

**Wilshire**

# Quarterly Market Review

December 31, 2024

# Market Commentary

## U.S. Equity

The U.S. stock market was up 2.6% for the fourth quarter and is up 23.8% for the year-to-date. Sector performance was, in fact, mostly negative for the quarter, with seven sectors producing a loss. However, the three largest sectors by market capitalization were all up – information technology (+5.9%), financials (+7.8%) and consumer discretionary (+12.3%). Small-cap underperformed large-cap by 180 basis points while growth stocks generally outperformed value by a large margin.

The Federal Reserve began raising rates in early 2022 in response to 7% annual inflation, which continued to accelerate to 9%. Rates were increased by 525 basis points during a 17-month period before pausing for roughly one year. The U.S. central bank began decreasing rates during 2024 – by a total of 100 basis points in three meetings. While it is probably too early to judge whether they achieved a “soft landing,” early data is positive. The unemployment rate is low – although jobs growth has been unsteady – and the economy continues to expand. However, inflation ticked higher during the fourth quarter and the Fed took notice. Current expectations for rate cuts in 2025 are modest (-0.50%) and down meaningfully from September.

## Non-U.S. Equity

Economic growth in England continues to slow with business confidence waning. Prospects in Germany, Europe’s largest economy, are equally dim due to persistently high energy prices and growing competition with China. Currency changes played a major role in U.S. dollar returns this quarter as the dollar rose meaningfully versus the euro, pound and yen. China’s economy may be turning a corner after several stimulative macroeconomic policies were announced in September. Early indicators show strength in the services sector along with growth in retail sales.

## Fixed Income

The U.S. Treasury yield curve was up across most of the maturity spectrum. The 10-year Treasury yield ended the quarter at 4.57%, up 79 basis points from September. The FOMC met twice during the quarter and decreased their overnight rate by a total of -0.50%. Expectations for rate cuts next year have come down as some officials are concerned that the new administration’s preference for tariffs could push prices higher. In fact, Fed Chair Jerome Powell recently stated that, “when the path is uncertain, you go a little slower.”

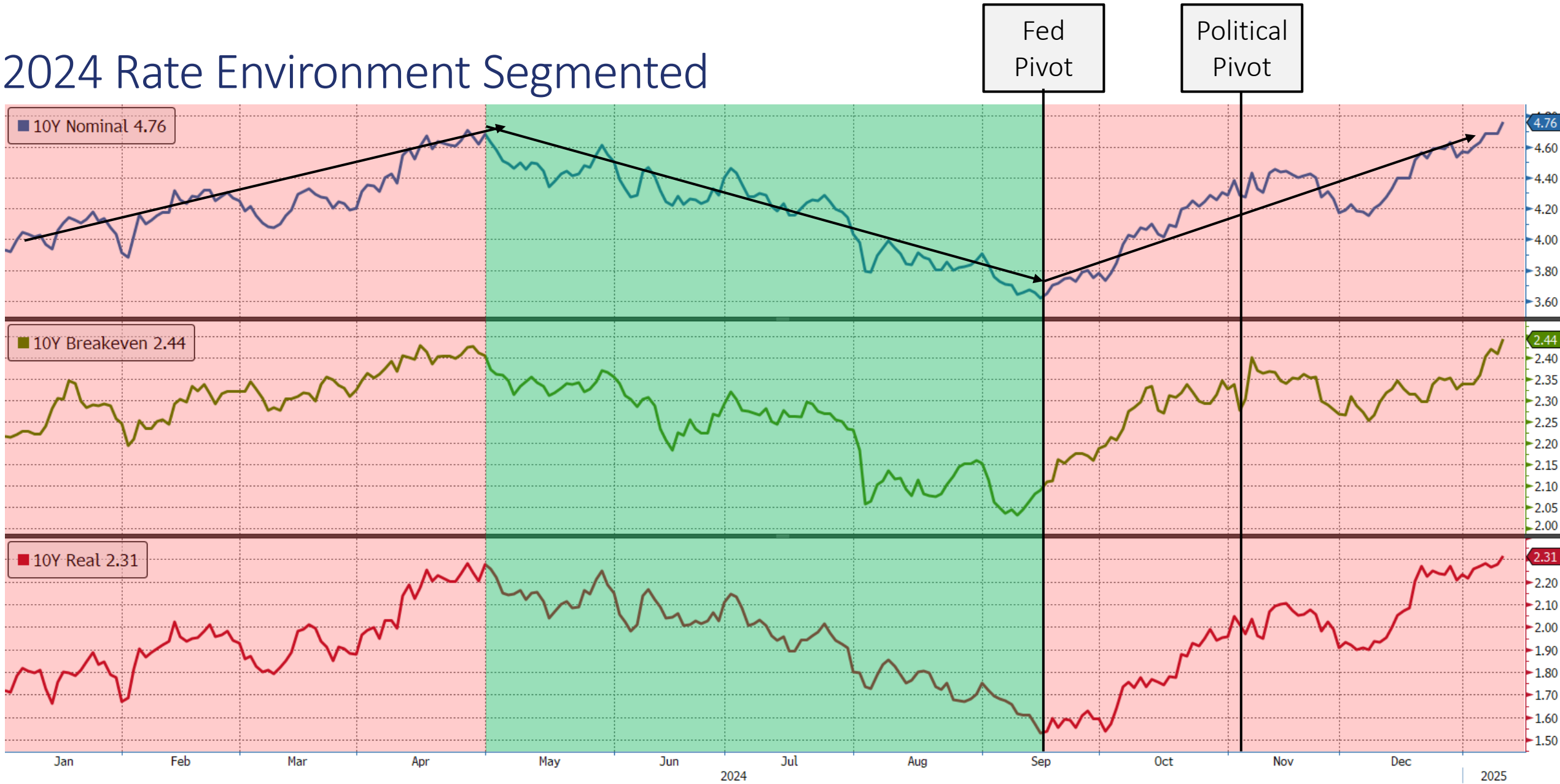
December 2024 Asset Class Assumptions

	Equity						Fixed Income						Real Assets						
	U.S. Stock	Dev ex-U.S. Stock	Emg Stock	Global ex-U.S. Stock	Global Stock	Private Equity	Cash	Core Bond	LT Core Bond	TIPS	High Yield	Private Credit	Dev ex-U.S. Bond (Hdg)	Real Estate			Cmdty	Real Assets	U.S. CPI
Compound Return (%)	4.35	5.35	5.60	5.70	4.90	6.25	3.60	5.20	5.35	4.70	6.35	7.75	3.00	5.70	5.85	6.40	4.85	6.85	2.35
Arithmetic Return (%)	5.70	6.85	8.60	7.35	6.25	10.00	3.60	5.30	5.80	4.85	6.80	8.50	3.10	7.10	7.10	7.30	6.05	7.60	2.35
Risk (%)	17.00	18.00	26.00	19.05	17.00	29.65	0.75	4.75	9.90	6.00	10.00	12.75	4.00	17.50	16.55	13.95	16.00	12.60	1.75
Yield (%)	1.25	3.00	2.50	2.85	1.80	0.00	3.60	5.65	5.70	5.05	9.80	4.85	4.25	3.95	3.95	2.85	3.60	3.70	0.00
Growth Factor Exposure	8.00	8.00	8.00	8.00	8.00	14.00	0.00	-0.95	-2.55	-3.00	4.00	5.10	-1.00	6.00	6.00	3.70	0.00	0.70	0.00
Inflation Factor Exposure	-3.00	-1.00	3.00	0.15	-1.95	-4.25	0.00	-2.60	-6.95	2.50	-1.00	-1.50	-3.00	1.00	1.65	1.00	12.00	4.60	1.00

Correlations

U.S. Stock	1.00																		
Dev ex-U.S. Stock (USD)	0.81	1.00																	
Emerging Mkt Stock	0.74	0.74	1.00																
Global ex-U.S. Stock	0.84	0.96	0.89	1.00															
Global Stock	0.98	0.90	0.83	0.93	1.00														
Private Equity	0.72	0.63	0.61	0.66	0.73	1.00													
Cash Equivalents	-0.05	-0.09	-0.05	-0.08	-0.06	0.00	1.00												
Core Bond	0.27	0.13	0.00	0.08	0.21	0.30	0.18	1.00											
LT Core Bond	0.30	0.15	0.00	0.10	0.24	0.31	0.11	0.95	1.00										
TIPS	-0.05	0.00	0.15	0.06	-0.01	-0.03	0.20	0.60	0.47	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	0.23	0.30	0.00	0.76	1.00							
Dev ex-U.S. 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						
U.S. RE Securities	0.57	0.47	0.44	0.49	0.56	0.49	-0.05	0.17	0.22	0.10	0.56	0.62	0.05	1.00					
Global RE Securities	0.62	0.55	0.52	0.58	0.63	0.54	-0.05	0.17	0.21	0.11	0.61	0.67	0.04	0.99	1.00				
Private Real Estate	0.55	0.45	0.45	0.48	0.55	0.50	-0.05	0.18	0.24	0.09	0.58	0.63	0.05	0.79	0.79	1.00			
Commodities	0.25	0.34	0.39	0.38	0.31	0.28	0.00	-0.03	-0.04	0.25	0.29	0.29	-0.10	0.25	0.28	0.25	1.00		
Real Assets	0.62	0.63	0.65	0.68	0.67	0.57	-0.03	0.24	0.25	0.32	0.64	0.69	0.06	0.79	0.83	0.77	0.63	1.00	
Inflation (CPI)	-0.10	-0.15	-0.13	-0.15	-0.12	-0.10	0.10	-0.12	-0.12	0.15	-0.08	0.00	-0.08	0.05	0.04	0.05	0.44	0.21	1.00

# 2024 Rate Environment Segmented

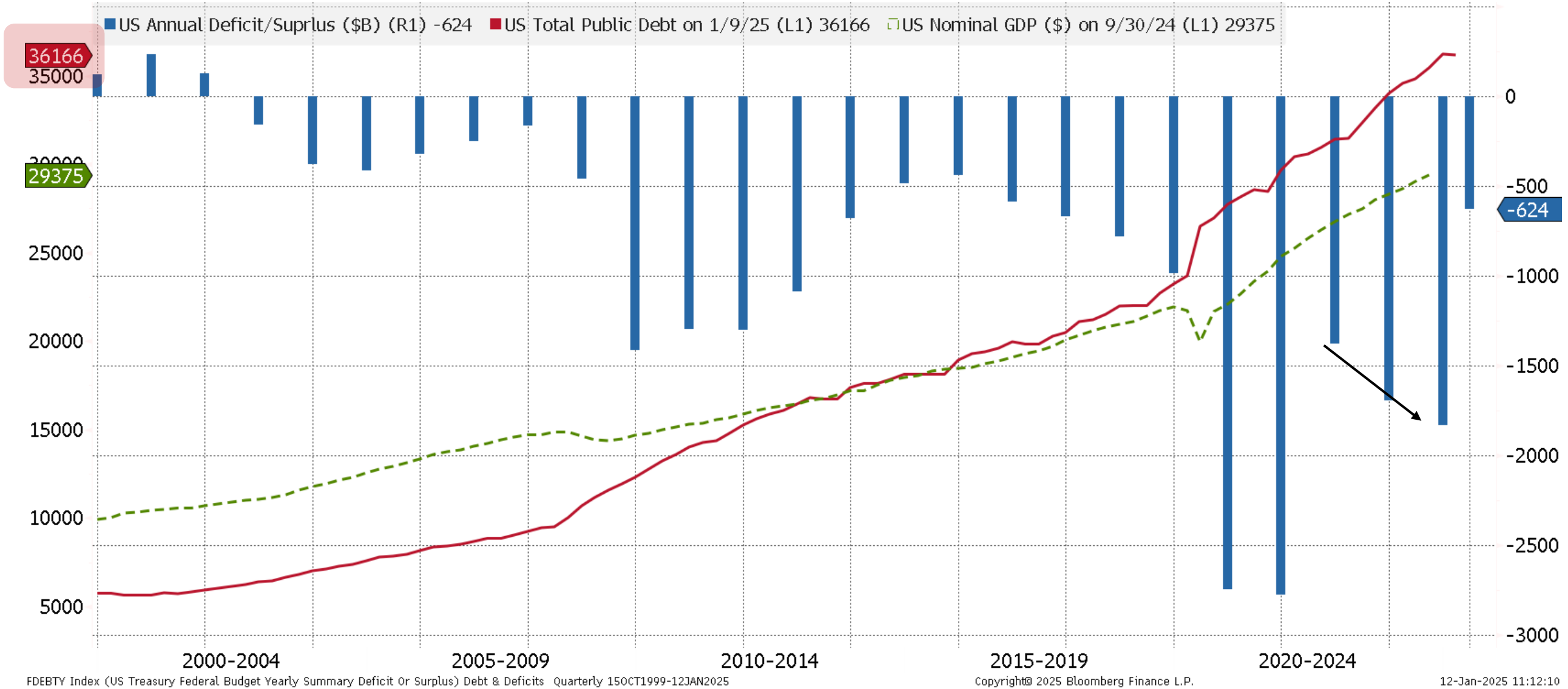


USGG10YR Index (US Generic Govt 10 Yr) 10yr Splits Daily 31DEC2023-10JAN2025 Copyright© 2025 Bloomberg Finance L.P. 12-Jan-2025 09:25:44

Data Source: Bloomberg

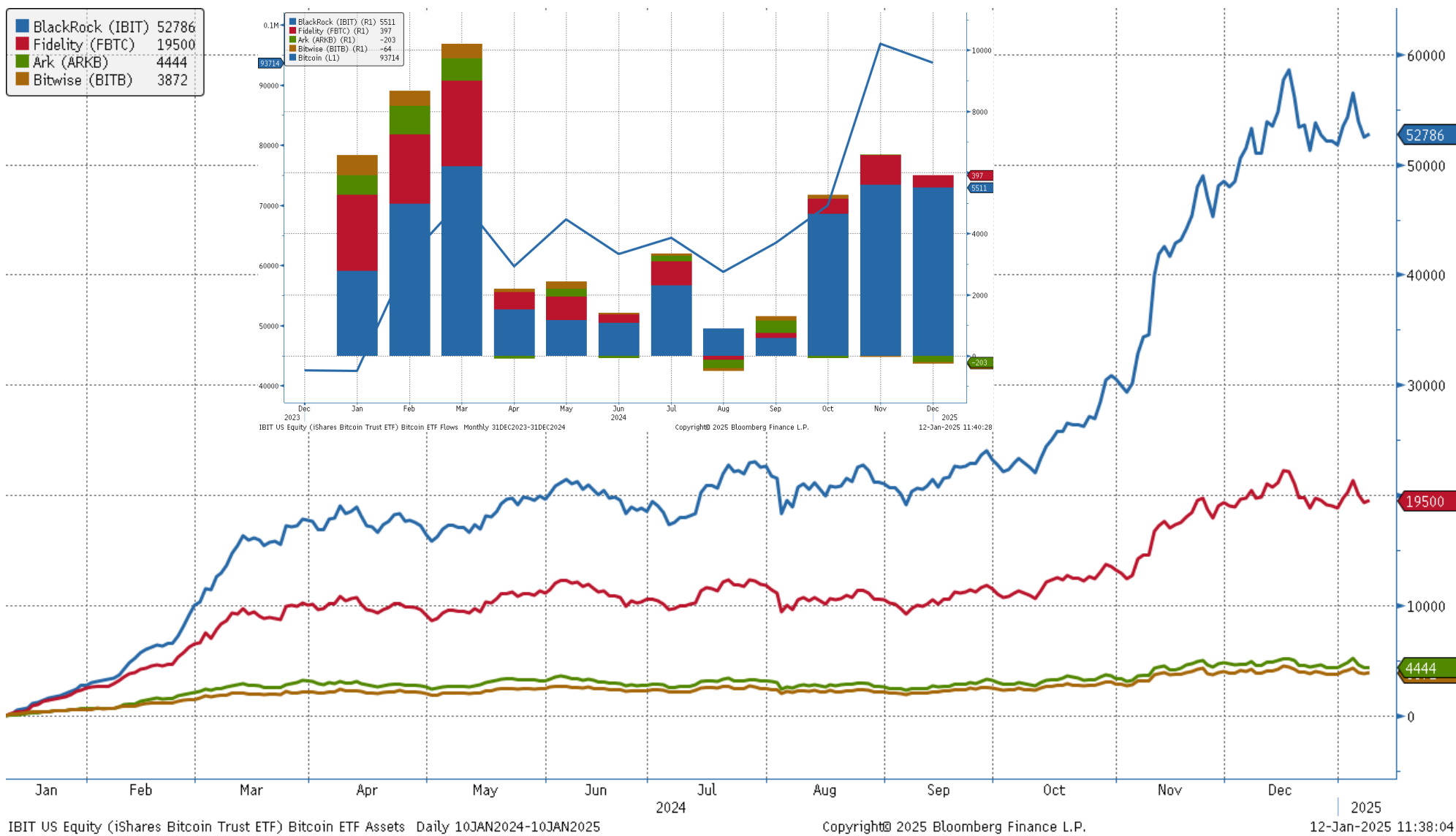


# Debt / Deficit Picture



Data Source: Bloomberg

# Bitcoin Demand: ETF Approval Provides Familiar Access to BTC



Largest 4 of the new ETFs launched Jan. 2024

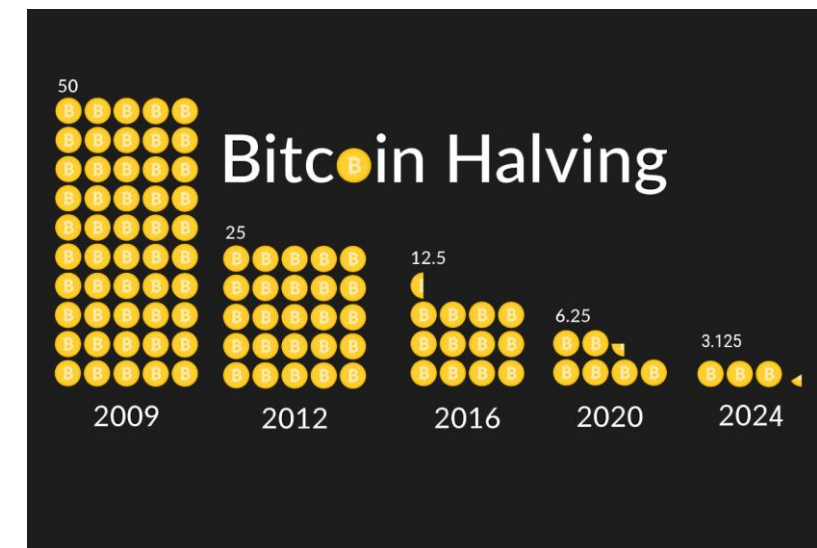
- ~\$55B in flows
- ~\$80B in Assets

Data Source: Bloomberg

# Bitcoin Supply

- Only 21 million Bitcoin can ever be created
  - Nearly 95% of which (~19.9 million) already exist today
- Bitcoin supply scarcity is controlled by its creation (“mining”) process
  - Some # of BTC are earned for “solving” blocks in the Bitcoin time chain
  - Rewards drop by half every 210,000 blocks (at ~ 10 minutes per block, this occurs every ~4 years)
  - The last “halving” occurred in April 2024
- Bitcoin’s scarcity — with superior stock-to-flow vs. gold — leads to its Real Asset use case

Event	Date	Bitcoin (millions)		% Mined	Reward	Stock / Flow
		Mined	Left			
BTC Launch	Jan 2009	0.00	21.00	0.0%	50	
1st Halving	Nov 2012	10.50	10.50	50.0%	25	8
2nd Halving	Jul 2016	15.75	5.25	75.0%	12.5	24
3rd Halving	May 2020	18.38	2.63	87.5%	6.25	56
4th Halving	Apr 2024	19.69	1.31	93.8%	3.125	120
5th Halving	Mar 2028	20.34	0.66	96.9%	1.5625	248
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# Summary Changes

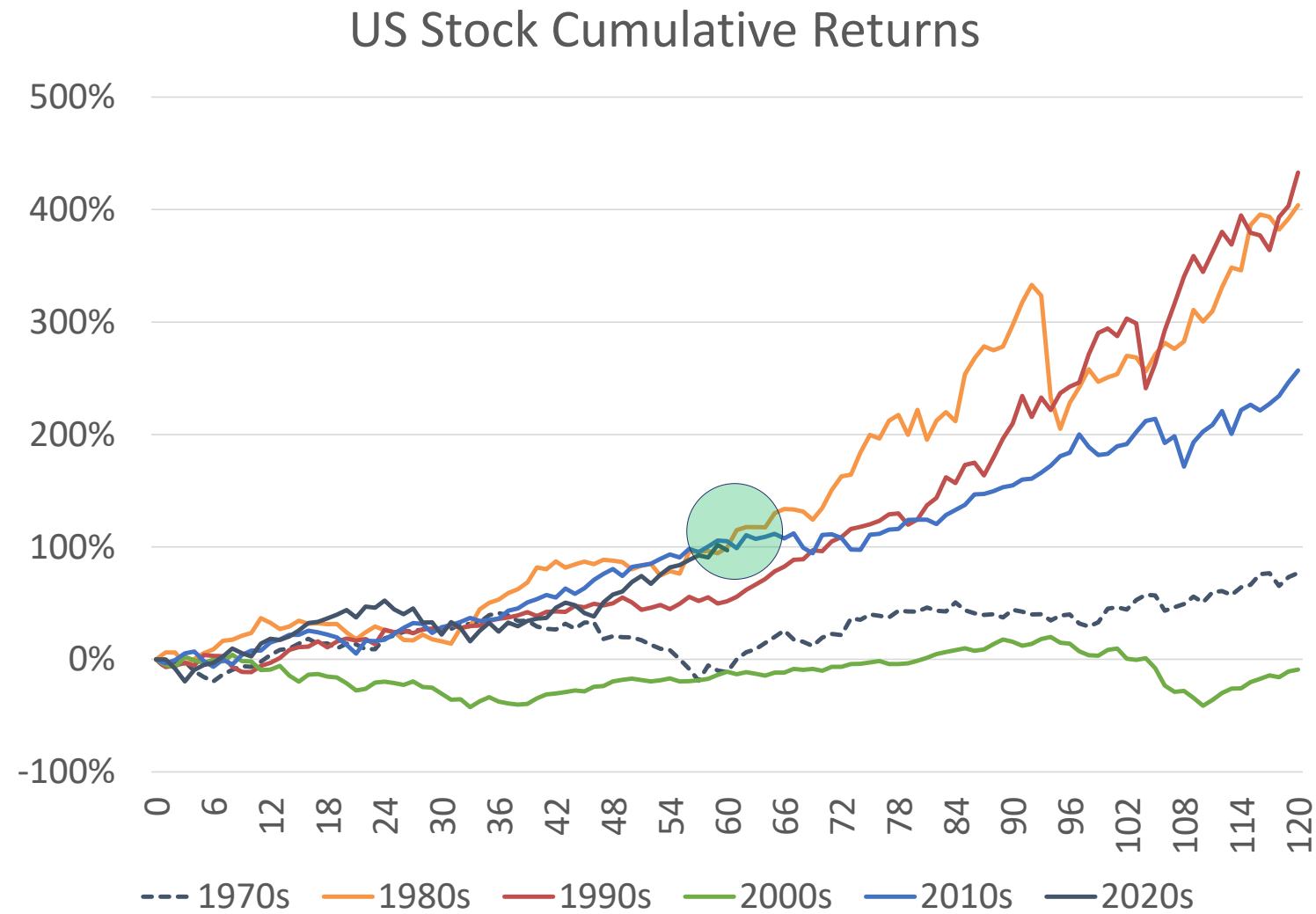
- Yield curve up across most of the maturity spectrum, except the very short term
  - Curve movements resulted in higher forecasts for fixed income asset classes
  - Slight decrease in spreads for investment grade and high yield bonds
- Yields on most real asset securities are up from last quarter; inflation assumption up at 2.35%
- Equity assumptions are up slightly; private equity up to the same degree due to higher leverage costs
- Equity risk premium worsened due to the larger increase in fixed income forecasts

Asset Class Assumption	Total Return (%)			Risk (%)
	Sep 2024	Change	Dec 2024	
Inflation	2.25	0.10	2.35	1.75
Cash Equivalents	3.40	0.20	3.60	0.75
Treasuries	4.05	0.65	4.70	5.00
Core Bonds	4.60	0.60	5.20	4.75
LT Core Bonds	4.65	0.65	5.30	9.90
High Yield Bonds	5.95	0.40	6.35	10.00
Private Credit	7.45	0.30	7.75	12.75
Global RE Securities	5.25	0.45	5.70	16.55
Private Real Estate	6.10	0.30	6.40	13.95
U.S. Stocks	4.25	0.10	4.35	17.00
Dev. ex-U.S. Stocks	5.25	0.10	5.35	18.00
Emerging Market Stocks	5.50	0.10	5.60	26.00
Private Equity	6.15	0.10	6.25	29.65
Global 60/40 (ACWI/U.S. Core)	4.95	0.25	5.20	10.75

Implied Risk Premia	Relative Return (%)		
	Sep 2024	Change	Dec 2024
Cash - Inflation	1.15	0.10	1.25
Treasury - Cash	0.65	0.45	1.10
Core - Treasury	0.55	-0.05	0.50
Long-Term Core - Core	0.05	0.05	0.10
High Yield - Core	1.35	-0.20	1.15
Global RESI - Core	0.65	-0.15	0.50
U.S. Stocks - Core	-0.35	-0.50	-0.85
Private Equity - U.S. Stocks	1.90	0.00	1.90
Implied Real Return (ACA - CPI)			
U.S. Stocks	2.00	0.00	2.00
U.S. Bonds	2.35	0.50	2.85
Cash Equivalents	1.15	0.10	1.25

# “Nobody told me there’d be days like these”<sup>1</sup> (Stock Returns by Decade)

“Everybody’s flying and never touch the sky”<sup>1</sup>

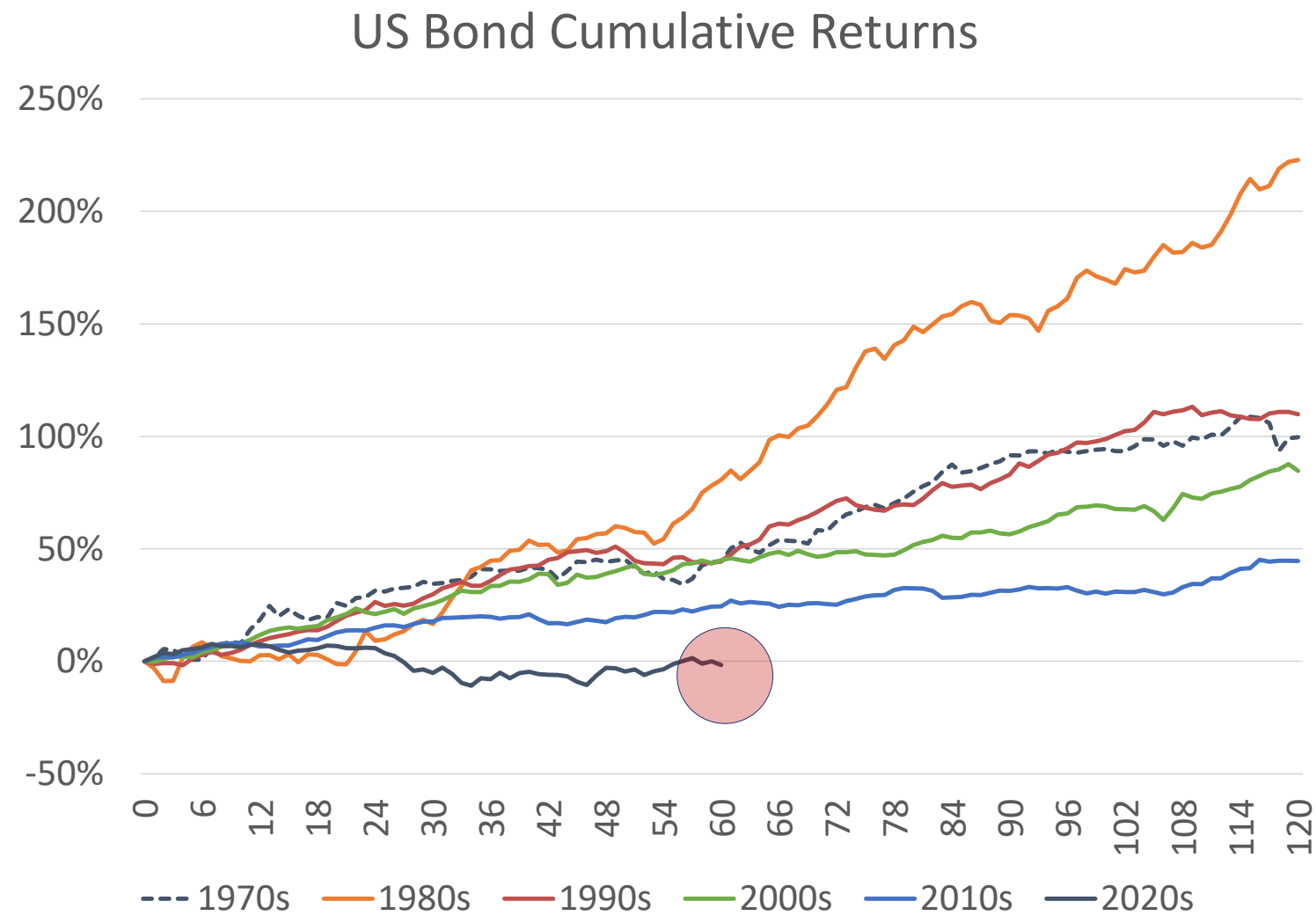


Data Source: Wilshire Compass, Bloomberg

<sup>1</sup> John Lennon, “Nobody Told Me,” *Milk and Honey*, 1984

# “Nobody told me there’d be days like these”<sup>1</sup> (Bond Returns by Decade)

“Well, everybody’s crying and no one makes a sound”<sup>1</sup>

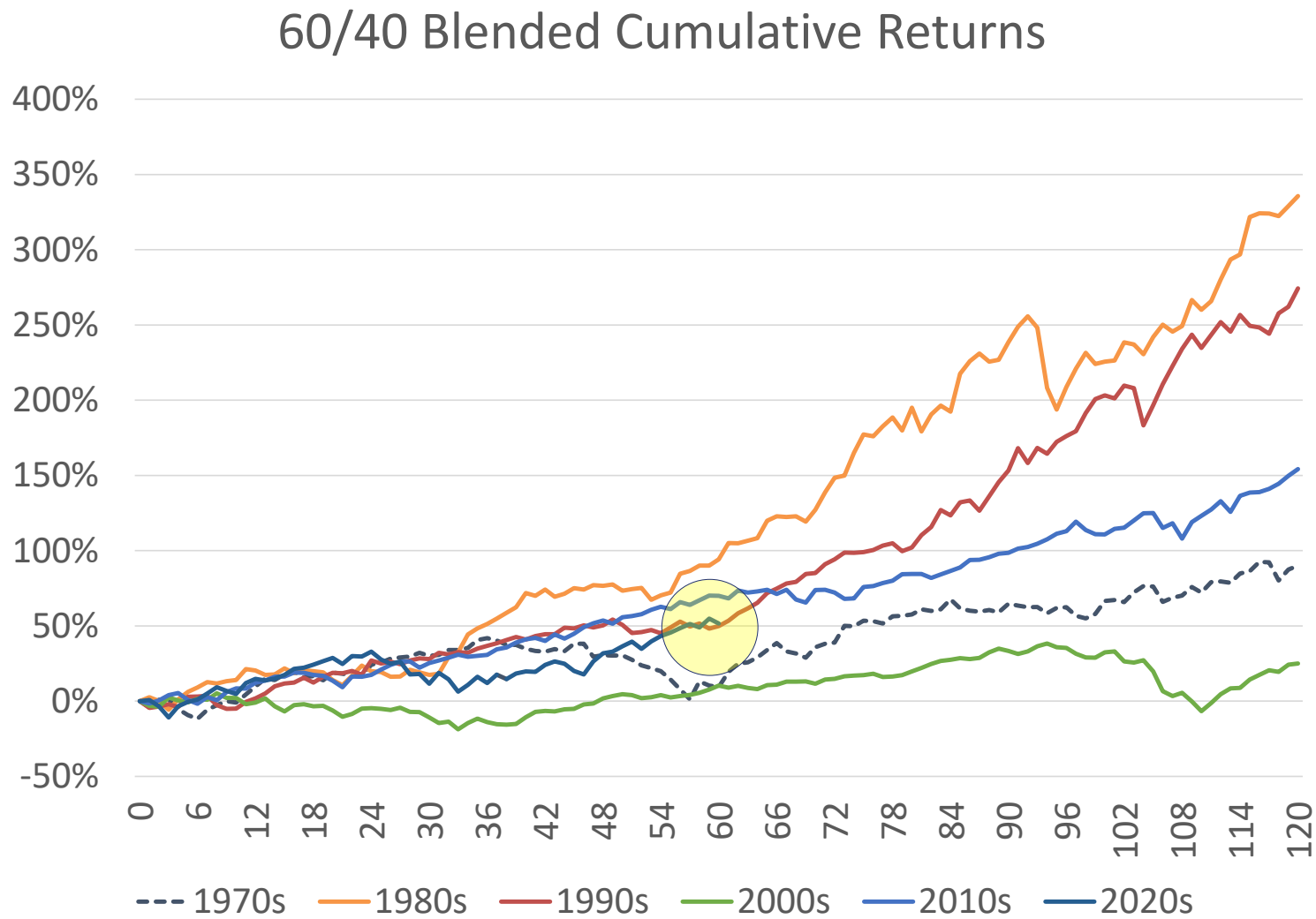


Data Source: Wilshire Compass, Bloomberg

<sup>1</sup> John Lennon, “Nobody Told Me,” *Milk and Honey*, 1984

# “Nobody told me there’d be days like these”<sup>1</sup> (60/40 Returns by Decade)

“Always something happening and nothing going on”<sup>1</sup>



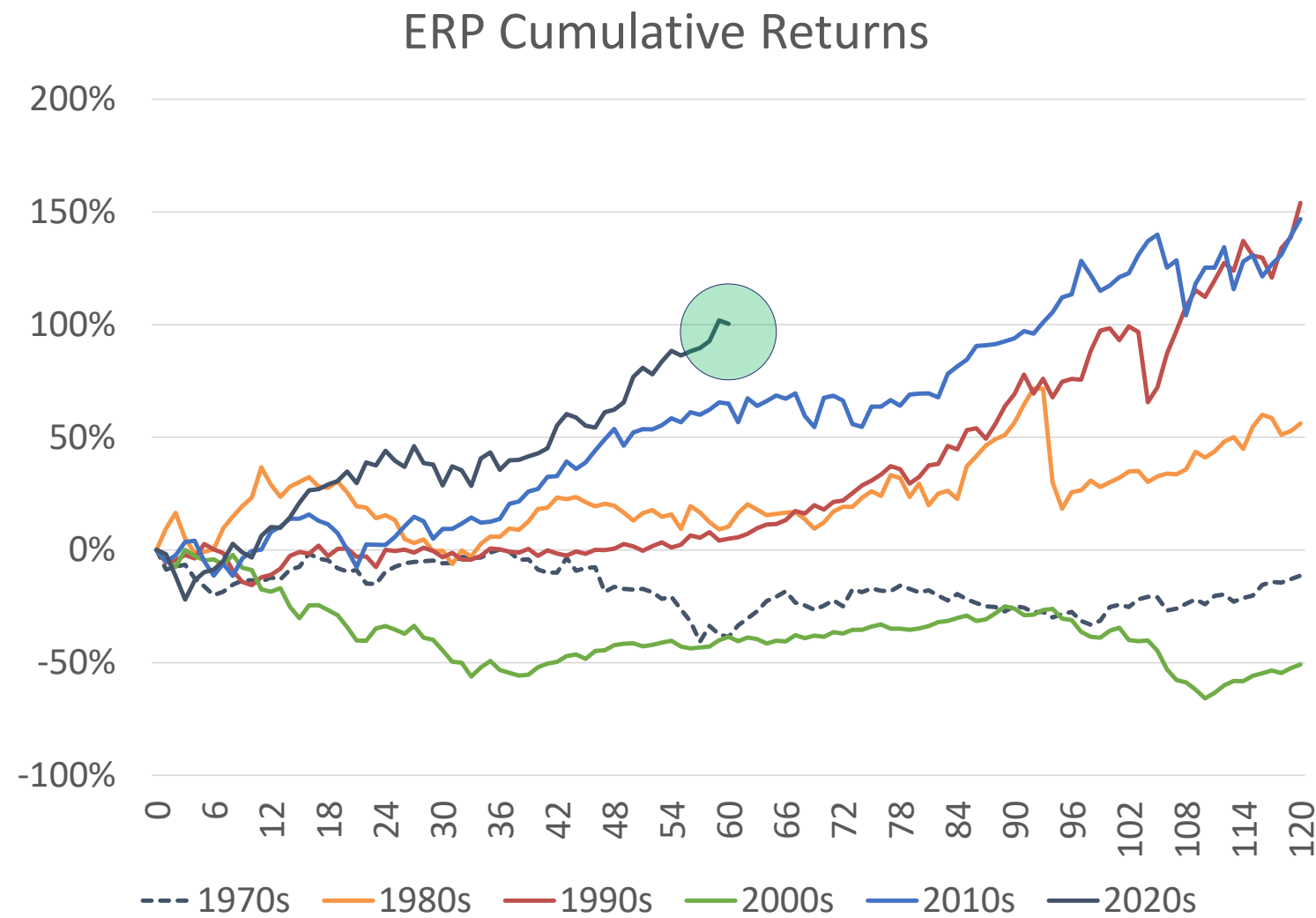
Data Source: Wilshire Compass, Bloomberg

<sup>1</sup> John Lennon, “Nobody Told Me,” *Milk and Honey*, 1984



# “Nobody told me there’d be days like these”<sup>1</sup> (Stock > Bond Returns by Decade)

“Strange days indeed... Most peculiar, mama”<sup>1</sup>

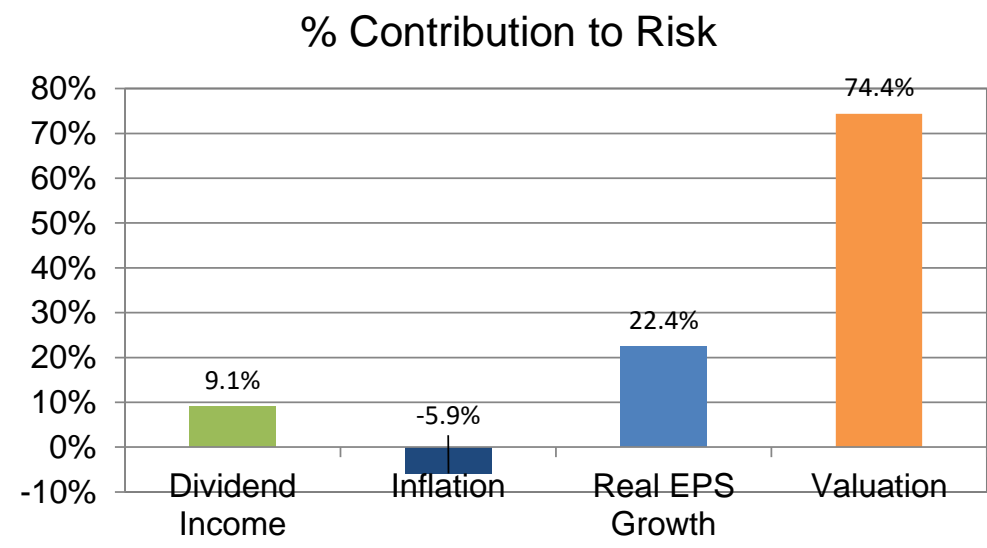
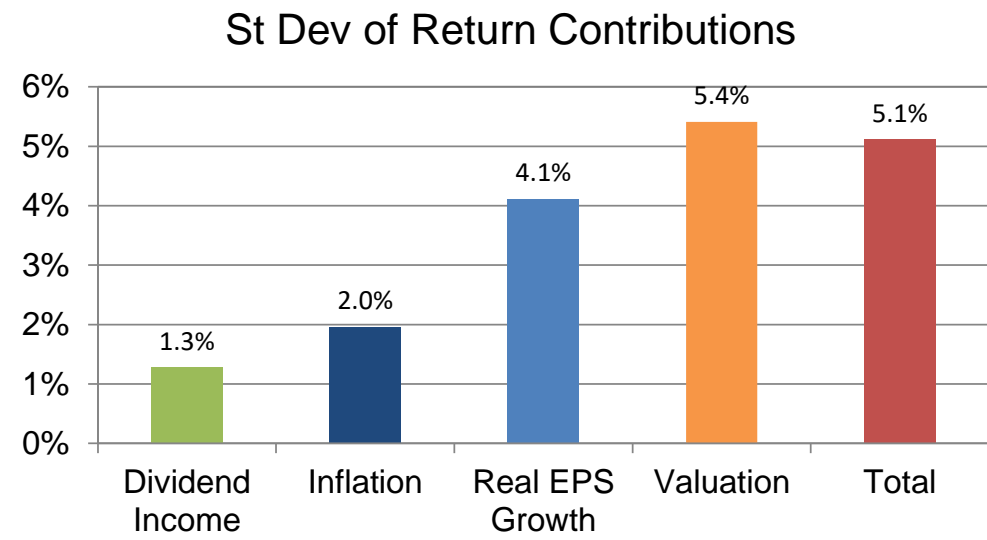
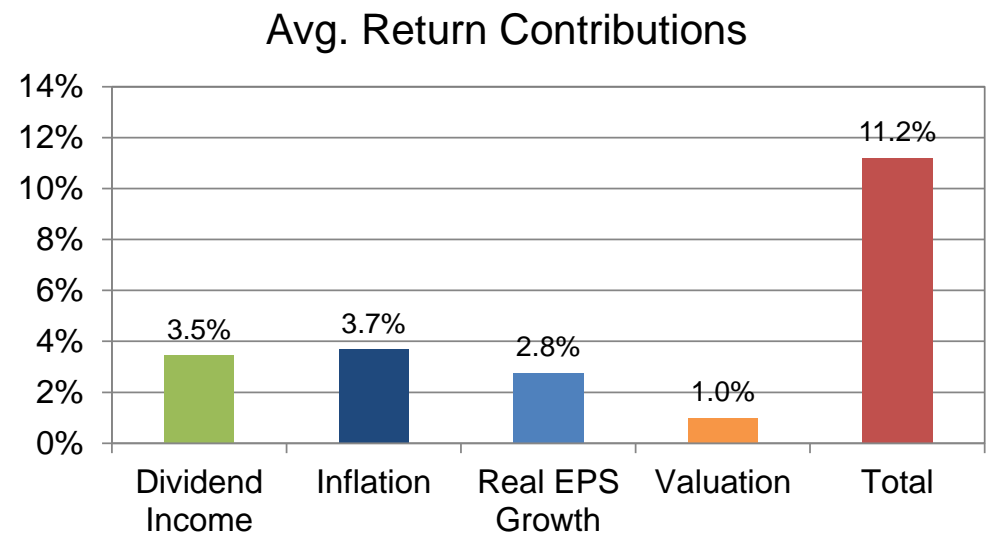


Data Source: Wilshire Compass, Bloomberg

<sup>1</sup> John Lennon, “Nobody Told Me,” *Milk and Honey*, 1984

# Contributions to Avg. Return, Risk Levels & Contributions to Risk

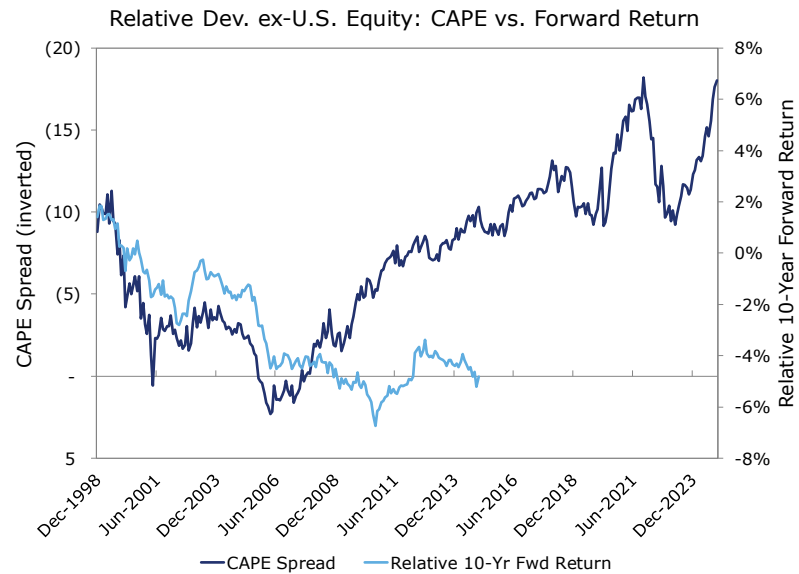
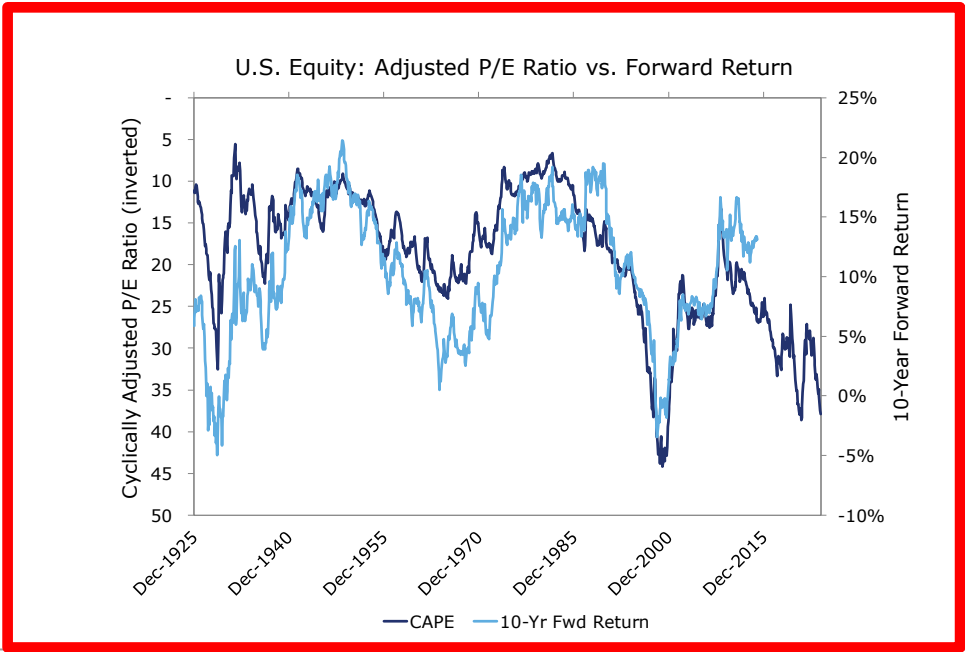
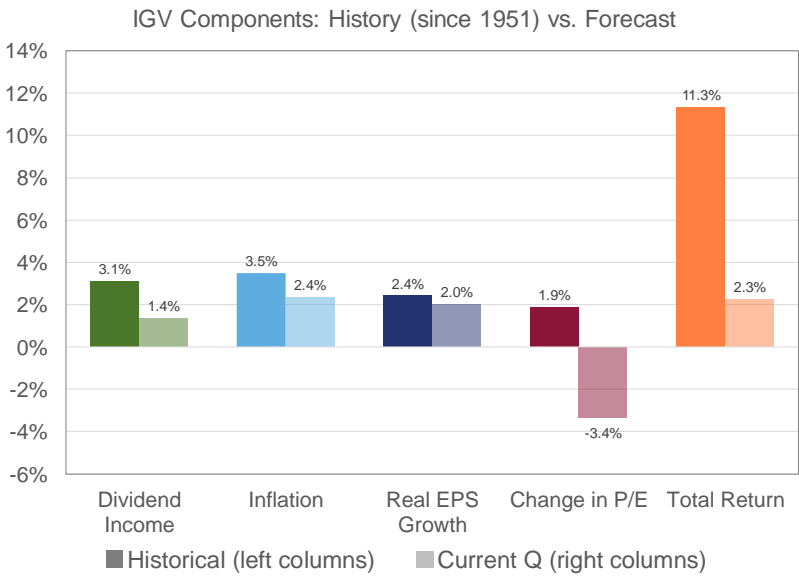
Historical data from 1951 through 2024



Data Source: S&P

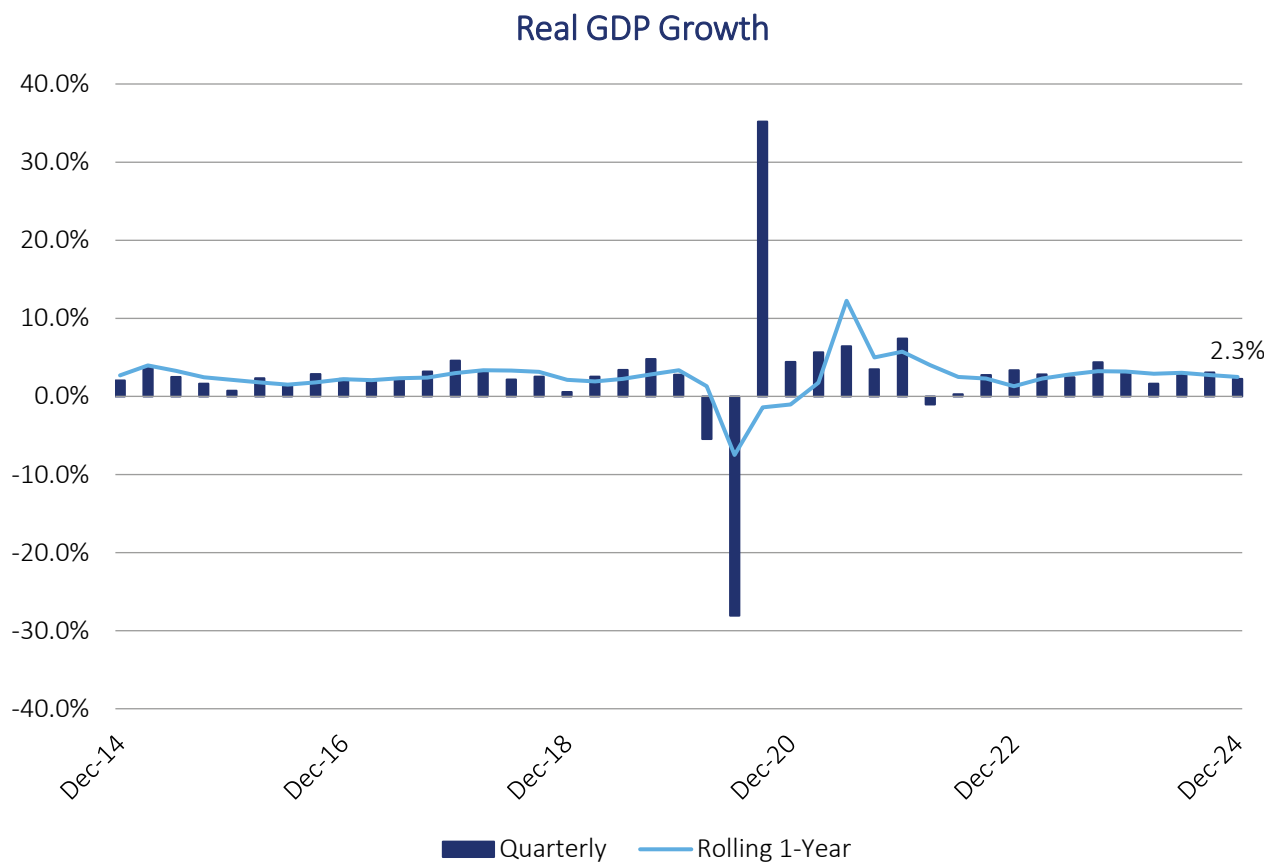
Equity Markets

Equity: Public & Private		Sep 2024	Change	Dec 2024
Equity	DDM	6.40	0.15	6.55
	IGV	2.20	0.10	2.30
	CAPE	2.35	(1.25)	1.10
U.S. Equity Forecast		4.25	0.10	4.35
Dev-ex-US Equity Forecast		5.25	0.10	5.35
EM Equity Forecast		5.50	0.10	5.60
Private	Cost of Debt (Public)	5.35	0.50	5.85
	Cost of Debt (Private)	7.35	0.20	7.55
	Private Market Basket Forecast	6.15	0.10	6.25

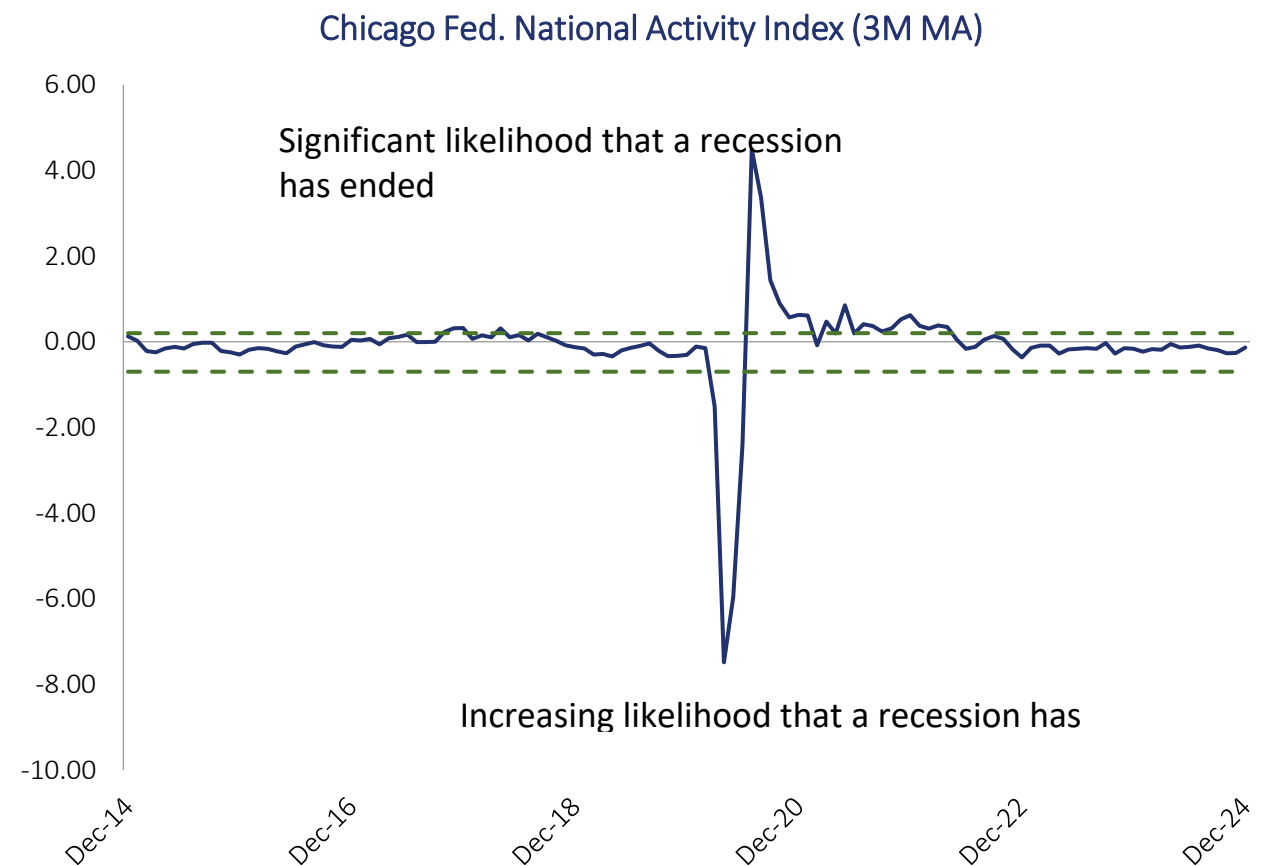


# Economic/Market Activity

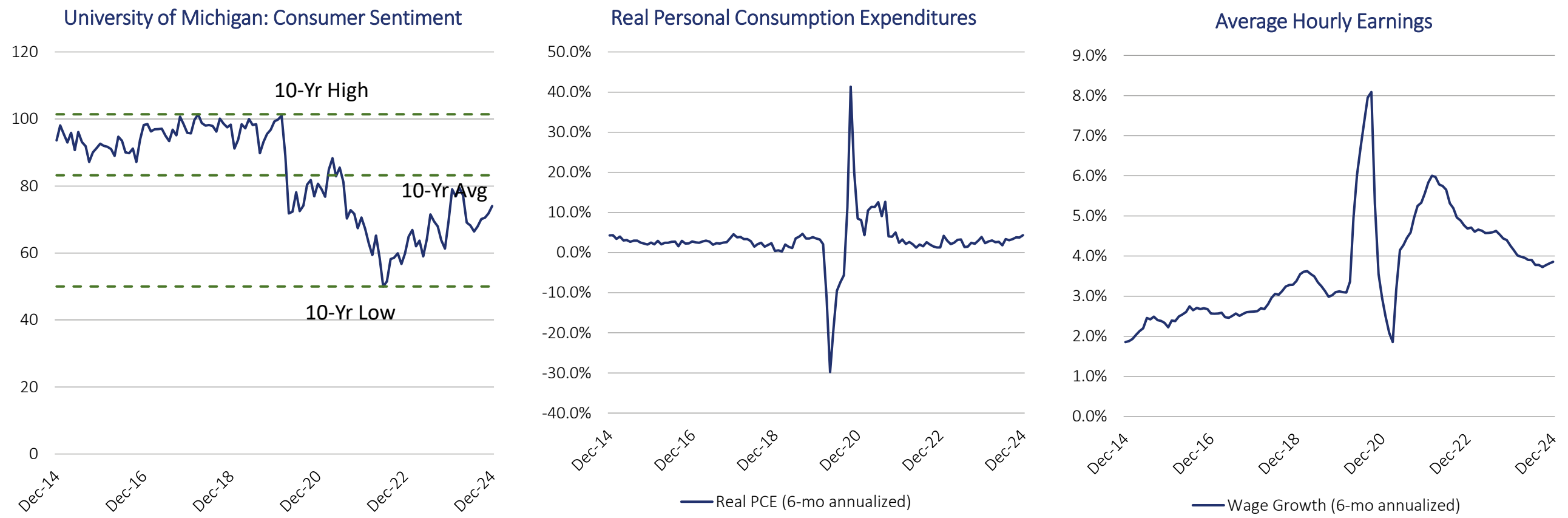
# Economic Growth



Data Source: Bloomberg

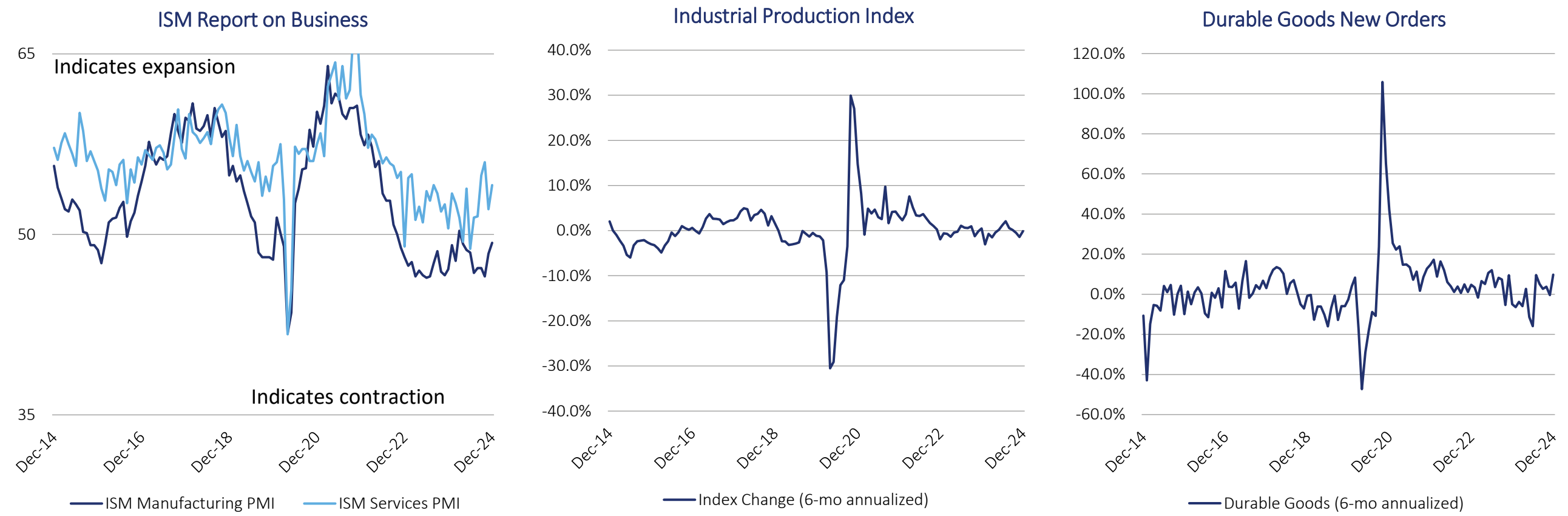


# Consumer Activity



Data Source: Bloomberg

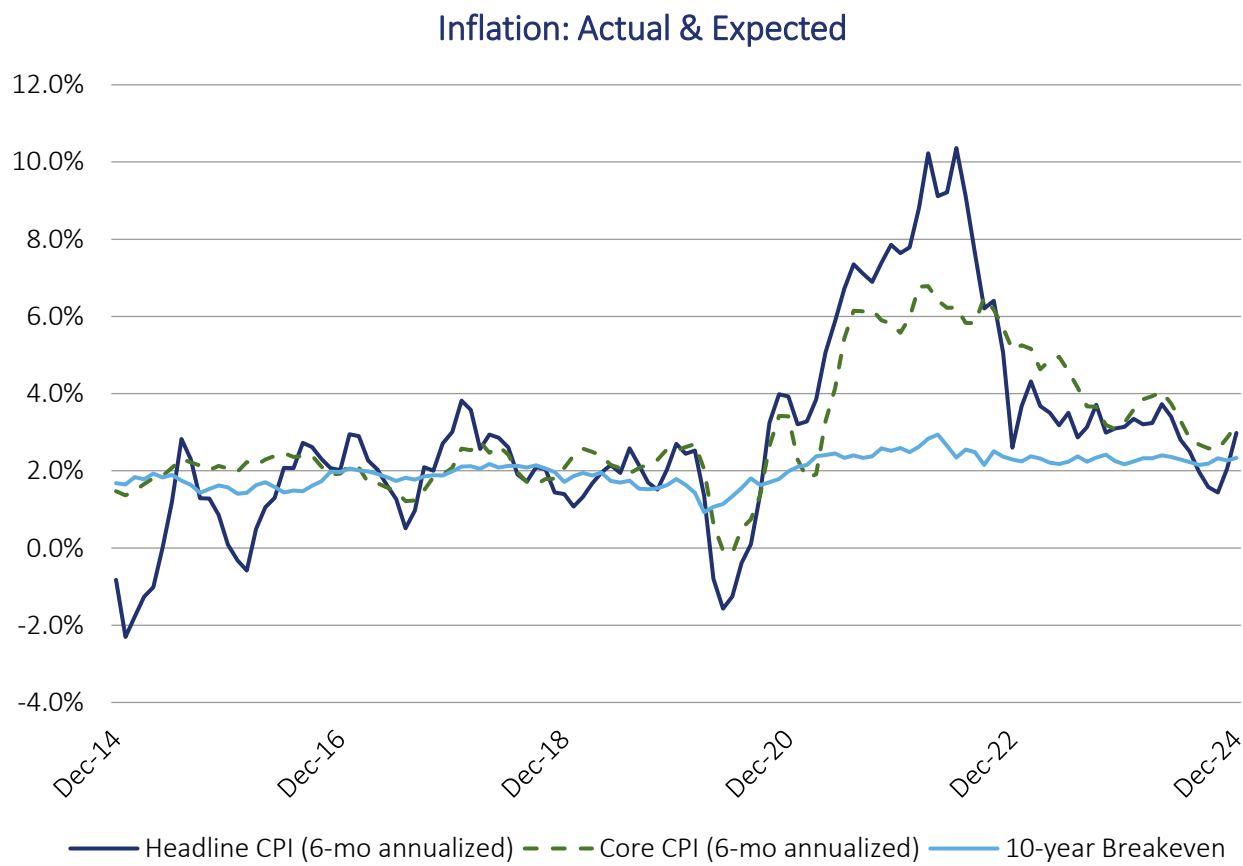
# Business Activity



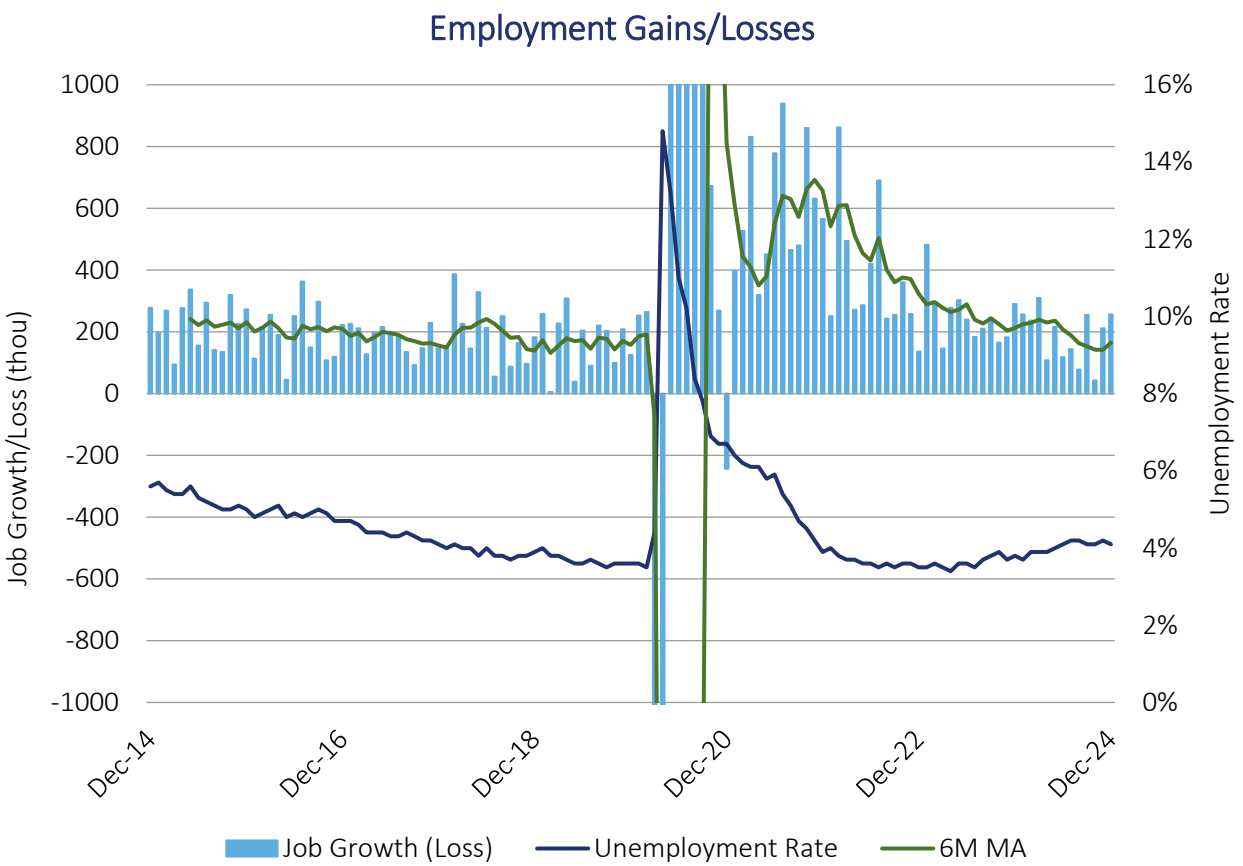
Data Source: Bloomberg



# Inflation and Employment

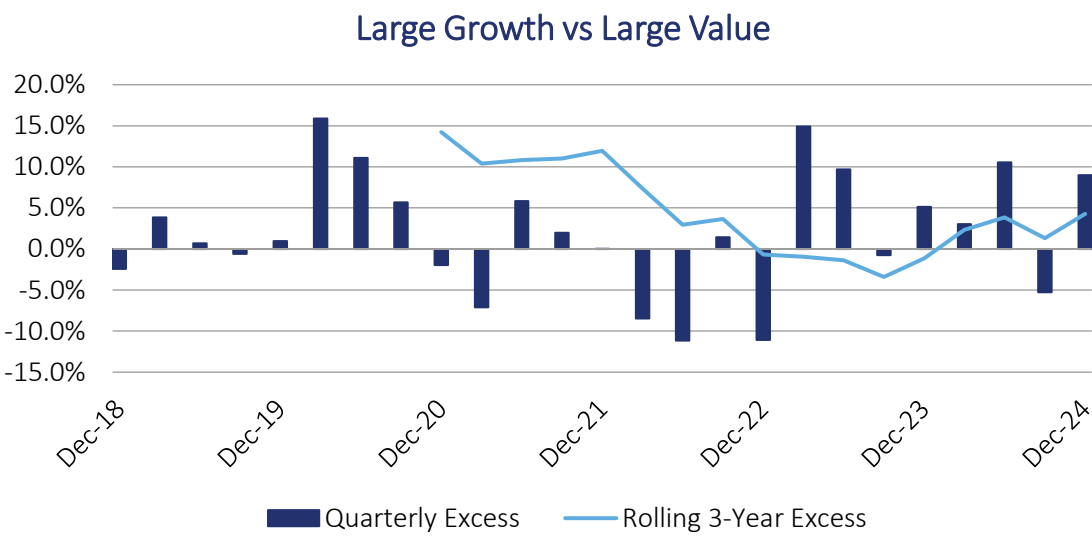
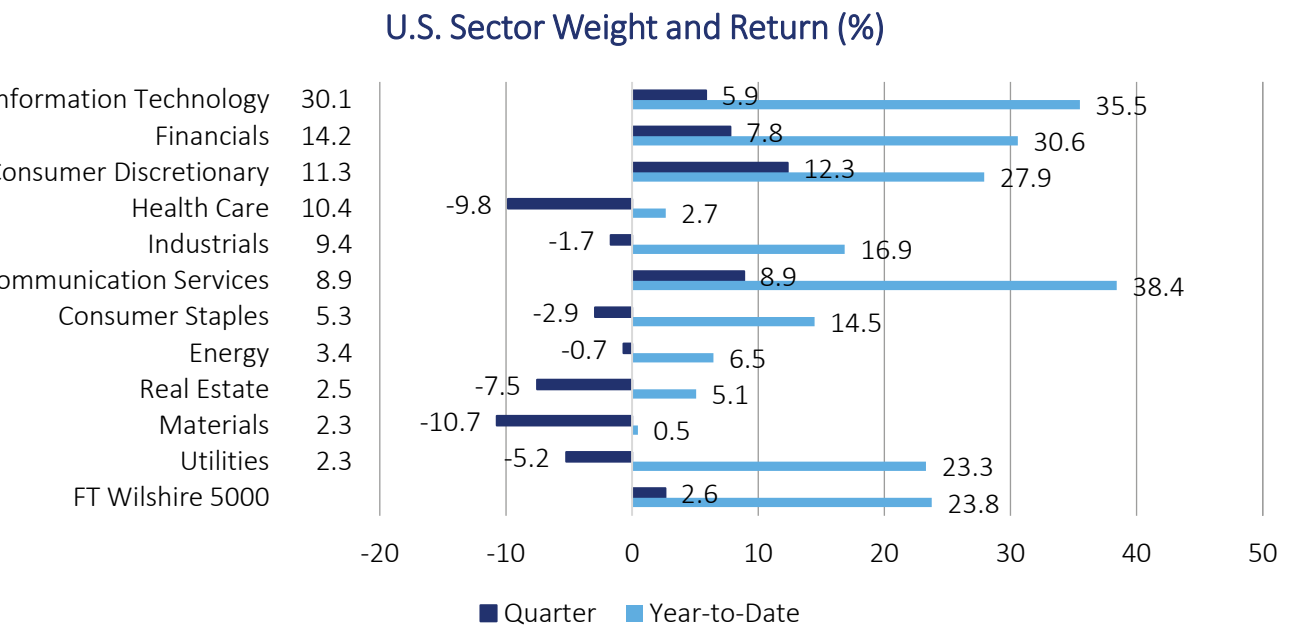
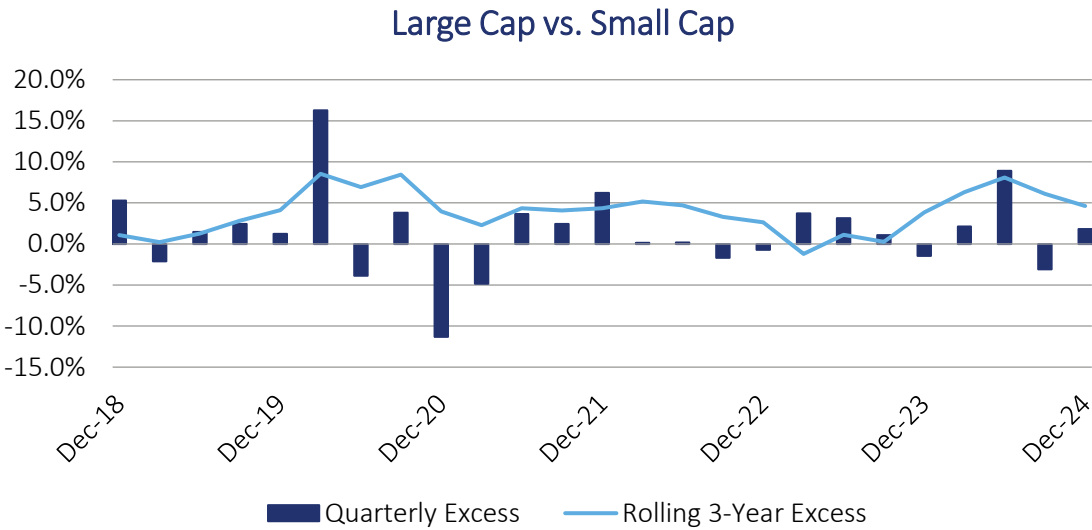


Data Source: Bloomberg



# U.S. Equity Market

As of 12/31/2024	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
FT Wilshire 5000	2.6	23.8	23.8	8.1	14.1	12.7
FT Wilshire U.S. Large Cap	2.8	25.2	25.2	8.8	14.8	13.1
FT Wilshire U.S. Small Cap	1.0	14.1	14.1	4.0	9.5	9.2
FT Wilshire U.S. Large Growth	7.2	35.5	35.5	10.9	19.4	n/a
FT Wilshire U.S. Large Value	-1.7	15.2	15.2	6.4	9.8	n/a
FT Wilshire U.S. Small Growth	2.4	15.5	15.5	2.2	8.8	n/a
FT Wilshire U.S. Small Value	-0.4	12.7	12.7	5.6	9.9	n/a
Wilshire REIT Index	-5.0	9.1	9.1	-2.5	4.5	5.7
MSCI USA Min. Vol. Index	-2.3	16.0	16.0	5.0	8.2	10.4
FTSE RAFI U.S. 1000 Index	-0.3	17.1	17.1	8.0	12.3	10.9

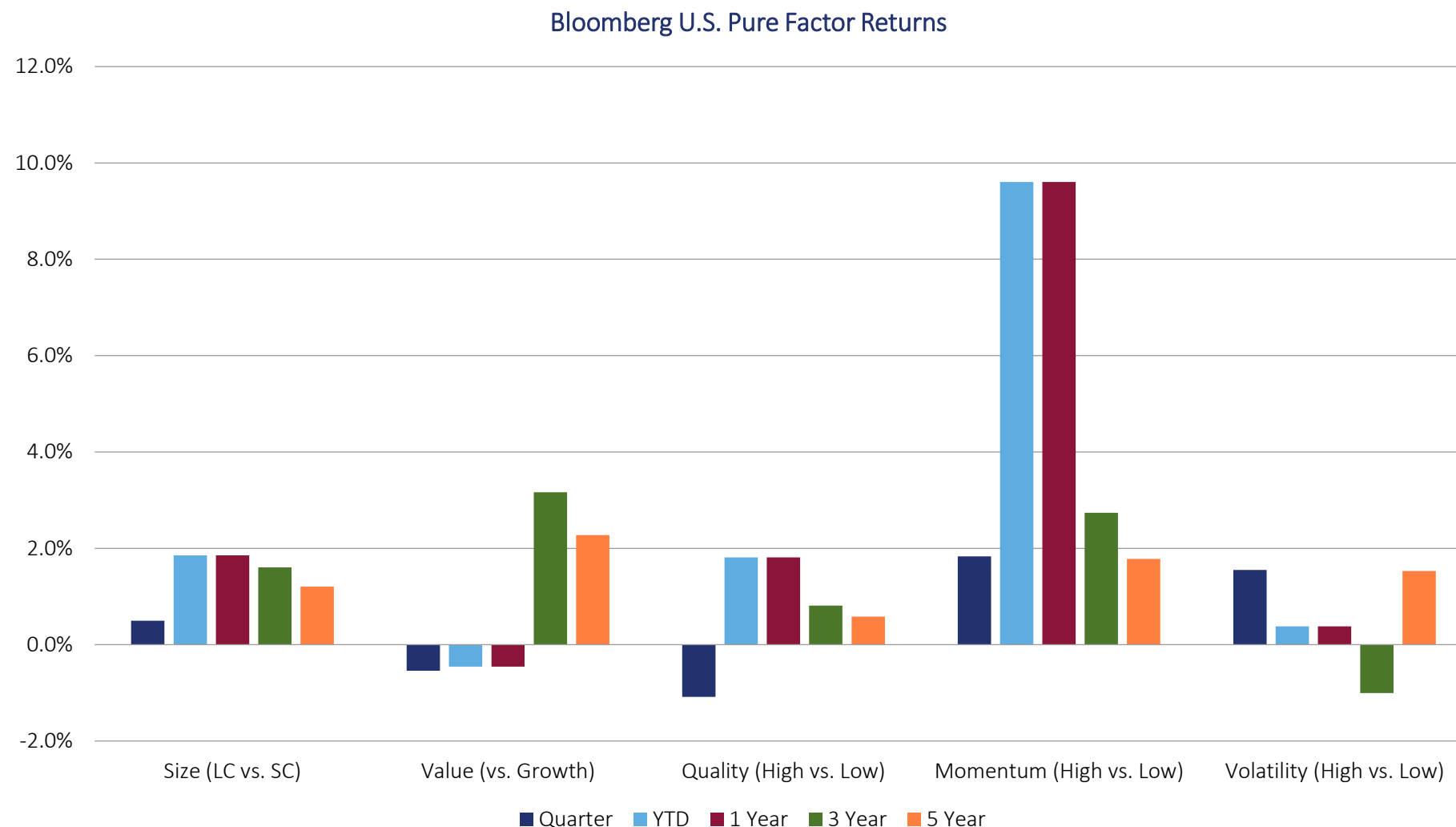


Data Sources: Bloomberg, Wilshire Atlas

# U.S. Factor Returns

Factor returns represent the contribution from large cap, value, etc. stocks within Bloomberg's Portfolio & Risk Analytics module

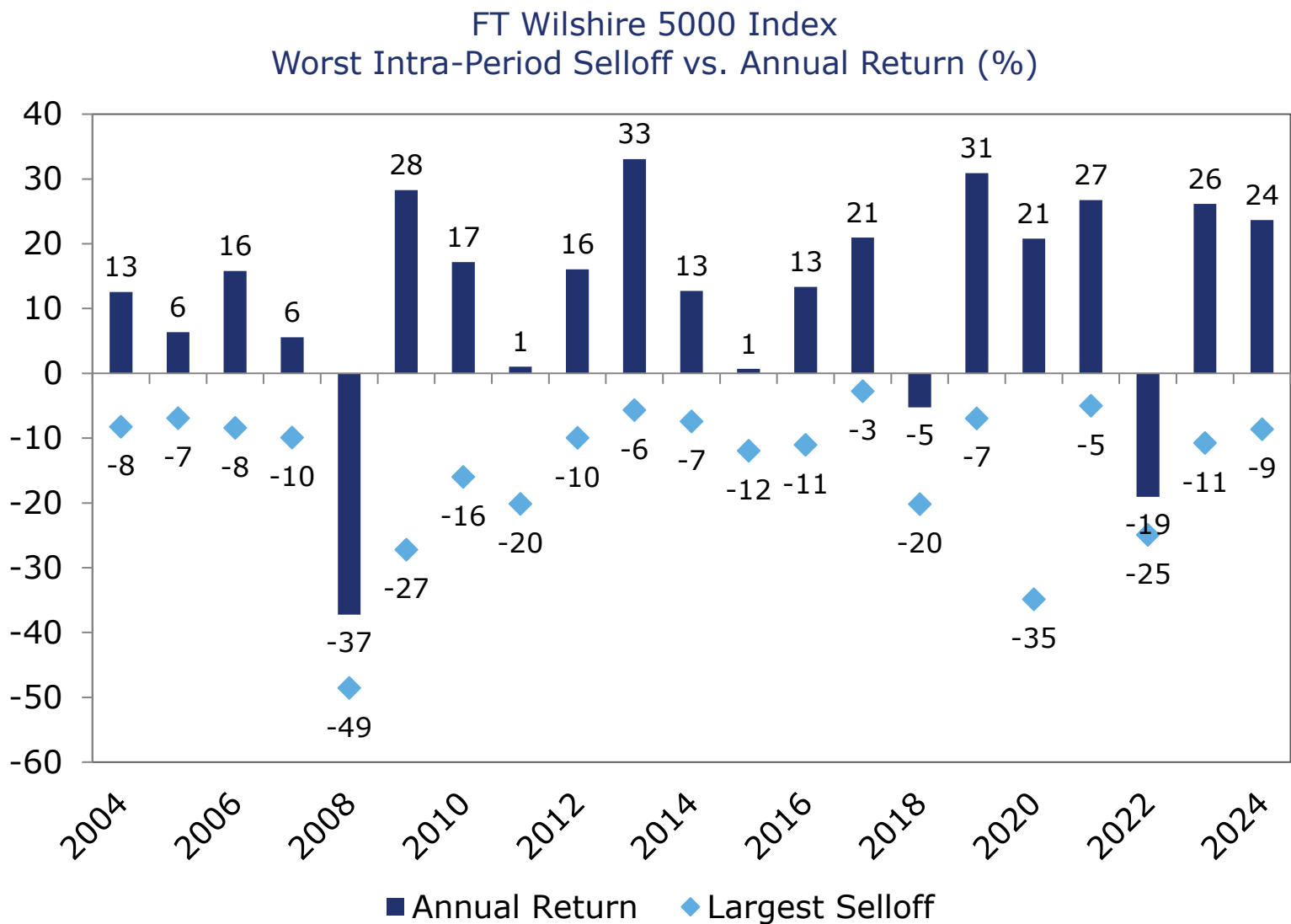
Value detracted from returns for the year while momentum was a meaningful contributor



Data Source: Bloomberg

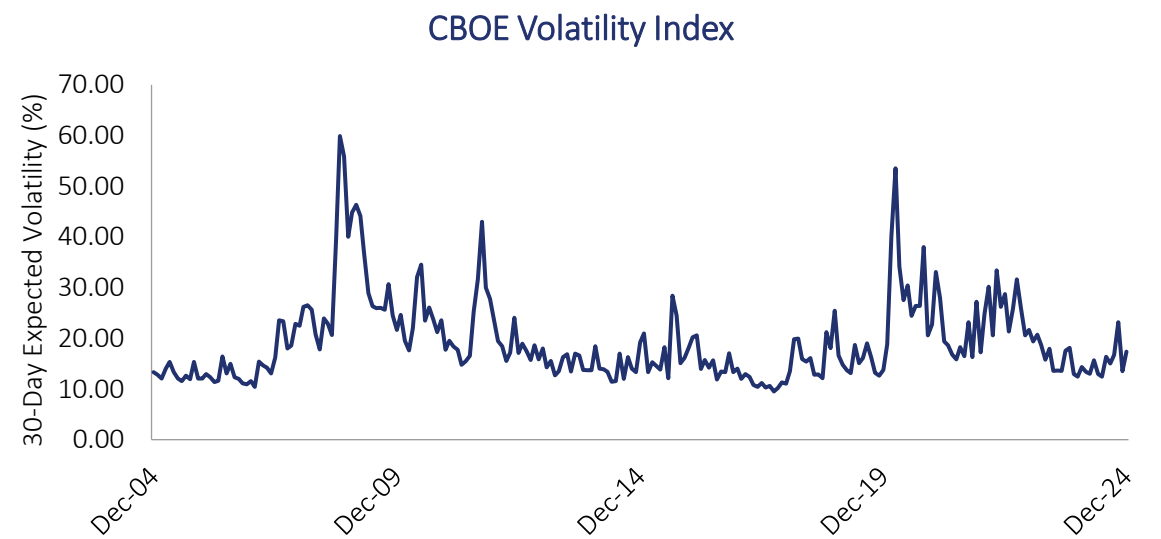
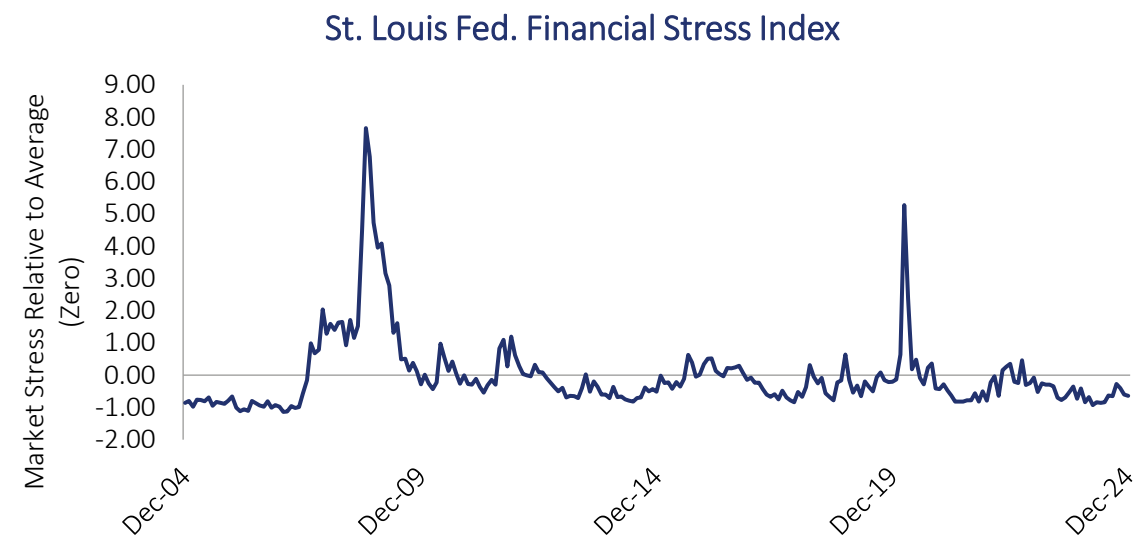
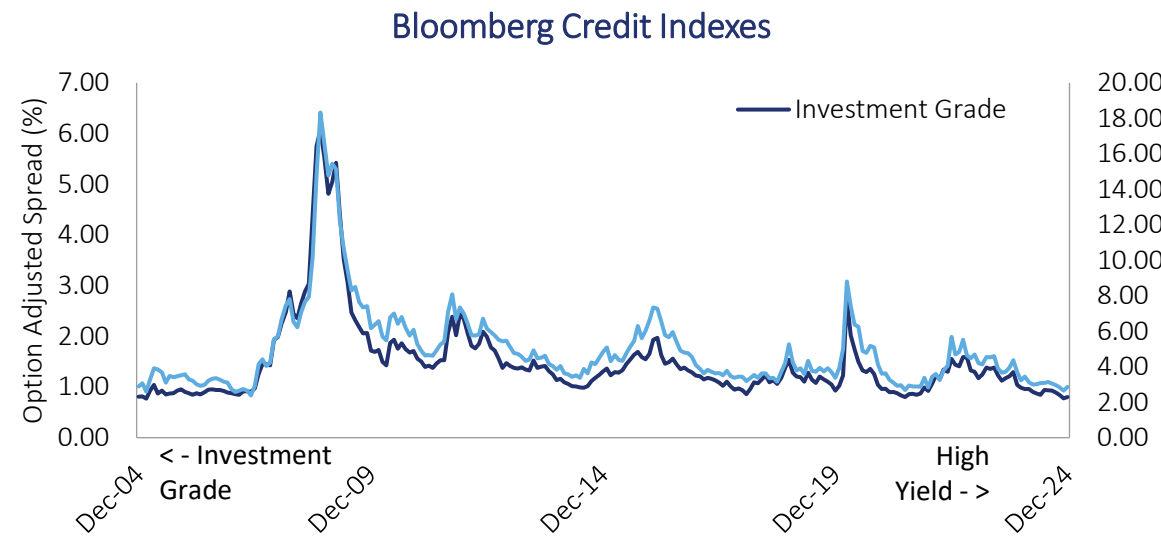
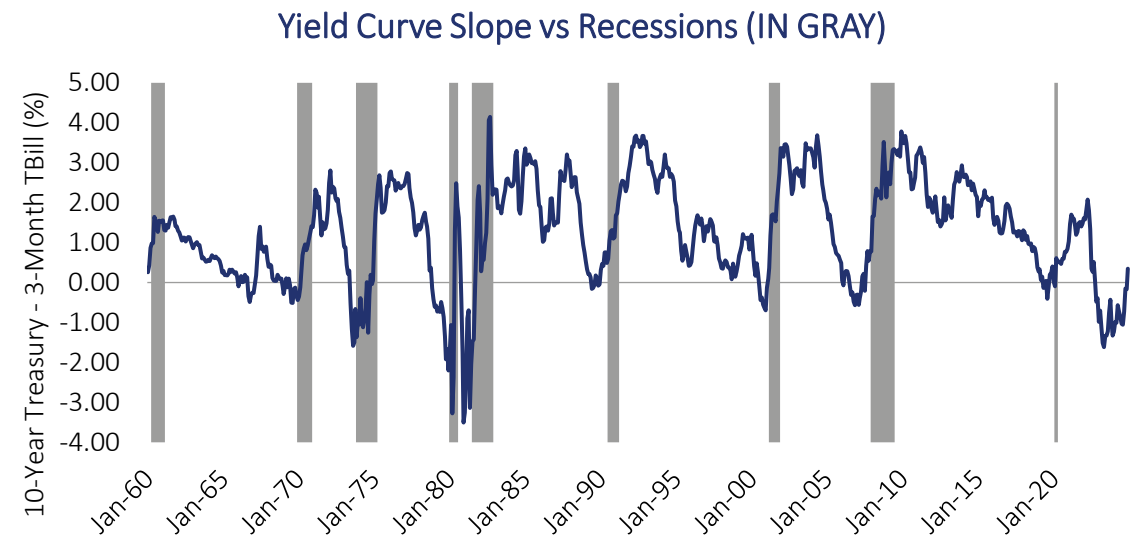
# Annual Equity Market Selloffs

U.S. equity during 2024 was similar to 2023 – a roughly 25% gain with a modest sell-off during the year



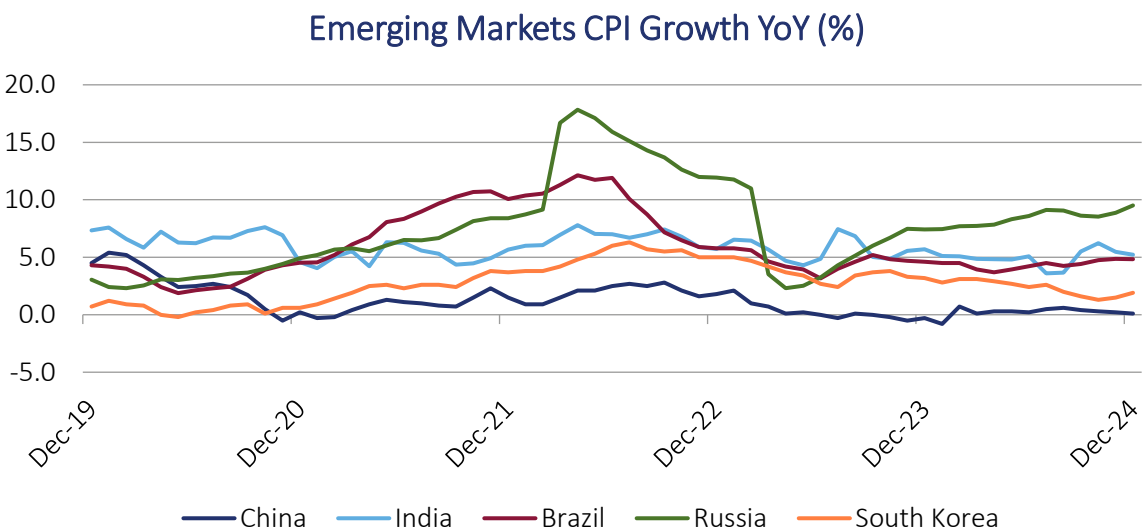
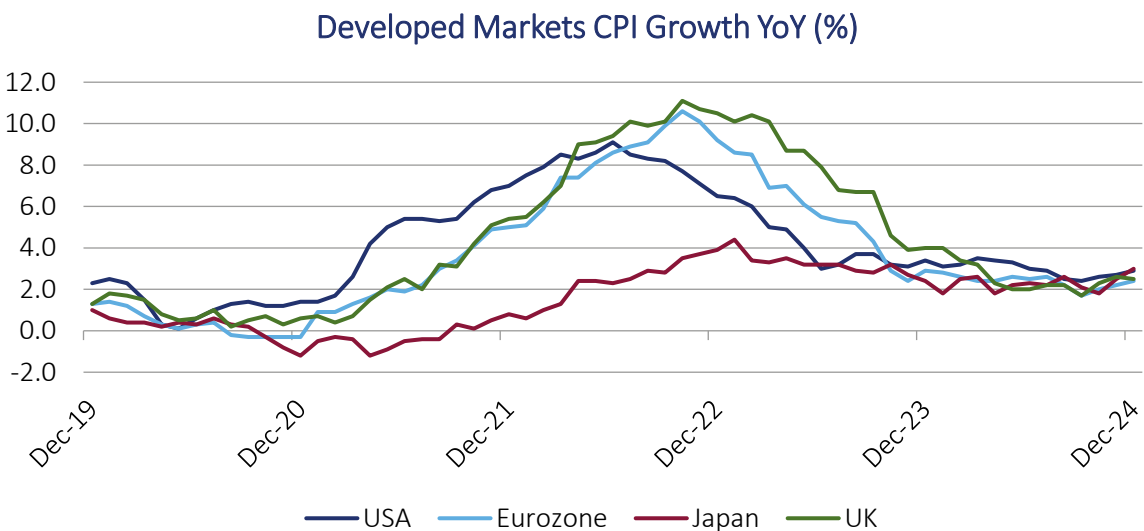
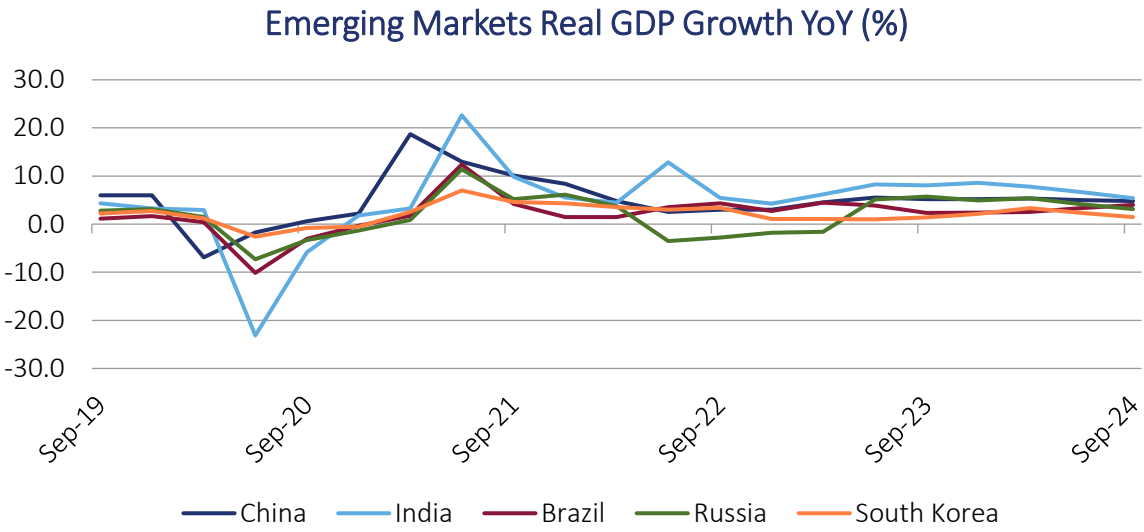
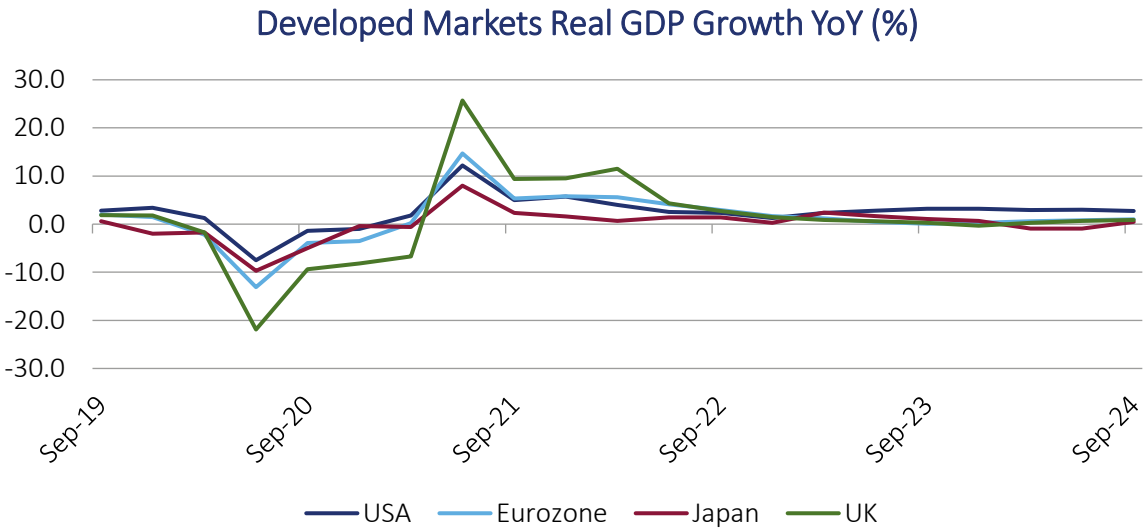
Data Sources: Wilshire Web, Bloomberg

# Risk Monitor



Data Source: Bloomberg

# Non-U.S. Growth and Inflation



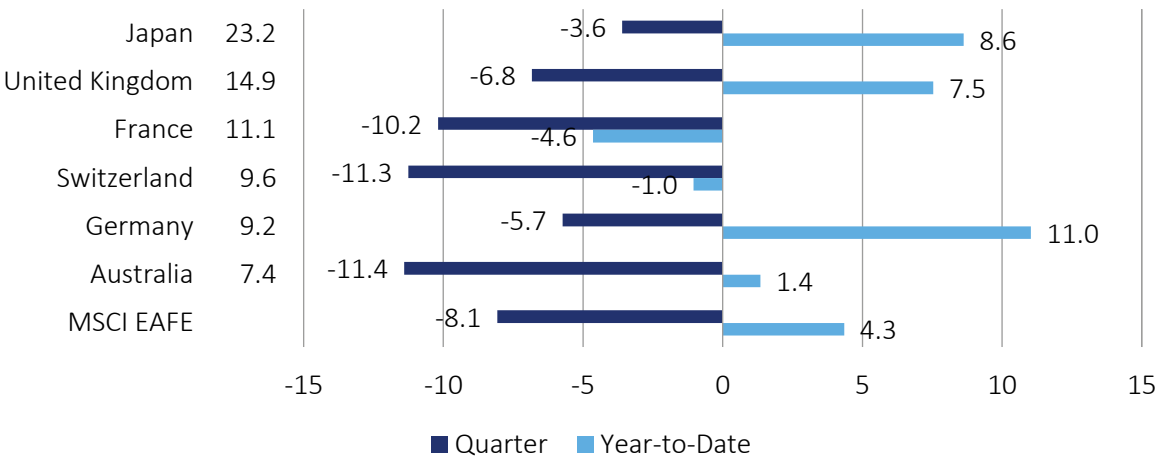
Data Source: Bloomberg

# Non-U.S. Equity Market

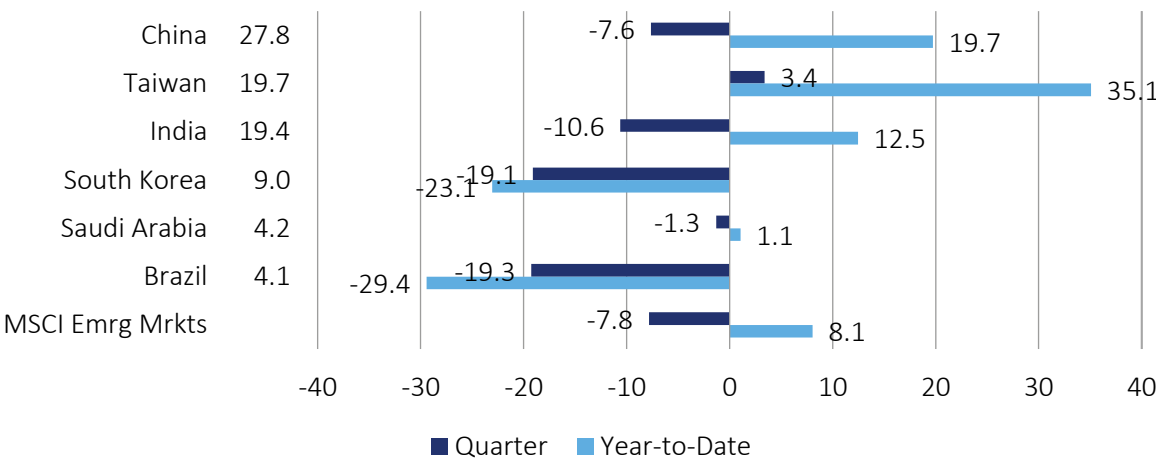
As of 12/31/2024	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
MSCI ACWI ex-US (\$G)	-7.5	6.1	6.1	1.3	4.6	5.3
MSCI EAFE (\$G)	-8.1	4.3	4.3	2.2	5.2	5.7
MSCI Emerging Markets (\$G)	-7.8	8.1	8.1	-1.5	2.1	4.0
MSCI Frontier Markets (\$G)	-5.0	6.8	6.8	-0.4	0.2	0.8
MSCI ACWI ex-US Growth (\$G)	-7.8	5.4	5.4	-2.4	3.7	5.7
MSCI ACWI ex-US Value (\$G)	-7.3	6.5	6.5	4.7	5.2	4.9
MSCI ACWI ex-US Small (\$G)	-7.6	3.9	3.9	-1.0	4.8	6.1
MSCI ACWI Minimum Volatility	-3.4	12.0	12.0	3.1	5.3	7.6
MSCI EAFE Minimum Volatility	-6.8	6.0	6.0	0.6	2.0	4.8
FTSE RAFI Developed ex-US	-7.3	4.6	4.6	4.3	6.2	5.5
MSCI EAFE LC (G)	-0.6	11.8	11.8	6.9	8.1	7.7
MSCI Emerging Markets LC (G)	-4.2	13.7	13.7	2.1	4.9	6.4

Data Source: Bloomberg

Developed Markets Weight and Return (%)



Emerging Markets Weight and Return (%)

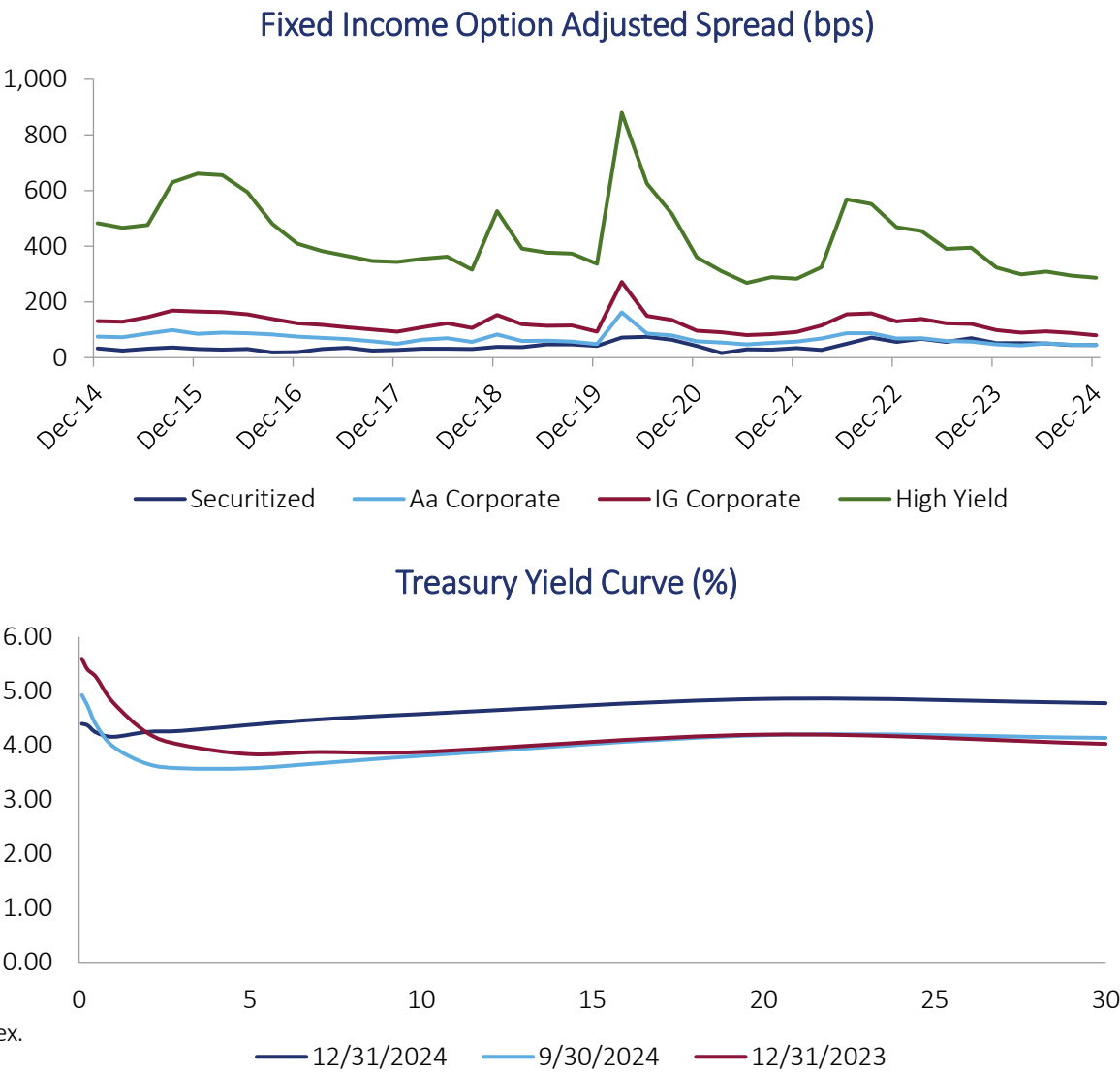




# U.S. Fixed Income

As of 12/31/2024	YTW	Dur.	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Aggregate	4.9	6.1	-3.1	1.3	1.3	-2.4	-0.3	1.3
Bloomberg Treasury	4.5	5.8	-3.1	0.6	0.6	-2.9	-0.7	0.8
Bloomberg Gov't-Rel.	4.9	5.2	-2.7	1.7	1.7	-1.5	0.0	1.5
Bloomberg Securitized	5.3	6.0	-3.0	1.5	1.5	-2.0	-0.6	1.0
Bloomberg Corporate	5.3	6.8	-3.0	2.1	2.1	-2.3	0.3	2.4
Bloomberg LT Gov't/Credit	5.3	13.6	-7.4	-4.2	-4.2	-9.2	-3.3	1.0
Bloomberg LT Treasury	4.9	14.7	-8.6	-6.4	-6.4	-12.0	-5.2	-0.6
Bloomberg LT Gov't-Rel.	5.9	11.4	-6.7	-2.5	-2.5	-6.4	-2.4	1.5
Bloomberg LT Corporate	5.8	12.5	-6.2	-1.9	-1.9	-6.8	-1.8	2.2
Bloomberg U.S. TIPS*	4.5	7.1	-2.9	1.8	1.8	-2.3	1.9	2.2
Bloomberg High Yield	7.5	3.1	0.2	8.2	8.2	2.9	4.2	5.2
S&P/LSTA Leveraged Loan	8.0	0.3	2.3	9.0	9.0	7.0	5.9	5.1
Treasury Bills	4.3	0.3	1.2	5.3	5.3	3.9	2.5	1.8

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



# Federal Reserve

The Federal Open Market Committee decreased their overnight rate by 0.50% during Q4 and 1% in six months

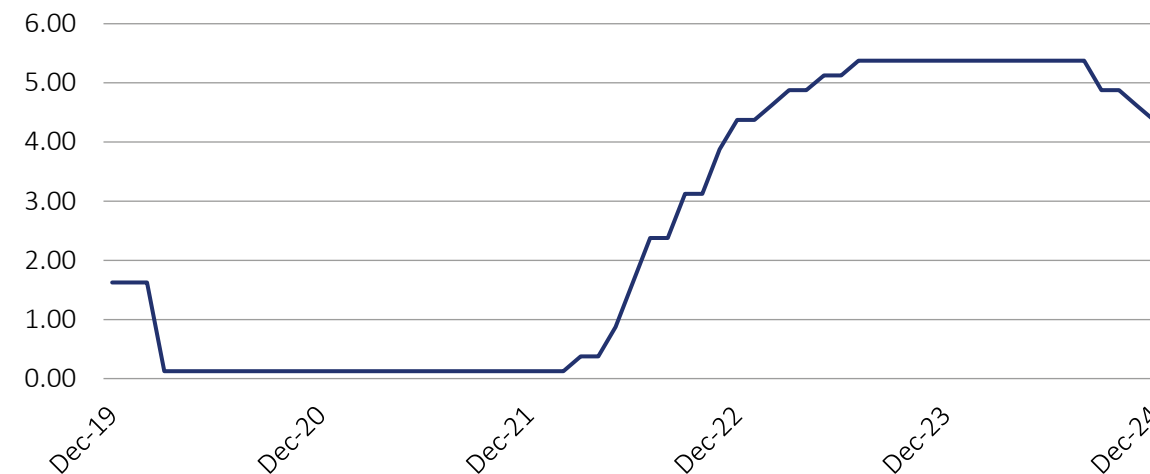
QE4 was larger than the 3 phases of quantitative easing – combined – following the global financial crisis

The Fed's balance sheet is roughly equal to its level following the COVID spike

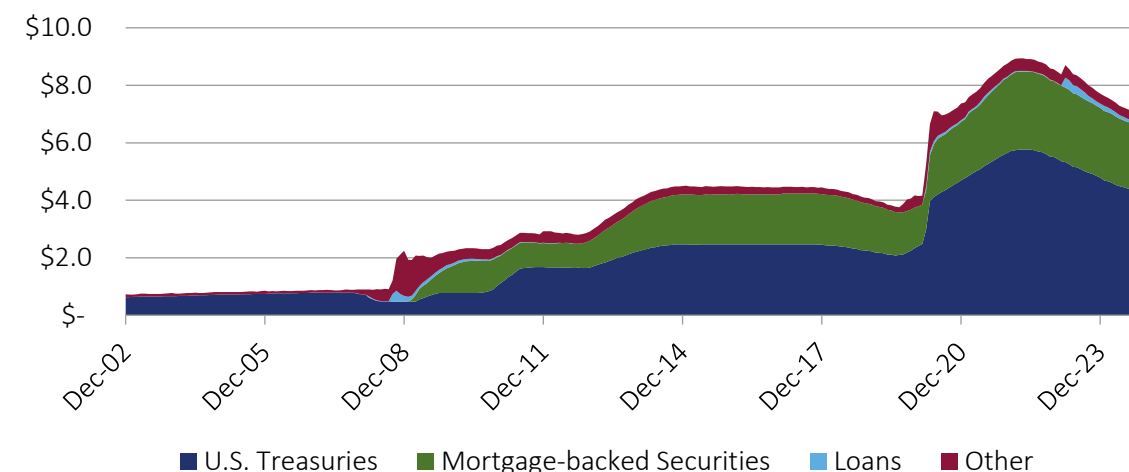
	Announced	Closed	Amount (bil)
QE1	11/25/2008	3/31/2010	\$1,403
QE2	11/3/2010	6/29/2012	\$568
QE3	9/13/2012	10/29/2014	\$1,674
QE4	3/23/2020	3/15/2022	\$4,779

Data Source: Bloomberg

Federal Funds Rate (Mid %)



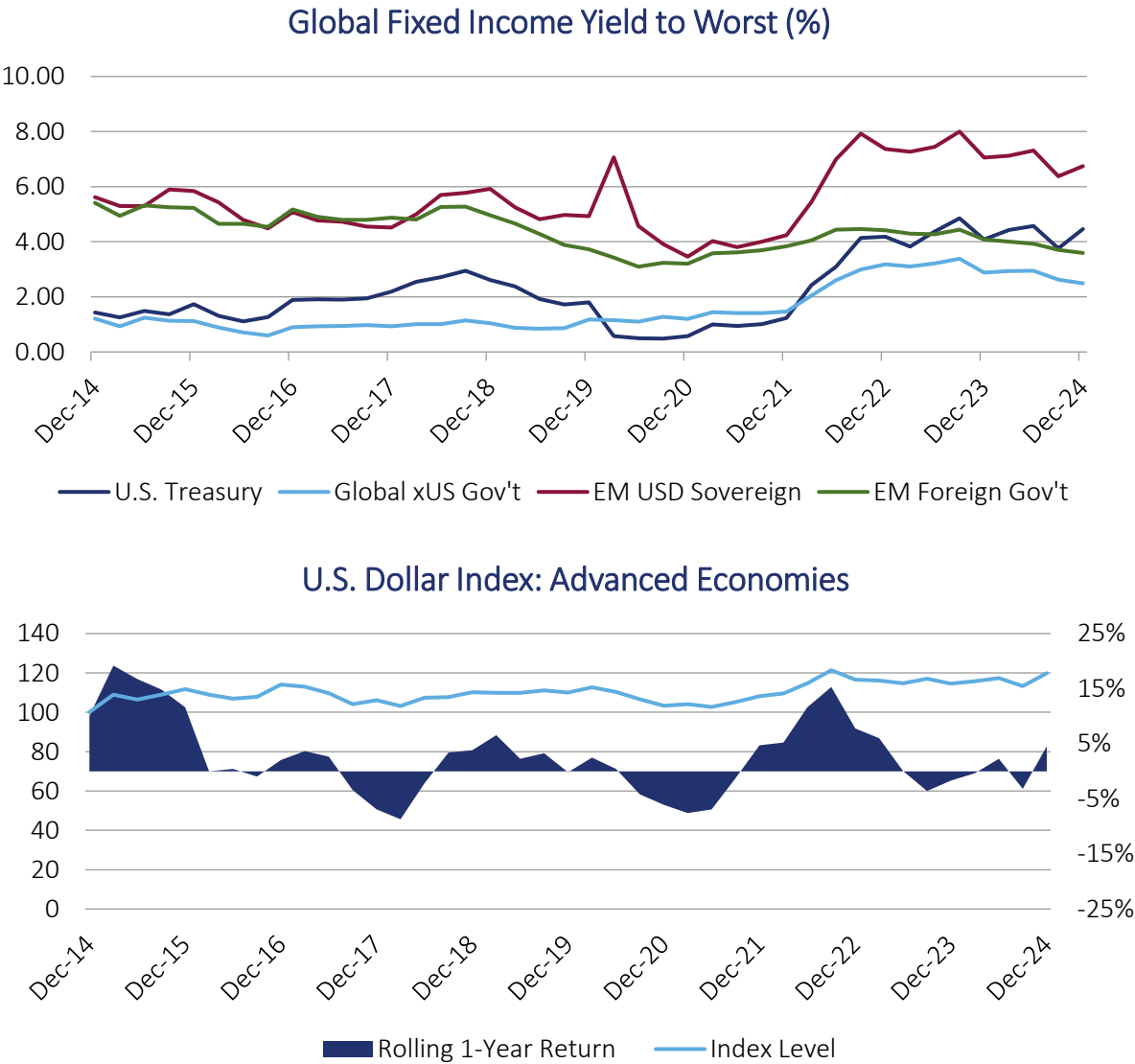
Federal Reserve Balance Sheet (\$T)



# Non-U.S. Fixed Income

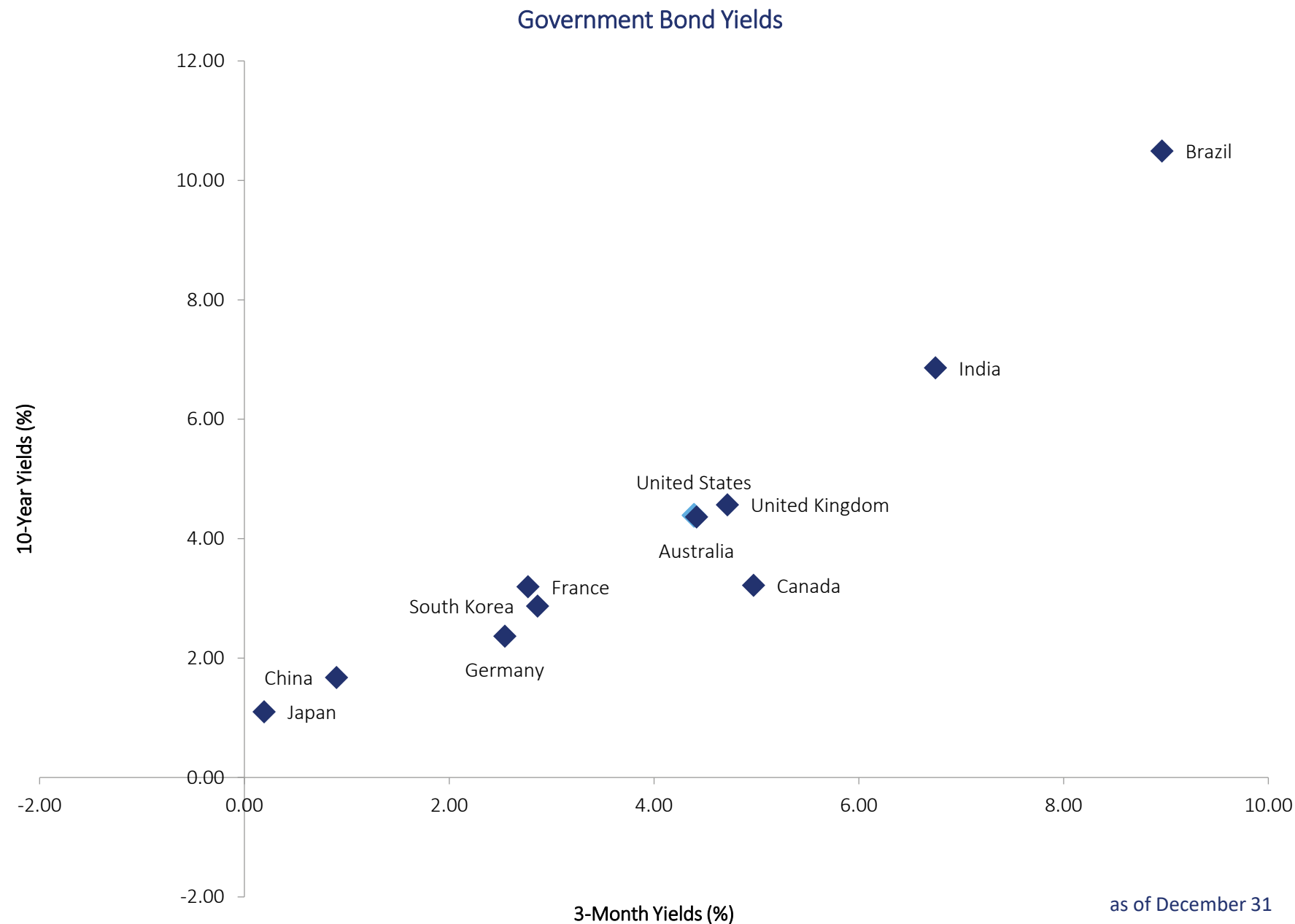
As of 12/31/2024	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
Developed Markets						
Bloomberg Global Aggregate xUS	-6.8	-4.2	-4.2	-6.3	-3.4	-0.9
Bloomberg Global Aggregate xUS*	0.7	5.0	5.0	0.9	1.0	2.4
Bloomberg Global Inflation Linked xUS	-9.9	-8.3	-8.3	-11.5	-4.6	-1.4
Bloomberg Global Inflation Linked xUS*	-2.6	-2.6	-2.6	-6.8	-1.6	1.8
Emerging Markets (Hard Currency)						
Bloomberg EM USD Aggregate	-1.5	6.6	6.6	-0.5	0.6	3.2
Emerging Markets (Foreign Currency)						
Bloomberg EM Local Currency Gov't	-3.8	1.7	1.7	-0.2	0.6	1.7
Bloomberg EM Local Currency Gov't*	2.2	9.3	9.3	4.9	3.3	3.4
Euro vs. Dollar	-7.0	-6.2	-6.2	-3.1	-1.6	-1.5
Yen vs. Dollar	-8.6	-10.3	-10.3	-9.9	-7.1	-2.7
Pound vs. Dollar	-6.4	-1.7	-1.7	-2.6	-1.1	-2.2

\*Returns are reported in terms of local market investors, which removes currency effects.  
Data Source: Bloomberg



# Global Interest Rates

Short-term rates have turned positive across the globe; longer-term rates above 4.0% in the U.S., U.K. and Australia



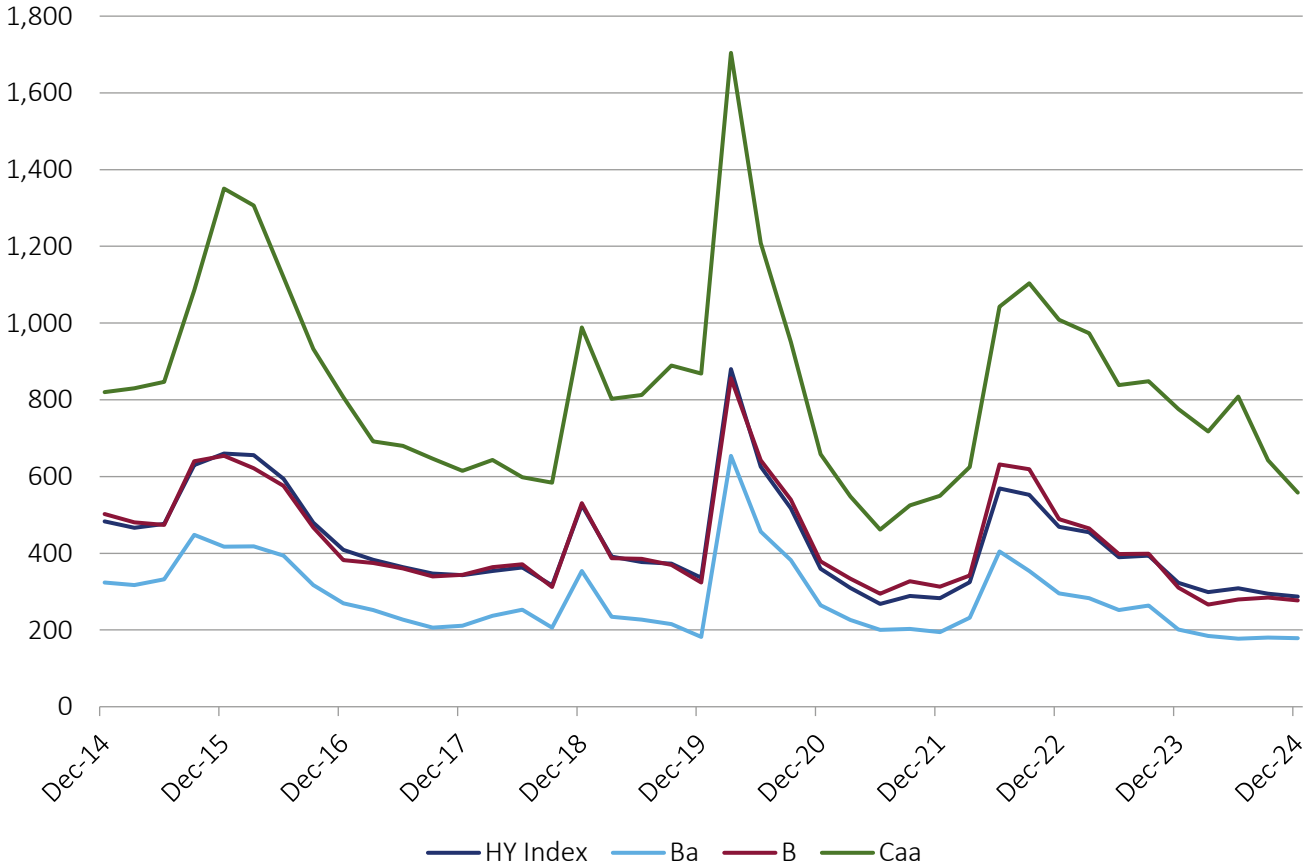
Data Source: Bloomberg

# High Yield Bond Market

As of 12/31/2024	Weight	YTW	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg High Yield		7.5	0.2	8.2	8.2	2.9	4.2	5.2
S&P LSTA Leveraged Loan		8.0	2.5	8.7	8.7	6.9	5.4	4.8
High Yield Quality Distribution								
Ba U.S. High Yield	50.8%	6.4	-0.5	6.3	6.3	1.9	4.1	5.1
B U.S. High Yield	35.2%	7.4	0.3	7.4	7.4	3.1	3.8	4.8
Caa U.S. High Yield	12.1%	10.2	2.3	15.1	15.1	4.9	5.1	5.6
Ca to D U.S. High Yield	2.0%	20.2	2.2	48.3	48.3	15.6	12.3	4.9

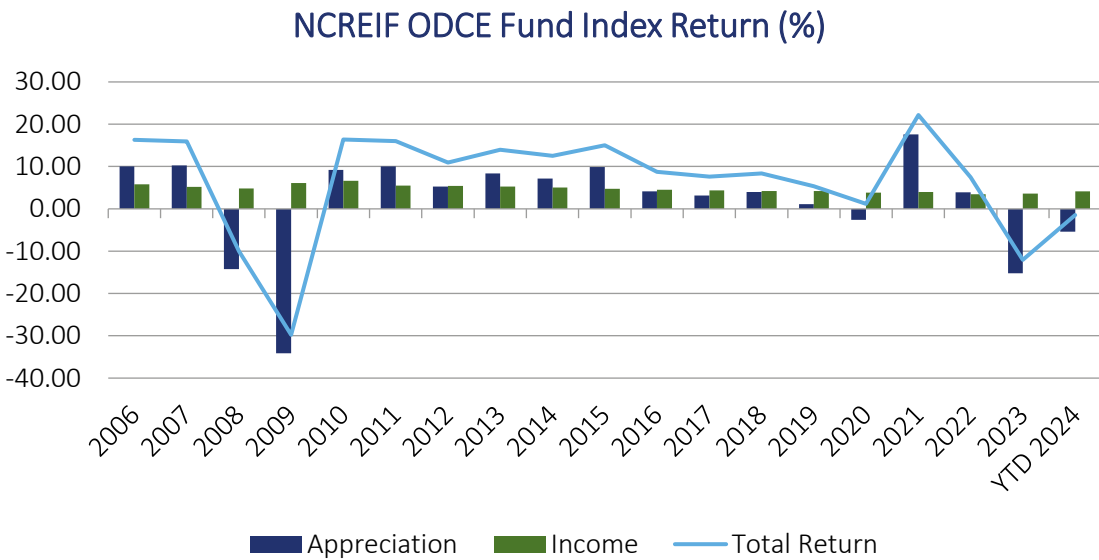
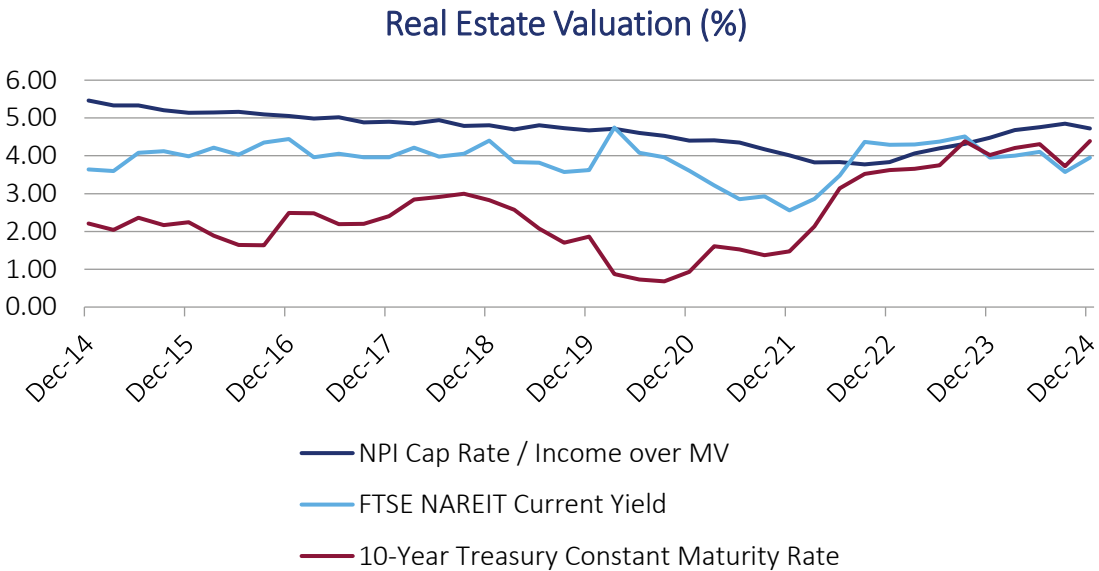
Data Source: Bloomberg

Fixed Income Option Adjusted Spread (bps)



Real Assets

As of 12/31/2024	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg U.S. TIPS	-2.9	1.8	1.8	-2.3	1.9	2.2
Bloomberg Commodity Index	-0.4	5.4	5.4	4.1	6.8	1.3
Bloomberg Gold Index	-0.5	26.6	26.6	12.3	10.4	7.4
Wilshire Global RESI Index	-7.5	5.4	5.4	-3.1	2.2	4.5
NCREIF ODCE Fund Index	1.2	-1.4	-1.4	-2.3	2.9	5.9
NCREIF Timberland Index	1.4	7.0	7.0	9.8	7.8	5.4
FTSE Global Core Infrastructure	-5.5	10.5	10.5	3.0	4.1	6.2
Alerian Midstream Energy	13.5	44.5	44.5	26.0	16.3	6.5
Bitcoin	46.9	120.5	120.5	26.5	67.3	76.6



Data Sources: Bloomberg, National Council of Real Estate Investment Fiduciaries

# Asset Class Performance

## Asset Class Returns - Best to Worst

2019	2020	2021	2022	2023	2024 YTD	Annualized 5-Year as of 12/24
U.S. Equity 31.0%	U.S. Equity 20.8%	REITs 46.2%	Commodities 16.1%	U.S. Equity 26.1%	U.S. Equity 23.8%	U.S. Equity 14.1%
REITs 25.8%	Emrg Mkts 18.7%	Commodities 27.1%	T-Bills 1.3%	Developed 18.9%	REITs 9.1%	Commodities 6.8%
Developed 22.7%	U.S. TIPS 11.0%	U.S. Equity 26.7%	High Yield -11.2%	REITs 16.1%	High Yield 8.2%	Developed 5.2%
Emrg Mkts 18.9%	Developed 8.3%	Developed 11.8%	U.S. TIPS -11.8%	High Yield 13.4%	Emrg Mkts 8.1%	REITs 4.5%
High Yield 14.3%	Core Bond 7.5%	U.S. TIPS 6.0%	Core Bond -13.0%	Emrg Mkts 10.3%	Commodities 5.4%	High Yield 4.2%
Core Bond 8.7%	High Yield 7.1%	High Yield 5.3%	Developed -14.0%	Core Bond 5.5%	T-Bills 5.3%	T-Bills 2.5%
U.S. TIPS 8.4%	T-Bills 0.7%	T-Bills 0.0%	U.S. Equity -19.0%	T-Bills 5.1%	Developed 4.3%	Emrg Mkts 2.1%
Commodities 7.7%	Commodities -3.1%	Core Bond -1.5%	Emrg Mkts -19.7%	U.S. TIPS 3.9%	U.S. TIPS 1.8%	U.S. TIPS 1.9%
T-Bills 2.3%	REITs -7.9%	Emrg Mkts -2.2%	REITs -26.8%	Commodities -1.3%	Core Bond 1.3%	Core Bond -0.3%

Data Sources: Bloomberg

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



**Wilshire**

# ERF of the City of Dallas

Executive Summary - 4Q 2024

December 2024

## Save the Date! Wilshire Client Conference

### Back – and Better Than Ever!



Nearest Airports include Palm Springs (7 miles),  
Ontario (80 miles), and LAX (130 miles)

The Wilshire Client Conference  
returns this spring:

- **April 8 and 9, 2025**
- **Ritz Carlton,  
Rancho Mirage, California**

Agenda forthcoming, but educational  
topics include:

- Asset Allocation
- Private Credit
- Private Equity
- Risk Management
- Economic Outlook
- Alternative Yield
- Manager Sourcing
- Emerging Markets

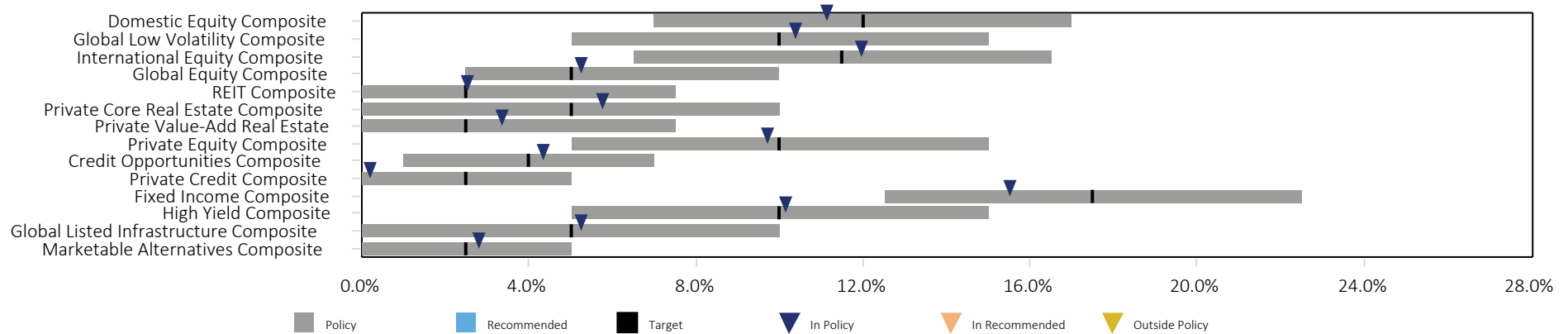
[Link to Conference Registration](#)

# Asset Allocation Compliance

## Dallas Total Fund

Periods Ended As of December 31, 2024

### Executive Summary



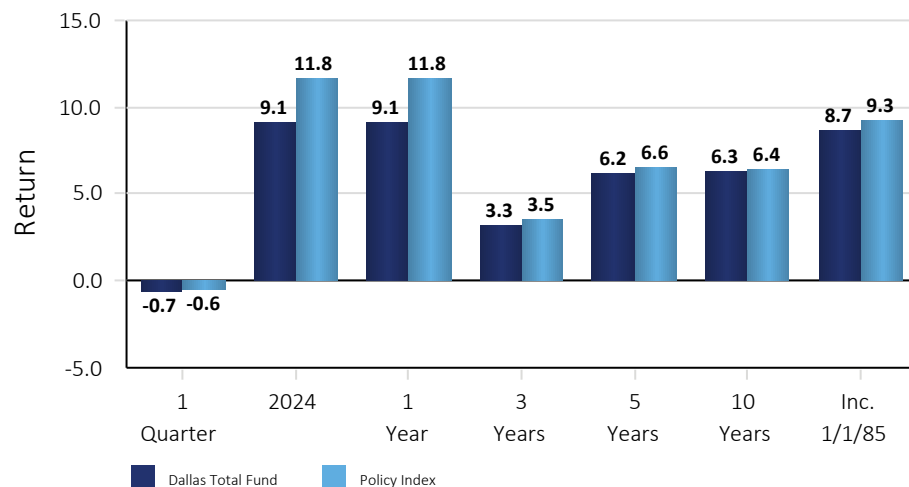
	Asset Allocation \$	Asset Allocation (%)	Target Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Rebalance \$
Dallas Total Fund	3,762,181,777	100.0	100.0			
Domestic Equity Composite	418,567,907	11.1	12.0	7.0	17.0	32,893,906
Global Low Volatility Composite	390,491,013	10.4	10.0	5.0	15.0	-14,272,835
International Equity Composite	449,811,685	12.0	11.5	6.5	16.5	-17,160,780
Global Equity Composite	197,390,645	5.2	5.0	2.5	10.0	-9,281,556
REIT Composite	94,723,427	2.5	2.5	0.0	7.5	-668,883
Private Core Real Estate Composite	217,288,325	5.8	5.0	0.0	10.0	-29,179,236
Private Value-Add Real Estate	125,648,006	3.3	2.5	0.0	7.5	-31,593,462
Private Equity Composite	365,746,843	9.7	10.0	5.0	15.0	10,471,335
Credit Opportunities Composite	163,529,644	4.3	4.0	1.0	7.0	-13,042,373
Private Credit Composite	7,150,981	0.2	2.5	0.0	5.0	86,903,563
Fixed Income Composite	583,539,081	15.5	17.5	12.5	22.5	74,842,730
High Yield Composite	381,719,127	10.1	10.0	5.0	15.0	-5,500,949
Global Listed Infrastructure Composite	197,858,330	5.3	5.0	0.0	10.0	-9,749,241
Marketable Alternatives Composite	105,870,917	2.8	2.5	0.0	5.0	-11,816,373

# Composite Performance Summary

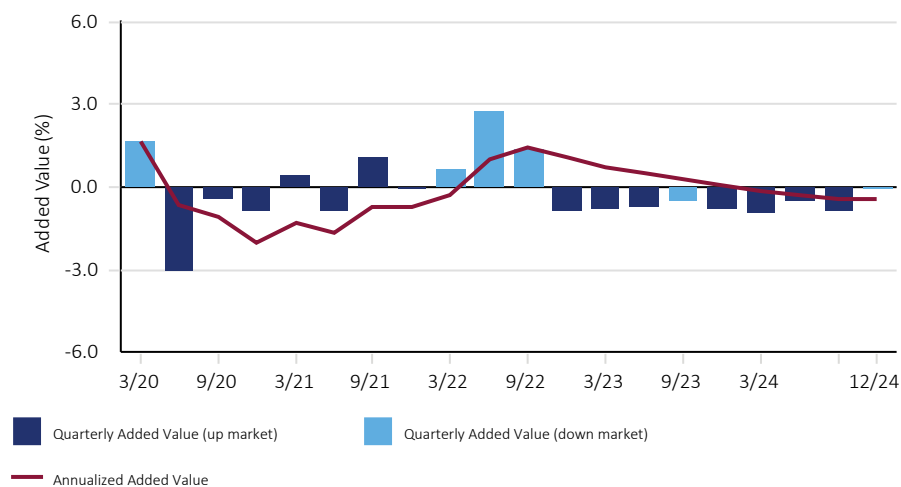
## Dallas Total Fund

Periods Ended December 31, 2024

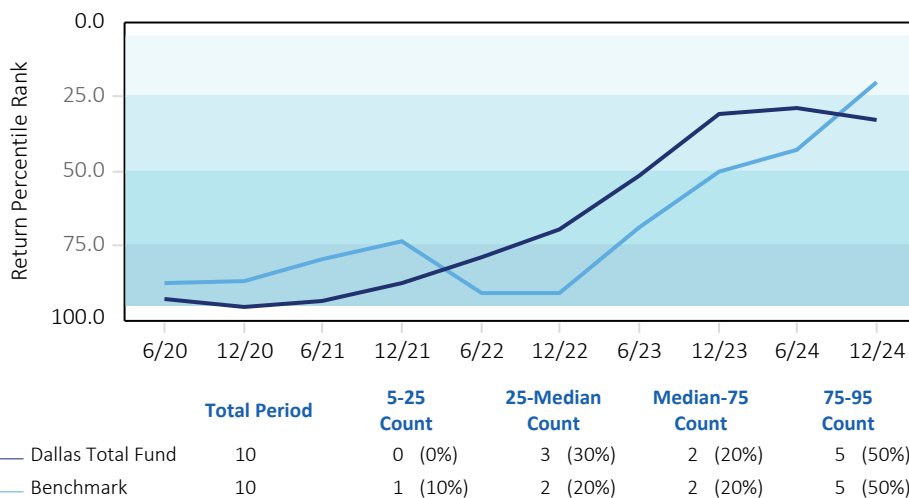
### Comparative Performance



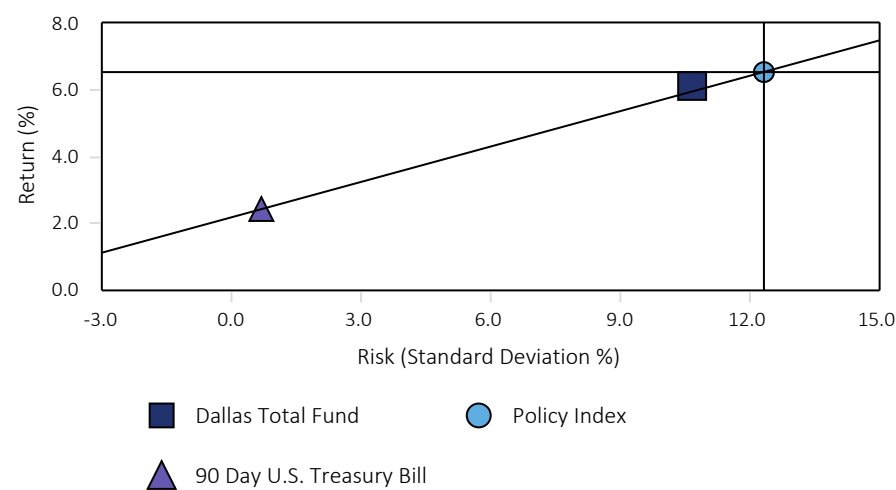
### Added Value History



### Rolling Percentile Rank: All Public Plans > \$1B-Total Fund



### Risk and Return 01/1/20 - 12/31/24

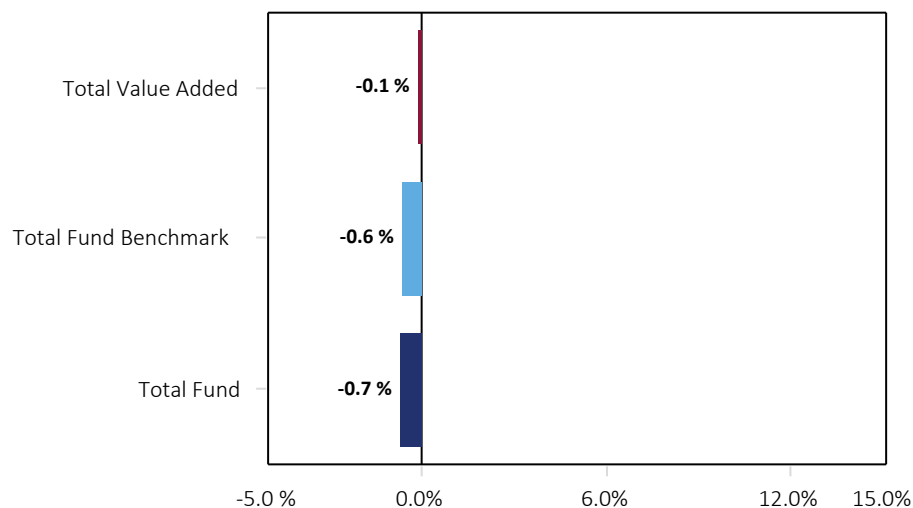


# Total Fund Attribution

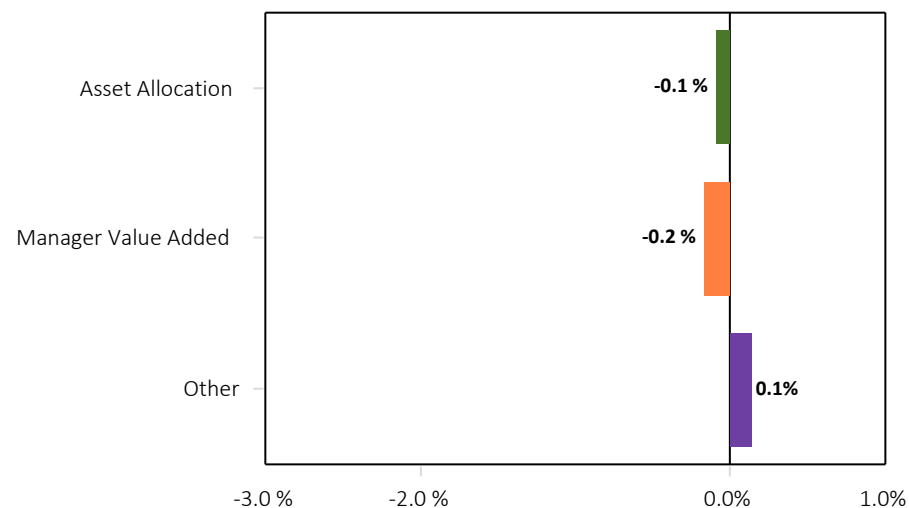
Dallas Total Fund

Periods Ended 1 Quarter Ending December 31, 2024

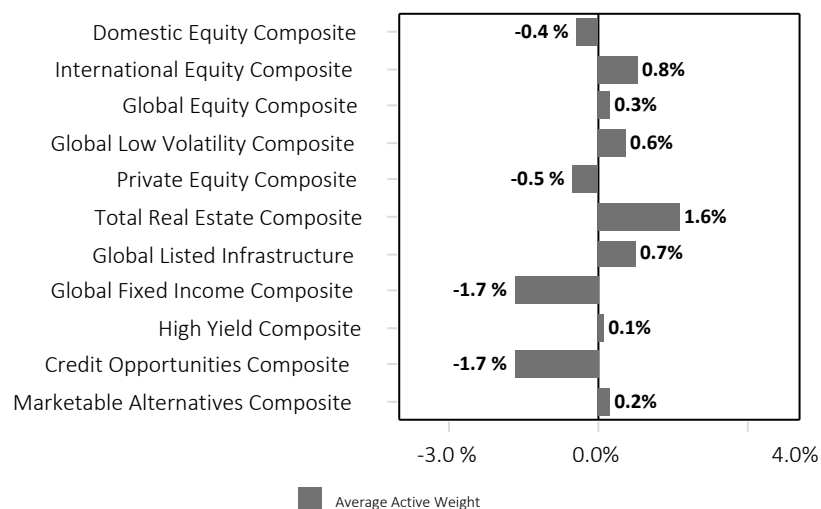
## Total Fund Performance



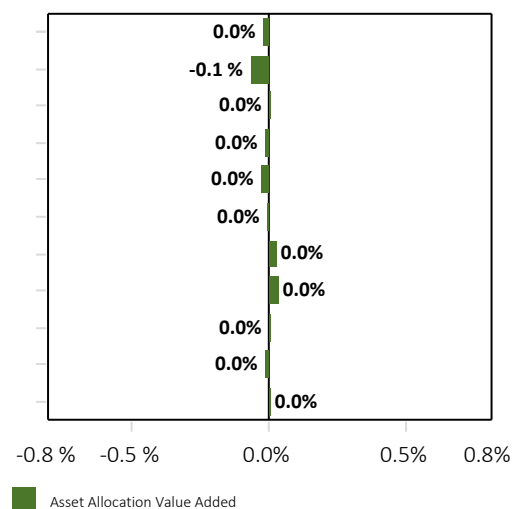
## Total Value Added:-0.1 %



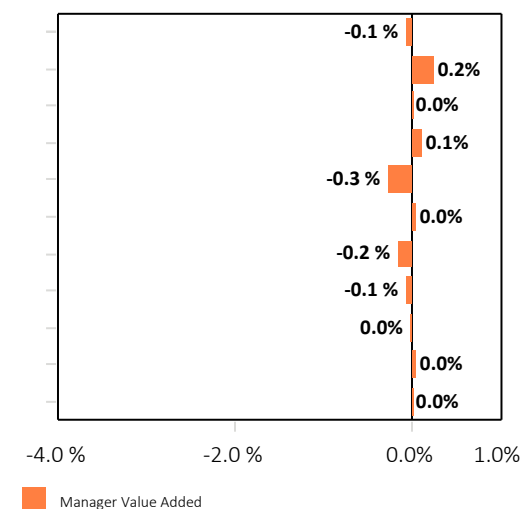
## Total Asset Allocation:-0.1 %



## Asset Allocation Value Added:-0.1 %



## Total Manager Value Added:-0.2 %

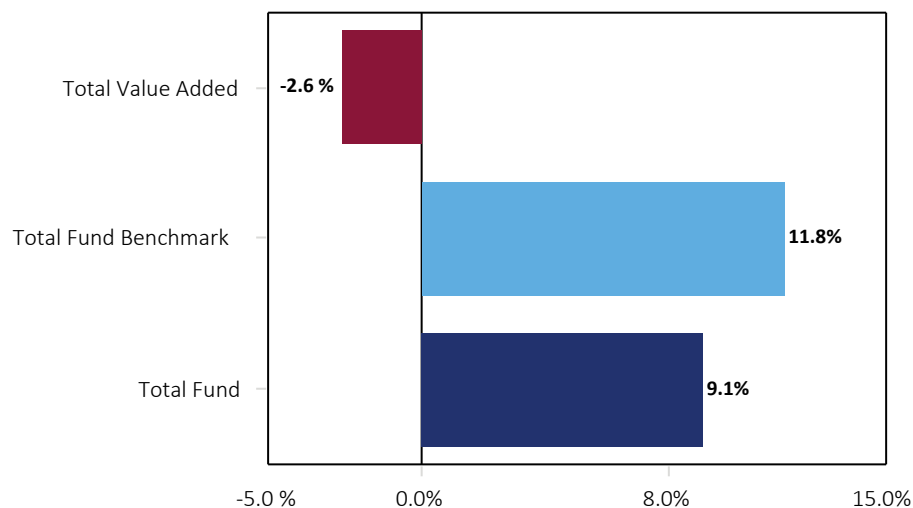


# Total Fund Attribution

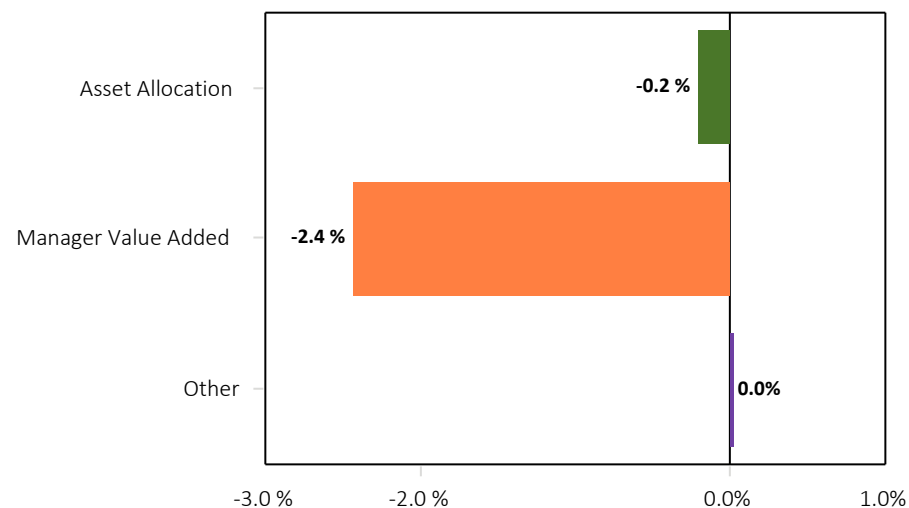
Dallas Total Fund

Periods Ended 1 Year Ending December 31, 2024

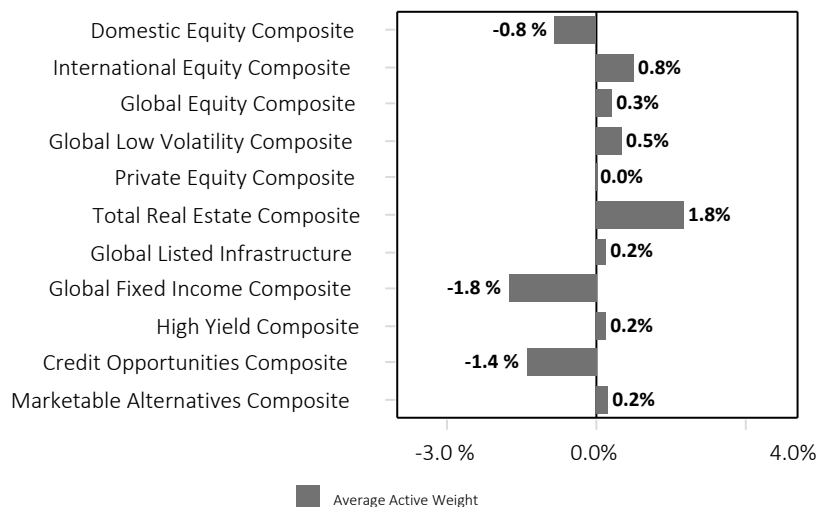
## Total Fund Performance



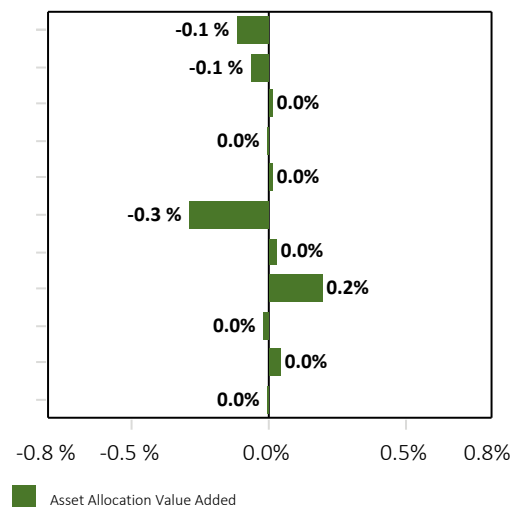
## Total Value Added:-2.6 %



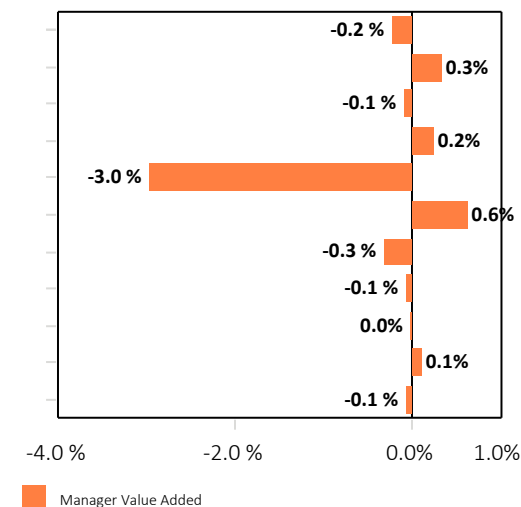
## Total Asset Allocation:-0.2 %



## Asset Allocation Value Added:-0.2 %



## Total Manager Value Added:-2.4 %

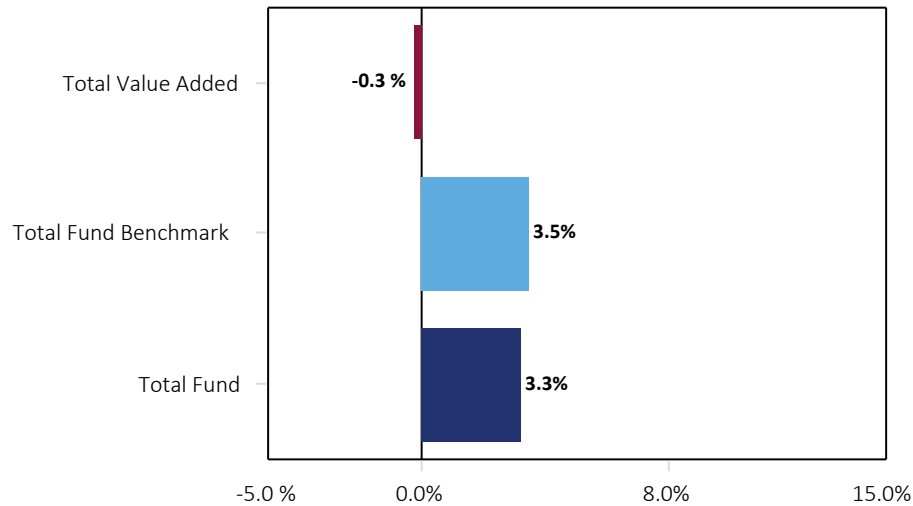


# Total Fund Attribution

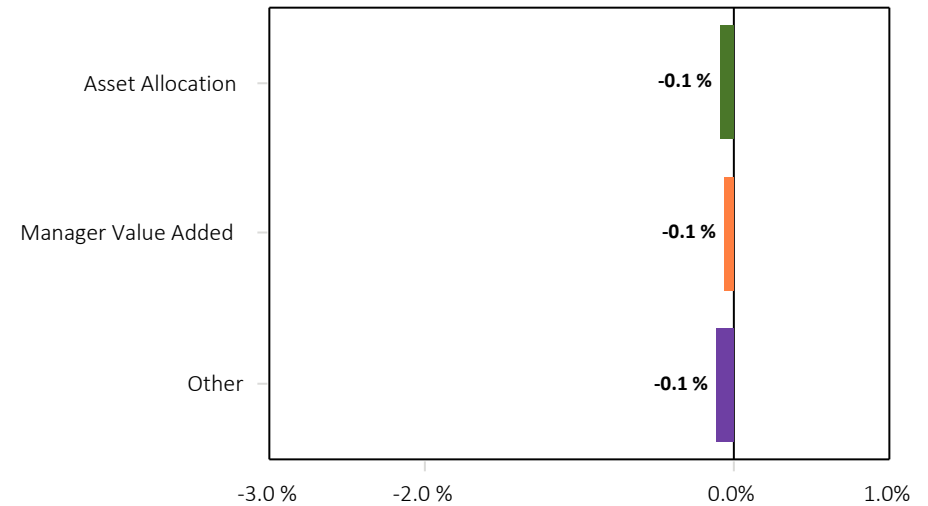
Dallas Total Fund

Periods Ended 3 Years Ending December 31, 2024

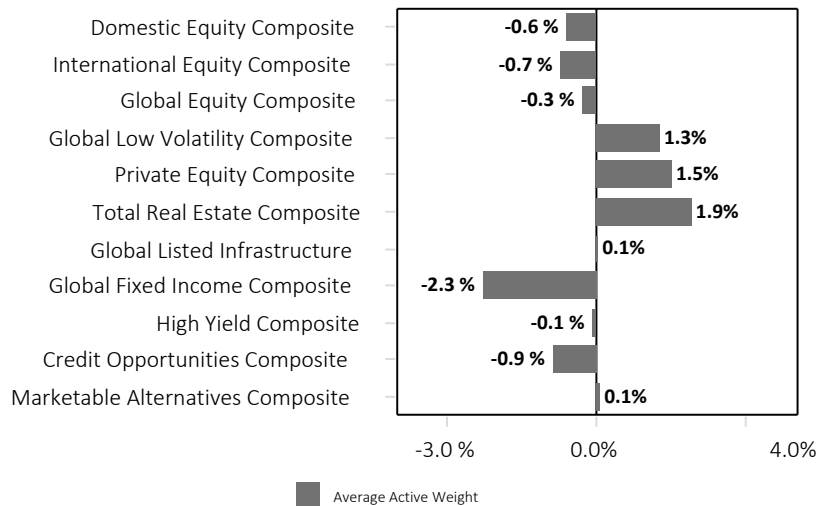
## Total Fund Performance



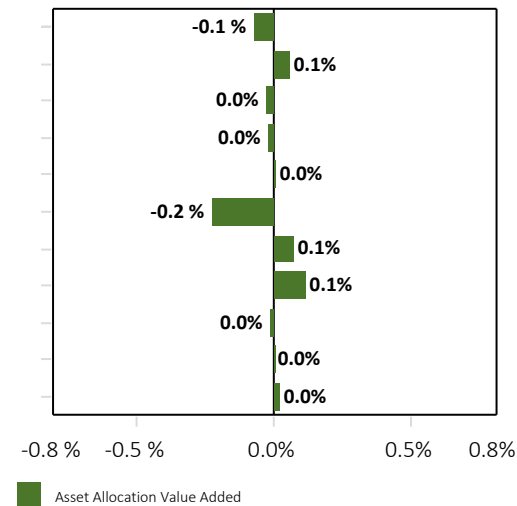
## Total Value Added:-0.3 %



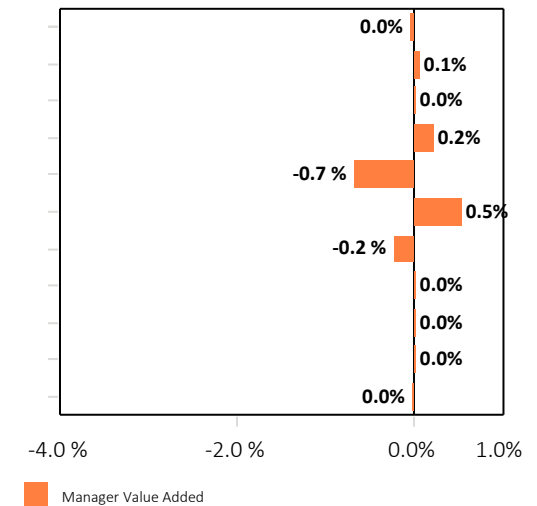
## Total Asset Allocation:-0.1 %



## Asset Allocation Value Added:-0.1 %



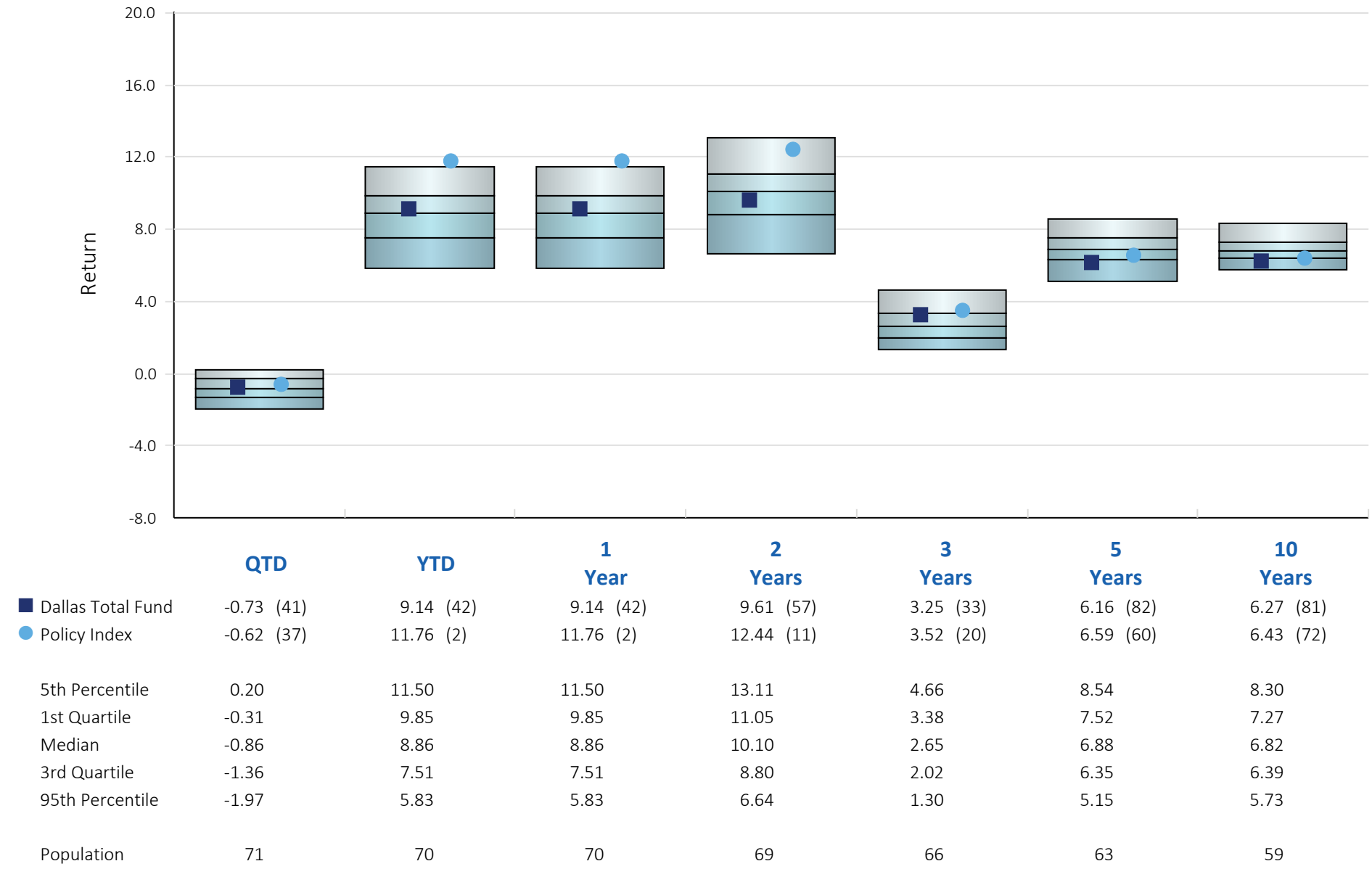
## Total Manager Value Added:-0.1 %



# Plan Sponsor Peer Group Analysis

Dallas Total Fund vs All Public Plans > \$1B-Total Fund

Periods Ended December 31, 2024



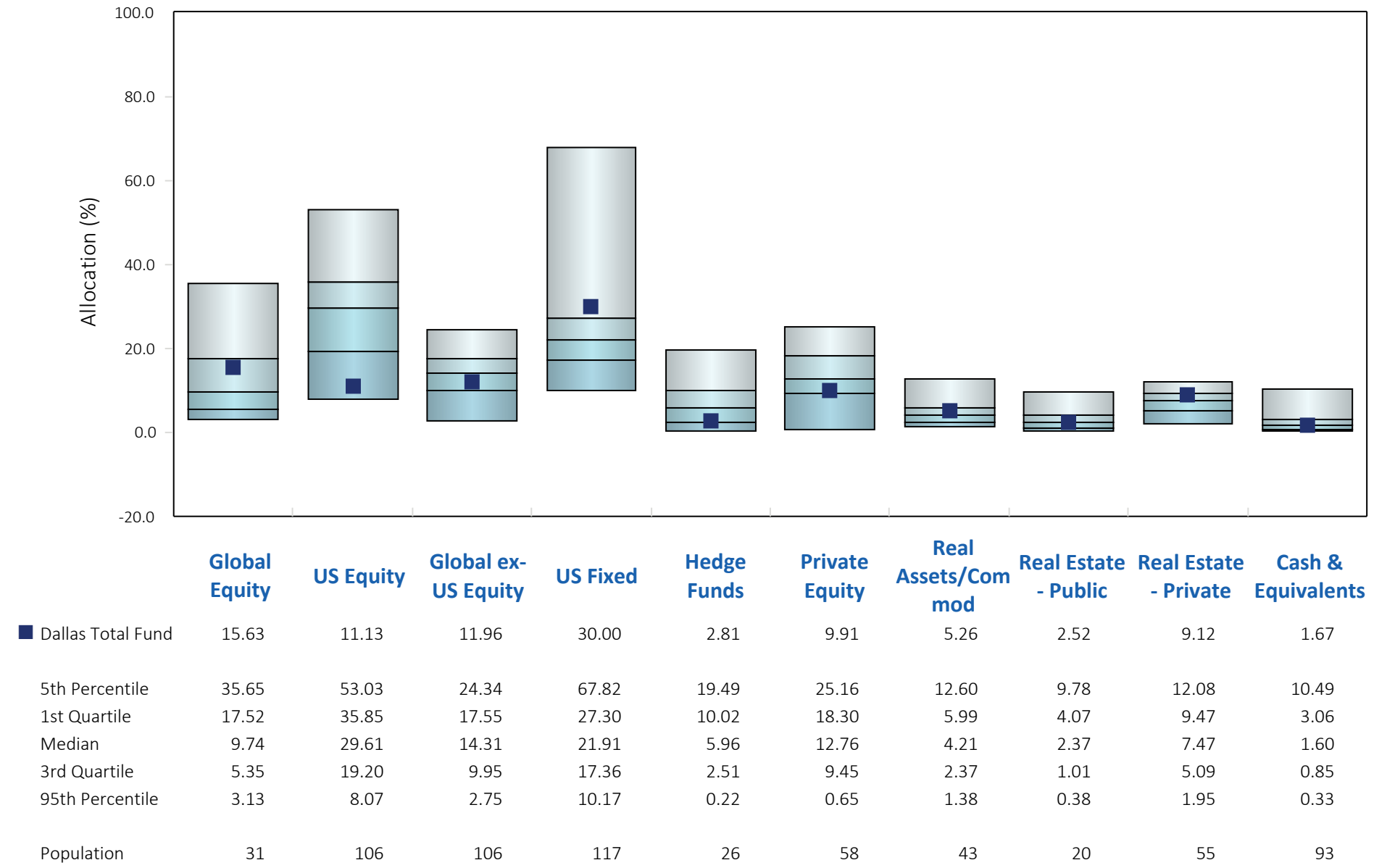
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



# Plan Sponsor TF Asset Allocation

Dallas Total Fund vs All Public Plans > \$1B-Total Fund

Periods Ended December 31, 2024



# Asset Allocation & Performance

Dallas Total Fund

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value \$	%
Domestic Equity Composite	1.99	21.68	21.68	7.43	13.34	11.83	10.64	1/1/1990	418,567,907	11.13
International Equity Composite	-5.74	7.99	7.99	1.13	5.63	5.91	5.60	1/1/1990	449,811,685	11.96
Global Equity Composite	-0.89	15.76	15.76	5.56	9.30	8.35	9.29	9/1/2012	197,390,645	5.25
Global Low Volatility Composite	-2.50	13.69	13.69	4.37	5.68		7.61	7/1/2015	390,491,013	10.38
Private Equity Composite	1.46	1.44	1.44	5.47	11.05	11.55	12.70	6/1/2009	365,746,843	9.72
Total Real Estate Composite	-0.65	1.93	1.93	-0.21	4.71	6.05	6.44	1/1/1990	437,659,758	11.63
Global Listed Infrastructure Composite	5.37	31.69	31.69	21.03	11.70	3.05	7.26	1/1/2012	197,858,330	5.26
Fixed Income Composite	-3.47	0.79	0.79	-2.28	0.08	1.73	4.20	10/1/1995	583,539,081	15.51
High Yield Composite	0.05	8.19	8.19	3.37	4.32	4.93	6.14	1/1/1997	381,719,127	10.15
Credit Opportunities Composite	0.87	10.24	10.24	3.25	3.52		5.26	2/1/2016	163,529,644	4.35
Private Credit Composite	6.91						14.17	5/1/2024	7,150,981	0.19
Marketable Alternatives Composite	3.56	9.73	9.73				7.49	10/1/2022	105,870,917	2.81
Managed Short Term Composite	1.17	5.31	5.31	3.91	2.48	1.77	2.87	1/1/1990	62,845,845	1.67
<b>Dallas Total Fund</b>	<b>-0.73</b>	<b>9.14</b>	<b>9.14</b>	<b>3.25</b>	<b>6.16</b>	<b>6.27</b>	<b>8.71</b>	<b>1/1/1985</b>	<b>3,762,181,777</b>	<b>100.00</b>
Policy Index	-0.62	11.76	11.76	3.52	6.59	6.43	9.30			

# Asset Allocation & Performance

## Domestic Equity

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value \$	%
<b>Systematic Financial</b> Russell 2000 Index	-0.93 0.33	10.90 11.54	10.90 11.54	4.89 1.24	9.37 7.40	9.92 7.82	10.56 8.92	8/1/2003	57,339,377	13.70
<b>Channing Capital</b> Russell 2000 Value Index	-0.32 -1.06	10.65 8.05	10.65 8.05	2.85 1.94	8.65 7.29	7.27 7.14	7.18 7.00	12/1/2013	33,172,188	7.93
<b>Domestic Equity Small Cap Composite</b>	-0.71	10.66	10.66	1.27	8.77	8.42	9.28	6/1/2003	90,511,565	21.62
<b>T. Rowe Price</b> S&P 500 Index	3.08 2.41	26.80 25.02	26.80 25.02	10.36 8.94	15.63 14.53	14.04 13.10	11.25 10.56	4/1/2006	161,984,089	38.70
<b>Northern Trust S&amp;P 500 (Lending)</b> S&P 500 Index	2.41 2.41	24.96 25.02	24.96 25.02	8.96 8.94	14.50 14.53	13.11 13.10	10.96 10.92	1/1/1995	166,072,253	39.68
<b>Domestic Equity Composite</b>	1.99	21.68	21.68	7.43	13.34	11.83	10.64	1/1/1990	418,567,907	100.00
Custom Benchmark <sup>1</sup>	2.63	23.76	23.76	8.12	14.11	12.73	10.82			

<sup>1</sup> Domestic Equity Composite Custom Benchmark: FT Wilshire 5000 (2Q99-Present); S&P 500 (1Q90-1Q99)

# Asset Allocation & Performance

## International Equity

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value \$	%
<b>Acadian International</b>	-4.62	9.73	9.73	0.95	6.76	7.50	8.15	4/1/1989	113,495,915	25.23
Custom Benchmark <sup>1</sup>	-7.66	3.36	3.36	-1.47	4.30	5.66	5.76			
<b>Ativo International</b>	-7.32	1.04	1.04	-1.01	2.79		2.98	1/1/2018	26,405,378	5.87
MSCI EAFE (Net)	-8.11	3.82	3.82	1.65	4.73		4.10			
<b>AQR Capital Management</b>	-5.84	10.51	10.51	3.34	4.82	5.09	3.85	4/1/2006	134,781,699	29.96
Custom Benchmark <sup>2</sup>	-7.60	5.53	5.53	0.82	4.10	4.80	3.45			
<b>Baillie Gifford</b>	-7.77	5.85	5.85	-3.56	2.57		5.06	4/1/2019	79,182,134	17.60
MSCI AC World ex USA (Net)	-7.60	5.53	5.53	0.82	4.10		5.32			
<b>Earnest Partners</b>	-4.75	6.29	6.29	2.94	6.92		7.72	4/1/2019	95,946,558	21.33
MSCI AC World ex USA (Net)	-7.60	5.53	5.53	0.82	4.10		5.32			
<b>International Equity Composite</b>	-5.74	7.99	7.99	1.13	5.63	5.91	5.60	1/1/1990	449,811,685	100.00
Custom Benchmark <sup>3</sup>	-7.61	5.23	5.23	0.50	4.12	4.91	4.60			

<sup>1</sup> Acadian Custom Benchmark: MSCI ACWI x-US Small Cap (3Q09-Present); MSCI EAFE Small Cap (4Q99-2Q09); S&P/Citigroup Eur/Pac EMI Index (2Q96-3Q99); MSCI EAFE (2Q89-1Q96)

<sup>2</sup> AQR Custom Benchmark: MSCI ACWI x-US (2Q10-Present); MSCI EAFE (1Q06-1Q10)

<sup>3</sup> International Equity Composite Custom Benchmark: MSCI ACWI x-US IMI (2Q10-Present); MSCI ACWI x-US (1Q99-1Q10); Wilshire Non-US/Non-SA (2Q96-4Q98; MSCI EAFE (4Q89-1Q96)

# Asset Allocation & Performance

## Global Equity

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value \$	%
<b>Ariel Global</b> MSCI AC World Index (Net)	-3.92 -0.99	7.38 17.49	7.38 17.49	4.80 5.44	7.00 10.06		6.57 9.21	1/1/2018	41,291,484	20.92
<b>NT ACWI IMI Fund</b> MSCI AC World IMI Index (Net)	-1.16 -1.24						-1.16 -1.24	10/1/2024	53,268,766	26.99
<b>Wellington</b> MSCI AC World Index (Net)	0.40 -0.99	20.40 17.49	20.40 17.49	5.45 5.44	10.55 10.06	9.28 9.23	11.27 10.12	9/1/2012	102,830,395	52.09
<b>Global Equity Composite</b> MSCI AC World Index (Net)	-0.89 -0.99	15.76 17.49	15.76 17.49	5.56 5.44	9.30 10.06	8.35 9.23	9.29 10.12	9/1/2012	197,390,645	100.00

# Asset Allocation & Performance

## Low Volatility

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value \$	%
<b>Acadian Global Low Vol.</b>	-1.55	15.99	15.99	5.92	6.54		7.85	7/1/2015	198,776,472	50.90
MSCI AC World Index (Net)	-0.99	17.49	17.49	5.44	10.06		9.44			
MSCI AC World Minimum Volatility Index (Net)	-3.49	11.37	11.37	2.48	4.72		7.06			
<b>BlackRock Global Low Vol.</b>	-3.46	11.40	11.40	2.81	4.81		7.35	7/1/2015	191,714,541	49.10
MSCI AC World Minimum Volatility Index (Net)	-3.49	11.37	11.37	2.48	4.72		7.06			
<b>Global Low Volatility Composite</b>	-2.50	13.69	13.69	4.37	5.68		7.61	7/1/2015	390,491,013	100.00
MSCI AC World Minimum Volatility Index (Net)	-3.49	11.37	11.37	2.48	4.72		7.06			

# Private Equity Summary

Periods Ended as of December 31, 2024

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	TVPI Multiple <sup>1</sup>
Hamilton Lane Secondary Fund II	1	25,000,000	22,058,532	31,298,964	Jul-09	13.4%	1.4
Hamilton Lane Secondary Fund III	456,598	30,000,000	23,372,292	29,522,574	Nov-12	8.7%	1.3
Hamilton Lane Secondary Fund IV	9,988,385	30,000,000	25,907,343	29,716,392	Mar-17	14.5%	1.5
Hamilton Lane Secondary Fund V	47,823,322	65,000,000	43,128,993	19,574,475	Mar-20	15.6%	1.6
Hamilton Lane Secondary Fund VI-A	12,524,330	30,000,000	11,211,545	813,729	Feb-23	31.0%	1.2
Hamilton Lane Fund VII Composite	10,583,728	50,000,000	45,600,834	58,182,337	Jan-10	5.6%	1.5
Hamilton Lane Fund VIII (Global)	13,087,326	30,000,000	22,270,594	20,677,688	Nov-12	6.5%	1.5
GCM Grosvenor - Partnership, L.P.	19,793,280	75,000,000	95,722,822	140,126,072	Jun-11	13.9%	1.7
GCM Grosvenor - Partnership II, L.P. (2014)	34,283,551	60,000,000	73,566,185	81,805,018	Jul-14	14.0%	1.6
GCM Grosvenor - Partnership II, L.P. (2015)	63,224,559	55,000,000	49,450,168	13,612,376	Dec-15	11.3%	1.6
GCM Grosvenor - Partnership II, L.P. (2017)	31,096,904	30,000,000	32,380,286	15,179,092	Jan-18	12.2%	1.4
GCM Grosvenor - Advance Fund, L.P.	8,330,305	10,000,000	7,362,810	345,493	Jun-21	8.6%	1.2
GCM Grosvenor - Partnership II, L.P. (2022)	7,469,859	20,000,000	7,070,263	5,461	May-22	3.9%	1.1
Fairview Capital - Lone Star Fund I	47,414,783	40,000,000	33,903,847	21,375,519	Aug-15	12.5%	2.0
Fairview Capital - Lone Star Fund II	35,643,261	30,000,000	23,900,777	4,457,117	Dec-18	13.0%	1.7
Fairview Capital - Lone Star Fund III - A	18,905,758	25,000,000	17,466,368	96,325	Apr-21	2.8%	1.1
Fairview Capital - Lone Star Fund III - B	1,868,079	20,000,000	2,163,208	-	Dec-22	-40.2%	0.9
Fairview Capital - Private Markets Fund VI	3,252,814	10,000,000	3,770,484	210,556	Apr-22	-5.8%	0.9
<b>Total Private Equity Composite</b>	<b>365,746,843</b>	<b>635,000,000</b>	<b>540,307,350</b>	<b>466,999,187</b>	<b>Jul-09</b>	<b>12.5%</b>	<b>1.5</b>

Public Market Equivalent (PME) <sup>2</sup>

665,238,487

17.5%

<sup>1</sup> Total Value to Paid-in Capital ("TVPI") multiple calculation =  $(\text{market value} + \text{distributions}) / \text{capital called}$

<sup>2</sup> The Public Market Equivalent (PME) approach creates a hypothetical investment vehicle that mimics the private equity composite cash flows. The performance difference between the PME vehicle and the private equity portfolio is determined by their net asset value (NAV) at the end of the benchmarking period. The performance of the "public market" is simulated using the monthly S&P 500 index returns, plus a 300 BPs annual hurdle rate.

# Private Real Estate Summary

Periods Ended as of December 31, 2024

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	TVPI Multiple <sup>1</sup>
Invesco II	76,984,932	65,188,333	65,188,333	19,614,151	Jan-14	5.2%	1.5
<b>Total Direct Private Real Estate</b>	<b>76,984,932</b>	<b>65,188,333</b>	<b>65,188,333</b>	<b>19,614,151</b>	<b>Jan-14</b>	<b>5.2%</b>	<b>1.5</b>

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	TVPI Multiple
Heitman America Real Estate Trust	81,375,773	75,000,000	88,210,161	103,497,653	Dec-10	6.4%	2.1
Invesco Core Real Estate USA	58,927,620	75,000,000	76,921,500	103,720,037	Oct-10	9.9%	2.1
<b>Total Core Private Real Estate</b>	<b>140,303,393</b>	<b>150,000,000</b>	<b>165,131,661</b>	<b>207,217,690</b>	<b>Oct-10</b>	<b>8.5%</b>	<b>2.1</b>

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	TVPI Multiple
AEW Partners Real Estate Fund IX	38,341,073	45,000,000	37,592,593	4,134,816	Mar-21	5.3%	1.1
AEW PIX MM Co-Invest	4,196,997	10,000,000	5,132,075	825,454	Nov-21	-0.1%	1.0
AEW PIX Oakland Park Co-Invest	5,165,449	5,000,000	5,000,000	764,960	Feb-22	5.9%	1.2
Virtus Real Estate Capital III	50,422,548	43,281,585	44,340,405	3,714,853	Jan-21	7.9%	1.2
Brasa Real Estate Fund II	16,805,355	20,000,000	18,032,416	1,133,526	Jul-22	-0.3%	1.0
Long Wharf Real Estate Partners VII	10,716,584	20,000,000	10,699,062	-	Mar-23	-4.5%	1.0
<b>Total Value-Add Private Real Estate</b>	<b>125,648,006</b>	<b>143,281,585</b>	<b>120,796,551</b>	<b>10,573,609</b>	<b>Jan-21</b>	<b>5.4%</b>	<b>1.1</b>

<sup>1</sup> Total Value to Paid-in Capital ("TVPI") multiple calculation = (market value + distributions) / capital called



# Asset Allocation & Performance

## Real Estate

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value \$	%
<b>Adelante Capital Management</b>	-4.65	9.77	9.77	-2.36	5.43	6.15	9.14	10/1/2001	47,016,635	49.64
Wilshire U.S. Real Estate Securities Index	-4.98	9.15	9.15	-2.41	4.57	5.88	9.21			
<b>CenterSquare</b>	-5.37	11.14	11.14	-1.02	5.75		7.88	6/1/2018	47,706,792	50.36
FTSE NAREIT Equity REIT Index	-6.21	8.73	8.73	-2.20	4.27		6.68			
<b>REIT Composite</b>	-5.01	10.46	10.46	-1.69	5.59	6.17	9.26	10/1/2001	94,723,427	100.00
Wilshire U.S. Real Estate Securities Index	-4.98	9.15	9.15	-2.41	4.57	5.88	9.21			

# Asset Allocation & Performance

## Global Listed Infrastructure

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value \$	%
<b>CIBC</b>	<b>12.49</b>	<b>44.30</b>	<b>44.30</b>	<b>31.01</b>	<b>19.53</b>	<b>6.53</b>	<b>10.14</b>	<b>1/1/2012</b>	<b>73,682,707</b>	<b>37.24</b>
CIBC Policy <sup>1</sup>	13.47	49.71	49.71	35.37	19.91	5.60	7.02			
<b>Harvest Fund Advisors MLP</b>	<b>11.08</b>	<b>41.76</b>	<b>41.76</b>	<b>30.81</b>	<b>20.00</b>	<b>6.85</b>	<b>9.98</b>	<b>1/1/2012</b>	<b>78,433,715</b>	<b>39.64</b>
Harvest Policy <sup>2</sup>	13.47	49.71	49.71	35.37	19.91	5.60	7.02			
<b>C&amp;S Global Listed Infrastructure</b>	<b>-6.92</b>	<b>11.39</b>	<b>11.39</b>	<b>3.12</b>			<b>8.10</b>	<b>11/1/2020</b>	<b>45,741,909</b>	<b>23.12</b>
FTSE Global Core Infrastructure 50/50 (Net)	-5.74	9.53	9.53	2.12			7.21			
<b>Global Listed Infrastructure Composite</b>	<b>5.37</b>	<b>31.69</b>	<b>31.69</b>	<b>21.03</b>	<b>11.70</b>	<b>3.05</b>	<b>7.26</b>	<b>1/1/2012</b>	<b>197,858,330</b>	<b>100.00</b>
Global Listed Infrastructure Benchmark <sup>3</sup>	8.51	38.82	38.82	26.60	13.32	2.66	4.72			

<sup>1</sup> CIBC Policy: Alerian Midstream Energy Index (5/24-Present); Alerian MLP Index (1Q12-4/24)

<sup>2</sup> Harvest Policy: Alerian Midstream Energy Index (5/24-Present); Alerian MLP Index (1Q12-4/24)

<sup>3</sup> Global Listed Infrastructure Benchmark: 75% Alerian Midstream Energy Index / 25% FTSE Global Core Infrastructure 50/50 (5/24-Present)  
75% Alerian MLP / 25% FTSE Global Core Infrastructure 50/50 (4Q20-4/24); Alerian MLP (1Q12-3Q20)

# Asset Allocation & Performance

## Fixed Income

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value \$	%
<b>Garcia Hamilton</b>	-4.40	-0.14	-0.14	-2.31	-0.38	1.27	1.79	11/1/2013	189,012,833	32.39
Blmbg. U.S. Aggregate Index	-3.06	1.25	1.25	-2.41	-0.33	1.35	1.65			
<b>Wellington Core Bond</b>	-3.00	2.26	2.26				2.21	7/1/2022	199,941,669	34.26
Blmbg. U.S. Aggregate Index	-3.06	1.25	1.25				1.45			
<b>NT Aggregate Bond Index</b>	-3.04						-3.04	10/1/2024	194,579,090	33.34
Blmbg. U.S. Aggregate Index	-3.06						-3.06			
<b>Western Asset Management</b>									5,489	0.00
<b>Fixed Income Composite</b>	-3.47	0.79	0.79	-2.28	0.08	1.73	4.20	10/1/1995	583,539,081	100.00
Blmbg. U.S. Aggregate Index	-3.06	1.25	1.25	-2.41	-0.33	1.35	4.22			

# Asset Allocation & Performance

## Opportunistic Credit

*Periods Ended December 31, 2024*

	Performance (%) net of fees								Allocation
	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value \$
Neuberger Berman	0.87	10.24	10.24	3.25	3.52		5.26	2/1/2016	163,529,644
Custom Benchmark <sup>1</sup>	0.16	7.92	7.92	3.05	3.38		5.32		

<sup>1</sup> Custom Benchmark: 33% Morningstar LSTA U.S. Leveraged Loan Index / 33% ICE BofA U.S. High Yield Constrained Index / 33% JPM EMBI Global Diversified

# Asset Allocation & Performance

## High Yield

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value \$	%
<b>Oaktree Capital Management</b>	-0.08	7.97	7.97	3.24	4.29	4.60	6.29	2/1/1997	193,324,556	50.65
FTSE High Yield Market Capped Index	0.22	8.53	8.53	3.20	4.08	4.93				
FTSE High Yield Cash Pay	0.21	8.34	8.34	3.11	4.17	5.00	6.41			
<b>BlackRock</b>	0.17	8.39	8.39	3.50	4.34	5.02	5.94	10/1/2006	188,394,571	49.35
FTSE High Yield Market Capped Index	0.22	8.53	8.53	3.20	4.08	4.93	6.18			
FTSE High Yield Cash Pay	0.21	8.34	8.34	3.11	4.17	5.00	6.25			
<b>High Yield Composite</b>	0.05	8.19	8.19	3.37	4.32	4.93	6.14	1/1/1997	381,719,127	100.00
FTSE High Yield Cash Pay	0.21	8.34	8.34	3.11	4.17	5.00	6.42			

# Asset Allocation & Performance

## Private Credit

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date	Market Value \$	%
Silver Point DOF II	10.24						43.60	6/1/2024	2,516,348	35.19
MGG Structured Solutions	4.93						4.93	8/1/2024	4,634,633	64.81
Private Credit Composite	6.91						14.17	6/1/2024	7,150,981	100.00

# Asset Allocation & Performance

## Marketable Alternatives

Periods Ended December 31, 2024

	Performance (%) net of fees					Allocation	
	QTD	YTD	1 Year	Since Inception	Inception Date	Market Value \$	%
<b>Davidson Kempner</b>	<b>3.47</b>	<b>9.91</b>	<b>9.91</b>	<b>7.69</b>	<b>10/1/2022</b>	<b>53,160,195</b>	<b>50.21</b>
HFRI Event-Driven Total Index	3.91	14.72	14.72	10.59			
Value Added	-0.44	-4.81	-4.81	-2.90			
<b>Hudson Bay Capital</b>	<b>3.64</b>	<b>9.55</b>	<b>9.55</b>	<b>7.28</b>	<b>10/1/2022</b>	<b>52,710,722</b>	<b>49.79</b>
HFRI Relative Value Total Index	2.64	9.80	9.80	7.49			
Value Added	1.00	-0.25	-0.25	-0.20			
<b>Marketable Alternatives Composite</b>	<b>3.56</b>	<b>9.73</b>	<b>9.73</b>	<b>7.49</b>	<b>10/1/2022</b>	<b>105,870,917</b>	<b>100.00</b>
Marketable Alternatives Policy <sup>1</sup>	3.28	12.26	12.26	9.05			
Value Added	0.28	-2.52	-2.52	-1.57			

<sup>1</sup> Marketable Alternatives Policy: 50% HFRI Event-Driven Total Index / 50% HFRI Relative Value Total Index

# Cash Flow Summary

Dallas Total Fund

1 Quarter Ending December 31, 2024

	Begin Value	Net Cash Flow	Fees	Expenses	Capital Apprec./ Deprec.	End Value
<b>Dallas Total Fund</b>	<b>3,844,283,135</b>	<b>-50,111,513</b>	<b>-3,268,394</b>	<b>-1,460,474</b>	<b>-27,260,977</b>	<b>3,762,181,777</b>
<b>Domestic Equity Composite</b>	<b>429,708,202</b>	<b>-19,996,959</b>	<b>-329,495</b>	<b>-4,028</b>	<b>9,190,188</b>	<b>418,567,907</b>
Northern Trust S&P 500 (Lending)	162,167,852	3,041		-3,041	3,904,402	166,072,253
Smith Graham						
T. Rowe Price	176,382,965	-20,000,000	-125,683	-412	5,727,219	161,984,089
<b>Domestic Equity Small Cap Composite</b>	<b>91,157,385</b>		<b>-203,812</b>	<b>-575</b>	<b>-441,433</b>	<b>90,511,565</b>
Systematic Financial	57,879,331		-124,564	-296	-415,094	57,339,377
Channing Capital	33,278,054		-79,248	-279	-26,339	33,172,188
<b>Total Real Estate Composite</b>	<b>442,563,982</b>	<b>-1,970,567</b>	<b>-570,700</b>	<b>-54,957</b>	<b>-2,308,001</b>	<b>437,659,758</b>
<b>REIT Composite</b>	<b>99,724,252</b>		<b>-131,537</b>	<b>-302</b>	<b>-4,868,986</b>	<b>94,723,427</b>
Adelante Capital Management	49,309,591		-71,051	-233	-2,221,672	47,016,635
CenterSquare	50,414,661		-60,486	-69	-2,647,315	47,706,792
<b>Private Core Real Estate Composite</b>	<b>222,864,685</b>	<b>-6,616,452</b>	<b>-319,916</b>		<b>1,360,008</b>	<b>217,288,325</b>
Heitman America Real Estate Trust, LP	83,827,906	-3,548,279	-188,911		1,285,058	81,375,773
Invesco Core Real Estate USA, LLC	62,024,709	-2,287,302	-131,005		-678,782	58,927,620
Invesco II	77,012,071	-780,872			753,733	76,984,932
<b>Private Value-Add Real Estate</b>	<b>119,975,045</b>	<b>4,645,886</b>	<b>-119,247</b>	<b>-54,655</b>	<b>1,200,977</b>	<b>125,648,006</b>
Virtus Real Estate Capital III	49,088,050				1,334,498	50,422,548
AEW PARTNERS REAL ESTATE FUND IX	37,528,820	970,111			-157,858	38,341,073
AEW PIX MM CO-INVEST	3,937,371	290,297			-30,671	4,196,997
AEW PIX OAKLAND PARK CO-INVEST	5,251,298	-39,063			-46,786	5,165,449
Brasa Real Estate Fund II	16,008,244	866,474			-69,363	16,805,355
<b>Private Equity Composite</b>	<b>358,396,775</b>	<b>2,437,010</b>	<b>-86,611</b>	<b>-312,305</b>	<b>5,311,975</b>	<b>365,746,843</b>
Fairview Capital - Lone Star Fund I	47,756,713	-578,307		-2,737	239,114	47,414,783
Fairview Capital - Lone Star Fund II	35,996,851	-344,230		-5,390	-3,969	35,643,261



# Cash Flow Summary

Dallas Total Fund

1 Quarter Ending December 31, 2024

	Begin Value	Net Cash Flow	Fees	Expenses	Capital Apprec./ Deprec.	End Value
Fairview Capital - Lone Star Fund III - A	18,096,637	-96,325			905,446	18,905,758
Fairview Capital - Lone Star Fund III - B	802,689	1,060,571	4,819			1,868,079
Fairview Private Makets Fund VI	2,902,814	350,000				3,252,814
Grosvenor Composite	161,702,674	-453,554			2,949,338	164,198,458
Hamilton Lane Secondary Fund II	86,033	-76,175		-8,464	-1,393	1
Hamilton Lane Secondary Fund III	1				456,597	456,598
Hamilton Lane Secondary Fund IV	11,363,808	-305,475		-295,714	-774,234	9,988,385
Hamilton Lane Secondary Fund V	47,216,441				606,881	47,823,322
Hamilton Lane Fund VIII (Global)	13,426,835	-353,141	-40,375		54,007	13,087,326
Hamilton Lane Fund VII (Series B)	3,133,462	-86,426	-19,770		-73,286	2,953,980
Hamilton Lane Fund VII (Series A)	8,208,866	-430,148	-31,285		-117,685	7,629,748
<b>International Equity Composite</b>	<b>477,283,175</b>	<b>-77,637</b>	<b>-638,560</b>	<b>-2,845</b>	<b>-26,752,449</b>	<b>449,811,685</b>
Acadian International	118,993,078		-158,993	-108	-5,338,062	113,495,915
Ativo International	28,490,977		-42,381	-53	-2,043,166	26,405,378
AQR Capital Management	143,218,026	-77,637	-182,527	-2,081	-8,174,082	134,781,699
Earnest Partners	100,731,180		-144,998	-411	-4,639,214	95,946,558
Baillie Gifford	85,849,913		-109,661	-193	-6,557,925	79,182,134
<b>Global Equity Composite</b>	<b>200,085,343</b>	<b>-912,433</b>	<b>-372,651</b>	<b>-1,986</b>	<b>-1,407,629</b>	<b>197,390,645</b>
Ariel Global	42,974,817	-330	-213,571	-56	-1,469,377	41,291,484
NT ACWI IMI Fund	53,894,433	689		-1,132	-625,224	53,268,766
Wellington	102,417,408		-159,081	-554	572,622	102,830,395
<b>Global Low Volatility Composite</b>	<b>400,503,804</b>	<b>-323</b>	<b>-189,425</b>	<b>-296</b>	<b>-9,822,747</b>	<b>390,491,013</b>
Acadian Global Low Vol.	201,932,438	-20,194	-169,555	-296	-2,965,921	198,776,472
BlackRock Global Low Vol.	198,571,366	19,870	-19,870		-6,856,826	191,714,541

# Cash Flow Summary

Dallas Total Fund

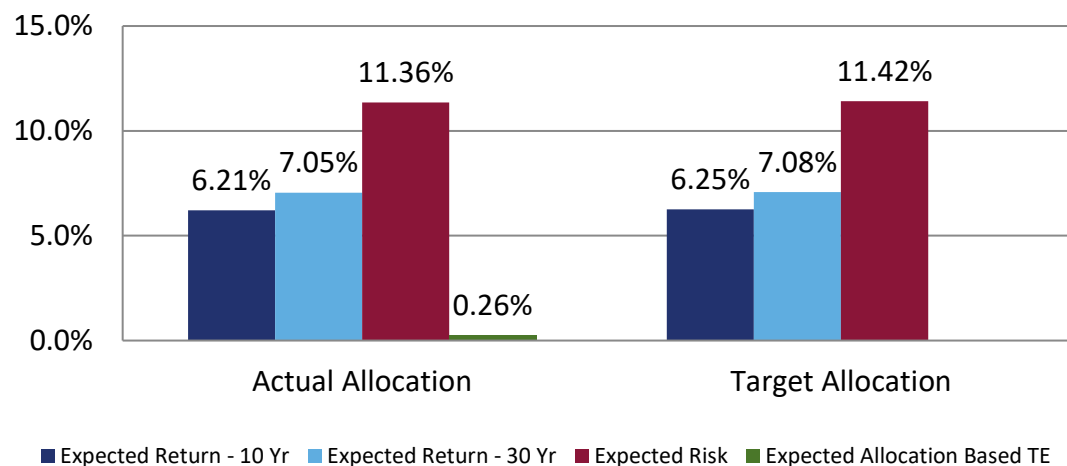
1 Quarter Ending December 31, 2024

	Begin Value	Net Cash Flow	Fees	Expenses	Capital Apprec./ Deprec.	End Value
<b>Global Listed Infrastructure Composite</b>	<b>207,079,332</b>	<b>-21,000,000</b>	<b>-331,435</b>	<b>-1,792</b>	<b>12,112,225</b>	<b>197,858,330</b>
CIBC	65,504,766		-98,909	-773	8,277,623	73,682,707
Harvest Fund Advisors MLP	70,609,435		-132,118	-884	7,957,281	78,433,715
C&S Global Listed Infrastructure	70,965,131	-21,000,000	-100,408	-135	-4,122,679	45,741,909
<b>Fixed Income Composite</b>	<b>606,430,704</b>	<b>-1,841,087</b>	<b>-182,349</b>	<b>-4,026</b>	<b>-20,864,160</b>	<b>583,539,081</b>
Garcia Hamilton	197,721,993		-90,887	-162	-8,618,110	189,012,833
Wellington Core Bond	206,137,186		-91,461	-1,757	-6,102,298	199,941,669
NT Aggregate Bond Index	200,693,680	-4,304		-903	-6,109,382	194,579,090
Western Asset Management	1,877,845	-1,836,783		-1,203	-34,370	5,489
<b>Credit Opportunities Composite</b>	<b>180,931,632</b>	<b>-19,000,003</b>	<b>-119,588</b>	<b>-458</b>	<b>1,718,060</b>	<b>163,529,644</b>
Neuberger Berman	180,931,632	-19,000,003	-119,588	-458	1,718,060	163,529,644
<b>Private Credit Composite</b>	<b>4,603,317</b>	<b>2,154,723</b>			<b>392,941</b>	<b>7,150,981</b>
Silver Point DOF II	1,202,882	1,096,801			216,665	2,516,348
MGG Structured Solutions	3,400,435	1,057,922			176,276	4,634,633
<b>High Yield Composite</b>	<b>381,540,051</b>	<b>5,205</b>	<b>-447,580</b>	<b>-2,095</b>	<b>623,546</b>	<b>381,719,127</b>
Oaktree Capital Management	193,469,224	5,205	-232,543	-1,386	84,056	193,324,556
BlackRock	188,070,827		-215,037	-709	539,490	188,394,571
<b>Marketable Alternatives Composite</b>	<b>102,234,739</b>				<b>3,636,178</b>	<b>105,870,917</b>
Davidson Kempner	51,377,156				1,783,039	53,160,195
Hudson Bay Capital	50,857,583				1,853,139	52,710,722
<b>Managed Short Term Composite</b>	<b>52,922,079</b>	<b>10,090,558</b>		<b>-1,075,688</b>	<b>908,896</b>	<b>62,845,845</b>
Cash Account	52,922,079	10,090,558		-1,075,688	908,896	62,845,845

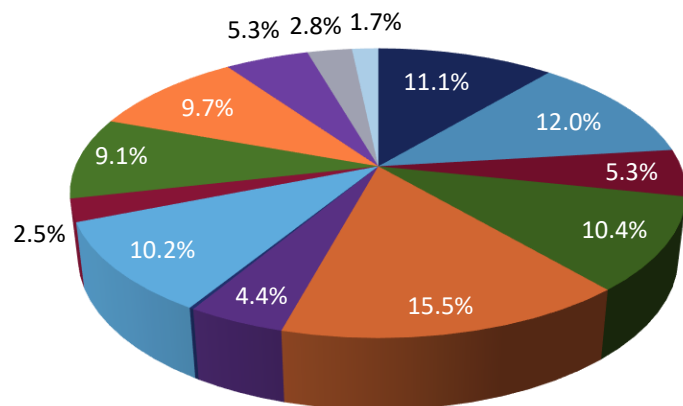
# Risk Analysis & Performance Objectives

# Expected Return and Risk

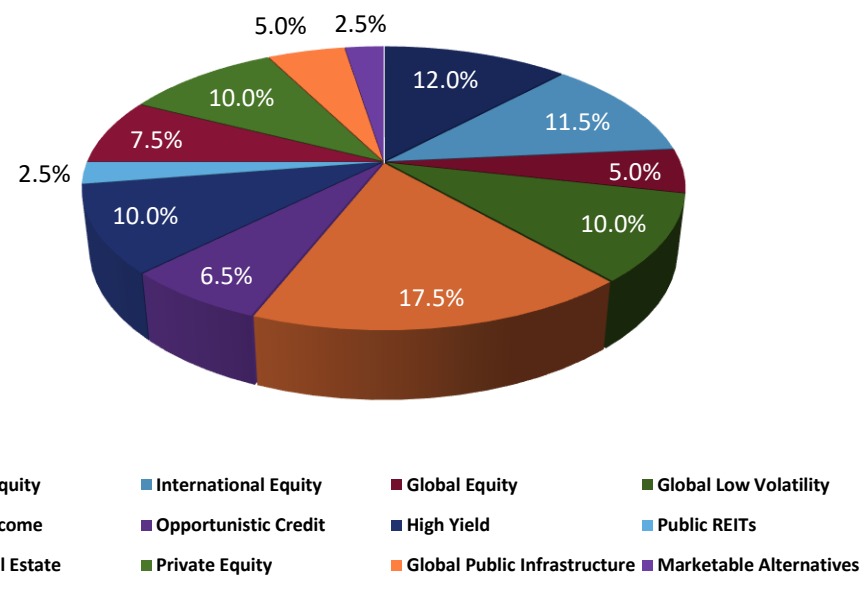
Periods Ended as of December 31, 2024



## Actual Asset Allocation



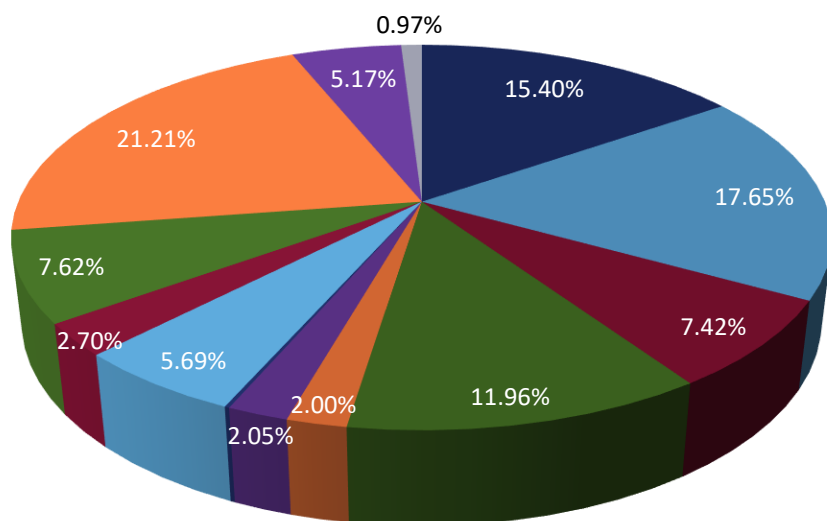
## Target Asset Allocation



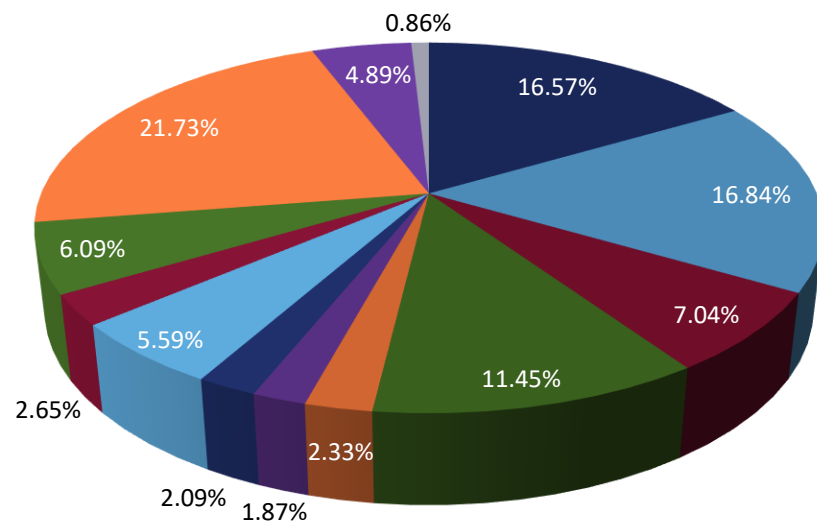
# Expected Return and Risk

Periods Ended as of December 31, 2024

Contribution to Total Risk - Actual Allocation



Contribution to Total Risk - Target Allocation



Domestic Equity  
US Fixed Income  
Public REITs  
Marketable Alternatives

International Equity  
Opportunistic Credit  
Private Real Estate  
Cash

Global Equity  
Private Credit  
Private Equity

Global Low Volatility  
High Yield  
Global Public Infrastructure

Domestic Equity  
US Fixed Income  
Public REITs  
Marketable Alternatives

International Equity  
Opportunistic Credit  
Private Real Estate  
Cash

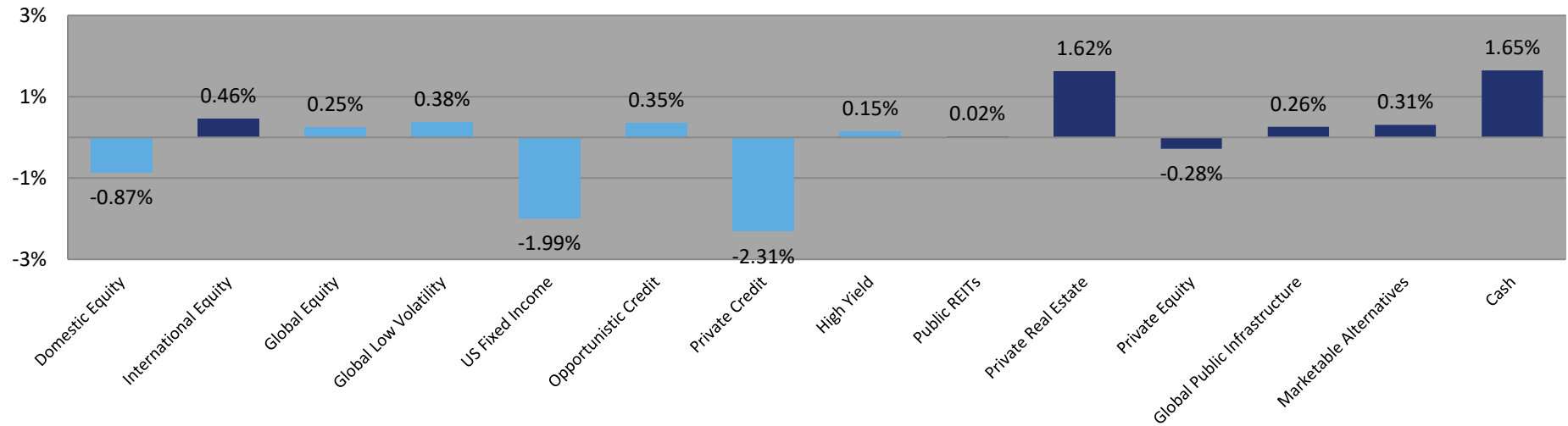
Global Equity  
Private Credit  
Private Equity

Global Low Volatility  
High Yield  
Global Public Infrastructure

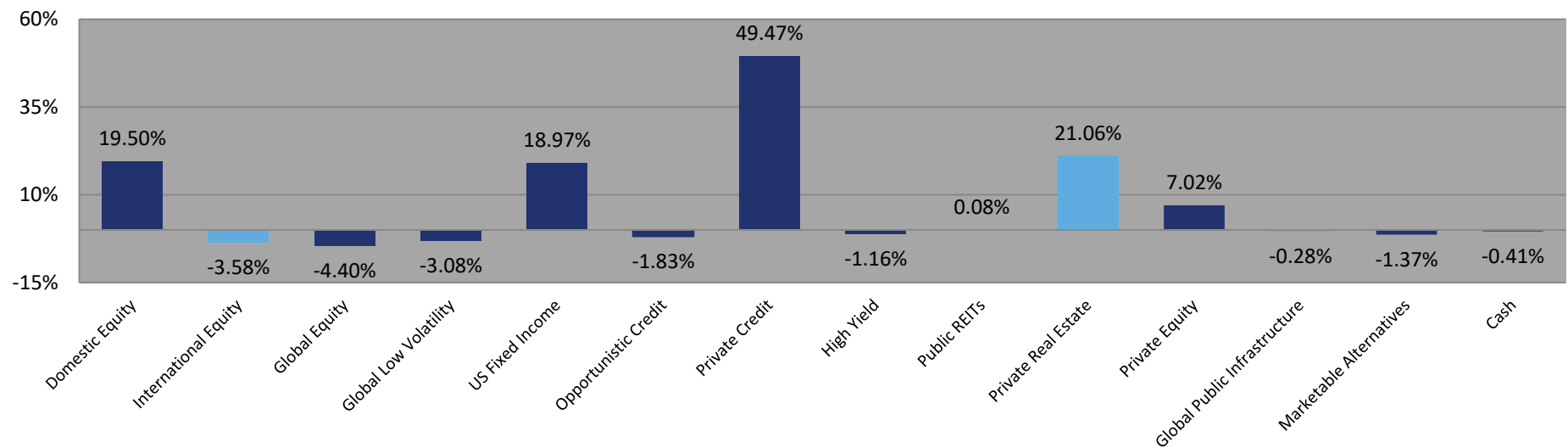
# Expected Return and Risk

Periods Ended as of December 31, 2024

## Asset Allocation Variance



## Contribution to TF Tracking Error



# 1-Year Risk Statistics

Periods Ended December 31, 2024

	1 Year Standard Deviation	1 Year Sharpe Ratio	1 Year Tracking Error	1 Year Information Ratio
<b>Dallas Total Fund</b>	<b>5.37</b>	<b>0.71</b>	<b>1.29</b>	<b>-1.88</b>
Policy Index	6.05	1.04	0.00	
<b>DOMESTIC EQUITY</b>				
<b>Domestic Equity Composite</b>	<b>11.00</b>	<b>1.39</b>	<b>1.69</b>	<b>-1.01</b>
Custom Benchmark	10.80	1.57	0.00	
<b>Systematic Financial</b>	<b>17.43</b>	<b>0.39</b>	<b>5.09</b>	<b>-0.22</b>
Russell 2000 Index	20.44	0.39	0.00	
<b>Channing Capital</b>	<b>18.09</b>	<b>0.37</b>	<b>5.85</b>	<b>0.33</b>
Russell 2000 Value Index	20.61	0.23	0.00	
<b>T. Rowe Price</b>	<b>10.09</b>	<b>1.92</b>	<b>1.10</b>	<b>1.30</b>
S&P 500 Index	10.22	1.76	0.00	
<b>INTERNATIONAL EQUITY</b>				
<b>International Equity Composite</b>	<b>8.39</b>	<b>0.35</b>	<b>2.18</b>	<b>1.18</b>
Custom Benchmark	8.70	0.04	0.00	
<b>Acadian International</b>	<b>8.59</b>	<b>0.54</b>	<b>4.22</b>	<b>1.41</b>
MSCI AC World ex USA Small Cap (Net)	9.15	-0.15	0.00	
<b>AQR Capital Management</b>	<b>8.75</b>	<b>0.61</b>	<b>3.45</b>	<b>1.34</b>
Custom Benchmark	8.69	0.08	0.00	
<b>Ativo International</b>	<b>9.09</b>	<b>-0.41</b>	<b>2.08</b>	<b>-1.33</b>
MSCI EAFE (Net)	9.61	-0.10	0.00	
<b>Baillie Gifford</b>	<b>9.22</b>	<b>0.11</b>	<b>2.78</b>	<b>0.12</b>
MSCI AC World ex USA (Net)	8.69	0.08	0.00	
<b>Earnest Partners</b>	<b>9.06</b>	<b>0.16</b>	<b>3.01</b>	<b>0.25</b>
MSCI AC World ex USA (Net)	8.69	0.08	0.00	

# 1-Year Risk Statistics

Periods Ended December 31, 2024

	1 Year Standard Deviation	1 Year Sharpe Ratio	1 Year Tracking Error	1 Year Information Ratio
<b>GLOBAL EQUITY</b>				
Global Equity Composite	8.78	1.14	2.42	-0.62
MSCI AC World Index (Net)	8.78	1.31	0.00	
<b>Wellington</b>	<b>8.75</b>	<b>1.60</b>	<b>2.48</b>	<b>1.00</b>
MSCI AC World Index (Net)	8.78	1.31	0.00	
<b>Ariel Global</b>	<b>10.05</b>	<b>0.25</b>	<b>5.52</b>	<b>-1.62</b>
MSCI AC World Index (Net)	8.78	1.31	0.00	
<b>GLOBAL LOW VOLATILITY</b>				
Global Low Volatility Composite	8.64	0.95	1.05	1.97
MSCI AC World Minimum Volatility Index (Net)	8.71	0.70	0.00	
<b>Acadian Global Low Vol.</b>	<b>8.69</b>	<b>1.18</b>	<b>1.99</b>	<b>2.06</b>
MSCI AC World Minimum Volatility Index (Net)	8.71	0.70	0.00	
<b>REIT's</b>				
REIT Composite	16.19	0.38	0.92	1.25
Wilshire U.S. Real Estate Securities Index	16.46	0.31	0.00	
<b>Adelante Capital Management</b>	<b>16.37</b>	<b>0.34</b>	<b>0.91</b>	<b>0.61</b>
Wilshire U.S. Real Estate Securities Index	16.46	0.31	0.00	
<b>CenterSquare</b>	<b>16.11</b>	<b>0.42</b>	<b>0.81</b>	<b>2.68</b>
FTSE NAREIT Equity REIT Index	16.27	0.28	0.00	
<b>FIXED INCOME</b>				
Fixed Income Composite	6.39	-0.65	0.76	-0.55
Blmbg. U.S. Aggregate Index	5.67	-0.66	0.00	
<b>Garcia Hamilton</b>	<b>7.45</b>	<b>-0.67</b>	<b>1.81</b>	<b>-0.70</b>
Blmbg. U.S. Aggregate Index	5.67	-0.66	0.00	
<b>Wellington Core Bond</b>	<b>5.75</b>	<b>-0.48</b>	<b>0.41</b>	<b>2.40</b>
Blmbg. U.S. Aggregate Index	5.67	-0.66	0.00	



# 1-Year Risk Statistics

Periods Ended December 31, 2024

	1 Year Standard Deviation	1 Year Sharpe Ratio	1 Year Tracking Error	1 Year Information Ratio
<b>HIGH YIELD</b>				
High Yield Composite	3.03	0.94	0.53	-0.28
FTSE High Yield Cash Pay	3.13	0.96	0.00	
<b>BlackRock</b>	<b>2.78</b>	<b>1.10</b>	<b>0.77</b>	<b>0.04</b>
FTSE High Yield Cash Pay	3.13	0.96	0.00	
<b>Oaktree Capital Management</b>	<b>3.31</b>	<b>0.81</b>	<b>0.49</b>	<b>-0.69</b>
FTSE High Yield Cash Pay	3.13	0.96	0.00	
<b>CREDIT OPPORTUNITIES</b>				
Credit Opportunities Composite	2.81	1.70	0.97	2.21
Custom Benchmark	2.88	0.91	0.00	
<b>Neuberger Berman</b>	<b>2.81</b>	<b>1.70</b>	<b>0.97</b>	<b>2.21</b>
Custom Benchmark	2.88	0.91	0.00	
<b>Global Listed Infrastructure</b>				
Global Listed Infrastructure Composite	13.87	1.71	4.27	-1.26
Global Listed Infrastructure Benchmark	13.63	2.13	0.00	
<b>Harvest Fund Advisors MLP</b>	<b>16.59</b>	<b>1.90</b>	<b>6.03</b>	<b>2.19</b>
Alerian MLP Index	17.36	1.06	0.00	
<b>CIBC</b>	<b>17.41</b>	<b>1.92</b>	<b>6.90</b>	<b>2.20</b>
Alerian MLP Index	17.36	1.06	0.00	
<b>C&amp;S Global Listed Infrastructure</b>	<b>13.19</b>	<b>0.50</b>	<b>1.77</b>	<b>1.01</b>
FTSE Global Core Infra. 50/50 Index (Net)	12.49	0.39	0.00	

# 3-Year Risk Statistics

Periods Ended December 31, 2024

	3 Years Standard Deviation	3 Years Sharpe Ratio	3 Years Tracking Error	3 Years Information Ratio
Dallas Total Fund	9.02	-0.02	1.88	-0.21
Policy Index	10.36	0.02	0.00	
<b>DOMESTIC EQUITY</b>				
Domestic Equity Composite	17.72	0.28	3.07	-0.20
Custom Benchmark	17.60	0.32	0.00	
<b>Systematic Financial</b>	19.42	0.15	6.64	0.41
Russell 2000 Index	23.30	0.00	0.00	
<b>Channing Capital</b>	22.19	0.06	6.24	0.10
Russell 2000 Value Index	23.44	0.03	0.00	
<b>T. Rowe Price</b>	17.09	0.45	1.11	1.17
S&P 500 Index	17.15	0.37	0.00	
<b>INTERNATIONAL EQUITY</b>				
International Equity Composite	16.42	-0.08	2.48	0.28
Custom Benchmark	16.07	-0.13	0.00	
<b>Acadian International</b>	16.45	-0.09	3.89	0.61
MSCI AC World ex USA Small Cap (Net)	16.81	-0.23	0.00	
<b>AQR Capital Management</b>	15.91	0.05	4.15	0.59
Custom Benchmark	16.02	-0.11	0.00	
<b>Ativo International</b>	16.47	-0.21	2.75	-0.97
MSCI EAFE (Net)	16.61	-0.05	0.00	
<b>Baillie Gifford</b>	20.60	-0.26	6.85	-0.53
MSCI AC World ex USA (Net)	16.02	-0.11	0.00	
<b>Earnest Partners</b>	16.03	0.02	4.07	0.51
MSCI AC World ex USA (Net)	16.02	-0.11	0.00	

# 3-Year Risk Statistics

Periods Ended December 31, 2024

	3 Years Standard Deviation	3 Years Sharpe Ratio	3 Years Tracking Error	3 Years Information Ratio
<b>GLOBAL EQUITY</b>				
Global Equity Composite	13.77	0.19	3.76	-0.07
MSCI AC World Index (Net)	16.20	0.17	0.00	
<b>Wellington</b>	<b>16.20</b>	<b>0.18</b>	<b>2.89</b>	<b>0.01</b>
MSCI AC World Index (Net)	16.20	0.17	0.00	
<b>Ariel Global</b>	<b>12.25</b>	<b>0.13</b>	<b>8.19</b>	<b>-0.14</b>
MSCI AC World Index (Net)	16.20	0.17	0.00	
<b>GLOBAL LOW VOLATILITY</b>				
Global Low Volatility Composite	11.49	0.10	1.26	1.48
MSCI AC World Minimum Volatility Index (Net)	11.33	-0.07	0.00	
<b>Acadian Global Low Vol.</b>	<b>11.70</b>	<b>0.23</b>	<b>2.43</b>	<b>1.38</b>
MSCI AC World Minimum Volatility Index (Net)	11.33	-0.07	0.00	
<b>REIT's</b>				
REIT Composite	20.62	-0.17	1.34	0.44
Wilshire U.S. Real Estate Securities Index	21.28	-0.19	0.00	
<b>Adelante Capital Management</b>	<b>20.44</b>	<b>-0.20</b>	<b>1.61</b>	<b>-0.07</b>
Wilshire U.S. Real Estate Securities Index	21.28	-0.19	0.00	
<b>CenterSquare</b>	<b>20.86</b>	<b>-0.13</b>	<b>1.13</b>	<b>1.06</b>
FTSE NAREIT Equity REIT Index	20.88	-0.19	0.00	
<b>FIXED INCOME</b>				
Fixed Income Composite	8.61	-0.68	1.23	0.17
Blmbg. U.S. Aggregate Index	7.72	-0.79	0.00	
<b>Garcia Hamilton</b>	<b>9.09</b>	<b>-0.64</b>	<b>1.97</b>	<b>0.11</b>
Blmbg. U.S. Aggregate Index	7.72	-0.79	0.00	

# 3-Year Risk Statistics

Periods Ended December 31, 2024

	3 Years Standard Deviation	3 Years Sharpe Ratio	3 Years Tracking Error	3 Years Information Ratio
<b>HIGH YIELD</b>				
High Yield Composite	8.32	-0.02	0.76	0.32
FTSE High Yield Cash Pay	8.42	-0.05	0.00	
<b>BlackRock</b>	<b>8.00</b>	<b>-0.01</b>	<b>0.91</b>	<b>0.37</b>
FTSE High Yield Cash Pay	8.42	-0.05	0.00	
<b>Oaktree Capital Management</b>	<b>8.72</b>	<b>-0.03</b>	<b>1.30</b>	<b>0.12</b>
FTSE High Yield Cash Pay	8.42	-0.05	0.00	
<b>CREDIT OPPORTUNITIES</b>				
Credit Opportunities Composite	7.18	-0.05	1.70	0.12
Custom Benchmark	7.05	-0.08	0.00	
<b>Neuberger Berman</b>	<b>7.18</b>	<b>-0.05</b>	<b>1.70</b>	<b>0.12</b>
Custom Benchmark	7.05	-0.08	0.00	
<b>MLP's</b>				
Global Listed Infrastructure Composite	15.80	1.05	4.75	-1.01
Global Listed Infrastructure Benchmark	17.09	1.25	0.00	
<b>Harvest Fund Advisors MLP</b>	<b>17.94</b>	<b>1.38</b>	<b>6.45</b>	<b>0.37</b>
Alerian MLP Index	20.01	1.12	0.00	
<b>CIBC</b>	<b>18.94</b>	<b>1.33</b>	<b>6.67</b>	<b>0.41</b>
Alerian MLP Index	20.01	1.12	0.00	

# 5-Year Risk Statistics

Periods Ended December 31, 2024

	5 Years Standard Deviation	5 Years Sharpe Ratio	5 Years Tracking Error	5 Years Information Ratio
Dallas Total Fund	10.66	0.38	2.31	-0.26
Policy Index	12.30	0.38	0.00	
<b>DOMESTIC EQUITY</b>				
Domestic Equity Composite	19.29	0.62	3.64	-0.15
Custom Benchmark	18.64	0.67	0.00	
<b>Systematic Financial</b>	21.71	0.41	7.24	0.17
Russell 2000 Index	24.48	0.32	0.00	
<b>Channing Capital</b>	25.13	0.36	7.21	0.16
Russell 2000 Value Index	25.44	0.31	0.00	
<b>T. Rowe Price</b>	18.22	0.76	1.15	0.87
S&P 500 Index	18.06	0.71	0.00	
<b>INTERNATIONAL EQUITY</b>				
International Equity Composite	18.02	0.26	2.42	0.65
Custom Benchmark	17.39	0.18	0.00	
<b>Acadian International</b>	18.91	0.31	4.22	0.52
MSCI AC World ex USA Small Cap (Net)	19.57	0.19	0.00	
<b>AQR Capital Management</b>	17.44	0.22	3.83	0.20
Custom Benchmark	17.14	0.18	0.00	
<b>Ativo International</b>	18.03	0.11	4.15	-0.43
MSCI EAFE (Net)	17.70	0.21	0.00	
<b>GLOBAL EQUITY</b>				
Global Equity Composite	14.86	0.51	3.68	-0.30
MSCI AC World Index (Net)	17.33	0.50	0.00	
<b>Wellington</b>	17.28	0.53	3.27	0.13
MSCI AC World Index (Net)	17.33	0.50	0.00	
<b>Ariel Global</b>	12.98	0.40	8.09	-0.43
MSCI AC World Index (Net)	17.33	0.50	0.00	

# 5-Year Risk Statistics

Periods Ended December 31, 2024

	5 Years Standard Deviation	5 Years Sharpe Ratio	5 Years Tracking Error	5 Years Information Ratio
<b>GLOBAL LOW VOLATILITY</b>				
Global Low Volatility Composite	13.11	0.30	1.58	0.63
MSCI AC World Minimum Volatility Index (Net)	12.50	0.24	0.00	
<b>Acadian Global Low Vol.</b>	<b>13.63</b>	<b>0.36</b>	<b>2.92</b>	<b>0.65</b>
MSCI AC World Minimum Volatility Index (Net)	12.50	0.24	0.00	
<b>REIT's</b>				
REIT Composite	20.93	0.25	1.42	0.57
Wilshire U.S. Real Estate Securities Index	21.62	0.20	0.00	
<b>Adelante Capital Management</b>	<b>20.61</b>	<b>0.24</b>	<b>1.75</b>	<b>0.34</b>
Wilshire U.S. Real Estate Securities Index	21.62	0.20	0.00	
<b>CenterSquare</b>	<b>21.30</b>	<b>0.26</b>	<b>1.62</b>	<b>0.79</b>
FTSE NAREIT Equity REIT Index	21.82	0.19	0.00	
<b>FIXED INCOME</b>				
Fixed Income Composite	7.39	-0.28	2.02	0.24
Blmbg. U.S. Aggregate Index	6.37	-0.41	0.00	
<b>Garcia Hamilton</b>	<b>7.39</b>	<b>-0.35</b>	<b>1.76</b>	<b>0.01</b>
Blmbg. U.S. Aggregate Index	6.37	-0.41	0.00	
<b>HIGH YIELD</b>				
High Yield Composite	9.07	0.24	1.44	0.08
FTSE High Yield Cash Pay	9.33	0.22	0.00	
<b>BlackRock</b>	<b>9.16</b>	<b>0.24</b>	<b>2.45</b>	<b>0.06</b>
FTSE High Yield Cash Pay	9.33	0.22	0.00	
<b>Oaktree Capital Management</b>	<b>9.18</b>	<b>0.24</b>	<b>1.25</b>	<b>0.08</b>
FTSE High Yield Cash Pay	9.33	0.22	0.00	
<b>CREDIT OPPORTUNITIES</b>				
Credit Opportunities Composite	9.61	0.16	1.73	0.13

# 5-Year Risk Statistics

Periods Ended December 31, 2024

	5 Years Standard Deviation	5 Years Sharpe Ratio	5 Years Tracking Error	5 Years Information Ratio
Custom Benchmark	8.74	0.15	0.00	
<b>Neuberger Berman</b>	<b>9.61</b>	<b>0.16</b>	<b>1.73</b>	<b>0.13</b>
Custom Benchmark	8.74	0.15	0.00	
<b>MLP's</b>				
Global Listed Infrastructure Composite	29.09	0.46	9.60	-0.44
Global Listed Infrastructure Benchmark	36.97	0.47	0.00	
<b>Harvest Fund Advisors MLP</b>	<b>29.20</b>	<b>0.70</b>	<b>11.78</b>	<b>0.04</b>
Alerian MLP Index	38.58	0.52	0.00	
<b>CIBC</b>	<b>32.53</b>	<b>0.65</b>	<b>8.67</b>	<b>0.13</b>
Alerian MLP Index	38.58	0.52	0.00	

# 10-Year Risk Statistics

Periods Ended December 31, 2024

	10 Years Standard Deviation	10 Years Sharpe Ratio	10 Years Excess Risk	10 Years Information Ratio
Dallas Total Fund	9.05	0.52	9.09	-0.15
Policy Index	10.20	0.49	10.23	
<b>DOMESTIC EQUITY</b>				
Domestic Equity Composite	16.43	0.66	16.46	-0.23
Custom Benchmark	15.72	0.73	15.74	
<b>Systematic Financial</b>	18.68	0.51	18.73	0.27
Russell 2000 Index	20.64	0.38	20.68	
<b>Channing Capital</b>	21.64	0.35	21.69	0.04
Russell 2000 Value Index	21.16	0.35	21.21	
<b>T. Rowe Price</b>	15.47	0.82	15.48	0.77
S&P 500 Index	15.29	0.77	15.30	
<b>INTERNATIONAL EQUITY</b>				
International Equity Composite	15.55	0.34	15.57	0.50
Custom Benchmark	15.09	0.28	15.11	
<b>Acadian International</b>	16.37	0.42	16.42	0.44
MSCI AC World ex USA Small Cap (Net)	16.37	0.31	16.41	
<b>AQR Capital Management</b>	15.27	0.29	15.28	0.10
Custom Benchmark	14.97	0.27	14.98	
<b>Ativo International</b>				
MSCI EAFE (Net)	15.17	0.30	15.18	
<b>GLOBAL EQUITY</b>				
Global Equity Composite	13.50	0.53	13.51	-0.36
MSCI AC World Index (Net)	14.78	0.56	14.79	
<b>Wellington</b>	15.27	0.55	15.27	0.04
MSCI AC World Index (Net)	14.78	0.56	14.79	
<b>Ariel Global</b>				
MSCI AC World Index (Net)	14.78	0.56	14.79	



# 10-Year Risk Statistics

Periods Ended December 31, 2024

	10 Years Standard Deviation	10 Years Sharpe Ratio	10 Years Excess Risk	10 Years Information Ratio
<b>GLOBAL LOW VOLATILITY</b>				
Global Low Volatility Composite				
MSCI AC World Minimum Volatility Index (Net)	10.60	0.52	10.62	
<b>Acadian Global Low Vol.</b>				
MSCI AC World Minimum Volatility Index (Net)	10.60	0.52	10.62	
<b>REIT's</b>				
REIT Composite	17.52	0.33	17.54	0.15
Wilshire U.S. Real Estate Securities Index	18.01	0.31	18.03	
<b>Adelante Capital Management</b>	17.20	0.33	17.22	0.06
Wilshire U.S. Real Estate Securities Index	18.01	0.31	18.03	
<b>CenterSquare</b>				
FTSE NAREIT Equity REIT Index	18.17	0.30	18.20	
<b>FIXED INCOME</b>				
Fixed Income Composite	5.62	0.02	5.62	0.28
Blmbg. U.S. Aggregate Index	5.01	-0.06	4.97	
<b>Garcia Hamilton</b>	5.63	-0.06	5.62	-0.03
Blmbg. U.S. Aggregate Index	5.01	-0.06	4.97	
<b>HIGH YIELD</b>				
High Yield Composite	7.29	0.46	7.31	-0.08
FTSE High Yield Cash Pay	7.66	0.45	7.67	
<b>BlackRock</b>	7.31	0.47	7.32	-0.01
FTSE High Yield Cash Pay	7.66	0.45	7.67	
<b>Oaktree Capital Management</b>	7.48	0.41	7.50	-0.40
FTSE High Yield Cash Pay	7.66	0.45	7.67	
<b>CREDIT OPPORTUNITIES</b>				
Credit Opportunities Composite				

# 10-Year Risk Statistics

Periods Ended December 31, 2024

	10 Years Standard Deviation	10 Years Sharpe Ratio	10 Years Excess Risk	10 Years Information Ratio
Custom Benchmark				
<b>Neuberger Berman</b>				
Custom Benchmark				
<b>MLP's</b>				
Global Listed Infrastructure Composite	25.26	0.18	25.28	-0.13
Global Listed Infrastructure Benchmark	29.81	0.19	29.83	
<b>Harvest Fund Advisors MLP</b>	<b>25.40</b>	<b>0.33</b>	<b>25.41</b>	<b>0.16</b>
Alerian MLP Index	30.86	0.22	30.89	
<b>CIBC</b>	<b>27.50</b>	<b>0.31</b>	<b>27.52</b>	<b>0.25</b>
Alerian MLP Index	30.86	0.22	30.89	

# Asset Allocation & Performance

## DOMESTIC EQUITY

Periods Ended December 31, 2024

	Performance (%) net of fees			
	3 Years	5 Years	Since Inception	Inception Date
<b>DOMESTIC EQUITY</b>				
<b>T. Rowe Price</b>	<b>10.36</b>	<b>15.63</b>	<b>11.25</b>	<b>4/1/2006</b>
Standard & Poor's 500 +1%	10.03	15.66	11.66	
Value Added	0.33	-0.03	-0.41	
<b>Systematic Financial</b>	<b>4.89</b>	<b>9.37</b>	<b>10.56</b>	<b>8/1/2003</b>
Russell 2000 + 1.25%	2.51	8.75	10.28	
Value Added	2.38	0.62	0.27	
<b>Channing Capital</b>	<b>2.85</b>	<b>8.65</b>	<b>7.18</b>	<b>12/1/2013</b>
Russell 2000 Value + 1.25%	3.22	8.64	8.34	
Value Added	-0.37	0.01	-1.16	

# Asset Allocation & Performance

## INTERNATIONAL EQUITY

Periods Ended December 31, 2024

	Performance (%) net of fees			
	3 Years	5 Years	Since Inception	Inception Date
<b>INTERNATIONAL EQUITY</b>				
<b>Acadian International</b>	<b>0.95</b>	<b>6.76</b>	<b>8.15</b>	<b>4/1/1989</b>
Custom Benchmark + 2%	0.53	6.40	7.88	
Value Added	0.42	0.36	0.27	
<b>AQR Capital Management</b>	<b>3.34</b>	<b>4.82</b>	<b>3.85</b>	<b>4/1/2006</b>
Custom Benchmark +1.5%	2.33	5.67	5.00	
Value Added	1.01	-0.85	-1.16	
<b>Ativo International</b>	<b>-1.01</b>	<b>2.79</b>	<b>2.98</b>	<b>1/1/2018</b>
MSCI EAFE Index (N) + 2%	3.70	6.84	6.20	
Value Added	-4.70	-4.04	-3.22	
<b>Baillie Gifford</b>	<b>-3.56</b>	<b>2.57</b>	<b>5.06</b>	<b>4/1/2019</b>
MSCI ACWI ex US + 2.00%	2.86	6.20	7.44	
Value Added	-6.42	-3.63	-2.38	
<b>Earnest Partners</b>	<b>2.94</b>	<b>6.92</b>	<b>7.72</b>	<b>4/1/2019</b>
MSCI ACWI ex US + 2.00%	2.86	6.20	7.44	
Value Added	0.08	0.71	0.28	

# Asset Allocation & Performance

## GLOBAL EQUITY

Periods Ended December 31, 2024

	Performance (%) net of fees			
	3 Years	5 Years	Since Inception	Inception Date
<b>GLOBAL EQUITY</b>				
<b>Wellington</b>	<b>5.45</b>	<b>10.55</b>	<b>11.27</b>	<b>9/1/2012</b>
MSCI ACWI (N) + 2%	7.56	12.27	12.32	
Value Added	-2.11	-1.72	-1.05	
<b>Ariel Global</b>	<b>4.80</b>	<b>7.00</b>	<b>6.57</b>	<b>1/1/2018</b>
MSCI ACWI (N) + 1.5%	7.02	11.71	10.84	
Value Added	-2.22	-4.72	-4.28	
<b>Acadian Global Low Vol.</b>	<b>5.92</b>	<b>6.54</b>	<b>7.85</b>	<b>7/1/2015</b>
MSCI ACWI (N) + 2%	7.56	12.27	11.63	
Value Added	-1.63	-5.73	-3.78	

# Asset Allocation & Performance

## REAL ESTATE

Periods Ended December 31, 2024

	Performance (%) net of fees			
	3 Years	5 Years	Since Inception	Inception Date
<b>REAL ESTATE</b>				
<b>Adelante Capital Management</b>	-2.36	5.43	9.14	10/1/2001
Wilshire Real Est. Secs + 1%	-1.42	5.62	10.30	
Value Added	-0.94	-0.19	-1.16	
<b>CenterSquare</b>	-1.02	5.75	7.88	6/1/2018
Wilshire Real Est. Secs + 1%	-1.43	5.61	7.83	
Value Added	0.41	0.14	0.05	

# Asset Allocation & Performance

## FIXED INCOME

Periods Ended December 31, 2024

	Performance (%) net of fees			
	3 Years	5 Years	Since Inception	Inception Date
<b>FIXED INCOME</b>				
<b>Garcia Hamilton</b>	-2.31	-0.38	1.79	11/1/2013
Bloomberg Aggregate + 0.5%	-1.92	0.17	2.15	
Value Added	-0.39	-0.55	-0.36	
<b>HIGH YIELD</b>				
<b>Oaktree Capital Management</b>	3.24	4.29	6.16	4/1/1988
FTSE HY Cash Pay + 1%	4.15	5.21		
Value Added	-0.90	-0.92		
<b>BlackRock</b>	3.50	4.34	5.94	10/1/2006
FTSE HY Cash Pay + 1%	4.14	5.21	7.30	
Value Added	-0.64	-0.87	-1.36	
<b>CREDIT OPPORTUNITIES</b>				
<b>Neuberger Berman</b>	3.25	3.52	5.26	2/1/2016
Custom Benchmark + 1%	4.08	4.41	6.37	
Value Added	-0.84	-0.90	-1.11	

# Asset Allocation & Performance

## MLP's

Periods Ended December 31, 2024

	Performance (%) net of fees			
	3 Years	5 Years	Since Inception	Inception Date
<b>MLP's</b>				
Harvest Fund Advisors MLP	30.81	20.00	9.98	1/1/2012
Alerian MLP Index + 1.5%	29.15	17.29	7.10	
Value Added	1.65	2.70	2.88	
<b>CIBC</b>	31.01	19.53	10.14	1/1/2012
Alerian MLP Index + 1.5%	29.15	17.29	7.10	
Value Added	1.86	2.24	3.04	



**Wilshire**

# Dallas ERF Capital Market Return Assumptions Update

February 2025

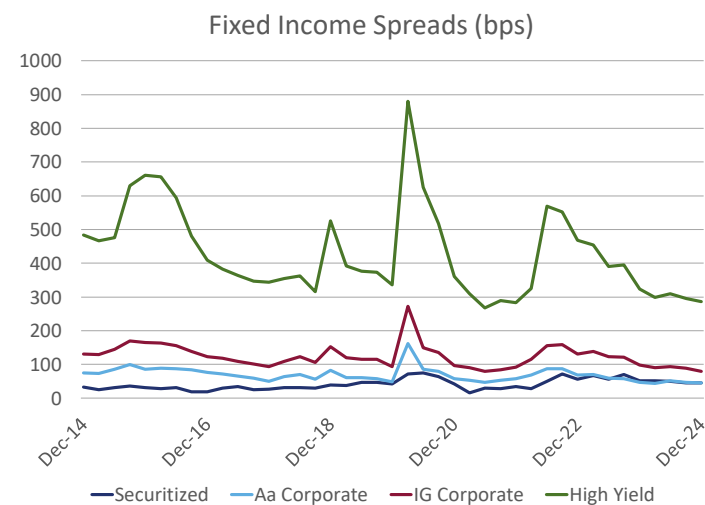
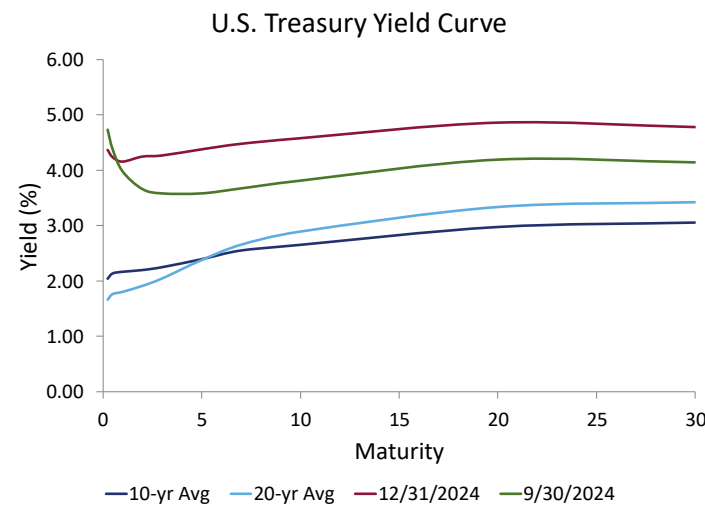
## Summary Changes

- Yield curve up across most of the maturity spectrum, except the very short term
  - Curve movements resulted in higher forecasts for most fixed income asset classes
  - Slight decrease in spreads for investment grade and high yield bonds
- Yields on most real asset securities are up from last year; inflation assumption up at 2.35%
- Public and Private Equity return expectations fell given elevated valuations

Asset Class Assumption	Total Return (%)		Risk (%)	
	Dec 2023	Change	Dec 2024	
Inflation	2.25	0.10	2.35	1.75
Cash Equivalents	3.80	-0.20	3.60	0.75
Treasuries	4.25	0.45	4.70	5.00
Core Bonds	4.75	0.45	5.20	4.75
LT Core Bonds	4.70	0.65	5.35	9.90
High Yield Bonds	5.90	0.45	6.35	10.00
Private Credit	8.05	-0.30	7.75	12.75
Global RE Securities	5.75	0.10	5.85	16.55
Private Real Estate	6.10	0.30	6.40	13.95
U.S. Stocks	5.00	-0.65	4.35	17.00
Dev. ex-U.S. Stocks	6.00	-0.65	5.35	18.00
Emerging Market Stocks	6.25	-0.65	5.60	26.00
Private Equity	7.60	-1.35	6.25	29.65
Global 60/40 (ACWI/U.S. Core)	5.55	-0.25	5.30	10.75

Implied Risk Premia	Relative Return (%)		
	Dec 2023	Change	Dec 2024
Cash - Inflation	1.55	-0.30	1.25
Treasury - Cash	0.45	0.65	1.10
Core - Treasury	0.50	0.00	0.50
Long-Term Core - Core	-0.05	0.20	0.15
High Yield - Core	1.15	0.00	1.15
Global RESI - Core	1.00	-0.35	0.65
U.S. Stocks - Core	0.25	-1.10	-0.85
Private Equity - U.S. Stocks	2.60	-0.70	1.90
Implied Real Return (ACA - CPI)			
U.S. Stocks	2.75	-0.75	2.00
U.S. Bonds	2.50	0.35	2.85
Cash Equivalents	1.55	-0.30	1.25

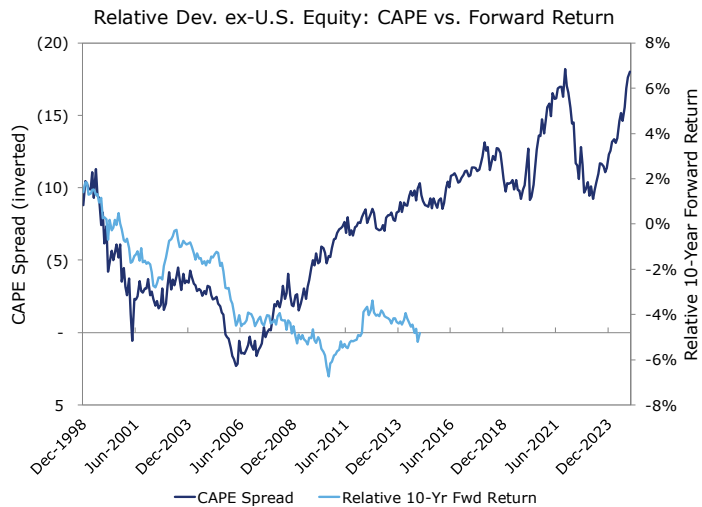
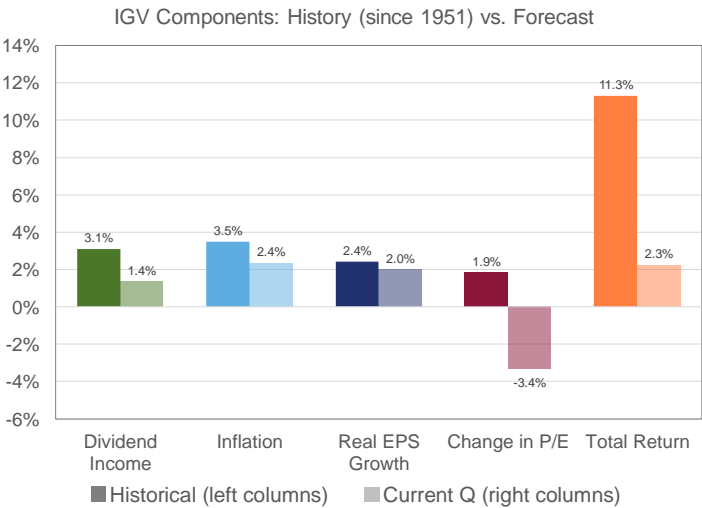
# Fixed Income



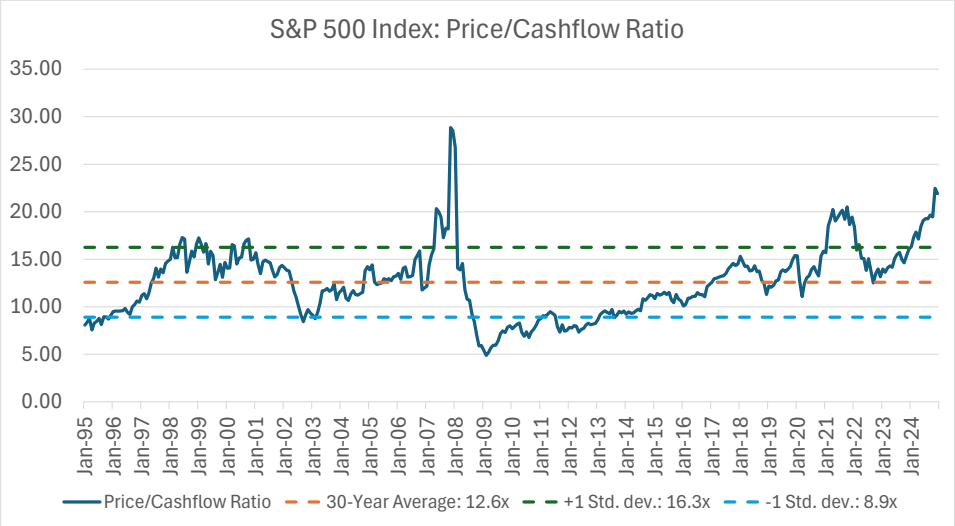
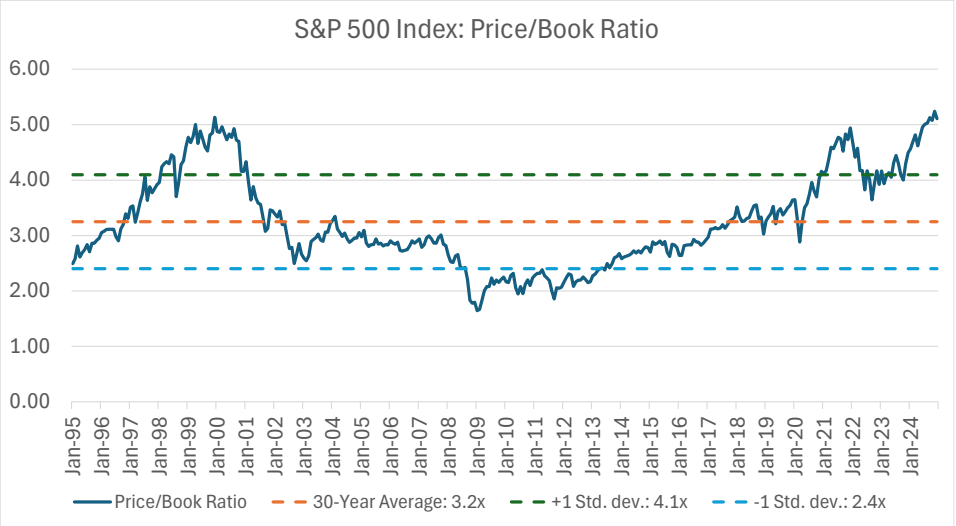
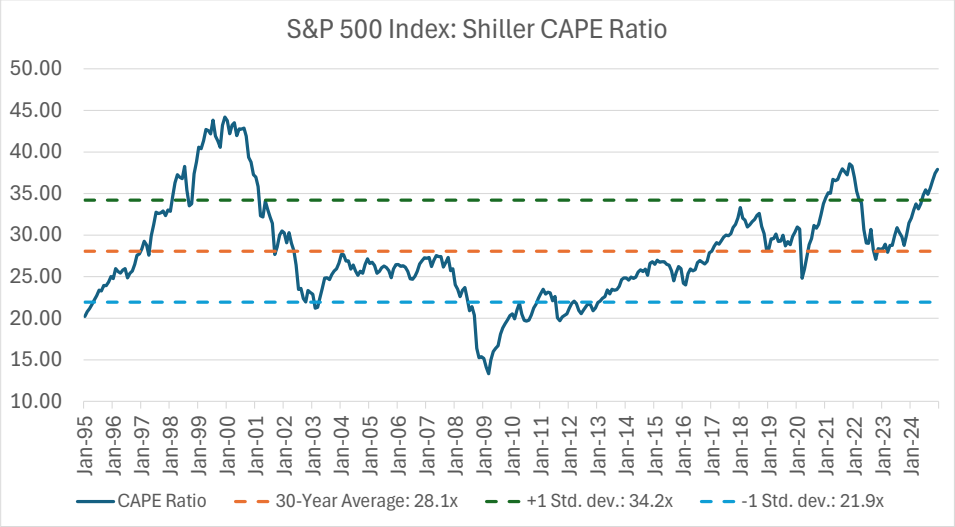
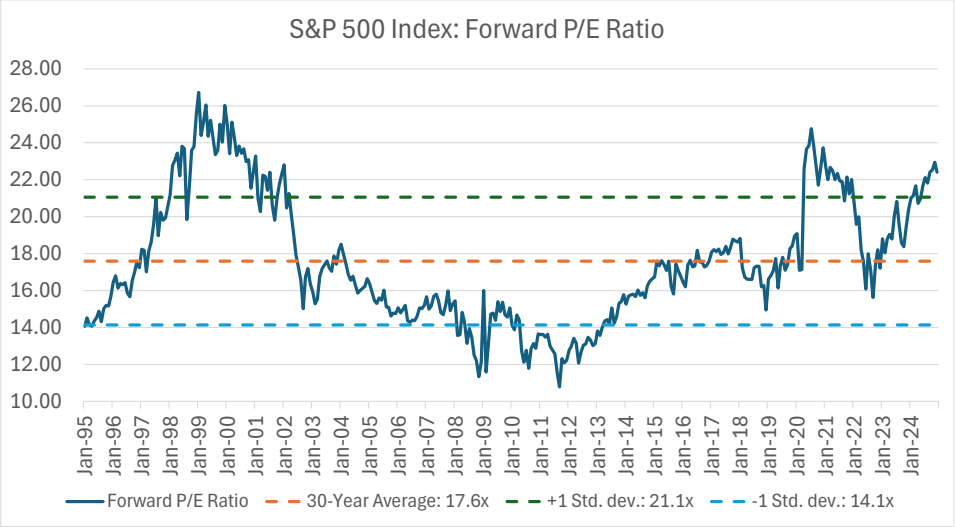
Inflation & Fixed Income		Dec 2023	Change	Dec 2024
Inflation	10-Year Treasury Yield	3.88	0.69	4.57
	10-Year Real Yield	<u>1.71</u>	<u>0.52</u>	<u>2.23</u>
	Breakeven Inflation	2.17	0.17	2.34
	Inflation Forecast	2.25	0.10	2.35
Cash	91-Day T-Bill Yield	5.40	(1.03)	4.37
	T-Bill Yield in 10 Yrs	3.50	0.00	3.50
	Cash Forecast	3.80	(0.20)	3.60
Treasury	U.S. Treasury Idx Yield	4.08	0.38	4.45
	Treasury Idx Yield in 10 Yrs	4.50	0.60	5.10
	Treasury Idx Forecast	4.25	0.45	4.70
	U.S. LT Treasury Idx Yield	4.14	0.72	4.86
Spread	LT Treasury Idx Yield in 10 Yrs	4.18	0.72	4.91
	LT Treasury Idx Forecast	4.15	0.70	4.85
	U.S. Corporate Idx OAS	1.01	(0.21)	0.80
	Corporate Idx OAS in 10 Yrs	1.53	(0.05)	1.48
Spread	Corporate Idx Forecast	5.25	0.40	5.65
	U.S. Core Bond Forecast	4.75	0.45	5.20
	U.S. LT Core Bond Forecast	4.70	0.65	5.35
	U.S. High Yield Idx OAS	3.46	(0.60)	2.87
Spread	High Yield Idx OAS in 10 Yrs	5.30	(0.39)	4.91
	High Yield Bond Forecast	5.90	0.45	6.35

Equity Markets

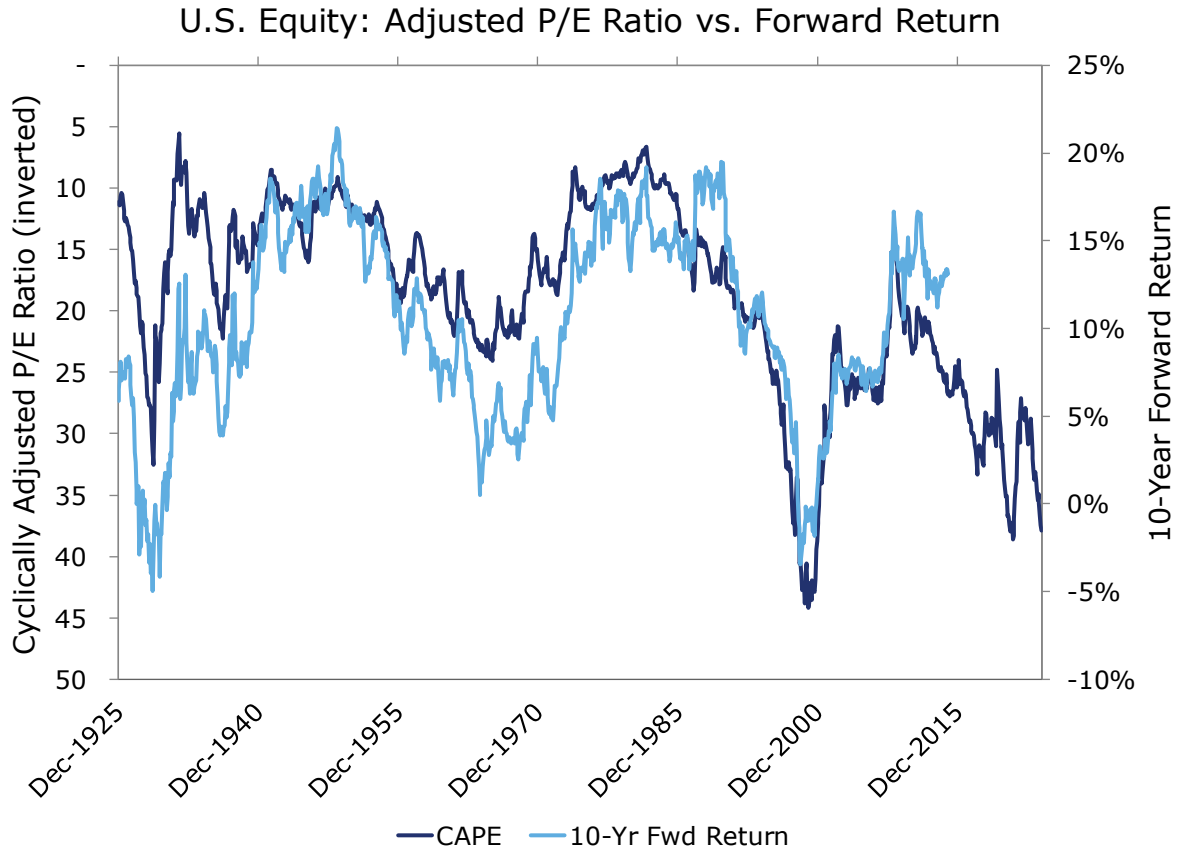
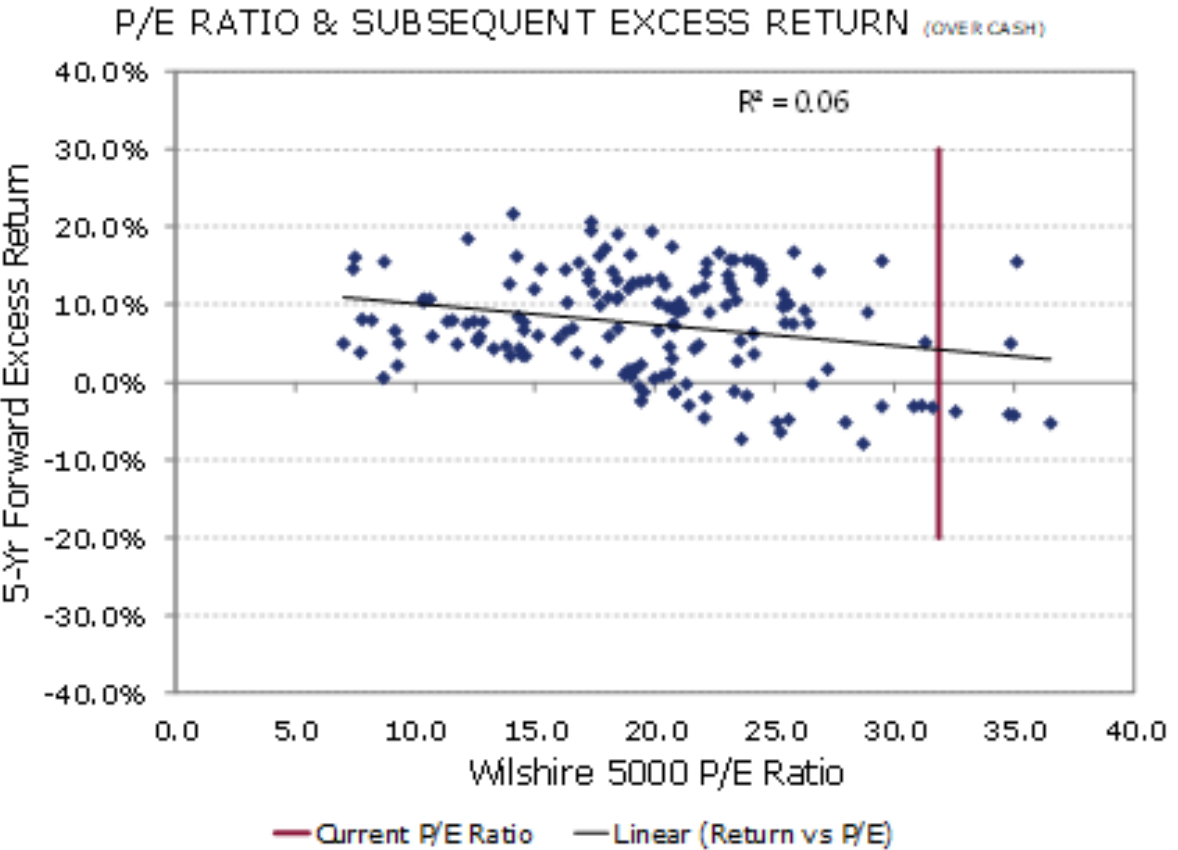
Equity: Public & Private		Dec 2023	Change	Dec 2024
Equity	DDM	6.55	0.00	6.55
	IGV	3.70	(1.40)	2.30
	CAPE	4.85	(3.75)	1.10
	U.S. Equity Forecast	5.00	(0.65)	4.35
	Dev-ex-US Equity Forecast	6.00	(0.65)	5.35
	EM Equity Forecast	6.25	(0.65)	5.60
Private	Cost of Debt (Public)	5.65	0.20	5.85
	Cost of Debt (Private)	7.75	(0.20)	7.55
Private Market Basket Forecast		7.60	(1.35)	6.25



# Equity Market Valuations

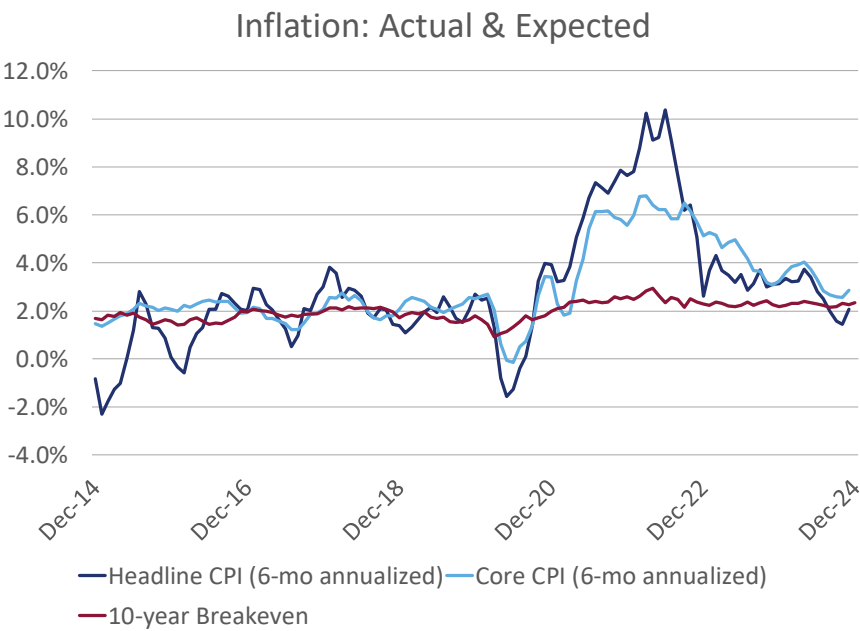


Equity Market Valuations and Future Returns



# Real Assets

- Inflation assumption of 2.35% is up and approximately equal to breakeven
- Public real asset yields are mostly up; assumed cap rate in private real estate is up, as well
- Commodity assumption is up, slightly, as are other public real assets



Asset Class Assumption	Total Return (%)		Risk (%)	
	Dec 2023	Change	Dec 2024	
U.S. TIPS	4.15	0.55	4.70	6.00
Global RE Securities	5.75	0.10	5.85	16.55
Private Real Estate	6.10	0.30	6.40	13.95
Commodities	4.80	0.05	4.85	16.00
Inflation	2.25	0.10	2.35	1.75

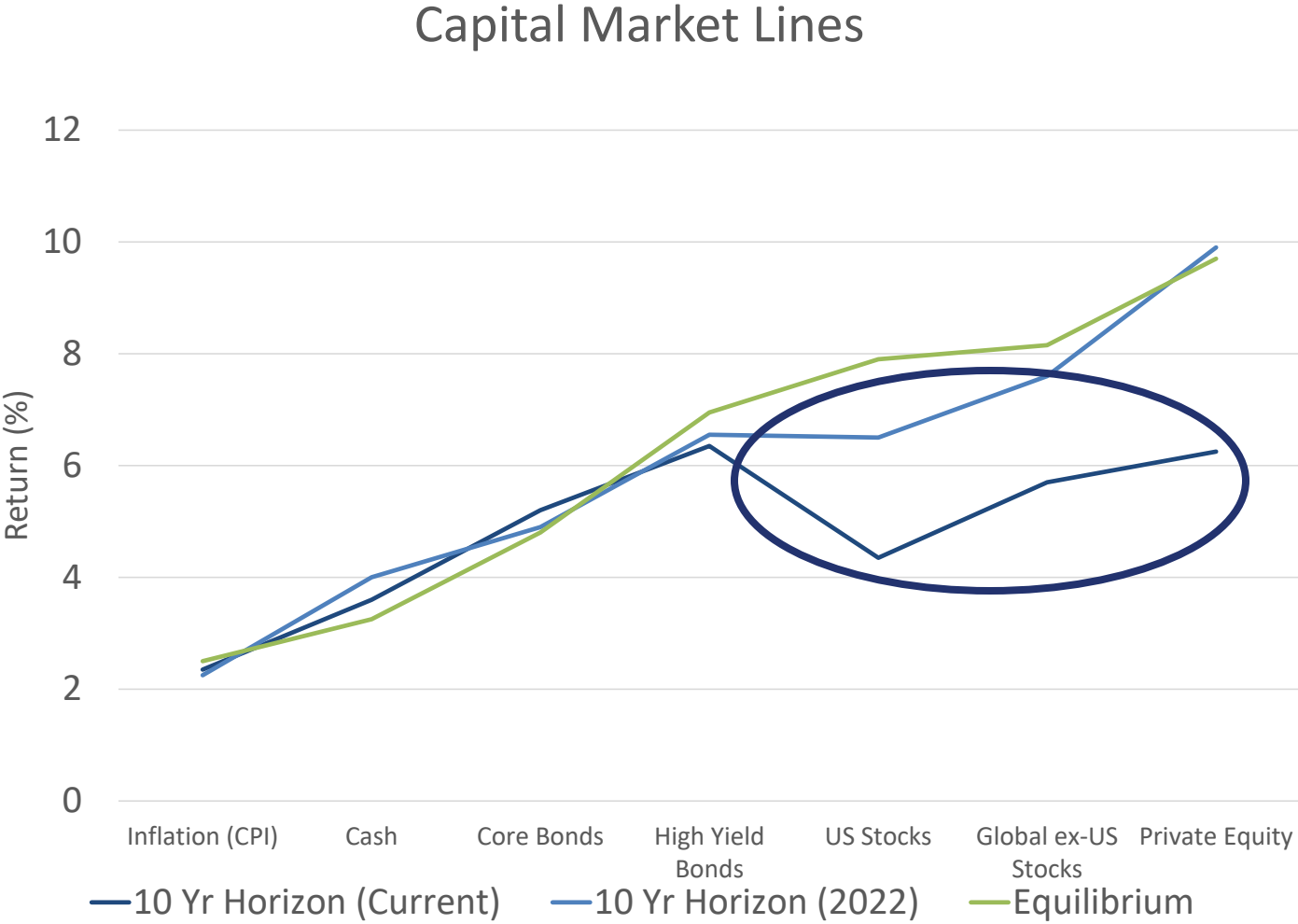
Real Assets		Dec 2023	Change	Dec 2024
Listed	Inflation Capture (75%)	1.70	0.05	1.75
	REIT Yield	3.92	0.04	3.96
	Midstream Energy Yield	6.11	(1.42)	4.69
	Global Infrastructure Yield	3.97	(0.26)	3.71
Private	Real Estate Cap Rate	4.25	0.40	4.65
	Cost of Debt (Private)	6.25	0.55	6.80
Infra. v RE Cap Rate Differential		0.05	(0.30)	(0.25)
Infra. Leverage / RE Leverage		2.5	0.0	2.5

Dallas ERF Asset Class Expected Return and Risk

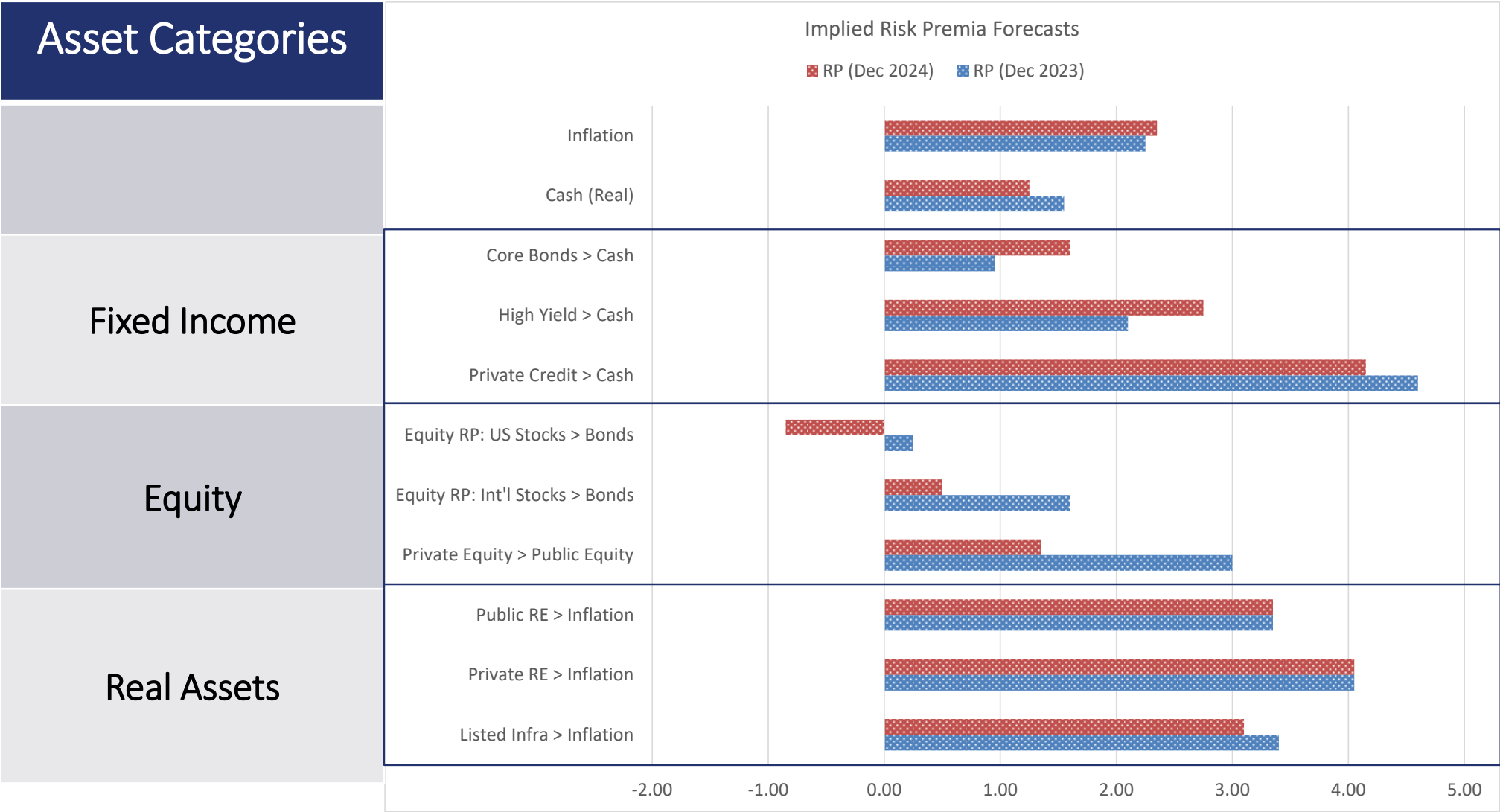
	EQUITY					FIXED INCOME				REAL ASSETS					DIVERSIFYING
	US Stock	Global ex-US Stock	Global Stock	Global Stock Low Vol	Private Equity	Core Bond	High Yield	Private Credit	Opp Credit	US RES	Core RE	Value Add RE	Midstream Energy	Global Listed Infra	Marketable Alternatives
10 Year Compounded Return	4.35	5.70	4.90	5.65	6.25	5.20	6.35	7.75	6.40	5.70	5.80	7.35	6.45	5.45	6.35
30-Year Compounded Return	6.15	6.95	6.50	6.70	7.95	5.00	6.65	7.90	6.25	6.45	6.25	8.55	7.60	6.85	6.55
Risk (%)	17.00	19.05	17.00	13.70	29.65	4.75	10.00	12.75	7.40	17.50	12.00	17.50	19.00	17.00	6.05
Yield (%)	1.25	2.85	1.80	2.25	0.00	5.65	9.80	4.85	8.65	3.95	3.65	1.85	4.65	3.70	0.00
Factor Exposure Growth	8.00	8.00	8.00	6.40	14.00	-0.95	4.00	5.10	3.00	6.00	4.00	3.00	-1.00	-1.00	2.50
Factor Exposure Inflation	-3.00	0.15	-1.95	-1.20	-4.25	-2.60	-1.00	-1.50	0.65	1.00	1.00	1.00	4.00	2.00	3.00



Equilibrium Assumptions



Current Assumption Risk Premiums



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# Digital Assets

## Potential Roles and Risks in Institutional Portfolios

Thomas Toth, CFA – Managing Director

February 2025

# Advances in technology are often rejected ...

Steve Knott MD of HMV on the threat from online retailers, 2002

*"I have never heard such rubbish... downloadable music is just a fad ..."*

The editor of business books for Prentice Hall, 1957

*"I have traveled the length and breadth of this country ... and I can assure you that data processing is a fad that won't last out the year."*

Engineer at the Advanced Computing Systems Division of IBM, 1968

*"But what (is the microchip) good for?"*

Ken Olson, president, chairman/founder of Digital Equipment Corp, 1977

*"There is no reason anyone would want a computer in their home."*

Western Union internal memo, 1876

*"This 'telephone' has too many shortcomings to be seriously considered as a means of communication. The device is inherently of no value to us."*

David Sarnoff's associates on the radio, 1920s

*"The wireless music box (radio) has no imaginable commercial value. Who would pay for a message sent to nobody in particular?"*

H.M. Warner, Warner Brothers, 1927

*"Who the hell wants to hear actors talk?"*

Warren Buffett, CEO of Berkshire Hathaway, 2014

*"Stay away from it. It's a mirage, basically. In terms of cryptocurrencies, generally, I can say almost with certainty that they will come to a bad ending."*

Paul Krugman, economist, 2013

*"Bitcoin is evil"*

## What are digital assets/cryptocurrency?

- Decentralized digital money designed to be used over the internet
  - Bitcoin, which launched in 2009, was the first cryptocurrency, and it remains by far the biggest and most well known
  - Cryptocurrencies are usually not issued or controlled by a central authority
- Makes it possible to transfer value online between people who do not know each other *without* the need for an intermediary like a bank or payment processor
- Transactions are vetted and tracked by a technology called a **blockchain**



## What is a blockchain?

- List of transactions that anyone can view and verify
  - Ongoing, constantly re-verified record of every single transaction ever made using that digital asset
- Managed by peer-to-peer networks of computers running free, open-source cryptography software
- Distributed across participants of the digital currency's entire network
  - Miners are rewarded with small amounts of cryptocurrency for contributing their computing power to the blockchain
- Digital signatures as proof of “private” key ownership without disclosing actual private key
- Each digital asset has its *own* blockchain

# Key Characteristics



## Decentralization

Digital assets are decentralized, meaning they are not controlled by a central authority, which enhances security and user autonomy.

## Transparency

Transparency in digital assets allows users to verify transactions and account balances, promoting trust and reducing fraud.

## Peer-to-Peer Transactions

Digital assets facilitate peer-to-peer transactions, enabling direct exchanges between users without intermediaries, which simplifies processes.



## What is the rationale for owning digital assets?

- New medium of exchange with less potential for debasement from global central bank actions
- Risk adjusted returns for a digital asset like Bitcoin are historically strong
  - Drawdown profile is significant (multiple pullbacks of greater than 50% since 2010), increasing behavioral risk
- Innovation potential is high even as ultimate direction is uncertain

## What is the rationale for owning digital assets?

- Bitcoin = Digital Gold
  - There are no cash flows associated with holding either asset
    - Equities have dividends
    - Bonds have coupon payments
  - The return you get from holding gold or cryptocurrencies is simply:
    - $(\text{price at sale}) - (\text{price at purchase}) - (\text{holding costs})$ 
      - Biggest driver is the sales price!
  - Said another way: You will only make money if you find someone else to buy it for a higher price than you paid
  - This is the definition of a speculative asset: you purchase the asset hoping to sell it for more in the future

# What is the rationale for owning digital assets?

- Bitcoin = Digital Gold

	BITCOIN	GOLD
Limited supply	✓	✓
Fungible	✓	✓
Decentralized	✓	✓
Borderless	✓	✓
Long track record	X	✓

	BITCOIN	GOLD
Never been counterfeited	✓	X
Low-cost storage and portability at scale	✓	X
High-speed transfer of value	✓	X
Easily verifiable	✓	X
Divisible for microtransactions	✓	X

Source: Bitwise

# Use Cases for Other Digital Assets

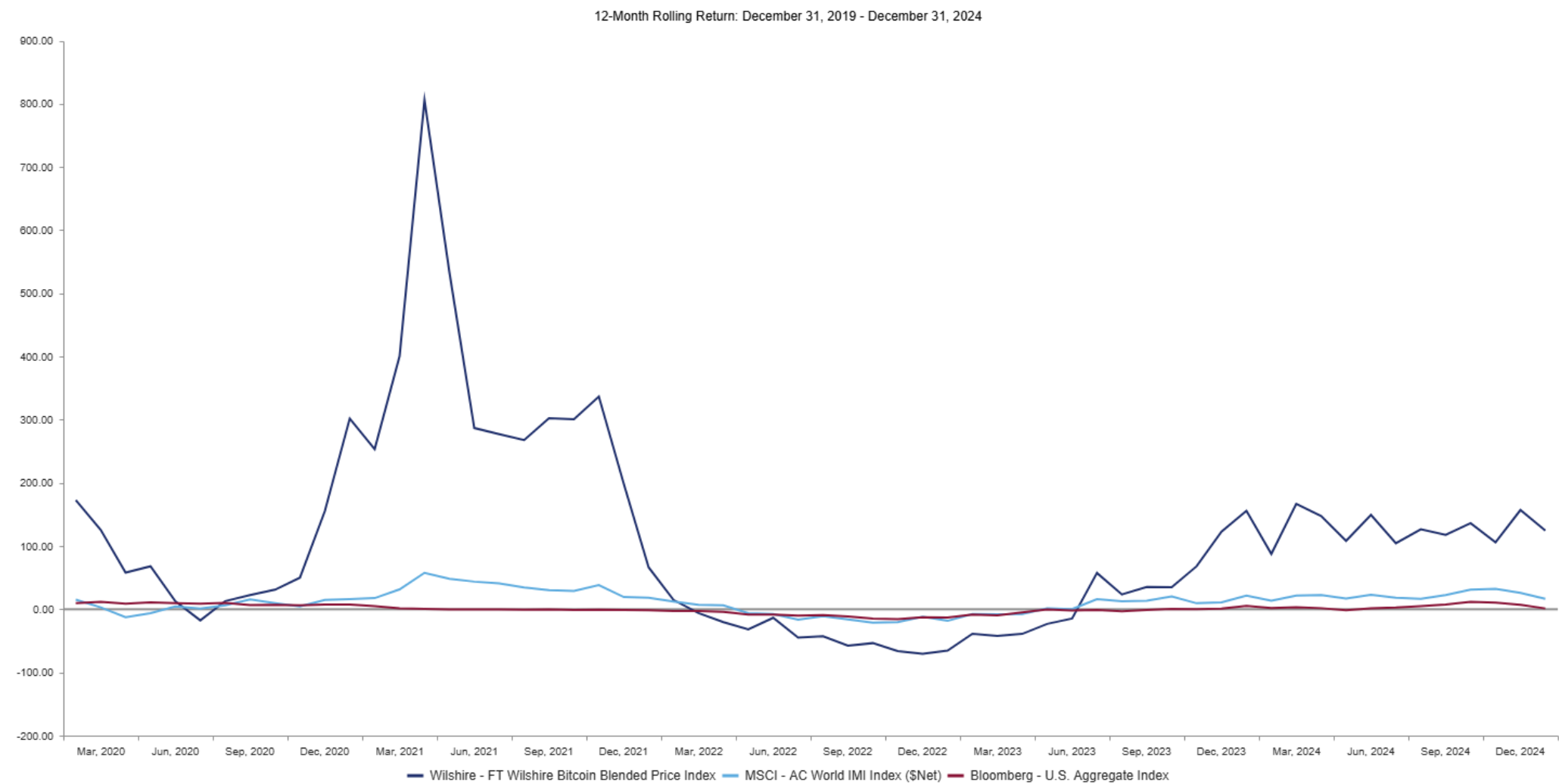
<b>FINANCIAL SERVICES</b> Potential Uses: Trade finance Payments Regulatory info provision Settlement and clearing Lending Fund distribution	<b>TECHNOLOGY, MEDIA, TELECOM</b> Potential Uses: Supports "internet of Things" Lower priced micropayments Securing intellectual property and digital creative works Blockchain-as-a-service	<b>CONSUMER / INDUSTRIAL</b> Potential Uses: Retail transaction payments Digital signature technology Streamline receivable collections and payments
<b>HEALTHCARE</b> Potential Uses: Record keeping Security of confidential patient information	<b>TRANSPORTATION</b> Potential Uses: Self-driving cars Car self-maintenance Shipping and supply payments Ride sharing app	<b>PUBLIC SECTOR</b> Potential Uses: Official registry for government assets Secure and faster voting mechanism for elections

Source: JP Morgan

## Digital Asset Return and Risk

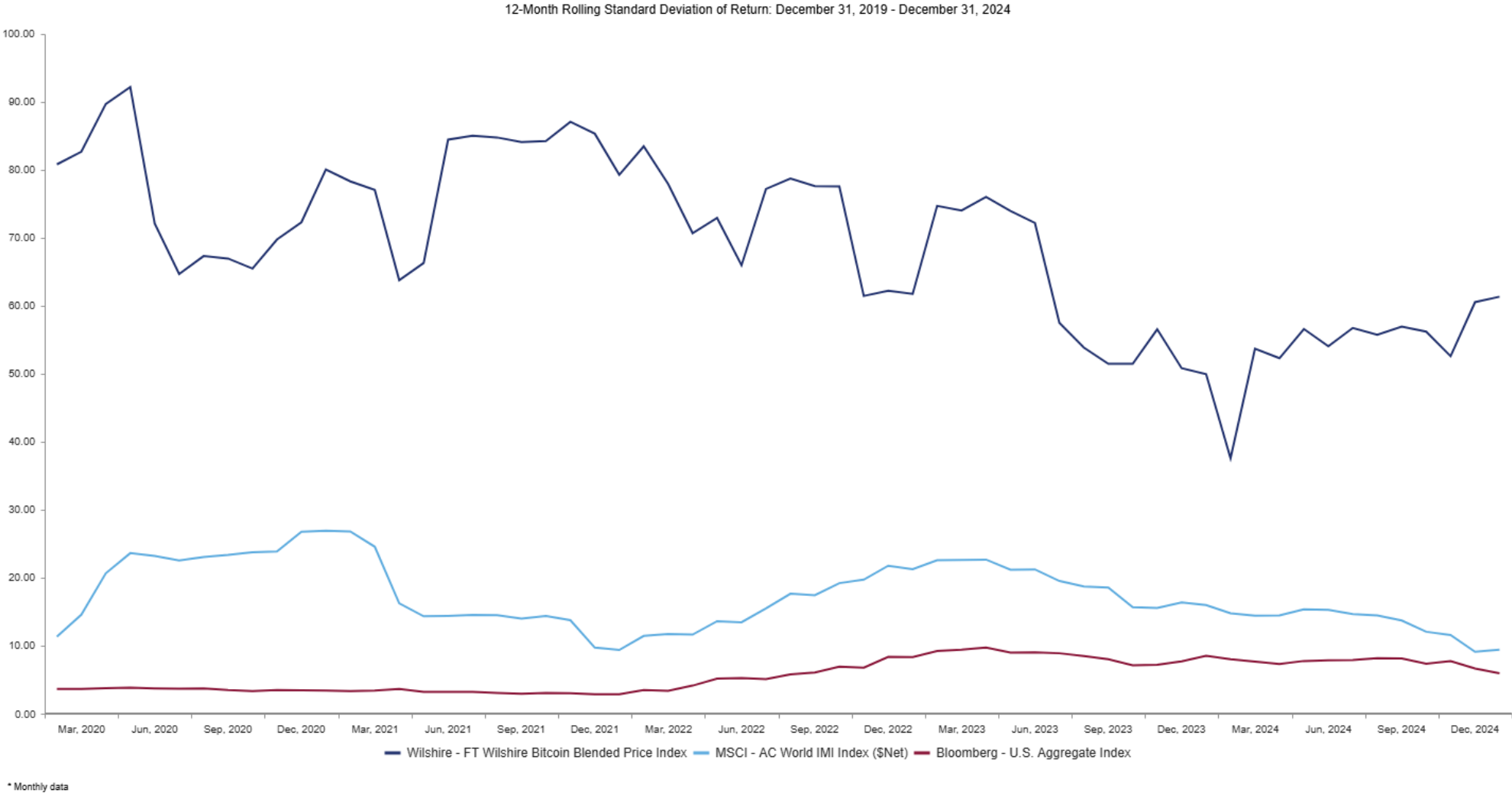
- Specifically avoid using the term “asset class” when describing Digital Assets
  - Risk overstating the current potential uses of digital assets versus where these opportunities are in their life cycle
- Volatility
  - High degree of uncertainty in the early years of a new investment segment
  - Perhaps the largest hurdle for adoption is the elevated volatility in the space
- Regulatory
  - Unique challenge to regulate given its global and private nature but still susceptible to scrutiny
  - Will see an increase in regulation, which impacts the pace of innovation and adoption
- Transactability
  - Primary benefits of digital assets – security and decentralization – often come at the cost of speed
  - Scalability remains a concern when considering widespread adoption and everyday use by the broader population

# Digital Asset Return and Risk – 12 month Rolling Return



\* Monthly data

# Digital Asset Return and Risk – 12 month Rolling Risk



## Institutional Investment Profile

- Level of economic risk and return for digital assets are commonly associated with venture capital investments
- Venture capital is aligned from a qualitative perspective as many funds include investments in early-stage companies/tokens
- Broader technology disruption thesis related to blockchain technology is compelling
  - Applications extend beyond digital currencies and financial services to all contracts
- Developments in cryptocurrency have been accompanied and enabled by operational improvements within organizations and functions necessary for investing
  - Access through listed vehicles
  - Custody
  - Administration



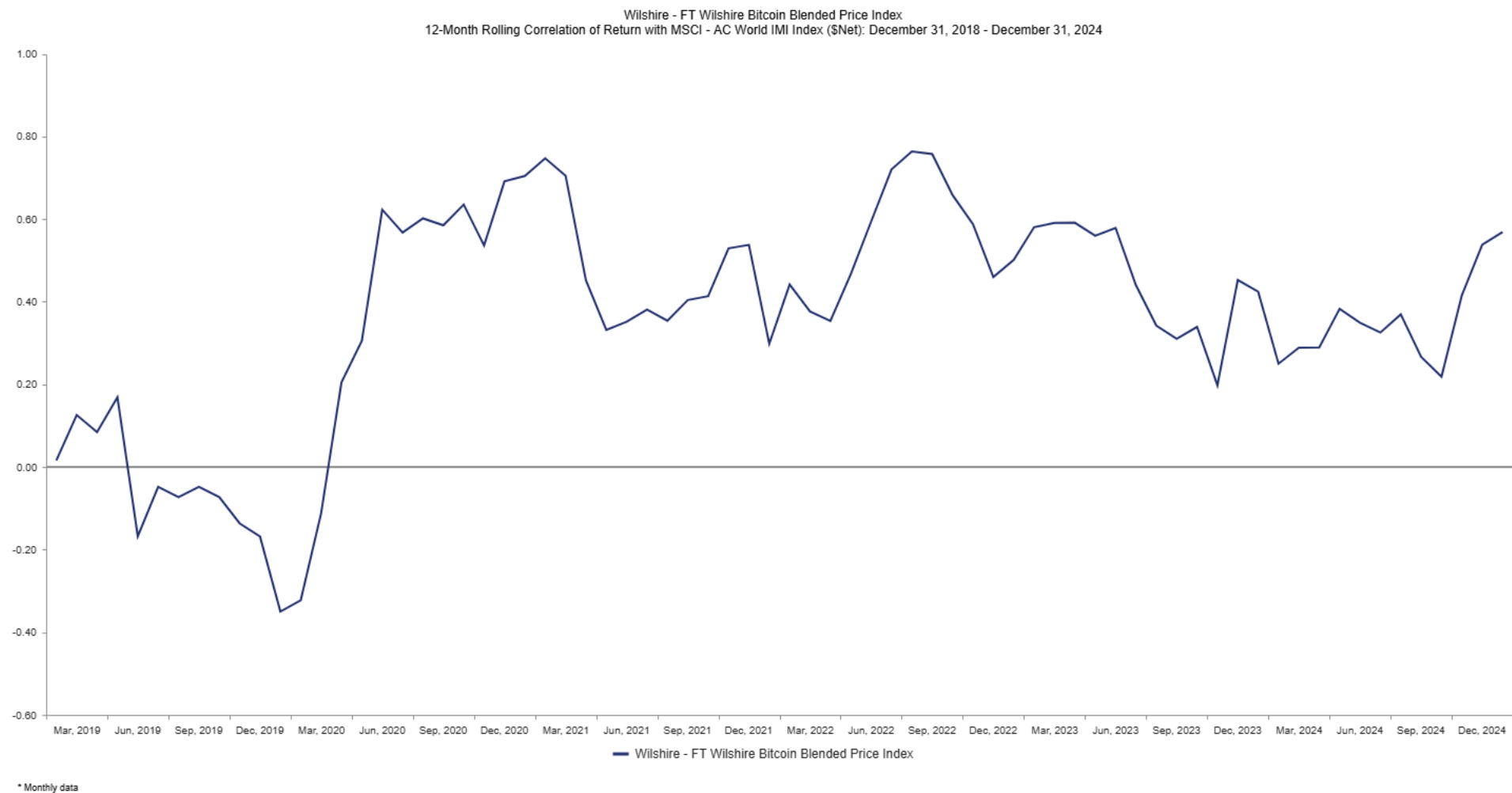
# Digital Assets and Institutional Portfolios

- Low correlation to traditional assets
  - Fundamental drivers of digital asset prices (technological progress, regulation) are different from equities and bonds
- High level of volatility
  - See previous charts!
  - Historically, sharp risk-off markets have seen meaningful price declines for digital assets

CORRELATIONS	S&P 500	US AGG BOND	GOLD
Bitwise 10 Index	0.42	0.01	0.10
Bitcoin (BTC)	0.38	0.00	0.09
Ethereum (ETH)	0.43	0.06	0.09

Source: Bitwise – 1 year correlation through December 31, 2024

# Digital Asset Return and Risk – 12 month Rolling Correlation with Equities



# Institutional Investment Options

INVESTMENT OPTIONS	DESCRIPTION	PROS	CONS
<b>Outright Digital Asset Purchases</b>	Purchasing digital assets on the market via an exchange	<ul style="list-style-type: none"> <li>• Direct exposure to digital assets with no basis risk</li> </ul>	<ul style="list-style-type: none"> <li>• Low liquidity outside of leading assets</li> <li>• Exchange risk and custody responsibility</li> </ul>
<b>ETFs, ETNs, and closed-end funds</b>	ETFs have been approved in the U.S., and there are several ETNs and closed-end fund options	<ul style="list-style-type: none"> <li>• Better liquidity</li> <li>• Investor doesn't hold private keys</li> </ul>	<ul style="list-style-type: none"> <li>• Could trade at significant premiums/discounts</li> </ul>
<b>Futures and Options</b>	Bitcoin and Ether futures contracts, as well as listed options and various OTC derivatives	<ul style="list-style-type: none"> <li>• Better liquidity</li> <li>• Investor doesn't hold private keys</li> <li>• Ability to short</li> </ul>	<ul style="list-style-type: none"> <li>• Poor liquidity relative to traditional futures markets</li> <li>• OTC market lacks standardization</li> </ul>
<b>Public Equity ETFs</b>	Exposure to a bucket of public companies with blockchain in their business models	<ul style="list-style-type: none"> <li>• Better liquidity</li> <li>• Less volatile than broader space</li> <li>• Low transaction costs</li> </ul>	<ul style="list-style-type: none"> <li>• Basis risk to direct digital asset exposure</li> <li>• High exposure to companies benefiting from Graphics Processing Unit demand</li> </ul>
<b>Crypto Lending</b>	Loans facilitated by CeFi or DeFi lending platforms collateralized by digital assets	<ul style="list-style-type: none"> <li>• Yield-based, lower volatility return profile</li> <li>• Typically overcollateralized</li> <li>• Compelling yields versus public fixed income</li> </ul>	<ul style="list-style-type: none"> <li>• Risk of financing bad actors through DeFi</li> <li>• High volatility of underlying collateral</li> </ul>
<b>Long-Only Investment Funds</b>	Long exposure to one or multiple digital assets through a third-party asset manager	<ul style="list-style-type: none"> <li>• Direct exposure to digital assets with minimal tracking error</li> <li>• Custody risk taken on by manager</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of trading flexibility during bear markets</li> <li>• Limited institutional manager landscape</li> </ul>
<b>Hedge Funds</b>	Active trading of digital assets, ranging from fundamental concentrated and long-biased funds to smaller quantitative long/short strategies	<ul style="list-style-type: none"> <li>• Benefit from active management of crypto experts</li> <li>• Long-biased and Momentum strategies can be effective due to retail-driven market</li> <li>• Exchange arbitrage has less directional risk</li> </ul>	<ul style="list-style-type: none"> <li>• Asset-liability mismatch due to low underlying liquidity</li> <li>• Mass market manipulation clouds trading signals</li> <li>• Exchange arbitrage opportunity unclear</li> <li>• Relatively high fees</li> </ul>
<b>Private Equity</b>	Invest in GPs making equity investments in blockchain-based companies or direct purchases in early-stage tokens	<ul style="list-style-type: none"> <li>• No crypto custodial risk</li> <li>• Best asset-liability match given liquidity and investment horizon</li> <li>• Reputable PE firms can drive value creation in blockchain startups</li> </ul>	<ul style="list-style-type: none"> <li>• Rapid tech innovation can quickly outdate investments</li> <li>• Exposure to cryptocurrency market events</li> <li>• Highly exposed to regulatory change</li> <li>• Relatively high fees</li> </ul>

# Appendix Information

## Wilshire Digital Assets Index offering

Clear appetite from Asset Owners to access this dynamic market

Foundational structures need to be developed to access the market's full potential

- Institutional pricing quality
- Taxonomy system
- Standard and customized indexes

Prices are directly available via

Wilshire.com

FT.com

All major data vendors

## FT Wilshire Digital Asset Blended Price - Overview

- Key building block to all FT Wilshire index products
- The FT Wilshire Blended Price (FTWBP) methodology is a volume weighted average price taken across all contributing exchanges
  - Calculated every tick, 24/7/365
  - Filtered for cross-exchange outliers, volatility outliers, “fat-finger” errors etc
  - Contributing exchanges weighted by their 24-hour cumulative hourly volumes
- Contributing Exchanges are those ranked AA or A with a score of 70+, fulfilled over the last two Cryptocompare Exchange Benchmark reviews
- Established in 2019 the Exchange Benchmark considers eight areas of different categories:
  - Legal/Regulation, AML/KYC/Transaction Risk, Data Provision, Security, Asset Quality/Diversity, Team, Market Quality, Negative Events

## Available Indices and Prices

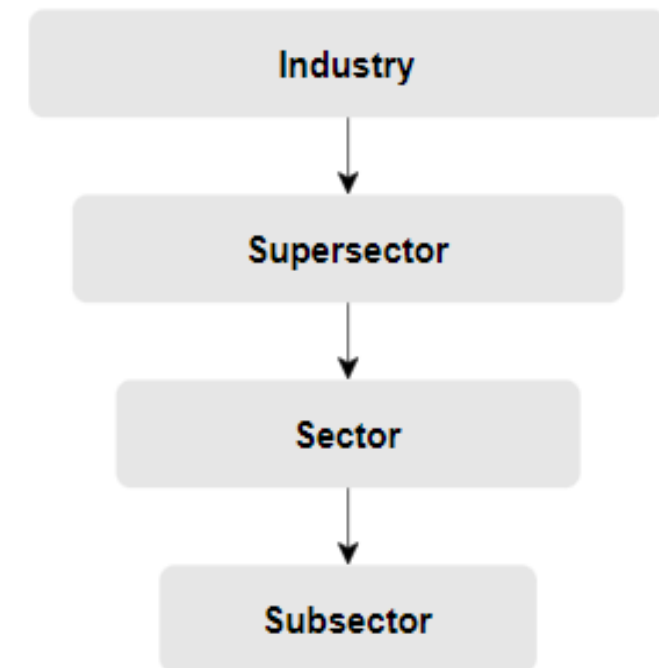
Multiple Digital Asset Indices	Short name	RIC
FT Wilshire Top 5 Digital Assets Index	FTW Top 5 DAI	.FTWT5
FT Wilshire Top 5 ex Bitcoin Digital Assets Index	FTW Top 5 ex Bitcoin DAI	.FTWT5XB
FT Wilshire Bitcoin & Ethereum Digital Asset Index	FTW Bitcoin & Ethereum DAI	.FTWBE
Single Digital Asset Indices	Short name	RIC
FT Wilshire Bitcoin Blended Price Index	FTW Bitcoin BPI	.FTWBTC
FT Wilshire Ethereum Blended Price Index	FTW Ethereum BPI	.FTWETH
FT Wilshire Cardano Blended Price Index	FTW Cardano BPI	.FTWADA
FT Wilshire Dogecoin Blended Price Index	FTW Dogecoin BPI	.FTWDOGE
FT Wilshire Polkadot Blended Price Index	FTW Polkadot BPI	.FTWDOT
FT Wilshire Chainlink Blended Price Index	FTW Chainlink BPI	.FTWLINK
FT Wilshire Bitcoin Cash Blended Price Index	FTW Bitcoin Cash BPI	.FTWBCH
FT Wilshire Uniswap Protocol Blended Price Index	FTW Uniswap Protocol BPI	.FTWUNI
FT Wilshire Solana Blended Price Index	FTW Solana BPI	.FTWSOL
FT Wilshire Litecoin Blended Price Index	FTW Litecoin BPI	.FTWLTC

# Digital Assets are growing exponentially and moving beyond cryptocurrencies

A standard transparent taxonomy system will provide:

- Clear categorization of the top 1,000 by market capitalization by identifying :
  - common usage types
  - underlying technologies
  - and investment themes
- Building block for institutional market to develop investment solutions based on rigorous research

Four tier structure





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# DISCUSSION SHEET

## Employees' Retirement Fund Board of Trustees Meeting

February 11, 2025

**Issue:** Adelante Capital Management LLC

**Attachments:** Investment Manager Agreement (IMA) & Guidelines

**Discussion:** Adelante is a REIT (Real Estate Investment Trust) manager with \$47 million in assets under management for ERF. Adelante has requested to change the benchmark in the IMA and guidelines from the Wilshire U.S. Real Estate Securities Index to FTSE NAREIT Equity Index.

The index change will provide a more precise and comprehensive benchmark for tracking the performance of Adelante and will allow both REIT managers to be evaluated against the same benchmark.

Staff have discussed this guideline change with Wilshire, and have reviewed and recommend the benchmark change.

**Recommendation:** Suggested motion for the approval is as follows: Move to approve/ ratify the requested investment manager IMA and guideline change as noted and authorize the Board Chair to sign.

3-25-25

**Adelante Capital Management** (revised 03/10)  
**Real Estate Securities Management**  
**for**  
**Employees' Retirement Fund of the City of Dallas**

**Investment Approach**

Adelante Capital Management (revised 03/10) shall pursue adding value four ways when investing in real estate securities: (1) Identify companies in markets that will experience solid growth; (2) Maintain a strong bias toward companies that trade at or below direct real estate values and that have the greatest opportunity for stable growth and/or multiple expansion; (3) Maintain a preference for REITs with fully integrated management teams and strong track records in both development and acquisition over several market cycles; (4) Adelante Capital Management's (revised 03/10) experience and insights into direct real estate markets and property operations.

**Portfolio Characteristics**

<b>Number of Holdings</b>	25 – 45
<b>Maximum allocation to one security</b>	15%
<b>Minimum Market Capitalization</b>	\$100 million
<b>Maximum allocation to cash</b>	5%
<b>Maximum allocation to any sector</b>	Not to exceed the greater of 200% of the index or 5% of portfolio value (revised 03/10)
<b>Convertible REITs</b>	0%
<b>Maximum allocation to real estate operating companies</b>	10%

The characteristics above are only representative of a portfolio with your firm's designated investment specialization. The characteristics are not intended to hinder the manager or inhibit its ability to implement its investment process and disciplines. However, the portfolio will be monitored to identify any significant deviations that may indicate a material change in investment approach.

**Authorized Investments**

1. Real Estate Investment Trust securities listed on US exchanges or traded through NASDAQ.
2. Master Custodian's Short-Term Investment Fund (STIF).
3. Real Estate Operating Companies securities listed on US exchanges or traded through NASDAQ.

### **General Investment Manager Guidelines and Requirements**

1. The manager shall take note of and operate under the "Real Estate Asset Class Policy for the Employees' Retirement Fund of the City of Dallas", which specifies the strategic roles the portfolio is to fulfill in the overall investment structure of the Fund, a copy of which is appended to, and is part of these guidelines and objectives.
2. Purchases and sales, security selection, and portfolio implementation of investment strategies are delegated to the discretion of the investment manager.
3. The following transactions are prohibited: purchase of non-negotiable securities, short sales of stocks and bonds, stock and bond transactions on margin, straddles, options, leverage, or letter stock.
4. The use of derivatives is prohibited
5. Transactions that involve a broker acting as a "principal" where such broker is also the investment manager who is making the transaction is prohibited.
6. Transactions shall be executed at a reasonable cost, taking into consideration prevailing market conditions and services and research provided by the executing broker. At the discretion of the Board, the manager will prepare a report detailing all transaction costs and any soft dollar payments and usage.
7. Each investment manager shall have full responsibility for the exercise of all rights appurtenant to any securities under its management, including responsibility to vote proxies, except to the extent otherwise directed by the Trustees. Investment managers shall maintain records of proxy votes and make them available for inspection upon reasonable request.
8. Performance objectives are to be met on a net of fees basis.
9. Any investment or action with respect to an investment not expressly allowed is prohibited, unless presented to and approved prospectively by the Trustees. All guidelines must be adhered to by the manager. If from time to time an exception to the guidelines shall be deemed appropriate by a manager, it may seek review by submitting a request in writing to the Administrator for approval by the Trustees to make such an exception. However, if a guideline is violated due to market events, actions, or conditions, the manager must immediately inform the Administrator to determine a course of action. This course of action will be based upon the best judgement recommendation of the manager and the Administrator's discussion with the investment consultant and Board members. Correction of the violation may be postponed if it is deemed to be in the best interest of the Fund.

10. Should any temporary or permanent change regarding a manager occur, the manager shall notify the Administrator immediately via phone. A letter, detailing the circumstances of the change and the possible impact to the portfolio management, will be faxed immediately to the Administrator. Changes include, but are not limited to: a) a significant change in investment philosophy, b) a loss of one or more key management personnel, c) a new portfolio manager on the account, d) a change in ownership structure of the firm, or e) any occurrence which might potentially impact the management, professionalism, integrity or financial position of the investment manager.
11. For purposes of the guidelines, (a) all percentages apply on a market value basis immediately after a purchase or initial investment and (b) any subsequent change in any applicable percentage resulting from market fluctuations or other changes in total assets does not require immediate elimination of any security from the Portfolio.

### **Performance Objective**

Outperform the FTSE/NAREIT All Equity REITs Index by 1% per annum over a full market cycle (3 to 5 years), net of fees.

Acknowledged: **Adelante Capital Management**

By: Michael A. Torres Date: \_\_\_\_\_

**Employees' Retirement Fund of the City of Dallas**

By:  Date: \_\_\_\_\_  
cheryl.alston (Jan 8, 2025 10:08 CST)

Date initially adopted: August 24, 2001

Date last revised: Decemeber 20th, 2024

**Signature:** Michael A. Torres

**Email:** mtorres@adelante.com









# Adelante Guidelines 1-08-25

Final Audit Report

2025-01-08

Created:	2025-01-08
By:	Joshua Berman (jberman@dallaserf.org)
Status:	Signed
Transaction ID:	CBJCHBCAABAAj8RI7Eiln08glBVPMLYC-VTBk0PGom7_

## "Adelante Guidelines 1-08-25" History

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-  Document emailed to cheryl alston (calston@dallaserf.org) for signature  
2025-01-08 - 3:54:14 PM GMT
-  Document emailed to Michael Torres (mtorres@adelante.com) for signature  
2025-01-08 - 3:54:14 PM GMT
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Signature Date: 2025-01-08 - 4:08:09 PM GMT - Time Source: server
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2025-01-08 - 7:11:01 PM GMT



**Adelante Capital Management** (revised 01/25; 03/10)  
**Real Estate Securities Management**  
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### Performance Objective

Outperform the FTSE/NAREIT All Equity REITs ~~Wilshire Real Estate Securities~~ Index by 1% cycle (3 to 5 years), net of fees. per annum over a full market

Acknowledged: **Adelante Capital Management**

By: \_\_\_\_\_ Date: \_\_\_\_\_

**Employees' Retirement Fund of the City of Dallas**

By: \_\_\_\_\_ Date: \_\_\_\_\_

Date initially adopted: August 24, 2001

Date last revised: December 20th, 2024

2 - 5 March, 2025

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Arizona Biltmore

Join us in 2025

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### Event details

#### DATE

March 4 - 5, 2025

#### LOCATION

BlackRock Headquarters  
50 Hudson Yards  
New York, NY 10001

[Register now >](#)

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March 24-26, 2025

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## Education, networking and creating business

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- Finely balanced ratio of 2:1 investors/investment consultants to asset manager firms
- Numerous networking receptions and meeting opportunities

- Topical, curated content and industry-leading speakers

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us)

## Here's what our 2024 attendees had to say about their experience.

"The conference was excellent! Great topics, great speakers! Join us!"  
- Investor

## Topical and knowledge building

The programme will take a whole-portfolio approach to the major issues facing portfolio construction and investment execution today and in the future: Higher for longer rates, liquidity solutions for LPs, the move toward private markets, China and more.

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Agenda

(<https://events.withintelligence.com/pensionbridgetheannual/agenda>)

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# Why you should be there

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Attendance at our conference is sought after. Regularly attracting institutional investors and family offices with combined assets in excess of \$11trn, attendees know that when they walk through the door business will be done, deals done, and future relationships built.



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Find out more

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# Pension Bridge The Annual 2024

In our previous edition, we hosted over 330 delegates from 200 firms.



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Conference Calendar

(<https://www.withintelligence.com/events-calendar/?>

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~~\_with\_event\_portfolio=pension-bridge )~~

(<https://www.withintelligence.com/>)

## Pension Bridge The Annual 2025

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## December 31, 2024

		<b>Market Value Variance</b>
Change from YE 2023:	\$	104,743,754.23
Change from prior month:	\$	(86,593,524.98)

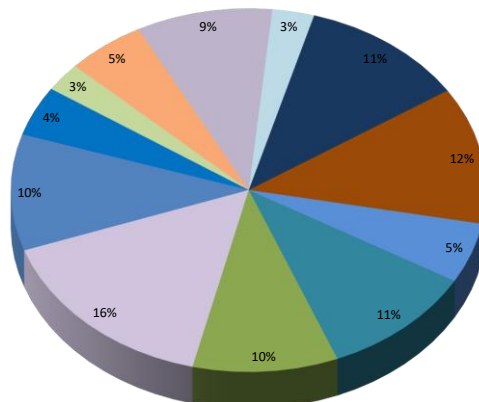
# Asset Allocation: Actual vs. Target

December 31, 2024

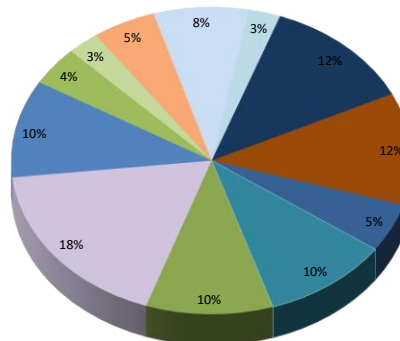
	Market Value	Gross Actual Allocation	Target Allocation	% Difference from Allocation
<b>EQUITY</b>				
CHANNING CAPITAL SYSTEMATIC	33,172,187.92	0.88		
	57,339,377.05	1.53		
<b>Total Small Cap</b>	<b>90,511,564.97</b>	<b>2.41</b>		
T. ROWE PRICE	161,984,088.97	4.31		
<b>Total Domestic/Enhanced equity</b>	<b>161,984,088.97</b>	<b>4.31</b>		
NTGI S&P 500 EQUITY INDEX	166,072,253.48	4.42		
<b>Total Index</b>	<b>166,072,253.48</b>	<b>4.42</b>		
<b>Total Domestic</b>	<b>418,567,907.42</b>	<b>11.13</b>	<b>12.00</b>	<b>-0.87</b>
ACADIAN	113,495,915.47	3.02		
AQR CAPITAL	134,855,589.95	3.59		
ATIVO	26,405,377.88	0.70		
BAILLIE GIFFORD	79,182,134.26	2.11		
EARNST PARTNERS	95,946,497.07	2.55		
<b>Total International</b>	<b>449,885,514.63</b>	<b>11.97</b>	<b>11.50</b>	<b>0.47</b>
ARIEL	41,291,483.54	1.10		
NTAM ACWI IMI	53,268,766.37	1.42		
WELLINGTON MGMT	102,830,394.66	2.73		
<b>Total Global Equity</b>	<b>197,390,644.57</b>	<b>5.25</b>	<b>5.00</b>	<b>0.25</b>
ACADIAN-LVG	198,776,472.07	5.29		
BLACKROCK	191,714,540.84	5.10		
SANCTIONED ASSET PORTFOL	79,664.81	0.00		
<b>Total Global Low Volatility Equity</b>	<b>390,570,677.72</b>	<b>10.39</b>	<b>10.00</b>	<b>0.39</b>
FAIRVIEW CAPITAL	106,178,286.00	2.82		
GROSVENOR GCM - CFG	164,198,458.00	4.37		
HAMILTON LANE	94,463,690.00	2.51		
<b>Total Private Equity</b>	<b>364,840,434.00</b>	<b>9.70</b>	<b>10.00</b>	<b>-0.30</b>
<b>TOTAL EQUITY</b>	<b>1,821,255,178.34</b>	<b>48.44</b>	<b>48.50</b>	<b>-0.06</b>
<b>FIXED INCOME</b>				
GARCIA HAMILTON	189,012,832.70	5.03		
NTAM AGG BOND INDEX FUND	194,579,089.95	5.18		
WESTERN ASSET MANAGEMENT	5,489.42	0.00		
WELLINGTON-CORE BOND	199,714,560.58	5.31		
<b>Total Core Fixed Income</b>	<b>583,311,972.65</b>	<b>15.51</b>	<b>17.50</b>	<b>-1.99</b>
BLACKROCK-HY	188,412,786.30	5.01		
OAKTREE	193,339,850.97	5.14		
<b>Total High Yield</b>	<b>381,752,637.27</b>	<b>10.15</b>	<b>10.00</b>	<b>0.15</b>
NEUBERGER BERMAN	163,676,158.76	4.35		
<b>Total Credit Opportunistic</b>	<b>163,676,158.76</b>	<b>4.35</b>	<b>4.00</b>	<b>0.35</b>
SILVER POINT - DOIP II	2,516,348.00	0.07		
MGG STRUCTURED SOLUTIONS	4,634,633.00	0.12		
<b>Total Private Credit</b>	<b>7,150,981.00</b>	<b>0.07</b>	<b>2.50</b>	<b>-2.43</b>
<b>Total Fixed Income</b>	<b>1,135,891,749.68</b>	<b>30.21</b>	<b>34.00</b>	<b>-3.79</b>
<b>REAL ESTATE</b>				
CENTERSQUARE-SL	47,706,791.98	1.27		
<b>Total REITS</b>	<b>94,723,427.13</b>	<b>2.52</b>	<b>2.50</b>	<b>0.02</b>
ATLANTIC TRUST	73,682,706.55	1.96		
HARVEST FUND	78,433,714.57	2.09		
COHEN & STEERS	45,741,909.07	1.22		
<b>Total Global Listed Infrastructure</b>	<b>197,858,330.19</b>	<b>5.26</b>	<b>5.00</b>	<b>0.26</b>
AEW PARTNERS	47,703,519.00	1.27		
BRASA CAPITAL MGMT	16,805,355.00	0.45		
HEITMAN	80,478,538.74	2.14		
INVESCO	59,019,931.10	1.57		
INVESCO - SL	76,984,932.00	2.05		
LONG WHARF CAPITAL	10,550,010.00	0.28		
VIRTUS REAL ESTATE CAP	50,422,548.00	1.34		
<b>Total Real Estate</b>	<b>341,964,833.84</b>	<b>9.10</b>		
<b>Total Real Assets</b>	<b>634,546,591.16</b>	<b>16.88</b>	<b>15.00</b>	<b>1.88</b>
DAVIDSON KEMPNER INST PTRS	53,106,111.00	1.41		
HUDSON BAY CAPITAL	52,264,475.00	1.39		
<b>Total Diversifying Strategies</b>	<b>105,370,586.00</b>	<b>2.80</b>	<b>2.50</b>	<b>0.30</b>
<b>CASH ACCOUNT</b>	<b>62,845,844.68</b>	<b>1.67</b>		

**TOTAL FUND**      \$ 3,759,909,949.86    \$ 100.00    \$ 100.00    \$ (0.00)

Gross Actual Allocation



Target Allocation



## ASSET ALLOCATION COMPARISON

JANUARY 31, 2025

	Market Value	% of Total Fund	Allocation Policy	% Difference from Allocation	Prior Period Market Value	Prior Period % of Total Fund
<b>Equity</b>						
CHANNING CAPITAL	34,090,895.63	0.89			33,172,187.92	0.88
SYSTEMATIC	58,066,394.35	1.52			57,339,377.05	1.53
<b>Total Small Cap</b>	<b>92,157,289.98</b>	<b>2.42</b>			<b>90,511,564.97</b>	<b>2.41</b>
T. ROWE PRICE	166,627,313.93	4.37			161,984,088.97	4.31
<b>Total Domestic/Enhanced equity</b>	<b>166,627,313.93</b>	<b>4.37</b>			<b>161,984,088.97</b>	<b>4.31</b>
NTGI S&P 500 EQUITY INDEX	170,694,991.79	4.48			166,072,253.48	4.42
<b>Total Index</b>	<b>170,694,991.79</b>	<b>4.48</b>			<b>166,072,253.48</b>	<b>4.42</b>
<b>Total Domestic</b>	<b>429,479,595.70</b>	<b>11.26</b>	<b>12.00</b>	<b>-0.74</b>	<b>418,567,907.42</b>	<b>11.13</b>
ACADIAN	116,603,078.66	3.06			113,495,915.47	3.02
AQR CAPITAL	141,493,168.86	3.71			134,855,589.95	3.59
ATIVO	27,583,376.87	0.72			26,405,377.88	0.70
BAILLIE GIFFORD	83,276,778.77	2.18			79,182,134.26	2.11
EARNEST PARTNERS	100,413,225.17	2.63			95,946,497.07	2.55
<b>Total International</b>	<b>469,369,628.33</b>	<b>12.31</b>	<b>11.50</b>	<b>0.81</b>	<b>449,885,514.63</b>	<b>11.97</b>
ARIEL	43,758,094.36	1.15			41,291,483.54	1.10
NTAM ACWI IMI	55,053,325.29	1.44			53,268,766.37	1.42
WELLINGTON MGMT	105,659,528.02	2.77			102,830,394.66	2.73
<b>Total Global Equity</b>	<b>204,470,947.67</b>	<b>5.36</b>	<b>5.00</b>	<b>0.36</b>	<b>197,390,644.57</b>	<b>5.25</b>
ACADIAN-LVG	204,194,536.52	5.35			198,776,472.07	5.29
BLACKROCK	197,019,214.48	5.17			191,714,540.84	5.10
SANCTIONED ASSET PORTFOL	79,584.60	0.00			79,664.81	0.00
<b>Total Global Low Volatility Equity</b>	<b>401,293,335.60</b>	<b>10.52</b>	<b>10.00</b>	<b>0.52</b>	<b>390,570,677.72</b>	<b>10.39</b>
FAIRVIEW CAPITAL	111,769,494.00	2.93			106,178,286.00	2.82
GROSVENOR GCM - CFG	164,198,458.00	4.31			164,198,458.00	4.37
HAMILTON LANE	94,096,816.00	2.47			94,463,690.00	2.51
<b>Total Private Equity</b>	<b>370,064,768.00</b>	<b>9.70</b>	<b>10.00</b>	<b>-0.30</b>	<b>364,840,434.00</b>	<b>9.70</b>
<b>Total Equity</b>	<b>1,874,678,275.30</b>	<b>49.15</b>	<b>48.50</b>	<b>0.65</b>	<b>1,821,255,178.34</b>	<b>48.44</b>
<b>Fixed Income</b>						
GARCIA HAMILTON	190,114,284.93	4.98			189,012,832.70	5.03
NTAM AGG BOND INDEX FUND	195,619,583.71	5.13			194,579,089.95	5.18
WESTERN ASSET MANAGEMENT	5,510.07	0.00			5,489.42	0.00
WELLINGTON-CORE BOND	201,130,502.02	5.27			199,714,560.58	5.31
<b>Total Core Fixed Income</b>	<b>586,869,880.73</b>	<b>15.39</b>	<b>17.50</b>	<b>-2.11</b>	<b>583,311,972.65</b>	<b>15.51</b>
BLACKROCK-HY	191,050,108.62	5.01			188,412,786.30	5.01
OAKTREE	196,005,520.34	5.14			193,339,850.97	5.14
<b>Total High Yield</b>	<b>387,055,628.96</b>	<b>10.15</b>	<b>10.00</b>	<b>0.15</b>	<b>381,752,637.27</b>	<b>10.15</b>
NEUBERGER BERMAN	165,241,941.86	4.33			163,676,158.76	4.35
<b>Total Credit Opportunities</b>	<b>165,241,941.86</b>	<b>4.33</b>	<b>4.00</b>	<b>0.33</b>	<b>163,676,158.76</b>	<b>4.35</b>
SILVER POINT - DOIP II	2,516,348.00	0.07			2,516,348.00	0.07
MGG STRUCTURED SOLUTIONS	4,634,633.00	0.12			4,634,633.00	0.12
<b>Total Private Credit</b>	<b>7,150,981.00</b>	<b>0.19</b>	<b>2.50</b>	<b>-2.43</b>	<b>7,150,981.00</b>	<b>0.19</b>
<b>Total Fixed Income</b>	<b>1,146,318,432.55</b>	<b>30.06</b>	<b>34.00</b>	<b>-3.94</b>	<b>1,135,891,749.68</b>	<b>30.21</b>
<b>Real Assets</b>						
ADELANTE CAPITAL	47,577,063.59	1.25			47,016,635.15	1.25
CENTERSQUARE-SL	48,005,439.64	1.26			47,706,791.98	1.27
<b>Total REITS</b>	<b>95,582,503.23</b>	<b>2.51</b>	<b>2.50</b>	<b>0.01</b>	<b>94,723,427.13</b>	<b>2.52</b>
ATLANTIC TRUST	77,901,113.44	2.04			73,682,706.55	1.96
HARVEST FUND	82,297,325.67	2.16			78,433,714.57	2.09
COHEN & STEERS	45,913,967.85	1.20			45,741,909.07	1.22
<b>Total Global Listed Infrastructure</b>	<b>206,112,406.96</b>	<b>5.40</b>	<b>5.00</b>	<b>0.40</b>	<b>197,858,330.19</b>	<b>5.26</b>
AEW PARTNERS	47,459,074.00	1.24			47,703,519.00	1.27
BRASA CAPITAL MGMT	16,805,355.00	0.44			16,805,355.00	0.45
HEITMAN	76,437,089.13	2.00			80,478,538.74	2.14
INVESCO	54,360,337.54	1.43			59,019,931.10	1.57
INVESCO - SL	76,984,932.00	2.02			76,984,932.00	2.05
LONG WHARF CAPITAL	8,580,778.00	0.22			10,550,010.00	0.28
VIRTUS REAL ESTATE CAP	50,422,548.00	1.32			50,422,548.00	1.34
<b>Total Real Estate</b>	<b>331,050,113.67</b>	<b>8.68</b>	<b>7.50</b>	<b>1.18</b>	<b>341,964,833.84</b>	<b>9.10</b>
<b>Total Real Assets</b>	<b>632,745,023.86</b>	<b>16.59</b>	<b>15.00</b>	<b>1.59</b>	<b>634,546,591.16</b>	<b>16.88</b>
<b>Diversifying Strategies</b>						
DAVIDSON KEMPNER INST PTRS	53,160,195.00	1.39			53,106,111.00	1.41
HUDSON BAY CAPITAL	52,710,722.00	1.38			52,264,475.00	1.39
<b>Total Marketable Alternatives</b>	<b>105,870,917.00</b>	<b>2.78</b>	<b>2.50</b>	<b>0.28</b>	<b>105,370,586.00</b>	<b>2.80</b>
<b>Total Diversifying Strategies</b>	<b>105,870,917.00</b>	<b>2.78</b>	<b>2.50</b>	<b>0.28</b>	<b>105,370,586.00</b>	<b>2.80</b>
<b>Cash</b>						
	54,256,626.93	1.42			62,845,844.68	1.67
<b>Total Cash Account</b>	<b>54,256,626.93</b>	<b>1.42</b>	<b>0.00</b>	<b>1.42</b>	<b>62,845,844.68</b>	<b>1.67</b>

TOTAL FUND \$ 3,813,869,275.64 100.00 100.00 \$ 3,759,909,949.86 100.00

Market Value YE 2024 \$ 3,759,909,949.86

Market Value Variance  
Change from YE 2024: \$ 53,959,325.78  
Change from prior month: \$ 53,959,325.78

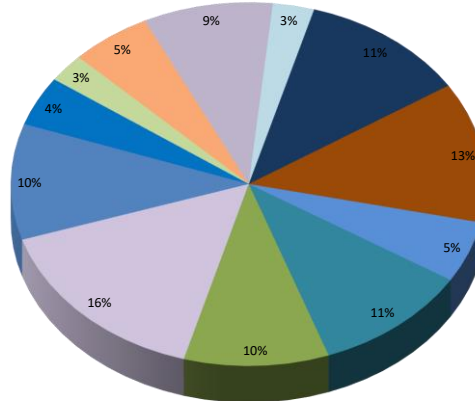
# Asset Allocation: Actual vs. Target

JANUARY 31, 2025

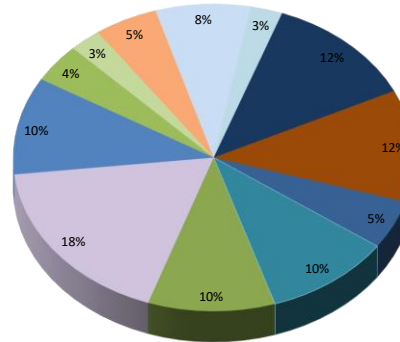
	Market Value	Gross Actual Allocation	Target Allocation	% Difference from Allocation
<b>EQUITY</b>				
CHANNING CAPITAL	34,090,895.63	0.89		
SYSTEMATIC	58,066,394.35	1.52		
<b>Total Small Cap</b>	<b>92,157,289.98</b>	<b>2.42</b>		
T. ROWE PRICE	166,627,313.93	4.37		
<b>Total Domestic/Enhanced equity</b>	<b>166,627,313.93</b>	<b>4.37</b>		
NTGI S&P 500 EQUITY INDEX	170,694,991.79	4.48		
<b>Total Index</b>	<b>170,694,991.79</b>	<b>4.48</b>		
<b>Total Domestic</b>	<b>429,479,595.70</b>	<b>11.26</b>	<b>12.00</b>	<b>-0.74</b>
ACADIAN	116,603,078.66	3.06		
AQR CAPITAL	141,493,168.86	3.71		
ATIVO	27,583,376.87	0.72		
BAILLIE GIFFORD	83,276,778.77	2.18		
EARNST PARTNERS	100,413,225.17	2.63		
<b>Total International</b>	<b>469,369,628.33</b>	<b>12.31</b>	<b>11.50</b>	<b>0.81</b>
ARIEL	43,758,094.36	1.15		
NTAM ACWI IMI	55,053,325.29	1.44		
WELLINGTON MGMT	105,659,528.02	2.77		
<b>Total Global Equity</b>	<b>204,470,947.67</b>	<b>5.36</b>	<b>5.00</b>	<b>0.36</b>
ACADIAN-LVG	204,194,536.52	5.35		
BLACKROCK	197,019,214.48	5.17		
SANCTIONED ASSET PORTFOL	79,584.60	0.00		
<b>Total Global Low Volatility Equity</b>	<b>401,293,335.60</b>	<b>10.52</b>	<b>10.00</b>	<b>0.52</b>
FAIRVIEW CAPITAL	111,769,494.00	2.93		
GROSVENOR GCM - CFG	164,198,458.00	4.31		
HAMILTON LANE	94,096,816.00	2.47		
<b>Total Private Equity</b>	<b>370,064,768.00</b>	<b>9.70</b>	<b>10.00</b>	<b>-0.30</b>
<b>TOTAL EQUITY</b>	<b>1,874,678,275.30</b>	<b>49.15</b>	<b>48.50</b>	<b>0.65</b>
<b>FIXED INCOME</b>				
GARCIA HAMILTON	190,114,284.93	4.98		
NTAM AGG BOND INDEX FUND	195,619,583.71	5.13		
WESTERN ASSET MANAGEMENT	5,510.07	0.00		
WELLINGTON-CORE BOND	201,130,502.02	5.27		
<b>Total Core Fixed Income</b>	<b>586,869,880.73</b>	<b>15.39</b>	<b>17.50</b>	<b>-2.11</b>
BLACKROCK-HY	191,050,108.62	5.01		
OAKTREE	196,005,520.34	5.14		
<b>Total High Yield</b>	<b>387,055,628.96</b>	<b>10.15</b>	<b>10.00</b>	<b>0.15</b>
NEUBERGER BERMAN	165,241,941.86	4.33		
<b>Total Credit Opportunistic</b>	<b>165,241,941.86</b>	<b>4.33</b>	<b>4.00</b>	<b>0.33</b>
SILVER POINT - DOIP II	2,516,348.00	0.07		
MGG STRUCTURED SOLUTIONS	4,634,633.00	0.12		
<b>Total Private Credit</b>	<b>7,150,981.00</b>	<b>0.07</b>	<b>2.50</b>	<b>-2.43</b>
<b>Total Fixed Income</b>	<b>1,146,318,432.55</b>	<b>30.06</b>	<b>34.00</b>	<b>-3.94</b>
<b>REAL ESTATE</b>				
CENTERSQUARE-SL	48,005,439.64	1.26		
<b>Total REITS</b>	<b>95,582,503.23</b>	<b>2.51</b>	<b>2.50</b>	<b>0.01</b>
ATLANTIC TRUST	77,901,113.44	2.04		
HARVEST FUND	82,297,325.67	2.16		
COHEN & STEERS	45,913,967.85	1.20		
<b>Total Global Listed Infrastructure</b>	<b>206,112,406.96</b>	<b>5.40</b>	<b>5.00</b>	<b>0.40</b>
AEW PARTNERS	47,459,074.00	1.24		
BRASA CAPITAL MGMT	16,805,355.00	0.44		
HEITMAN	76,437,089.13	2.00		
INVESCO	54,360,337.54	1.43		
INVESCO - SL	76,984,932.00	2.02		
LONG WHARF CAPITAL	8,580,778.00	0.22		
VIRTUS REAL ESTATE CAP	50,422,548.00	1.32		
<b>Total Real Estate</b>	<b>331,050,113.67</b>	<b>8.68</b>		
<b>Total Real Assets</b>	<b>632,745,023.86</b>	<b>16.59</b>	<b>15.00</b>	<b>1.59</b>
DAVIDSON KEMPNER INST PTRS	53,160,195.00	1.39		
HUDSON BAY CAPITAL	52,710,722.00	1.38		
<b>Total Diversifying Strategies</b>	<b>105,870,917.00</b>	<b>2.78</b>	<b>2.50</b>	<b>0.28</b>
<b>CASH ACCOUNT</b>	<b>54,256,626.93</b>	<b>1.42</b>		

**TOTAL FUND**      \$ 3,813,869,275.64    \$ 100.00    \$ 100.00    \$ (0.00)

Gross Actual Allocation



Target Allocation



**Wilshire**

# ERF of the City of Dallas

## Monthly Investment Summary

December 31, 2024



# Monthly Index Performance

Periods Ended December 31, 2024

	Performance (%)					
	1 Month	YTD	1 Year	3 Years	5 Years	10 Years
U.S. Equity						
FT Wilshire 5000 Index	-3.03	23.76	23.76	8.11	14.10	12.73
S&P 500 Index	-2.38	25.02	25.02	8.94	14.53	13.10
FT Wilshire 4500 Index	-7.34	13.81	13.81	3.34	9.26	9.03
MSCI USA Minimum Volatility Index	-5.58	15.99	15.99	4.97	8.16	10.36
U.S. Equity by Size/Style						
FT Wilshire U.S. Large Cap Index	-2.38	25.24	25.24	8.82	14.79	13.28
FT Wilshire US Large Cap Growth Index	1.39	35.47	35.47	10.88	19.35	16.44
FT Wilshire US Large Cap Value Index	-6.33	15.21	15.21	6.35	9.83	9.87
FT Wilshire U.S. Small Cap Index	-7.42	14.12	14.12	3.99	9.53	9.29
FT Wilshire US Small Cap Growth Index	-7.31	15.54	15.54	2.23	8.83	9.51
FT Wilshire US Small Cap Value Index	-7.54	12.69	12.69	5.58	9.89	8.83
FT Wilshire U.S. Micro Cap Index	-6.70	11.09	11.09	-1.75	6.91	7.08
Non-U.S. Equity (USD)						
MSCI AC World ex USA (Net)	-1.94	5.53	5.53	0.82	4.10	4.80
MSCI ACWI ex USA Minimum Volatility Index (Net)	-1.22	8.15	8.15	1.53	3.10	4.89
MSCI EAFE (Net)	-2.27	3.82	3.82	1.65	4.73	5.20
MSCI Emerging Markets (Net)	-0.14	7.50	7.50	-1.92	1.70	3.64
MSCI AC World ex USA Small Cap (Net)	-2.13	3.36	3.36	-1.47	4.30	5.66
U.S. Fixed Income						
Blmbg. U.S. Aggregate Index	-1.64	1.25	1.25	-2.41	-0.33	1.35
Blmbg. U.S. Treasury: Long	-5.32	-6.41	-6.41	-11.96	-5.20	-0.64
Blmbg. U.S. Long Corporate Index	-4.30	-1.95	-1.95	-6.82	-1.84	2.20
Blmbg. U.S. TIPS Index	-1.58	1.84	1.84	-2.30	1.87	2.24
Blmbg. U.S. Credit Index	-1.89	2.03	2.03	-2.20	0.23	2.29
Blmbg. U.S. Corp: High Yield Index	-0.43	8.19	8.19	2.92	4.21	5.17
Morningstar LSTA U.S. Leveraged Loan	0.57	8.96	8.96	7.00	5.86	5.15

# Asset Allocation & Performance

Dallas Total Fund

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Global Equity Composite	-1.90	-0.89	15.76	15.76	5.56	9.30	9.29	9/1/2012	197,390,611	5.25
Global Low Volatility Composite	-3.57	-2.50	13.69	13.69	4.37	5.68	7.61	7/1/2015	390,491,013	10.39
Domestic Equity Composite	-3.21	1.99	21.68	21.68	7.43	13.34	10.64	1/1/1990	418,567,907	11.13
International Equity Composite	-1.68	-5.73	8.00	8.00	1.13	5.64	5.60	1/1/1990	449,851,827	11.96
Fixed Income Composite	-1.76	-3.47	0.79	0.79	-2.28	0.08	4.20	10/1/1995	583,539,081	15.52
High Yield Composite	-0.41	0.06	8.20	8.20	3.38	4.32	6.15	1/1/1997	381,766,719	10.15
Credit Opportunities Composite	-0.14	0.96	10.34	10.34	3.28	3.54	5.27	2/1/2016	163,676,159	4.35
Private Credit Composite	0.11	6.91					14.17	6/1/2024	7,150,981	0.19
Total Real Estate Composite	-1.68	-0.88	1.70	1.70	-0.29	4.66	6.43	1/1/1990	436,688,261	11.61
Global Listed Infrastructure Composite	-6.52	5.37	31.69	31.69	21.03	11.70	7.26	1/1/2012	197,858,330	5.26
Private Equity Composite	1.17	1.22	1.20	1.20	5.38	11.00	12.68	6/1/2009	364,840,434	9.70
Marketable Alternatives Composite	1.22	3.07	9.21	9.21			7.26	10/1/2022	105,370,586	2.80
Managed Short Term Composite	0.40	1.17	5.31	5.31	3.91	2.48	2.87	1/1/1990	62,845,845	1.67
Dallas Total Fund	-1.79	-0.79	9.08	9.08	3.23	6.15	8.71	1/1/1985	3,760,037,754	100.00
Policy Index	-1.86	-0.62	11.76	11.76	3.52	6.59	9.30			

# Asset Allocation & Performance

## Domestic Equity

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Systematic Financial</b>	-6.82	-0.93	10.90	10.90	4.89	9.37	10.56	8/1/2003	57,339,377	13.70
Russell 2000 Index	-8.26	0.33	11.54	11.54	1.24	7.40	8.92			
<b>Channing Capital</b>	-7.77	-0.32	10.65	10.65	2.85	8.65	7.18	12/1/2013	33,172,188	7.93
Russell 2000 Value Index	-8.33	-1.06	8.05	8.05	1.94	7.29	7.00			
<b>Domestic Equity Small Cap Composite</b>	-7.17	-0.71	10.66	10.66	1.27	8.77	9.28	6/1/2003	90,511,565	21.62
<b>T. Rowe Price</b>	-1.80	3.08	26.80	26.80	10.36	15.63	11.25	4/1/2006	161,984,089	38.70
S&P 500 Index	-2.38	2.41	25.02	25.02	8.94	14.53	10.56			
<b>Northern Trust S&amp;P 500 (Lending)</b>	-2.38	2.41	24.96	24.96	8.96	14.50	10.96	1/1/1995	166,072,253	39.68
S&P 500 Index	-2.38	2.41	25.02	25.02	8.94	14.53	10.92			
<b>Domestic Equity Composite</b>	-3.21	1.99	21.68	21.68	7.43	13.34	10.64	1/1/1990	418,567,907	100.00
Custom Benchmark <sup>1</sup>	-3.03	2.63	23.76	23.76	8.12	14.11	10.82			
Domestic Equity Blended Benchmark	-3.56	1.97	21.33	21.33	6.19	12.10				

<sup>1</sup> Domestic Equity Composite Custom Benchmark: FT Wilshire 5000 (2Q99-Present); S&P 500 (1Q90-1Q99)

# Asset Allocation & Performance

## International Equity

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Acadian International</b> Custom Benchmark <sup>1</sup>	-1.62 -2.13	-4.62 -7.66	9.72 3.36	9.72 3.36	0.95 -1.47	6.76 4.30	8.15 5.76	4/1/1989	113,491,308	25.23
<b>Ativo International</b> MSCI EAFE (Net)	-2.43 -2.27	-7.32 -8.11	1.04 3.82	1.04 3.82	-1.01 1.65	2.79 4.73	2.98 4.10	1/1/2018	26,405,348	5.87
<b>AQR Capital Management</b> Custom Benchmark <sup>2</sup>	-1.45 -1.94	-5.80 -7.60	10.55 5.53	10.55 5.53	3.36 0.82	4.83 4.10	3.85 3.45	4/1/2006	134,838,891	29.97
<b>Baillie Gifford</b> MSCI AC World ex USA (Net)	-2.68 -1.94	-7.77 -7.60	5.85 5.53	5.85 5.53	-3.56 0.82	2.57 4.10	5.06 5.32	4/1/2019	79,182,134	17.60
<b>Earnest Partners</b> MSCI AC World ex USA (Net)	-1.04 -1.94	-4.76 -7.60	6.28 5.53	6.28 5.53	2.94 0.82	6.91 4.10	7.71 5.32	4/1/2019	95,934,147	21.33
<b>International Equity Composite</b> Custom Benchmark <sup>3</sup>	-1.68 -1.97	-5.73 -7.61	8.00 5.23	8.00 5.23	1.13 0.50	5.64 4.12	5.60 4.60	1/1/1990	449,851,827	100.00

<sup>1</sup> Acadian Custom Benchmark: MSCI ACWI x-US Small Cap (3Q09-Present); MSCI EAFE Small Cap (4Q99-2Q09); S&P/Citigroup Eur/Pac EMI Index (2Q96-3Q99); MSCI EAFE (2Q89-1Q96)

<sup>2</sup> AQR Custom Benchmark: MSCI ACWI x-US (2Q10-Present); MSCI EAFE (1Q06-1Q10)

<sup>3</sup> International Equity Composite Custom Benchmark: MSCI ACWI x-US IMI (2Q10-Present); MSCI ACWI x-US (1Q99-1Q10); Wilshire Non-US/Non-SA (2Q96-4Q98; MSCI EAFE (4Q89-1Q96)

# Asset Allocation & Performance

## Global Equity

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Ariel Global</b>	<b>-1.51</b>	<b>-3.92</b>	<b>7.38</b>	<b>7.38</b>	<b>4.80</b>	<b>7.00</b>	<b>6.57</b>	<b>1/1/2018</b>	<b>41,291,450</b>	<b>20.92</b>
MSCI AC World Index (Net)	-2.37	-0.99	17.49	17.49	5.44	10.06	9.21			
MSCI AC World Index Value (Net)	-5.24	-4.71	10.76	10.76	4.61	6.42	5.64			
<b>NT ACWI IMI Fund</b>	<b>-2.70</b>	<b>-1.16</b>					<b>-1.16</b>	<b>10/1/2024</b>	<b>53,268,766</b>	<b>26.99</b>
MSCI AC World IMI Index (Net)	-2.69	-1.24					-1.24			
<b>Wellington</b>	<b>-1.63</b>	<b>0.40</b>	<b>20.40</b>	<b>20.40</b>	<b>5.45</b>	<b>10.55</b>	<b>11.27</b>	<b>9/1/2012</b>	<b>102,830,395</b>	<b>52.09</b>
MSCI AC World Index (Net)	-2.37	-0.99	17.49	17.49	5.44	10.06	10.12			
<b>Global Equity Composite</b>	<b>-1.90</b>	<b>-0.89</b>	<b>15.76</b>	<b>15.76</b>	<b>5.56</b>	<b>9.30</b>	<b>9.29</b>	<b>9/1/2012</b>	<b>197,390,611</b>	<b>100.00</b>
MSCI AC World Index (Net)	-2.37	-0.99	17.49	17.49	5.44	10.06	10.12			

# Asset Allocation & Performance

## Global Low Volatility

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Acadian Global Low Vol.</b>	<b>-3.29</b>	<b>-1.55</b>	<b>15.99</b>	<b>15.99</b>	<b>5.92</b>	<b>6.54</b>	<b>7.85</b>	<b>7/1/2015</b>	<b>198,776,472</b>	<b>50.90</b>
MSCI AC World Index (Net)	-2.37	-0.99	17.49	17.49	5.44	10.06	9.44			
MSCI AC World Minimum Volatility Index (Net)	-3.82	-3.49	11.37	11.37	2.48	4.72	7.06			
<b>BlackRock Global Low Vol.</b>	<b>-3.85</b>	<b>-3.46</b>	<b>11.40</b>	<b>11.40</b>	<b>2.81</b>	<b>4.81</b>	<b>7.35</b>	<b>7/1/2015</b>	<b>191,714,541</b>	<b>49.10</b>
MSCI AC World Minimum Volatility Index (Net)	-3.82	-3.49	11.37	11.37	2.48	4.72	7.06			
<b>Global Low Volatility Composite</b>	<b>-3.57</b>	<b>-2.50</b>	<b>13.69</b>	<b>13.69</b>	<b>4.37</b>	<b>5.68</b>	<b>7.61</b>	<b>7/1/2015</b>	<b>390,491,013</b>	<b>100.00</b>
MSCI AC World Minimum Volatility Index (Net)	-3.82	-3.49	11.37	11.37	2.48	4.72	7.06			

# Private Equity Summary

Periods Ended as of December 31, 2024

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	TVPI Multiple <sup>1</sup>
Hamilton Lane Secondary Fund II	1	25,000,000	22,058,532	31,298,964	Jul-09	13.4%	1.4
Hamilton Lane Secondary Fund III	456,598	30,000,000	23,372,292	29,522,574	Nov-12	8.7%	1.3
Hamilton Lane Secondary Fund IV	9,988,385	30,000,000	25,907,343	29,716,392	Mar-17	14.5%	1.5
Hamilton Lane Secondary Fund V	47,823,322	65,000,000	43,128,993	19,574,475	Mar-20	15.6%	1.6
Hamilton Lane Secondary Fund VI-A	12,524,330	30,000,000	11,211,545	813,729	Feb-23	31.0%	1.2
Hamilton Lane Fund VII Composite	10,583,728	50,000,000	45,600,834	58,182,337	Jan-10	5.6%	1.5
Hamilton Lane Fund VIII (Global)	13,087,326	30,000,000	22,270,594	20,677,688	Nov-12	6.5%	1.5
GCM Grosvenor - Partnership, L.P.	19,793,280	75,000,000	95,722,822	140,126,072	Jun-11	14.0%	1.7
GCM Grosvenor - Partnership II, L.P. (2014)	34,283,551	60,000,000	73,566,185	81,805,018	Jul-14	14.8%	1.6
GCM Grosvenor - Partnership II, L.P. (2015)	63,224,559	55,000,000	49,450,168	13,612,376	Dec-15	13.1%	1.6
GCM Grosvenor - Partnership II, L.P. (2017)	31,096,904	30,000,000	32,380,286	15,179,092	Jan-18	13.2%	1.4
GCM Grosvenor - Advance Fund, L.P.	8,330,305	10,000,000	7,362,810	345,493	Jun-21	9.6%	1.2
GCM Grosvenor - Partnership II, L.P. (2022)	7,469,859	20,000,000	7,070,263	5,461	May-22	2.9%	1.1
Fairview Capital - Lone Star Fund I	47,414,783	40,000,000	33,903,847	21,375,519	Aug-15	12.5%	2.0
Fairview Capital - Lone Star Fund II	35,643,261	30,000,000	23,900,777	4,457,117	Dec-18	13.0%	1.7
Fairview Capital - Lone Star Fund III - A	17,999,349	25,000,000	17,466,368	96,325	Apr-21	0.4%	1.0
Fairview Capital - Lone Star Fund III - B	1,868,079	20,000,000	2,163,208	-	Dec-22	-40.2%	0.9
Fairview Capital - Private Markets Fund VI	3,252,814	10,000,000	3,770,484	210,556	Apr-22	-5.8%	0.9
<b>Total Private Equity Composite</b>	<b>364,840,434</b>	<b>635,000,000</b>	<b>540,307,350</b>	<b>466,999,187</b>	<b>Jul-09</b>	<b>12.5%</b>	<b>1.5</b>

**Public Market Equivalent (PME) <sup>2</sup>**

**665,238,487**

**17.5%**

<sup>1</sup> Total Value to Paid-in Capital ("TVPI") multiple calculation =  $(\text{market value} + \text{distributions}) / \text{capital called}$

<sup>2</sup> The Public Market Equivalent (PME) approach creates a hypothetical investment vehicle that mimics the private equity composite cash flows. The performance difference between the PME vehicle and the private equity portfolio is determined by their net asset value (NAV) at the end of the benchmarking period. The performance of the "public market" is simulated using the monthly S&P 500 index returns, plus a 300 BPs annual hurdle rate.

# Private Real Estate Summary

Periods Ended as of December 31, 2024

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	TVPI Multiple <sup>1</sup>
Invesco II	76,984,932	65,188,333	65,188,333	19,614,151	Jan-14	5.2%	1.5
<b>Total Direct Private Real Estate</b>	<b>76,984,932</b>	<b>65,188,333</b>	<b>65,188,333</b>	<b>19,614,151</b>	<b>Jan-14</b>	<b>5.2%</b>	<b>1.5</b>

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	TVPI Multiple
Heitman America Real Estate Trust	80,478,539	75,000,000	88,210,161	103,497,653	Dec-10	6.3%	2.1
Invesco Core Real Estate USA	59,019,931	75,000,000	76,921,500	103,720,037	Oct-10	9.9%	2.1
<b>Total Core Private Real Estate</b>	<b>139,498,470</b>	<b>150,000,000</b>	<b>165,131,661</b>	<b>207,217,690</b>	<b>Oct-10</b>	<b>8.5%</b>	<b>2.1</b>

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	TVPI Multiple
AEW Partners Real Estate Fund IX	38,341,073	45,000,000	37,592,593	4,134,816	Mar-21	5.3%	1.1
AEW PIX MM Co-Invest	4,196,997	10,000,000	5,132,075	825,454	Nov-21	-0.1%	1.0
AEW PIX Oakland Park Co-Invest	5,165,449	5,000,000	5,000,000	764,960	Feb-22	5.9%	1.2
Virtus Real Estate Capital III	50,422,548	43,281,585	44,340,405	3,714,853	Jan-21	7.9%	1.2
Brasa Real Estate Fund II	16,805,355	20,000,000	18,032,416	1,133,526	Jul-22	-0.3%	1.0
Long Wharf Real Estate Partners VII	10,550,010	20,000,000	11,453,414	713,070	Mar-23	-6.9%	1.0
<b>Total Value-Add Private Real Estate</b>	<b>125,481,432</b>	<b>143,281,585</b>	<b>121,550,903</b>	<b>11,286,679</b>	<b>Jan-21</b>	<b>5.3%</b>	<b>1.1</b>

<sup>1</sup> Total Value to Paid-in Capital ("TVPI") multiple calculation = (market value + distributions) / capital called



# Asset Allocation & Performance

## Real Estate

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Adelante Capital Management</b>	-7.31	-4.65	9.77	9.77	-2.36	5.43	9.14	10/1/2001	47,016,635	49.64
Adelante Blended Policy <sup>1</sup>	-7.25	-4.98	9.15	9.15	-2.41	4.57	9.21			
<b>CenterSquare</b>	-7.04	-5.37	11.14	11.14	-1.02	5.75	7.88	6/1/2018	47,706,792	50.36
CenterSquare Blended Policy <sup>1</sup>	-7.25	-4.98	9.15	9.15	-2.41	4.57	6.76			
<b>REIT Composite</b>	-7.17	-5.01	10.46	10.46	-1.69	5.59	9.26	10/1/2001	94,723,427	100.00
REIT Composite Blended Policy <sup>1</sup>	-7.25	-4.98	9.15	9.15	-2.41	4.57	9.21			

<sup>1</sup> Blended Policy: Wilshire U.S. Real Estate Securities Index (Inception-4Q24); FTSE NAREIT Equity REIT Index (1Q25-Present)

# Asset Allocation & Performance

## Global Listed Infrastructure

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>CIBC</b>	-6.56	12.49	44.30	44.30	31.01	19.53	10.14	1/1/2012	73,682,707	37.24
CIBC Policy <sup>1</sup>	-6.10	13.47	49.71	49.71	35.37	19.91	7.02			
<b>Harvest Fund Advisors MLP</b>	-6.32	11.08	41.76	41.76	30.81	20.00	9.98	1/1/2012	78,433,715	39.64
Harvest Policy <sup>2</sup>	-6.10	13.47	49.71	49.71	35.37	19.91	7.02			
<b>C&amp;S Global Listed Infrastructure</b>	-6.75	-6.92	11.39	11.39	3.12		7.13	10/1/2020	45,741,909	23.12
FTSE Global Core Infrastructure 50/50 (Net)	-5.85	-5.74	9.53	9.53	2.12		6.88			
<b>Global Listed Infrastructure Composite</b>	-6.52	5.37	31.69	31.69	21.03	11.70	7.26	1/1/2012	197,858,330	100.00
Global Listed Infrastructure Benchmark <sup>3</sup>	-6.04	8.51	38.82	38.82	26.60	13.32	4.72			

<sup>1</sup> CIBC Policy: Alerian Midstream Energy Index (5/24-Present); Alerian MLP Index (1Q12-4/24)

<sup>2</sup> Harvest Policy: Alerian Midstream Energy Index (5/24-Present); Alerian MLP Index (1Q12-4/24)

<sup>3</sup> Global Listed Infrastructure Benchmark: 75% Alerian Midstream Energy Index / 25% FTSE Global Core Infrastructure 50/50 (5/24-Present)  
75% Alerian MLP / 25% FTSE Global Core Infrastructure 50/50 (4Q20-4/24); Alerian MLP (1Q12-3Q20)

# Asset Allocation & Performance

## Fixed Income

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Garcia Hamilton</b>	-2.19	-4.40	-0.14	-0.14	-2.31	-0.38	1.79	11/1/2013	189,012,833	32.39
Blmbg. U.S. Aggregate Index	-1.64	-3.06	1.25	1.25	-2.41	-0.33	1.65			
<b>NT Aggregate Bond Index</b>	-1.62	-3.04					-3.04	10/1/2024	194,579,090	33.34
Blmbg. U.S. Aggregate Index	-1.64	-3.06					-3.06			
<b>Wellington Core Bond</b>	-1.50	-3.00	2.26	2.26			2.21	7/1/2022	199,941,669	34.26
Blmbg. U.S. Aggregate Index	-1.64	-3.06	1.25	1.25			1.45			
<b>Western Asset Management</b>									5,489	0.00
<b>Fixed Income Composite</b>	-1.76	-3.47	0.79	0.79	-2.28	0.08	4.20	10/1/1995	583,539,081	100.00
Blmbg. U.S. Aggregate Index	-1.64	-3.06	1.25	1.25	-2.41	-0.33	4.22			

# Asset Allocation & Performance

## Opportunistic Credit

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Neuberger Berman	-0.14	0.96	10.34	10.34	3.28	3.54	5.27	2/1/2016	163,676,159	
Custom Benchmark <sup>1</sup>	-0.42	0.16	7.92	7.92	3.05	3.38	5.32			

<sup>1</sup> Custom Benchmark: 33% Morningstar LSTA U.S. Leveraged Loan Index / 33% ICE BofA U.S. High Yield Constrained Index / 33% JPM EMBI Global Diversified

# Asset Allocation & Performance

## Private Credit

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Silver Point DOF II	0.00	10.24					43.60	6/1/2024	2,516,348	35.19
MGG Structured Solutions	0.18	4.93					4.93	8/1/2024	4,634,633	64.81
Private Credit Composite	0.11	6.91					14.17	6/1/2024	7,150,981	100.00

# Asset Allocation & Performance

## High Yield

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Oaktree Capital Management</b>	-0.47	-0.07	7.98	7.98	3.25	4.29	6.29	2/1/1997	193,339,851	50.64
FTSE High Yield Cash Pay	-0.39	0.21	8.34	8.34	3.11	4.17	6.41			
<b>BlackRock</b>	-0.36	0.19	8.41	8.41	3.51	4.35	5.94	10/1/2006	188,426,868	49.36
FTSE High Yield Cash Pay	-0.39	0.21	8.34	8.34	3.11	4.17	6.25			
<b>High Yield Composite</b>	-0.41	0.06	8.20	8.20	3.38	4.32	6.15	1/1/1997	381,766,719	100.00
FTSE High Yield Cash Pay	-0.39	0.21	8.34	8.34	3.11	4.17	6.42			

# Asset Allocation & Performance

## Marketable Alternatives

Periods Ended December 31, 2024

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Davidson Kempner</b>	<b>0.96</b>	<b>3.37</b>	<b>9.80</b>	<b>9.80</b>			<b>7.64</b>	<b>10/1/2022</b>	<b>53,106,111</b>	<b>50.40</b>
HFRI Event-Driven Total Index	2.72	3.91	14.72	14.72			10.59			
<b>Hudson Bay Capital</b>	<b>1.49</b>	<b>2.77</b>	<b>8.63</b>	<b>8.63</b>			<b>6.88</b>	<b>10/1/2022</b>	<b>52,264,475</b>	<b>49.60</b>
HFRI Relative Value Total Index	1.02	2.64	9.80	9.80			7.49			
<b>Marketable Alternatives Composite</b>	<b>1.22</b>	<b>3.07</b>	<b>9.21</b>	<b>9.21</b>			<b>7.26</b>	<b>10/1/2022</b>	<b>105,370,586</b>	<b>100.00</b>
Marketable Alternatives Policy <sup>1</sup>	1.87	3.28	12.26	12.26			9.05			

<sup>1</sup> Marketable Alternatives Policy: 50% HFRI Event-Driven Total Index / 50% HFRI Relative Value Total Index

# Asset Allocation & Performance

Cash

*Periods Ended December 31, 2024*

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Cash Account	0.40	1.17	5.31	5.31	3.91	2.48	3.18	1/1/1988	62,845,845	100.00
Managed Short Term Composite	0.40	1.17	5.31	5.31	3.91	2.48	2.87	1/1/1990	62,845,845	100.00



**Wilshire**

# ERF of the City of Dallas

## Monthly Investment Summary

January 31, 2025

# Monthly Index Performance

Periods Ended January 31, 2025

	Performance (%)					
	1 Month	YTD	1 Year	3 Years	5 Years	10 Years
U.S. Equity						
FT Wilshire 5000 Index	3.14	3.14	26.30	11.39	14.81	13.40
S&P 500 Index	2.78	2.78	26.38	11.91	15.17	13.76
FT Wilshire 4500 Index	3.74	3.74	21.37	7.41	10.54	9.68
MSCI USA Minimum Volatility Index	3.60	3.60	17.52	8.38	8.42	10.80
U.S. Equity by Size/Style						
FT Wilshire U.S. Large Cap Index	3.05	3.05	26.99	11.98	15.41	13.95
FT Wilshire US Large Cap Growth Index	1.98	1.98	34.59	15.23	19.21	16.78
FT Wilshire US Large Cap Value Index	4.27	4.27	19.45	8.48	11.19	10.88
FT Wilshire U.S. Small Cap Index	4.11	4.11	22.03	8.16	10.82	9.93
FT Wilshire US Small Cap Growth Index	4.60	4.60	24.27	8.02	9.76	10.07
FT Wilshire US Small Cap Value Index	3.53	3.53	19.67	8.21	11.52	9.55
FT Wilshire U.S. Micro Cap Index	0.86	0.86	16.02	1.51	8.09	7.65
Non-U.S. Equity (USD)						
MSCI AC World ex USA (Net)	4.03	4.03	10.89	3.45	5.50	5.23
MSCI ACWI ex USA Minimum Volatility Index (Net)	1.14	1.14	9.58	3.11	3.40	4.81
MSCI EAFE (Net)	5.26	5.26	8.65	5.12	6.25	5.69
MSCI Emerging Markets (Net)	1.79	1.79	14.75	-0.71	3.04	3.76
MSCI AC World ex USA Small Cap (Net)	1.33	1.33	6.56	1.12	5.24	5.84
U.S. Fixed Income						
Blmbg. U.S. Aggregate Index	0.53	0.53	2.07	-1.52	-0.60	1.19
Blmbg. U.S. Treasury: Long	0.42	0.42	-3.91	-10.59	-6.36	-1.41
Blmbg. U.S. Long Corporate Index	0.41	0.41	-0.67	-4.88	-2.52	1.69
Blmbg. U.S. TIPS Index	1.29	1.29	2.97	-1.21	1.71	2.06
Blmbg. U.S. Credit Index	0.56	0.56	2.79	-0.95	-0.12	2.06
Blmbg. U.S. Corp: High Yield Index	1.37	1.37	9.68	4.34	4.49	5.24
Morningstar LSTA U.S. Leveraged Loan	0.69	0.69	8.97	7.12	5.88	5.19

# Asset Allocation & Performance

Dallas Total Fund

Periods Ended January 31, 2025

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Global Equity Composite	3.59	5.69	3.59	19.17	8.17	10.19	9.54	9/1/2012	204,470,908	5.36
Global Low Volatility Composite	2.75	2.74	2.75	15.23	6.96	6.14	7.84	7/1/2015	401,213,751	10.53
Domestic Equity Composite	2.61	5.54	2.61	24.52	10.42	14.24	10.69	1/1/1990	429,479,596	11.27
International Equity Composite	4.35	2.92	4.35	12.79	4.40	7.13	5.72	1/1/1990	469,371,582	12.31
Fixed Income Composite	0.57	-0.06	0.57	1.75	-1.43	-0.19	4.20	10/1/1995	586,869,881	15.40
High Yield Composite	1.40	2.18	1.40	9.60	4.70	4.66	6.18	1/1/1997	387,055,629	10.15
Credit Opportunities Composite	1.05	2.21	1.05	10.77	4.24	3.63	5.34	2/1/2016	165,241,942	4.33
Private Credit Composite	0.00	6.91	0.00				14.17	6/1/2024	7,150,981	0.19
Total Real Estate Composite	0.18	0.16	0.18	2.91	0.51	4.70	6.42	1/1/1990	426,632,617	11.19
Global Listed Infrastructure Composite	4.17	8.16	4.17	37.09	20.55	13.61	7.55	1/1/2012	206,112,407	5.41
Private Equity Composite	-0.04	1.40	-0.04	1.43	3.86	11.01	12.62	6/1/2009	368,155,579	9.66
Marketable Alternatives Composite	0.00	2.55	0.00	9.73			7.21	10/1/2022	105,870,917	2.78
Managed Short Term Composite	0.55	1.35	0.55	5.38	4.10	2.56	2.88	1/1/1990	54,256,627	1.42
Dallas Total Fund	1.79	2.50	1.79	10.96	4.69	6.65	8.74	1/1/1985	3,811,882,417	100.00
Policy Index	1.82	2.58	1.82	13.99	5.11	7.05	9.33			

# Asset Allocation & Performance

## Domestic Equity

Periods Ended January 31, 2025

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Systematic Financial</b> Russell 2000 Index	1.27 2.62	2.13 4.47	1.27 2.62	15.04 19.09	7.16 5.62	10.72 8.67	10.58 9.02	8/1/2003	58,066,394	13.52
<b>Channing Capital</b> Russell 2000 Value Index	2.77 2.05	2.28 2.57	2.77 2.05	16.50 15.52	5.06 4.71	10.23 8.93	7.38 7.14	12/1/2013	34,090,896	7.94
<b>Domestic Equity Small Cap Composite</b>	1.82	2.18	1.82	15.41	4.56	9.83	9.33	6/1/2003	92,157,290	21.46
<b>T. Rowe Price</b> S&P 500 Index	2.87 2.78	6.67 6.22	2.87 2.78	27.15 26.38	13.22 11.91	16.14 15.17	11.35 10.67	4/1/2006	166,627,314	38.80
<b>Northern Trust S&amp;P 500 (Lending)</b> S&P 500 Index	2.78 2.78	6.22 6.22	2.78 2.78	26.32 26.38	11.92 11.91	15.14 15.17	11.03 10.99	1/1/1995	170,694,992	39.74
<b>Domestic Equity Composite</b> Custom Benchmark <sup>1</sup> Domestic Equity Blended Benchmark <sup>2</sup>	2.61 3.14 2.72	5.54 6.63 5.82	2.61 3.14 2.72	24.52 26.30 24.90	10.42 11.41 9.62	14.24 14.81 12.93	10.69 10.89	1/1/1990	429,479,596	100.00

<sup>1</sup> Domestic Equity Composite Custom Benchmark: FT Wilshire 5000 (2Q99-Present); S&P 500 (1Q90-1Q99)

<sup>2</sup> Blended Benchmark is a target-weighted blend of individual manager benchmarks. For comparison purposes only and does not roll into Total Fund Policy.

# Asset Allocation & Performance

## International Equity

Periods Ended January 31, 2025

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Acadian International</b> Custom Benchmark <sup>1</sup>	2.74 1.33	2.47 -1.27	2.74 1.33	11.85 6.56	4.13 1.12	8.01 5.24	8.22 5.78	4/1/1989	116,603,079	24.84
<b>Ativo International</b> MSCI EAFE (Net)	4.46 5.26	1.91 2.28	4.46 5.26	5.40 8.65	2.39 5.12	3.96 6.25	3.58 4.81	1/1/2018	27,583,355	5.88
<b>AQR Capital Management</b> Custom Benchmark <sup>2</sup>	4.98 4.03	3.31 1.08	4.98 4.03	15.53 10.89	5.99 3.45	6.52 5.50	4.10 3.65	4/1/2006	141,493,169	30.15
<b>Baillie Gifford</b> MSCI AC World ex USA (Net)	5.17 4.03	1.86 1.08	5.17 4.03	11.18 10.89	1.28 3.45	3.93 5.50	5.90 5.95	4/1/2019	83,276,779	17.74
<b>Earnest Partners</b> MSCI AC World ex USA (Net)	4.66 4.03	4.09 1.08	4.66 4.03	13.73 10.89	5.54 3.45	8.71 5.50	8.45 5.95	4/1/2019	100,415,201	21.39
<b>International Equity Composite</b> Custom Benchmark <sup>3</sup>	4.35 3.65	2.92 0.76	4.35 3.65	12.79 10.28	4.40 3.12	7.13 5.46	5.72 4.70	1/1/1990	469,371,582	100.00

<sup>1</sup> Acadian Custom Benchmark: MSCI ACWI x-US Small Cap (3Q09-Present); MSCI EAFE Small Cap (4Q99-2Q09); S&P/Citigroup Eur/Pac EMI Index (2Q96-3Q99); MSCI EAFE (2Q89-1Q96)

<sup>2</sup> AQR Custom Benchmark: MSCI ACWI x-US (2Q10-Present); MSCI EAFE (1Q06-1Q10)

<sup>3</sup> International Equity Composite Custom Benchmark: MSCI ACWI x-US IMI (2Q10-Present); MSCI ACWI x-US (1Q99-1Q10); Wilshire Non-US/Non-SA (2Q96-4Q98; MSCI EAFE (4Q89-1Q96)

# Asset Allocation & Performance

## Global Equity

Periods Ended January 31, 2025

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Ariel Global</b>	<b>5.97</b>	<b>7.02</b>	<b>5.97</b>	<b>13.90</b>	<b>6.57</b>	<b>8.41</b>	<b>7.36</b>	<b>1/1/2018</b>	<b>43,758,055</b>	<b>21.40</b>
MSCI AC World Index (Net)	3.36	4.68	3.36	20.72	8.41	11.04	9.60			
MSCI AC World Index Value (Net)	4.20	1.83	4.20	15.58	6.49	8.04	6.19			
<b>NT ACWI IMI Fund</b>	<b>3.35</b>	<b>4.66</b>	<b>3.35</b>				<b>2.15</b>	<b>10/1/2024</b>	<b>55,053,325</b>	<b>26.92</b>
MSCI AC World IMI Index (Net)	3.27	4.41	3.27				2.00			
<b>Wellington</b>	<b>2.75</b>	<b>5.70</b>	<b>2.75</b>	<b>22.16</b>	<b>9.11</b>	<b>11.20</b>	<b>11.43</b>	<b>9/1/2012</b>	<b>105,659,528</b>	<b>51.67</b>
MSCI AC World Index (Net)	3.36	4.68	3.36	20.72	8.41	11.04	10.34			
<b>Global Equity Composite</b>	<b>3.59</b>	<b>5.69</b>	<b>3.59</b>	<b>19.17</b>	<b>8.17</b>	<b>10.19</b>	<b>9.54</b>	<b>9/1/2012</b>	<b>204,470,908</b>	<b>100.00</b>
MSCI AC World Index (Net)	3.36	4.68	3.36	20.72	8.41	11.04	10.34			

# Asset Allocation & Performance

## Global Low Volatility

Periods Ended January 31, 2025

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Acadian Global Low Vol.</b>	<b>2.73</b>	<b>3.68</b>	<b>2.73</b>	<b>17.42</b>	<b>8.42</b>	<b>7.19</b>	<b>8.08</b>	<b>7/1/2015</b>	<b>204,194,537</b>	<b>50.89</b>
MSCI AC World Index (Net)	3.36	4.68	3.36	20.72	8.41	11.04	9.73			
MSCI AC World Minimum Volatility Index (Net)	2.64	1.61	2.64	12.85	5.12	4.97	7.28			
<b>BlackRock Global Low Vol.</b>	<b>2.77</b>	<b>1.79</b>	<b>2.77</b>	<b>13.04</b>	<b>5.49</b>	<b>5.10</b>	<b>7.59</b>	<b>7/1/2015</b>	<b>197,019,214</b>	<b>49.11</b>
MSCI AC World Minimum Volatility Index (Net)	2.64	1.61	2.64	12.85	5.12	4.97	7.28			
<b>Global Low Volatility Composite</b>	<b>2.75</b>	<b>2.74</b>	<b>2.75</b>	<b>15.23</b>	<b>6.96</b>	<b>6.14</b>	<b>7.84</b>	<b>7/1/2015</b>	<b>401,213,751</b>	<b>100.00</b>
MSCI AC World Minimum Volatility Index (Net)	2.64	1.61	2.64	12.85	5.12	4.97	7.28			

# Private Equity Summary

Periods Ended as of January 31, 2025

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	TVPI Multiple <sup>1</sup>
Hamilton Lane Secondary Fund II	1	25,000,000	22,058,532	31,298,964	Jul-09	13.4%	1.4
Hamilton Lane Secondary Fund III	456,598	30,000,000	23,372,292	29,522,574	Nov-12	8.7%	1.3
Hamilton Lane Secondary Fund IV	9,988,385	30,000,000	25,907,343	29,716,392	Mar-17	14.4%	1.5
Hamilton Lane Secondary Fund V	47,823,322	65,000,000	43,128,993	19,574,475	Mar-20	15.3%	1.5
Hamilton Lane Secondary Fund VI-A	12,524,330	30,000,000	11,211,545	813,729	Feb-23	27.5%	1.2
Hamilton Lane Fund VII Composite	10,583,728	50,000,000	45,600,834	58,182,337	Jan-10	5.6%	1.5
Hamilton Lane Fund VIII (Global)	12,720,452	30,000,000	22,270,594	21,044,562	Nov-12	6.5%	1.5
GCM Grosvenor - Partnership, L.P.	19,793,280	75,000,000	95,722,822	140,126,072	Jun-11	14.0%	1.7
GCM Grosvenor - Partnership II, L.P. (2014)	34,283,551	60,000,000	73,566,185	81,805,018	Jul-14	14.8%	1.6
GCM Grosvenor - Partnership II, L.P. (2015)	63,224,559	55,000,000	49,450,168	13,612,376	Dec-15	13.1%	1.6
GCM Grosvenor - Partnership II, L.P. (2017)	31,096,904	30,000,000	32,380,286	15,179,092	Jan-18	13.2%	1.4
GCM Grosvenor - Advance Fund, L.P.	8,330,305	10,000,000	7,362,810	345,493	Jun-21	9.6%	1.2
GCM Grosvenor - Partnership II, L.P. (2022)	7,469,859	20,000,000	7,070,263	5,461	May-22	2.9%	1.1
Fairview Capital - Lone Star Fund I	47,414,783	40,000,000	33,903,847	21,375,519	Aug-15	12.4%	1.9
Fairview Capital - Lone Star Fund II	35,643,261	30,000,000	23,900,777	4,457,117	Dec-18	12.7%	1.5
Fairview Capital - Lone Star Fund III - A	20,391,269	25,000,000	18,989,017	96,325	Apr-21	2.6%	1.1
Fairview Capital - Lone Star Fund III - B	2,858,178	20,000,000	3,183,307	-	Dec-22	-37.3%	0.8
Fairview Capital - Private Markets Fund VI	3,552,814	10,000,000	4,070,484	210,556	Apr-22	-5.4%	0.9
<b>Total Private Equity Composite</b>	<b>368,155,579</b>	<b>635,000,000</b>	<b>543,150,098</b>	<b>467,366,061</b>	<b>Jul-09</b>	<b>18.3%</b>	<b>1.5</b>

Public Market Equivalent (PME) <sup>2</sup>

690,214,734

21.5%

<sup>1</sup> Total Value to Paid-in Capital ("TVPI") multiple calculation =  $(\text{market value} + \text{distributions}) / \text{capital called}$

<sup>2</sup> The Public Market Equivalent (PME) approach creates a hypothetical investment vehicle that mimics the private equity composite cash flows. The performance difference between the PME vehicle and the private equity portfolio is determined by their net asset value (NAV) at the end of the benchmarking period. The performance of the "public market" is simulated using the monthly S&P 500 index returns, plus a 300 BPs annual hurdle rate.



# Private Real Estate Summary

Periods Ended as of January 31, 2025

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	TVPI Multiple <sup>1</sup>
Invesco II	76,984,932	65,188,333	65,188,333	19,614,151	Jan-14	5.2%	1.5
<b>Total Direct Private Real Estate</b>	<b>76,984,932</b>	<b>65,188,333</b>	<b>65,188,333</b>	<b>19,614,151</b>	<b>Jan-14</b>	<b>5.2%</b>	<b>1.5</b>

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	TVPI Multiple
Heitman America Real Estate Trust	76,437,089	75,000,000	88,210,161	108,436,342	Dec-10	6.4%	2.1
Invesco Core Real Estate USA	54,360,338	75,000,000	76,921,500	108,287,736	Oct-10	9.9%	2.1
<b>Total Core Private Real Estate</b>	<b>130,797,427</b>	<b>150,000,000</b>	<b>165,131,661</b>	<b>216,724,078</b>	<b>Oct-10</b>	<b>8.5%</b>	<b>2.1</b>

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	TVPI Multiple
AEW Partners Real Estate Fund IX	38,096,628	45,000,000	37,592,593	4,134,816	Mar-21	4.9%	1.1
AEW PIX MM Co-Invest	4,196,997	10,000,000	5,132,075	825,454	Nov-21	-0.1%	1.0
AEW PIX Oakland Park Co-Invest	5,165,449	5,000,000	5,000,000	764,960	Feb-22	5.7%	1.2
Virtus Real Estate Capital III	50,422,548	43,281,585	44,340,405	3,714,853	Jan-21	7.6%	1.2
Brasa Real Estate Fund II	16,805,355	20,000,000	18,032,416	1,133,526	Jul-22	-0.3%	1.0
Long Wharf Real Estate Partners VII	8,580,778	20,000,000	11,453,414	2,956,238	Mar-23	-2.5%	1.0
<b>Total Value-Add Private Real Estate</b>	<b>123,267,755</b>	<b>143,281,585</b>	<b>121,550,903</b>	<b>13,529,847</b>	<b>Jan-21</b>	<b>5.1%</b>	<b>1.1</b>

<sup>1</sup> Total Value to Paid-in Capital ("TVPI") multiple calculation = (market value + distributions) / capital called

# Asset Allocation & Performance

## Real Estate

Periods Ended January 31, 2025

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Adelante Capital Management</b>	<b>1.19</b>	<b>-1.34</b>	<b>1.19</b>	<b>14.88</b>	<b>0.53</b>	<b>5.50</b>	<b>9.16</b>	<b>10/1/2001</b>	<b>47,577,064</b>	<b>49.78</b>
Adelante Blended Policy <sup>1</sup>	1.04	-1.53	1.04	14.62	0.30	4.63	9.22			
<b>CenterSquare</b>	<b>0.63</b>	<b>-2.28</b>	<b>0.63</b>	<b>16.43</b>	<b>1.51</b>	<b>5.61</b>	<b>7.88</b>	<b>6/1/2018</b>	<b>48,005,440</b>	<b>50.22</b>
CenterSquare Blended Policy <sup>1</sup>	1.04	-1.53	1.04	14.62	0.30	4.63	6.84			
<b>REIT Composite</b>	<b>0.91</b>	<b>-1.82</b>	<b>0.91</b>	<b>15.66</b>	<b>1.02</b>	<b>5.55</b>	<b>9.27</b>	<b>10/1/2001</b>	<b>95,582,503</b>	<b>100.00</b>
REIT Composite Blended Policy <sup>1</sup>	1.04	-1.53	1.04	14.62	0.30	4.63	9.22			

<sup>1</sup> Blended Policy: Wilshire U.S. Real Estate Securities Index (Inception-4Q24); FTSE NAREIT Equity REIT Index (1Q25-Present)

# Asset Allocation & Performance

## Global Listed Infrastructure

Periods Ended January 31, 2025

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>CIBC</b>	<b>5.73</b>	<b>14.38</b>	<b>5.73</b>	<b>50.70</b>	<b>29.58</b>	<b>22.01</b>	<b>10.54</b>	<b>1/1/2012</b>	<b>77,901,113</b>	<b>37.80</b>
CIBC Policy <sup>1</sup>	2.79	10.40	2.79	47.35	31.92	21.97	7.20			
<b>Harvest Fund Advisors MLP</b>	<b>4.93</b>	<b>12.68</b>	<b>4.93</b>	<b>46.44</b>	<b>28.83</b>	<b>22.15</b>	<b>10.32</b>	<b>1/1/2012</b>	<b>82,297,326</b>	<b>39.93</b>
Harvest Policy <sup>2</sup>	2.79	10.40	2.79	47.35	31.92	21.97	7.20			
<b>C&amp;S Global Listed Infrastructure</b>	<b>0.38</b>	<b>-3.90</b>	<b>0.38</b>	<b>14.48</b>	<b>4.60</b>		<b>7.08</b>	<b>10/1/2020</b>	<b>45,913,968</b>	<b>22.28</b>
FTSE Global Core Infrastructure 50/50 (Net)	0.76	-2.44	0.76	13.12	3.44		6.93			
<b>Global Listed Infrastructure Composite</b>	<b>4.17</b>	<b>8.16</b>	<b>4.17</b>	<b>37.09</b>	<b>20.55</b>	<b>13.61</b>	<b>7.55</b>	<b>1/1/2012</b>	<b>206,112,407</b>	<b>100.00</b>
Global Listed Infrastructure Benchmark <sup>3</sup>	2.28	7.15	2.28	38.24	24.50	15.15	4.87			

<sup>1</sup> CIBC Policy: Alerian Midstream Energy Index (5/24-Present); Alerian MLP Index (1Q12-4/24)

<sup>2</sup> Harvest Policy: Alerian Midstream Energy Index (5/24-Present); Alerian MLP Index (1Q12-4/24)

<sup>3</sup> Global Listed Infrastructure Benchmark: 75% Alerian Midstream Energy Index / 25% FTSE Global Core Infrastructure 50/50 (5/24-Present)  
75% Alerian MLP / 25% FTSE Global Core Infrastructure 50/50 (4Q20-4/24); Alerian MLP (1Q12-3Q20)

# Asset Allocation & Performance

## Fixed Income

Periods Ended January 31, 2025

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Garcia Hamilton</b>	0.58	-0.28	0.58	0.94	-1.60	-0.59	1.83	11/1/2013	190,114,285	32.39
Blmbg. U.S. Aggregate Index	0.53	-0.07	0.53	2.07	-1.52	-0.60	1.68			
<b>NT Aggregate Bond Index</b>	0.53	-0.06	0.53				-2.52	10/1/2024	195,619,584	33.33
Blmbg. U.S. Aggregate Index	0.53	-0.07	0.53				-2.55			
<b>Wellington Core Bond</b>	0.59	0.17	0.59	2.96			2.37	7/1/2022	201,130,502	34.27
Blmbg. U.S. Aggregate Index	0.53	-0.07	0.53	2.07			1.62			
<b>Western Asset Management</b>									5,510	0.00
<b>Fixed Income Composite</b>	0.57	-0.06	0.57	1.75	-1.43	-0.19	4.20	10/1/1995	586,869,881	100.00
Blmbg. U.S. Aggregate Index	0.53	-0.07	0.53	2.07	-1.52	-0.60	4.23			

# Asset Allocation & Performance

## Opportunistic Credit

Periods Ended January 31, 2025

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Neuberger Berman	1.05	2.21	1.05	10.77	4.24	3.63	5.34	2/1/2016	165,241,942	
Custom Benchmark <sup>1</sup>	1.17	1.81	1.17	9.30	4.06	3.48	5.41			

<sup>1</sup> Custom Benchmark: 33% Morningstar LSTA U.S. Leveraged Loan Index / 33% ICE BofA U.S. High Yield Constrained Index / 33% JPM EMBI Global Diversified

# Asset Allocation & Performance

## Private Credit

Periods Ended January 31, 2025

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Silver Point DOF II	0.00	10.24	0.00				43.60	6/1/2024	2,516,348	35.19
MGG Structured Solutions	0.00	4.93	0.00				4.93	8/1/2024	4,634,633	64.81
Private Credit Composite	0.00	6.91	0.00				14.17	6/1/2024	7,150,981	100.00

# Asset Allocation & Performance

## High Yield

Periods Ended January 31, 2025

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Oaktree Capital Management</b>	1.39	2.16	1.39	9.35	4.53	4.65	6.32	2/1/1997	196,005,520	50.64
FTSE High Yield Cash Pay	1.47	2.18	1.47	9.86	4.55	4.49	6.45			
<b>BlackRock</b>	1.41	2.21	1.41	9.84	4.87	4.67	5.99	10/1/2006	191,050,109	49.36
FTSE High Yield Cash Pay	1.47	2.18	1.47	9.86	4.55	4.49	6.30			
<b>High Yield Composite</b>	1.40	2.18	1.40	9.60	4.70	4.66	6.18	1/1/1997	387,055,629	100.00
FTSE High Yield Cash Pay	1.47	2.18	1.47	9.86	4.55	4.49	6.46			

# Asset Allocation & Performance

## Marketable Alternatives

Periods Ended January 31, 2025

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Davidson Kempner</b>	0.00	2.20	0.00	9.91			7.40	10/1/2022	53,160,195	50.21
HFRI Event-Driven Total Index	-0.33	2.05	-0.33	9.76			10.04			
<b>Hudson Bay Capital</b>	0.00	2.90	0.00	9.55			7.01	10/1/2022	52,710,722	49.79
HFRI Relative Value Total Index	0.23	1.87	0.23	8.65			7.32			
<b>Marketable Alternatives Composite</b>	0.00	2.55	0.00	9.73			7.21	10/1/2022	105,870,917	100.00
Marketable Alternatives Policy <sup>1</sup>	-0.05	1.97	-0.05	9.22			8.69			

<sup>1</sup> Marketable Alternatives Policy: 50% HFRI Event-Driven Total Index / 50% HFRI Relative Value Total Index



# Asset Allocation & Performance

Cash

*Periods Ended January 31, 2025*

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Cash Account	0.37	1.16	0.37	5.19	4.04	2.52	3.18	1/1/1988	54,256,627	100.00
Managed Short Term Composite	0.55	1.35	0.55	5.38	4.10	2.56	2.88	1/1/1990	54,256,627	100.00

# At A Glance

For period ended January 31, 2025

	2024		2025	
	This Month	YTD	This Month	YTD
<b>Retirements</b>				
Age	11	11	16	16
Service	2	2	0	0
Rule of 78	4	4	6	6
QDRO	0	0	0	0
Total	17	17	22	22
<b>Disability Retirements</b>				
Service	0	0	0	0
Non-service	0	0	0	0
Total	0	0	0	0
<b>Benefits Paid</b>	\$ 28,510,061.24	\$ 28,510,061.24	\$ 30,060,679.59	\$ 30,060,679.59
<b>Refunds</b>	\$ 818,972.69	\$ 818,972.69	\$ 667,390.13	\$ 667,390.13
<b>Number of refunds</b>	69	69	49	49
<b>*Contributions</b>	\$ 11,719,504.90	\$ 11,719,504.90	\$ 12,247,057.74	\$ 12,247,057.74

Members on record at month end				
Retirees & beneficiaries	Disabilities	Actives	Tier A Actives	Tier B Actives
Jan	8,022	118	8,113	3,077
Feb				5,036
Mar				
April				
May				
June				
July				
Aug				
Sep				
Oct				
Nov				
Dec				

# At A Glance

For period ended December 31, 2024

	2023		2024	
	This Month	YTD	This Month	YTD
<b>Retirements</b>				
Age	15	224	18	201
Service	0	13	1	17
Rule of 78	7	82	4	91
QDRO	0	7	0	2
Total	22	326	23	311
<b>Disability Retirements</b>				
Service	0	0	0	0
Non-service	0	5	0	0
Total	0	5	0	0
<b>Benefits Paid</b>	\$ 27,524,422.88	\$ 328,485,073.55	\$ 29,063,514.47	\$ 349,343,832.35
<b>Refunds</b>	\$ 623,915.03	\$ 11,978,116.73	\$ 836,436.72	\$ 12,330,644.88
<b>Number of refunds</b>	51	919	67	967
<b>*Contributions</b>	\$ 11,241,147.29	\$ 143,803,276.77	\$ 11,847,639.88	\$ 154,351,532.04

Members on record at month end					
	Retirees & beneficiaries	Disabilities	Actives	Tier A Actives	Tier B Actives
Jan	7,903	122	8,015	3,453	4,562
Feb	7,922	121	7,986	3,408	4,578
Mar	7,937	121	8,067	3,386	4,681
April	7,947	121	8,022	3,349	4,673
May	7,962	121	8,034	3,316	4,718
June	7,976	121	8,110	3,298	4,812
July	7,986	121	8,147	3,274	4,873
Aug	7,992	121	8,150	3,248	4,902
Sep	7,987	119	8,098	3,214	4,884
Oct	7,981	118	8,141	3,160	4,981
Nov	8,022	118	8,118	3,130	4,988
Dec	8,033	118	8,113	3,100	5,013



# EMPLOYEES' RETIREMENT FUND

## BOARD OF TRUSTEES MEETING

PENSION ADMINISTRATION REQUEST FOR PROPOSAL PROCESS

FEBRUARY 11, 9:00 AM

# Key Factors for the Pension Administration Software System

- ❑ ERF manages its own information technology network and platform.
- ❑ Since 2019, ERF went live and continue to use ViTech 10.0 (onsite solution) with a total cost of \$ 4.8 million (BAFO).
- ❑ Vitech forecast that within the near future, the onsite solutions will not be supported and requires all clients to migrate to a cloud version.
- ❑ **Vitech's estimate to migrate to the cloud and annual subscription cost:**

Revised Fees w/ Impl Credit						
V3locity Subscription (Incl 10% of Credit)	\$955,456	\$955,456	\$955,456	\$955,456	\$955,456	\$ 4,777,280
Implementation Fee	\$1,388,600	\$992,376				\$ 2,380,976
Implementation Credit	\$ (580,000)	\$ (420,000)				\$ (1,000,000)
Net Implementation Fee	\$808,600	\$572,376				\$ 1,380,976
					Total Fees:	<b>\$ 6,158,256</b>

# Prior Actions Taken in 2025

- ❑ ERF invited vendors demonstrate their pension administration software to all ERF Staff in January 2025.
- ❑ As a result, ERF staff met with three pension software vendors to review and observe the demonstrations, and question the features and capabilities the pension administration software system of the following firms:

Targeted Vendors	Demonstration Date
❖ Pension ID	January 24, 2025
❖ Pension Soft	January 24, 2025
❖ Heywood	January 24, 2025
❖ Vitech	No Demo
❖ Sagitech	No Demo
❖ TELUS	No Demo

# 2025 Proposal Evaluation Criteria

	Category	Weight (pts)
1.	<b><u>Knowledge, Experience, and Past Performance in Related Fields.</u></b> The Proposer’s knowledge and experience, and past performance in providing public sector - defined benefit plans software and services, and the administration thereof including the ability to calculate retirement benefits, process retiree payroll and proven implementation strategies. This knowledge should be revealed with successful results of current or past clients.	20
2.	<b><u>Qualifications of Key Personnel.</u></b> The capability, experience and qualifications of primary personnel designated to serve the Fund before during and after software implementation; the availability and commitment to ERF of such personnel and their continuity with the company; and the ability of such personnel to complete time project milestones regarding software implementation.	10
3.	<b><u>Implementation Approach.</u></b> Proposer should describe why their solution implementation approach will provide ERF with the best chance of a successful project. In addition, Offeror is to provide a detail description for the following Options: <ul style="list-style-type: none"> <li>• Vendor Hosting (Cloud Based)</li> </ul> <b>A. Cloud-Driven Installation:</b> <ul style="list-style-type: none"> <li>I. Cloud-Native Architecture</li> <li>II. SaaS Model Rapid Deployment</li> </ul> <b>B. Time to Implement for New Clients:</b> <ul style="list-style-type: none"> <li>i. Implementation Timeline Implementation Strategy:</li> <li>ii. Agile Methodology Phased Rollouts Comprehensive Support</li> </ul>	15
4.	<b><u>Functionality Capabilities</u></b> <b>A. Defined Benefit Plan Calculation</b> <ul style="list-style-type: none"> <li>i. Benefit Calculations</li> <li>ii. Service Calculations Pension Plan Rules &amp; Provisions Retirement Processing Withdrawals &amp; Transfers Revisions &amp; Corrections</li> </ul> <b>B. Payroll Functionality:</b> <ul style="list-style-type: none"> <li>i. Employer Payroll Reporting</li> <li>ii. Contributions Processing</li> <li>iii. Cash Receipts &amp; Accounts Receivable</li> </ul> <b>C. Customer Relationship Management (CRM) Functionality:</b> <ul style="list-style-type: none"> <li>i. Unified Customer View Interaction Tracking Case Management</li> </ul> <b>D. Member Self-Service Model:</b> <ul style="list-style-type: none"> <li>i. Digital Self-Service Portals Registrations &amp;</li> <li>ii. Enrollments Document Access &amp; Correspondence</li> </ul> <b>E. Report Writing:</b> <ul style="list-style-type: none"> <li>i. Custom Report Generation / Ai capabilities Real-Time Data Access Data Analytics Integration</li> </ul> <b>F. Cloud-Driven Installation:</b> <ul style="list-style-type: none"> <li>I. Cloud-Native Architecture</li> <li>II. SaaS Model Rapid Deployment</li> </ul> <b>G. Training Plan for New Clients:</b> <ul style="list-style-type: none"> <li>i. Continuous Training Programs Dedicated Account Management</li> </ul>	30
5.	<b><u>Cost.</u></b> Appropriateness and competitiveness of the cost proposal. This cost should be based on hourly rates, by classification of the organization’s service providers.	25
	<b>Total Possible Points</b>	<b>100</b>

# Timeline

Solicitation Schedule	Date
RFP Issued	February 12, 2025
Deadline for Questions from Vendors	February 21, 2025
Answers to all Questions from ERF Staff	February 28, 2025
Proposals Due to the Fund	March 28, 2025
Staff Due Diligence update to the Board	April 8, 2025
Staff Recommendation to the Board, Board Selection, Approval and Authorize Chair to sign Contract - Pending Legal Review	June 10, 2025



# **Recommendation**

Authorize ERF Staff to release a Request for Proposal (RFP) to Pension Administration Software providers; staff may conduct due diligence with an update at the April 2025 Board meeting; and finalist recommended to the Board of Trustees at the June 2025 meeting.

# **Windfall Elimination Provision and the Government Pension Offset - Social Security Fairness Act of 2023 Update.**

The recent repeal by Congress of the Windfall Elimination Provision and the Government Pension Offset through the passage of the Social Security Fairness Act of 2023 may have significant implications for public-sector employees, including those affiliated with the Employees' Retirement Fund of the City of Dallas (ERF). The Social Security Fairness Act of 2023 applies to Social Security benefits payable after December 31, 2023.

## **Background on the Windfall Elimination Provision (WEP) and the Government Pension Offset (GPO):**

- **Windfall Elimination Provision (WEP):** Enacted in 1983, WEP reduces Social Security retirement benefits for individuals who also receive pensions from employment that is not covered by Social Security, such as certain public-sector jobs. This reduction often affects employees who split their careers between covered and non-covered employment.
- **Government Pension Offset (GPO):** Established in 1977, GPO reduces Social Security spousal or survivor benefits for individuals who receive a government pension from non-covered employment. This provision frequently impacts spouses and widows or widowers of public servants.

## **Impact of the Repeal on ERF Members:**

The Social Security Fairness Act of 2023 does not directly affect any retirement or survivor benefits under ERF. With the repeal of WEP and GPO, however, ERF members who have contributed to Social Security through other employment or are eligible for spousal or survivor benefits may experience the following changes:

- **Increased Social Security Benefits:** Affected individuals can anticipate an increase in their Social Security benefits. The Social Security Administration (SSA) estimates that the repeal of WEP could boost monthly benefits by approximately \$360 on average, with potential increases of up to \$460 over the next decade. Similarly, the elimination of GPO may result in average monthly benefit increases of \$700 for spouses and \$1,190 for surviving spouses.
- **Enhanced Retirement Security:** The removal of these provisions addresses previous reductions, thereby enhancing the overall retirement income for many public-sector employees and their families.

## **Considerations for ERF and Its Members:**

While the repeal does not directly alter the benefits provided by ERF, it has implications for the retirement planning of its members:

- **Financial Planning Adjustments:** Members who have been affected by WEP or GPO should reassess their retirement strategies to account for the possible increase in Social Security benefits. This adjustment may influence decisions regarding savings, investments, and retirement timelines.

- Stay Informed: SSA should provide information to retirees and beneficiaries about the impact of the new law on benefits. Members are also encouraged to consult with financial advisors to understand the full impact of these changes on their individual circumstances. Although ERF representatives can answer general questions, they cannot provide advice regarding Social Security eligibility or benefits or provide individualized financial or retirement planning advice. Members may visit the SSA website at: [www.ssa.gov/benefits/retirement/social-security-fairness-act.html](https://www.ssa.gov/benefits/retirement/social-security-fairness-act.html)

In summary, the repeal of WEP and GPO through the Social Security Fairness Act of 2023 represents a positive development for ERF members, potentially enhancing their retirement income by restoring Social Security benefits that may have been previously reduced by these provisions.