

# June 2023 Executive Summary



PRELIMINARY, SUBJECT TO REVISION

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#### Year-to-date returns

2023 YTD	2022	2021	2020	2019	2018	2017	2016	2015	2014	5yr	10yr
Large Cap 16.9%	Commodities 26.0%	Commodities 40.4%	Broad U.S. Equities 20.9%	Large Cap 31.5%	Real Estate 6.7%	Emerging Markets 37.3%	Small Cap 21.3%	Real Estate 13.3%	Large Cap 13.7%	Large Cap 12.3%	Large Cap 12.9%
Broad U.S. Equities 16.2%	Real Estate 5.5%	Large Cap 28.7%	Small Cap 20.0%	Broad U.S. Equities 31.0%	Hedge Funds 4.8%	Intl Small Cap 33.0%	High Yield 17.1%	Intl Small Cap 9.6%	Mid Cap 13.2%	Broad U.S. Equities 11.4%	Broad U.S. Equities 12.3%
Intl Large Cap 11.7%	Bank Loans -1.1%	Broad U.S. Equities 25.7%	Large Cap 18.4%	Mid Cap 30.5%	Bank Loans 1.1%	Broad Intl Equities 27.2%	Mid Cap 13.8%	Large Cap 1.4%	Broad U.S. Equities 12.6%	Mid Cap 8.5%	Mid Cap 10.3%
Broad Intl Equities 9.5%	Hedge Funds -4.3%	Mid Cap 22.6%	Emerging Markets 8.3%	Small Cap 25.5%	Core Bond 0.0%	Intl Large Cap 25.0%	Broad U.S. Equities 12.7%	Core Bond 0.5%	Real Estate 11.8%	Real Estate 6.7%	Real Estate 8.3%
Mid Cap 9.0%	High Yield -11.2%	Real Estate 17.7%	Mid Cap 17.1%	Intl Small Cap 25.0%	High Yield -2.1%	Large Cap 21.8%	Large Cap 12.0%	Broad U.S. Equities 0.5%	Core Bond 6.0%	Hedge Funds 4.4%	Small Cap 8.3%
Small Cap 8.1%	Core Bond -13.0%	Small Cap 14.8%	Intl Small Cap 12.3%	Intl Large Cap 22.0%	Large Cap -4.4%	Broad U.S. Equities 21.1%	Commodities 11.4%	Bank Loans -0.4%	Small Cap 4.9%	Intl Large Cap 4.4%	Intl Small Cap 6.2%
Bank Loans 6.3%	Intl Large Cap -14.5%	Intl Large Cap 11.3%	Hedge Funds 11.8%	Broad Intl Equities 21.5%	Broad U.S. Equities -5.2%	Mid Cap 18.5%	Emerging Markets 11.2%	Intl Large Cap -0.8%	Hedge Funds 3.0%	Small Cap 4.2%	Intl Large Cap 5.4%
Intl Small Cap 5.5%	Broad Intl Equities -16.0%	Hedge Funds 10.2%	Broad Intl Equities 10.7%	Emerging Markets 18.4%	Mid Cap -9.1%	Small Cap 14.6%	Bank Loans 9.9%	Hedge Funds -1.1%	High Yield 2.5%	Bank Loans 4.0%	Broad Intl Equities 4.7%
High Yield 5.4%	Mid Cap -17.3%	Intl Small Cap 10.1%	Intl Large Cap 7.8%	Commodities 17.6%	Small Cap -11.0%	Hedge Funds 8.6%	Real Estate 8.0%	Mid Cap -2.4%	Bank Loans 2.1%	Broad Intl Equities 3.5%	High Yield 4.4%
Emerging Markets 4.9%	Large Cap -18.1%	Broad Intl Equities 7.8%	Core Bond 7.5%	High Yield 14.3%	Intl Large Cap -13.8%	High Yield 7.5%	Hedge Funds 5.4%	Small Cap -4.4%	Emerging Markets -2.2%	High Yield 3.4%	Hedge Funds 4.3%
Hedge Funds 2.2%	Broad U.S. Equities -19.2%	Bank Loans 5.4%	High Yield 7.1%	Hedge Funds 10.5%	Commodities -13.8%	Real Estate 7.0%	Broad Intl Equities 4.5%	High Yield -4.5%	Broad Intl Equities -3.9%	Commodities 2.8%	Bank Loans 4.1%
Core Bond 2.1%	Emerging Markets -20.1%	High Yield 5.3%	Bank Loans 2.8%	Core Bond 8.7%	Broad Intl Equities -14.2%	Commodities 5.8%	Core Bond 2.6%	Broad Intl Equities -5.7%	Intl Large Cap -4.9%	Intl Small Cap 1.3%	Emerging Markets 3.0%
Real Estate* -1.8%	Small Cap -20.4%	Core Bond -1.5%	Real Estate 1.6%	Bank Loans 8.2%	Emerging Markets -14.6%	Bank Loans 4.2%	Intl Small Cap 2.2%	Emerging Markets -14.9%	Intl Small Cap -4.9%	Emerging Markets 0.9%	Core Bond 1.5%
Commodities -7.5%	Intl Small Cap -21.4%	Emerging Markets -2.5%	Commodities -23.7%	Real Estate 6.4%	Intl Small Cap -17.9%	Core Bond 3.5%	Intl Large Cap 1.0%	Commodities -32.9%	Commodities -33.1%	Core Bond 0.8%	Commodities -3.5%

Source: Bloomberg as of June 30, 2023. \*Real Estate through March 31, 2023. Please see end of document for benchmark information.



### Index summary

			20 2023					YTD 2023			
S&P 500		8	8.7%					16	5.9%		
Russell 1000		8	3.6%					16	.7%		
Russell 1000 Value		4.1%					5.1%	/ 0			
Russell 1000 Growth			12.8%							29.0%	
Russell Midcap		4.8%						9.0%			
Russell 2000		5.2%	)				8	3.1%			
MSCI ACWI		6.29	%					13.9%	, >		
MSCI ACWI ex US		2.4%					9.5%				
MSCI EAFE		3.0%					11.7%				
MSCI EAFE (Local)		4.3%						12.1%			
MSCI Emerging Markets		0.9%					4.9%	, >			
MSCI EAFE Small Cap		0.6%					5.55	%			
Bloomberg Aggregate	-0.8%						2.1%				
Bloomberg Treasury	-1.4%						1.6%				
Bloomberg High Yield		1.7%					5.4%	6			
CS Leveraged Loan Index		3.1%					6.3	3%			
	-5%	5%	15%	25%	35%	-5%	5%	15%	25%	35%	

#### Asset class outlook

		CHANGE	HEADWINDS N		NEUTRAL	TAILV	VINDS
	Core bonds						
Fixed Income	Bank loans						
Fix	High yield	▼					
	EMD						
	Large-cap						
U.S. Equities	Mid-cap						
Equ	Small-cap						
U.S.	Value						
	Growth						
.S. es	Developed large-cap	▼					
Non-U.S. Equities	Developed small-cap	▼					
	Emerging markets						
Real Assets	Core real estate						
I As	Value-add real estate						
Rea	Infrastructure						
e s	Equity long/short						
Hedge Funds	Credit						
	VRP						
Private Equity	Buyout						
	Venture Capital						
Private Credit	Direct lending						
Cre Cre	Distressed/opportunistic						

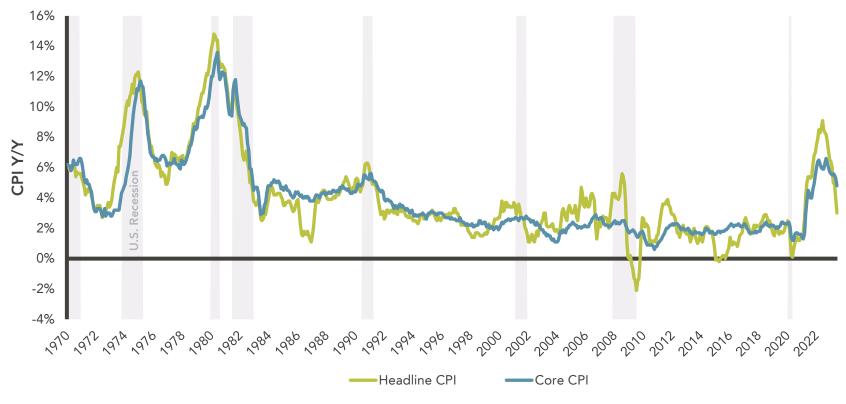
#### TAKEAWAYS

- Solution Strength Strength
- ❑ U.S.: Amid overwhelming strength in mega-cap companies during 1H23, small-cap valuations continue to appear attractive. Although there may be pressure from interest rate hikes in the short-term, projected positive earnings in the second half coupled with improving sentiment may support broader market strength to end 2023.
- Non-U.S.: Core inflation remains stubbornly elevated in the euro area and ongoing monetary tightening by the ECB could further strain the region's economy. Bright spots in emerging markets include Latin American countries which may see rate cuts in the near future, while China still faces myriad economic challenges.
- ❑ Real Assets: Elevated interest rates, lower transaction volume, and slowing rent growth are weighing on real estate appraisals. Though financing is a transient headwind for infrastructure, decarbonization initiatives and legislative incentives should support demand longer term.
- ↘ Hedge Funds: A fundamentally-driven market could lead to increased dispersion and opportunities for equity hedge funds. Credit yields remain attractive and recent defaults may suggest more opportunities for stressed and distressed credit investors as companies grapple with sustained, elevated interest rates.
- Private Equity: Public market volatility and valuation compression have created attractive entry points for investors with dry powder and there are signs transactions picked up in 2Q23. Add-on acquisition activity remains robust relative to the platform transactions. Continued capital in-flows into larger private market funds should benefit the exit environment for small buyout, lower-middle market, and early-stage venture.
- Private Credit: Direct lending benefits from increased inflation and rising rates, as most loans contain floating rates linked to LIBOR/SOFR. The opportunity set in distressed/opportunistic has improved given the implication of higher rates slowing economic growth and defaults picking up.

For illustration only, as of June 30, 2023. These views apply to a 6- to 12-month horizon; arrows in Change column represent change in view since last quarter. This summary of individual asset class views shows relative direction and strength of conviction but is independent of portfolio construction considerations. These views should not be construed as a recommended portfolio or investment advice. Past performance does not imply future returns.



# Core inflation slowing more than expected was the highlight of the June CPI report

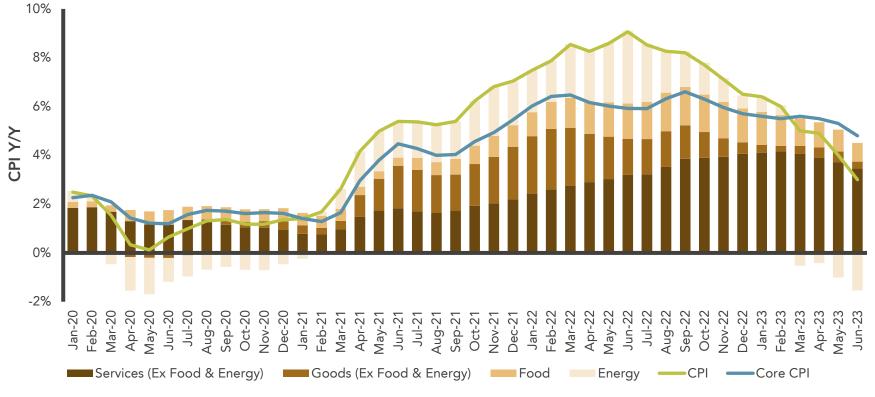


Source: Bloomberg, Bureau of Labor Statistics as of June 30, 2023



#### **Contribution to headline CPI**

Energy continues to drive headline CPI lower, though year-over-year comparisons get less favorable from here

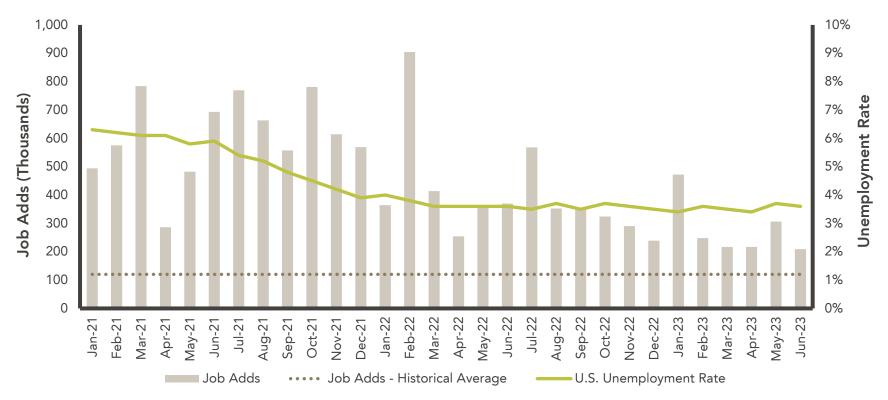


Source: Bloomberg, Bureau of Labor Statistics as of June 30, 2023



### Hiring and unemployment

Hiring slowed in June, though overall the labor market remains very strong

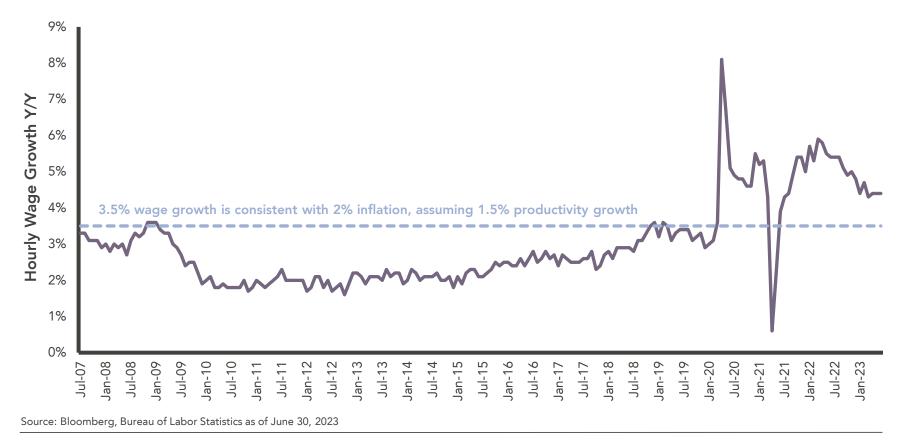


Source: Bloomberg, Bureau of Labor Statistics as of June 30, 2023. Job Adds – Historical Average represents the 30-year average prior to the onset of COVID-19 (March 1990 – February 2020).



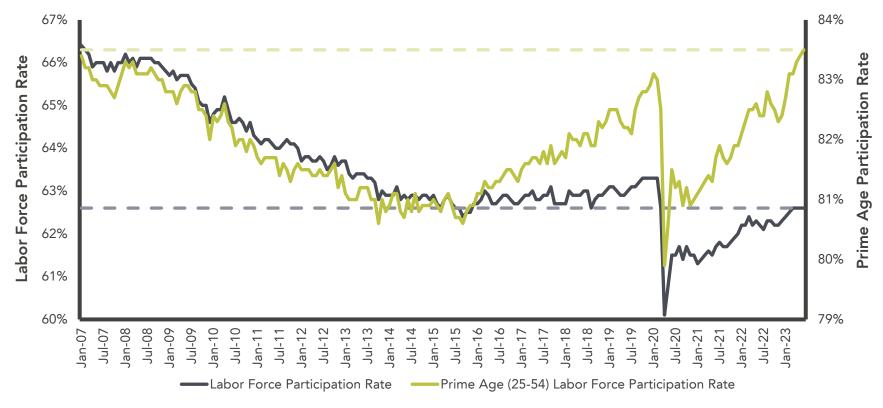
#### Wage growth

Wage growth is still too high to be consistent with targeted inflation, but is likely not reason enough for the Fed to continue rate hikes



### Labor force participation

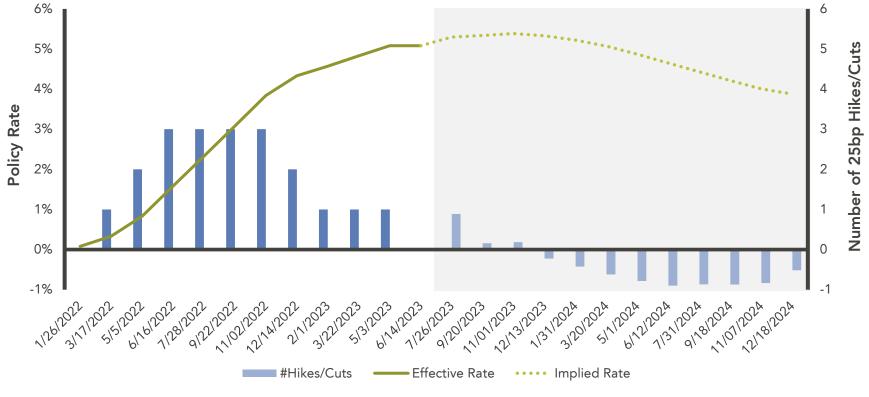
Prime age labor participation has more than recovered from COVID lows, hitting a 21-year high in June



Source: Bloomberg, Bureau of Labor Statistics as of June 30, 2023; dashed lines represent the June 2023 rate

#### **Rate expectations**

The June CPI report reinforced market expectations that the anticipated 25bp hike in July will be the Fed's last rate increase

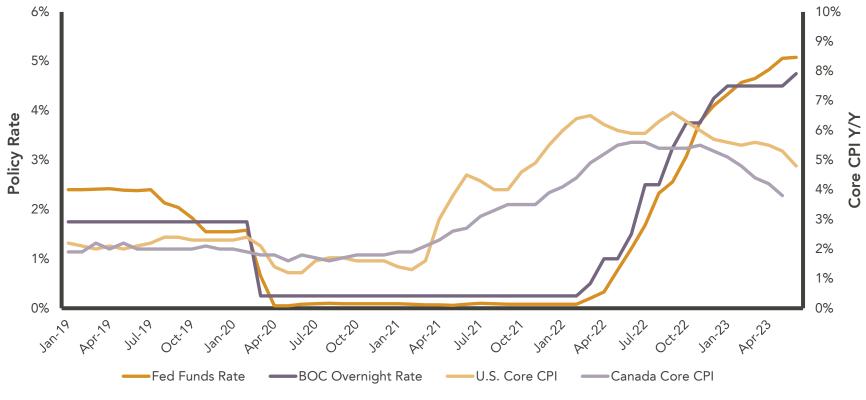


Source: Bloomberg as of July 12, 2023



#### Policy rates: U.S. vs. Canada

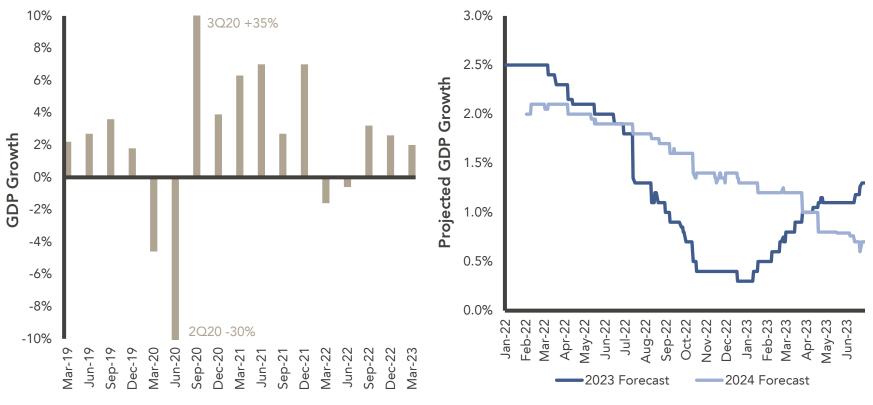
Canada surprise hiked rates after a 4-month pause due to stubborn inflation; U.S. core CPI is on the right trajectory but still above target



Source: Bloomberg, Federal Reserve, Bank of Canada as of June 30, 2023



# First quarter GDP growth was revised up to 2%; as 2023 growth expectations rise, 2024 expectations continue to fall

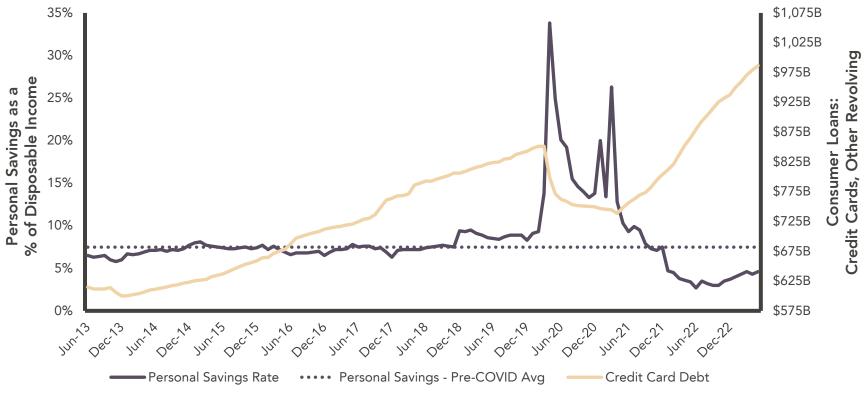


Source: Bloomberg, Bureau of Economic Analysis as of June 30, 2023; GDP SAAR QoQ% (annualized rate)



#### **Consumer strength**

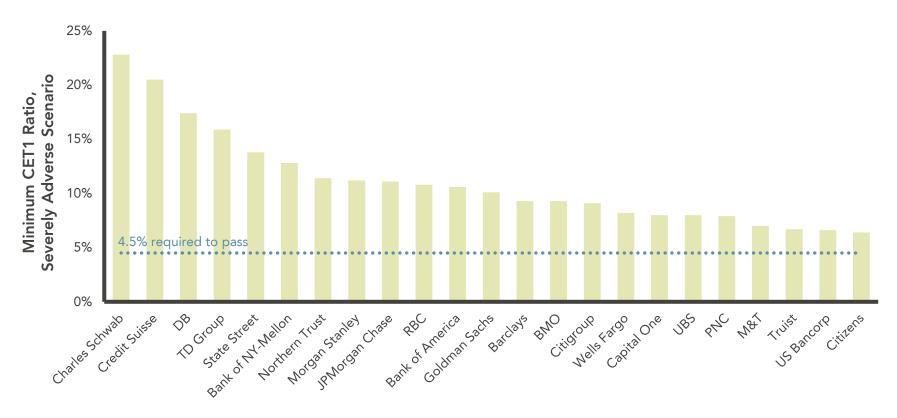
Excess savings accumulated during COVID may be fully drawn down by 4Q, leaving consumers more sensitive to tighter credit conditions



Source: Bloomberg, Bureau of Economic Analysis, Federal Reserve as of May 31, 2023

#### **Bank stress test**

All 23 of the largest U.S. banks passed the Fed's annual stress test



Source: Federal Reserve as of June 2023



# Fixed Income

### **Fixed income performance**

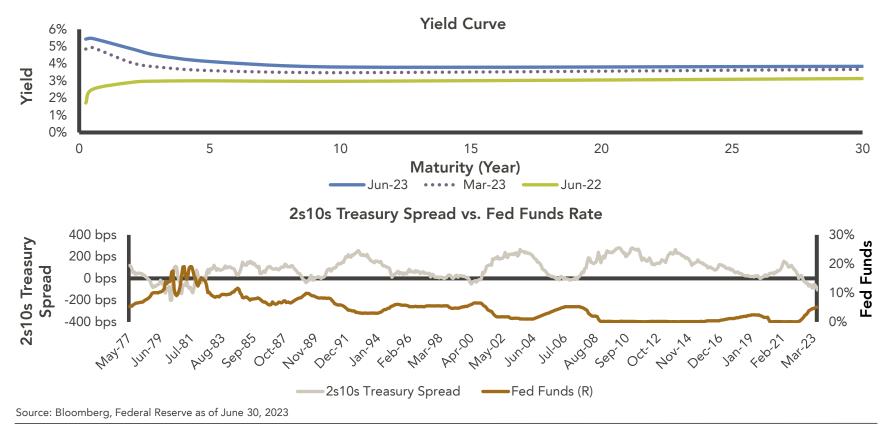
# Fixed income performance was mixed in 2Q with higher rates but tighter spreads

		MTD (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)
<b>Broad Market Indices</b>	Blm BC Aggregate	-0.4	-0.8	2.1	-0.9	-4.0	0.8	1.5
Intermediate Indices	Blm BC Int. Gov./Credit	-0.7	-0.8	1.5	-0.1	-2.5	1.2	1.4
Government Only Indices	Blm BC Long Gov.	0.0	-2.3	3.7	-6.8	-12.0	-0.9	1.8
	Blm BC Int. Gov.	-0.9	-1.1	1.1	-1.0	-2.8	0.8	0.9
	Blm BC 1-3 Year Gov.	-0.5	-0.6	1.0	0.1	-1.1	0.9	0.8
	Blm BC U.S. TIPS	-0.3	-1.4	1.9	-1.4	-0.1	2.5	2.1
Credit Indices	Blm BC U.S. Long Credit	1.4	-0.4	5.0	1.1	-6.1	1.5	3.5
	Blm BC High Yield	1.7	1.7	5.4	9.1	3.1	3.4	4.4
	CS Leveraged Loan Index	2.2	3.1	6.3	10.1	6.2	4.0	4.1
Securitized Bond Indices	Blm BC MBS	-0.4	-0.6	1.9	-1.5	-3.7	0.0	1.1
	Blm BC ABS	-0.3	-0.1	1.7	1.2	-0.6	1.5	1.5
	Blm BC CMBS	-0.9	-0.6	1.1	-1.9	-2.7	1.2	1.9
Non-U.S. Indices	Blm BC Global Aggregate Hedged	-0.1	0.1	3.0	0.5	-2.9	0.9	2.1
	JPM EMBI Global Diversified	2.2	2.2	4.1	7.4	-3.1	0.6	2.8
	JPM GBI-EM Global Diversified	3.3	2.5	7.8	11.4	-1.4	0.3	-0.6
Municipal Indices	Blm BC Municipal 5 Year	0.7	-0.7	1.2	1.5	-0.6	1.4	1.7
	Blm BC HY Municipal	1.8	1.7	4.4	2.9	1.8	2.8	4.2

Source: Bloomberg, Credit Suisse, JPMorgan as of June 30, 2023. The local currency GBI index is hedged and denominated in U.S. dollars.

### U.S. Treasury yield curve and steepness

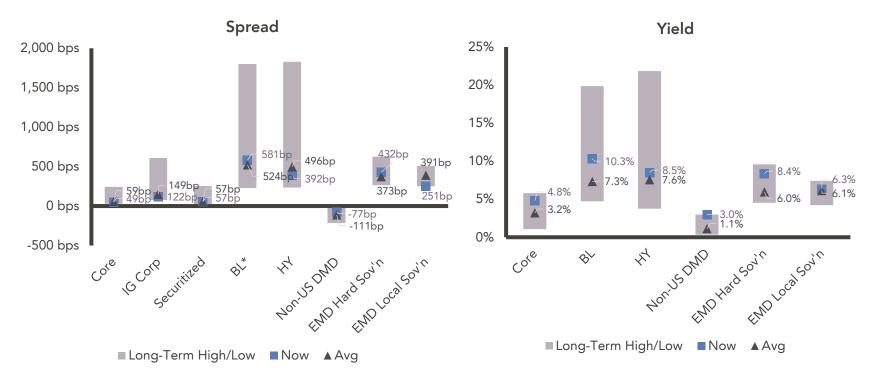
The yield curve remains significantly inverted with front-end rates higher amid Fed hikes





#### Fixed income spreads and yields

Spreads tightened across sectors and remain near historical averages; all-in yields remain compelling, with all sectors above average



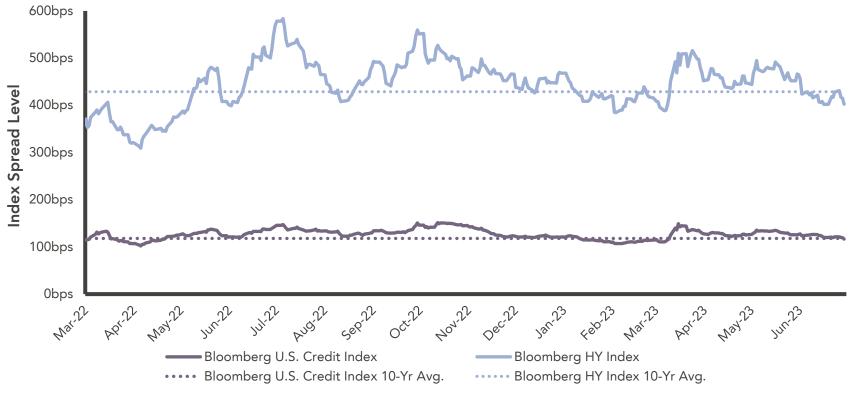
\*BL spread over LIBOR, not over Treasuries.

Source: Bloomberg, Credit Suisse, Deutsche, JPMorgan as of June 30, 2023. Long-term high, low, and average based on longest available data for each index.



#### U.S. credit spreads vs. historical averages

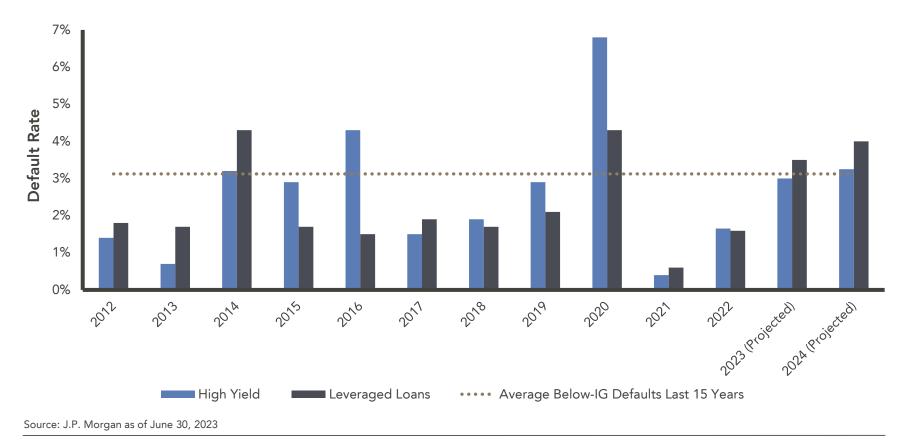
High yield spreads currently offer limited value after tightening below longer-term averages; U.S. credit spreads remain close to average



Source: Bloomberg as of June 30, 2023

#### **Below-investment grade defaults**

Below-IG defaults are expected to increase to, or slightly above, longterm averages



Marquette Associates

#### Leveraged credit performance and Fed pauses

# Returns for high yield and leveraged loans have been favorable following the last four Fed pauses

		High Yield Forward Return						
Month of Last Hike	Terminal Fed Funds Rate	3 Month	6 Month	9 Month	12 Month			
Dec-18	2.5%	7.3%	9.9%	10.9%	14.1%			
Jun-06	5.3%	3.5%	8.0%	11.2%	11.8%			
May-00	6.5%	3.6%	-4.4%	4.2%	3.3%			
Mar-97	5.5%	4.5%	9.5%	11.9%	15.7%			

		Leveraged Loans Forward Return						
Month of Last Hike	Terminal Fed Funds Rate	3 Month	6 Month	9 Month	12 Month			
Dec-18	2.5%	3.9%	5.6%	6.7%	8.6%			
Jun-06	5.3%	1.7%	3.7%	5.9%	7.5%			
May-00	6.5%	1.9%	2.5%	5.2%	6.2%			
Mar-97	5.5%	2.2%	3.7%	5.3%	7.6%			

Source: J.P. Morgan as of June 30, 2023



### Local EM yields

Local emerging market yields present a significant yield pick-up relative to developed markets

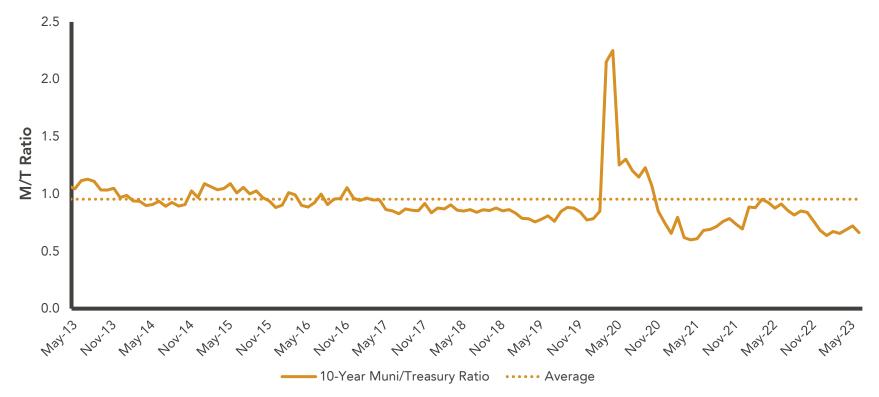


Source: J.P. Morgan, Bloomberg as of June 30, 2023



#### **Municipal-to-Treasury ratio**

Municipal yields as a percentage of Treasury yields fell during June, though were little changed quarter-over-quarter



Source: Bloomberg, Federal Reserve as of June 30, 2023. Municipal/Treasury ratio defined as the Bloomberg AAA Municipal Bond Index YTW divided by the 10-year Treasury Bond yield



#### **Municipal-to-Treasury ratios**

Muni-to-Treasury ratios fell across the curve during the month of June as Treasury rates rose and municipal yields fell

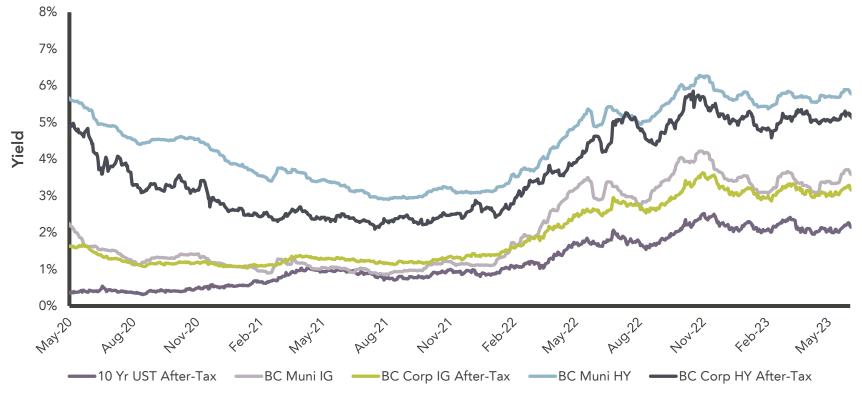
	MUN	TSY	<b>Ratio</b> (6/30/23)	<b>Ratio</b> (12/31/22)	<b>Ratio</b> (12/31/21)	<b>Ratio</b> (12/31/20)
1Y	2.99	5.24	0.56	0.60	0.49	1.21
3Y	2.76	4.27	0.61	0.61	0.35	0.87
5Y	2.59	3.95	0.63	0.64	0.48	0.59
7Y	2.52	3.85	0.64	0.65	0.59	0.57
10Y	2.53	3.75	0.66	0.68	0.70	0.75
30Y	3.50	3.87	0.92	0.91	0.81	0.89

Source: Bloomberg, U.S. Treasury as of June 30, 2023



#### Municipal vs. corporate after-tax yields

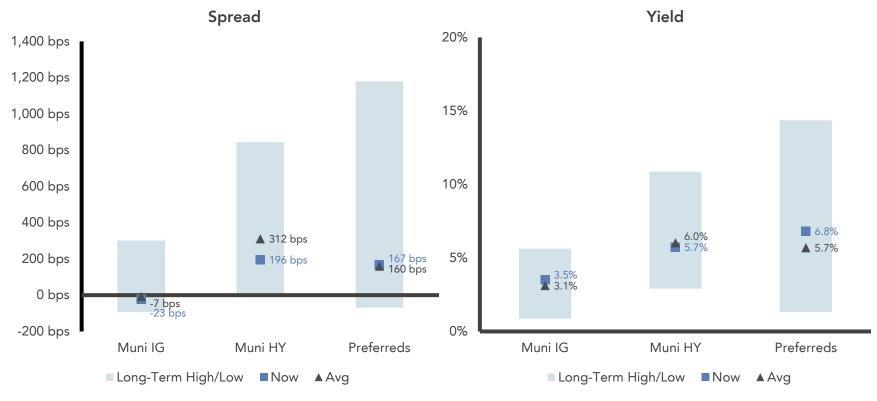
Yields on investment grade and high yield municipals continue to exhibit a yield pick-up relative to after-tax corporate yields



Source: Bloomberg as of June 30, 2023; based on 37% highest tax bracket and 3.8% net investment income tax

### **Municipal spreads and yields**

Muni spreads tightened slightly during the quarter, while preferred spreads rebounded from 1Q volatility; yields were little changed



### **Opportunities and risks in fixed income**

#### **Opportunities**

#### Bonds are back

After years of ultra-low interest rates, bonds are finally offering attractive levels of yields and are back to their income generating role in portfolios. Yields are above long-term averages in nearly every sector.

#### Fed is getting close to its terminal rate

The Fed appears to be nearing the end of its rate hiking cycle, which could be a tailwind for fixed income assets. If the economy comes under stress, the impact from Fed rate cuts could serve as an offset to spread widening as there is ample yield cushion due to higher starting yields.

#### Local Emerging Market Debt

Although emerging markets still face significant headwinds, local EM debt looks attractive. Yields are near long-term highs and many emerging market central banks are at or nearing the end of their tightening cycles, providing a possible tailwind for the asset class.

#### Risks

#### Economic downturn

Credit is fairly priced relative to long-term averages, with spreads nowhere near recessionary levels. Spreads could widen significantly in a bear market.

#### Headwinds in below investment grade

While leveraged credit balance sheets have been resilient, particularly in high yield, there are signs of headwinds on the horizon. Leverage has moved off alltime lows, earnings have compressed, and downgrades continue to exceed upgrades. As interest rates stay higher for longer, the elevated exposure of below-IG issuers to higher interest rates could begin to weigh on balance sheets



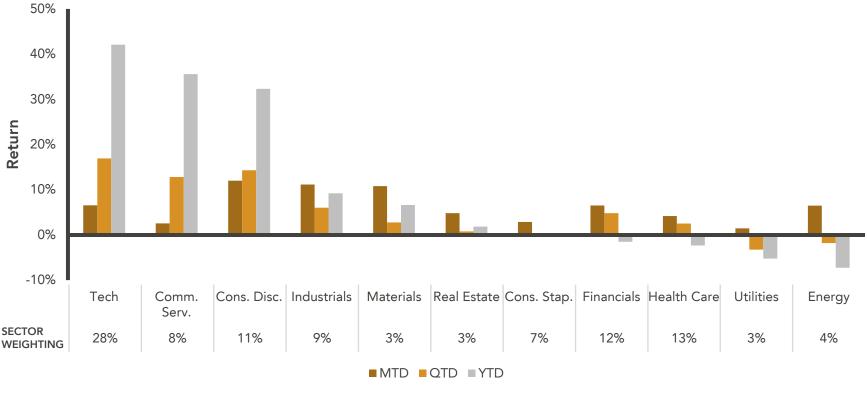
### **U.S. equity performance**

# Value continued to lag in the second quarter, as growth outperformance drove a strong first half

		MTD (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)
Broad Market Indices	Dow Jones	4.7	4.0	4.9	14.2	12.3	9.6	11.3
	Wilshire 5000	6.9	8.5	16.5	19.1	13.4	11.1	12.1
	Russell 3000	6.8	8.4	16.2	19.0	13.9	11.4	12.3
Large-Cap Market Indices	S&P 500	6.6	8.7	16.9	19.6	14.6	12.3	12.9
	Russell 1000	6.8	8.6	16.7	19.4	14.1	11.9	12.6
	Russell 1000 Value	6.6	4.1	5.1	11.5	14.3	8.1	9.2
	Russell 1000 Growth	6.8	12.8	29.0	27.1	13.7	15.1	15.7
Mid-Cap Market Indices	Russell Mid-Cap	8.3	4.8	9.0	14.9	12.5	8.5	10.3
	Russell Mid-Cap Value	8.7	3.9	5.2	10.5	15.0	6.8	9.0
	Russell Mid-Cap Growth	7.7	6.2	15.9	23.1	7.6	9.7	11.5
Small-Cap Market Indices	Russell 2000	8.1	5.2	8.1	12.3	10.8	4.2	8.3
	Russell 2000 Value	7.9	3.2	2.5	6.0	15.4	3.5	7.3
	Russell 2000 Growth	8.3	7.1	13.6	18.5	6.1	4.2	8.8

#### S&P 500 sector performance

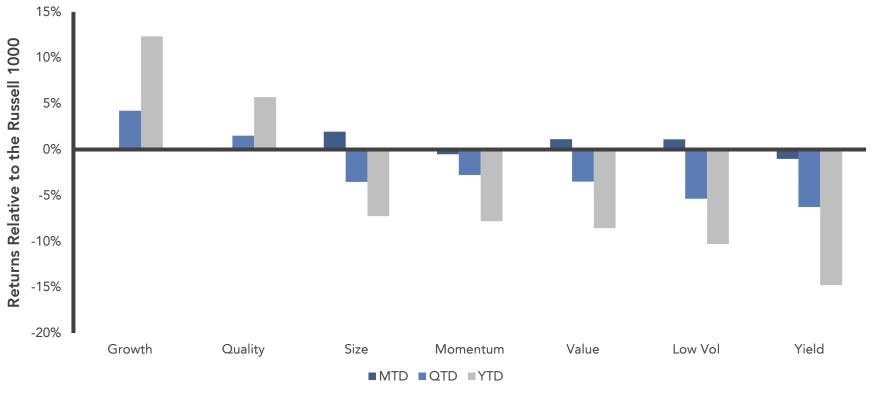
All sectors posted positive returns in June; Consumer Staples, Energy, and Utilities declined in the second quarter





#### **Russell 1000 factor performance**

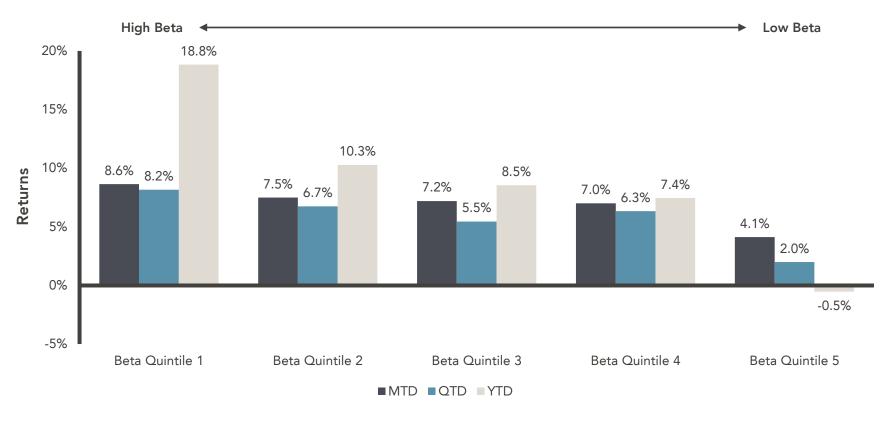
Growth and quality factors were the only positive factors in the first six months of 2023





#### **Beta impacts performance**

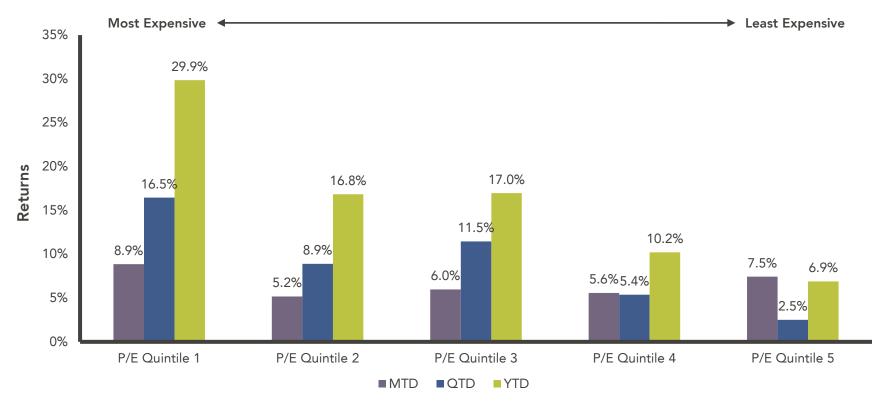
High beta stocks in the S&P 500 have outperformed low beta stocks





### U.S. equity valuations

The most expensive stocks in the S&P 500 have outperformed the least expensive stocks

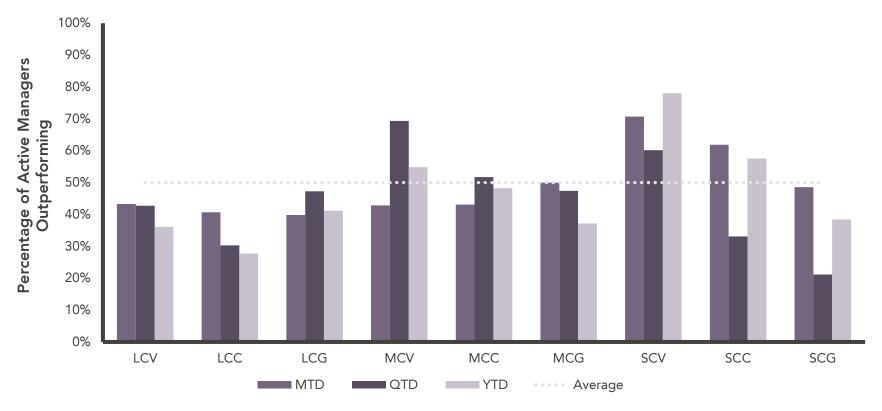


Source: FactSet as of June 30, 2023. SPY ETF used as a proxy for the S&P 500.



#### Active manager performance

Narrow market leadership has hurt active manager performance

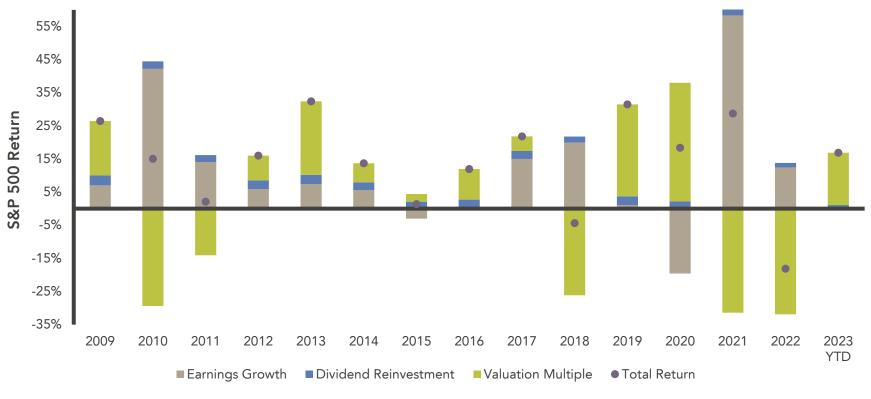


Source: Morningstar as of June 30, 2023



#### S&P 500 return drivers

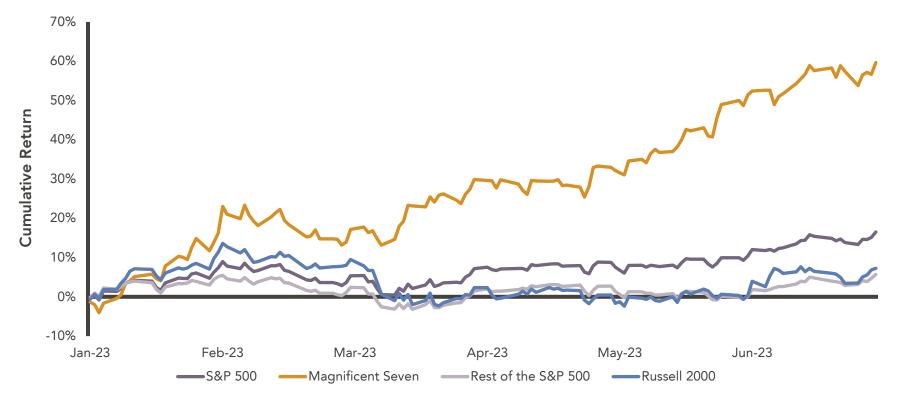
Multiple expansion drove returns in the first half of 2023 as earnings growth was muted





### The "Magnificent Seven"

Large-cap equity performance has been dominated by seven stocks; small-cap equities have outpaced the S&P 500 excluding this group

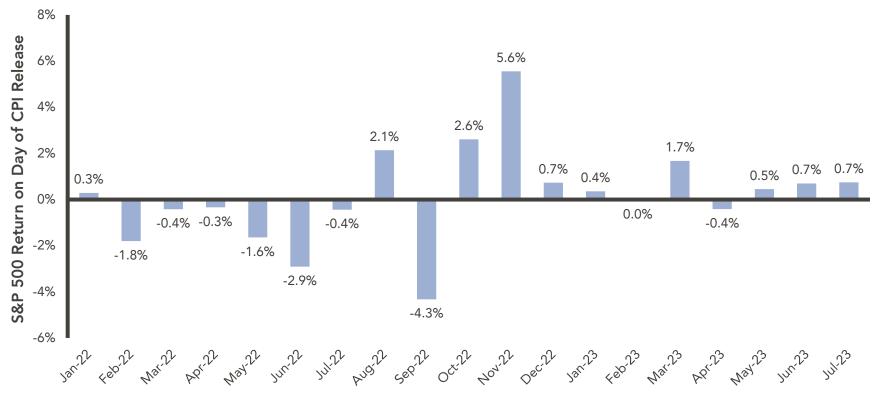


Source: Factset as of June 30, 2023. The "Magnificent Seven" includes Alphabet, Amazon, Apple, Meta, Microsoft, Nvidia, and Tesla. SPY ETF used as a proxy for S&P 500. IWM ETF used as a proxy for Russell 2000.



### **CPI impact on S&P 500 returns**

Economic data releases have received more muted market reactions in 2023



Source: S&P as of June July 12, 2023



### U.S. equity valuations

Large-cap valuations are nearing the high end of historical ranges; small-caps continue to look relatively attractive

	S&P 500		Russell 1000		Russell Mid Cap		Russell 2000	
Valuation Metrics	Current	Historical Percentile (%)	Current	Historical Percentile (%)	Current	Historical Percentile (%)	Current	Historical Percentile (%)
P/E	22.8	85	22.2	82	17.9	41	13.7	10
Forward P/E	18.4	75	18.4	74	15.6	48	14.2	22
P/B	4.3	89	4.1	88	3.0	91	2.1	41
P/S	2.5	94	2.4	93	1.6	80	1.2	70
P/CF	15.1	83	15.0	81	12.6	74	12.4	40
EV/EBITDA	13.5	83	13.7	87	13.0	70	14.5	63
Average		85		84		67		41

Source: Bloomberg as of June 30, 2023. TTM P/E is adjusted for negative earnings. Small-cap forward P/E is adjusted for negative earnings. Percentiles are based on data Jan. 1995 – Jun. 2023.



# U.S. equity valuations by factor

# Value indices appear relatively attractive following significant growth outperformance

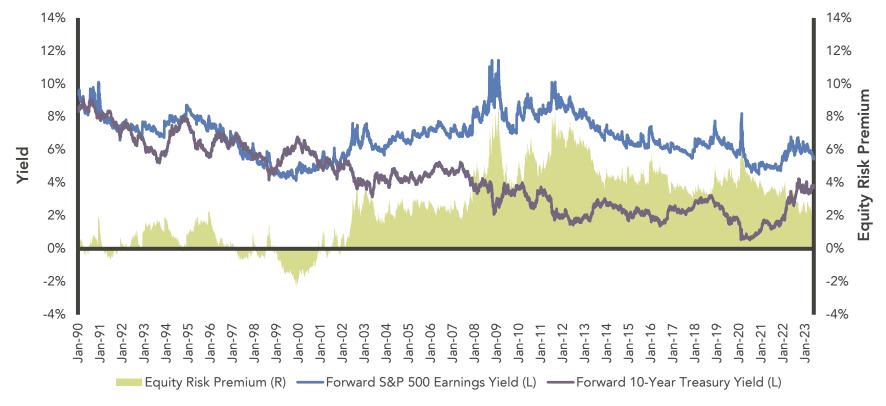
		ll 1000 Ilue		ll 1000 wth		Mid Cap Ilue		Mid Cap wth		ll 2000 Ilue		ll 2000 wth
Valuation Metrics	Current	Historical Percentile (%)										
P/E	16.5	63	31.8	90	15.4	35	25.2	72	11.3	11	17.1	13
Forward P/E	14.1	61	25.4	86	13.7	39	24.1	85	11.1	11	19.7	50
P/B	2.4	86	10.8	92	2.2	90	7.5	91	1.3	24	4.0	68
P/S	1.6	80	3.9	90	1.3	74	2.5	83	0.9	59	1.6	57
P/CF	10.8	61	22.4	87	10.5	80	19.1	78	8.9	33	18.8	47
EV/EBITDA	10.8	67	18.3	87	11.3	59	17.6	83	13.9	81	14.7	50
Average		69		89		63		82		36		48

Source: Bloomberg as of June 30, 2023. TTM P/E is adjusted for negative earnings. Small-cap forward P/E is adjusted for negative earnings. Percentiles are based on data June 2000 – June 2023.



## **Equity risk premium**

The equity risk premium narrowed further in the second quarter, hitting its lowest level since the end of 2003



Source: Bloomberg as of June 30, 2023. The equity risk premium is the forward earnings yield of the S&P 500 minus the yield on the 10-year Treasury bond.

# **Opportunities and risks in U.S. equities**

### **Opportunities**

#### Small-cap valuations below long-term averages

Although small-cap equities exhibited strength in June, the forward price-to-earnings ratio of the Russell 2000 Index remains below its long-term average. This may set investors up for better returns if the macroeconomic environment continues to show signs of cooling.

#### Case for a recession weakens

As the market anticipates one more 25bp hike followed by a potential pause through the end of 2023, the labor market and the consumer continue to show signs of strength while inflation has cooled, supporting the case for a soft landing.

#### Earnings growth

Although analysts expect earnings to decline in the second quarter, they also project positive earnings growth in the second half of the year, driven by megacap companies. This may position U.S. equities for continued strong performance.

### Risks

#### Lagged effect of interest rate increases

The lagged effect of monetary policy could incrementally weigh on spending patterns and prices from here. Additionally, the yield curve remains inverted.

#### Lack of market breadth

Returns through the first half of 2023 were driven by a small number of companies, and certain parts of the market now appear fully valued. The concentration within broad market indices makes returns more sensitive to hiccups at any of these companies.

#### Equity risk premium compression

The equity risk premium has compressed to levels not seen since before the GFC. If interest rates stay higher for longer, risk assets may be less attractive to investors.

# Non-U.S. Equities

# **Global equity performance**

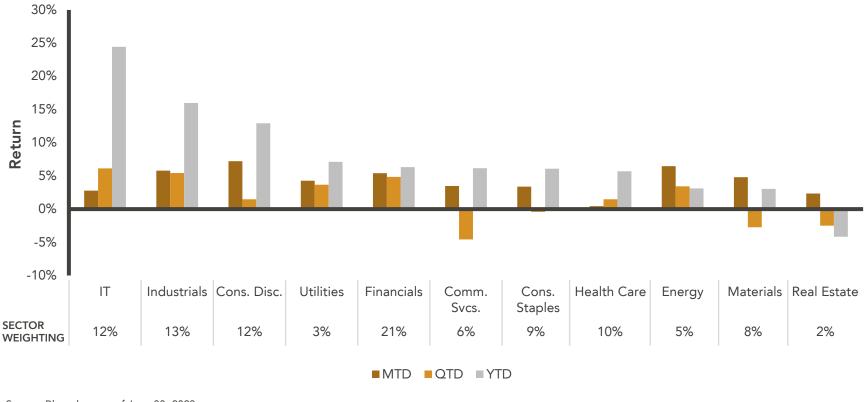
Global equity indices posted another strong quarter, though trailed tech-driven U.S. equities

		MTD (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)
Global Equity Market Indices	MSCI ACWI	5.8	6.2	13.9	16.5	11.0	8.1	8.8
	MSCI ACWI ex. U.S.	4.5	2.4	9.5	12.7	7.2	3.5	4.7
Developed Markets Indices	MSCI EAFE	4.6	3.0	11.7	18.8	8.9	4.4	5.4
	MSCI EAFE Local	3.6	4.3	12.1	17.5	11.7	6.4	7.7
Emerging Markets Indices	MSCI Emerging Markets	3.8	0.9	4.9	1.7	2.3	0.9	3.0
	MSCI EM Local	3.4	1.7	5.6	3.3	3.9	3.0	5.7
Small-Cap Market Indices	MSCI EAFE Small-Cap	2.9	0.6	5.5	10.2	5.7	1.3	6.2
	MSCI EM Small-Cap	4.5	6.4	10.5	13.3	13.7	4.9	4.6
Frontier Markets Index	MSCI Frontier	2.3	2.1	5.3	-2.3	3.8	0.8	2.7



### **MSCI ACWI ex-US sector performance**

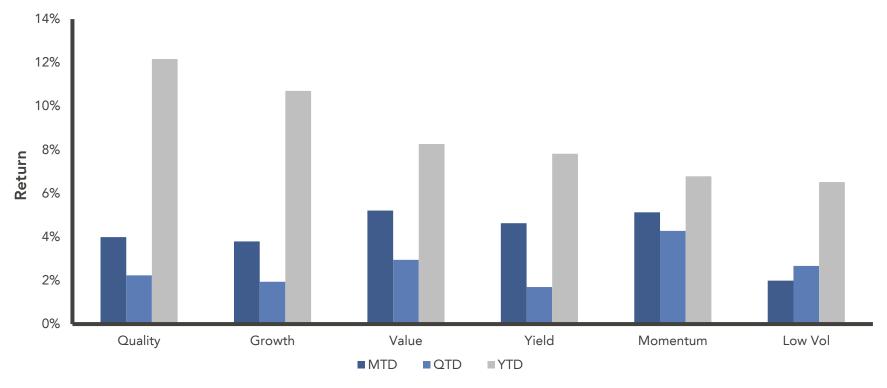
After a difficult 2022, growth-oriented sectors like IT and Consumer Discretionary posted strong returns in the first half of the year





### **MSCI ACWI ex-US factor performance**

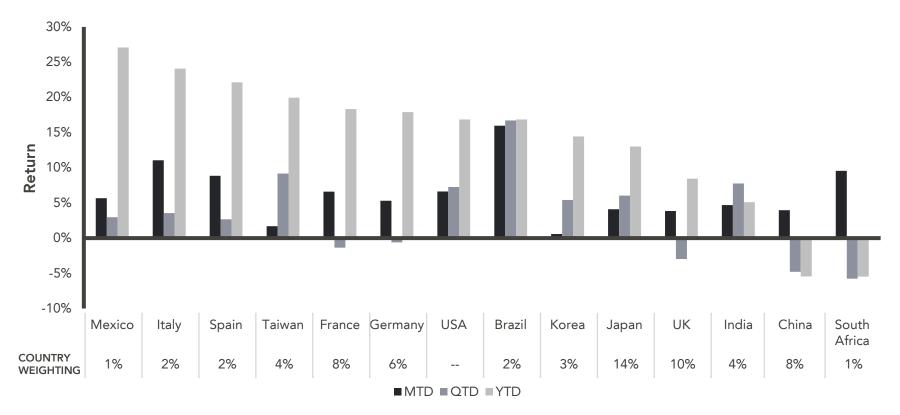
Despite more muted relative performance in the second quarter, quality and growth factors lead on a year-to-date basis





### **Country performance**

Chinese and UK equities stumbled in the second quarter, while companies in Japan and India exhibited more robust returns

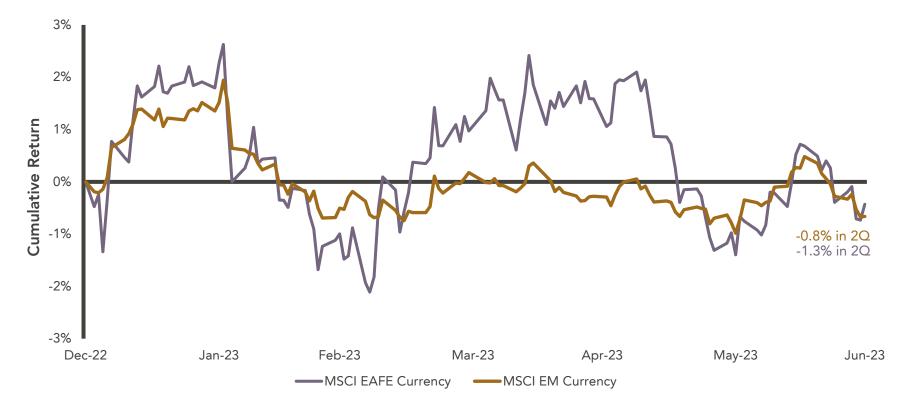


Source: Bloomberg as of June 30, 2023. Returns based on individual MSCI country indices, country weights based on the MSCI ACWI ex-US Index.



## Non-U.S. currency performance

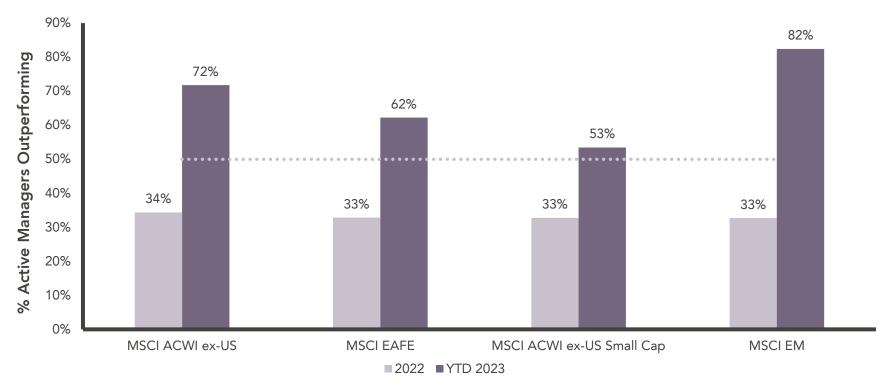
After a positive start to the year, both developed and emerging market currencies saw slight deterioration in the second quarter



Source: Bloomberg as of June 30, 2023. Currency return calculated by subtracting index return in USD by index return in local terms.

### Active manager performance

Most active non-U.S. equity managers have outperformed their respective indices on a year-to-date basis

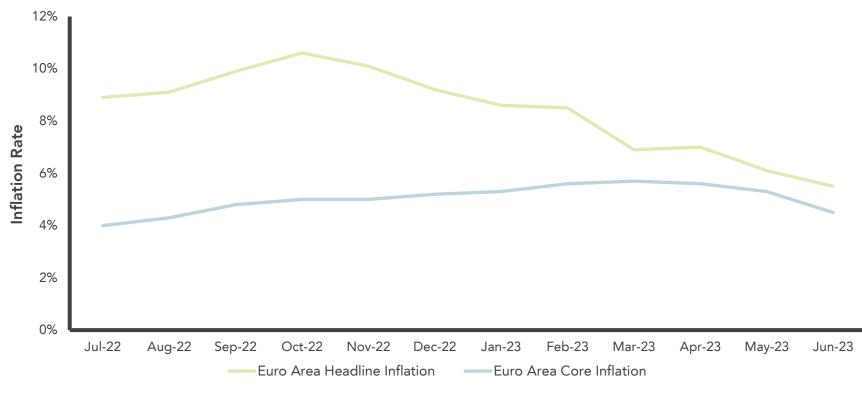


Source: Morningstar as of June 30, 2023. Data on actively managed mutual funds pulled on July 6, 2023.



### **Euro** area inflation

While headline inflation has moderated, ECB officials are looking for core inflation to also slow before pausing rate hikes



Source: Bloomberg as of June 30, 2023



### UK gilts yielding more than stocks

The dividend yield of the FTSE 100 is now below the 10-year gilt yield for the first time in over a decade

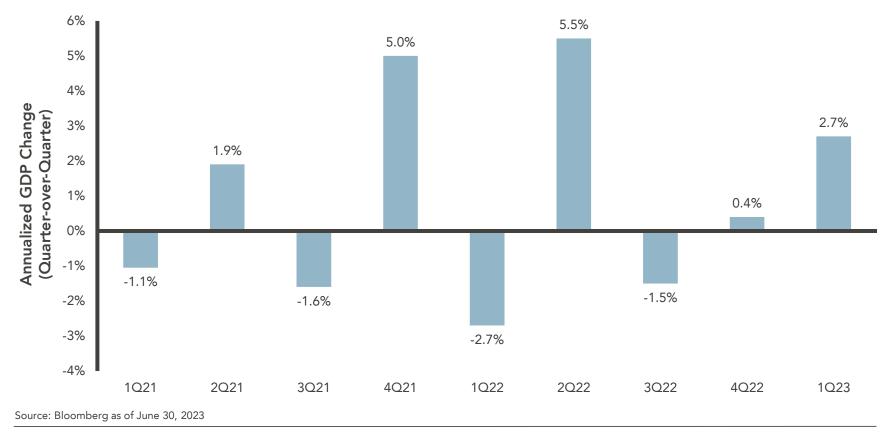


Source: Bloomberg as of June 30, 2023



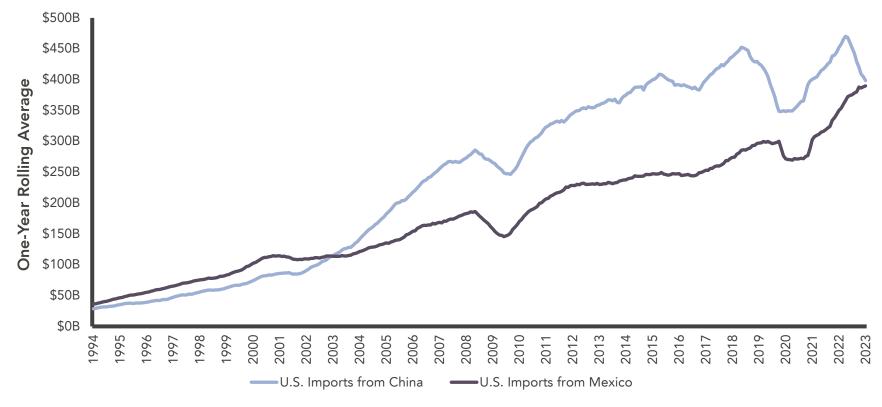
### Japan GDP growth

Stronger-than-expected GDP growth (2.7% vs. 1.9% forecasted for 1Q) helped boost Japanese equities during the second quester



### Nearshoring trends

Mexico is benefiting from an increase in exports to the U.S. as a result of nearshoring trends and tensions between the U.S. and China





# **Global equity valuations**

While valuations have increased, non-U.S. equity benchmarks remain meaningfully cheaper than the S&P 500

	S&P 500		MSCI EAFE		MSCI EM		MSCI EAFE SC	
Valuation Metrics	Current	Historical Percentile (%)	Current	Historical Percentile (%)	Current	Historical Percentile (%)	Current	Historical Percentile (%)
P/E	22.8	88	13.4	21	11.2	33	12.6	19
Forward P/E	18.4	89	12.9	43	11.2	57	11.1	21
P/B	4.3	93	1.6	50	1.5	29	1.3	31
P/S	2.5	92	1.3	90	1.2	48	0.8	57
P/CF	15.1	85	9.3	55	8.3	56	12.9	92
EV/EBITDA	13.5	85	8.5	4	8.3	74	9.1	18
Average		88		44		50		39

Source: Bloomberg as of June 30, 2023, data pulled on July 5, 2023. P/E is adjusted for negative earnings. Percentiles are based on data going back to 1999 except for FP/E, which goes back to 2005.



# **Opportunities and risks in non-U.S. equities**

### **Opportunities**

#### Valuations remain relatively cheap

While multiples have increased in recent months on an absolute basis, international equity indices continue to trade at attractive valuations relative to U.S. benchmarks.

#### Potential bright spots in Emerging Markets (ex-China)

Latin American countries like Brazil and Mexico are ahead of much of the developed world in the policy-tightening cycle. Additionally, several countries, including Mexico and India, are benefitting from a reconfiguration of global supply chains. As an example, several electric vehicle producers, including Tesla, have announced plans to build factories in Mexico.

#### Japan showing signs of life

Domestic spending and GDP growth in Japan is starting to pick up, while wage growth continues to edge higher and the stickier parts of inflation (services) are approaching the BOJ's 2% inflation target.

### Risks

#### Sticky inflation in the euro area

Core inflation remains stubbornly elevated in the euro area despite a moderation in the headline figure over the last year. Ongoing monetary tightening by the European Central Bank could further stress the region's economy.

#### A souring economic picture in the UK

The United Kingdom is currently exhibiting a combination of sluggish economic growth, rising inflation, declining property values, and a tight labor market, which points to an economy that is constrained on the supply side.

#### China facing myriad headwinds

The Chinese economy is decelerating after a strong first quarter, data surrounding excess savings indicate the Chinese consumer is cautious, corporate profits have declined, and the yuan is unlikely to strengthen until signs emerge that developed central banks are close to cutting interest rates.



### Real estate performance

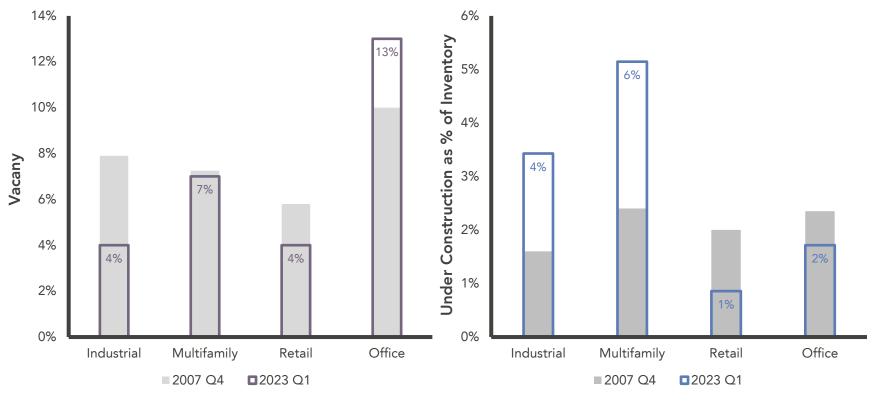
Valuation write-downs in apartment and office, as well as sun-belt markets, drove negative performance for the third straight quarter

Indices	1Q23 (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)
NPI	-1.8	-1.6	7.2	6.7	8.3
Income	1.0	3.9	4.1	4.3	4.6
Appreciation	-2.8	-5.4	3.0	2.4	3.6
NFI-ODCE	-3.2	-3.1	8.4	7.5	9.5
Income	0.8	3.4	3.7	3.9	4.3
Appreciation	-4.0	-6.3	4.6	3.5	5.0
FTSE NAREIT All Eq. REITs	1.7	-19.4	10.2	6.3	6.5
Property Type					
NPI Apartment	-2.1	-0.4	8.2	7.1	8.1
NPI Office	-4.1	-8.8	-0.5	2.3	5.7
NPI Industrial	-0.8	2.4	21.1	18.0	15.6
NPI Retail	0.5	1.0	0.5	0.6	5.4
NPI Hotel	2.3	10.6	-2.8	-0.5	3.8
Geographic Sectors					
NPI East	-2.2	-3.5	4.5	4.6	6.3
NPI Midwest	-1.6	-2.9	3.7	3.4	6.2
NPI South	-0.9	1.2	9.1	7.9	9.2
NPI West	-2.1	-1.6	8.8	8.4	10.1

Source: NCREIF as of March 31, 2023

### Real estate fundamentals

Outside of office, vacancy rates are healthy and new construction is generally aligned with sector demand

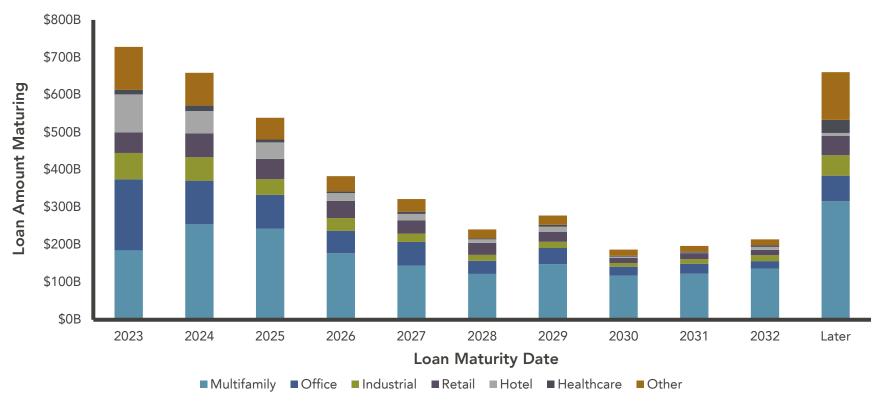


Source: CoStar, TA Realty as of March 31, 2023



### Loan maturities by sector

A sizeable pool of loans maturing in 2023, particularly in office, will put further pressure on lending markets

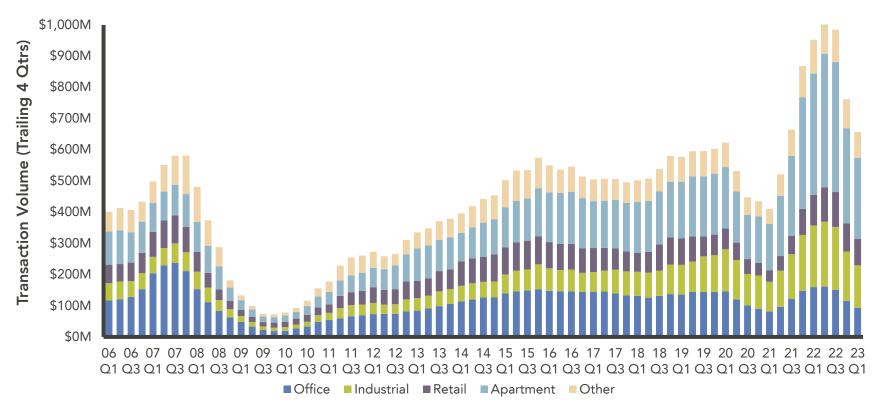


Source: Mortgage Brokers Association, JPMorgan as of March 31, 2023



### **U.S. transaction activity**

Muted borrowing activity and rising debt costs have curtailed transaction momentum from the highs in 2021

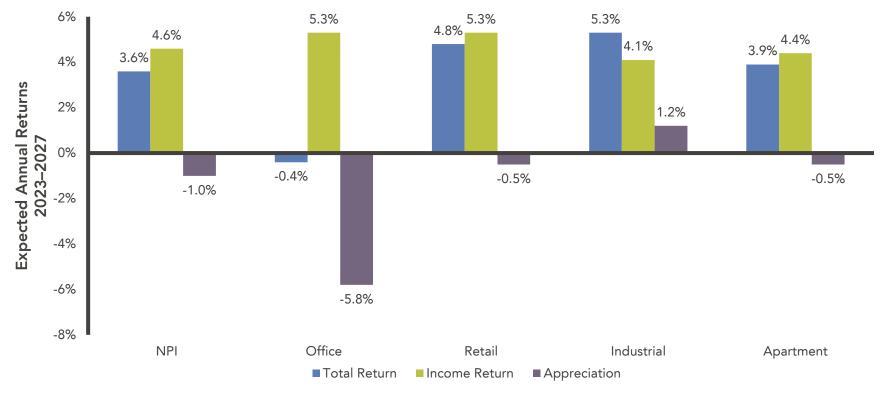


Source: RCA, MSCI, AEW as of March 31, 2023



### **Returns by property type**

Leasing activity and mark-to-market rent growth, rather than cap rate compression, are expected to drive performance through 2027

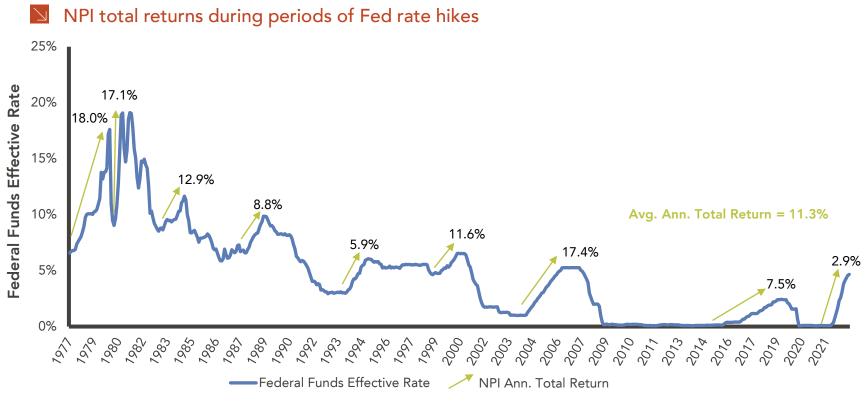


Source: PREA Consensus Survey, AEW as of March 31, 2023



### Performance amid higher interest rates

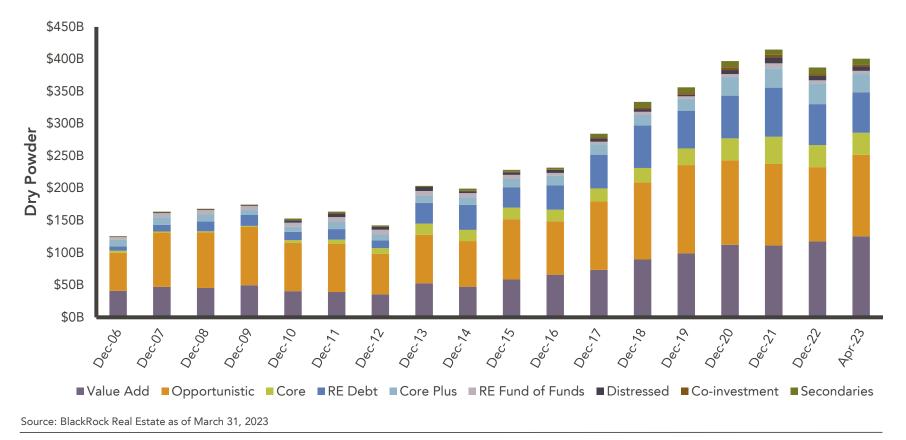
### Core real estate has historically maintained positive unlevered returns in rising rate environments



Source: NCREIF, Federal Reserve, Moody's Analytics, Clarion Partners Investment Research as of March 31, 2023

### Real estate dry powder

Dry powder is still supportive of real estate valuations, with closedend value add and opportunistic strategies gaining in popularity



### **Opportunities and risks in real estate**

### **Opportunities**

**Sector opportunities from market dislocations** Ongoing housing supply shortfalls and tighter lending conditions continue to present home-buying hurdles for Millennials and Gen Z, creating tailwinds for the multifamily and single-family rental markets.

**Resilient hedge against inflation and floating-rate debt** Shorter-duration lease structures in apartments, singlefamily rentals, and hospitality allow real estate managers to mark rents to current market rates and pass through incremental maintenance, renovation, and financing costs.

Non-core opportunities in a distressed environment Despite a challenging fundraising environment, sectorfocused and opportunistic managers are well positioned to drive returns via targeted deal flow, light capex renovations, and asset repositioning at the property level. Real estate investors have the opportunity to enter distressed debt and secondary market opportunities at unlevered, discounted entry points.

### Risks

**Elevated debt costs and growing redemption queues** Higher construction and borrowing costs could force real estate investors to source returns from value-add acquisitions rather than ground-up development. Uncertain wait times and large redemption queues have presented institutional investors with renewed challenges in offsetting the current market volatility and the resulting "denominator effect."

#### Valuation declines and slowing rental growth

All 26 funds in the NFI-ODCE reported negative appreciation in the first quarter and downward pressure on pricing is expected to persist through year end. In addition, some income levels are deteriorating, a reflection of the impact of the rising cost of variable-rate debt and lower inplace rents in many industrial and office portfolios.

#### Hawkish Fed and muted transaction volume

The hawkish Fed, slowing rent growth, and geopolitical uncertainty are widening property bid-ask spreads. Broader concerns about a recession and limited debt financing have negatively impacted portfolio underwriting, fundraising, and acquisitions/dispositions.



### **Private equity performance**

# PE performance lagged public market indices in 1Q, though private performance exceeds public longer-term

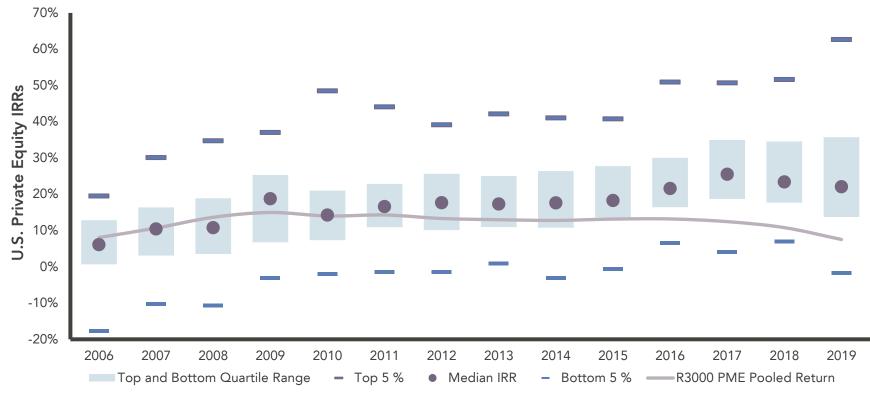
	1Q23 (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)
Global Private Equity	1.7	-5.6	23.8	17.5	16.1
Global Buyout	3.1	0.6	24.1	16.4	15.4
Global Expansion	1.4	-11.9	13.9	9.6	11.3
Global Venture Capital	-0.7	-16.7	24.1	20.7	18.9
U.S. Private Equity	1.6	-6.6	27.0	20.0	17.6
U.S. Buyout	3.0	1.6	25.8	18.2	16.7
U.S. Expansion	1.1	-6.5	23.2	17.0	16.1
U.S. Venture Capital	-1.0	-20.8	28.5	23.1	19.1
MSCI All Country World Index	7.3	-7.4	15.4	6.9	8.1
S&P 500	7.5	-7.7	18.6	11.2	12.2
Russell 3000	7.2	-8.6	18.5	10.5	11.7
Russell 2000 Growth	6.1	-10.6	13.4	4.3	8.5

Source: Burgiss, Bloomberg as of March 31, 2023



### **U.S. private equity vintage performance**

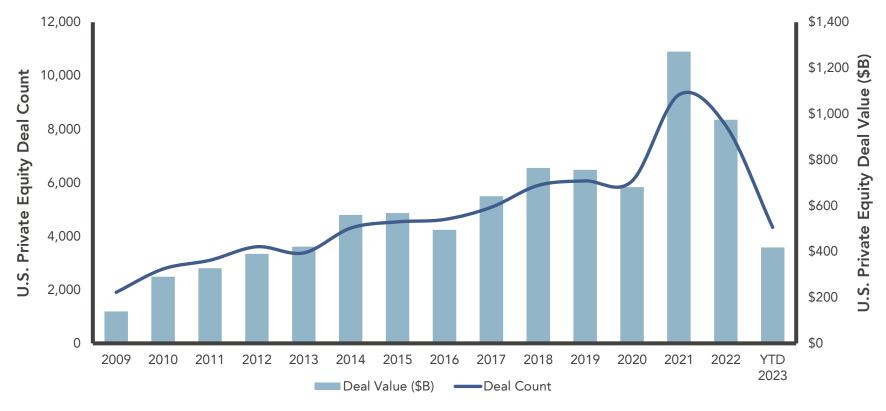
Private equity vintage performance continues to be strong, with median industry performance exceeding the public market equivalent



Source: Burgiss North American All Private Equity Public Market Equivalent, Pooled Returns as of March 31, 2023

### **Private equity deployment**

Higher interest rates have slowed deal activity relative to 2021 highs, though activity remains in line with historical levels

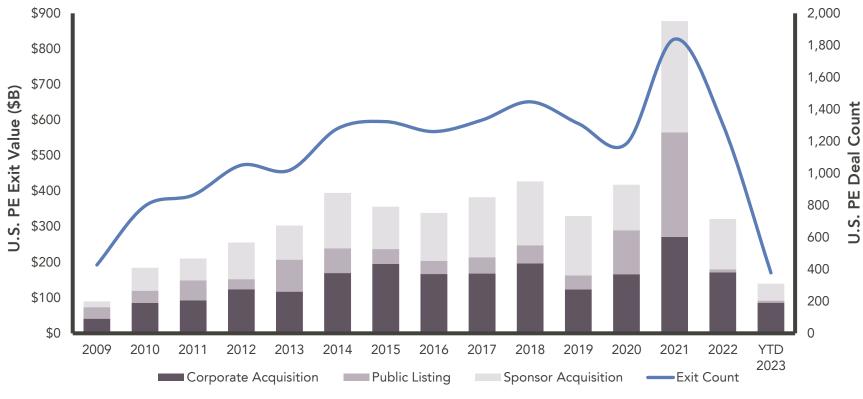


Source: Pitchbook as of June 30, 2023



### Private equity exit activity

Private equity firms are holding assets until credit conditions improve and the IPO market picks up, causing a decline in exit activity

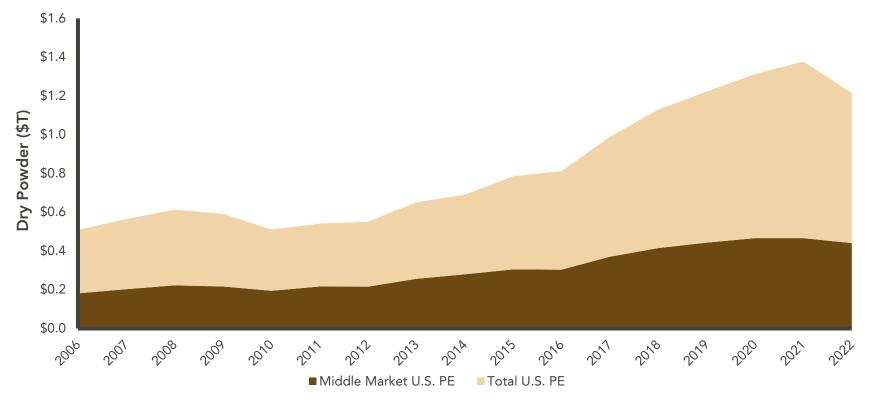


Source: Pitchbook as of June 30, 2023



## Dry powder

High levels of dry powder at the large end of the market should continue to create exit opportunities for middle market private equity

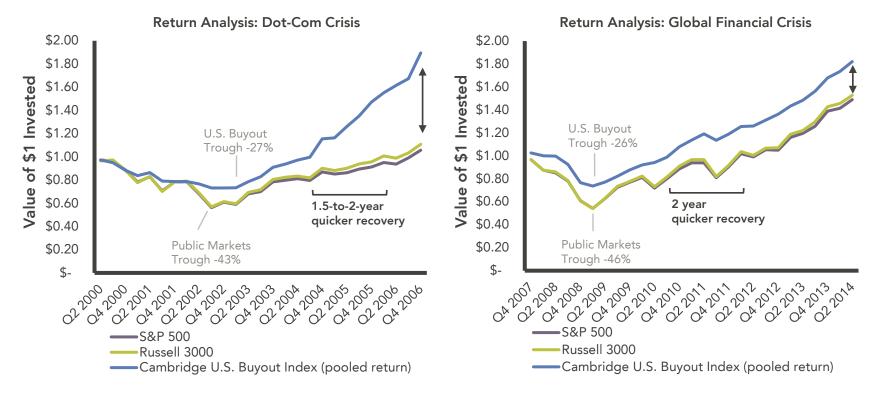


Source: Pitchbook as of December 31, 2022



### Private equity resilience during downturns

### Private equity has historically experienced less significant pullbacks with quicker recoveries during public market downturns

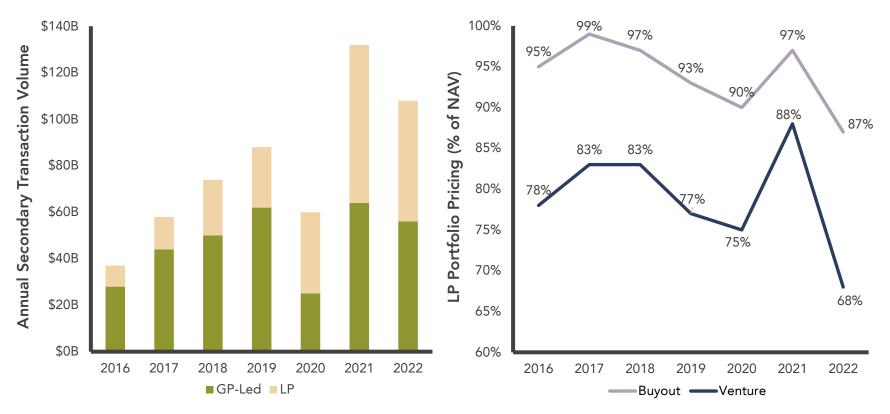


Source: Bloomberg, Cambridge Associates, Neuberger Berman



### Secondary market

The secondary market is evolving, with attractively-priced deals and GP-led transactions representing a significant portion of the market

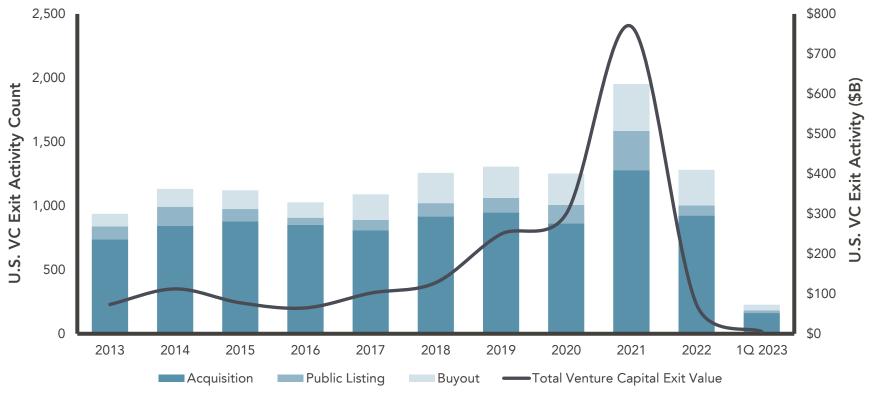


Source: Jefferies Global Secondary Market Review as of December 31, 2022



# Venture capital exit activity

Venture capital exit activity has declined due to the mismatch between buyer/seller expectations and a weaker IPO market

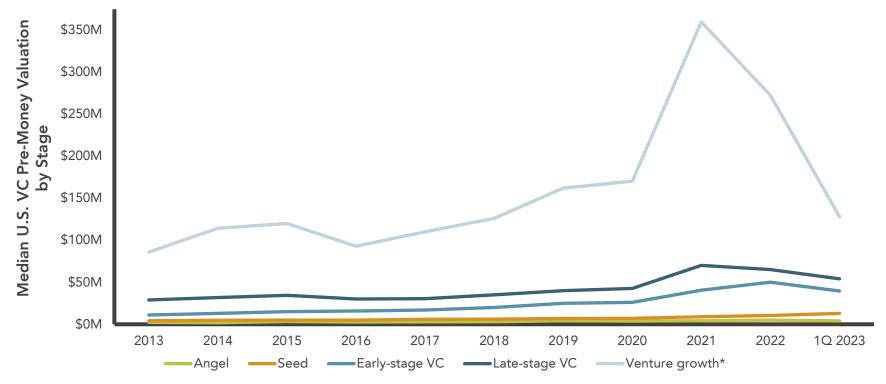


Source: Pitchbook as of March 31, 2023



# **Venture capital valuations**

Late-stage U.S. venture and venture growth valuations continue to decline while earlier stage venture remains steady



Source: Pitchbook as of March 31, 2023. Pitchbook defines Venture Growth as any financing that is Series E or later or any VC financing of a company that is at least seven years old and has raised at least six VC rounds.



# **Opportunities and risks in private equity**

#### **Opportunities**

#### Relative value opportunity

Private equity transactions continue to occur at lower valuations than public equity valuations, though the spread has narrowed with the public market pullback.

#### Small buyouts remain attractive

Small buyouts continue to benefit from inefficiencies and growing demand from capital raised by larger funds, creating a strong exit environment.

#### Secondary market is attractive

The secondary market has evolved with GP-led transactions becoming a significant portion of volume, and pricing has decreased making it an attractive opportunity set for investors.

#### Risks

#### Valuation pressures at upper end of market

Large private equity and late-stage venture valuations are most aligned with declining public market valuations. We expect valuations to continue to decline for the next 3-6 quarters, creating buying opportunities for those with dry powder.

#### Traditional lending continues to be scarce

As interest rates have risen and traditional lenders continue to work through their overhang of leveraged buyout debt, private equity managers are pivoting to more creative capital structures or over-equitizing their buyout deals in the short-term, potentially dampening early return metrics (IRR). The latter option is predicated on the expectation that a future refinancing package will be available at a more favorable interest rate.



# Private credit performance

Private credit performance remained resilient in the first quarter, modestly underperforming liquid credit

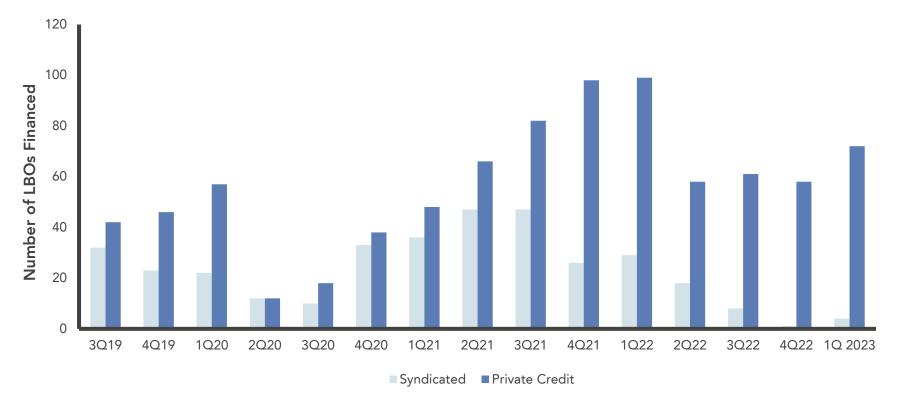
	1Q23 (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)
Private Credit	2.2	3.3	11.9	7.6	8.3
Credit Suisse Leveraged Loan	3.1	2.1	8.4	3.5	3.9
Bloomberg High Yield	3.6	-3.3	5.9	3.2	4.1
Bloomberg Aggregate	3.0	-4.8	-2.8	0.9	1.4
DJ Industrial Average	0.9	-2.0	17.3	9.0	11.1
S&P 500	7.5	-7.7	18.6	11.2	12.2
Russell 3000	7.2	-8.6	18.5	10.5	11.7

Source: Burgiss as of March 31, 2023



# **Private credit share of loan market**

As syndicated loan issuance remains near record lows, PC continues to take market share as banks retrench from the lending market

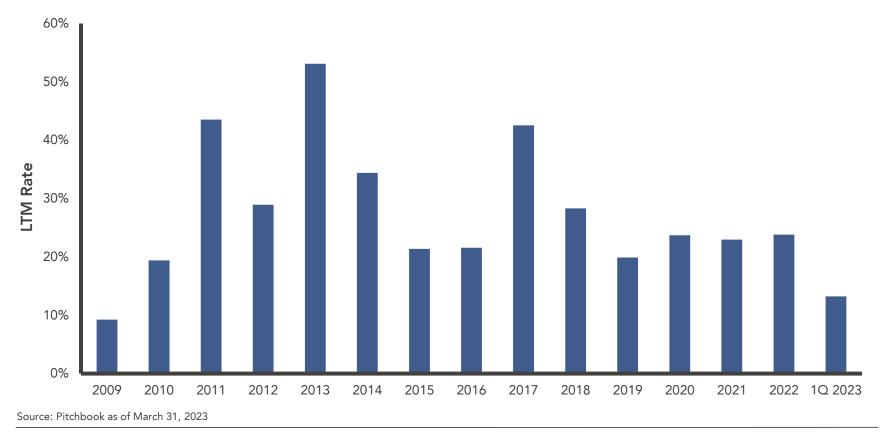


Source: Pitchbook as of March 31, 2023



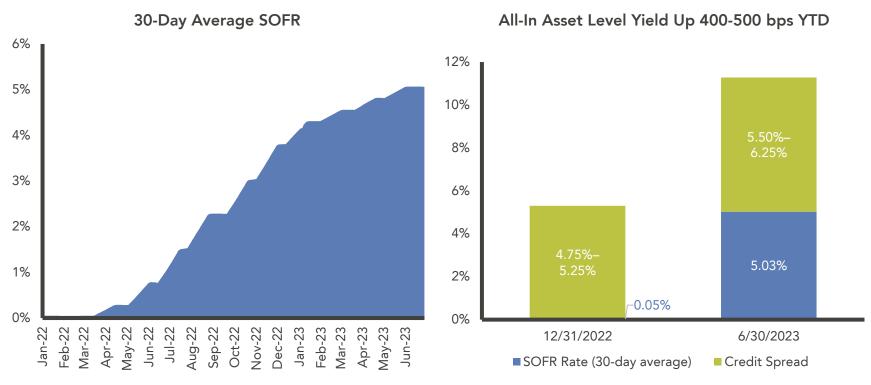
# **Repayment rates**

Repayment volume has slowed dramatically as companies that issued financing at lower rates look to hold less expensive loans for longer



# **Rising rates drive pricing**

A pickup in base rate along with widening credit spreads is driving incremental yield pickup for first lien/unitranche direct lending deals

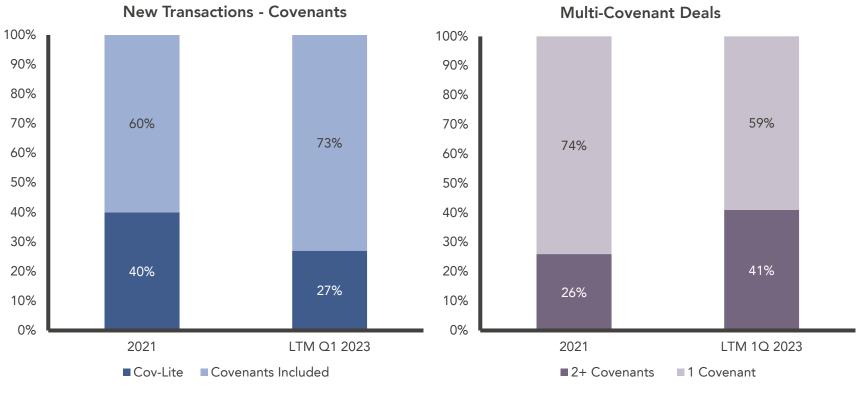


Source: Federal Reserve Bank of New York as of June 30, 2023, credit spreads based on sample of representative deals closed



# **Stronger terms**

# As credit conditions tighten, deal terms have swung in favor of creditors, illustrated by the share of deals with covenant protections

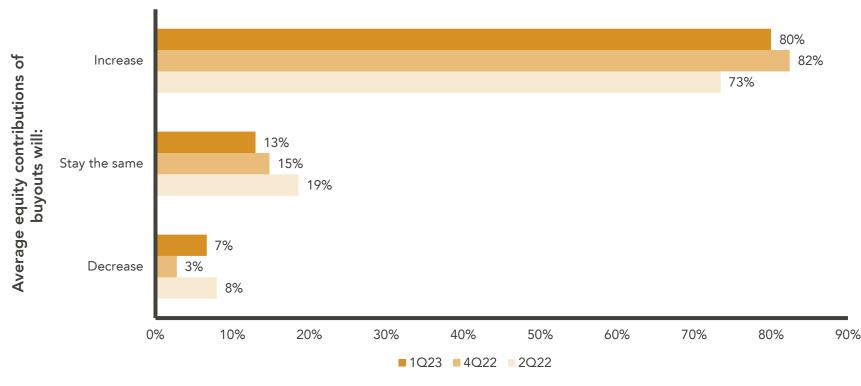


Source: Lincoln Valuations, Opinions Group Proprietary Database as of March 31, 2023

Marquette Associates

## Lower leverage, more equity

Equity contribution in LBO deals is expected to increase as companies can service less floating rate debt, providing more cushion for lenders

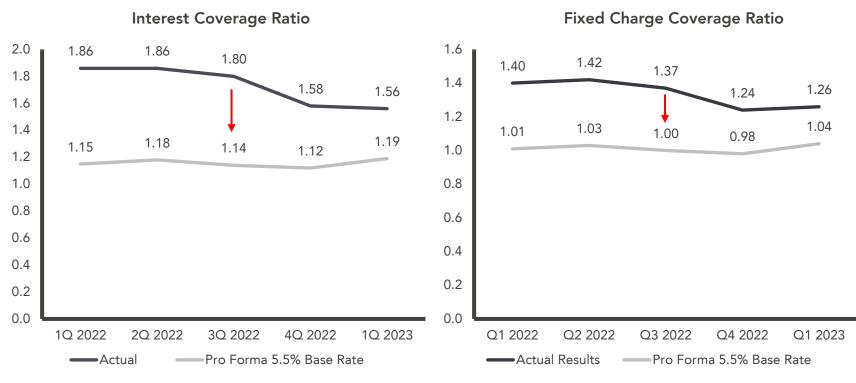


Source: PitchBook as of March 31, 2023



# **Coverage ratios**

Higher financing costs have placed greater cash flow burden on issuers, illustrated by lower coverage ratios

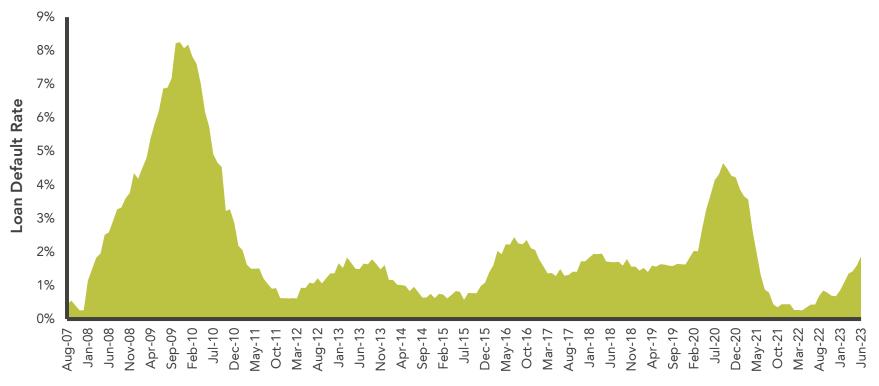


Source: Lincoln Valuations, Opinions Group Proprietary Database as of March 31, 2023



# **Default rate**

Higher financing costs and lower coverage ratios have led to an uptick in loan default rates back to historical averages

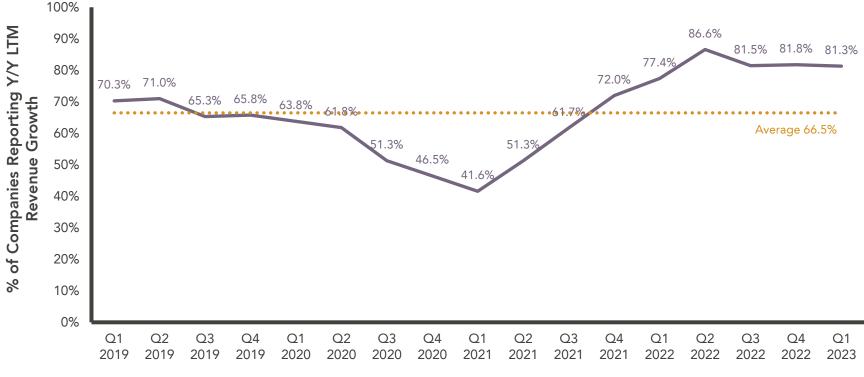


Source: PitchBook as of June 30, 2023



# **Fundamentals strong**

Despite concerns of a macro slowdown, fundamentals remain intact with 81% of companies reporting revenue growth in the first quarter

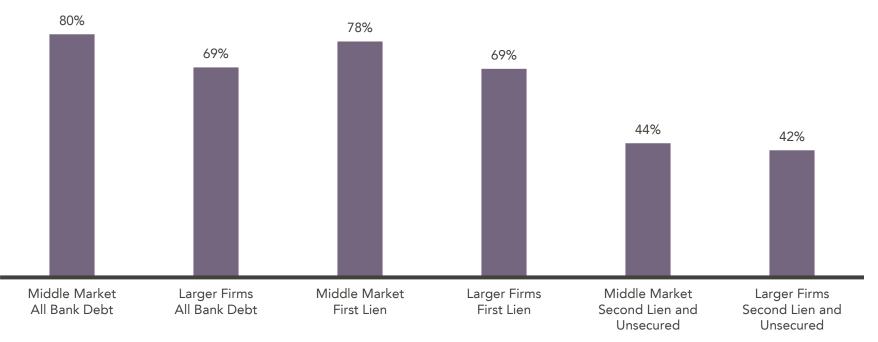


Source: Lincoln Valuations, Opinions Group Proprietary Database as of March 31, 2023



## **Recovery rates**

Middle market companies have historically exhibited higher recoveries in the event of default relative to larger peers



Source: S&P Ratings Direct, "Will Middle-Market Recoveries Falter When the Cycle Turns: Ultimate recovery rate from 1987- June 2018." Middle Market Loans defined as firms with \$350 million or less in total debt outstanding at the time of default. Bonds are indicative of Larger Firm bonds. Ultimate recovery is the non-discounted dollar-weighted recovery weight following the emergence from 3 types of default: bankruptcy filings, distressed exchanges, and non-bankruptcy restructurings. The above represents historical data and is not necessarily indicative of the performance of any fund or account.



# **Opportunities and risks in private credit**

#### **Opportunities**

#### **Rising interest rates**

Private credit is an attractive alternative in a rising interest rate environment, offering enhanced yield, diversification, and strong downside protection.

#### **Banking challenges**

The recent turmoil and instability in the banking system, particularly among regional banks, could cause small-to-midsize companies to seek alternative and more stable lenders, such as private credit.

#### High quality M&A

M&A activity has skewed towards higher quality companies, giving private credit lenders a target-rich environment.

#### Risks

#### Increased competition

With more managers and capital coming into the private credit market, deals may be more competitive, which may force lenders to lower pricing and/or utilize less restrictive credit agreements, eroding the current premiums relative to traditional fixed income.

#### **Inflation & Libor**

High inflation but flat Libor rates would leave private credit yields unchanged — diminishing investors' real return.

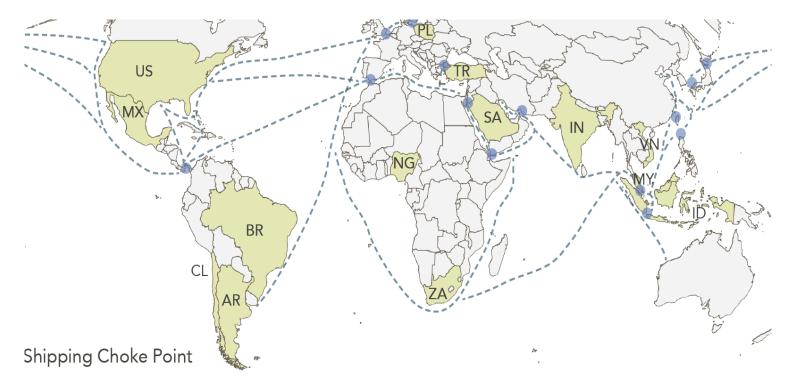
#### Market correction

Market volatility and the potential for a hard landing on the back of higher rates and QT could cause a slowdown in the overall economy and limit company access to the capital markets.

# **Charts of the Week**

# The tides of trade

As market participants reevaluate risk exposures and seek diversification, certain economies seem well positioned for a more regionalized world

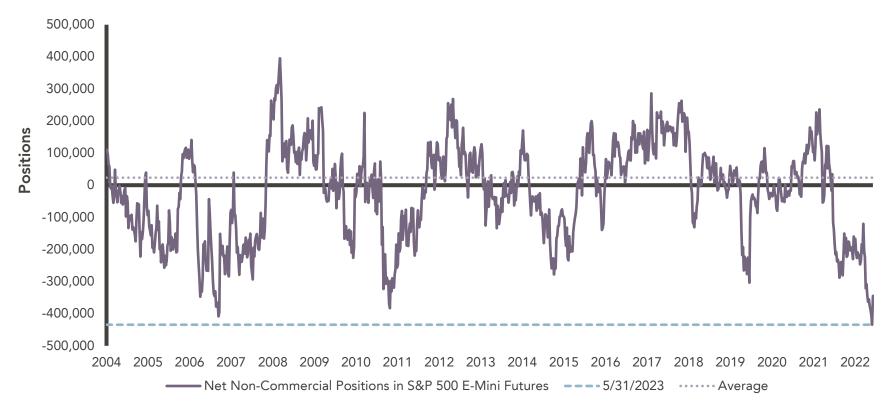


Source: ODNI Global Trends 2040, OECD Ocean Shipping and Ship Building 2022



## Bear scare?

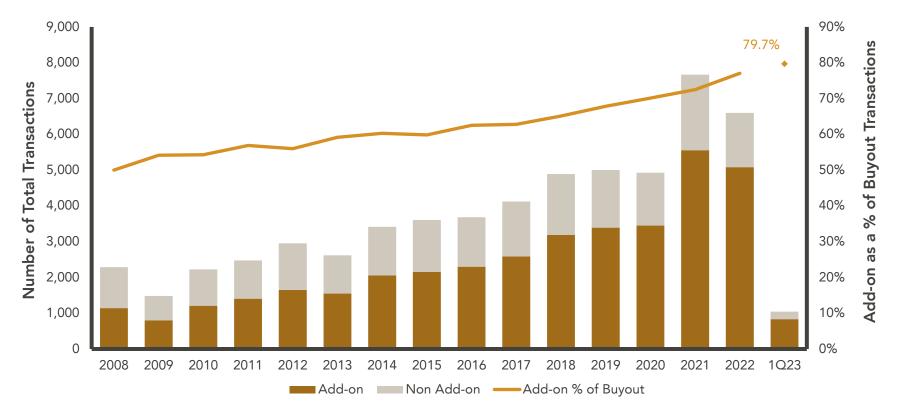
Short positions in S&P 500 futures contracts have recently exceeded Global Financial Crisis levels



Source: Bloomberg, Commodity Futures Trading Commission as of June 6, 2023

# If they build it, buyers will come

Add-ons are an important tool used by private equity to build valuable businesses



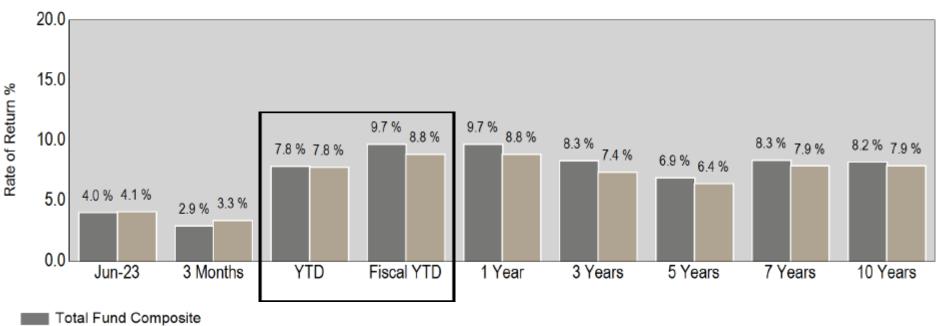
Source: PitchBook as of March 31, 2023





## **COA General Employees' YTD Performance (Net of Fees)**

Return Summary Ending June 30, 2023



Total Fund Policy Benchmark

- Emerging Markets Equity composite outperformed its benchmark; Fixed Income composite performed inline with its benchmark
- Domestic Equity, International Equity, Global Equity and Real Estate composites underperformed their benchmarks

\* Year-to-date performance as of June 30, 2023

### **COA General Employees' Manager Contribution – YTD Performance**

	Absolute	Benchmark	
Top Performers	Performance	Performance	Strategy
Channing SCV	12.6%	2.5%	U.S. Equity
Brown	13.5%	6.8%	International Equity
Artisan	14.6%	11.7%	International Equity

Bottom Performers	Absolute Performance	Benchmark Performance	Strategy
Legato SCG	9.2%	13.6%	U.S. Equity
Intercontinental	-9.8%	-6.1%	U.S. Real Estate
Hardman Johnston	7.0%	9.5%	International Equity

\* Year-to-date performance as of June 30, 2023



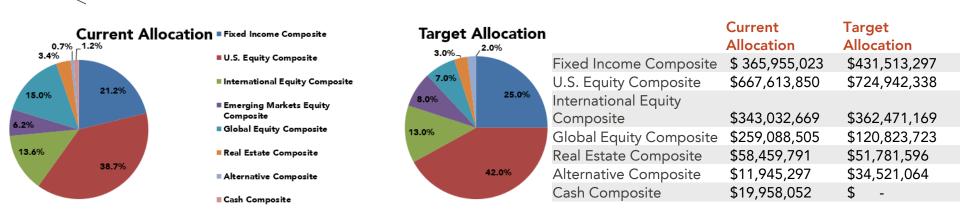
## **COA General Employees' – Manager Excess Performance**

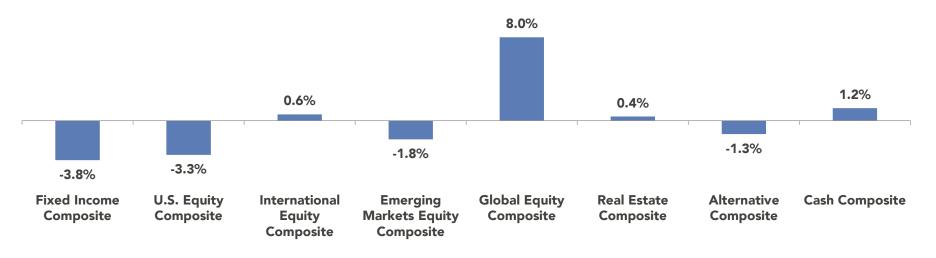
		Enang band bo, 2020	
	Benchmark	3 Mo Perf vs Benchmark 6 Mo Perf vs	Benchmark
Total Fund Composite	Total Fund Policy Benchmark	-0.4%	0.0%
Fixed Income Composite	Bloomberg US Aggregate TR	-0.1%	0.0%
Mesirow	Bloomberg US Aggregate TR	0.0%	-0.1%
Garcia Hamilton	Bloomberg US Aggregate TR	-0.5%	0.3%
State Street U.S. Aggregate Bond Index SL Fund	Bloomberg US Aggregate TR	0.0%	0.2%
U.S. Equity Composite	Russell 3000	-2.0%	-3.7%
Large Cap Composite	S&P 500	0.2%	-1.1%
Union Heritage Large Cap Core	S&P 500	0.3%	-2.1%
Blackrock S&P 500 Equity Index Fund	S&P 500	0.0%	0.0%
Mid Cap Composite	S&P 400 MidCap	0.0%	0.1%
BlackRock MidCap Equity Index	S&P 400 MidCap	0.0%	0.1%
Small Cap Composite	Russell 2000	-2.5%	-0.1%
Channing Capital Management	Russell 2000 Value	5.5%	10.1%
Earnest Partners SCC	Russell 2000	-5.0%	-2.1%
Legato	Russell 2000 Growth	-3.0%	-4.4%
Essex	Russell 2000 Growth	-5.4%	-4.3%
Bridge City	Russell 2000 Growth	-2.4%	-5.3%
Lebenthal Lisanti	Russell 2000 Growth	-4.4%	-5.0%
Nicholas	Russell 2000 Growth	4.0%	0.8%
International Equity Composite	MSCI EAFE	-1.5%	-0.8%
Artisan Partners International Value Fund (APHKX)	MSCI EAFE	1.0%	2.9%
Hardman Johnston	MSCI ACWI ex USA	-4.2%	-2.5%
Brown Capital International Small Cap	MSCI ACWI ex US Small Cap	4.6%	6.7%
Emerging Markets Equity Composite	MSCI Emerging Markets	0.6%	2.1%
Earnest Partners EM	MSCI Emerging Markets	1.1%	2.7%
Goldman Sachs Emerging Markets Equity	MSCI Emerging Markets	-0.4%	0.7%
Global Equity Composite	MSCI ACWI	-2.8%	-6.1%
Globalt Tactical ETF	Globalt Benchmark	0.0%	0.5%
BlackRock MSCI ACWI Min Volatility Index	MSCI ACWI Minimum Volatility Index	0.1%	0.3%
Real Estate Composite	NFI-ODCE	-1.7%	-1.8%
Intercontinental U.S. Real Estate	NFI-ODCE	-3.5%	-3.7%
JP Morgan U.S. Real Estate	NFI-ODCE	2.2%	2.5%
Alternative Composite	Custom Alternative Target Benchmark	-5.8%	-10.7%
Consequent Alternative Partners II, LP	Consequent Alt BM	0.0%	0.0%

Marquette Associates

Ending June 30, 2023

## COA General Employees' Asset Allocation vs Target Allocation





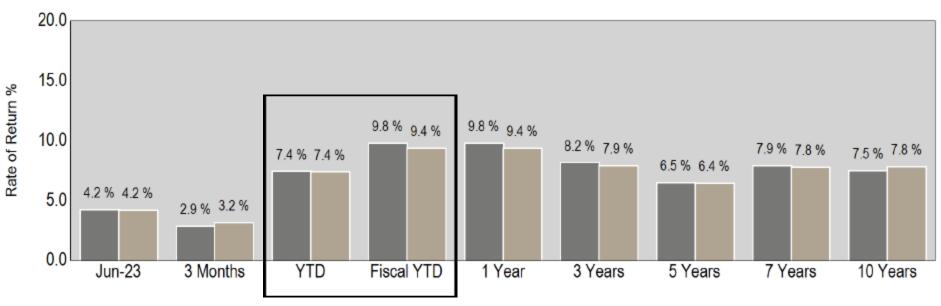
\* Year-to-date performance and allocation as of June 30, 2023





## **COA Police Officers' YTD Performance (Net of Fees)**

Return Summary Ending June 30, 2023



Total Fund Composite

- International Equity composite outperformed its benchmark; Fixed Income and Domestic Equity composites along with passive strategies performed in-line with benchmarks
- Real Estate composite underperformed its benchmark

\* Year-to-date performance as of June 30, 2023

## **COA Police Officers' Manager Contribution – YTD Performance**

Top Performers	Absolute Performance	Benchmark Performance	Strategy
Brown SC	13.5%	6.8%	International Equity
Artisan	14.6%	11.7%	International Equity

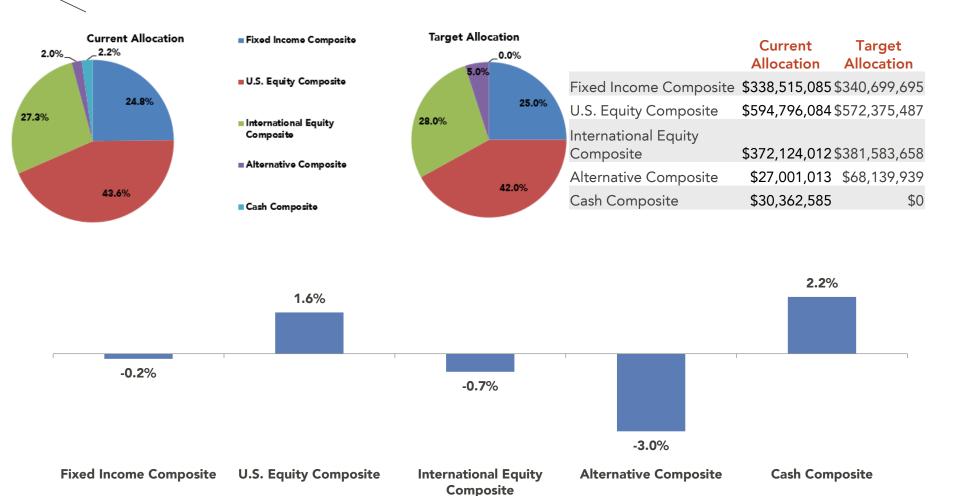
	Absolute	Benchmark	
Bottom Performers	Performance	Performance	Strategy
Intercontinental	-9.8%	-6.1%	U.S. Real Estate
Hardman Johnston	7.0%	9.5%	International Equity
Earnest SCC	6.6%	8.1%	U.S. Equity



## **COA Police Officers' – Manager Excess Performance**

		-	
	Benchmark	3 Mo Perf vs Benchmark 6 Mo Perf vs Be	nchmark
Total Fund Composite	Total Fund Policy Benchmark	-0.3%	0.0%
Fixed Income Composite	Fixed Income Composite Blended Benchmark	-0.1%	0.1%
Mesirow	Bloomberg US Aggregate TR	0.0%	-0.2%
Garcia Hamilton	Bloomberg US Govt/Credit Int TR	-0.3%	0.3%
BlackRock U.S.Aggregate Bond Index	Bloomberg US Aggregate TR	0.0%	0.2%
U.S. Equity Composite	Domestic Equity Composite Blended Benchmark	-0.3%	-0.2%
BlackRock Russell 1000 Index Fund	Russell 1000	0.0%	0.0%
BlackRock Mid Cap Equity Index Fund	S&P 400 MidCap	0.0%	0.1%
Macquarie SCC	Russell 2000	-0.7%	-1.1%
Earnest Partners SCC	Russell 2000	-4.4%	-1.5%
Driehaus SCG	Russell 2000 Growth	2.2%	0.2%
International Equity Composite	International Equity Composite Blended Benchmark	-0.5%	0.6%
Artisan International Large Cap Value (APHKX)	MSCI EAFE	1.0%	2.9%
Hardman Johnston	MSCI ACWI ex USA	-4.2%	-2.5%
BlackRock MSCI EAFE Small Cap Index	MSCI EAFE Small Cap	0.2%	0.5%
Brown Capital International Small Cap	MSCI ACWI ex US Small Cap	4.6%	6.7%
BlackRock Emerging Markets Free Fund	MSCI Emerging Markets	-0.1%	-0.1%
Goldman Sachs Emerging Markets Equity	MSCI Emerging Markets	-0.4%	0.7%
BlackRock MSCI ACWI Min Volatility Index	MSCI ACWI Minimum Volatility Index	0.1%	0.3%
Alternative Composite	Alternatives Custom Benchmark	-1.9%	-1.8%
Intercontinental U.S. Real Estate	NFI-ODCE	-3.5%	-3.7%
Consequent Alternative Partners II, LP	Custom Consequent Alt BM	0.0%	0.0%
Pharos Capital Partners III	Cambridge Associates All PE	0.0%	3.0%

## **COA Police Officers' Asset Allocation vs Target Allocation**



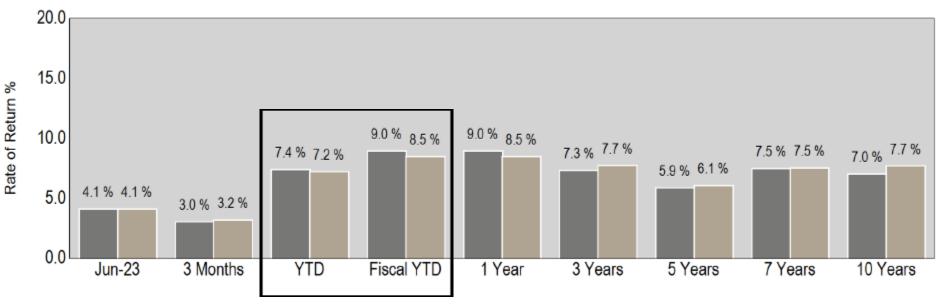
\* Year-to-date performance and allocation as of June 30, 2023





## **COA Firefighters' YTD Performance (Net of Fees)**

Return Summary Ending June 30, 2023



| Total Fund Composite | Total Fund Policy Benchmark

- International Equity composite outperformed its benchmark; Fixed Income composite and Passive strategies performed in-line with their benchmarks
- Domestic Equity composite and Real Estate underperformed their benchmarks

## **COA Firefighters' Manager Contribution – YTD Performance**

Top Performers	Absolute Performance	Benchmark Performance	Strategy
Brown SC	13.5%	6.8%	International Equity
Ativo	14.7%	9.5%	International Equity

Bottom Performers	Absolute Performance	Benchmark Performance	Strategy	
Intercontinental	-9.8%	-6.1%	U.S. Real Estate	
Hardman Johnston	6.9%	9.5%	International Equity	
Earnest SCC	6.6%	8.1%	U.S. Equity	

\* Year-to-date performance as of June 30, 2023



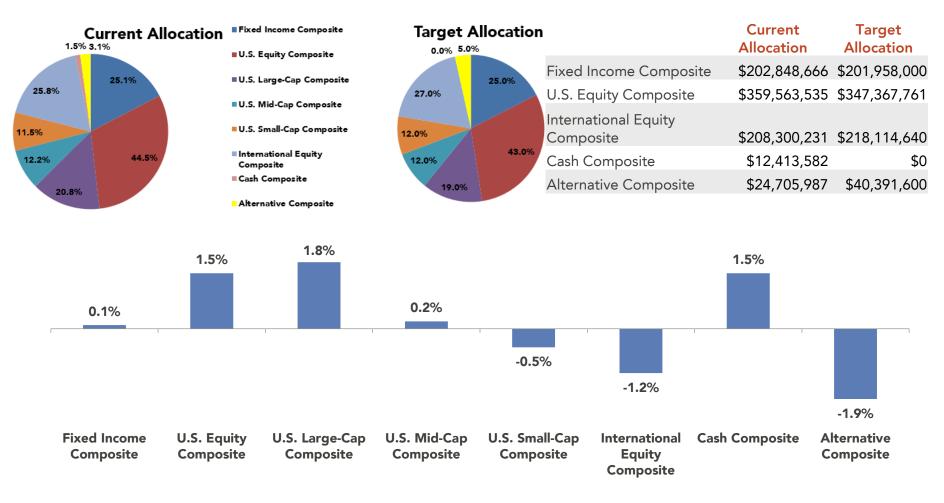
## **COA Firefighters' – Manager Excess Performance**

#### Ending June 30, 2023

	Benchmark	3 Mo Perf vs Benchmark 6 Mo Perf v	s Benchmark
Total Fund Composite	Total Fund Policy Benchmark	-0.2%	0.2%
Fixed Income Composite	Fixed Income Composite Custom Benchmark	-0.1%	0.0%
Garcia Hamilton	Bloomberg US Aggregate TR	-0.4%	0.4%
Mesirow	Bloomberg US Aggregate TR	0.0%	-0.2%
U.S. Equity Composite	Russell 3000	-2.0%	-3.7%
Large Cap Composite	Russell 1000	0.0%	0.0%
BlackRock 1000 Index Fund	Russell 1000	0.0%	0.0%
Mid Cap Composite	S&P 400 MidCap	0.0%	0.1%
BlackRock Mid Cap Equity Index Fund	S&P 400 MidCap	0.0%	0.1%
Small Cap Composite	Russell 2000	-1.0%	1.0%
Northern Trust Collective Russell 2000 Index	Russell 2000	0.0%	0.1%
Earnest SCC	Russell 2000	-4.4%	-1.5%
Driehaus SCG	Russell 2000 Growth	2.2%	0.2%
International Equity Composite	International Equity Composite Custom Benchmark	0.5%	1.5%
Ativo Capital	MSCI ACWI ex USA	2.6%	5.2%
Hardman Johnston	MSCI ACWI ex USA	-4.2%	-2.6%
BlackRock MSCI EAFE Small Cap	MSCI EAFE Small Cap	0.2%	0.5%
Brown Capital International Small Cap	MSCI ACWI ex US Small Cap	4.6%	6.7%
BlackRock Emerging Markets Free Fund	MSCI Emerging Markets	-0.1%	-0.1%
Goldman Sachs Emerging Markets Equity	MSCI Emerging Markets	-0.4%	0.7%
BlackRock MSCI ACWI Min Volatility Index	MSCI ACWI Minimum Volatility Index	0.1%	0.3%
Alternative Composite	Alternatives Custom Benchmark		
Intercontinental U.S. Real Estate	NFI-ODCE	-3.5%	-3.7%
Consequent Alternative Partners II, L.P.	Consequent Alt BM	0.0%	0.0%



## **COA Firefighters' Asset Allocation vs Target Allocation**



\* Year-to-date performance and allocation as of June 30, 2023



# Purpose: Empower our clients to meet their investment objectives

#### Vision

Be a trusted partner to our clients through effective investment programs

#### Mission

Provide independent and thoughtful investment guidance

#### Why Marquette?

- ✓ Our people
- ✓ Independent expertise
- ✓ Focused client service
- ✓ Careful research

# Periodic table benchmarks

Core Bond	Bloomberg Aggregate
High Yield	Bloomberg High Yield
Bank Loans	CS Leverage Loan
Broad U.S. Equities	Russell 3000
Large Cap	S&P 500
Mid Cap	Russell Mid Cap
Small Cap	Russell 2000
Broad Intl Equities	ACWI ex-U.S.
Intl Large Cap	EAFE
Intl Small Cap	EAFE Small Cap
Emerging Markets	MSCI EM
Commodities	S&P GSCI
Hedge Funds	HFRI Fund Weighted Composite
Real Estate	NCREIF

Based on quarterly returns for real estate and monthly returns for the rest



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(Preliminary, Subject to Change)

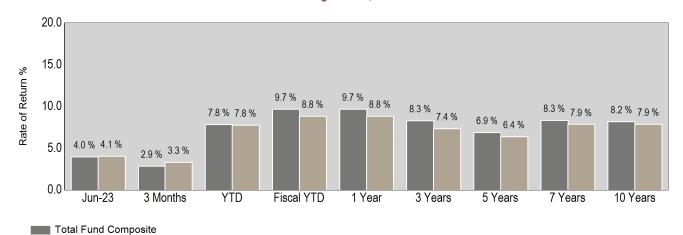


**Pension Fund** 

City of Atlanta General Employees Pension Fund Executive Summary June 30, 2023



#### Market Value: \$1,726.1 Million and 100.0% of Fund



Return Summary Ending June 30, 2023

Return Summary YTD

Total Fund Policy Benchmark

Total

	Return
Total Fund Composite	7.8%
Fixed Income Composite	2.1%
U.S. Equity Composite	12.5%
Large Cap Composite	15.8%
Mid Cap Composite	8.9%
Small Cap Composite	8.0%
International Equity Composite	10.9%
Emerging Markets Equity Composite	7.0%
Global Equity Composite	7.8%
Real Estate Composite	-7.9%
Alternative Composite	0.0%

	Current	Current	Policy	Difference	%
Fixed Income	\$365,955,023	21.2%	25.0%	-\$65,558,273	-3.8%
U.S. Equity	\$667,613,850	38.7%	42.0%	-\$57,328,489	-3.3%
Non-U.S. Equity	\$498,477,722	28.9%	28.0%	\$15,182,829	0.9%
Real Assets	\$58,459,791	3.4%	3.0%	\$6,678,196	0.4%
Private Equity	\$11,945,297	0.7%	2.0%	-\$22,575,767	-1.3%
Other	\$123,601,504	7.2%		\$123,601,504	7.2%
Total	\$1,726,053,187	100.0%	100.0%		

Asset Allocation vs. Target

#### **Summary of Cash Flows**

	Last Three Months	Year-To-Date	One Year
Beginning Market Value	\$1,693,217,027	\$1,626,412,708	\$1,632,596,428
Net Cash Flow	-\$16,537,171	-\$28,897,787	-\$64,886,766
Net Investment Change	\$49,373,331	\$128,538,266	\$158,343,525
Ending Market Value	\$1,726,053,187	\$1,726,053,187	\$1,726,053,187

Total Fund Composite

Market Value: \$1,726.1 Million and 100.0% of Fund

		E	nding June 30,	, 2023		
	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Total Fund Composite		1,726,053,187	-16,537,171	100.0	100.0	0
Fixed Income Composite		365,955,023	-216	21.2	25.0	-65,558,273
Mesirow	Core Fixed Income	207,201,947	-620	12.0		
Garcia Hamilton	Core Fixed Income	74,552,414	404	4.3		
State Street U.S. Aggregate Bond Index SL Fund	Core Fixed Income	84,200,663	0	4.9		
U.S. Equity Composite		667,613,850	-4,446	38.7	42.0	-57,328,489
Large Cap Composite		380,544,672	-2,484	22.0	18.0	69,855,099
Union Heritage Large Cap Core	Large-Cap Core	189,461,844	-2,484	11.0		
Blackrock S&P 500 Equity Index Fund	Large-Cap Core	191,082,828	0	11.1		
Mid Cap Composite		87,531,821	0	5.1	12.0	-119,594,561
BlackRock MidCap Equity Index	Mid-Cap Core	87,531,821	0	5.1		
Small Cap Composite		199,537,356	-1,962	11.6	12.0	-7,589,026
Channing Capital Management	Small-Cap Value	39,986,875	-334	2.3		
Earnest Partners SCC	Small-Cap Core	115,483,449	-1,225	6.7		
Legato		44,067,032	-403	2.6	-	44,067,032
Essex	Small-Cap Growth	12,319,952	-194	0.7		
Bridge City	Small-Cap Growth	13,002,677	-54	0.8		
Lebenthal Lisanti	Small-Cap Growth	11,909,598	-59	0.7		
Nicholas	Smid-Cap Growth	6,834,805	-96	0.4		
International Equity Composite		235,287,534	0	13.6	13.0	10,900,620
Artisan Partners International Value Fund (APHKX)	Non-U.S. Large-Cap Value	104,410,309	0	6.0		
Hardman Johnston	Non-U.S. Large-Cap Core	106,701,106	0	6.2		
Brown Capital International Small Cap	Non-U.S. Small-Cap Core	24,176,120	0	1.4		
Emerging Markets Equity Composite		107,745,135	0	6.2	8.0	-30,339,120
Earnest Partners EM	Emerging Markets	76,616,102	0	4.4		
Goldman Sachs Emerging Markets Equity	Emerging Markets	31,129,032	0	1.8		
Global Equity Composite		259,088,505	-4,271	15.0	7.0	138,264,782
Globalt Tactical ETF	Global Balanced	155,445,053	-4,271	9.0		
BlackRock MSCI ACWI Min Volatility Index	Global Low-Volatility	103,643,452	0	6.0		
Real Estate Composite		58,459,791	-256,186	3.4	3.0	6,678,196
Intercontinental U.S. Real Estate	Core Real Estate	39,788,979	-72,166	2.3		
JP Morgan U.S. Real Estate	Core Plus Real Estate	18,670,812	-184,020	1.1		

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Market Value: \$1,726.1 Million and 100.0% of Fund

	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Alternative Composite		11,945,297	-1,365,854	0.7	2.0	-22,575,767
Consequent Alternative Partners II, LP	U.S. Private Equity FoF	11,945,297	-1,365,854	0.7		
Cash Composite		19,958,052	-14,906,198	1.2	0.0	19,958,052
Cash	Cash & Equivalents	19,494,378	-9,505,735	1.1		
SEC Lending	Cash & Equivalents	0	0	0.0		
NT Operating	Cash & Equivalents	463,674	-5,400,463	0.0		

#### Annualized Performance (Net of Fees)

Market Value: \$1,726.1 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Total Fund Composite	4.0%	2.9%	7.8%	9.7%	9.7%	-1.7%	8.3%	6.9%	8.3%	8.2%	7.5%	Jan-97
Total Fund Policy Benchmark	4.1%	3.3%	7.8%	8.8%	8.8%	-2.7%	7.4%	6.4%	7.9%	7.9%	7.4%	Jan-97
Fixed Income Composite	-0.3%	-0.9%	2.1%	-0.7%	-0.7%	-5.5%	-3.8%	0.8%	0.5%	1.5%	5.1%	Apr-88
Bloomberg US Aggregate TR	-0.4%	-0.8%	2.1%	-0.9%	-0.9%	-5.7%	-4.0%	0.8%	0.4%	1.5%	5.3%	Apr-88
Mesirow	-0.2%	-0.8%	2.0%	-0.5%	-0.5%	-5.7%	-3.9%	0.9%	0.6%	1.6%	3.4%	Jun-06
Bloomberg US Aggregate TR	-0.4%	-0.8%	2.1%	-0.9%	-0.9%	-5.7%	-4.0%	0.8%	0.4%	1.5%	3.2%	Jun-06
Garcia Hamilton	-0.6%	-1.3%	2.4%	-0.8%	-0.8%	-4.6%	-3.4%	0.8%			1.1%	Nov-16
Bloomberg US Aggregate TR	-0.4%	-0.8%	2.1%	-0.9%	-0.9%	-5.7%	-4.0%	0.8%	0.4%	1.5%	0.9%	Nov-16
State Street U.S. Aggregate Bond Index SL Fund	-0.4%	-0.8%	2.3%	-0.9%	-0.9%	-5.7%	-4.0%	0.8%	0.4%		1.0%	Sep-15
Bloomberg US Aggregate TR	-0.4%	-0.8%	2.1%	-0.9%	-0.9%	-5.7%	-4.0%	0.8%	0.4%	1.5%	1.0%	Sep-15
U.S. Equity Composite	7.1%	6.4%	12.5%	18.2%	18.2%	1.1%	14.0%	10.4%	12.4%	12.0%	9.0%	Dec-99
Russell 3000	6.8%	8.4%	16.2%	19.0%	19.0%	1.2%	13.9%	11.4%	12.9%	12.3%	7.0%	Dec-99
Large Cap Composite	6.4%	8.9%	15.8%	22.2%	22.2%	5.1%	15.1%	12.9%	13.9%	13.4%	9.8%	Jan-97
S&P 500	6.6%	8.7%	16.9%	19.6%	19.6%	3.4%	14.6%	12.3%	13.4%	12.9%	8.8%	Jan-97
Union Heritage Large Cap Core	6.2%	9.0%	14.8%	24.8%	24.8%	6.9%	15.1%	13.3%	14.6%	14.3%	11.5%	Dec-94
S&P 500	6.6%	8.7%	16.9%	19.6%	19.6%	3.4%	14.6%	12.3%	13.4%	12.9%	10.4%	Dec-94
Blackrock S&P 500 Equity Index Fund	6.6%	8.7%	16.9%	19.6%	19.6%	3.4%	14.6%	12.3%	13.4%		13.6%	Sep-15
S&P 500	6.6%	8.7%	16.9%	19.6%	19.6%	3.4%	14.6%	12.3%	13.4%	12.9%	13.6%	Sep-15
Mid Cap Composite	9.2%	4.9%	8.9%	17.7%	17.7%	0.2%	15.5%	7.4%	9.6%	9.5%	8.1%	Oct-95
S&P 400 MidCap	9.2%	4.9%	8.8%	17.6%	17.6%	0.2%	15.4%	7.8%	10.1%	10.2%	11.1%	Oct-95
BlackRock MidCap Equity Index	9.2%	4.9%	8.9%	17.7%	17.7%	0.2%	15.5%				22.0%	Mar-20
S&P 400 MidCap	9.2%	4.9%	8.8%	17.6%	17.6%	0.2%	15.4%	7.8%	10.1%	10.2%	22.0%	Mar-20
Small Cap Composite	7.4%	2.7%	8.0%	11.7%	11.7%	-4.9%	13.5%	7.1%	11.0%	10.2%	9.9%	Oct-95
Russell 2000	8.1%	5.2%	8.1%	12.3%	12.3%	-8.3%	10.8%	4.2%	8.8%	8.3%	8.4%	Oct-95
Channing Capital Management	10.7%	8.7%	12.6%	11.9%	11.9%	-2.3%	15.9%	5.4%	8.3%	8.2%	8.6%	Feb-13
Russell 2000 Value	7.9%	3.2%	2.5%	6.0%	6.0%	-5.8%	15.4%	3.5%	7.7%	7.3%	7.8%	Feb-13
Earnest Partners SCC	6.1%	0.2%	6.0%	11.3%	11.3%	-2.8%	14.4%	8.1%	12.1%	11.7%	10.7%	Jul-99
Russell 2000	8.1%	5.2%	8.1%	12.3%	12.3%	-8.3%	10.8%	4.2%	8.8%	8.3%	7.5%	Jul-99

#### Annualized Performance (Net of Fees)

Market Value: \$1,726.1 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Legato	7.8%	4.1%	9.2%	11.7%	11.7%	-12.4%	8.6%	5.5%	10.1%		6.7%	Mar-15
Russell 2000 Growth	8.3%	7.1%	13.6%	18.5%	18.5%	-11.2%	6.1%	4.2%	9.3%	8.8%	6.8%	Mar-15
Essex	7.0%	1.7%	9.3%	16.6%	16.6%	-12.5%	14.0%	6.7%			10.1%	Mar-17
Russell 2000 Growth	8.3%	7.1%	13.6%	18.5%	18.5%	-11.2%	6.1%	4.2%	9.3%	8.8%	7.4%	Mar-17
Bridge City	9.0%	4.7%	8.3%	10.9%	10.9%	-6.0%	11.1%	6.9%			10.4%	Jul-16
Russell 2000 Growth	8.3%	7.1%	13.6%	18.5%	18.5%	-11.2%	6.1%	4.2%	9.3%	8.8%	8.4%	Jul-16
Lebenthal Lisanti	7.3%	2.7%	8.6%	7.5%	7.5%	-17.2%	2.6%	4.9%			10.8%	Jul-16
Russell 2000 Growth	8.3%	7.1%	13.6%	18.5%	18.5%	-11.2%	6.1%	4.2%	9.3%	8.8%	8.4%	Jul-16
Nicholas	8.1%	11.1%	14.4%	17.2%	17.2%	-10.9%					-7.5%	May-21
Russell 2000 Growth	8.3%	7.1%	13.6%	18.5%	18.5%	-11.2%	6.1%	4.2%	9.3%	8.8%	-8.8%	May-21
International Equity Composite	5.2%	1.5%	10.9%	17.0%	17.0%	-4.6%	9.7%	6.6%	9.1%	7.8%	7.7%	Oct-10
MSCI EAFE	4.6%	3.0%	11.7%	18.8%	18.8%	-1.2%	8.9%	4.4%	6.9%	5.4%	5.3%	Oct-10
Artisan Partners International Value Fund (APHKX)	5.4%	4.0%	14.6%	23.0%	23.0%	4.1%	17.0%	8.6%	9.5%	8.2%	10.1%	Jun-10
MSCI EAFE	4.6%	3.0%	11.7%	18.8%	18.8%	-1.2%	8.9%	4.4%	6.9%	5.4%	6.5%	Jun-10
Hardman Johnston	4.9%	-1.8%	7.0%	11.5%	11.5%	-10.6%	4.5%	5.1%	9.2%	7.6%	6.7%	Oct-10
MSCI ACWI ex USA	4.5%	2.4%	9.5%	12.7%	12.7%	-4.7%	7.2%	3.5%	6.3%	4.7%	4.3%	Oct-10
Brown Capital International Small Cap	5.5%	6.6%	13.5%	18.0%	18.0%						-15.4%	Dec-21
MSCI ACWI ex US Small Cap	3.4%	2.0%	6.8%	10.9%	10.9%	-7.2%	8.1%	2.6%	6.1%	5.8%	-9.9%	Dec-21
Emerging Markets Equity Composite	5.3%	1.5%	7.0%	5.1%	5.1%	-7.4%	8.4%	3.5%	6.2%		7.1%	Sep-15
MSCI Emerging Markets	3.8%	0.9%	4.9%	1.7%	1.7%	-12.8%	2.3%	0.9%	4.9%	3.0%	5.4%	Sep-15
Earnest Partners EM	5.6%	2.0%	7.6%	7.8%	7.8%	-4.5%	10.7%	4.8%	7.2%		8.0%	Sep-15
MSCI Emerging Markets	3.8%	0.9%	4.9%	1.7%	1.7%	-12.8%	2.3%	0.9%	4.9%	3.0%	5.4%	Sep-15
Goldman Sachs Emerging Markets Equity	4.5%	0.5%	5.6%	-0.9%	-0.9%						-13.6%	Feb-22
MSCI Emerging Markets	3.8%	0.9%	4.9%	1.7%	1.7%		2.3%	0.9%	4.9%	3.0%	-9.1%	Feb-22
Global Equity Composite	3.6%	3.4%	7.8%	9.4%	9.4%	-1.2%	7.0%	7.0%	8.2%	8.1%	7.8%	Mar-13
MSCI ACWI	5.8%	6.2%	13.9%	16.5%	16.5%	-0.9%	11.0%	8.1%	9.9%	8.8%	8.5%	Mar-13
Globalt Tactical ETF	4.2%	4.2%	10.4%	11.7%	11.7%	-1.5%	7.0%	7.1%	8.2%	8.0%	7.7%	Mar-13
Globalt Benchmark	4.6%	4.2%	9.9%	11.8%	11.8%	-2.3%	7.7%	6.5%	8.0%	7.7%	7.5%	Mar-13
BlackRock MSCI ACWI Min Volatility Index	2.7%	2.3%	4.1%	6.2%	6.2%	-0.2%	6.1%				6.5%	Apr-20
MSCI ACWI Minimum Volatility Index	2.7%	2.2%	3.8%	5.8%	5.8%	-0.5%	5.7%	5.4%	5.8%	7.2%	6.1%	Apr-20

#### Annualized Performance (Net of Fees)

Market Value: \$1,726.1 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Real Estate Composite	-4.5%	-4.5%	-7.9%	-13.4%	-13.4%	5.7%	5.9%	5.2%	6.4%		6.9%	Feb-15
NFI-ODCE	-1.0%	-2.8%	-6.1%	-10.7%	-10.7%	7.1%	7.1%	5.6%	6.0%	7.8%	6.9%	Feb-15
Intercontinental U.S. Real Estate	-6.3%	-6.3%	-9.8%	-14.2%	-14.2%	4.5%	5.6%	5.7%	7.1%		7.6%	Mar-15
NFI-ODCE	-1.0%	-2.8%	-6.1%	-10.7%	-10.7%	7.1%	7.1%	5.6%	6.0%	7.8%	6.9%	Mar-15
JP Morgan U.S. Real Estate	-0.6%	-0.6%	-3.6%	-11.4%	-11.4%	7.9%	6.5%	4.6%			5.4%	Jul-16
NFI-ODCE	-1.0%	-2.8%	-6.1%	-10.7%	-10.7%	7.1%	7.1%	5.6%	6.0%	7.8%	6.0%	Jul-16
Alternative Composite	0.0%	0.0%	0.0%	-2.2%	-2.2%	-3.7%	5.5%	0.1%	1.8%	1.4%	2.4%	Oct-12
Custom Alternative Target Benchmark	4.7%	5.8%	10.7%	13.0%	13.0%	1.2%	11.1%	8.9%	10.0%	9.5%	10.1%	Oct-12
Consequent Alternative Partners II, LP	0.0%	0.0%	0.0%	-2.2%	-2.2%	-3.7%	5.5%	0.1%	1.8%	1.9%	1.8%	Jan-13
Consequent Alt BM	0.0%	0.0%	0.0%	-2.2%	-2.2%	-3.7%	5.5%	0.1%	1.8%	1.9%	1.8%	Jan-13



### Calendar Performance (Net of Fees)

Market Value: \$1,726.1 Million and 100.0% of Fund

	Calendar Year												
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012		
Total Fund Composite	-14.0%	13.8%	16.4%	22.0%	-5.9%	18.6%	8.4%	-0.6%	8.0%	23.0%	13.4%		
Total Fund Policy Benchmark	-15.0%	13.4%	15.0%	22.4%	-6.0%	17.3%	9.1%	0.2%	8.8%	20.4%	12.4%		
InvMetrics Public DB > \$1B Net Rank	87	68	4	4	86	6	29	56	4	1	26		
Fixed Income Composite	-12.5%	-1.9%	8.2%	8.2%	0.2%	3.5%	2.7%	0.8%	4.9%	-1.7%	4.8%		
Bloomberg US Aggregate TR	-13.0%	-1.5%	7.5%	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%		
InvMetrics Public DB Total Fix Inc Net Rank	68	96	37	63	41	70	68	31	27	59	59		
Mesirow	-12.7%	-1.9%	8.6%	8.8%	-0.3%	3.4%	3.1%	-0.2%	6.2%	-2.1%	6.1%		
Bloomberg US Aggregate TR	-13.0%	-1.5%	7.5%	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%		
eV US Core Fixed Inc Net Rank	34	81	37	60	61	77	51	89	27	75	44		
Garcia Hamilton	-11.1%	-2.3%	8.1%	7.1%	0.8%	3.6%							
Bloomberg US Aggregate TR	-13.0%	-1.5%	7.5%	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%		
eV US Core Fixed Inc Net Rank	8	94	52	93	10	64							
State Street U.S. Aggregate Bond Index SL Fund	-13.2%	-1.6%	7.5%	8.7%	0.0%	3.6%	2.7%						
Bloomberg US Aggregate TR	-13.0%	-1.5%	7.5%	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%		
eV US Core Fixed Inc Net Rank	61	54	74	68	34	65	71						
U.S. Equity Composite	-16.2%	23.8%	19.2%	30.3%	-6.3%	22.3%	13.0%	-0.2%	10.9%	38.1%	16.5%		
Russell 3000	-19.2%	25.7%	20.9%	31.0%	-5.2%	21.1%	12.7%	0.5%	12.6%	33.6%	16.4%		
InvMetrics Public DB US Eq Net Rank	23	82	28	40	58	13	45	51	51	6	24		
Large Cap Composite	-14.2%	25.2%	19.1%	32.2%	-3.4%	23.5%	10.9%	2.7%	13.5%	32.7%	15.6%		
S&P 500	-18.1%	28.7%	18.4%	31.5%	-4.4%	21.8%	12.0%	1.4%	13.7%	32.4%	16.0%		
Union Heritage Large Cap Core	-9.9%	19.7%	19.5%	33.6%	-1.1%	28.0%	8.3%	5.5%	12.0%	32.8%	15.1%		
S&P 500	-18.1%	28.7%	18.4%	31.5%	-4.4%	21.8%	12.0%	1.4%	13.7%	32.4%	16.0%		
eV US Large Cap Core Equity Net Rank	15	92	24	12	9	4	62	5	59	39	46		
Blackrock S&P 500 Equity Index Fund	-18.1%	28.7%	18.4%	31.5%	-4.4%	21.9%	12.0%						
S&P 500	-18.1%	28.7%	18.4%	31.5%	-4.4%	21.8%	12.0%	1.4%	13.7%	32.4%	16.0%		
eV US Large Cap Core Equity Net Rank	64	29	29	28	31	46	20						
Mid Cap Composite	-13.0%	24.7%	13.1%	23.4%	-11.4%	19.9%	12.0%	-5.8%	13.2%	37.4%	19.9%		
S&P 400 MidCap	-13.1%	24.8%	13.7%	26.2%	-11.1%	16.2%	20.7%	-2.2%	9.8%	33.5%	17.9%		
BlackRock MidCap Equity Index	-13.0%	24.7%											
S&P 400 MidCap	-13.1%	24.8%	13.7%	26.2%	-11.1%	16.2%	20.7%	-2.2%	9.8%	33.5%	17.9%		
eV US Passive Mid Cap Equity Net Rank	7	1											

### Calendar Performance (Net of Fees)

Market Value: \$1,726.1 Million and 100.0% of Fund

	Calendar Year												
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012		
Small Cap Composite	-19.4%	20.9%	23.7%	29.5%	-12.2%	19.7%	21.1%	-3.0%	6.7%	37.3%	14.0%		
Russell 2000	-20.4%	14.8%	20.0%	25.5%	-11.0%	14.6%	21.3%	-4.4%	4.9%	38.8%	16.3%		
Channing Capital Management	-17.3%	19.5%	16.4%	24.8%	-17.2%	6.7%	28.1%	-5.3%	4.5%				
Russell 2000 Value	-14.5%	28.3%	4.6%	22.4%	-12.9%	7.8%	31.7%	-7.5%	4.2%	34.5%	18.0%		
eV US Small Cap Value Equity Net Rank	88	91	13	37	72	78	32	57	55				
Earnest Partners SCC	-15.7%	21.7%	22.3%	32.6%	-13.1%	24.1%	25.0%	-2.0%	9.4%	36.1%	15.8%		
Russell 2000	-20.4%	14.8%	20.0%	25.5%	-11.0%	14.6%	21.3%	-4.4%	4.9%	38.8%	16.3%		
eV US Small Cap Equity Net Rank	45	59	37	15	61	19	27	38	10	73	43		
Legato	-29.7%	19.3%	32.5%	25.7%	-5.5%	21.5%	2.9%						
Russell 2000 Growth	-26.4%	2.8%	34.6%	28.5%	-9.3%	22.2%	11.3%	-1.4%	5.6%	43.3%	14.6%		
Essex	-27.7%	28.7%	28.2%	26.3%	-6.5%								
Russell 2000 Growth	-26.4%	2.8%	34.6%	28.5%	-9.3%	22.2%	11.3%	-1.4%	5.6%	43.3%	14.6%		
eV US Small Cap Equity Net Rank	84	31	30	38	28								
Bridge City	-20.6%	20.3%	20.6%	25.0%	0.2%	16.0%							
Russell 2000 Growth	-26.4%	2.8%	34.6%	28.5%	-9.3%	22.2%	11.3%	-1.4%	5.6%	43.3%	14.6%		
eV US Small Cap Equity Net Rank	66	61	39	48	10	42							
Lebenthal Lisanti	-37.4%	11.8%	52.1%	28.2%	-1.7%	28.9%							
Russell 2000 Growth	-26.4%	2.8%	34.6%	28.5%	-9.3%	22.2%	11.3%	-1.4%	5.6%	43.3%	14.6%		
eV US Small Cap Equity Net Rank	97	82	11	28	14	8							
Nicholas	-31.0%												
Russell 2000 Growth	-26.4%	2.8%	34.6%	28.5%	-9.3%	22.2%	11.3%	-1.4%	5.6%	43.3%	14.6%		
eV US Small Cap Equity Net Rank	91				-								
International Equity Composite	-17.7%	8.0%	23.4%	29.1%	-14.6%	30.4%	3.4%	-1.0%	0.0%	24.0%	19.6%		
MSCI EAFE	-14.5%	11.3%	7.8%	22.0%	-13.8%	25.0%	1.0%	-0.8%	-4.9%	22.8%	17.3%		
Artisan Partners International Value Fund (APHKX)	-6.8%	17.0%	8.8%	24.2%	-15.4%	24.1%	5.7%	-1.5%	-0.4%	30.7%	23.0%		
MSCI EAFE	-14.5%	11.3%	7.8%	22.0%	-13.8%	25.0%	1.0%	-0.8%	-4.9%	22.8%	17.3%		
eV EAFE Large Cap Value Net Rank	37	3	1	6	35	47	29	38	1	4	5		
Hardman Johnston	-23.6%	1.3%	35.7%	33.5%	-13.8%	37.4%	1.1%	-0.4%	0.4%	17.3%	15.6%		
MSCI ACWI ex USA	-16.0%	7.8%	10.7%	21.5%	-14.2%	27.2%	4.5%	-5.7%	-3.9%	15.3%	16.8%		
eV ACWI ex-US Large Cap Equity Net Rank	79	92	4	7	34	8	51	30	5	60	81		

### Calendar Performance (Net of Fees)

Market Value: \$1,726.1 Million and 100.0% of Fund

						Calenda	r Year				
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Brown Capital International Small Cap	-31.4%										
MSCI ACWI ex US Small Cap	-20.0%	12.9%	14.2%	22.4%	-18.2%	31.6%	3.9%	2.6%	-4.0%	19.7%	18.5%
Foreign Small/Mid Growth MStar MF Rank	66										
Emerging Markets Equity Composite	-15.3%	1.6%	12.4%	23.6%	-15.5%	36.0%	11.8%				
MSCI Emerging Markets	-20.1%	-2.5%	18.3%	18.4%	-14.6%	37.3%	11.2%	-14.9%	-2.2%	-2.6%	18.2%
Earnest Partners EM	-10.2%	1.6%	12.4%	23.6%	-15.5%	36.0%	11.9%				
MSCI Emerging Markets	-20.1%	-2.5%	18.3%	18.4%	-14.6%	37.3%	11.2%	-14.9%	-2.2%	-2.6%	18.2%
eV Emg Mkts Equity Net Rank	9	46	73	27	42	57	31				
Goldman Sachs Emerging Markets Equity											
MSCI Emerging Markets	-20.1%	-2.5%	18.3%	18.4%	-14.6%	37.3%	11.2%	-14.9%	-2.2%	-2.6%	18.2%
eV Emg Mkts All Cap Equity Net Rank											
Global Equity Composite	-13.8%	13.1%	15.4%	22.4%	-4.8%	18.4%	7.6%	-1.0%	8.9%		
MSCI ACWI	-18.4%	18.5%	16.3%	26.6%	-9.4%	24.0%	7.9%	-2.4%	4.2%	22.8%	16.1%
eV Global Core Equity Net Rank	29	88	50	70	13	88	22	66	11		
Globalt Tactical ETF	-15.9%	12.7%	16.3%	22.4%	-5.1%	18.1%	7.3%	-1.3%	8.6%		
Globalt Benchmark	-16.4%	13.8%	15.1%	22.4%	-6.1%	17.3%	9.1%	-1.1%	6.8%		
eV Global Balanced Net Rank	61	47	30	34	17	12	54	39	13		
BlackRock MSCI ACWI Min Volatility Index	-10.0%	14.2%									
MSCI ACWI Minimum Volatility Index	-10.3%	13.9%	2.7%	21.1%	-1.6%	17.9%	7.4%	2.8%	11.0%	16.9%	10.1%
eV Global Low Volatility Equity Net Rank	55	76									
Real Estate Composite	5.8%	21.4%	-0.2%	5.6%	8.0%	6.7%	9.7%				
NFI-ODCE	6.5%	21.1%	0.3%	4.4%	7.4%	6.7%	7.8%	14.0%	11.5%	12.9%	9.8%
InvMetrics Public DB Real Estate Priv Net Rank	73	67	78	59	28	61	6				
Intercontinental U.S. Real Estate	7.4%	20.1%	1.0%	8.2%	9.2%	7.5%	11.1%				
NFI-ODCE	6.5%	21.1%	0.3%	4.4%	7.4%	6.7%	7.8%	14.0%	11.5%	12.9%	9.8%
JP Morgan U.S. Real Estate	2.4%	23.7%	-2.0%	2.1%	5.5%	5.6%					
NFI-ODCE	6.5%	21.1%	0.3%	4.4%	7.4%	6.7%	7.8%	14.0%	11.5%	12.9%	9.8%
Alternative Composite	-11.2%	15.6%	22.2%	-20.0%	4.8%	7.0%	0.1%	0.5%	0.4%	5.8%	-
Custom Alternative Target Benchmark	-13.5%	19.2%	17.1%	22.3%	-4.1%	16.1%	8.7%	1.0%	9.6%	24.4%	12.5%
InvMetrics Public DB Alts Net Rank	90	79	6	99	44	52	96	74	89	90	
Consequent Alternative Partners II, LP	-11.2%	15.6%	22.2%	-20.0%	4.8%	7.0%	0.1%	0.4%	2.7%		
Consequent Alt BM	-11.2%	15.6%	22.2%	-20.0%	4.8%	7.0%	0.1%	0.4%	2.7%	4.1%	

#### **Private Market Investments Overview**

Investments			nents	Contributions &	Distributions	Valuations			Performance			
Investment Name	Vintage Year	Commitment (\$)	Unfunded Commitment (\$)	Cumulative Contributions (\$)	Cumulative Distributions (\$)	Valuation (\$)	Total Value (\$)	DPI	TVPI	RVPI	IRR (%)	
GrayCo Alternative Partners II, L.P.	2012	28,000,000	4,948,278	23,051,722	15,686,750	11,945,297	27,632,047	0.68	1.20	0.52	2.13	
Total		28,000,000	4,948,278	23,051,722	15,686,750	11,945,297	27,632,047	0.68	1.20	0.52	2.13	

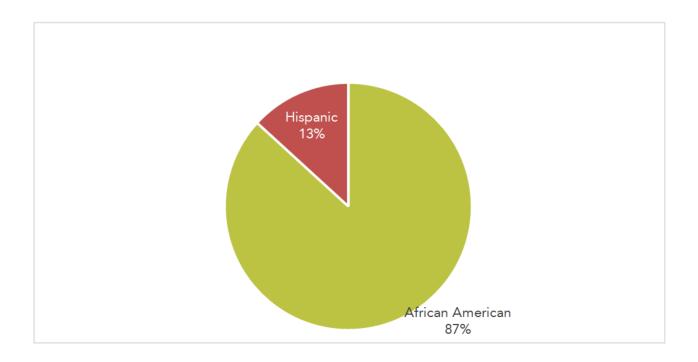




#### Market Values

		Asset Class		Market Value	% of Portfolio	% of Total Fund
Total MWDBE Composite				\$564,343,836	100.0%	32.7%
Garcia Hamilton	(H)	Core Fixed Inco	ome	\$74,552,414	13.2%	4.3%
Union Heritage	(AA)	Large-Cap Cor	е	\$189,461,844	33.6%	11.0%
Channing Capital Management	(AA)	Small-Cap Valu	le	\$39,986,875	7.1%	2.3%
Earnest Partners SCC	(AA)	Small-Cap Core	e	\$115,483,449	20.5%	6.7%
Legato	(AA)	Small-Cap Grov	wth	\$44,067,032	7.8%	2.6%
Brown Capital International Small Cap	(AA)	Non-U.S. Smal	I Cap Core	\$24,176,120	4.3%	1.4%
Earnest Partners EM	(AA)	Emerging Mark	iets	\$76,616,102	13.6%	4.4%
(AA) African American						
(A) Asian			Actual %			
(H) Hispanic		Minority	32.7%			
(NA) Native American		Female	0.0%			
(W) Women		Disabled	0.0%			

\*Please note: our calculations do not include Consequent Capital Management



### Total Fund Composite

#### Fee Schedule

Market Value: \$1,726.1 Million and 100.0% of Fund

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee <sup>1</sup>	Industry Median <sup>2</sup>
Core Fixed Income	Mesirow	0.35% on the first \$10 million 0.25% on the next \$50 million 0.20% on the next \$150 million 0.15% on the next \$300 million 0.125% on the next \$500 million 0.10% on the balance	0.22% \$454,404	0.22%
Core Fixed Income	Garcia Hamilton	0.18% on the balance	0.18% \$134,194	0.26%
Core Fixed Income	State Street US Agg	0.03% on the balance	0.03% \$25,260	0.06%
Large-Cap Core	Union Heritage	0.50% on the first \$20 million 0.45% on the next \$15 million 0.35% on the balance	0.37% \$708,116	0.44%
Large-Cap Core	Blackrock S&P 500 Equity Index Fund	0.01% on the balance	0.01% \$19,108	0.02%
Mid-Cap Core	BlackRock MidCap Equity Index	0.01% on the balance	0.01% \$8,753	0.06%
Small-Cap Value	Channing Capital Management	0.75% on the first \$25 million 0.65% on the next \$25 million 0.60% on the next \$50 million 0.55% on the balance	0.71% \$284,915	0.90%
Small-Cap Core	Earnest Partners SCC	0.80% on the first \$10 million 0.65% on the next \$10 million 0.50% on the balance	0.54% \$622,417	0.77%
Small-Cap Cgrowth	Legato	0.60% on the balance	0.60% \$347,442	0.80%
Non-U.S. Large-Cap Core	Hardman Johnston	0.75% on the first \$25 million 0.60% on the next \$50 million 0.50% on the balance	0.61% \$646,006	0.65%
Non-U.S. Large-Cap Value	Artisan Partners International Value Fund (APHKX)	1.03% on the balance	1.03% \$1,075,426	0.92%
Emerging Markets	Earnest Partners EM	1.00% on the balance	1.00% \$766,161	0.85%
Emerging Markets	Goldman Sachs Emerging Markets Equity	0.45% on the balance	0.45% \$140,081	0.90%
Global Balanced	Globalt Tactical ETF	0.50% on the first \$50 million 0.30% on the next \$50 million 0.25% on the balance	0.35% \$538,613	0.85%
Core Real Estate	Intercontinental U.S. Real Estate	1.10% on the first \$25 million 1.00% on the next \$25 million 0.85% on the next \$50 million 0.75% on the balance	1.10% \$197,378	1.00%
Core Plus Real Estate	JP Morgan U.S. Real Estate	1.75% on the first \$10 million 1.05% on the next \$90 million	1.42% \$266,044	1.00%
U.S. Private Equity FoF	Consequent Alternative Partners II, LP	1.00% on Committed Capital	2.34% \$280,000	2.34%
Global Low-Volatility	BlackRock MSCI ACWI Min Volatility Index	0.025% on the balance	0.03% \$25,911	0.42%
Non-U.S. Small-Cap Core	Brown Capital International Small Cap	1.06% on the balance	1.06% \$256,267	1.29%
Total Investment Management	Fees		0.39% \$6,796,496	0.46%

<sup>1</sup> Expense Ratio & Estimated Annual Fee are Based on Market Value at Month End.
<sup>2</sup> Source: 2019 Marquette Associates Investment Management Fee Study.

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(Preliminary, Subject to Change)

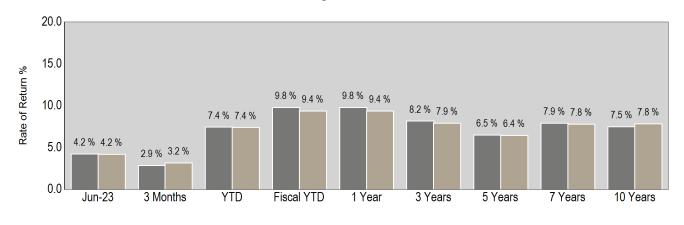


**Pension Fund** 

City of Atlanta Police Officers Pension Fund Executive Summary June 30, 2023



#### Market Value: \$1,362.8 Million and 100.0% of Fund



Return Summary Ending June 30, 2023

Total Fund Composite
Total Fund Policy Benchmark

#### **Return Summary YTD**

	l otal Return
Total Fund Composite	7.4%
Fixed Income Composite	2.0%
U.S. Equity Composite	11.8%
International Equity Composite	7.5%
Alternative Composite	-5.3%

#### Asset Allocation vs. Target

	Current	Current	Policy	Difference	%
Fixed Income Composite	\$338,515,085	24.8%	25.0%	-\$2,184,610	-0.2%
U.S. Equity Composite	\$594,796,084	43.6%	42.0%	\$22,420,597	1.6%
International Equity Composite	\$372,124,012	27.3%	28.0%	-\$9,459,646	-0.7%
Alternative Composite	\$27,001,013	2.0%	5.0%	-\$41,138,926	-3.0%
Cash Composite	\$30,362,585	2.2%	0.0%	\$30,362,585	2.2%
Total	\$1,362,798,780	100.0%	100.0%		

#### **Summary of Cash Flows**

	Last Three Months	Year-To-Date	One Year
Beginning Market Value	\$1,333,877,800	\$1,281,909,624	\$1,273,693,936
Net Cash Flow	-\$9,603,866	-\$15,058,631	-\$35,000,510
Net Investment Change	\$38,524,845	\$95,947,786	\$124,105,354
Ending Market Value	\$1,362,798,780	\$1,362,798,780	\$1,362,798,780

Total Fund Composite

		E	nding June 30	, 2023		
	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Total Fund Composite		1,362,798,780	-9,603,866	100.0	100.0	0
Fixed Income Composite		338,515,085	-1,595	24.8	25.0	-2,184,610
Mesirow	Core Fixed Income	192,727,315	-1,320	14.1		
Garcia Hamilton	Int. Govt. Fixed Income	54,264,896	-275	4.0		
BlackRock U.S.Aggregate Bond Index	Core Fixed Income	91,522,874	0	6.7		
U.S. Equity Composite		594,796,084	-1,214	43.6	42.0	22,420,597
BlackRock Russell 1000 Index Fund	Large-Cap Core	244,876,725	0	18.0		
BlackRock Mid Cap Equity Index Fund	Mid-Cap Core	209,000,765	0	15.3		
Macquarie SCC	Small-Cap Core	63,524,996	-641	4.7		
Earnest Partners SCC	Small-Cap Core	45,933,154	-461	3.4		
Driehaus SCG	Small-Cap Growth	31,460,445	-112	2.3		
International Equity Composite		372,124,012	0	27.3	28.0	-9,459,646
Artisan International Large Cap Value (APHKX)	Non-U.S. Large-Cap Value	91,957,558	0	6.7		
Hardman Johnston	Non-U.S. Large-Cap Core	72,538,101	0	5.3		
BlackRock MSCI EAFE Small Cap Index	Non-U.S. Small-Cap Core	8,679,992	0	0.6		
Brown Capital International Small Cap	Non-U.S. Small-Cap Core	12,088,060	0	0.9		
BlackRock Emerging Markets Free Fund	Emerging Markets	11,774,739	0	0.9		
Goldman Sachs Emerging Markets Equity	Emerging Markets	19,574,037	0	1.4		
Global Low Volatility Composite		155,511,526	0	11.4		155,511,526
BlackRock MSCI ACWI Min Volatility Index	Global Low-Volatility	155,511,526	0	11.4		
Alternative Composite		27,001,013	-1,126,652	2.0	5.0	-41,138,926
Intercontinental U.S. Real Estate	Core Real Estate	15,237,511	-102,262	1.1		
Consequent Alternative Partners II, LP	U.S. Private Equity FoF	8,930,302	-1,024,390	0.7		
Pharos Capital Partners III	LBO Private Equity	2,833,200	0	0.2		
Cash Composite		30,362,585	-8,474,404	2.2	0.0	30,362,585
Cash	Cash & Equivalents	31,247,112	-2,913,092	2.3		
Transition Cash Account	Cash & Equivalents	5,256	-2	0.0		
NT Operating	Cash & Equivalents	-889,784	-5,561,310	-0.1		

Market Value: \$1,362.8 Million and 100.0% of Fund

#### Annualized Performance (Net of Fees)

Market Value: \$1,362.8 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Total Fund Composite	4.2%	2.9%	7.4%	9.8%	9.8%	-2.6%	8.2%	6.5%	7.9%	7.5%	8.0%	Jan-88
Total Fund Policy Benchmark	4.2%	3.2%	7.4%	9.4%	9.4%	-2.8%	7.9%	6.4%	7.8%	7.8%	8.7%	Jan-88
Fixed Income Composite	-0.4%	-0.9%	2.0%	-0.3%	-0.3%	-5.2%	-3.6%	0.5%	0.3%	1.3%	2.5%	Sep-07
Fixed Income Composite Blended Benchmark	-0.5%	-0.8%	1.9%	-0.6%	-0.6%	-5.0%	-3.4%	0.8%	0.4%	1.5%	2.8%	Sep-07
Mesirow	-0.3%	-0.8%	1.9%	-0.3%	-0.3%	-5.6%	-3.9%	0.9%	0.6%	1.6%	2.2%	May-10
Bloomberg US Aggregate TR	-0.4%	-0.8%	2.1%	-0.9%	-0.9%	-5.7%	-4.0%	0.8%	0.4%	1.5%	2.1%	May-10
Garcia Hamilton	-0.7%	-1.1%	1.8%	0.3%	0.3%	-2.5%	-1.9%	1.2%	0.9%		1.5%	Apr-14
Bloomberg US Govt/Credit Int TR	-0.7%	-0.8%	1.5%	-0.1%	-0.1%	-3.8%	-2.5%	1.2%	0.8%	1.4%	1.3%	Apr-14
BlackRock U.S.Aggregate Bond Index	-0.3%	-0.8%	2.3%	-0.9%	-0.9%	-5.7%	-3.9%				-2.7%	Mar-20
Bloomberg US Aggregate TR	-0.4%	-0.8%	2.1%	-0.9%	-0.9%	-5.7%	-4.0%	0.8%	0.4%	1.5%	-2.8%	Mar-20
U.S. Equity Composite	7.9%	6.2%	11.8%	17.3%	17.3%	-0.9%	13.0%	9.0%	11.0%	10.1%	7.7%	Jan-08
Domestic Equity Composite Blended Benchmark	7.9%	6.5%	12.0%	17.3%	17.3%	-1.0%	13.4%	9.6%	11.6%	11.3%	9.7%	Jan-08
BlackRock Russell 1000 Index Fund	6.8%	8.6%	16.7%	19.4%	19.4%	1.9%	14.1%				12.5%	Oct-19
Russell 1000	6.8%	8.6%	16.7%	19.4%	19.4%	1.9%	14.1%	11.9%	13.1%	12.6%	12.5%	Oct-19
BlackRock Mid Cap Equity Index Fund	9.2%	4.9%	8.9%	17.7%	17.7%	0.2%	15.5%				9.4%	Nov-19
S&P 400 MidCap	9.2%	4.9%	8.8%	17.6%	17.6%	0.2%	15.4%	7.8%	10.1%	10.2%	9.4%	Nov-19
Macquarie SCC	8.6%	4.5%	7.0%	11.4%	11.4%	-2.9%	13.4%	5.9%			7.1%	Sep-17
Russell 2000	8.1%	5.2%	8.1%	12.3%	12.3%	-8.3%	10.8%	4.2%	8.8%	8.3%	5.6%	Sep-17
Earnest Partners SCC	6.6%	0.8%	6.6%	12.0%	12.0%						-6.2%	Oct-21
Russell 2000	8.1%	5.2%	8.1%	12.3%	12.3%	-8.3%	10.8%	4.2%	8.8%	8.3%	-9.8%	Oct-21
Driehaus SCG	8.5%	9.3%	13.8%	18.7%	18.7%						-17.2%	Oct-21
Russell 2000 Growth	8.3%	7.1%	13.6%	18.5%	18.5%	-11.2%	6.1%	4.2%	9.3%	8.8%	-12.6%	Oct-21

#### Annualized Performance (Net of Fees)

Market Value: \$1,362.8 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
International Equity Composite	4.0%	1.8%	7.5%	10.9%	10.9%	-5.0%	9.1%	6.1%	8.9%	7.6%	8.5%	Jun-10
International Equity Composite Blended Benchmark	3.6%	2.3%	6.9%	9.9%	9.9%	-3.7%	7.6%	3.6%	6.4%	4.9%	5.8%	Jun-10
Artisan International Large Cap Value (APHKX)	5.4%	4.0%	14.6%	23.0%	23.0%	4.1%	17.0%	8.6%	9.5%	8.2%	10.1%	Jun-10
MSCI EAFE	4.6%	3.0%	11.7%	18.8%	18.8%	-1.2%	8.9%	4.4%	6.9%	5.4%	6.5%	Jun-10
Hardman Johnston	4.9%	-1.8%	7.0%	11.4%	11.4%	-10.7%	4.5%	5.2%	9.3%	7.6%	7.4%	Jun-10
MSCI ACWI ex USA	4.5%	2.4%	9.5%	12.7%	12.7%	-4.7%	7.2%	3.5%	6.3%	4.7%	5.5%	Jun-10
BlackRock MSCI EAFE Small Cap Index	3.0%	0.8%	6.0%	11.1%	11.1%	-7.9%	6.2%				8.7%	Apr-20
MSCI EAFE Small Cap	2.9%	0.6%	5.5%	10.2%	10.2%	-8.5%	5.7%	1.3%	5.7%	6.2%	8.2%	Apr-20
Brown Capital International Small Cap	5.5%	6.6%	13.5%	18.0%	18.0%						-15.4%	Dec-21
MSCI ACWI ex US Small Cap	3.4%	2.0%	6.8%	10.9%	10.9%	-7.2%	8.1%	2.6%	6.1%	5.8%	-9.9%	Dec-21
BlackRock Emerging Markets Free Fund	3.8%	0.8%	4.8%	1.5%	1.5%	-12.9%	2.1%				4.8%	Apr-20
MSCI Emerging Markets	3.8%	0.9%	4.9%	1.7%	1.7%	-12.8%	2.3%	0.9%	4.9%	3.0%	4.8%	Apr-20
Goldman Sachs Emerging Markets Equity	4.5%	0.5%	5.6%	-0.9%	-0.9%						-13.6%	Feb-22
MSCI Emerging Markets	3.8%	0.9%	4.9%	1.7%	1.7%	-12.8%	2.3%	0.9%	4.9%	3.0%	-9.1%	Feb-22
BlackRock MSCI ACWI Min Volatility Index	2.7%	2.3%	4.1%	6.2%	6.2%	-0.2%	6.1%				6.5%	Apr-20
MSCI ACWI Minimum Volatility Index	2.7%	2.2%	3.8%	5.8%	5.8%	-0.5%	5.7%	5.4%	5.8%	7.2%	6.1%	Apr-20
Alternative Composite	-3.5%	-3.5%	-5.3%	-7.7%	-7.7%	0.0%	6.5%	3.0%	4.4%	3.3%	3.9%	Dec-12
Alternatives Custom Benchmark	-0.5%	-1.6%	-3.5%	-7.2%	-7.2%	-0.6%	8.2%	3.6%	4.7%			Dec-12
Intercontinental U.S. Real Estate	-6.3%	-6.3%	-9.8%	-14.3%	-14.3%	4.4%	5.6%	5.7%	7.1%		8.1%	Aug-14
NFI-ODCE	-1.0%	-2.8%	-6.1%	-10.7%	-10.7%	7.1%	7.1%	5.6%	6.0%	7.8%	7.3%	Aug-14
Consequent Alternative Partners II, LP	0.0%	0.0%	0.0%	-2.2%	-2.2%	-3.7%	5.5%	0.1%	1.8%	1.9%		Oct-12
Custom Consequent Alt BM	0.0%	0.0%	0.0%	-2.2%	-2.2%	-3.7%	5.5%	0.1%	1.8%	1.9%		Oct-12

### Calendar Performance (Net of Fees)

Market Value: \$1,362.8 Million and 100.0% of Fund

						Calenda	r Year				
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
otal Fund Composite	-14.7%	13.8%	17.7%	21.3%	-6.2%	15.6%	9.2%	-1.9%	5.0%	22.5%	12.8%
Total Fund Policy Benchmark	-14.7%	13.6%	15.7%	22.0%	-5.4%	15.0%	9.9%	-0.3%	8.3%	21.3%	12.9%
InvMetrics Public DB > \$1B Net Rank	94	68	2	6	89	50	10	85	56	1	46
Fixed Income Composite	-11.7%	-1.8%	6.8%	7.5%	-0.1%	3.9%	2.9%	0.5%	4.2%	-1.8%	4.0%
Fixed Income Composite Blended Benchmark	-11.2%	-1.5%	7.0%	7.5%	0.2%	3.7%	2.3%	0.8%	5.0%	-2.0%	4.2%
InvMetrics Public DB Total Fix Inc Net Rank	55	95	62	72	46	65	65	39	38	68	87
Mesirow	-12.5%	-1.9%	8.8%	8.8%	-0.6%	3.2%	2.9%	-0.1%	6.3%	-2.2%	5.4%
Bloomberg US Aggregate TR	-13.0%	-1.5%	7.5%	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%
eV US Core Fixed Inc Net Rank	24	86	31	60	75	82	58	85	23	79	60
Garcia Hamilton	-6.4%	-1.8%	5.7%	5.8%	1.2%	2.0%	2.9%	1.2%			
Bloomberg US Govt/Credit Int TR	-8.2%	-1.4%	6.4%	6.8%	0.9%	2.1%	2.1%	1.1%	3.1%	-0.9%	3.9%
eV US Interm Duration Fixed Inc Net Rank	3	92	78	88	9	82	20	27			
BlackRock U.S.Aggregate Bond Index	-13.0%	-1.6%									
Bloomberg US Aggregate TR	-13.0%	-1.5%	7.5%	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%
eV US Core Fixed Inc Net Rank	47	59									
U.S. Equity Composite	-17.6%	<b>22.1</b> %	20.6%	27.0%	-7.1%	18.8%	12.6%	-3.2%	6.3%	33.6%	5.0%
Domestic Equity Composite Blended Benchmark	-17.7%	23.1%	20.0%	29.9%	-7.2%	19.3%	14.6%	-0.7%	12.0%	34.4%	16.6%
InvMetrics Public DB US Eq Net Rank	54	95	15	95	71	80	53	90	96	68	99
BlackRock Russell 1000 Index Fund	-19.1%	26.5%	21.0%								
Russell 1000	-19.1%	26.5%	21.0%	31.4%	-4.8%	21.7%	12.1%	0.9%	13.2%	33.1%	16.4%
eV US Large Cap Core Equity Net Rank	75	56	18								
BlackRock Mid Cap Equity Index Fund	-13.0%	24.7%	13.8%								
S&P 400 MidCap	-13.1%	24.8%	13.7%	26.2%	-11.1%	16.2%	20.7%	-2.2%	9.8%	33.5%	17.9%
eV US Passive Mid Cap Equity Net Rank	7	1	25								
Macquarie SCC	-15.9%	23.8%	15.6%	26.3%	-11.1%						
Russell 2000	-20.4%	14.8%	20.0%	25.5%	-11.0%	14.6%	21.3%	-4.4%	4.9%	38.8%	16.3%
eV US Small Cap Core Equity Net Rank	41	55	44	34	50						
Earnest Partners SCC	-15.7%										
Russell 2000	-20.4%	14.8%	20.0%	25.5%	-11.0%	14.6%	21.3%	-4.4%	4.9%	38.8%	16.3%
eV US Small Cap Equity Net Rank	45										
Driehaus SCG	-34.0%										
Russell 2000 Growth	-26.4%	2.8%	34.6%	28.5%	-9.3%	22.2%	11.3%	-1.4%	5.6%	43.3%	14.6%
eV US Small Cap Growth Equity Net Rank	76				-						

### Calendar Performance (Net of Fees)

Market Value: \$1,362.8 Million and 100.0% of Fund

						Calenda	r Year				
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
International Equity Composite	-15.8%	8.1%	21.7%	29.2%	-14.5%	30.9%	3.4%	-1.0%	-0.1%	23.7%	19.3%
International Equity Composite Blended Benchmark	-14.3%	10.3%	9.1%	21.8%	-14.0%	26.1%	2.7%	-3.3%	-4.4%	19.0%	17.1%
InvMetrics Public DB Dev Mkt ex-US Eq Net Rank	21	45	7	16	54	14	21	36	1	7	26
Artisan International Large Cap Value (APHKX)	-6.8%	17.0%	8.8%	24.2%	-15.4%	24.1%	5.7%	-1.5%	-0.4%	30.7%	23.0%
MSCI EAFE	-14.5%	11.3%	7.8%	22.0%	-13.8%	25.0%	1.0%	-0.8%	-4.9%	22.8%	17.3%
Foreign Large Blend MStar MF Rank	1	5	56	24	54	81	9	62	9	2	9
Hardman Johnston	-23.6%	1.3%	35.6%	33.8%	-13.7%	37.7%	1.1%	-0.4%	0.3%	17.4%	15.6%
MSCI ACWI ex USA	-16.0%	7.8%	10.7%	21.5%	-14.2%	27.2%	4.5%	-5.7%	-3.9%	15.3%	16.8%
eV ACWI ex-US Large Cap Equity Net Rank	79	92	4	6	33	7	50	29	6	60	81
BlackRock MSCI EAFE Small Cap Index	-20.8%	10.4%									
MSCI EAFE Small Cap	-21.4%	10.1%	12.3%	25.0%	-17.9%	33.0%	2.2%	9.6%	-4.9%	29.3%	20.0%
eV EAFE Small Cap Equity Net Rank	50	64									
Brown Capital International Small Cap	-31.4%										
MSCI ACWI ex US Small Cap	-20.0%	12.9%	14.2%	22.4%	-18.2%	31.6%	3.9%	2.6%	-4.0%	19.7%	18.5%
Foreign Small/Mid Growth MStar MF Rank	66										
BlackRock Emerging Markets Free Fund	-20.2%	-2.7%									
MSCI Emerging Markets	-20.1%	-2.5%	18.3%	18.4%	-14.6%	37.3%	11.2%	-14.9%	-2.2%	-2.6%	18.2%
eV Emg Mkts Large Cap Equity Net Rank	70	63									
Goldman Sachs Emerging Markets Equity											
MSCI Emerging Markets	-20.1%	-2.5%	18.3%	18.4%	-14.6%	37.3%	11.2%	-14.9%	-2.2%	-2.6%	18.2%
eV Emg Mkts All Cap Equity Net Rank				-				-			
BlackRock MSCI ACWI Min Volatility Index	-10.0%	14.1%									
MSCI ACWI Minimum Volatility Index	-10.3%	13.9%	2.7%	21.1%	-1.6%	17.9%	7.4%	2.8%	11.0%	16.9%	10.1%
eV Global Low Volatility Equity Net Rank	55	76									
Alternative Composite	-0.8%	17.3%	15.9%	-10.0%	6.4%	8.0%	3.3%	2.3%	2.4%	4.8%	
Alternatives Custom Benchmark	-5.2%	20.9%	19.3%	-10.5%	6.0%	8.2%	2.1%	3.3%			
InvMetrics Public DB Alts Net Rank	58	72	9	99	35	41	85	64	84	92	
Intercontinental U.S. Real Estate	7.2%	20.2%	1.1%	8.2%	9.3%	7.5%	11.1%	12.4%			
NFI-ODCE	6.5%	21.1%	0.3%	4.4%	7.4%	6.7%	7.8%	14.0%	11.5%	12.9%	9.8%
Consequent Alternative Partners II, LP	-11.2%	15.6%	22.3%	-20.0%	4.9%	7.0%	0.1%	0.2%	2.4%	-2.1%	
Custom Consequent Alt BM	-11.2%	15.6%	22.3%	-20.0%	4.9%	7.0%	0.1%	0.2%	2.4%	-2.1%	

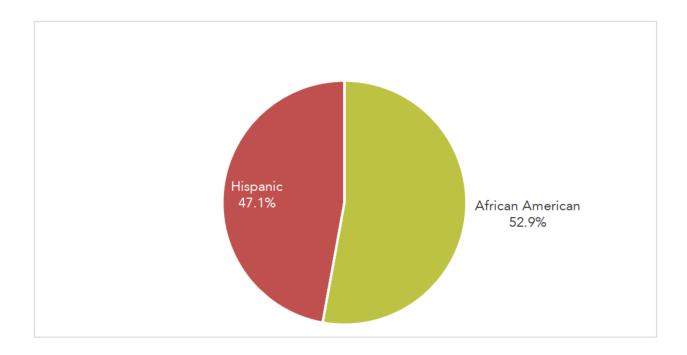
#### **Private Market Investments Overview**

Investments	Commitments			Contributions &	Distributions	Valuati	Performance				
Investment Name	Vintage Year	Commitment (\$)	Unfunded Commitment (\$)	Cumulative Contributions (\$)	Cumulative Distributions (\$)	Valuation (\$)	Total Value (\$)	DPI	TVPI	RVPI	IRR (%)
	2014		-4,000,000	4,000,000	912,171			0.22			-39.27
GrayCo Alternative Partners II, L.P.	2012	21,000,000	3,739,876	20,612,999	15,117,933	8,930,302	24,048,235	0.73	1.16	0.43	2.13
Pharos Capital Partners III, L.P.	2013	4,000,000	80,000	3,920,000	4,576,406	2,833,200	7,409,606	1.17	1.89	0.72	12.30
Total		25,000,000	-180,124	28,532,999	20,606,511	11,763,502	31,457,841	0.72	1.09	0.41	1.80



% of Total Fund
8.4%
4.0%
3.4%
0.9%
0.2%

\*Please note: our calculations do not include Consequent Capital Management



### Total Fund Composite

#### Fee Schedule

Market Value: \$1,362.8 Million and 100.0% of Fund

			Market Value. \$1,302.0 Million and	100.0% OF FUI
Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee <sup>1</sup>	Industry Median <sup>2</sup>
Core Fixed Income	Mesirow	0.35% on the first \$10 million 0.25% on the next \$50 million 0.20% on the next \$150 million 0.15% on the next \$300 million 0.125% on the next \$500 million 0.10% on the balance	0.22% \$425,455	0.22%
Int. Govt. Fixed Income	Garcia Hamilton	0.25% on the first \$50 million 0.11% on the next \$50 million 0.06% on the balance	0.24% \$129,691	0.25%
Core Fixed Income	BlackRock U.S.Aggregate Bond Index	0.0175% on the balance	0.02% \$16,017	0.06%
Large-Cap Core	BlackRock Russell 1000 Index Fund	0.015% on the balance	0.02% \$36,732	0.04%
Mid-Cap Core	BlackRock Mid Cap Equity Index Fund	0.01% on the balance	0.01% \$20,900	0.05%
Small-Cap Core	Macquarie SCC	0.65% on the first \$50 million 0.55% on the next \$50 million 0.45% on the balance	0.63% \$399,387	0.77%
Small-Cap Core	Earnest Partners SCC	0.80% on the first \$10 million 0.65% on the next \$10 million 0.50% on the balance	0.60% \$274,666	0.85%
Small-Cap Growth	Driehaus SCG	0.60% on the first \$50 million 0.50% on the next \$50 million 0.45% on the balance	0.60% \$188,763	0.90%
Non-U.S. Large-Cap Value	Artisan International Large Cap Value (APHKX)	1.03% on the balance	1.03% \$947,163	0.92%
Non-U.S. Large-Cap Core	Hardman Johnston	0.75% on the first \$25 million 0.60% on the next \$50 million 0.50% on the balance	0.65% \$472,729	0.65%
Non-U.S. Small-Cap Core	BlackRock MSCI EAFE Small Cap Index	0.045% on the balance	0.05% \$3,906	0.25%
Non-U.S. Small-Cap Core	Brown Capital International Small Cap	1.06% on the balance	1.06% \$128,133	1.29%
Emerging Markets	BlackRock Emerging Markets Free Fund	0.09% on the balance	0.09% \$10,597	0.20%
Emerging Markets	Goldman Sachs Emerging Markets Equity	0.45% on the balance	0.45% \$88,083	0.90%
Global Low-Volatility	BlackRock MSCI ACWI Min Volatility Index	0.025% on the balance	0.03% \$38,878	0.36%
Core Real Estate	Intercontinental U.S. Real Estate	1.10% on the first \$25 million 1.00% on the next \$25 million 0.85% on the next \$50 million 0.75% on the balance	1.10% \$167,613	1.00%
U.S. Private Equity FoF	Consequent Alternative Partners II, LP	1.00% on Committed Capital	2.35% \$210,000	2.35%
LBO Private Equity	Pharos Capital Partners III	2.00% on Committed Capital	2.82% \$80,000	2.82%
Total Investment Management	Fees		0.27% \$3,638,712	0.34%

<sup>1</sup> Expense Ratio & Estimated Annual Fee are Based on Market Value at Month End. <sup>2</sup> Source: 2019 Marquette Associates Investment Management Fee Study.

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(Preliminary, Subject to Change)



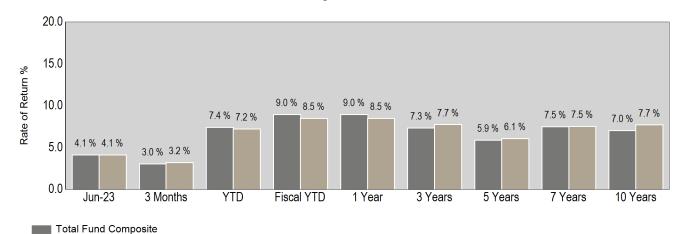
**Pension Fund** 

City of Atlanta Firefighters Pension Fund Executive Summary June 30, 2023



#### Market Value: \$807.8 Million and 100.0% of Fund

%



Return Summary Ending June 30, 2023

#### **Return Summary YTD**

Total Fund Policy Benchmark

	Total Return
Total Fund Composite	7.4%
Fixed Income Composite	2.1%
U.S. Equity Composite	12.5%
International Equity Composite	7.1%
Alternative Composite	-6.2%

# Current Current Policy Difference \$202.848.666 25.1% 25.0% \$890.666

Asset Allocation vs. Target

Fixed Income Composite	\$202,848,666	25.1%	25.0%	\$890,666	0.1%
U.S. Equity Composite	\$359,563,535	44.5%	43.0%	\$12,195,774	1.5%
International Equity Composite	\$208,300,231	25.8%	27.0%	-\$9,814,409	-1.2%
Alternative Composite	\$24,705,987	3.1%	5.0%	-\$15,685,613	-1.9%
Cash Composite	\$12,413,582	1.5%	0.0%	\$12,413,582	1.5%
Total	\$807,832,002	100.0%	100.0%		

#### **Summary of Cash Flows**

	Last Three Months	Year-To-Date	One Year
Beginning Market Value	\$793,435,559	\$772,576,334	\$767,627,290
Net Cash Flow	-\$9,796,268	-\$21,959,177	-\$28,869,944
Net Investment Change	\$24,192,711	\$57,214,844	\$69,074,656
Ending Market Value	\$807,832,002	\$807,832,002	\$807,832,002

Total Fund Composite

Market Value: \$807.8 Million and 100.0% of Fund

		E	inding June 30,	2023		
	Asset Class	Market Value (\$)	3 Mo Net Cash Flows (\$)	% of Portfolio	Policy %	Policy Difference (\$)
Total Fund Composite		807,832,002	-9,796,268	100.0	100.0	0
Fixed Income Composite		202,848,666	-847	25.1	25.0	890,666
Garcia Hamilton	Core Fixed Income	56,502,932	-170	7.0		
Mesirow	Core Fixed Income	146,345,735	-677	18.1		
U.S. Equity Composite		359,563,535	-565	44.5	43.0	12,195,774
Large Cap Composite		168,013,745	0	20.8	19.0	14,525,665
BlackRock 1000 Index Fund	Large-Cap Core	168,013,745	0	20.8		
Mid Cap Composite		98,551,609	0	12.2	12.0	1,611,768
BlackRock Mid Cap Equity Index Fund	Mid-Cap Core	98,551,609	0	12.2		
Small Cap Composite		92,998,181	-565	11.5	12.0	-3,941,659
Northern Trust Collective Russell 2000 Index	Small-Cap Core	17,794,707	0	2.2		
Earnest SCC	Small-Cap Core	45,933,472	-461	5.7		
Driehaus SCG	Small-Cap Growth	29,270,002	-104	3.6		
International Equity Composite		208,300,231	-2,217	25.8	27.0	-9,814,409
Ativo Capital	Non-U.S. Large-Cap Core	41,274,423	-2,217	5.1		
Hardman Johnston	Non-U.S. Large-Cap Core	9,966,962	0	1.2		
BlackRock MSCI EAFE Small Cap	Non-U.S. Small-Cap Core	15,741,679	0	1.9		
Brown Capital International Small Cap	Non-U.S. Small-Cap Core	12,088,060	0	1.5		
BlackRock Emerging Markets Free Fund	Emerging Markets	19,969,718	0	2.5		
Goldman Sachs Emerging Markets Equity	Emerging Markets	19,574,037	0	2.4		
Global Low Volatility Composite		89,685,352	0	11.1	-	89,685,352
BlackRock MSCI ACWI Min Volatility Index	Global Low-Volatility	89,685,352	0	11.1		
Alternative Composite		24,705,987	-818,969	3.1	5.0	-15,685,613
Intercontinental U.S. Real Estate	Core Real Estate	15,237,511	-102,262	1.9		
Consequent Alternative Partners II, L.P.	U.S. Private Equity FoF	6,378,787	-731,707	0.8		
ICV Partners III, L.P.	LBO Private Equity	1,672,356	15,000	0.2		
Pharos Capital Partners III	LBO Private Equity	1,417,333	0	0.2		
Cash Composite		12,413,582	-8,973,671	1.5	0.0	12,413,582
Cash Account	Cash & Equivalents	9,209,810	-11,491,775	1.1		
Transition Account	Cash & Equivalents	5,072	-2	0.0		
NT Operating	Cash & Equivalents	3,198,700	2,518,106	0.4		

Marquette Associates

#### Annualized Performance (Net of Fees)

Market Value: \$807.8 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
Total Fund Composite	4.1%	3.0%	7.4%	9.0%	9.0%	-3.7%	7.3%	5.9%	7.5%	7.0%	8.1%	Jan-88
Total Fund Policy Benchmark	4.1%	3.2%	7.2%	8.5%	8.5%	-3.0%	7.7%	6.1%	7.5%	7.7%	8.8%	Jan-88
Fixed Income Composite	-0.4%	-0.9%	2.1%	-0.4%	-0.4%	-5.4%	-3.8%	0.6%	0.4%	1.4%	5.1%	Jan-88
Fixed Income Composite Custom Benchmark	-0.4%	-0.8%	2.1%	-0.9%	-0.9%	-5.7%	-4.0%	0.5%	0.3%	1.4%	5.4%	Jan-88
Garcia Hamilton	-0.6%	-1.2%	2.5%	-0.8%	-0.8%	-4.6%	-3.4%	0.7%			1.1%	Dec-16
Bloomberg US Aggregate TR	-0.4%	-0.8%	2.1%	-0.9%	-0.9%	-5.7%	-4.0%	0.8%	0.4%	1.5%	0.9%	Dec-16
Mesirow	-0.3%	-0.8%	1.9%	-0.3%	-0.3%	-5.6%	-3.8%	0.8%	0.5%	1.5%	2.1%	May-10
Bloomberg US Aggregate TR	-0.4%	-0.8%	2.1%	-0.9%	-0.9%	-5.7%	-4.0%	0.8%	0.4%	1.5%	2.1%	May-10
U.S. Equity Composite	7.6%	6.4%	12.5%	17.5%	17.5%	-1.7%	12.7%	8.8%	11.0%	9.9%	11.0%	Jan-88
Russell 3000	6.8%	8.4%	16.2%	19.0%	19.0%	1.2%	13.9%	11.4%	12.9%	12.3%	10.8%	Jan-88
Large Cap Composite	6.8%	8.6%	16.7%	19.4%	19.4%	1.9%	14.1%	11.9%	13.0%	11.9%	10.9%	Jan-88
Russell 1000	6.8%	8.6%	16.7%	19.4%	19.4%	1.9%	14.1%	11.9%	13.1%	12.6%	10.9%	Jan-88
BlackRock 1000 Index Fund	6.8%	8.6%	16.7%	19.4%	19.4%	1.9%	14.1%	11.9%			11.4%	Dec-17
Russell 1000	6.8%	8.6%	16.7%	19.4%	19.4%	1.9%	14.1%	11.9%	13.1%	12.6%	11.3%	Dec-17
Mid Cap Composite	9.2%	4.9%	8.9%	17.7%	17.7%	0.2%	15.5%	7.8%	10.9%	9.6%	8.2%	Jun-98
S&P 400 MidCap	9.2%	4.9%	8.8%	17.6%	17.6%	0.2%	15.4%	7.8%	10.1%	10.2%	9.8%	Jun-98
BlackRock Mid Cap Equity Index Fund	9.2%	4.9%	8.9%	17.7%	17.7%	0.2%	15.5%	7.8%			9.2%	Aug-17
S&P 400 MidCap	9.2%	4.9%	8.8%	17.6%	17.6%	0.2%	15.4%	7.8%	10.1%	10.2%	9.1%	Aug-17
Small Cap Composite	7.5%	4.2%	9.1%	14.1%	14.1%	-8.7%	8.8%	4.2%	8.4%	6.1%	9.6%	Oct-01
Russell 2000	8.1%	5.2%	8.1%	12.3%	12.3%	-8.3%	10.8%	4.2%	8.8%	8.3%	8.8%	Oct-01
Northern Trust Collective Russell 2000 Index	8.1%	5.2%	8.2%	12.5%	12.5%	-8.3%	10.9%	4.3%			6.5%	Feb-17
Russell 2000	8.1%	5.2%	8.1%	12.3%	12.3%	-8.3%	10.8%	4.2%	8.8%	8.3%	6.4%	Feb-17
Earnest SCC	6.6%	0.8%	6.6%	11.9%	11.9%						-6.2%	Oct-21
Russell 2000	8.1%	5.2%	8.1%	12.3%	12.3%	-8.3%	10.8%	4.2%	8.8%	8.3%	-9.8%	Oct-21
Driehaus SCG	8.5%	9.3%	13.8%	18.7%	18.7%						-17.2%	Oct-21
Russell 2000 Growth	8.3%	7.1%	13.6%	18.5%	18.5%	-11.2%	6.1%	4.2%	9.3%	8.8%	-12.6%	Oct-21

#### Annualized Performance (Net of Fees)

Market Value: \$807.8 Million and 100.0% of Fund

	1 Mo	3 Mo	YTD	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	Inception	Inception Date
International Equity Composite	4.2%	2.4%	7.1%	8.4%	8.4%	-7.4%	5.7%	3.7%	6.7%	5.4%	5.9%	Jul-10
International Equity Composite Custom Benchmark	3.4%	1.9%	5.6%	7.1%	7.1%	-5.9%	6.3%	2.8%	5.8%	4.4%	5.2%	Jul-10
Ativo Capital	7.3%	5.0%	14.7%	19.2%	19.2%	-0.4%	8.8%	4.1%	5.4%		4.5%	Jan-16
MSCI ACWI ex USA	4.5%	2.4%	9.5%	12.7%	12.7%	-4.7%	7.2%	3.5%	6.3%	4.7%	5.7%	Jan-16
Hardman Johnston	4.9%	-1.8%	6.9%	11.3%	11.3%	-10.7%	4.4%	5.0%	9.1%	7.6%	7.4%	Jul-10
MSCI ACWI ex USA	4.5%	2.4%	9.5%	12.7%	12.7%	-4.7%	7.2%	3.5%	6.3%	4.7%	5.5%	Jul-10
BlackRock MSCI EAFE Small Cap	3.0%	0.8%	6.0%	11.1%	11.1%	-7.9%	6.2%	1.8%			1.5%	Dec-17
MSCI EAFE Small Cap	2.9%	0.6%	5.5%	10.2%	10.2%	-8.5%	5.7%	1.3%	5.7%	6.2%	0.9%	Dec-17
Brown Capital International Small Cap	5.5%	6.6%	13.5%	18.0%	18.0%						-15.4%	Dec-21
MSCI ACWI ex US Small Cap	3.4%	2.0%	6.8%	10.9%	10.9%	-7.2%	8.1%	2.6%	6.1%	5.8%	-9.9%	Dec-21
BlackRock Emerging Markets Free Fund	3.8%	0.8%	4.8%	1.5%	1.5%	-12.9%	2.1%	0.8%			-0.5%	Dec-17
MSCI Emerging Markets	3.8%	0.9%	4.9%	1.7%	1.7%	-12.8%	2.3%	0.9%	4.9%	3.0%	-0.4%	Dec-17
Goldman Sachs Emerging Markets Equity	4.5%	0.5%	5.6%	-0.9%	-0.9%						-13.6%	Feb-22
MSCI Emerging Markets	3.8%	0.9%	4.9%	1.7%	1.7%	-12.8%	2.3%	0.9%	4.9%	3.0%	-9.1%	Feb-22
BlackRock MSCI ACWI Min Volatility Index	2.7%	2.3%	4.1%	6.2%	6.2%	-0.2%	6.1%				6.5%	Apr-20
MSCI ACWI Minimum Volatility Index	2.7%	2.2%	3.8%	5.8%	5.8%	-0.5%	5.7%	5.4%	5.8%	7.2%	6.1%	Apr-20
Alternative Composite	-3.9%	-3.9%	-6.2%	-9.4%	-9.4%	-0.3%	5.8%	2.7%	4.2%	3.3%	4.7%	Dec-12
Intercontinental U.S. Real Estate	-6.3%	-6.3%	-9.8%	-14.3%	-14.3%	4.4%	5.6%	5.8%	7.4%		8.2%	Aug-14
NFI-ODCE	-1.0%	-2.8%	-6.1%	-10.7%	-10.7%	7.1%	7.1%	5.6%	6.0%	7.8%	7.3%	Aug-14
Consequent Alternative Partners II, L.P.	0.0%	0.0%	0.0%	-2.2%	-2.2%	-3.8%	5.4%	0.1%	1.8%	1.4%	1.6%	Dec-12
Consequent Alt BM	0.0%	0.0%	0.0%	-2.2%	-2.2%	-3.8%	5.4%	0.1%	1.8%	1.4%	1.6%	Dec-12

### Calendar Performance (Net of Fees)

Market Value: \$807.8 Million and 100.0% of Fund

						Calenda	r Year				
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Total Fund Composite	-16.4%	13.3%	17.5%	21.5%	-6.4%	16.1%	8.6%	-2.5%	3.8%	22.4%	13.0%
Total Fund Policy Benchmark	-15.4%	14.5%	15.1%	22.1%	-6.5%	15.2%	9.7%	-0.2%	8.7%	21.9%	13.1%
InvMetrics Public DB > \$250mm Net Rank	94	62	6	6	92	33	14	88	81	1	34
Fixed Income Composite	-12.2%	-2.0%	7.6%	7.9%	-0.2%	4.4%	2.9%	0.4%	4.4%	-1.9%	4.2%
Fixed Income Composite Custom Benchmark	-13.0%	-1.5%	7.4%	8.0%	-0.2%	4.4%	2.2%	0.8%	5.0%	-2.0%	4.2%
InvMetrics Public DB Total Fix Inc Net Rank	63	97	53	68	49	60	64	40	34	69	74
Garcia Hamilton	-11.2%	-2.3%	8.0%	7.0%	0.8%	3.5%					
Bloomberg US Aggregate TR	-13.0%	-1.5%	7.5%	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%
eV US Core Fixed Inc Net Rank	8	93	61	93	10	71					
Mesirow	-12.5%	-1.8%	8.3%	8.8%	-0.6%	3.4%	2.8%	-0.1%	6.4%	-2.3%	5.5%
Bloomberg US Aggregate TR	-13.0%	-1.5%	7.5%	8.7%	0.0%	3.5%	2.6%	0.5%	6.0%	-2.0%	4.2%
eV US Core Fixed Inc Net Rank	26	77	43	67	75	78	65	86	22	82	60
U.S. Equity Composite	-19.0%	21.8%	20.3%	28.4%	-6.3%	18.9%	12.7%	-4.9%	5.1%	34.8%	16.8%
Russell 3000	-19.2%	25.7%	20.9%	31.0%	-5.2%	21.1%	12.7%	0.5%	12.6%	33.6%	16.4%
InvMetrics Public DB US Eq Net Rank	80	97	18	87	58	79	50	97	98	36	21
Large Cap Composite	-19.1%	26.5%	21.0%	31.5%	-4.7%	20.7%	11.1%	-0.3%	7.2%	32.0%	16.1%
Russell 1000	-19.1%	26.5%	21.0%	31.4%	-4.8%	21.7%	12.1%	0.9%	13.2%	33.1%	16.4%
eV US Large Cap Core Equity Net Rank	75	56	18	29	34	59	26	58	96	49	29
BlackRock 1000 Index Fund	-19.1%	26.5%	21.0%	31.5%	-4.8%						
Russell 1000	-19.1%	26.5%	21.0%	31.4%	-4.8%	21.7%	12.1%	0.9%	13.2%	33.1%	16.4%
eV US Large Cap Core Equity Net Rank	75	56	18	29	37						

### Calendar Performance (Net of Fees)

Market Value: \$807.8 Million and 100.0% of Fund

						Calenda	r Year				
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Mid Cap Composite	-13.0%	24.8%	13.8%	26.3%	-6.6%	15.7%	15.3%	-9.1%	7.1%	40.1%	17.0%
S&P 400 MidCap	-13.1%	24.8%	13.7%	26.2%	-11.1%	16.2%	20.7%	-2.2%	9.8%	33.5%	17.9%
eV US Mid Cap Core Equity Net Rank	34	59	51	78	24	74	30	94	66	15	32
BlackRock Mid Cap Equity Index Fund	-13.0%	24.8%	13.8%	26.3%	-11.0%						
S&P 400 MidCap	-13.1%	24.8%	13.7%	26.2%	-11.1%	16.2%	20.7%	-2.2%	9.8%	33.5%	17.9%
eV US Mid Cap Core Equity Net Rank	34	59	51	78	51						
Small Cap Composite	-23.0%	10.7%	27.7%	23.8%	-9.2%	19.1%	10.9%	-13.6%	-3.4%	43.6%	19.8%
Russell 2000	-20.4%	14.8%	20.0%	25.5%	-11.0%	14.6%	21.3%	-4.4%	4.9%	38.8%	16.3%
eV US Small Cap Core Equity Net Rank	88	97	18	52	36	17	93	99	97	21	11
Northern Trust Collective Russell 2000 Index	-20.4%	14.8%	20.1%	25.7%	-10.9%						
Russell 2000	-20.4%	14.8%	20.0%	25.5%	-11.0%	14.6%	21.3%	-4.4%	4.9%	38.8%	16.3%
eV US Small Cap Core Equity Net Rank	75	92	30	40	49						
Earnest SCC	-15.8%										
Russell 2000	-20.4%	14.8%	20.0%	25.5%	-11.0%	14.6%	21.3%	-4.4%	4.9%	38.8%	16.3%
eV US Small Cap Equity Net Rank	46										
Driehaus SCG	-34.0%										
Russell 2000 Growth	-26.4%	2.8%	34.6%	28.5%	-9.3%	22.2%	11.3%	-1.4%	5.6%	43.3%	14.6%
eV US Small Cap Growth Equity Net Rank	76										

#### Calendar Performance (Net of Fees)

Market Value: \$807.8 Million and 100.0% of Fund

						Calenda	r Year				
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
International Equity Composite	-19.8%	6.1%	20.2%	25.8%	-14.4%	31.4%	-1.1%	-1.2%	-2.7%	18.5%	15.6%
International Equity Composite Custom Benchmark	-15.8%	8.3%	10.7%	21.4%	-14.7%	27.2%	4.5%	-5.7%	-3.9%	15.3%	16.8%
InvMetrics Public DB Dev Mkt ex-US Eq Net Rank	98	78	11	34	48	11	84	37	19	82	99
Ativo Capital	-17.5%	13.2%	7.5%	19.7%	-13.6%	21.2%	-3.6%				
MSCI ACWI ex USA	-16.0%	7.8%	10.7%	21.5%	-14.2%	27.2%	4.5%	-5.7%	-3.9%	15.3%	16.8%
eV ACWI ex-US Large Cap Equity Net Rank	47	24	76	80	31	95	89				
Hardman Johnston	-23.7%	1.3%	35.6%	33.4%	-13.9%	37.5%	1.2%	-0.3%	0.4%	17.3%	15.6%
MSCI ACWI ex USA	-16.0%	7.8%	10.7%	21.5%	-14.2%	27.2%	4.5%	-5.7%	-3.9%	15.3%	16.8%
eV EAFE Large Cap Core Net Rank	96	99	1	1	45	1	29	50	5	91	92
BlackRock MSCI EAFE Small Cap	-20.8%	10.4%	12.8%	25.6%	-17.5%						
MSCI EAFE Small Cap	-21.4%	10.1%	12.3%	25.0%	-17.9%	33.0%	2.2%	9.6%	-4.9%	29.3%	20.0%
eV EAFE Small Cap Equity Net Rank	50	64	38	38	26						
Brown Capital International Small Cap	-31.4%										
MSCI ACWI ex US Small Cap	-20.0%	12.9%	14.2%	22.4%	-18.2%	31.6%	3.9%	2.6%	-4.0%	19.7%	18.5%
Foreign Small/Mid Growth MStar MF Rank	66										
BlackRock Emerging Markets Free Fund	-20.2%	-2.7%	18.0%	18.2%	-14.6%						
MSCI Emerging Markets	-20.1%	-2.5%	18.3%	18.4%	-14.6%	37.3%	11.2%	-14.9%	-2.2%	-2.6%	18.2%
eV Emg Mkts Large Cap Equity Net Rank	70	63	44	65	24						
Goldman Sachs Emerging Markets Equity											
MSCI Emerging Markets	-20.1%	-2.5%	18.3%	18.4%	-14.6%	37.3%	11.2%	-14.9%	-2.2%	-2.6%	18.2%
eV Emg Mkts All Cap Equity Net Rank											
BlackRock MSCI ACWI Min Volatility Index	-10.0%	14.2%									
MSCI ACWI Minimum Volatility Index	-10.3%	13.9%	2.7%	21.1%	-1.6%	17.9%	7.4%	2.8%	11.0%	16.9%	10.1%
eV Global Low Volatility Equity Net Rank	55	76		-							
Alternative Composite	-0.4%	16.4%	12.8%	-7.9%	6.0%	7.7%	4.7%	4.4%	1.6%	4.8%	
InvMetrics Public DB Alts Net Rank	55	74	12	99	36	43	74	47	86	92	
Intercontinental U.S. Real Estate	7.2%	20.2%	1.1%	8.2%	9.8%	7.7%	12.1%	12.7%			
NFI-ODCE	6.5%	21.1%	0.3%	4.4%	7.4%	6.7%	7.8%	14.0%	11.5%	12.9%	9.8%
Consequent Alternative Partners II, L.P.	-11.2%	15.6%	22.3%	-20.0%	4.9%	7.0%	0.1%	0.2%	0.8%	4.0%	
Consequent Alt BM	-11.2%	15.6%	22.3%	-20.0%	4.9%	7.0%	0.1%	0.2%	0.8%	4.0%	

#### Private Markets Composite

#### Performance Summary

#### **Private Market Investments Overview** Commitments Performance **Contributions & Distributions** Valuations Investments Unfunded Cumulative Cumulative Commitment Valuation Total Value Vintage IRR Commitment DPI TVPI RVPI Investment Name Contributions Distributions (%) Year (\$) (\$) (\$) (\$) (\$) (\$) GrayCo Alternative Partners II, L.P. 2012 2,671,339 12,328,661 8,403,614 6,378,787 14,782,401 15,000,000 0.68 1.20 0.52 2.14 ICV Partners III, L.P. 2,000,000 16,337 2,281,870 1,243,869 1,672,356 2,916,225 1.28 0.73 2014 0.55 4.31 Pharos Capital Partners III, L.P. 0.72 12.20 2014 2,000,000 40,000 1,960,000 2,288,620 1,417,333 3,705,953 1.17 1.89 Total 19,000,000 2,727,676 16,570,531 11,936,104 9,468,476 21,404,580 0.72 1.29 0.57 3.32





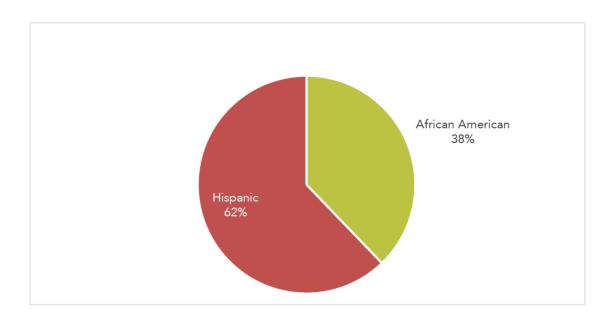
#### Market Values

		Asset Class	Market Value	% of Portfolio	% of Total Fund
Total MWDBE Composite			\$157,216,220	100.0%	19.5%
Garcia Hamilton	(H)	Core Fixed Income	\$56,502,932	35.9%	7.0%
Ativo	(H)	Non-U.S. Large-Cap Core	\$41,274,423	26.3%	5.1%
Earnest SCC	(AA)	Small-Cap Core	\$45,933,472	29.2%	5.7%
Brown Capital International Small Cap	(AA)	Non-U.S. Small-Cap Core	\$12,088,060	7.7%	1.5%
Pharos Capital Partners III	(AA)	LBO Private Equity	\$1,417,333	0.9%	0.2%

(AA) African American

(A) Asian		Actual %
(H) Hispanic	Minority	19.5%
(NA) Native American	Female	0.0%
(W) Women	Disabled	0.0%

\*Please note: our calculations do not include Consequent Capital Management



## Total Fund Composite

#### Fee Schedule

Market Value: \$807.8 Million and 100.0% of Fund

Asset Class	Investment Manager	Fee Schedule	Expense Ratio & Estimated Annual Fee <sup>1</sup>	Industry Median <sup>2</sup>
Non-U.S. Large-Cap Core	Ativo Capital	0.65% on the first \$100 million 0.55% on the balance	0.65% \$268,284	0.68%
∟arge-Cap Core	BlackRock 1000 Index Fund	0.01% on the balance	0.01% \$16,801	0.04%
Nid-Cap Core	BlackRock Mid Cap Equity Index Fund	0.01% on the balance	0.01% \$9,855	0.06%
Core Fixed Income	Garcia Hamilton	0.25% on the first \$50 million 0.11% on the next \$50 million 0.06% on the balance	0.23% \$132,153	0.26%
J.S. Private Equity FoF	Consequent Alternative Partners II, L.P.	1.00% on Committed Capital	2.35% \$150,000	2.35%
BO Private Equity	ICV Partners III, L.P.	2.00% on Committed Capital Plus 20.0% Carried Interest, over an 8% Hurdle	2.39% \$40,000	2.39%
Core Real Estate	Intercontinental U.S. Real Estate	1.10% on the first \$25 million 1.00% on the next \$25 million 0.85% on the next \$50 million 0.75% on the balance	1.10% \$167,613	1.00%
Non-U.S. Large-Cap Core	Hardman Johnston	0.75% on the first \$25 million 0.60% on the next \$50 million 0.50% on the balance	0.75% \$74,752	0.68%
Small-Cap Core	Earnest SCC	0.80% on the first \$10 million 0.65% on the next \$10 million 0.50% on the balance	0.60% \$274,667	0.85%
Core Fixed Income	Mesirow	0.35% on the first \$10 million 0.25% on the next \$50 million 0.20% on the next \$150 million 0.15% on the next \$300 million 0.125% on the next \$500 million 0.10% on the balance	0.23% \$332,691	0.22%
Small-Cap Core	Northern Trust Collective Russell 2000 Index	0.04% on the balance	0.04% \$7,118	0.05%
BO Private Equity	Pharos Capital Partners III	2.00% on Committed Capital	2.82% \$40,000	2.82%
Emerging Markets	BlackRock Emerging Markets Free Fund	0.06% on the balance	0.06% \$11,982	0.20%
Emerging Markets	Goldman Sachs Emerging Markets Equity	0.45% on the balance	0.45% \$88,083	0.90%
Non-U.S. Small-Cap Core	BlackRock MSCI EAFE Small Cap	0.045% on the balance	0.05% \$7,084	0.25%
Global Low-Volatility	BlackRock MSCI ACWI Min Volatility Index	0.025% on the balance	0.03% \$22,421	0.42%
Small-Cap Growth	Driehaus SCG	0.60% on the first \$50 million 0.50% on the next \$50 million 0.45% on the balance	0.60% \$175,620	0.90%
Non-U.S. Small-Cap Core	Brown Capital International Small Cap	1.06% on the balance	1.06% \$128,133	1.29%
Total Investment Management Fees			0.24% \$1,947,259	0.34%

<sup>1</sup> Expense Ratio & Estimated Annual Fee are Based on Market Value at Month End. <sup>2</sup> Source: 2019 Marquette Associates Investment Management Fee Study.

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