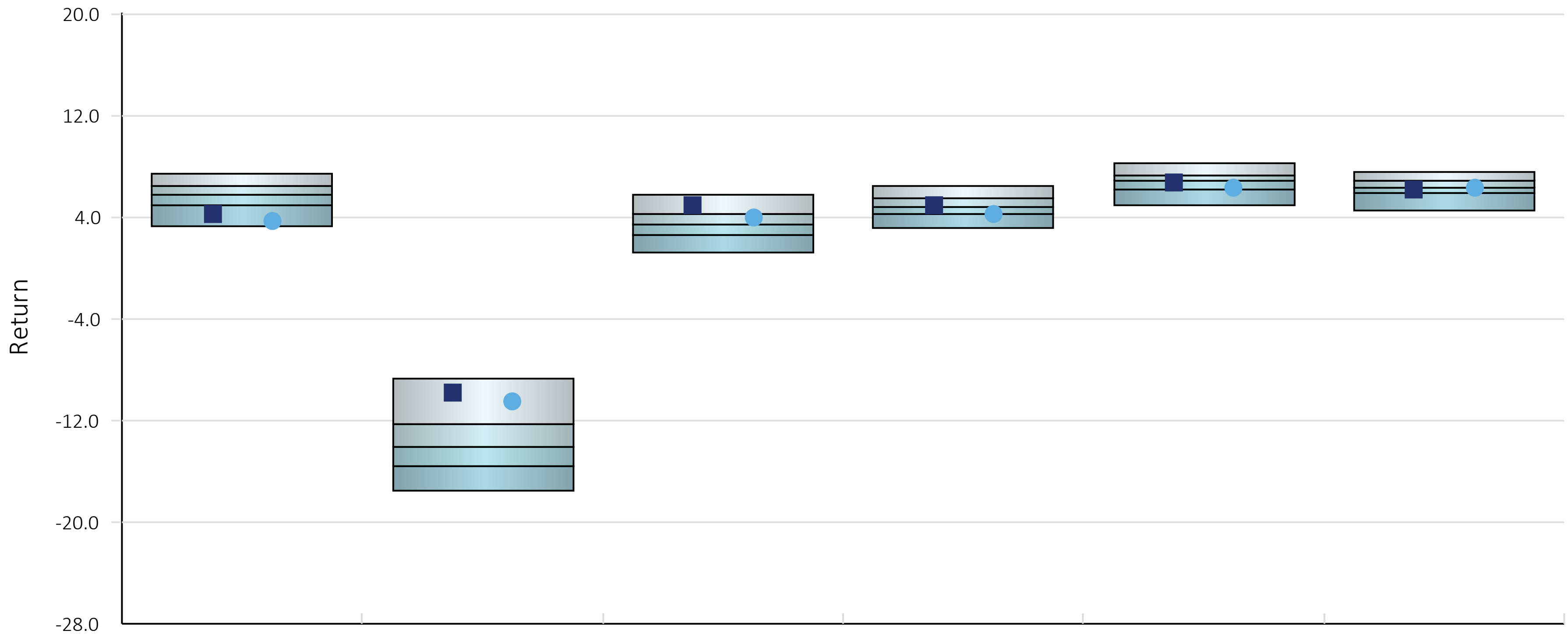
	US Equity	Global ex-US Equity	US Fixed	Global ex-US Fixed	Alternatives	Total Real Estate	Cash & Equivalents
■ Total Fund	18.30	11.04	17.70	2.27	25.17	12.40	1.68
5th Percentile	58.83	24.06	64.47	7.33	42.75	18.65	11.74
1st Quartile	49.01	18.03	32.50	4.22	20.16	12.70	2.96
Median	41.38	13.81	24.44	2.66	11.87	10.19	1.50
3rd Quartile	30.14	10.51	18.83	1.17	4.92	6.79	0.67
95th Percentile	14.27	5.92	11.38	0.07	1.04	3.01	0.08

Wilshire

Plan Sponsor Peer Group Analysis

Total Fund vs All Public Plans < $1B-Total Fund

Periods Ended December 31, 2022



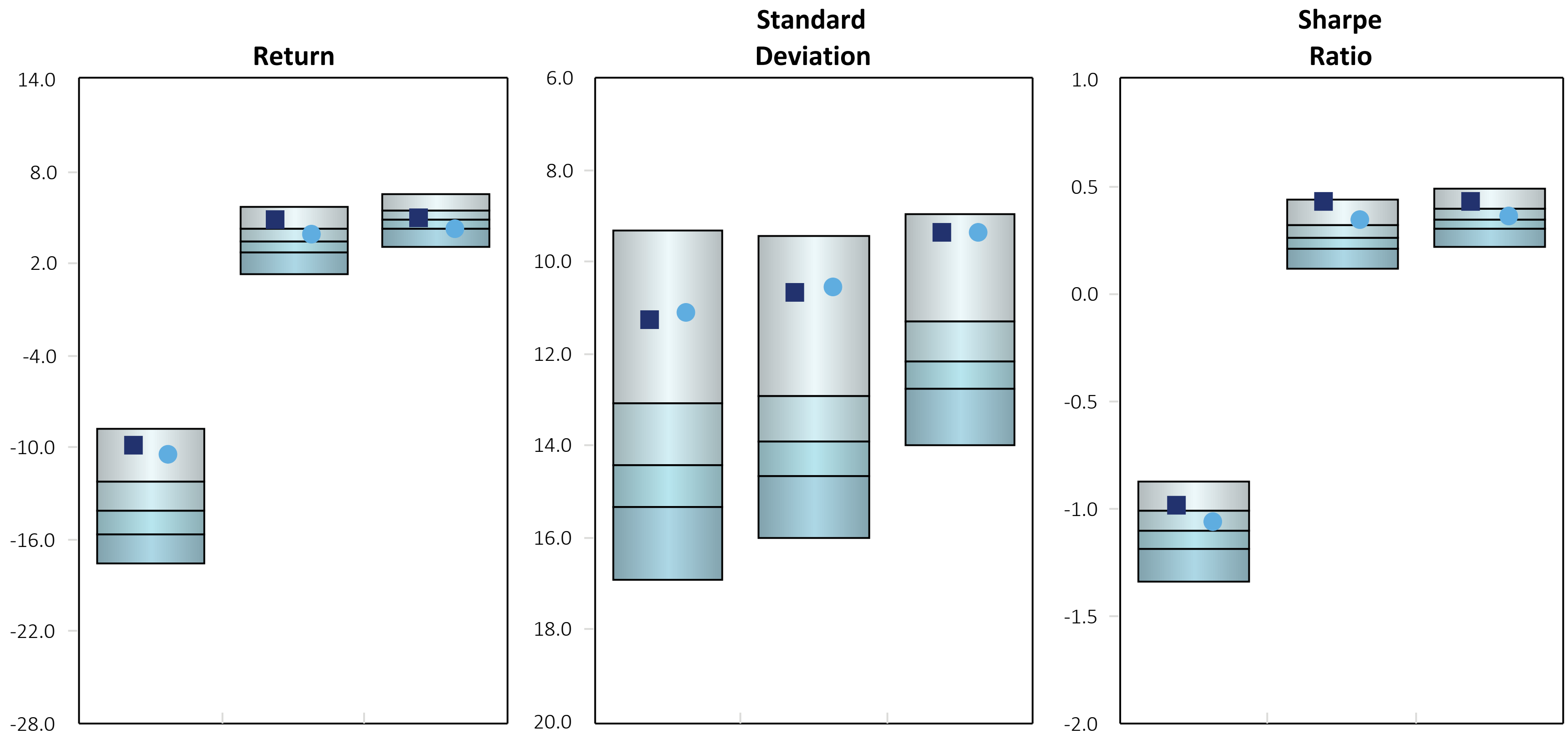
	QTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ Total Fund	4.33 (88)	-9.83 (8)	4.92 (13)	4.99 (47)	6.80 (52)	6.22 (60)
● Total Fund Policy	3.75 (93)	-10.43 (10)	3.95 (35)	4.31 (74)	6.28 (75)	6.28 (56)
5th Percentile	7.50	-8.74	5.75	6.47	8.24	7.56
1st Quartile	6.52	-12.28	4.24	5.47	7.37	6.88
Median	5.74	-14.09	3.49	4.90	6.84	6.33
3rd Quartile	5.03	-15.61	2.69	4.27	6.27	5.93
95th Percentile	3.33	-17.55	1.30	3.13	4.90	4.59
Population	566	556	539	515	408	86

Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics

Total Fund vs All Public Plans < $1B-Total Fund

Periods Ended December 31, 2022



	Return 1 Year	Return 3 Years	Return 5 Years	Standard Deviation 1 Year	Standard Deviation 3 Years	Standard Deviation 5 Years	Sharpe Ratio 1 Year	Sharpe Ratio 3 Years	Sharpe Ratio 5 Years
■ Total Fund	-9.83 (8)	4.92 (13)	4.99 (47)	11.27 (10)	10.66 (7)	9.35 (6)	-0.99 (22)	0.43 (6)	0.43 (15)
● Total Fund Policy	-10.43 (10)	3.95 (35)	4.31 (74)	11.12 (9)	10.55 (6)	9.35 (6)	-1.06 (38)	0.35 (18)	0.36 (43)
5th Percentile	-8.74	5.75	6.47	9.34	9.44	8.95	-0.87	0.44	0.49
1st Quartile	-12.28	4.24	5.47	13.07	12.92	11.30	-1.01	0.32	0.40
Median	-14.09	3.49	4.90	14.42	13.92	12.19	-1.10	0.26	0.35
3rd Quartile	-15.61	2.69	4.27	15.32	14.64	12.77	-1.19	0.21	0.30
95th Percentile	-17.55	1.30	3.13	16.90	16.00	13.99	-1.34	0.12	0.22

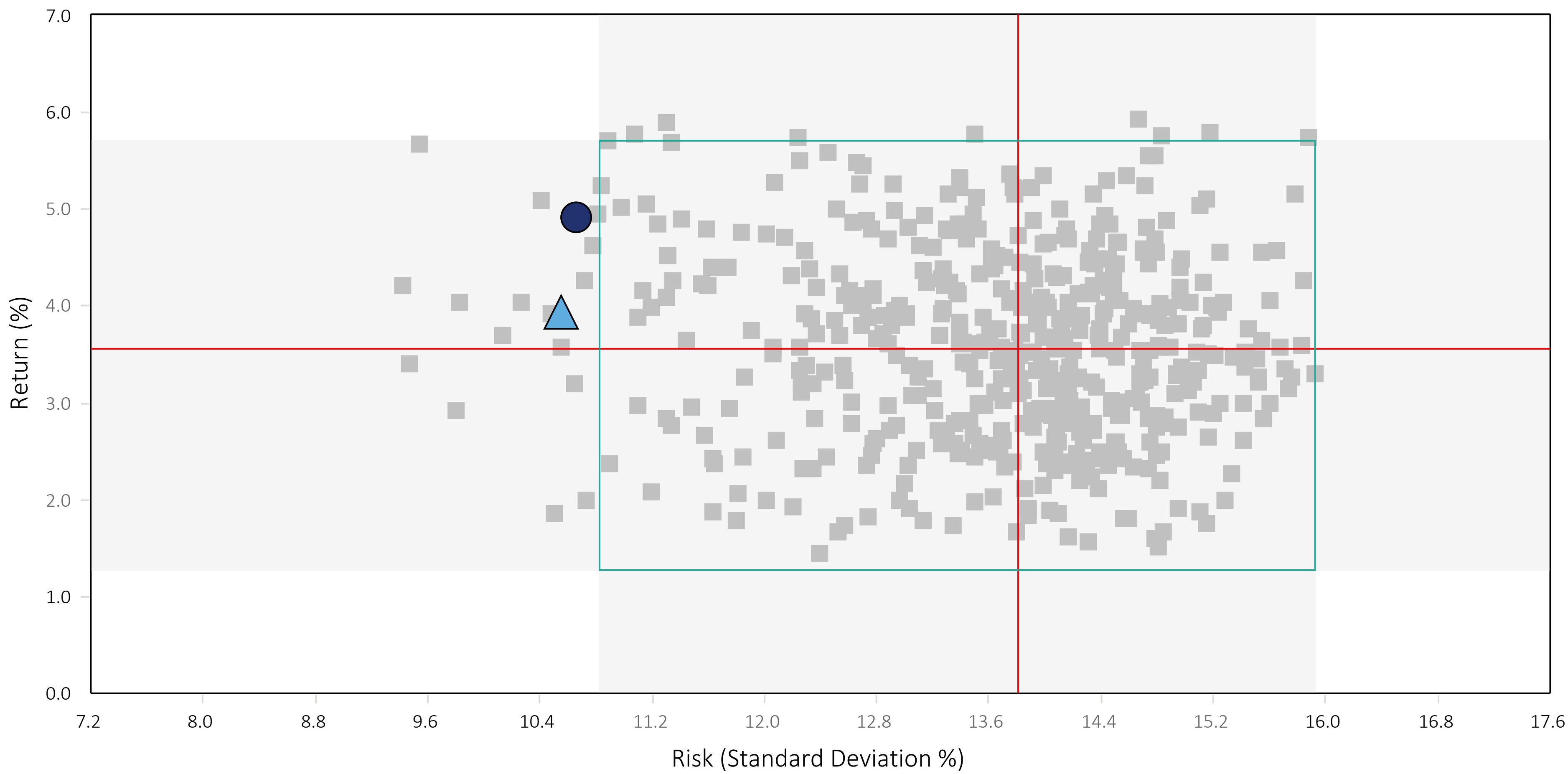
Parentheses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Scattergram

Total Fund vs All Public Plans-Total Fund

Periods Ended January 1, 2020 To December 31, 2022

Absolute Return



	Return	Standard Deviation
Total Fund	4.92	10.66
Total Fund Policy	3.95	10.55
Median	3.55	13.81

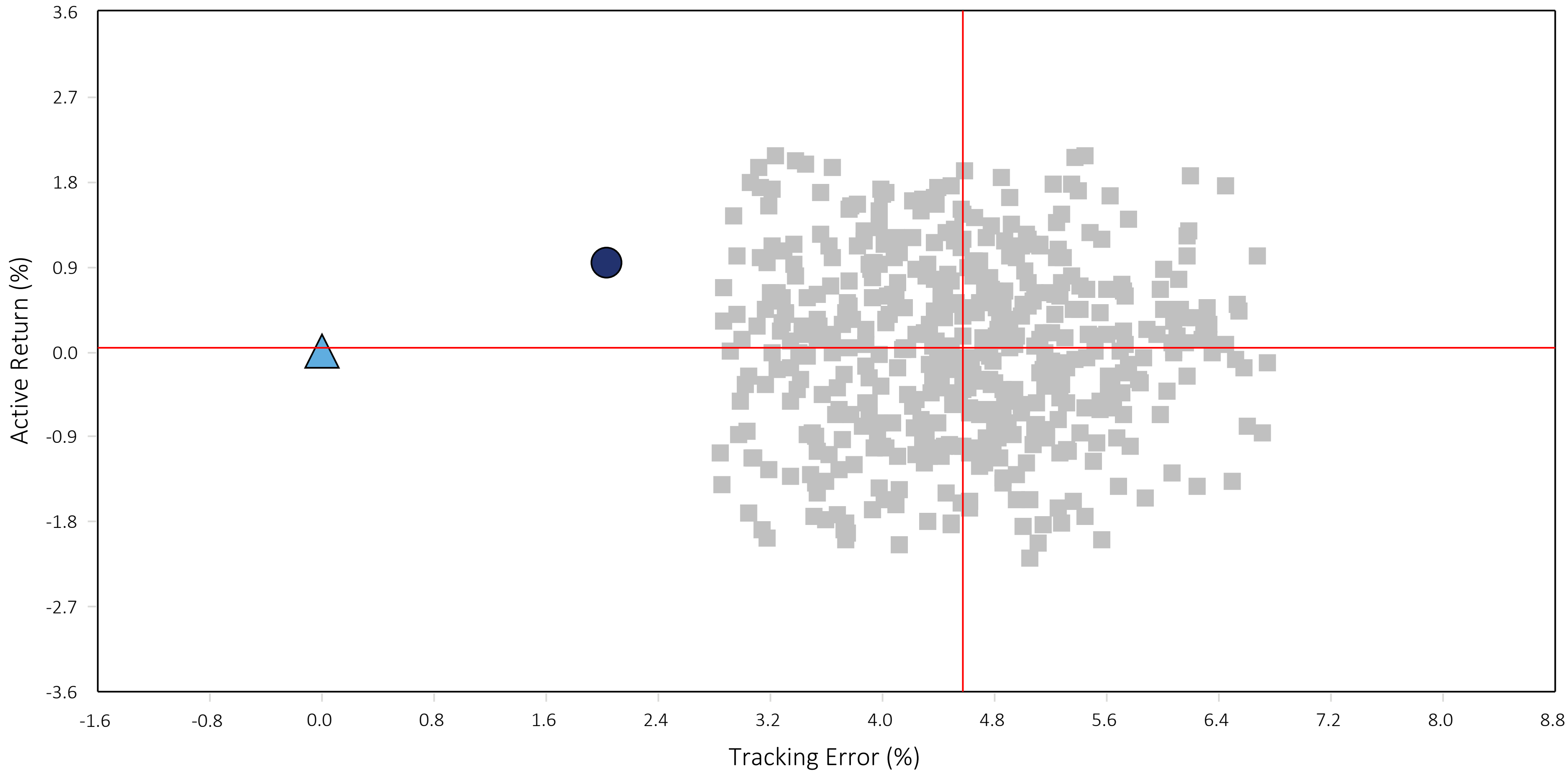
Calculation based on monthly periodicity.

Plan Sponsor Scattergram

Total Fund vs All Public Plans-Total Fund

Periods Ended January 1, 2020 To December 31, 2022

Excess Return



	Active Return	Tracking Error
Total Fund	0.94	2.02
Total Fund Policy	0.00	0.00
Median	0.05	4.57

Calculation based on monthly periodicity.

Wilshire

Historical Hybrid Composition

El Paso County Retirement Plan

Periods Ended December 31, 2022

Policy Index	Weight (%)
Jul-2022	
Total Growth Policy	50.25
Total Fixed Income Policy	15.50
Total Real Assets Policy	20.00
Total Diversifying Alternatives Policy	14.25
Jul-2020	
Total Growth Policy	48.25
Total Fixed Income Policy	20.50
Total Real Assets Policy	19.50
Total Diversifying Alternatives Policy	11.75
Dec-2019	
MSCI AC World Index (Net)	28.50
MSCI AC World Minimum Volatility Index (Net)	7.75
50% S&P 500/50% T-Bills	7.75
Russell 3000 Index Lag 1 Quarter	4.00
Blmbg. U.S. Aggregate Index	10.00
CSFB Leveraged Loan Index	10.50
Public Real Assets Policy	6.25
NCREIF - ODCE Index (Net)	11.50
NCREIF Property Index	5.75
HFRI Fund of Funds Composite Index	4.50
Wilshire Risk Parity Index - 10% Target Volatility	3.00
90 Day U.S. Treasury Bill	0.50

Policy Index	Weight (%)
Oct-2019	
MSCI AC World Index (Net)	29.50
50% S&P 500/50% T-Bills	7.75
MSCI AC World Minimum Volatility Index (Net)	7.75
Russell 3000 Index Lag 1 Quarter	2.50
Blmbg. U.S. Aggregate Index	10.50
CSFB Leveraged Loan Index	12.75
Alerian MLP Index	4.50
NCREIF - ODCE Index (Net)	11.50
NCREIF Property Index	5.75
HFRI Fund of Funds Composite Index	4.50
Wilshire Risk Parity Index - 10% Target Volatility	2.50
90 Day U.S. Treasury Bill	0.50
Sep-2019	
MSCI AC World Index (Net)	37.00
50% S&P 500/50% T-Bills	7.75
Russell 3000 Index Lag 1 Quarter	2.50
Blmbg. U.S. Aggregate Index	12.00
CSFB Leveraged Loan Index	12.75
Alerian MLP Index	3.25
NCREIF - ODCE Index (Net)	11.50
NCREIF Property Index	5.75
HFRI Fund of Funds Composite Index	4.75
Wilshire Risk Parity Index - 10% Target Volatility	2.25
90 Day U.S. Treasury Bill	0.50

Historical Hybrid Composition

El Paso County Retirement Plan

Periods Ended December 31, 2022

Policy Index	Weight (%)
Jan-2019	
MSCI AC World Index (Net)	40.00
Russell 3000 Index Lag 1 Quarter	5.00
Blmbg. U.S. Aggregate Index	10.00
CSFB Leveraged Loan Index	15.00
Alerian MLP Index	5.00
50% S&P 500/50% T-Bills	5.00
HFRI Fund of Funds Composite Index	5.00
NCREIF - ODCE Index (Net)	10.00
NCREIF Property Index	5.00
Jan-1997	
Policy Index	100.00