

Callan



December 7, 2022

**Third Quarter 2022
Summary Investment
Presentation**

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Economic and Capital Markets Review

Equity and Fixed Income Markets Both Fell Again in 3Q22

Negative returns for stocks and bonds at the same time for three quarters are extremely unusual

Global equity markets down sharply in each quarter, starting with Russian invasion

- Similar impact year-to-date across all equity market segments: developed, emerging, small cap

Fixed income down with sharply higher inflation and interest rates

- Bloomberg Aggregate: -14.6% year-to-date, worst 9 months ever for the index
- CPI-U: +8.2% for the year ended 3Q22

Number of times stocks and bonds have been down together

- 38 quarters in almost 100 years, about 10% of the quarters
- But just twice on annual basis

Inflation spiked to highest rate in decades

Economic data show growth hit ‘pause’

- GDP rose 2.6% in 3Q22 after falling in both 2Q22 and 1Q22; expect another loss in 4Q
- Forecasters have cut growth estimates for 2022 to below 0%, and to 1.5% for 2023.

Returns for Periods ended 9/30/22

	1 Quarter	Year to Date	1 Year	5 Years	10 Years	25 Years
U.S. Equity						
Russell 3000	-4.46	-24.62	-17.63	8.62	11.39	7.48
S&P 500	-4.88	-23.87	-15.47	9.24	11.70	7.45
Russell 2000	-2.19	-25.10	-23.50	3.55	8.55	6.73
Global ex-U.S. Equity						
MSCI World ex USA	-9.20	-26.23	-23.91	-0.39	3.62	3.69
MSCI Emerging Markets	-11.57	-27.16	-28.11	-1.80	1.05	--
MSCI ACWI ex USA Small Cap	-8.37	-29.37	-28.93	-0.56	4.44	5.64
Fixed Income						
Bloomberg Aggregate	-4.75	-14.61	-14.60	-0.27	0.89	4.02
90-day T-Bill	0.46	0.61	0.62	1.15	0.68	1.92
Bloomberg Long Gov/Credit	-9.03	-28.94	-27.41	-1.17	1.35	5.51
Bloomberg Global Agg ex-US	-8.85	-23.88	-24.77	-4.03	-2.39	2.42
Real Estate						
NCREIF Property	3.23	12.25	19.15	9.19	9.76	9.51
FTSE Nareit Equity	-9.94	-28.13	-16.41	2.93	6.26	7.73
Alternatives						
CS Hedge Fund Index	0.35	0.14	1.08	4.53	4.35	5.87
Cambridge Private Equity*	-5.60	-2.04	3.34	18.22	15.90	14.75
Bloomberg Commodity	-4.11	13.57	11.80	6.96	-2.14	1.47
Gold Spot Price	-7.49	-8.56	-4.84	5.41	-0.59	6.62
Inflation - CPI-U	0.17	6.46	8.20	3.76	2.52	2.47

*Cambridge PE data through 06/30/22.

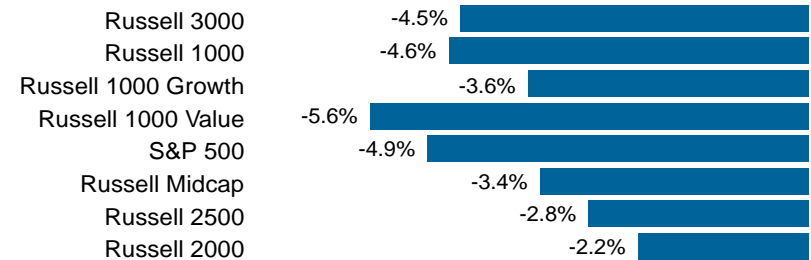
Sources: Bloomberg, Callan, Cambridge, Credit Suisse, FTSE Russell, MSCI, NCREIF, S&P Dow Jones Indices

U.S. Equity Performance: 3Q22

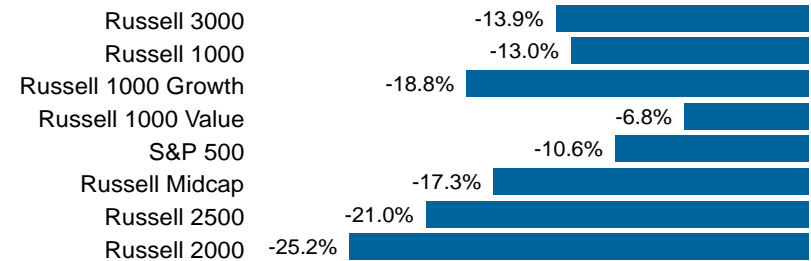
Challenging market conditions persist

- The S&P 500 Index dropped by 5% in 3Q22; all major U.S. indices across styles and market cap ranges were negative in the quarter, except for the Russell 2000 Growth Index, which was up 0.24%.
- During the quarter, all sectors posted negative returns, except for Energy (+2%) and Consumer Discretionary (+4%). The quarterly return for Consumer Discretionary was aided by an exceptional July in which it was up over 18%. Returns posted by Real Estate and Communication Services were the worst, -11% and -13%, respectively.
- Small cap (Russell 2000) outpaced large cap (Russell 1000) and growth outperformed value during the quarter, a reversal of what we've seen in previous quarters this year.
- Continued concerns around inflation and a potential recession, along with geopolitical headlines, contributed to a volatile and risk-averse environment.

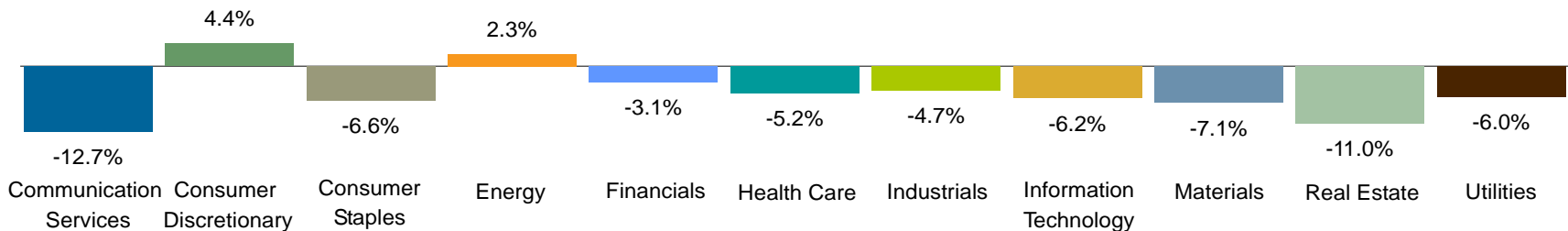
U.S. Equity: Quarterly Returns



U.S. Equity: One-Year Returns



Industry Sector Quarterly Performance (S&P 500)



Sources: FTSE Russell, S&P Dow Jones Indices

Global/Global ex-U.S. Equity Performance: 3Q22

Global market turmoil

Global and global ex-U.S. equity markets waned for three consecutive quarters due to inflation, rising rates, and fears of a global recession.

Geopolitical and macro factors plague the market

- Political instability in Italy and the U.K. as a result of prime minister departures weighed on the market.
 - U.K. equities lost confidence as its newly elected prime minister, Liz Truss, announced her economic policy.
- China’s COVID-19 lockdowns and growing concerns around the property sector sapped sentiment and economic activity.

Growth vs. value

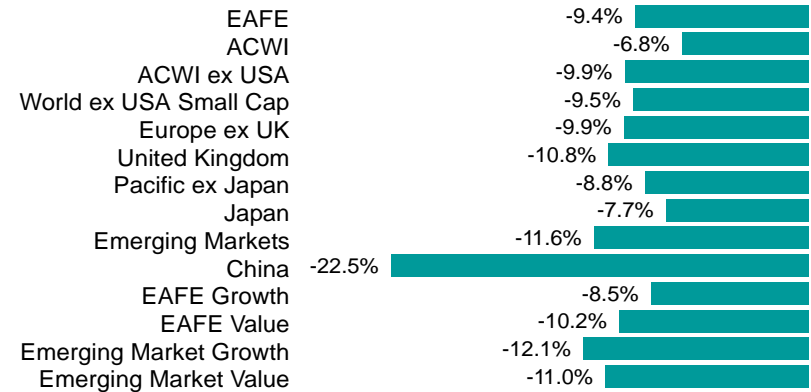
- Growth outpaced value in developed markets but lagged value in emerging markets.
 - Rate-sensitive sectors in developed markets (e.g., Communication Services and Real Estate) were challenged given the tightening cycle by global central banks.
 - Profitability of Chinese internet companies has compressed due to lockdowns and regulation, and cyclical downturn in electronics weakened Taiwan and Korean semiconductors.

U.S. dollar vs. other currencies

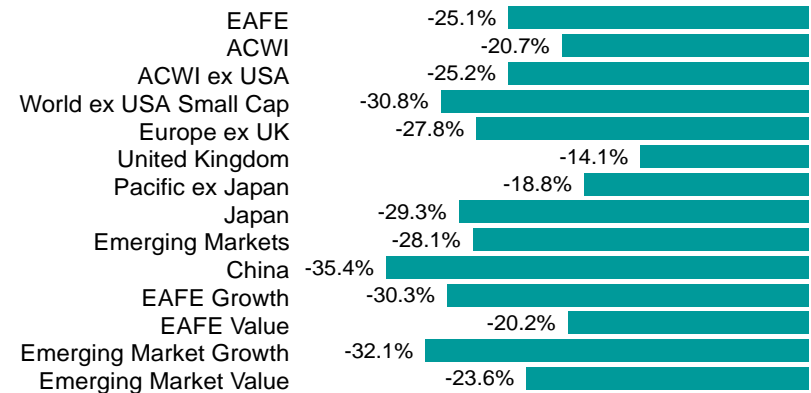
- Growth and interest rate differentials as well as its safe haven status have fueled the U.S. dollar to a multi-decade high.

Source: The dollar gained vs. the euro and the yen by about 6%.

Global Equity: Quarterly Returns



Global Equity: One-Year Returns



U.S. Fixed Income Performance: 3Q22

Bonds hit hard as rates rose sharply (again)

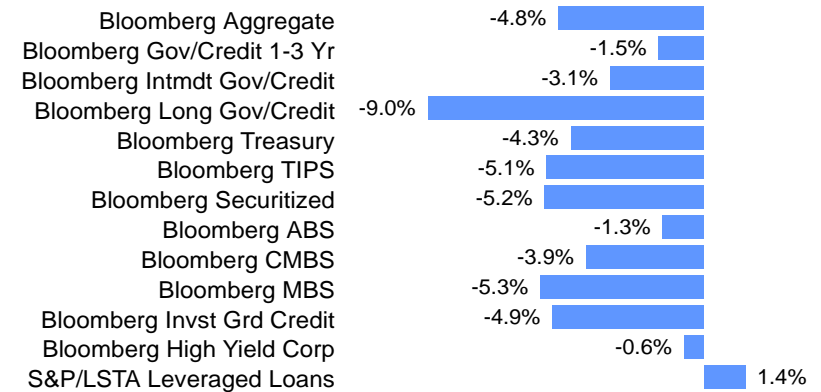
- Bloomberg US Aggregate worst nine-month return in its history
 - As are trailing 1, 3, 5 and 10-year returns!
 - 10-year return for Aggregate a mere 0.9%
- Yield curve inverted at quarter-end; 2-year at 4.22%, 10-year at 3.83%.
- 10-year hit 4% briefly in late September; first time since 2009.
- TIPS underperformed nominal Treasuries and 10-year breakeven spreads fell to 2.11% from 2.33% as of 6/30/22.
- Fed raised rates by 150 bps during the quarter, bringing target to 3.0% to 3.25%.
 - Median expectation from Fed is 4.4% at year-end and 4.6% at the end of 2023.
 - Longer-term expectations are much lower.
- Volatility climbed to levels not seen since early 2020.

Spread sectors underperformed

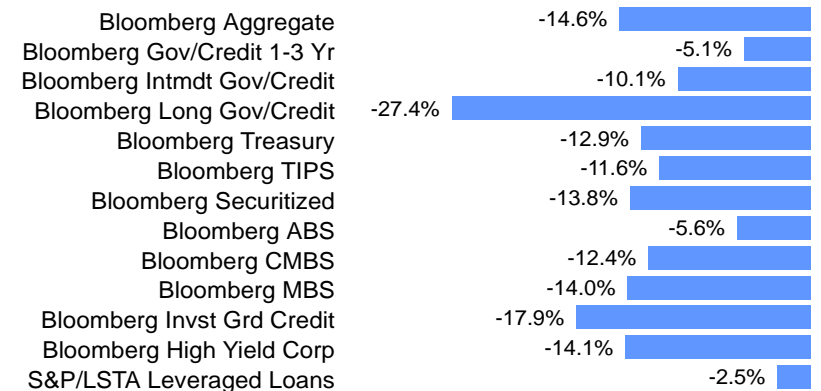
- Mortgages had worst month ever vs. like-duration U.S. Treasuries in September; underperformed by 169 bps for 3Q
- Corporates also produced negative returns; the Bloomberg Corp yield-to-worst reached 5.7%.
- High yield fared better and loans gained.
 - Bloomberg HY Corp yield-to-worst 9.7%

Sources: Bloomberg, S&P Dow Jones Indices

U.S. Fixed Income: Quarterly Returns



U.S. Fixed Income: One-Year Returns

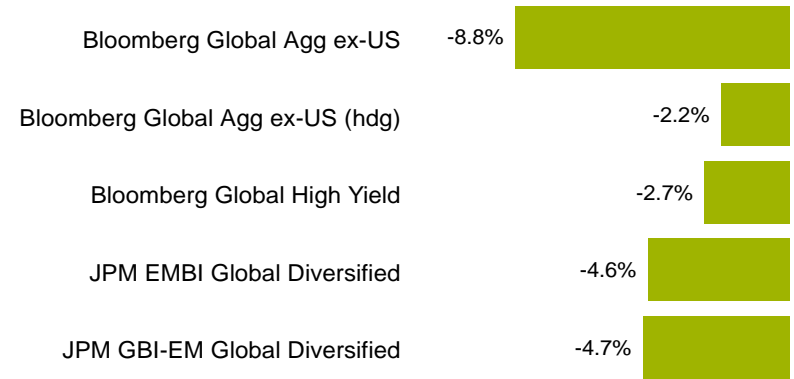


Global Fixed Income Performance: 3Q22

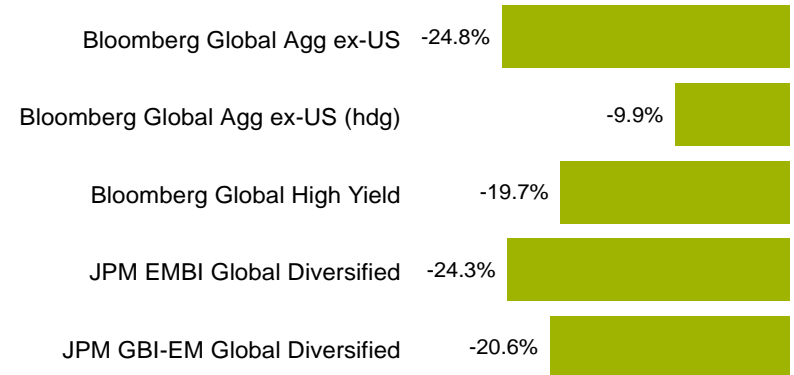
Negative returns driven by broad interest rate increases

- U.S. dollar continued to appreciate vs yen, euro and pound.
 - Bank of Japan intervened to support currency for the first time since 1998.
 - Pound hit record low vs U.S. dollar.
- Double-digit negative returns were widespread across developed markets.
- Gilts were hard-hit on UK's "mini-budget" fiasco.
 - ICE BofA U.K. Gilts Index -20.6% in 3Q
- Emerging market debt returns also sharply negative
- Most countries in the USD-denominated JPM EMBI Global Diversified Index posted negative returns, hurt by rising rates in the U.S.
- JPM GBI-EM Global Diversified also fell largely due to EM currency depreciation vs. the U.S. dollar.

Global Fixed Income: Quarterly Returns



Global Fixed Income: One-Year Returns



Sources: Bloomberg, JP Morgan

U.S. Private Real Estate Performance: 3Q22

Appreciation returns turn negative, as sector returns are mixed

Income rose, but appreciation declined

- Income returns were positive across sectors.
- Valuations are reflective of strong fundamentals in Industrial and Apartment and continued uncertainty in Office and Retail.
- Return dispersion by manager within the ODCE Index was due to the composition of underlying portfolios, and increased borrowing costs are impacting values.
- Niche sectors such as self-storage and life sciences continued to be accretive.

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
NCREIF ODCE	0.3%	21.0%	11.4%	9.3%	9.9%
Income	0.6%	2.7%	3.0%	3.1%	3.5%
Appreciation	-0.3%	17.9%	8.2%	6.0%	6.3%
NCREIF Property Index	0.6%	16.1%	9.9%	8.6%	9.5%
Income	0.9%	4.0%	4.2%	4.3%	4.7%
Appreciation	-0.4%	11.8%	5.6%	4.2%	4.6%

Returns are geometrically linked

NCREIF Property Index Quarterly Returns by Region and Property Type



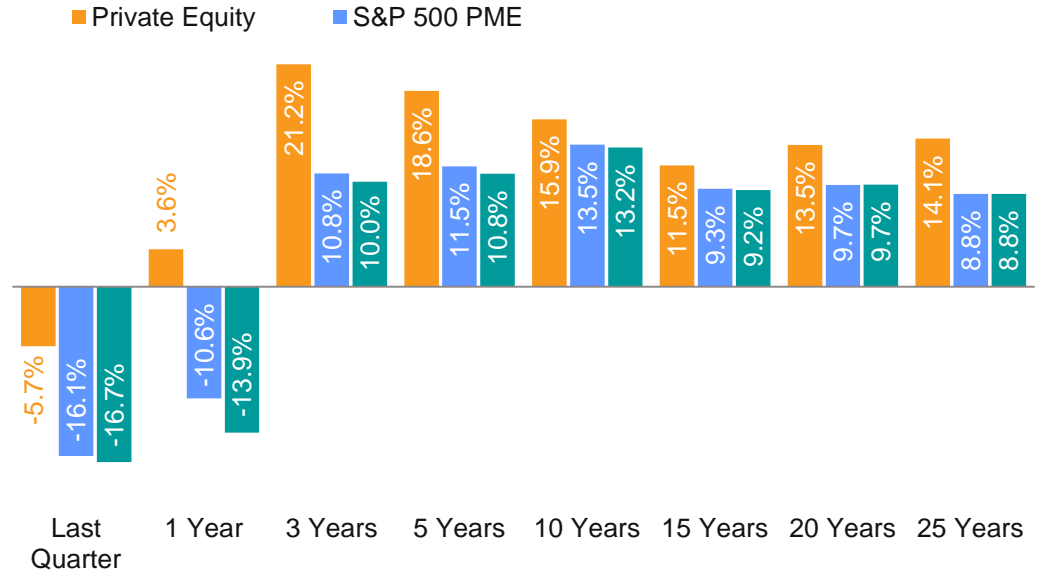
Source: NCREIF, ODCE return is net

Private Equity Performance

Smoothing effect in 2Q22 private equity returns

- As is typical for the asset class, private equity returns have experienced a smoothing effect in 2022 compared to the sharp declines seen in the public markets.
- Private equity only down about a third as much as the public markets during 2Q22, on a PME basis.
- Portfolio companies are typically valued internally by the manager on a quarterly basis. Valuations are based on the operating metrics of the company, recent comparable transactions, and public market comps.
- Venture capital and growth equity experienced the sharpest declines so far this year, given their technology focus as well as post-IPO public equity holdings.

Net IRRs as of 06/30/22



Net IRRs by Strategy as of 06/30/22

Strategy	Last Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Venture Capital	-8.54	0.77	29.19	25.16	19.53	12.14
Growth Equity	-7.65	-3.13	21.41	19.68	16.12	14.06
Buyouts	-4.53	5.41	19.69	17.64	15.80	14.52
Mezzanine	-0.51	9.31	12.05	11.89	11.57	11.00
Credit Opportunities	-1.73	5.37	7.92	7.39	8.78	9.78
Control-Oriented Distressed	-1.07	20.46	19.95	14.45	13.35	12.02
Total Private Equity	-5.65	3.56	21.15	18.63	15.93	13.50

Source: Refinitiv/Cambridge

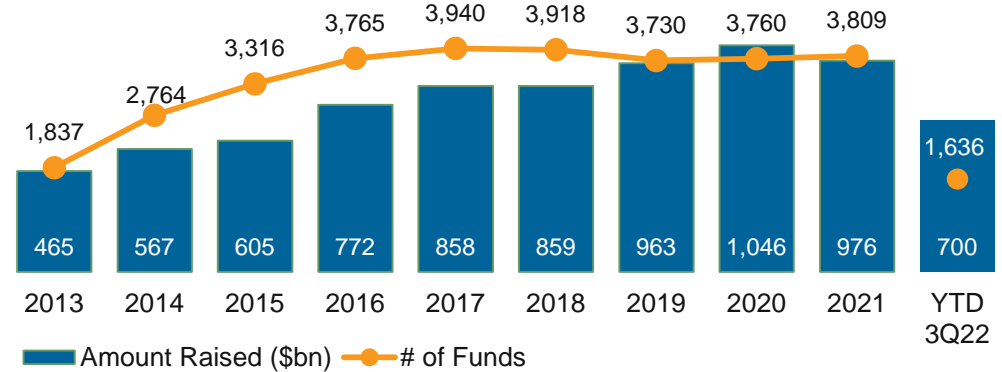
Private Equity Overview

Fundraising slows and timelines become extended

Fundraising

- In terms of dollars raised, fundraising only down 2% so far in 2022, compared to the same point the prior year
- Significantly fewer funds have closed this year, however, with fundraising concentrated in larger funds: “flight to quality”
- Fundraising timelines extending due to so many funds in the market, slowing distributions, and constrained LP commitment budgets because of the “denominator effect,” delaying many final closes

Annual Fundraising

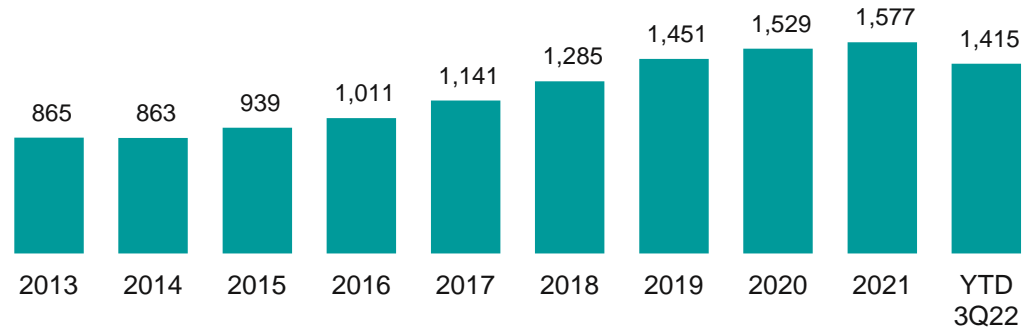


Dry powder

- Level of dry powder influenced by two factors: fundraising and capital deployment
- Dry powder around \$1.5-1.6 trillion in 2020 and 2021 due to consistent annual fundraising levels
- Dry powder not yet finalized for 2022, but may drop due to slower fundraising environment and slower capital deployment

Dry Powder (\$bn)

Cumulative as of Year-end



Source: PitchBook

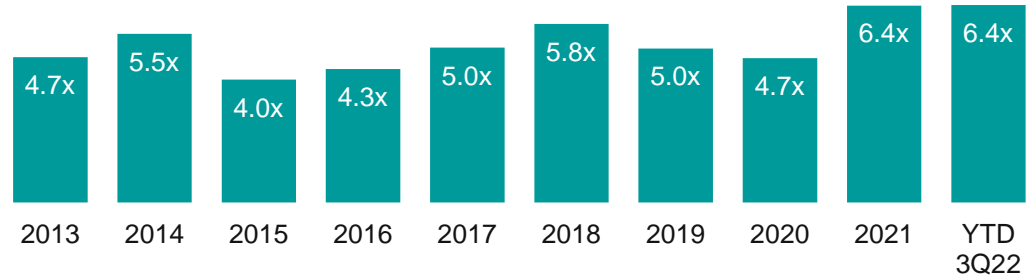
Private Equity Key Themes

Investors grappling with ‘denominator effect’

Denominator effect

- Due to the smoothing effect in short-term private equity performance
- Occurs when public equity allocations drop (pulling down the denominator), but PE allocations do not drop as far (the numerator)
 - Private equity now a larger percentage of a portfolio
- Investors unable to rebalance these illiquid exposures; now overallocated to private equity

Debt/EBITDA Multiple



Impact of rising rates

- Buyouts typically use a floating rate loan, which means their interest rates have doubled, from 4.8% in February 2022 to 9.8% in September 2022 (PitchBook)
- For buyout deals, rising rates mean managers may have to take the equity component of their deals up to 50%+, to keep interest costs in check
- Debt/EBITDA multiples have remained elevated in 2022 so far at 6.4x, but may come down with further rate hikes

Source: PitchBook

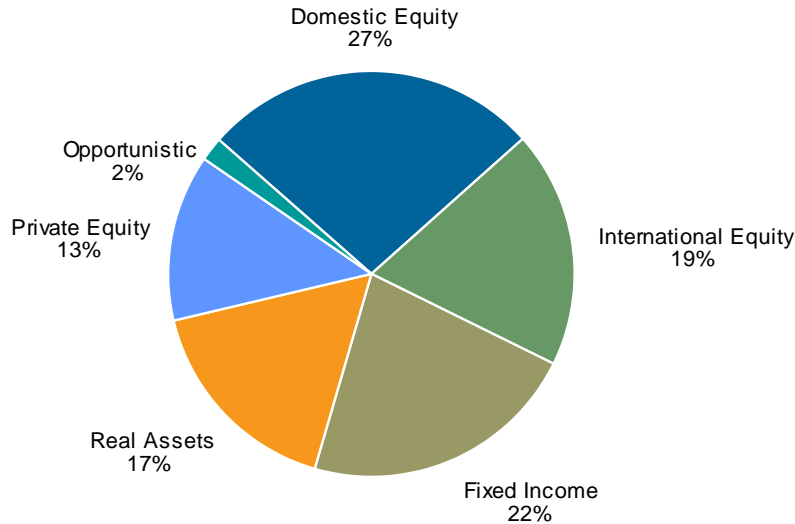
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MCERA Total Fund Review

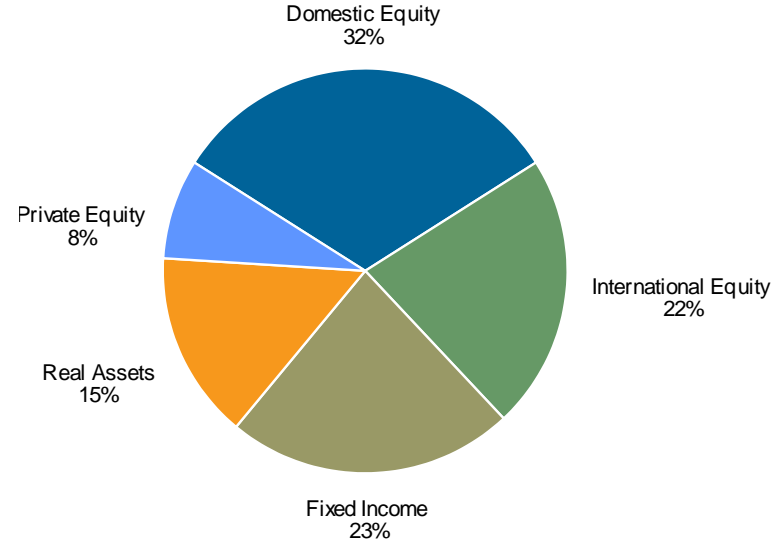
Total Fund Asset Allocation

As of September 30, 2022

Actual Asset Allocation



Target Asset Allocation



Asset Class	\$000s Actual	Weight Actual	Min Target	Target	Max Target	Percent Difference	\$000s Difference
Domestic Equity	764,846	26.9%	28.0%	32.0%	36.0%	(5.1%)	(143,399)
International Equity	535,216	18.9%	19.0%	22.0%	25.0%	(3.1%)	(89,202)
Fixed Income	631,469	22.2%	20.0%	23.0%	26.0%	(0.8%)	(21,332)
Real Assets	476,889	16.8%	12.0%	15.0%	18.0%	1.8%	51,150
Private Equity	376,122	13.3%	0.0%	8.0%	12.0%	5.3%	149,061
Opportunistic	53,722	1.9%	0.0%	0.0%	5.0%	1.9%	53,722
Total	2,838,265	100.0%		100.0%			

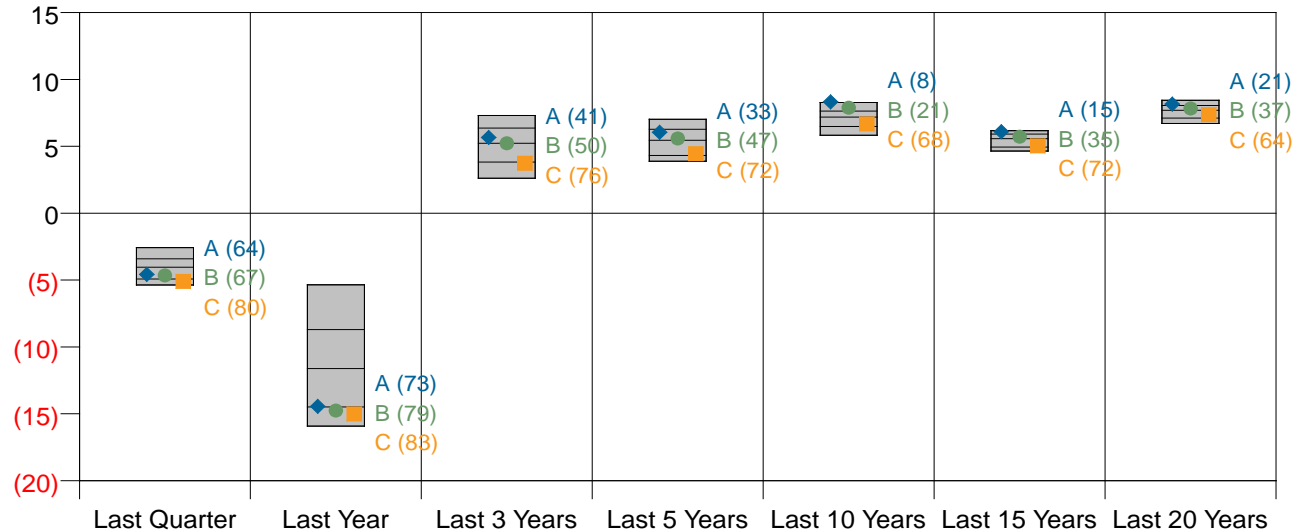
Total Fund Asset Distribution

	September 30, 2022			June 30, 2022		
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Domestic Equity	\$764,846,310	26.95%	\$(18,791,640)	\$(31,881,900)	\$815,519,851	27.22%
Parametric Domestic Equity Futures (1)	-42,267,009	(1.49%)	(15,168,207)	3,923,691	-31,022,493	(1.04%)
SSGA Russell 1000 Index (2)	604,134,366	21.29%	(2,808,807)	(29,050,546)	635,993,719	21.23%
DFA Small Cap Core	202,978,953	7.15%	(814,626)	(6,755,045)	210,548,625	7.03%
International Equity	\$535,216,284	18.86%	\$14,258,792	\$(59,467,336)	\$580,424,828	19.38%
Morgan Stanley Value	154,027,300	5.43%	0	(20,402,402)	174,429,702	5.82%
Artisan Partners Growth	152,986,243	5.39%	0	(13,035,914)	166,022,157	5.54%
TimesSquare Intl Small Cap	84,231,167	2.97%	(204,969)	(7,689,983)	92,126,119	3.08%
FIAM Select Emerging Equity	86,929,384	3.06%	0	(11,862,920)	98,792,303	3.30%
Parametric International Equity Futures	57,042,190	2.01%	14,463,761	(6,476,117)	49,054,546	1.64%
Fixed Income	\$631,469,062	22.25%	\$(8,279,064)	\$(33,270,694)	\$673,018,820	22.47%
Wellington Core Plus	275,696,573	9.71%	(2,566,023)	(12,470,302)	290,732,898	9.71%
Western Intermediate Credit	151,764,554	5.35%	(1,373,224)	(4,380,623)	157,518,401	5.26%
Colchester Global	135,242,015	4.76%	(152,790)	(12,303,796)	147,698,601	4.93%
Parametric Fixed Income Futures	68,765,920	2.42%	(4,187,027)	(4,115,973)	77,068,920	2.57%
Real Assets	\$476,889,377	16.80%	\$(3,580,522)	\$(11,966,403)	\$492,436,302	16.44%
Real Estate	\$271,795,412	9.58%	\$(3,546,943)	\$4,144,581	\$271,197,774	9.05%
Woodmont	18,099,990	0.64%	0	0	18,099,990	0.60%
UBS Trumbull Property Fund	116,910,481	4.12%	(933,919)	20,118	117,824,282	3.93%
AEW Core Property Trust	136,784,941	4.82%	(1,306,482)	2,817,920	135,273,503	4.52%
Public Real Assets	\$205,093,965	7.23%	\$(33,578)	\$(16,110,984)	\$221,238,527	7.39%
INVESCO Commodities Fund	51,507,412	1.81%	(33,578)	(4,849,669)	56,390,659	1.88%
BlackRock TIPS Index Fund	54,720,889	1.93%	0	(2,962,522)	57,683,410	1.93%
KBI Global Resources Fund	49,862,067	1.76%	0	(2,587,708)	52,449,775	1.75%
Blackrock REIT Index Fund	49,003,597	1.73%	0	(5,711,086)	54,714,683	1.83%
Opportunistic (3)	\$53,722,238	1.89%	\$(186,965)	\$1,485,894	\$52,423,308	1.75%
CarVal Credit Value V	15,439,956	0.54%	(55,577)	357,206	15,138,327	0.51%
Fortress Credit Opps Fund V	10,701,104	0.38%	(35,563)	14,777	10,721,890	0.36%
Varde Dislocation Fund	27,581,178	0.97%	(95,825)	1,113,911	26,563,091	0.89%
Private Equity (4)	\$376,121,867	13.25%	\$(5,621,073)	\$(0)	\$381,742,940	12.74%
Abbott ACE VI	42,256,064	1.49%	0	0	42,256,064	1.41%
Abbott ACE VII	46,822,513	1.65%	(3,150,000)	0	49,972,513	1.67%
Abbott 2016	70,631,065	2.49%	(1,050,000)	0	71,681,065	2.39%
Abbott 2017	20,286,319	0.71%	0	0	20,286,319	0.68%
Abbott 2021	7,745,950	0.27%	1,825,000	0	5,920,950	0.20%
Pathway PPEF 2008	52,873,443	1.86%	(1,519,252)	(0)	54,392,695	1.82%
Pathway PE I-7	36,577,382	1.29%	(2,160,774)	0	38,738,156	1.29%
Pathway PE I-8	66,706,928	2.35%	(846,405)	(0)	67,553,333	2.26%
Pathway PE I-9	16,665,335	0.59%	0	0	16,665,335	0.56%
Pathway PE I-10	15,556,867	0.55%	1,280,357	0	14,276,510	0.48%
Total Fund	\$2,838,265,137	100.0%	\$(22,200,471)	\$(135,100,440)	\$2,995,566,049	100.0%

Total Fund Performance – Annualized

Returns for Periods Ended September 30, 2022

Group: Callan Public Fund Sponsor - Large (>1B)



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years	Last 20 Years
10th Percentile	(2.56)	(5.35)	7.31	7.03	8.29	6.18	8.45
25th Percentile	(3.40)	(8.69)	6.38	6.28	7.63	5.92	8.06
Median	(4.04)	(11.60)	5.24	5.46	7.19	5.58	7.70
75th Percentile	(4.92)	(14.48)	3.82	4.33	6.49	4.95	7.12
90th Percentile	(5.36)	(15.92)	2.62	3.89	5.83	4.65	6.72

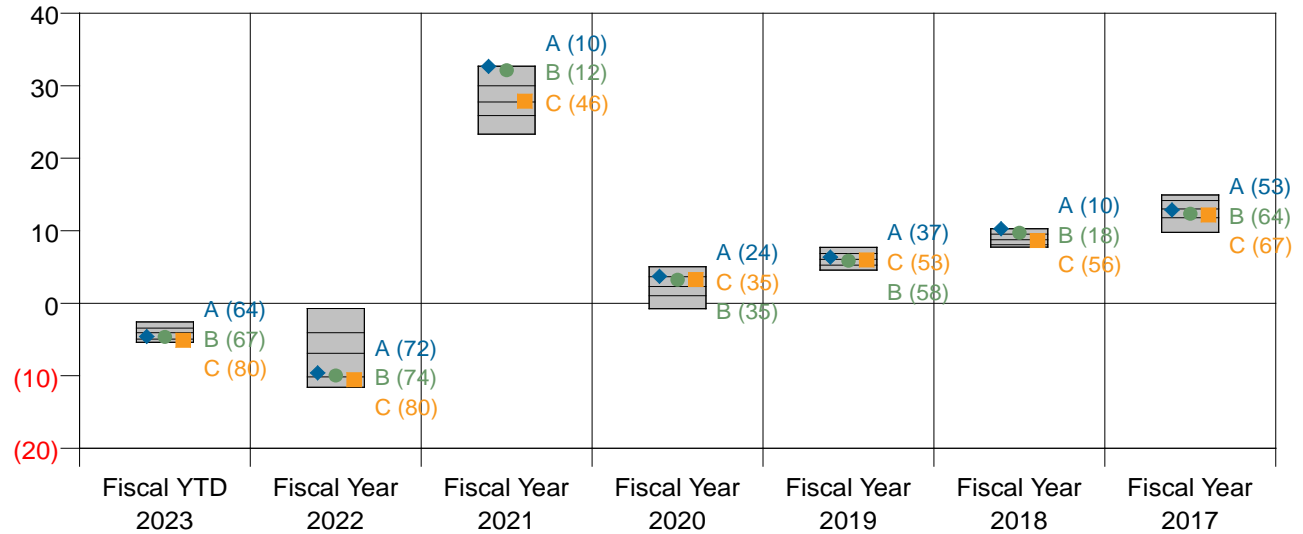
	◆ A	● B	■ C					
MCERA Total Fund - Gross	(4.56)	(14.44)	5.67	6.06	8.33	6.10	8.17	
MCERA Total Fund - Net	(4.64)	(14.75)	5.24	5.60	7.89	5.72	7.84	
MCERA Total Fund Target	(5.09)	(15.00)	3.74	4.45	6.69	5.04	7.36	

Current Quarter Target = 32.0% Russell 3000 Index, 22.0% MSCI ACWI ex US IMI Index, 11.5% Bloomberg Aggregate Index, 5.8% Bloomberg Intermediate Credit Index, 5.8% FTSE World Government Bond Index, 8.0% NCREIF NFI-ODCE Equal Weight Net, 1.8% Bloomberg Commodity Price Index, 1.8% S&P Global Natural Resources Index, 1.8% S&P DJ US Select REIT Index, 1.8% Bloomberg US TIPS Index, 4.8% Russell 3000 Index (Lagged) and 3.2% MSCI ACWI ex US IMI Index (Lagged).

Total Fund Performance – Fiscal Year

Fiscal Year Returns

Group: Callan Public Fund Sponsor - Large (>1B)



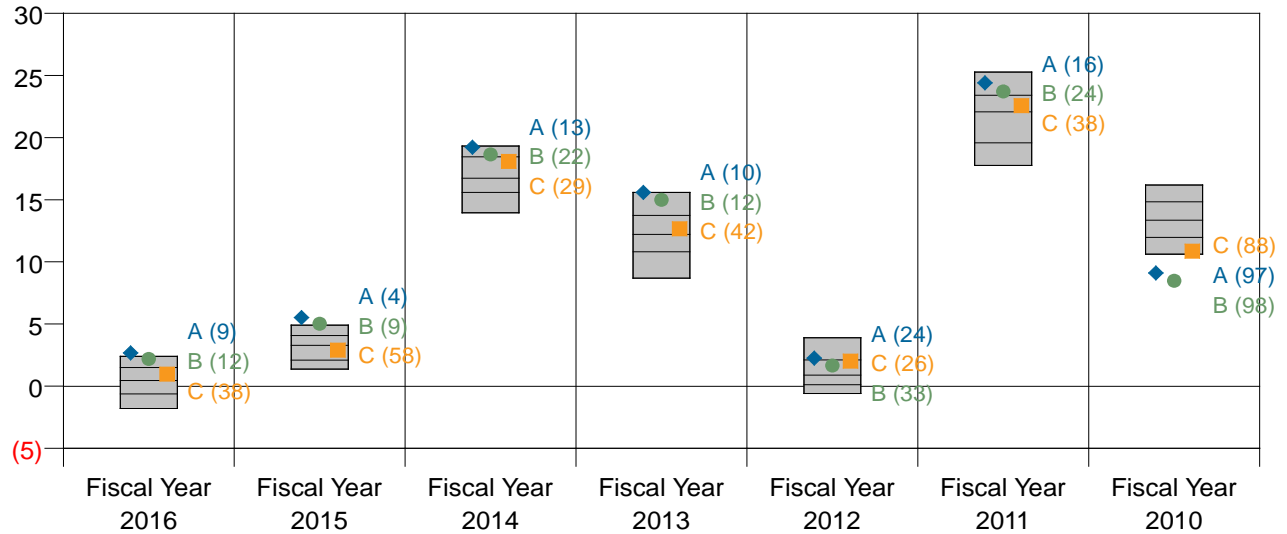
	Fiscal YTD 2023	Fiscal Year 2022	Fiscal Year 2021	Fiscal Year 2020	Fiscal Year 2019	Fiscal Year 2018	Fiscal Year 2017
10th Percentile	(2.56)	(0.70)	32.69	5.06	7.73	10.29	14.95
25th Percentile	(3.40)	(4.06)	30.02	3.68	6.86	9.56	14.17
Median	(4.04)	(6.90)	27.78	2.32	6.08	8.79	13.02
75th Percentile	(4.92)	(10.13)	25.89	1.05	5.28	8.07	11.82
90th Percentile	(5.36)	(11.58)	23.33	(0.75)	4.58	7.74	9.78

	A	B	C	Fiscal YTD 2023	Fiscal Year 2022	Fiscal Year 2021	Fiscal Year 2020	Fiscal Year 2019	Fiscal Year 2018	Fiscal Year 2017
MCERA Total Fund - Gross	◆	●	■	(4.56)	(9.59)	32.69	3.74	6.39	10.29	12.88
MCERA Total Fund - Net				(4.64)	(9.94)	32.15	3.26	5.88	9.74	12.37
MCERA Total Fund Target				(5.09)	(10.52)	27.89	3.29	5.99	8.67	12.20

Total Fund Performance – Fiscal Year

Fiscal Year Returns

Group: Callan Public Fund Sponsor - Large (>1B)

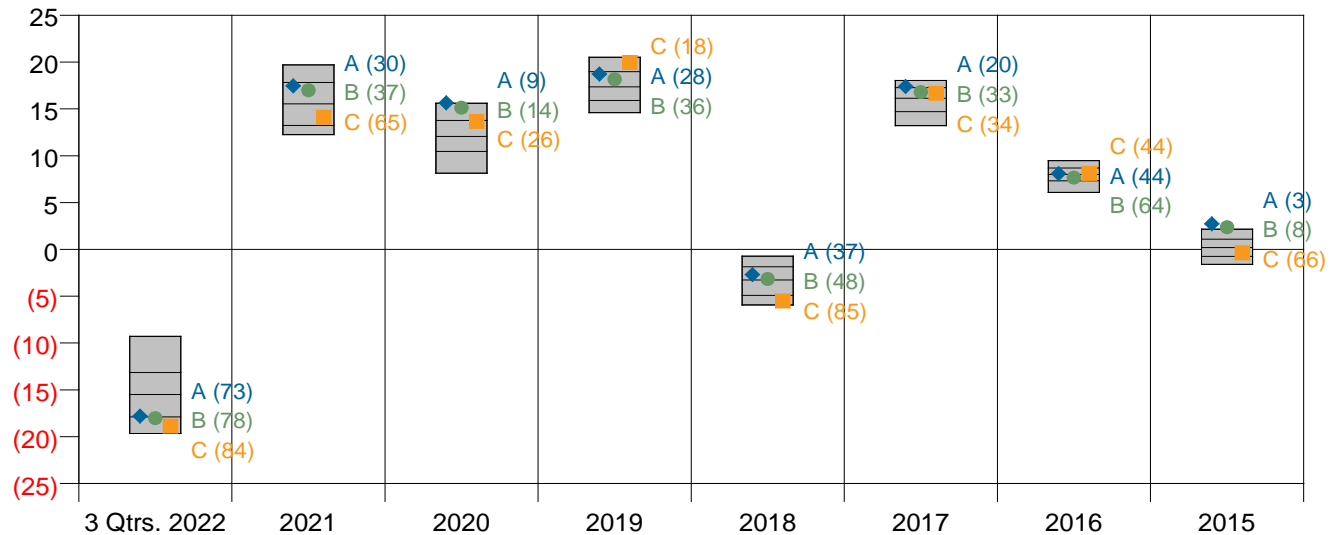


	Fiscal Year 2016	Fiscal Year 2015	Fiscal Year 2014	Fiscal Year 2013	Fiscal Year 2012	Fiscal Year 2011	Fiscal Year 2010
10th Percentile	2.41	4.92	19.33	15.59	3.90	25.27	16.20
25th Percentile	1.51	4.07	18.46	13.74	2.11	23.41	14.84
Median	0.46	3.29	16.74	12.22	0.90	22.08	13.36
75th Percentile	(0.62)	2.10	15.59	10.82	0.12	19.59	11.98
90th Percentile	(1.79)	1.38	13.95	8.70	(0.59)	17.77	10.62

	◆ A	● B	■ C	Fiscal Year 2016	Fiscal Year 2015	Fiscal Year 2014	Fiscal Year 2013	Fiscal Year 2012	Fiscal Year 2011	Fiscal Year 2010
MCERA Total Fund - Gross	◆ A	● B	■ C	2.68	5.52	19.22	15.60	2.26	24.42	9.11
MCERA Total Fund - Net	◆ A	● B	■ C	2.19	5.02	18.65	15.01	1.67	23.71	8.49
MCERA Total Fund Target	◆ A	● B	■ C	0.98	2.91	18.09	12.68	2.02	22.58	10.87

Total Fund Performance – Calendar Years

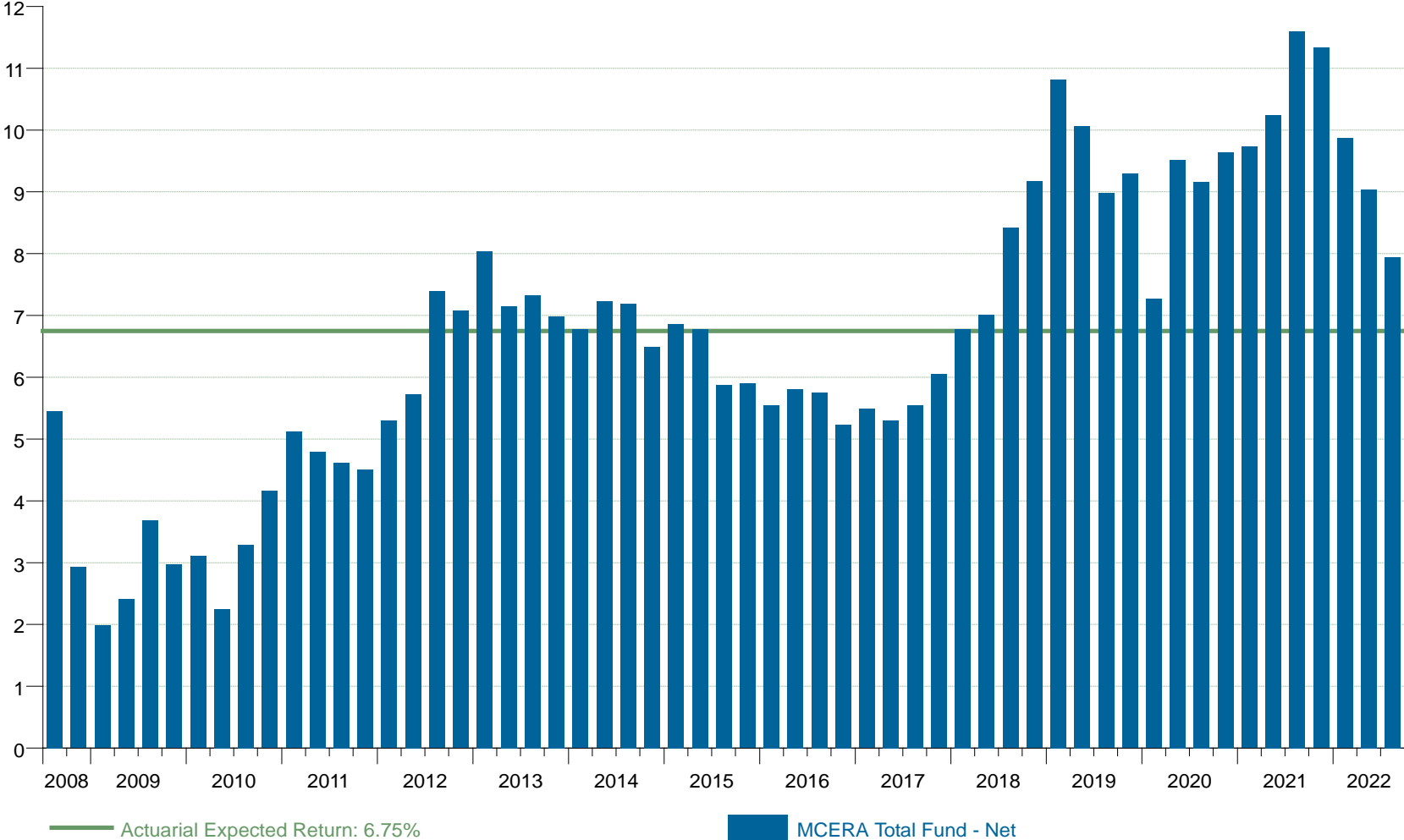
Returns for Periods Ended September 30, 2022
 Group: Callan Public Fund Sponsor - Large (>1B)



	3 Qtrs. 2022	2021	2020	2019	2018	2017	2016	2015
10th Percentile	(9.28)	19.72	15.61	20.52	(0.71)	18.05	9.49	2.17
25th Percentile	(13.14)	17.84	13.77	18.99	(1.84)	17.28	8.71	1.10
Median	(15.48)	15.55	12.08	17.36	(3.26)	16.15	8.02	0.20
75th Percentile	(17.87)	13.26	10.48	15.92	(4.89)	14.72	7.33	(0.73)
90th Percentile	(19.64)	12.26	8.15	14.62	(5.92)	13.22	6.09	(1.59)

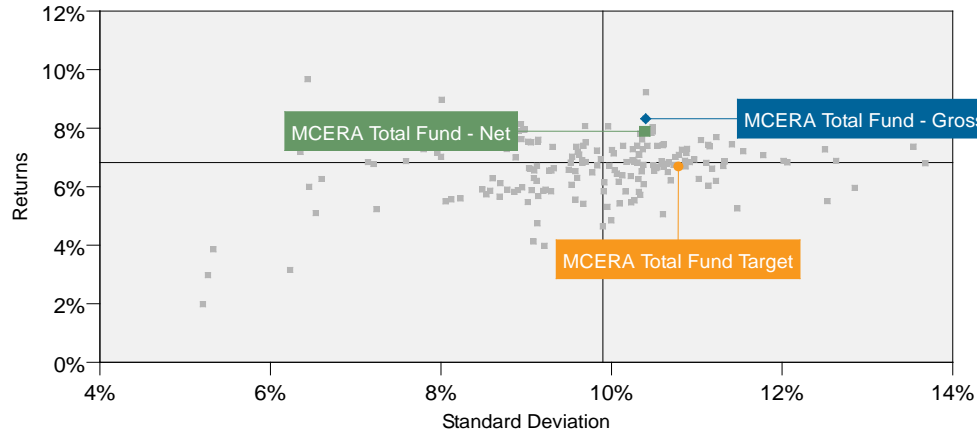
Total Fund - Gross	◆ A	(17.79)	17.47	15.66	18.73	(2.68)	17.41	8.10	2.73
MCERA Total Fund - Net	● B	(18.01)	17.01	15.16	18.19	(3.16)	16.81	7.68	2.37
Total Fund Target	■ C	(18.86)	14.12	13.68	19.97	(5.49)	16.68	8.13	(0.34)

Annualized 10 Year Total Fund Net Returns (Quarterly Roll)

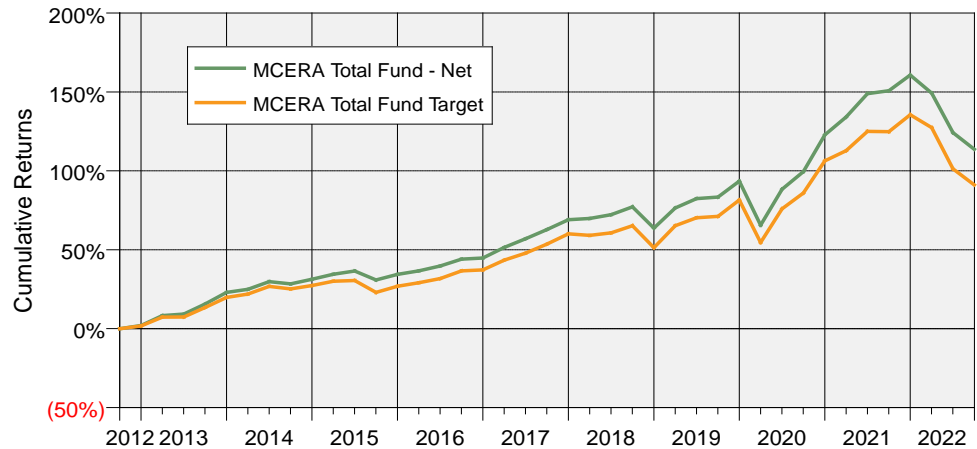


Total Fund – Cumulative Returns Relative to Target

Ten Year Annualized Risk vs. Return
As of September 30, 2022



Total Fund Cumulative Returns vs. Target
10 Years Ended September 30, 2022



Watchlist

Investment Manager Monitoring Summary Report Active Managers as of September 30, 2022




Investment Manager	Organization/ Team	3 Year Performance vs Benchmark	3 Year Performance vs Peers	5 Year Performance vs Benchmark	5 Year Performance vs Peers	Qualify for Watchlist?	Date Added
DFA Small Cap Core Equity <i>Russell 2000 Index</i>				N/A	N/A		
Morgan Stanley International Value Equity <i>MSCI EAFE Index</i>						Yes	4Q17
Artisan International Growth Equity <i>MSCI EAFE Index</i>						Yes	4Q17
TimesSquare International Small Cap Equity <i>MSCI EAFE Small Cap Index</i>				N/A	N/A		
Fidelity Emerging Markets Equity <i>MSCI Emerging Markets Index</i>		N/A	N/A	N/A	N/A		
Wellington Core Plus Fixed Income <i>Bloomberg Barclays Aggregate Index</i>						No	
Western Asset Intermediate Credit Fixed Income <i>Bloomberg Barclays Intermediate Credit Index</i>						No	
Colchester Global Fixed Income <i>FTSE World Government Bond Index</i>						Yes	Terminated Oct. 2022
Invesco Balanced Risk Commodity Fund <i>Bloomberg Commodity Index</i>						Yes	4Q20
KBI Global Natural Resources Fund <i>S&P Global Natural Resource Index</i>			N/A		N/A	No	
UBS Trumbull Property Fund* <i>NFI-ODCE Index</i>		N/A	N/A	N/A	N/A	Under Review	4Q19

*UBS Trumbull Property Fund placed on watch for organizational concerns. Quantitative criteria for private market portfolios under review by Governance Committee.

Quantitative Criteria

If a manager trails its relevant benchmark by more than 100 basis points (net of fees) and ranks in the bottom quartile of its peer universe (gross of fees ranking) for the trailing three years, or if a manager trails its relevant benchmark (net of fees) or ranks below median of its peer universe (gross of fees ranking) for the trailing five years, then the manager may be placed on the Watchlist.

Color Code

	meets watch list criteria, no concerns, no actions recommended
	concerns exist, no actions recommended
	violates watch list criteria, concerns exist, action to be determined

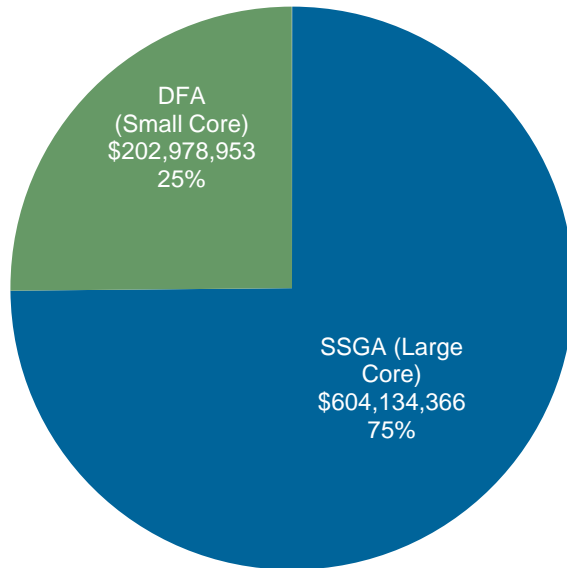
Watchlist

Investment Manager	3 Year Net Return Trails Benchmark by more than 100 bps (relative return shown in bps)	AND	3 Year Gross Return Ranks 75th - 100th%	OR	5 Year Net Return Trails Benchmark (relative return shown in bps)	OR	5 Year Gross Return Ranks 50th - 100th%	Qualify for Watchlist (Quantitative)
DFA Small Cap Core Equity <i>Russell 2000 Index</i>	306		25th		N/A		N/A	No
Morgan Stanley International Value Equity <i>MSCI EAFE Index</i>	-87		85th		-57		45th	Yes
Artisan International Growth Equity <i>MSCI EAFE Index</i>	-223		94th		57		55th	Yes
TimesSquare International Small Cap Equity <i>MSCI EAFE Small Cap Index</i>	-344		92nd		N/A		N/A	Yes
Fidelity Emerging Markets Equity <i>MSCI Emerging Markets Index</i>	N/A		N/A		N/A		N/A	No
Wellington Core Plus Fixed Income <i>Bloomberg Barclays Aggregate Index</i>	62		51st		50		48th	No
Western Asset Intermediate Credit Fixed Income <i>Bloomberg Barclays Intermediate Credit Index</i>	89		3rd		45		2nd	No
Colchester Global Fixed Income <i>FTSE World Government Bond Index</i>	68		65th		3		73rd	Yes
Invesco Balanced Risk Commodity Fund <i>Bloomberg Commodity Index</i>	-222		83rd		-125		97th	Yes
KBI Global Natural Resources Fund <i>S&P Global Natural Resource Index</i>	492		N/A		401		N/A	No
UBS Trumbull Property Fund <i>NCREIF NFI-ODCE Index</i>	Quantitative criteria for private markets portfolios under review by Governance Committee. On watch due to organizational changes.							Under Review

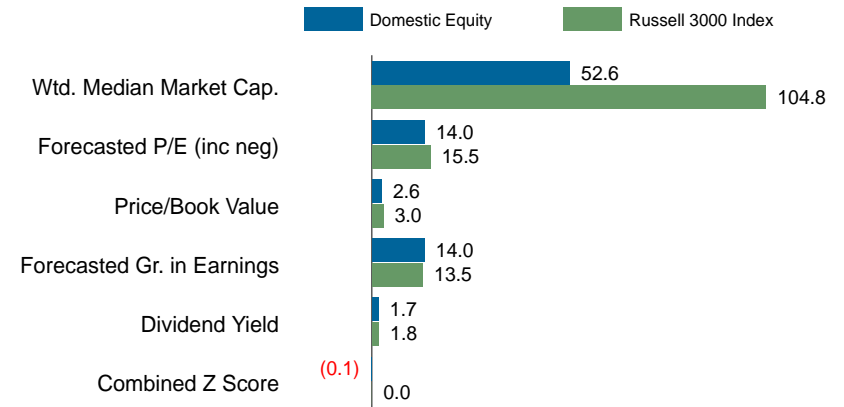
Callan

MCERA Asset Class Review

Domestic Equity Composite



Portfolio Characteristics as of September 30, 2022

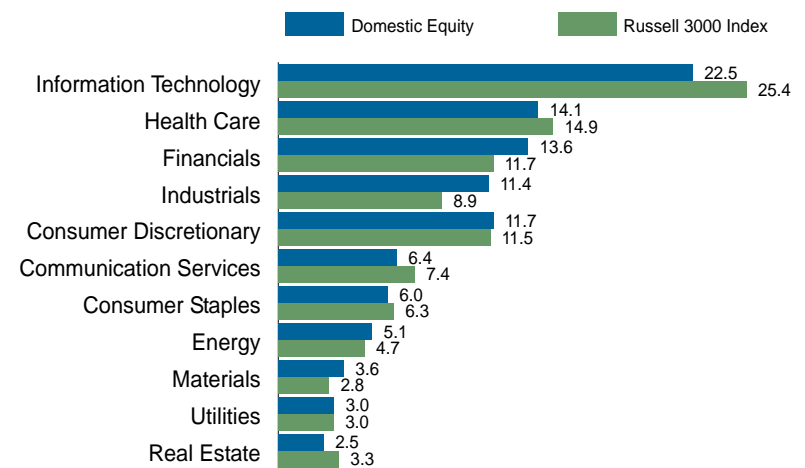


Style Exposure Matrix

Holdings as of September 30, 2022

	-- Domestic Equity				-- Russell 3000 Index			
	Value	Core	Growth	Total	Value	Core	Growth	Total
Large	17.9% (112)	14.2% (81)	30.3% (104)	62.4% (297)	22.4% (112)	17.8% (81)	37.9% (104)	78.0% (297)
Mid	4.6% (170)	5.9% (208)	6.4% (210)	16.8% (588)	5.0% (173)	5.1% (208)	5.2% (213)	15.3% (594)
Small	4.7% (234)	6.9% (373)	5.9% (284)	17.5% (891)	1.6% (303)	2.4% (519)	1.9% (367)	5.9% (1189)
Micro	1.5% (378)	1.1% (267)	0.6% (132)	3.3% (777)	0.2% (261)	0.4% (467)	0.2% (164)	0.8% (892)
Total	28.7% (894)	28.1% (929)	43.2% (730)	100.0% (2553)	29.2% (849)	25.6% (1275)	45.2% (848)	100.0% (2972)

Sector Allocation as of September 30, 2022



Domestic Equity Composite

Returns and Rankings for Periods Ended September 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Domestic Equity - Net	(4.13)	(16.81)	8.34	8.56	11.19
Domestic Equity Target	(4.46)	(17.63)	7.70	8.62	11.39
SSGA - Net	(4.61)	(17.16)	7.38	8.76	11.47
Large Cap Blended Benchmark	(4.61)	(17.22)	7.38	8.77	11.46
Ranking vs. Large Cap Equity	47	51	46	49	54
DFA Small Core - Net	(3.32)	(16.29)	7.35	--	--
Russell 2000 Index	(2.19)	(23.50)	4.29	3.55	8.55
Ranking vs. Small Cap Equity	41	28	25	--	--

Returns and Rankings for Calendar Years

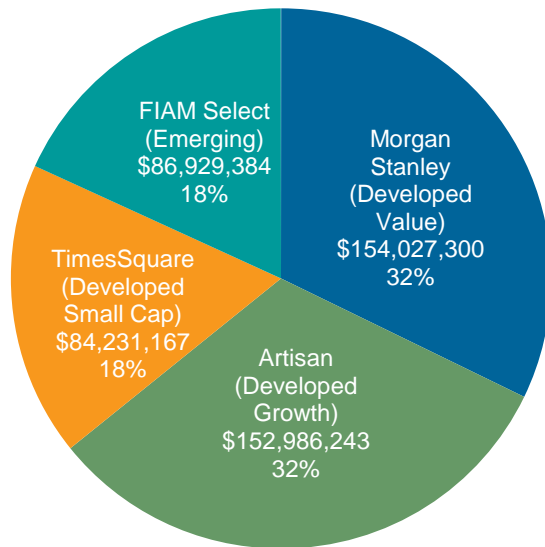
	3 Qtrs. 2022	2021	2020	2019	2018	2017
Domestic Equity - Net	(23.70)	29.74	17.85	28.77	(5.34)	20.61
Domestic Equity Target	(24.62)	25.66	20.89	31.02	(5.24)	21.13
SSGA - Net	(24.55)	27.16	18.33	31.43	(4.38)	21.83
Large Cap Blended Benchmark	(24.59)	27.15	18.40	31.49	(4.38)	21.83
Ranking vs. Large Cap Equity	52	49	53	43	46	51
DFA Small Core - Net	(21.06)	29.22	11.74	21.77	--	--
Russell 2000 Index	(25.10)	14.82	19.96	25.52	(11.01)	14.65
Ranking vs. Small Cap Equity	22	21	54	71	--	--

- The domestic equity composite outperformed the benchmark over the quarter due to the slight overweight in small cap. DFA's relative outperformance over the last year had been positive for the composite's relative returns.
- DFA trailed its benchmark over the third quarter due to its exclusion of stocks with the lowest profitability and highest relative prices. However, over the last year its exclusion of these stocks has contributed to its strong relative performance.

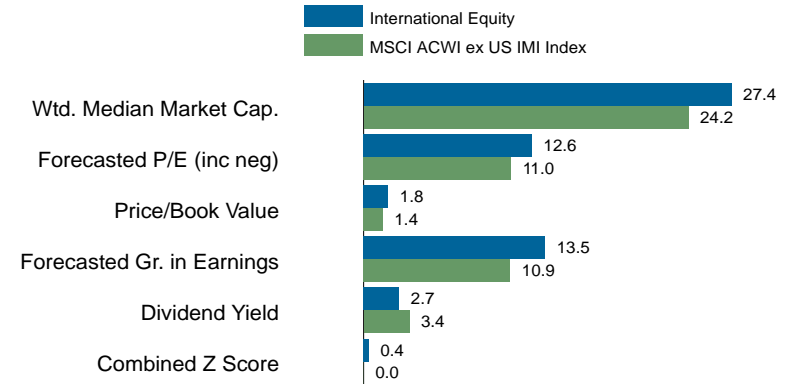
The Domestic Equity Target is comprised of 51.1% S&P/BARRA Value, 22.2% S&P 500, 15.6% Russell 2000 and 11.1% S&P/BARRA Growth through 12/31/1999, 80% S&P 500 and 20% Russell 2000 from 12/31/1999 to 06/30/2010, and 100% Russell 3000 from 06/30/2010 to present.

The Large Cap Blended Benchmark consists of the S&P 500 Index to 7/31/2021 and the Russell 1000 Index thereafter.

International Equity Composite



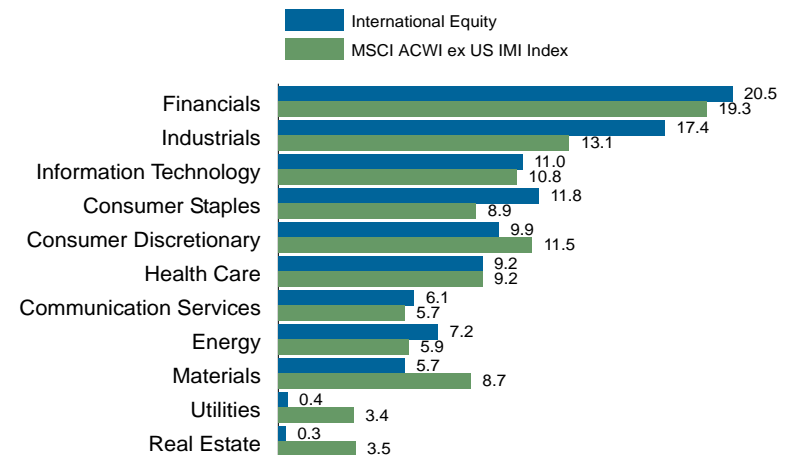
Portfolio Characteristics as of September 30, 2022



Region & Style Exposure Matrix Holdings as of September 30, 2022

	-- International Equity				-- MSCI ACWI ex US IMI Index			
	Value	Core	Growth	Total	Value	Core	Growth	Total
Europe	14.3% (26)	15.5% (35)	28.6% (60)	58.4% (121)	12.5%	12.6%	15.6%	40.6%
N. America	0.8% (1)	1.4% (3)	6.2% (9)	8.4% (13)	1.3%	2.0%	1.4%	4.8%
Pacific	0.5% (2)	2.4% (8)	7.4% (23)	10.4% (33)	8.7%	7.5%	8.4%	24.6%
Emerging	3.6% (28)	8.6% (40)	10.5% (46)	22.8% (114)	7.9%	10.9%	11.2%	30.0%
Total	19.2% (57)	28.0% (86)	52.8% (138)	100.0% (281)	30.4%	32.9%	36.6%	100.0%

Sector Allocation as of September 30, 2022



International Equity Composite

Returns and Rankings for Periods Ended September 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
International Equity - Net	(10.09)	(29.03)	(3.79)	(1.75)	3.25
International Equity - Target	(9.69)	(25.72)	(1.27)	(0.78)	3.19
MSIM - Net	(11.83)	(25.19)	(2.70)	(1.41)	3.06
MSCI EAFE Index	(9.36)	(25.13)	(1.83)	(0.84)	3.67
Ranking vs. Non-US Developed Value Equity	78	97	85	45	64
Artisan - Net	(7.85)	(28.53)	(4.06)	(0.27)	3.64
MSCI EAFE Index	(9.36)	(25.13)	(1.83)	(0.84)	3.67
Ranking vs. Non-US Developed Growth Equity	29	44	94	55	70
TimesSquare - Net	(8.37)	(36.80)	(5.60)	--	--
MSCI EAFE Small Cap	(9.83)	(32.06)	(2.16)	(1.79)	5.28
Ranking vs. International Small Cap Equity	22	81	92	--	--
FIAM Select EM - Net	(12.01)	(31.41)	--	--	--
MSCI Emerging Markets Index	(11.57)	(28.11)	(2.07)	(1.80)	1.05
Ranking vs. Emerging Markets Equity	64	69	--	--	--

Returns and Rankings for Periods Ended September 30, 2022

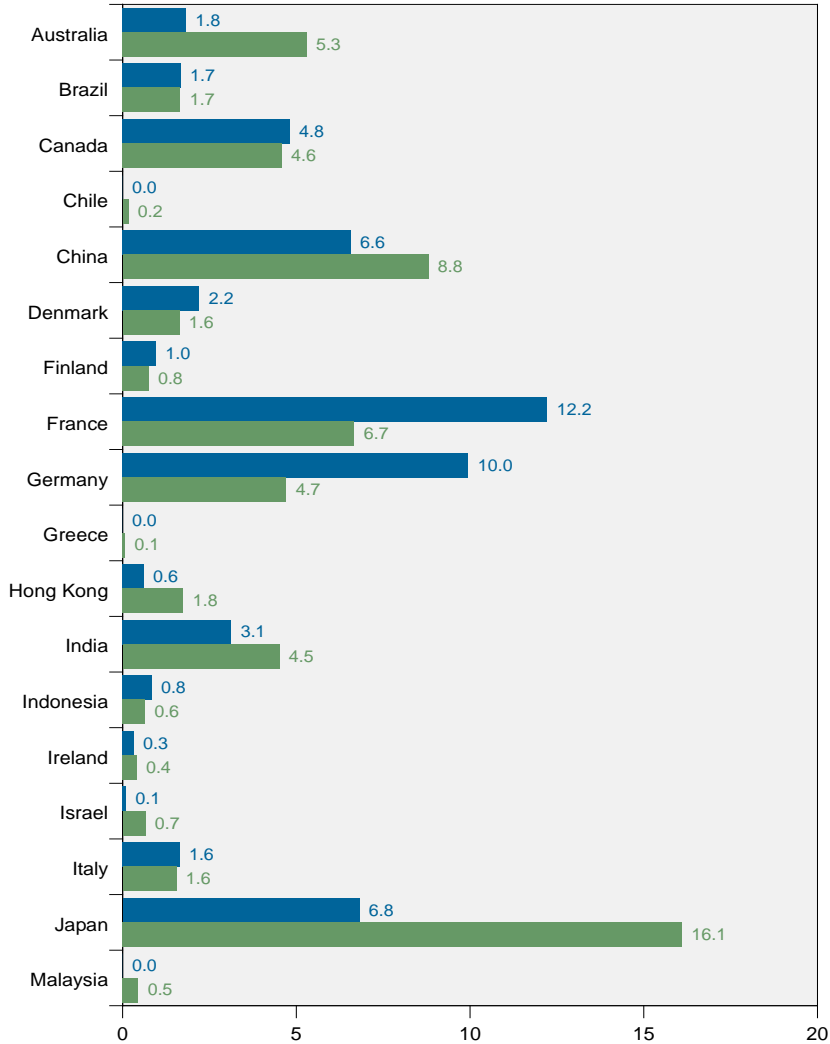
	3 Qtrs. 2022	2021	2020	2019	2018
International Equity - Net	(29.70)	5.28	10.79	23.52	(13.50)
International Equity - Target	(26.92)	8.53	11.12	21.63	(14.76)
MSIM - Net	(26.90)	4.70	12.00	20.93	(13.46)
MSCI EAFE Index	(27.09)	11.26	7.82	22.01	(13.79)
Ranking vs. Non-US Developed Value Equity	92	98	1	34	14
Artisan - Net	(30.31)	8.59	8.09	29.62	(10.53)
MSCI EAFE Index	(27.09)	11.26	7.82	22.01	(13.79)
Ranking vs. Non-US Developed Growth Equity	39	60	96	26	13
TimesSquare - Net	(35.52)	2.18	13.87	--	--
MSCI EAFE Small Cap	(32.11)	10.10	12.34	24.96	(17.89)
Ranking vs. International Small Cap Equity	75	93	39	--	--
FIAM Select EM - Net	(30.71)	--	--	--	--
MSCI Emerging Markets Index	(27.16)	(2.54)	18.31	18.44	(14.57)
Ranking vs. Emerging Markets Equity	69	--	--	--	--

- The International Equity composite underperformed on a relative basis during the last quarter and the last year.
 - Morgan Stanley: stock selection in health care and consumer staples hurt during the quarter. Performance over the last year is in line with the benchmark as the portfolio's positive overweight in consumer staples was offset by underweights to energy and materials.
 - Artisan: outperformed as growth oriented stocks were back in favor. Artisan's underperformance over the last year primarily stems from 1Q22 with the outbreak of the Russia-Ukraine war. The market swung swiftly from growth to value stocks, and Artisan also owned two Russian names.
 - TimesSquare: outperformed over the quarter. For the year, the portfolio's quality growth style has weighed on performance.
 - FIAM: Chinese stock selection in IT and health care were large detractors during the quarter and year.

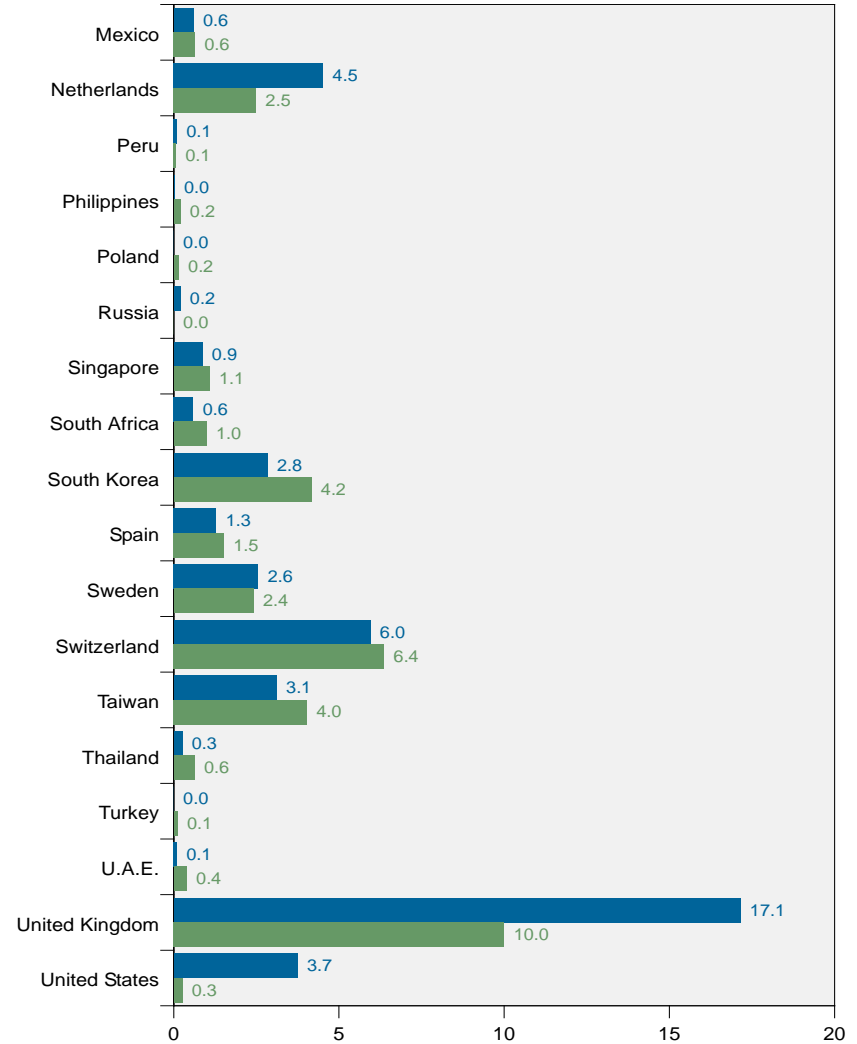
The International Equity Target is comprised of 100% MSCI EAFE Index through 06/30/2010, and 100% MSCI ACWI ex-US IMI Index thereafter.

International Equity Composite

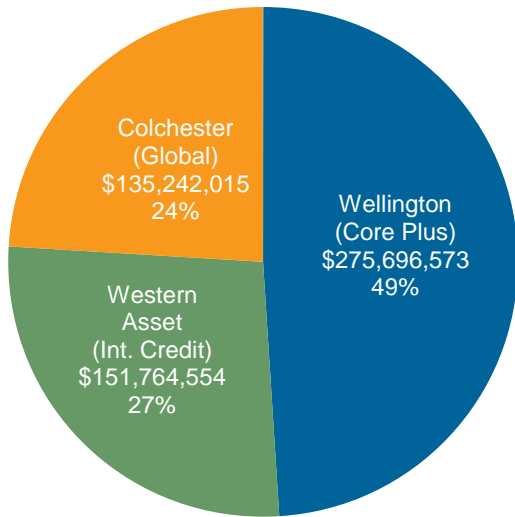
Country Allocations as of September 30, 2022



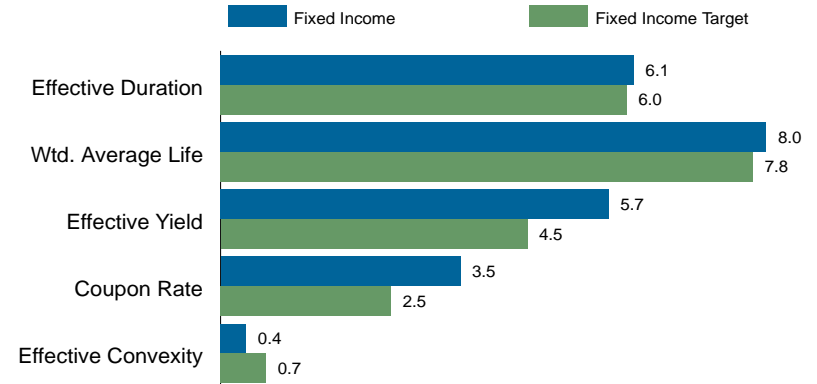
-- International Equity
-- MSCI ACWI ex US IMI Index



Fixed Income Composite

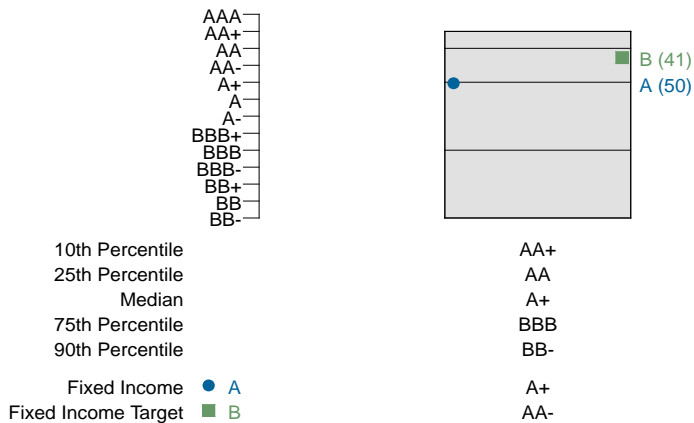


Portfolio Characteristics as of September 30, 2022

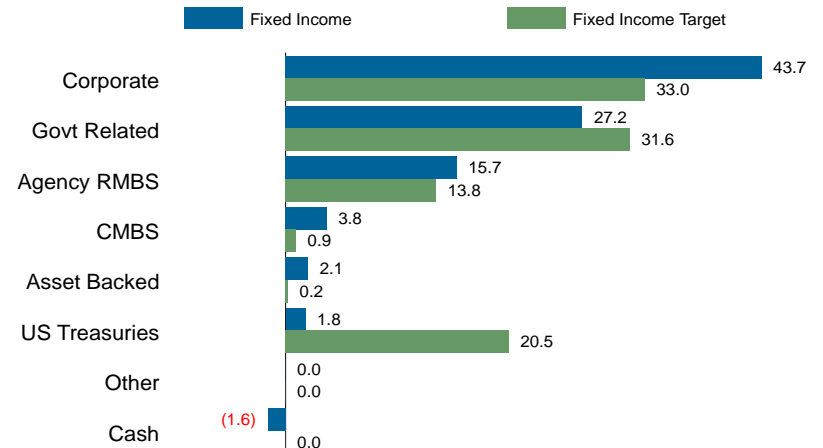


Quality Rating as of September 30, 2022

Total Domestic Fixed Income Database



Sector Allocation as of September 30, 2022



Fixed Income Composite

Returns and Rankings for Periods Ended September 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Fixed Income - Net	(5.03)	(16.15)	(2.66)	(0.14)	1.20
Fixed Income Target	(5.05)	(15.85)	(3.81)	(0.74)	0.44
Wellington - Net	(4.37)	(15.72)	(2.64)	0.23	1.70
Bloomberg Aggregate Index	(4.75)	(14.60)	(3.26)	(0.27)	0.89
Ranking vs. Core Plus Fixed Income	52	71	51	48	52
Western Asset - Net	(2.87)	(12.68)	(0.79)	1.10	2.07
Bloomberg Intermediate Credit Index	(3.08)	(11.82)	(1.73)	0.60	1.60
Ranking vs. Intermediate Fixed Income	16	96	3	2	1
Colchester - Net	(8.43)	(22.47)	(6.35)	(3.04)	--
FTSE World Government Bond Index	(7.61)	(22.14)	(7.03)	(3.07)	(1.76)
Ranking vs. Global Fixed Income (Uhedged)	87	76	65	73	--

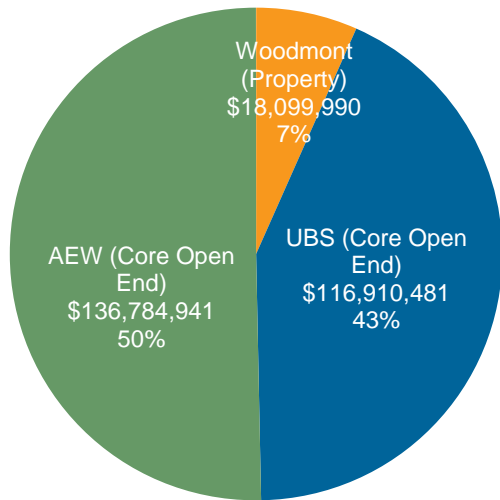
Returns and Rankings for Calendar Years

	3 Qtrs.					
	2022	2021	2020	2019	2018	2017
Fixed Income - Net	(15.79)	(2.50)	11.47	8.60	(0.34)	5.15
Fixed Income Target	(15.50)	(2.79)	8.10	8.21	(0.17)	4.55
Wellington - Net	(15.82)	(0.71)	9.93	9.95	(0.39)	4.87
Bloomberg Aggregate Index	(14.61)	(1.54)	7.51	8.72	0.01	3.54
Ranking vs. Core Plus Fixed Income	74	63	26	44	42	41
Western Asset - Net	(12.04)	(0.43)	10.03	9.82	(0.35)	4.13
Bloomberg Intermediate Credit Index	(11.33)	(1.03)	7.08	9.52	0.01	3.67
Ranking vs. Intermediate Fixed Income	96	2	2	1	99	2
Colchester - Net	(21.22)	(8.01)	11.12	7.55	(0.90)	8.20
FTSE World Government Bond Index	(21.27)	(6.97)	10.11	5.90	(0.84)	7.49
Ranking vs. Global Fixed Income (Uhedged)	70	97	28	59	17	37

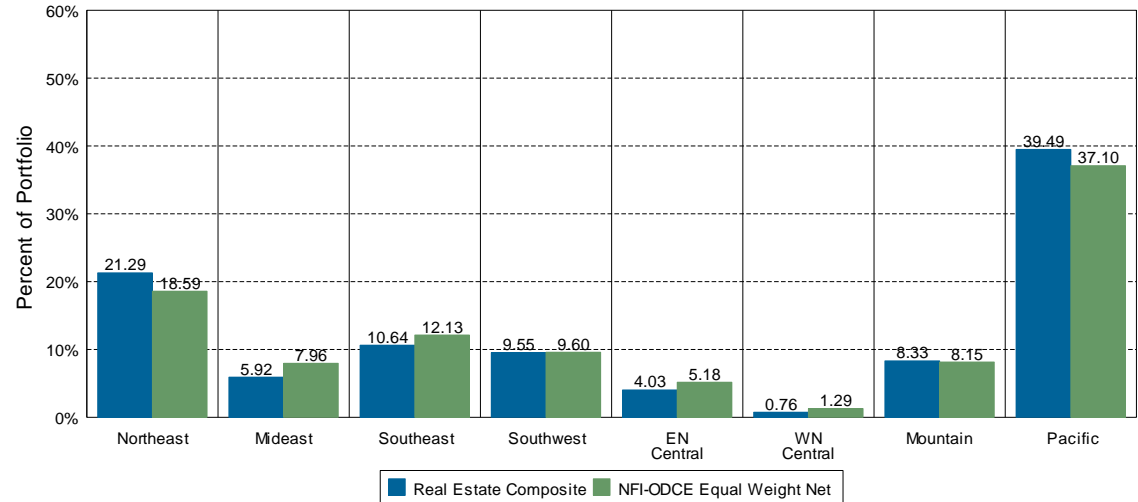
- The Fixed Income composite slightly outperformed during the quarter versus the benchmark but trailed over the last year.
 - Wellington: outperformed due to an increased duration position and allocations to high yield and emerging markets debt.
 - Western Asset: issue selection within the energy and consumer cyclical sectors contributed as well as an overweight to higher quality.
 - Colchester: several central banks around the world continued to implement tighter monetary policies leading to large declines in global bond returns. The strength of the U.S. dollar has further weakened Colchester's returns which are reported in unhedged terms (3Q22 index hedged: -3.8%).
- It was decided to restructure the fixed income allocation to 100% U.S. Core Plus managed by Wellington and Western Asset. Colchester was terminated in October and the assets were moved to Western Asset. They repositioned their current portfolio to Core Plus in November.

Fixed Income Target is comprised of 100% Bloomberg Aggregate Index until 03/31/2014 and 50% Bloomberg Aggregate Index, 25% Bloomberg Intermediate Credit Index, and 25% FTSE World Government Bond Index thereafter.

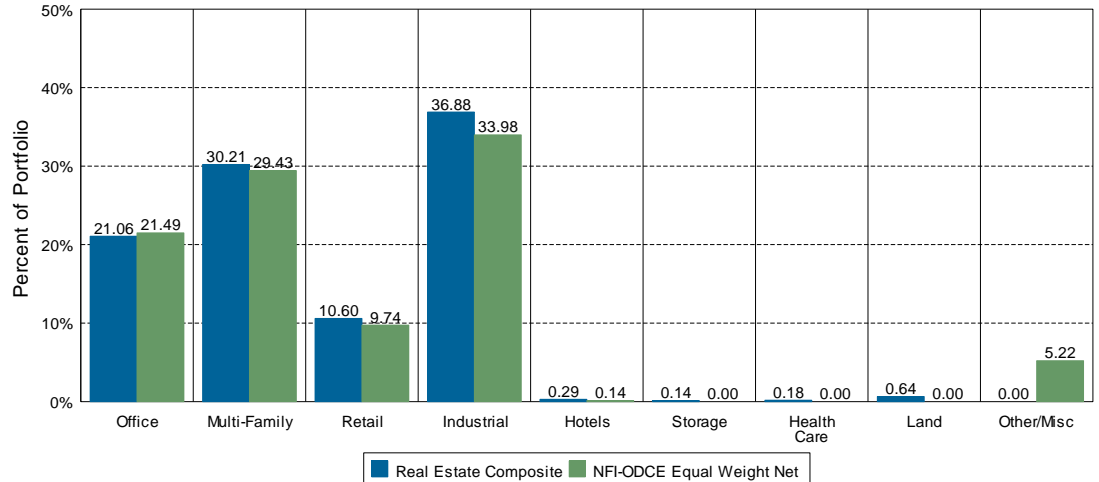
Real Estate Composite



Diversification by Geographic Region as of September 30, 2022



Diversification by Property Type as of September 30, 2022



Real Estate Composite

Returns and Rankings for Periods Ended September 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Real Estate - Net	0.89	18.16	8.32	6.71	10.12
Real Estate Target	0.77	21.68	12.13	9.87	10.23
AEW Core Property Trust - Net	1.90	23.71	11.78	9.66	--
NFI-ODCE Equal Wt Net Index	0.77	21.68	12.13	9.87	10.26
Ranking vs. Core Open End Funds	60	48	64	70	--
UBS Trumbull Property Fund - Net	(0.14)	16.58	6.89	5.18	--
NFI-ODCE Equal Wt Net Index	0.77	21.68	12.13	9.87	10.26
Ranking vs. Core Open End Funds	92	92	95	98	--

Returns and Rankings for Calendar Years

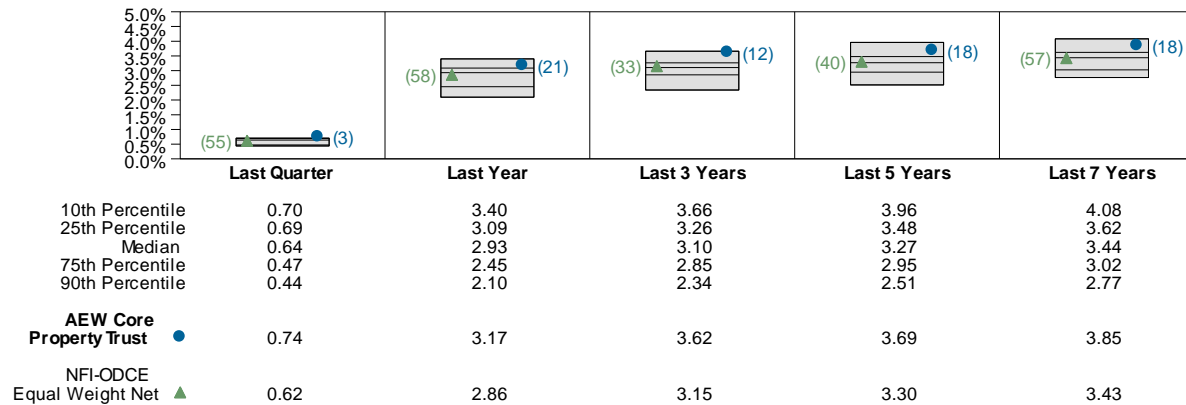
	3 Qtrs.					
	2022	2021	2020	2019	2018	2017
Real Estate - Net	11.61	16.16	(2.29)	0.64	6.46	5.66
Real Estate Target	13.32	21.88	0.75	5.18	7.30	6.92
AEW Core Property Trust - Net	13.71	21.00	0.57	5.29	6.77	6.99
NFI-ODCE Equal Wt Net Index	13.32	21.88	0.75	5.18	7.30	6.92
Ranking vs. Core Open End Funds	67	59	66	71	76	43
UBS Trumbull Property Fund - Net	11.17	15.41	(4.68)	(2.88)	6.12	5.32
NFI-ODCE Equal Wt Net Index	13.32	21.88	0.75	5.18	7.30	6.92
Ranking vs. Core Open End Funds	87	89	96	96	89	85

- The AEW Core Property Trust's current leverage is 24.4% (NFI-ODCE leverage: 21.5%).
 - All sectors produced positive returns for AEW during the quarter. The industrial and multifamily sectors led performance.
- The UBS Trumbull Property Fund's current leverage is 17.9%.
 - During the quarter, multifamily and industrial produced positive returns; whereas office, retail, and hotel were negative.

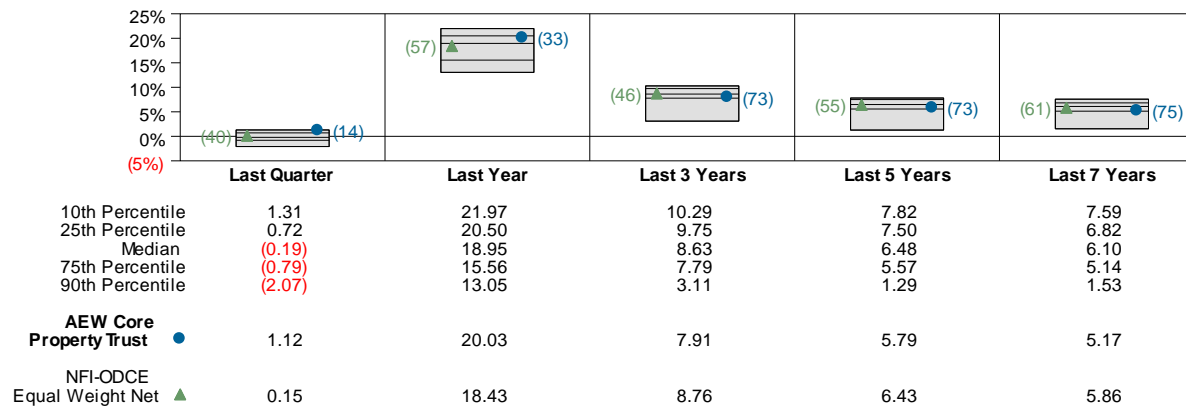
The Real Estate Target is comprised of the NCREIF Classic Index through 12/31/2004, NCREIF Total Property Index through 12/31/2014, and the NFI-ODCE Equal Weight Net thereafter.

AEW Income and Appreciation Returns

Income Rankings vs Callan Real Estate ODCE Periods ended September 30, 2022

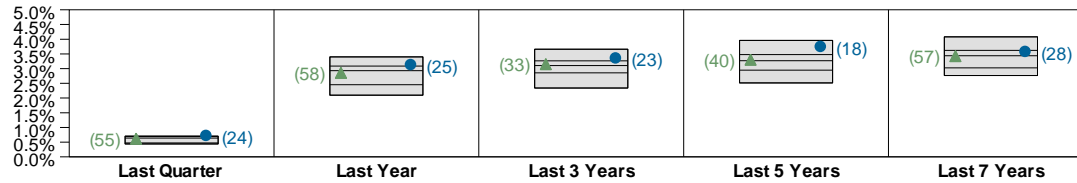


Appreciation Rankings vs Callan Real Estate ODCE Periods ended September 30, 2022



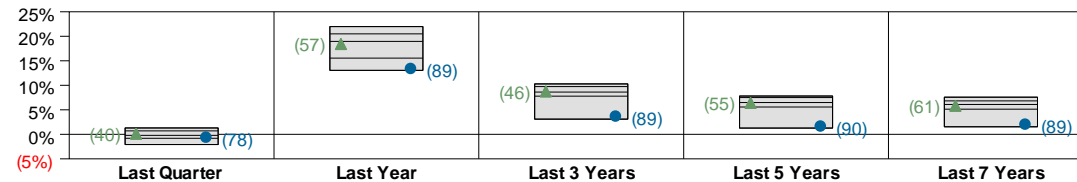
UBS Income and Appreciation Returns

Income Rankings vs Callan Real Estate ODCE Periods ended September 30, 2022



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
10th Percentile	0.70	3.40	3.66	3.96	4.08
25th Percentile	0.69	3.09	3.26	3.48	3.62
Median	0.64	2.93	3.10	3.27	3.44
75th Percentile	0.47	2.45	2.85	2.95	3.02
90th Percentile	0.44	2.10	2.34	2.51	2.77
UBS Trumbull Property Fund ●	0.69	3.09	3.32	3.71	3.54
NFI-ODCE Equal Weight Net ▲	0.62	2.86	3.15	3.30	3.43

Appreciation Rankings vs Callan Real Estate ODCE Periods ended September 30, 2022



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
10th Percentile	1.31	21.97	10.29	7.82	7.59
25th Percentile	0.72	20.50	9.75	7.50	6.82
Median	(0.19)	18.95	8.63	6.48	6.10
75th Percentile	(0.79)	15.56	7.79	5.57	5.14
90th Percentile	(2.07)	13.05	3.11	1.29	1.53
UBS Trumbull Property Fund ●	(0.83)	13.19	3.48	1.42	1.84
NFI-ODCE Equal Weight Net ▲	0.15	18.43	8.76	6.43	5.86

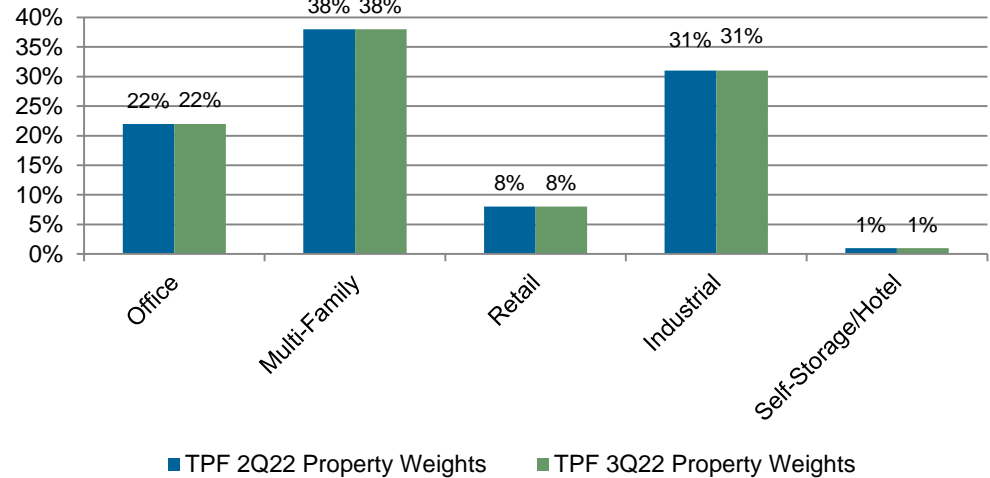
UBS Trumbull Property Fund Snapshot

As of September 30, 2022

As of 3Q 2022

Gross Asset Value	\$17.8B
Net Asset Value	\$14.5B
Leverage	17.9%
Number of Investments	145
Number of Investors	439
Redemption Queue	\$7.2 billion
3Q22 Redemption Queue Payout	\$200 million
Contribution Queue	\$0 million

Property Type Weights (Change from Prior Quarter)



- The Fund has a current redemption pool of \$7.2 billion. The Fund made a 3Q 2022 redemption payment of \$200 million. The Fund's initial target for 2022 redemption payments was \$2.5 billion; following the fourth payment in October 2022, a total of \$1.85 billion was paid out. The Fund has successfully sold 65% and transferred 12% of the Non-Strategic Asset pool to date. Including the targeted dispositions in 2022, the Non-Strategic Asset pool is expected to be 88% divested by year-end 2022, with the final dispositions occurring in 2023.
- MCERA submitted a partial redemption request for \$20 million in January 2020 and has now received the full amount.
- For now, Callan is comfortable with UBS as they carry out the fund restructuring and sell off their non-strategic assets and would like to continue to monitor that progress.

NFI-ODCE Funds - Net of Fee Returns

As of September 30, 2022

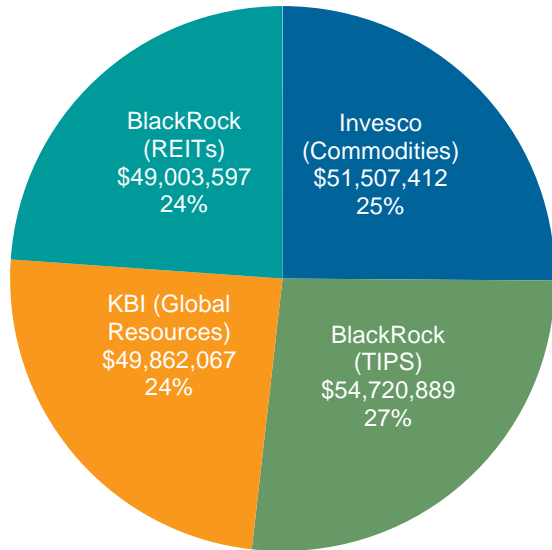
Fund Name	Last Quarter	Last Year	Last 3 Years	Last 5 Years
AEW Core Property Trust	1.88%	23.79%	11.85%	9.73%
AFL-CIO Building Investment Trust	-0.69%	8.58%	5.49%	5.42%
ARA Core Property Fund	1.42%	24.57%	12.10%	9.86%
ASB Allegiance Real Estate Fund	2.03%	18.96%	10.22%	8.24%
Bailard Real Estate Fund	3.16%	23.47%	14.31%	13.06%
Barings Core Property Fund	-3.49%	13.72%	8.53%	7.70%
BentallGreenOak BGO Diversified	1.74%	22.94%	12.41%	9.93%
BlackRock U.S. Core Property Fund	1.28%	22.26%	12.00%	9.95%
CBRE U.S. Core Partners LP	1.53%	29.96%	18.20%	14.25%
CIM Urban Income Investments	0.56%	21.44%	11.96%	10.35%
Clarion Lion Property Fund	0.41%	23.71%	13.28%	10.98%
DWS RREEF America REIT II	-0.80%	23.72%	12.41%	10.28%
GWL U.S. Property Fund L.P.	0.47%	24.89%	13.64%	10.42%
Heitman America Real Estate Trust	1.54%	25.63%	11.88%	9.30%
Intercontinental U.S. Real Estate Investment Fund	1.44%	22.31%	12.66%	11.02%
Invesco Core Real Estate USA	1.23%	19.05%	10.56%	9.17%
J.P. Morgan Strategic Property Fund	-1.52%	17.91%	10.29%	8.08%
LaSalle US Property Fund	0.82%	23.16%	12.20%	10.11%
MetLife Core Property Fund	2.33%	24.70%	14.35%	11.81%
Morgan Stanley Prime Property Fund	-0.06%	20.76%	11.22%	9.67%
NYL Madison Core Property Fund	2.29%	31.17%	14.65%	11.79%
PGIM PRISA	-0.01%	19.29%	11.73%	9.78%
Principal U.S. Core Property	0.45%	22.26%	11.61%	9.90%
Stockbridge Smart Markets Fund	0.68%	21.41%	14.20%	11.41%
TA Realty	1.38%	24.86%	17.01%	--
UBS Trumbull Property Fund	-0.16%	16.55%	6.86%	5.18%

NFI-ODCE Funds - Gross of Fee All Sector Returns

As of September 30, 2022

Fund	Retail 3Q 2022	Apartment 3Q 2022	Industrial 3Q 2022	Office 3Q 2022
AEW	0.07%	2.33%	3.33%	0.92%
AFL-CIO	-6.62%	-0.11%	2.01%	-0.90%
ARA	0.94%	2.88%	2.13%	-1.97%
ASB	0.67%	3.83%	1.15%	0.25%
Bailard	1.53%	4.68%	5.22%	-1.59%
Barings	1.48%	1.05%	2.57%	-14.27%
BGO	0.18%	1.83%	2.31%	-0.28%
BlackRock	1.00%	1.94%	1.44%	-0.25%
CBRE	-1.32%	2.65%	0.62%	-2.54%
CIM Group	1.76%	1.51%	3.96%	-2.58%
Clarion	-1.02%	0.93%	1.54%	-1.11%
DWS	-0.82%	-1.34%	0.92%	-2.42%
Everwest	0.62%	1.29%	1.91%	-3.45%
Heitman	-0.52%	1.58%	2.69%	-0.35%
Intercontinental	2.97%	1.87%	0.29%	-0.36%
Invesco	2.38%	1.28%	0.36%	-0.12%
JP Morgan	0.73%	0.28%	-2.60%	-1.04%
LaSalle	1.23%	0.34%	0.52%	-0.14%
MSIM	0.51%	-3.39%	2.47%	0.10%
NYLIM	1.72%	1.33%	3.69%	-0.09%
PGIM	0.89%	0.99%	-1.28%	-0.81%
Principal	1.05%	0.75%	1.23%	-1.20%
Stockbridge	1.33%	-1.46%	1.84%	0.34%
TA Realty	3.94%	-1.07%	3.77%	-1.55%
UBS	-1.31%	1.03%	1.42%	-3.90%

Real Assets Composite



- The BlackRock TIPS and REITs Funds are passive.
- The Invesco Balanced Risk Commodities Fund underperformed during the quarter and year mainly due to its strategic underweight to natural gas. The ongoing uncertainty with Europe's gas supply has caused prices to soar.
- KBI underperformed the index with the water utilities segment being the largest detractor. The issues with Europe's gas supply is infecting other utility sectors, not just gas and electricity.

Returns and Rankings for Periods Ended September 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Real Assets - Net	(7.35)	(8.54)	6.43	5.37
Real Assets Target	(6.09)	(3.72)	5.74	4.73
BlackRock TIPS Index Fund - Net	(5.14)	(11.58)	0.86	2.03
Bloomberg US TIPS Index	(5.14)	(11.57)	0.79	1.95
Ranking vs. Real Returns Database	41	53	35	36
BlackRock REIT Index Fund - Net	(10.45)	(17.26)	(3.36)	1.90
S&P Dow Jones US Select REIT	(10.37)	(17.15)	(3.29)	1.95
Ranking vs. Real Estate Mutual Funds	46	46	85	83
Invesco Commodity Fund - Net	(8.66)	5.70	11.23	5.71
Bloomberg Commodity Index	(4.11)	11.80	13.45	6.96
Ranking vs. Commodities Funds	83	78	83	98
KBI Global Resources Fund - Net	(5.14)	(12.56)	12.35	8.11
S&P Global Natural Resources Index	(4.74)	0.33	8.38	5.02
KBI Custom Benchmark	(4.09)	(18.39)	10.92	7.53

Returns and Rankings Calendar Years

	3 Qtrs. 2022	2021	2020	2019
Real Assets - Net	(14.90)	23.96	11.08	15.51
Real Assets Target	(9.42)	25.60	0.57	14.08
BlackRock TIPS Index Fund - Net	(13.58)	5.92	11.17	8.49
Bloomberg US TIPS Index	(13.61)	5.96	10.99	8.43
Ranking vs. Real Returns Database	47	41	18	32
BlackRock REIT Index Fund - Net	(29.40)	45.80	(11.21)	23.08
S&P Dow Jones US Select REIT Index	(29.32)	45.91	(11.20)	23.10
Ranking vs. Real Estate Mutual Funds	62	17	96	89
Invesco Commodity Fund - Net	2.13	19.68	7.58	5.49
Bloomberg Commodity Index	13.57	27.11	(3.12)	7.69
Ranking vs. Commodities Funds	83	87	1	81
KBI Global Resources Fund - Net	(18.36)	24.08	29.17	24.81
S&P Global Natural Resources Index	(6.39)	24.40	(0.05)	16.41
KBI Custom Benchmark	(21.75)	7.22	46.83	28.74

The Real Assets Target is comprised of 25% Bloomberg US TIPS Index, 25% Bloomberg Commodity Index, 25% S&P Dow Jones US Select REIT Index, and 25% S&P Global Natural Resources Index. The KBI Custom Benchmark consists of 1/3 each: S-Network Global Water Index, Wilderhill New Energy Global Innovation Index, and Dax Global Agribusiness Index.

Private Equity Portfolio (as of 6/30/22)

- 89% Paid-In through 6/30/22.
- When ranked against the Thomson-Cambridge Private Equity Database, MCERA is ranked in the second quartile for Total Value to Paid-In (TVPI) basis.
- The total portfolio is well diversified by vintage year and investment type.

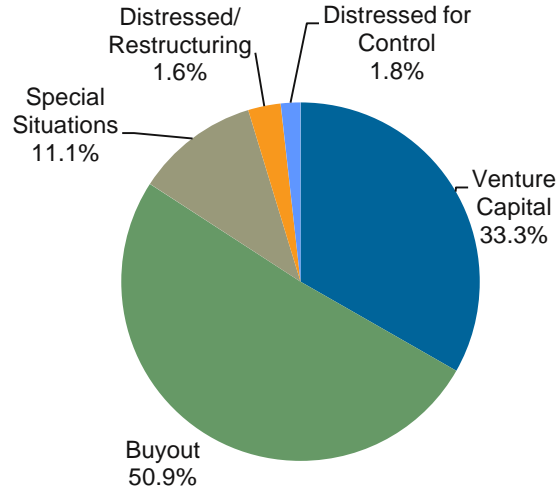
	June 30, 2022	Quarter Change	March 31, 2022
Summary			
Vintage Years	15 in 2008-2022		15 in 2008-2022
# Total Partnerships	516	17	499
# Active Partnerships	497	17	480
# Liquidated Partnerships	19	-	19
Changes in Value			
Capital Commitments	\$450,000,000	-	\$450,000,000
Paid-In Capital	\$402,187,648	\$3,185,691	\$399,001,957
Uncalled Capital	\$62,492,718	\$(2,868,913)	\$65,361,631
% Paid-In	89.38%	0.71%	88.67%
Distributed Capital	\$438,954,777	\$6,851,890	\$432,102,887
Net Asset Value	\$381,742,940	\$(33,750,147)	\$415,493,087
Total Realized and Unrealized Value	\$820,697,717	\$(26,898,257)	\$847,595,974
Ratios and Performance			
Distributions to Paid-In Capital (DPI)	1.09x	0.01x	1.08x
Residual Value to Paid-In Capital (RVPI)	0.95x	(0.09)x	1.04x
Total Value to Paid-In Capital (TVPI)	2.04x	(0.08)x	2.12x
Quartile Ranking	2nd		2nd
Net IRR	16.32%	(0.93%)	17.25%
Additional Performance Metrics			
Distribution Rate, as % of Beginning NAV		1.65%	
Unrealized Gain/(Loss), Dollars		\$(30,083,948)	
Unrealized Gain/(Loss), %		(7.24%)	

Quartile Rankings against the All Private Equity, All Regions Refinitiv/Cambridge Database.

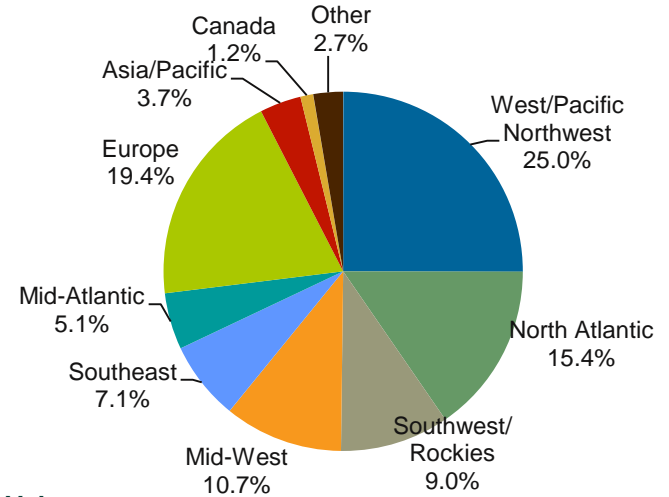
Uncalled capital above does not reflect currency fluctuations for Pathway's investments in foreign partnerships.

Private Equity Portfolio Exposure

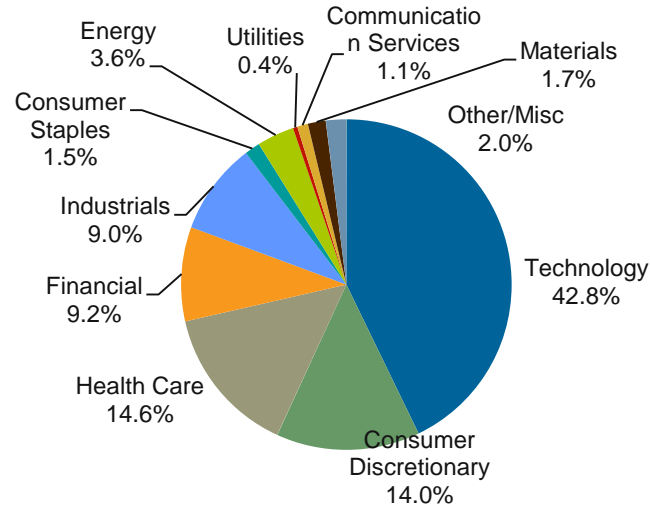
Strategy Mix by Net Asset Value



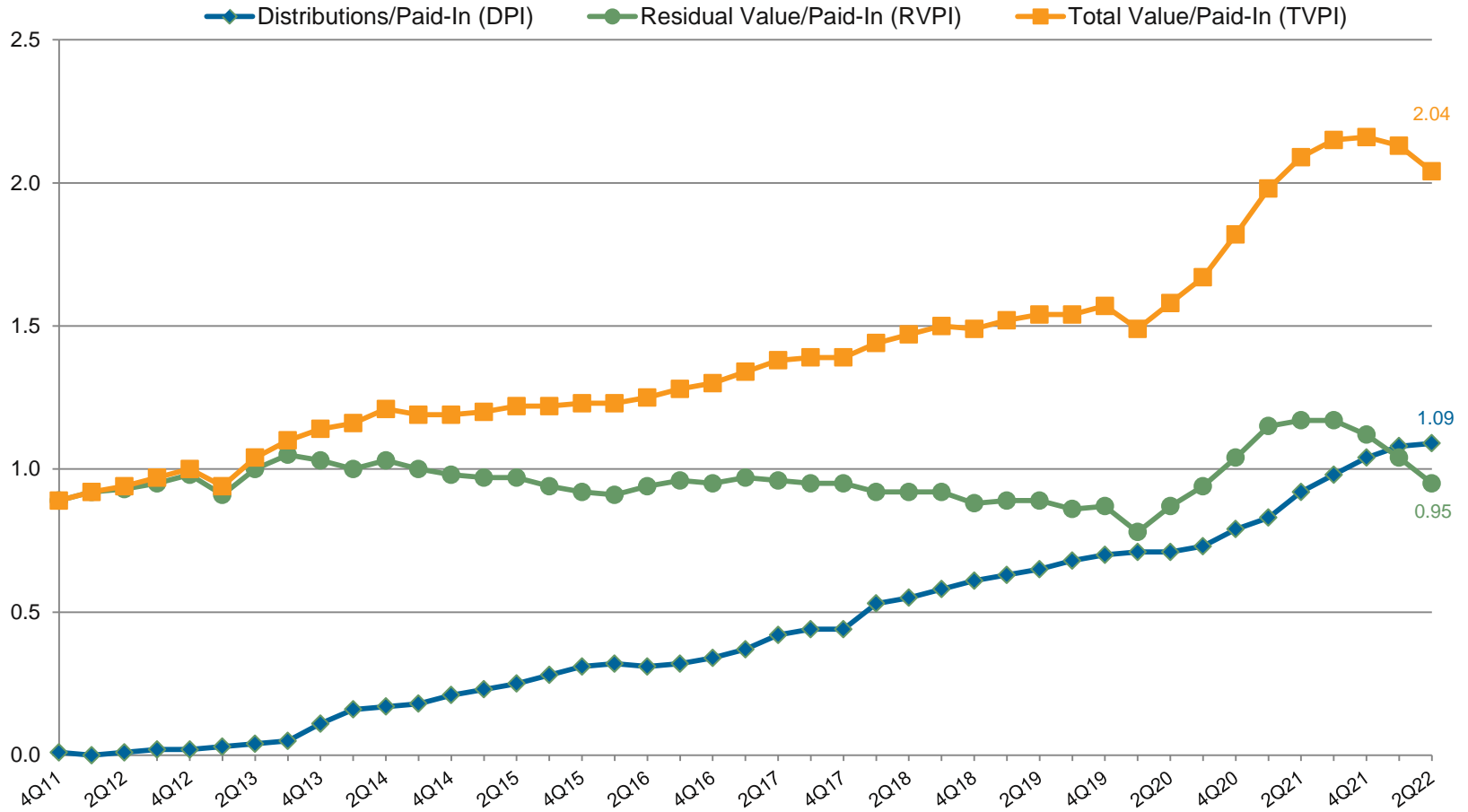
Geographic Mix by Net Asset Value



Industry Mix by Net Asset Value



Private Equity Ratios – Changes Over Time



Opportunistic Portfolio

- 53.2% Paid-In through 9/30/2022.
- The total portfolio is diversified by industry type and geographic location.

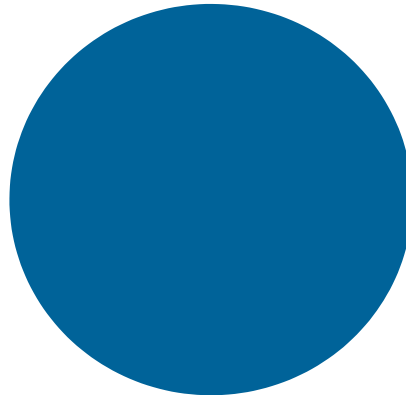
	September 30, 2022	Quarter Change	June 30, 2022
Summary			
Vintage Year	2020		2020
# Total Partnerships	193	-	193
# Active Partnerships	193	-	193
# Liquidated Partnerships	0	-	0
Changes in Value			
Capital Commitments	\$100,000,000	-	\$100,000,000
Paid-In Capital	\$53,159,127	-	\$53,159,127
Uncalled Capital	\$48,669,782	-	\$48,669,782
% Paid-In	53.16%	-	53.16%
Distributed Capital	\$2,142,541	-	\$2,142,541
Net Asset Value	\$53,722,238	\$1,298,929	\$52,423,308
Total Realized and Unrealized Value	\$55,864,779	\$1,298,929	\$54,565,849
Ratios and Performance			
Distributions to Paid-In Capital (DPI)	0.04x	-	0.04x
Residual Value to Paid-In Capital (RVPI)	1.01x	0.02x	0.99x
Total Value to Paid-In Capital (TVPI)	1.05x	0.02x	1.03x
Quartile Ranking	3rd		3rd
Net IRR	4.46%	1.49%	2.97%
Additional Performance Metrics			
Distribution Rate, as % of Beginning NAV		0.00%	
Unrealized Gain/(Loss), Dollars		\$1,298,929	
Unrealized Gain/(Loss), %		2.48%	

Quartile rankings against the 2020 vintage Control Oriented Distressed and Credit Opportunities Refinitiv/Cambridge Database.

Opportunistic Portfolio Exposure

Strategy Mix by Net Asset Value

Special Situations
100.0%



Industry Mix by Net Asset Value

Other/Misc	48.66%
Financial	16.98%
Consumer Discretionary	12.11%
Energy	6.31%
Communication Services	5.75%
Materials	3.61%
Industrials	2.41%
Utilities	2.39%
Consumer Staples	0.98%
Technology	0.80%

Geographic Mix by Net Asset Value

United States	62.12%
Europe	18.07%
Other	2.30%
Asia/Pacific	14.17%
Latin America & Caribbean	3.34%