

SB cera

OUARTERLY PERFORMANCE REPORT

SAN BERNARDINO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

JUNE 30, 2022

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MARKET ENVIRONMENT



PROPRIETARY & CONFIDENTIAL

ECONOMIC ENVIRONMENT

• Q2 Real GDP (advance estimate) decreased at an annual rate of -0.9%.

- Retail sales ended May at +6.9% on a YoY basis. In the same period last year the YoY growth rate was +24.5%.
- Corporate profits as a percent of GDP ended January 2022 at 11.2%, up from 10.7% in the same period last year and remain elevated relative to historical levels.
- The inventory-to-sales ratio ended May was 1.3. Levels have remained relatively constant since early 2010 with a spike to 1.7 in April 2020.
- The U.S. trade deficit narrowed in Q2, but remains elevated.
- The unemployment rate was 3.6% in Q2, flat when compared to Q1; U-6, a broader measure of unemployment, decreased to 6.7% in Q2 from 6.9% in Q1.
 - The labor force participation rate ended Q2 at 62.2% down from 62.4% Q1 after declining to 60.2% in April 2020 and is at levels below the 10 year pre-pandemic average of 63.0%.
- The Case-Shiller Home Price Index (ended May) increased to 305.98 up from 294.72 (in March) and remains at levels higher than that of pre-financial crisis levels of 150.9.
- Rolling 12-month seasonally-adjusted CPI printed ended Q2 at 9.01% up from 8.67% in Q1. In the same period last year, it was 5.44%; Capacity Utilization increased to 80% in Q2 up from 78.3% in Q1.
- Fed Funds rate was increased by 1.25% to a targeted range of 1.50%-to-1.75% up from 0.25%-to-0.50%. The 10-year Treasury Yield (constant maturity) finished Q2 at 3.1% up from 2.1% in Q1.
 - At its meeting on July 26 July 27, 2022 the Fed increased the Fed Funds rate 0.75% to a targeted rate of 2.25%-to-2.50%
- The Fed continues scaling back asset purchases. The Fed's balance sheet is beginning to shrink after a
 period of rapid growth post-pandemic.
- S&P valuations decreased in Q2 to 29.3 from 34.3 in Q1 and remain higher than the 10-year average of 28.6x.
 - Cyclically adjusted Shiller PE ratio remains above the long-term average of 16.95x.

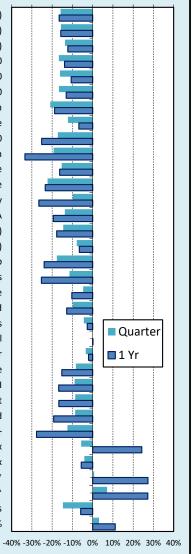


MARKET ENVIRONMENT

Q2 2022 OVERVIEW

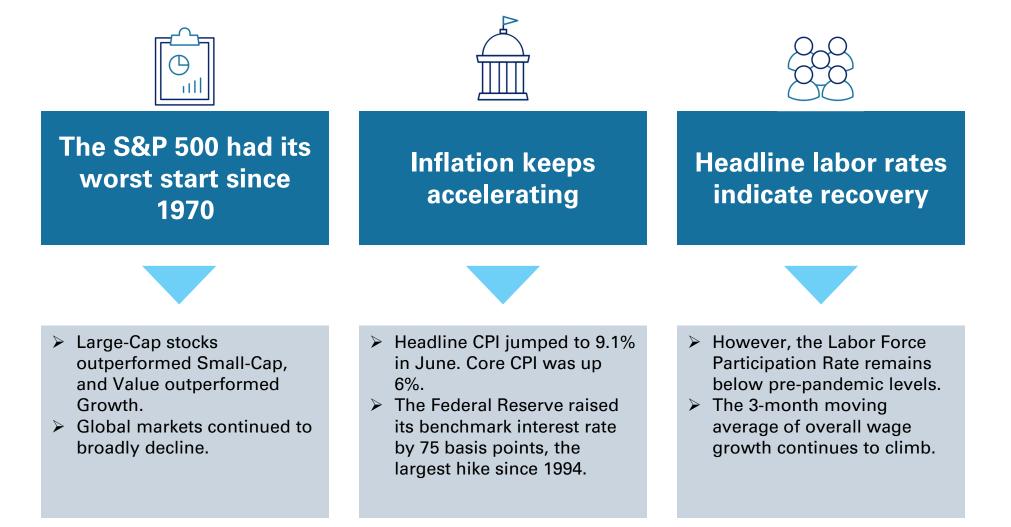
World Equity Benchmarks MSCI ACWI MII (Not) World with Small Cap -15.83% -16.52% 5.96% 6.70% 8.71% MSCI ACWI MI (Not) World WIO Small Cap -15.66% -15.75% 6.21% 7.00% 8.76% MSCI ACWI (Loca) World (Local Currency) -13.64% -12.27% 7.41% 7.66% 10.05% Domestic Equity Benchmarks Russell 3000 Domestic All Cap -16.70% -13.87% 9.77% 10.60% 11.21% 12.96% Russell 1000 Large Core -16.10% -10.62% 10.60% 11.31% 12.96% Russell 1000 Growth Large Core -16.67% -13.04% 10.17% 11.00% 12.82% Russell 1000 Growth Large Core -12.21% -6.82% 6.87% 7.17% 10.50% Russell 2000 Small Core -17.21% -26.20% 4.21% 5.47% 9.35% Russell 2000 Value Small Care -12.21% -6.82% 6.87% 11.22% NASDAC Composite Large forwth -22.28%			Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.	7
MSCI ACWI Not (USD) World WO Small Cap -15.66% -15.75% 6.21% 7.00% 8.76% MSCI ACWI (Local) World (Local Currency) -13.64% -12.27% 7.44% 7.66% 10.06% Domestic All Cap -16.70% -13.87% 9.77% 10.60% 12.57% S&P 500 Large Core -16.67% -13.04% 10.17% 11.00% 12.28% Russell 1000 Large Core -16.67% -13.04% 10.17% 11.00% 12.28% Russell 1000 Growth Large Growth -20.32% -18.77% 12.58% 14.29% 14.80% Russell 2000 Value Small Core -17.20% -25.20% 4.21% 4.80% 9.30% Russell 2000 Value Small Core -17.20% -22.80% 4.14% 9.05% NASDAC Composite Large Growth -22.28% -23.43% 1.40% 4.89% 9.05% NASDAC Composite Large Growth -22.28% -23.43% 1.41% 4.26% 4.26% NSCI EAFE Net (USD) I	World Equity Benchmarks							1
MSCI ACWI (Local) World (Local Currency) -13.84% -12.27% 7.41% 7.68% 10.05% Domestic Equity Benchmarks <	MSCI ACWI IMI (Net)	World with Small Cap	-15.83%	-16.52%	5.98%	6.70%	8.71%	1
Domestic Equity Benchmarks Russell 3000 Domestic All Cap -16.70% -13.87% 9.77% 10.60% 12.57% Russell 3000 Large Core -16.10% -10.62% 10.60% 12.57% Russell 1000 Large Core -16.10% -10.62% 10.60% 12.87% Russell 1000 Growth Large Growth -20.92% -18.77% 12.88% 14.29% Russell 1000 Value Large Core -17.20% -25.20% 4.81% 5.77% 10.50% Russell 2000 Small Core -17.20% -25.20% 4.21% 5.17% 9.35% Russell 2000 Growth Small Core -17.20% -25.20% 4.21% 5.17% 9.35% Russell 2000 Value Small Core -17.20% -25.20% 4.21% 5.17% 9.35% NASDAC Evoton Small Core -17.20% -25.20% 4.21% 4.15.40% NASDAC Biotechnology Biotech -9.78% -26.57% 3.73% 3.66% 11.22% International Equity Benchmarks	MSCI ACWI Net (USD)	World W/O Small Cap	-15.66%	-15.75%	6.21%	7.00%	8.76%	1
Russell 3000 Domestic All Cap -16.70% -13.87% 9.77% 10.60% 12.57% S&P 500 Large Core -16.10% -10.62% 10.60% 11.31% 12.98% Russell 1000 Large Core -16.10% -10.62% 10.00% 11.31% 12.98% Russell 1000 Growth Large Growth -20.92% -16.77% 12.58% 14.29% 14.80% Russell 2000 Value Large Value -12.21% -6.82% 6.87% 7.17% 10.50% Russell 2000 Growth Small Growth -19.28% -33.43% 1.40% 4.80% 9.05% NASDAQ Composite Large Growth -22.28% -23.43% 12.18% 13.47% 15.40% NASDAQ Composite Large Growth -9.78% -26.57% 3.73% 3.65% 11.22% NASDAQ Composite Large Growth -22.28% -23.43% 12.18% 13.47% 15.40% MSCI ACWI Ex USA World ex-US -13.73% -19.42% 1.35% 2.60% 4.83% <	MSCI ACWI (Local)	World (Local Currency)	-13.64%	-12.27%	7.41%	7.68%	10.05%	1
S&P 500 Large Core -16.10% -10.62% 10.60% 11.31% 12.96% Russell 1000 Large Core -16.67% -13.04% 10.17% 11.00% 12.82% Russell 1000 Value Large Growth -20.92% -18.77% 12.58% 14.29% 14.80% Russell 1000 Value Large Value -12.21% -6.82% 6.87% 7.17% 10.50% Russell 2000 Small Core -17.20% -25.20% 4.21% 5.17% 9.35% Russell 2000 Growth Small Growth -19.28% -33.43% 1.40% 4.80% 9.05% Russell 2000 Value Small Value -15.28% -16.28% 6.18% 4.89% 9.05% NASDAQ Elotechnology Biotech -9.78% -26.57% 3.73% 3.56% 11.22% International Equity Benchmarks MSCI ACME KS USA Vorid ex-US -13.73% -19.42% 1.35% 2.50% 4.83% MSCI EAFE Net (USD) Int'l Developed -14.51% -17.77% 1.07% 2.20% <td< td=""><td>Domestic Equity Benchmarks</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	Domestic Equity Benchmarks							
Russell 1000 Large Core -16.67% -13.04% 10.17% 11.00% 12.82% Russell 1000 Growth Large Growth -20.92% -18.77% 12.58% 14.29% 14.80% Russell 1000 Value Large Value -12.21% -6.82% 6.87% 7.17% 10.50% Russell 2000 Small Core -17.20% -25.20% 4.21% 5.17% 9.35% Russell 2000 Growth Small Growth -19.25% -33.43% 1.40% 4.80% 9.30% Russell 2000 Value Small Value -16.28% -16.28% 1.41% 13.47% 15.40% NASDAQ Composite Large Growth -22.28% -26.67% 3.73% 3.56% 11.22% International Equity Bonchmarks -9.78% -28.67% 1.37% 4.83% Morid ex-US -13.73% -19.42% 1.35% 2.50% 4.83% MSCI EAFE Net (USD) Int'I Developed -14.51% -17.77% 1.07% 2.20% 5.40% MSCI EAFE Small Cap Small Cap Int'I -17.69%	Russell 3000	Domestic All Cap	-16.70%	-13.87%	9.77%	10.60%	12.57%	1
Russell 1000 Growth Large Growth -20.92% -18.77% 12.58% 14.29% 14.80% Russell 1000 Value Large Value -12.21% -6.82% 6.87% 7.17% 10.50% Russell 2000 Growth Small Growth -12.21% -6.82% 6.87% 7.17% 9.35% Russell 2000 Growth Small Growth -19.25% -33.43% 14.40% 4.80% 9.30% Russell 2000 Crowth Small Growth -19.25% -33.43% 14.40% 4.80% 9.05% NASDAQ Composite Large Growth -22.28% -23.43% 12.18% 13.47% 15.40% NASDAQ Biotechnology Biotech -9.78% -26.57% 3.73% 3.56% 11.22% International Equity Bonchmarks - - - - 4.83% Morid ex-US -13.73% -19.42% 1.35% 2.50% 4.83% MSCI EAFE Net (USD) Int'I Developed (Local Currency) -7.83% -4.65% 4.37% 4.27% 8.33% MSCI EAFE Small Cap Small Cap Int'I	S&P 500	Large Core	-16.10%	-10.62%	10.60%	11.31%	12.96%	1
Russell 1000 Value Large Value -12.21% -6.82% 6.87% 7.17% 10.50% Russell 2000 Small Core -17.20% -25.20% 4.21% 5.17% 9.35% Russell 2000 Growth Small Growth -19.25% -33.43% 1.40% 4.80% 9.30% Russell 2000 Value Small Value -15.28% -61.82% 6.18% 4.89% 9.05% NASDAQ Composite Large Growth -22.28% -23.43% 12.18% 13.47% 15.40% NASDAQ Biotechnology Biotech -9.78% -26.57% 3.73% 3.56% 11.22% International Equity Benchmarks - - - - 7.77% 1.07% 2.00% 5.40% MSCI EAFE Net (USD) Int'l Developed (Local Currency) -7.83% -6.59% 4.37% 4.27% 8.33% MSCI EAFE Small Cap Small Cap Int'l -17.69% -23.98% 1.12% 1.72% 7.18% MSCI EAFE Met (USD) Int'l Developed (Local Currency) -7.83% -6.59% 4.37% <td>Russell 1000</td> <td>Large Core</td> <td>-16.67%</td> <td>-13.04%</td> <td>10.17%</td> <td>11.00%</td> <td>12.82%</td> <td></td>	Russell 1000	Large Core	-16.67%	-13.04%	10.17%	11.00%	12.82%	
Russell 2000 Small Core -17.20% -25.20% 4.21% 5.17% 9.35% Russell 2000 Growth Small Growth -19.25% -33.43% 1.40% 4.80% 9.30% Russell 2000 Value Small Value -15.28% -16.28% 6.18% 4.89% 9.05% NASDAQ Composite Large Growth -22.28% -23.43% 12.18% 13.47% 15.40% NASDAQ Biotechnology Biotech -9.78% -26.57% 3.73% 3.56% 11.22% International Equity Benchmarks MSCI ACWI Ex USA World ex-US -13.73% -19.42% 1.35% 2.50% 4.83% MSCI EAFE Net (USD) Int'l Developed (Local Currency) -7.83% -6.59% 4.37% 4.27% 8.33% MSCI EAFE Small Cap Small Cap Int'l -17.69% -23.98% 1.12% 1.72% 7.18% Domestic Fixed Income Benchmarks Emerging Equity -11.45% -25.29% 0.57% 2.18% 3.06% Domestic Fixed Income Benchmarks Barclays US High Yield -9.83% <	Russell 1000 Growth	Large Growth	-20.92%	-18.77%	12.58%	14.29%	14.80%	
Russell 2000 Growth Small Growth .19.25% .33.43% 1.40% 4.80% 9.30% Russell 2000 Value Small Value .15.28% .16.28% 6.18% 4.89% 9.05% NASDAQ Composite Large Growth -22.28% -23.43% 12.18% 13.47% 15.40% NASDAQ Biotechnology Biotech -9.78% -26.57% 3.73% 3.56% 11.22% International Equity Benchmarks International Equity Benchmarks MSCI ACWI Ex USA World ex-US -13.73% 19.42% 1.35% 2.50% 4.83% MSCI EAFE Net (USD) Int'l Developed (Local Currency) -7.83% -6.59% 4.37% 4.27% 8.33% MSCI EAFE (Local) Int'l Developed (Local Currency) -7.83% -6.59% 4.37% 4.27% 8.33% MSCI EAFE Small Cap Small Cap Int'l -17.69% -23.98% 1.12% 1.72% 7.18% MSCI EAFE Met (USD) Int'l Developed 1 -4.69% -10.29% 0.57% 2.18% 3.06% Domestic Fixed Income Benchmarks	Russell 1000 Value	Large Value	-12.21%	-6.82%	6.87%	7.17%	10.50%	
Russell 2000 Value Small Value -15.28% -16.28% 6.18% 4.89% 9.05% NASDAQ Composite Large Growth -22.28% -23.43% 12.18% 13.47% 15.40% NASDAQ Biotechnology Biotech -9.78% -26.57% 3.73% 3.56% 11.22% International Equity Benchmarks - -13.73% -19.42% 1.35% 2.50% 4.83% MSCI EAFE Net (USD) Int'l Developed -14.51% -17.77% 1.07% 2.20% 5.40% MSCI EAFE (Local) Int'l Developed (Local Currency) -7.83% -6.59% 4.37% 4.27% 8.33% MSCI EAFE Small Cap Small Cap Int'l -17.69% -23.98% 1.12% 1.72% 7.18% MSCI EAFE Income Benchmarks Emerging Equity -11.45% -25.29% 0.57% 2.18% 3.06% Domestic Fixed Income Benchmarks Emerging Equity -11.45% -2.68% 2.03% 2.97% 3.90% Bordays Us High Yield -9.83% -12.82% 0.21% 2.18%<	Russell 2000	Small Core	-17.20%	-25.20%	4.21%	5.17%	9.35%	1
NASDAQ Composite Large Growth -22.28% -23.43% 12.18% 13.47% 15.40% NASDAQ Biotechnology Biotech -9.78% -26.57% 3.73% 3.56% 11.22% International Equity Benchmarks	Russell 2000 Growth	Small Growth	-19.25%	-33.43%	1.40%	4.80%	9.30%	
NASDAQ Biotechnology Biotech -9.78% -26.57% 3.73% 3.56% 11.22% International Equity Benchmarks MSCI ACWI Ex USA World ex-US -13.73% -19.42% 1.35% 2.50% 4.83% MSCI EAFE Net (USD) Int'l Developed -14.51% -17.77% 1.07% 2.20% 5.40% MSCI EAFE Net (USD) Int'l Developed (Local Currency) -7.83% -6.59% 4.37% 4.27% 8.33% MSCI EAFE Small Cap Small Cap Int'l -17.69% -23.98% 1.12% 1.72% 7.18% MSCI EMER Small Cap Small Cap Int'l -17.69% -23.98% 1.12% 1.72% 7.18% MSCI Emerging Markets Emerging Equity -11.45% -25.29% 0.57% 2.18% 3.06% Domestic Fixed Income Benchmarks Barclays US High Yield High Yield -9.83% -12.82% 0.21% 2.10% 4.47% CSFB Levered Loans Bank Loans -4.35% -2.68% 2.03% 2.97% 3.90% BofA ML US 3-Month T-Bill Cash	Russell 2000 Value	Small Value	-15.28%	-16.28%	6.18%	4.89%	9.05%	
International Equity Benchmarks MSCI ACWI Ex USA World ex-US -13.73% -19.42% 1.35% 2.50% 4.83% MSCI ACWI Ex USA Int'l Developed -14.51% -17.77% 1.07% 2.20% 5.40% MSCI EAFE Net (USD) Int'l Developed (Local Currency) -7.83% -6.59% 4.37% 4.27% 8.33% MSCI EAFE Smail Cap Smail Cap Int'l -17.69% -23.98% 1.12% 1.72% 7.18% MSCI EAFE Smail Cap Smail Cap Int'l -17.69% -23.98% 1.12% 1.72% 7.18% MSCI Emerging Markets Emerging Equity -11.45% -25.29% 0.57% 2.18% 3.06% Domestic Fixed Income Benchmarks Bloomberg Aggregate Core Bonds 4.69% -10.29% -0.93% 0.88% 1.54% Barclays US High Yield High Yield -9.83% -12.82% 0.21% 2.10% 4.47% CSFB Levered Loans Bank Loans -4.35% -2.68% 2.03% 3.97% 3.90% BofAML US 3-Month T-Bill	NASDAQ Composite	Large Growth	-22.28%	-23.43%	12.18%	13.47%	15.40%	
MSCI ACWI Ex USA World ex-US -13.73% -19.42% 1.35% 2.50% 4.83% MSCI EAFE Net (USD) Int'l Developed -14.51% -17.77% 1.07% 2.20% 5.40% MSCI EAFE Net (USD) Int'l Developed (Local Currency) -7.83% -6.59% 4.37% 4.27% 8.33% MSCI EAFE Small Cap Small Cap Int'l -17.69% -23.98% 1.12% 1.72% 7.18% MSCI EAFE Small Cap Small Cap Int'l -17.69% -23.98% 1.12% 1.72% 7.18% MSCI Emerging Markets Emerging Equity -11.45% -25.29% 0.57% 2.18% 3.06% Domestic Fixed Income Benchmarks Emerging Equity -11.45% -25.29% 0.57% 2.18% 3.06% Barclays US High Yield High Yield -9.83% -12.82% 0.21% 2.10% 4.47% CSFB Levered Loans Bank Loans 4.35% -2.68% 2.03% 2.97% 3.90% BofA ML US 3-Month T-Bill Cash 0.11% 0.17% 0.63% 1.11%<	NASDAQ Biotechnology	Biotech	-9.78%	-26.57%	3.73%	3.56%	11.22%	
MSCI EAFE Net (USD) Int'l Developed -14.51% -17.77% 1.07% 2.20% 5.40% MSCI EAFE (Local) Int'l Developed (Local Currency) -7.83% -6.59% 4.37% 4.27% 8.33% MSCI EAFE Small Cap Small Cap Int'l -17.69% -23.98% 1.12% 1.72% 7.18% MSCI EAFE Small Cap Small Cap Int'l -17.69% -23.98% 1.12% 1.72% 7.18% MSCI EMERGING Markets Emerging Equity -11.45% -25.29% 0.57% 2.18% 3.06% Domestic Fixed Income Benchmarks Emerging Equity -11.45% -25.29% 0.57% 2.18% 3.06% Domestic Fixed Income Benchmarks Emerging Equity -11.45% -25.29% 0.21% 2.10% 4.47% CSFB Levered Loans Barclays US High Yield -9.83% -12.82% 0.21% 2.10% 4.47% CSFB Levered Loans Bank Loans -4.35% -2.68% 2.03% 3.90% BofA ML US 3-Month T-Bill Cash 0.11% 0.11% 0.664%	International Equity Benchmarks							
MSCI EAFE (Local) Int'l Developed (Local Currency) -7.83% -6.59% 4.37% 4.27% 8.33% MSCI EAFE Small Cap Small Cap Int'l -17.69% -23.98% 1.12% 1.72% 7.18% MSCI EAFE Small Cap Small Cap Int'l -17.69% -23.98% 1.12% 1.72% 7.18% MSCI Emerging Markets Emerging Equity -11.45% -25.29% 0.57% 2.18% 3.06% Domestic Fixed Income Benchmarks Bioomberg Aggregate Core Bonds -4.69% -10.29% -0.93% 0.88% 1.54% Barclays US High Yield High Yield -9.83% -12.82% 0.21% 2.10% 4.47% CSFB Levered Loans Bank Loans -4.35% -2.68% 2.03% 2.97% 3.90% BofA ML US 3-Month T-Bill Cash 0.11% 0.17% 0.63% 1.11% 0.64% Bloomberg US TIPS 1-10 Yr Inflation -3.42% -2.03% 3.37% 3.24% 1.75% Global Fixed Income Benchmarks Barclays Global Aggregate Global Core Bonds	MSCI ACWI Ex USA	World ex-US	-13.73%	-19.42%	1.35%	2.50%	4.83%	
MSCI EAFE Small Cap Small Cap Int'l -17.69% -23.98% 1.12% 1.72% 7.18% MSCI Emerging Markets Emerging Equity -11.45% -25.29% 0.57% 2.18% 3.06% Domestic Fixed Income Benchmarks Bloomberg Aggregate Core Bonds 4.69% -10.29% -0.93% 0.88% 1.54% Barclays US High Yield High Yield -9.83% -12.82% 0.21% 2.10% 4.47% CSFB Levered Loans Bank Loans -4.35% -2.68% 2.03% 2.97% 3.90% BofA ML US 3-Month T-Bill Cash 0.11% 0.17% 0.63% 1.11% 0.64% Bloomberg US TIPS 1-10 Yr Inflation -3.42% -2.03% 3.37% 3.24% 1.75% Global Fixed Income Benchmarks Barclays Global Aggregate Global Core Bonds -8.26% -15.25% -3.22% -0.56% 0.11% FTSE WGBI World Gov. Bonds -8.91% -16.77% -4.28% -1.17% -0.69% BC Global Credit Global Bonds -8.58%	MSCIEAFE Net (USD)	Int'l Developed	-14.51%	-17.77%	1.07%	2.20%	5.40%	
MSCI Emerging Markets Emerging Equity -11.45% -25.29% 0.57% 2.18% 3.06% Domestic Fixed Income Benchmarks Bloomberg Aggregate Core Bonds -4.69% -10.29% -0.93% 0.88% 1.54% Barclays US High Yield High Yield -9.83% -12.82% 0.21% 2.10% 4.47% CSFB Levered Loans Bank Loans -4.35% -2.68% 2.03% 2.97% 3.90% BofAML US 3-Month T-Bill Cash 0.11% 0.17% 0.63% 1.11% 0.64% Bloomberg US TIPS 1-10 Yr Inflation -3.42% -2.03% 3.37% 3.24% 1.75% Global Fixed Income Benchmarks Barclays Global Aggregate Global Core Bonds -8.26% -15.25% -3.22% -0.56% 0.11% FTSE WGBI World Gov. Bonds -8.91% -16.77% -4.28% -1.17% -0.69% BC Global Credit Global Bonds -8.58% -16.68% -2.60% -0.01% 1.41% JPM GBI-EM Glob. Diversified Em. Mkt. Bonds (Local Currency)	MSCI EAFE (Local)	Int'l Developed (Local Currency)	-7.83%	-6.59%	4.37%	4.27%	8.33%	
Domestic Fixed Income Benchmarks Bioomberg Aggregate Core Bonds -4.69% -10.29% -0.93% 0.88% 1.54% Barclays US High Yield High Yield -9.83% -12.82% 0.21% 2.10% 4.47% CSFB Levered Loans Bank Loans -4.35% -2.68% 2.03% 2.97% 3.90% BofA ML US 3-Month T-Bill Cash 0.11% 0.17% 0.63% 1.11% 0.64% Bloomberg US TIPS 1-10 Yr Inflation -3.42% -2.03% 3.37% 3.24% 1.75% Global Fixed Income Benchmarks Barclays Global Aggregate Global Core Bonds -8.26% -15.25% -3.22% -0.56% 0.11% FTSE WGBI World Gov. Bonds -8.91% -16.77% -4.28% -1.17% -0.69% BC Global Credit Global Bonds -8.58% -16.68% -2.60% -0.01% 1.41% JPM GBI-EM Glob. Diversified Em. Mkt. Bonds (Local Currency) -8.63% -19.28% -5.80% -2.31% -1.49% JPM EMBI+ Em. Mkt. B	MSCI EAFE Small Cap	Small Cap Int'l	-17.69%	-23.98%	1.12%	1.72%	7.18%	
Bioomberg Aggregate Core Bonds -4.69% -10.29% -0.93% 0.88% 1.54% Barclays US High Yield High Yield -9.83% -12.82% 0.21% 2.10% 4.47% CSFB Levered Loans Bank Loans -4.35% -2.68% 2.03% 2.97% 3.90% BofA ML US 3-Month T-Bill Cash 0.11% 0.17% 0.63% 1.11% 0.64% Bloomberg US TIPS 1-10 Yr Inflation -3.42% -2.03% 3.37% 3.24% 1.75% Global Fixed Income Benchmarks Barclays Global Aggregate Global Core Bonds -8.26% -15.25% -3.22% -0.56% 0.11% FTSE WGBI World Gov. Bonds -8.91% -16.77% -4.28% -1.17% -0.69% BC Global Credit Global Bonds -8.58% -16.68% -2.60% -0.01% 1.41% JPM GBI-EM Glob. Diversified Em. Mkt. Bonds (Local Currency) -8.63% -19.28% -5.80% -2.31% -1.49% JPM EMBI+ Em. Mkt. Bonds -12.46% -27.71% <	MSCI Emerging Markets	Emerging Equity	-11.45%	-25.29%	0.57%	2.18%	3.06%	
Barclays US High Yield High Yield -9.83% -12.82% 0.21% 2.10% 4.47% CSFB Levered Loans Bank Loans -4.35% -2.68% 2.03% 2.97% 3.90% BofA ML US 3-Month T-Bill Cash 0.11% 0.17% 0.63% 1.11% 0.64% Bloomberg US TIPS 1-10 Yr Inflation -3.42% -2.03% 3.37% 3.24% 1.75% Global Fixed Income Benchmarks -	Domestic Fixed Income Benchmarks							
CSFB Levered Loans Bank Loans 4.35% -2.68% 2.03% 2.97% 3.90% BofA ML US 3-Month T-Bill Cash 0.11% 0.17% 0.63% 1.11% 0.64% Bloomberg US TIPS 1-10 Yr Inflation -3.42% -2.03% 3.37% 3.24% 1.75% Global Fixed Income Benchmarks 0.61% 0.11% 0.63% 1.11% 0.64% Barclays Global Aggregate Global Core Bonds -8.26% -15.25% -3.22% -0.56% 0.11% FTSE WGBI World Gov. Bonds -8.81% -16.77% -4.28% -1.17% -0.69% BC Global Credit Global Bonds -8.58% -16.68% -2.60% -0.01% 1.41% JPM GBI-EM Glob. Diversified Em. Mkt. Bonds (Local Currency) -8.63% -19.28% -5.80% -2.31% -1.49% JPM EMBI+ Em. Mkt. Bonds -12.46% -27.71% -8.66% -4.02% 0.37%	Bloomberg Aggregate	Core Bonds	-4.69%	-10.29%	-0.93%	0.88%	1.54%	
BofA ML US 3-Month T-Bill Cash 0.11% 0.17% 0.63% 1.11% 0.64% Bloomberg US TIPS 1-10 Yr Inflation -3.42% -2.03% 3.37% 3.24% 1.75% Global Fixed Income Benchmarks	Barclays US High Yield	High Yield	<mark>-9.83%</mark>	-12.82%	0.21%	2.10%	4.47%	
Bioomberg US TIPS 1-10 Yr Inflation -3.42% -2.03% 3.37% 3.24% 1.75% Global Fixed Income Benchmarks Barclays Global Aggregate Global Core Bonds -8.26% -15.25% -3.22% -0.56% 0.11% FTSE WGBI World Gov. Bonds -8.91% -16.77% -4.28% -1.17% -0.69% BC Global Credit Global Bonds -8.58% -16.68% -2.60% -0.01% 1.41% JPM GBI-EM Glob. Diversified Em. Mkt. Bonds (Local Currency) -8.63% -19.28% -5.80% -2.31% -1.49% JPM EMBI+ Em. Mkt. Bonds -12.46% -27.71% -8.66% -4.02% 0.37%	CSFB Levered Loans	Bank Loans	-4.35%	-2.68%	2.03%	2.97%	3.90%	
Global Fixed Income Benchmarks Barclays Global Aggregate Global Core Bonds -8.26% -15.25% -3.22% -0.56% 0.11% FTSE WGBI World Gov. Bonds -8.91% -16.77% -4.28% -1.17% -0.69% BC Global Credit Global Bonds -8.58% -16.68% -2.60% -0.01% 1.41% JPM GBI-EM Glob. Diversified Em. Mkt. Bonds (Local Currency) -8.63% -19.28% -5.80% -2.31% -1.49% JPM EMBI+ Em. Mkt. Bonds -12.46% -27.71% -8.66% -4.02% 0.37%	BofAML US 3-Month T-Bill	Cash	0.11%	0.17%	0.63%	1.11%	0.64%	
Barclays Global Aggregate Global Core Bonds -8.26% -15.25% -3.22% -0.56% 0.11% FTSE WGBI World Gov. Bonds -8.91% -16.77% -4.28% -1.17% -0.69% BC Global Credit Global Bonds -8.58% -16.68% -2.60% -0.01% 1.41% JPM GBI-EM Glob. Diversified Em. Mkt. Bonds (Local Currency) -8.63% -19.28% -5.80% -2.31% -1.49% JPM EMBI+ Em. Mkt. Bonds -12.46% -27.71% -8.66% -4.02% 0.37%	Bloomberg US TIPS 1-10 Yr	Inflation	-3.42%	-2.03%	3.37%	3.24%	1.75%	
FTSE WGBI World Gov. Bonds -8.91% -16.77% -4.28% -1.17% -0.69% BC Global Credit Global Bonds -8.58% -16.68% -2.60% -0.01% 1.41% JPM GBI-EM Glob. Diversified Em. Mkt. Bonds (Local Currency) -8.63% -19.28% -5.80% -2.31% -1.49% JPM EMBI+ Em. Mkt. Bonds -12.46% -27.71% -8.66% -4.02% 0.37%	Global Fixed Income Benchmarks							
BC Global Credit Global Bonds -8.58% -16.68% -2.60% -0.01% 1.41% JPM GBI-EM Glob. Diversified Em. Mkt. Bonds (Local Currency) -8.63% -19.28% -5.80% -2.31% -1.49% JPM EMBI+ Em. Mkt. Bonds -12.46% -27.71% -8.66% -4.02% 0.37%	Barclays Global Aggregate	Global Core Bonds	-8.26%	-15.25%	-3.22%	-0.56%	0.11%	
JPM GBI-EM Glob. Diversified Em. Mkt. Bonds (Local Currency) -8.63% -19.28% -5.80% -2.31% -1.49% JPM EMBI+ Em. Mkt. Bonds -12.46% -27.71% -8.66% -4.02% 0.37%	FTSE WGBI	World Gov. Bonds	-8.91%	-16.77%	-4.28%	-1.17%	-0.69%	
JPM EMBI+ Em. Mkt. Bonds -12.46% -27.71% -8.66% -4.02% 0.37%	BC Global Credit	Global Bonds	-8.58%	-16.68%	-2.60%	-0.01%	1.41%	
	JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local Currency)	-8.63%	-19.28%	-5.80%	-2.31%	-1.49%	
Alternative Benchmarks	JPM EMBI+	Em. Mkt. Bonds	-12.46%	-27.71%	-8.66%	-4.02%	0.37%	HFR
	Alternative Benchmarks							
Bloomberg Commodity Index Commodities -5.66% 24.27% 14.34% 8.40% -0.82%	Bloomberg Commodity Index	Commodities	-5.66%	24.27%	14.34%	8.40%	-0.82%	
HFRI Fund of Funds Composite Index Fund of Hedge Funds -4.08% -5.65% 3.88% 3.59% 3.73%	HFRI Fund of Funds Composite Index	Fund of Hedge Funds	-4.08%	-5.65%	3.88%	3.59%	3.73%	
Cambridge PE Lagged* Private Equity 0.76% 27.34% 22.67% 19.33% 15.93%	Cambridge PE Lagged*	Private Equity	0.76%	27.34%	22.67%	19.33%	15.93%	
NCREIF ODCE Net Lagged* Real Estate 7.14% 27.26% 10.31% 8.90% 9.92%	NCREIF ODCE Net Lagged*	Real Estate	7.14%	27.26%	10.31%	8.90%	9.92%	
FTSE NAREIT All Equity REITs REIT -14.66% -5.89% 5.34% 6.75% 8.34%	FTSE NAREIT All Equity REITs	REIT	-14.66%	-5.89%	5.34%	6.75%	8.34%	
CPI + 2% Inflation/Real Assets 3.15% 11.16% 7.06% 5.95% 4.64%	CPI + 2%	Inflation/Real Assets	3.15%	11.16%	7.06%	5.95%	4.64%	

MSCI ACWI IMI (Net) MSCI ACWI Net (USD) MSCI ACWI (Local) Russell 3000 S&P 500 Russell 1000 Russell 1000 Growth Russell 1000 Value Russell 2000 Russell 2000 Growth Russell 2000 Value NASDAQ Composite NASDAQ Biotechnology MSCI ACWI Ex USA MSCI EAFE Net (USD) MSCI EAFE (Local) MSCI EAFE Small Cap **MSCI Emerging Markets** Bloomberg Aggregate Barclays US High Yield CSFB Levered Loans BofA ML US 3-Month T-Bill Bloomberg US TIPS 1-10 Yr Barclays Global Aggregate FTSE WGBI **BC Global Credit** JPM GBI-EM Glob. Diversified JPM EMBI+ Bloomberg Commodity Index RI Fund of Funds Composite Index Cambridge PE Lagged* NCREIF ODCE Net Lagged* FTSE NAREIT All Equity REITs CPI + 2%



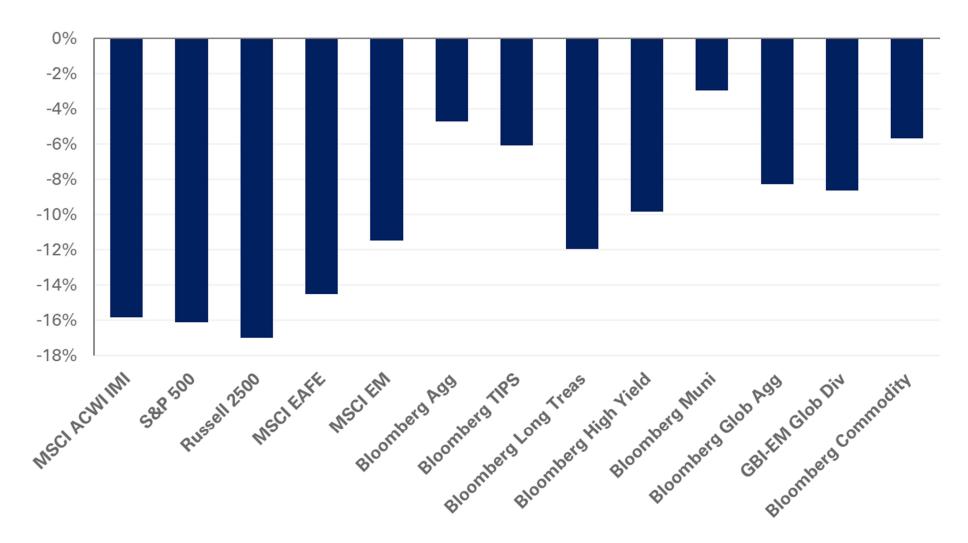


ECONOMIC ENVIRONMENT





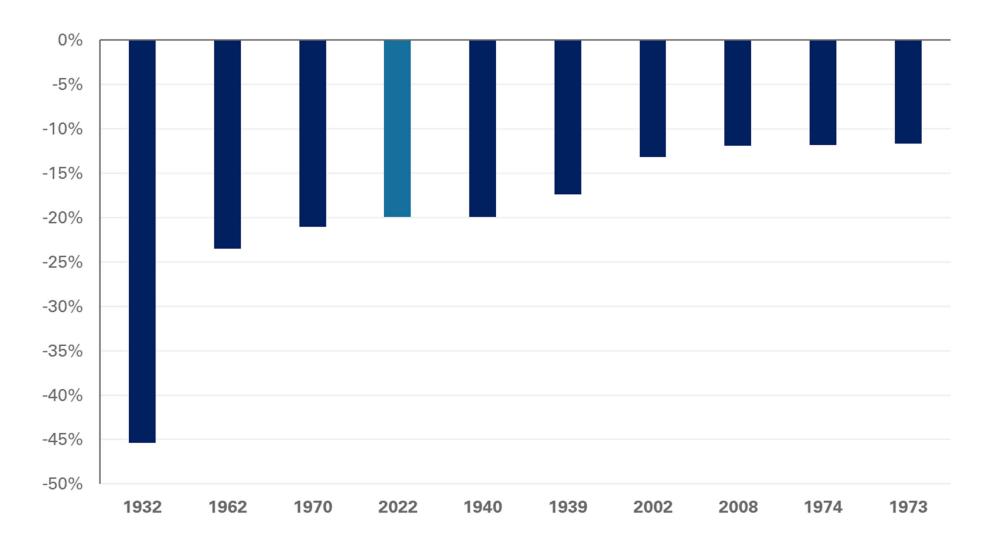
GLOBAL MARKETS BROADLY DECLINED QUARTERLY TOTAL RETURNS





Source: MSCI, S&P, Russell, MSCI, Bloomberg, JPM, FactSet

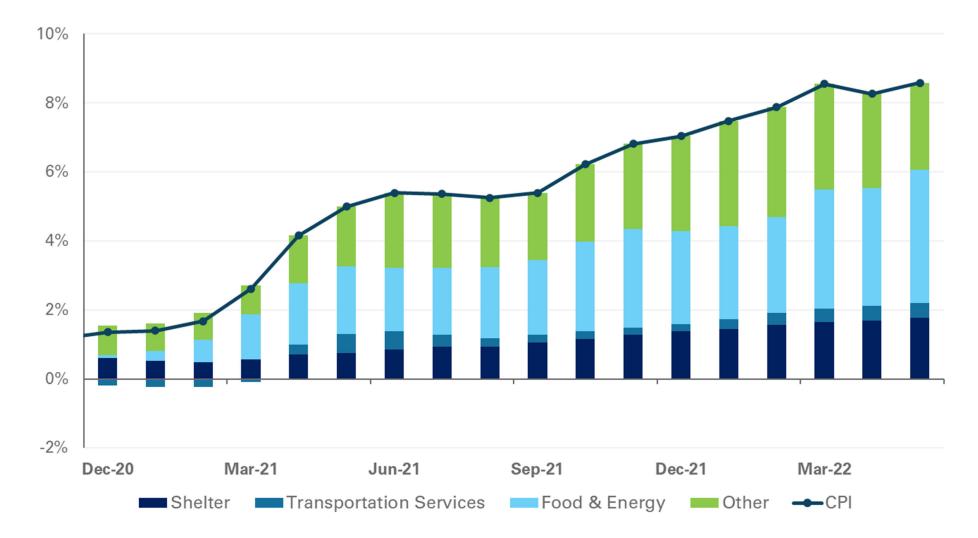
WORST START FOR THE S&P IN OVER 50 YEARS TOP 10 S&P 500 LOSSES IN FIRST HALF OF THE YEAR

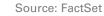




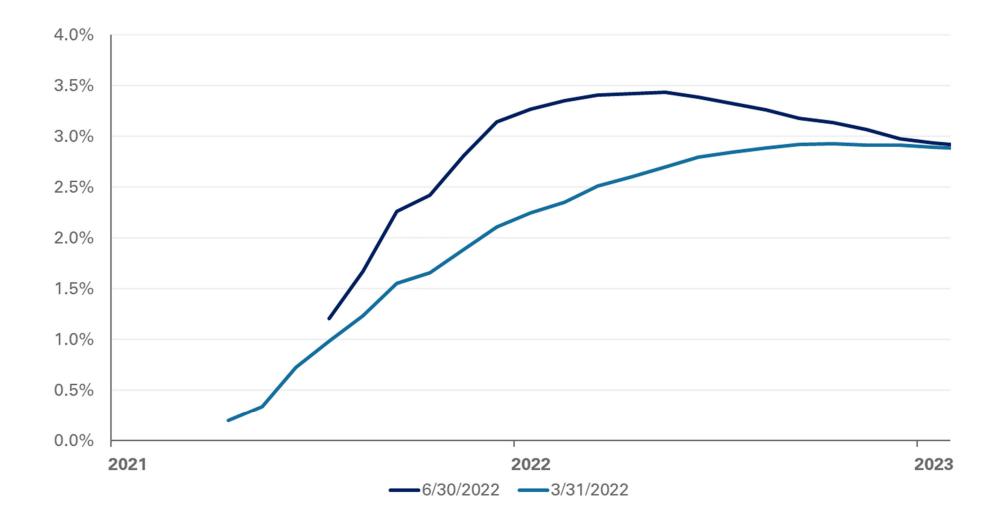
Source: S&P, FactSet

INFLATION CONTINUED TO TREND HIGHER ANNUAL U.S. CPI-U CHANGES





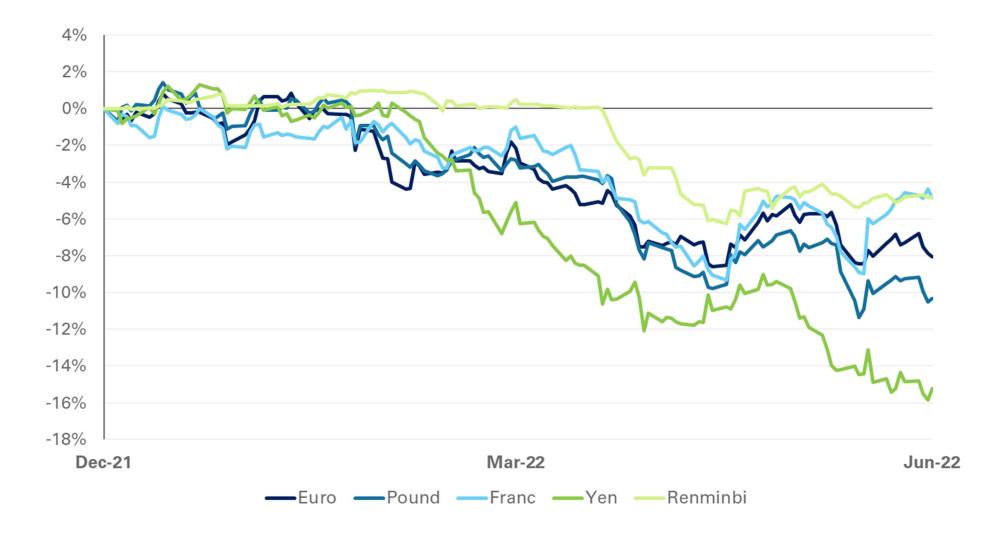
RATE HIKE EXPECTATIONS INCREASED FEDERAL FUNDS FUTURES





Source: FactSet

DOLLAR STRENGTH WEIGHED ON NON-US ASSETS CUMULATIVE CURRENCY RETURN



Source: FactSet



TOTAL FUND PERFORMANCE



PROPRIETARY &11 CONFIDENTIAL

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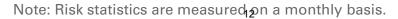
TOTAL FUND PERFORMANCE SUMMARY NET OF FEES

	Allocation			Performa	nce (%)		
	Market Value (\$)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Total Fund	13,376,948,017	-5.0 (5)	-6.1 (4)	-0.1 (6)	8.8 (8)	8.0 (13)	8.3 (21)
Policy Index		-10.5 (81)	-13.8 (75)	-11.3 (84)	3.3 (97)	4.5 (98)	5.6 (100)
S&P 500 Index		-16.1 (100)	-20.0 (100)	-10.6 (79)	10.6 (1)	11.3 (1)	13.0 (1)
Blmbg. U.S. Aggregate Index		-4.7 (3)	-10.3 (40)	-10.3 (72)	-0.9 (100)	0.9 (100)	1.5 (100)
60% MSCI World/40% FTSE WGBI		-13.2 (100)	-18.0 (100)	-14.9 (100)	3.0 (100)	4.7 (95)	5.9 (100)
InvMetrics Public DB > \$1 Billion Median		-8.4	-11.8	-7.6	6.2	6.3	7.5

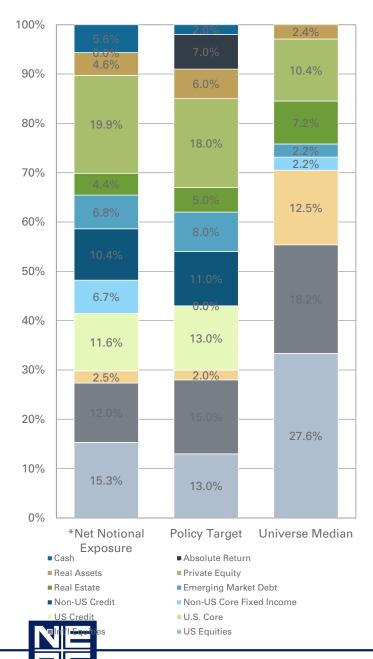
	3 Years Ending June 30, 2022						
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio			
Total Fund	8.84 (8)	8.65 (13)	0.94 (8)	1.46 (9)			
Policy Index	3.26 (97)	9.76 (27)	0.31 (95)	0.43 (94)			

5 Years Ending June 30, 2022						
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio		
Total Fund	8.00 (13)	7.13 (3)	0.95 (7)	1.48 (6)		
Policy Index	4.55 (98)	8.58 (24)	0.43 (80)	0.61 (80)		
InvMetrics Public DB > \$1 Billion Median	6.34	9.85	0.57	0.83		

10 Years Ending June 30, 2022							
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio			
Total Fund	8.26 (21)	5.55 (1)	1.33 (4)	2.17 (4)			
Policy Index	5.62 (100)	7.01 (20)	0.72 (84)	1.10 (81)			
InvMetrics Public DB > \$1 Billion Median	7.47	8.23	0.86	1.31			



ASSET ALLOCATION COMPLIANCE



Asset Class	*Net Notional Exposure	Net Notional Exposure	Policy Target	Difference	Policy Ranges	Withi n Range
US Equities	2,049,472	15.3%	13.0%	2.3%	8%-18%	Yes
Int'l Equities	1,608,119	12.0%	15.0%	-3.0%	10%-20%	Yes
U.S. Core Fixed Income	334,100	2.5%	2.0%	0.5%	-3%-7%	Yes
US Credit	1,556,572	11.6%	13.0%	-1.4%	8%-18%	Yes
Non-US Core Fixed Income	901,500	6.7%	0.0%	6.7%	-4%-6%	Yes
Non-US Credit	1,391,383	10.4%	11.0%	-0.6%	6%-16%	Yes
Emerging Market Debt	915,498	6.8%	8.0%	-1.2%	3%-13%	Yes
Real Estate	590,980	4.4%	5.0%	-0.6%	0%-14%	Yes
Private Equity	2,655,332	19.9%	18.0%	1.9%	6%-21%	Yes
Real Assets	619,491	4.6%	6.0%	-1.4%	0%-10%	Yes
Absolute Return	0	0.0%	7.0%	-7.0%	0%-12%	Yes
Cash	754,502	5.6%	2.0%	3.6%	0%-10%	Yes
Total	13,376,948	100.00%	100.00%			

*Notional values are sourced from Russell Investments.

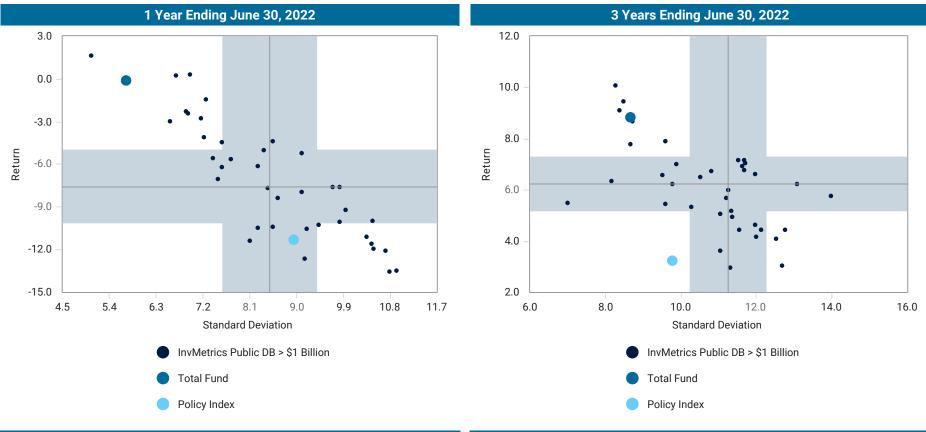
INVESTMENT EXPOSURE SUMMARY

OVERLAY AS OF JUNE 30, 2022

			Delta Adj					_		
Asset Class	Physical E	xposure	Synthetic E	xposure	Net Po	<u>sition</u>	<u>Overlay</u>	Target	Policy Ta	irget
Total Market Value	13,537.7	100.0 %	0.0	0.0 %	13,537.7	100.0 %	13,537.7	100.0 %	13,537.7	100.00 %
Cash	3,078.8	22.7 %	-2,907.3	-21.5 %	171.5	1.3 %	0.0	0.0 %	0.0	0.00 %
Cash	3,078.8	22.7 %	-2,907.3	-21.5 %	171.5	1.3 %	0.0	0.0 %	0.0	0.00 %
Equity	1,951.0	14.4 %	1,671.7	12.3 %	3,622.6	26.8 %	3,667.1	27.1 %	3,641.6	26.90 %
Emerging Markets	427.9	3.2 %	222.1	1.6 %	650.0	4.8 %	654.4	4.8 %	649.8	4.80 %
Equity Delta Hedge	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.00 %
International Developed	159.8	1.2 %	795.5	5.9 %	955.3	7.1 %	981.5	7.3 %	974.7	7.20 %
US Large Cap	1,363.0	10.1 %	302.6	2.2 %	1,665.6	12.3 %	1,676.8	12.4 %	1,665.1	12.30 %
US Small Cap	0.2	0.0 %	351.5	2.6 %	351.8	2.6 %	354.4	2.6 %	352.0	2.60 %
Fixed	3,885.9	28.7 %	1,235.6	9.1 %	5,121.5	37.8 %	5,248.5	38.8 %	5,212.0	38.50 %
EM High Yield CDX	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.0 %	0.0	0.00 %
Global ex US Fixed Income	2,307.6	17.0 %	901.5	6.7 %	3,209.1	23.7 %	3,271.8	24.2 %	3,249.0	24.00 %
High Yield	1,232.3	9.1 %	0.0	0.0 %	1,232.3	9.1 %	1,295.1	9.6 %	1,286.1	9.50 %
US Fixed Income	346.0	2.6 %	334.1	2.5 %	680.2	5.0 %	681.6	5.0 %	676.9	5.00 %
Other	4,622.1	34.1 %	0.0	0.0 %	4,622.1	34.1 %	4,622.1	34.1 %	4,684.0	34.60 %
Alternatives	24.9	0.2 %	0.0	0.0 %	24.9	0.2 %	24.9	0.2 %	27.1	0.20 %
Commodities	521.2	3.9 %	0.0	0.0 %	521.2	3.9 %	521.2	3.9 %	500.9	3.70 %
Infrastructure	86.5	0.6 %	0.0	0.0 %	86.5	0.6 %	86.5	0.6 %	121.8	0.90 %
Private Equity	2,600.0	19.2 %	0.0	0.0 %	2,600.0	19.2 %	2,600.0	19.2 %	2,585.7	19.10 %
Real Estate	563.6	4.2 %	0.0	0.0 %	563.6	4.2 %	563.6	4.2 %	622.7	4.60 %
Tactical Cash	825.8	6.1 %	0.0	0.0 %	825.8	6.1 %	825.8	6.1 %	825.8	6.10 %



San Bernardino County Employees' Retirement Association **TOTAL FUND RISK/RETURN**

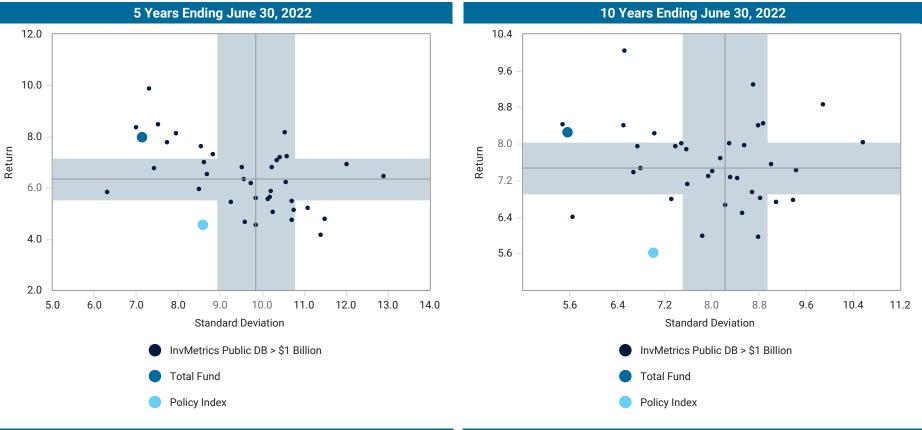


1 Year Ending June 30, 2022							
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio			
Total Fund	-0.1 (6)	5.7 (1)	0.0 (7)	0.0 (7)			
Policy Index	-11.3 (84)	8.9 (58)	-1.3 (94)	-1.3 (90)			
Population	38	38	38	38			

	3 Years Ending June 30, 2022								
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio					
Total Fund	8.8 (8)	8.7 (13)	0.9 (8)	1.5 (9)					
Policy Index	3.3 (97)	9.8 (27)	0.3 (95)	0.4 (94)					
Population	37	37	37	37					



San Bernardino County Employees' Retirement Association **TOTAL FUND RISK/RETURN**



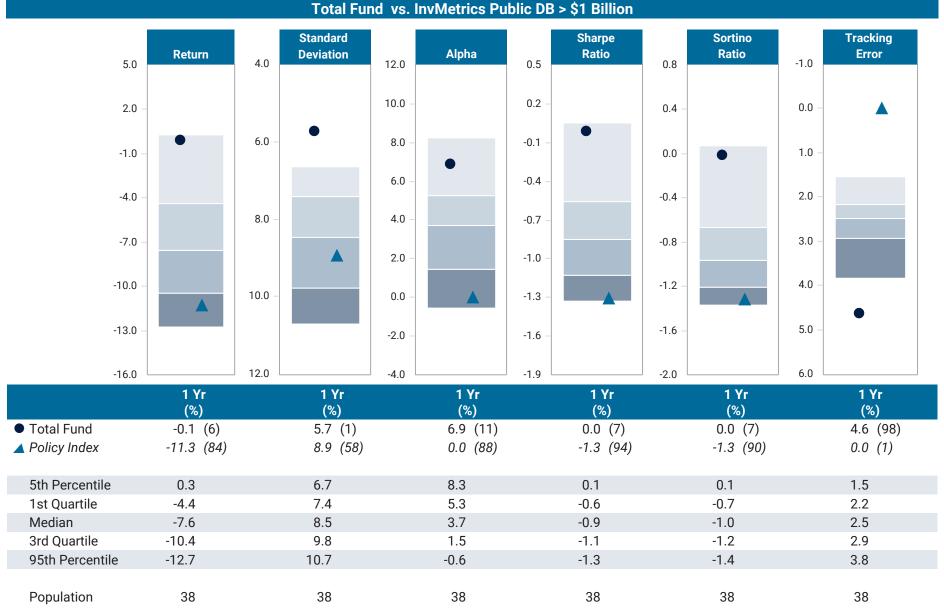
5 Years Ending June 30, 2022									
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio					
Total Fund	8.0 (13)	7.1 (3)	0.9 (7)	1.5 (6)					
Policy Index	4.5 (98)	8.6 (24)	0.4 (80)	0.6 (80)					
Population	37	37	37	37					

10 Years Ending June 30, 2022								
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio				
Total Fund	8.3 (21)	5.6 (1)	1.3 (4)	2.2 (4)				
Policy Index	5.6 (100)	7.0 (20)	0.7 (84)	1.1 (81)				
Population	35	35	35	35				



San Bernardino County Employees' Retirement Association

TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

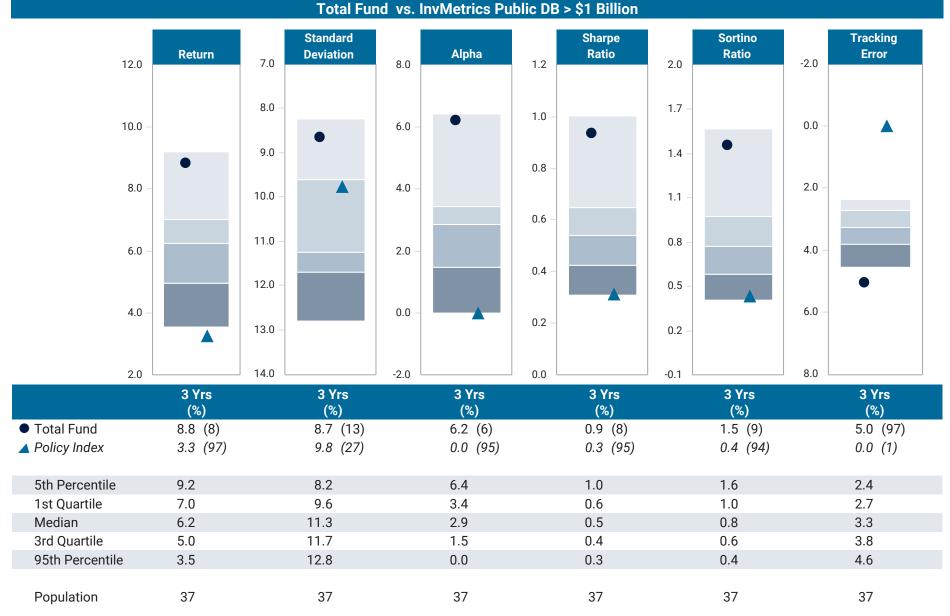


Sortino Ratio requires at least two negative points during the time period in order to calculate



San Bernardino County Employees' Retirement Association

TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

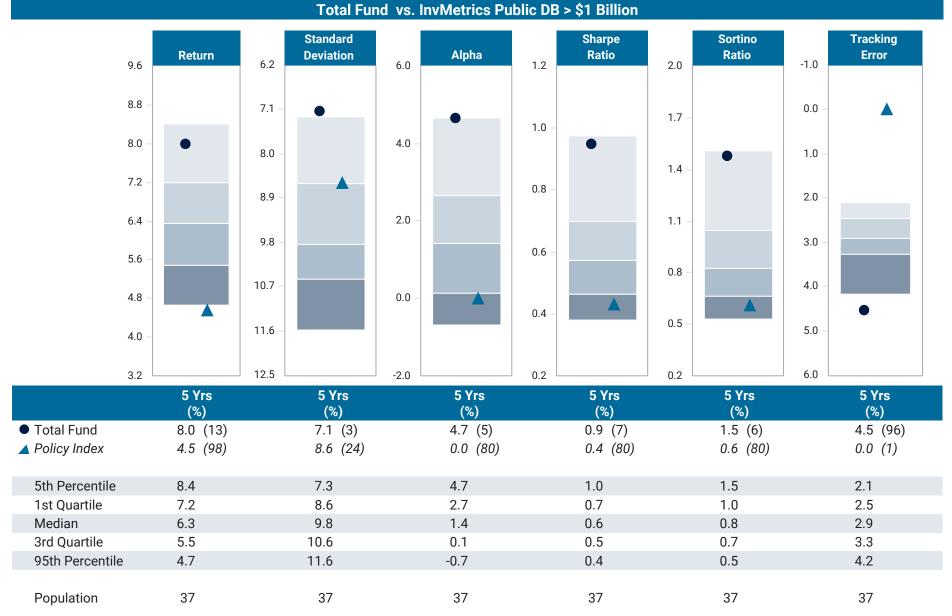


Sortino Ratio requires at least two negative points during the time period in order to calculate



San Bernardino County Employees' Retirement Association

TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

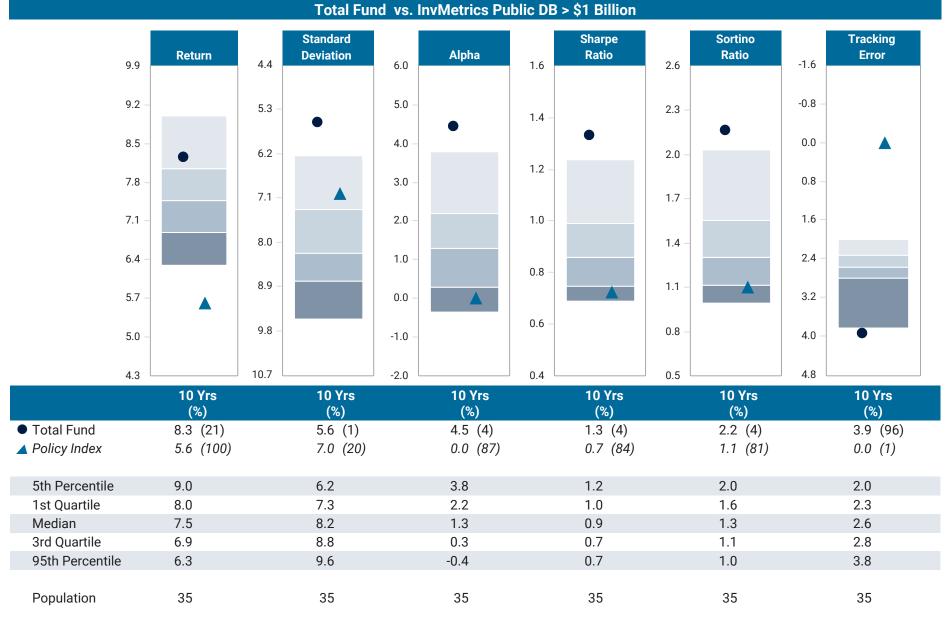


Sortino Ratio requires at least two negative points during the time period in order to calculate



San Bernardino County Employees' Retirement Association

TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE



Sortino Ratio requires at least two negative points during the time period in order to calculate



San Bernardino County Employees' Retirement Association **TOTAL FUND RISK STATISTICS**

1 Years Ending June 30, 2022								
	Return	Standard Deviation	Tracking Error	Information Ratio				
Domestic Equity With Beta Overlay	-7.3	14.2	9.2	0.8				
Russell 3000 Index	-13.9	16.8	0.0					
International Equity With Beta Overlay	-12.1	8.7	6.9	1.1				
MSCI AC World ex USA index	-19.0	12.5	0.0					
Global Fixed Income With Beta Overlay	9.8	2.9	6.6	3.9				
Blmbg. Global Aggregate	-15.2	6.2	0.0					
U.S. Credit Strategies	0.2	4.4	1.8	4.3				
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index	-7.5	4.8	0.0					
Non-U.S. Credit Composite	8.8	5.8	8.3	4.4				
ICE BofA Euro High Yield Constrained TR	-24.9	11.1	0.0					
Emerging Markets Debt Composite	-7.1	4.2	8.3	1.8				
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified	-20.2	8.7	0.0					
Alpha Pool Composite	-2.4	4.7	4.7	-1.1				
91 Day T-Bill + 3%	3.2	0.1	0.0					
Private Equity Composite	25.0	6.4	11.7	0.2				
C A Global All PE (Qtr Lag)	21.6	12.3	0.0					
Real Estate Composite	23.0	5.1	12.9	0.1				
NCREIF Property Index 1 Qtr. Lag	21.9	8.5	0.0					
Real Assets Composite	17.7	5.4	11.4	0.2				
Real Assets Custom Blend	14.3	13.3	0.0					



San Bernardino County Employees' Retirement Association **TOTAL FUND RISK STATISTICS**

3 Years Ending June 30, 2022								
	Return	Standard Deviation	Tracking Error	Information Ratio				
Domestic Equity With Beta Overlay	10.9	18.9	6.0	0.2				
Russell 3000 Index	9.8	19.1	0.0					
International Equity With Beta Overlay	3.7	15.4	4.9	0.3				
MSCI AC World ex USA index	1.8	17.2	0.0					
Global Fixed Income With Beta Overlay	8.9	7.5	8.6	1.4				
Blmbg. Global Aggregate	-3.2	5.9	0.0					
U.S. Credit Strategies	7.8	8.4	6.2	1.0				
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index	1.1	8.7	0.0					
Non-U.S. Credit Composite	5.6	9.5	12.0	0.8				
ICE BofA Euro High Yield Constrained TR	-5.1	14.2	0.0					
Emerging Markets Debt Composite	-2.2	7.0	9.4	0.3				
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified	-5.5	11.5	0.0					
Alpha Pool Composite	2.1	7.5	7.6	-0.2				
91 Day T-Bill + 3%	3.6	0.3	0.0					
Private Equity Composite	23.8	9.5	15.6	0.0				
C/A Global All PE (Qtr Lag)	22.7	15.4	0.0					
Real Estate Composite	11.1	4.2	8.0	0.2				
NCREIF Property Index 1 Qtr. Lag	9.6	5.7	0.0					
Real Assets Composite	13.7	11.5	10.7	0.2				
Real Assets Custom Blend	10.9	12.1	0.0					



San Bernardino County Employees' Retirement Association TOTAL FUND RISK STATISTICS

5 Years Ending June 30, 2022								
	Return	Standard Deviation	Tracking Error	Information Ratio				
Domestic Equity With Beta Overlay	9.9	16.6	5.0	-0.2				
Russell 3000 Index	10.6	17.4	0.0					
International Equity With Beta Overlay	3.7	13.9	4.1	0.1				
MSCI AC World ex USA index	3.0	15.6	0.0					
Global Fixed Income With Beta Overlay	6.1	6.2	7.7	0.8				
Blmbg. Global Aggregate	-0.6	5.2	0.0					
U.S. Credit Strategies	7.2	6.8	5.4	0.8				
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index	2.5	7.1	0.0					
Non-U.S. Credit Composite	5.9	7.7	11.1	0.7				
ICE BofA Euro High Yield Constrained TR	-1.9	12.1	0.0					
Emerging Markets Debt Composite	-1.0	5.9	8.5	0.0				
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified	-1.7	10.1	0.0					
Alpha Pool Composite	3.6	6.1	6.1	0.0				
91 Day T-Bill + 3%	4.1	0.3	0.0					
Private Equity Composite	20.0	7.8	13.0	0.0				
C/A Global All PE (Qtr Lag)	19.3	12.7	0.0					
Real Estate Composite	9.6	3.5	6.7	0.1				
NCREIF Property Index 1 Qtr. Lag	8.5	4.8	0.0					
Real Assets Composite	9.3	9.9	8.8	0.2				
Real Assets Custom Blend	7.1	9.8	0.0					



San Bernardino County Employees' Retirement Association **TOTAL FUND RISK STATISTICS**

10 Years Ending June 30, 2022								
	Return	Standard Deviation	Tracking Error	Information Ratio				
Domestic Equity	5.1	11.7	9.0	-0.8				
Russell 3000 Index	12.6	14.1	0.0					
nternational Equity	4.5	15.3	8.3	-0.5				
MSCI AC World Index (Net)	8.8	13.3	0.0					
nternational Emerging	1.2	14.7	4.2	-0.5				
MSCI Emerging Markets (Net)	3.1	15.7	0.0					
J.S. Credit Strategies	7.4	5.3	4.7	0.7				
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index	4.1	5.6	0.0					
Non-U.S. Credit Composite	7.4	6.0	10.3	0.5				
ICE BofA Euro High Yield Constrained TR	2.1	11.2	0.0					
merging Markets Debt Composite	1.7	6.1	7.0	0.2				
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified	0.4	9.3	0.0					
Alpha Pool Composite	4.7	4.9	4.9	0.2				
91 Day T-Bill + 3%	3.6	0.2	0.0					
Private Equity Composite	16.4	6.3	10.5	0.1				
C A Global All PE (Qtr Lag)	15.3	10.0	0.0					
Real Estate Composite	9.4	3.5	5.8	0.0				
NCREIF Property Index 1 Qtr. Lag	9.6	4.6	0.0					
Real Assets Composite	5.6	8.0	7.6	0.3				
Real Assets Custom Blend	2.9	8.4	0.0					

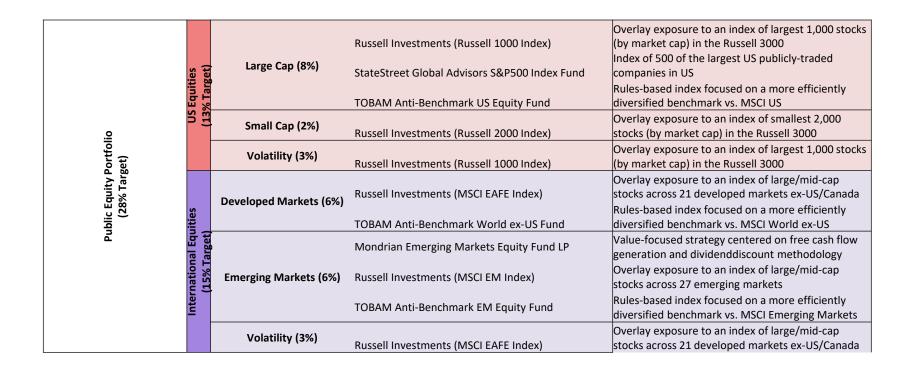


INVESTMENT MANAGER TOP 10 ASSETS UNDER MANAGEMENT AS OF JUNE 30, 2022

Manager	Market Value	Portfolio %
SSGA S&P 500 Flagship Fund	\$1,001,164,544.39	7.48%
Total Russell	\$961,931,561.64	7.19%
Total Tobam	\$833,049,363.66	6.23%
Total Pathway	\$799,154,802.68	5.97%
Total Ares	\$704,006,221.90	5.26%
Gramercy Funds Management	\$682,834,994.05	5.10%
Total GoldenTree	\$577,033,496.31	4.31%
Total Alcentra	\$572,809,687.43	4.28%
Total Zais	\$554,427,858.70	4.14%
Total Apollo	\$549,915,799.82	4.11%
Total	\$7,236,328,330.58	54.10%



PUBLIC EQUITY PORTFOLIO





San Bernardino County Employees' Retirement Association

GLOBAL EQUITY STATEGIES - NET

	Allocatio	n	Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Total Equity	1,983,417,531	14.8	-8.9	-13.7	-12.2	6.8	6.6	6.0
MSCI AC World Index (Net)			<u>-15.7</u>	<u>-20.2</u>	<u>-15.8</u>	<u>6.2</u>	<u>7.0</u>	<u>8.8</u>
Over/Under			6.8	6.5	3.6	0.6	-0.4	-2.8
Domestic Equity With Beta Overlay	2,049,472,323	15.3	-7.3	-12.6	-7.3	10.9	9.9	
Russell 3000 Index			<u>-16.7</u>	<u>-21.1</u>	<u>-13.9</u>	<u>9.8</u>	<u>10.6</u>	
Over/Under			9.4	8.5	6.6	1.1	-0.7	
Domestic Equity	1,393,444,638	10.4	-14.1	-18.3	-12.2	8.6	7.8	5.1
Russell 3000 Index			<u>-16.7</u>	<u>-21.1</u>	<u>-13.9</u>	<u>9.8</u>	<u>10.6</u>	<u>12.6</u>
Over/Under			2.6	2.8	1.7	-1.2	-2.8	-7.5
Tobam AB US Equity	391,089,000	2.9	-8.6 (6)	-13.6 (20)	-14.0 (52)	8.0 (47)		
Russell 3000 Index			<u>-16.7</u> (64)	<u>-21.1</u> (57)	<u>-13.9</u> (51)	<u>9.8</u> (27)		
Over/Under			8.1	7.5	-0.1	-1.8		
eV All US Equity Median			-15.4	-20.0	-13.8	7.7		
Large Cap Equity	1,002,106,484	7.5	-16.1 (58)	-19.9 (50)	-10.9 (37)	9.9 (26)	9.0 (44)	6.1 (99)
S&P 500 Index			<u>-16.1</u> (58)	<u>-20.0</u> (50)	<u>-10.6</u> (35)	<u>10.6</u> (17)	<u>11.3</u> (18)	<u>13.0</u> (16)
Over/Under			0.0	0.1	-0.3	-0.7	-2.3	-6.9
eV All US Equity Median			-15.4	-20.0	-13.8	7.7	8.5	11.1
SSgA S&P500	1,001,164,544	7.5	-16.1 (58)	-20.0 (50)	-10.9 (37)	10.4 (18)	9.7 (35)	8.9 (88)
S&P 500 Index			<u>-16.1</u> (58)	<u>-20.0</u> (50)	<u>-10.6</u> (35)	<u>10.6</u> (17)	<u>11.3</u> (18)	<u>13.0</u> (16)
Over/Under			0.0	0.0	-0.3	-0.2	-1.6	-4.1
eV All US Equity Median			-15.4	-20.0	-13.8	7.7	8.5	11.1
Russell US Large Cap Volatility	941,940	0.0						
Small Cap Equity	249,153	0.0						
Russell US Small Cap Volatility	249,153	0.0						



San Bernardino County Employees' Retirement Association GLOBAL EQUITY STATEGIES - NET

June 30, 2022	
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	Allocatio	on	Performance (%)					
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
International Equity With Beta Overlay	1,608,119,107	12.0	-5.2	-10.4	-12.1	3.7	3.7	
MSCI AC World ex USA index			<u>-13.5</u>	<u>-18.2</u>	-19.0	<u>1.8</u>	<u>3.0</u>	
Over/Under			8.3	7.8	6.9	1.9	0.7	
International Equity	589,972,894	4.4	-11.6	-17.0	-24.2	-1.8	0.5	4.5
MSCI AC World Index (Net)			<u>-15.7</u>	<u>-20.2</u>	<u>-15.8</u>	<u>6.2</u>	<u>7.0</u>	<u>8.8</u>
Over/Under			4.1	3.2	-8.4	-8.0	-6.5	-4.3
International Developed	162,764,026	1.2	-11.6	-16.6	-21.3	-2.9	-1.8	7.7
MSCI EAFE (Net)			-14.5	-19.6	<u>-17.8</u>	<u>1.1</u>	<u>2.2</u>	<u>5.4</u>
Over/Under			2.9	3.0	-3.5	-4.0	-4.0	2.3
Russell International Volatility	16,487	0.0						
Tobam AB World Ex-US Equity	162,747,538	1.2	-11.6 (13)	-16.3 (18)	-21.0 (46)	-3.2 (97)		
MSCI AC World ex USA (Net)			<u>-13.7</u> (38)	<u>-18.4</u> (32)	<u>-19.4</u> (36)	<u>1.4</u> (64)		
Over/Under			2.1	2.1	-1.6	-4.6		
eV All ACWI ex-US Equity Median			-15.0	-22.0	-21.9	2.0		
International Emerging	427,208,868	3.2	-11.6	-17.3	-25.4	-2.0	0.7	1.2
MSCI Emerging Markets (Net)			-11.4	<u>-17.6</u>	<u>-25.3</u>	<u>0.6</u>	<u>2.2</u>	<u>3.1</u>
Over/Under			-0.2	0.3	-0.1	-2.6	-1.5	-1.9
Mondrian	147,996,043	1.1	-9.6 (13)	-14.6 (15)	-23.8 (40)	0.3 (63)	1.1 (74)	1.8 (90
MSCI Emerging Markets (Net)			<u>-11.4</u> (34)	<u>-17.6</u> (39)	<u>-25.3</u> (49)	<u>0.6</u> (60)	<u>2.2</u> (54)	<u>3.1</u> (60)
Over/Under			1.8	3.0	1.5	-0.3	-1.1	-1.3
eV Emg Mkts Equity Median			-12.5	-19.2	-25.4	1.2	2.4	3.6
Tobam	279,212,825	2.1	-12.5 (51)	-18.6 (46)	-26.1 (54)	-3.1 (93)	0.6 (82)	
MSCI Emerging Markets (Net)			<u>-11.4</u> (34)	<u>-17.6</u> (39)	<u>-25.3</u> (49)	<u>0.6</u> (60)	<u>2.2</u> (54)	
Over/Under			-1.1	-1.0	-0.8	-3.7	-1.6	
eV Emg Mkts Equity Median			-12.5	-19.2	-25.4	1.2	2.4	

GLOBAL DEBT STRATEGIES

			, Russell Investments (Bloomberg Barclays US Agg. Bond TR	
		Core Fixed Income (2%	Index)	Broad-based bond market index of intermediate-term investment grade bonds in US
			Apollo Credit Strategies Fund LP (MCA)	Long/short credit fund focused on capital structure arbitrage, defensive credit, stressed credit and distressed credit
			Apollo Offshore Credit Fund LTD (MCA)	Global credit fund investing in bank loans, structured credit, and bonds
			Bardin Hill Direct Portfolio (MCA)	Separate account co-investing in event-driven/special situation and mispriced credit opportunities
	t, ŭ		Bardin Hill Solutions Fund LP (MCA)	Credit fund with focus on event-driven/special situations
	nco		Beach Point Select Fund LP	Credit fund with focus on mispriced credit opportunities
	US Fixed Income (15% Target)	Credit Strategies/	GoldenTree Distressed Debt Fund 2010	Fund focused on global distressed, restructuring and turnaround opportunities
	-ixe 5%	High Yield Strategies	GoldenTree Asset Management SMA	SMA with opportunistic relative-value approach to bonds, loans, structured credit, distressted debt and emerging mar
	ISF (1	(13%)	Kayne Anderson BDC (MCA)	BDC investing in third-party and secondary market CLO opportunities
			MacKay Shields High Yield Bond Strategy SMA	SMA investing in non-investment grade corporate debt
			Manulife Asset Management SMA	Long/short SMA specializing in securitized assets (commercial and residential MBS and agency derivatives
			Waterfall - Sutherland (Ready Cap) REIT Holdings LP (MCA)	Publicly traded REIT specializing in small balance commercial real estate loans
			Waterfall Asset Management SMA (MCA)	Separate account co-investing in multi-sector high yield loans and bonds
			Waterfall Victoria Fund LP (MCA)	Fund investing in ABS, primarily residential whole loans originated on a primary or secondary basis
		International Core (0%	Russell Investments (Barclays Global Aggregate ex US	
			Unhedged)	Broad-based bond market index of investment grade debt from 24 local currency markets ex-USD
			Alcentra European Direct Lending Fund	2013 fund investing in European direct lending opportunities
			Alcentra Strategic Credit Fund	2015 fund investing in European CLOs and stressed/distressed credit opportunities
			Alcentra Limited SMA	SMA investing in European and US performing and non-performing bonds/loans, and CLO equity
			Alcentra Structured Credit Opportunity Fund III	2017 fund investing in European CLO opportunities
Ś			Alcentra Viaduct Fund LP	2018 fund investing in European CLO opportunities including CLO warehousing, risk retention, and equity
gie			Cairn Capital Limited SMA	SMA focused on opportunistic European credit, private asset backed, regulatory risk transfer, European CLOs
et)				Fund focused on cash-flow oriented European/US regulatory risk transfer, private asset backed loans, structured cred
rge Irge			Cairn Capstone Special Opportunities Fund	hedging
5 Ta		International	Cairn Loan Investments	European CLO Risk Retention vehicle
Global Debt Strategies (34% Target)		Credit (11%)	Cairn Loan Investments II	European CLO Risk Retention vehicle
ba ()			Cairn Subordinated Financials Fund II	(Closed) European subordinated financials fund
99			Cairn Pathfinder I	Barclays reg cap risk transfer on UK mid cap corporate RCF
	e		Cairn Pathfinder III	Barclays reg cap risk transfer on Global (70% US) large cap corporate RCF
			Marathon Asset Management SMA	SMA focused on opportunistic global stressed and distressed credit, restructured real estate, and credit-related real a
	lnc get		Marathon CLO Equity Fund	Legacy risk retention vehicle that maintains an economic interest in Marathon issued CLO equity
	rar,		Marathon European Credit Opportunity Fund II	Fund foucsed on European commercial real estate credit
	Eix		Marathon European Credit Opportunity Fund III	Fund foucsed on European commercial real estate credit
	bal (19		Marathon Structured Product Strategies Fund	Fund focused on private asset-backed secured debt across mulitple sectors (transports, real estate, healthcare, etc.)
	Global Fixed Income (19% Target)		Marathon Structured Product Strategies Fund II	Fund focused on private asset-backed secured debt across mulitple sectors (transports, real estate, healthcare, etc.)
			Ashmore Emerging Markets MCA	SMA investing in sovereign bonds, local bonds, corporate bonds and currencies in emerging economies.
			Gramercy Capital Solutions Fund (MCA)	2018 Fund engaged in emerging markets corporate direct lending
			Gramercy Capital Solutions Fund II (MCA)	2021 Fund engaged in emerging markets corporate direct lending
			Gramercy Distressed Argentina Fund III Private (MCA)	Fund engaged in Argentina-focused corporate direct lending
			Gramercy Distressed Argentina Fund IV Private (MCA)	Fund engaged in opportunistic Argentina focused sovereign positions
			Gramercy Distressed Opportunity Fund II (MCA)	Diversified Emerging Markets Hedge Fund
		Emerging Market	Gramercy Distressed Opportunity Fund III (MCA)	Diversified Emerging Markets Hedge Fund
		Debt (8%)	Gramercy Emerging Markets Debt Allocation Fund (MCA)	(Closed) Active sovereign focused pan-EM fund
			Gramercy Separate Account (MCA)	Stressed and distressed emerging market credit investments in public and private assets.
			Gramercy Venezuela Opportunity Fund (MCA)	Venezuelan sovereign focused fund
			Gramercy Emerging Markets Dynamic Credit Fund (MCA)	Performing and opportunistic credit in public and private markets weighted with a top down view
			Gramercy Venezuela Opportunity Fund II (MCA)	OFAC compliant Distressed credit related to Venezuela
			Gramercy EM Dislocation Fund (MCA)	(Closed) Fund designed to take advantage of 2020 dislocation
			Gramercy Venezuela Special Situations Fund (MCA)	Litigation financing (e.g. ICSID claims) related to Venezuela
			PGIM Emerging Market Debt Opportunities Fund	Fund investing in sovereign bonds, local bonds, corporate bonds and currencies in emerging economies.



San Bernardino County Employees' Retirement Association

GLOBAL DEBT STRATEGIES - NET

	Allocatio	n			Performa	nce (%)		
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Global Fixed Income With Beta Overlay	5,082,393,927	38.0	3.5	4.5	9.8	8.9	6.1	
Blmbg. Global Aggregate			<u>-8.3</u>	<u>-13.9</u>	<u>-15.2</u>	<u>-3.2</u>	<u>-0.6</u>	
Over/Under			11.8	18.4	25.0	12.1	6.7	
Total Fixed	3,846,793,927	28.8	-4.4	-3.7	1.2	4.4	4.6	6.1
Blmbg. U.S. Aggregate Index			<u>-4.7</u>	<u>-10.3</u>	<u>-10.3</u>	<u>-0.9</u>	<u>0.9</u>	<u>1.5</u>
Over/Under			0.3	6.6	11.5	5.3	3.7	4.6
U.S. Credit Strategies	1,571,201,438	11.7	-4.3 (8)	-4.3 (2)	0.2 (1)	7.8 (1)	7.2 (1)	7.4 (1)
50% CS Leveraged Loan / 50% ICE BofA US HY BB-B Rated Constrained Index			<u>-6.9</u> (22)	<u>-9.1</u> (17)	<u>-7.5</u> (12)	<u>1.1</u> (8)	<u>2.5</u> (1)	<u>4.1</u> (6)
Over/Under			2.6	4.8	7.7	6.7	4.7	3.3
eV Global Credit Fixed Inc Median			-8.6	-14.8	-15.1	-1.7	0.8	2.4
Stone Tower Offshore Credit (Apollo)	289,253,047	2.2	-3.7	-4.0	0.9	5.0	4.6	6.0
Beach Point Capital (Formerly Post)	234,366,533	1.8	-5.5	-5.3	1.3	8.7	7.5	9.1
Mackay / Gold Coast	45,336,914	0.3	-10.1	-14.3	-13.2	1.0	1.8	4.6
Stone Tower Credit (Apollo)	130,531,942	1.0	-1.2	-0.6	3.5	11.3	10.0	8.2
Gold Coast Capital IV	94,781,030	0.7	-3.4	-5.7	-5.4	2.0	3.4	
Waterfall Asset Management	33,084,860	0.2	-15.8	-16.3	-10.5	6.4	8.9	
Waterfall Victoria	81,523,277	0.6	0.6	1.9	6.4	6.6	7.6	
KAYNE ANDERSON BDC, LLC	48,890,189	0.4	1.5	16.2	22.4			
MD SASS Waterfall Victoria	21,770,867	0.2	-15.7	-18.7	-15.4	7.2	4.8	
Golden Tree Distressed Debt	7,830,737	0.1	13.7	20.6	47.7	10.3	7.2	10.4
Golden Tree Asset Management	569,202,760	4.3	-5.4	-6.4	-2.2	9.9	9.8	10.3
Russell Interest Rate Hedging	14,629,282	0.1	47.1	170.3	114.3	11.1	-10.6	-15.7

San Bernardino County Employees' Retirement Association GLOBAL DEBT STRATEGIES - NET

	Allocatio	Allocation			Performance (%)				
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	
Non-U.S. Fixed Income Composite	2,275,592,489	17.0	-4.4	-3.2	2.0	2.3	3.1	5.4	
Blmbg. Global Aggregate Ex USD			<u>-11.0</u>	<u>-16.5</u>	<u>-18.8</u>	<u>-5.1</u>	<u>-1.8</u>	<u>-1.1</u>	
Over/Under			6.6	13.3	20.8	7.4	4.9	6.5	
Non-U.S. Credit Composite	1,360,094,978	10.2	-4.6	-2.0	8.8	5.6	5.9	7.4	
ICE BofA Euro High Yield Constrained TR			-16.2	<u>-22.0</u>	-24.9	<u>-5.1</u>	<u>-1.9</u>	<u>2.1</u>	
Over/Under			11.6	20.0	33.7	10.7	7.8	5.3	
Marathon/Gold Coast	260,465,029	1.9	0.6	4.5	13.7	10.4	10.8	10.0	
Halcyon Asset Management	238,516,288	1.8	-0.4 (1)	0.9 (1)	32.6 (1)	7.1 (1)	5.2 (1)		
ICE BofA Euro High Yield Constrained TR			<u>-16.2</u> (97)	<u>-22.0</u> (89)	<u>-24.9</u> (91)	<u>-5.1</u> (85)	<u>-1.9</u> (80)		
Over/Under			15.8	22.9	57.5	12.2	7.1		
eV Global Credit Fixed Inc Median			-8.6	-14.8	-15.1	-1.7	0.8		
Cairn Composite	288,303,974	2.2	-0.6 (1)	0.5 (1)	3.6 (1)	5.6 (1)	4.9 (1)	5.3 (3)	
ICE BofA Euro High Yield Constrained TR			<u>-16.2</u> (97)	<u>-22.0</u> (89)	<u>-24.9</u> (91)	<u>-5.1</u> (85)	<u>-1.9</u> (80)	<u>2.1</u> (67)	
Over/Under			15.6	22.5	28.5	10.7	6.8	3.2	
eV Global Credit Fixed Inc Median			-8.6	-14.8	-15.1	-1.7	0.8	2.4	
Alcentra - KT1	443,657,809	3.3	-12.3	-9.9	0.6	3.0	5.7		
ICE BofA Euro High Yield Constrained TR			<u>-16.2</u>	<u>-22.0</u>	<u>-24.9</u>	<u>-5.1</u>	<u>-1.9</u>		
Over/Under			3.9	12.1	25.5	8.1	7.6		
Alcentra SP1 - KT1	920,211	0.0	4.6	7.8	74.4	-17.2			
ICE BofA Euro High Yield Constrained TR			<u>-16.2</u>	<u>-22.0</u>	<u>-24.9</u>	<u>-5.1</u>			
Over/Under			20.8	29.8	99.3	-12.1			
Alcentra SP2 - KT1	17,841,657	0.1	-4.5	13.0	10.7	-3.9	-0.8		
ICE BofA Euro High Yield Constrained TR			<u>-16.2</u>	<u>-22.0</u>	<u>-24.9</u>	<u>-5.1</u>	<u>-1.9</u>		
Over/Under			11.7	35.0	35.6	1.2	1.1		
Alcentra SP3 - KT1	37,647,062	0.3	-3.6	0.1	9.9	13.6	7.6		
ICE BofA Euro High Yield Constrained TR			<u>-16.2</u>	<u>-22.0</u>	-24.9	<u>-5.1</u>	<u>-1.9</u>		
Over/Under			12.6	22.1	34.8	18.7	9.5		
Alcentra SP4 - KT1	72,742,950	0.5	0.0	4.1	7.3	9.3			
ICE BofA Euro High Yield Constrained TR			<u>-16.2</u>	<u>-22.0</u>	<u>-24.9</u>	<u>-5.1</u>			
Over/Under			16.2	26.1	32.2	14.4			



San Bernardino County Employees' Retirement Association

GLOBAL DEBT STRATEGIES - NET

	Allocation Performance (%)							
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Emerging Markets Debt Composite	915,497,511	6.8	-4.2 (4)	-5.4 (2)	-7.1 (2)	-2.2 (23)	-1.0 (54)	1.7 (43)
50% JPM EMBI Global Diversified/50% JPM GBI - EM Global Diversified			<u>-10.0</u> (57)	<u>-17.5</u> (60)	<u>-20.2</u> (66)	<u>-5.5</u> (75)	<u>-1.7</u> (71)	<u>0.4</u> (71)
Over/Under			5.8	12.1	13.1	3.3	0.7	1.3
eV All Emg Mkts Fixed Inc Median			-9.1	-16.0	-18.9	-4.2	-0.9	1.5
Ashmore Emerging Markets Liquid Investments	126,959,637	0.9	-12.1 (83)	-18.4 (68)	-21.1 (73)	-5.8 (82)	-1.9 (75)	
JP Morgan GBI - EM Global Diversified Index			<u>-8.6</u> (38)	<u>-14.5</u> (35)	<u>-19.3</u> (55)	<u>-5.8</u> (82)	<u>-2.3</u> (79)	
Over/Under			-3.5	-3.9	-1.8	0.0	0.4	
eV All Emg Mkts Fixed Inc Median			-9.1	-16.0	-18.9	-4.2	-0.9	
Gramercy Funds Management LLC	682,834,994	5.1	-3.1 (2)	-0.8 (1)	0.2 (1)	-0.9 (12)	-1.4 (64)	
JP Morgan ELMI+ TR USD			<u>-4.6</u> (4)	<u>-9.8</u> (6)	<u>-12.1</u> (9)	<u>-3.4</u> (38)	<u>-1.2</u> (59)	
Over/Under			1.5	9.0	12.3	2.5	-0.2	
eV All Emg Mkts Fixed Inc Median			-9.1	-16.0	-18.9	-4.2	-0.9	
PGIM Fixed Income	105,702,880	0.8	1.2 (1)	-8.1 (4)	-14.0 (14)	1.7 (2)	1.9 (7)	
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified			<u>-10.0</u> (57)	<u>-17.5</u> (60)	<u>-20.2</u> (66)	<u>-5.5</u> (75)	<u>-1.7</u> (71)	
Over/Under			11.2	9.4	6.2	7.2	3.6	
eV All Emg Mkts Fixed Inc Median			-9.1	-16.0	-18.9	-4.2	-0.9	

ABSOLUTE RETURN (ALPHA POOL)

		Apollo Global SMA (MCA)	Credit focused separate account investing in bespoke credit opportunities	
			Ares ECO Master Fund II, LTD (MCA)	Corporate debt investments in non-investment grade companies, with a focus on senior bank debt
		Birch Grove Credit Strategies Fund	All-weather approach to credit/portfolio construction across capital structure and across all market cycles	
-		Corrum Capital Global Credit Opportunities Fund	Yield-paying principal-protected transactions with collateralization by hard and soft assets	
Return oool) get)	Cours & Cus dit	Corrum Capital GCO Co-Invest Fund	Yield-paying principal-protected transactions with collateralization by hard and soft assets	
Absolute Retur (Alpha Pool) (7% Target)	Core & Credit Strategies (7%)	StateStreet Global Advisors Short Term Treasury Strategy SMA	Short term treasury vehicle	
Abs (7		Zais Group SMA	Long only structured credit SMA that focuses on stable cash flows and low duration, includes student housing	
		Zais Opportunity Fund, LTD	Diversified structured credit fund with the abilty to use hedges and derivative strategies	
		Zais Zephyr A-6, LP	Closed-end risk retention vehicle (effectivley closed)	
		Zais Zephyr A-7, LP	Closed-end fund with trigger to opportunistically invest in	
			CLO mezzanine and equity during market distress	
		Zais Zephyr A-8, LP	Closed-end fund focused on CLO equity post risk retention requirements	



San Bernardino County Employees' Retirement Association ALPHA POOL STRATEGIES - NET

	Allocatio	Performance (%)						
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Alpha Pool Composite	1,747,909,705	13.1	-5.5	-5.8	-2.4	2.1	3.6	4.7
91 Day T-Bill + 3%			<u>0.8</u>	<u>1.6</u>	<u>3.2</u>	<u>3.6</u>	<u>4.1</u>	<u>3.6</u>
Over/Under			-6.3	-7.4	-5.6	-1.5	-0.5	1.1
Alpha Liquidity (Ssga)	206,655,915	1.5	0.0	-0.1	0.0	0.8	1.3	0.8
Apollo Global Management	2,188,708	0.0	-29.6	-18.6	19.2	14.5	14.9	
Ares Eco Master Fund II	529,247,800	4.0	-8.1	-8.5	-6.1	2.9	3.3	
Birch Grove Credit Strategies	160,819,157	1.2	-5.9	-5.5	-2.5	6.0	6.7	
Corrum Capital	205,526,631	1.5	-2.2	-2.2	2.2	-5.3	-0.3	2.6
Zais	130,984,878	1.0	-7.4	-8.8	-5.8	-1.8	0.2	4.5
Zais Group Invest Advisors	345,774,490	2.6	-7.3	-8.3	-3.3	3.3	4.9	7.2
Zais Zephyr 8	55,125,163	0.4	-3.4	-3.5	2.6	8.4		
Zais Zephyr 9	22,543,328	0.2	-6.1					
Apollo Accord+	89,043,636	0.7	0.4					

PRIVATE ASSETS

				Adams Street SMA (MCA)	Global investment opportunities in venture, growth equity, buyout, and private credit
				Aberdeen Standard Co-Investment Fund II	SMA investing in private debt and equity opportunities in credit, energy, infrastructure, and growth equity
				Partners Group SMA (MCA)	Global SMA in private markets; primarily in private equity but also includes infrastructure and real estate
			Diversified	Pathway Capital SMA (MCA)	Private equity investments in primary/secondary funds and co-investment opportunities
				Pathway PE Fund VII LLC	Fund of funds focused on mid/large buyout funds in the US
				SL Capital European Strategic Partners 2004	2004 fund of funds investing in European-focused primary funds
		-		SL Capital European Strategic Partners 2008	2008 fund of funds investing in European-focused primary funds
				Aurora Equity Partners IV	US middle market focused buyout fund
			Buyout Funds	Kayne Partners Fund IV LP (MCA)	2016 fund investing in middle market growth equity opportunities in US companies
				Kayne Partners Fund V LP (MCA)	2020 fund investing in middle market growth equity opportunities in US companies
				Partners Group Direct Equity 2016 (MCA)	Global portfolio of direct private equity deals
				Partners Group Direct Equity 2019 (MCA)	Global portfolio of direct private equity deals
				Partners Group Direct Investments 2012 LP (MCA)	Global portfolio of direct private equity deals
				Partners Group European Buyout 2005 (A) LP	Fund of funds focused on buyouts, direct investments, and select secondary investments in Europe
				Waterfall PE Coinvest (MCA)	Co-investment opportunities in US lower middle market specialty finance companies
				Waterfall Sentinel Fund (MCA)	2019 fund investing in US lower middle market specialty finance focused companies
				Industry Ventures Direct LP (MCA)	2016 fund investing in venture capital opportunities
				Industry Ventures Direct II LP (MCA)	2019 fund investing in venture capital opportunities
				Industry Ventures Direct III LP (MCA)	2021 fund investing in venture capital opportunities
				Industry Ventures Fund VI LP (MCA)	Fund of funds focused on small but well-established US venture capital funds
		⋧		Industry Ventures Partnership Holdings II LP (MCA)	2011 fund investing in venture capital primary funds, secondary funds and direct investments, and direct investments
		ä		industry ventures ratthership holdings if Er (WCA)	2011 fund investing in venture capital primary funds, secondary funds and direct investments, and direct investments
		te		Industry Ventures Partnership Holdings III LP (MCA)	2013 fund investing in venture capital primary funds, secondary funds and direct investments, and direct investments
		Private Equity	Venture Funds	Industry Ventures Partnership Holdings III-A LP (MCA)	2014 fund investing in venture capital primary funds, secondary funds and direct investments, and direct investments
				Industry Ventures Partnership Holdings IV LP (MCA)	2016 fund investing in venture capital primary funds, secondary funds and direct investments, and direct investments
et)				Industry Ventures Partnership Holdings V LP (MCA)	2019 fund investing in venture capital primary funds, secondary funds and direct investments, and direct investments
Private Assets (18% Target)				Industry Ventures Partnership Holdings VI LP (MCA)	2021 fund investing in venture capital primary funds, secondary funds and direct investments, and direct investments
8%					
Ē		-		Industry Ventures Tech Buyout, LP (MCA)	2018 fund investing in small high growth tech companies
eta				Aberdeen Standard Secondary Opportunities Fund IV	2020 fund investing in secondary purchases of PE fund of funds and other complex transactions
Ass				Industry Ventures Secondary VII LP (MCA)	2013 fund investing in secondary transactions in venture capital opportunities
te				Industry Ventures Secondary VIII LP (MCA)	2017 fund investing in secondary transactions in venture capital opportunities
iva				Industry Ventures Secondary IX LP (MCA)	2021 fund investing in secondary transactions in venture capital opportunities
F				Lexington Capital Partners VI	Fund of funds focused mainly on buyout funds in US and Western Europe
			Secondary Funds	Lexington Capital Partners VII	Fund of funds focused mainly on buyout funds in US and Western Europe
				Lexington Middle Market Investors I	Fund of funds focused on secondary interest in US middle-market buyouts
				Lexington Middle Market Investors II	Fund of funds focused on secondary interest in US middle-market buyouts
				cronin	Fund of funds focused on global secondaries in private equity funds
				SL Capital Secondary Opportunities Fund I	Fund of funds focused on secondary purchase of mid and large-cap buyout funds in Europe
				SL Capital Secondary Opportunities Fund II	Fund of funds focused on secondary purchase of mid and large-cap buyout funds in Europe
				SL Capital Secondary Opportunities Fund III	Fund of funds focused on secondary purchase of mid and large-cap buyout funds in Europe
				Kayne Anderson Energy Fund VII LP	2017 fund investing in US upstream energy companies with a focus on growing enterprise value
				Tennenbaum Energy Opportunities Fund LP (MCA)	2015 fund investing in senior secured notes and first/second lien debt of US companies in the energy sector
		Private Debt		Ares Private Credit Solutions Fund (MCA)	Junior debt investments in large private companies
			Direct Lending		2020 fund investing in the equity and debt of renewable power generating companies
				Tennenbaum Lending Fund VIII LLC (MCA)	Privately-originated, performing senior secured debt in mid-market (100mm-1.5bn) companies in NA
				Tennenbaum Waterman Fund LP (MCA)	Senior 1L loans to middle-market companies, primarily in the US
			Credit/Distressed/ Opportunistic/ Special Situations	Ares ICOF II (MCA)	Structured credit in CLO vehicles and private asset-backed credits
				Ares ICOF III (MCA)	Structured credit in CLO vehicles and private asset-backed credits
				Ares SMA (MCA)	Separate account in liquid credit and income-focused opportunities
				Ares Special Situations Fund IV (MCA)	Global distressed debt and special situations
				Catalyst Fund LP II	2006 fund investing in Canadian stressed/distressed investment opportunities
				Crestline Portfolio Financing Fund	Financing to late-stage private equity funds and GPs
				Crestline Portfolio Financing Fund II	Financing to late-stage private equity funds and GPs
				Kayne Anderson CLO Partners II (MCA)	2020 fund investing in CLOs issued by Kayne Anderson
				Kayne Anderson Solutions Fund (MCA)	2017 fund investing in special situation opportunities in US credit
				Siguler Guff Distressed Opportunity Fund III LP	2009 fund-of-fund investing in US and International opportunistic credit funds and co-investments
				Tennenbaum Co-Invest (MCA)	Co-investment opportunities driven from Tennenbaum funds
				Tennenbaum Opportunities Fund V LLC (MCA)	Deep value control positions in distressed companies
				Tennenbaum Opportunities Fund VI LLC (MCA)	Deep value control positions in distressed companies
				remembalant opportanties rand vi LEC (MCA)	
				Tennenbaum Special Situations Fund IX LLC (MCA)	Distressed and rescue-financing in mid-market companies in NA



REAL ESTATE PORTFOLIO

		Core Real Estate	348 West Hospitality	SBCERA headquarters
	2		Invesco Real Estate Asia Fund	Asia-focused open-ended core real estate fund
	(2.5%		Kayne Anderson Real Estate Debt III (MCA)	2018 fund investing in first-lien US residential mortgage debt
	Core Real Estate (2.5%)		Kayne Anderson Real Estate Debt IV (MCA)	2020 fund investing in first-lien US residential mortgage debt
	eal E		Marathon Real Estate Debt Fund	Fund investing in senior secured first mortgage loans in the US
	ore R		PRISA II	US core-plus open-ended real estate equity fund with low leverage
	ö		PGIM Real Estate Capital VI LP	European (UK and Germany focused) mezzanine lending fund for value-add real estate projects
(j			PGIM Real Estate Capital VII LP	European (UK and Germany focused) mezzanine lending fund for value-add real estate projects
e e e e e e e e e e e e e e e e e e e				
% Tar		Enhanced Real Estate/ High Return	Apollo Real Estate Fund II LP (MCA)	2015 fund investing in value-add US real estate opportunities
Real Estate Portfolio (7% Target)			Apollo Real Estate Fund III LP (MCA)	2020 fund investing in value-add US real estate opportunities
ortfo			Bryanston Retail Opportunity	2004 fund investing in value-add US real estate opportunities in the retail sector
tate P	8		Fortress Japan Opportunity Fund II	2011 fund investing in value-add Japanese real estate opportunities
al Est	(2.59		Kayne Anderson Real Estate Partners V LP (MCA)	2017 fund investing in value-add US real estate opportunities
Re	state		Kayne Anderson Real Estate Partners VI LP (MCA)	2021 fund investing in value-add US real estate opportunities
	eal E		Morgan Stanley RE Fund V International	2005 fund investing in value-add International real estate opportunities
	ore R		Oaktree RE Opportunities Fund V	Diversified value-add US real estate equity fund, close-ended
	Non-Core Real Estate (2.5%)		PRISA III	Value-add US Real Estate Equity Fund, open ended
			Starwood Global Opportunity Fund VII-A	Opportunistic investments in RE operating companies, RE debt, residential land and international opportunities
			Walton Street Real Estate Fund V	Value-add real estate in the US
		Real Estate Secondaries	Partners Group Real Estate Secondary 2013 A LP	Global private real estate fund interests purchased on the secondary market at discounts to
			(MCA)	intrinsic value
			Partners Group Real Estate Secondary 2017 A LP	Global private real estate fund interests purchased on the secondary market at discounts to
			(MCA)	intrinsic value



REAL ASSETS PORTFOLIO

		Energy Spectrum Partners VI LP	2011 fund investing in US middle market midstream energy sector
	Commodities (4% Target)	Pinnacle Natural Resources LP	Commodity fund of funds with both directional and relative value exposure across multiple commodities
		Pinnacle Physicals & Financing LTD	Multi-manager fund focused on physical commodities (livestock, metals, energy and agriculture)
l Asset Portfolio (6% Target)	Infrastructure (2% Target)	Kayne Anderson MLP Strategy (MCA)	Separate account opportunistically investing in publicly traded US MLP securities
Real Ass (6%	(0% Target)	Hancock Timberland VIII LP Timbervest Crossover Partners II LP	Global strategy predicated on intensive value-add forest management; diversified across species, age, end use and geography Mitigation banking (natural wetlands) and conservation banking (natural habitats for threatened/endangered species) Smaller timber properties (3,000-30,000 acres) in the US



San Bernardino County Employees' Retirement Association

ALTERNATIVES - NET

	Allocatio	on			Perforn	nance (%)		
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Private Equity Composite	2,655,331,511	19.9	3.0	5.3	25.0	23.8	20.0	16.4
C A Global All PE (Qtr Lag)			<u>-1.2</u>	<u>3.9</u>	21.6	<u>22.7</u>	<u>19.3</u>	<u>15.3</u>
Over/Under			4.2	1.4	3.4	1.1	0.7	1.1
Russell 3000 Index			<u>-16.7</u>	<u>-21.1</u>	-13.9	<u>9.8</u>	<u>10.6</u>	<u>12.6</u>
Over/Under			19.7	26.4	38.9	14.0	9.4	3.8
C A US All PE (1 Qtr Lag)			<u>0.8</u>	<u>6.6</u>	<u>27.3</u>	<u>22.7</u>	<u>19.3</u>	<u>15.9</u>
Over/Under			2.2	-1.3	-2.3	1.1	0.7	0.5
Real Estate Composite	590,979,845	4.4	5.9	11.3	23.0	11.1	9.6	9.4
NCREIF Property Index 1 Qtr. Lag			<u>5.3</u>	<u>11.8</u>	<u>21.9</u>	<u>9.6</u>	<u>8.5</u>	<u>9.6</u>
Over/Under			0.6	-0.5	1.1	1.5	1.1	-0.2
Apollo US Real Estate III	22,560,650	0.2	22.8	29.4				
Real Assets Composite	619,490,943	4.6	2.2	7.5	17.7	13.7	9.3	5.6
Real Assets Custom Blend			<u>-5.7</u>	<u>9.0</u>	14.3	<u>10.9</u>	<u>7.1</u>	<u>2.9</u>
Over/Under			7.9	-1.5	3.4	2.8	2.2	2.7
67% Bloomberg Commodity/ 33% Barclays US TIPS			<u>-5.7</u>	<u>9.0</u>	<u>14.3</u>	<u>10.9</u>	6.9	<u>0.2</u>
Over/Under			7.9	-1.5	3.4	2.8	2.4	5.4
Timber	24,932,630	0.2	29.9	28.5	25.9	6.4	2.4	3.6
NCREIF Timberland 1 Qtr. Lag			<u>3.2</u>	<u>7.9</u>	<u>11.8</u>	<u>4.7</u>	<u>4.1</u>	<u>5.6</u>
Over/Under			26.7	20.6	14.1	1.7	-1.7	-2.0
Infrastructure	73,727,643	0.6	-11.7	7.4	4.1	12.4	8.7	4.3
Russell 3000 Index			<u>-16.7</u>	<u>-21.1</u>	-13.9	<u>9.8</u>	<u>10.6</u>	<u>12.6</u>
Over/Under			5.0	28.5	18.0	2.6	-1.9	-8.3
Commodities	520,830,671	3.9	3.5	6.4	20.3	16.1	13.1	6.5
Bloomberg Commodity Index			<u>-5.7</u>	<u>18.4</u>	<u>24.3</u>	<u>14.3</u>	<u>8.4</u>	<u>-0.8</u>
Over/Under			9.2	-12.0	-4.0	1.8	4.7	7.3





APPENDIX: PERFORMANCE SUMMARY

Real Estate Real Assets Private Equity



proprietary δ^{39} confidential

REAL ESTATE PERFORMANCE

AS OF DECEMBER 31, 2021

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Cumulative Distributions	Valuation	TVPI Ratio	IRR
American Realty Advisors	1996	128,009,773	128,009,773	0	278,446,295	0	2.18	6.89%
Tuckerman Multi-Family Development Fund III	2002	10,000,000	10,219,311	0	16,939,699	0	1.66	26.67%
CBRE Strategic Partners III	2003	10,000,000	10,000,000	0	12,698,783	0	1.27	8.02%
Prudential PRISA III	2003	75,000,000	63,058,273	11,941,727	63,351,044	71,282,129	2.01	18.19%
Walton Street Real Estate Fund IV, LP	2003	10,000,000	9,770,890	229,110	15,939,604	66,296	1.64	10.72%
Bryanston Retail Opportunity Fund, L.P.	2004	20,000,000	8,228,165	11,771,835	22,710,942	18,685,751	5.03	70.76%
Prudential PRISA II	2004	140,000,000	140,000,000	0	59,658,740	197,473,081	1.76	8.43%
RREEF America REIT III	2004	20,000,000	20,539,309	0	23,658,675	0	1.15	3.00%
BlackRock Diamond Property Fund	2005	25,000,000	25,000,000	0	15,233,347	0	0.61	-9.31%
CBRE Strategic Partners IV	2005	40,000,000	40,000,000	0	2,609,685	0	0.07	-27.76%
INVESCO Real Estate Fund I	2005	10,000,000	9,248,390	0	10,015,656	0	1.08	1.54%
LaSalle Income & Growth Fund IV	2005	20,000,000	19,469,417	0	13,482,024	0	0.69	-5.51%
North Haven Real Estate Fund V International	2005	27,500,000	27,377,414	122,586	32,219,306	1,117,378	1.21	6.84%
Prologis Japan Fund	2005	25,290,819	25,290,819	0	33,126,118	0	1.31	4.81%
Tri Continental Capital VII	2005	23,000,000	22,277,928	722,072	3,168,198	409,545	0.16	-15.16%
American Realty Value Add	2006	13,125,215	13,125,215	0	32,080,321	-00,040	2.44	10.92%
Beacon Capital Strategic Partners IV, L.P.	2006	38,000,000	38,000,000	0	31,424,699	0	0.83	-3.26%
Fillmore East Fund	2000	25,000,000	31,403,818	0	20,777,177	0	0.66	-9.78%
Starwood Capital Hospitality Fund I-2	2000	30,000,000	30,000,000	0	27,879,087	2,500,040	1.01	0.16%
Starwood Opportunity Fund VII - A	2000	25,000,000	25,000,000	0	19,517,190	612,503	0.81	-2.34%
				0				
Walton Street Real Estate Fund V, LP	2006 2007	40,000,000	40,000,000	0	27,009,315	2,216,040	0.73	-3.39%
Beacon Capital Strategic Partners V, L.P.		18,000,000	18,000,000		11,174,695	0	0.62	-7.87%
Invesco Asian Real Estate Partners II (USD), LP	2007	20,000,000	8,412,833	0	11,465,147	0	1.36	7.52%
Invesco High Yield Debt Fund I	2007	20,000,000	20,000,000	0	8,567,605	0	0.43	-35.57%
Square Mile Partners II	2007	19,831,232	19,831,232	0	5,311,330	0	0.27	-19.11%
Fillmore West Fund	2008	20,000,000	19,561,557	0	21,175,799	0	1.08	1.14%
Square Mile Partners III LP	2008	20,000,000	19,730,190	269,810	28,756,613	112,006	1.46	11.52%
Starwood Debt Fund II, LP	2008	20,000,000	17,599,882	0	21,912,511	0	1.25	6.45%
Structured Real Estate III, LP (Guggenheim)	2008	20,000,000	20,000,000	0	16,320,664	0	0.82	-4.99%
Bryanston Real Estate Opportunity Fund II, L.P.	2009	20,000,000	8,589,256	0	11,851,333	0	1.38	10.20%
Fortress Japan Opportunity Fund II	2012	21,739,130	2,714,510	19,024,620	23,868,875	3,542,014	9.18	25.48%
Oaktree Real Estate Opportunities V	2012	25,000,000	25,000,000	0	39,153,074	744,037	1.56	12.81%
Invesco Real Estate Asia Fund	2014	51,732,500	51,732,500	0	14,738,648	68,772,565	1.54	6.76%
Partners Group RE Secondary 2013 (USD) A	2014	65,000,000	49,541,590	15,458,410	26,332,529	44,794,603	1.45	9.31%
Apollo US Real Estate Fund II	2015	20,000,000	15,867,161	4,132,839	5,988,140	16,031,353	1.39	9.92%
Pramerica Real Estate Capital VI	2016	25,832,686	26,174,748	-342,062	13,108,432	12,167,974	0.96	-1.84%
Kayne Anderson Real Estate Fund V, L.P.	2017	20,000,000	17,725,000	2,275,000	6,229,800	19,950,142	1.49	17.54%
Partners Group RE Secondary 2017 (USD) A	2017	75,000,000	43,571,281	31,428,719	118,130	59,470,458	1.37	12.74%
Kayne Anderson Real Estate Debt III	2018	20,000,000	19,361,000	639,000	14,874,115	8,693,900	1.21	10.55%
Apollo US Real Estate Fund III	2021	50,000,000	10,567,553	39,432,447	308,189	12,272,051	1.15	14.29%
Kayne Anderson Real Estate Debt IV	2021	30,000,000	10,941,220	19,058,780	275,522	10,903,709	1.02	4.68%
Kayne Anderson Real Estate Fund VI	2021	20,000,000	2,100,000	17,900,000	0	2,064,030	0.98	-4.23%
Pramerica Real Estate Capital VII	2021	52,065,631	8,421,536	43,644,095	0	8,587,082	1.01	1.78%
Total: San Bernardino		1,409,126,987	1,171,461,772	217,708,988	1,043,477,058	562,468,687	1.36	4.71%



REAL ASSETS PERFORMANCE AS OF DECEMBER 31, 2021

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Cumulative Distributions	Valuation	TVPI Ratio	IRR
Hancock Timberland VII	2005	90,000,000	90,000,000	0	101,142,900	0	1.12	1.02%
Hancock Timberland VIII	2006	40,000,000	40,000,000	0	22,391,925	20,238,969	1.07	0.53%
Highstar Capital III, L.P.	2007	60,000,000	59,119,119	880,881	63,076,794	235,688	1.07	0.87%
RREEF North American Infrastructure Fund	2007	50,000,000	50,000,000	0	55,238,754	0	1.09	12.09%
Timbervest Partners II, L.P.	2007	50,000,000	50,000,000	0	51,614,965	252,351	1.04	0.38%
Pinnacle Natural Resources Offshore Fund Ltd.	2008	75,000,000	75,000,000	0	0	142,264,359	1.90	6.33%
Timbervest Environmental Investments II, L.P.	2008	30,000,000	30,000,000	0	19,214,831	7,364,121	0.88	-1.63%
Pinnacle Physicals and Financing Master, Ltd	2009	200,000,000	180,815,984	19,184,016	2,018,221	276,624,825	1.54	8.28%
Fortress Transportation Infrastructure LLC	2015	45,403,354	45,403,354	0	41,902,882	0	0.92	-1.99%
Total: San Bernardino		640,403,354	620,338,457	20,064,897	356,601,272	446,980,313	1.29	3.32%



PRIVATE EQUITY PERFORMANCE

AS OF DECEMBER 31, 2021

Investment Name	Vintage Year	Commitment Amount	Paid in Capital	Capital to be Funded	Cumulative Distributions	Valuation	TVPI Ratio	IRR
European Strategic Partners 2004	2004	240,908,330	221,611,324	19,297,006	280,078,373	749,932	1.27	3.96%
Partners Group MCA	2004	800,000,000	905,346,034	-105,346,034	792,783,238	620,944,365	1.56	9.59%
Pathway Private Equity Fund VII, L.P.	2004	904,500,000	858,528,654	45,971,346	1,384,702,357	327,874,542	1.99	12.00%
Aurora Equity Partners III, L.P.	2005	25,000,000	23,544,536	0	41,738,196	0	1.67	13.61%
Lexington Middle Market I	2005	25,000,000	24,771,942	228,058	39,061,222	1,545,919	1.64	11.41%
NB Secondary Opportunities I, LP	2005	20,000,000	18,500,843	0	24,330,105	0	1.32	6.49%
Lexington Capital Partners VI-B	2006	25,000,000	24,591,319	408,681	34,170,391	992,946	1.43	6.88%
Siguler Guff DOF II	2006	30,000,000	30,000,000	0	42,440,278	0	1.42	8.64%
TCW/Crescent Mezzanine IV, L.P.	2006	40,000,000	39,590,976	0	45,049,090	0	1.14	3.03%
Catalyst Fund II, L.P.	2007	10,000,000	9,956,944	43,056	3,859,103	33,899,074	3.77	12.70%
Tennenbaum Opportunities Fund V, L.P.	2007	10,000,000	10,000,000	0	12,430,669	2,497,462	1.49	5.56%
Apollo Investment Fund VII, L.P.	2008	10,000,000	8,789,116	1,210,884	17,680,704	215,695	2.04	22.80%
Aurora Resurgence Fund, L.P.	2008	15,000,000	5,653,009	0	10,350,965	0	1.82	17.60%
Industry Ventures Fund V	2008	10,000,000	9,500,000	500,000	27,240,341	330,314	2.90	29.33%
Lexington Middle Market II - Offshore	2008	10,000,000	9,773,736	226,264	15,480,797	2,666,906	1.85	14.88%
NB Secondary Opportunities II, LP	2008	20,000,000	17,080,642	0	26,888,038	0	1.54	14.40%
Siguler Guff DOF III	2008	10,000,000	9,700,000	300,000	14,403,516	1,763,565	1.67	10.75%
TCW/Crescent Mezzanine V, L.P.	2008	20,000,000	19,949,723	50,277	27,301,678	125,845	1.38	9.80%
Apollo European Principal Finance Fund (Feeder), LP	2009	53,870,851	46,434,825	7,436,026	69,417,013	49,642	1.50	11.80%
DRI II, L.P.	2009	20,000,000	19,917,669	0	26,302,807	0	1.33	19.64%
Apollo PCPL Webb V	2010	4,844,398	4,844,398	0	5,196,757	0	1.07	6.04%
Apollo PCPL Webb VIII	2010	4,734,303	4,734,303	0	12,146,258	0	2.57	46.47%
European Strategic Partners 2008	2010	31,432,216	29,384,338	2,047,878	38,750,695	5,231,980	1.49	8.71%
Industry Ventures Fund VI	2011	20,000,000	18,400,000	1,600,000	24,410,738	909,868	1.38	8.18%
Lexington Capital Partners VII (Offshore)	2011	25,000,000	20,425,372	4,574,628	30,128,901	4,604,018	1.69	15.09%
Tennenbaum Opportunities Fund VI, L.P.	2011	20,000,000	7,882,885	12,117,115	12,531,656	4,677,239	2.18	8.35%
Aurora Equity Partners IV, L.P.	2012	20,000,000	17,262,661	2,737,339	36,915,470	3,704,050	2.04	18.29%
BNY Mellon - Alcentra Mezzanine III	2012	25,000,000	23,254,658	0	26,736,979	0	1.15	12.73%
Industry Ventures Partnership Holdings Fund II, L.P.	2012	25,000,000	23,500,000	1,500,000	48,955,199	82,419,703	5.59	28.14%
Tennenbaum Waterman Fund, LP	2012	70,000,000	70,000,000	0	64,426,734	68,349,643	1.90	11.27%
Industry Ventures Partnership Holdings Fund III, L.P.	2013	25,000,000	23,277,042	1,722,958	36,361,989	55,362,344	3.94	29.01%



PRIVATE EQUITY PERFORMANCE

AS OF DECEMBER 31, 2021

Investment Name	Vintage	Commitment	Paid in	Capital to be	Cumulative	Valuation	TVPI	IRR
	Year	Amount	Capital	Funded	Distributions		Ratio	
Industry Ventures Secondary VII, L.P.	2013	25,000,000	23,175,000	1,825,000	35,786,147	13,899,669	2.14	18.99%
Industry Ventures Partnership Holdings Fund III-A, L.P.	2014	12,500,000	11,087,500	1,412,500	6,369,499	7,378,174	1.24	4.86%
Pathway SBCERA MCA	2014	250,000,000	234,709,375	15,290,625	83,823,445	551,668,666	2.71	25.85%
SL Capital SOF I LP	2014	25,000,000	21,382,263	3,617,737	25,301,120	5,921,173	1.46	11.58%
ARES European Loan Opp Fund	2015	15,000,000	8,413,136	0	7,613,498	0	0.90	-6.02%
Ares Special Situations Fund IV, LP	2015	50,000,000	47,686,469	2,313,531	26,801,264	40,393,620	1.41	7.99%
Tennenbaum Special Situations Fund IX	2015	50,000,000	32,057,933	17,942,067	29,394,335	29,022,943	1.82	13.82%
Industry Ventures Direct, LP	2016	25,000,000	23,420,425	1,579,575	7,866,044	52,738,012	2.59	33.35%
Industry Ventures Partnership Holdings IV, LP	2016	25,000,000	22,575,000	2,425,000	6,778,707	53,771,402	2.68	35.62%
Industry Ventures Special Opportunities II-A	2016	12,500,000	1,630,722	10,869,278	1,301,834	5,200,621	3.99	63.95%
TCP Direct Lending Fund VIII-L, LLC	2016	40,000,000	26,438,623	13,561,377	8,286,925	26,738,968	1.32	7.22%
Tennenbaum Energy Opportunities Fund, LP	2016	20,000,000	6,656,980	13,343,020	6,215,935	5,976,618	1.83	10.87%
Apollo Accord Fund, LP	2017	30,000,000	7,500,000	0	8,310,474	0	1.11	7.44%
Industry Ventures Secondary VIII	2017	25,000,000	22,525,000	2,475,000	18,338,164	40,386,335	2.61	52.52%
Kayne Anderson Energy Fund VII, L.P.	2017	10,000,000	8,614,431	1,385,569	312,921	4,414,422	0.55	-13.89%
Kayne Partners Fund IV (QP), LP	2017	20,000,000	17,976,155	2,023,845	9,010,968	24,524,877	1.85	25.18%
Kayne SBCERA MLP	2017	130,000,000	126,225,037	3,774,963	56,768,734	64,629,514	0.96	-1.06%
SL Capital SOF III LP	2017	25,000,000	16,483,449	8,516,551	5,396,828	26,314,764	1.92	27.33%
Crestline Portfolio Financing Fund	2018	50,000,000	26,727,190	23,272,810	8,680,489	27,663,869	1.36	11.18%
Industry Ventures Partnership Holdings V, LP	2018	25,000,000	19,750,000	5,250,000	626,933	45,633,734	2.34	74.02%
Industry Ventures Tech Buyout LP	2018	50,000,000	32,470,896	17,529,104	0	45,066,711	1.39	32.58%
Kayne Anderson Private Energy Income Fund II, L.P.	2018	20,000,000	5,480,000	14,520,000	2,986,140	7,905,506	1.99	39.05%
Kayne Flywheel Co-investment LLC	2018	8,000,000	6,600,000	1,400,000	5,453,951	11,054,967	2.50	42.45%
Kayne SBCERA (D.I.)	2018	45,000,000	40,660,422	4,339,578	43,798,682	6,225,677	1.23	20.29%
Kayne Solutions Fund LP	2018	20,000,000	9,809,659	10,190,341	10,797,587	0	1.10	9.14%
Industry Ventures Direct II, LP	2019	50,000,000	32,128,088	17,871,912	0	63,774,656	1.99	82.67%
Kayne Renewable Opportnities Partners (TE), LP	2019	100,000,000	20,704,033	79,295,967	27,857,425	0	1.35	21.72%
Waterfall Sentinel Co-Investments	2019	30,000,000	23,735,635	6,264,366	5,406,901	48,798,751	2.27	41.05%
Waterfall Sentinel Fund	2019	30,000,000	22,769,912	7,230,088	3,446,058	32,798,414	1.59	24.02%
Adams Street SBCERA	2020	100,000,000	64,421,446	35,578,554	9,065,228	81,715,343	1.41	68.86%
Kayne Anderson FRG	2020	30,000,000	30,000,000	0	45,283,966	0	1.51	44.79%
Kayne CLO Partners II, LP	2020	50,000,000	44,721,625	5,278,375	19,921,490	0	0.45	N/A
Total: San Bernardino	2020	3,968,290,098	, ,	327,002,217	3,799,271,952	2,542,532,458	1.76	11.64%
		0,000,200,000	0,004,140,000	021,002,217	0,100,211,002	2,072,002,400	1.70	





APPENDIX

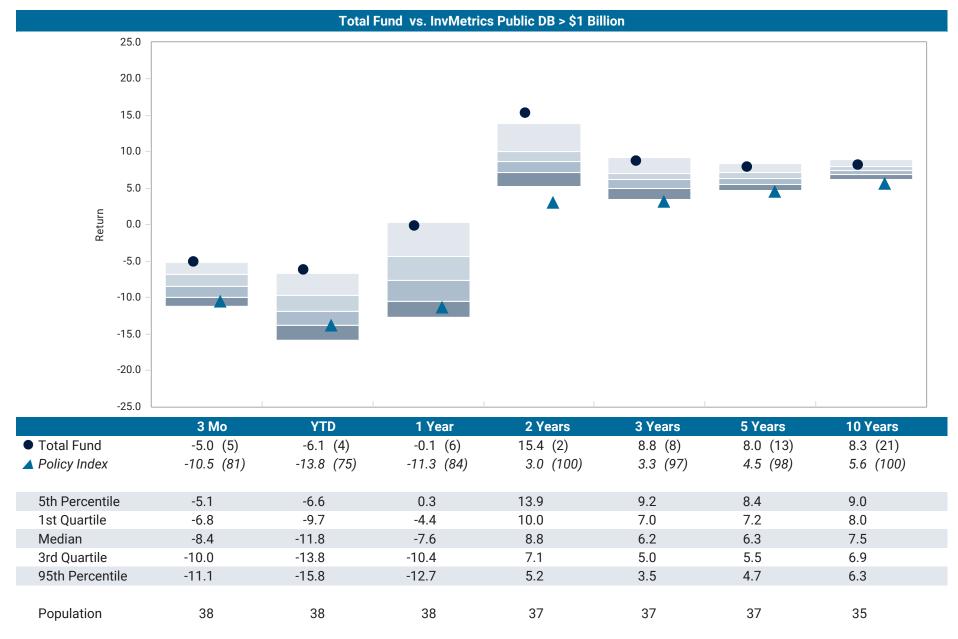
Page 44



proprietary & Confidential

San Bernardino County Employees' Retirement Association

TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

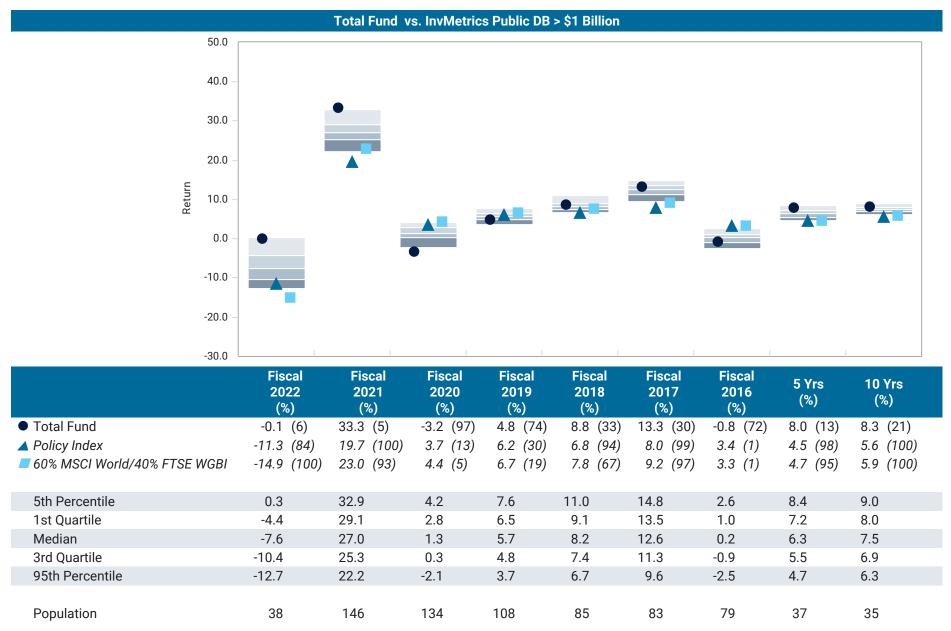




June 30, 2022

San Bernardino County Employees' Retirement Association

TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE





June 30, 2022



MACRO



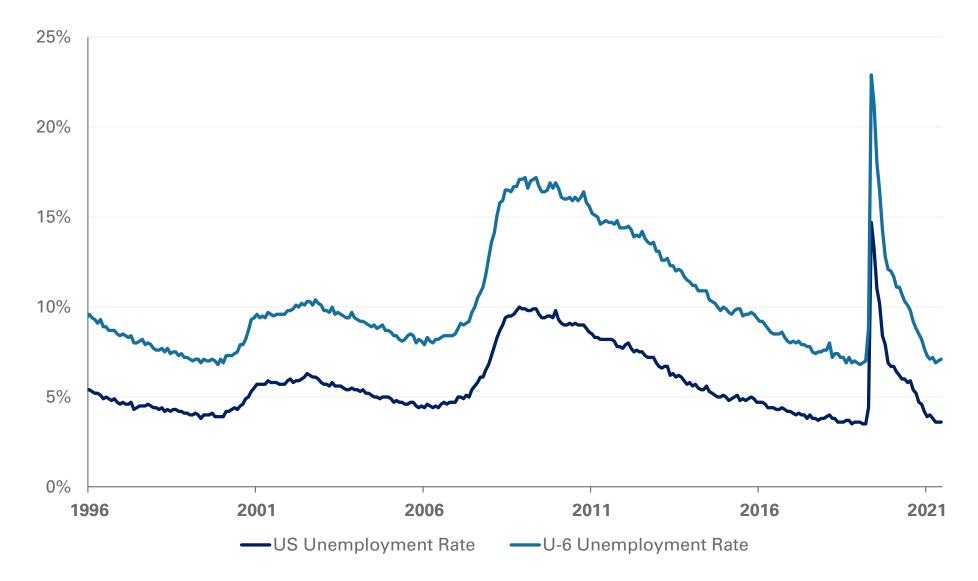
INFLATION U.S. CONSUMER PRICE INDEX





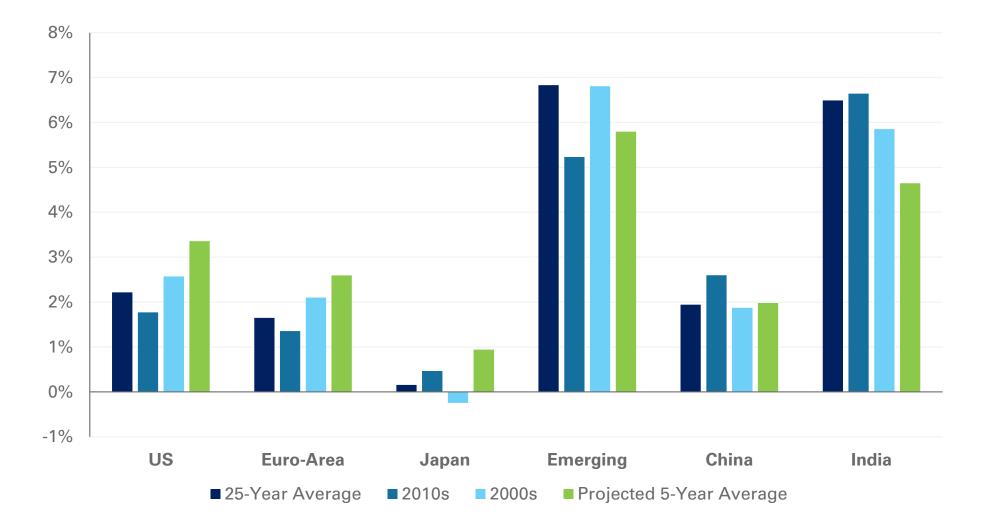
Source: Bureau of Labor Statistics, FactSet

U.S. UNEMPLOYMENT RATES



Source: FactSet

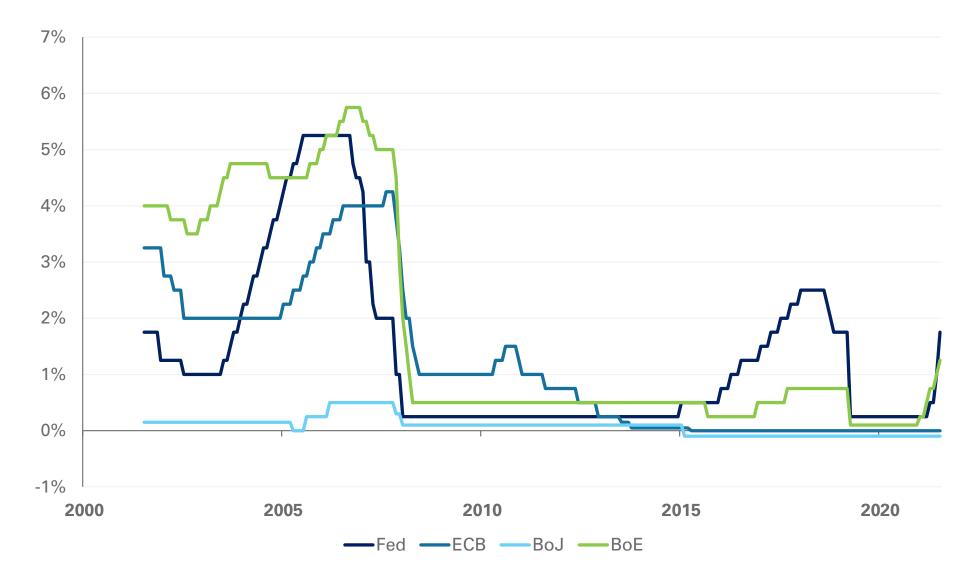
HISTORICAL INFLATION IMF PROJECTIONS





Source: IMF, FactSet

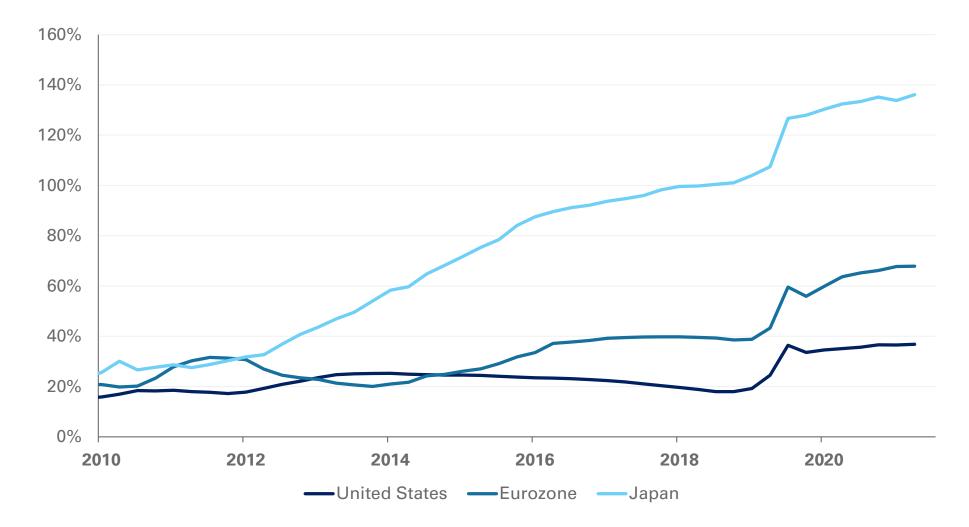
CENTRAL BANK POLICY RATES





Source: Federal Reserve, ECB, Bank of Japan, Bank of England, FactSet

CENTRAL BANK BALANCE SHEETS AS A PERCENTAGE OF GDP



Source: FactSet

CURRENCIES

RELATIVE TO THE U.S. DOLLAR

Currencies	Spot	1 Month	YTD	1 Year
Euro	1.05	-2.4%	-8.1%	-11.8%
British Pound	1.21	-3.6%	-10.3%	-12.1%
Japanese Yen	135.86	-5.3%	-15.2%	-18.3%
Swiss Franc	0.96	0.1%	-4.8%	-3.4%
Australian Dollar	0.69	-4.1%	-5.4%	-8.4%
New Zealand Dollar	1.61	-4.5%	-9.2%	-11.0%
Canadian Dollar	1.29	-1.9%	-2.1%	-4.0%
Chinese Yuan	6.69	-0.6%	-4.8%	-3.5%
Taiwanese Dollar	29.73	-2.4%	-7.0%	-6.3%
Korean Won	1298	-4.7%	-8.4%	-13.3%
Vietnmaese Dong	23265	-0.3%	-2.0%	-1.1%
Thai Baht	35.36	-3.2%	-5.5%	-9.3%
Philippines Peso	54.99	-4.7%	-7.3%	-11.2%
Indian Rupee	78.97	-1.7%	-5.9%	-5.9%
Russian Ruble	54.75	15.1%	37.0%	33.4%
Mexican Peso	20.18	-2.3%	1.4%	-1.3%
Brazilian Real	5.23	-9.4%	6.5%	-4.0%
Chilean Peso	0.03	-9.3%	-1.7%	-12.5%
Argentine Peso	125.22	-4.0%	-18.0%	-23.6%
South African Rand	16.38	-4.9%	-2.6%	-12.8%



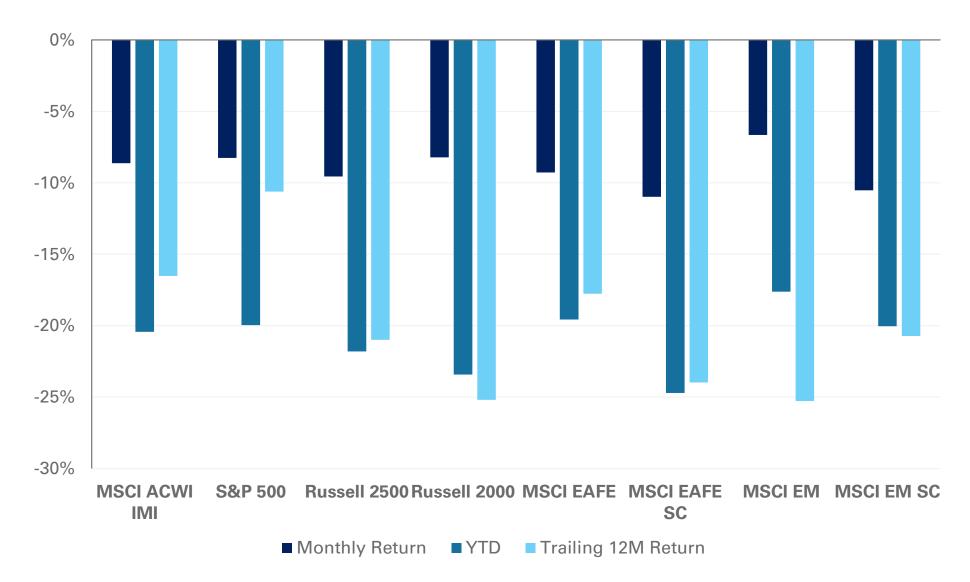
Source: FactSet



EQUITY



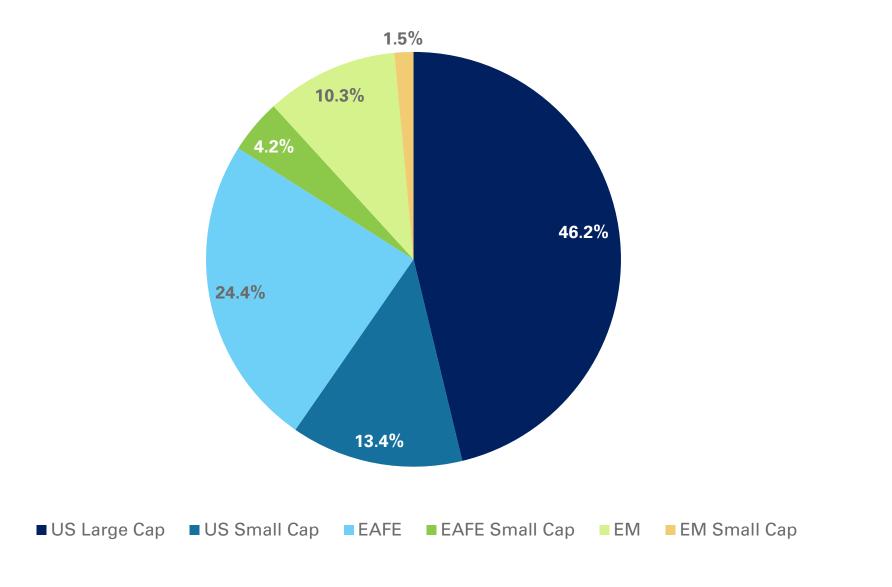
EQUITY INDEX PERFORMANCE





Source: MSCI, S&P, Russell, FactSet

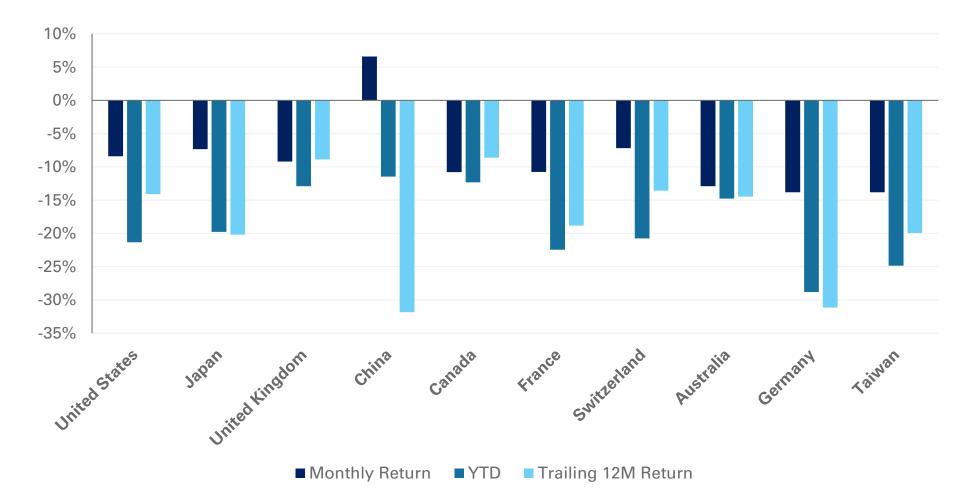
MSCI ACWI IMI WEIGHTS





EQUITY INDEX PERFORMANCE

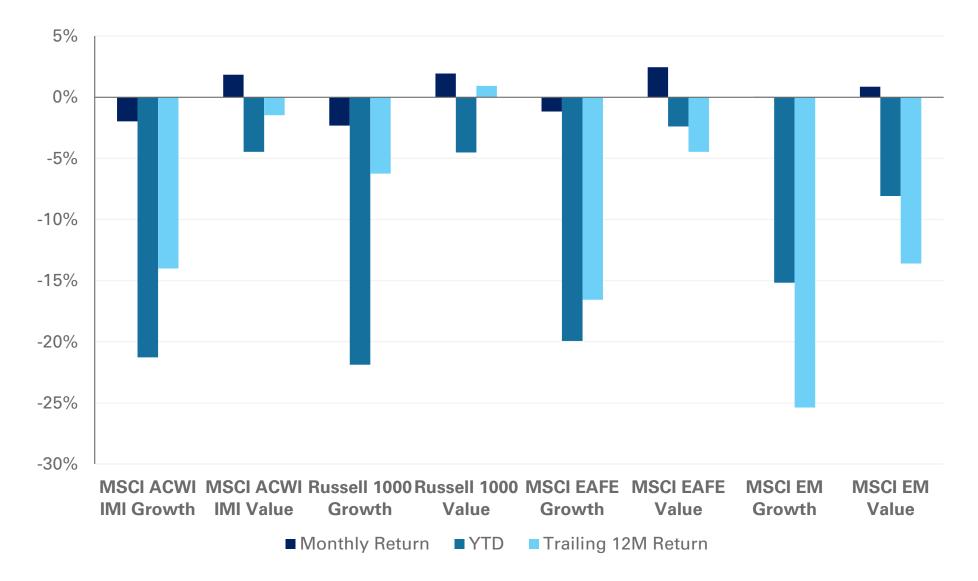
TOP 10 COUNTRIES BY MARKET CAP IN MSCI ACWI IMI INDEX





Source: MSCI, FactSet

STYLE INDEX PERFORMANCE





Source: MSCI, Russell, FactSet

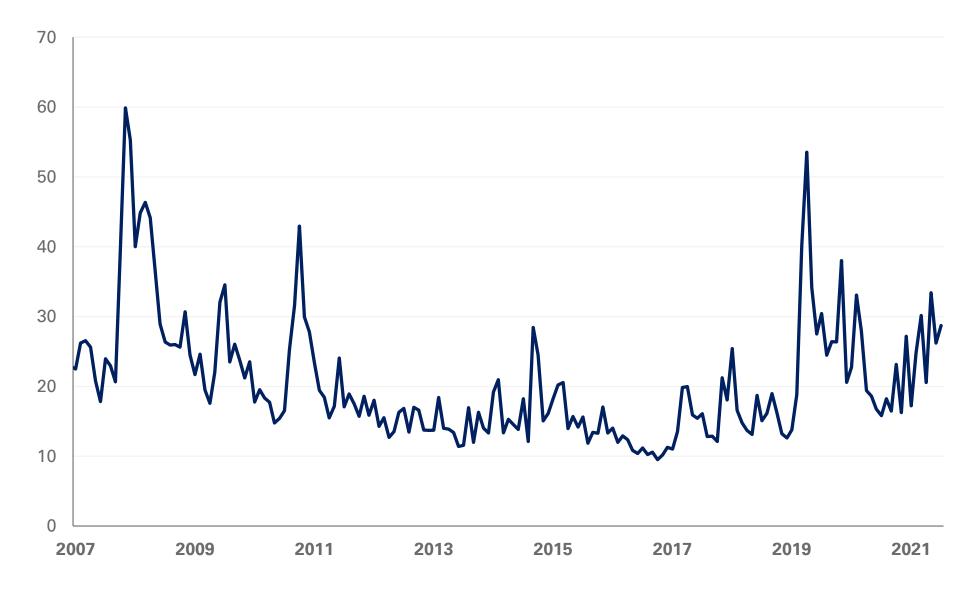
SECTOR INDEX PERFORMANCE

	Monthly Return	YTD	Trailing 12M Return	Index Weight
MSCI ACWI IMI	-8.6%	-20.4%	-16.5%	100.0%
Communication Services	-7.6%	-26.9%	-30.0%	7.3%
Consumer Discretionary	-8.1%	-29.4%	-29.5%	11.2%
Consumer Staples	-3.5%	-10.3%	-5.8%	7.3%
Energy	-14.8%	15.6%	21.9%	4.9%
Financials	-10.0%	-16.4%	-12.1%	14.4%
Health Care	-3.0%	-12.8%	-8.7%	12.7%
Industrials	-8.7%	-21.5%	-18.8%	10.4%
Information Technology	-10.4%	-29.8%	-21.0%	19.8%
Materials	-15.0%	-18.1%	-16.5%	5.2%
Real Estate	-8.1%	-20.1%	-14.4%	3.6%
Utilities	-6.5%	-6.0%	2.8%	3.2%

	Monthly Return	YTD	Trailing 12M Return	Index Weight
S&P 500	-8.3%	-20.0%	-10.6%	100.0%
Communication Services	-7.7%	-30.2%	-29.1%	8.9%
Consumer Discretionary	-10.8%	-32.8%	-24.2%	10.5%
Consumer Staples	-2.5%	-5.6%	6.7%	7.0%
Energy	-16.8%	31.8%	40.0%	4.4%
Financials	-10.9%	-18.7%	-12.7%	10.8%
Health Care	-2.7%	-8.3%	3.4%	15.1%
Industrials	-7.4%	-16.8%	-13.4%	7.8%
Information Technology	-9.3%	-26.9%	-13.6%	26.8%
Materials	-13.8%	-17.9%	-8.7%	2.6%
Real Estate	-6.9%	-20.0%	-5.2%	2.9%
Utilities	-5.0%	-0.6%	14.3%	3.1%

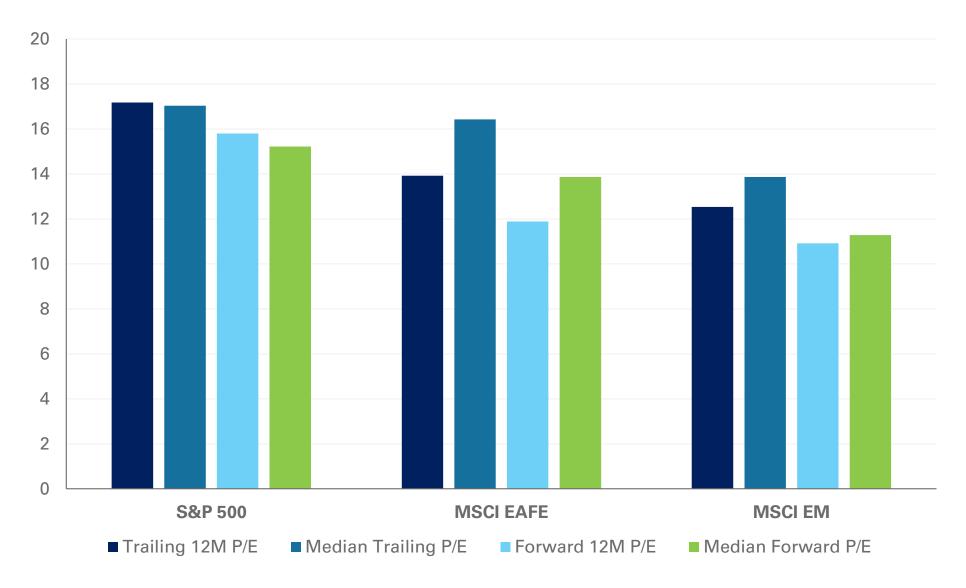


EQUITY VOLATILITY INDEX (VIX)



Source: CBOE, FactSet

GLOBAL EQUITY VALUATIONS





Median calculated based on 20-year monthly data Source: S&P, MSCI, FactSet

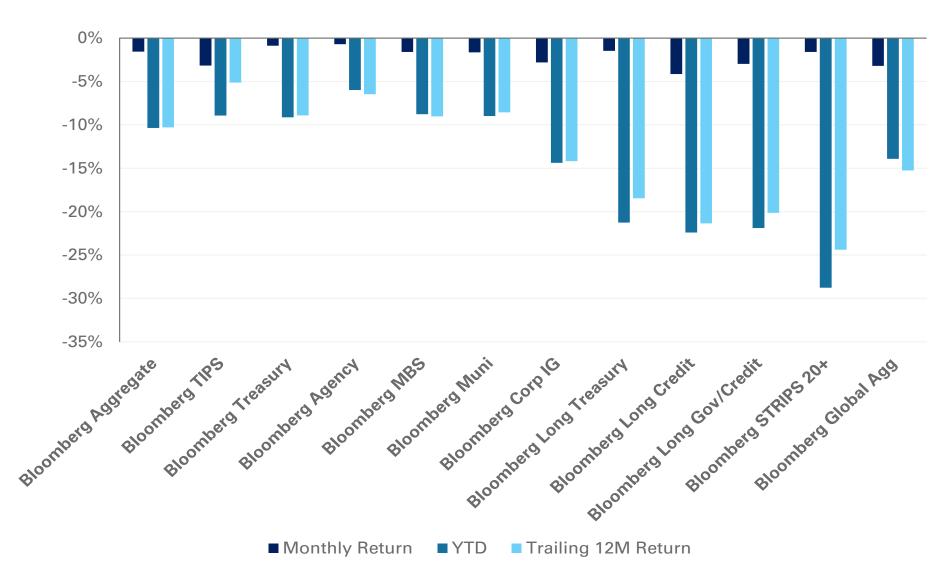


SAFE-HAVEN FIXED INCOME

Source:



SAFE-HAVEN FIXED INCOME PERFORMANCE



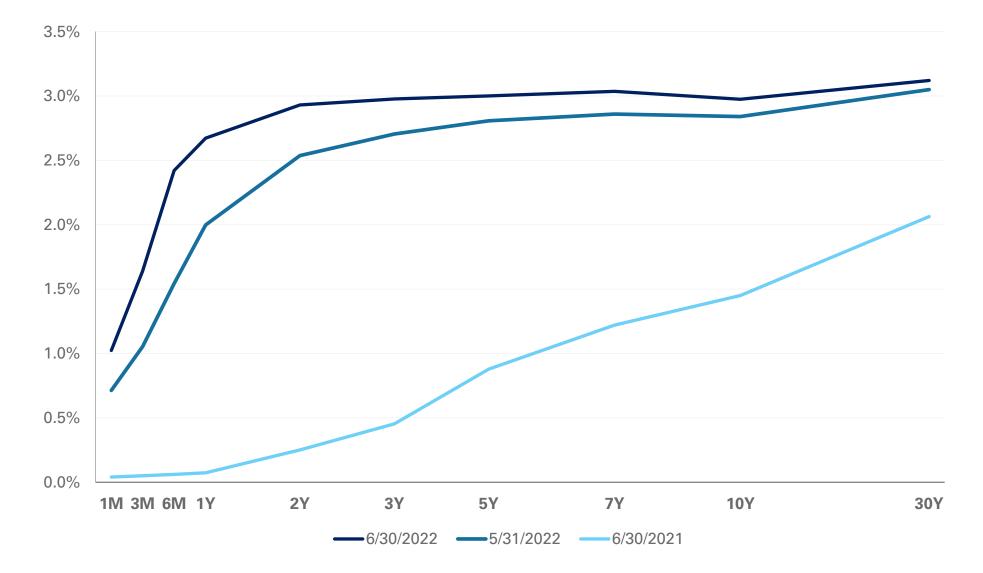
FIXED INCOME CHARACTERISTICS

	Yield to Worst	Spread (bps)	Duration (Years)
Bloomberg Aggregate	3.72%	55	6.4
Bloomberg TIPS	3.38%	-	5.1
Bloomberg Treasury	3.09%	-	6.4
Bloomberg Agency	3.23%	17	3.6
Bloomberg MBS	3.77%	46	5.9
Bloomberg Muni	3.21%	-	6.8
Bloomberg Corp IG	4.70%	155	7.6
Bloomberg Long Treasury	3.33%	-	17.2
Bloomberg Long Credit	5.09%	184	13.4
Bloomberg Long Gov/Credit	4.30%	101	15.1
Bloomberg STRIPS 20+	3.34%	-	25.4
Bloomberg Global Agg	2.91%	57	7.0



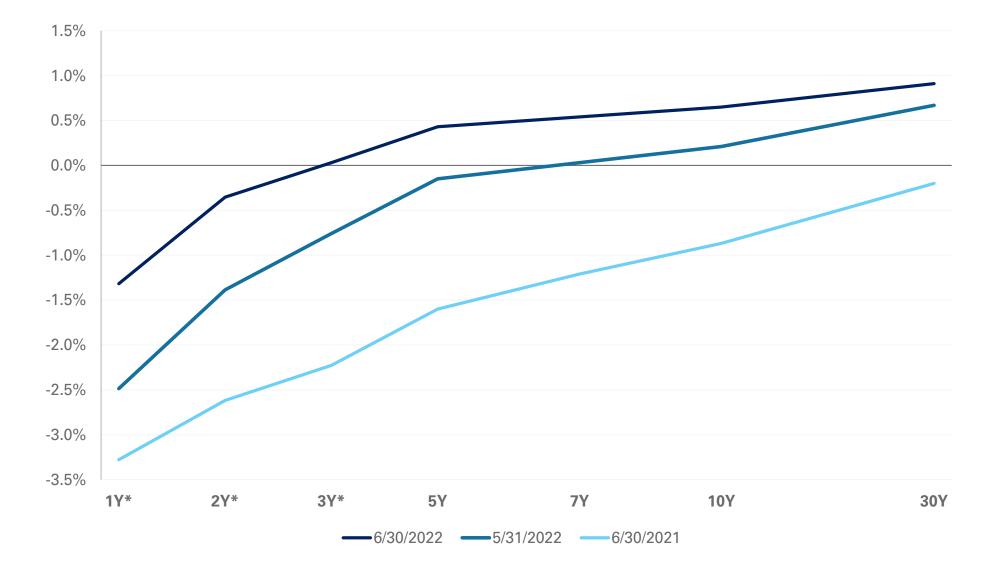
Source: Bloomberg, FactSet

US TREASURY YIELD CURVE



Source: FactSet

US TREASURY REAL YIELD CURVE



NE PC Notes: *Real yields are calculated based on a weighted average of select off-the-run TIPS yields Source: NEPC, Bloomberg, FactSet

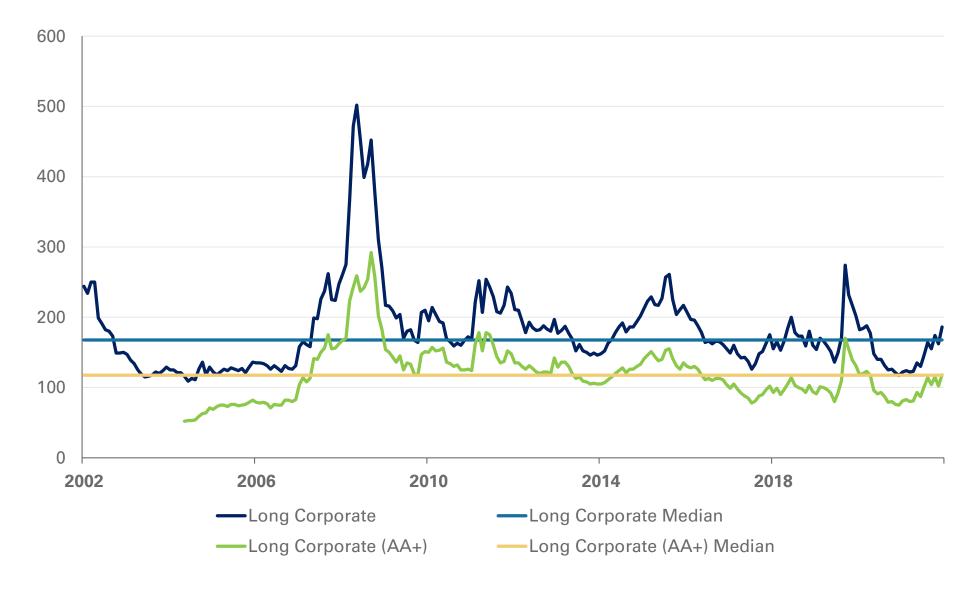
LONG DURATION YIELDS





Source: Bloomberg, FactSet

LONG DURATION CORPORATE SPREADS





Median calculated based on 20-year of monthly data Source: Bloomberg, FactSet

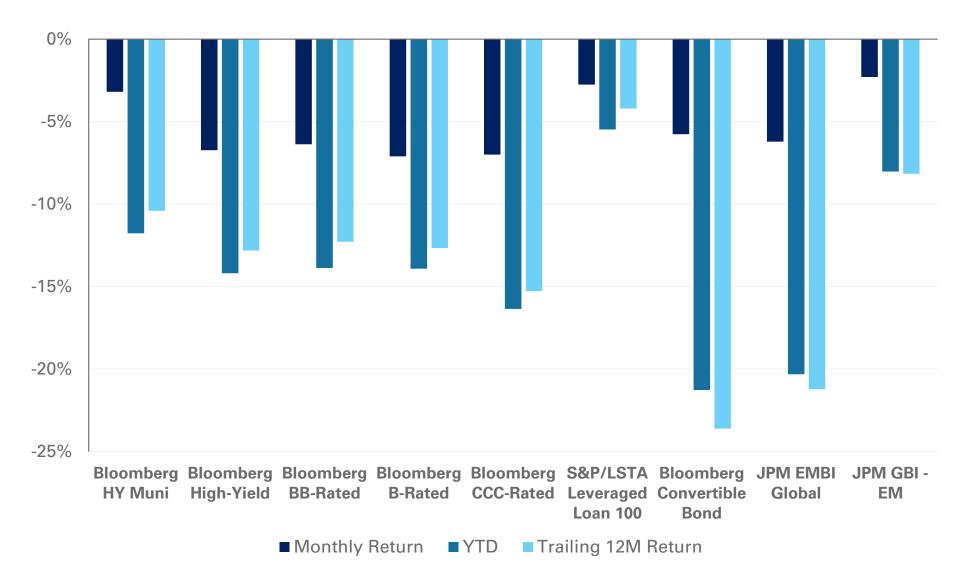


RETURN-SEEKING CREDIT





RETURN-SEEKING CREDIT INDEX PERFORMANCE





Source: Bloomberg, S&P, JPM, FactSet

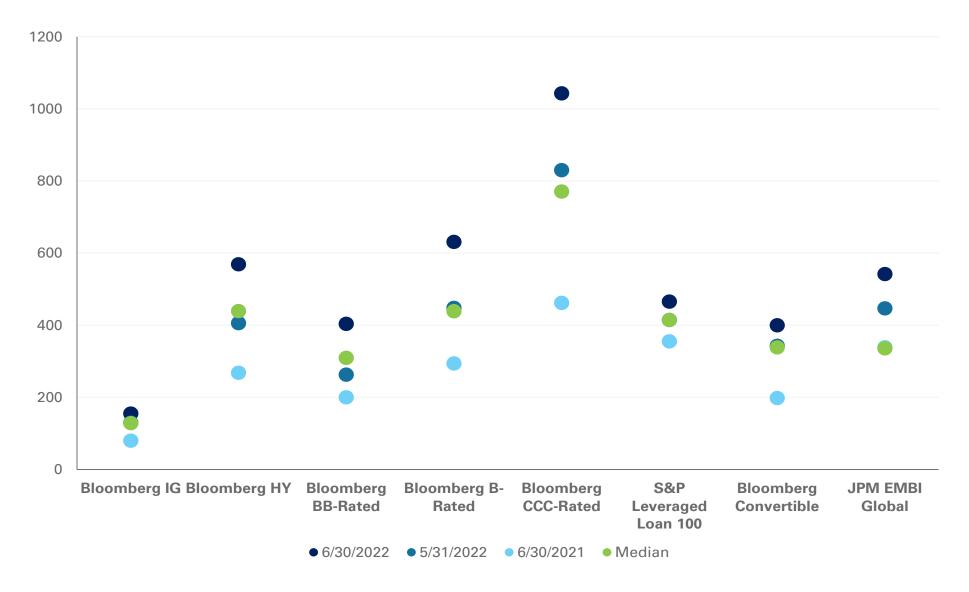
RETURN-SEEKING CREDIT CHARACTERISTICS

	Yield to Worst	Spread (bps)	Duration (Years)
Bloomberg HY Muni	5.30%	-	10.5
Bloomberg High-Yield	8.89%	569	4.3
Bloomberg BB-Rated	7.24%	404	4.7
Bloomberg B-Rated	9.53%	631	4.0
Bloomberg CCC-Rated	13.63%	1043	3.6
S&P/LSTA Leveraged Loan 100	6.94%	466	-
Bloomberg Convertible Bond	0.68%	400	2.2
JPM EMBI Global	8.57%	542	6.9
JPM GBI - EM	5.21%	-	5.3



Source: Bloomberg, S&P, JPM, FactSet

CREDIT SPREADS



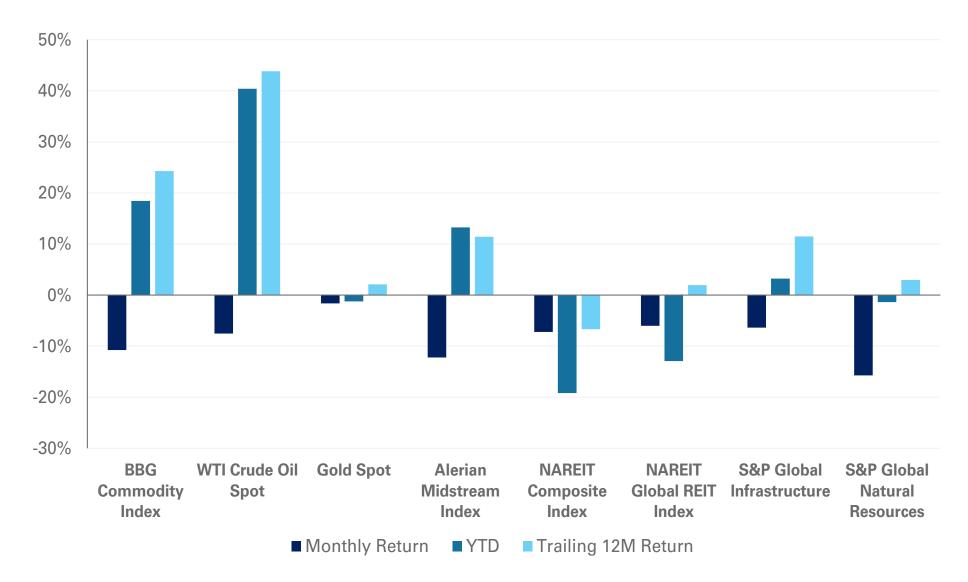


Median calculated based on 20-year of monthly data Source: Bloomberg, S&P, JPM, FactSet



REAL ASSETS

REAL ASSETS INDEX PERFORMANCE





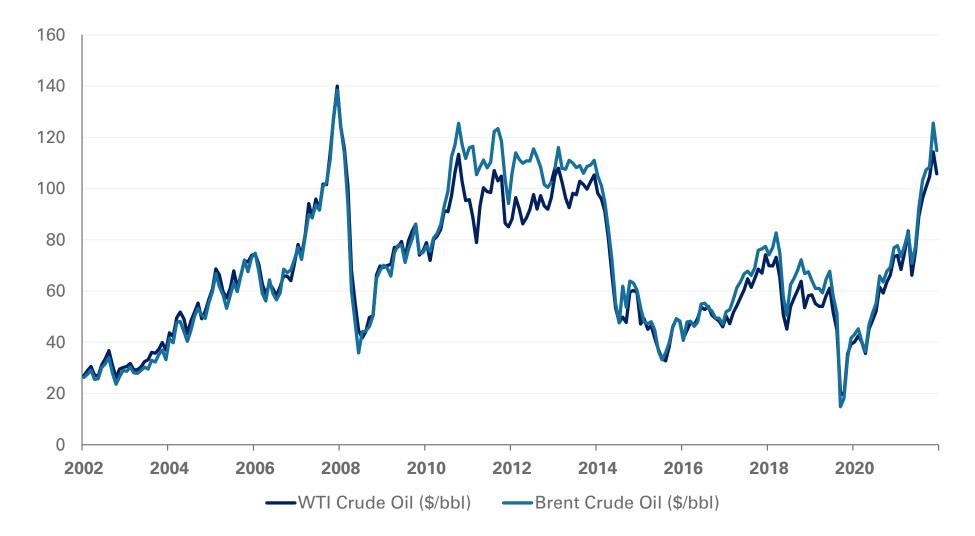
Source: Bloomberg, Alerian, NAREIT, S&P, FactSet

REAL ASSETS INDEX PERFORMANCE

Index	1 Month	3 Month	YTD	1 Year	3 Year	5 Year
Bloomberg Commodity Index	-10.8%	-5.7%	18.4%	24.2%	14.3%	8.4%
Bloomberg Sub Agriculture Index	-9.1%	-5.7%	13.0%	18.8%	18.7%	6.8%
Coffee	-0.4%	1.9%	1.9%	39.9%	19.0%	3.6%
Corn	-12.1%	-10.7%	12.8%	9.1%	14.6%	5.9%
Cotton	-16.8%	-13.7%	6.2%	45.1%	19.5%	10.6%
Soybean	-3.4%	1.5%	22.6%	15.5%	21.0%	8.8%
Soybean Oil	-12.5%	-0.3%	23.4%	11.1%	36.9%	15.6%
Sugar	-5.6%	-5.5%	-0.1%	1.8%	9.9%	1.7%
Wheat	-19.6%	-13.6%	12.0%	22.8%	14.0%	3.3%
Bloomberg Sub Energy	-14.6%	7.0%	58.3%	66.2%	11.6%	10.0%
Brent Crude	-3.0%	9.5%	57.3%	74.6%	24.7%	23.1%
Heating Oil	0.0%	25.2%	93.7%	112.7%	26.1%	22.3%
Natural Gas	-33.5%	-6.0%	48.9%	41.9%	-3.4%	-10.1%
Unleaded Gas	-5.1%	20.5%	64.8%	88.2%	27.8%	21.1%
WTI Crude Oil	-6.0%	9.0%	50.8%	59.6%	8.4%	10.6%
Bloomberg Sub Industrial Metals	-16.0%	-26.4%	-9.6%	0.2%	11.8%	7.5%
Aluminum	-12.3%	-30.4%	-13.2%	-3.9%	7.8%	3.2%
Copper	-13.8%	-22.2%	-17.1%	-13.3%	10.2%	5.8%
Nickel	-20.1%	-29.3%	10.4%	26.5%	21.5%	19.2%
Zinc	-19.2%	-24.1%	-9.8%	8.0%	8.4%	5.3%
Bloomberg Sub Precious Metals	-3.1%	-10.5%	-4.4%	-4.8%	7.1%	5.6%
Gold	-2.1%	-7.6%	-1.5%	1.3%	6.9%	6.5%
Silver	-6.4%	-19.4%	-13.4%	-23.0%	7.8%	2.6%
Bloomberg Sub Livestock	-0.3%	-8.7%	-3.4%	-3.6%	-6.7%	-6.6%
Lean Hogs	-3.5%	-14.9%	2.8%	0.7%	-8.1%	-9.4%
Live Cattle	1.8%	-4.3%	-6.1%	-5.6%	-5.8%	-5.3%

OIL MARKETS

WTI VERSUS BRENT CRUDE SPOT PRICES





GOLD SPOT PRICE



Source: FactSet

Exhibit A: Page 78 INFORMATION DISCLAIMER

- Past performance is no guarantee of future results.
- The goal of this report is to provide a basis for monitoring financial markets. The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.
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