



UFCW-Giant Variable Annuity Fund

Master Consulting Services Report

**Period Ended
December 31, 2022**

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Market Discussion

4Q | 2022



Financial Market Performance

Periods Ending December 31, 2022

Strategy	Sector	Index	QTR	2022	2021	2020	2019	2018	2017	1-Yr	3-Yr	5-Yr	10-Yr	20-Yr
Stocks	US Large Cap	S&P 500	7.5%	-18.1%	28.7%	18.4%	31.5%	-4.4%	21.8%	-18.1%	7.6%	9.4%	12.5%	9.8%
	US Small Cap	Russell 2000	6.2%	-20.5%	14.8%	19.9%	25.5%	-11.0%	14.6%	-20.5%	3.1%	4.1%	9.0%	9.3%
	All Country	MSCI All Country World (net)	9.8%	-18.4%	18.5%	16.3%	26.6%	-9.4%	24.0%	-18.4%	4.0%	5.2%	8.0%	8.0%
	Non-US Developed	MSCI EAFE (net)	17.3%	-14.5%	11.3%	7.8%	22.0%	-13.8%	25.0%	-14.5%	0.9%	1.5%	4.7%	6.4%
	Emerging Markets	MSCI EM (net)	9.7%	-20.1%	-2.5%	18.3%	18.4%	-14.6%	37.3%	-20.1%	-2.7%	-1.4%	1.4%	8.7%
	Int'l Small Cap	MSCI EAFE Small Cap (net)	15.8%	-21.4%	10.1%	12.3%	25.0%	-17.9%	33.0%	-21.4%	-0.9%	-0.0%	6.2%	9.0%
Bonds	Treasury	Bloomberg US Govt	0.7%	-12.3%	-2.3%	7.9%	6.8%	0.9%	2.3%	-12.3%	-2.6%	-0.1%	0.6%	2.6%
	Broad Market	Bloomberg Aggregate	1.9%	-13.0%	-1.5%	7.5%	8.7%	0.0%	3.5%	-13.0%	-2.7%	0.0%	1.1%	3.1%
	Intermediate	Bloomberg Gov/Credit Int.	1.5%	-8.2%	-1.4%	6.4%	6.8%	0.9%	2.1%	-8.2%	-1.3%	0.7%	1.1%	2.9%
	High Yield	Bloomberg HY BaB 2% IC	4.6%	-10.6%	4.6%	7.7%	15.2%	-1.9%	6.9%	-10.6%	0.3%	2.6%	4.0%	6.7%
	Short Duration HY	ICE BofA 1-3 Yrs BB US Cash Pay HY	2.7%	-3.1%	3.2%	5.4%	8.7%	1.3%	3.6%	-3.1%	1.8%	3.0%	3.6%	5.7%
	Global Bonds	FTSE WGBI	3.8%	-18.3%	-7.0%	10.1%	5.9%	-0.8%	7.5%	-18.3%	-5.7%	-2.5%	-1.2%	2.3%
GTAA	Unconstrained	65% MSCI World /35% FTSE WGBI	7.7%	-18.1%	11.0%	14.6%	19.9%	-5.8%	17.0%	-18.1%	1.6%	3.5%	5.5%	6.5%
Real Estate	Core	NCREIF ODCE Equal Weighted (net)	-5.1%	7.6%	21.9%	0.8%	5.2%	7.3%	6.9%	7.6%	9.7%	8.3%	9.5%	7.4%
Hedge Fund of Funds	Diversified FOFs	HFRI FOF Composite	1.8%	-5.2%	6.2%	10.9%	8.4%	-4.0%	7.8%	-5.2%	3.7%	3.0%	3.5%	3.6%
	Equity Long-Short	HFRI Equity Hedge	4.2%	-10.2%	11.7%	17.9%	13.7%	-7.1%	13.3%	-10.2%	5.7%	4.5%	5.6%	5.6%
Commodities	Commodities	Goldman Sachs Commodity	3.4%	26.0%	40.4%	-23.7%	17.6%	-13.8%	5.8%	26.0%	10.5%	6.5%	-3.3%	0.1%

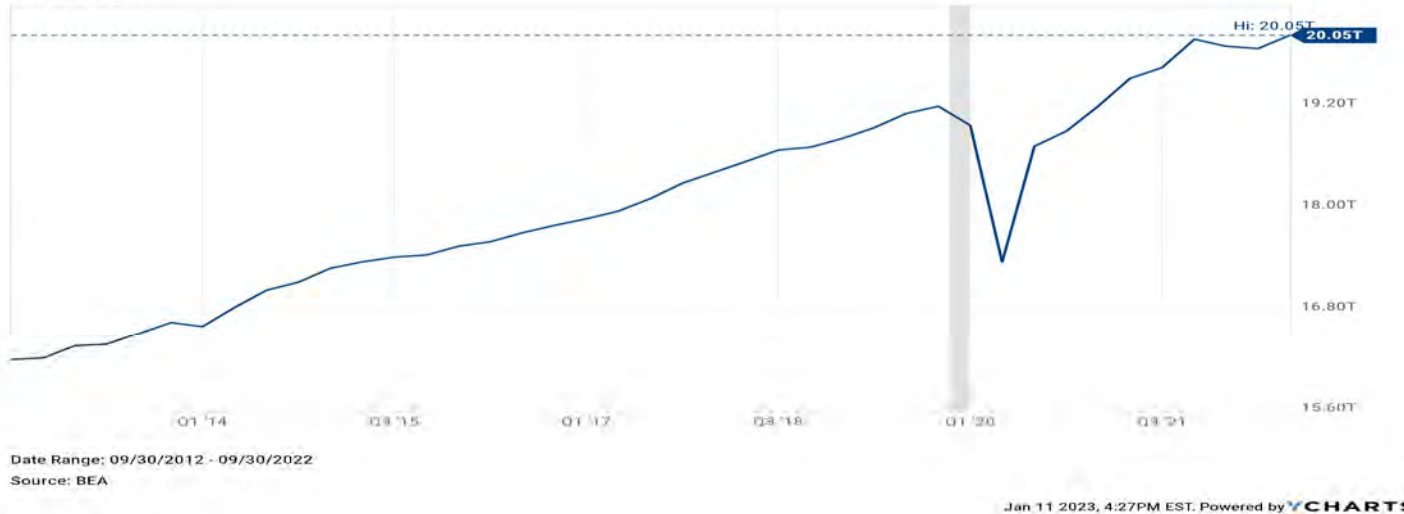
Asset Class Performance “Quilt”

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Fx Inc 5.2%	EM Equity 78.5%	Small Cap 26.9%	RE 15.0%	EM Equity 18.2%	Small Cap 38.8%	Large Cap 13.7%	RE 14.2%	Small Cap 21.3%	EM Equity 37.3%	RE 7.3%	Large Cap 31.5%	Small Cap 20.0%	Large Cap 28.7%	RE 7.6%
RE -11.1%	HY 57.5%	Mid Cap 25.5%	Fx Inc 7.8%	Int'l 17.3%	Mid Cap 34.8%	Mid Cap 13.2%	Large Cap 1.4%	HY 17.5%	Int'l 25.0%	SD HY 1.4%	Mid Cap 30.5%	Large Cap 18.4%	Mid Cap 22.6%	SD HY -3.1%
SD HY -14.0%	Mid Cap 40.5%	EM Equity 18.9%	HY 4.4%	Mid Cap 17.3%	Large Cap 32.4%	RE 11.4%	SD HY 1.2%	Mid Cap 13.8%	Large Cap 21.8%	Fx Inc 0.0%	Small Cap 25.5%	EM Equity 18.3%	RE 21.9%	HFOF -5.2%
HFOF -21.4%	SD HY 36.1%	HY 15.2%	SD HY 4.4%	Small Cap 16.3%	Int'l 22.8%	Fx Inc 6.0%	Fx Inc 0.6%	Large Cap 12.0%	Mid Cap 18.5%	HY -2.3%	Int'l 22.0%	Mid Cap 17.1%	Small Cap 14.8%	HY -11.22
GTAA -25.4%	Int'l 31.8%	RE 15.1%	Large Cap 2.1%	Large Cap 16.1%	GTAA 15.3%	Small Cap 4.9%	HFOF -0.3%	EM Equity 11.2%	GTAA 17.0%	HFOF -4.0%	GTAA 19.8%	GTAA 15.2%	Int'l 11.3%	Fx Inc -13.0%
HY -26.4%	Small Cap 27.2%	Large Cap 15.1%	GTAA -0.9%	HY 15.6%	RE 12.4%	HFOF 3.4%	Int'l -0.8%	SD HY 8.5%	Small Cap 14.7%	Large Cap -4.4%	EM Equity 18.4%	HFOF 10.3%	GTAA 11.1%	Int'l -14.5%
Small Cap -33.8%	Large Cap 26.5%	SD HY 11.7%	Mid Cap -1.6%	GTAA 10.9%	HFOF 9.0%	GTAA 3.0%	GTAA -1.6%	RE 8.4%	HFOF 7.8%	GTAA -5.7%	HY 14.4%	Int'l 7.8%	HFOF 6.0%	Mid Cap -17.3%
Large Cap -37.0%	GTAA 20.1%	GTAA 9.8%	Small Cap -4.2%	SD HY 10.2%	HY 7.4%	HY 2.5%	Mid Cap -2.4%	GTAA 5.6%	HY 7.5%	Mid Cap -9.1%	Fx Inc 8.7%	Fx Inc 7.5%	HY 5.4%	GTAA -18.1%
Mid Cap -41.5%	HFOF 11.5%	Int'l 7.8%	HFOF -5.7%	RE 9.9%	SD HY 5.6%	SD HY 1.9%	Small Cap -4.4%	Fx Inc 2.7%	RE 6.9%	Small Cap -11.0%	SD HY 8.7%	HY 6.2%	SD HY 4.3%	Large Cap -18.1%
Int'l -43.4%	Fx Inc 5.9%	Fx Inc 6.5%	Int'l -12.1%	HFOF 4.8%	Fx Inc -2.0%	EM Equity -2.2%	HY -4.6%	Int'l 1.0%	SD HY 3.6%	Int'l -13.8%	HFOF 8.4%	SD HY 5.4%	Fx Inc -1.5%	EM Equity -20.1%
EM Equity -53.3%	RE -31.3%	HFOF 5.7%	EM Equity -18.4%	Fx Inc 4.2%	EM Equity -2.6%	Int'l -4.9%	EM Equity -14.9%	HFOF 0.5%	Fx Inc 3.5%	EM Equity -14.6%	RE 5.2%	RE 0.8%	EM Equity -2.5%	Small Cap -20.5%

Source: NCREIF, Wilshire. Large Cap Equity: S&P 500 Index, Mid Cap Equity: Russell Midcap Index, Small Cap Equity: Russell 2000 Index, International Equity: MSCI EAFE Index, Emerging Markets: MSCI EM Index, Fixed Income: Barclays Aggregate Index, High Yield Fixed Income: Merrill Lynch High Yield Master II Index, Short Duration High Yield Fixed Income: ML High Yield Cash Pay 1-3 Yr BB Index, Real Estate: NCREIF ODCE Equal Weighted Index, Hedge Fund of Funds: HFRI FOF Index, Global Tactical Asset Allocation: 65%MSCI World Equity/35% Citi World Gov't Bond Index. Inception date for the ML High Yield Cash Pay 1-3 Yr BB Index was January 1, 2005. Past performance is not indicative of future returns.

U.S. Economy

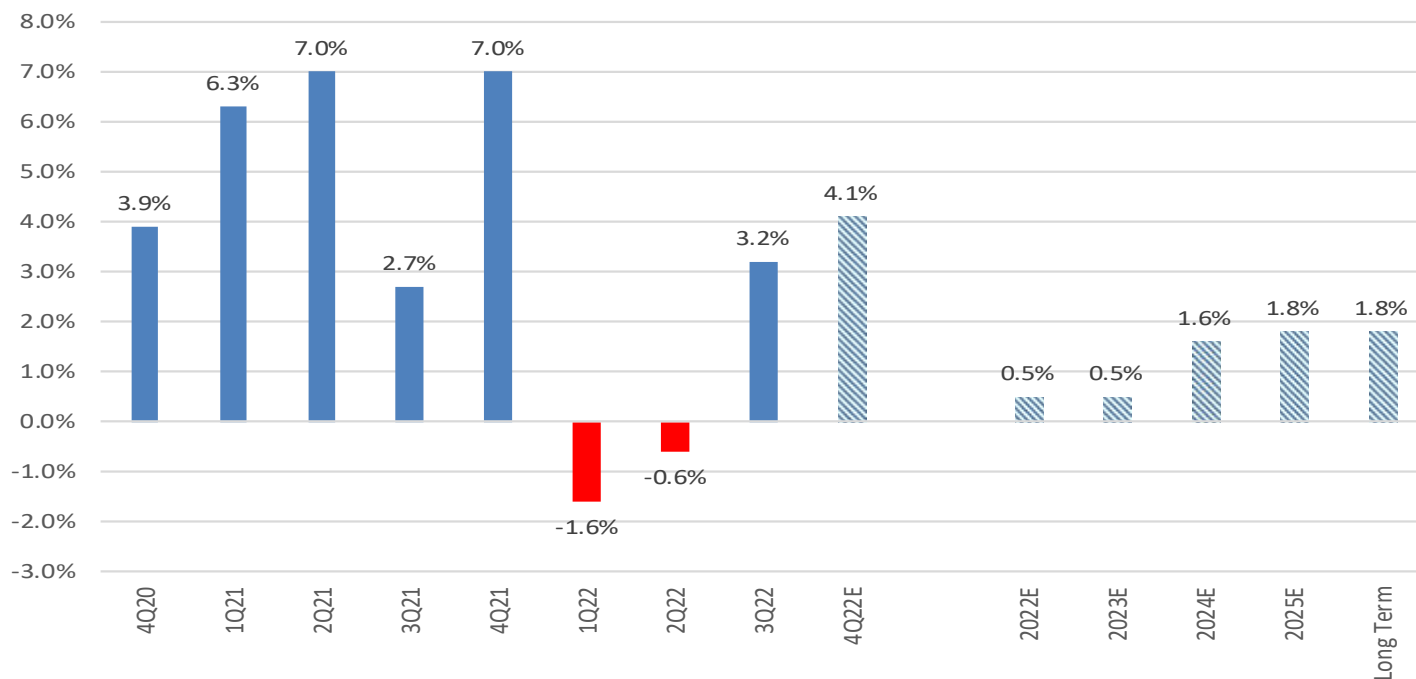
US Real GDP



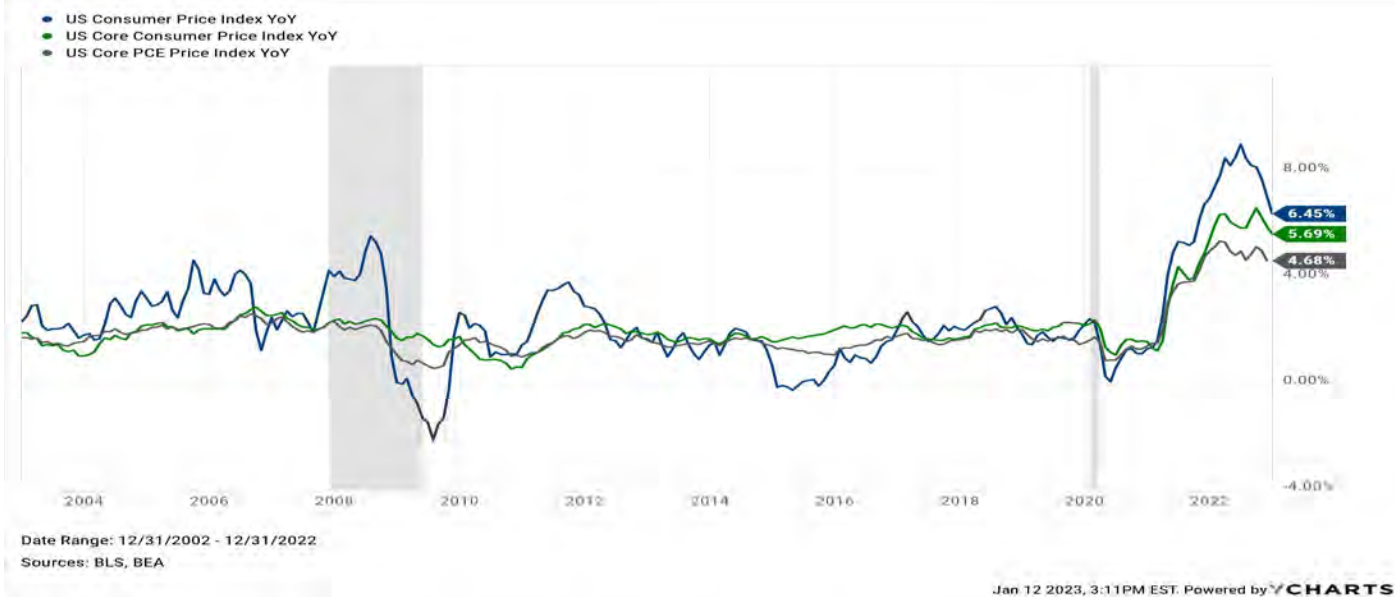
U.S. Economic Growth Turns Positive

- Following two successive negative quarters, U.S. economic growth turned positive in Q3 2022 as the economy expanded by 3.2% and U.S. real GDP reached a new all-time high, fully recovering the declines in the first two quarters of 2022.
- Growth for the quarter was primarily driven by non-residential fixed investment and consumer spending while residential fixed investment and imports declined.
- In their most recent projections, the U.S. Federal Reserve sees economic growth of 0.5% for the full year 2022, 0.5% in 2023, 1.6% in 2024, 1.8% in 2025 and 1.8% over the long-term.
- Interestingly, as of January 10th, the Atlanta Fed GDPNow model is forecasting 4.1% growth in 4Q 2022, well above consensus estimates.

U.S. GDP Growth



U.S. Economy



Inflation Remains Elevated But Is Trending Downwards

- Year-over-year CPI was 6.5% in December, the lowest level since October 2021. On a month-over-month basis, CPI declined by 0.1%, the largest decline since April 2020.
- Lower gasoline prices were the primary driver of the monthly decline, while food prices increased by 0.3% and shelter, which accounts for approximately one-third of CPI, increased by 0.8%. Excluding food and energy, core inflation increased by 0.3% for the month and 5.7% vs. a year ago.
- Personal Consumption Expenditures (PCE), the Fed's preferred measure, increased by 4.7% over the last year through November, down from the peak year-over-year growth of 5.3% in February.
- Future inflation expectations, as measured by the 5- and 10-year breakeven inflation rate, suggest investors expect inflation will continue to decline toward the Federal Reserve's target level.

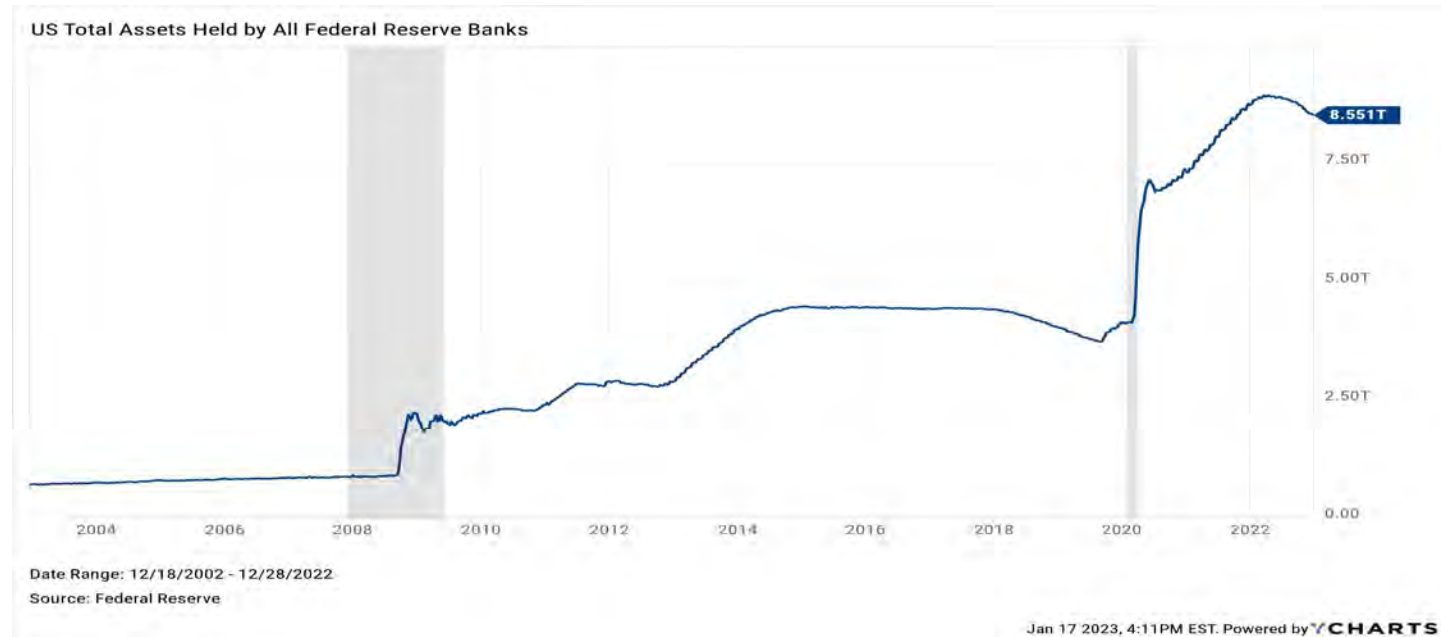


U.S. Economy



Fed Aggressively Raises Rates and Reduces Balance Sheet

- In an effort to combat rising inflation, the U.S. Federal Reserve increased the Fed Funds Rate to 4.25%-4.50% by the end of 2022.
- In total, the Fed increased rates seven times during 2022, including four consecutive 75 bps increases from June through November.
- As a result, the effective Fed Funds Rate is now at the highest level since November 2007.
- The Fed also reduced the size of its balance sheet for the first time since 2018, which is an additional way of tightening monetary policy.
- For the year, the balance sheet declined by 2.4% to \$8.6 trillion.
- Based on the current pace of quantitative tightening, the balance sheet is projected to decline by an additional \$1.1 trillion (13.3%) in 2023.



U.S. Economy

US Initial Claims for Unemployment Insurance



US Unemployment Rate



US Job Openings: Total Nonfarm



Date Range: 12/31/2012 - 12/31/2022

Sources: DoL, BLS

Jan 11 2023, 4:29PM EST. Powered by **YCHARTS**

Higher Interest Rates Have Not Derailed Employment

- Despite the Federal Reserve's efforts to reduce inflation by raising interest rates, the employment market has remained resilient.
- Employers added 223,000 jobs in December, the lowest monthly increase since December 2020; however, this exceeded expectations of 200,000 and the unemployment rate declined to 3.5%, matching the lowest level in over 50 years.
- Job openings in the U.S. continue to decline from the March 2022 high, but remain above 10.0 million. Despite the decline, there remain approximately 1.7 job openings for every available worker.

U.S. Equity Market

Sector	Index	4Q22	2022	2021	2020	2019	2018	2017	1-Year	3-Year	5-Year	10-Year
Large Cap	S&P 500	7.5%	-18.1%	28.7%	18.4%	31.5%	-4.4%	21.8%	-18.1%	7.6%	9.4%	12.5%
	Russell 1000	7.2%	-19.1%	26.4%	21.0%	31.4%	-4.8%	21.7%	-19.1%	7.3%	9.1%	12.4%
	Russell 1000 Value	12.4%	-7.6%	25.1%	2.8%	26.5%	-8.3%	13.6%	-7.6%	5.9%	6.6%	10.3%
	Russell 1000 Growth	2.2%	-29.1%	27.6%	38.5%	36.4%	-1.5%	30.2%	-29.1%	7.8%	11.0%	14.1%
Mid Cap	Russell Mid-Cap	9.2%	-17.3%	22.6%	17.1%	30.5%	-9.1%	18.5%	-17.3%	5.9%	7.1%	11.0%
	Russell Mid-Cap Value	10.4%	-12.1%	28.3%	5.0%	27.0%	-12.3%	13.3%	-12.1%	5.8%	5.7%	10.1%
	Russell Mid-Cap Growth	6.9%	-26.7%	12.7%	35.6%	35.5%	-4.8%	25.3%	-26.7%	3.9%	7.6%	11.4%
Small Cap	Russell 2000	6.2%	-20.5%	14.8%	19.9%	25.5%	-11.0%	14.6%	-20.5%	3.1%	4.1%	9.0%
	Russell 2000 Value	8.4%	-14.5%	28.2%	4.6%	22.4%	-12.9%	7.8%	-14.5%	4.7%	4.1%	8.5%
	Russell 2000 Growth	4.1%	-26.4%	2.8%	34.6%	28.4%	-9.3%	22.1%	-26.4%	0.6%	3.5%	9.2%
Total Market	Wilshire 5000	7.1%	-19.0%	26.7%	20.8%	31.0%	-5.3%	21.0%	-19.0%	7.4%	9.0%	12.3%
	Russell 3000	7.2%	-19.2%	25.6%	20.9%	31.0%	-5.2%	21.1%	-19.2%	7.0%	8.8%	12.1%



- U.S. equities experienced strong gains in Q4 2022, driven by expectations of slowing Fed policy tightening and cooling inflation.
- Despite gains in the final quarter, U.S. equity markets suffered their worst annual performance since the global financial crisis of 2008. This downturn was particularly notable as it spanned the first three quarters of 2022, rather than being concentrated in a single period.
- The S&P 500 (large-cap U.S. equities) ended 2022 down -18.1%, off the lowest levels in October. The index return does not fully capture the extent of the pain experienced by many companies. Nearly one-third of all components of the S&P 500 saw a decline of at least -25% for the entire year.

U.S. Equity Market

S&P 500 Sector Performance
As of December 31, 2022



Very Few Sectors Achieve Positive Returns in 2022

- In 2022, only two of the eleven sectors in the U.S. equity market finished the year with positive returns, a sharp contrast to the robust double-digit gains achieved by all sectors in 2021. The energy sector (+65%) emerged as the top performer once again, following a 54% return in 2021.
- For 2022, the defensive sectors of utilities, staples, and healthcare hovered around the breakeven level, while the growth-oriented sectors of communications, consumer discretionary, and technology were the worst performers. The latter sectors were particularly vulnerable to the unprecedented increase in interest rates that occurred in the year.
- According to analyst estimates, S&P 500 earnings for Q4 2022 are projected to decline by 2.8%. Despite this negative outlook for the most recent quarter, calendar year earnings for 2022 are still expected to show growth of 5.1%.

Multiple Compression Characterizes 2022 Market Decline

- The forward P/E of the S&P 500 declined from 21.2x at the start of 2022 to 16.7x at the end of Q4 2022.
- As stock prices declined, the forward price-to-earnings ratio of the S&P 500 is now in line with its 25-year average, despite sell-side analysts not significantly lowering their full-year guidance.

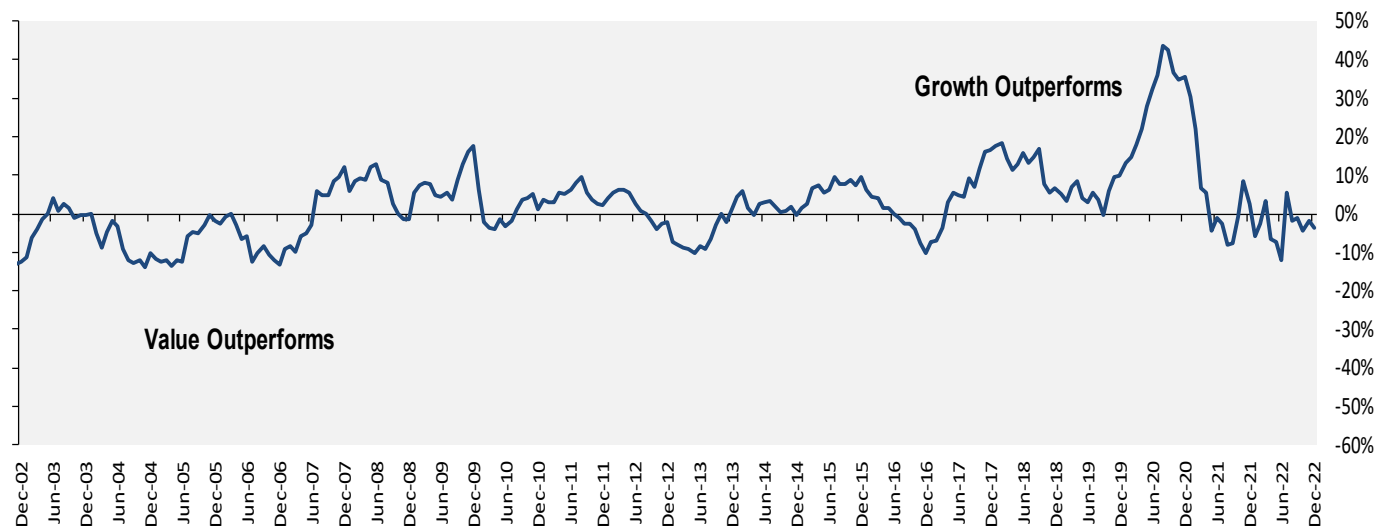
S&P 500 Index: Forward P/E ratio



Source: J.P. Morgan Asset Management

U.S. Equity Market

Russell 1000 Growth vs. Russell 1000 Value
Rolling One-Year Returns



- One of the most prominent shifts in the U.S. equity market in 2022 was the sudden end of the leadership of growth-style stocks. This rotation was aided by the rapid pace of interest rate increases, which benefited value-style stocks.
- As a result, the Russell 1000 Value index outperformed the Russell 1000 Growth index by over 21 percentage points in 2022, representing its second-best outperformance on record since the inception of the Russell indices in 1979.

S&P 500 vs. Russell 2000
Rolling One-Year Returns

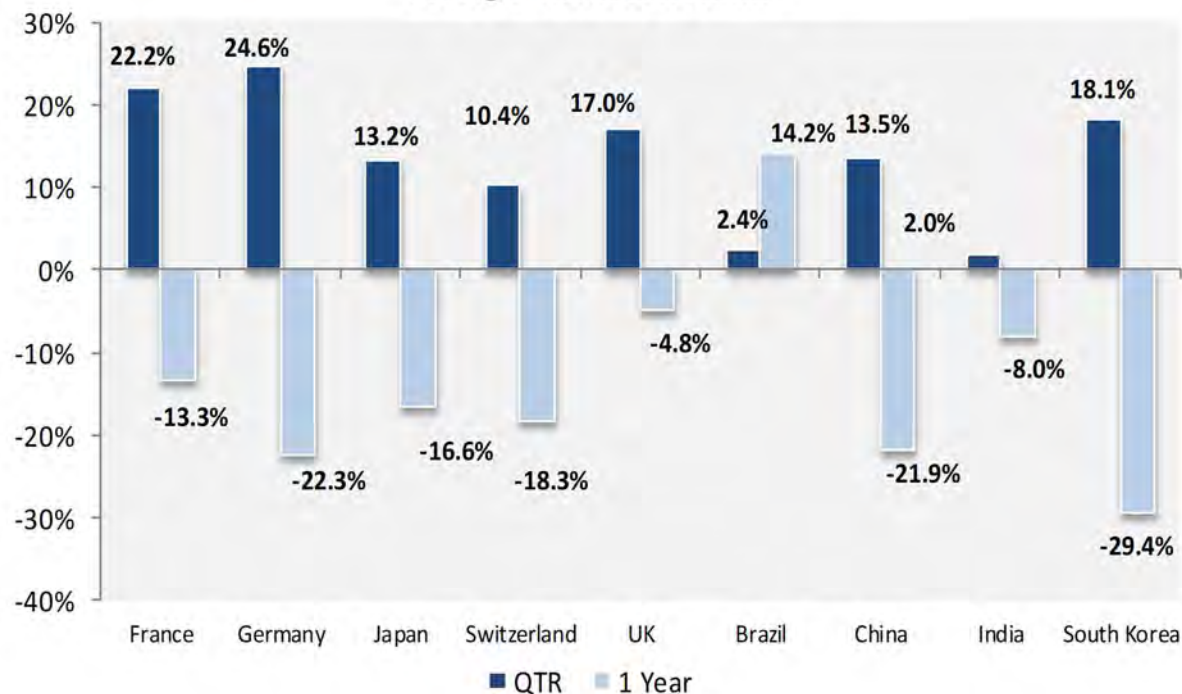


- The small-cap domestic equity market had its only positive quarter of the year in Q4 2022, closely mirroring the large-cap market. The small-cap value index experienced an increase of 8.4%, while the growth index saw a 4.1% increase. This marks the eighth time in the last nine quarters that the small-cap value index outperformed the small-cap growth index, including a streak of seven consecutive quarters leading up to Q3 2022.

International Equity Market

Sector	Index	4Q22	2022	2021	2020	2019	2018	2017	1-Year	3-Year	5-Year	10-Year
Global	MSCI AC World Index (net)	9.8%	-18.4%	18.5%	16.3%	26.6%	-9.4%	24.0%	-18.4%	4.0%	5.2%	8.0%
	MSCI World Small Cap (net)	10.8%	-18.8%	15.8%	16.0%	26.2%	-13.9%	22.7%	-18.8%	2.9%	3.5%	8.2%
	MSCI World ex US (net)	16.2%	-14.3%	12.6%	7.6%	22.5%	-14.1%	24.2%	-14.3%	1.3%	1.8%	4.6%
	MSCI World ex US Small Cap (net)	15.2%	-20.6%	11.1%	12.8%	25.4%	-18.1%	31.0%	-20.6%	-0.2%	0.5%	5.8%
Developed ex US	MSCI EAFE (net)	17.3%	-14.5%	11.3%	7.8%	22.0%	-13.8%	25.0%	-14.5%	0.9%	1.5%	4.7%
	MSCI EAFE Value (net)	19.6%	-5.6%	10.9%	-2.6%	16.1%	-14.8%	21.4%	-5.6%	0.6%	0.2%	3.5%
	MSCI EAFE Growth (net)	15.0%	-22.9%	11.3%	18.3%	27.9%	-12.8%	28.9%	-22.9%	0.5%	2.5%	5.6%
	MSCI EAFE Small Cap (net)	15.8%	-21.4%	10.1%	12.3%	25.0%	-17.9%	33.0%	-21.4%	-0.9%	-0.0%	6.2%
Emerging Markets	MSCI Emerging Markets (net)	9.7%	-20.1%	-2.5%	18.3%	18.4%	-14.6%	37.3%	-20.1%	-2.7%	-1.4%	1.4%

Foreign Markets Returns



- During Q4 2022, both international developed and emerging markets' indices outperformed the S&P 500, aided by weakness in the U.S. dollar, improving inflation data in Europe and the potential for renewed global demand as China emerges from its COVID-19 lockdowns.
- In Japan, the overall Q4 2022 return was positive as the Bank of Japan surprised investors by widening the range for maintaining 10-year bond yields, leading to a strengthening of the Japanese Yen.
- China, Hong Kong and Taiwan all achieved strong returns in Q4 2022, with share price growth particularly strong in November following signals of improved US-China relations. Additionally, Beijing's loosening of pandemic restrictions helped boost sentiment as investors welcomed the earlier-than-expected reopening of the economy and support for the housing sector.

International Equity Market

ICE US Dollar Index Level



Date Range: 01/02/2013 - 12/30/2022

Jan 03 2023, 1:56PM EST. Powered by YCHARTS

U.S. Dollar Pullback Finally Arrives

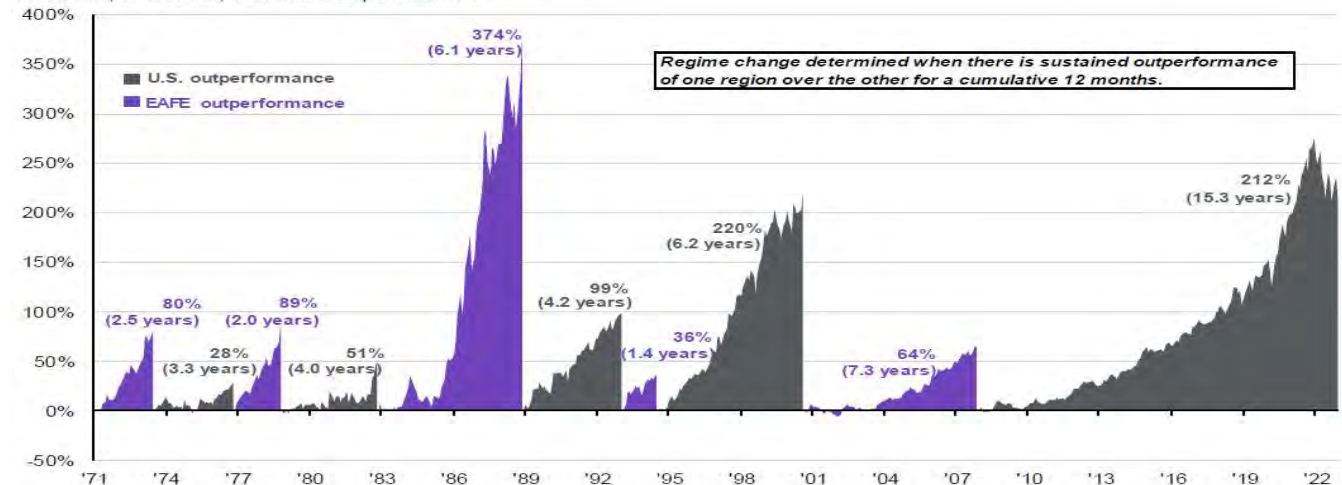
- In September of 2022, the U.S. Dollar Index (DXY) reached a peak of 20% appreciation, which would have marked its largest annual gain on record if it had been sustained until year-end.
- However, economic data indicated that "peak inflation" may have already passed, with inflation measures cresting in June. Furthermore, the central banks of Europe and Japan adopted more hawkish stances. Considering these developments, the DXY gave up more than half of its gains before ultimately finishing the year with a gain of 8.2%.

Regime Change Potential in 2023?

- U.S. equity markets significantly outperformed international markets by 212% over the past 15 years, with the current cycle being the longest duration of outperformance in 50 years.
- The trend of U.S. equity market outperformance may be shifting as international markets represented by the EAFE index outperformed the S&P 500 in 2022.

MSCI EAFE and MSCI USA relative performance

U.S. dollar, total return, cumulative outperformance*

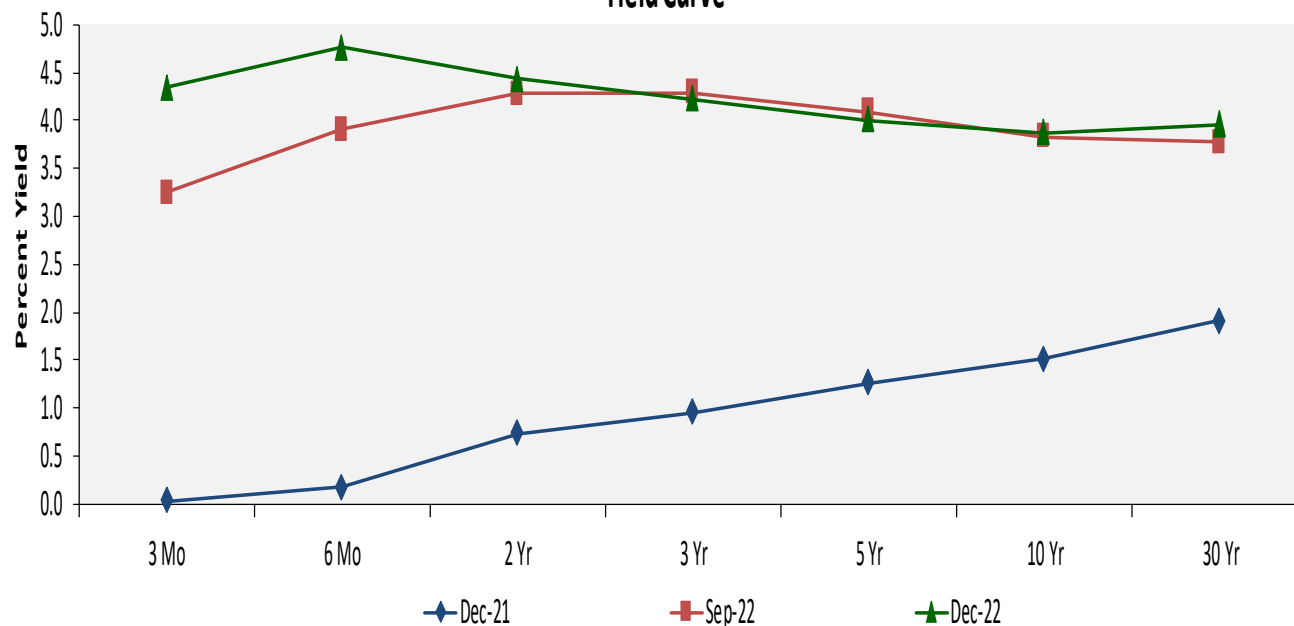


Source: J.P. Morgan Asset Management

Bond Market

Index	Duration (years)	Yield	4Q22	2022	2021	2020	2019	2018	2017	1-Year	3-Year	5-Year	10-Year
Bloomberg Aggregate	6.4	4.68%	1.9%	-13.0%	-1.5%	7.5%	8.7%	0.0%	3.5%	-13.0%	-2.7%	0.0%	1.1%
Bloomberg Govt/Credit	6.5	4.65%	1.8%	-13.6%	-1.7%	8.9%	9.7%	-0.4%	4.0%	-13.6%	-2.6%	0.2%	1.2%
Bloomberg Int Agg	4.7	4.63%	1.7%	-9.5%	-1.3%	5.6%	6.7%	0.9%	2.3%	-9.5%	-1.9%	0.3%	1.0%
Bloomberg Int Govt/Credit	4.0	4.57%	1.5%	-8.2%	-1.4%	6.4%	6.8%	0.9%	2.1%	-8.2%	-1.3%	0.7%	1.1%
Bloomberg U.S. Corporate	7.3	5.42%	3.6%	-15.8%	-1.0%	9.9%	14.5%	-2.5%	6.4%	-15.8%	-2.9%	0.5%	2.0%
Bloomberg HY Ba/B 2% IC	4.5	8.10%	4.6%	-10.6%	4.6%	7.7%	15.2%	-1.9%	6.9%	-10.6%	0.3%	2.6%	4.0%
ICE BofA 1-3 Yrs BB US Cash Pay HY	1.8	7.14%	2.7%	-3.1%	3.2%	5.4%	8.7%	1.3%	3.6%	-3.1%	1.8%	3.0%	3.6%
Bloomberg Mortgage	6.2	4.71%	2.1%	-11.8%	-1.0%	3.9%	6.4%	1.0%	2.5%	-11.8%	-3.2%	-0.5%	0.7%
Bloomberg Treasury	6.2	4.18%	0.7%	-12.5%	-2.3%	8.0%	6.9%	0.9%	2.3%	-12.5%	-2.6%	-0.1%	0.6%
Bloomberg US TIPS	6.7	4.38%	2.0%	-11.8%	6.0%	11.0%	8.4%	-1.3%	3.0%	-11.8%	1.2%	2.1%	1.1%
BofA ML 91 day T-Bills	0.2	4.38%	0.9%	1.5%	0.0%	0.7%	2.3%	1.9%	0.9%	1.5%	0.7%	1.3%	0.8%

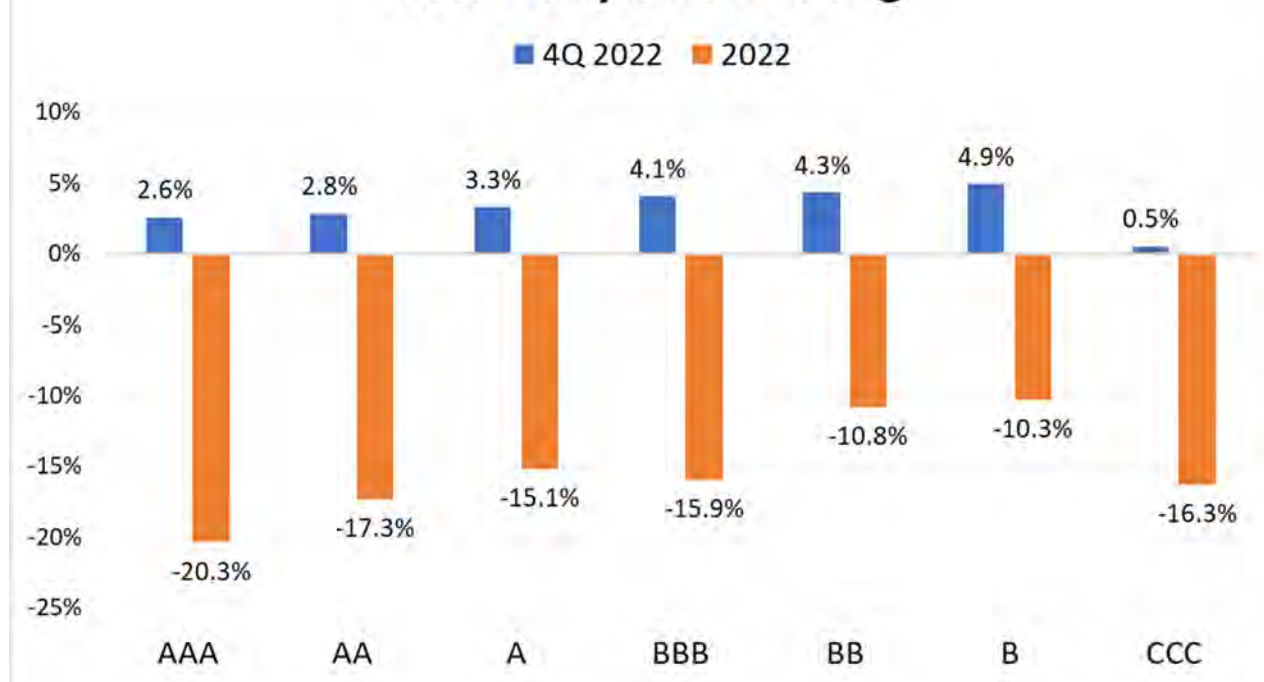
Yield Curve



- The U.S. treasury yield curve remained inverted in Q4 2022 as short-term interest rates continued to rise in anticipation of future rate hikes by the FOMC while rates in the belly of the curve (3-5 years) fell.
- This inversion in the yield curve appears to reflect uncertainty of how high the Federal Reserve can and will raise rates and whether it will need to cut rates in the future in response to slowing economic growth.
- U.S. Bond markets generated positive returns in Q4 2022. Higher yielding sectors outperformed as market sentiment rebounded with signs that inflation was slowing.

Bond Market

Returns by Credit Rating



Nowhere to Hide In Corporate Bonds

- High yield bonds outperformed investment grade bonds in Q4 2022, although CCC-rated bonds did not participate in the Q4 rally, providing some evidence that investors remain cautious about the economic outlook.
- For calendar year 2022, BB and B-rated high yield bonds were the best performing bonds in corporate credit due to their shorter duration.
- The underperformance of investment grade bonds relative to high yield in 2022 was largely driven by the sharp move higher in interest rates, causing longer duration bonds to underperform shorter duration bonds.
- Investment grade bonds have a longer duration because investors are willing to lend to higher quality companies for longer periods. The best companies have already taken advantage of this by locking in historically low interest rates by issuing bonds with long maturities. These long maturity bonds are more sensitive to interest rate changes.

Bond Ratings

	Standard & Poor's	Moody's
Investment Grade	AAA	Aaa
	AA	Aa
	A	A
High Quality High Yield	BBB	Baa
	BB	Ba
	B	B
Low Quality High Yield	CCC	Caa
	CC	Ca
	C	C

Bond Market

Credit Spreads Tightened in Fourth Quarter

- Credit spreads tightened in Q4 2022 with both investment grade (IG) and high yield (HY) spreads sitting below their long-term averages.
- Credit spreads across both IG and HY remain well above their 2021 levels, but materially below the stress seen during the COVID-19 pandemic.

Corporate Credit Spreads

- US Corporate Master Option-Adjusted Spread
- US High Yield Master II Option-Adjusted Spread



Date Range: 12/31/1996 - 12/30/2022

Source: Bank of America Merrill Lynch

Jan 03 2023, 2:15PM EST. Powered by **YCHARTS**

Bond Market

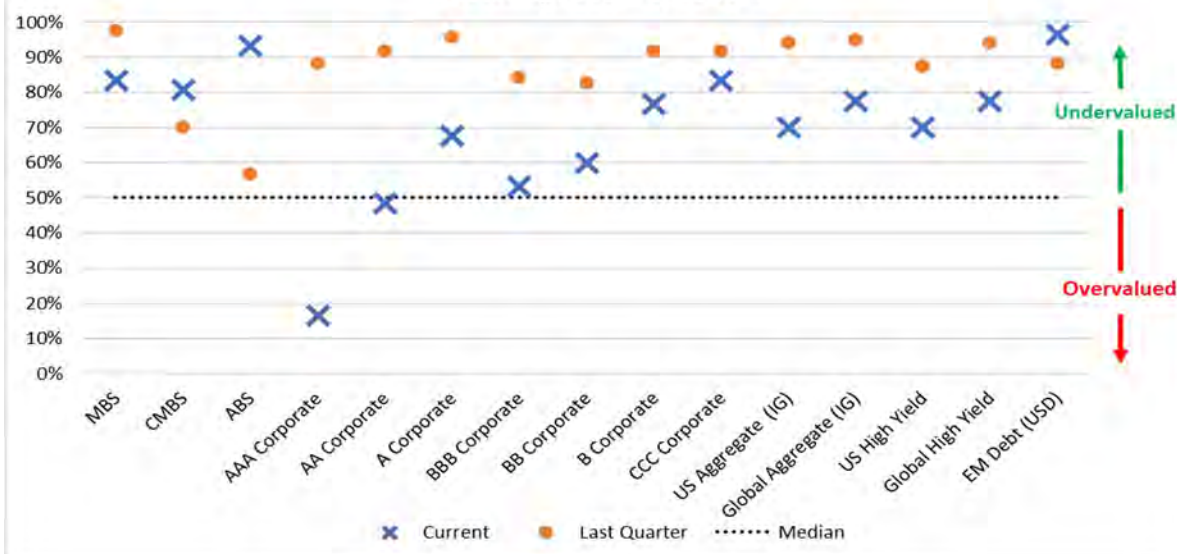
Yields Relative to 10-Year Historic Range



Yields

- Yields decreased across bond sectors as interest rates moved lower in Q4 2022.
- Yields remain elevated near their highest levels in 10 years across most sectors.
- Investment grade bonds are now yielding ~5.0% with BBB corporates yielding 5.7%.
- BB corporates (HY) are yielding 7.2% while the broad U.S. high yield market is yielding 9.0% due to B & CCC corporates yielding more.

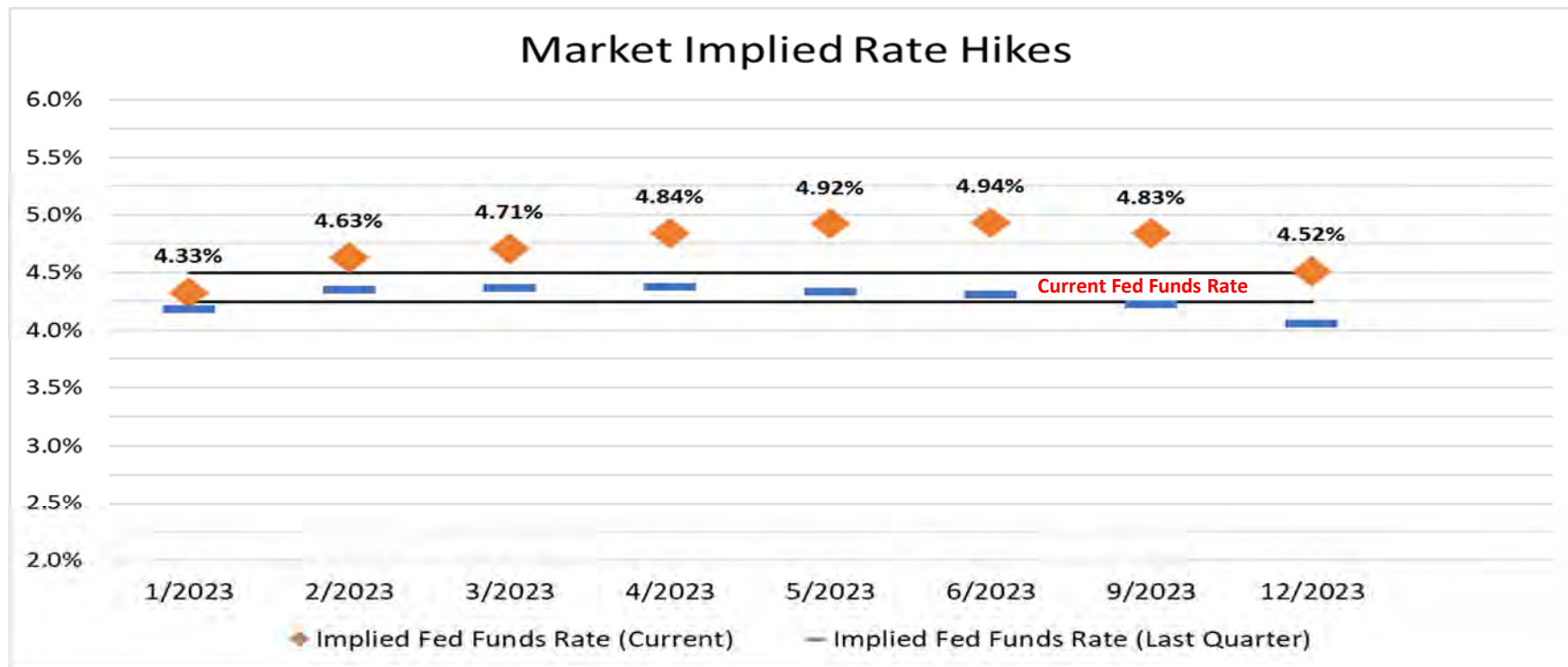
Credit Spread Percentile



Credit Spreads/Valuations

- Credit spreads narrowed for most bond sectors in Q4 2022.
- AAA- and AA-rated corporate bonds narrowed the most of all credit sectors.
- The large compression in spreads of investment grade bonds and BB-rated high yield bonds may signal a higher demand for quality in an uncertain economy. This notion is further supported by the lack of spread tightening in CCC-rated credit.
- ABS (Asset Backed Securities) spreads moved materially wider in the last quarter, largely in response to concerns over auto loans.

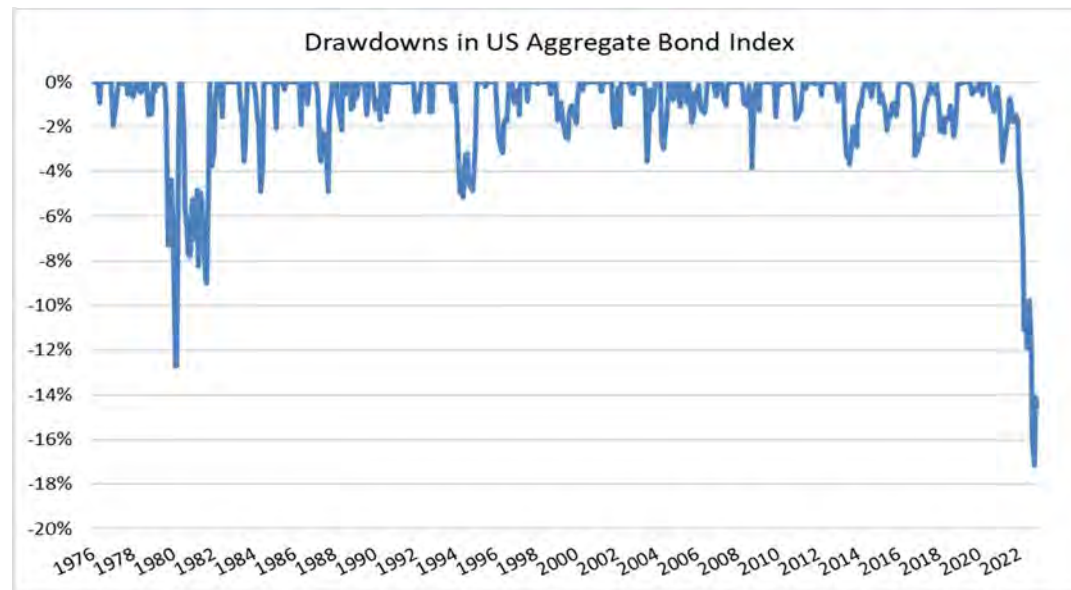
Bond Market



As of 12/31/22

- The FOMC raised interest rates by 75 bps in early November and raised rates again by 50 bps in December. The current target federal funds rate is now 4.25-4.50%, up from 3.00-3.25% in Q3 2022.
- Market expectations for future interest rate hikes by the FOMC continued to rise in Q4 2022, but at a slower pace than in prior quarters.
- Current expectations are for the Federal Reserve to hike rates at a pace of 25 bps after a series of 75 bps hikes from June through November 2022 and a 50 bps hike in December 2022. The expectation for a slower pace of rate hikes began to take form as inflation data was lower than expected for consecutive months, indicating that the aggressive rate hikes in 2022 may have worked to reduce inflation.
- The market now anticipates the Fed Funds Rate to reach a peak of ~5% by June 2023 with the potential for a rate cut or pause by year-end 2023. The longer-term futures contracts (September & December 2023) are less active and thus less predictive of market expectations.

Bond Market

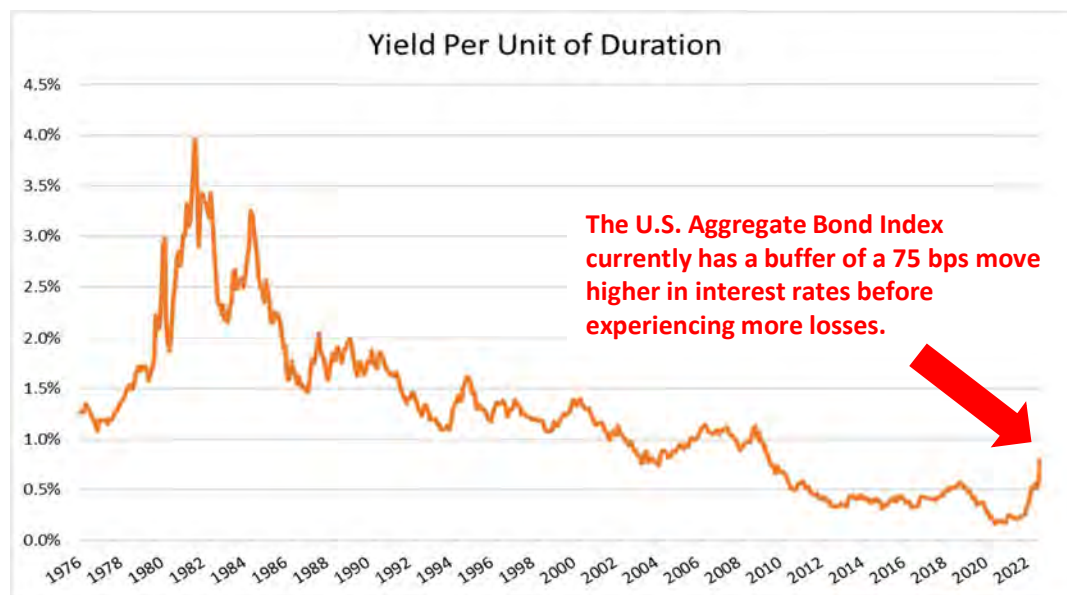


Worst Drawdown in US Aggregate Index History

- The U.S. Aggregate Bond Index is the bellwether bond index for U.S. investment grade bonds.
- The index is down 14.5% from its all-time high in 2020, the largest drawdown in the index's 46-year history.
- While the current drawdown dwarfs any drawdown experienced over the last 25 years, the index experienced a 12.7% drawdown in 1980 in an environment that closely resembles today's macro environment.
- The 1980 drawdown coincided with the Federal Reserve raising interest rates to combat runaway inflation.
- The index rebounded to new highs in 1980, 1981, and 1982.

A Duration Driven Sell-Off

- Most of the underperformance in investment grade bonds is being driven by duration.
- With record low interest rates, yields on investment grade bonds provided investors with little cushion against a rise in interest rates.
- For most of the past decade, a 50-bps increase in interest rates would have wiped out an entire year's worth of interest payments. This number was as low as 20-bps in 2021.
- This has resulted in major losses for investment grade bonds as the Federal Reserve has raised the Fed Funds rate by 4% in 2022. A similar event occurred in 1980 when the Federal Reserve raised rates from 15% to 20%.



Bond Market

Interest Rate Sensitivity

12 Month Holding Period - Annualized Returns as of 12/31/2022

Yield Change	10 Year Treasury	Bloomberg Aggregate	Bloomberg Int Govt/Credit	ICE BofA Gov/Corp Master	ICE BofA 1-3 yr Gov/Corp	Defensive ICE BofA US HY BB/B ND	Short Duration ICE BofA US HY BB/B 1-3 yr
(bps)							
-300	27.93	23.88	16.42	24.04	10.21	21.01	13.92
-250	23.92	20.68	14.44	20.81	9.29	18.82	12.97
-200	19.90	17.48	12.47	17.58	8.38	16.63	12.02
-150	15.88	14.28	10.49	14.35	7.46	14.45	11.07
-100	11.86	11.08	8.52	11.12	6.54	12.26	10.12
-75	9.85	9.48	7.53	9.50	6.09	11.17	9.65
-50	7.85	7.88	6.54	7.89	5.63	10.07	9.17
-25	5.84	6.28	5.56	6.27	5.17	8.98	8.70
0	3.83	4.68	4.57	4.66	4.71	7.89	8.22
25	1.82	3.08	3.58	3.05	4.25	6.79	7.75
50	-0.19	1.48	2.59	1.43	3.80	5.70	7.27
75	-2.20	-0.12	1.60	-0.18	3.34	4.61	6.80
100	-4.21	-1.72	0.62	-1.80	2.88	3.51	6.32
150	-8.22	-4.92	-1.36	-5.03	1.96	1.33	5.38
200	-12.24	-8.12	-3.33	-8.26	1.05	-0.86	4.43
250	-16.26	-11.32	-5.31	-11.49	0.13	-3.05	3.48
300	-20.28	-14.52	-7.28	-14.72	-0.78	-5.24	2.53
Duration	8.04	6.40	3.95	6.46	1.83	4.37	1.90

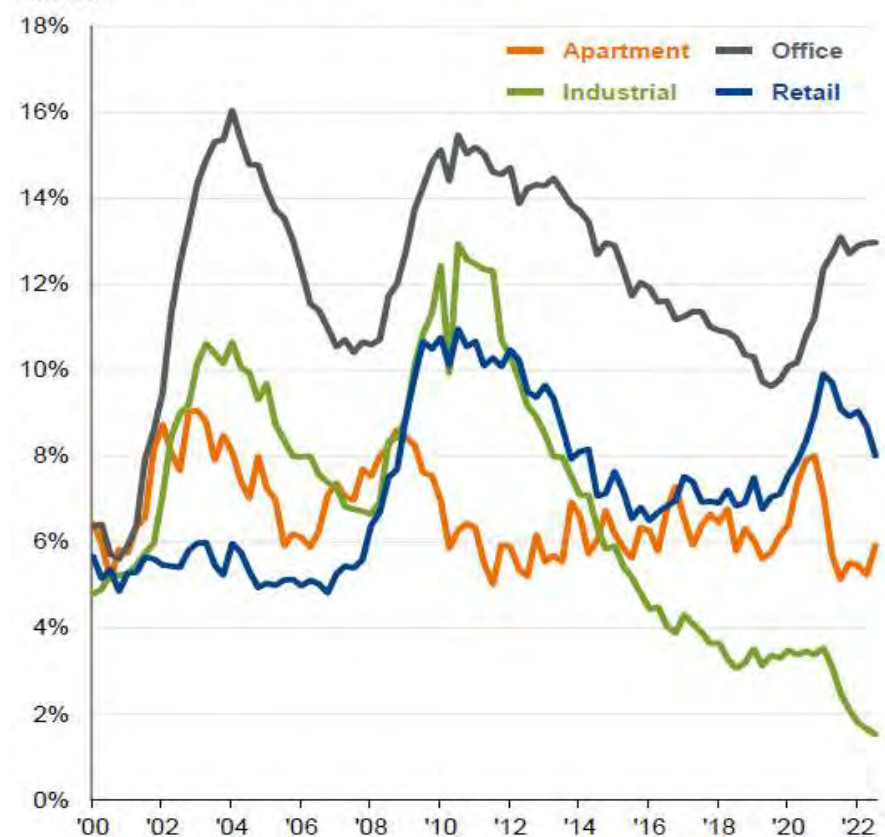
FOR ILLUSTRATIVE PURPOSES ONLY: For each index the current yield to worst as of 12/31/2022 was used as the base case annualized return. The annualized return sensitivity to a uniform increase or decrease in the yield curve was calculated by taking the index's Option-Adjusted Duration as of 12/31/2022 multiplied by the percentage point change in the yield curve (basis point change divided by 100) and then appropriately adding or subtracting this implied percentage change in the value of the index (due to the shift in the yield curve) to the base case annualized return. This is a rough approximation of the annual return sensitivity to parallel shifts in the yield curve.

Real Estate Market

Sector	Index	4Q22	2022	2021	2020	2019	2018	2017	1-Year	3-Year	5-Year	10-Year
US Private	NCREIF ODCE Equal Weighted (net)	-5.1%	7.6%	21.9%	0.8%	5.2%	7.3%	6.9%	7.6%	9.7%	8.3%	9.5%
	NCREIF ODCE EW Income Index	0.8%	3.5%	4.1%	3.6%	3.5%	3.5%	3.6%	3.5%	3.8%	3.7%	3.8%
	NCREIF ODCE EW Appreciation Index	-5.7%	4.8%	18.3%	-2.4%	1.7%	3.7%	3.2%	4.8%	6.5%	5.0%	5.7%

U.S. vacancy rates by property type

Percent

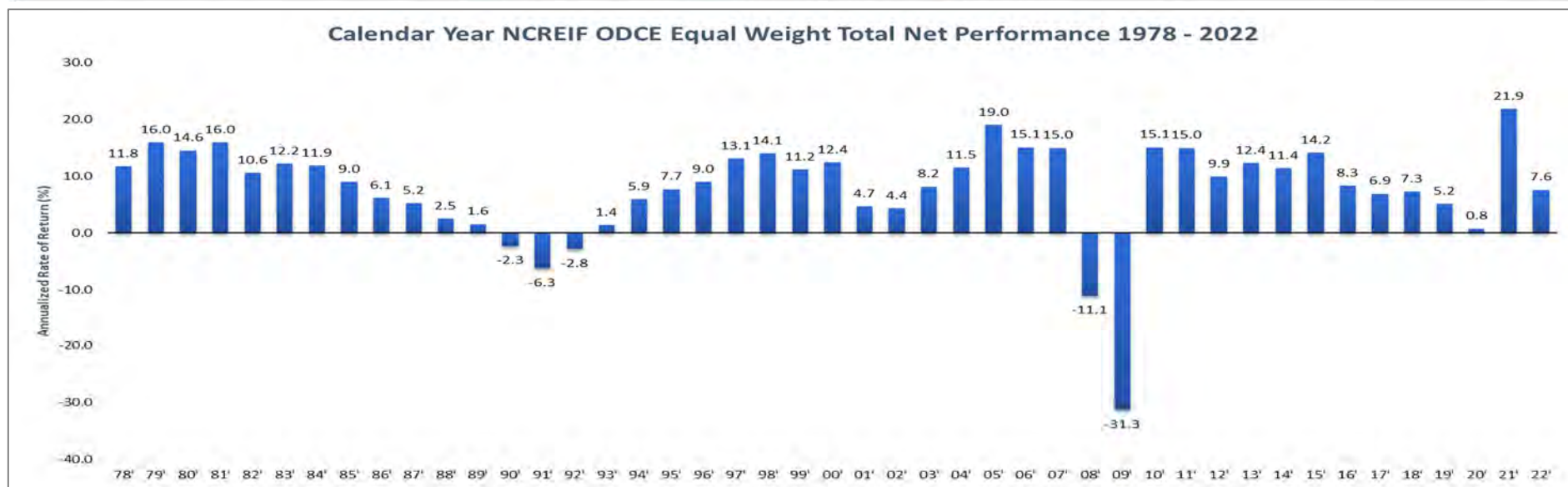
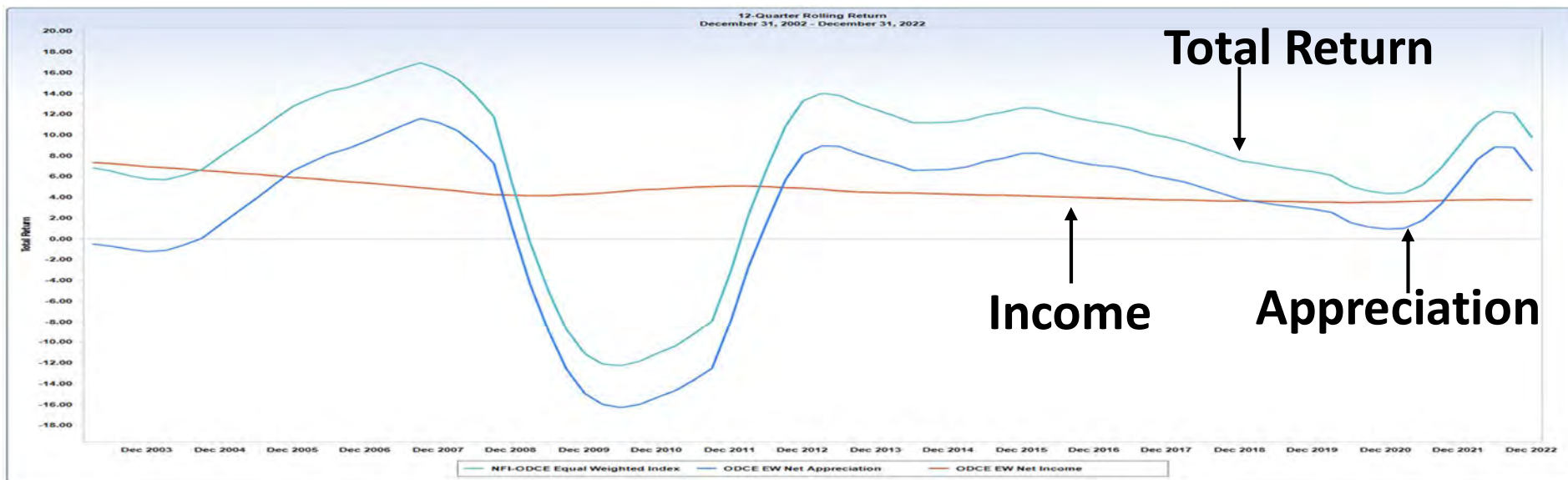


Source: J.P. Morgan Asset Management, Q4 2022.

- Private real estate experienced its worst quarter since 2009, as the NCREIF ODCE Equal Weighted Index (net) declined -5.06% in Q4 2022. The negative return is just the second negative quarterly return in the past 13 calendar years (the other occurred in June 2020 around the beginning of the Covid-19 pandemic). Despite the quarterly decline, private real estate proved a strong diversifier in 2022 amid negative returns for most other asset classes, with the ODCE index rising 7.59% during the year.
- Rising interest rates and limited transaction volumes have caused property valuation markdowns across sectors. Vacancy rates have largely declined from their early pandemic (2020) peaks in apartment, industrial and retail assets, while remaining elevated in office assets. Varying office lease terms and expirations mean the market still has not realized the full effects of post-pandemic occupancy and remote work.
- The outperformance of real estate relative to other asset classes has caused many investors to be overweight their real estate policy targets. As such, investor rebalancing has led to a flurry of redemption requests from private real estate funds, causing many to implement withdrawal queues. ODCE redemption queues represent ~7% of aggregate NAV, above 2020 levels (6%) but well below the 2009 peak of 15%.

Real Estate Market

- The income component of real estate returns remained relatively stable in 2022, albeit slightly lower than 2021 levels. Appreciation was positive in the first half of 2022 and drove the positive calendar year return for the index but was flat in Q3 and negative in Q4, driving the ODCE index to a negative return in Q4 2022.



Real Estate Market

- The market environment of 2022 caused a substantial shift in investors' forward-looking return expectations for real estate. Twelve months ago, the PREA Consensus Forecast Return expectation for 2023 was 7.9%. As shown below, that return expectation has been revised down to -0.7% in the most recent PREA forecast, with returns expected to normalize around 5% thereafter.
- With the decline in total expected returns in 2023, the expectations for individual property sectors have naturally also come down. Investors expect the office sector to fare the worst on a relative basis for the next few years given the uncertainty that remains in the sector. The recent winners for the last few years, industrial and apartment properties, are expected to remain resilient longer-term after the potential for near-term writedowns in valuations.
- Per the PREA forecast, investors expect the income component of returns to remain stable across sectors for the foreseeable future, with negative appreciation hurting overall returns in 2023.

	Total return (incl. income) 2022	Total return (incl. income) 2023	Total return (incl. income) 2024	Total return (incl. income) 2022-2026
National, All Property Types (NPI)	7.0%	-0.7%	5.2%	5.3%
Office	-1.3%	-5.0%	1.7%	1.5%
Retail	3.4%	1.3%	6.8%	4.9%
Industrial	14.8%	0.7%	6.9%	7.5%
Apartment	7.9%	-0.3%	6.2%	5.9%

Source: Pension Real Estate Association (PREA) Consensus Forecast Survey of the NCREIF Property Index, Q4 2022.

Hedge Fund Market

Strategy	Index	4Q22	2022	2021	2020	2019	2018	2017	1-Year	3-Year	5-Year	10-Year
Fund of Funds	HFRI FOF Composite	1.8%	-5.2%	6.2%	10.9%	8.4%	-4.0%	7.8%	-5.2%	3.7%	3.0%	3.5%
Equity Long-Short	HFRI Equity Hedge	4.2%	-10.2%	11.7%	17.9%	13.7%	-7.1%	13.3%	-10.2%	5.7%	4.5%	5.6%
Event Driven	HFRI Event Driven	3.3%	-4.6%	12.4%	9.3%	7.5%	-2.1%	7.6%	-4.6%	5.4%	4.3%	4.9%
Global Macro	HFRI Macro Index	-1.3%	9.0%	7.7%	5.4%	6.5%	-4.1%	2.2%	9.0%	7.3%	4.8%	3.1%
Relative Value	HFRI Relative Value	1.3%	-0.8%	7.6%	3.4%	7.4%	-0.4%	5.1%	-0.8%	3.3%	3.4%	4.0%
Credit	HFRI Credit Index	1.3%	-2.7%	7.9%	6.3%	6.5%	-0.0%	6.0%	-2.7%	3.7%	3.5%	4.3%

Hedge Fund Strategy Performance



- 2022 provided the type of volatile market environment – steep equity market declines, historic bond market declines, rising interest rates, high inflation, etc. – in which the full active management capabilities of hedge funds should add value. While the HFRI Fund of Funds Composite closed the year down -5.25%, hedge fund of funds strategies were one of the better performing asset classes in 2022, outperforming and protecting capital relative to traditional equity and fixed income strategies.
- Most hedge fund strategies were positive in Q4 2022, as global equity and fixed income markets rallied off their lows for the year. The HFRI Fund of Funds Composite was positive each month in Q4, ending the quarter up 1.79%.
- Equity hedge was the primary laggard in 2022 but led broad strategy returns in Q4, with the HFRI Equity Hedge Index up 4.17%. Macro strategies continued to display a lack of correlation to other hedge fund strategies, declining in Q4 while most other strategies were positive, with the inverse occurring for the full 2022 calendar year.
- An environment marked by high volatility should continue to provide investment opportunities for hedge funds, but strategy allocation and manager selection remain of critical importance. According to HFRI, performance dispersion among hedge fund managers continues to remain elevated. In 2022, performance for the top decile of HFRI constituents was up over 39% on average, while managers in the bottom decile of performance had declines of -33% on average. This represents top decile / bottom decile dispersion of 72%.



UFCW-Giant Variable Annuity Fund

Master Consulting Services Report

Period Ended

December 31, 2022

Total Fund Growth of Assets

	Fourth Quarter	Inception 7/1/22
Beginning Market Value	\$18,096,439	\$0
Net Cash Flow	-\$1,173,513	\$16,909,587
Net Investment Change	-\$55,577	-\$42,238
Ending Market Value	\$16,867,349	\$16,867,349

- The Fund's fiscal year end is December 31st.

UFCW-Giant Variable Annuity Fund

Master Consulting Services Report as of December 31, 2022

Performance Summary (Gross of Fees)

			Ending December 31, 2022		
			2022 Q4	Inception	Inception Date
Total Fund	\$16,867,349	100.0%	-0.3%	-0.2%	Jul-22
Total Real Estate - Core	\$922,762	5.5%	-5.4%	-3.8%	Jul-22
Total Cash Equivalents	\$15,944,587	94.5%			

UFCW-Giant Variable Annuity Fund
Master Consulting Services Report as of December 31, 2022

	Current vs. Policy					
	Current	Current	Policy	Policy Range	Difference	Difference
Domestic Large Cap Equity	\$0	0.0%	10.0%	5.0% - 15.0%	-10.0%	-\$1,686,735
Domestic Small/Mid Cap Equity	\$0	0.0%	5.0%	0.0% - 10.0%	-5.0%	-\$843,367
International Equity	\$0	0.0%	5.0%	0.0% - 10.0%	-5.0%	-\$843,367
Global Tactical Asset Allocation	\$0	0.0%	10.0%	5.0% - 15.0%	-10.0%	-\$1,686,735
Investment Grade Fixed Income	\$0	0.0%	30.0%	25.0% - 35.0%	-30.0%	-\$5,060,205
High Yield Fixed Income	\$0	0.0%	15.0%	10.0% - 20.0%	-15.0%	-\$2,530,102
Real Estate - Core	\$922,762	5.5%	5.0%	0.0% - 10.0%	0.5%	\$79,394
Real Estate - Value Add	\$0	0.0%	15.0%	10.0% - 20.0%	-15.0%	-\$2,530,102
Private Equity	\$0	0.0%	5.0%	0.0% - 10.0%	-5.0%	-\$843,367
Cash Equivalents	\$15,944,587	94.5%	0.0%	0.0% - 0.0%	94.5%	\$15,944,587
Total	\$16,867,349	100.0%	100.0%			

- Policy adopted May 2022; effective TBD (pending funding of managers).

UFCW-Giant Variable Annuity Fund - Asset Allocation

- Asset allocation reviews were presented and discussed with the Board of Trustees at the following meetings: May 23, 2022.
- At the May 23, 2022 meeting, IPS presented an asset allocation review, draft investment policy statement, and manager searches. The Trustees approved the following recommendations:
 - Adopt Policy: 10.0% domestic large cap equity, 5.0% domestic small/mid cap equity, 5.0% international equity, 10.0% global tactical asset allocation, 30.0% investment grade fixed income, 15.0% high yield fixed income, 5.0% real estate - core, 15.0% real estate - value add, and 5.0% private equity.
 - Retain the following managers: domestic large cap equity (Northern Trust Russell 1000 Growth Index, Northern Trust Russell 1000 Value Index), domestic small/mid cap equity (Northern Trust DJ Completion Total Stock Market Equity Index), international equity (Northern Trust EAFE Index), global tactical asset allocation (First Eagle Global Value Fund, LP), investment grade fixed income (Chartwell Investment Partners), high yield fixed income (MacKay Shields High Yield CIT), real estate – core (ARA Core Property Fund, LP), real estate – value add (Intercontinental US Real Estate Investment Fund, LLC and Boyd Watterson State Government Fund, LP), and private equity (Hamilton Lane Private Assets Fund). Status: ARA funded on July 1, 2022. All other investments' funding is in process.

Recommendations: Consider new asset allocation Policy.

UFCW-Giant Variable Annuity Fund
Master Consulting Services Report as of December 31, 2022

Commitment and Funding of Real Estate - Core (In Millions) as of December 31, 2022

Investments		Commitments			Contributions & Distributions		Valuations		Performance	
Account Name	Vintage Year	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Cumulative Distributions	Valuation	Total Value	DPI	TVPI
ARA Core Property Fund, LP	2022	\$1.0	\$0.0	1.0	\$1.0	\$0.0	\$0.9	\$0.9	0.0	1.0
Total		\$1.0	\$0.0	1.0	\$1.0	\$0.0	\$0.9	\$0.9	0.0	1.0

Commitment and Funding of Real Estate - Value Add (In Millions) as of December 31, 2022

Investments		Commitments			Contributions & Distributions		Valuations		Performance	
Account Name	Vintage Year	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Cumulative Distributions	Valuation	Total Value	DPI	TVPI
Boyd Watterson State Government Fund, LP		\$1.4	\$1.4		\$0.0	\$0.0	\$0.0	\$0.0		
Intercontinental U.S. Real Estate Investment Fund		\$1.4	\$1.4		\$0.0	\$0.0	\$0.0	\$0.0		
Total		\$2.8	\$2.8		\$0.0	\$0.0	\$0.0	\$0.0		

Commitment and Funding of Private Equity (in Millions) as of December 31, 2022

Investments		Commitments			Contributions & Distributions		Valuations		Performance		
Account Name	Vintage Year	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Cumulative Distributions	Valuation	Total Value	DPI	TVPI	IRR
Hamilton Lane Private Assets Fund		\$1.0	\$1.0		\$0.0	\$0.0	\$0.0	\$0.0			
Total		\$1.0	\$1.0		\$0.0	\$0.0	\$0.0	\$0.0			

- Distribution to Paid-In (DPI) – The DPI is the value of all distributions to limited partners divided by the amount limited partners have contributed to the fund. A DPI of 1 indicates the investor has received capital back equal to what they invested while a DPI over 1 indicates an investor has received more capital back than they invested. DPI is most relevant for closed-end fund structures such as private equity.
- Total Value to Paid in Multiple (TVPI) – The TVPI is a measure of return that expresses how much a fund has made relative to how much was contributed. It is calculated by dividing the sum of the amount of capital distributed to investors and the amount of remaining value by the amount of invested capital. A TVPI below 1 indicates the current value of the investment plus the capital returned to the investor is less than the investor contributed. A TVPI greater than 1 indicates the current value of the investment plus the capital returned to the investor is more than the investor contributed. For closed-end funds such as private equity, DPI and TVPI will be the same at the end of the fund's life.
- Performance data included in the table above may differ from performance data provided by the investment manager due to the availability and timing of data used in the calculations.

UFCW-Giant Variable Annuity Fund
Master Consulting Services Report as of December 31, 2022

Performance Detail (Net of Fees)

	Market Value	% of Portfolio	Ending December 31, 2022		
			2022 Q4	Inception	Inception Date
Total Fund	\$16,867,349	100.0%	-0.3%	-0.3%	Jul-22
Total Real Estate - Core	\$922,762	5.5%	-5.7%	-4.4%	Jul-22
ARA Core Property Fund, LP	\$922,762	5.5%	-5.7%	-4.4%	Jul-22
NCREIF ODCE Equal Weighted Net			-5.1%	-4.3%	Jul-22
Total Cash Equivalents	\$15,944,587	94.5%			
Cash Account	\$15,944,587	94.5%			

Account Information	
Account Name	ARA Core Property Fund, LP
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	7/01/22
Account Type	Real Estate - Core
Benchmark	NCREIF ODCE Equal Weighted Net
Universe	

Income is reinvested.

ARA Core Property Fund, LP		
Ending December 31, 2022		
	Fourth Quarter	Inception 7/1/22
Beginning Market Value	\$978,339	\$0
Net Cash Flow	\$0	\$965,000
Net Investment Change	-\$55,577	-\$42,238
Ending Market Value	\$922,762	\$922,762

	Ending December 31, 2022										
	2022 Q4	1 Yr	3 Yrs	5 Yrs	2022	2021	2020	2019	2018	Inception	Inception Date
ARA Core Property Fund, LP	-5.4%	--	--	--	--	--	--	--	--	-3.8%	Jul-22
NCREIF ODCE Equal Weighted Net	-5.1%	--	--	--	--	--	--	--	--	-4.3%	Jul-22

Note: Returns are gross of fees.

UFCW-Giant Variable Annuity Fund - ARA Core Property Fund, LP

Manager Summary

- On May 27, 2021, ARA announced that the American Core Realty Fund, LP will be changing its name to the ARA Core Property Fund, LP. No changes are expected in the strategy or objectives of the Fund as a result.
- On August 24, 2022, ARA announced the implementation of a withdrawal queue effective September 30, 2022.
- IPS conducted due diligence meetings with American Realty Advisors on April 9, 2020, November 16, 2021 and August 3, 2022.

Recommendation: None.

Compliance Summary

Manager verified that the portfolio is currently, and has been during the past quarter, in compliance with the firm's commingled investment vehicle investment guidelines and/or offering document governing the management of the investment. With respect to the portfolio(s) under management, manager acknowledges sole fiduciary responsibility under ERISA for adherence with the commingled investment vehicle and/or offering document guidelines.

Items of Interest: Liquidity - The manager stated that partial redemption payments were made for all requests timely received for the December 31, 2022 redemption date. The number of quarters required to satisfy outstanding redemptions requests is uncertain and depends on market conditions, but ARA anticipates that the Fund will make partial payments for requests that were timely received for the March 31, 2023 redemption date and that a queue will be in place in second quarter of 2023. **Derivatives** - The manager stated yes to Part A question #5, however ARA does not perform stress testing as the Fund only holds one derivative security for interest rate hedging purposes. **Legal** - The manager stated the firm is sometimes named in slip and fall and similar litigation that is not material to its investment activities. **Cybersecurity** - The manager stated ARA carries cyber risk insurance coverage in the amount of \$3 million.

Investment Policy Statement

- The current investment policy was adopted on December 10, 2022.

Custody Bank

- PNC.
- Separate account market values and flows are derived from the custodial statement.

Commingled Funds

- Commingled Fund: Due to the commingled fund structure, IPS does not monitor the holdings within the commingled fund for compliance with the client's investment policy statement. The commingled fund is governed by its own investment policy.
- Commingled fund market values and flows are derived from the manager statement.



UFCW-Giant Variable Annuity Fund

Appendix

UFCW-Giant Variable Annuity Fund
Master Consulting Services Report as of December 31, 2022

Performance Detail (Gross of Fees)

	Market Value	% of Portfolio	Ending December 31, 2022		
			2022 Q4	Inception	Inception Date
Total Fund	\$16,867,349	100.0%	-0.3%	-0.2%	Jul-22
Total Real Estate - Core	\$922,762	5.5%	-5.4%	-3.8%	Jul-22
ARA Core Property Fund, LP	\$922,762	5.5%	-5.4%	-3.8%	Jul-22
NCREIF ODCE Equal Weighted Net			-5.1%	-4.3%	Jul-22
Total Cash Equivalents	\$15,944,587	94.5%			
Cash Account	\$15,944,587	94.5%			

UFCW-Giant Variable Annuity Fund
Master Consulting Services Report as of December 31, 2022

Account	Fee Schedule	Market Value As of 12/31/2022	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Total Real Estate - Core	-	\$922,762	5.5%	--	--
ARA Core Property Fund, LP	1.10% of Assets	\$922,762	5.5%	\$10,150	1.10%
Total Cash Equivalents	-	\$15,944,587	94.5%	--	--
Cash Account	-	\$15,944,587	94.5%	--	--
Investment Management Fee		\$16,867,349	100.0%	\$10,150	0.06%

Note: The above fee schedules may not include incentive fees, operating expenses, custodian fees, or other administrative costs.

Index Disclosure

- The NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE) is a non-investable, time-weighted index comprised of the time weighted returns of approximately 40 open-end commingled funds pursuing a core private real estate investment strategy. The constituent funds qualify for inclusion in the NFI-ODCE based on specific criteria regarding their percentage of net assets invested in private equity real estate, geography, property type, life cycle, diversification and use of leverage. Constituent funds must also comply with the NCREIF PREA Reporting Standards, including annual audits, quarterly valuations and time-weighted returns. The NFI-ODCE returns are mainly driven by the underlying property investments in the constituent funds but can also be impacted by each funds use of leverage, cash balances, fund costs, etc. Returns shown are for the NFI-ODCE Equal Weight Index (fund constituents are equally-weighted), net of fees.

Footnotes

- Values, flows, and returns for all commingled funds, mutual funds, partnerships, and all other alternative assets are provided by the firm managing the assets and cannot be independently verified by IPS.
- Separately managed account returns are calculated by IPS using custodian data.
- The net of fees returns in this report are estimated. Fees do not include: the investment consulting fee paid to IPS, custodian fees, or other administrative costs.



UFCW-Giant Variable Annuity Fund

Preliminary Monthly Performance Update

Period Ended

January 31, 2023

UFCW-Giant Variable Annuity Fund
Preliminary Monthly Performance Update as of January 31, 2023

Total Fund Growth of Assets

	Fiscal Year-To-Date
Beginning Market Value	\$16,867,349
Net Cash Flow	-\$287,276
Net Investment Change	\$0
Ending Market Value	\$16,580,073

- The Fund's fiscal year end is December 31st.

UFCW-Giant Variable Annuity Fund
Preliminary Monthly Performance Update as of January 31, 2023

Current vs. Policy						
	Current	Current	Policy	Policy Range	Difference	Difference
Domestic Large Cap Equity	\$0	0.0%	10.0%	5.0% - 15.0%	-10.0%	-\$1,658,007
Domestic Small/Mid Cap Equity	\$0	0.0%	5.0%	0.0% - 10.0%	-5.0%	-\$829,004
International Equity	\$0	0.0%	5.0%	0.0% - 10.0%	-5.0%	-\$829,004
Global Tactical Asset Allocation	\$0	0.0%	10.0%	5.0% - 15.0%	-10.0%	-\$1,658,007
Investment Grade Fixed Income	\$0	0.0%	30.0%	25.0% - 35.0%	-30.0%	-\$4,974,022
High Yield Fixed Income	\$0	0.0%	15.0%	10.0% - 20.0%	-15.0%	-\$2,487,011
Real Estate - Core	\$922,762	5.6%	5.0%	0.0% - 10.0%	0.6%	\$93,758
Real Estate - Value Add	\$0	0.0%	15.0%	10.0% - 20.0%	-15.0%	-\$2,487,011
Private Equity	\$0	0.0%	5.0%	0.0% - 10.0%	-5.0%	-\$829,004
Cash Equivalents	\$15,657,312	94.4%	0.0%	0.0% - 0.0%	94.4%	\$15,657,312
Total	\$16,580,073	100.0%	100.0%			

- Policy adopted May 2022; effective TBD (pending funding of managers).

UFCW-Giant Variable Annuity Fund

Preliminary Monthly Performance Update as of January 31, 2023

Performance Detail (Net of Fees)

	Market Value	% of Portfolio	Ending January 31, 2023 Fiscal YTD
Total Fund	\$16,580,073	100.0%	
Total Real Estate - Core	\$922,762	5.6%	
ARA Core Property Fund, LP	\$922,762	5.6%	
Total Cash Equivalents	\$15,657,312	94.4%	
Cash Account	\$15,657,312	94.4%	

UFCW-Giant Variable Annuity Fund

Preliminary Monthly Performance Update as of January 31, 2023

Performance Detail (Gross of Fees)

	Market Value	% of Portfolio	Ending January 31, 2023 Fiscal YTD
Total Fund	\$16,580,073	100.0%	
Total Real Estate - Core	\$922,762	5.6%	
ARA Core Property Fund, LP	\$922,762	5.6%	
Total Cash Equivalents	\$15,657,312	94.4%	
Cash Account	\$15,657,312	94.4%	

Footnotes

- Values, flows, and returns for all commingled funds, mutual funds, partnerships, and all other alternative assets are provided by the firm managing the assets and cannot be independently verified by IPS.
- Separately managed account returns are calculated by IPS using custodian data.
- The net of fees returns in this report are estimated. Fees do not include: the investment consulting fee paid to IPS, custodian fees, or other administrative costs.
- ARA Core Property Fund is valued as of December 31, 2022, plus or minus any flows.



ASSET ALLOCATION REVIEW

UFCW-Giant Variable Annuity Fund

March 2023



Asset Allocation Overview

- The asset allocation review is provided to assist the Trustees in identifying portfolios that meet the investment objectives, risk tolerance, and liquidity requirements of the Fund.
- The IPS Investment Committee develops and utilizes capital market assumptions for various asset classes to help determine the optimal mix of assets for an investment portfolio. These assumptions are forward-looking projections of an asset class' expected return and risk as measured by standard deviation or volatility of returns.
- All return assumptions are "net of fee" market or index returns and do not include alpha or excess return expected to be generated through active management. Return assumptions are the average expected return over the next 10 – 20 years and not the expected return in any given year.
- IPS capital market assumptions are compared with various assumptions from other providers and published resources for reasonableness. The IPS Investment Committee reviews the assumptions on a semiannual basis but may adjust at anytime, as needed, based on severe market dislocations, sudden changes in interest rates, or extreme events that impact global markets, economic development, and the business cycle.
- IPS capital market assumptions are not a guarantee of future performance. Actual results may differ from the projections included in this review.
- The asset allocation modeling requires the mathematical construction of an efficient frontier of various portfolios with distinct asset allocations and risk and return characteristics. The modeling process also requires the imposition of constraints, so that the efficient frontier represents a prudently diversified portfolio with adequate consideration of the liquidity needs and investment time horizon. Unconstrained optimization frequently generates allocations that have superior risk/reward characteristics, but the resulting allocations may not be adequately diversified and/or may have inappropriate allocations to illiquid investments.
- IPS utilizes the Wilshire Compass system for asset allocation modeling and all returns are based on geometric calculation.

Annualized Expected Returns over 10-20 years

Equity Asset Class	Return	Risk
U.S. Large Cap	6.50%	15.50
U.S. Mid Cap	6.75%	17.50
U.S. Smid Cap	6.88%	19.00
U.S. Small Cap	7.00%	20.50
International Large Cap	7.50%	16.75
International Small Cap	8.00%	19.50
Emerging Markets	8.50%	20.50
Global Equity	7.00%	17.00

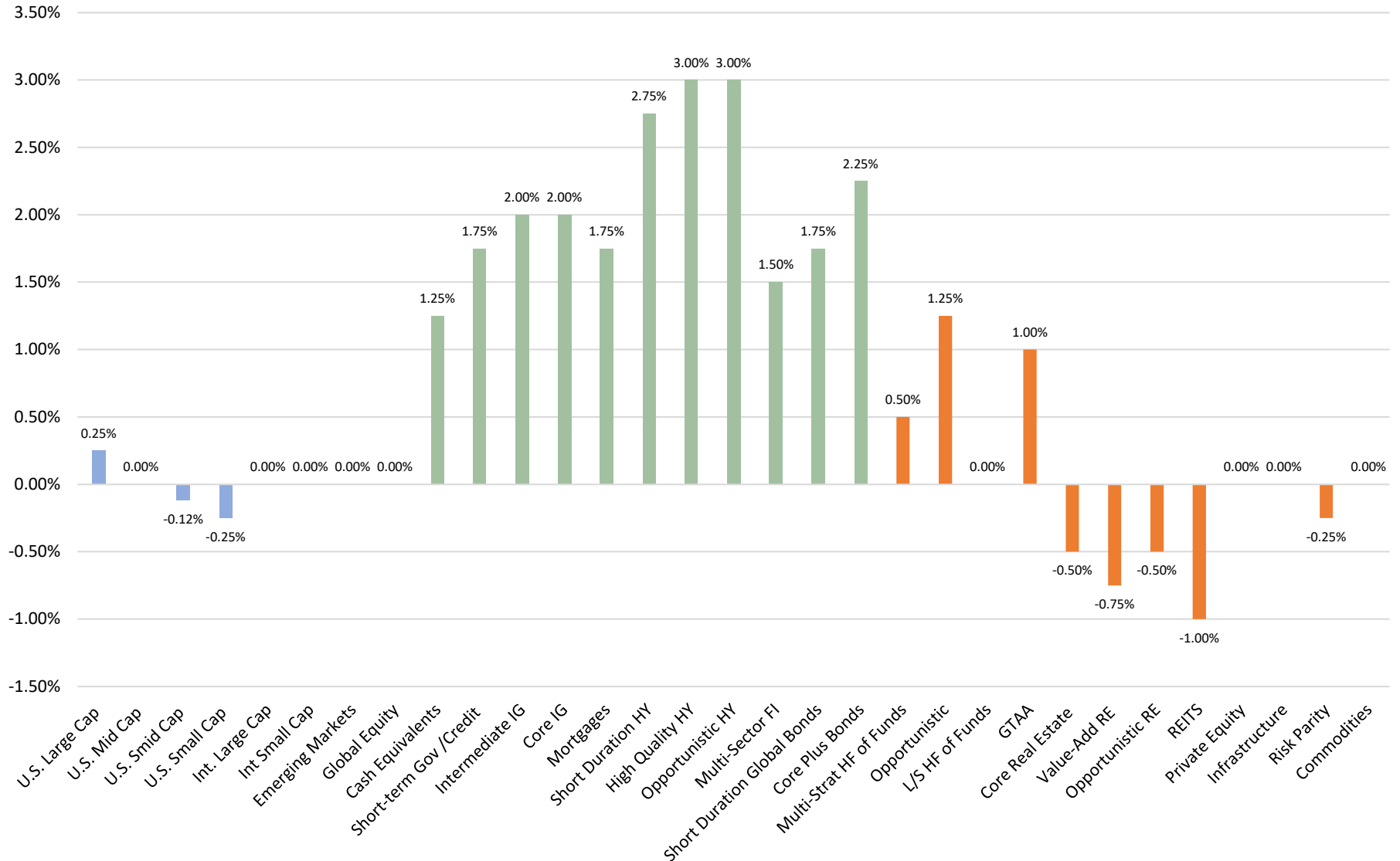
Fixed Income Asset Class	Return	Risk
Cash Equivalents	2.75%	0.50
Short-term Gov / Credit	3.50%	2.00
Intermediate Investment Grade	4.25%	3.50
Core Investment Grade	4.50%	4.25
Mortgages	4.75%	5.25
Short Duration High Quality High Yield	6.25%	6.25
High Quality High Yield	7.50%	8.25
Opportunistic High Yield	8.00%	8.75
Multi-Sector Fixed Income	3.50%	6.25
Short Duration Global Bonds	2.50%	5.00
Core Plus Bonds	5.00%	5.50

Alternatives Asset Class	Return	Risk
Multi-Strategy Hedge Fund of Funds	5.00%	6.25
Opportunistic Strategies	8.25%	11.00
Long Short Equity Hedge Fund of Funds	5.00%	8.50
Global Tactical Asset Allocation	6.50%	12.25
Core Real Estate	6.00%	9.75
Value-Add Real Estate	7.00%	11.50
Opportunistic Real Estate	9.00%	14.25
REITS	5.00%	20.00
Diversified Private Equity	10.00%	20.00
Core Infrastructure	6.25%	11.50
Core+/Value Add Infrastructure	8.25%	15.00
Risk Parity	5.50%	16.00
Commodities	3.75%	17.00



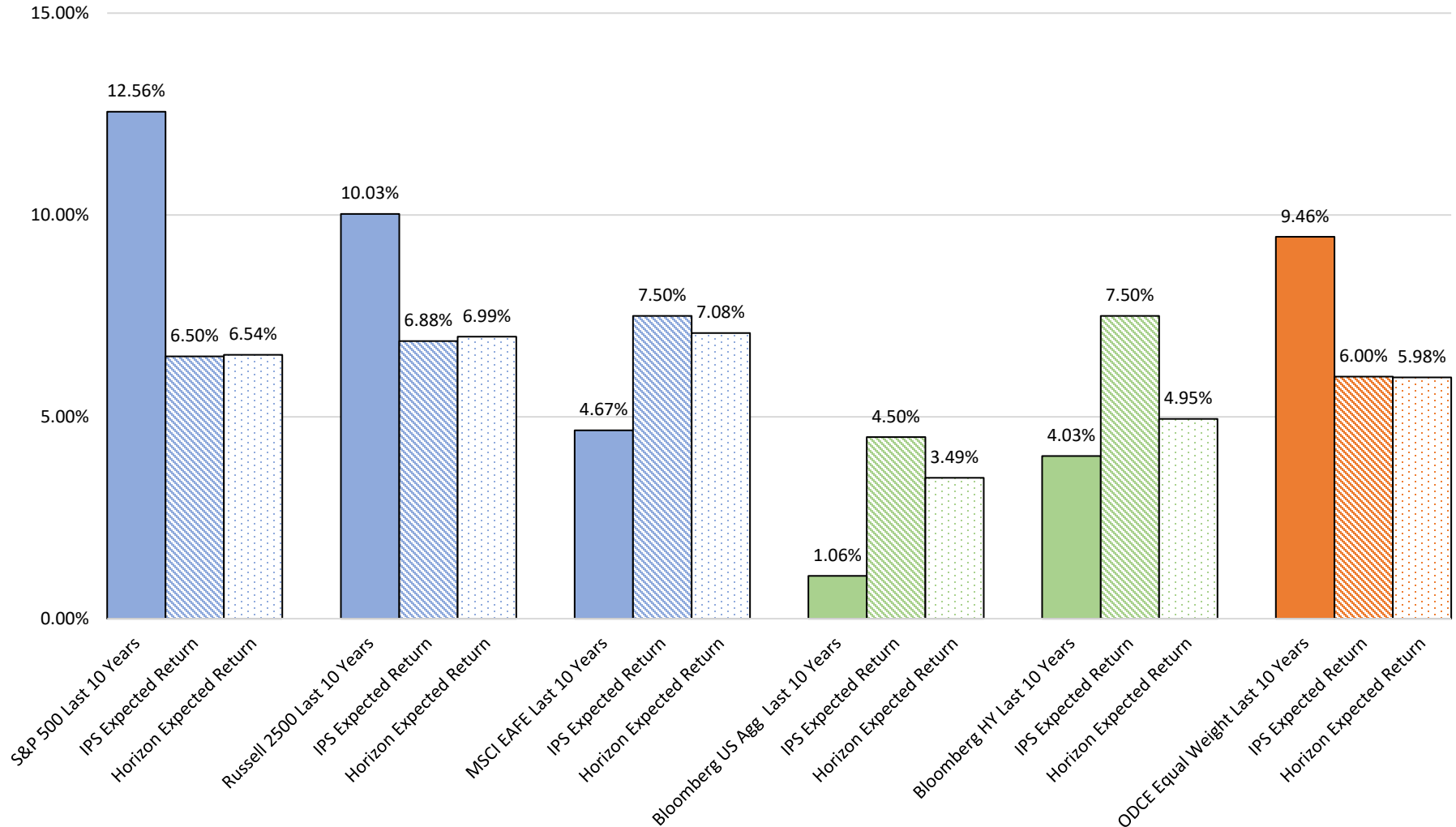
- IPS Investment Committee January 2023.
- Inflation expectation 2.5%.

Change in Expected Returns¹



¹ January 2023 vs. January 2022

Historical Returns vs. Forward Looking Assumptions



- "Last 10 Years" returns are as of 12/31/2022.

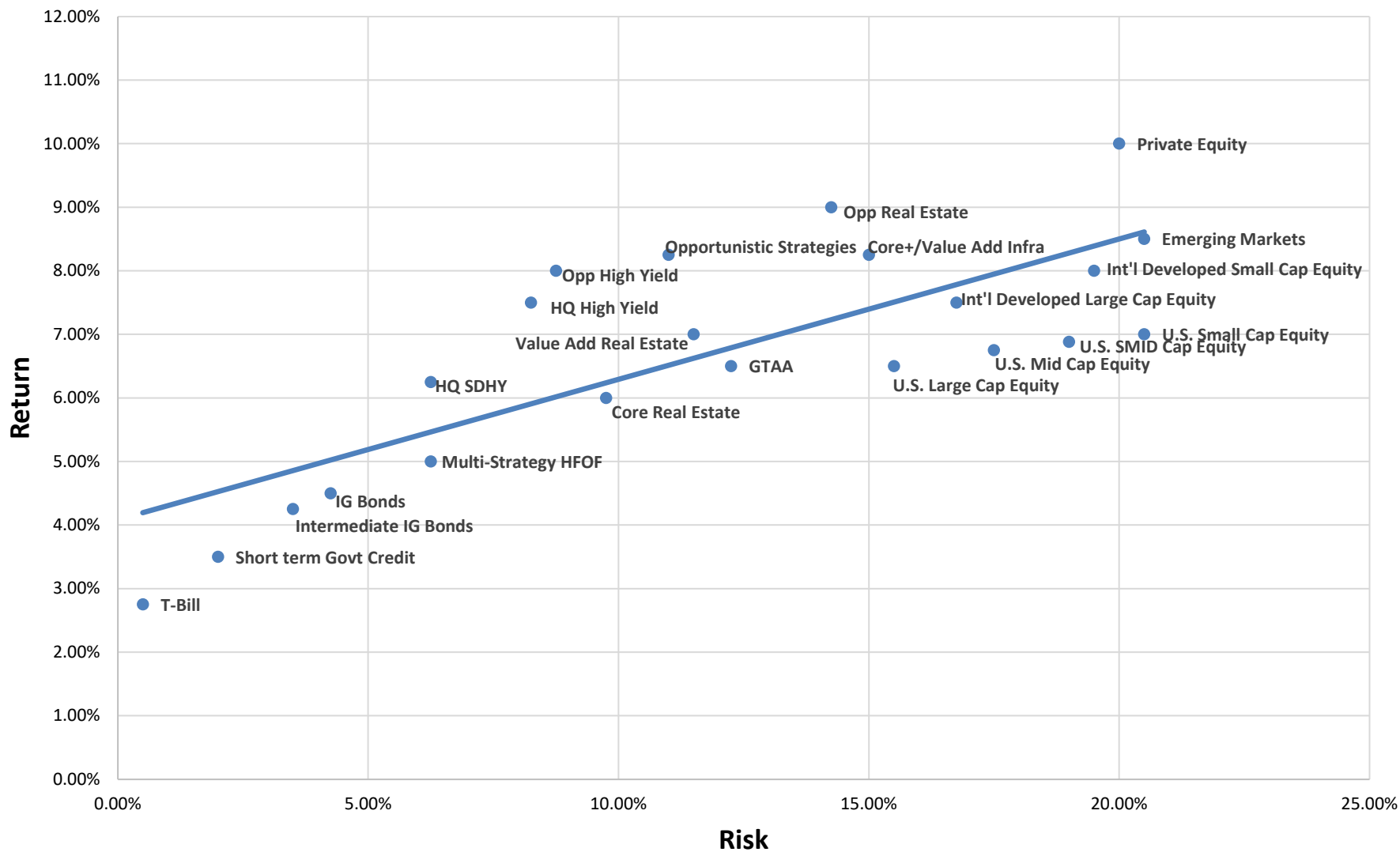
- "Horizon Expected Returns" are sourced from the Survey of Capital Market Assumptions (20-year horizon) published by Horizon Actuarial Services, LLC published in the August 2022 edition.

Asset Class Constraints

Total Domestic Equity	60%	Max
Domestic Large Cap Equity	20%	Min
Small, Mid and Smid Cap Equity	20%	Max
International Equity Large Cap	20%	Max
International Small Cap Equity	10%	Max
Cash	5%	Max
Fixed Investment Grade (Includes Short Term & Intermediate)	10%	Min
High Quality High Yield Bonds (Includes Short Duration)	20%	Max
Real Estate – Core	10%	Max
Real Estate – Value Add	10%	Max
Hedge Fund of Funds – Multi Strategy	5%	Max
Opportunistic Strategies	10%	Max
Global Tactical Asset Allocation	10%	Max
Private Equity	5%	Max
Total Alternatives	40%	Max

The constraints shown are used for modeling purposes only. They should not be construed as suggested or recommended allocations, or limits on allocations, to any asset class or investment strategy. Each client fund has different facts, circumstances, time horizon, risk tolerance levels, return objectives, investment preferences, cash flows, and liquidity requirements. As such, each client's investment policy may differ materially from the constraints shown above.

2023 Capital Market Assumptions



Asset Class Correlations



Assumption table:	US Large Cap Equity	US Mid Cap Equity	US Smid Cap Equity	US Small Cap Equity	Int'l Large Cap Equity	Int'l Small Cap Equity	Emerging Markets Equity	Cash	Short Term Govt / Credit	Interm. Invest. Grade	Core Invest. Grade	Short Duration High Yield	High Yield	Real Estate Core	Real Estate Value Add	Private Equity	HFoF Multi-Strategy	Opp. Strategies	GTAA	Infrastructure
US Large Cap Equity	1.00																			
US Mid Cap Equity	0.96	1.00																		
US Smid Cap Equity	0.93	0.97	1.00																	
US Small Cap Equity	0.90	0.95	0.98	1.00																
Int'l Equity	0.87	0.87	0.83	0.79	1.00															
Int'l Small Cap Equity	0.84	0.86	0.83	0.79	0.96	1.00														
Emerging Markets Equity	0.75	0.77	0.74	0.70	0.86	0.85	1.00													
Cash	-0.13	-0.14	-0.14	-0.13	-0.06	-0.12	-0.01	1.00												
Short Term Govt / Credit	-0.09	-0.07	-0.10	-0.12	0.03	0.03	0.09	0.40	1.00											
Int. Investment Grade	0.01	0.03	-0.01	-0.05	0.10	0.11	0.15	0.15	0.85	1.00										
Core Investment Grade	0.03	0.05	0.00	-0.04	0.09	0.10	0.14	0.11	0.77	0.96	1.00									
Short Duration High Yield	0.62	0.70	0.65	0.60	0.66	0.70	0.66	-0.13	0.19	0.31	0.29	1.00								
High Yield	0.70	0.77	0.73	0.69	0.73	0.74	0.71	-0.14	0.13	0.27	0.28	0.93	1.00							
Real Estate Core	0.12	0.09	0.08	0.09	0.07	0.04	0.00	0.21	-0.20	-0.15	-0.12	-0.15	-0.08	1.00						
Real Estate Value Add	0.12	0.09	0.08	0.09	0.07	0.04	0.00	0.21	-0.20	-0.15	-0.12	-0.15	-0.08	0.99	1.00					
Private Equity	0.90	0.95	0.98	0.99	0.79	0.79	0.70	-0.13	-0.12	-0.05	-0.04	0.60	0.69	0.09	0.09	1.00				
HFoF Multi-Strategy	0.75	0.79	0.76	0.72	0.80	0.84	0.77	-0.06	-0.04	0.01	0.03	0.65	0.68	0.14	0.14	0.72	1.00			
Opportunistic Strategies	0.72	0.79	0.75	0.71	0.75	0.76	0.73	-0.15	0.11	0.24	0.24	0.92	0.98	-0.10	-0.10	0.71	0.68	1.00		
GTAA	0.94	0.91	0.87	0.83	0.96	0.93	0.85	-0.07	0.10	0.20	0.21	0.67	0.74	0.07	0.07	0.83	0.77	0.76	1.00	
Infrastructure	0.77	0.75	0.69	0.64	0.83	0.77	0.70	-0.01	0.06	0.19	0.22	0.57	0.64	0.11	0.11	0.64	0.64	0.65	0.85	1.00

A correlation of 1.00 indicates two series move perfectly together while a -1.00 shows they move perfectly opposite one another.

Figures based on historical data from March 2005 - March 2022.

Efficient Frontier Analysis



Efficient Frontier Report										
Asset	Portfolio 1	Portfolio 2	Portfolio 3	Portfolio 4	Portfolio 5	Portfolio 6	Portfolio 7	Portfolio 8	Portfolio 9	Portfolio 10
US Large Cap Equity	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
US Mid Cap Equity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
US Smid Cap Equity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
US Small Cap Equity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int'l Equity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.33	8.75
Int'l Small Cap Equity	0.00	0.00	0.00	0.00	0.00	0.49	3.86	7.23	10.00	10.00
Emerging Markets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cash	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Short Term Govt/Credit	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. Investment Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Core Investment Grade	35.79	31.70	28.60	26.19	23.15	19.51	16.14	12.77	10.00	10.00
Short Duration High Yield	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
High Yield	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Real Estate – Core	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	8.67	1.25
Real Estate – Value Add	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Private Equity	0.00	0.00	1.40	3.81	5.00	5.00	5.00	5.00	5.00	5.00
HFoF - Multi Strategy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Opportunistic Strategies	4.21	8.30	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
GTAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Infrastructure	0.00	0.00	0.00	0.00	1.85	5.00	5.00	5.00	5.00	5.00
Return	6.35	6.51	6.66	6.81	6.96	7.10	7.24	7.37	7.49	7.57
Risk	5.67	5.97	6.31	6.68	7.07	7.49	8.03	8.58	9.21	10.21
Return/Risk	1.12	1.09	1.05	1.02	0.98	0.95	0.90	0.86	0.81	0.74

Asset Allocation Policy History

	2022
U.S. Large Cap	10.0%
U.S. SMID Cap	5.0%
International Large Cap	5.0%
GTAA	10.0%
Intermediate Fixed	30.0%
High Yield	15.0%
Core Real Estate	5.0%
Value Add Real Estate	15.0%
Private Equity	5.0%
Expected Return	5.59%
Expected Risk	6.70%

Green	Increase allocation
Red	Decrease allocation
Blue	New asset class

Current Policy Comparison



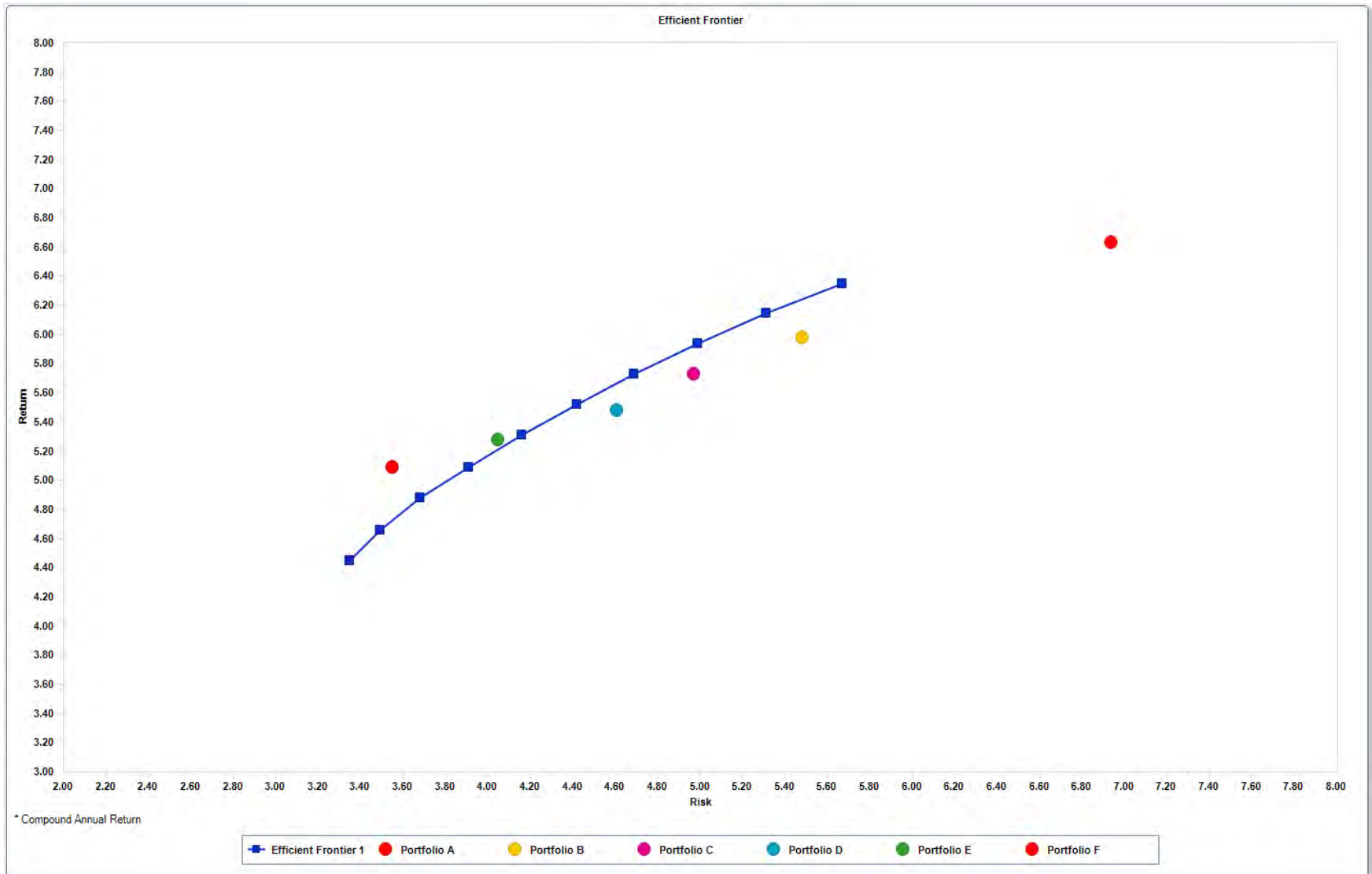
		% Equity Target			% Fixed Income Target		% Alternatives Target				Cash	Expected Return (net of fees)	Risk	Comments
		US LC Equity	US SMID Cap Equity	Int'l Equity	Fixed Income Interm	High Yield	GTAA	Real Estate Core	Real Estate Value Add	Private Equity				
1	UFCW-Giant Variable Annuity Plan Portfolio A	10.0	5.0	5.0	30.0	15.0	10.0	5.0	15.0	5.0	0.0	6.63%	6.94	Current Policy
2	Portfolio B	7.5	5.0	5.0	52.5	7.5	5.0	5.0	7.5	5.0	0.0	5.98%	5.48	6.00% Target Return
3	Portfolio C	7.5	5.0	5.0	55.0	12.5	5.0	5.0	5.0	0.0	0.0	5.73%	4.97	5.75% Target Return
4	Portfolio D	7.5	5.0	5.0	62.5	5.0	5.0	5.0	5.0	0.0	0.0	5.48%	4.61	5.50% Target Return
5	Portfolio E	7.5	5.0	0.0	67.5	5.0	5.0	5.0	5.0	0.0	0.0	5.28%	4.05	5.25% Target Return
6	Portfolio F	7.5	0.0	0.0	72.5	5.0	5.0	5.0	5.0	0.0	0.0	5.09%	3.55	5.00% Target Return

The Fund's hurdle rate per the Investment Policy statement is 5.50%.

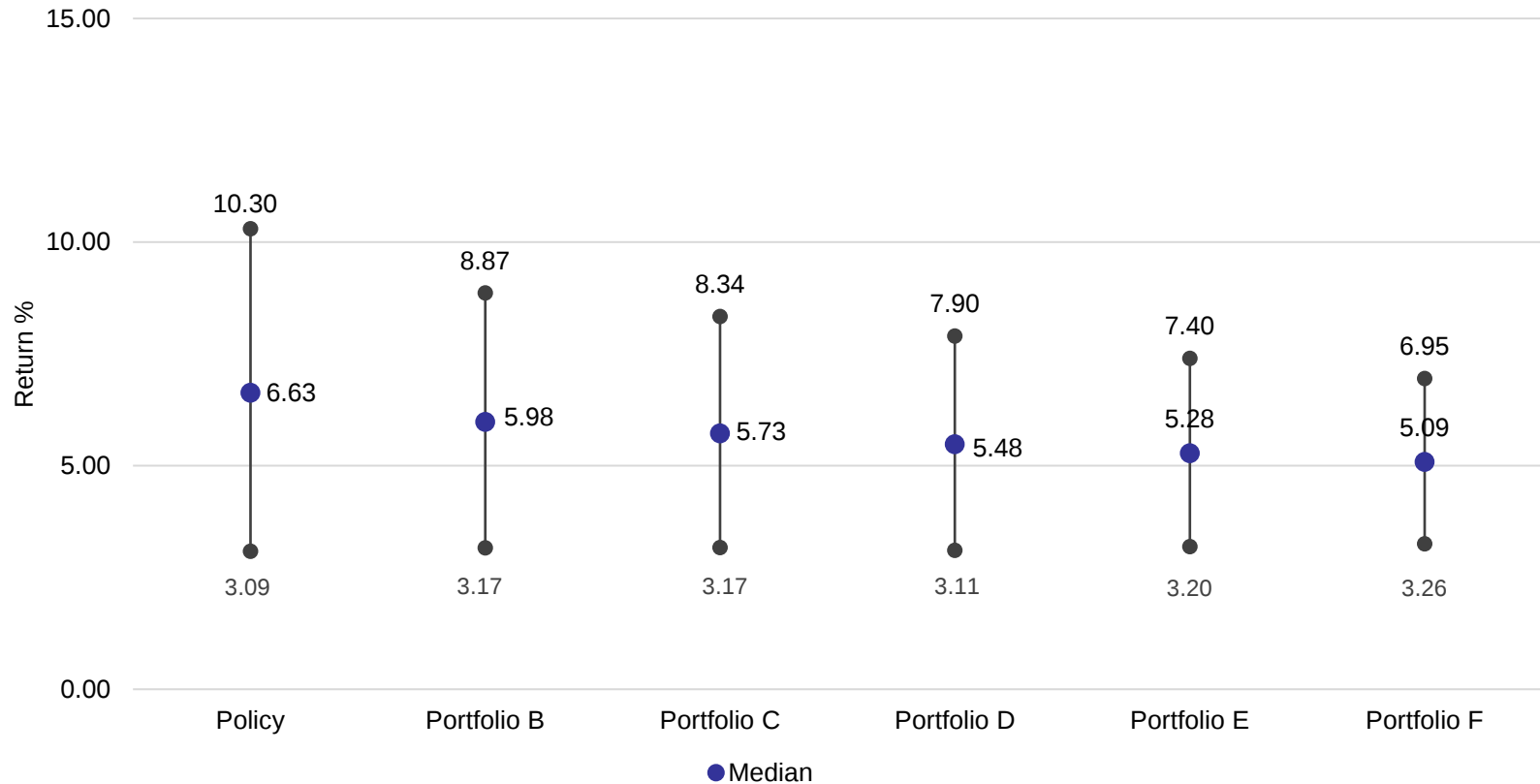
Scenarios are shown for illustrative purposes.

Green	Increase allocation
Red	Decrease allocation
Blue	New asset class

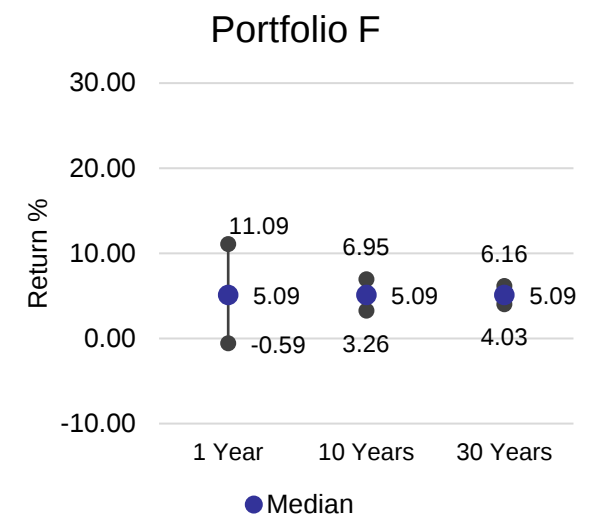
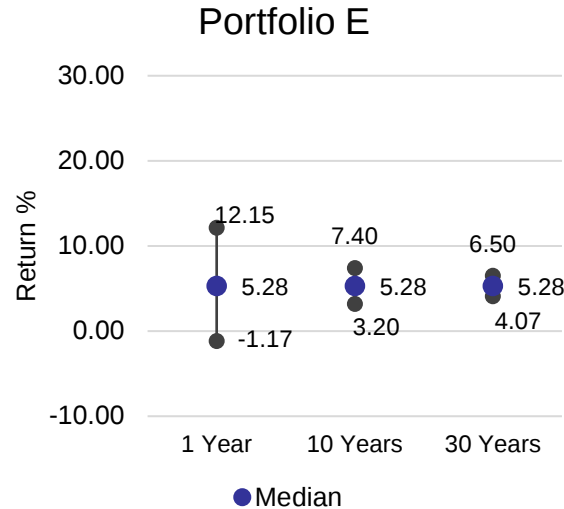
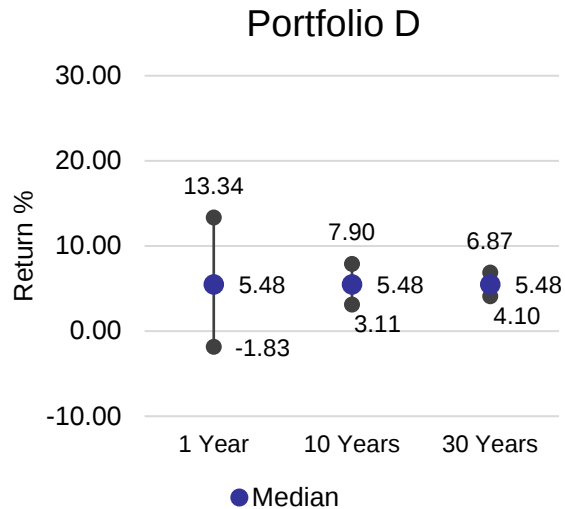
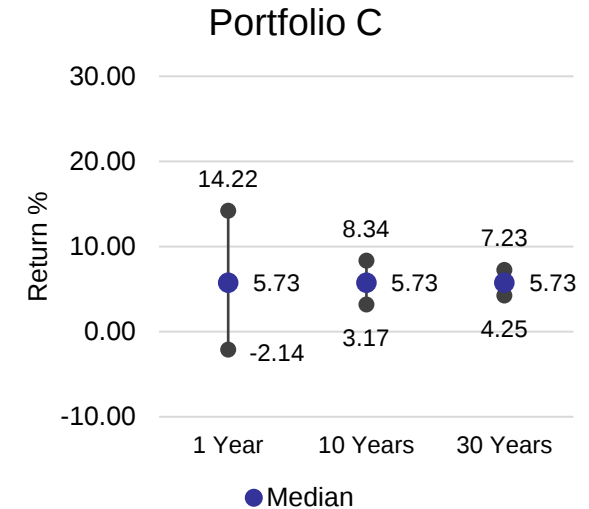
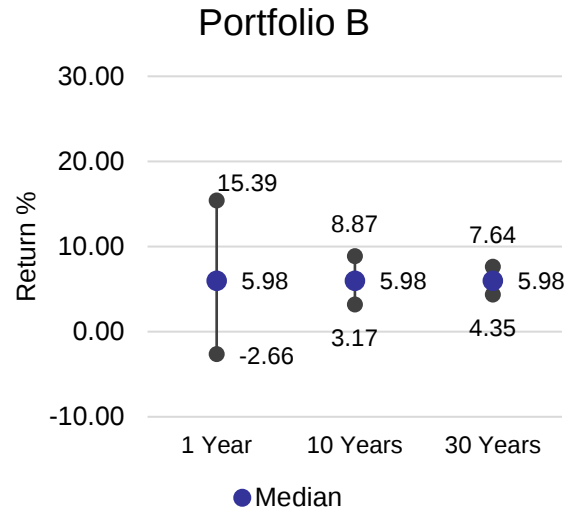
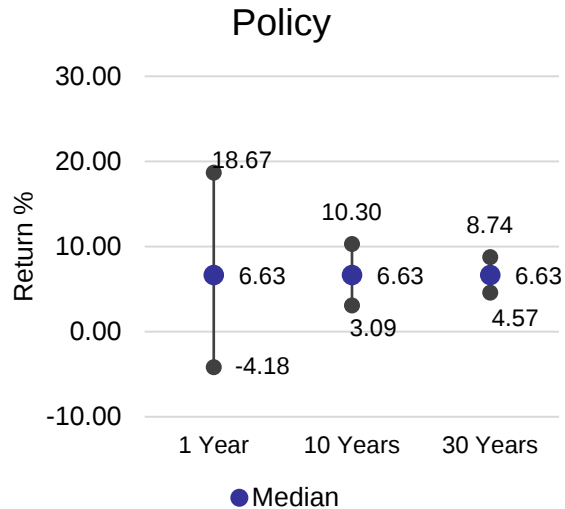
Efficient Frontier Comparison



Potential Distribution of Returns – 10 Year Horizon

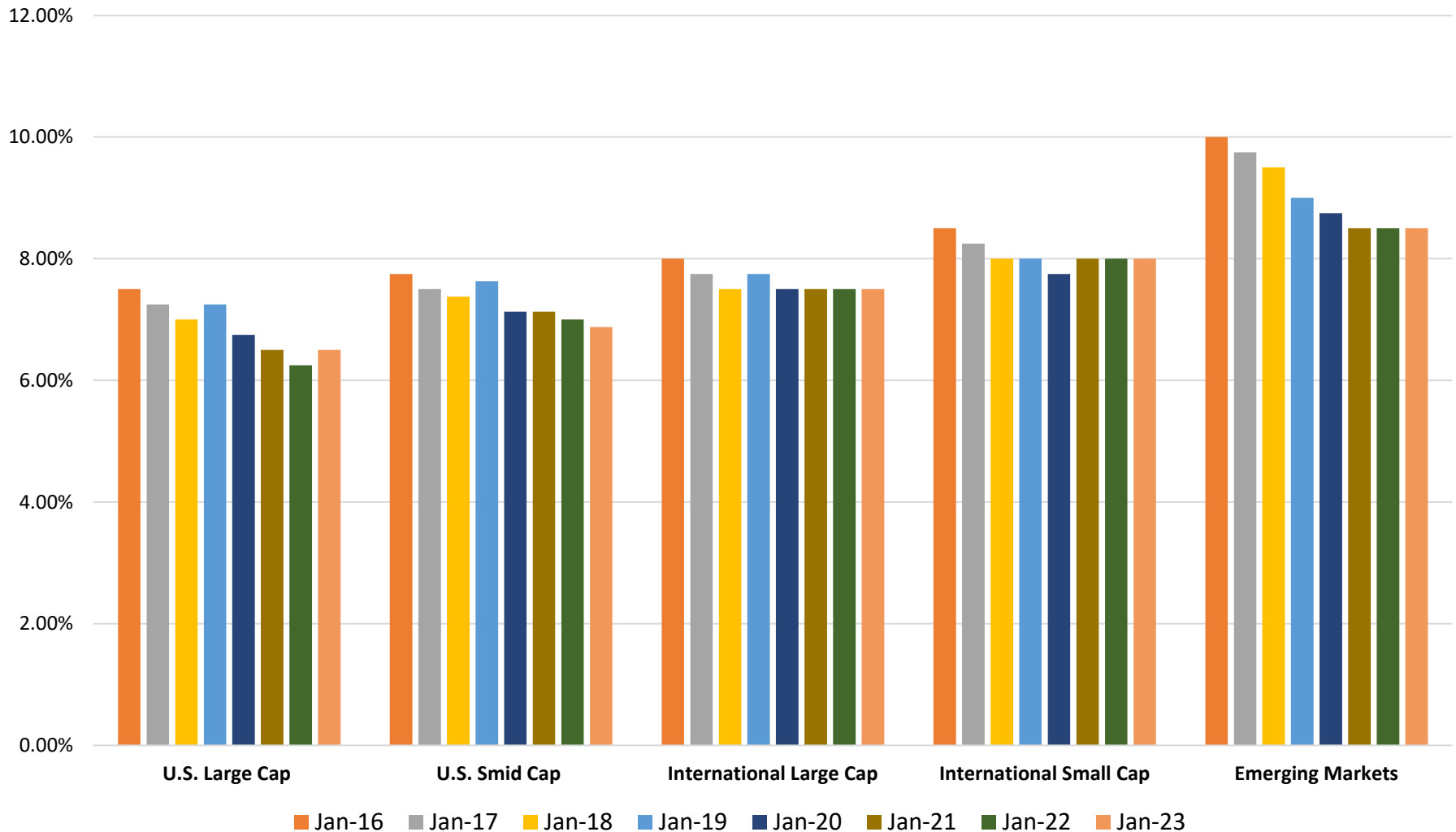


Potential Distribution of Returns

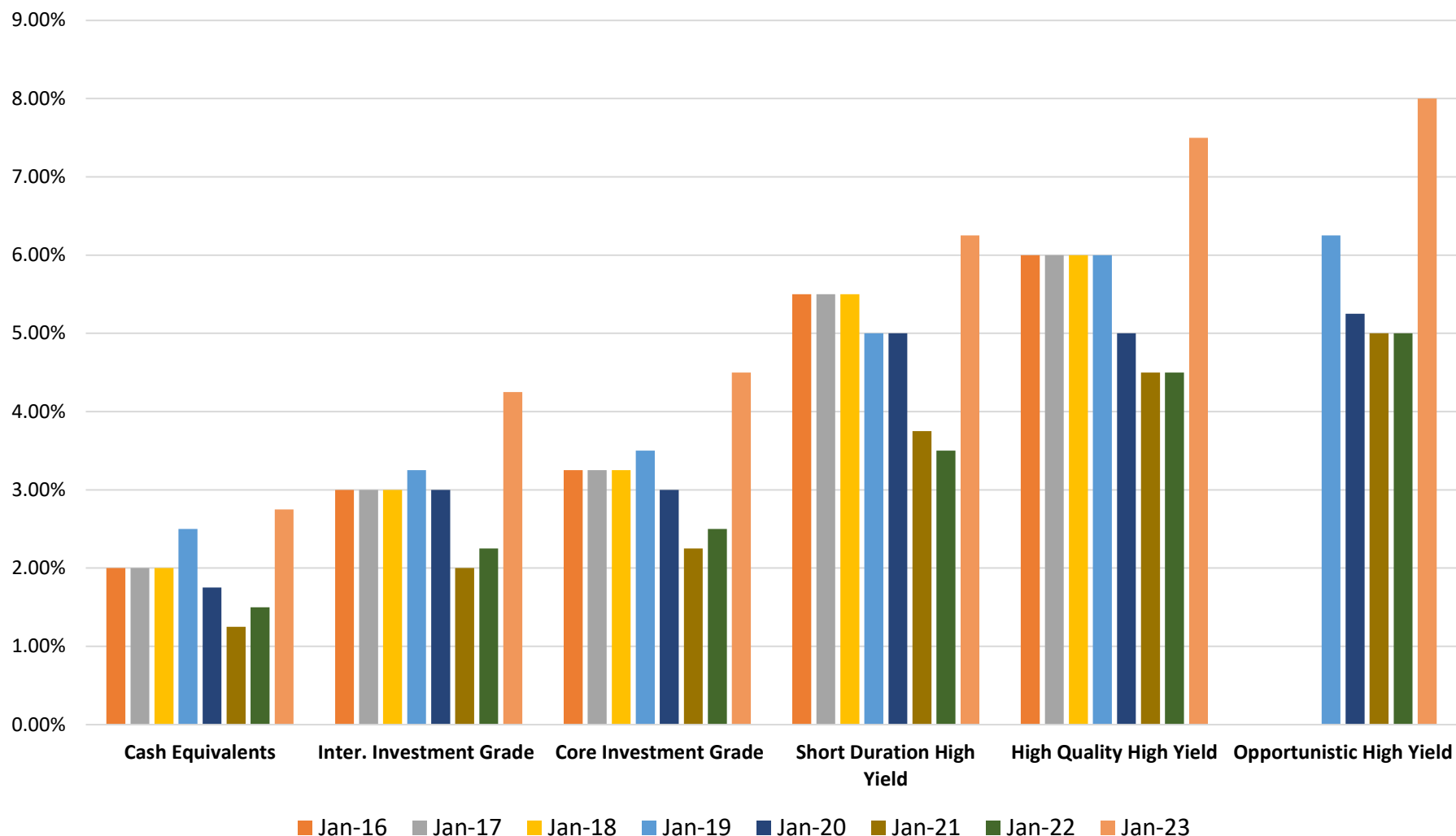


APPENDIX

Public Equity – IPS Historical Capital Market Assumptions

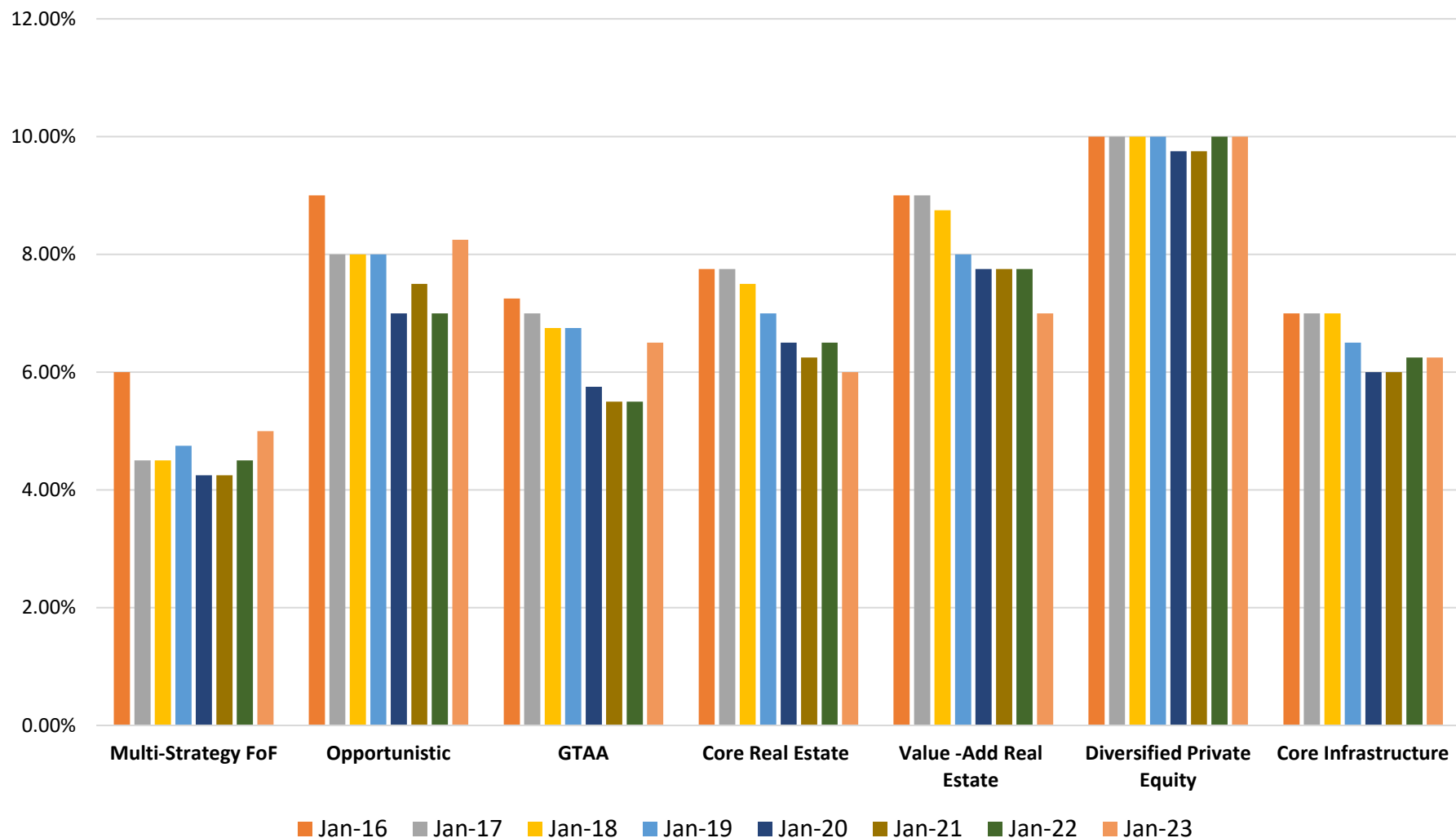


Fixed Income – IPS Historical Capital Market Assumptions



IPS began setting a capital market assumption for Opportunistic High Yield in January 2019.

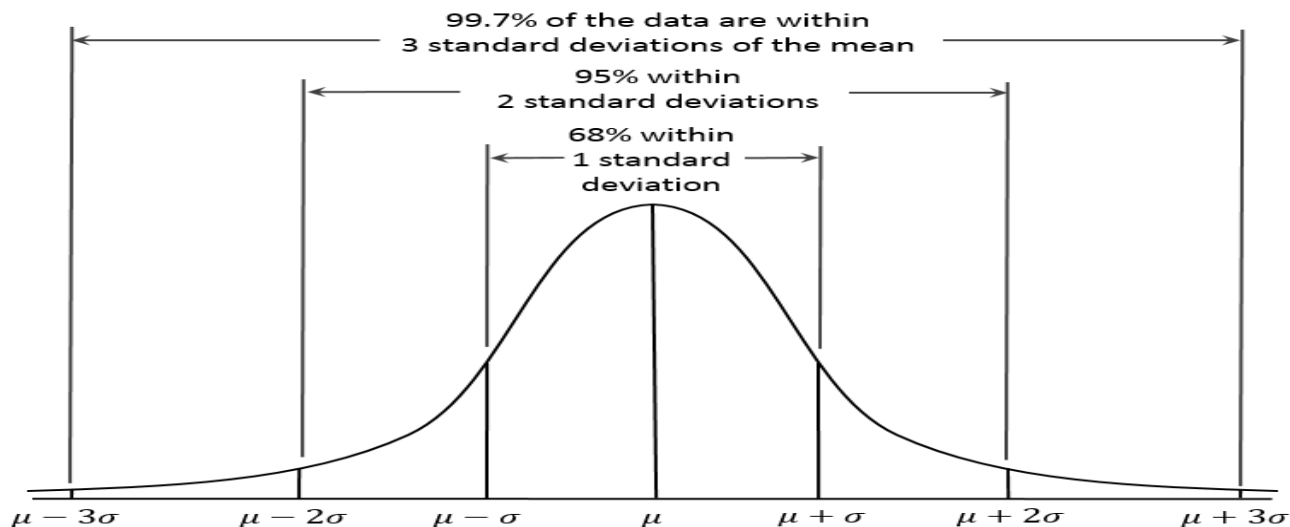
Alternative Investments – IPS Historical Capital Market Assumptions



IPS began setting a capital market assumption for Core+/Value Add Infrastructure in January 2019.

Explanation of Methodology

- The analysis in this presentation utilizes the parametric method, also known as the variance-covariance method
- The parametric method assumes a normal distribution of returns, commonly referred to as a bell-shaped curve.
 - For a normal distribution, 68% of the observations are within +/- one standard deviation, 95% are within +/- two standard deviations, and 99.7% are within +/- three standard deviations
- The chart below shows a normal distribution



- In reality, financial returns are not “normal;” they exhibit positive skewness (you get more positive returns above the mean than a normal distribution would predict) and kurtosis (the extreme “tails” of both positive and negative returns occur more often and are more extreme than a normal distribution would predict).

Glossary of Investment Terminology

Total Return	The annual return on an investment including appreciation, depreciation and income (interest, dividends, net operating income).
Alpha	The excess return (positive or negative) generated by active portfolio management and security selection, relative to a benchmark.
Beta	A historical measure of an investment's volatility relative to the market. The beta of the market is 1.0 (as represented by a benchmark such as the S&P 500 Index). A beta of greater than 1.0 indicates an investment with greater volatility than the benchmark. A beta of less than 1.0 indicates less volatility than the benchmark.
Standard Deviation	Standard deviation is a statistical measurement of the dispersion of a set of data from its mean. The more spread apart the data are, the greater the standard deviation.
Risk	For an investment portfolio, risk is typically defined as the volatility of the returns, as measured by calculating the standard deviation. The risk does not necessarily indicate the risk of loss, but does indicate the risk of inconsistent returns.
Capture Ratio	Calculates how well a manager performs in a rising or falling market as a percentage of a benchmark. In a rising market, a percentage of 100 or better is preferred, and indicates the manager exceeded the benchmark (upside capture ratio). In a falling market, a percentage of less than 100 is preferred, indicating that the manager lost less than the benchmark (downside capture ratio).
Correlation	A statistical measure of how two asset classes perform in relation to each other. Asset classes with a correlation of 1.0 have perfect positive correlation (exactly the same). Assets with perfect negative correlation of -1.0 will perform equally but in opposite directions.
Efficient Frontier	A series of portfolios with the maximum expected return for any level of risk, which is calculated based on assumptions of risk, return and correlation. These portfolios are shown graphically on a risk and return chart, and represent the most efficient tradeoff between risk and return.
Market Cap	The dollar value of a corporation, which is calculated by multiplying the share price and the number of outstanding shares.
Large Cap	Stocks which typically have a market capitalization of \$20 billion or higher.
Mid Cap	Stocks which typically have a market capitalization of \$5 to \$20 billion.
Small Cap	Stocks which typically have a market capitalization of \$5 billion or less.
Geometric Calculation	Geometric Calculations are used when determining an annualized investment return and tends to dampen the effect of very high or very low values. The result is a number that is smaller than (or equal to) the arithmetic average of the values.
Compound Annual Returns	Compound annual returns show the annual investment return, assuming the investment grew at a constant rate, and reflects the impact of the time in the calculation of an investment return.
Return/Risk Ratio	The return/risk ratio is the expected return of an investment divided by the expected standard deviation (risk). When comparing return/risk ratios a higher value is presumed to be better than a lower value

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EPIC

April 27- 29, 2022

The following investment managers and providers attended and helped to defray the cost of IPS' annual conference EPIC. EPIC is an educational conference addressing various issues related to employee benefit plans. IPS does not give preferential treatment to investment managers or any other provider that pays to attend EPIC.

Adams Street Partners
Amalgamated Bank of Chicago
American Realty Advisors
Columbia Threadneedle Investments
Ares Management
ASB Real Estate Investments
Atlanta Capital Management
Barrow Hanley Global Investors
BentallGreenOak
BlackRock Financial Management
BNY Mellon Asset Management (Mellon)
Boston Partners Global Investors
Boyd Watterson Asset Management
Capital Group
CarillonTower Advisers
Chartwell Investment Partners
Christenson Investment Partners
Corbin Capital Partners
EnTrust Global
First Eagle Investment Mgmt.
Fisher Investments
Foundry Partners
Fred Alger Management
GAMCO Asset Management

GCM Grosvenor
Glouston Capital Partners
GoldenTree Asset Management
Great Lakes Advisors
Hamilton Lane Advisors
Hardman Johnston Global Advisors
Intercontinental Real Estate Corp.
Invesco Advisers, Inc.
Janus Henderson Investors
JP Morgan Asset Management
Kearney Capital LLC
Kelson Group
Lazard Asset Management
Loomis, Sayles & Company
Lord Abbett & Co.
LSV Asset Management
MacKay Shields
McMorgan & Company
Mesirow Private Equity
National Investment Services
Neuberger Berman
Old Glory Asset Management
Owl Rock Capital Holdings

Partners Group
Patriot Financial Partners
PNC Capital Advisors
Polen Capital
Post Advisory Group
Principal Global Investors
RBC Global Asset Management
Richmond Capital Mgmt
Schroders Investment Management
Segall Bryant & Hamill
Sierra Investment Partners
Smith Graham & Co.
State Street Global Advisors
Stonepeak Partners
Stuart Portfolio Consultants
Ullico Investment Company
Victory Capital Management
Washington Capital Management
WEDGE Capital Management
Wellington Management Company
Westfield Capital Management
William Blair & Company
Xponance

