

City of San Jose Police and Fire Department Retirement Plan

As of June 30, 2022

Quarterly Review

1. Economic and Market Update
2. Executive Summary
 - Aggregate Plan Overview
 - Manager Highlights
 - Second Quarter Manager Summary
 - Watch List
 - Market Environment – 2Q22 Overview
3. 2Q22 Review
4. Glossary and Notes

Economic and Market Update

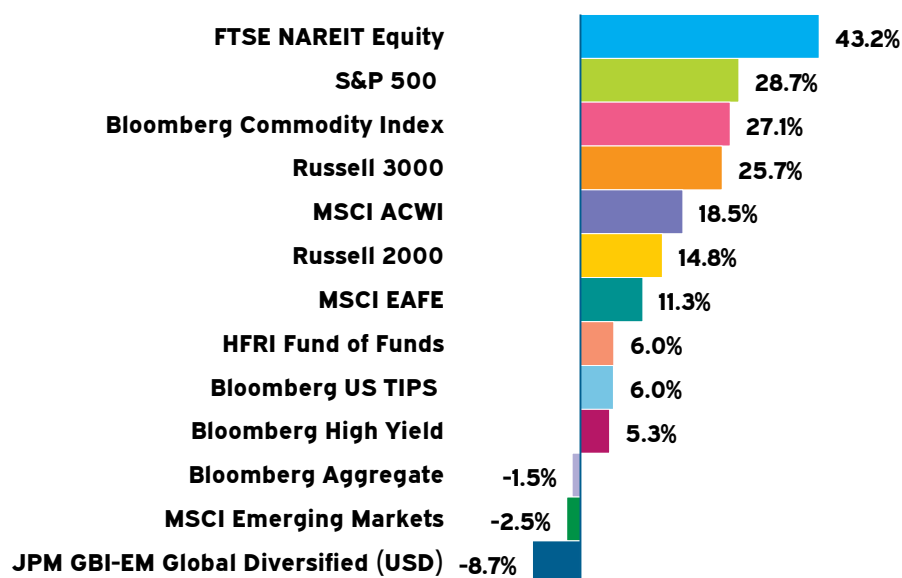
Data as of June 30, 2022

Commentary

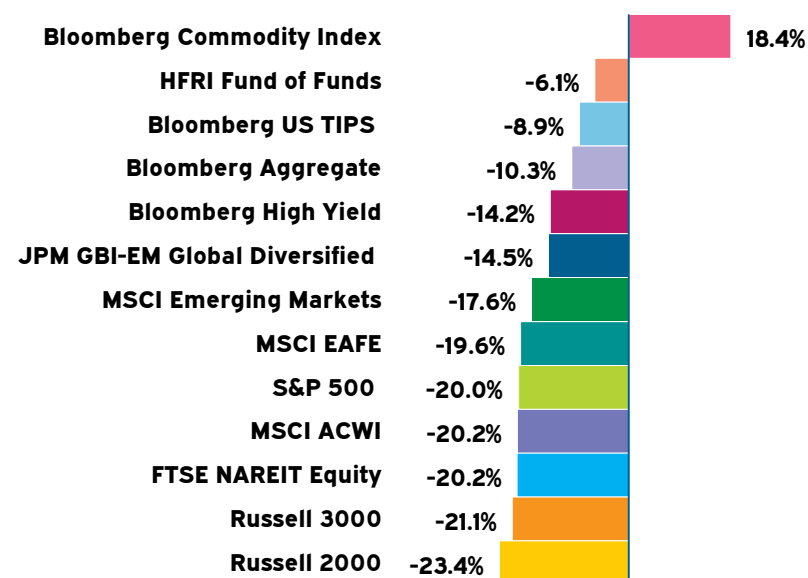
- Global markets resumed their sell-off in June as inflation surged in the US and Europe.
- In response, the US Federal Reserve increased interest rates 75 basis points (above prior expectations). Markets also repriced the growth outlook downward.
 - All major equity indices suffered steep declines in June. Emerging markets proved slightly more resilient than developed markets on a partial re-opening in China from pandemic related lockdowns.
 - In a reversal of the prior trend growth stocks outperformed value stocks in June.
 - The global bond selloff resumed, as inflation fears, and policy expectations weighed on all major bond markets.
- Persistently high inflation and the expected policy response, the war in Ukraine, lingering COVID-19 issues, and lockdowns in China will all have considerable economic and financial consequences for the global economy.

Index Returns¹

2021



2022 Through June



→ Outside of emerging markets and the broad US investment grade bond market (Bloomberg Aggregate), most asset classes appreciated in 2021.

→ In June all major asset classes posted negative returns on renewed inflation and economic growth fears, with equities experiencing the largest declines.

¹ Source: Bloomberg and FactSet. Data is as of June 30, 2022.

Domestic Equity Returns¹

Domestic Equity	June (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	-8.3	-16.1	-20.0	-10.6	10.6	11.3	12.9
Russell 3000	-8.4	-16.7	-21.1	-13.9	9.8	10.6	12.6
Russell 1000	-8.4	-16.7	-20.9	-13.0	10.2	11.0	12.8
Russell 1000 Growth	-7.9	-20.9	-28.1	-18.8	12.6	14.3	14.8
Russell 1000 Value	-8.7	-12.2	-12.9	-6.8	6.9	7.2	10.5
Russell MidCap	-10.0	-16.8	-21.6	-17.3	6.6	8.0	11.3
Russell MidCap Growth	-7.5	-21.1	-31.0	-29.6	4.3	8.9	11.5
Russell MidCap Value	-11.0	-14.7	-16.2	-10.0	6.7	6.3	10.6
Russell 2000	-8.2	-17.2	-23.4	-25.2	4.2	5.2	9.4
Russell 2000 Growth	-6.2	-19.3	-29.5	-33.4	1.4	4.8	9.3
Russell 2000 Value	-9.9	-15.3	-17.3	-16.3	6.2	4.9	9.0

US Equities: Russell 3000 Index declined 8.3%, and growth indices outperformed value in June.

- US stocks experienced steep losses for the month, led by the energy and materials sectors.
- Growth indices outperformed their value counterparts for the month but remain well behind for the year-to-date period.
- Small company stocks slightly outperformed large company stocks in June but remain behind their larger peers year-to-date.

¹ Source: Bloomberg. Data is as of June 30, 2022.

Foreign Equity Returns¹

Foreign Equity	June (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	-8.6	-13.7	-18.4	-19.4	1.3	2.5	4.8
MSCI EAFE	-9.3	-14.5	-19.6	-17.8	1.1	2.2	5.4
MSCI EAFE (Local Currency)	-6.3	-7.8	-11.3	-6.6	4.4	4.3	8.3
MSCI EAFE Small Cap	-11.0	-17.7	-24.7	-24.0	1.1	1.7	7.2
MSCI Emerging Markets	-6.6	-11.5	-17.6	-25.3	0.6	2.2	3.1
MSCI Emerging Markets (Local Currency)	-4.6	-8.1	-13.7	-20.2	3.3	4.4	6.0
MSCI China	6.6	3.4	-11.3	-31.8	-0.6	2.1	5.5

International Equities (MSCI EAFE) declined 9.3% and Emerging Markets (MSCI EM) declined 6.6% in June.

- Non-US developed market stocks slightly trailed the US for the month, while emerging markets stocks had better results due to China gaining 6.6%. Both remain notably negative for the year-to-date period, but ahead of the US.
- The war in Ukraine, high inflation and the likely monetary policy response, and slowing growth continue to weigh on sentiment.
- As in the US, growth stocks outperformed value stocks across developed and emerging markets.

¹ Source: Bloomberg. Data is as of June 30, 2022.

Fixed Income Returns¹

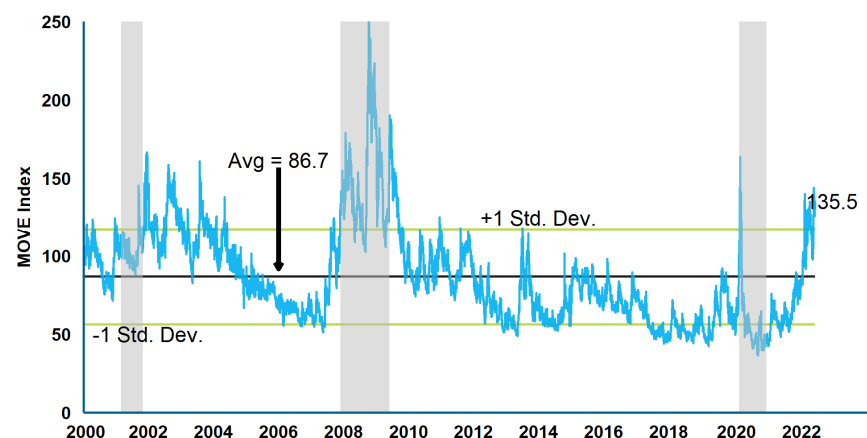
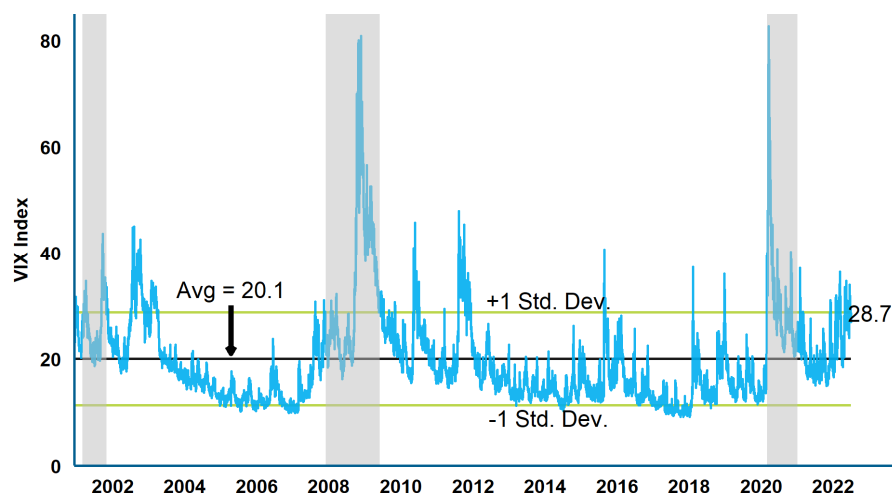
Fixed Income	June (%)	Q2 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-2.0	-5.1	-10.9	-10.9	-0.9	0.9	1.8	4.2	6.4
Bloomberg Aggregate	-1.6	-4.7	-10.3	-10.3	-0.9	0.9	1.5	3.7	6.6
Bloomberg US TIPS	-3.2	-6.1	-8.9	-5.1	3.0	3.2	1.7	3.4	7.0
Bloomberg High Yield	-6.7	-9.8	-14.2	-12.8	0.2	2.1	4.5	8.9	4.8
JPM GBI-EM Global Diversified (USD)	-4.5	-8.6	-14.5	-19.3	-5.8	-2.3	-1.5	7.4	4.9

Fixed Income: The Bloomberg Universal declined 2.0% in June.

- The above expectations CPI print led to renewed inflation fears driving interest rates higher and weighing on the broad US investment grade bond market (Bloomberg Aggregate).
- Despite the above expectation CPI prints, breakeven inflation rates have continued to move down driven by the decline in nominal rates. The nominal 10-year Treasury yield peaked at 3.47% before declining to 3.01% by month-end, while the 2-year Treasury yield declined from 3.43% to 2.95%.
- US credit spreads widened, particularly for high yield debt, leading to it having the worst results among bonds for the month.
- Emerging market debt also declined for the month.

¹ Source: Bloomberg. JPM GBI-EM is from InvestorForce. Data is as of June 30, 2022.

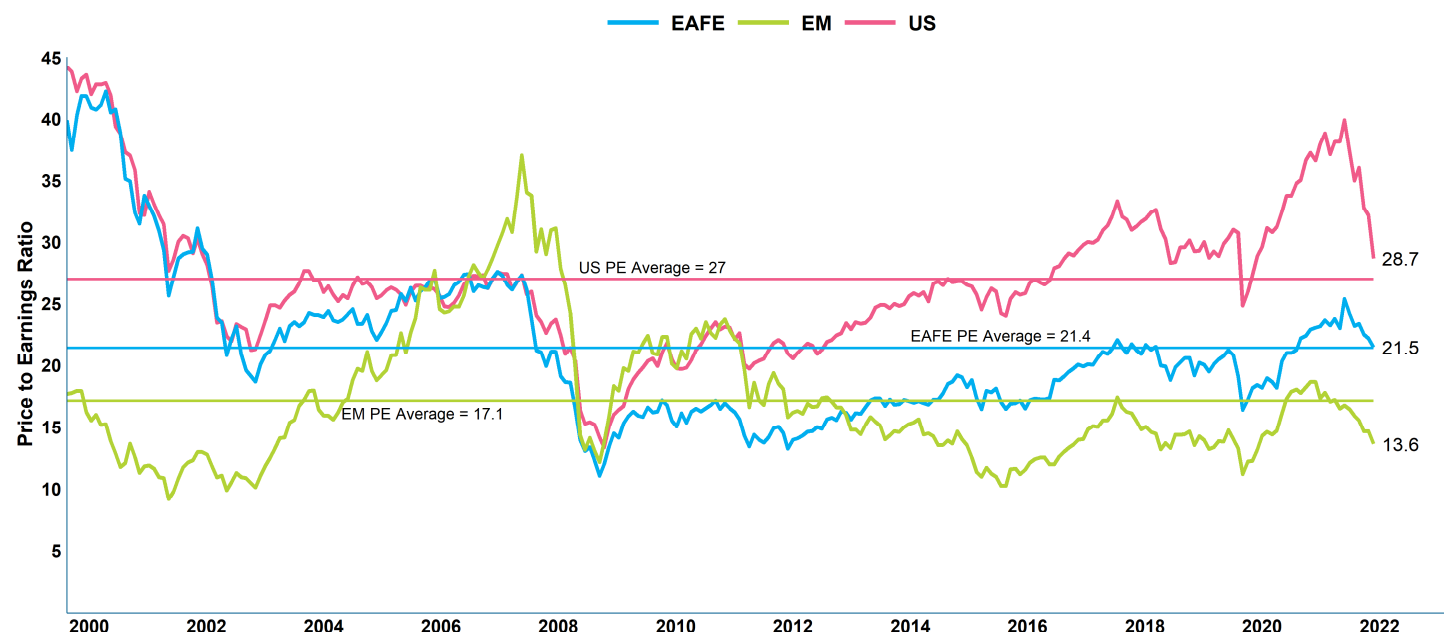
Equity and Fixed Income Volatility¹



- Volatility in equities (VIX) and fixed income (MOVE) rose in June on renewed inflation fears and on building signs of weakness in economic growth.
- Fixed income volatility remains particularly high due to the uncertain path of short-term interest rates.

¹ Equity and Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of June 2022. The average line indicated is the average of the VIX and MOVE values between January 2000 and the recent month-end respectively.

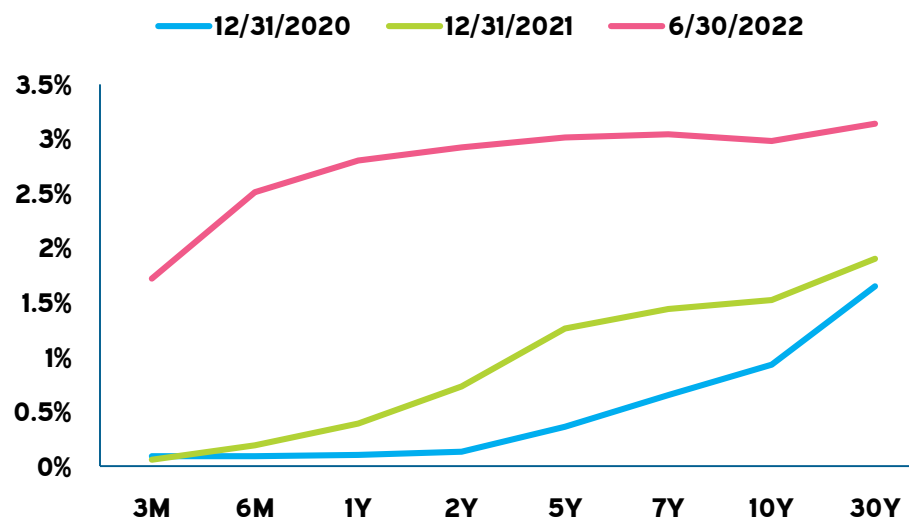
Equity Cyclically Adjusted P/E Ratios¹



- The steep decline in June in US equities pushed valuations lower, approaching the level of the long-term (post-2000) average.
- International developed market valuations remain below the US and are slightly above their own long-term average, with those for emerging markets the lowest and under the long-term average.

¹ US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of June 30, 2022. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to the recent month-end respectively.

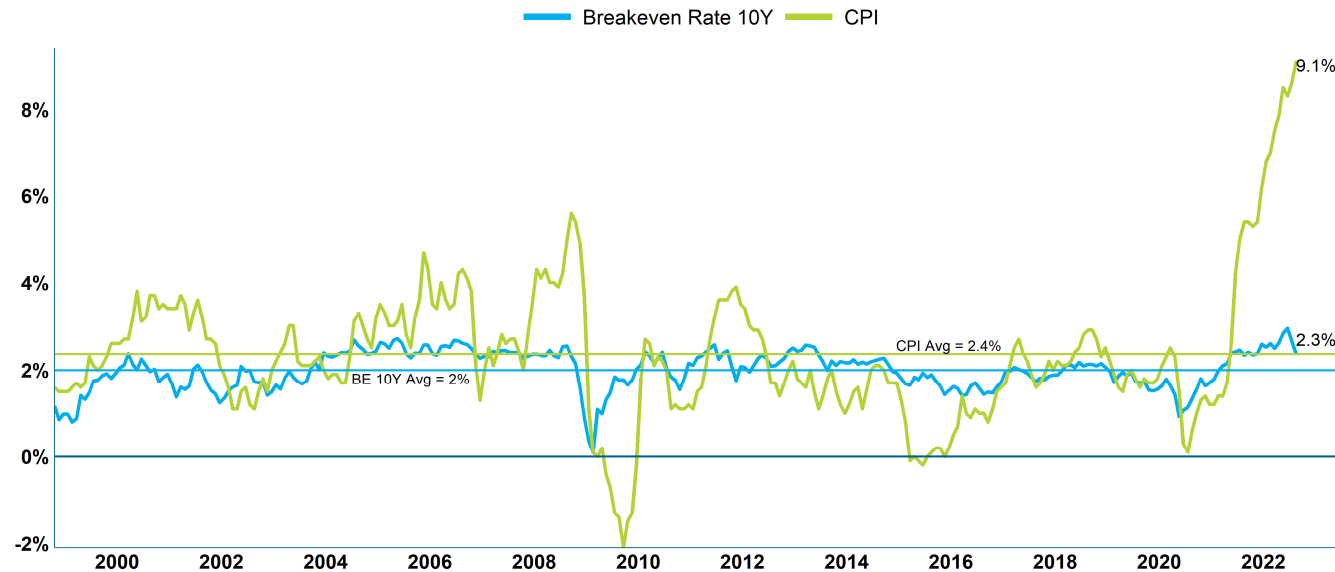
US Yield Curve¹



- Rates across the yield curve remain much higher than at the start of the year.
- In June, rates rose across maturities (particularly short-dated), as markets continue to reflect elevated inflation and rate expectations.
- The curve continued to flatten in June with the spread between two-year and ten-year Treasuries falling from 30 basis points at the end of May to just 5 basis points by the end of June.
- Since month-end, the spread between two-year and ten-year Treasuries became negative which historically has often signaled a coming recession.

¹ Source: Bloomberg. Data is as of June 30, 2022.

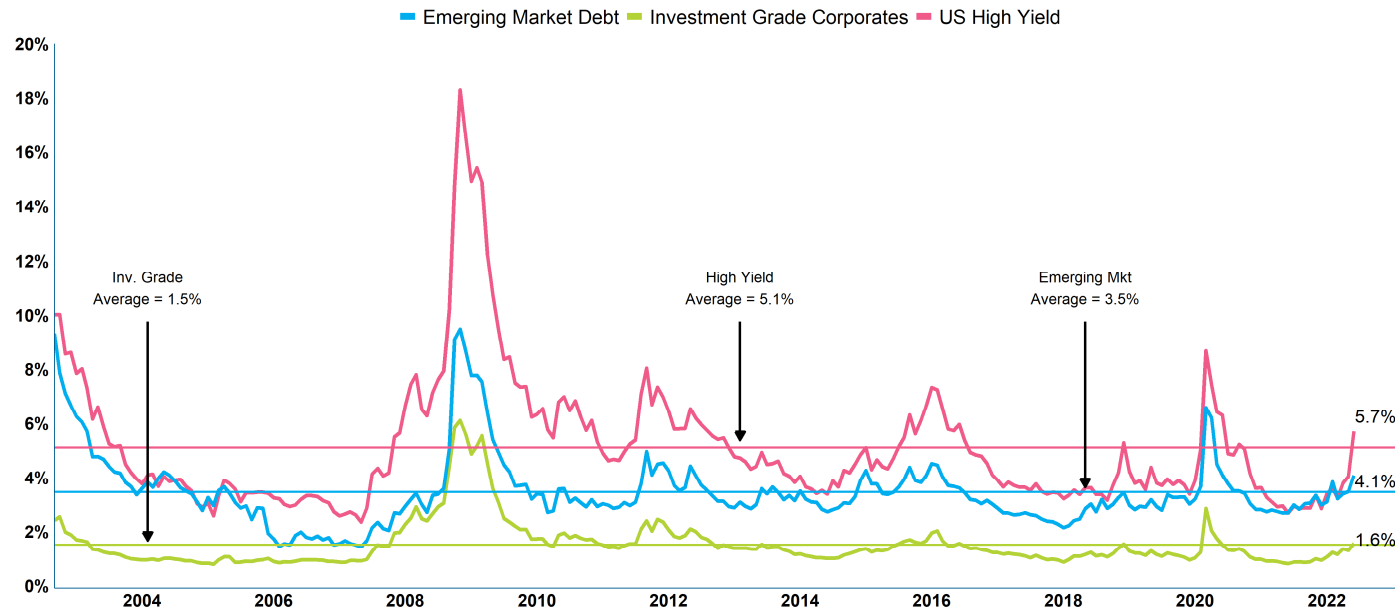
Ten-Year Breakeven Inflation and CPI¹



- Inflation expectations (breakevens) fell further in June on declining growth expectations and anticipated tighter monetary policy.
- Trailing twelve-month CPI rose in June (9.1% versus 8.6%) and notably came in above expectations. Inflation levels in the US remain well above the long-term average of 2.4%.
- Rising prices for energy (particularly oil), food, housing, and for new and used cars, remain key drivers of higher inflation.

¹ Source: Bloomberg. Data is as of June 30, 2022. The CPI and 10 Year Breakeven average lines denote the average values from August 1998 to the present month-end respectively. Breakeven values represent month-end values for comparative purposes.

Credit Spreads vs. US Treasury Bonds¹



- Credit spreads (the spread above a comparable maturity Treasury) rose in June with high yield and investment grade corporate bonds breaking above their long-run averages.
- In the US, spreads for high yield significantly increased from 4.0% to 5.7% in the risk-off environment, while investment grade spreads experienced a more modest increase (1.3% to 1.6%). Emerging market spreads also rose (3.5% to 4.1% during the month) but finished much lower than US high yield spreads.

¹ Sources: Bloomberg. Data is as of June 30, 2022. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the recent month-end respectively.

Global Economic Outlook

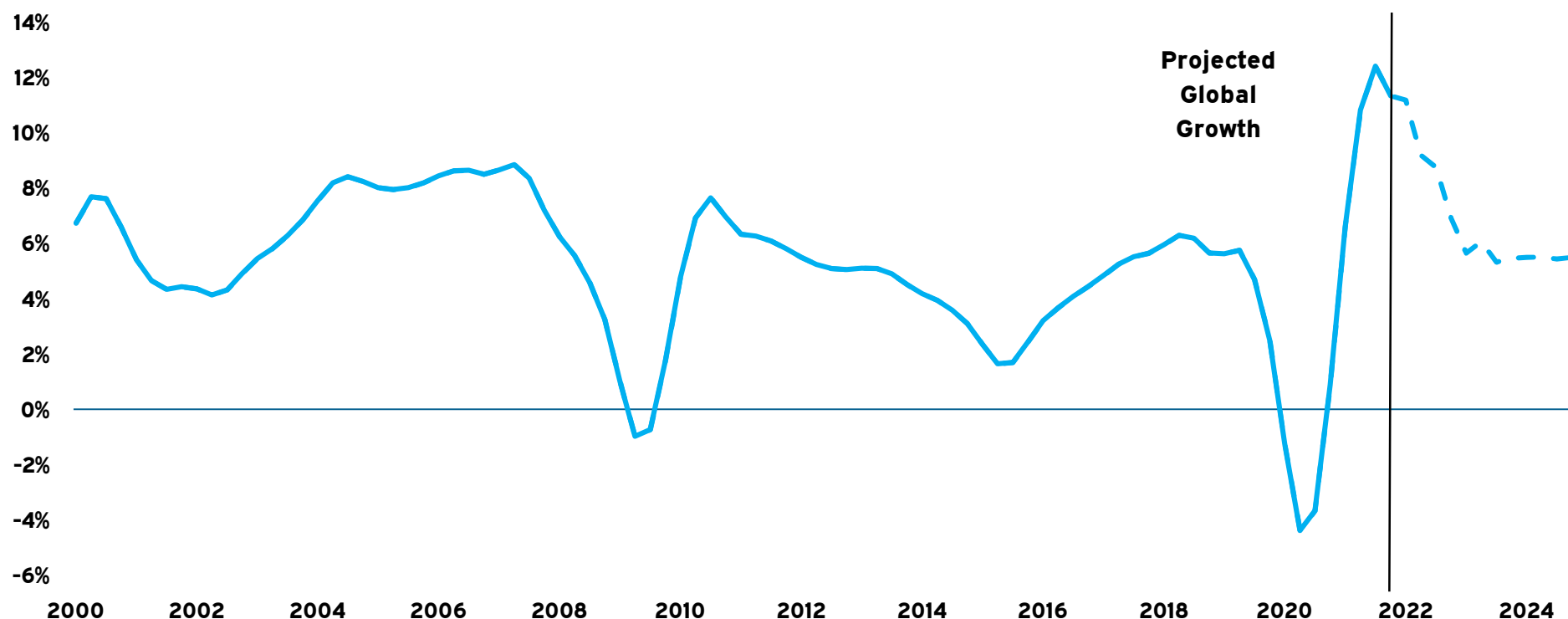
The IMF significantly lowered global growth forecasts again in their latest projections, driven by the economic impacts of persistent inflation in energy and food prices.

- The IMF forecasts global GDP growth to come in at 3.2% in 2022 (0.4% below the prior estimate) and 2.9% in 2023 (0.7% below the prior estimate).
- In advanced economies, GDP is projected to increase 2.5% in 2022 and 1.4% in 2023. The US saw another downgrade in the 2022 (2.3% versus 3.7%) and 2023 (1.0% versus 2.3%) growth forecasts largely due to policy tightening happening faster than previously expected given persistently high inflation. The euro area saw a downgrade too in expected growth (2.6% versus 2.8%) in 2022 and in 2023 (1.2% versus 2.3%) as rising energy prices particularly weigh on the region that is a net importer of energy. The Japanese economy is expected to grow 1.7% this year and next.
- Growth projections for emerging markets are higher than developed markets, at 3.6% in 2022 and 3.9% in 2023. China's growth was downgraded for 2022 (3.3% versus 4.4%) and 2023 (4.9% versus 5.1%) given tight COVID-19 restrictions and continued property sector problems.
- The global inflation forecast was significantly increased for 2022 (7.4% versus 3.8%).

	Real GDP (%) ¹			Inflation (%) ¹		
	IMF 2022 Forecast	IMF 2023 Forecast	Actual 10 Year Average	IMF 2022 Forecast	IMF 2023 Forecast	Actual 10 Year Average
World	3.2	2.9	3.0	7.4	4.8	3.5
Advanced Economies	2.5	1.4	1.6	5.7	2.5	1.5
US	2.3	1.0	2.1	7.7	2.9	1.9
Euro Area	2.6	1.2	0.9	5.3	2.3	1.2
Japan	1.7	1.7	0.5	1.0	0.8	0.5
Emerging Economies	3.6	3.9	4.2	8.7	6.5	5.1
China	3.3	4.9	6.7	2.1	1.8	2.1

¹ Source: IMF World Economic Outlook. Real GDP forecasts from July 2022 Update. Inflation forecasts are as of the April 2022 Update. "Actual 10 Year Average" represents data from 2012 to 2021.

Global Nominal Gross Domestic Product (GDP) Growth¹

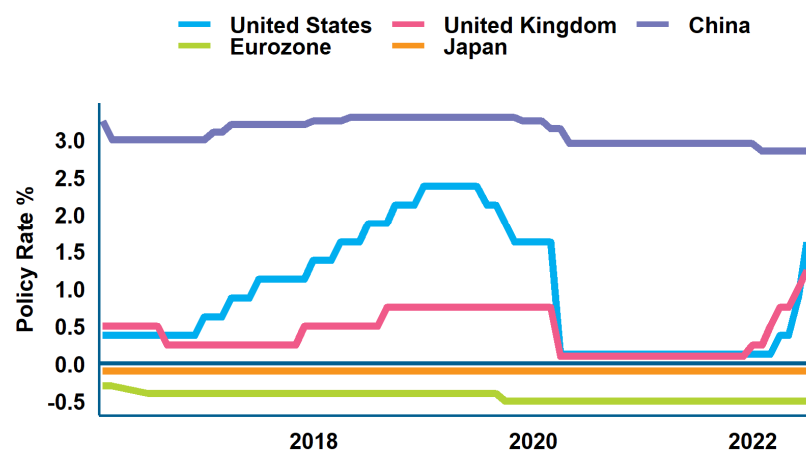


- Global economies are expected to slow in 2022 compared to 2021 with fears of potential recessions in areas increasing recently given persistently high inflation and related tighter monetary policy.
- Looking forward, the delicate balancing act of central banks trying to reduce inflation without dramatically impacting growth will remain key.

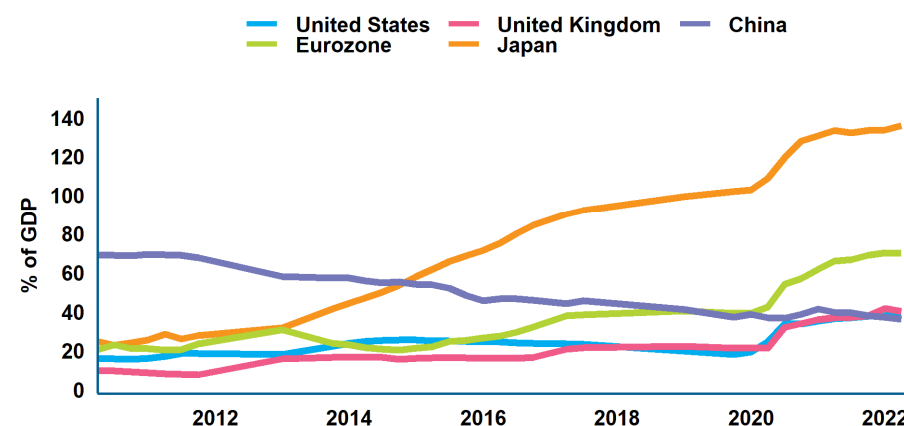
¹ Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, nominal, % change YoY). Updated June 2022.

Central Bank Response¹

Policy Rates



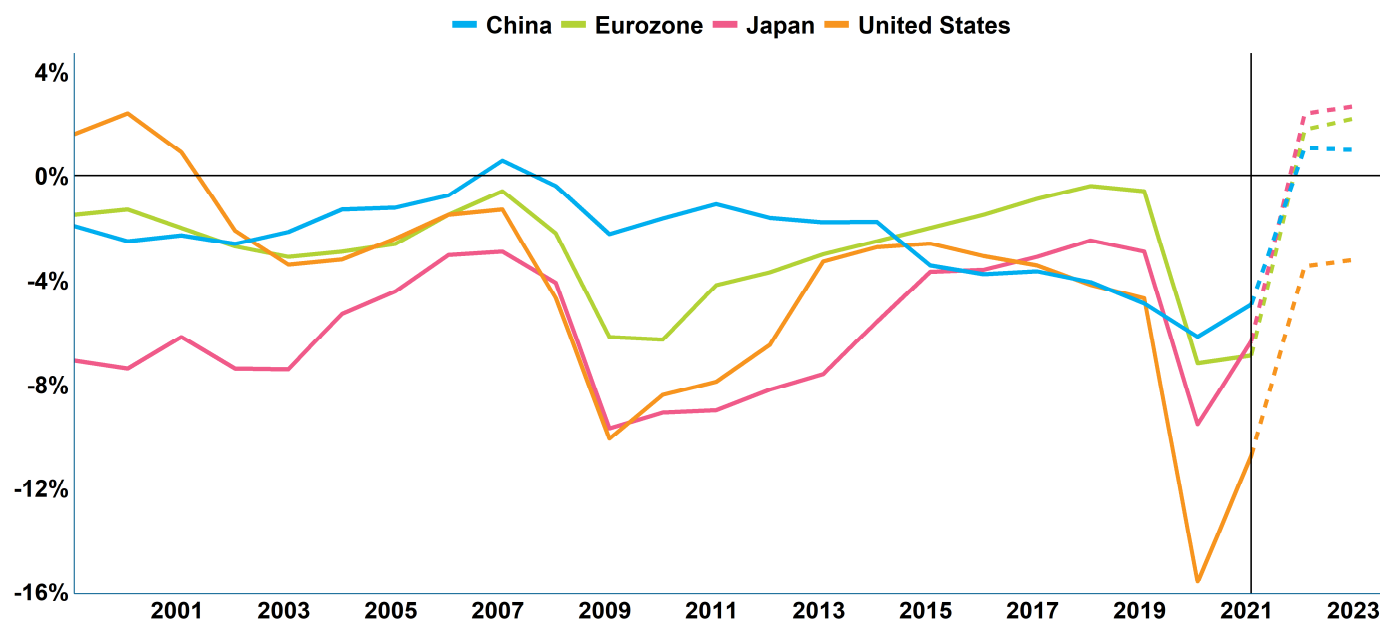
Balance Sheet as % of GDP



- After global central banks took extraordinary action to support economies during the pandemic, including policy rate cuts and emergency stimulus through quantitative easing (QE), many are reducing or considering reducing support, in the face of high inflation.
- The pace of withdrawing support will likely vary across central banks with the US expected to take a more aggressive approach. The risk remains for a policy error, particularly overtightening, as record inflation, the war in Ukraine, and a tough COVID-19 policy in China could suppress global growth.
- The one notable central bank outlier is China, where the central bank recently lowered rates and reserve requirements in response to slowing growth.

¹ Source: Bloomberg. Policy rate data is as of June 30, 2022. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of June 30, 2022.

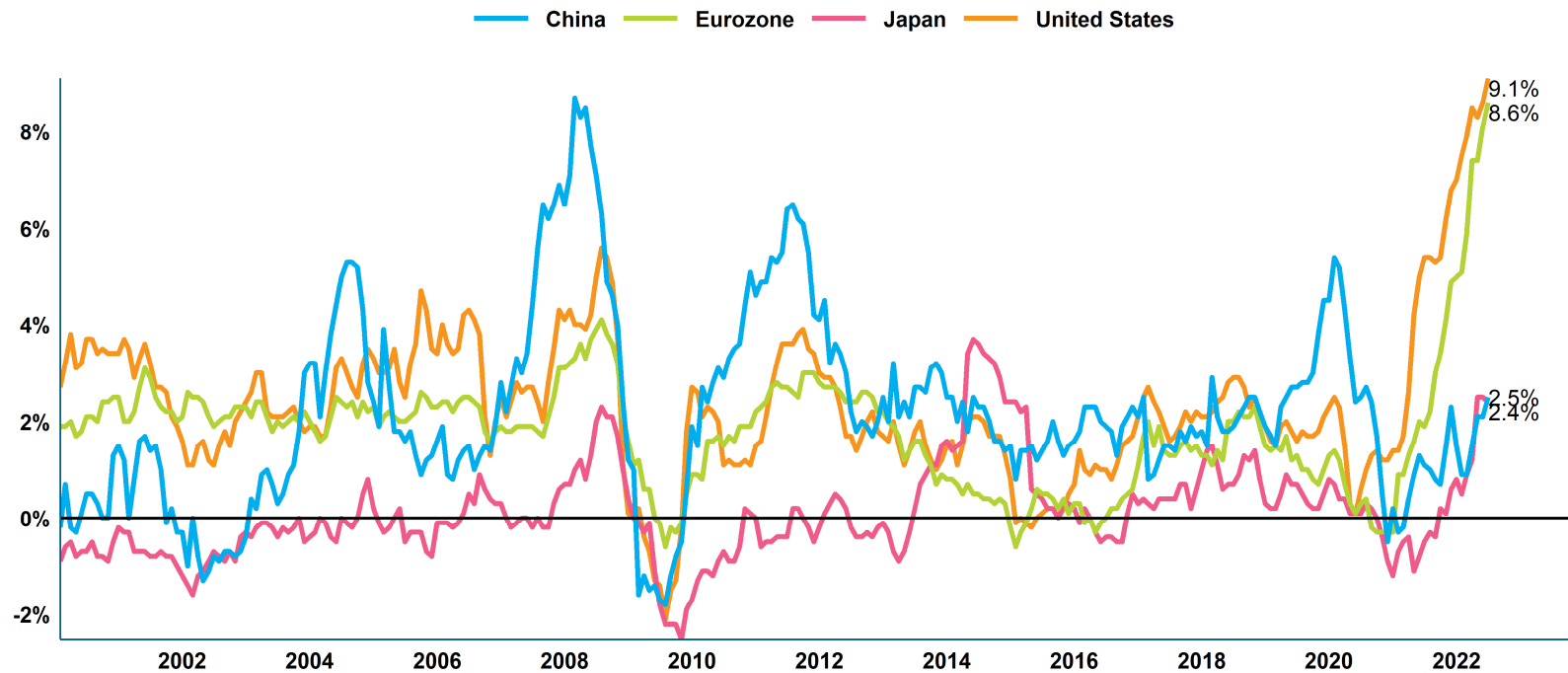
Budget Surplus / Deficit as a Percentage of GDP¹



- Budget deficits as a percentage of GDP drastically increased for major world economies, particularly the US, due to massive fiscal support and the severe economic contraction's effect on tax revenue in 2020 and 2021.
- As fiscal stimulus programs end, and economic recoveries continue, deficits should improve in the coming years.

¹ Source: Bloomberg. Data is as of June 30, 2022. Projections via IMF Forecasts from April 2022 Report. Dotted lines represent 2022 and 2023 forecasts.

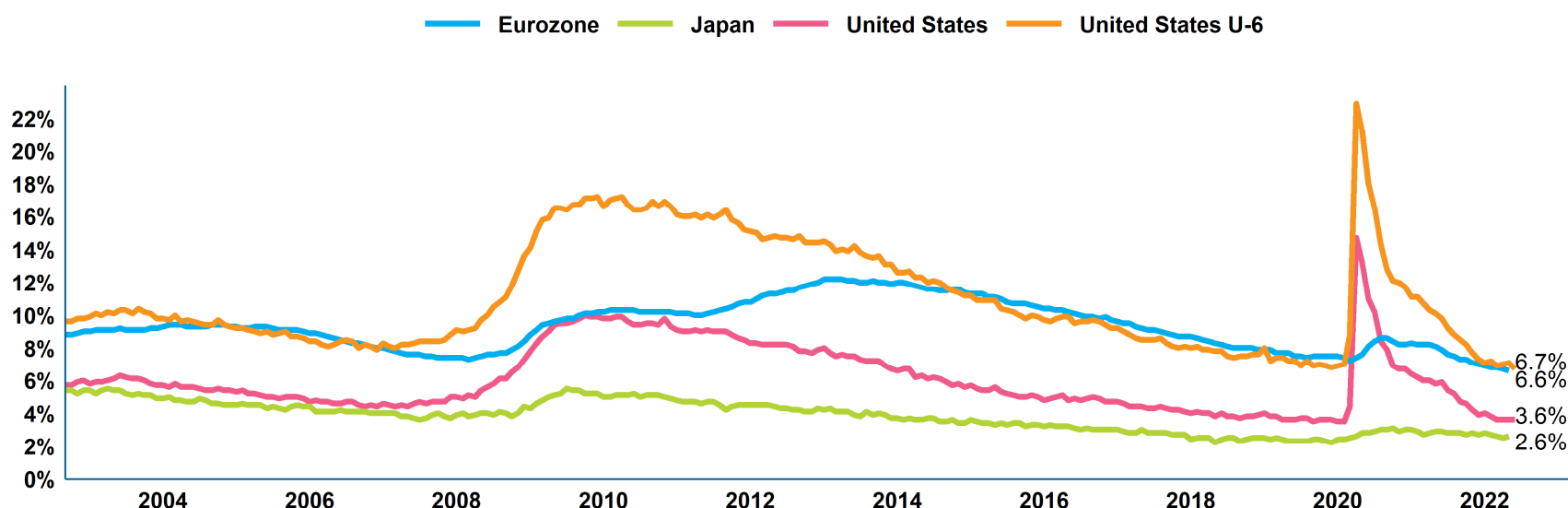
Inflation (CPI Trailing Twelve Months)¹



- Inflation increased dramatically from the lows of the pandemic, particularly in the US and Eurozone where it has reached levels not seen in many decades.
- Supply issues related to the pandemic, record monetary and fiscal stimulus, strict COVID-19 restrictions in China, and higher prices in many commodities driven by the war in Ukraine have been key drivers of inflation globally.

¹ Source: Bloomberg. Data is as of June 2022.

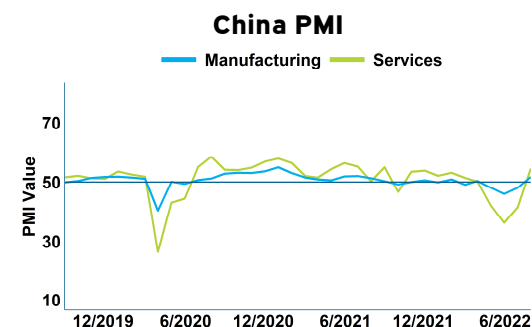
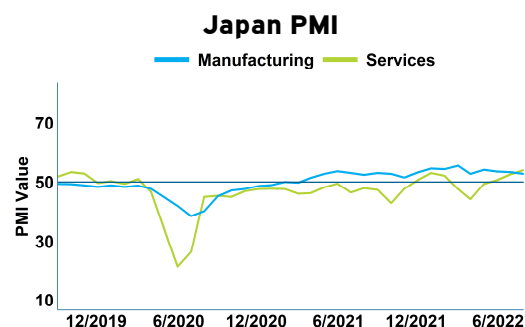
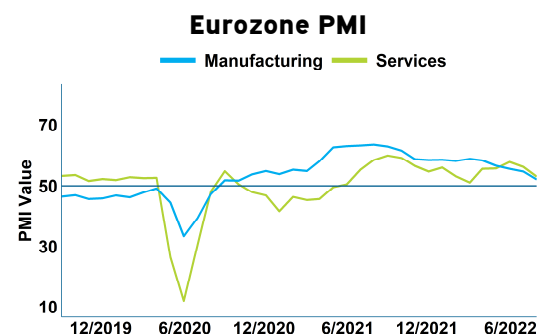
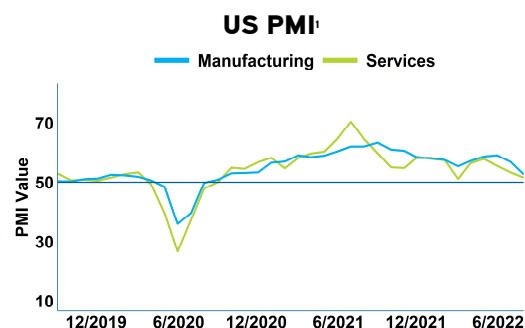
Unemployment¹



- As economies have largely reopened, helped by vaccines for the virus, improvements have been seen in the labor market.
- US unemployment, which experienced the steepest rise from the pandemic, declined back to pre-pandemic levels. The broader measure (U-6) that includes discouraged and underemployed workers declined but is much higher at 6.7%.

¹ Source: Bloomberg. Data is as of June 2022, for the US. The most recent data for Eurozone and Japanese unemployment is as of May 31, 2022.

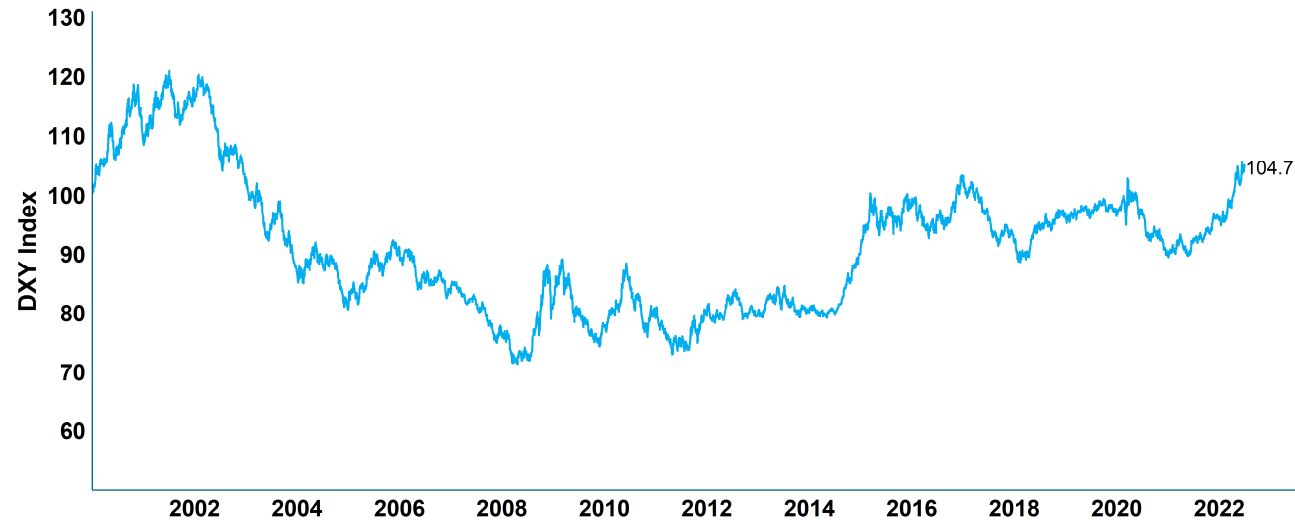
Global PMIs



- After improvements from the lows of the pandemic, Purchasing Managers Indices (PMI), based on surveys of private sector companies, have experienced some pressures recently.
- Service sector PMIs in the US and Europe have recently declined due to higher prices and supply issues, while they continue to improve in Japan as pandemic restrictions ease. In China the services PMI surged to expansion territory on an easing in lockdown measures.
- Manufacturing PMIs are in expansion territory as pandemic-related production issues ease and orders increase. China also moved to expansion levels here on partial reopening.

¹ Source: Bloomberg. US Markit Services and Manufacturing PMI, Caixin Services and Manufacturing PMI, Eurozone Markit Services and Manufacturing PMI, Jibun Bank Services and Manufacturing PMI. Data is as of June 2022. Readings below 50 represent economic contractions.

US Dollar versus Broad Currencies¹



- The US dollar continued higher in June on safe-haven flows, relatively strong growth, and higher interest rates.
- The euro, yen, and yuan have all experienced significant declines versus the dollar, adding to inflation and slowing growth concerns.

¹ Source: Bloomberg. Data as of June 30, 2022.

Summary

Key Trends in 2022:

- The impacts of record high inflation will remain key going forward, with volatility likely to remain high.
- The war in Ukraine has created significant uncertainty, with a wide range of potential outcomes.
- Expect growth to slow globally in 2022 to the long-term trend or below. Inflation, monetary policy, and the war will all be key.
- The end of many fiscal programs is expected to put the burden of continued growth on consumers. Higher energy and food prices will depress consumers' spending in other areas.
- Monetary policy will likely tighten globally but will remain relatively accommodative. The risk of overtightening policy remains.
- Valuations have significantly declined in the US, approaching long-term averages.
- Outside the US, equity valuations remain lower in both emerging and developed markets, but risks remain, including continued strength in the US dollar, higher inflation particularly weighing on Europe, and China maintaining its restrictive COVID-19 policies.

Executive Summary

As of June 30, 2022

The value of the City of San Jose Police & Fire Department Retirement Plan's assets was \$4.4 billion on June 30, 2022, compared to \$4.8 billion as of the end of the prior quarter. The Plan had net cash outflows of \$57 million and investment losses of \$353 million during the quarter.

- The Retirement Plan's net of fees performance for the quarter was -7.3%, outperforming the Policy Benchmark (-7.7%), the Investable Benchmark Portfolio (-7.6%), and a 60/40 global portfolio (-12.8%). The peer median return was -9.1%. The Plan ranked close to the top quartile of the peer group for the quarter.
- The Retirement Plan returned -5.0% over the trailing one-year period, outperforming the Policy Benchmark (-5.3%), the Investable Benchmark (-6.1%) and a 60/40 global portfolio (-15.9%). The Retirement Plan's standard deviation of returns was 8.2% over the trailing one-year period, exhibiting lower volatility vs. the peer median (8.5%).
 - Growth returned -10.5% for the quarter and -8.6% over the trailing one-year period, compared to the -10.6% and -8.5% returns for the Growth Benchmark over the same periods, respectively.
 - Low Beta returned +1.5% for the quarter and +3.9% over the trailing one-year period, compared to -0.3% and -0.2% returns for the Low Beta Benchmark over the same periods, respectively.
 - Other returned 0.0% for the quarter and +3.6% over the trailing one-year period, compared to the -0.5% and +2.7% returns for the Other Benchmark over the same periods, respectively.
- During the quarter, the Plan added six new investments: Aether Seed Partners I (Private Real Assets), AIGGRE Fund IV (Growth Real Estate), BlackRock 3-month T-Bill (Short Term IG Bonds), Bow Capital Fund II (Venture Capital), First Eagle Int'l Equity (Int'l Equity), and Praedium X MidInc (Growth Real Estate). Additionally, the Plan liquidated three investments: BlackRock Commodity Index Fund (Commodities), Blackstone Real Estate Debt (Growth Real Estate), and Northern Trust Aggregate Bond Index (IG Bonds).

DFA

- Dimensional Emerging Markets Value returned -10.7% for the quarter, outperforming the MSCI EM Value NR USD benchmark by 10 basis points. Slight outperformance for the quarter was driven by a valuation timing difference between the portfolio and index. Compared to peers, Dimensional ranks well above the median of its peer group for the 1-year period, and in the 40th percentile since inception (1st is best and 100th is worst). Also, beginning in February 2022, the strategy lowered its fee by 3 basis points.

Wellington

- Wellington Iguazu Partners LP Fund returned +5.9% for the quarter, outperforming the 50% JPM EMBI GD/50% JPM GBI-EM benchmark by 1,590 basis points. Wellington uses an absolute return approach to investing in emerging markets debt. Compared to peers, Wellington ranks in the 1st percentile since inception.

BlackRock

- BlackRock Core Property Fund returned +7.7% for the quarter, outperforming the Core Real Estate benchmark by 60 basis points. Since inception, BlackRock has returned +10.9%, outperforming the benchmark by 170 basis points.

Investment Manager	Asset Class	Changes/ Announcements	Meketa Recommendation ¹	Comments
Artisan Global Value	Global Equity	---	---	---
Artisan Global Opportunities	Global Equity	---	Hold	Watch List
Cove Street Small Cap Value	US Equity	---	Hold	Watch List
Oberweis International Opps	International Equity	---	---	---
Morgan Stanley Int'l Equity	International Equity	---	---	---
First Eagle Int'l Equity	International Equity	---	---	---
Dimensional EM Value	Emerging Markets Equity	---	---	---
GQG Partners Global EM	Emerging Markets Equity	---	---	---
RWC Emerging Markets Equity	Emerging Markets Equity	---	---	---
Wellington EM Systematic	Emerging Markets Equity	---	---	---
Kotak India Midcap	Emerging Markets Equity	---	---	---
Mellon High Yield Beta	High Yield Bonds	---	---	---
Columbia High Yield	High Yield Bonds	---	---	---
Wellington Iguazu Partners LP	Emerging Markets Debt	---	---	---
Payden EMD Blended Currency	Emerging Markets Debt	---	---	---
BlackRock Core Property	Core Real Estate	---	---	---
Clarion Lion Properties	Core Real Estate	---	---	---
TA Realty Core Property	Core Real Estate	---	---	---
Clarion Lion Industrial Trust	Core Real Estate	---	---	---
Voya Securitized Credit	Investment Grade Bonds	---	---	---
Invesco Core Bonds	Investment Grade Bonds	---	---	---

¹ The Meketa Investment Group recommendations are based on the noted organizational or resource changes at each manager.

Watch List^{1,2}

Investment Manager	Asset Class	Watch List Status	Comments
Artisan Global Opportunities	Global Equity	Monitoring	Underperformance
Cove Street Small Cap Value	US Equity	Monitoring	Underperformance

¹ Watch List excludes Private Markets and Passive Funds.

² Placement on the Watch List includes qualitative reasons and manager underperformance versus the appropriate benchmark over a three and/or five year period as outlined in the Investment Policy Statement.

Artisan Global Opportunities

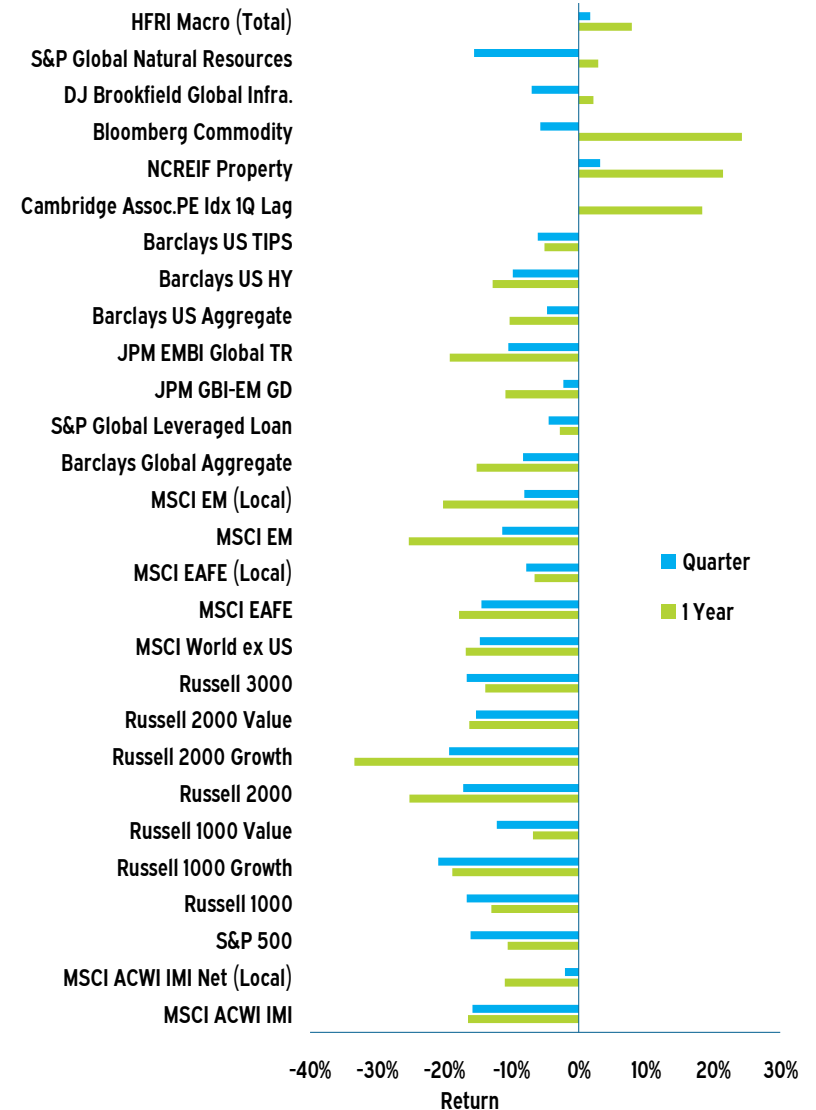
- Over the three-year period, Artisan (+6.6%) has underperformed the MSCI ACWI Growth by 100 basis points. Since inception in May 2013, Artisan has outperformed the benchmark by 80 basis points per year, on average, and ranked in the 13th percentile compared to peers.

Cove Street

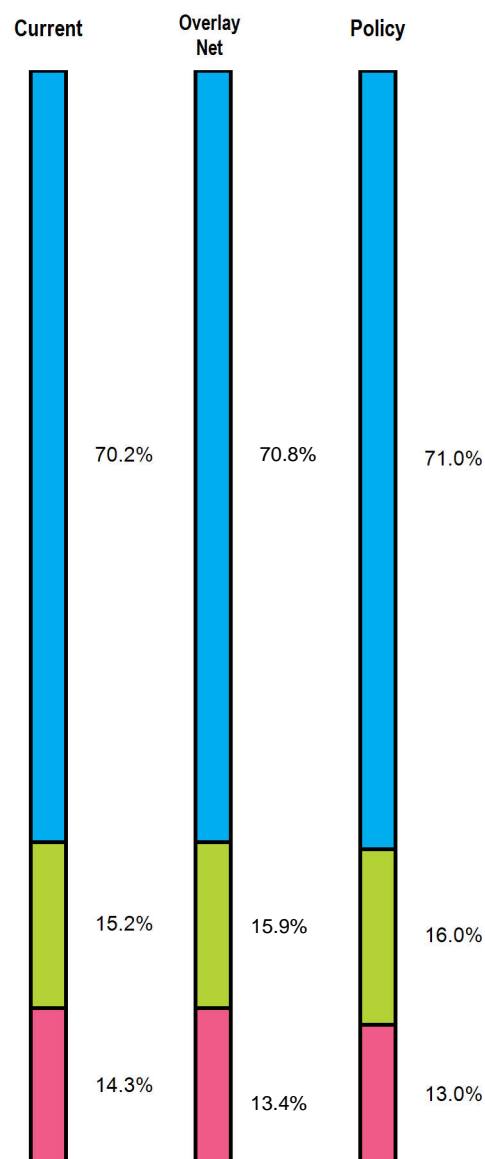
- Over the three-year period, Cove Street (+2.0%) has underperformed the Russell 2000 Value by 420 basis points. Since inception in December 2017, Cove Street has underperformed the benchmark by 40 basis points per year, on average, and ranked in the 69th percentile compared to peers.

Market Environment – 2Q22 Overview

Benchmark	Scope	2Q22 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Global Equity						
MSCI ACWI IMI	World	-15.8	-16.5	6.0	6.7	8.7
MSCI ACWI IMI Net (Local)	World (Local Currency)	-2.0	-11.0	8.3	7.6	9.3
Domestic Equity						
S&P 500	Large Core	-16.1	-10.6	10.6	11.3	13.0
Russell 1000	Large Core	-16.7	-13.0	10.2	11.0	12.8
Russell 1000 Growth	Large Growth	-20.9	-18.8	12.6	14.3	14.8
Russell 1000 Value	Large Value	-12.2	-6.8	6.9	7.2	10.5
Russell 2000	Small Core	-17.2	-25.2	4.2	5.2	9.4
Russell 2000 Growth	Small Growth	-19.3	-33.4	1.4	4.8	9.3
Russell 2000 Value	Small Value	-15.3	-16.3	6.2	4.9	9.1
Russell 3000	All Cap Core	-16.7	-13.9	9.8	10.6	12.6
International Equity						
MSCI World ex US	World ex-US	-14.7	-16.8	1.7	2.7	5.4
MSCI EAFE	International Developed	-14.5	-17.8	1.1	2.2	5.4
MSCI EAFE (Local)	International Developed (Local Currency)	-7.8	-6.6	4.4	4.3	8.3
MSCI EM	Emerging Markets	-11.4	-25.3	0.6	2.2	3.1
MSCI EM (Local)	Emerging Markets (Local Currency)	-8.1	-20.2	3.3	4.4	6.0
Global Fixed Income						
Barclays Global Aggregate	Global Core Bonds	-8.3	-15.2	-3.2	-0.6	0.1
S&P Global Leveraged Loan	Bank Loans	-4.5	-2.8	1.9	2.6	3.4
JPM GBI-EM GD	Emerging Markets Bonds (Local Currency)	-2.3	-10.9	-0.1	2.6	4.6
JPM EMBI Global TR	Emerging Market Bonds	-10.5	-19.2	-4.3	-1.0	2.1
Domestic Fixed Income						
Barclays US Aggregate	Core Bonds	-4.7	-10.3	-0.9	0.9	1.5
Barclays US HY	High Yield	-9.8	-12.8	0.2	2.1	4.5
Barclays US TIPS	Inflation	-6.1	-5.1	3.0	3.2	1.7
Other						
Cambridge AssociatesPE Index 1Qtr Lag	Private Equity	0.0	18.4	27.0	23.3	18.0
NCREIF Property	Real Estate	3.2	21.5	10.2	8.9	9.7
Bloomberg Commodity	Commodities	-5.7	24.3	14.3	8.4	-0.8
DJ Brookfield Global Infrastructure	Infrastructure	-7.0	2.2	4.5	5.7	7.6
S&P Global Natural Resources	Natural Resources	-15.6	2.9	8.6	8.9	4.6
HFRI Macro	Hedge Funds	1.7	7.9	7.7	5.3	3.1



2Q22 Review



Allocation vs. Targets and Policy				
	Current Balance	Current Allocation	Russell Overlay Net Position	Policy
Growth	\$3,274,402,427	71.2%	70.8%	71.0%
Public Equity	\$1,939,487,590	42.1%	41.8%	42.0%
Private Markets	\$1,155,775,801	25.1%	25.1%	25.0%
Emerging Markets Debt	\$92,785,607	2.0%	2.0%	2.0%
High Yield Bonds	\$86,353,429	1.9%	1.9%	2.0%
Low Beta	\$717,055,440	15.6%	15.9%	16.0%
Market Neutral Strategies	\$136,295,142	3.0%	3.0%	3.0%
Immunized Cash Flows	\$593,972,359	12.9%	12.9%	13.0%
Cash	\$-13,212,060	-0.3%	0.0%	0.0%
Other	\$611,456,612	13.3%	13.4%	13.0%
Core Real Estate	\$250,365,613	5.4%	5.4%	5.0%
TIPS	\$90,708,534	2.0%	2.0%	2.0%
Investment Grade Bonds	\$200,983,744	4.4%	4.5%	4.5%
Long Term Govt Bonds	\$69,398,721	1.5%	1.5%	1.5%
Total	\$4,602,914,480	100.0%	100.0%	100.0%

¹ Data in the column titled "Russel Overlay Net Position" is based on physical exposures, adjusted for synthetic positions provided by Russell Investments.

² Policy Targets represent approved asset allocation from March of 2022.

³ All data on this page is from Russell Investments and reflects trades made on or before 6/30/2022. Data on subsequent pages is from the custodian and may not reflect all trades made on or before 6/30/2022 depending on the settlement date of transaction.

Asset Class Net Performance Summary

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	4,412,282,401	100.0	-7.3	-9.7	-5.0	7.3	6.6	6.4	8.3	Mar-71
<i>Policy Benchmark</i>			-7.7	-10.2	-5.3	6.8	6.5	6.4	--	Mar-71
<i>Investable Benchmark Portfolio</i>			-7.6	-10.7	-6.1	6.5	6.3	6.2	--	Mar-71
<i>Low-Cost Passive Portfolio</i>			-12.0	-15.8	-13.0	3.1	--	--	--	Mar-71
<i>60/40 MSCI ACWI IMI/BBgBarc Global Aggregate</i>			-12.8	-17.8	-15.9	2.5	4.0	5.4	--	Mar-71
<i>Liability Benchmark Portfolio</i>			-11.9	-21.3	-18.5	-2.9	--	--	--	Mar-71
<i>InvMetrics Public DB > \$1B Net Median</i>			-8.6	-11.9	-7.4	6.3	6.6	7.6	--	Mar-71
<i>InvMetrics Public DB > \$1B Net Rank</i>			30	29	31	21	50	94	--	Mar-71
Growth	3,095,341,066	70.2	-10.5	-14.3	-8.6	9.1	8.3	--	--	Jul-15
<i>Growth Benchmark</i>			-10.6	-14.0	-8.5	9.1	8.6	--	--	Jul-15
Public Equity	1,766,314,055	40.0	-16.2	-21.7	-18.9	5.8	6.4	8.5	5.8	Apr-08
<i>Public Equity Benchmark</i>			-15.6	-20.3	-17.6	5.5	6.5	8.7	6.0	Apr-08
Global Equity	450,352,843	10.2	-16.8	-22.8	-19.9	6.5	7.5	--	9.7	Mar-13
<i>eV All Global Equity Net Median</i>			-15.6	-21.0	-16.2	5.7	6.7	8.8	7.8	Mar-13
<i>eV All Global Equity Net Rank</i>			66	64	69	39	38	--	17	Mar-13
U.S. Equity	742,523,818	16.8	-16.7	-20.9	-13.9	10.2	10.6	13.1	9.7	Jun-95
<i>MSCI USA IMI NR USD</i>			-16.9	-21.3	-14.1	9.4	10.2	12.0	9.3	Jun-95
<i>eV All US Equity Net Median</i>			-15.3	-19.9	-13.7	7.7	8.5	11.1	10.2	Jun-95
<i>eV All US Equity Net Rank</i>			65	56	52	22	27	14	66	Jun-95

¹ Fiscal Year begins July 1.

² Please see the Appendix for composition of the Policy Benchmark, Low-Cost Passive Portfolio, Liability Benchmark Portfolio, Growth Benchmark, and Public Equity Benchmark.

³ Returns for the Equity Aggregate are gross of fees through June 2015 and net of fees thereafter.

Total Fund | As of June 30, 2022

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
International Equity	346,386,807	7.9	-16.6	-24.2	-23.4	2.4	2.8	5.6	6.9	Jun-95
MSCI World ex USA IMI NR USD			-15.2	-19.5	-17.7	1.7	2.6	5.5	--	Jun-95
eV ACWI ex-US All Cap Equity Net Median			-15.4	-23.3	-23.0	2.2	3.3	6.3	7.1	Jun-95
eV ACWI ex-US All Cap Equity Net Rank			66	56	54	46	56	75	53	Jun-95
Emerging Markets Equity	227,050,588	5.1	-11.9	-18.3	-23.2	2.2	1.8	2.5	8.0	Sep-01
MSCI Emerging Markets IMI Net			-12.1	-17.9	-24.8	1.1	2.3	3.2	8.6	Sep-01
eV Emg Mkts Equity Net Median			-12.8	-19.2	-25.7	0.9	2.1	3.4	8.7	Sep-01
eV Emg Mkts Equity Net Rank			40	44	34	34	58	78	77	Sep-01
Private Markets	1,152,439,863	26.1	-2.0	-0.8	14.6	14.6	11.7	--	10.1	Jul-15
Private Markets Benchmark			-2.0	-0.8	14.6	14.6	11.8	--	10.7	Jul-15
MSCI ACWI IMI + 100bps			-15.6	-20.0	-15.7	7.0	7.8	--	7.8	Jul-15
Private Markets ex Russell 3000	876,604,156	19.9	4.0	6.5	25.5	18.7	--	--	--	Jul-15
Private Equity	398,281,004	9.0	3.0	3.8	26.4	25.2	20.7	16.2	12.7	Oct-05
Custom PE Benchmark			-0.4	5.3	26.8	23.8	19.9	15.9	13.9	Oct-05
Venture Capital	34,525,053	0.8	-1.6	-0.1	28.8	--	--	--	21.0	Sep-20
Private Debt	177,971,008	4.0	3.9	7.6	16.6	12.0	7.4	--	7.2	Oct-15
S&P Global Leveraged Loan + 2%			-4.0	-3.6	-0.8	3.9	4.6	--	5.5	Oct-15
Growth Real Estate	186,698,263	4.2	5.3	10.7	29.0	13.5	12.8	--	10.9	Jul-15
NCREIF Property Index			3.2	8.7	21.5	10.2	8.9	--	8.8	Jul-15
Private Real Assets	79,128,828	1.8	9.2	12.3	30.2	13.6	10.9	--	9.4	Jun-16
Northern Trust Russell 3000	275,835,707	6.3	-16.7	-21.1	-13.8	9.8	10.6	--	10.4	Apr-14
Russell 3000			-16.7	-21.1	-13.9	9.8	10.6	--	10.4	Apr-14

¹ Please see the Appendix for composition of the Private Markets Benchmark.

² Private Equity composite includes Russell 3000 proxy performance history prior to October 1, 2018.

Total Fund | As of June 30, 2022

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
High Yield Bonds	86,293,348	2.0	-9.6	-13.4	-11.9	--	--	--	0.7	Jun-20
Bloomberg US Corporate High Yield TR			-9.8	-14.2	-12.8	--	--	--	0.8	Jun-20
eV US High Yield Fixed Inc Net Median			-9.4	-13.1	-11.9	0.4	2.0	4.2	1.0	Jun-20
eV US High Yield Fixed Inc Net Rank			55	59	50	--	--	--	60	Jun-20
Emerging Market Debt	90,293,800	2.0	1.4	2.7	4.1	6.5	5.9	--	2.9	Jan-13
50% JPM EMBI GD / 50% JPM GBI-EM			-10.0	-17.5	-20.2	-5.5	-1.7	--	-0.5	Jan-13
eV All Emg Mkts Fixed Inc Net Median			-9.0	-16.0	-18.9	-4.4	-1.1	1.4	0.4	Jan-13
eV All Emg Mkts Fixed Inc Net Rank			1	1	1	1	1	--	4	Jan-13
Low Beta	668,773,642	15.2	1.5	3.3	3.9	3.8	3.7	--	2.8	Jul-15
Low Beta Benchmark			-0.3	-0.2	-0.2	1.0	1.2	--	0.8	Jul-15
Immunized Cash Flows	170,490,665	3.9	-0.5	-3.0	-3.5	0.3	--	--	1.2	Oct-18
Immunized Cash Flow Benchmark			-0.5	-3.0	-3.5	0.3	--	--	1.2	Oct-18
Market Neutral Strategies	139,508,919	3.2	8.3	18.8	21.6	12.9	10.0	--	6.1	Nov-12
Market Neutral Strategies Benchmark			0.5	0.7	0.8	0.9	1.1	--	1.1	Nov-12
Relative Value	139,508,919	3.2	8.3	18.8	21.6	13.3	10.5	--	8.1	Jul-15
HFRI Relative Value (Total) Index			-2.8	-2.1	-1.2	3.5	3.6	--	3.6	Jul-15
Relative Value Arbitrage MStar MF Median			-4.4	-5.6	-4.9	3.3	2.9	2.9	3.0	Jul-15
Relative Value Arbitrage MStar MF Rank			1	1	1	1	1	--	1	Jul-15
Cash	58,521,738	1.3	0.1	0.2	0.2	0.7	1.2	0.7	7.6	Jul-02
ICE BofA 91 Days T-Bills TR			0.1	0.1	0.2	0.6	1.1	0.6	1.3	Jul-02

¹ Please see the Appendix for composition of the Low Beta Benchmark, Immunized Cash Flows Benchmark, and Market Neutral Strategies Benchmark.

² Cash Composite includes the cash account and residuals from terminated manager assets.

Total Fund | As of June 30, 2022

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Short Term IG Bonds	300,252,320	6.8	--	--	--	--	--	--	--	May-22
ICE BofA 3M US Treasury TR USD			--	--	--	--	--	--	--	May-22
Other	628,994,943	14.3	0.0	0.7	3.6	0.9	2.1	--	2.0	Jul-15
Other Benchmark			-0.5	-0.6	2.7	0.6	1.8	--	1.8	Jul-15
Core Real Estate	268,947,877	6.1	7.4	17.6	28.3	11.5	9.8	--	9.4	Jul-15
Core Real Estate Benchmark			7.1	15.3	27.3	10.0	8.6	--	8.7	Jul-15
TIPS	90,709,638	2.1	-1.3	-1.2	1.2	3.5	--	--	3.7	Oct-18
Bloomberg US Treasury TIPS 0-5 Yr TR			-1.1	-1.4	1.1	3.5	--	--	3.6	Oct-18
Investment Grade Bonds	199,817,550	4.5	-5.0	-10.0	-10.0	--	--	--	-3.6	May-20
Custom IG Bonds Benchmark			-4.5	-9.2	-9.3	--	--	--	-4.2	May-20
Long-Term Government Bonds	69,519,878	1.6	-11.9	-21.0	-18.5	--	--	--	-13.8	May-20
Long-Term Government Bonds Benchmark			-11.9	-21.3	-18.5	--	--	--	-13.8	May-20
Commodities	--	--	--	--	--	--	--	--	--	Jun-21
Overlay	19,172,750	0.4								

Core Real Estate values are one-quarter lagged.

¹ Please see the Appendix for composition of the Other Benchmark.

	Trailing Net Performance									
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	4,412,282,401	100.0	-7.3	-9.7	-5.0	7.3	6.6	6.4	8.3	Mar-71
<i>Policy Benchmark</i>			-7.7	-10.2	-5.3	6.8	6.5	6.4	--	Mar-71
<i>Investable Benchmark Portfolio</i>			-7.6	-10.7	-6.1	6.5	6.3	6.2	--	Mar-71
<i>Low-Cost Passive Portfolio</i>			-12.0	-15.8	-13.0	3.1	--	--	--	Mar-71
<i>60/40 MSCI ACWI IMI/BBgBarc Global Aggregate</i>			-12.8	-17.8	-15.9	2.5	4.0	5.4	--	Mar-71
<i>Liability Benchmark Portfolio</i>			-11.9	-21.3	-18.5	-2.9	--	--	--	Mar-71
<i>InvMetrics Public DB > \$1B Net Median</i>			-8.6	-11.9	-7.4	6.3	6.6	7.6	--	Mar-71
<i>InvMetrics Public DB > \$1B Net Rank</i>			30	29	31	21	50	94	--	Mar-71
Growth	3,095,341,066	70.2	-10.5	-14.3	-8.6	9.1	8.3	--	--	Jul-15
<i>Growth Benchmark</i>			-10.6	-14.0	-8.5	9.1	8.6	--	--	Jul-15
Public Equity	1,766,314,055	40.0	-16.2	-21.7	-18.9	5.8	6.4	8.5	5.8	Apr-08
<i>Public Equity Benchmark</i>			-15.6	-20.3	-17.6	5.5	6.5	8.7	6.0	Apr-08
Global Equity	450,352,843	10.2	-16.8	-22.8	-19.9	6.5	7.5	--	9.7	Mar-13
<i>eV All Global Equity Net Median</i>			-15.6	-21.0	-16.2	5.7	6.7	8.8	7.8	Mar-13
<i>eV All Global Equity Net Rank</i>			66	64	69	39	38	--	17	Mar-13
<i>Artisan Global Value</i>	252,694,088	5.7	-13.5	-14.8	-13.8	5.5	5.9	--	8.5	Mar-13
<i>MSCI ACWI Value NR USD</i>			-11.5	-12.3	-8.1	3.9	4.3	--	5.8	Mar-13
<i>eV All Global Equity Net Median</i>			-15.6	-21.0	-16.2	5.7	6.7	8.8	7.8	Mar-13
<i>eV All Global Equity Net Rank</i>			28	22	36	53	62	--	37	Mar-13

¹ Please see the Appendix for composition of the Policy Benchmark, Low-Cost Passive Portfolio, Liability Benchmark Portfolio, Growth Benchmark, and Public Equity Benchmark.

Total Fund | As of June 30, 2022

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Artisan Global Opportunities	197,658,756	4.5	-20.7	-31.2	-26.6	6.6	8.5	--	10.0	May-13
<i>MSCI ACWI Growth NR USD</i>			-20.2	-27.9	-23.5	7.6	9.2	--	9.2	May-13
<i>eV All Global Equity Net Median</i>			-15.6	-21.0	-16.2	5.7	6.7	8.8	7.4	May-13
<i>eV All Global Equity Net Rank</i>			88	88	84	38	27	--	13	May-13
U.S. Equity	742,523,818	16.8	-16.7	-20.9	-13.9	10.2	10.6	13.1	9.7	Jun-95
<i>MSCI USA IMI NR USD</i>			-16.9	-21.3	-14.1	9.4	10.2	12.0	9.3	Jun-95
<i>eV All US Equity Net Median</i>			-15.3	-19.9	-13.7	7.7	8.5	11.1	10.2	Jun-95
<i>eV All US Equity Net Rank</i>			65	56	52	22	27	14	66	Jun-95
Northern Trust Russell 3000	710,256,043	16.1	-16.7	-21.1	-13.9	--	--	--	20.3	Apr-20
<i>Russell 3000</i>			-16.7	-21.1	-13.9	--	--	--	20.3	Apr-20
Cove Street Small Cap Value	32,267,775	0.7	-17.4	-15.3	-15.0	2.0	--	--	3.1	Dec-17
<i>Russell 2000 Value</i>			-15.3	-17.3	-16.3	6.2	--	--	3.5	Dec-17
<i>eV US Small Cap Value Equity Net Median</i>			-13.5	-16.0	-11.8	6.8	5.5	9.6	4.0	Dec-17
<i>eV US Small Cap Value Equity Net Rank</i>			92	45	76	96	--	--	69	Dec-17
International Equity	346,386,807	7.9	-16.6	-24.2	-23.4	2.4	2.8	5.6	6.9	Jun-95
<i>MSCI World ex USA IMI NR USD</i>			-15.2	-19.5	-17.7	1.7	2.6	5.5	--	Jun-95
<i>eV ACWI ex-US All Cap Equity Net Median</i>			-15.4	-23.3	-23.0	2.2	3.3	6.3	7.1	Jun-95
<i>eV ACWI ex-US All Cap Equity Net Rank</i>			66	56	54	46	56	75	53	Jun-95
Northern Trust MSCI World ex US	162,025,017	3.7	-13.5	-18.3	-16.2	2.2	3.1	--	2.7	Apr-14
<i>MSCI World ex USA</i>			-14.7	-18.8	-16.8	1.7	2.7	--	2.4	Apr-14

Total Fund | As of June 30, 2022

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Oberweis Intl Opportunities	52,183,000	1.2	-23.3	-36.2	-38.4	3.8	4.1	--	5.0	Mar-14
<i>MSCI World ex USA Small Cap Growth NR USD</i>			-20.4	-29.6	-28.6	1.4	2.6	--	3.7	Mar-14
<i>eV ACWI ex-US All Cap Equity Net Median</i>			-15.4	-23.3	-23.0	2.2	3.3	6.3	3.2	Mar-14
<i>eV ACWI ex-US All Cap Equity Net Rank</i>			97	94	96	26	35	--	22	Mar-14
Morgan Stanley International Equity	57,238,890	1.3	-20.9	--	--	--	--	--	--	
<i>MSCI World ex USA</i>			-14.7	--	--	--	--	--	--	
First Eagle International Equity	74,939,900	1.7	--	--	--	--	--	--	-0.1	Jun-22
<i>MSCI World ex USA</i>			--	--	--	--	--	--	-9.4	Jun-22
Emerging Markets Equity	227,050,588	5.1	-11.9	-18.3	-23.2	2.2	1.8	2.5	8.0	Sep-01
<i>MSCI Emerging Markets IMI Net</i>			-12.1	-17.9	-24.8	1.1	2.3	3.2	8.6	Sep-01
<i>eV Emg Mkts Equity Net Median</i>			-12.8	-19.2	-25.7	0.9	2.1	3.4	8.7	Sep-01
<i>eV Emg Mkts Equity Net Rank</i>			40	44	34	34	58	78	77	Sep-01
Northern Trust MSCI EM IMI	38,115,265	0.9	-11.3	-17.6	-24.9	1.2	--	--	1.5	Oct-18
<i>MSCI Emerging Markets IMI Net</i>			-12.1	-17.9	-24.8	1.1	--	--	1.4	Oct-18
Dimensional Fund Adv EM Value	51,997,686	1.2	-10.7	-10.2	-12.9	1.9	2.6	--	3.6	Jul-15
<i>MSCI Emerging Markets Value NR USD</i>			-10.8	-13.9	-18.6	-1.0	1.2	--	1.5	Jul-15
<i>eV Emg Mkts Equity Net Median</i>			-12.8	-19.2	-25.7	0.9	2.1	3.4	3.0	Jul-15
<i>eV Emg Mkts Equity Net Rank</i>			20	5	4	39	42	--	39	Jul-15

Total Fund | As of June 30, 2022

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
GQG Global Emerging Markets	43,930,348	1.0	-11.2	-21.1	-25.4	2.0	4.9	--	4.9	Jul-17
<i>MSCI Emerging Markets</i>			-11.4	-17.6	-25.3	0.6	2.2	--	2.2	Jul-17
<i>eV Emg Mkts Equity Net Median</i>			-12.8	-19.2	-25.7	0.9	2.1	3.4	2.1	Jul-17
<i>eV Emg Mkts Equity Net Rank</i>			27	63	50	37	15	--	15	Jul-17
Redwheel Emerging Markets Equity	35,692,853	0.8	-12.3	-21.8	-30.0	--	--	--	5.2	Sep-19
<i>MSCI Emerging Markets</i>			-11.4	-17.6	-25.3	--	--	--	2.8	Sep-19
<i>eV Emg Mkts Equity Net Median</i>			-12.8	-19.2	-25.7	0.9	2.1	3.4	3.1	Sep-19
<i>eV Emg Mkts Equity Net Rank</i>			45	68	73	--	--	--	26	Sep-19
Wellington Emerging Markets Systematic	44,018,881	1.0	-12.5	-18.4	-24.2	--	--	--	4.5	Sep-19
<i>MSCI Emerging Markets</i>			-11.4	-17.6	-25.3	--	--	--	2.8	Sep-19
<i>eV Emg Mkts Equity Net Median</i>			-12.8	-19.2	-25.7	0.9	2.1	3.4	3.1	Sep-19
<i>eV Emg Mkts Equity Net Rank</i>			46	45	41	--	--	--	32	Sep-19
Kotak India Midcap	13,295,554	0.3	-15.5	-18.2	-11.4	--	--	--	-11.4	Jul-21
<i>eV Emg Mkts Equity Net Median</i>			-12.8	-19.2	-25.7	0.9	2.1	3.4	-25.7	Jul-21
<i>eV Emg Mkts Equity Net Rank</i>			80	43	3	--	--	--	3	Jul-21
Private Markets	1,152,439,863	26.1	-2.0	-0.8	14.6	14.6	11.7	--	10.1	Jul-15
<i>Private Markets Benchmark</i>			-2.0	-0.8	14.6	14.6	11.8	--	10.7	Jul-15
<i>MSCI ACWI IMI + 100bps</i>			-15.6	-20.0	-15.7	7.0	7.8	--	7.8	Jul-15
Private Markets ex Russell 3000	876,604,156	19.9	4.0	6.5	25.5	18.7	--	--	--	Jul-15
Private Equity	398,281,004	9.0	3.0	3.8	26.4	25.2	20.7	16.2	12.7	Oct-05
<i>Custom PE Benchmark</i>			-0.4	5.3	26.8	23.8	19.9	15.9	13.9	Oct-05
PE Strategic Partnership, LP	294,685,049	6.7	7.7	7.7	37.9	29.3	--	--	19.7	Aug-17

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Pantheon USA Fund VI, LP	413,249	0.0	-6.0	-11.7	-26.5	-15.4	-7.0	-0.4	1.6	Oct-05
Portfolio Advisors Private Eq	2,948,013	0.1	-3.4	-5.7	17.3	8.8	7.0	8.2	6.6	Nov-05
HarbourVest Partners VII	119,301	0.0	-0.4	-0.4	-1.4	-4.6	-4.4	4.1	5.8	Dec-05
TCW/Crescent Mezzanine	76,675	0.0	-0.2	-8.6	15.4	64.2	30.8	19.7	16.8	Dec-08
TPG Opportunities Partners II	642,882	0.0	1.8	4.2	16.5	4.0	6.8	--	11.4	Oct-12
Crescent Mezzanine Partners VI	2,771,862	0.1	-4.2	-4.2	23.8	15.7	12.8	--	9.5	Feb-13
Warburg Pincus (Europa) XI	9,447,140	0.2	0.3	1.1	9.6	9.9	12.8	--	11.8	May-13
57 Stars Global Opportunity	28,824,736	0.7	-7.6	-7.6	-0.6	8.4	7.3	--	3.5	Jan-14
TPG Opportunities Partners III	4,379,277	0.1	-1.7	0.9	23.4	14.2	13.2	--	7.4	Mar-14
CCMP Capital Investors III, LP	9,577,767	0.2	-18.7	-15.9	-4.1	21.3	14.5	--	12.6	Aug-14
Francisco Partners	19,546,988	0.4	-17.1	-21.9	-10.9	34.3	33.1	--	24.4	May-15
Innovation Endeavors III	12,092,066	0.3	-3.1	42.0	92.8	61.9	--	--	32.0	Jun-18
Crestline Portfolio Financing	12,755,999	0.3	0.8	1.9	4.0	9.6	--	--	9.1	Jun-18
Venture Capital	34,525,053	0.8	-1.6	-0.1	28.8	--	--	--	21.0	Sep-20
Top Tier Capital Partners IX	7,049,653	0.2	-4.3	-4.3	21.0	--	--	--	29.7	Sep-20
Northgate Venture Partners IX LP	9,095,200	0.2	15.3	17.6	26.2	--	--	--	8.9	Sep-20

Total Fund | As of June 30, 2022

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Canvas III	2,492,530	0.1	4.8	23.4	16.8	--	--	--	5.2	Nov-20
Innovation Endeavors IV	1,034,645	0.0	4.5	2.3	-6.9	--	--	--	-6.4	Jun-21
Invesco Alpha II	5,438,994	0.1								
Next Play Capital III	4,017,306	0.1								
Tiger Iron SJPF	4,282,807	0.1	-4.0	--	--	--	--	--	--	
Bow Capital Fund II	1,113,918	0.0	--	--	--	--	--	--	0.0	Jun-22
Private Debt	177,971,008	4.0	3.9	7.6	16.6	12.0	7.4	--	7.2	Oct-15
<i>S&P Global Leveraged Loan + 2%</i>			-4.0	-3.6	-0.8	3.9	4.6	--	5.5	Oct-15
White Oak Direct Lending	36,701,596	0.8	12.4	28.6	77.2	52.3	20.7	11.6	9.5	Nov-10
Blackstone/GSO Cap Partners	3,799,965	0.1	1.1	2.8	-4.3	-26.1	-14.7	-4.3	-1.1	Dec-10
Medley Opportunity Fund II LP	4,378,782	0.1	-9.8	-9.8	-13.3	-11.8	-10.6	-2.3	-1.7	Mar-11
Cross Ocean USD ESS Fund I, LP	6,875,920	0.2	-0.8	-1.8	-5.2	15.8	8.1	--	8.5	Apr-14
Park Square Credit Opp II, LP	118,263	0.0	-6.3	197.1	-51.1	21.2	14.0	--	11.3	Nov-14
Shoreline China Value III, LP	7,582,508	0.2	2.3	5.2	0.8	1.6	2.2	--	4.7	Jul-15
Cross Ocean USD ESS Fund II LP	16,032,178	0.4	-0.7	0.3	6.6	6.2	5.9	--	8.1	May-16
Cross Ocean USD ESS Fund III, LP	39,621,923	0.9	3.7	3.5	10.6	13.6	--	--	13.2	Jun-19
Arbour Lane Credit Opportunity Fund II, L.P.	16,148,643	0.4	3.2	3.2	15.8	--	--	--	23.2	Apr-20
Eagle Point Defensive Income Fund	11,089,863	0.3	2.2	3.5	-5.6	--	--	--	7.3	Jun-20

Total Fund | As of June 30, 2022

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
HPS Special Situations Opportunity	8,037,363	0.2	3.8	6.1	12.9	--	--	--	24.0	Dec-20
Crestline Portfolio Fin II	4,029,228	0.1	2.1	4.5	11.6	--	--	--	7.9	Dec-20
SVP Special Situations V	5,516,250	0.1	2.4	11.2	8.8	--	--	--	8.8	Jun-21
Arbour Lane COF III	5,927,590	0.1								
Angelo Gordon CS II	4,758,870	0.1	1.2	--	--	--	--	--	1.2	Feb-22
Octagon CLO Opp Fund IV	7,352,066	0.2	0.1	--	--	--	--	--	0.1	Mar-22
Growth Real Estate	186,698,263	4.2	5.3	10.7	29.0	13.5	12.8	--	10.9	Jul-15
<i>NCREIF Property Index</i>			<i>3.2</i>	<i>8.7</i>	<i>21.5</i>	<i>10.2</i>	<i>8.9</i>	<i>--</i>	<i>8.8</i>	<i>Jul-15</i>
TA Realty Associates Fund X	7,036	0.0	28.6	23.7	24.0	10.6	12.4	--	11.7	Mar-13
Brookfield SREP I	3,542,917	0.1	0.0	3.7	15.4	4.5	12.7	--	15.3	Sep-13
Tristan - EPISO III	2,722,405	0.1	-2.4	-0.2	-1.3	-6.1	-2.7	--	2.3	Dec-13
Orion Euro Real Estate IV LP	3,403,971	0.1	-6.5	-5.1	-4.2	-11.3	-10.3	--	-8.4	Apr-14
Och Ziff Real Estate Fund III	2,684,503	0.1	11.0	18.3	34.5	20.8	24.5	--	16.6	Oct-14
Tristan - EPISO IV	17,373,585	0.4	-3.6	-1.5	0.8	7.6	8.4	--	7.1	Dec-15
KSL Capital Partners IV, LP	22,159,626	0.5	9.1	9.1	50.8	19.4	21.1	--	6.2	Apr-16
Brookfield SREP II	19,763,611	0.4	7.4	23.7	35.4	18.1	15.6	--	14.3	Jun-16

Total Fund | As of June 30, 2022

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
DRA Growth & Income Fund IX	14,920,256	0.3	6.1	10.8	49.6	23.0	19.7	--	18.9	Feb-17
GEM Realty Fund VI	7,287,773	0.2	6.2	14.7	38.4	15.8	--	--	10.4	Nov-17
Torchlight Debt Opportunity VI	25,755,563	0.6	3.4	8.8	19.3	9.0	--	--	6.0	Apr-18
Tristan - EPISO V	17,821,009	0.4	4.2	2.1	6.3	-33.4	--	--	-32.2	May-19
DRA Growth and Income Fund X, LLC	10,645,290	0.2	13.7	15.2	51.8	--	--	--	30.0	Mar-20
Rockpoint Real Estate Fund VI, L.P.	9,275,932	0.2	8.7	14.7	44.2	--	--	--	21.4	May-20
Exeter Industrial Value Fund V	11,022,991	0.2	5.6	31.5	73.2	--	--	--	48.8	Oct-20
Torchlight Debt Fund VII	2,759,251	0.1	1.3	1.5	1.8	--	--	--	1.7	Feb-21
HIG Realty Partners IV	2,019,054	0.0	79.1	--	--	--	--	--	79.1	Feb-22
Praedium X MidInc	3,940,106	0.1	0.0	--	--	--	--	--	0.0	Apr-22
AIGGRE Fund IV	9,593,383	0.2	--	--	--	--	--	--	-4.8	Jun-22
Private Real Assets	79,128,828	1.8	9.2	12.3	30.2	13.6	10.9	--	9.4	Jun-16
Brookfield Infrastructure III	18,579,269	0.4	7.4	10.6	20.3	13.3	11.7	--	11.3	Jun-16
Global Infra Part III-A/B, LP	22,163,023	0.5	4.8	18.4	24.7	12.3	7.8	--	6.7	Sep-16
Lime Rock Partners VIII	6,739,607	0.2	21.7	29.6	48.8	12.3	--	--	10.8	Dec-18
Kimmeridge Energy Fund V, L.P.	8,217,022	0.2	17.1	17.1	50.3	--	--	--	15.9	Aug-19

Total Fund | As of June 30, 2022

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Global Infra Partners IV	3,198,165	0.1	3.9	9.0	4.0	--	--	--	-73.9	Aug-19
Lime Rock New Energy, L.P	1,969,385	0.0	-19.8	-56.2	-8.1	--	--	--	-6.0	Aug-20
Orion Mine Finance Fund III, L.P.	6,458,024	0.1	2.1	7.3	7.9	--	--	--	10.5	Sep-20
Real Assets Coinvest I	1,799,998	0.0	0.0	0.0	0.0	--	--	--	0.0	Sep-20
Crestline Co-Investment II	5,644,180	0.1	43.4	49.9	67.4	--	--	--	50.9	Feb-21
Tembo Cap Mining III	2,277,309	0.1	2.3	6.3	--	--	--	--	6.3	Oct-21
Mountain Capital II	1,850,276	0.0	19.6	18.5	--	--	--	--	18.5	Jan-22
Aether Seed Partners I	232,571	0.0	--	--	--	--	--	--	0.0	May-22
Northern Trust Russell 3000	275,835,707	6.3	-16.7	-21.1	-13.8	9.8	10.6	--	10.4	Apr-14
<i>Russell 3000</i>			<i>-16.7</i>	<i>-21.1</i>	<i>-13.9</i>	<i>9.8</i>	<i>10.6</i>	<i>--</i>	<i>10.4</i>	<i>Apr-14</i>
High Yield Bonds	86,293,348	2.0	-9.6	-13.4	-11.9	--	--	--	0.7	Jun-20
<i>Bloomberg US Corporate High Yield TR</i>			<i>-9.8</i>	<i>-14.2</i>	<i>-12.8</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>0.8</i>	<i>Jun-20</i>
<i>eV US High Yield Fixed Inc Net Median</i>			<i>-9.4</i>	<i>-13.1</i>	<i>-11.9</i>	<i>0.4</i>	<i>2.0</i>	<i>4.2</i>	<i>1.0</i>	<i>Jun-20</i>
<i>eV US High Yield Fixed Inc Net Rank</i>			<i>55</i>	<i>59</i>	<i>50</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>60</i>	<i>Jun-20</i>
Mellon High Yield Beta	8,462,705	0.2	-9.9	-14.2	-12.9	--	--	--	0.5	Jun-20
<i>Bloomberg US Corporate High Yield TR</i>			<i>-9.8</i>	<i>-14.2</i>	<i>-12.8</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>0.3</i>	<i>Jun-20</i>
<i>eV US High Yield Fixed Inc Net Median</i>			<i>-9.4</i>	<i>-13.1</i>	<i>-11.9</i>	<i>0.4</i>	<i>2.0</i>	<i>4.2</i>	<i>0.6</i>	<i>Jun-20</i>
<i>eV US High Yield Fixed Inc Net Rank</i>			<i>71</i>	<i>78</i>	<i>76</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>55</i>	<i>Jun-20</i>

Total Fund | As of June 30, 2022

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Columbia High Yield Fixed Income	77,830,643	1.8	-9.6	-13.3	-11.7	--	--	--	-6.0	Dec-20
Bloomberg US Corporate High Yield TR			-9.8	-14.2	-12.8	--	--	--	-6.5	Dec-20
eV US High Yield Fixed Inc Net Median			-9.4	-13.1	-11.9	0.4	2.0	4.2	-5.8	Dec-20
eV US High Yield Fixed Inc Net Rank			55	56	49	--	--	--	55	Dec-20
Emerging Market Debt	90,293,800	2.0	1.4	2.7	4.1	6.5	5.9	--	2.9	Jan-13
50% JPM EMBI GD / 50% JPM GBI-EM			-10.0	-17.5	-20.2	-5.5	-1.7	--	-0.5	Jan-13
eV All Emg Mkts Fixed Inc Net Median			-9.0	-16.0	-18.9	-4.4	-1.1	1.4	0.4	Jan-13
eV All Emg Mkts Fixed Inc Net Rank			1	1	1	1	1	--	4	Jan-13
Wellington Iguazu Partners LP Fund	79,251,913	1.8	5.9	13.4	17.2	12.3	10.6	--	9.3	Feb-14
50% JPM EMBI GD + 50% JPM GBI EM GD			-10.0	-17.5	-20.2	-5.5	-1.7	--	0.6	Feb-14
eV All Emg Mkts Fixed Inc Net Median			-9.0	-16.0	-18.9	-4.4	-1.1	1.4	1.4	Feb-14
eV All Emg Mkts Fixed Inc Net Rank			1	1	1	1	1	--	1	Feb-14
Payden EMD Blended Currency	11,041,887	0.3	-11.7	-18.8	-21.4	--	--	--	-15.9	Dec-20
50% JPM EMBI GD / 50% JPM GBI-EM			-10.0	-17.5	-20.2	--	--	--	-15.1	Dec-20
eV Emg Mkts Fixed Inc - Blended Currency Net Median			-10.6	-16.9	-20.0	-4.5	-1.2	0.7	-14.4	Dec-20
eV Emg Mkts Fixed Inc - Blended Currency Net Rank			78	75	80	--	--	--	83	Dec-20
Low Beta	668,773,642	15.2	1.5	3.3	3.9	3.8	3.7	--	2.8	Jul-15
Low Beta Benchmark			-0.3	-0.2	-0.2	1.0	1.2	--	0.8	Jul-15
Immunized Cash Flows	170,490,665	3.9	-0.5	-3.0	-3.5	0.3	--	--	1.2	Oct-18
Immunized Cash Flow Benchmark			-0.5	-3.0	-3.5	0.3	--	--	1.2	Oct-18
Insight Immunized Cash Flow	170,490,665	3.9	-0.5	-3.0	-3.5	0.3	--	--	0.3	Jun-19
Bloomberg US Govt/Credit 1-3 Yr. TR			-0.6	-3.1	-3.6	0.3	--	--	0.5	Jun-19

Total Fund | As of June 30, 2022

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Market Neutral Strategies	139,508,919	3.2	8.3	18.8	21.6	12.9	10.0	--	6.1	Nov-12
<i>Market Neutral Strategies Benchmark</i>			<i>0.5</i>	<i>0.7</i>	<i>0.8</i>	<i>0.9</i>	<i>1.1</i>	<i>--</i>	<i>1.1</i>	<i>Nov-12</i>
Relative Value	139,508,919	3.2	8.3	18.8	21.6	13.3	10.5	--	8.1	Jul-15
<i>HFRI Relative Value (Total) Index</i>			<i>-2.8</i>	<i>-2.1</i>	<i>-1.2</i>	<i>3.5</i>	<i>3.6</i>	<i>--</i>	<i>3.6</i>	<i>Jul-15</i>
<i>Relative Value Arbitrage MStar MF Median</i>			<i>-4.4</i>	<i>-5.6</i>	<i>-4.9</i>	<i>3.3</i>	<i>2.9</i>	<i>2.9</i>	<i>3.0</i>	<i>Jul-15</i>
<i>Relative Value Arbitrage MStar MF Rank</i>			<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>--</i>	<i>1</i>	<i>Jul-15</i>
Pine River Fund, Ltd	272,732	0.0	-12.6	-12.6	-10.6	2.7	4.8	--	3.6	Jan-13
<i>HFRI Relative Value (Total) Index</i>			<i>-2.8</i>	<i>-2.1</i>	<i>-1.2</i>	<i>3.5</i>	<i>3.6</i>	<i>--</i>	<i>4.1</i>	<i>Jan-13</i>
DE Shaw Composite Fund, LLC	65,778,474	1.5	8.4	14.8	25.6	20.5	16.5	--	14.1	Apr-13
<i>HFRI Fund Weighted Composite Index</i>			<i>-4.7</i>	<i>-5.6</i>	<i>-5.6</i>	<i>6.2</i>	<i>5.1</i>	<i>--</i>	<i>4.5</i>	<i>Apr-13</i>
Hudson Bay	14,025,609	0.3	1.7	3.2	6.9	12.0	--	--	9.6	Aug-17
<i>HFRI Relative Value (Total) Index</i>			<i>-2.8</i>	<i>-2.1</i>	<i>-1.2</i>	<i>3.5</i>	<i>--</i>	<i>--</i>	<i>3.5</i>	<i>Aug-17</i>
Crabel Advanced Trend	59,432,104	1.3	9.8	26.4	20.8	--	--	--	20.8	Jun-21
<i>Barclay CTA Index</i>			<i>3.0</i>	<i>-1.8</i>	<i>9.7</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>9.7</i>	<i>Jun-21</i>
Cash	58,521,738	1.3	0.1	0.2	0.2	0.7	1.2	0.7	7.6	Jul-02
<i>ICE BofA 91 Days T-Bills TR</i>			<i>0.1</i>	<i>0.1</i>	<i>0.2</i>	<i>0.6</i>	<i>1.1</i>	<i>0.6</i>	<i>1.3</i>	<i>Jul-02</i>

Total Fund | As of June 30, 2022

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Short Term IG Bonds	300,252,320	6.8	--	--	--	--	--	--	--	May-22
ICE BofA 3M US Treasury TR USD			--	--	--	--	--	--	--	May-22
Blackrock 3-Month T-Bill	300,252,320	6.8	--	--	--	--	--	--	0.1	May-22
ICE BofA 3M US Treasury TR USD			--	--	--	--	--	--	0.1	May-22
Other	628,994,943	14.3	0.0	0.7	3.6	0.9	2.1	--	2.0	Jul-15
Other Benchmark			-0.5	-0.6	2.7	0.6	1.8	--	1.8	Jul-15
Core Real Estate	268,947,877	6.1	7.4	17.6	28.3	11.5	9.8	--	9.4	Jul-15
Core Real Estate Benchmark			7.1	15.3	27.3	10.0	8.6	--	8.7	Jul-15
BlackRock Core Property Fund	113,493,111	2.6	7.7	19.6	28.6	11.6	--	--	10.9	Feb-19
Core Real Estate Benchmark 2			7.1	15.3	27.3	10.0	--	--	9.2	Feb-19
Clarion Lion Properties Fund	102,107,057	2.3	6.9	15.1	28.7	11.1	--	--	10.8	Mar-19
Core Real Estate Benchmark 2			7.1	15.3	27.3	10.0	--	--	9.5	Mar-19
Clarion Lion Industrial Trust	22,688,210	0.5	10.3	22.6	--	--	--	--	22.6	Jan-22
Core Real Estate Benchmark 2			7.1	15.3	--	--	--	--	15.3	Jan-22
TA Realty Core Property Fund	30,659,499	0.7	8.3	17.7	--	--	--	--	17.7	Jan-22
Core Real Estate Benchmark 2			7.1	15.3	--	--	--	--	15.3	Jan-22
TIPS	90,709,638	2.1	-1.3	-1.2	1.2	3.5	--	--	3.7	Oct-18
Bloomberg US Treasury TIPS 0-5 Yr TR			-1.1	-1.4	1.1	3.5	--	--	3.6	Oct-18
Northern Trust 0-5 Year TIPS	90,709,638	2.1	-1.3	-1.2	1.2	3.5	--	--	3.7	Oct-18
BBg U.S. TIPS 0-5 Years			-1.1	-1.4	1.1	3.5	--	--	3.6	Oct-18

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Investment Grade Bonds	199,817,550	4.5	-5.0	-10.0	-10.0	--	--	--	-3.6	May-20
Custom IG Bonds Benchmark			-4.5	-9.2	-9.3	--	--	--	-4.2	May-20
Voya Securitized Credit	40,198,715	0.9	-5.3	-11.0	-10.0	--	--	--	-1.1	Apr-20
Bloomberg US Securitized MBS ABS CMBS TR			-3.9	-8.7	-9.0	--	--	--	-4.2	Apr-20
Invesco Core Bonds	159,618,835	3.6	-4.9	-10.9	-11.0	--	--	--	-7.7	Feb-21
Bloomberg US Aggregate TR			-4.7	-10.3	-10.3	--	--	--	-7.4	Feb-21
Long-Term Government Bonds	69,519,878	1.6	-11.9	-21.0	-18.5	--	--	--	-13.8	May-20
Long-Term Government Bonds Benchmark			-11.9	-21.3	-18.5	--	--	--	-13.8	May-20
BlackRock Long-Term Gov Bonds	69,519,878	1.6	-11.9	-21.0	-18.5	--	--	--	-13.8	May-20
Bloomberg US Govt Long TR			-11.9	-21.2	-18.4	--	--	--	-13.9	May-20
Commodities	--	--	--	--	--	--	--	--	--	Jun-21
Overlay	19,172,750	0.4								
Russell Overlay	18,961,617	0.4								

Cash Flow Summary						
Quarter Ending June 30, 2022						
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
57 Stars Global Opportunity	\$31,416,905	\$866,567	-\$232,080	\$634,487	-\$3,226,656	\$28,824,736
Aether Seed Partners I	--	\$232,571	\$0	\$232,571	\$0	\$232,571
AIGGRE Fund IV	--	\$10,073,060	\$0	\$10,073,060	-\$479,676	\$9,593,383
Angelo Gordon CS II	\$1,600,000	\$3,133,920	\$0	\$3,133,920	\$24,950	\$4,758,870
Arbour Lane COF III	\$4,055,472	\$1,925,461	\$0	\$1,925,461	-\$53,343	\$5,927,590
Arbour Lane Credit Opportunity Fund II, L.P.	\$15,647,054	\$0	\$0	\$0	\$501,589	\$16,148,643
Artisan Global Opportunities	\$249,109,764	\$0	\$0	\$0	-\$51,451,008	\$197,658,756
Artisan Global Value	\$292,055,932	\$0	\$0	\$0	-\$39,361,844	\$252,694,088
Blackrock 3-Month T-Bill	--	\$300,000,000	\$0	\$300,000,000	\$252,320	\$300,252,320
BlackRock Commodity Index Fund	\$130,472,322	\$0	-\$130,388,302	-\$130,388,302	-\$84,021	--
BlackRock Core Property Fund	\$105,330,515	\$0	\$0	\$0	\$8,162,596	\$113,493,111
BlackRock Long-Term Gov Bonds	\$61,665,793	\$15,000,000	\$0	\$15,000,000	-\$7,145,915	\$69,519,878
Blackstone Real Estate Debt	\$21,296	\$0	-\$23,480	-\$23,480	\$2,184	--
Blackstone/GSO Cap Partners	\$3,757,832	\$0	\$0	\$0	\$42,133	\$3,799,965
Bow Capital Fund II	--	\$1,113,918	\$0	\$1,113,918	\$0	\$1,113,918
Brookfield Infrastructure III	\$17,661,546	\$0	-\$381,443	-\$381,443	\$1,299,166	\$18,579,269
Brookfield SREP I	\$3,541,801	\$0	\$0	\$0	\$1,116	\$3,542,917
Brookfield SREP II	\$18,405,006	\$0	\$0	\$0	\$1,358,605	\$19,763,611
Canvas III	\$2,142,209	\$239,866	\$0	\$239,866	\$110,455	\$2,492,530
Cash	\$458,442,011	\$486,966,927	-\$887,173,352	-\$400,206,425	\$286,151	\$58,521,738
CCMP Capital Investors III, LP	\$14,588,174	\$0	-\$2,412,232	-\$2,412,232	-\$2,598,175	\$9,577,767
Clarion Lion Industrial Trust	\$20,574,797	\$0	\$0	\$0	\$2,113,413	\$22,688,210

Total Fund | As of June 30, 2022

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Clarion Lion Properties Fund	\$96,172,602	\$0	-\$630,825	-\$630,825	\$6,565,280	\$102,107,057
Columbia High Yield Fixed Income	\$86,066,876	\$8,328	-\$8,328	\$0	-\$8,236,233	\$77,830,643
Cove Street Small Cap Value	\$39,075,711	\$0	\$0	\$0	-\$6,807,936	\$32,267,775
Crabel Advanced Trend	\$74,826,320	\$0	-\$22,000,113	-\$22,000,113	\$6,605,896	\$59,432,104
Crescent Mezzanine Partners VI	\$2,894,483	\$0	\$0	\$0	-\$122,621	\$2,771,862
Crestline Co-Investment II	\$3,936,662	\$0	\$0	\$0	\$1,707,518	\$5,644,180
Crestline Portfolio Fin II	\$3,980,106	\$0	-\$35,058	-\$35,058	\$84,180	\$4,029,228
Crestline Portfolio Financing	\$12,725,338	\$0	-\$65,594	-\$65,594	\$96,255	\$12,755,999
Cross Ocean USD ESS Fund I, LP	\$6,927,932	\$0	\$0	\$0	-\$52,012	\$6,875,920
Cross Ocean USD ESS Fund II LP	\$18,507,410	\$20,994	-\$2,356,267	-\$2,335,273	-\$139,959	\$16,032,178
Cross Ocean USD ESS Fund III, LP	\$36,646,320	\$1,574,090	\$0	\$1,574,090	\$1,401,513	\$39,621,923
DE Shaw Composite Fund, LLC	\$60,682,899	\$0	\$0	\$0	\$5,095,575	\$65,778,474
Dimensional Fund Adv EM Value	\$58,242,328	\$0	\$0	\$0	-\$6,244,642	\$51,997,686
DRA Growth & Income Fund IX	\$15,291,307	\$0	-\$1,244,537	-\$1,244,537	\$873,486	\$14,920,256
DRA Growth and Income Fund X, LLC	\$8,536,836	\$1,800,000	-\$764,815	\$1,035,185	\$1,073,269	\$10,645,290
Eagle Point Defensive Income Fund	\$8,051,285	\$2,972,400	-\$111,104	\$2,861,296	\$177,282	\$11,089,863
Exeter Industrial Value Fund V	\$10,440,834	\$0	\$0	\$0	\$582,157	\$11,022,991
First Eagle International Equity	--	\$75,000,000	\$0	\$75,000,000	-\$60,100	\$74,939,900
Francisco Partners	\$23,564,838	\$1,004,462	\$0	\$1,004,462	-\$5,022,312	\$19,546,988
GEM Realty Fund VI	\$8,055,521	\$750,000	-\$2,066,250	-\$1,316,250	\$548,502	\$7,287,773
Global Infra Part III-A/B, LP	\$21,898,302	\$0	-\$794,682	-\$794,682	\$1,059,403	\$22,163,023
Global Infra Partners IV	\$3,317,971	\$0	-\$246,885	-\$246,885	\$127,079	\$3,198,165
GQG Global Emerging Markets	\$49,490,415	\$0	\$0	\$0	-\$5,560,067	\$43,930,348
HarbourVest Partners VII	\$188,983	\$0	-\$68,834	-\$68,834	-\$848	\$119,301
HIG Realty Partners IV	\$1,499,292	\$0	-\$639,028	-\$639,028	\$1,158,790	\$2,019,054

Total Fund | As of June 30, 2022

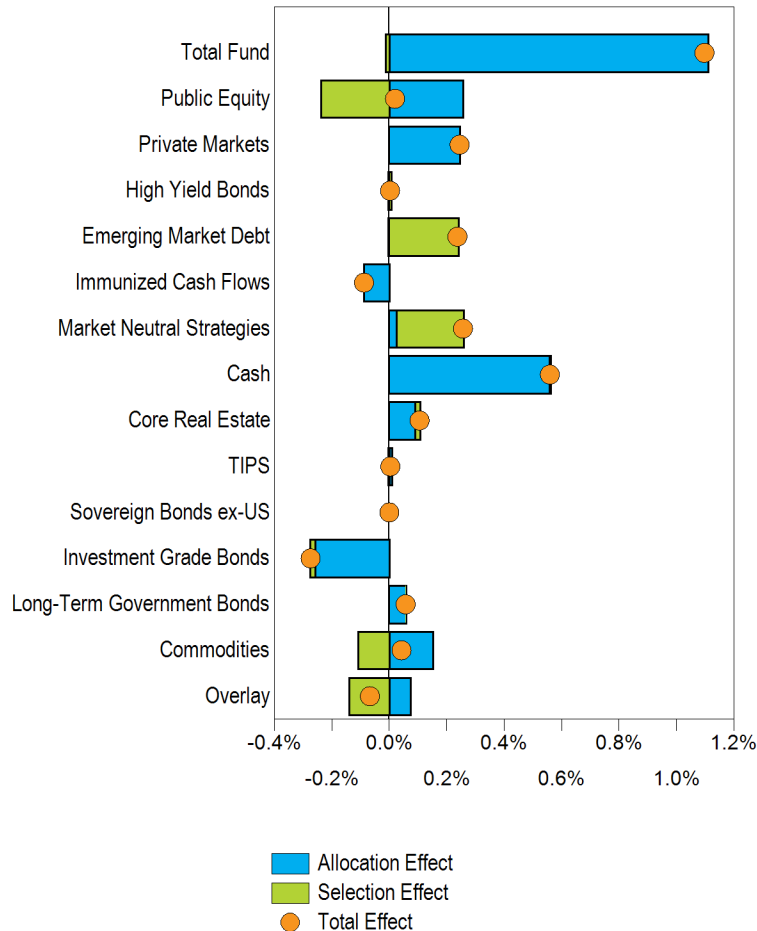
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
HPS Special Situations Opportunity	\$7,745,011	\$0	\$0	\$0	\$292,352	\$8,037,363
Hudson Bay	\$13,795,936	\$0	\$0	\$0	\$229,673	\$14,025,609
Innovation Endeavors III	\$12,481,518	\$97,363	\$0	\$97,363	-\$486,815	\$12,092,066
Innovation Endeavors IV	\$990,244	\$0	\$0	\$0	\$44,401	\$1,034,645
Insight Immunized Cash Flow	\$181,004,155	\$0	-\$9,609,012	-\$9,609,012	-\$904,479	\$170,490,665
Invesco Alpha II	\$6,230,436	\$685,363	\$0	\$685,363	-\$1,476,805	\$5,438,994
Invesco Core Bonds	\$159,517,104	\$8,004,250	-\$4,250	\$8,000,000	-\$7,898,269	\$159,618,835
Kimmeridge Energy Fund V, L.P.	\$9,713,709	\$0	-\$3,158,799	-\$3,158,799	\$1,662,112	\$8,217,022
Kotak India Midcap	\$15,729,000	\$0	\$0	\$0	-\$2,433,446	\$13,295,554
KSL Capital Partners IV, LP	\$23,211,701	\$0	-\$3,165,156	-\$3,165,156	\$2,113,081	\$22,159,626
Lime Rock New Energy, L.P.	\$2,404,028	\$40,199	\$0	\$40,199	-\$474,842	\$1,969,385
Lime Rock Partners VIII	\$5,399,470	\$166,050	\$0	\$166,050	\$1,174,087	\$6,739,607
Medley Opportunity Fund II LP	\$4,852,337	\$0	\$0	\$0	-\$473,555	\$4,378,782
Mellon High Yield Beta	\$9,394,272	\$0	\$0	\$0	-\$931,567	\$8,462,705
Morgan Stanley International Equity	\$72,338,229	\$0	\$0	\$0	-\$15,099,339	\$57,238,890
Mountain Capital II	\$1,786,724	\$33,960	-\$278,272	-\$244,312	\$307,864	\$1,850,276
Next Play Capital III	\$3,000,000	\$1,000,000	\$0	\$1,000,000	\$17,306	\$4,017,306
Northern Trust 0-5 Year TIPS	\$99,893,319	\$0	-\$8,000,000	-\$8,000,000	-\$1,183,681	\$90,709,638
Northern Trust Aggregate Bond Index	\$85,998,421	\$0	-\$85,998,421	-\$85,998,421	\$0	--
Northern Trust MSCI EM IMI	\$20,795,482	\$20,000,000	\$0	\$20,000,000	-\$2,680,217	\$38,115,265
Northern Trust MSCI World ex US	\$255,829,401	\$16,000,000	-\$75,000,000	-\$59,000,000	-\$34,804,384	\$162,025,017
Northern Trust Russell 3000	\$95,072,340	\$275,000,000	-\$37,000,000	\$238,000,000	-\$57,236,633	\$275,835,707
Northern Trust Russell 3000	\$800,141,963	\$44,000,000	\$0	\$44,000,000	-\$133,885,919	\$710,256,043
Northgate Venture Partners IX LP	\$7,170,311	\$800,000	\$0	\$800,000	\$1,124,889	\$9,095,200
Oberweis Intl Opportunities	\$68,067,699	\$0	\$0	\$0	-\$15,884,700	\$52,183,000

Total Fund | As of June 30, 2022

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Och Ziff Real Estate Fund III	\$4,231,910	\$13,455	-\$2,012,978	-\$1,999,523	\$452,116	\$2,684,503
Octagon CLO Opp Fund IV	\$3,150,000	\$4,200,000	\$0	\$4,200,000	\$2,066	\$7,352,066
Orion Euro Real Estate IV LP	\$3,732,814	\$0	-\$87,825	-\$87,825	-\$241,018	\$3,403,971
Orion Mine Finance Fund III, L.P.	\$5,535,566	\$795,063	\$0	\$795,063	\$127,395	\$6,458,024
Pantheon USA Fund VI, LP	\$736,553	\$0	-\$280,000	-\$280,000	-\$43,304	\$413,249
Park Square Credit Opp II, LP	\$126,209	\$0	\$0	\$0	-\$7,946	\$118,263
Payden EMD Blended Currency	\$34,913,968	\$0	-\$21,000,000	-\$21,000,000	-\$2,872,081	\$11,041,887
PE Strategic Partnership, LP	\$278,708,039	\$4,537,500	-\$9,922,895	-\$5,385,395	\$21,362,405	\$294,685,049
Pine River Fund, Ltd	\$358,181	\$0	-\$44,793	-\$44,793	-\$40,656	\$272,732
Portfolio Advisors Private Eq	\$3,050,596	\$0	\$0	\$0	-\$102,583	\$2,948,013
Praedium X MidInc	\$0	\$4,014,273	-\$74,167	\$3,940,106	\$0	\$3,940,106
Real Assets Coinvest I	\$1,799,998	\$0	\$0	\$0	\$0	\$1,799,998
Redwheel Emerging Markets Equity	\$40,695,395	\$0	\$0	\$0	-\$5,002,542	\$35,692,853
Rockpoint Real Estate Fund VI, L.P.	\$8,495,280	\$1,119,445	-\$1,111,325	\$8,120	\$772,532	\$9,275,932
Russell Overlay	\$54,230,109	\$0	-\$30,000,000	-\$30,000,000	-\$5,268,493	\$18,961,617
Shoreline China Value III, LP	\$7,524,831	\$0	-\$116,937	-\$116,937	\$174,614	\$7,582,508
SVP Special Situations V	\$5,401,918	\$0	-\$14,563	-\$14,563	\$128,895	\$5,516,250
TA Realty Associates Fund X	\$5,473	\$0	\$0	\$0	\$1,563	\$7,036
TA Realty Core Property Fund	\$21,242,357	\$8,000,004	-\$323,833	\$7,676,171	\$1,740,971	\$30,659,499
TCW/Crescent Mezzanine	\$76,823	\$0	\$0	\$0	-\$148	\$76,675
Tembo Cap Mining III	\$2,066,015	\$162,213	\$0	\$162,213	\$49,081	\$2,277,309
Terminated Manager Assets	\$211,564	\$0	\$0	\$0	-\$431	\$211,133
Tiger Iron SJPF	\$2,399,548	\$2,050,020	\$0	\$2,050,020	-\$166,761	\$4,282,807
Top Tier Capital Partners IX	\$7,339,769	\$50,550	\$0	\$50,550	-\$340,666	\$7,049,653
Torchlight Debt Fund VII	\$2,722,580	\$0	\$0	\$0	\$36,671	\$2,759,251

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Torchlight Debt Opportunity VI	\$31,024,984	\$0	-\$6,301,088	-\$6,301,088	\$1,031,667	\$25,755,563
TPG Opportunities Partners II	\$631,658	\$0	\$0	\$0	\$11,224	\$642,882
TPG Opportunities Partners III	\$4,946,824	\$19,595	-\$489,170	-\$469,575	-\$97,972	\$4,379,277
Tristan - EPISO III	\$2,788,686	\$0	\$0	\$0	-\$66,281	\$2,722,405
Tristan - EPISO IV	\$18,151,393	\$26	-\$126,302	-\$126,275	-\$651,533	\$17,373,585
Tristan - EPISO V	\$15,146,241	\$1,902,807	\$0	\$1,902,807	\$771,962	\$17,821,009
Voya Securitized Credit	\$42,446,802	\$0	\$0	\$0	-\$2,248,087	\$40,198,715
Warburg Pincus (Europa) XI	\$9,701,558	\$0	-\$284,000	-\$284,000	\$29,582	\$9,447,140
Wellington Emerging Markets Systematic	\$65,279,275	\$0	-\$15,000,000	-\$15,000,000	-\$6,260,394	\$44,018,881
Wellington Iguazu Partners LP Fund	\$65,968,664	\$9,000,000	\$0	\$9,000,000	\$4,283,249	\$79,251,913
White Oak Direct Lending	\$32,643,997	\$0	\$0	\$0	\$4,057,599	\$36,701,596
Total	\$4,821,557,388	\$1,304,374,699	-\$1,361,046,994	-\$56,672,294	-\$352,602,693	\$4,412,282,401

Attribution Effects 3 Months Ending June 30, 2022



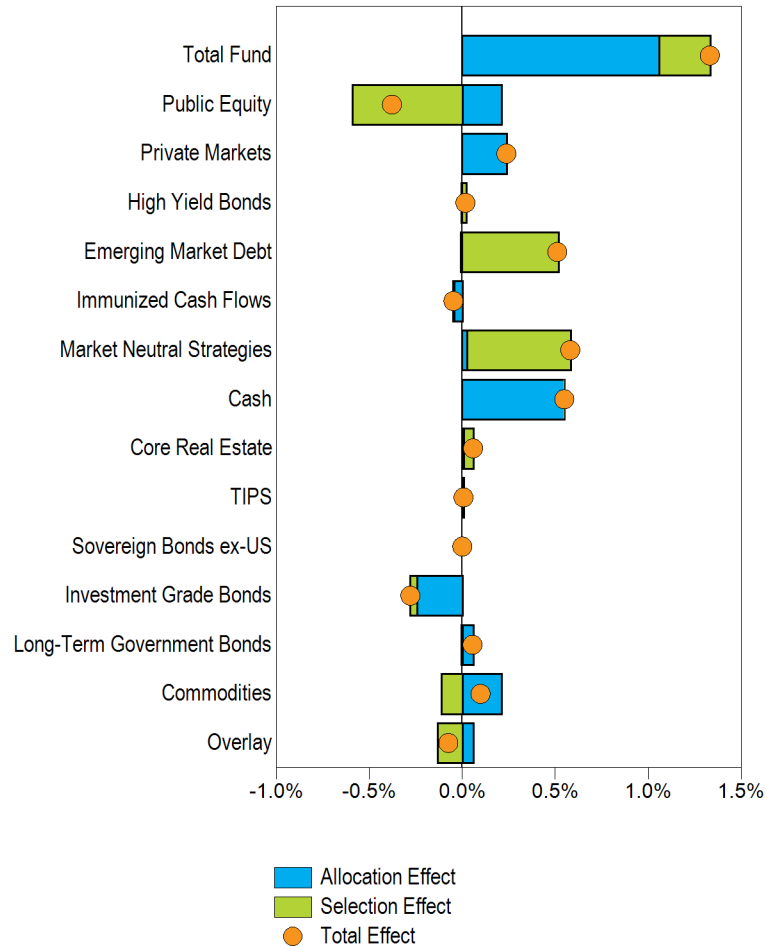
Attribution Summary

3 Months Ending June 30, 2022

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Public Equity	-16.2%	-15.6%	-0.5%	-0.2%	0.3%	0.0%
Private Markets	-2.0%	-2.0%	0.0%	0.0%	0.2%	0.2%
High Yield Bonds	-9.6%	-9.8%	0.2%	0.0%	0.0%	0.0%
Emerging Market Debt	1.4%	-10.0%	11.5%	0.2%	0.0%	0.2%
Immunized Cash Flows	-0.5%	-0.5%	0.0%	0.0%	-0.1%	-0.1%
Market Neutral Strategies	8.3%	0.5%	7.7%	0.2%	0.0%	0.3%
Cash	0.1%	0.1%	0.0%	0.0%	0.6%	0.6%
Core Real Estate	7.4%	7.1%	0.3%	0.0%	0.1%	0.1%
TIPS	-1.3%	-1.1%	-0.2%	0.0%	0.0%	0.0%
Sovereign Bonds ex-US	--	--	--	--	0.0%	--
Investment Grade Bonds	-5.0%	-4.5%	-0.5%	0.0%	-0.3%	-0.3%
Long-Term Government Bonds	-11.9%	-11.9%	0.0%	0.0%	0.1%	0.1%
Commodities	-0.1%	4.1%	-4.2%	-0.1%	0.2%	0.0%
Overlay	-20.7%	0.1%	-20.8%	-0.1%	0.1%	-0.1%
Total	-7.6%	-8.7%	1.1%	0.0%	1.1%	1.1%

Difference in attribution returns and returns in the performance summary may occur as a result of the different calculation methodologies that are applied by InvestorForce.

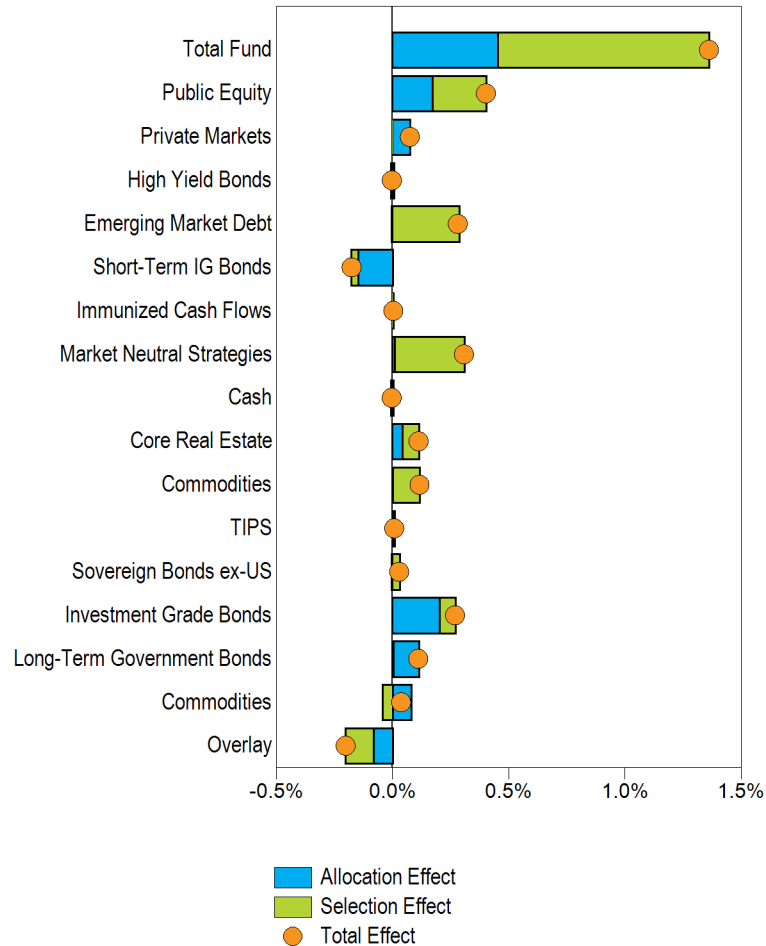
Attribution Effects 1 Year Ending June 30, 2022



Attribution Summary 1 Year Ending June 30, 2022

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Public Equity	-18.9%	-17.6%	-1.2%	-0.6%	0.2%	-0.4%
Private Markets	14.6%	14.6%	0.0%	0.0%	0.2%	0.2%
High Yield Bonds	-11.9%	-12.8%	1.0%	0.0%	0.0%	0.0%
Emerging Market Debt	4.1%	-20.2%	24.4%	0.5%	0.0%	0.5%
Immunized Cash Flows	-3.5%	-3.5%	0.0%	0.0%	0.0%	0.0%
Market Neutral Strategies	21.6%	0.8%	20.8%	0.6%	0.0%	0.6%
Cash	0.2%	0.2%	0.0%	0.0%	0.5%	0.5%
Core Real Estate	28.3%	27.3%	1.1%	0.0%	0.0%	0.1%
TIPS	1.2%	1.1%	0.1%	0.0%	0.0%	0.0%
Sovereign Bonds ex-US	--	-2.0%	--	0.0%	0.0%	0.0%
Investment Grade Bonds	-10.0%	-9.3%	-0.6%	0.0%	-0.2%	-0.3%
Long-Term Government Bonds	-18.5%	-18.5%	-0.1%	0.0%	0.1%	0.1%
Commodities	--	37.2%	--	-0.1%	0.2%	0.1%
Overlay	-20.1%	0.2%	-20.3%	-0.1%	0.1%	-0.1%
Total	-5.3%	-6.6%	1.3%	0.3%	1.1%	1.3%

Attribution Effects 3 Years Ending June 30, 2022

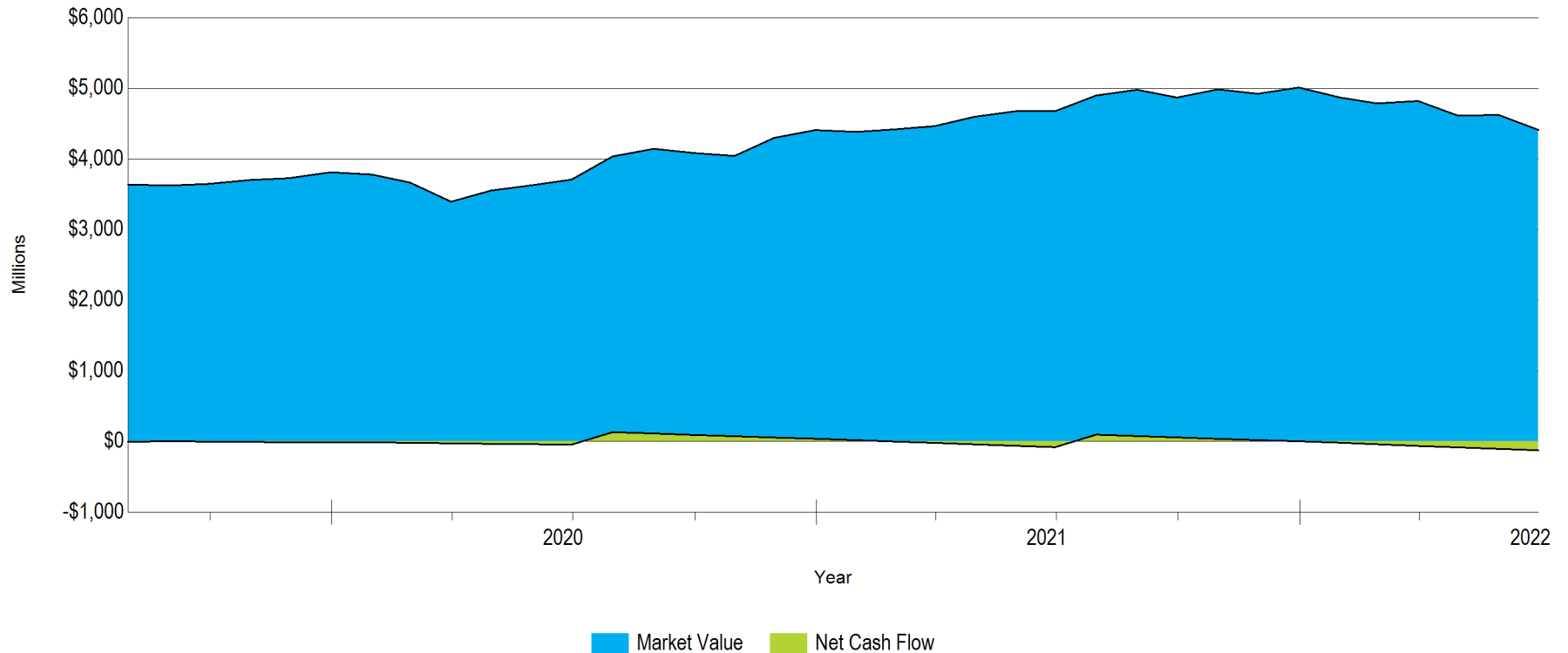


Attribution Summary

3 Years Ending June 30, 2022

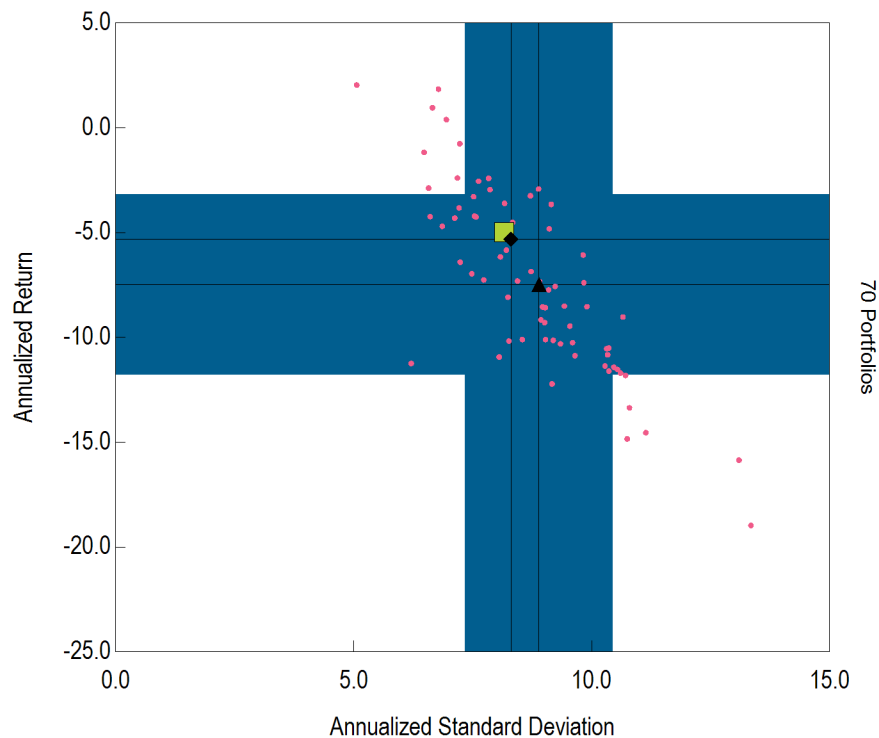
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Public Equity	5.8%	5.5%	0.3%	0.2%	0.2%	0.4%
Private Markets	14.6%	14.6%	0.0%	0.0%	0.1%	0.1%
High Yield Bonds	0.6%	0.2%	0.4%	0.0%	0.0%	0.0%
Emerging Market Debt	6.5%	-5.5%	12.0%	0.3%	0.0%	0.3%
Short-Term IG Bonds	1.2%	1.6%	-0.3%	0.0%	-0.2%	-0.2%
Immunized Cash Flows	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%
Market Neutral Strategies	12.9%	0.9%	12.1%	0.3%	0.0%	0.3%
Cash	0.7%	0.6%	0.1%	0.0%	0.0%	0.0%
Core Real Estate	11.5%	10.0%	1.5%	0.1%	0.0%	0.1%
Commodities	-2.1%	8.6%	-10.8%	0.1%	0.0%	0.1%
TIPS	3.5%	3.5%	0.1%	0.0%	0.0%	0.0%
Sovereign Bonds ex-US	0.3%	0.6%	-0.4%	0.0%	0.0%	0.0%
Investment Grade Bonds	-2.6%	-2.8%	0.1%	0.1%	0.2%	0.3%
Long-Term Government Bonds	-9.8%	-9.8%	0.0%	0.0%	0.1%	0.1%
Commodities	10.2%	18.2%	-7.9%	0.0%	0.1%	0.0%
Overlay	-3.3%	0.5%	-3.8%	-0.1%	-0.1%	-0.2%
Total	7.5%	6.1%	1.4%	0.9%	0.5%	1.4%

Market Value History
3 Years Ending June 30, 2022



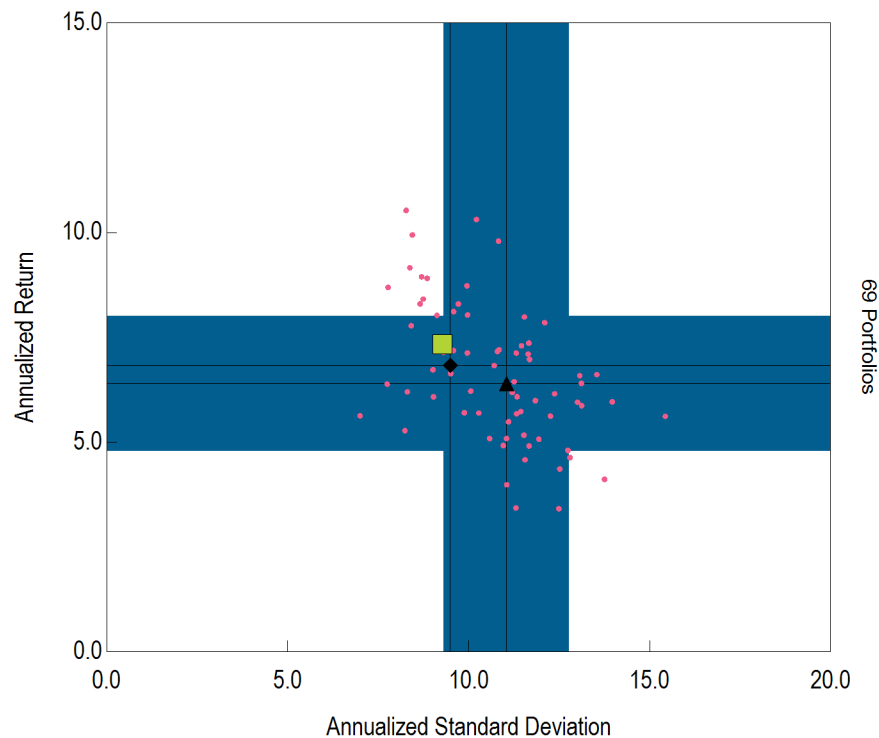
	Second Quarter	Year-To-Date	One Year	Three Years
Beginning Market Value	\$4,821,557,388	\$5,012,674,479	\$4,676,585,746	\$3,634,760,774
Net Cash Flow	-\$62,078,937	-\$127,810,055	-\$44,229,585	-\$125,950,822
Net Investment Change	-\$347,196,050	-\$472,582,023	-\$220,073,760	\$903,472,448
Ending Market Value	\$4,412,282,401	\$4,412,282,401	\$4,412,282,401	\$4,412,282,401

Annualized Return vs. Annualized Standard Deviation
1 Year Ending June 30, 2022



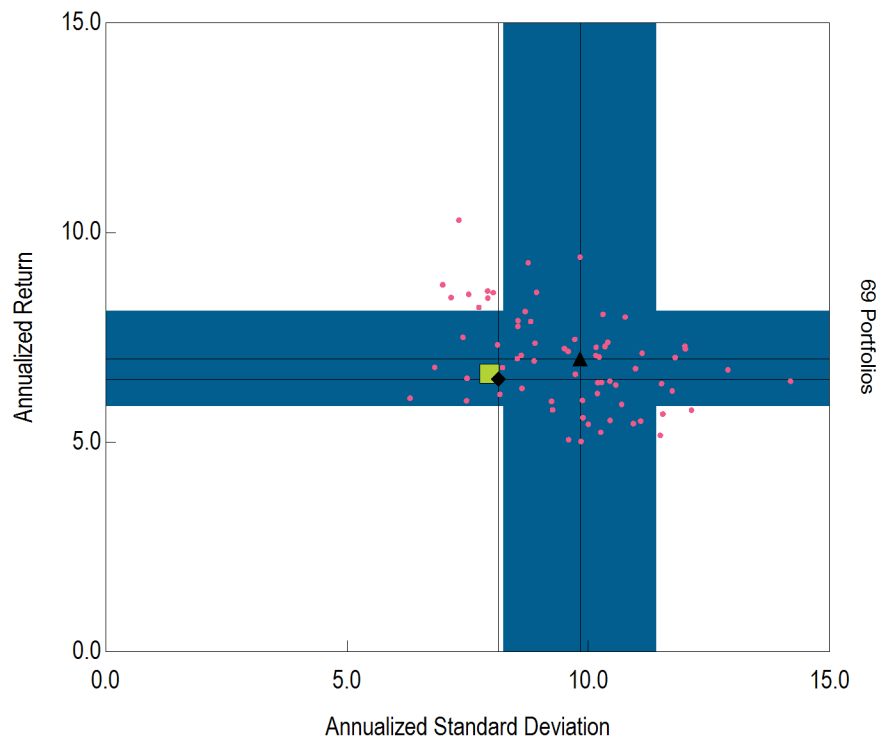
- Total Fund
- Policy Benchmark
- Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Gross

Annualized Return vs. Annualized Standard Deviation
3 Years Ending June 30, 2022



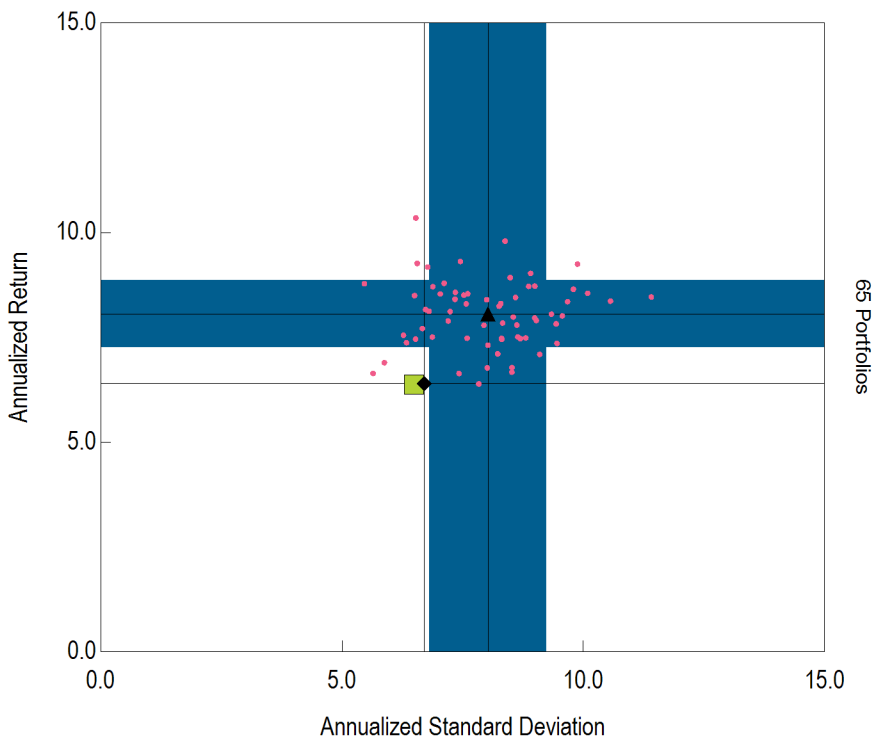
- Total Fund
- Policy Benchmark
- Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Gross

Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2022



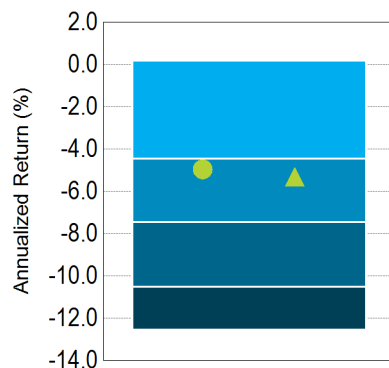
- Total Fund
- Policy Benchmark
- Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Gross

Annualized Return vs. Annualized Standard Deviation
10 Years Ending June 30, 2022



- Total Fund
- Policy Benchmark
- Universe Median
- 68% Confidence Interval
- InvMetrics Public DB > \$1B Gross

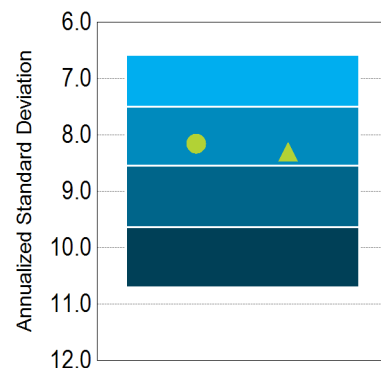
Annualized Return (%)
vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	-5.0
Rank	31
▲ Policy Benchmark	
Value	-5.3
Rank	35

Universe	
5th %tile	0.2
25th %tile	-4.4
Median	-7.4
75th %tile	-10.5
95th %tile	-12.5

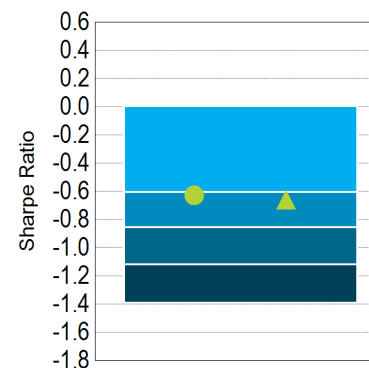
Annualized Standard Deviation
vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	8.2
Rank	41
▲ Policy Benchmark	
Value	8.3
Rank	45

Universe	
5th %tile	6.6
25th %tile	7.5
Median	8.5
75th %tile	9.6
95th %tile	10.7

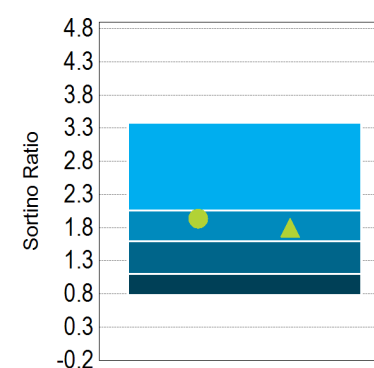
Sharpe Ratio
vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	-0.6
Rank	30
▲ Policy Benchmark	
Value	-0.7
Rank	33

Universe	
5th %tile	0.0
25th %tile	-0.6
Median	-0.9
75th %tile	-1.1
95th %tile	-1.4

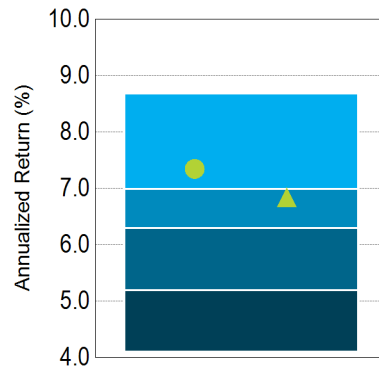
Sortino Ratio
vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	1.9
Rank	34
▲ Policy Benchmark	
Value	1.8
Rank	40

Universe	
5th %tile	3.4
25th %tile	2.1
Median	1.6
75th %tile	1.1
95th %tile	0.8

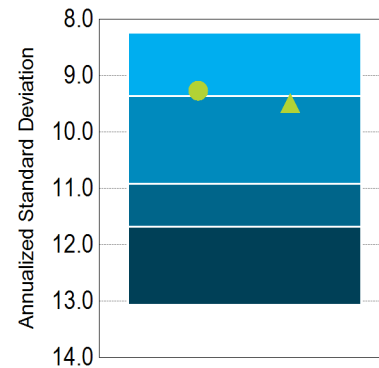
Annualized Return (%)
vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	7.3
Rank	21
▲ Policy Benchmark	
Value	6.8
Rank	30

Universe	
5th %tile	8.7
25th %tile	7.0
Median	6.3
75th %tile	5.2
95th %tile	4.1

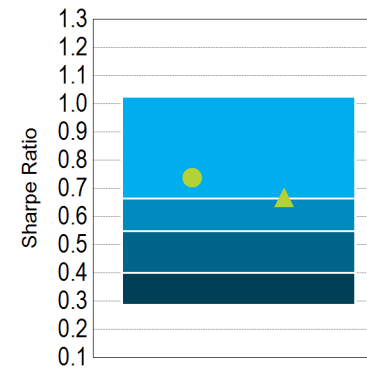
Annualized Standard Deviation
vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	9.3
Rank	25
▲ Policy Benchmark	
Value	9.5
Rank	27

Universe	
5th %tile	8.2
25th %tile	9.3
Median	10.9
75th %tile	11.7
95th %tile	13.1

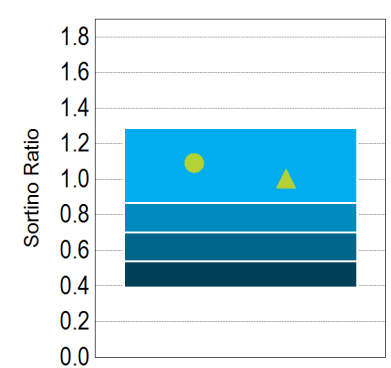
Sharpe Ratio
vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	0.7
Rank	19
▲ Policy Benchmark	
Value	0.7
Rank	25

Universe	
5th %tile	1.0
25th %tile	0.7
Median	0.5
75th %tile	0.4
95th %tile	0.3

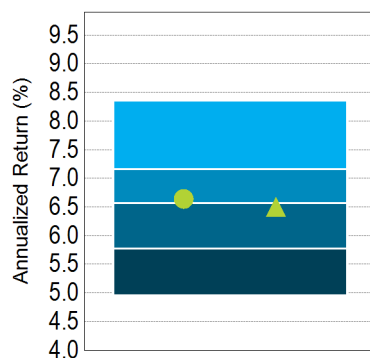
Sortino Ratio
vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	1.1
Rank	11
▲ Policy Benchmark	
Value	1.0
Rank	18

Universe	
5th %tile	1.3
25th %tile	0.9
Median	0.7
75th %tile	0.5
95th %tile	0.4

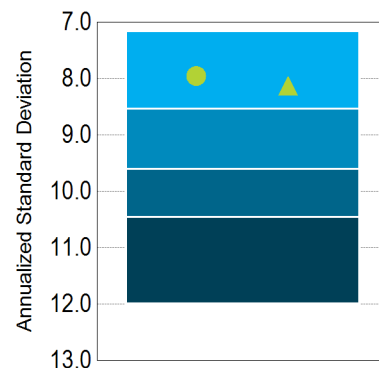
Annualized Return (%)
vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	6.6
Rank	50
▲ Policy Benchmark	
Value	6.5
Rank	51

Universe	
5th %tile	8.4
25th %tile	7.2
Median	6.6
75th %tile	5.8
95th %tile	5.0

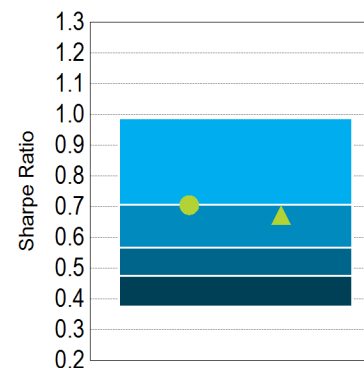
Annualized Standard Deviation
vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	8.0
Rank	19
▲ Policy Benchmark	
Value	8.1
Rank	21

Universe	
5th %tile	7.2
25th %tile	8.5
Median	9.6
75th %tile	10.4
95th %tile	12.0

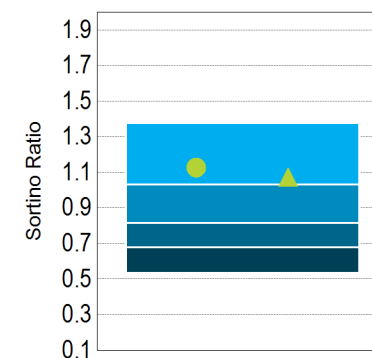
Sharpe Ratio
vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	0.7
Rank	26
▲ Policy Benchmark	
Value	0.7
Rank	30

Universe	
5th %tile	1.0
25th %tile	0.7
Median	0.6
75th %tile	0.5
95th %tile	0.4

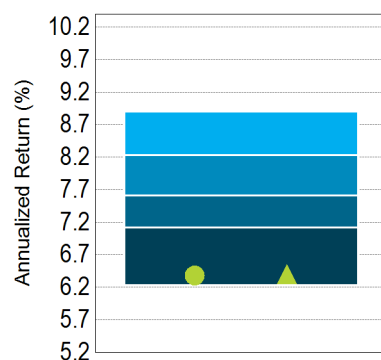
Sortino Ratio
vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	1.1
Rank	17
▲ Policy Benchmark	
Value	1.1
Rank	19

Universe	
5th %tile	1.4
25th %tile	1.0
Median	0.8
75th %tile	0.7
95th %tile	0.5

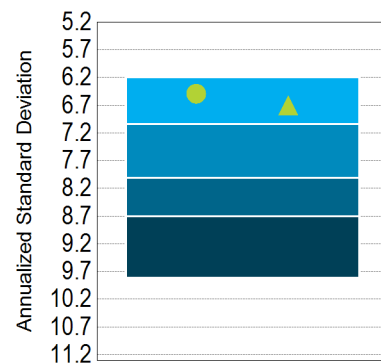
Annualized Return (%) vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	6.4
Rank	94
▲ Policy Benchmark	
Value	6.4
Rank	94

Universe	
5th %tile	8.9
25th %tile	8.2
Median	7.6
75th %tile	7.1
95th %tile	6.2

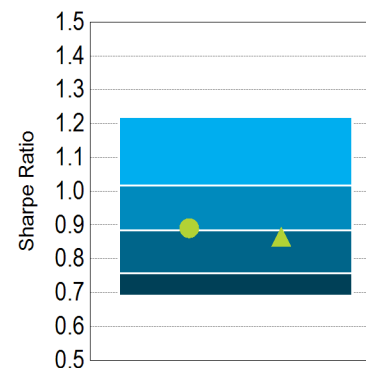
Annualized Standard Deviation vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	6.5
Rank	9
▲ Policy Benchmark	
Value	6.7
Rank	18

Universe	
5th %tile	6.2
25th %tile	7.0
Median	8.0
75th %tile	8.7
95th %tile	9.8

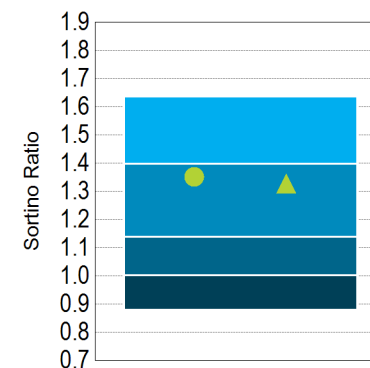
Sharpe Ratio vs. InvMetrics Public DB > \$1B Net



● Total Fund	
Value	0.9
Rank	50
▲ Policy Benchmark	
Value	0.9
Rank	54

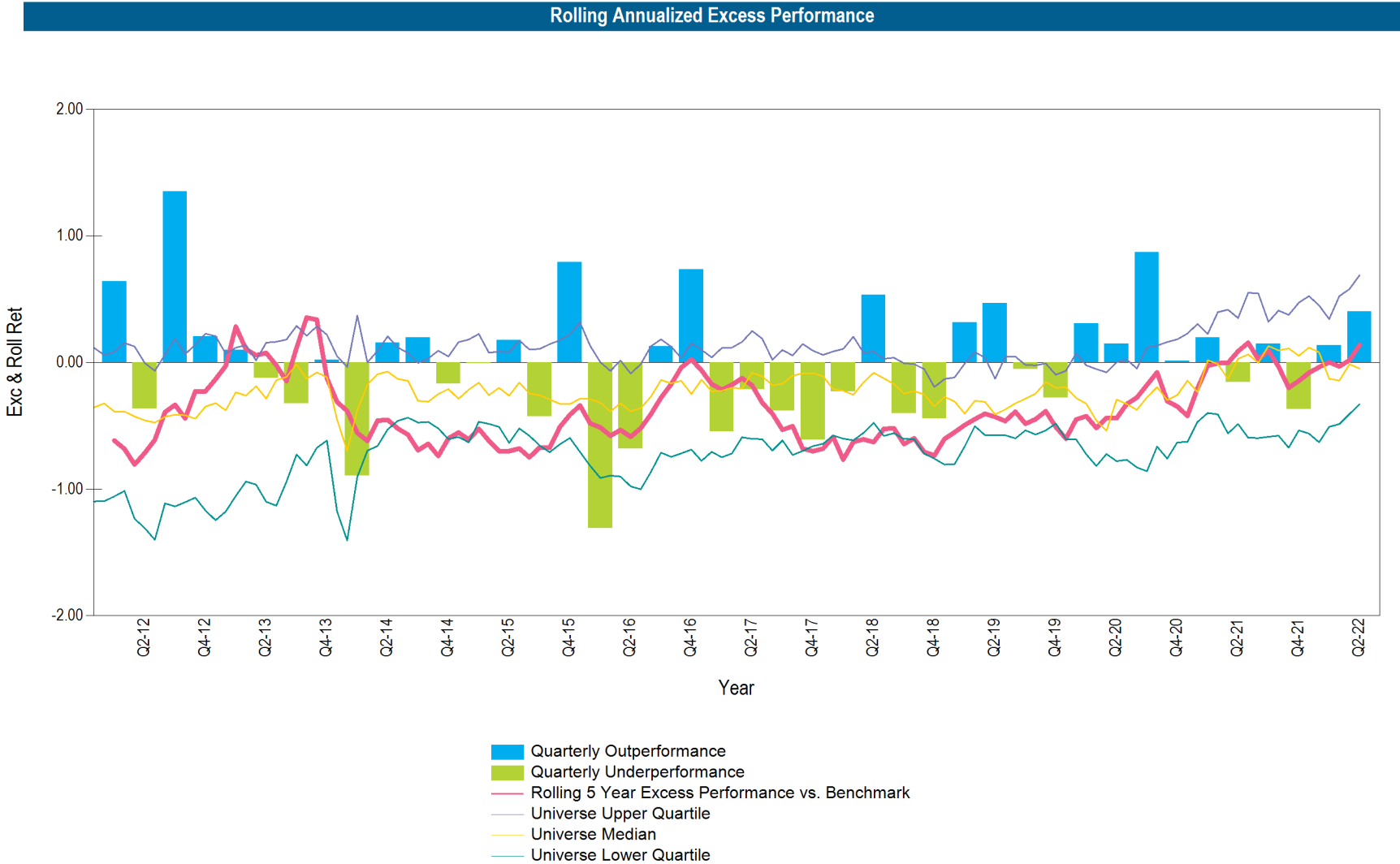
Universe	
5th %tile	1.2
25th %tile	1.0
Median	0.9
75th %tile	0.8
95th %tile	0.7

Sortino Ratio vs. InvMetrics Public DB > \$1B Net

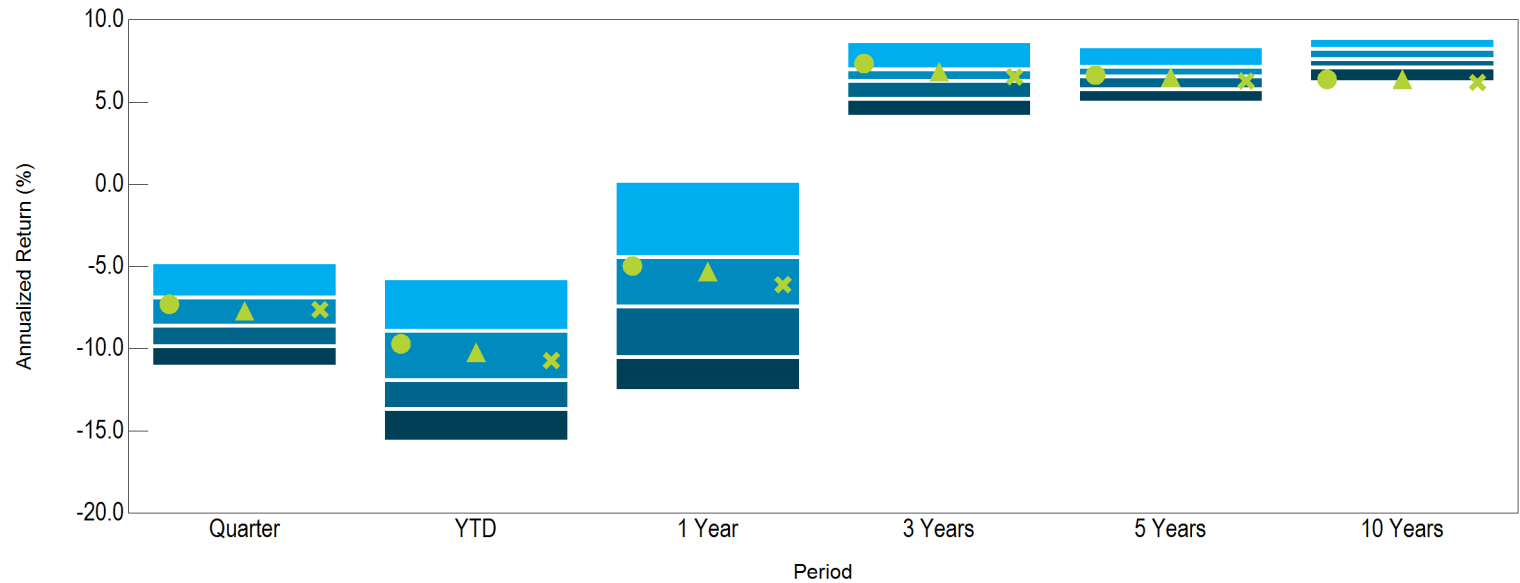


● Total Fund	
Value	1.4
Rank	30
▲ Policy Benchmark	
Value	1.3
Rank	36

Universe	
5th %tile	1.6
25th %tile	1.4
Median	1.1
75th %tile	1.0
95th %tile	0.9



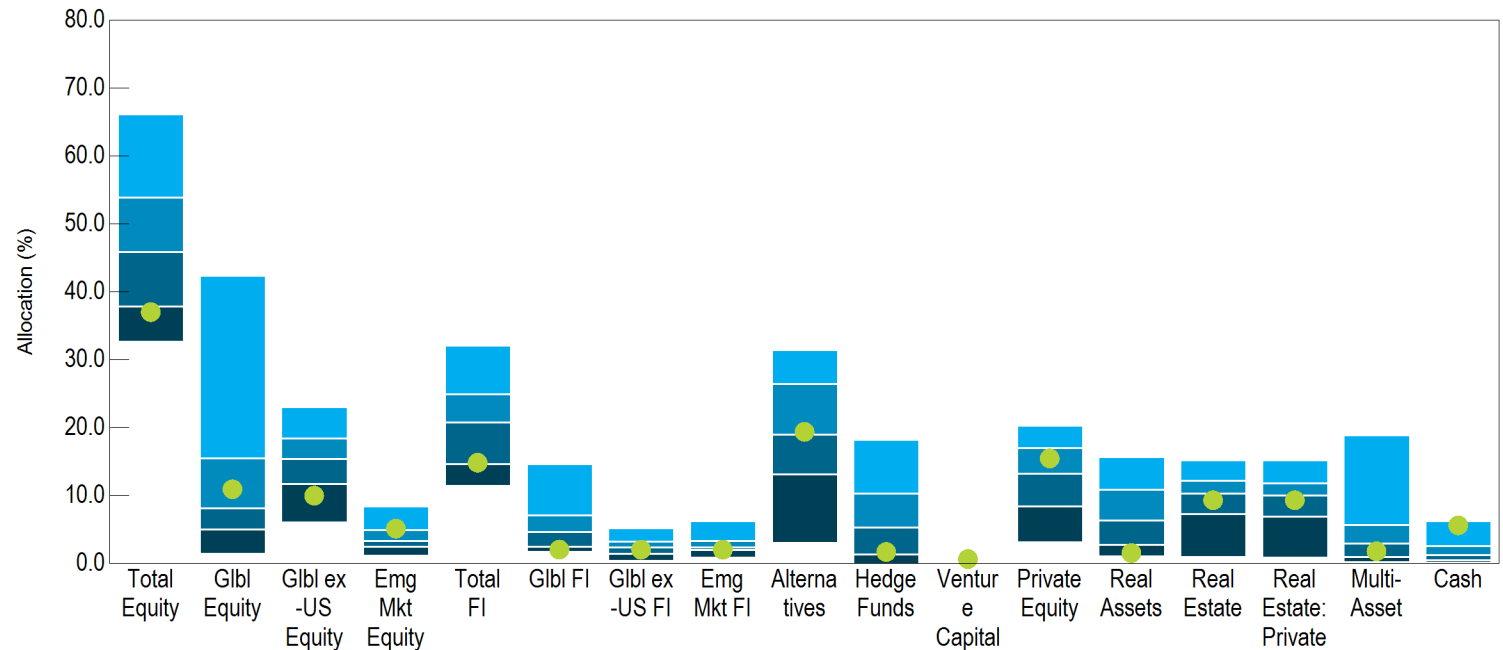
InvMetrics Public DB > \$1B Net Return Comparison
Ending June 30, 2022



		Return (Rank)											
5th Percentile		-4.8		-5.7		0.2		8.7		8.4		8.9	
25th Percentile		-6.9		-8.9		-4.4		7.0		7.2		8.2	
Median		-8.6		-11.9		-7.4		6.3		6.6		7.6	
75th Percentile		-9.8		-13.6		-10.5		5.2		5.8		7.1	
95th Percentile		-11.1		-15.6		-12.5		4.1		5.0		6.2	
# of Portfolios		64		64		63		62		62		57	
●	Total Fund	-7.3	(30)	-9.7	(29)	-5.0	(31)	7.3	(21)	6.6	(50)	6.4	(94)
▲	Policy Benchmark	-7.7	(40)	-10.2	(37)	-5.3	(35)	6.8	(30)	6.5	(51)	6.4	(94)
✖	Investable Benchmark Portfolio	-7.6	(39)	-10.7	(42)	-6.1	(39)	6.5	(44)	6.3	(57)	6.2	(96)

¹ Fiscal Year begins July 1.

Total Plan Allocation vs. InvMetrics Public DB > \$1B Net As of June 30, 2022



	Allocation																	
5th Percentile	66.2	42.4	23.0	8.4	32.1	14.7	5.2	6.3	31.4	18.2	0.1	20.3	15.7	15.2	15.2	18.9	6.3	--
25th Percentile	54.0	15.6	18.5	5.0	25.0	7.2	3.3	3.4	26.5	10.4	0.0	17.1	11.0	12.3	12.0	5.8	2.7	--
Median	45.9	8.2	15.5	3.4	20.9	4.7	2.4	2.5	19.1	5.4	0.0	13.3	6.4	10.4	10.1	3.0	1.4	--
75th Percentile	37.9	5.1	11.8	2.5	14.7	2.6	1.5	2.1	13.2	1.4	0.0	8.5	2.8	7.4	7.0	1.1	0.6	--
95th Percentile	32.7	1.5	6.1	1.2	11.5	1.9	0.5	0.9	3.1	0.0	0.0	3.2	1.2	1.0	1.0	0.3	0.2	--
# of Portfolios	39	16	35	29	39	11	15	10	36	21	6	30	23	35	34	15	38	--
● Total Fund Rank	37.0	10.9	10.0	5.1	14.9	2.1	2.0	2.0	19.4	1.7	0.7	15.5	1.5	9.3	9.3	1.8	5.6	--
	76	42	84	24	73	89	67	79	50	75	1	31	90	59	58	68	9	

Major Benchmark Returns					
Periods Ending June 30, 2022					
Name	Q2-22	1 Yr	3 Yrs	5 Yrs	10 Yrs
US Equity					
Russell 3000	-16.7	-13.9	9.8	10.6	12.6
S&P 500	-16.1	-10.6	10.6	11.3	13.0
Russell 1000	-16.7	-13.0	10.2	11.0	12.8
Russell 1000 Growth	-20.9	-18.8	12.6	14.3	14.8
Russell 1000 Value	-12.2	-6.8	6.9	7.2	10.5
Russell MidCap	-16.8	-17.3	6.6	8.0	11.3
Russell 2000	-17.2	-25.2	4.2	5.2	9.4
Russell 2000 Growth	-19.3	-33.4	1.4	4.8	9.3
Russell 2000 Value	-15.3	-16.3	6.2	4.9	9.1
International Equity					
MSCI ACWI	-15.7	-15.8	6.2	7.0	8.8
MSCI World ex USA	-14.7	-16.8	1.7	2.7	5.4
MSCI EAFE	-14.5	-17.8	1.1	2.2	5.4
MSCI Emerging Markets	-11.4	-25.3	0.6	2.2	3.1
Fixed Income					
91 Day T-Bills	0.1	0.2	0.5	1.0	0.6
Bloomberg US Aggregate TR	-4.7	-10.3	-0.9	0.9	1.5
Bloomberg US Govt/Credit TR	-5.0	-10.9	-0.8	1.0	1.7
Bloomberg US Municipal TR	-2.9	-8.6	-0.2	1.5	2.4
Bloomberg US High Yield TR	-9.8	-12.8	0.2	2.1	4.5
FTSE WGBI TR	-8.9	-16.8	-4.3	-1.2	-0.7
FTSE WGBI ex US TR	-12.5	-21.9	-6.7	-2.6	-1.7
Real Estate					
FTSE NAREIT All REIT	-14.8	-6.9	4.6	6.2	8.1
NCREIF Property Index	3.2	21.5	10.2	8.9	9.7
Alternatives					
HFRI Fund of Funds Composite Index	-3.9	-5.4	4.0	3.6	3.8
Inflation					
Consumer Price Index	3.1	9.1	5.0	3.9	2.6

Statistics Summary												
3 Years Ending June 30, 2022												
	% of Total MV	Anlzd Return	Anlzd Return	Anlzd Standard	Anlzd Standard	Anlzd Alpha	Anlzd Alpha	Tracking	Information	Information	Beta	Sharpe Ratio
			Rank	Deviation	Deviation	J	J Rank	Error	Ratio	Ratio Rank		
				Rank	Rank							
Total Fund	100.00%	7.34%	21	9.27%	25	0.67%	40	0.80%	0.63	8	0.97	0.74
Policy Benchmark	--	6.83%	30	9.49%	27	0.00%	61	0.00%	--	--	1.00	0.67
Growth	70.15%	9.08%	--	13.45%	--	0.47%	--	1.55%	0.01	--	0.95	0.64
Growth Benchmark	--	9.07%	--	14.13%	--	0.00%	--	0.00%	--	--	1.00	0.61
Public Equity	40.03%	5.84%	67	18.51%	86	0.34%	62	1.66%	0.21	19	1.00	0.29
Public Equity Benchmark	--	5.49%	72	18.40%	85	0.00%	66	0.00%	--	--	1.00	0.27
Global Equity	10.21%	6.52%	39	18.77%	50	--	--	--	--	--	--	0.32
MSCI All Country World Investable Market Net Index	--	--	--	--	--	--	--	--	--	--	--	--
U.S. Equity	16.83%	10.19%	22	18.93%	26	0.99%	21	1.49%	0.51	6	0.97	0.51
MSCI USA IMI NR USD	--	9.44%	31	19.39%	31	0.00%	32	0.00%	--	--	1.00	0.46
International Equity	7.85%	2.36%	46	19.26%	57	0.61%	47	3.38%	0.19	38	1.02	0.10
MSCI World ex USA IMI NR USD	--	1.72%	60	18.60%	42	0.00%	62	0.00%	--	--	1.00	0.07
Emerging Markets Equity	5.15%	2.18%	34	19.00%	34	1.03%	34	2.39%	0.43	17	1.02	0.09
MSCI Emerging Markets IMI Net	--	1.15%	48	18.53%	25	0.00%	48	0.00%	--	--	1.00	0.03
Private Markets	26.12%	14.62%	--	7.79%	--	0.00%	--	0.01%	-0.02	--	1.00	1.81
Private Markets Benchmark	--	14.62%	--	7.79%	--	0.00%	--	0.00%	--	--	1.00	1.81
Private Equity	9.03%	25.24%	--	11.05%	--	25.94%	--	20.25%	0.07	--	-0.05	2.24
Custom PE Benchmark	--	23.76%	--	16.15%	--	0.00%	--	0.00%	--	--	1.00	1.44
Private Equity ex Russell 3000	9.03%	25.23%	--	11.04%	--	--	--	--	--	--	--	2.24
San Jose Custom Private Equity Benchmark	--	--	--	--	--	--	--	--	--	--	--	--
Private Debt	4.03%	11.96%	1	7.22%	99	10.46%	1	9.18%	0.87	6	0.29	1.59
S&P Global Leveraged Loan + 2%	--	3.95%	1	8.72%	99	0.00%	85	0.00%	--	--	1.00	0.39
Growth Real Estate	4.23%	13.54%	5	7.40%	57	14.92%	1	10.18%	0.33	10	-0.19	1.76
NCREIF Property Index	--	10.22%	90	5.94%	23	0.00%	69	0.00%	--	--	1.00	1.64
Northern Trust Russell 3000	6.25%	9.78%	--	19.34%	--	0.02%	--	0.04%	0.15	--	1.00	0.48
Russell 3000	--	9.77%	--	19.37%	--	0.00%	--	0.00%	--	--	1.00	0.48
Emerging Market Debt	2.05%	6.52%	1	6.08%	1	8.37%	1	8.10%	1.48	1	0.39	0.99
50% JPM EMBI GD / 50% JPM GBI-EM	--	-5.47%	73	11.64%	31	0.00%	84	0.00%	--	--	1.00	-0.51
Low Beta	15.16%	3.79%	--	1.57%	--	3.34%	--	1.77%	1.58	--	-0.12	2.08

	% of Total MV	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Anlzd Alpha J	Anlzd Alpha J Rank	Tracking Error	Information Ratio	Information Ratio Rank	Beta	Sharpe Ratio
Low Beta Benchmark	--	0.99%	--	0.73%	--	0.00%	--	0.00%	--	--	1.00	0.66
Immunized Cash Flows	3.86%	0.33%	98	1.72%	94	0.00%	62	0.12%	-0.04	99	1.00	-0.10
Immunized Cash Flow Benchmark	--	0.34%	98	1.71%	94	0.00%	61	0.00%	--	--	1.00	-0.10
Market Neutral Strategies	3.16%	12.95%	1	6.87%	44	12.98%	1	6.89%	1.75	1	-1.50	1.81
Market Neutral Strategies Benchmark	--	0.86%	75	0.25%	1	0.00%	84	0.00%	--	--	1.00	1.43
Relative Value	3.16%	13.28%	1	8.33%	93	10.17%	1	5.90%	1.65	1	0.86	1.53
HFRI Relative Value (Total) Index	--	3.52%	20	6.91%	83	0.00%	94	0.00%	--	--	1.00	0.44
Cash	1.33%	0.70%	--	0.37%	--	0.07%	--	0.25%	0.30	--	1.01	0.53
ICE BofA 91 Days T-Bills TR	--	0.63%	--	0.27%	--	0.00%	--	0.00%	--	--	1.00	0.45
Other	14.26%	0.86%	--	3.46%	--	0.29%	--	1.03%	0.27	--	0.95	0.10
Other Benchmark	--	0.58%	--	3.49%	--	0.00%	--	0.00%	--	--	1.00	0.02
Core Real Estate	6.10%	11.51%	--	7.64%	--	1.29%	--	2.10%	0.71	--	1.02	1.44
Core Real Estate Benchmark	--	10.02%	--	7.20%	--	0.00%	--	0.00%	--	--	1.00	1.32
TIPS	2.06%	3.52%	23	2.30%	1	0.07%	7	0.30%	0.22	7	1.00	1.31
Bloomberg US Treasury TIPS 0-5 Yr TR	--	3.46%	27	2.28%	1	0.00%	7	0.00%	--	--	1.00	1.29
Sovereign Bonds ex-US	--	--	--	--	--	--	--	--	--	--	--	--
FTSE WGBI ex US TR	--	-6.72%	--	8.15%	--	0.00%	--	0.00%	--	--	1.00	-0.89
Overlay	0.43%	-3.30%	--	37.77%	--	-3.80%	--	37.72%	-0.10	--	44.35	-0.10
91 Day T-Bills	--	0.51%	--	0.21%	--	0.00%	--	0.00%	--	--	1.00	0.00

Benchmark History

As of June 30, 2022

Total Fund

4/1/2022	Present	24% MSCI USA IMI NR USD / 11% MSCI World ex USA IMI NR USD / 7% MSCI Emerging Markets / 25% Private Markets Benchmark / 5% NCREIF-ODCE NR USD / 2% 50% JPM EMBI GD / 50% JPM GBI-EM / 2% Bloomberg US Corporate High Yield TR / 3% SOFR +1.5% / 13% Immunized Cash Flow Benchmark / 2% Bloomberg US Treasury TIPS 0-5 Yr TR / 4.5% Custom IG Bonds Benchmark / 1.5% Bloomberg US Treasury Long TR
3/1/2022	3/31/2022	25% MSCI USA IMI NR USD / 12% MSCI World ex USA IMI NR USD / 9% MSCI Emerging Markets / 19% Private Markets Benchmark / 5% NCREIF-ODCE NR USD / 2% 50% JPM EMBI GD / 50% JPM GBI-EM / 2% Bloomberg US Corporate High Yield TR / 3% SOFR +1.5% / 5% Immunized Cash Flow Benchmark / 2% Bloomberg Commodity Index TR USD / 2% Bloomberg US Treasury TIPS 0-5 Yr TR / 11% Custom IG Bonds Benchmark / 3% Bloomberg US Treasury Long TR
6/1/2021	2/28/2022	25% MSCI USA IMI NR USD / 12% MSCI World ex USA IMI NR USD / 9% MSCI Emerging Markets / 19% Private Markets Benchmark / 5% NCREIF-ODCE NR USD / 2% 50% JPM EMBI GD / 50% JPM GBI-EM / 2% Bloomberg US Corporate High Yield TR / 3% LIBOR 3-Month +1.5% / 5% Immunized Cash Flow Benchmark / 2% Bloomberg Commodity Index TR USD / 2% Bloomberg US Treasury TIPS 0-5 Yr TR / 11% Custom IG Bonds Benchmark / 3% Bloomberg US Treasury Long TR
4/1/2020	5/31/2021	23% MSCI USA IMI NR USD / 11% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 21% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 2% Bloomberg US Corporate High Yield TR / 5% Immunized Cash Flow Benchmark / 3% Market Neutral Strategies / 5% NCREIF-ODCE / 2% Bloomberg US Govt Long TR / 2% Bloomberg US Treasury TIPS 0-5 Yr TR / 8% BBgBarc Global Aggregate TR
1/1/2020	3/31/2020	14% MSCI USA IMI NR USD / 12% MSCI World ex USA IMI NR USD / 13% MSCI Emerging Market IMI Net / 22% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 14% Bloomberg US Govt/Credit 1-3 Yr. TR / 5% Immunized Cash Flow Benchmark / 5% Market Neutral Strategies / 5% NCREIF-ODCE / 2% Bloomberg Commodity Index TR USD / 3% FTSE WGBI ex US TR / 2% Bloomberg US Treasury TIPS 0-5 Yr TR
12/1/2019	12/31/2019	14% MSCI USA IMI NR USD / 11% MSCI World ex USA IMI NR USD / 13% MSCI Emerging Market IMI Net / 22% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 15% Bloomberg US Govt/Credit 1-3 Yr. TR / 5% Immunized Cash Flow Benchmark / 5% Market Neutral Strategies / 5% NCREIF-ODCE / 2% Bloomberg Commodity Index TR USD / 3% FTSE WGBI ex US TR / 2% Bloomberg US Treasury TIPS 0-5 Yr TR
11/1/2019	11/30/2019	13% MSCI USA IMI NR USD / 11% MSCI World ex USA IMI NR USD / 13% MSCI Emerging Market IMI Net / 22% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 16% Bloomberg US Govt/Credit 1-3 Yr. TR / 5% Immunized Cash Flow Benchmark / 5% Market Neutral Strategies / 5% NCREIF-ODCE / 2% Bloomberg Commodity Index TR USD / 3% FTSE WGBI ex US TR / 2% Bloomberg US Treasury TIPS 0-5 Yr TR
9/1/2019	10/31/2019	13% MSCI USA IMI NR USD / 10% MSCI World ex USA IMI NR USD / 13% MSCI Emerging Market IMI Net / 22% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 17% Bloomberg US Govt/Credit 1-3 Yr. TR / 5% Immunized Cash Flow Benchmark / 5% Market Neutral Strategies / 5% NCREIF-ODCE / 2% Bloomberg Commodity Index TR USD / 3% FTSE WGBI ex US TR / 2% Bloomberg US Treasury TIPS 0-5 Yr TR
10/1/2018	8/31/2019	13% MSCI USA IMI NR USD / 8% MSCI World ex USA IMI NR USD / 10% MSCI Emerging Market IMI Net / 22% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 20% ICE BofA 91 Days T-Bills TR / 5% Immunized Cash Flow Benchmark / 7% Market Neutral Strategies / 5% NCREIF-ODCE / 2% Bloomberg Commodity Index TR USD / 3% FTSE WGBI ex US TR / 2% Bloomberg US Treasury TIPS 0-5 Yr TR
5/1/2018	9/30/2018	34% MSCI ACWI IMI (Net) / 8% San Jose Custom Total Private Equity Index / 22.4% Bloomberg Global Aggregate TR / 1.4% S&P Global Leveraged Loan / 1.4% JP Morgan EMBI Global Diversified / 1.4% JP Morgan GBI EM Global Diversified TR USD / 6% HFRI Macro (Total) Index / 2% DJ Brookfield Global Infrastructure Net TR USD / 6% Bloomberg Commodity Index TR USD / 8% S&P Global Leveraged Loan + 2% / 8% NCREIF Property Index / 1.4% ICE BofA Global High Yield TR

Low-Cost Passive Portfolio		
4/1/2022	Present	24% MSCI USA IMI NR USD / 11% MSCI World ex USA IMI NR USD / 7% MSCI Emerging Markets / 13% Russell 3000 / 4% BBgBarc US Aggregate TR / 4% S&P Global Natural Resources / 2% 50% JPM EMBI GD / 50% JPM GBI-EM / 2% BBgBarc US Corporate High Yield TR / 9% FTSE EPRA/NAREIT Global NR USD / 1.5% BBgBarc US Treasury Long TR / 13% BBgBarc Gov/Credit 1-3 Yr / 3% SOFR / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 4.5% Custom IG Bonds Benchmark
6/1/21	3/31/2022	25% MSCI USA IMI NR USD / 12% MSCI World ex USA IMI NR USD / 9% MSCI Emerging Markets / 10% Russell 3000 / 3% BBgBarc US Aggregate TR / 3% S&P Global Natural Resources / 2% 50% JPM EMBI GD / 50% JPM GBI-EM / 2% BBgBarc US Corporate High Yield TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% BBgBarc US Treasury Long TR / 5% BBgBarc Gov/Credit 1-3 Yr / 3% LIBOR 3-Month / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 11% Custom IG Bonds Benchmark / 2% Bloomberg Commodity Index TR USD
4/1/2020	5/31/2021	23% MSCI USA IMI NR USD / 11% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 10% Russell 3000 / 15% BBgBarc US Aggregate TR / 2% BBgBarc US Corporate High Yield TR 8% / 3% FTSE EPRA/NAREIT Global NR USD / 2% BBgBarc US Govt Long TR / 5% ICE BofAML 91 Days T-Bills TR / 5% 3-Month Libor +1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 3% FTSE WGBI ex US TR
1/1/2020	3/31/2020	14% MSCI USA IMI NR USD / 12% MSCI World ex USA IMI NR USD / 13% MSCI Emerging Market IMI Net / 12% Russell 3000 / 4% BBgBarc US Aggregate TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% S&P Global Natural Resources Net USD / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 5% ICE BofAML 91 Days T-Bills TR / 5% 3-Month Libor +1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 2% Bloomberg Commodity Index TR USD / 3% FTSE WGBI ex US TR/14% BBgBarc US Govt/Credit 1-3 Yr. TR
12/1/2019	12/31/2019	14% MSCI USA IMI NR USD / 11% MSCI World ex USA IMI NR USD / 13% MSCI Emerging Market IMI Net / 12% Russell 3000 / 4% BBgBarc US Aggregate TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% S&P Global Natural Resources Net USD / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 5% ICE BofAML 91 Days T-Bills TR / 5% 3-Month Libor +1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 2% Bloomberg Commodity Index TR USD / 3% FTSE WGBI ex US TR/15% BBgBarc US Govt/Credit 1-3 Yr. TR
11/1/2019	11/30/2019	13% MSCI USA IMI NR USD / 11% MSCI World ex USA IMI NR USD / 13% MSCI Emerging Market IMI Net / 12% Russell 3000 / 4% BBgBarc US Aggregate TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% S&P Global Natural Resources Net USD / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 5% ICE BofAML 91 Days T-Bills TR / 5% 3-Month Libor +1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 2% Bloomberg Commodity Index TR USD / 3% FTSE WGBI ex US TR/16% BBgBarc US Govt/Credit 1-3 Yr. TR
9/1/2019	10/31/2019	13% MSCI USA IMI NR USD / 10% MSCI World ex USA IMI NR USD / 13% MSCI Emerging Market IMI Net / 12% Russell 3000 / 4% BBgBarc US Aggregate TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% S&P Global Natural Resources Net USD / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 5% ICE BofAML 91 Days T-Bills TR / 5% 3-Month Libor +1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 2% Bloomberg Commodity Index TR USD / 3% FTSE WGBI ex US TR/17% BBgBarc US Govt/Credit 1-3 Yr. TR
10/1/2018	8/31/2019	13% MSCI USA IMI NR USD / 8% MSCI World ex USA IMI NR USD / 10% MSCI Emerging Market IMI Net / 12% Russell 3000 / 4% BBgBarc US Aggregate TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% S&P Global Natural Resources Net USD / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 25% ICE BofAML 91 Days T-Bills TR / 7% 3-Month Libor + 1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 2% Bloomberg Commodity Index TR USD / 3% FTSE WGBI ex US TR
Liability Driven Benchmark Portfolio		
10/1/2018	Present	BBgBarc US Treasury Long TR

Growth		
4/1/2022	Present	59.15% Public Equity Benchmark / 35.21% Private Markets Benchmark / 2.82% 50% JPM EMBI GD / 50% JPM GBI-EM / 2.82% BBgBarc US Corporate High Yield TR
6/1/2021	3/31/2022	66.67% Public Equity Benchmark / 27.54% Private Markets Benchmark / 2.90% 50% JPM EMBI GD / 50% JPM GBI-EM / 2.90% BBgBarc US Corporate High Yield TR
4/1/2020	5/31/2021	65.71% Public Equity Benchmark / 27.14% Private Markets Benchmark / 4.29% 50% JPM EMBI GD / 50% JPM GBI-EM / 2.86% BBgBarc US Corporate High Yield TR
1/1/2020	3/31/2020	60.94% Public Equity Benchmark / 34.38% Private Markets Benchmark / 4.69% 50% JPM EMBI GD / 50% JPM GBI-EM
12/1/2019	12/31/2019	60.32% Public Equity Benchmark / 34.92% Private Markets Benchmark / 4.76% 50% JPM EMBI GD / 50% JPM GBI-EM
11/1/2019	11/30/2019	59.68% Public Equity Benchmark / 35.48% Private Markets Benchmark / 4.88% 50% JPM EMBI GD / 50% JPM GBI-EM
9/1/2019	10/31/2019	59.02% Public Equity Benchmark / 36.07% Private Markets Benchmark / 4.92% 50% JPM EMBI GD / 50% JPM GBI-EM
10/1/2018	8/31/2019	51.73% Public Equity Benchmark / 43.1% Private Markets Benchmark / 5.17% 50% JPM EMBI GD / 50% JPM GBI-EM
5/1/2018	9/30/2018	55.18% MSCI ACWI IMI Net USD / 12.99% S&P Global Leveraged Loan Index +2% / 12.99% Private Markets Benchmark / 6.49% NCREIF Property Index / 4.55% 50% JPM EMBI GD / 50% JPM GBI-EM / 4.55% 50% BAML Global HY / 50% S&P Global Leveraged Loan / 3.25% DJ Brookfield Global Infrastructure Net TR USD
7/31/2015	4/30/2018	51.92% MSCI ACWI IMI Net USD / 18.43% S&P Global Leveraged Loan Index +2% / 13.4% Private Markets Benchmark / 2.68% 50% JPM EMBI GD / 50% JPM GBI-EM / 2.68% 50% BAML Global HY / 50% S&P Global Leveraged Loan
Public Equity		
4/1/2022	Present	57.14% MSCI USA IMI NR USD / 26.19% MSCI World ex USA IMI NR USD / 16.67% MSCI Emerging Market IMI Net
6/1/2021	3/31/2022	54.35% MSCI USA IMI NR USD / 26.09% MSCI World ex USA IMI NR USD / 19.56% MSCI Emerging Market IMI Net
4/1/2020	5/31/2021	50% MSCI USA IMI NR USD / 23.91% MSCI World ex USA IMI NR USD / 26.09% MSCI Emerging Market IMI Net
1/1/2020	3/31/2020	35.9% MSCI USA IMI NR USD / 30.77% MSCI World ex USA IMI NR USD / 33.33% MSCI Emerging Market IMI Net
12/1/2019	12/31/2019	36.84% MSCI USA IMI NR USD / 28.95% MSCI World ex USA IMI NR USD / 34.21% MSCI Emerging Market IMI Net
11/1/2019	11/30/2019	35.13% MSCI USA IMI NR USD / 29.73% MSCI World ex USA IMI NR USD / 35.13% MSCI Emerging Market IMI Net
9/1/2019	10/31/2019	36.11% MSCI USA IMI NR USD / 27.78% MSCI World ex USA IMI NR USD / 36.11% MSCI Emerging Market IMI Net
10/1/2018	8/31/2019	41.93% MSCI USA IMI NR USD / 25.81% MSCI World ex USA IMI NR USD / 32.26% MSCI Emerging Market IMI Net
4/1/2008	9/30/2018	MSCI ACWI IMI (Net)
Global Equity		
3/1/2013	Present	MSCI ACWI IMI Index
U.S. Equity		
6/1/1995	Present	MSCI USA IMI NR USD

International Equity		
6/1/1995	Present	MSCI World ex USA IMI NR USD
Emerging Markets Equity		
9/1/2001	Present	MSCI Emerging Market IMI Net
Private Markets		
10/1/2018	Present	Private Markets
5/1/2018	9/30/2018	36.36% Cambridge Associates PE Composite BM / 36.36% S&P Global Leveraged Loan Index +2% / 18.18% NCREIF Property Index / 9.1% DJ Brookfield Global Infrastructure Net TR USD
7/1/2015	4/30/2018	19.61% Cambridge Associates PE Composite BM / 11.76% Russell 3000 / 43.14% S&P Global Leveraged Loan Index +2% / 13.73% NCREIF Property Index / 11.76% DJ Brookfield Global Infrastructure Net TR USD
Private Markets ex Russell 3000		
No Benchmark Selected		
Private Equity		
11/1/2016	Present	Custom Private Equity BM (100% Cambridge US PE)
10/1/2005	10/31/2016	Cambridge Associates US All PE (1 Qtr Lag)
Private Equity ex Russell 3000		
11/1/2016	9/30/2021	Custom Private Equity BM
10/1/2005	10/31/2016	Cambridge Associates US All PE (1 Qtr Lag)
Northern Trust Russell 3000		
4/1/2014	Present	Russell 3000
Private Debt		
10/1/2015	Present	S&P Global Leveraged Loan + 2%
Private Real Estate		
7/1/2015	Present	NCREIF ODCE Equal Weighted
Private Real Assets		
No Benchmark Selected		

High Yield Bonds		
6/1/2020	Present	BBgBarc US Corporate High Yield TR
Emerging Market Debt		
1/1/2013	Present	50% JP Morgan GBI EM Global Diversified TR USD / 50% JP Morgan EMBI Global Diversified
Low Beta		
4/1/2022	Present	81.3% Immunized Cash Flow Benchmark / 18.7% SOFR +1.5%
3/1/2022	3/31/2022	62.5% Immunized Cash Flow Benchmark / 37.5% SOFR +1.5%
6/1/2021	2/28/2022	62.5% Immunized Cash Flow Benchmark / 37.5% LIBOR 3-Month +1.5%
4/1/2020	5/31/2021	62.5% ICE BofA 91 Days T-Bills TR / 37.5% Market Neutral Strategies
1/1/2020	3/31/2020	35.71% ICE BofA 91 Days T-Bills TR / 58.33% BBgBarc US Govt/Credit 1-3 Yr. TR / 35.71% Market Neutral Strategies
12/1/2019	12/31/2019	20% ICE BofA 91 Days T-Bills TR / 60% BBgBarc US Govt/Credit 1-3 Yr. TR / 20% Market Neutral Strategies
11/1/2019	11/30/2019	19.23% ICE BofA 91 Days T-Bills TR / 61.54% BBgBarc US Govt/Credit 1-3 Yr. TR / 19.23% Market Neutral Strategies
9/1/2019	10/31/2019	18.52% ICE BofA 91 Days T-Bills TR / 62.96% BBgBarc US Govt/Credit 1-3 Yr. TR / 18.52% Market Neutral Strategies
10/1/2018	8/31/2019	62.5% ICE BofA 91 Days T-Bills TR / 15.62% Immunized Cash Flow Benchmark / 21.88% Market Neutral Strategies
5/1/2018	9/30/2018	HFRI Macro (Total) Index
7/1/2015	4/30/2018	85.71% HFRI Macro (Total) Index / 14.29% ICE BofA 91 Days T-Bills TR
Immunized Cash Flows		
10/1/2018	Present	Immunized Cash Flows
Market Neutral Strategies		
3/1/2022	Present	SOFR +1.5%
6/1/2021	2/28/2022	LIBOR 3-Month +1.5%
10/1/2018	5/31/2021	ICE BofA 91 Days T-Bills TR
11/1/2012	9/30/2018	HFRI Macro (Total) Index
Macro		
7/1/2015	Present	HFRI Macro (Total) Index
Relative Value		
7/1/2015	Present	HFRI Relative Value (Total) Index
Cash		
7/1/2002	Present	ICE BofA 91 Days T-Bills TR

Other		
4/1/2022	Present	38.46% NCREIF ODCE Value Weighted (Net) (1 Qtr Lag) / 34.62% Custom IG Bonds Benchmark / 11.54% BBgBarc US Treasury Long TR / 15.38% BBgBarc US Treasury TIPS 0-5 Yr TR
6/1/2021	3/31/2022	21.74% NCREIF ODCE Value Weighted (Net) (1 Qtr Lag) / 47.83% Custom IG Bonds Benchmark / 13.04% BBgBarc US Treasury Long TR / 8.70% BBgBarc US Treasury TIPS 0-5 Yr TR / 8.70% Bloomberg Commodity Index TR USD
4/1/2020	5/31/2021	22.73% NCREIF ODCE Equal Weighted / 54.55% Custom IG Bonds Benchmark / 13.64% BBgBarc US Govt Long TR / 9.09% BBgBarc US Treasury TIPS 0-5 Yr TR
10/1/2018	3/31/2020	41.67% NCREIF ODCE Equal Weighted / 16.67% Bloomberg Commodity Index TR USD / 25% FTSE WGBI ex US TR / 16.66% BBgBarc US Treasury TIPS 0-5 Yr TR
5/1/2018	9/30/2018	69.14% BBgBarc Global Aggregate TR / 18.52% Bloomberg Commodity Index TR USD / 12.34% NCREIF Property Index
7/1/2015	4/30/2018	38.44% BBgBarc Global Aggregate TR / 30.03% 60% MSCI World & 40% Citigroup WGBI / 21.02% Bloomberg Commodity Index TR USD / 10.51% NCREIF Property Index
Core Real Estate		
6/1/2021	Present	NCREIF ODCE Value Weighted (Net) (1 Qtr Lag)
9/1/2011	5/31/2021	NCREIF ODCE Equal Weighted (Net)
TIPS		
10/1/2018	Present	BBgBarc US Treasury TIPS 0-5 Yr TR
Sovereign Bonds ex-US		
10/1/2018	Present	FTSE WGBI ex US TR
Investment Grade Bonds		
5/1/2020	Present	Custom IG Bonds Benchmark (25% BBgBarc 1-3 Year Government/Credit, 56% US Aggregate, 19% US Securitized MBS/ABS/CMBS)
Long Term Government Bonds		
6/1/2020	Present	Long Term Government Bonds
Overlay		
	Present	91 Day T-Bills

Glossary and Notes

Credit Risk: Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security.)

Duration: Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

Information Ratio: This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

Jensen's Alpha: A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk. $\text{Portfolio Return} - [\text{Risk Free Rate} + \text{Beta} \times (\text{market return} - \text{Risk Free Rate})]$.

Market Capitalization: For a firm, market capitalization is the total market value of outstanding common stock. For a portfolio, market capitalization is the sum of the capitalization of each company weighted by the ratio of holdings in that company to total portfolio holdings; thus it is a weighted-average capitalization. Meketa Investment Group considers the largest 65% of the broad domestic equity market as large capitalization, the next 25% of the market as medium capitalization, and the smallest 10% of stocks as small capitalization.

Market Weighted: Stocks in many indices are weighted based on the total market capitalization of the issue. Thus, the individual returns of higher market-capitalization issues will more heavily influence an index's return than the returns of the smaller market-capitalization issues in the index.

Maturity: The date on which a loan, bond, mortgage, or other debt/security becomes due and is to be paid off.

Prepayment Risk: The risk that prepayments will increase (homeowners will prepay all or part of their mortgage) when mortgage interest rates decline; hence, investors' monies will be returned to them in a lower interest rate environment. Also, the risk that prepayments will slow down when mortgage interest rates rise; hence, investors will not have as much money as previously anticipated in a higher interest rate environment. A prepayment is any payment in excess of the scheduled mortgage payment.

Price-Book Value (P/B) Ratio: The current market price of a stock divided by its book value per share. Meketa Investment Group calculates P/B as the current price divided by Compustat's quarterly common equity. Common equity includes common stock, capital surplus, retained earnings, and treasury stock adjusted for both common and nonredeemable preferred stock. Similar to high P/E stocks, stocks with high P/B's tend to be riskier investments.

Price-Earnings (P/E) Ratio: A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about its future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

Quality Rating: The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

STIF Account: Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

Standard Deviation: A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

Style: The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

Tracking Error: A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark, as defined by the difference in standard deviation.

Yield to Maturity: The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a “basis book.” For example, a 5% bond pays \$5 a year interest on each \$100 par value. To figure its current yield, divide \$5 by \$95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay \$100 for the bond that can be bought now for \$95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

$$\frac{5\% \text{ (discount)}}{5 \text{ (yrs. to maturity)}} = 1\% \text{ pro rata, plus } 5.26\% \text{ (current yield)} = 6.26\% \text{ (yield to maturity)}$$

Yield to Worst: The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

NCREIF Property Index (NPI): Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE): Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

Sources: Investment Terminology, International Foundation of Employee Benefit Plans, 1999.

The Handbook of Fixed Income Securities, Fabozzi, Frank J., 1991

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Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.