



# Board of Retirement Regular Meeting

## Sacramento County Employees' Retirement System

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### Agenda Item 23

**MEETING DATE:** December 8, 2021

**SUBJECT:** Total Fund Investment Performance Report –  
Third Quarter 2021

**SUBMITTED FOR:**  Consent  Deliberation and Action  Receive and File

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#### **RECOMMENDATION**

Staff and Verus recommend the Board receive and file the SCERS Total Fund Investment Performance Review report, prepared by Verus, for the quarter ending September 30, 2021.

#### **PURPOSE**

This agenda item complies with SCERS' investment policy statement reporting requirements and contributes to the effective management and oversight of investment activities.

#### **SCERS TOTAL FUND RETURNS**

This item summarizes SCERS' Total Fund investment returns as presented in Verus' Investment Performance Review for the period ending September 30, 2021. Please note that returns for SCERS' private equity, private credit, non-core real estate, and real assets portfolios are lagged one quarter. The Verus quarterly performance report will be updated in upcoming quarters to reflect and incorporate the changes to SCERS' strategic asset allocation that were approved in August.

Please note that performance of the asset category composites (Growth, Diversifying, Real Return) includes the current quarter, YTD, 1-Year, 3-Year, and since inception March 2017 performance for this report, without a 5-Year historical track record.

**SCERS TOTAL FUND PERFORMANCE SUMMARY**  
**Quarter Reporting Periods Ending September 30, 2021**

SCERS ASSET CLASS	Quarter	Year-to-Date	1-Year	3-Year	5-Year	Since Inception	Since Inception Date
<b>SCERS TOTAL FUND Return w/Overlay</b>	<b>1.8%</b>	<b>12.4%</b>	<b>23.5%</b>	<b>12.0%</b>	<b>11.7%</b>	<b>8.7%</b>	Jun-86
Policy Index	1.5%	10.5%	20.1%	10.0%	9.8%	8.7%	
InvestorForce Public DB > \$1B	0.4%	9.9%	21.9%	10.6%	10.4%	8.4%	
<b>SCERS TOTAL FUND Return w/o Overlay</b>	<b>1.8%</b>	<b>12.7%</b>	<b>23.6%</b>	<b>11.7%</b>	<b>11.5%</b>	<b>8.6%</b>	Jun-86
Policy Index	1.5%	10.5%	20.1%	10.0%	9.8%	8.7%	
<b>GROWTH ASSET CATEGORY</b>	<b>1.7%</b>	<b>17.5%</b>	<b>34.8%</b>	<b>15.6%</b>	-	<b>15.4%</b>	Mar-17
Custom Benchmark	1.2%	14.7%	30.1%	13.3%	-	13.1%	
<b>DIVERSIFYING ASSET CATEGORY</b>	<b>0.0%</b>	<b>0.4%</b>	<b>3.7%</b>	<b>5.5%</b>	-	<b>4.2%</b>	Mar-17
Custom Benchmark	0.2%	0.1%	2.3%	5.2%	-	4.0%	
<b>REAL RETURN ASSET CATEGORY</b>	<b>4.9%</b>	<b>14.0%</b>	<b>17.9%</b>	<b>7.3%</b>	-	<b>8.4%</b>	Mar-17
Custom Benchmark	5.1%	13.1%	15.8%	5.2%	-	6.1%	
<b>OPPORTUNITIES PORTFOLIO</b>	<b>0.3%</b>	<b>17.1%</b>	<b>21.2%</b>	<b>9.1%</b>	<b>7.0%</b>	<b>14.3%</b>	Oct-07
Custom Benchmark	1.5%	10.5%	20.1%	10.0%	9.8%	8.5%	
<b>DEDICATED CASH</b>	<b>0.0%</b>	<b>0.1%</b>	<b>0.1%</b>	-	-	<b>0.6%</b>	Jun-19
Overnight LIBOR	0.0%	0.1%	0.1%	-	-	0.6%	

SCERS' portfolio delivered solid results in the calendar third quarter (first quarter of the fiscal year), despite muted results from public equity markets during the quarter. Including the current quarter, SCERS' portfolio has delivered positive returns in six consecutive quarters, with the last negative quarterly return experienced in the first quarter of 2020. Equity markets took a pause in the quarter, after nearly doubling from the market bottom in March 2020, with the MSCI ACWI index declining 1% in the quarter. Inflation concerns persisted throughout the quarter, creating doubts surrounding the Federal Reserve narrative that inflation would be "transitory", and increasing the likelihood that central banks would need to shift monetary policy to be less accommodating. Emerging markets declined significantly during the quarter, led by China, as concerns around slowing growth, supply chain issues, and financial troubles of Chinese real estate company Evergrande affected overall market sentiment. Inflation sensitive markets moved higher during the quarter, led by energy, commodities, and U.S. treasury inflation protected securities (TIPS), reflecting the continued high levels of inflation. During its September meeting, the Federal Reserve did signal a shift towards a more hawkish stance, moving forward expectations around tapering of asset purchases and future interest rate increases.

Real Return was the top performing asset category for SCERS' portfolio during the quarter. Real Return, which combines exposure to both real estate and private and public real assets, was up 4.9% in the quarter, benefitting from strong appreciation in real estate as well as price increases in commodity and energy markets. The Growth asset category was up 1.7%, led by Private Equity, where performance is lagged by one quarter. The Diversifying asset category was flat during the quarter, with interest rates essentially unchanged during the quarter, despite volatility experienced intra-quarter.

For the quarter, SCERS' portfolio returned +1.8%, outperforming the policy index benchmark return of +1.5% and the median public fund return of +0.4%. Year-to-date, SCERS' portfolio is up +12.4%, outperforming both the policy index return of +10.5% and median public fund return of +9.9%.

### Growth Asset Category

Results within the Growth asset category were mixed during the quarter, with Public Equity markets declining slightly, while Private Equity and Growth Absolute Return delivered strong quarterly returns. Across Public Equity markets, results were also mixed, with U.S. equity markets up slightly and International equity markets posting negative results. Emerging markets were down sharply during the quarter, with the MSCI Emerging Markets index down 8%, with declines in China leading the index lower. The MSCI China index declined 18% in the quarter as concerns around slowing economic growth, heightened regulatory action, supply chain disruptions, and possible systemic financial system risks stemming from the potential collapse of Evergrande, drove Chinese stocks sharply lower. China wasn't the only emerging market country that faced pressure during the quarter, as concerns around inflation and slowing growth hit other EM markets, notably Brazil and South Korea. However, many oil exporting countries such as Russia, Colombia, and the Middle East region outperformed during the quarter, boosted by the continuing rise in oil prices. Overall, SCERS' equity portfolio was down 1.0% in the quarter, just slightly outperforming the MSCI ACWI return of -1.1%. SCERS' U.S. equity portfolio outperformed during the quarter and year-to-date, while the International equity portfolio has underperformed year-to-date, trailing the benchmarks across both international developed and emerging markets.

SCERS' Private Equity portfolio, which is lagged one quarter, led the Growth asset category and delivered strong returns of +10.4%. Strong equity valuations and capital markets continue to bolster private equity, with SCERS' portfolio up nearly 47% year-to-date. SCERS' Growth Absolute Return portfolio was up 4.1%, outperforming the benchmark return of +1.0%. Growth Absolute Return, which tends to have long-biased exposure to public equity, has benefited from strong equity markets and is up 14.6% YTD. SCERS' Private Credit and Public Credit portfolios were up +1.9% and +1.6% in the quarter, respectively, and have significantly outperformed their benchmarks YTD and over the past year.

SCERS GROWTH Performance Summary for the periods ending 9/30/21	Quarter	Year-to- Date	1-Year	Since Inception	Since Inception Date
<b>SCERS GROWTH ASSET CATEGORY</b>	<b>1.7%</b>	<b>17.5%</b>	<b>34.8%</b>	<b>15.4%</b>	Mar-17
Custom Benchmark	1.2%	14.7%	30.1%	13.1%	
<b>Public Equity</b>	<b>-1.0%</b>	<b>11.0%</b>	<b>29.2%</b>	<b>10.8%</b>	Jun-11
MSCI ACWI	-1.1%	11.1%	27.4%	9.5%	
<b>Private Equity (lagged 1 quarter)</b>	<b>10.4%</b>	<b>46.9%</b>	<b>64.3%</b>	<b>7.7%</b>	Feb-08
Cambridge All PE	12.4%	41.1%	54.8%	12.7%	
<b>Public Credit</b>	<b>1.6%</b>	<b>11.8%</b>	<b>21.0%</b>	<b>5.5%</b>	Nov-13
Custom Benchmark	1.0%	4.7%	10.0%	4.9%	
<b>Private Credit (lagged 1 quarter)</b>	<b>1.9%</b>	<b>11.8%</b>	<b>18.0%</b>	<b>7.7%</b>	Mar-17
Credit Suisse Leveraged Loan + 2%	1.8%	8.6%	13.7%	6.6%	
<b>Growth Absolute Return</b>	<b>4.1%</b>	<b>14.6%</b>	<b>27.6%</b>	<b>5.8%</b>	Aug-04
HFRI FoF Composite +1%	1.0%	6.5%	15.4%	6.5%	

### Diversifying Asset Category

SCERS' Diversifying Asset Category was flat during the quarter, slightly trailing the benchmark return of +0.2%. U.S. Treasury and Fixed Income markets were slightly positive during the quarter, with the Bloomberg Barclays U.S. Aggregate index and U.S. Treasury index both up +0.1%. However, both indices are still posting negative returns year-to-date, with interest rates higher than they were to start the year. SCERS' Core/Core Plus fixed income portfolio has outperformed the benchmark year-to-date and over the past year.

Global fixed income returns were negative during the quarter, with SCERS' Global Fixed Income portfolio down 3.2%, underperforming the benchmark return of -1.6%. Emerging market debt markets faced strong headwinds, as slowing economic growth and a potential default of Chinese property developer Evergrande led to negative returns during the quarter. Additionally, continued higher levels of inflation led many central banks in emerging markets to begin implementing tighter monetary policy. Despite trailing the benchmark during the quarter, SCERS' Global Fixed Income portfolio has outperformed year-to-date and over the past year.

The Diversifying Absolute Return portfolio was up +0.8% in the quarter, led by event-driven and equity long/short strategies. Macro oriented strategies (discretionary and systematic) were negative during the quarter, as they struggled to navigate shifting central bank policies in response to continued high levels of inflation. Overall, absolute return strategies continue to benefit from a favorable equity and credit environment, with increased dispersion creating opportunities for managers to deliver performance. Despite trailing the HFRI FoF Conservative index, SCERS' Diversifying Absolute Return portfolio is up +5.7% and +11.5%, respectively, for the year-to-date and 1-year periods.

SCERS DIVERSIFYING Performance Summary for the periods ending 9/30/21	Quarter	Year-to-Date	1-Year	Since Inception	Since Inception Date
<b>SCERS DIVERSIFYING ASSET CATEGORY</b>	<b>0.0%</b>	<b>0.4%</b>	<b>3.7%</b>	<b>4.2%</b>	Mar-17
Custom Benchmark	0.2%	0.1%	2.3%	4.0%	
<b>Core/Core Plus Fixed Income</b>	<b>0.2%</b>	<b>-0.8%</b>	<b>1.2%</b>	<b>3.9%</b>	Jun-11
Bloomberg Barclays US Aggregate TR	0.1%	-1.6%	-0.9%	3.3%	
<b>U.S. Treasury</b>	<b>0.1%</b>	<b>-2.3%</b>	<b>-3.1%</b>	<b>4.2%</b>	Feb-18
Bloomberg Barclays US Treasury TR	0.1%	-2.5%	-3.3%	4.2%	
<b>Global Fixed Income</b>	<b>-3.2%</b>	<b>-4.5%</b>	<b>5.7%</b>	<b>3.1%</b>	May-13
Custom Benchmark	-1.6%	-6.0%	-2.1%	1.4%	
<b>Diversifying Absolute Return</b>	<b>0.8%</b>	<b>5.7%</b>	<b>11.5%</b>	<b>2.8%</b>	Nov-11
HFRI FoF Conservative Index	1.1%	7.0%	13.2%	5.1%	

### Real Return Asset Category

Real Return was the top performing asset category during the quarter, +4.9%, just slightly underperforming the benchmark return of +5.1%. Performance was balanced across asset classes, with both Real Estate and Real Assets delivering solid performance during the period. SCERS' Real Assets portfolio, where performance is lagged by one quarter, was the top

performing segment, up +7.9%, and outperforming the benchmark return of +5.4%. Real assets benefited from strong increases in energy and commodity prices in the second quarter. The performance is consistent with SCERS' Liquid Real Return, which was the top performing asset class in the prior quarter. The Liquid Real Return portfolio was also positive in the current quarter, up +1.0%, as energy and commodity prices continued to move higher, but not at the extreme pace experienced earlier in the year.

SCERS' Real Estate portfolio, which is a mix of Core Real Estate liquid commingled funds valued as of 9/30/21 and Non-Core Real Estate investments in closed end funds valued as of 6/30/21, was up +5.0% in the quarter, slightly underperforming the benchmark return of +5.8%. SCERS' Real Estate portfolio has significantly outperformed year-to-date and over the past year, up +13.4% and +16.7%, respectively. Real estate has benefited from a strong increase in valuations, particularly in the industrials sector, which SCERS' portfolio is overweight relative to the benchmark.

SCERS REAL RETURN Performance Summary	Quarter	Fiscal Year-to-Date	1-Year	Since Inception	Since Inception Date
<b>SCERS REAL RETURN ASSET CATEGORY</b>					
SCERS Real Return w/ SSgA Proxy	4.9%	14.0%	17.9%	8.4%	Mar-17
SCERS Real Return w/o SSgA Proxy	4.9%	14.0%	17.9%	9.1%	Mar-17
Custom Benchmark	5.1%	13.1%	15.8%	6.1%	Mar-17
<b>SCERS Real Estate</b>	<b>5.0%</b>	<b>13.4%</b>	<b>16.7%</b>	<b>11.0%</b>	<b>Jun-11</b>
Custom Benchmark	5.8%	12.0%	12.3%	9.2%	
<b>Core Real Estate (as of 9/30/21)</b>					
Commingled Funds	5.2%	15.4%	19.0%	6.1%	Sep-08
NFI-ODCE	6.6%	13.1%	14.6%	5.9%	Sep-08
<b>Non-Core Real Estate (as of 6/30/21)</b>					
Opportunistic	5.1%	8.9%	13.1%	16.8%	Feb-14
Value Add	3.1%	4.8%	4.7%	0.4%	Sep-08
NFI-ODCE net +1%	4.3%	9.9%	8.1%	9.0%	Feb-14
				7.5%	Sep-08
<b>SCERS Real Assets (as of 6/30/21)</b>	<b>7.9%</b>	<b>18.8%</b>	<b>20.6%</b>	<b>5.3%</b>	<b>Jan-13</b>
Custom Benchmark	5.4%	15.2%	18.0%	6.0%	
<b>SCERS Liquid Real Return (as of 9/30/21)</b>	<b>1.0%</b>	<b>9.4%</b>	<b>19.1%</b>	<b>6.6%</b>	<b>Jun-19</b>
SSgA Real Assets	1.3%	9.5%	19.6%	6.1%	

SCERS’ policy index benchmark includes a blended weighted average of the individual asset class benchmarks, as defined within SCERS’ Master IPS, and as shown below. No changes to the policy index benchmark were made during the quarter.

<b>SCERS BENCHMARK SUMMARY</b> As of September 30, 2021	
Asset Class	Policy Index Benchmark
<b>Growth Asset Category</b>	Blended Weighted Average of Asset Class Benchmarks
US Equities	Russell 3000
International Equities	MSCI ACWI ex.-U.S. IMI
Private Equity	Cambridge All PE
Public Credit	50% (BofA High Yield) + 50% (CS High Yield)
Private Credit	CS Leveraged Loan + 2%
Growth Absolute Return	HFRI FoF Composite Index +1%
<b>Diversifying Asset Category</b>	Blended Weighted Average of Asset Class Benchmarks
Core/Core Plus Fixed Income	Bloomberg Barclays U.S. Aggregate
U.S. Treasury	Bloomberg Barclays U.S. Treasury
Global Fixed Income	80% Citi WGBI + 20% JPMorgan GBI EM
Diversifying Absolute Return	HFRI FoF Conservative Index
<b>Real Return Asset Category</b>	Blended Weighted Average of Asset Class Benchmarks
Real Estate	65% (NFI-ODCE) + 35% (NFI-ODCE +1%)
Real Assets	45% (Cambridge Infrastructure) + 35% (Cambridge Energy) + 10% (NCREIF Agriculture) + 10% (NCREIF Timber)
Liquid Real Return	30% (Barclays U.S. TIPS) + 25% (S&P Global Infrastructure Index) + 15% (Global REITs) + 10% (S&P Global Natural Resources Index) + 10% (Bloomberg Commodity Index) + 10% (U.S. Dollar Floating Rate Notes)
<b>Opportunities Portfolio</b>	SCERS Total Fund
<b>Dedicated Cash</b>	Overnight LIBOR

**ATTACHMENT**

- Board Order
- Verus' Investment Performance Review for SCERS for the period ending September 30, 2021.

Prepared by:

***/S/***

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Brian Miller  
Senior Investment Officer

Reviewed by:

***/S/***

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Steve Davis  
Chief Investment Officer

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Eric Stern  
Chief Executive Officer



# Retirement Board Order

## Sacramento County Employees' Retirement System

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**Before the Board of Retirement  
December 8, 2021**

MOTION:

**Total Fund Investment Performance Report – Third Quarter 2021**

THE BOARD OF RETIREMENT hereby accepts the recommendation of staff to receive and file the Total Fund Investment Performance Report – Third Quarter 2021.

I HEREBY CERTIFY that the above order was passed and adopted on December 8, 2021 by the following vote of the Board of Retirement, to wit:

AYES:

NOES:

ABSENT:

ABSTAIN:

ALTERNATES (Present but not voting):

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Richard B. Fowler II  
Board President

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Eric Stern  
Chief Executive Officer and  
Board Secretary





**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**



**PERIOD ENDING: SEPTEMBER 30, 2021**

Investment Performance Review for

**Sacramento County Employees' Retirement System**

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Investment Landscape

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Total Fund

TAB II

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Policy Index and  
Benchmark History

TAB III





**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**

4<sup>TH</sup> QUARTER 2021  
Investment Landscape



# Recent Verus research

Visit: <https://www.verusinvestments.com/insights/>

## Topics of interest

### THINKING ABOUT INFLATION IN RISK TERMS

Inflation has been subdued in the United States for the last three decades. In this piece, we analyze historic inflationary environments to understand the protection offered by different types of assets. Using a variety of risk tools, we consider the impact inflation has on an investor's overall portfolio and their obligations. No single asset class can reliably protect against inflationary environments but through constructing diversified portfolios and understanding risk exposures, we believe an investor can best position themselves for an uncertain future.

### THINKING DIFFERENTLY

Today's market environment appears to be an exceedingly challenging one to navigate, and investors are grappling with the question of how best to structure portfolios that not only meet their return targets but provide impactful diversification and risk management. In this Topic of Interest paper, we will assess a wide variety of less-conventional investment strategies in both mature and nascent marketplaces, and which may only appeal to a specific set of investors.

### ESTABLISHMENT OF RISK MITIGATION BUCKETS

An evolving market environment has arguably diminished the role of traditional fixed income as a diversifier in portfolios and led to a higher opportunity cost of holding bonds due to lower yields. This may suggest improved relative attractiveness of other equity risk mitigation approaches. In this research piece we discuss other approaches to risk mitigation and outline their merits, while tying these ideas to the Functionally-Focused Portfolios (FFP) approach to portfolio construction.

## Annual research

### 2021 PRIVATE EQUITY OUTLOOK

In the Verus 2021 Private Equity Outlook, we focus attention on investor appetite for ESG and the growing response from private equity. The outlook also addresses the resilience of private equity in the face of COVID; SPACs rise as a streamlined path to the public markets, however not without risk; Private credit markets continue to gain investor interest; Buyout purchase multiples expand as public market valuations continue to climb; and Venture capital valuations soar alongside increased economic confidence

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# 3<sup>rd</sup> quarter summary

## THE ECONOMIC CLIMATE

- Real GDP grew at a 12.2% rate year-over-year in Q2 (+6.7% quarterly annualized rate) as the U.S. fully recovered from the pandemic-induced recession of 2020. **p. 10**
- In the U.S. labor market, unemployment has fallen as many workers who desired jobs have been successful in gaining employment. The overall U.S. labor participation rate has not improved, as millions of workers remain neither employed nor seeking employment. **p. 15**
- Consumer sentiment deteriorated during the third quarter, on reports of pessimism around the COVID Delta variant, higher inflation, and unfavorable economic prospects. Small business optimism also fell, as businesses face difficulty in hiring and are concerned about tax increases and more burdensome government regulations. **p. 17**

## PORTFOLIO IMPACTS

- Credit markets traded in a relatively tight range throughout the quarter, delivering mild returns. Bank loans outperformed in Q3, returning 1.1% and outpacing high yield bonds (0.9%) and corporate investment grade (0.0%). **p. 24**
- U.S. core CPI, which excludes food & energy prices, rose 4.0% YoY in September. U.S. headline inflation came in at 5.4%. Price changes moderated during Q3, relative to the larger price moves that occurred in March through June. **p. 12**

## THE INVESTMENT CLIMATE

- The Biden Administration's \$3.5 trillion social spending package remains in the negotiation stage among Democrats, as the size of the package, the contents, and national concerns over inflation have given some members of the party reason to pause. The package is reportedly being scaled back, which creates the risk of rejection from progressives within the party who are pushing for more spending. **p. 10**
- It seems that investors have put the 2020 pandemic-induced recession and its associated risks behind them. However, it is not clear that market risks have completely subsided, as the Delta-variant continues to spread, high inflation could indeed persist, and most governments are set to pull back generous stimulus programs. **p. 34**

## ASSET ALLOCATION ISSUES

- Equity markets took a breather in Q3. U.S. equities delivered 0.6%, while international equities experienced slight losses of -0.4% and emerging market equities saw a larger selloff of -8.1%, on an unhedged currency basis. **p. 27**
- Factor performance was negative during the quarter, as large capitalization stocks outperformed small cap by a wide margin (Russell 1000 +0.2%, Russell 2000 -4.4%) and growth stocks beat value (Russell 1000 Growth +1.2%, Russell 1000 Value -0.8%). **p. 30**

The economic recovery may be slowing, though the environment remains positive for risk assets

We believe a neutral risk stance is warranted in the current environment

# What drove the market in Q3?

“Covid cases are rising again in all 50 states across U.S. as delta variant tightens its grip”

## DELTA VARIANT SHARE OF COVID CASE GROWTH IN THE UNITED STATES

Apr	May	Jun	Jul	Aug	Sep
0.6%	3.1%	31.9%	96.0%	97.9%	99.9%

Article Source: CNBC, as of July 23<sup>rd</sup>, 2021

“The World Economy’s Supply Chain Problem Keeps Getting Worse”

## SHIPS AT ANCHOR OUTSIDE THE PORT OF LOS ANGELES (MONTHLY AVERAGE)

Apr	May	Jun	Jul	Aug	Sep
11	10	7	12	22	27

Article Source: Bloomberg, August 25<sup>th</sup>, 2021

“Beijing’s Crackdown Ruins July for Investors Everywhere”

## NASDAQ GOLDEN DRAGON CHINA INDEX TOTAL RETURN

Apr	May	Jun	Jul	Aug	Sep
-0.1%	-5.6%	+1.8%	-22.0%	-1.6%	-9.8%

Article Source: Bloomberg, July 27<sup>th</sup>, 2021

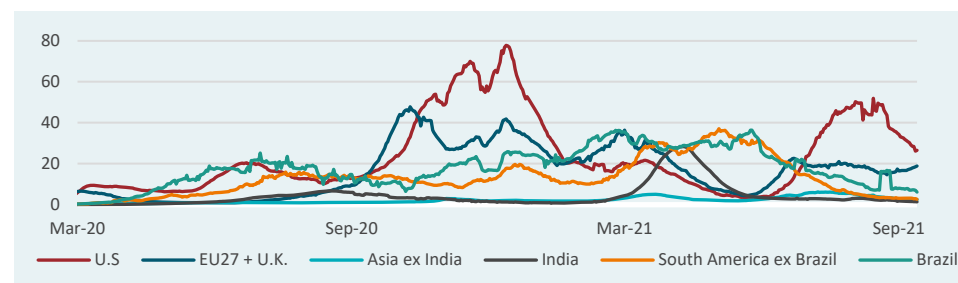
“Commodities surge again; spot price index hits decade high”

## BLOOMBERG COMMODITY SPOT INDEX

Apr	May	Jun	Jul	Aug	Sep
464.0	476.9	480.2	487.4	486.3	510.3

Article Source: BNN Bloomberg, September 13<sup>th</sup>, 2021

## AVERAGE DAILY CASE GROWTH PER 100,000 (TRAILING TWO WEEKS)



Source: Bloomberg, as of 9/30/21

## SUPPLIER DELIVERY INDICES



Source: Institute for Supply Management, as of 9/30/21

## NASDAQ GOLDEN DRAGON CHINA INDEX



Source: NASDAQ, Bloomberg, as of 9/30/21

# Economic environment



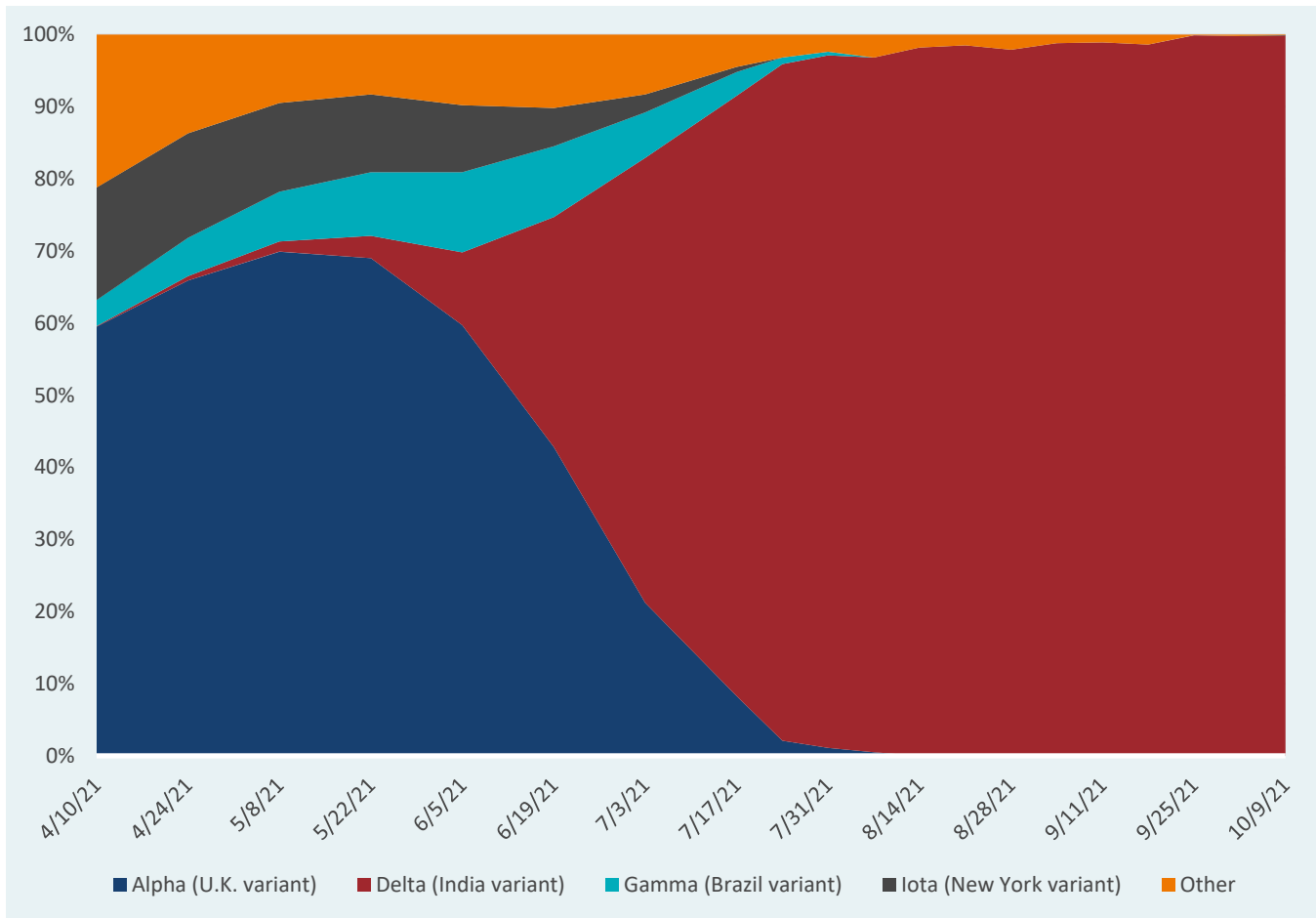
# U.S. economics summary

- Real GDP grew at a 12.2% rate year-over-year in Q2 (+6.7% quarterly annualized rate) as the U.S. fully recovered from the pandemic-induced recession of 2020. However, it appears that recent strong economic activity may be slowing down.
- U.S. core CPI, which excludes food & energy prices, rose 4.0% YoY in September. U.S. headline inflation came in at 5.4%. Price changes moderated during Q3, relative to the larger price moves that occurred in March through June, but remain elevated.
- Unemployment fell from 5.9% to 4.8% during the quarter, while the laborforce participation was unmoved at 61.6%. The unemployment rate has fallen as many workers who desired jobs have been successful in gaining employment, but the overall U.S. laborforce participation rate has not improved
- The Biden Administration’s \$3.5 trillion social spending package remains in the negotiation stage among Democrats, as the size of the package, the contents, and national concerns over inflation have given some members of the party reason to pause. The package is reportedly being scaled back, which creates the risk of rejection from progressives within the party who are pushing for more spending.
- U.S. home prices have rocketed higher, up 19.7% over the past year, according to the S&P/Case-Shiller U.S. National Home Price Index.
- Consumer sentiment was mixed over the quarter. The University of Michigan reported that the Delta variant and persistent inflation, as well as unfavorable prospects for the national economy, are weighing on sentiment. High prices of homes, vehicles, and durables are a concern.

	Most Recent	12 Months Prior
GDP (YoY)	12.2% <i>6/30/21</i>	(9.1%) <i>6/30/20</i>
Inflation (CPI YoY, Core)	4.0% <i>9/30/21</i>	1.7% <i>9/30/20</i>
Expected Inflation (5yr-5yr forward)	2.2% <i>9/30/21</i>	1.7% <i>9/30/20</i>
Fed Funds Target Range	0% – 0.25% <i>9/30/21</i>	0% – 0.25% <i>9/30/20</i>
10-Year Rate	1.49% <i>9/30/21</i>	0.68% <i>9/30/20</i>
U-3 Unemployment	4.8% <i>9/30/21</i>	7.8% <i>9/30/20</i>
U-6 Unemployment	8.5% <i>9/30/21</i>	12.8% <i>9/30/20</i>

# Delta-plus variant?

SHARE OF NEW COVID-19 CASES ATTRIBUTED TO EACH MAJOR VARIANT



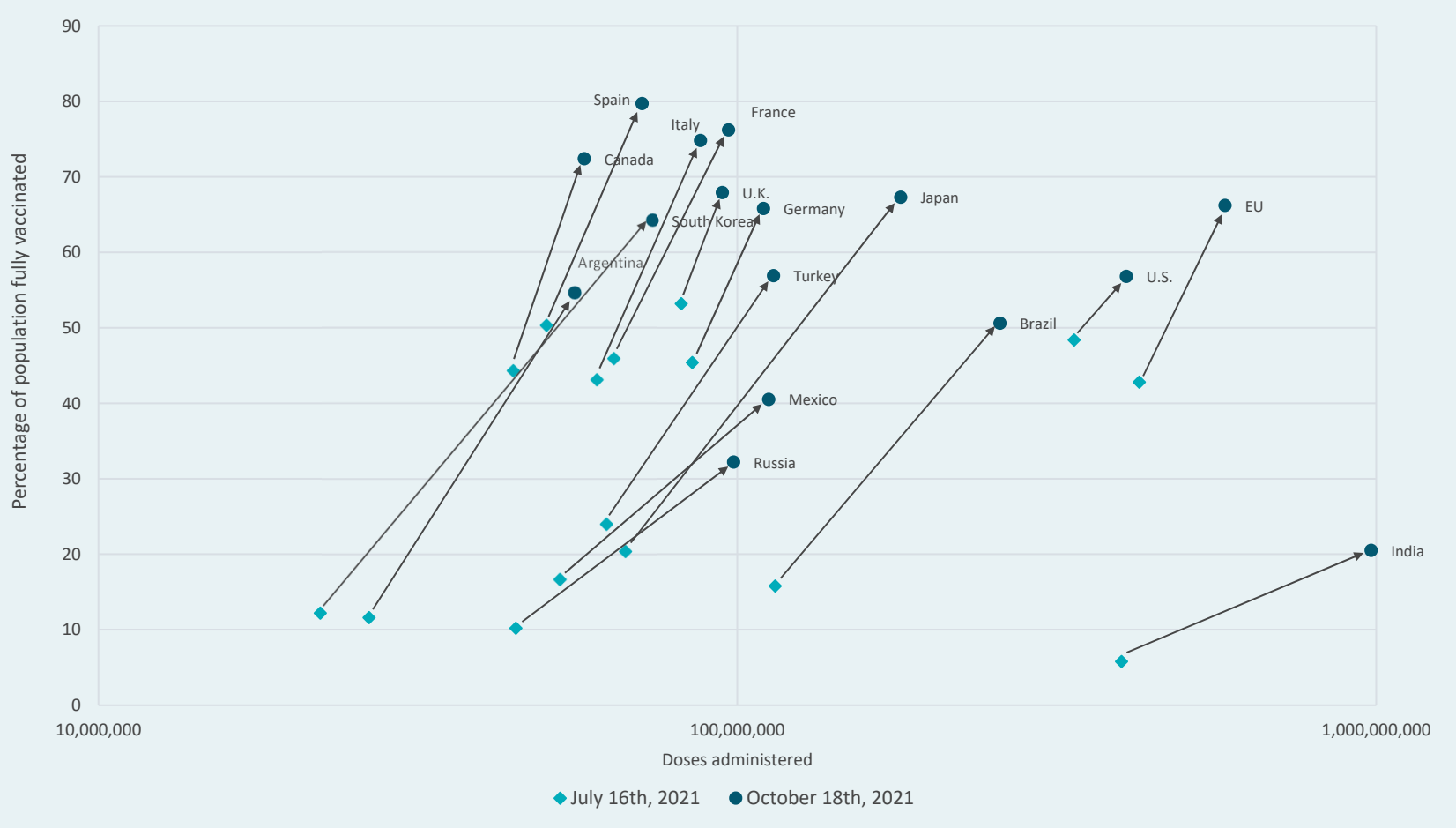
The delta variant of COVID-19 which surged through India in the second quarter took hold in the U.S., and by the end of the quarter, accounted for almost all new cases

Most recently, FDA Commissioner Scott Gottlieb called for “urgent research” into whether a new strain – known as delta plus – could be more transmissible or have partial immune evasion

Source: Bloomberg, BBC, U.K. government, as of 10/9/21

# Global vaccination campaign

DOSES ADMINISTERED RELATIVE TO PERCENTAGE OF POPULATION FULLY VACCINATED



Over the last quarter, vaccination rates have improved considerably in Asia, Europe, and to a lesser extent, the emerging markets

Source: Bloomberg, as of 10/18/21

# GDP growth

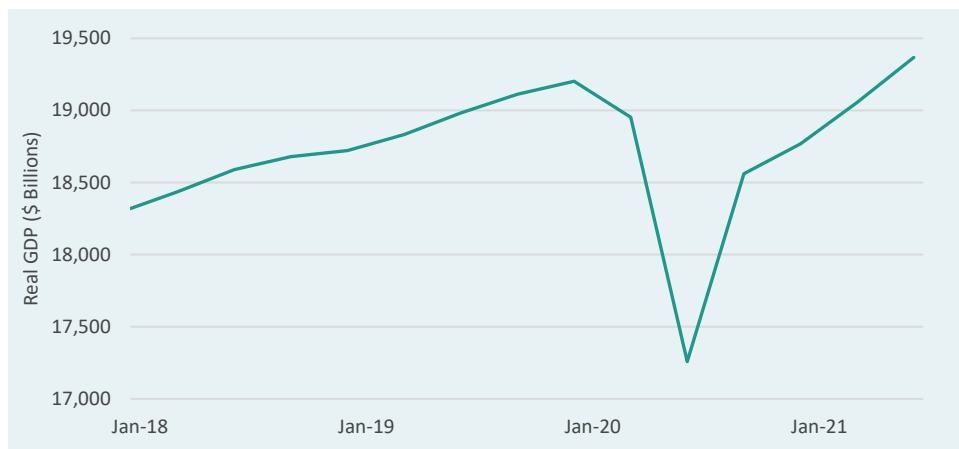
Real GDP grew at a 12.2% rate year-over-year in Q2 (+6.7% quarterly annualized rate) as the U.S. fully recovered from the pandemic-induced recession of 2020. However, it appears that recent strong economic activity may be slowing down. The Atlanta Fed GDPNow estimate, as of October 15<sup>th</sup>, suggests that GDP growth will slow to 1.2% in the fourth quarter (seasonally-adjusted quarterly annualized rate).

In contrast to the wild swings of 2020, quarterly GDP growth has steadied. Consumption has contributed to the lion's share of GDP, while supply chain issues have detracted from growth as some businesses have been unable to purchase inventory.

The Biden Administration's \$3.5 trillion social spending package remains in the negotiation stage among Democrats, as the size of the package, the contents, and national concerns over inflation have given some members of the party reason to pause. The package is reportedly being scaled back, which creates the risk of rejection from progressives within the party who are pushing for more spending. House Speaker Nancy Pelosi reportedly expressed the party's intent to include each of the original social programs (expanded government healthcare, child tax credit, tuition-free community college, etc.) but to scale back the planned length of guaranteed funding in order to reduce overall costs.

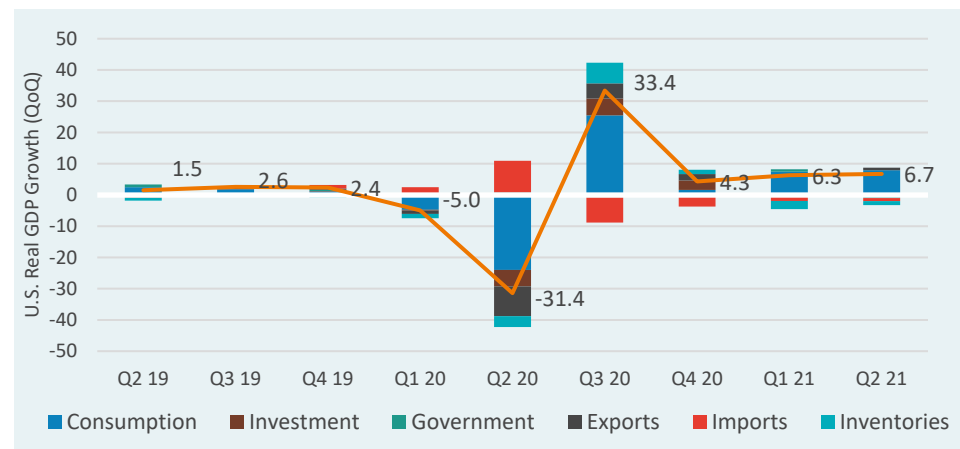
During Q2 2021 the U.S. economy fully recovered from the COVID-19 recession

## U.S. REAL GROSS DOMESTIC PRODUCT



Source: FRED, as of 6/30/21

## U.S. REAL GDP COMPONENTS (QOQ)



Source: FRED, as of 6/30/21

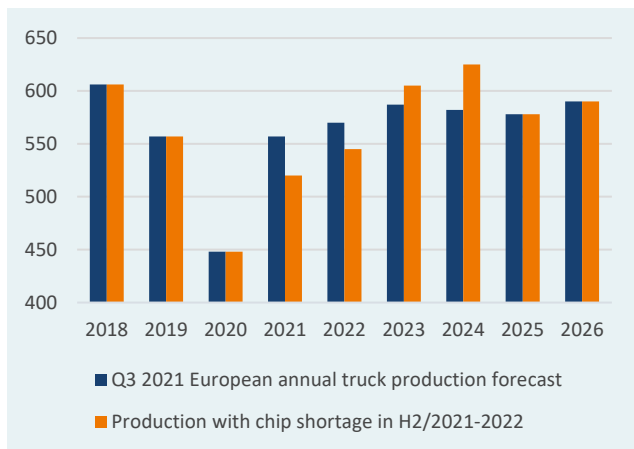
# Supply chain disruptions

Throughout the course of the pandemic, idiosyncratic supply chain snags have caused largely temporary price distortions affecting all sorts of markets, from labor, to lumber, to meat-packing and semiconductors, and many others. In some cases, these distortions have had a large impact on overall inflation levels. For example, limited semiconductor chip supplies led major suppliers to ration chips for higher-margin tech clients at the expense of lower-margin automaker clients. This prioritization resulted in a lower level of new vehicle production, and a massive surge in prices for used cars.

In September, key ports in Southern California hit several new cargo ship backlog records, forcing these ships to remain at anchor outside the ports

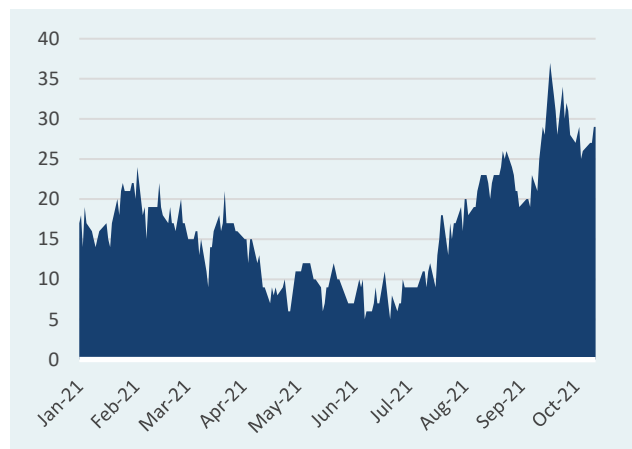
for several weeks in some cases. Part of the problem has been the massive size of these ships, which require many workers to unload, a lot of trucks to ship their cargo, and many warehouses to store that cargo. If there are not enough truckers to move the new cargo coming in, or there is not enough warehouse capacity to offload new cargo, new ships have longer unload times and the problem compounds. It is important to remember that global supply chains are very complex, and issues in certain segments tend to cascade through the others. According to the NFIB's Small Business Optimism Survey, only 10% of small business owners have been insulated from the impacts of these disruptions. We will be watching corporate guidance to gauge the impact of these disruptions on profit margins.

**IMPACT OF SEMICONDUCTOR SHORTAGE ON EUROPEAN TRUCK PRODUCTION (THOUSANDS)**



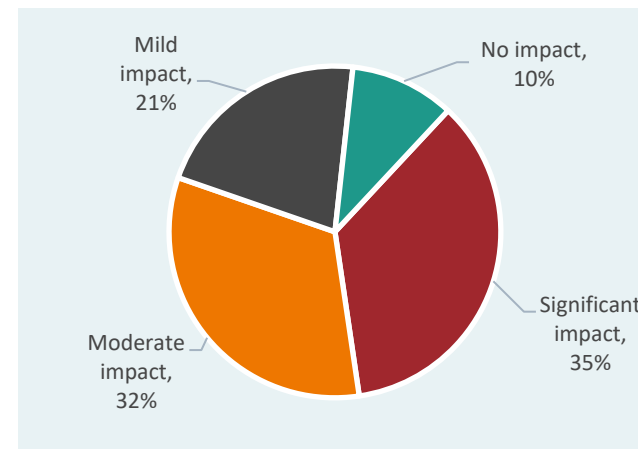
Source: IHS Markit, as of 9/28/21

**VESSELS AT ANCHOR – PORT OF LOS ANGELES**



Source: The Port of Los Angeles, as of 10/15/21

**MAGNITUDE OF THE IMPACT OF SUPPLY CHAIN DISRUPTIONS ON SMALL BUSINESSES IN THE US**



Source: NFIB, as of 9/30/21

# Inflation

U.S. core CPI, which excludes food & energy prices, rose 4.0% YoY in September. U.S. headline inflation came in at 5.4%. Price changes moderated somewhat during Q3, relative to the larger price moves that occurred from March through June.

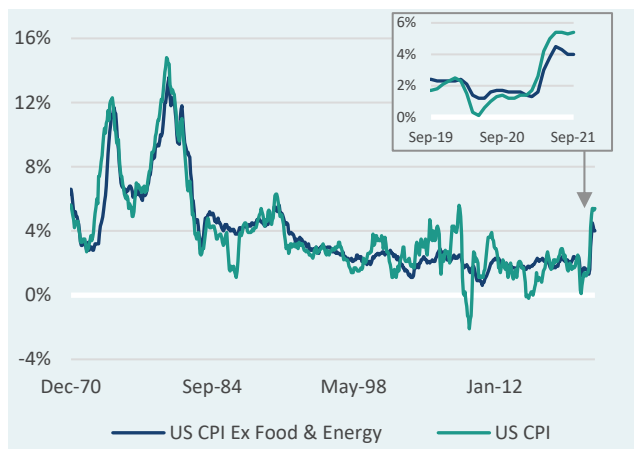
Energy and used automobile prices have had outsized impacts on inflation over the past year, increasing 24.8% and 24.4%, respectively. These two components have driven most of the rise in inflation experienced since 2019. If energy and used auto prices moderate, this will push inflation back down towards “normal” level, all else equal. However, continued supply chain issues appear to be contributing to a material rise in certain goods prices such as food, up +0.9% in September. Rent prices

(+0.5% over the month) are also a concern as costs begin to catch up with real estate values. As food comprises 13.9% of the overall inflation basket, and shelter comprises 32.6%, price moves across these categories could impact the direction of future inflation.

While we retain our long-term view that inflation is likely to return to lower levels, as most of the recent increases can be attributed to base effects or short-term one-time issues, the significant disruptions in the global supply chain are clearly an important component of the developing story. If this disruption continues there will likely be ongoing effects on the economy as a whole, and on inflation outcomes. We continue to research this issue and it’s likely effects.

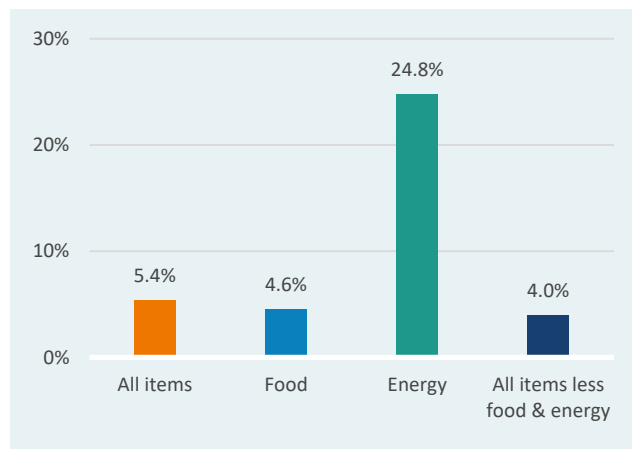
Recent moves suggest a moderation of prices, though we are watching closely for potential structural inflation

U.S. CPI (YOY)



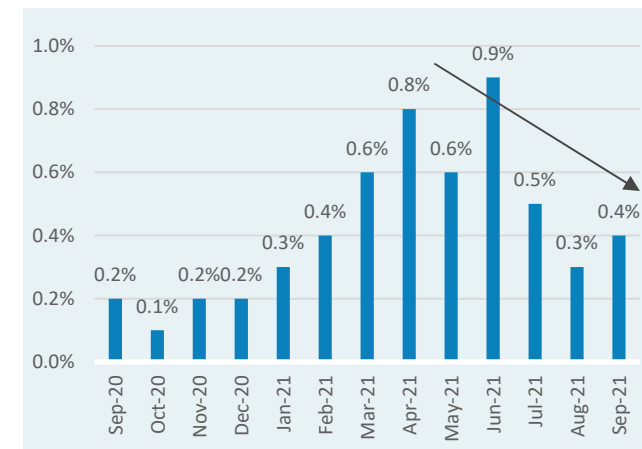
Source: BLS, as of 9/30/21

U.S. CPI (YOY)



Source: BLS, as of 9/30/21

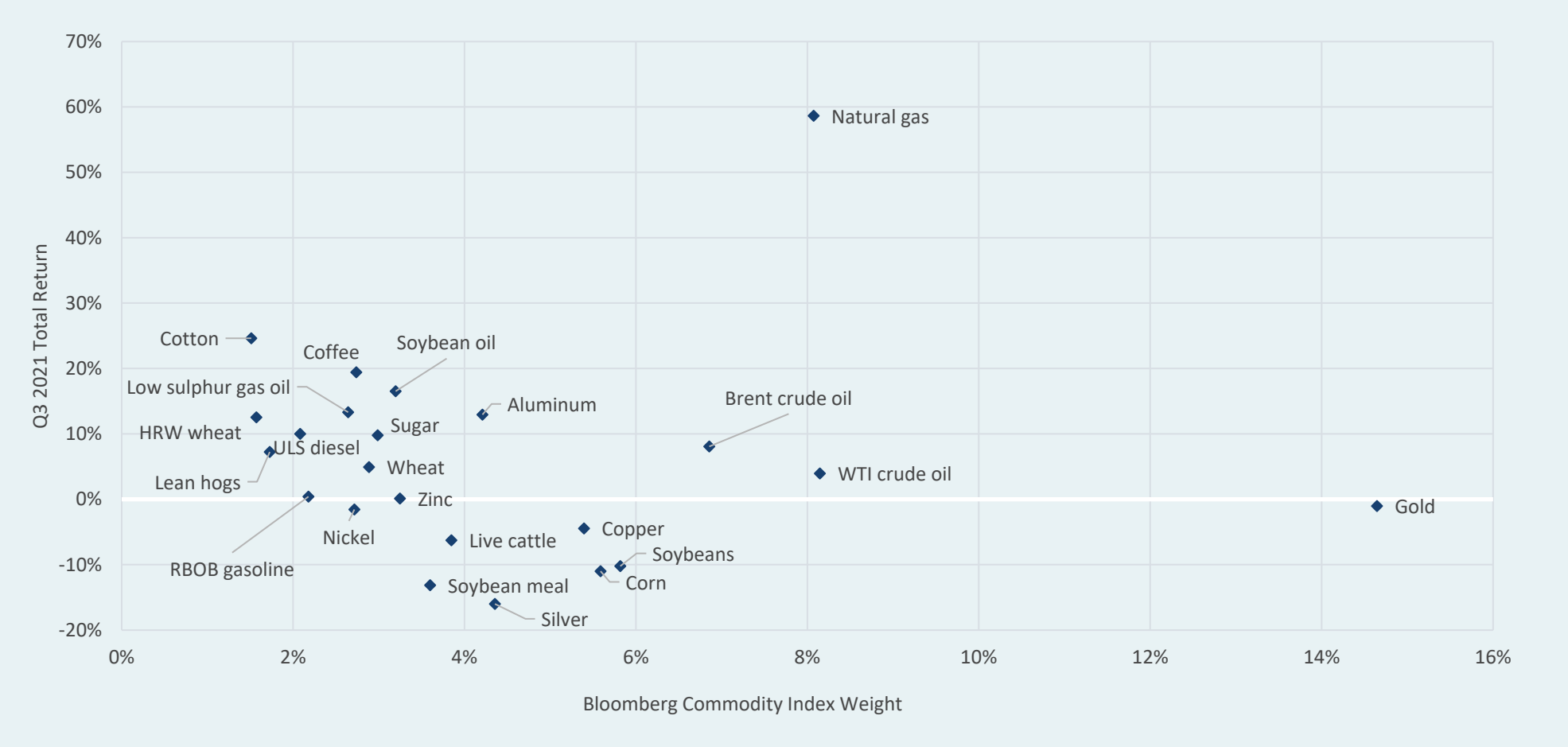
MONTHLY PRICE MOVEMENT



Source: BLS, as of 9/30/21

# Commodity surge

BLOOMBERG COMMODITY INDEX – Q3 2021 RETURNS BY INDEX WEIGHT



Source: Bloomberg, as of 9/30/21

# Labor market

U.S. unemployment fell from 5.9% to 4.8% during the quarter, while the labor participation rate was unmoved at 61.6%.

Two major themes can be observed in the U.S. labor market: 1) the unemployment rate has fallen as many workers who desired jobs have been successful in gaining employment, but 2) the overall U.S. laborforce participation rate has not improved, as millions of workers remain out of the laborforce and are not seeking employment. We continue to believe that the second effect has been fueled by approximately two million abnormally early retirements since 2020, which implies that the available U.S. workforce is now permanently smaller. As

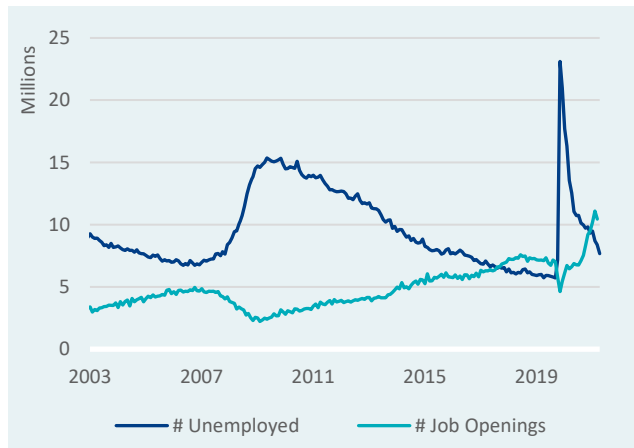
demonstrated below and on the next slide, the proportion of retired Americans per age group has increased markedly since 2019. It is difficult to know the main drivers behind the trend towards early retirement, but greater wealth (strong returns from markets and real estate), the need to take care of family, and an unwillingness to return to full-time work after extended periods of time off, may all be playing a part.

The number of U.S. job openings has far surpassed the supply of workers. As of August, 10.4 million job openings were posted across the country, while only 8.3 million Americans were seeking employment.

A portion of the U.S. labor force remains neither employed nor seeking work

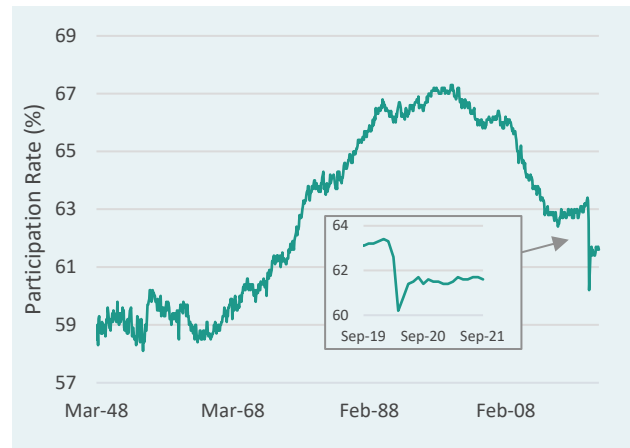
Much of this loss appears to be due to early retirements

## UNEMPLOYMENT VS. JOB OPENINGS



Source: FRED, as of 9/30/21

## LABOR PARTICIPATION RATE



Source: FRED, as of 9/30/21

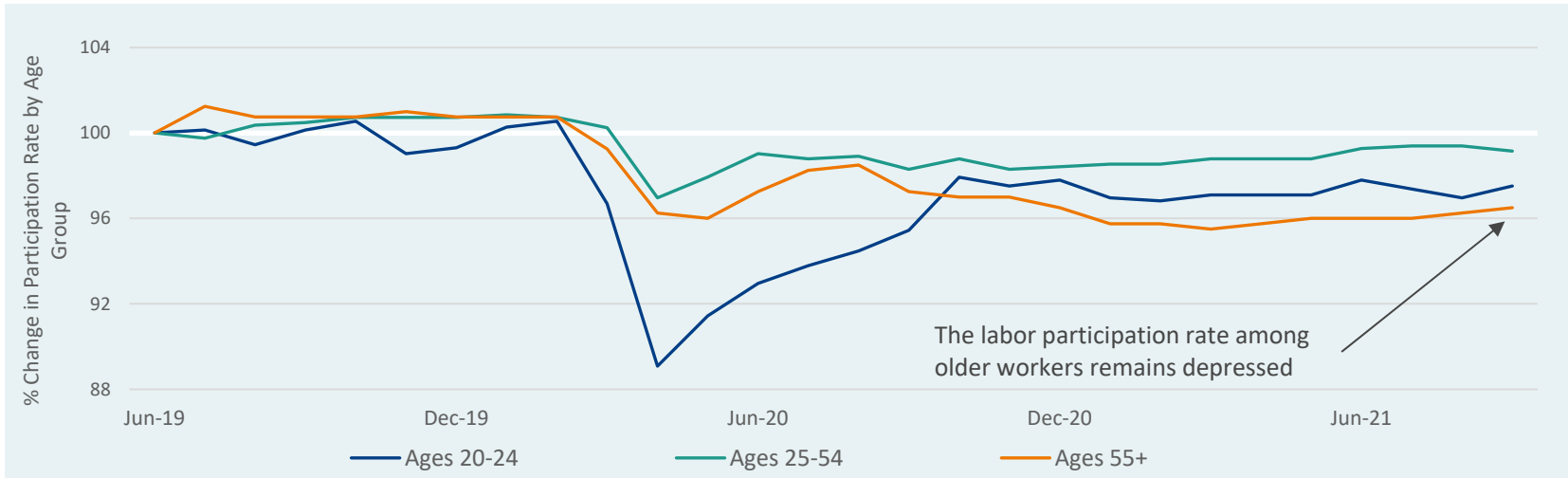
## % OF AMERICANS RETIRED

Age cohort	Women		Men	
	2019	2021	2019	2021
55+	52%	54%	44%	45%
55-59	11%	11%	7%	7%
60-64	28%	29%	21%	21%
65-69	59%	62%	52%	53%
70-74	78%	80%	71%	73%
75+	87%	88%	83%	85%

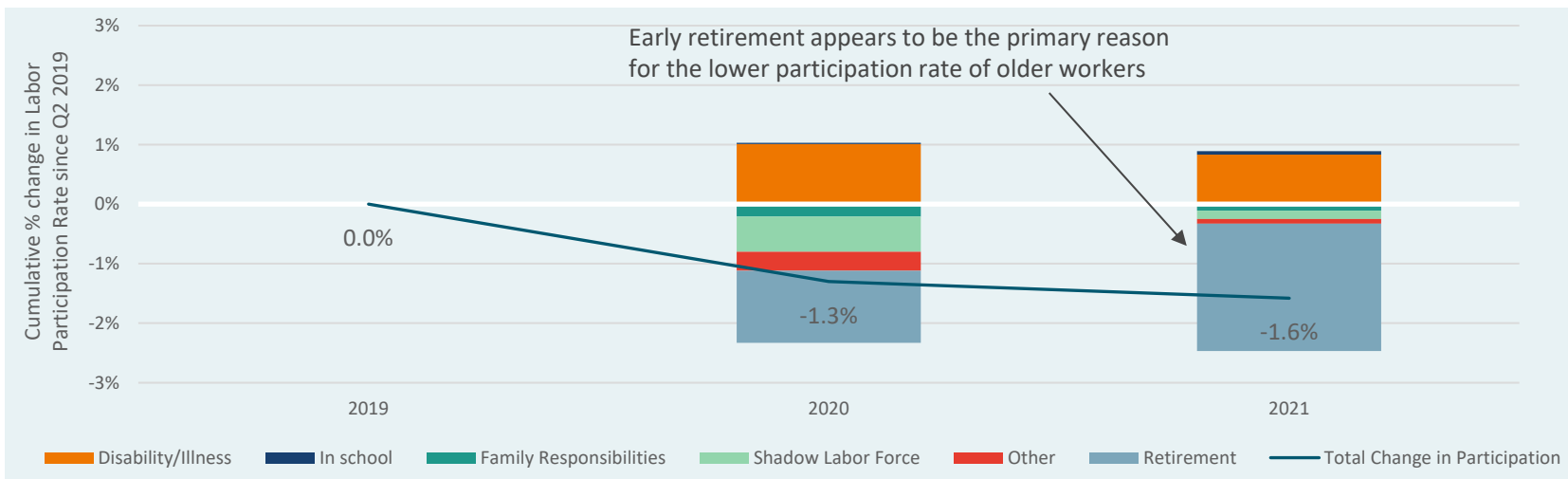
Source: St. Louis Federal Reserve



# Labor participation rate



The U.S. labor participation rate remains considerably depressed, due to millions of workers being out of work *and also not seeking work*



Economic data suggests that this effect may be largely due to millions of unusually early retirements since 2019

Source: Federal Reserve Bank of St. Louis, Verus, as of Q2 2021

# The consumer

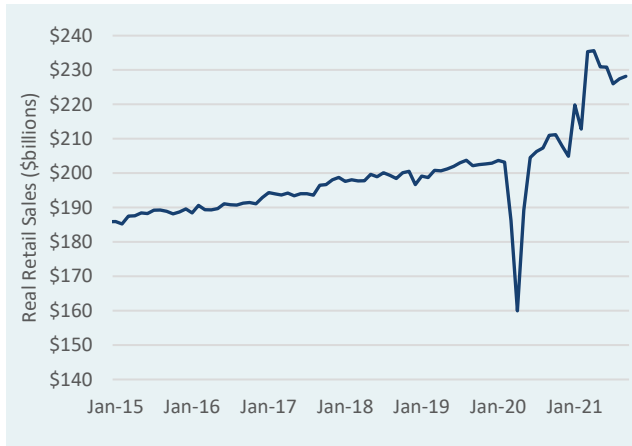
U.S. retail sales remain strong but have now slowed for two consecutive quarters, lower by -1.1% in Q3. The *reopening* spending surge appears to be slowing down, as retail sales, auto sales, and home sales have all declined in recent months. Fears around the COVID-19 Delta variant are also likely weighing on consumer spending activity. We examine quarterly rate of change here, because year-over-year rate of change (the traditional measure) is skewed due to the events of 2020.

Retail sales were expected to fall in September, but exceeded those expectations despite global supply chain issues and the rolling off of some enhanced government benefits. U.S. auto sales continued to fall sharply,

likely fueled by the dual effects of low supply and also the fact that many potential buyers, flush with stimulus cash, had already made a recent purchase.

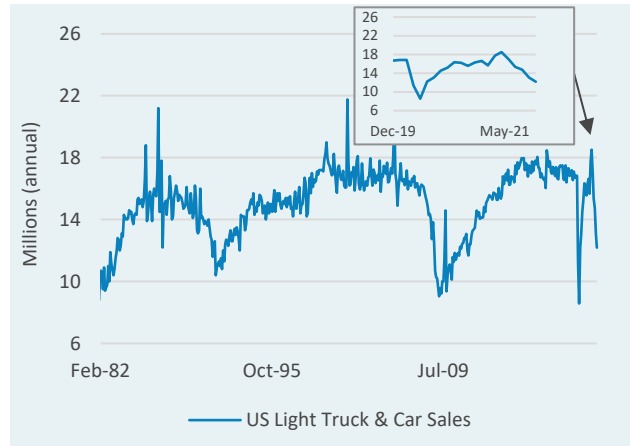
According to anonymized cellular phone data collected by Google for COVID-19 public health research, most economic activity seems to be back to normal for the most part. Public transportation and workplace travel remains the exception, though a recent uptick in workplace mobility might imply that some businesses are bringing staff back to the office.

**REAL RETAIL SALES**



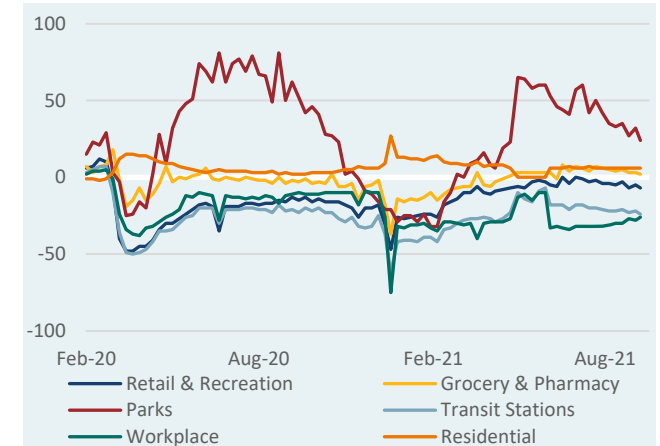
Source: FRED, as of 9/30/21

**AUTO SALES**



Source: Federal Reserve, as of 9/30/21

**GOOGLE U.S. ACTIVITY TRACKER**



Source: Google anonymized U.S. citizen mobility, as of 9/30/21

# Sentiment

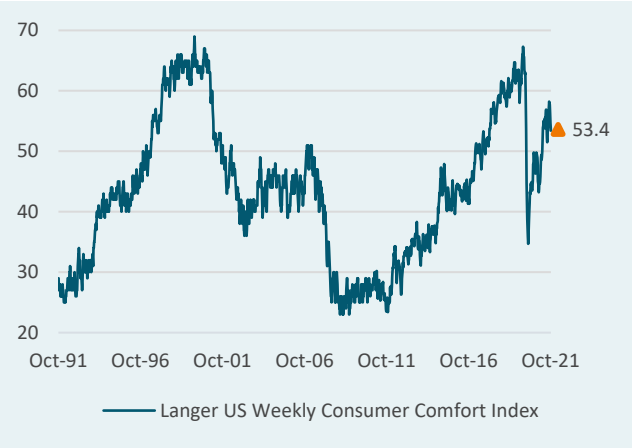
Consumer sentiment deteriorated during the third quarter, on reports of pessimism around COVID-19, inflation, and the economy. Small business optimism also fell as businesses face difficulty in hiring and are concerned about tax increases and more burdensome government regulations.

The University of Michigan Consumer Sentiment Survey attempts to gauge attitudes about the business climate, personal finances, and spending conditions. The survey reading fell from 85.5 to 72.8 on reports that the Delta variant and persistent inflation, as well as unfavorable prospects for the national economy, are weighing on sentiment. High prices of homes, vehicles, and durables are a concern, and only 18% of households anticipate that wage gains will be greater than inflation. The

Bloomberg Consumer Comfort Index attempts to gauge Americans' views on the economy, their personal financial situation, and buying conditions. The index fell from 55.1 to 53.4.

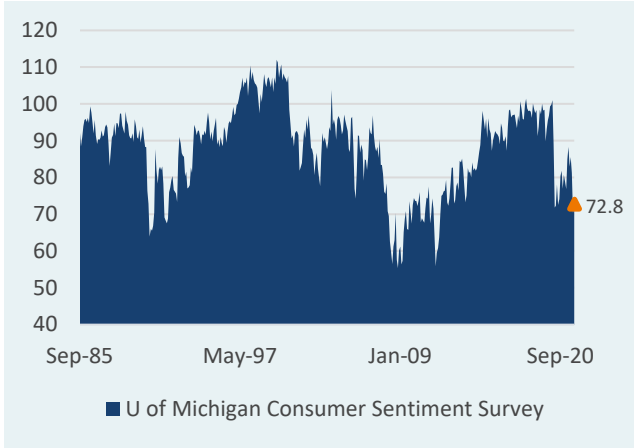
The NFIB Small Business Optimism index fell from 102.5 to 99.1 during the quarter. As reported, "Small business owners are doing their best to meet the needs of customers, but are unable to hire workers or receive the needed supplies and inventories," said NFIB Chief Economist Bill Dunkelberg. "The outlook for economic policy is not encouraging to owners, as lawmakers shift to talks about tax increases and additional regulations."

**CONSUMER COMFORT**



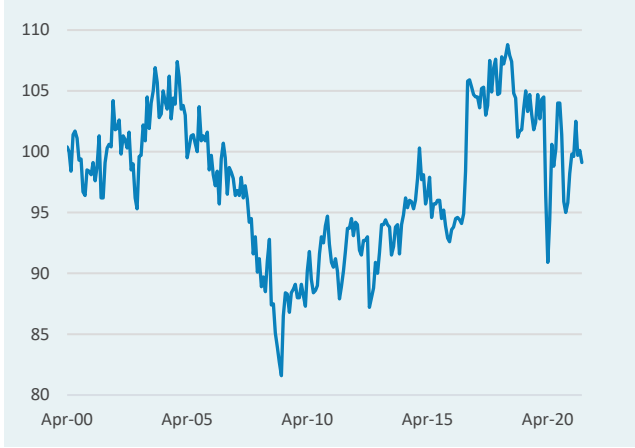
Source: Bloomberg, as of 9/30/21

**CONSUMER SENTIMENT**



Source: University of Michigan, as of 9/30/21

**SMALL BUSINESS OPTIMISM**



Source: NFIB, as of 9/30/21

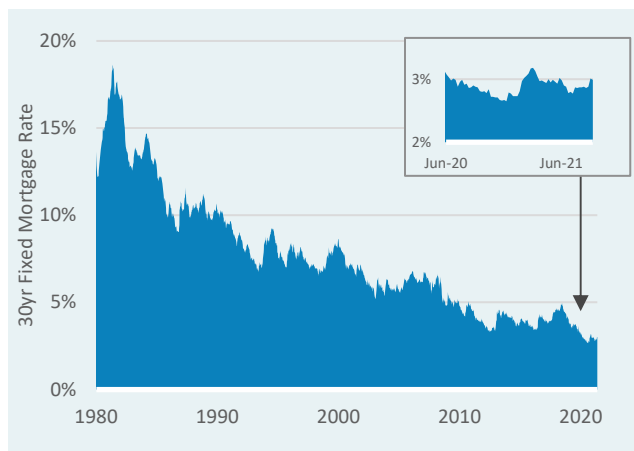
# Housing

U.S. home prices have rocketed higher, up 19.7% over the past year, according to the S&P/Case-Shiller U.S. National Home Price Index. This surprising boom appears to have been the product of a perfect storm for home demand, impacted by ultra-low interest rates, Americans' need for more space in the work-from-home environment, and likely pent-up demand from younger families who have been slower to purchase homes than past generations.

Mortgage interest rates have remained steady at around 3.0%, as attractive borrowing conditions support potential buyers who face elevated home prices.

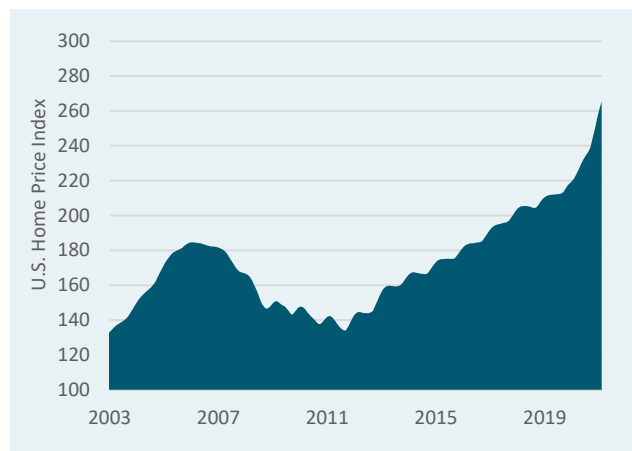
The cost of renting has seen a considerable rise throughout the pandemic, with rents up 9.2% year-over-year in September, according to Zillow. The rise in rent prices has differed quite a bit across the country, and it may be reasonable to assume that states with more outgoing net migration (ex: New York, California) may be experiencing less upward rent pressure than states with more incoming net migration (ex: Arizona, Florida), as demonstrated by recent rental price trends. Dramatic increases in rent prices, without a commensurate improvement in wages, creates obvious issues for many Americans.

**30YR FIXED MORTGAGE RATE (AVERAGE)**



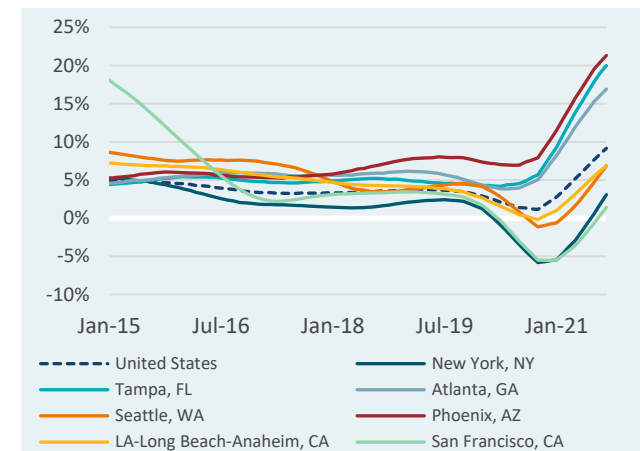
Source: U.S. Census Bureau, as of 9/30/21

**U.S. HOME PRICES**



Source: S&P/Case-Shiller U.S. National Home Price Index, as of 7/31/21

**ZILLOW OBSERVED RENT INDEXES – ZORI\* (YOY)**



\*Measures changes in asking rents across 100 markets over time.

Source: Zillow ZORI, as of 9/30/21

# International economics summary

- The emergence of the delta variant of COVID-19 in Europe and the United States over the summer led to the reimplementing of social distancing controls and a subsequent moderation of economic activity in the services sector.
- European and Japanese vaccination rates improved vastly over the quarter, which helped to contain the spread of COVID-19.
- Inflation surprised to the upside around the globe, but particularly in the Eurozone, which has spurred some tough conversations amongst central bank policymakers.
- Global consumer confidence has trended lower over most of the last two quarters on concerns over labor market prospects, as well as the impact of rising prices on purchasing power stability.
- Natural gas prices surged more

than 60% in Q3, primarily as a result of low supply levels and substitution effects due to price surges in other energy sources including coal. On a more thematic basis, Europe's clean energy initiatives also played a role, as renewable sources are not yet equipped to replace carbon-based power supplies, and adequate investment in nuclear plants has not been made. We are keeping a watchful eye on the potential impact of energy prices on inflation.

- Many factories in China were forced to shut down late in the quarter as a result of surging coal and electricity prices. Those shutdowns, alongside weaker than expected investment activity, tighter financing conditions, and stricter social distancing controls, all contributed to a larger-than-expected moderation in Chinese GDP growth, which fell to 4.9% year-over-year in Q3.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	12.2% 6/30/21	5.4% 9/30/21	4.8% 9/30/21
Eurozone	14.3% 6/30/21	3.4% 9/30/21	7.5% 8/31/21
Japan	7.6% 6/30/21	0.3% 9/30/21	2.8% 8/31/21
BRICS Nations	10.1% 6/30/21	2.4% 9/30/21	5.3% 6/30/21
Brazil	12.4% 6/30/21	10.3% 9/30/21	13.7% 7/31/21
Russia	10.5% 6/30/21	7.4% 9/30/21	4.4% 8/31/21
India	20.1% 6/30/21	5.3% 8/31/21	6.9% 9/30/21
China	4.9% 9/30/21	0.7% 9/30/21	5.1% 8/31/21

*NOTE: India lacks reliable government unemployment data. Unemployment rate shown above is estimated from the Centre for Monitoring Indian Economy. The Chinese unemployment rate represents the monthly surveyed urban unemployment rate in China.*

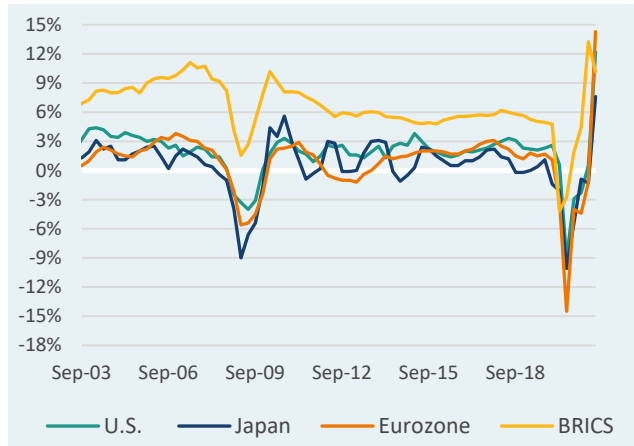
# International economics

The IMF expects the global economy will grow by 5.9% in 2021, and 4.9% in 2022. More recently, concerns over the impact of supply chain disruptions have crimped near-term growth expectations for advanced economies, but the expectation remains that those economies will regain their pre-pandemic trend path in 2022 and exceed it by 0.9% by 2024. However, sizable disparities in vaccine access and policy support have resulted in a larger expected setback to living standard improvements in the developing world, where growth is expected to remain 5.5% beneath the pre-pandemic trend by 2024.

Inflation remained high in most global economies, and the United States has seen one of the largest increases among other major developed economies. Inflation trends and the reaction of central banks to these trends will have important implications for markets.

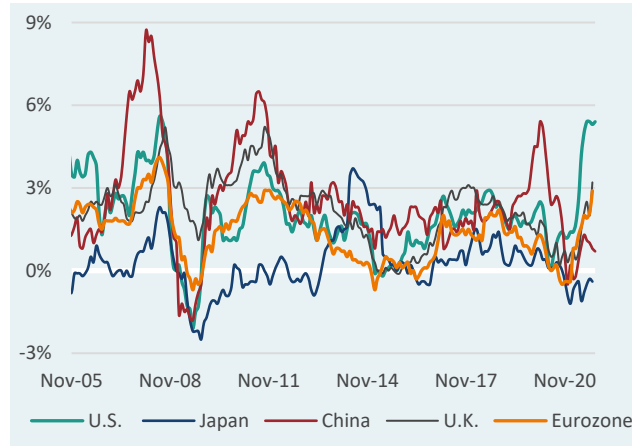
Unemployment around the world has improved as economies recover, government restrictions are loosened, and life moves back towards normalcy.

**REAL GDP GROWTH (YOY)**



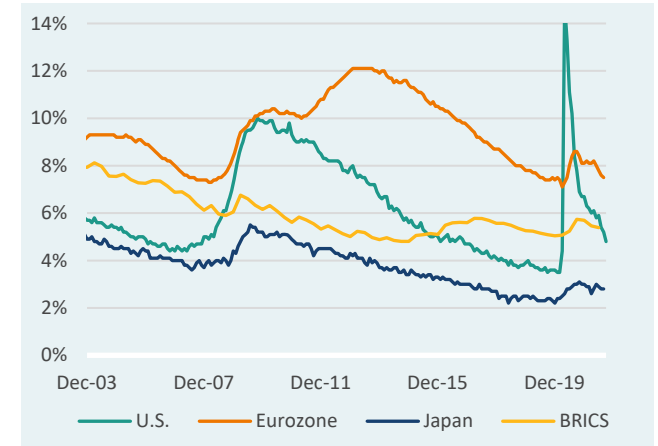
Source: Bloomberg, as of 6/30/21

**INFLATION (CPI YOY)**



Source: Bloomberg, as of 9/30/21 – or most recent release

**UNEMPLOYMENT**



Source: Bloomberg, as of 9/30/21 – or most recent release

# Fixed income rates & credit

# Fixed income environment

— The 10-year U.S. Treasury yield increased slightly during the quarter, from 1.45% to 1.52%. Longer-term Treasury bond yields drifted lower in July and August before picking up considerably in September, as speculation mounted that the Federal Reserve would begin tapering the current asset purchase program (\$80 billion in monthly Treasury purchases and \$40 billion in monthly agency mortgage-backed-securities) in November or December of this year.

— Credit spreads traded in a relatively tight range during the quarter and remained at a very low level relative to the historical average. Historically low credit default rates have supported tight spread levels. Above-average credit quality has also been supportive, specifically in the high-yield universe. Although credit spreads are tight, spreads arguably remain healthy relative to current bond default levels.

— Reports that Evergrande, one of the

largest property developers in China, was on track to miss debt service payments led to a sell-off in Chinese high-yield debt as investors braced for potential contagion. Dollar-denominated high-yield Chinese bonds in aggregate fell by around 20% in value.

— Realized and expected inflation metrics reached high levels relative to history, sparking a number of different policy responses from central bankers. The base case at the Fed and at the ECB remains that inflation will be transitory, and that rates can remain at current levels at least until late next year. In contrast, officials at the Bank of England are now expected to begin hiking rates in November, and many central banks in the emerging markets have already begun tightening policy.

— The four-year discount margin, our preferred spread metric for bank loans, compressed slightly over the quarter from 4.32% to 4.28%.

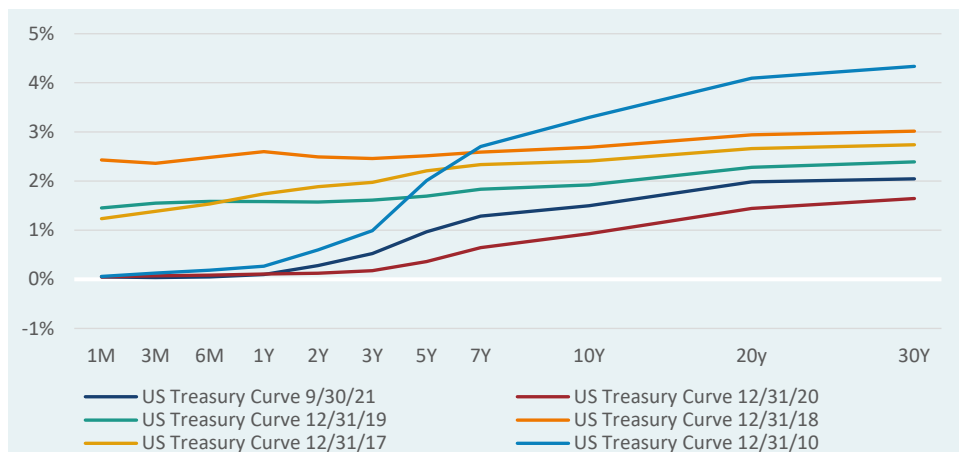
	QTD Total Return	1 Year Total Return
Core Fixed Income (BBgBarc U.S. Aggregate)	0.1%	(0.9%)
Core Plus Fixed Income (BBgBarc U.S. Universal)	0.1%	0.2%
U.S. Treasuries (BBgBarc U.S. Treasury)	0.1%	(3.3%)
U.S. High Yield (BBgBarc U.S. Corporate HY)	0.9%	11.3%
Bank Loans (S&P/LSTA Leveraged Loan)	1.1%	8.4%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	(3.1%)	2.6%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	(0.7%)	4.4%
Mortgage-Backed Securities (BBgBarc MBS)	0.1%	(0.4%)

Source: Bloomberg, as of 9/30/21

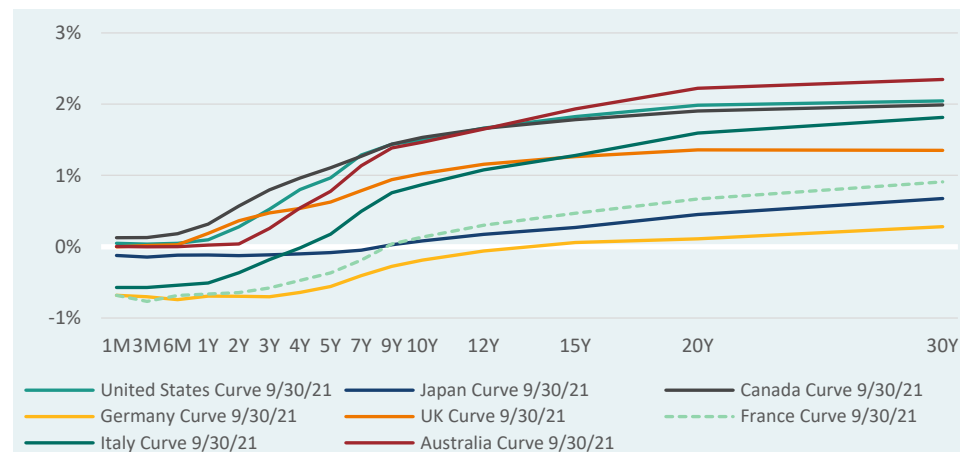


# Yield environment

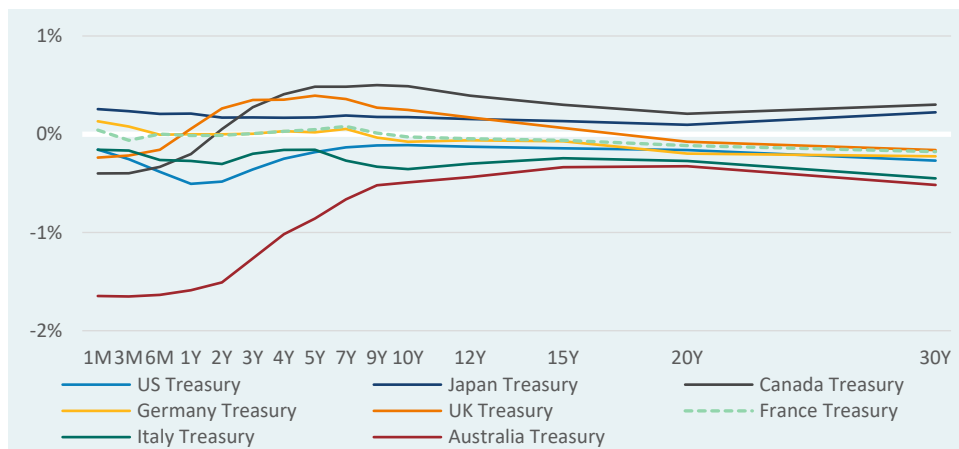
## U.S. YIELD CURVE



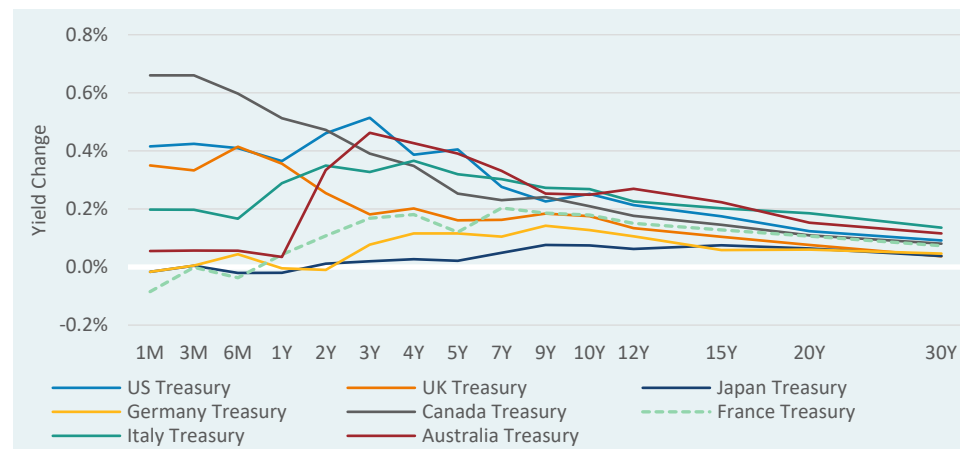
## GLOBAL GOVERNMENT YIELD CURVES



## YIELD CURVE CHANGES OVER LAST FIVE YEARS



## IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 9/30/21

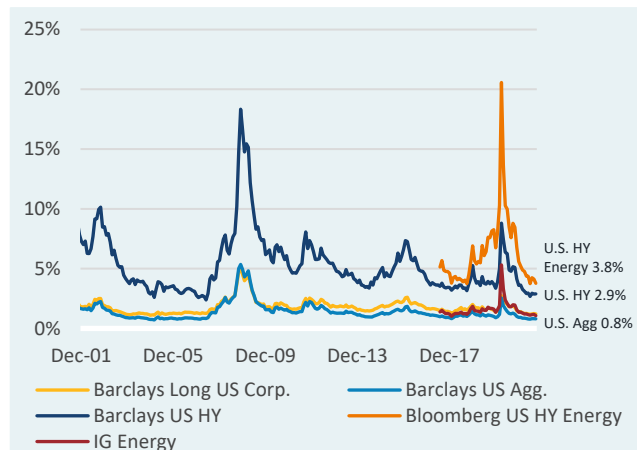
# Credit environment

Credit markets traded in a relatively tight range throughout the quarter, delivering mild returns. Bank loans outperformed, returning 1.1% and outpacing high yield bonds (0.9%) and corporate investment grade (0.0%). Credit spreads widened as strong demand did not fully offset lingering concerns around inflation, persistent supply chain delays, default the by Chinese property developer Evergrande, and risk of a government shutdown. High yield spreads widened 21 basis points to 289 basis points while investment grade spreads widened 4 basis points to end the quarter at 84 basis points.

Demand for high quality credit has been strong this year with an estimated \$80 billion flowing into corporate investment grade funds. At the same

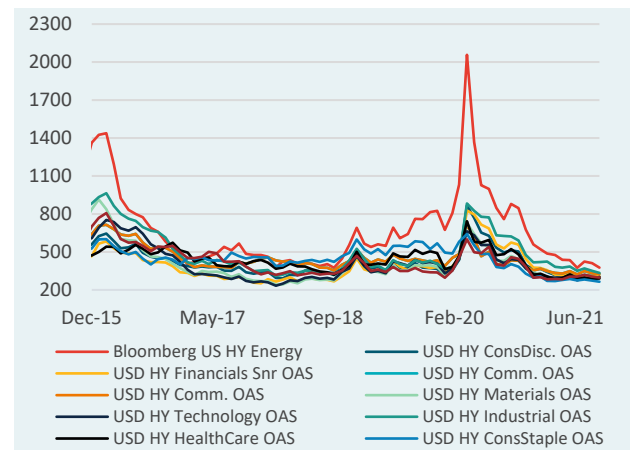
time, the sector has seen improvement in credit fundamentals as businesses repay some of last year's precautionary borrowing, reducing total debt levels. Strong demand and declining leverage, in conjunction with a potentially higher rate environment, are all supportive factors for credit (for example: global investors have stepped in to buy high yield bonds as rates rise, despite tight credit spreads, because the U.S. is a higher interest rate market). Investment grade spreads have only been this tight roughly 5% of the time since 2000. Tight valuations, which product low spread carry and longer relative duration, likely present challenges to credit performance going forward.

## SPREADS



Source: Barclays, Bloomberg, as of 9/30/21

## HIGH YIELD SECTOR SPREADS (BPS)



Source: Bloomberg, as of 9/30/21

Market	Credit Spread (OAS)	
	9/30/21	9/30/20
Long U.S. Corp	1.2%	1.9%
U.S. Inv Grade Corp	0.8%	1.4%
U.S. High Yield	2.9%	5.2%
U.S. Bank Loans*	4.3%	5.3%

Source: Barclays, Credit Suisse, Bloomberg, as of 9/30/21

\*Discount margin (4-year life)

# Default & issuance

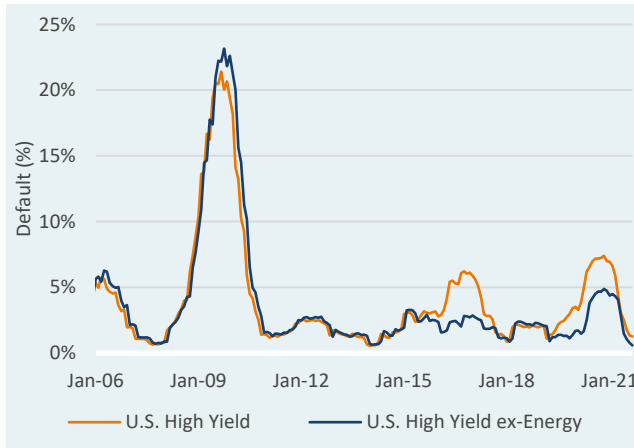
Default activity continued at a moderate pace in the third quarter with three defaults totaling \$1.3 billion across high yield bonds and bank loans. Over the first three quarters of the year, a total of nine companies defaulted on \$6.1 billion. As default activity continues to be light, the par-weighted U.S. high yield default rate declined in half to end the quarter at 1.3% year-over-year. Similarly, the loan par-weighted default rate ended the quarter at 0.9%, falling 3.4% year-to-date.

High yield bond issuance remains strong with Q3 gross issuance of \$129.4 billion, bringing the year-to date total to \$469.8 billion. Leveraged loan issuance continued at a historic pace with \$133.7 billion of new loan issued over the quarter. The \$418.3 billion of loans issued year-to-date has already

surpassed all previous *annual periods* with the exception of 2017 (\$419.2 billion).

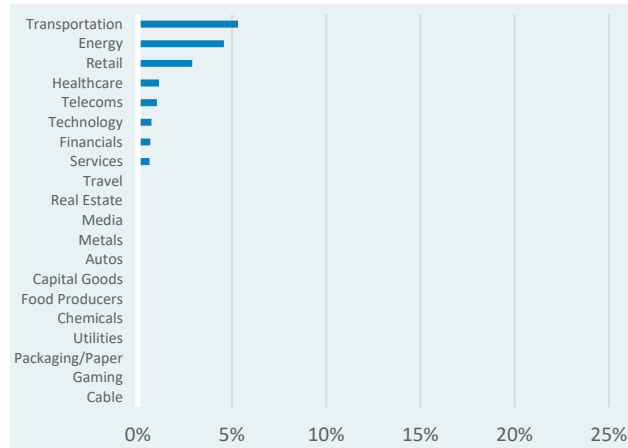
Investment grade issuance for the quarter totaled \$321 billion, below first (\$423 billion) and second quarter (\$350 billion) issuance but in-line with the 4-year average of \$323 billion. Of note, year-to-date Financial sector issuance has seen an uptick, accounting for 42% of issuance versus its four-year average share of roughly one-third of total investment grade issuance.

HY DEFAULT RATE (ROLLING 1-YEAR)



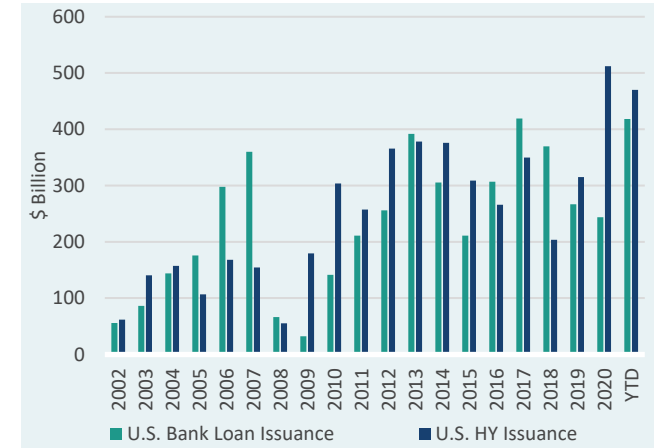
Source: BofA Merrill Lynch, as of 9/30/21

U.S. HY SECTOR DEFAULTS (LAST 12 MONTHS)



Source: BofA Merrill Lynch, as of 9/30/21 – par weighted

U.S. ISSUANCE (\$ BILLIONS)



Source: BofA Merrill Lynch, as of 9/30/21

# Equity

# Equity environment

- Equity markets took a pause in Q3, a notable change from the seemingly non-stop rally year-to-date. U.S. equities delivered 0.6%, while international equities experienced slight losses of -0.4% and emerging market equities saw a larger selloff of -8.1%, on an unhedged currency basis.
- Size and value factor performance was negative during the quarter, as large capitalization stocks outperformed small capitalization stocks by a wide margin (Russell 1000 +0.2%, Russell 2000 -4.4%) and growth stocks beat value (Russell 1000 Growth +1.2%, Russell 1000 Value -0.8%).
- As we observed last quarter, it does seem that investors have put the 2020 pandemic-induced recession and its associated risks behind them. However, it is not clear that market risks have completely subsided, as the Delta-variant continues to spread, high

inflation could indeed persist, and most governments are set to pull back generous stimulus programs.

- The U.S. is facing acute supply chain issues, and 71% of S&P 500 companies reported negative impacts to their business during quarterly earnings calls, as reported by FactSet.
- Weakness in Chinese equities (MSCI China -18.2%) was the major driver of emerging market equity underperformance, as a wave of new regulations were implemented by the Communist Party of China which cascaded across a number of sectors including Technology, Property Management, and Financials.
- Within MSCI's long-short U.S. factor portfolios, momentum (+1.3%) led the way while volatility (-1.7%) posted a negative total return.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
US Large Cap (S&P 500)	0.6%		30.0%	
US Small Cap (Russell 2000)	(4.4%)		47.7%	
US Large Value (Russell 1000 Value)	(0.8%)		35.0%	
US Large Growth (Russell 1000 Growth)	1.2%		27.3%	
International Large (MSCI EAFE)	(0.4%)	1.5%	25.7%	28.2%
Eurozone (Euro Stoxx 50)	(2.4%)	0.1%	27.6%	30.6%
U.K. (FTSE 100)	(0.5%)	2.0%	30.7%	26.1%
Japan (NIKKEI 225)	2.5%	2.9%	21.9%	29.3%
Emerging Markets (MSCI Emerging Markets)	(8.1%)	(6.9%)	18.2%	15.9%

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 9/30/21

# Domestic equity

U.S. equities performed relatively well in Q3, delivering a slightly positive return of 0.6% (S&P 500). The index is expected to report Q3 earnings growth of 27.6% year-over-year, as indicated by FactSet. The U.S. is facing acute supply chain issues, and 71% of S&P 500 companies reported negative impacts to their business during quarterly earnings calls.

Mildly higher interest rates during the quarter likely supported Financials (+2.7%) while acting as a headwind to growth-oriented sectors such as Information Technology (+1.3%).

Performance over the near-term may be constrained by a degree of economic slowdown induced by the COVID-19 Delta variant, as well as moderating earnings growth expectations, although the analyst consensus price target for the S&P 500 over the next year is 5051, as of October 6<sup>th</sup>.

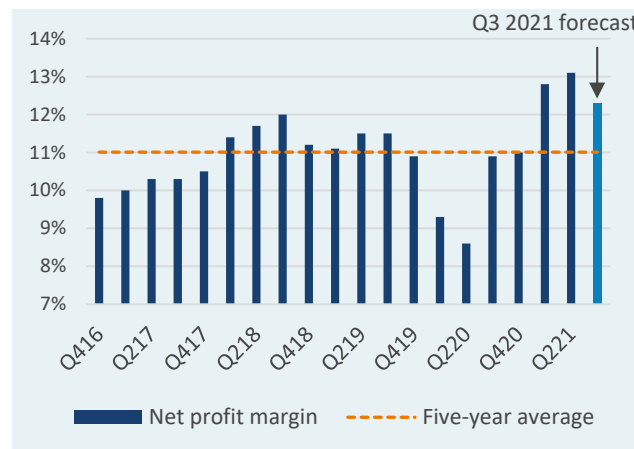
Recent price increases have raised questions around the defensibility of net profit margins, which are expected to moderate in Q3 but remain elevated well above recent averages. Some investors have begun to discuss positioning within sectors that have exhibited more pricing power.

**S&P 500 INDEX**



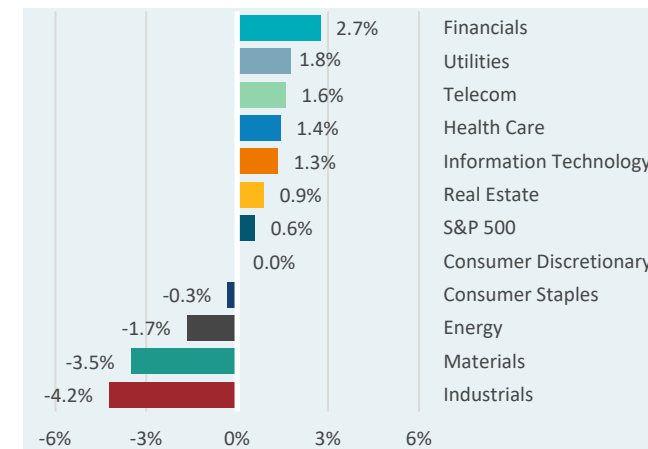
Source: Standard & Poor's, as of 9/30/21

**S&P 500 NET PROFIT MARGINS**



Source: FactSet, as of 10/18/21

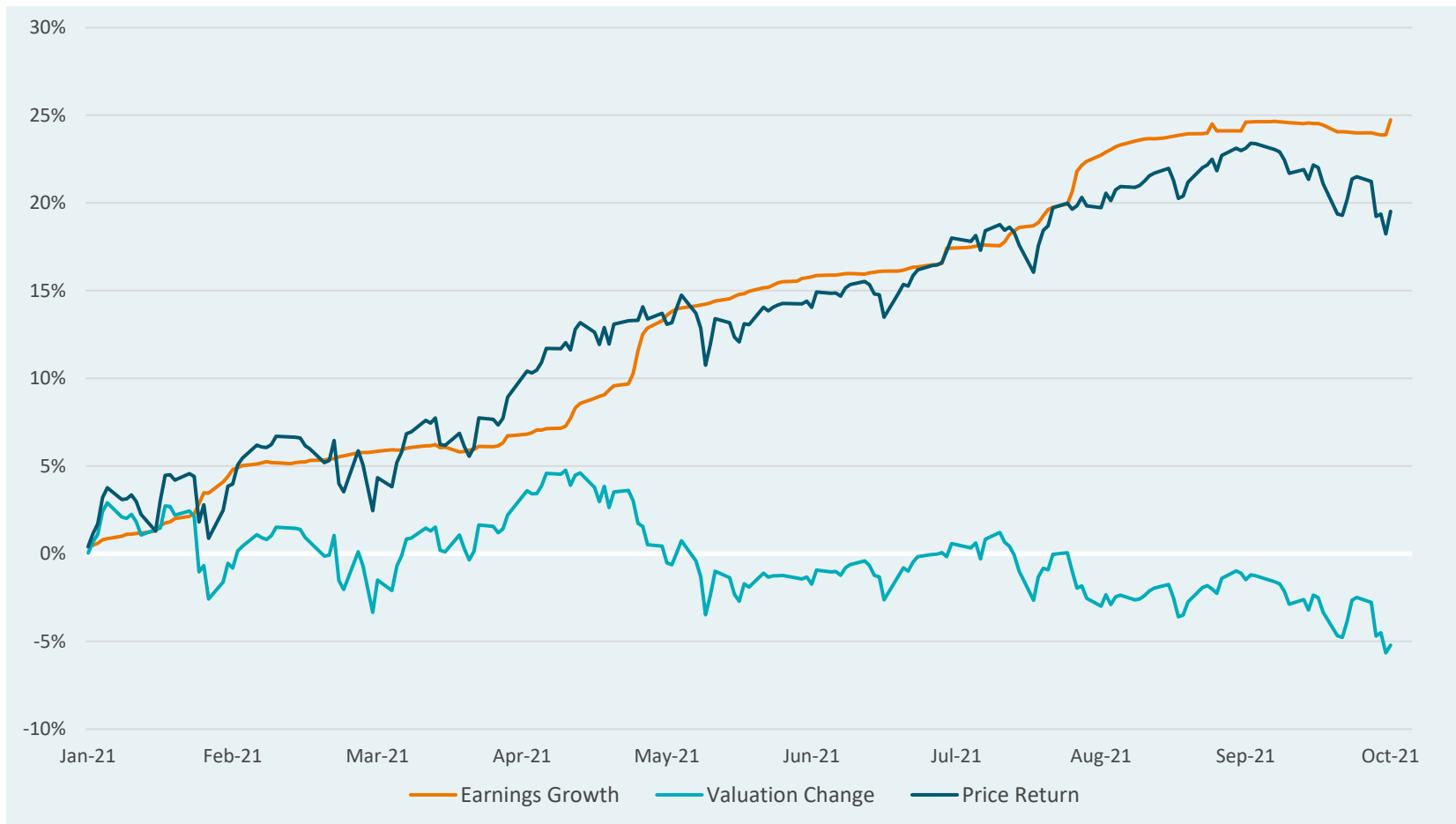
**Q3 SECTOR PERFORMANCE**



Source: Standard & Poor's, as of 9/30/21

# U.S. equity *Price/Earnings*

A very expensive “P” but record-growth of “E”



Corporate earnings growth has been the main driver of U.S. equity returns in 2021

Strong earnings growth expectations have led to slightly cheaper equities, as demonstrated by the *P/E multiple*

Source: Standard & Poor's, Bloomberg, Factset - Forward P/E, as of 9/30/21

# Domestic equity size & style

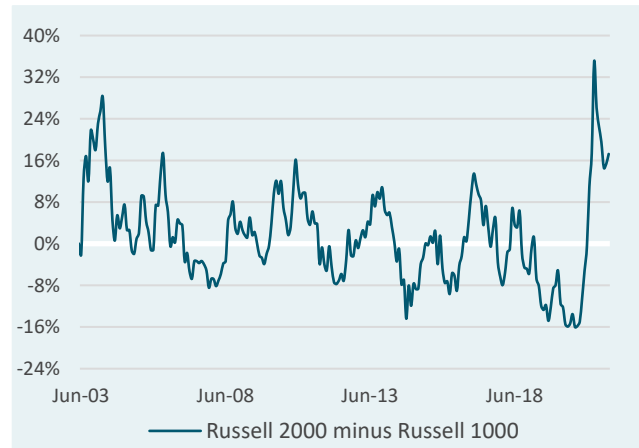
Large capitalization stocks outperformed small cap during the quarter by a wide margin (Russell 1000 +0.2%, Russell 2000 -4.4%) and growth stocks beat value (Russell 1000 Growth +1.2%, Russell 1000 Value -0.8%).

Following the notable turnaround in value stock performance during Q1, growth stocks took the lead in Q2, dampening excitement for a value comeback. Growth further outperformed in Q3. As we expressed earlier in the year, style performance is often impacted heavily by sector

randomness, which suggests that investors should be cautious in assuming that performance is *signal* rather than *noise*. Value stocks continue to be cheap relative to growth stocks, historically speaking. However, there does not appear to be a clear catalyst on the horizon that would imply a value timing opportunity. Factor performance tends to be noisy and difficult to predict, which suggests that style investing should in most cases involve a longer-term focus.

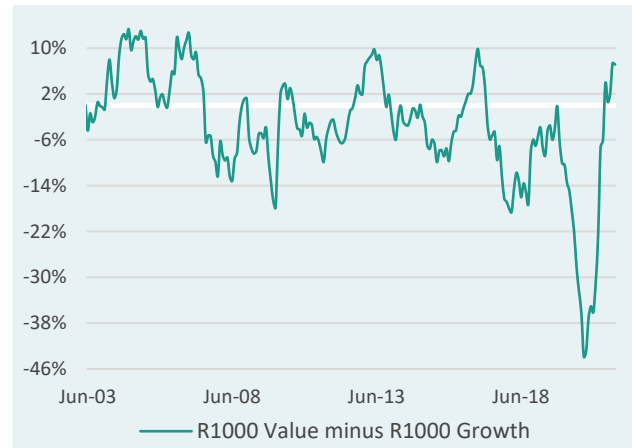
Large cap and growth stocks outperformed during Q3

SMALL CAP VS LARGE CAP (YOY)



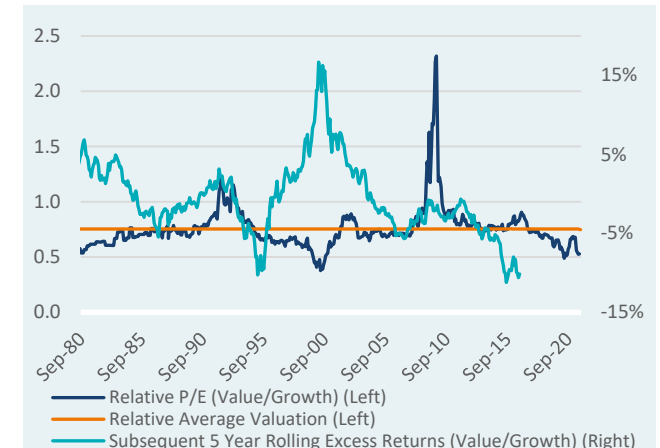
Source: FTSE, as of 9/30/21

VALUE VS GROWTH (YOY)



Source: FTSE, as of 9/30/21

VALUE VS. GROWTH RELATIVE VALUATIONS



Source: Standard & Poor's, as of 9/30/21



# International developed equity

International equities experienced slight losses of -0.4% (MSCI EAFE Index) during the quarter on an unhedged currency basis, lagging U.S. equities but outperforming emerging markets. Currency movement during the quarter resulted in a loss of -1.9% relative to those investors with a currency hedging program.

Japanese equities (MSCI Japan +4.6%) rallied on strong earnings, and on the news that Prime Minister Suga's successor, Fumio Kishida, would be less likely to pursue tax hikes on investment income. Japan's vaccination rate also improved considerably, and ended the quarter in line with major European countries, laying the groundwork for a broader reopening of the economy.

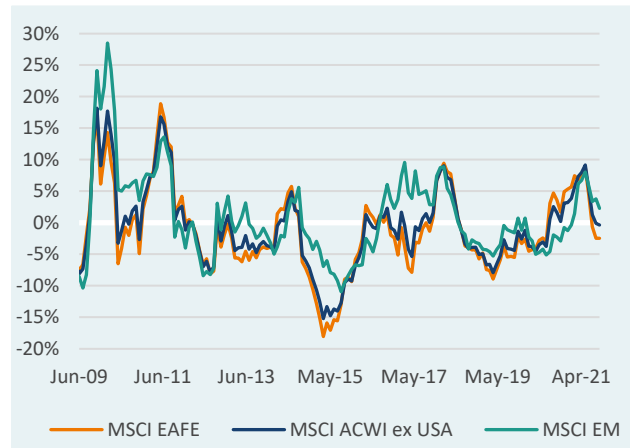
The strong performance of Japanese equities helped to offset for international developed equity investors the negative returns delivered by European equities (MSCI Europe -1.6%), which faced headwinds from a significant weakening in the pound sterling (-2.4%) and euro (-2.3%) relative to the U.S. dollar. According to futures market positioning data from the CFTC, more people are betting that the euro will depreciate in value than those betting that it will appreciate in value, for the first time since March 2020.

**INTERNATIONAL DEVELOPED EQUITIES**



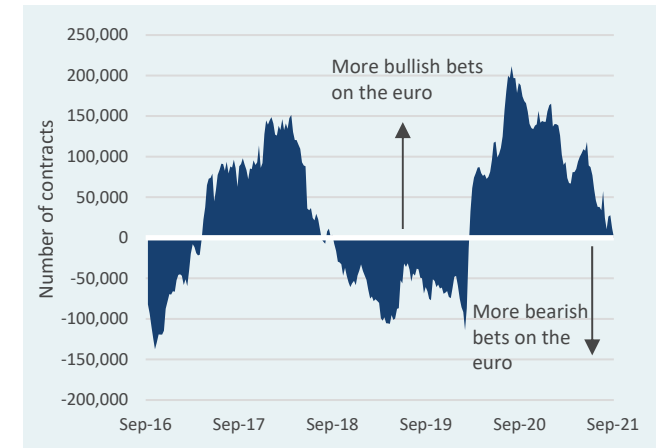
Source: MSCI, as of 9/30/21

**EFFECT OF CURRENCY (1-YEAR ROLLING)**



Source: MSCI, as of 9/30/21

**EURO NET FUTURES POSITIONING**



Source: CFTC, non-commercial positioning, as of 9/28/21

# Emerging market equity

Emerging market equities saw large losses (MSCI EM -8.1%) on an unhedged currency basis, underperforming other markets during the third quarter. China has dragged down emerging markets performance considerably, producing losses of -18.2% in Q3 relative to ex-China emerging market performance of -2.0%, and producing losses of -7.2% over the past year relative to ex-China emerging market performance of 36.9% (MSCI China vs. MSCI Emerging Markets ex-China). China comprises 34% of the MSCI Emerging Markets Index.

Latin American emerging markets have taken the lead over Asian emerging markets over the past year, a notable change from strong Asian

leadership in recent years (MSCI EM Latin America +27.3%, MSCI EM Asia +13.9%)

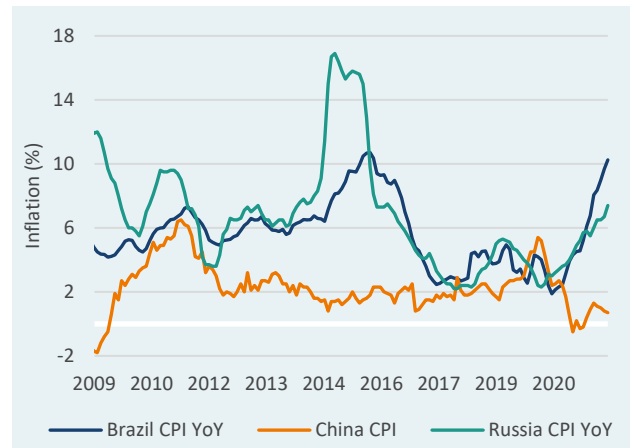
Inflation in Brazil has risen to 10.3%, and in Russia to 7.4%, which has generated responses from central banks. Brazil has hiked their central bank rate from 2.00% to 6.25% to battle rising prices, while Russia has hiked its rate from 4.25% to 6.75% year-to-date. While inflation rate in the U.S. is one of the highest in the developed world, emerging markets are also facing tough decisions regarding the balance between economic recovery and the risks of uncomfortably high inflation.

## EMERGING MARKET EQUITY



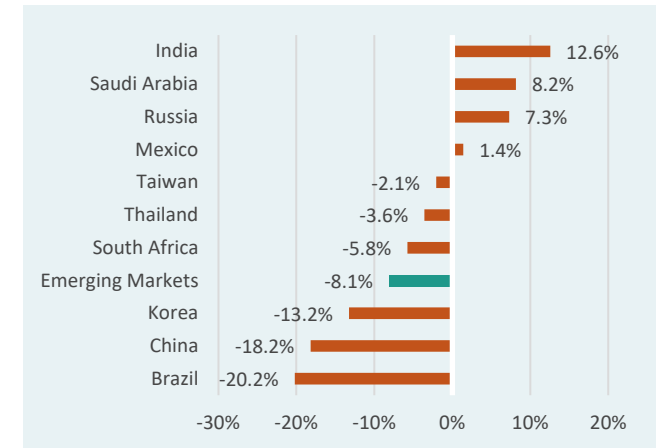
Source: MSCI, as of 9/30/21

## INFLATION (YOY)



Source: Bloomberg, as of 9/30/21 or most recent data

## Q3 PERFORMANCE – TOP 10 EM CONSTITUENTS



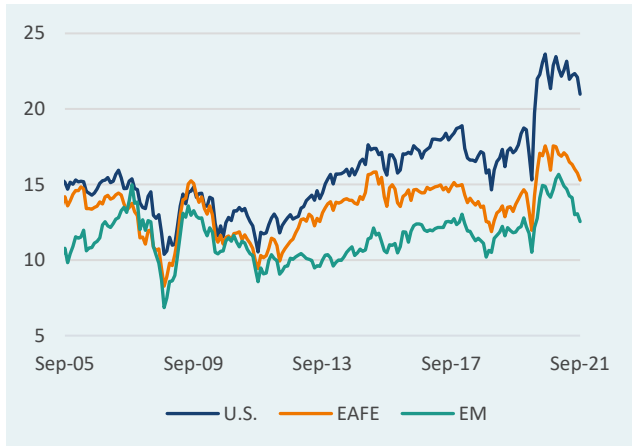
Source: Bloomberg, MSCI, as of 9/30/21, performance in USD terms

# Equity valuations

Forward price/earnings equity multiples have been falling around the world, as earnings expectations rise faster than equity prices, though valuations remain very high. U.S. stock valuations are, and have been, incredibly elevated. A larger share of technology stocks in U.S. indices partly explains these historically high prices, as technology stocks tend to demand a higher P/E than most other industry sectors. Investors appear to agree that high prices of domestic stocks will likely translate to below-average future performance over the long-term, as reflected in industry capital market assumptions.

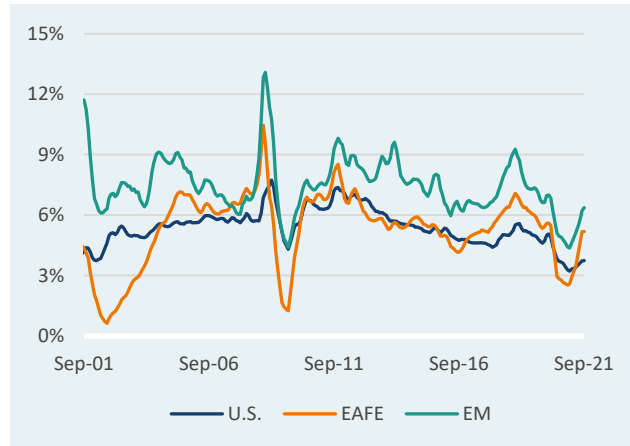
Global equity earnings yields improved considerably, as trailing 12-month earnings have rebounded from low levels. Price growth has moderated in the U.S. and has moved into negative territory across international developed and emerging market equities. The question moving ahead will be whether valuations (which remain rich) are sustainable absent further above-average earnings growth. Rising prices of major input costs, including labor and energy, have dampened the outlook for margins, which may lead companies to raise prices where possible. This pricing power varies by sector and by region.

## FORWARD P/E RATIOS



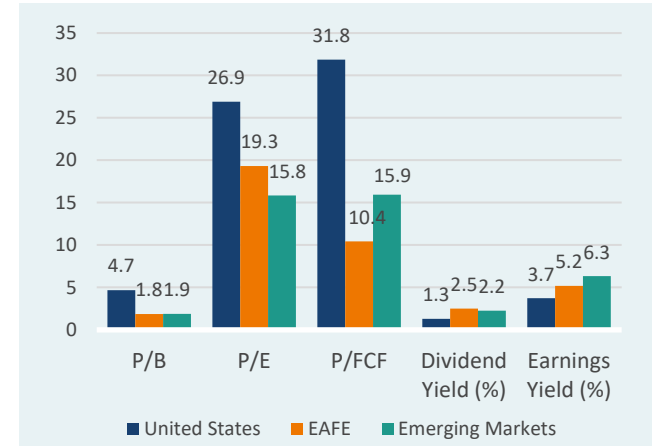
Source: MSCI, 12m forward P/E, as of 9/30/21

## CURRENT EARNINGS YIELD (3-MONTH AVERAGE)



Source: Bloomberg, MSCI, as of 9/30/21

## VALUATION METRICS (3-MONTH AVERAGE)



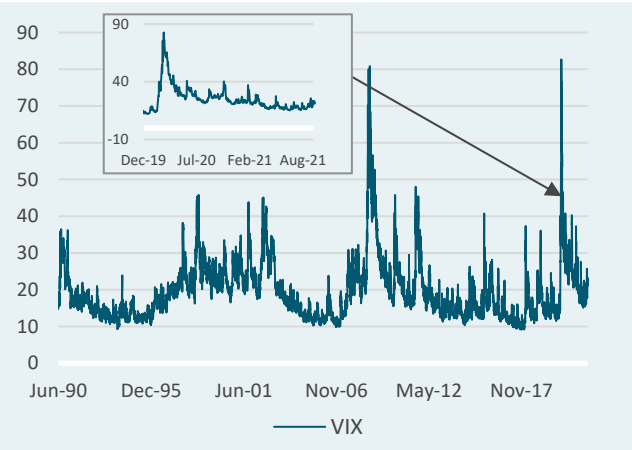
Source: Bloomberg, MSCI as of 9/30/21 - trailing P/E

# Equity volatility

The Cboe VIX Index remained below the longer-term average of 19 through July and August, then increased throughout September, ending the quarter at an elevated 23.1. This compares to only 13.9% realized volatility over the past year. As is typical, international developed equity realized volatility has been slightly greater than that of the U.S. market. The realized volatility of emerging market equities, on the other hand, has been on par with the U.S. for a few years—a rare occurrence, historically speaking.

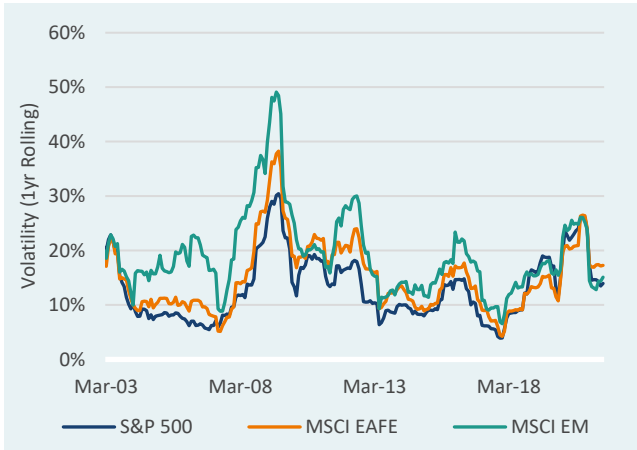
As we observed last quarter, it does seem that investors have put the 2020 pandemic-induced recession and its associated risks behind them. However, it is not clear that market risks have completely subsided, as the Delta-variant continues to spread, high inflation could indeed persist, and most governments are set to pull back generous stimulus programs. While U.S. equities have marched higher with very few road bumps over the year-to-date, the S&P 500 Index closed the quarter 5.1% below its previous record high level, snapping a streak of 231 consecutive trading days where it had not fallen more than 5% beneath the record high.

U.S. IMPLIED VOLATILITY (VIX)



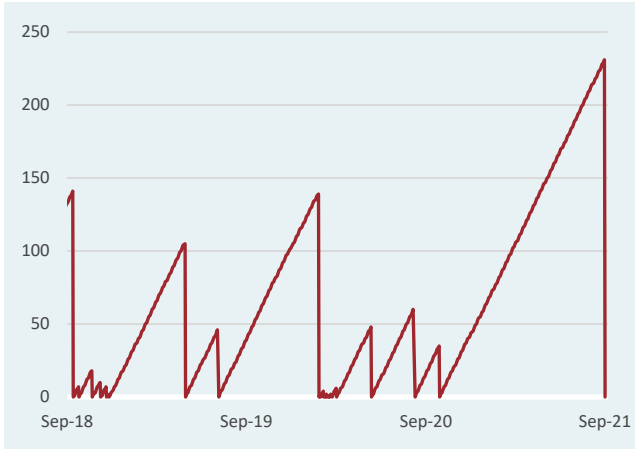
Source: Cboe, as of 9/30/21

REALIZED VOLATILITY



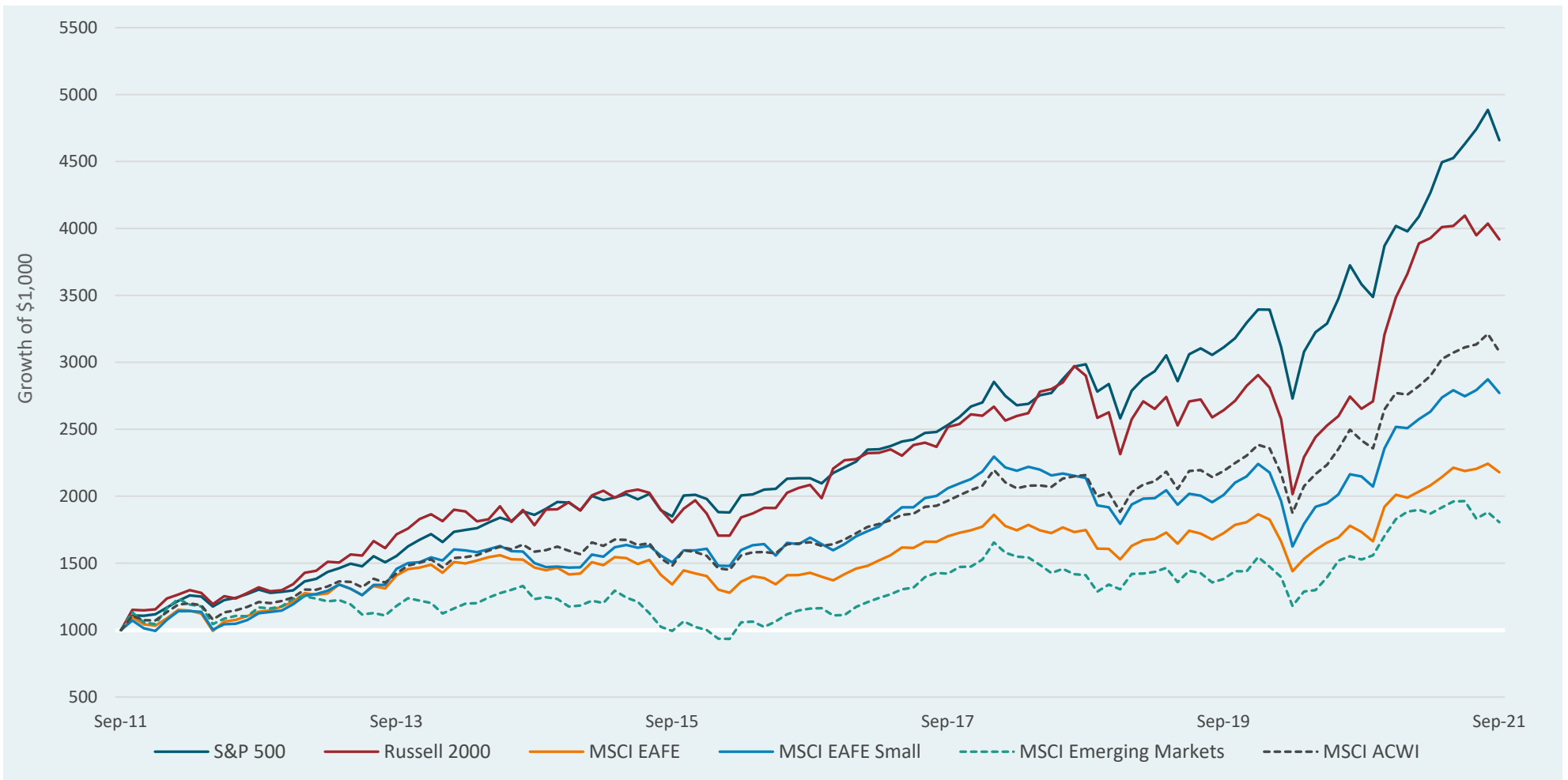
Source: Standard & Poor's, MSCI, as of 9/30/21

DAYS SINCE LAST 5% DRAWDOWN – S&P 500



Source: Standard & Poor's, Verus, as of 9/30/21

# Long-term equity performance



Source: Morningstar, as of 9/30/21

# Other assets

# Currency

The U.S. dollar appreciated 2% during the quarter, continuing its modest rise year-to-date. This move coincided with a slight increase in U.S. Treasury yields and European government bond yields, resulting in little change to interest rate differentials.

U.S. dollar sentiment reached its most optimistic level since late 2019, while sentiment surrounding the euro and pound turned from optimistic to pessimistic. Differences in monetary policy from country-to-country appear to be driving this shift in sentiment. While the U.S. Federal Reserve is expected to begin tapering asset purchases by year-end, the ECB is planning on simply shifting the complexion of its asset purchase program, and the

BOE is planning on adjusting short-term interest rates higher while retaining the majority of its asset purchase program which targets longer-duration bonds.

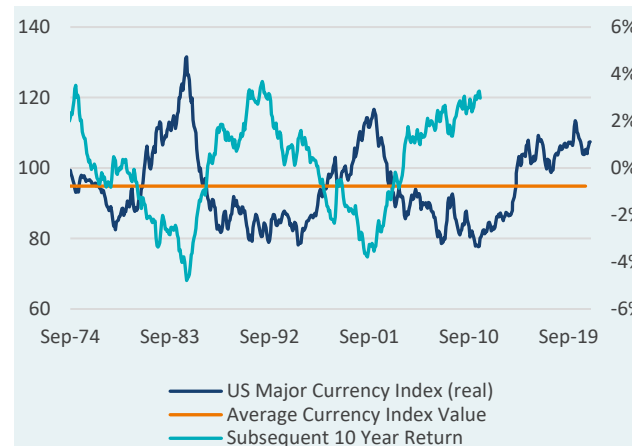
The MSCI Currency Factor Mix Index, Verus' preferred currency beta benchmark, outperformed the currency portfolio of the MSCI ACWI ex-US Index over the twelve months ending September 30<sup>th</sup>, while exhibiting 1.1% less volatility.

**BLOOMBERG DOLLAR SPOT INDEX**



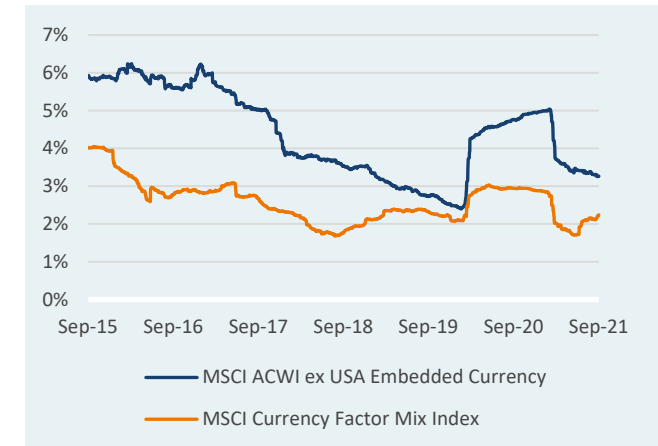
Source: Bloomberg, as of 9/30/21

**U.S. DOLLAR MAJOR CURRENCY INDEX**



Source: Federal Reserve, as of 9/30/21

**TRAILING ONE-YEAR ANNUALIZED VOLATILITY**



Source: Bloomberg, MSCI, as of 9/30/21

# Appendix



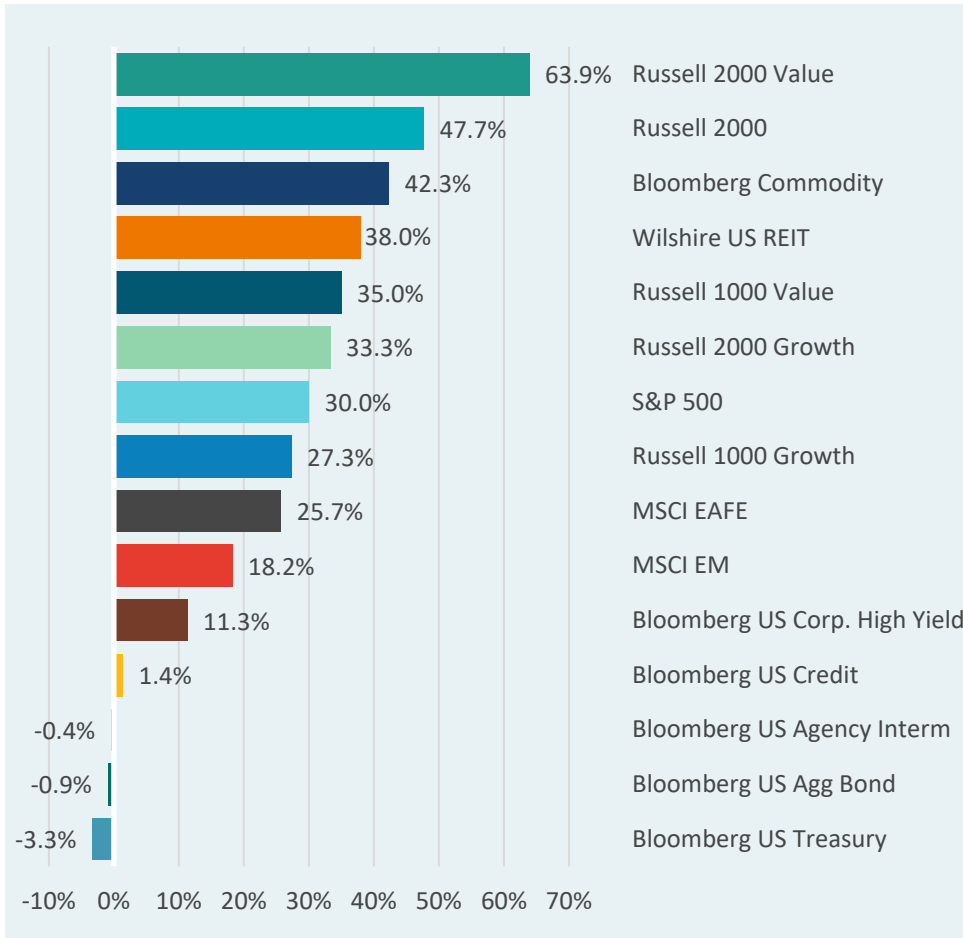
# Periodic table of returns



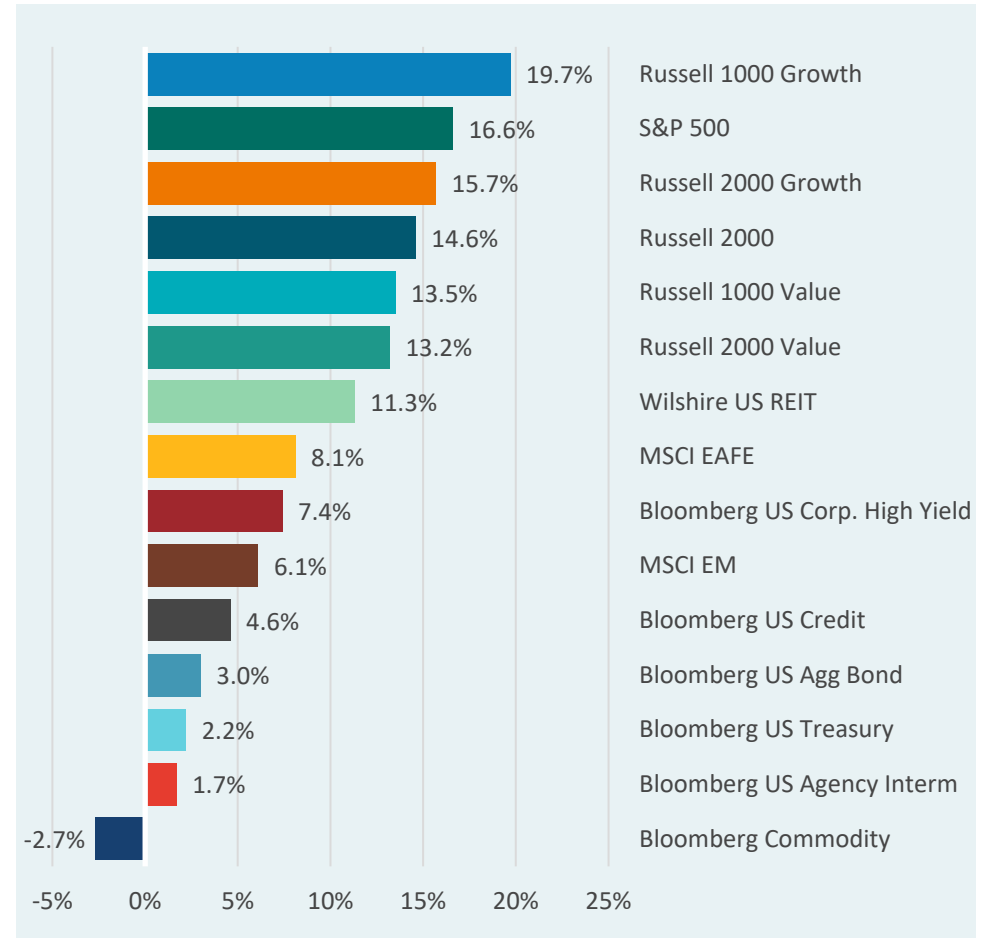
Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, Bloomberg US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, Bloomberg Global Bond. NCREIF Property Index performance data as of 6/30/21.

# Major asset class returns

ONE YEAR ENDING SEPTEMBER



TEN YEARS ENDING SEPTEMBER



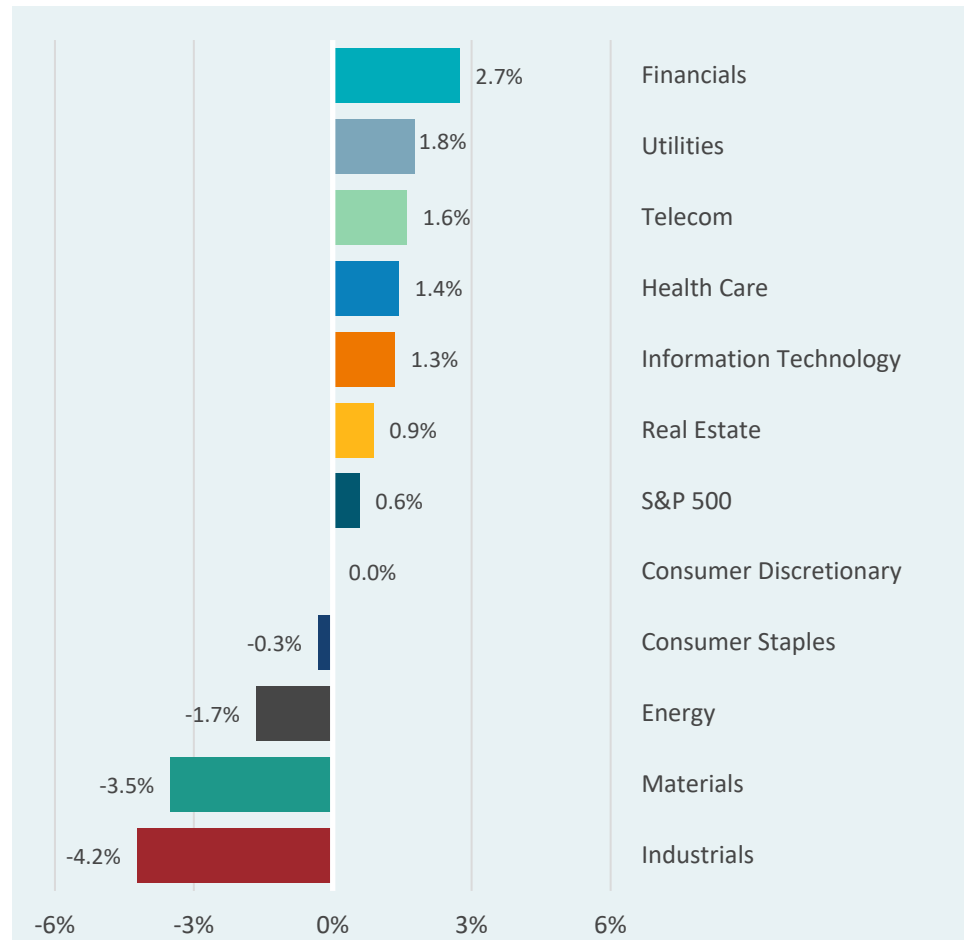
\*Only publicly traded asset performance is shown here. Performance of private assets is typically released with a 3- to 6-month delay.

Source: Morningstar, as of 9/30/21

Source: Morningstar, as of 9/30/21

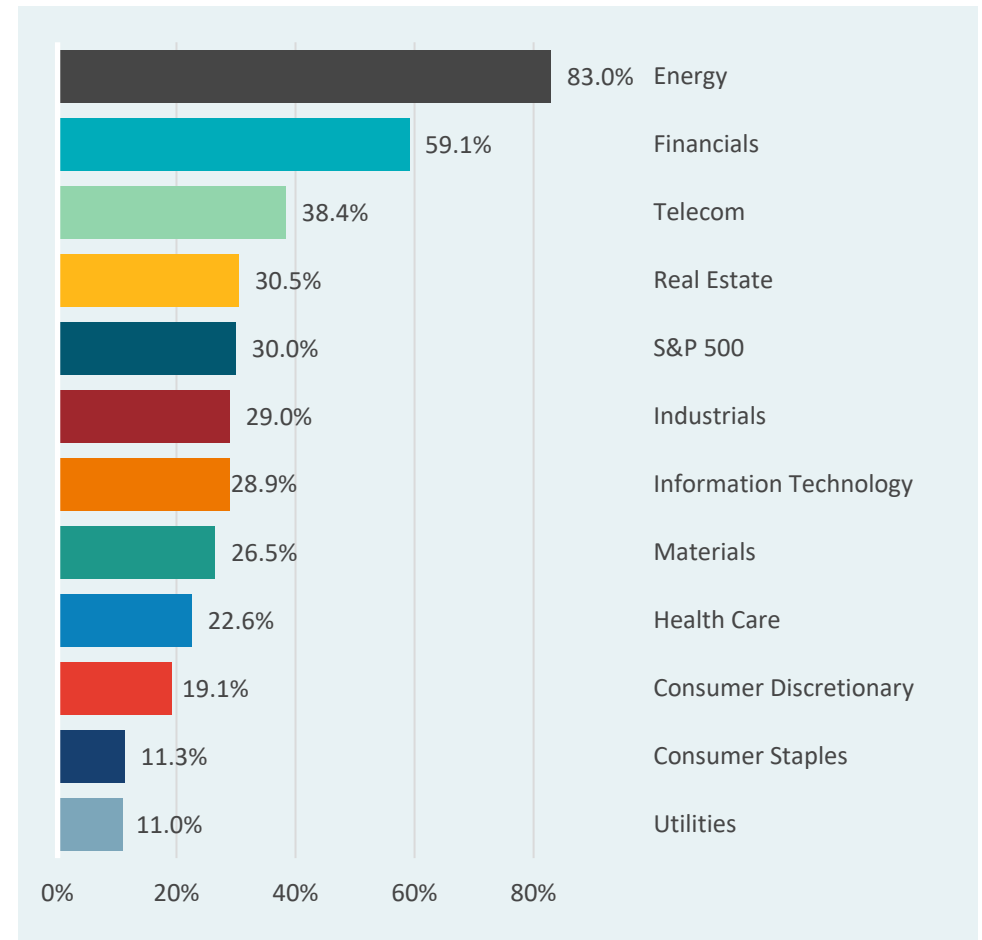
# S&P 500 sector returns

Q3 2021



Source: Morningstar, as of 9/30/21

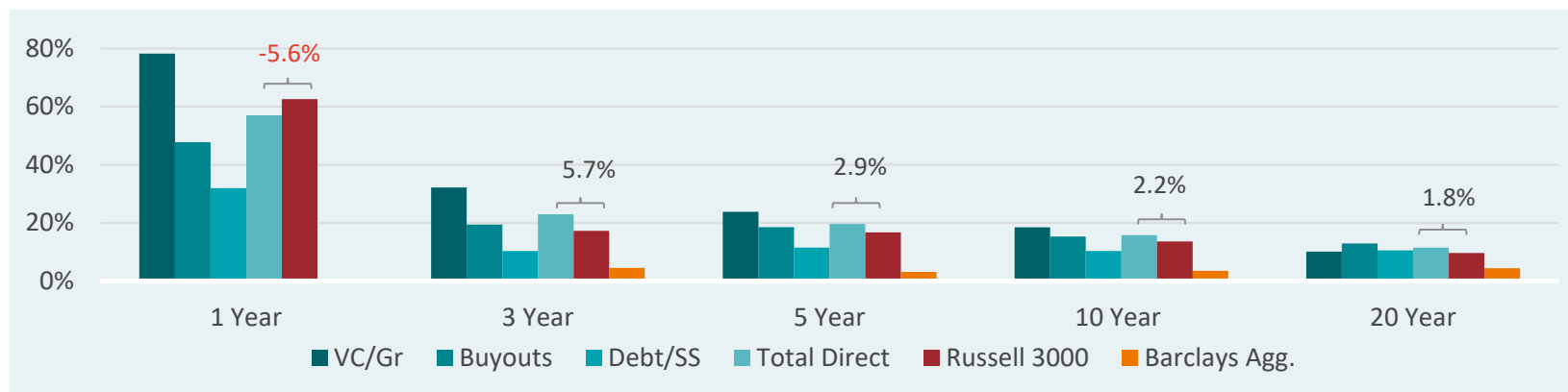
ONE YEAR ENDING SEPTEMBER



Source: Morningstar, as of 9/30/21

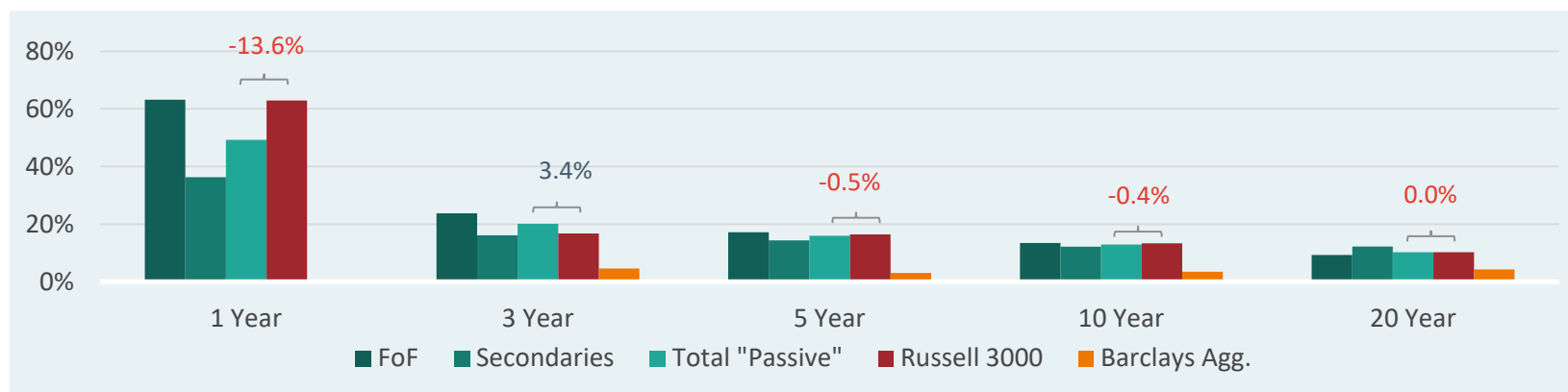
# Private equity vs. traditional assets performance

## DIRECT PRIVATE EQUITY FUND INVESTMENTS



Direct P.E Fund Investments outperformed comparable public equities across all time periods, aside from the 1-year basis.

## “PASSIVE” STRATEGIES

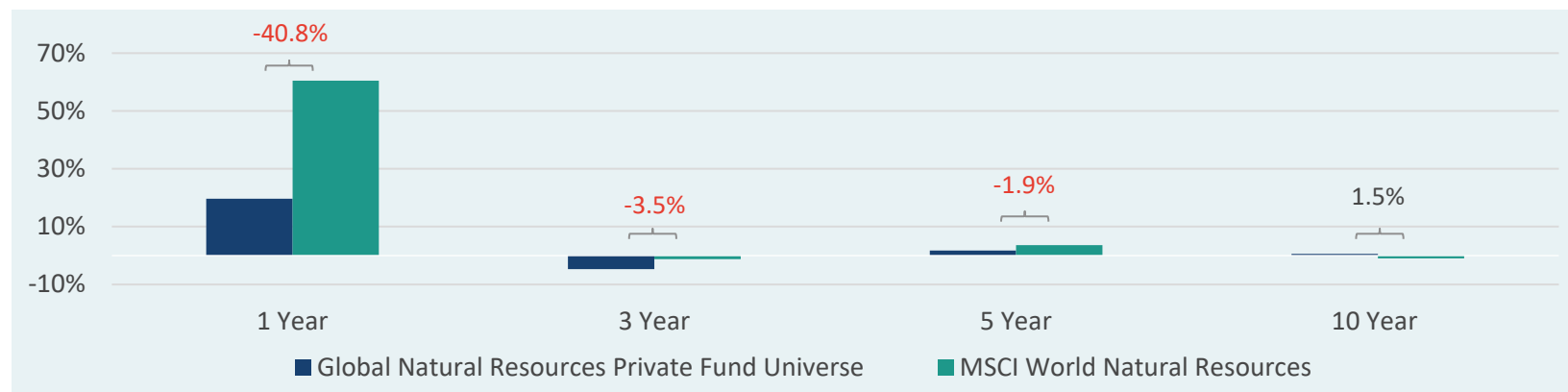


“Passive” strategies underperformed comparable public equities across all time periods, aside from the 3-year basis.

Sources: Refinitiv Cambridge Universe's PME Module: U.S. Private Equity Funds sub asset classes as of March 31, 2021. Public Market Equivalent returns resulted from "Total Passive" and Total Direct's identical cash flows invested into and distributed from respective traditional asset comparable.

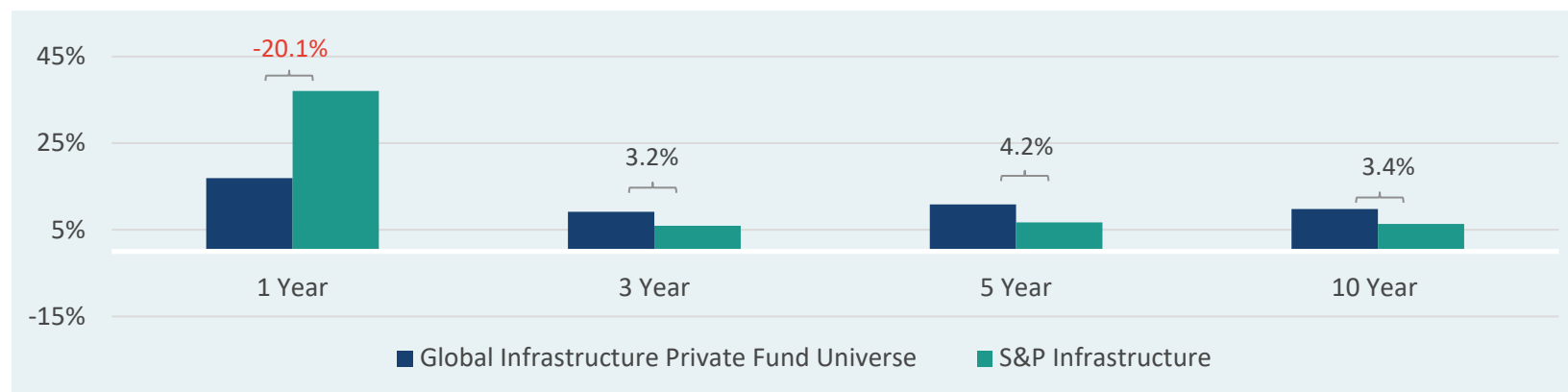
# Private vs. liquid real assets performance

## GLOBAL NATURAL RESOURCES FUNDS



N.R. funds has lagged against the MSCI World Natural Resources benchmark across all time periods, aside from the 10-year.

## GLOBAL INFRASTRUCTURE FUNDS

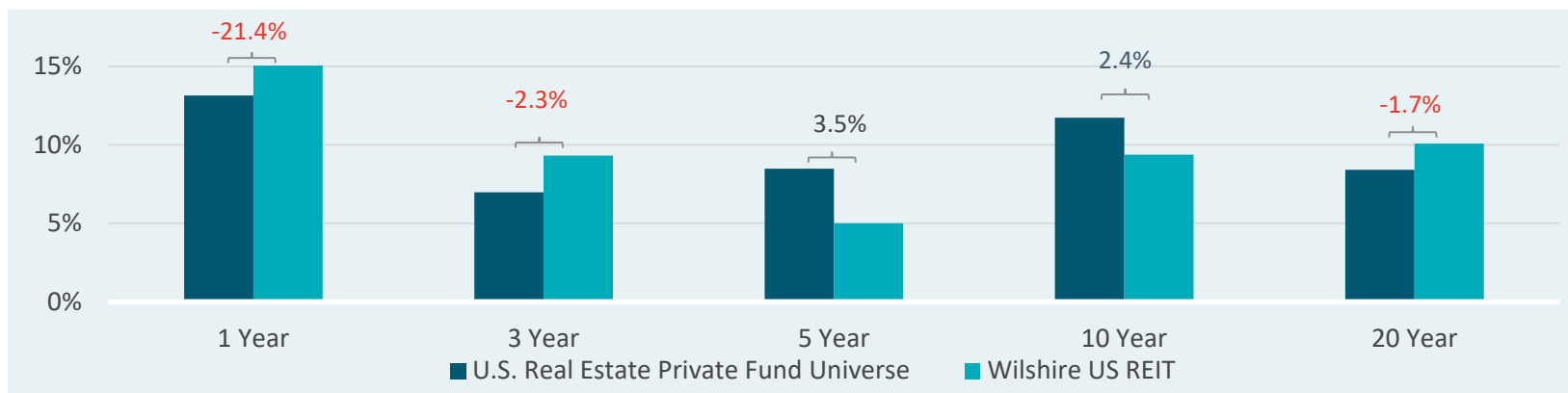


Infra. funds outperformed the S&P Infra. across all periods, aside from the 1-year.

Sources: Refinitiv CJA PME: Global Natural Resources (vintage 1999 and later, inception of MSCI World Natural Resources benchmark) and Global Infrastructure (vintage 2002 and later, inception of S&P Infrastructure benchmark) universes as of March 31, 2021. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real assets universes.

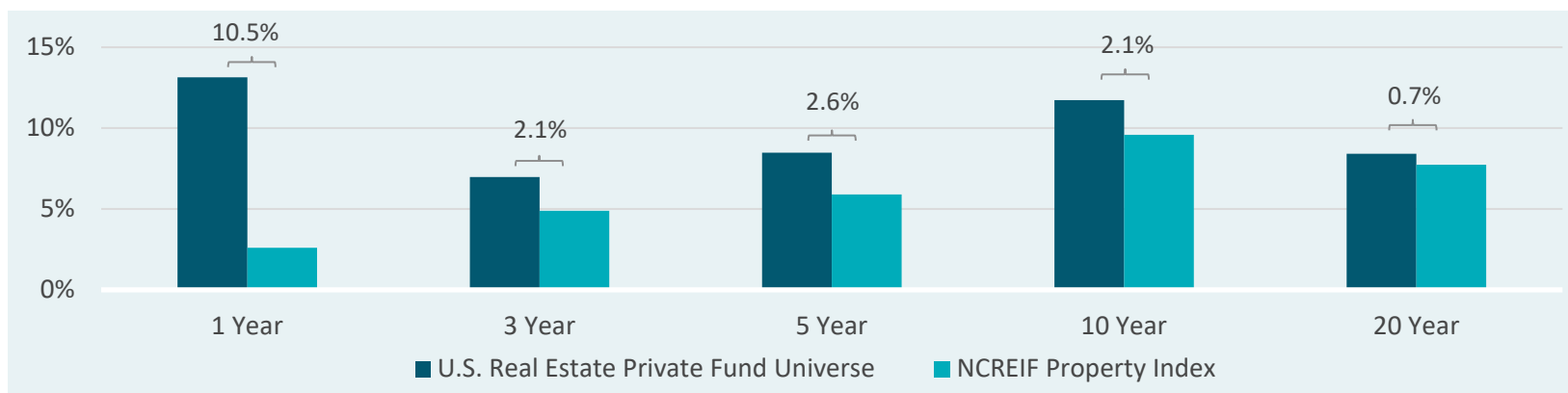
# Private vs. liquid and core real estate performance

## U.S. PRIVATE REAL ESTATE FUNDS VS. LIQUID UNIVERSE



U.S. Private R.E. funds lagged against the Wilshire U.S. REIT Index across all time periods, aside on the 5 and 10 year-basis.

## U.S. PRIVATE REAL ESTATE FUNDS VS. CORE FUNDS



U.S. Private R.E. Funds outperformed the NCREIF Property Index across all time periods.

Sources: Refinitiv CJA PME: Global and U.S. Real Estate universes as of March 31, 2021. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real estate universes.

# Detailed index returns

## DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Core Index</b>							
S&P 500	(4.7)	0.6	15.9	30.0	16.0	16.9	16.6
S&P 500 Equal Weighted	(3.8)	(0.2)	18.9	40.9	14.3	14.6	16.0
DJ Industrial Average	(4.2)	(1.5)	12.1	24.2	11.0	15.7	14.7
Russell Top 200	(4.8)	0.6	15.2	28.6	17.3	18.2	17.2
Russell 1000	(4.6)	0.2	15.2	31.0	16.4	17.1	16.8
Russell 2000	(2.9)	(4.4)	12.4	47.7	10.5	13.5	14.6
Russell 3000	(4.5)	(0.1)	15.0	31.9	16.0	16.9	16.6
Russell Mid Cap	(4.1)	(0.9)	15.2	38.1	14.2	14.4	15.5
<b>Style Index</b>							
Russell 1000 Growth	(5.6)	1.2	14.3	27.3	22.0	22.8	19.7
Russell 1000 Value	(3.5)	(0.8)	16.1	35.0	10.1	10.9	13.5
Russell 2000 Growth	(3.8)	(5.7)	2.8	33.3	11.7	15.3	15.7
Russell 2000 Value	(2.0)	(3.0)	22.9	63.9	8.6	11.0	13.2

## INTERNATIONAL EQUITY

<b>Broad Index</b>							
MSCI ACWI	(4.1)	(1.1)	11.1	27.4	12.6	13.2	11.9
MSCI ACWI ex US	(3.2)	(3.0)	5.9	23.9	8.0	8.9	7.5
MSCI EAFE	(2.9)	(0.4)	8.3	25.7	7.6	8.8	8.1
MSCI EM	(4.0)	(8.1)	(1.2)	18.2	8.6	9.2	6.1
MSCI EAFE Small Cap	(3.6)	0.9	10.0	29.0	9.0	10.4	10.7
<b>Style Index</b>							
MSCI EAFE Growth	(3.9)	0.1	6.9	20.9	11.9	11.4	10.1
MSCI EAFE Value	(1.8)	(1.0)	9.6	30.7	3.0	6.0	6.0
<b>Regional Index</b>							
MSCI UK	(2.0)	(0.3)	12.2	31.2	2.4	4.8	5.4
MSCI Japan	2.8	4.6	5.9	22.1	7.5	9.4	8.4
MSCI Euro	(5.0)	(2.0)	10.5	29.5	7.9	9.3	8.3
MSCI EM Asia	(4.1)	(9.6)	(4.1)	13.9	10.0	10.7	8.5
MSCI EM Latin American	(10.3)	(13.3)	(5.6)	27.3	(1.4)	1.8	(1.1)

## FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Broad Index</b>							
Bloomberg US TIPS	(0.7)	1.8	3.5	5.2	7.4	4.3	3.1
Bloomberg US Treasury Bills	0.0	0.0	0.0	0.1	1.2	1.2	0.7
Bloomberg US Agg Bond	(0.9)	0.1	(1.6)	(0.9)	5.4	2.9	3.0
Bloomberg US Universal	(0.9)	0.1	(1.1)	0.2	5.6	3.3	3.5
<b>Duration</b>							
Bloomberg US Treasury 1-3 Yr	(0.1)	0.1	(0.0)	0.0	2.7	1.6	1.2
Bloomberg US Treasury Long	(2.9)	0.5	(7.5)	(10.3)	9.2	3.3	4.4
Bloomberg US Treasury	(1.1)	0.1	(2.5)	(3.3)	4.9	2.2	2.2
<b>Issuer</b>							
Bloomberg US MBS	(0.4)	0.1	(0.7)	(0.4)	3.9	2.2	2.4
Bloomberg US Corp. High Yield	(0.0)	0.9	4.5	11.3	6.9	6.5	7.4
Bloomberg US Agency Interm	(0.4)	0.1	(0.5)	(0.4)	3.2	1.9	1.7
Bloomberg US Credit	(1.1)	(0.0)	(1.3)	1.4	7.1	4.4	4.6

## OTHER

<b>Index</b>							
Bloomberg Commodity	5.0	6.6	29.1	42.3	6.9	4.5	(2.7)
Wilshire US REIT	(5.1)	1.6	24.8	38.0	10.4	7.0	11.3
CS Leveraged Loans	0.5	0.9	4.0	8.5	4.1	4.7	5.0
Alerian MLP	3.0	(5.7)	39.4	84.6	(5.2)	(3.5)	1.2
<b>Regional Index</b>							
JPM EMBI Global Div	(2.1)	(0.7)	(1.4)	4.4	5.7	3.9	5.8
JPM GBI-EM Global Div	(3.4)	(3.1)	(6.4)	2.6	3.7	2.1	1.1
<b>Hedge Funds</b>							
HFRI Composite	0.1	(0.0)	10.1	22.1	8.5	7.3	5.9
HFRI FOF Composite	0.8	1.4	6.4	15.0	6.7	5.9	4.5
<b>Currency (Spot)</b>							
Euro	(1.8)	(2.3)	(5.3)	(1.2)	(0.1)	0.6	(1.5)
Pound Sterling	(2.0)	(2.4)	(1.4)	4.3	1.1	0.7	(1.4)
Yen	(1.5)	(0.5)	(7.5)	(5.4)	0.6	(1.9)	(3.6)

Source: Morningstar, HFRI, as of 9/30/21

# Definitions

**Bloomberg US Weekly Consumer Comfort Index** - tracks the public's economic attitudes each week, providing a high-frequency read on consumer sentiment. The index, based on cell and landline telephone interviews with a random, representative national sample of U.S. adults, tracks Americans' ratings of the national economy, their personal finances and the buying climate on a weekly basis, with views of the economy's direction measured separately each month. ([www.lanqerresearch.com](http://www.lanqerresearch.com))

**University of Michigan Consumer Sentiment Index** - A survey of consumer attitudes concerning both the present situation as well as expectations regarding economic conditions conducted by the University of Michigan. For the preliminary release approximately three hundred consumers are surveyed while five hundred are interviewed for the final figure. The level of consumer sentiment is related to the strength of consumer spending. ([www.Bloomberg.com](http://www.Bloomberg.com))

**NFIB Small Business Outlook** - Small Business Economic Trends (SBET) is a monthly assessment of the U.S. small-business economy and its near-term prospects. Its data are collected through mail surveys to random samples of the National Federal of Independent Business (NFIB) membership. The survey contains three broad question types: recent performance, near-term forecasts, and demographics. The topics addressed include: outlook, sales, earnings, employment, employee compensation, investment, inventories, credit conditions, and single most important problem. (<http://www.nfib-sbet.org/about/>)

**NAHB Housing Market Index** - the housing market index is a weighted average of separate diffusion indices for three key single-family indices: market conditions for the sale of new homes at the present time, market conditions for the sale of new homes in the next six months, and the traffic of prospective buyers of new homes. The first two series are rated on a scale of Good, Fair, and Poor and the last is rated on a scale of High/Very High, Average, and Low/Very Low. A diffusion index is calculated for each series by applying the formula  $(\text{Good-Poor} + 100)/2$  to the present and future sales series and  $(\text{High/Very High-Low/Very Low} + 100)/2$  to the traffic series. Each resulting index is then seasonally adjusted and weighted to produce the HMI. Based on this calculation, the HMI can range between 0 and 100.

# Notices & disclosures

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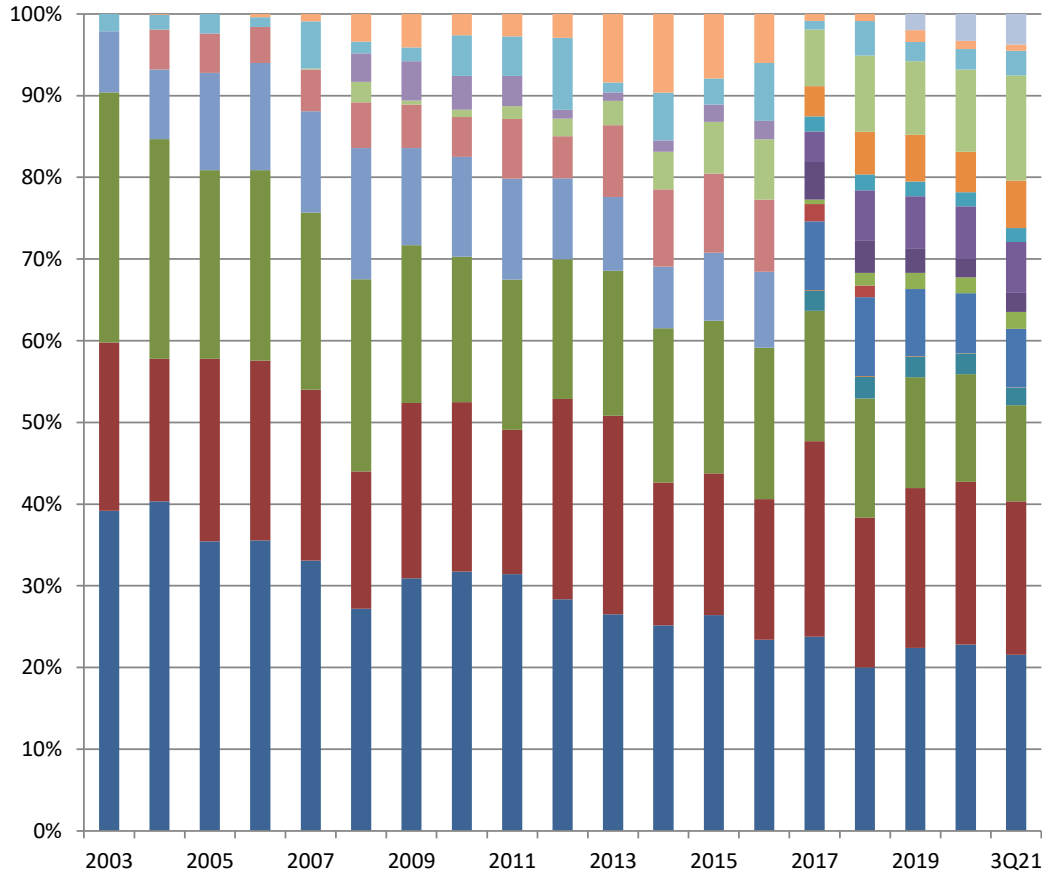
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# Total Fund

## Actual Yearly and Quarterly Asset Allocation

Period Ending: September 30, 2021



- US Equity
- Int'l Equities
- US Fixed Income
- Global Fixed Income
- Opportunistic
- Real Estate
- Real Assets
- Direct Lending
- Growth Hedge Funds
- Diversifying Hedge Funds
- Public Credit
- Private Real Assets
- RE / RA
- Absolute Return
- Private Equity
- Opportunistic / Commodities
- Cash
- Other \*
- Liquid Real Return

	2003	2004	2005	2006	2007	2008
US Equity	39.2	40.4	35.4	35.5	33.1	27.2
International Equity	20.6	17.5	22.3	22.0	20.9	16.8
US Fixed Income	30.6	26.9	23.1	23.3	21.7	23.5
Real Estate / Real Assets	7.5	8.5	11.9	13.1	12.4	16.1
Absolute Return	-	4.9	4.8	4.4	5.1	5.6
Private Equity	-	-	-	-	0.1	2.5
Opportunistic / Commodities	-	-	-	-	-	3.5
Cash	2.1	1.8	2.4	1.2	5.8	1.4
Other *	-	0.1	-	0.4	0.9	3.4

	2009	2010	2011	2012	2013	2014
US Equity	30.9	31.7	31.4	28.4	26.5	25.2
International Equity	21.5	20.7	17.6	24.5	24.3	17.5
US Fixed Income	19.3	17.8	18.4	17.1	17.7	18.9
Real Estate / Real Assets	11.9	12.2	12.4	9.9	9.0	7.6
Absolute Return	5.3	4.9	7.3	5.2	8.8	9.4
Private Equity	0.5	0.9	1.6	2.2	3.0	4.6
Opportunistic / Commodities	4.8	4.1	3.7	1.1	1.0	1.4
Cash	1.7	5.0	4.9	8.8	1.2	5.9
Other *	4.1	2.6	2.7	2.9	8.4	9.6

	2015	2016	2017	2018	2019	2020	3Q21
US Equity	26.4	23.4	23.8	20.0	22.4	22.8	21.6
International Equity	17.3	17.2	23.9	18.3	19.6	19.9	18.7
US Fixed Income	18.7	18.5	16.0	14.6	13.6	13.2	11.8
Global Fixed Income	-	-	2.4	2.6	2.5	2.5	2.1
Public Credit	-	-	1.8	1.9	1.8	1.7	1.7
Real Estate / Real Assets	8.3	9.3	-	-	-	-	-
Real Estate	-	-	8.4	9.7	8.3	7.3	7.2
Real Assets	-	-	2.1	1.4	-	-	-
Private Real Assets	-	-	3.7	5.2	5.7	4.9	5.8
Liquid Real Return	-	-	-	-	2.0	3.3	3.7
Absolute Return	9.7	8.8	-	-	-	-	-
Growth Hedge Funds	-	-	4.6	3.9	3.0	2.3	2.3
Diversifying Hedge Funds	-	-	3.8	6.2	6.4	6.4	6.2
Private Equity	6.3	7.4	6.9	9.3	9.0	10.1	12.9
Direct Lending	-	-	0.5	1.5	2.0	1.9	2.1
Opportunistic / Commodities	2.1	2.2	-	-	-	-	-
Opportunistic	-	-	0.1	0.1	0.1	0.0	0.0
Cash	3.2	7.1	1.1	4.3	2.4	2.5	3.0
Other *	7.9	6.0	0.8	0.9	1.4	1.0	0.8

\* Allocations without overlay.

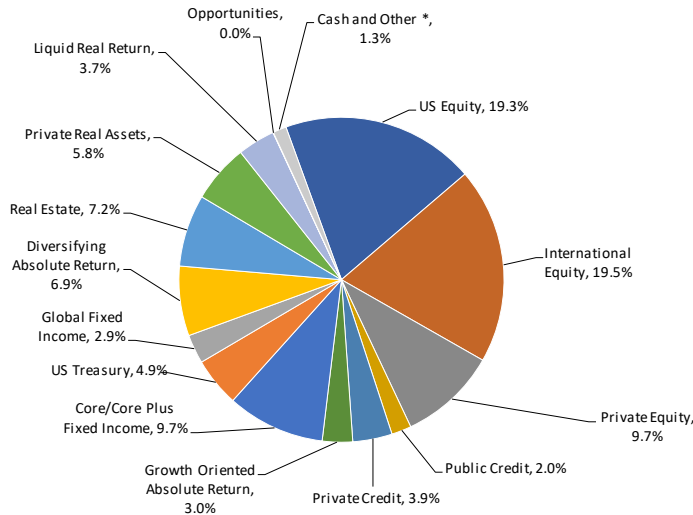
\* Other includes SSgA Overlay and closing accounts. Prior to Q2 2017 SSgA Real Assets is also included

# Total Fund

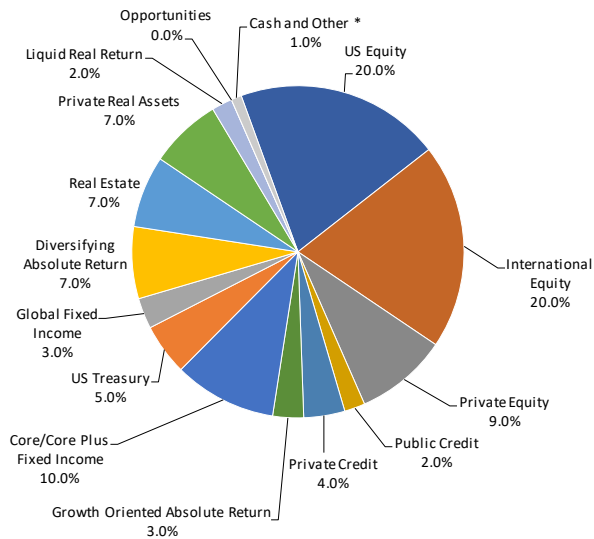
## Asset Allocation Analysis

Period Ending: September 30, 2021

Current w/Overlay



Target



ASSET ALLOCATION	MARKET VALUE W/OVERLAY	W/OVERLAY	W/O OVERLAY
US Equity	2,479,064,838	19.3%	21.6%
International Equity	2,508,839,775	19.5%	18.7%
Private Equity	1,253,103,329	9.7%	12.9%
Public Credit	253,602,038	2.0%	1.7%
Private Credit	504,124,624	3.9%	2.1%
Growth Oriented Absolute Return	388,042,773	3.0%	2.3%
Core/Core Plus Fixed Income	1,252,216,177	9.7%	8.0%
US Treasury	628,124,633	4.9%	3.7%
Global Fixed Income	369,618,819	2.9%	2.1%
Diversifying Absolute Return	893,136,787	6.9%	6.2%
Real Estate	921,147,764	7.2%	7.2%
Private Real Assets	747,121,013	5.8%	5.8%
Liquid Real Return	480,121,161	3.7%	3.7%
Opportunities	4,858,504	0.0%	0.0%
Cash and Other *	171,259,108	1.3%	3.8%
<b>TOTAL</b>	<b>12,854,381,344</b>	<b>100.0%</b>	<b>100.0%</b>

ASSET ALLOCATION	ACTUAL	TARGET	DIFF
US Equity	19.3%	20.0%	-0.7%
International Equity	19.5%	20.0%	-0.5%
Private Equity	9.7%	9.0%	0.7%
Public Credit	2.0%	2.0%	0.0%
Private Credit	3.9%	4.0%	-0.1%
Growth Oriented Absolute Return	3.0%	3.0%	0.0%
Core/Core Plus Fixed Income	9.7%	10.0%	-0.3%
US Treasury	4.9%	5.0%	-0.1%
Global Fixed Income	2.9%	3.0%	-0.1%
Diversifying Absolute Return	6.9%	7.0%	-0.1%
Real Estate	7.2%	7.0%	0.2%
Private Real Assets	5.8%	7.0%	-1.2%
Liquid Real Return	3.7%	2.0%	1.7%
Opportunities	0.0%	0.0%	0.0%
Cash and Other *	1.3%	1.0%	0.3%

\* Other includes closing accounts (Heitman), Transition Account and SSgA Overlay of \$97.7 million.

- The Total Plan returned 1.7% net in the third quarter of 2021 and ranked right outside the top decile among other public funds greater than \$1 billion. The Plan outperformed its policy index by 20 bps over this time period. Longer-term, the three-year return of 11.8% ranks in the top quartile of large public plan peer group which returned 10.6%. The five-year return of 11.4% also ranks in the top quartile of the large public plan peer group.
- Third quarter results (net) were enhanced by the following factors:
  1. The Real Return category returned 4.8% for the quarter, led by private real assets which returned 7.9% and real estate returning 5.0%. With inflation moving higher in the last few quarters, the positive results from your inflation protection portfolio reaffirmed the role it plays in SCERS' plan.
  2. Eagle Capital returned 2.4% for the quarter, outperforming the Russell 1000 index by 220 bps and ranking in the top decile of its universe. Eagle benefited from stock selection in financials which rallied in the quarter and stock selection within information technology.
  3. Weatherbie Small Cap Growth returned 2.5% for the quarter, outperforming its benchmark by 820 bps and ranking in the top decile of the US small cap growth universe.
  4. Within public credit, Brigade returned 1.6% during the quarter and ranked in the top decile of its universe. Performance benefited from spread tightening across lower quality credit.
- Third quarter results (net) were hindered by the following factors:
  1. The Diversifying Asset category was flat in the third quarter, led by poor absolute performance from the Brandywine Global strategy which was down 3.3%. Relative to its universe, Prudential ranked near the top quartile but on an absolute basis, was only modestly positive (+0.2%).

# Total Fund Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date*
<b>Total Fund - Gross*</b>	<b>12,854,381,344</b>	<b>100.0</b>	<b>1.8</b>	<b>12</b>	<b>12.4</b>	<b>15</b>	<b>23.5</b>	<b>31</b>	<b>12.0</b>	<b>13</b>	<b>11.7</b>	<b>14</b>	<b>10.5</b>	<b>33</b>	<b>8.7</b>	<b>Jun-86</b>
<b>Total Fund - Net</b>			<b>1.7</b>	<b>13</b>	<b>12.2</b>	<b>16</b>	<b>23.3</b>	<b>38</b>	<b>11.8</b>	<b>20</b>	<b>11.4</b>	<b>19</b>	<b>10.3</b>	<b>41</b>	<b>8.5</b>	
<i>Policy Index<sup>1</sup></i>			1.5	17	10.5	45	20.1	80	10.0	63	9.8	75	9.5	69	8.7	Jun-86
<i>InvMetrics Public DB &gt; \$1B Gross Median</i>			0.4		9.9		21.9		10.6		10.4		10.1		8.4	Jun-86
<b>Total Fund ex Overlay - Gross**</b>	<b>12,756,688,906</b>	<b>99.2</b>	<b>1.8</b>	<b>12</b>	<b>12.7</b>	<b>12</b>	<b>23.6</b>	<b>30</b>	<b>11.7</b>	<b>24</b>	<b>11.5</b>	<b>17</b>	<b>10.3</b>	<b>38</b>	<b>8.6</b>	<b>Jun-86</b>
<b>Total Fund ex Overlay - Net</b>			<b>1.7</b>	<b>13</b>	<b>12.5</b>	<b>14</b>	<b>23.3</b>	<b>38</b>	<b>11.4</b>	<b>29</b>	<b>11.3</b>	<b>26</b>	<b>10.1</b>	<b>51</b>	<b>8.4</b>	
<i>Policy Index</i>			1.5	17	10.5	45	20.1	80	10.0	63	9.8	75	9.5	69	8.7	Jun-86
<b>Growth Asset Category - Gross</b>	<b>7,625,669,772</b>	<b>59.3</b>	<b>1.7</b>	<b>--</b>	<b>17.5</b>	<b>--</b>	<b>34.8</b>	<b>--</b>	<b>15.6</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>15.4</b>	<b>Mar-17</b>
<b>Growth Asset Category - Net</b>			<b>1.6</b>	<b>--</b>	<b>17.2</b>	<b>--</b>	<b>34.4</b>	<b>--</b>	<b>15.2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>15.0</b>	
<i>Growth Custom<sup>1</sup></i>			1.2	--	14.7	--	30.1	--	13.3	--	13.5	--	--	--	13.1	Mar-17
<b>Equities - Gross Public</b>	<b>5,183,530,937</b>	<b>40.3</b>	<b>-1.0</b>	<b>--</b>	<b>11.0</b>	<b>--</b>	<b>29.2</b>	<b>--</b>	<b>13.4</b>	<b>--</b>	<b>14.4</b>	<b>--</b>	<b>13.4</b>	<b>--</b>	<b>10.8</b>	<b>Jun-11</b>
<b>Equities - Net</b>			<b>-1.1</b>	<b>--</b>	<b>10.7</b>	<b>--</b>	<b>28.8</b>	<b>--</b>	<b>12.9</b>	<b>--</b>	<b>14.0</b>	<b>--</b>	<b>13.0</b>	<b>--</b>	<b>10.4</b>	
<i>MSCI ACWI</i>			-1.1	--	11.1	--	27.4	--	12.6	--	13.2	--	11.9	--	9.5	Jun-11
<b>US Equity - Gross</b>	<b>2,774,063,475</b>	<b>21.6</b>	<b>0.5</b>	<b>14</b>	<b>15.8</b>	<b>39</b>	<b>34.6</b>	<b>35</b>	<b>16.3</b>	<b>12</b>	<b>17.2</b>	<b>17</b>	<b>16.7</b>	<b>19</b>	<b>10.8</b>	<b>Jun-86</b>
<b>US Equity - Net</b>			<b>0.4</b>	<b>16</b>	<b>15.6</b>	<b>44</b>	<b>34.3</b>	<b>38</b>	<b>16.1</b>	<b>18</b>	<b>16.9</b>	<b>24</b>	<b>16.4</b>	<b>36</b>	<b>10.6</b>	
<i>Russell 3000<sup>1</sup></i>			-0.1	52	15.0	65	31.9	79	16.0	21	16.9	29	16.6	24	10.9	Jun-86
<i>InvMetrics All DB US Eq Gross Median</i>			-0.1		15.4		33.4		15.0		16.2		16.1		10.6	Jun-86
<b>Large Cap - Gross</b>	<b>2,488,814,952</b>	<b>19.4</b>	<b>0.5</b>	<b>--</b>	<b>16.4</b>	<b>--</b>	<b>33.6</b>	<b>--</b>	<b>16.4</b>	<b>--</b>	<b>17.4</b>	<b>--</b>	<b>16.8</b>	<b>--</b>	<b>7.8</b>	<b>Mar-98</b>
<b>Large Cap - Net</b>			<b>0.4</b>	<b>--</b>	<b>16.2</b>	<b>--</b>	<b>33.3</b>	<b>--</b>	<b>16.2</b>	<b>--</b>	<b>17.2</b>	<b>--</b>	<b>16.6</b>	<b>--</b>	<b>7.6</b>	
<i>Russell 1000</i>			0.2	--	15.2	--	31.0	--	16.4	--	17.1	--	16.8	--	8.2	Mar-98

\*Total Fund and asset class composites are ranked against InvestorForce universes. Managers are ranked against eVest manager universes. Net Returns are ranked against gross universe. Ranking of 1 is a top ranking and ranking of 100 is a bottom rating.

\*\*Total Fund ex Overlay returns from 2/1/2006-12/31/2010 were calculated using the overlay impact provided by SSgA.

+ Since inception date denotes last day of the month.

1. See Policy Index and Benchmark History

# Total Fund Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Large Cap - Index - Gross	1,438,307,841	11.2	0.2	--	15.2	--	30.9	--	16.4	--	17.1	--	16.7	--	13.1	Sep-08
Large Cap - Index - Net			0.2	--	15.1	--	30.8	--	16.4	--	17.1	--	16.7	--	13.0	
<i>Russell 1000</i>			0.2	--	15.2	--	31.0	--	16.4	--	17.1	--	16.8	--	13.1	Sep-08
AB - Gross	1,438,307,841	11.2	0.2	69	15.2	79	30.9	40	16.4	28	17.1	32	16.7	37	10.8	Apr-89
AB - Net			0.2	70	15.1	80	30.8	40	16.4	31	17.1	34	16.7	40	10.8	
<i>Russell 1000<sup>1</sup></i>			0.2	70	15.2	76	31.0	34	16.4	26	17.1	28	16.8	30	--	Apr-89
<i>eV US Passive Large Cap Equity Gross Median</i>			0.5		15.9		30.0		16.0		16.9		16.6		10.8	Apr-89
Large Cap - Enhanced - Gross	335,978,852	2.6	0.1	--	16.4	--	32.8	--	14.6	--	--	--	--	--	15.2	Jul-18
Large Cap - Enhanced - Net			0.1	--	16.2	--	32.5	--	14.4	--	--	--	--	--	14.9	
<i>Russell 1000</i>			0.2	--	15.2	--	31.0	--	16.4	--	17.1	--	16.8	--	16.9	Jul-18
AQR US Enhanced Equity - Gross	335,978,852	2.6	0.1	50	16.4	40	32.8	33	14.6	60	--	--	--	--	15.2	Jul-18
AQR US Enhanced Equity - Net			0.1	57	16.2	43	32.5	34	14.4	63	--	--	--	--	14.9	
<i>Russell 1000</i>			0.2	48	15.2	76	31.0	49	16.4	22	17.1	27	16.8	44	16.9	Jul-18
<i>eV US Enh Equity Gross Median</i>			0.1		16.1		30.8		15.6		16.8		16.7		16.0	Jul-18
Large Cap (130/30) - Gross	345,949,040	2.7	-0.2	--	13.0	--	29.8	--	15.2	--	17.2	--	17.5	--	13.5	Sep-08
Large Cap (130/30) - Net			-0.3	--	12.6	--	29.1	--	14.7	--	16.5	--	16.8	--	12.9	
<i>Russell 1000</i>			0.2	--	15.2	--	31.0	--	16.4	--	17.1	--	16.8	--	13.1	Sep-08
JP Morgan 130/30 - Gross	179,161,270	1.4	0.7	61	16.0	65	30.6	52	17.8	12	18.8	4	18.2	21	13.9	Jul-08
JP Morgan 130/30 - Net			0.5	62	15.5	71	29.6	60	17.1	17	18.0	18	17.4	45	13.1	
<i>Russell 1000</i>			0.2	65	15.2	71	31.0	51	16.4	26	17.1	31	16.8	58	12.2	Jul-08
<i>eV Extended US Equity Gross Median</i>			1.0		19.5		31.1		12.9		15.3		17.3		12.4	Jul-08
DE Shaw Broad Mkt Core Alpha Ext - Gross	166,787,770	1.3	-1.1	87	9.7	92	29.1	61	--	--	--	--	--	--	18.7	Jan-19
DE Shaw Broad Mkt Core Alpha Ext - Net			-1.2	91	9.5	93	28.7	68	--	--	--	--	--	--	18.3	
<i>Russell 1000</i>			0.2	65	15.2	71	31.0	51	16.4	26	17.1	31	16.8	58	21.7	Jan-19
<i>eV Extended US Equity Gross Median</i>			1.0		19.5		31.1		12.9		15.3		17.3		17.9	Jan-19

1. See Policy Index and Benchmark History.

Total Fund  
Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Large Cap Active - Gross	368,579,220	2.9	2.5	--	24.9	--	50.6	--	18.4	--	18.8	--	17.5	--	13.1	Sep-08
Large Cap Active - Net			2.4	--	24.2	--	49.6	--	17.5	--	17.9	--	16.7	--	12.4	
<i>Russell 1000<sup>1</sup></i>			0.2	--	15.2	--	31.0	--	17.1	--	15.2	--	15.7	--	11.4	Sep-08
Eagle Capital - Gross	368,558,955	2.9	2.5	5	24.9	1	50.6	1	18.4	12	19.8	5	--	--	16.6	Feb-12
Eagle Capital - Net			2.4	5	24.2	1	49.6	1	17.5	18	18.9	10	--	--	15.8	
<i>Russell 1000</i>			0.2	53	15.2	54	31.0	41	17.1	22	15.2	70	15.7	67	14.0	Feb-12
<i>eV US Large Cap Core Equity Gross Median</i>			0.3		15.5		29.9		14.9		16.3		16.3		14.6	Feb-12
Small Cap - Gross	285,248,523	2.2	0.3	--	11.4	--	44.2	--	15.3	--	18.2	--	16.8	--	12.7	Dec-90
Small Cap - Net			-0.1	--	10.9	--	43.6	--	14.7	--	17.6	--	16.0	--	12.0	
<i>Russell 2000</i>			-4.4	--	12.4	--	47.7	--	10.5	--	13.4	--	14.6	--	11.1	Dec-90
Small Cap - Growth - Gross	169,546,126	1.3	2.9	--	12.5	--	43.3	--	24.2	--	27.8	--	20.7	--	16.2	Sep-08
Small Cap - Growth - Net			2.5	--	12.0	--	42.6	--	23.5	--	27.1	--	20.0	--	15.5	
<i>Russell 2000 Growth</i>			-5.7	--	2.8	--	33.3	--	11.7	--	15.3	--	15.7	--	12.4	Sep-08
Weatherbie - Gross	169,546,126	1.3	2.9	9	12.5	35	43.3	37	24.2	14	29.4	7	22.6	10	15.9	Dec-02
Weatherbie - Net			2.5	10	12.0	39	42.6	38	23.5	17	28.8	8	21.8	11	15.0	
<i>Russell 2000 Growth</i>			-5.7	91	2.8	88	33.3	79	11.7	89	15.3	91	15.7	88	12.0	Dec-02
<i>eV US Small Cap Growth Equity Gross Median</i>			-1.7		10.6		39.8		17.2		19.7		18.5		14.3	Dec-02
Small Cap - Value - Gross	115,702,397	0.9	-3.3	--	9.7	--	46.2	--	4.3	--	7.6	--	12.0	--	9.1	Sep-08
Small Cap - Value - Net			-3.5	--	9.3	--	45.7	--	3.8	--	7.0	--	11.2	--	8.3	
<i>Russell 2000 Value</i>			-3.0	--	22.9	--	63.9	--	8.6	--	11.0	--	13.2	--	9.3	Sep-08
Snyder Capital Management - Gross	115,702,397	0.9	-3.3	84	--	--	--	--	--	--	--	--	--	--	7.4	Jan-21
Snyder Capital Management - Net			-3.5	85	--	--	--	--	--	--	--	--	--	--	7.0	
<i>Russell 2000 Value</i>			-3.0	75	22.9	48	63.9	35	8.6	64	11.0	62	13.2	76	16.8	Jan-21
<i>eV US Small Cap Value Equity Gross Median</i>			-1.7		22.5		59.1		9.6		11.5		14.2		19.5	Jan-21

1. See Policy Index and Benchmark History.

# Total Fund Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>International Equity - Gross</b>	<b>2,409,467,462</b>	<b>18.7</b>	<b>-2.6</b>	<b>53</b>	<b>5.8</b>	<b>71</b>	<b>23.5</b>	<b>78</b>	<b>10.2</b>	<b>34</b>	<b>10.9</b>	<b>25</b>	<b>9.1</b>	<b>41</b>	<b>6.9</b>	<b>Dec-87</b>
<b>International Equity - Net</b>			<b>-2.8</b>	<b>64</b>	<b>5.4</b>	<b>79</b>	<b>22.8</b>	<b>84</b>	<b>9.4</b>	<b>49</b>	<b>10.3</b>	<b>33</b>	<b>8.6</b>	<b>56</b>	<b>6.5</b>	
<i>MSCI ACWI ex US<sup>1</sup></i>			-2.9	66	6.3	62	24.4	61	8.5	63	9.4	55	8.0	75	6.5	Dec-87
<i>InvMetrics All DB ex-US Eq Gross Median</i>			-2.5		6.7		25.3		9.3		9.6		8.8		7.3	Dec-87
<b>International - Developed - Gross</b>	<b>1,946,537,448</b>	<b>15.1</b>	<b>-0.2</b>	<b>32</b>	<b>9.0</b>	<b>30</b>	<b>25.3</b>	<b>52</b>	<b>10.1</b>	<b>49</b>	<b>11.3</b>	<b>36</b>	<b>9.7</b>	<b>45</b>	<b>5.5</b>	<b>Mar-98</b>
<b>International - Developed - Net</b>			<b>-0.6</b>	<b>42</b>	<b>8.4</b>	<b>35</b>	<b>24.6</b>	<b>57</b>	<b>9.3</b>	<b>52</b>	<b>10.6</b>	<b>49</b>	<b>9.2</b>	<b>55</b>	<b>5.0</b>	
<i>MSCI World ex US Gross</i>			-0.6	42	9.7	22	27.1	41	8.4	60	9.4	65	8.4	73	5.3	Mar-98
<i>InvMetrics All DB Dev Mkt ex-US Eq Gross Median</i>			-1.2		6.5		25.9		9.7		10.5		9.4		5.7	Mar-98
<b>Large Cap - Gross</b>	<b>1,683,481,676</b>	<b>13.1</b>	<b>-0.6</b>	<b>51</b>	<b>8.9</b>	<b>58</b>	<b>24.7</b>	<b>60</b>	<b>9.8</b>	<b>37</b>	<b>11.3</b>	<b>29</b>	<b>9.2</b>	<b>53</b>	<b>6.0</b>	<b>Dec-04</b>
<b>Large Cap - Net</b>			<b>-0.9</b>	<b>58</b>	<b>8.3</b>	<b>66</b>	<b>24.0</b>	<b>64</b>	<b>9.0</b>	<b>44</b>	<b>10.7</b>	<b>32</b>	<b>8.7</b>	<b>66</b>	<b>5.5</b>	
<i>MSCI World ex US Gross</i>			-0.6	51	9.7	44	27.1	42	8.4	49	9.4	49	8.4	72	5.9	Dec-04
<i>eV EAFE Large Cap Equity Gross Median</i>			-0.5		9.3		26.0		8.1		9.3		9.3		6.5	Dec-04
<b>Lazard - Gross</b>	<b>477,910,512</b>	<b>3.7</b>	<b>-1.7</b>	<b>51</b>	<b>6.8</b>	<b>68</b>	<b>26.4</b>	<b>52</b>	<b>9.0</b>	<b>63</b>	<b>9.8</b>	<b>66</b>	<b>--</b>	<b>--</b>	<b>9.6</b>	<b>Jun-12</b>
<b>Lazard - Net</b>			<b>-1.8</b>	<b>52</b>	<b>6.6</b>	<b>69</b>	<b>26.1</b>	<b>53</b>	<b>8.6</b>	<b>68</b>	<b>9.4</b>	<b>69</b>	<b>--</b>	<b>--</b>	<b>9.3</b>	
<i>MSCI ACWI ex USA Gross</i>			-2.9	76	6.3	73	24.4	63	8.5	68	9.4	68	8.0	85	7.9	Jun-12
<i>eV All ACWI ex-US Equity Gross Median</i>			-1.6		8.5		26.6		10.9		11.3		10.2		10.0	Jun-12
<b>Walter Scott &amp; Partners Limited - Gross</b>	<b>672,171,002</b>	<b>5.2</b>	<b>0.7</b>	<b>37</b>	<b>8.2</b>	<b>33</b>	<b>19.3</b>	<b>69</b>	<b>13.6</b>	<b>52</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>14.6</b>	<b>Mar-17</b>
<b>Walter Scott &amp; Partners Limited - Net</b>			<b>0.0</b>	<b>40</b>	<b>7.3</b>	<b>44</b>	<b>18.2</b>	<b>79</b>	<b>12.2</b>	<b>72</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>13.6</b>	
<i>MSCI World ex USA Growth GR USD</i>			-0.2	42	7.3	44	20.9	61	12.3	72	11.7	80	10.1	85	12.4	Mar-17
<i>eV EAFE Large Cap Growth Gross Median</i>			-0.8		6.7		21.9		14.1		13.7		11.6		14.7	Mar-17
<b>LSV - Gross</b>	<b>533,400,162</b>	<b>4.1</b>	<b>-1.1</b>	<b>43</b>	<b>12.5</b>	<b>30</b>	<b>32.6</b>	<b>48</b>	<b>6.0</b>	<b>48</b>	<b>8.5</b>	<b>32</b>	<b>8.6</b>	<b>21</b>	<b>5.2</b>	<b>Dec-04</b>
<b>LSV - Net</b>			<b>-1.2</b>	<b>45</b>	<b>12.2</b>	<b>33</b>	<b>32.1</b>	<b>50</b>	<b>5.5</b>	<b>51</b>	<b>8.0</b>	<b>35</b>	<b>8.2</b>	<b>26</b>	<b>4.7</b>	
<i>MSCI World ex US Value Gross</i>			-0.9	40	11.8	35	33.4	43	4.1	86	6.9	68	6.6	94	4.6	Dec-04
<i>eV EAFE Large Cap Value Gross Median</i>			-1.4		10.4		31.6		5.6		7.5		7.9		5.4	Dec-04

1. See Policy Index and Benchmark History.

Total Fund  
Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Small Cap - Gross</b>	<b>263,055,772</b>	<b>2.0</b>	<b>1.9</b>	<b>17</b>	<b>9.8</b>	<b>80</b>	<b>29.3</b>	<b>66</b>	<b>12.4</b>	<b>19</b>	<b>11.8</b>	<b>44</b>	<b>11.4</b>	<b>67</b>	<b>10.6</b>	<b>Sep-08</b>
<b>Small Cap - Net</b>			<b>1.7</b>	<b>17</b>	<b>9.2</b>	<b>81</b>	<b>28.4</b>	<b>73</b>	<b>11.5</b>	<b>28</b>	<b>10.9</b>	<b>54</b>	<b>10.6</b>	<b>83</b>	<b>9.7</b>	
<i>MSCI World ex US Small Cap GD</i>			0.8	37	11.0	76	30.6	58	9.9	47	10.8	55	10.4	89	9.6	Sep-08
<i>eV EAFE Small Cap Equity Gross Median</i>			0.3		13.0		31.2		9.7		11.2		11.9		10.8	Sep-08
Mondrian Dev Small Cap - Gross	125,045,248	1.0	-0.2	64	7.9	90	28.8	76	8.7	78	10.1	76	10.2	88	9.9	Aug-10
Mondrian Dev Small Cap - Net			-0.4	66	7.4	92	28.0	82	8.0	81	9.4	85	9.5	95	9.2	
<i>MSCI World ex US Small Cap GD</i>			0.8	41	11.0	65	30.6	65	9.9	61	10.8	70	10.4	84	9.9	Aug-10
<i>eV ACWI ex-US Small Cap Equity Gross Median</i>			0.4		13.3		32.5		12.2		12.6		13.1		12.4	Aug-10
William Blair Dev Small Cap - Gross	138,010,524	1.1	4.0	12	11.6	62	29.8	69	16.2	28	13.4	46	12.6	58	11.5	Sep-08
William Blair Dev Small Cap - Net			3.8	13	10.9	65	28.7	77	15.2	29	12.4	55	11.7	68	10.5	
<i>MSCI World ex US Small Cap GD</i>			0.8	41	11.0	65	30.6	65	9.9	61	10.8	70	10.4	84	9.6	Sep-08
<i>eV ACWI ex-US Small Cap Equity Gross Median</i>			0.4		13.3		32.5		12.2		12.6		13.1		11.8	Sep-08
<b>International - Emerging - Gross</b>	<b>462,925,644</b>	<b>3.6</b>	<b>-11.2</b>	<b>99</b>	<b>-5.6</b>	<b>99</b>	<b>16.5</b>	<b>81</b>	<b>10.4</b>	<b>43</b>	<b>10.1</b>	<b>42</b>	<b>6.0</b>	<b>66</b>	<b>6.9</b>	<b>Jan-00</b>
<b>International - Emerging - Net</b>			<b>-11.3</b>	<b>99</b>	<b>-5.8</b>	<b>99</b>	<b>16.2</b>	<b>82</b>	<b>10.1</b>	<b>44</b>	<b>9.7</b>	<b>44</b>	<b>5.8</b>	<b>72</b>	<b>6.5</b>	
<i>MSCI Emerging Markets Gross</i>			-8.0	75	-1.0	67	18.6	71	9.0	61	9.6	44	6.5	55	7.2	Jan-00
<i>InvMetrics All DB Emg Mkt Eq Gross Median</i>			-6.8		1.9		22.3		9.5		8.9		6.8		8.0	Jan-00
Baillie Gifford Emg All Cap - Gross	257,796,014	2.0	-12.3	96	-7.2	95	16.2	80	12.2	37	13.2	18	--	--	14.5	Mar-16
Baillie Gifford Emg All Cap - Net			-12.3	96	-7.2	95	16.2	80	12.2	37	13.2	18	--	--	14.5	
<i>MSCI Emerging Markets Gross</i>			-8.0	69	-1.0	70	18.6	70	9.0	65	9.6	59	6.5	78	10.6	Mar-16
<i>eV Emg Mkts Equity Gross Median</i>			-6.7		2.1		22.8		10.3		10.2		7.7		11.4	Mar-16
Mondrian Emg All Cap - Gross	205,129,630	1.6	-9.9	90	-3.5	85	16.8	77	8.2	77	7.4	86	--	--	7.9	Mar-16
Mondrian Emg All Cap - Net			-10.0	91	-3.9	86	16.1	80	7.6	85	6.8	92	--	--	7.2	
<i>MSCI Emerging Markets Gross</i>			-8.0	69	-1.0	70	18.6	70	9.0	65	9.6	59	6.5	78	10.6	Mar-16
<i>eV Emg Mkts Equity Gross Median</i>			-6.7		2.1		22.8		10.3		10.2		7.7		11.4	Mar-16



# Total Fund Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Private Equity - Gross<sup>+</sup> <sup>**</sup> <sup>++</sup></b>	<b>1,657,364,771</b>	<b>12.9</b>	<b>10.4</b>	<b>37</b>	<b>46.9</b>	<b>14</b>	<b>64.3</b>	<b>14</b>	<b>29.9</b>	<b>13</b>	<b>26.0</b>	<b>9</b>	<b>17.4</b>	<b>23</b>	<b>7.7</b>	<b>Feb-08</b>
<b>Private Equity - Net</b>			<b>10.4</b>	<b>37</b>	<b>46.9</b>	<b>14</b>	<b>64.3</b>	<b>14</b>	<b>29.9</b>	<b>13</b>	<b>26.0</b>	<b>9</b>	<b>17.7</b>	<b>22</b>	<b>7.9</b>	
<i>Thomson Reuters CJA All PE 1 Qtr Lag<sup>1</sup></i>			12.4	18	41.1	27	54.8	29	21.5	37	19.6	33	17.2	24	12.7	Feb-08
<i>Russell 3000 +3% 1Q Lag</i>			8.0	54	33.5	43	47.2	47	21.8	36	20.9	29	17.7	22	13.6	Feb-08
<i>InvMetrics All DB Private Eq Net Median</i>			8.7		30.4		45.9		19.8		16.9		14.1		10.7	Feb-08
Abbott VI - Gross	42,170,769	0.3	14.4	--	48.8	--	61.5	--	25.5	--	23.0	--	16.4	--	8.7	Jul-08
Abbott VI - Net			14.4	--	48.8	--	61.5	--	25.5	--	23.0	--	16.4	--	--	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	13.6	Jul-08
Accel-KKR IV - Gross	15,613,765	0.1	60.8	--	86.2	--	111.1	--	70.1	--	58.6	--	--	--	20.9	Jun-13
Accel-KKR IV - Net			60.8	--	86.2	--	111.1	--	70.1	--	58.6	--	--	--	20.9	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	17.5	Jun-13
Accel-KKR V - Gross	25,369,153	0.2	8.7	--	62.6	--	64.2	--	35.2	--	--	--	--	--	26.4	Jan-17
Accel-KKR V - Net			8.7	--	62.6	--	64.2	--	35.2	--	--	--	--	--	26.4	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	20.4	Jan-17
Accel-KKR VI - Gross	3,533,592	0.0	-16.1	--	--	--	--	--	--	--	--	--	--	--	-53.4	Feb-21
Accel-KKR VI - Net			-16.1	--	--	--	--	--	--	--	--	--	--	--	-53.4	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	41.1	Feb-21
Accel-KKR Growth Partners II - Gross	10,182,860	0.1	23.6	--	135.2	--	139.8	--	54.1	--	36.8	--	--	--	19.3	Feb-15
Accel-KKR Growth Partners II - Net			23.6	--	135.2	--	139.8	--	54.1	--	36.8	--	--	--	19.3	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	16.1	Feb-15
Accel-KKR Growth Partners III - Gross	27,949,663	0.2	18.4	--	38.8	--	43.8	--	--	--	--	--	--	--	3.3	Jul-19
Accel-KKR Growth Partners III - Net			18.4	--	38.8	--	43.8	--	--	--	--	--	--	--	3.3	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	26.9	Jul-19

1. See Policy Index and Benchmark History.

\*\* Private Equity Composite includes the historical returns of Summit Credit and Athyrum Opportunities up to 4/1/17.

++ Private Equity returns are one-quarter lag.

+ Returns for private markets are shown on a time-weighted basis and may differ substantially from dollar-weighted returns.

Total Fund  
Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Atalaya Special Opp VI - Gross	8,734,067	0.1	6.8	--	35.6	--	47.5	--	24.5	--	20.5	--	--	--	16.4	Apr-16
Atalaya Special Opp VI - Net			6.8	--	35.6	--	47.5	--	24.5	--	20.5	--	--	--	16.4	
Thomson Reuters CJA All PE 1 Qtr Lag			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	20.2	Apr-16
Canvas Ventures III - Gross	5,413,330	0.0	-4.5	--	-14.8	--	--	--	--	--	--	--	--	--	-14.8	Nov-20
Canvas Ventures III - Net			-4.5	--	-14.8	--	--	--	--	--	--	--	--	--	-14.8	
Thomson Reuters CJA All PE 1 Qtr Lag			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	54.8	Nov-20
Cortec Group Fund VII - Gross	15,615,876	0.1	28.4	--	62.7	--	58.7	--	--	--	--	--	--	--	42.3	Dec-19
Cortec Group Fund VII - Net			28.4	--	62.7	--	58.7	--	--	--	--	--	--	--	42.3	
Thomson Reuters CJA All PE 1 Qtr Lag			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	31.2	Dec-19
CRV Select Fund I - Gross	14,646,752	0.1	-0.9	--	--	--	--	--	--	--	--	--	--	--	-0.9	May-21
CRV Select Fund I - Net			-0.9	--	--	--	--	--	--	--	--	--	--	--	-0.9	
Thomson Reuters CJA All PE 1 Qtr Lag			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	22.9	May-21
CRV XVIII LP - Gross	9,713,119	0.1	1.6	--	--	--	--	--	--	--	--	--	--	--	-2.7	Feb-21
CRV XVIII LP - Net			1.6	--	--	--	--	--	--	--	--	--	--	--	-2.7	
Thomson Reuters CJA All PE 1 Qtr Lag			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	41.1	Feb-21
Davidson Kempner LT Dist Opp IV - Gross	38,704,910	0.3	5.4	--	11.9	--	17.4	--	8.9	--	--	--	--	--	10.3	Mar-18
Davidson Kempner LT Dist Opp IV - Net			5.4	--	11.9	--	17.4	--	8.9	--	--	--	--	--	10.3	
Thomson Reuters CJA All PE 1 Qtr Lag			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	20.9	Mar-18
Davidson Kempner LT Dist Opp V - Gross	21,218,863	0.2	4.9	--	22.6	--	42.7	--	--	--	--	--	--	--	30.0	May-20
Davidson Kempner LT Dist Opp V - Net			4.9	--	22.6	--	42.7	--	--	--	--	--	--	--	30.0	
Thomson Reuters CJA All PE 1 Qtr Lag			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	38.3	May-20
Digital Colony Partners II - Gross	8,448,172	0.1	-8.5	--	--	--	--	--	--	--	--	--	--	--	-8.5	May-21
Digital Colony Partners II - Net			-8.5	--	--	--	--	--	--	--	--	--	--	--	-8.5	
Thomson Reuters CJA All PE 1 Qtr Lag			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	22.9	May-21
Dyal Capital Partners II - Gross	29,111,388	0.2	17.0	--	41.3	--	46.5	--	8.2	--	4.4	--	--	--	-0.2	Dec-14
Dyal Capital Partners II - Net			17.0	--	41.3	--	46.5	--	8.2	--	4.4	--	--	--	-0.2	
Thomson Reuters CJA All PE 1 Qtr Lag			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	16.5	Dec-14

# Total Fund Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Dyal Capital Partners III - Gross	25,865,398	0.2	8.4	--	40.3	--	64.3	--	26.1	--	--	--	--	--	26.8	Dec-16
Dyal Capital Partners III - Net			8.4	--	40.3	--	64.3	--	26.1	--	--	--	--	--	26.8	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	19.6	Dec-16
Garrison Investment Group - Gross	8,468,077	0.1	10.4	--	22.7	--	22.5	--	0.9	--	1.4	--	--	--	1.1	May-12
Garrison Investment Group - Net			10.4	--	22.7	--	22.5	--	0.9	--	1.4	--	--	--	1.1	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	17.7	May-12
Gridiron Capital Fund IV - Gross	25,268,945	0.2	12.6	--	26.2	--	43.6	--	--	--	--	--	--	--	31.1	May-20
Gridiron Capital Fund IV - Net			12.6	--	26.2	--	43.6	--	--	--	--	--	--	--	31.1	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	38.3	May-20
Harbourvest VIII - Gross	10,531,156	0.1	8.7	--	42.3	--	56.7	--	19.7	--	19.3	--	15.4	--	12.2	Dec-07
Harbourvest VIII - Net			8.7	--	42.3	--	56.7	--	19.7	--	19.3	--	15.4	--	--	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	12.4	Dec-07
Harbourvest Intl VI - Gross	37,743,616	0.3	8.5	--	47.1	--	63.2	--	23.9	--	21.7	--	13.7	--	-1.3	Mar-09
Harbourvest Intl VI - Net			8.5	--	47.1	--	63.2	--	23.9	--	21.7	--	13.7	--	--	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	17.9	Mar-09
H.I.G. Bayside Loan III - Gross	4,911,612	0.0	8.1	--	19.8	--	21.8	--	1.5	--	5.8	--	--	--	5.0	Jan-13
H.I.G. Bayside Loan III - Net			8.1	--	19.8	--	21.8	--	1.5	--	5.8	--	--	--	5.0	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	18.4	Jan-13
H.I.G. Capital V - Gross	17,481,760	0.1	14.7	--	37.1	--	49.3	--	22.3	--	31.8	--	--	--	13.5	Jul-13
H.I.G. Capital V - Net			14.7	--	37.1	--	49.3	--	22.3	--	31.8	--	--	--	13.5	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	17.4	Jul-13
H.I.G. Europe Capital II - Gross*	15,001,720	0.1	5.8	--	41.3	--	50.6	--	17.6	--	-12.1	--	--	--	--	Jan-14
H.I.G. Europe Capital II - Net			5.8	--	41.3	--	50.6	--	17.6	--	-12.1	--	--	--	--	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	16.7	Jan-14
Khosla IV - Gross	20,014,585	0.2	-4.1	--	101.8	--	110.0	--	42.3	--	36.7	--	24.7	--	24.3	Jul-11
Khosla IV - Net			-4.1	--	101.8	--	110.0	--	42.3	--	36.7	--	24.7	--	24.3	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	16.6	Jul-11

\* Unable to calculate a since inception return due to system limitations when HIG Europe Capital II experienced 2 quarters of negative fund values in 2016.

Total Fund  
Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Khosla V - Gross	41,001,263	0.3	11.2	--	134.7	--	136.2	--	41.3	--	29.6	--	--	--	21.6	Nov-14
Khosla V - Net			11.2	--	134.7	--	136.2	--	41.3	--	29.6	--	--	--	21.6	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	16.1	Nov-14
Khosla VI - Gross	35,230,947	0.3	6.3	--	32.2	--	22.7	--	4.7	--	--	--	--	--	4.6	Aug-18
Khosla VI - Net			6.3	--	32.2	--	22.7	--	4.7	--	--	--	--	--	4.6	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	22.9	Aug-18
Khosla VII - Gross	4,082,164	0.0	8.2	--	--	--	--	--	--	--	--	--	--	--	-15.9	Jan-21
Khosla VII - Net			8.2	--	--	--	--	--	--	--	--	--	--	--	-15.9	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	41.1	Jan-21
Linden Capital III - Gross	50,483,430	0.4	22.9	--	76.1	--	122.5	--	53.9	--	39.7	--	--	--	32.6	Jun-16
Linden Capital III - Net			22.9	--	76.1	--	122.5	--	53.9	--	39.7	--	--	--	32.6	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	19.3	Jun-16
Linden Capital Partners IV - Gross	32,551,969	0.3	9.2	--	18.4	--	31.5	--	10.7	--	--	--	--	--	10.7	Sep-18
Linden Capital Partners IV - Net			9.2	--	18.4	--	31.5	--	10.7	--	--	--	--	--	10.7	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	21.5	Sep-18
Marlin Equity IV - Gross	11,838,325	0.1	3.8	--	19.6	--	22.0	--	16.9	--	12.4	--	--	--	7.1	Nov-13
Marlin Equity IV - Net			3.8	--	19.6	--	22.0	--	16.9	--	12.4	--	--	--	7.1	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	17.6	Nov-13
Marlin Equity V - Gross	18,483,878	0.1	3.4	--	31.8	--	41.7	--	28.9	--	--	--	--	--	21.0	Feb-18
Marlin Equity V - Net			3.4	--	31.8	--	41.7	--	28.9	--	--	--	--	--	21.0	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	21.8	Feb-18
Marlin Heritage - Gross	8,549,259	0.1	4.2	--	22.8	--	28.5	--	32.3	--	36.5	--	--	--	25.4	Jul-14
Marlin Heritage - Net			4.2	--	22.8	--	28.5	--	32.3	--	36.5	--	--	--	25.4	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	16.5	Jul-14
Marlin Heritage II - Gross	10,335,270	0.1	4.9	--	23.1	--	25.5	--	13.6	--	--	--	--	--	5.4	Oct-17
Marlin Heritage II - Net			4.9	--	23.1	--	25.5	--	13.6	--	--	--	--	--	5.4	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	20.8	Oct-17

Total Fund  
Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Marlin Heritage Europe - Gross	26,973,158	0.2	13.0	--	38.9	--	50.1	--	38.0	--	--	--	--	--	25.0	Aug-17
Marlin Heritage Europe - Net			13.0	--	38.9	--	50.1	--	38.0	--	--	--	--	--	25.0	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	20.8	Aug-17
New Enterprise 14 - Gross	65,612,651	0.5	11.8	--	127.3	--	136.7	--	42.9	--	32.4	--	--	--	22.4	May-12
New Enterprise 14 - Net			11.8	--	127.3	--	136.7	--	42.9	--	32.4	--	--	--	22.4	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	17.7	May-12
New Enterprise 15 - Gross	83,644,772	0.7	8.7	--	68.5	--	96.8	--	33.2	--	30.9	--	--	--	23.7	Apr-15
New Enterprise 15 - Net			8.7	--	68.5	--	96.8	--	33.2	--	30.9	--	--	--	23.7	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	17.0	Apr-15
New Enterprise 16 - Gross	49,463,623	0.4	1.9	--	34.7	--	49.4	--	26.1	--	--	--	--	--	15.1	May-17
New Enterprise 16 - Net			1.9	--	34.7	--	49.4	--	26.1	--	--	--	--	--	15.1	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	20.4	May-17
New Enterprise 17 - Gross	20,927,361	0.2	7.7	--	55.4	--	72.7	--	--	--	--	--	--	--	29.2	Jul-19
New Enterprise 17 - Net			7.7	--	55.4	--	72.7	--	--	--	--	--	--	--	29.2	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	26.9	Jul-19
OrbiMed Private Investments VIII, LP - Gross	5,476,481	0.0	5.5	--	-4.4	--	--	--	--	--	--	--	--	--	-4.4	Dec-20
OrbiMed Private Investments VIII, LP - Net			5.5	--	-4.4	--	--	--	--	--	--	--	--	--	-4.4	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	41.1	Dec-20
Private Equity X - Gross	28,569,701	0.2	0.1	--	36.9	--	37.5	--	10.3	--	15.3	--	12.2	--	1.0	Jun-08
Private Equity X - Net			0.1	--	36.9	--	37.5	--	10.3	--	15.3	--	12.2	--	--	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	13.9	Jun-08
RCP Multi-Fund Feeder - Gross	48,817,749	0.4	7.4	--	23.6	--	35.4	--	--	--	--	--	--	--	5.9	Nov-18
RCP Multi-Fund Feeder - Net			7.4	--	23.6	--	35.4	--	--	--	--	--	--	--	5.9	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	22.9	Nov-18
RRJ Capital Master Fund II - Gross	10,578,374	0.1	-7.0	--	24.7	--	51.5	--	9.6	--	10.0	--	--	--	11.8	May-13
RRJ Capital Master Fund II - Net			-7.0	--	24.7	--	51.5	--	9.6	--	10.0	--	--	--	11.8	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	17.9	May-13

Total Fund  
Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
RRJ Capital Master Fund III - Gross	12,456,397	0.1	13.0	--	26.3	--	24.7	--	8.4	--	10.2	--	--	--	-5.2	Dec-15
RRJ Capital Master Fund III - Net			13.0	--	26.3	--	24.7	--	8.4	--	10.2	--	--	--	-5.2	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	19.3	Dec-15
Shamrock Capital II - Gross	5,539,701	0.0	3.3	--	-2.5	--	-98.8	--	--	--	--	--	--	--	-97.7	Jul-20
Shamrock Capital II - Net			3.3	--	-2.5	--	-98.8	--	--	--	--	--	--	--	-97.7	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	56.5	Jul-20
Shamrock Capital Growth Fund V - Gross	818,322	0.0	--	--	--	--	--	--	--	--	--	--	--	--	0.0	Jul-21
Shamrock Capital Growth Fund V - Net			--	--	--	--	--	--	--	--	--	--	--	--	0.0	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	12.4	Jul-21
Spectrum Equity VII - Gross	63,589,431	0.5	-0.3	--	6.2	--	115.2	--	69.7	--	59.6	--	--	--	30.2	Dec-14
Spectrum Equity VII - Net			-0.3	--	6.2	--	115.2	--	69.7	--	59.6	--	--	--	30.2	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	16.5	Dec-14
Spectrum Equity Fund VIII - Gross	29,809,937	0.2	1.4	--	180.8	--	188.2	--	1.8	--	--	--	--	--	-20.6	Jun-18
Spectrum Equity Fund VIII - Net			1.4	--	180.8	--	188.2	--	1.8	--	--	--	--	--	-20.6	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	21.6	Jun-18
Spectrum Equity Fund IX - Gross	5,658,428	0.0	-3.1	--	-15.3	--	-18.1	--	--	--	--	--	--	--	-18.1	Sep-20
Spectrum Equity Fund IX - Net			-3.1	--	-15.3	--	-18.1	--	--	--	--	--	--	--	-18.1	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	54.8	Sep-20
Strategic Value Spl Fund V - Gross	3,750,000	0.0	--	--	--	--	--	--	--	--	--	--	--	--	0.0	Aug-21
Strategic Value Spl Fund V - Net			--	--	--	--	--	--	--	--	--	--	--	--	0.0	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	12.4	Aug-21
Summit EUR Growth Equity II - Gross	39,712,897	0.3	31.8	--	35.6	--	65.3	--	44.0	--	--	--	--	--	82.7	Jan-18
Summit EUR Growth Equity II - Net			31.8	--	35.6	--	65.3	--	44.0	--	--	--	--	--	82.7	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	21.2	Jan-18
Summit EUR Growth Equity III - Gross	4,228,764	0.0	-3.1	--	--	--	--	--	--	--	--	--	--	--	-21.4	Jan-21
Summit EUR Growth Equity III - Net			-3.1	--	--	--	--	--	--	--	--	--	--	--	-21.4	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	41.1	Jan-21

Total Fund  
Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Summit Ventures III - Gross	3,162,457	0.0	-2.6	--	5.8	--	9.8	--	15.1	--	19.1	--	--	--	13.3	Jun-12
Summit Ventures III - Net			-2.6	--	5.8	--	9.8	--	15.1	--	19.1	--	--	--	13.3	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	17.5	Jun-12
Summit Ventures IV - Gross	42,093,098	0.3	12.8	--	95.8	--	101.5	--	55.5	--	42.9	--	--	--	44.6	May-16
Summit Ventures IV - Net			12.8	--	95.8	--	101.5	--	55.5	--	42.9	--	--	--	44.6	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	20.5	May-16
Summit Ventures V - Gross	3,879,400	0.0	-10.3	--	--	--	--	--	--	--	--	--	--	--	-10.3	May-21
Summit Ventures V - Net			-10.3	--	--	--	--	--	--	--	--	--	--	--	-10.3	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	22.9	May-21
Thoma Bravo XI - Gross	54,852,881	0.4	7.3	--	26.6	--	33.3	--	49.9	--	44.9	--	--	--	30.8	Jun-14
Thoma Bravo XI - Net			7.3	--	26.6	--	33.3	--	49.9	--	44.9	--	--	--	30.8	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	16.4	Jun-14
Thoma Bravo XII - Gross	49,277,596	0.4	6.2	--	19.0	--	30.3	--	21.9	--	15.3	--	--	--	11.6	May-16
Thoma Bravo XII - Net			6.2	--	19.0	--	30.3	--	21.9	--	15.3	--	--	--	11.6	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	20.5	May-16
Thoma Bravo XIII - Gross	61,230,566	0.5	5.0	--	18.4	--	62.4	--	--	--	--	--	--	--	43.1	Feb-19
Thoma Bravo XIII - Net			5.0	--	18.4	--	62.4	--	--	--	--	--	--	--	43.1	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	23.6	Feb-19
Threshold Ventures III - Gross	18,006,715	0.1	49.5	--	57.2	--	53.3	--	--	--	--	--	--	--	14.9	Oct-19
Threshold Ventures III - Net			49.5	--	57.2	--	53.3	--	--	--	--	--	--	--	14.9	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	28.5	Oct-19
TPG Opp Partners III - Gross	14,022,283	0.1	14.0	--	30.7	--	32.5	--	12.0	--	13.4	--	--	--	-7.4	Mar-14
TPG Opp Partners III - Net			14.0	--	30.7	--	32.5	--	12.0	--	13.4	--	--	--	-7.4	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	16.3	Mar-14
Trinity Ventures XI - Gross	56,566,236	0.4	20.8	--	56.0	--	64.3	--	23.9	--	21.6	--	--	--	10.9	Apr-13
Trinity Ventures XI - Net			20.8	--	56.0	--	64.3	--	23.9	--	21.6	--	--	--	10.9	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	17.9	Apr-13

# Total Fund Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Trinity Ventures XII - Gross	76,478,872	0.6	25.6	--	128.0	--	136.4	--	60.7	--	40.6	--	--	--	34.8	Apr-16
Trinity Ventures XII - Net			25.6	--	128.0	--	136.4	--	60.7	--	40.6	--	--	--	34.8	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	20.2	Apr-16
TSG7 A LP - Gross <sup>+</sup>	20,221,214	0.2	14.7	--	44.6	--	64.7	--	24.2	--	16.0	--	--	--	--	Mar-16
TSG7 A LP - Net			14.7	--	44.6	--	64.7	--	24.2	--	16.0	--	--	--	--	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	18.7	Mar-16
TSG7 B LP - Gross	5,402,941	0.0	50.4	--	88.3	--	102.9	--	27.1	--	2.0	--	--	--	-1.3	Jan-16
TSG7 B LP - Net			50.4	--	88.3	--	102.9	--	27.1	--	2.0	--	--	--	-1.3	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	17.9	Jan-16
TSG8 LP - Gross <sup>++</sup>	22,162,246	0.2	-0.1	--	26.3	--	33.4	--	--	--	--	--	--	--	--	Jan-19
TSG8 LP - Net			-0.1	--	26.3	--	33.4	--	--	--	--	--	--	--	--	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	22.8	Jan-19
TSSP Opportunities Partners IV - Gross	24,139,286	0.2	3.7	--	27.9	--	35.6	--	--	--	--	--	--	--	15.8	Jan-19
TSSP Opportunities Partners IV - Net			3.7	--	27.9	--	35.6	--	--	--	--	--	--	--	15.8	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	22.8	Jan-19
Waterland V - Gross	13,021,554	0.1	9.6	--	22.3	--	47.0	--	28.9	--	36.6	--	24.1	--	23.8	Aug-11
Waterland V - Net			9.6	--	22.3	--	47.0	--	28.9	--	36.6	--	24.1	--	23.8	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	16.9	Aug-11
Waterland VI - Gross	22,967,939	0.2	4.9	--	23.8	--	56.6	--	36.2	--	29.2	--	--	--	6.8	Jul-15
Waterland VI - Net			4.9	--	23.8	--	56.6	--	36.2	--	29.2	--	--	--	6.8	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	16.7	Jul-15
Wayzata Opportunities III - Gross	4,790,643	0.0	6.2	--	-7.5	--	-6.6	--	-4.1	--	-2.0	--	--	--	-5.2	Feb-13
Wayzata Opportunities III - Net			6.2	--	-7.5	--	-6.6	--	-4.1	--	-2.0	--	--	--	-5.2	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	18.4	Feb-13

<sup>+</sup> Unable to calculate a since inception return due to system limitations when TSG7 A LP experienced 1 quarter of negative fund value in 2016 .

<sup>++</sup> Unable to calculate a year to date, 1-year and since inception return due to system limitations when TSG8 LP experienced several months of negative fund value in 2019 and 2020.



# Total Fund Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Wynnchurch Capital Partners V - Gross	5,191,444	0.0	13.4	--	53.7	--	-15.1	--	--	--	--	--	--	--	-21.8	Apr-20
Wynnchurch Capital Partners V - Net			13.4	--	53.7	--	-15.1	--	--	--	--	--	--	--	-21.8	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	35.7	Apr-20
<b>Public Credit - Gross</b>	<b>219,896,909</b>	<b>1.7</b>	<b>1.6</b>	<b>--</b>	<b>11.8</b>	<b>--</b>	<b>21.0</b>	<b>--</b>	<b>6.5</b>	<b>--</b>	<b>6.7</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>5.5</b>	<b>Nov-13</b>
<b>Public Credit - Net</b>			<b>1.6</b>	<b>--</b>	<b>11.8</b>	<b>--</b>	<b>21.0</b>	<b>--</b>	<b>6.5</b>	<b>--</b>	<b>6.7</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>5.5</b>	
<i>Brigade Custom<sup>1</sup></i>			1.0	--	4.7	--	10.0	--	5.4	--	5.5	--	--	--	4.9	Nov-13
Brigade Capital - Gross	219,896,909	1.7	1.6	6	11.8	2	21.0	3	6.5	71	6.7	42	--	--	5.5	Nov-13
Brigade Capital - Net			1.6	6	11.8	2	21.0	3	6.5	71	6.7	42	--	--	5.5	
<i>Brigade Custom</i>			1.0	28	4.7	43	10.0	66	5.4	87	5.5	84	--	--	4.9	Nov-13
<i>eV US High Yield Fixed Inc Gross Median</i>			0.9	--	4.5	--	10.7	--	7.0	--	6.5	--	7.4	--	5.8	Nov-13
<b>Private Credit - Gross<sup>++</sup></b>	<b>264,671,230</b>	<b>2.1</b>	<b>1.9</b>	<b>--</b>	<b>11.8</b>	<b>--</b>	<b>18.0</b>	<b>--</b>	<b>9.2</b>	<b>--</b>	<b>9.2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>7.7</b>	<b>Oct-11</b>
<b>Private Credit - Net</b>			<b>1.9</b>	<b>--</b>	<b>11.8</b>	<b>--</b>	<b>18.0</b>	<b>--</b>	<b>9.2</b>	<b>--</b>	<b>9.2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>7.7</b>	
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			1.8	--	8.6	--	13.7	--	6.4	--	7.0	--	6.6	--	6.6	Oct-11
Ares Capital Europe Fund V - Gross	4,696,231	0.0	--	--	--	--	--	--	--	--	--	--	--	--	0.0	Jul-21
Ares Capital Europe Fund V - Net			--	--	--	--	--	--	--	--	--	--	--	--	0.0	
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			1.8	--	8.6	--	13.7	--	6.4	--	7.0	--	6.6	--	1.2	Jul-21
Athyrium Opp II - Gross	12,590,451	0.1	-0.3	--	9.8	--	16.1	--	13.2	--	11.6	--	--	--	9.0	Jun-15
Athyrium Opp II - Net			-0.3	--	9.8	--	16.1	--	13.2	--	11.6	--	--	--	9.0	
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			1.8	--	8.6	--	13.7	--	6.4	--	7.0	--	6.6	--	6.3	Jun-15
Athyrium Opp III - Gross	16,064,929	0.1	1.2	--	6.6	--	13.8	--	8.6	--	--	--	--	--	3.6	May-17
Athyrium Opp III - Net			1.2	--	6.6	--	13.8	--	8.6	--	--	--	--	--	3.6	
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			1.8	--	8.6	--	13.7	--	6.4	--	7.0	--	6.6	--	6.3	May-17
Benefit St Pr Sr Secure Opp - Gross	35,750,075	0.3	2.0	--	11.9	--	17.3	--	6.1	--	--	--	--	--	6.0	Jan-18
Benefit St Pr Sr Secure Opp - Net			2.0	--	11.9	--	17.3	--	6.1	--	--	--	--	--	6.0	
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			1.8	--	8.6	--	13.7	--	6.4	--	7.0	--	6.6	--	6.3	Jan-18

1. See Policy Index and Benchmark History.

++ Private Credit returns are one-quarter lag.

+ Returns for private markets are shown on a time-weighted basis and may differ substantially from dollar-weighted returns.

Total Fund  
Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Benefit St Pr Sr Secure Opp II - Gross	21,452,189	0.2	12.8	--	-4.4	--	1.9	--	--	--	--	--	--	--	7.5	Dec-19
Benefit St Pr Sr Secure Opp II - Net			12.8	--	-4.4	--	1.9	--	--	--	--	--	--	--	7.5	
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			1.8	--	8.6	--	13.7	--	6.4	--	7.0	--	6.6	--	6.5	Dec-19
IFM US Infrastructure DB FD LP - Gross	8,863,876	0.1	4.1	--	--	--	--	--	--	--	--	--	--	--	4.1	Mar-21
IFM US Infrastructure DB FD LP - Net			4.1	--	--	--	--	--	--	--	--	--	--	--	4.1	
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			1.8	--	8.6	--	13.7	--	6.4	--	7.0	--	6.6	--	4.3	Mar-21
MCP Private Capital IV - Gross	9,824,886	0.1	-1.6	--	-7.6	--	-9.0	--	--	--	--	--	--	--	-4.6	Apr-20
MCP Private Capital IV - Net			-1.6	--	-7.6	--	-9.0	--	--	--	--	--	--	--	-4.6	
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			1.8	--	8.6	--	13.7	--	6.4	--	7.0	--	6.6	--	6.0	Apr-20
OrbiMed Royalty & Credit Opp III - Gross	10,093,312	0.1	-12.2	--	32.0	--	75.7	--	--	--	--	--	--	--	28.3	Sep-19
OrbiMed Royalty & Credit Opp III - Net			-12.2	--	32.0	--	75.7	--	--	--	--	--	--	--	28.3	
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			1.8	--	8.6	--	13.7	--	6.4	--	7.0	--	6.6	--	6.5	Sep-19
Shamrock Capital Debt Fund I - Gross	81,658	0.0	--	--	--	--	--	--	--	--	--	--	--	--	0.0	Jul-21
Shamrock Capital Debt Fund I - Net			--	--	--	--	--	--	--	--	--	--	--	--	0.0	
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			1.8	--	8.6	--	13.7	--	6.4	--	7.0	--	6.6	--	1.2	Jul-21
Silver Point Specialty Credit Fund II - Gross	20,431,028	0.2	2.6	--	10.0	--	28.5	--	--	--	--	--	--	--	24.0	Jul-20
Silver Point Specialty Credit Fund II - Net			2.6	--	10.0	--	28.5	--	--	--	--	--	--	--	24.0	
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			1.8	--	8.6	--	13.7	--	6.4	--	7.0	--	6.6	--	16.8	Jul-20
Summit Credit - Gross	403,823	0.0	1.1	--	17.2	--	19.5	--	2.6	--	5.9	--	--	--	6.7	Oct-11
Summit Credit - Net			1.1	--	17.2	--	19.5	--	2.6	--	5.9	--	--	--	6.7	
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			1.8	--	8.6	--	13.7	--	6.4	--	7.0	--	6.6	--	6.6	Oct-11
Summit Credit II - Gross	16,974,053	0.1	-3.0	--	3.5	--	2.3	--	1.9	--	5.7	--	--	--	4.6	Nov-14
Summit Credit II - Net			-3.0	--	3.5	--	2.3	--	1.9	--	5.7	--	--	--	4.6	
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			1.8	--	8.6	--	13.7	--	6.4	--	7.0	--	6.6	--	6.1	Nov-14
Summit Credit III - Gross	30,652,189	0.2	4.4	--	21.1	--	25.6	--	--	--	--	--	--	--	15.4	Oct-18
Summit Credit III - Net			4.4	--	21.1	--	25.6	--	--	--	--	--	--	--	15.4	
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			1.8	--	8.6	--	13.7	--	6.4	--	7.0	--	6.6	--	6.2	Oct-18

# Total Fund Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
TCP Direct Lending VIII - Gross	76,792,530	0.6	3.1	--	11.3	--	17.6	--	9.2	--	--	--	--	--	7.7	Feb-18
TCP Direct Lending VIII - Net			3.1	--	11.3	--	17.6	--	9.2	--	--	--	--	--	7.7	
<i>Credit Suisse Leveraged Loan + 2% 1 Qtr Lag</i>			1.8	--	8.6	--	13.7	--	6.4	--	7.0	--	6.6	--	6.4	Feb-18
<b>Growth Oriented Absolute Return - Gross** **</b>	<b>300,205,926</b>	<b>2.3</b>	<b>4.1</b>	<b>--</b>	<b>14.6</b>	<b>--</b>	<b>27.6</b>	<b>--</b>	<b>9.5</b>	<b>--</b>	<b>9.0</b>	<b>--</b>	<b>7.7</b>	<b>--</b>	<b>5.8</b>	<b>Aug-04</b>
<b>Growth Oriented Absolute Return - Net</b>			<b>4.1</b>	<b>--</b>	<b>14.6</b>	<b>--</b>	<b>27.6</b>	<b>--</b>	<b>9.5</b>	<b>--</b>	<b>9.0</b>	<b>--</b>	<b>7.7</b>	<b>--</b>	<b>5.8</b>	
<i>HFRI FoF Composite Index + 1%</i>			1.0	--	6.6	--	15.5	--	7.6	--	6.7	--	5.9	--	6.5	Aug-04
Grosvenor SCARF Growth - Gross	93,458,191	0.7	-0.2	54	2.6	71	11.8	63	4.5	76	6.3	52	--	--	5.9	Nov-11
Grosvenor SCARF Growth - Net			-0.2	54	2.6	71	11.8	63	4.5	76	6.3	52	--	--	5.9	
<i>HFRI FoF Composite Index + 1%</i>			1.0	43	6.6	43	15.5	42	7.6	44	6.7	46	5.9	49	5.9	Nov-11
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>			0.1		5.6		13.9		7.1		6.4		5.6		5.6	Nov-11
Lakewood - Gross	56,978,590	0.4	3.5	18	27.2	12	49.5	18	9.6	51	7.6	68	--	--	7.1	Jun-13
Lakewood - Net			3.5	18	27.2	12	49.5	18	9.6	51	7.6	68	--	--	7.1	
<i>HFRI FoF Composite Index + 1%</i>			1.0	36	6.6	58	15.5	63	7.6	63	6.7	74	5.9	79	6.1	Jun-13
<i>eV Alt Fundamental - Long/Short Equity Median</i>			-0.2		8.6		22.2		9.6		9.9		8.8		8.1	Jun-13
Sculptor Domestic II - Gross	67,363,367	0.5	1.3	32	7.2	47	13.7	54	11.8	22	10.6	19	--	--	8.7	Dec-11
Sculptor Domestic II - Net			1.3	32	7.2	47	13.7	54	11.8	22	10.6	19	--	--	8.7	
<i>HFRI FoF Composite Index + 1%</i>			1.0	36	6.6	50	15.5	47	7.6	36	6.7	45	5.9	51	5.9	Dec-11
<i>eV Alt All Multi-Strategy Median</i>			0.1		6.4		14.4		5.8		5.7		6.3		6.3	Dec-11
Third Point Offshore Fund - Gross	82,405,778	0.6	12.7	2	30.3	3	51.7	6	18.3	4	14.3	8	--	--	12.8	Apr-12
Third Point Offshore Fund - Net			12.7	2	30.3	3	51.7	6	18.3	4	14.3	8	--	--	12.8	
<i>HFRI FoF Composite Index + 1%</i>			1.0	32	6.6	54	15.5	53	7.6	39	6.7	50	5.9	56	6.0	Apr-12
<i>eV Alt All Event Driven Median</i>			-0.1		7.2		16.0		6.2		6.5		6.4		6.1	Apr-12

\*\* Absolute Return managers are ranked in the eVest net of fee universe.

\*\* Composite reflects net returns from Cliffwater up to March 2017.

# Total Fund Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Diversifying Asset Category - Gross	2,590,958,740	20.2	0.0	--	0.4	--	3.7	--	5.5	--	--	--	--	--	4.2	Mar-17
Diversifying Asset Category - Net			-0.1	--	0.3	--	3.6	--	5.3	--	--	--	--	--	4.0	
<i>Diversifying Custom<sup>1</sup></i>			0.1	--	0.0	--	2.2	--	5.1	--	3.4	--	--	--	4.0	Mar-17
Core/Core Plus Fixed Income - Gross	1,033,461,544	8.0	0.2	--	-0.8	--	1.2	--	6.6	--	4.1	--	3.8	--	3.9	Jun-11
Core/Core Plus Fixed Income - Net			0.1	--	-0.9	--	1.0	--	6.4	--	4.0	--	3.7	--	3.8	
<i>Bloomberg US Aggregate TR</i>			0.1	--	-1.6	--	-0.9	--	5.4	--	2.9	--	3.0	--	3.3	Jun-11
Prudential - Gross	517,503,908	4.0	0.2	17	-0.8	36	1.7	9	6.6	14	4.5	5	--	--	4.8	Jul-14
Prudential - Net			0.2	31	-1.0	43	1.6	10	6.4	21	4.4	6	--	--	4.6	
<i>Bloomberg US Aggregate TR</i>			0.1	62	-1.6	81	-0.9	84	5.4	88	2.9	92	3.0	95	3.2	Jul-14
<i>eV US Core Fixed Inc Gross Median</i>			0.1		-1.1		0.0		6.0		3.5		3.7		3.7	Jul-14
TCW MetWest Fixed - Gross	515,957,636	4.0	0.2	20	-0.8	32	0.6	29	6.6	16	4.0	15	4.4	10	5.8	Dec-01
TCW MetWest Fixed - Net			0.1	54	-0.9	39	0.5	34	6.4	22	3.8	24	4.2	14	5.6	
<i>Bloomberg US Aggregate TR</i>			0.1	62	-1.6	81	-0.9	84	5.4	88	2.9	92	3.0	95	4.4	Dec-01
<i>eV US Core Fixed Inc Gross Median</i>			0.1		-1.1		0.0		6.0		3.5		3.7		4.9	Dec-01
U.S. Treasury - Gross	481,558,202	3.7	0.1	--	-2.3	--	-3.1	--	4.9	--	--	--	--	--	4.2	Feb-18
U.S. Treasury - Net			0.1	--	-2.4	--	-3.1	--	4.9	--	--	--	--	--	4.2	
<i>Bloomberg US Treasury TR</i>			0.1	--	-2.5	--	-3.3	--	4.9	--	2.2	--	2.2	--	4.2	Feb-18
Neuberger Berman - Gross <sup>+</sup>	481,558,202	3.7	0.1	56	-2.3	85	-3.1	90	4.9	39	2.7	18	3.1	1	6.2	Jun-88
Neuberger Berman - Net			0.1	63	-2.4	85	-3.1	91	4.9	43	2.7	31	3.1	2	6.2	
<i>Bloomberg US Govt TR</i>			0.1	35	-2.4	86	-3.2	92	4.9	44	2.3	77	2.2	74	5.7	Jun-88
<i>eV US Government Fixed Inc Gross Median</i>			0.1		-1.1		-1.2		4.8		2.5		2.5		--	Jun-88

1. See Policy Index and Benchmark History.

+ Account converted to U.S. Treasury from Core Fixed Income in February 2018. Reflects linked historical returns up to February 2018.

# Total Fund Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Global Fixed Income - Gross	275,789,670	2.1	-3.2	--	-4.5	--	5.7	--	5.1	--	3.6	--	--	--	3.1	May-13
Global Fixed Income - Net			-3.3	--	-4.7	--	5.3	--	4.8	--	3.2	--	--	--	2.7	
<i>Brandywine Custom<sup>1</sup></i>			-1.6	--	-6.0	--	-2.1	--	3.8	--	1.6	--	--	--	1.4	May-13
Brandywine Global - Gross	275,789,670	2.1	-3.2	97	-4.5	82	5.7	34	5.1	61	3.6	61	--	--	3.1	May-13
Brandywine Global - Net			-3.3	97	-4.7	83	5.3	37	4.8	69	3.2	68	--	--	2.7	
<i>Brandywine Custom</i>			-1.6	86	-6.0	91	-2.1	92	3.8	84	1.6	93	--	--	1.4	May-13
<i>eV All Global Fixed Inc Gross Median</i>			0.0		-0.4		3.4		5.6		4.1		3.9		3.6	May-13
Diversifying Absolute Return - Gross <sup>++</sup>	800,149,324	6.2	0.8	--	5.7	--	11.5	--	4.1	--	3.3	--	--	--	2.8	Nov-11
Diversifying Absolute Return - Net			0.7	--	5.7	--	11.4	--	4.1	--	3.2	--	--	--	2.8	
<i>HFRI FoF Conservative Index</i>			1.0	--	6.9	--	13.1	--	5.4	--	5.1	--	5.1	--	5.1	Nov-11
Aristeia Partners LP - Gross	47,877,772	0.4	0.6	58	6.4	23	--	--	--	--	--	--	--	--	6.4	Dec-20
Aristeia Partners LP - Net			0.6	58	6.4	23	--	--	--	--	--	--	--	--	6.4	
<i>HFRI FoF Conservative Index</i>			1.0	38	6.9	18	13.1	12	5.4	57	5.1	48	5.1	27	6.9	Dec-20
<i>eV Alt Relative Value - Multi-Market Arbitrage Median</i>			0.8		1.3		4.4		6.9		4.3		4.4		1.3	Dec-20
BlackRock Event Driven Equity Fund - Gross	53,345,195	0.4	-1.0	62	2.4	76	6.6	80	--	--	--	--	--	--	6.3	Feb-20
BlackRock Event Driven Equity Fund - Net			-1.3	70	1.2	82	5.0	82	--	--	--	--	--	--	4.7	
<i>HFRI FoF Conservative Index</i>			1.0	32	6.9	53	13.1	57	5.4	55	5.1	62	5.1	68	8.8	Feb-20
<i>eV Alt All Event Driven Median</i>			-0.1		7.2		16.0		6.2		6.5		6.4		9.6	Feb-20
Davidson Kempner Instl Partners LP - Gross	58,617,001	0.5	-0.2	57	6.9	49	12.2	59	--	--	--	--	--	--	7.2	Apr-19
Davidson Kempner Instl Partners LP - Net			-0.2	57	6.9	49	12.2	59	--	--	--	--	--	--	7.2	
<i>HFRI FoF Conservative Index</i>			1.0	36	6.9	48	13.1	56	5.4	52	5.1	56	5.1	57	6.4	Apr-19
<i>eV Alt All Multi-Strategy Median</i>			0.1		6.4		14.4		5.8		5.7		6.3		7.2	Apr-19

1. See Policy Index and Benchmark History.

++ Absolute Return managers are ranked in the eVest net of fee universe.

\*\* Composite reflects net returns from Cliffwater up to March 2017.

# Total Fund Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Eisler Capital Fund LP - Gross	43,548,012	0.3	-3.2	85	--	--	--	--	--	--	--	--	--	--	-3.2	Jun-21
Eisler Capital Fund LP - Net			-3.2	85	--	--	--	--	--	--	--	--	--	--	-3.2	
<i>HFRI FoF Conservative Index</i>			1.0	36	6.9	48	13.1	56	5.4	52	5.1	56	5.1	57	1.0	Jun-21
<i>eV Alt All Multi-Strategy Median</i>			0.1		6.4		14.4		5.8		5.7		6.3		0.1	Jun-21
Elliott Associates - Gross*	71,271,592	0.6	3.2	11	9.6	33	13.2	57	9.5	27	8.8	30	--	--	8.2	Apr-12
Elliott Associates - Net			3.2	11	9.6	33	13.2	57	9.5	27	8.8	30	--	--	8.2	
<i>HFRI FoF Conservative Index</i>			1.0	32	6.9	53	13.1	57	5.4	55	5.1	62	5.1	68	5.1	Apr-12
<i>eV Alt All Event Driven Median</i>			-0.1		7.2		16.0		6.2		6.5		6.4		6.1	Apr-12
Graham Global Inv II - Gross	37,812,539	0.3	-2.3	77	3.9	64	12.7	53	3.2	72	--	--	--	--	1.9	Feb-17
Graham Global Inv II - Net			-2.3	77	3.9	64	12.7	53	3.2	72	--	--	--	--	1.9	
<i>HFRI FoF Conservative Index</i>			1.0	42	6.9	54	13.1	53	5.4	61	5.1	39	5.1	25	5.0	Feb-17
<i>eV Alt All Managed Futures Median</i>			0.5		8.5		13.7		6.8		3.9		3.6		4.9	Feb-17
Grosvenor SCARF Diversifying - Gross	217,952,022	1.7	2.2	25	2.0	74	7.9	79	5.1	72	3.2	86	--	--	2.6	Nov-11
Grosvenor SCARF Diversifying - Net			2.2	25	2.0	74	7.9	79	5.1	72	3.2	86	--	--	2.6	
<i>HFRI FoF Conservative Index</i>			1.0	44	6.9	41	13.1	53	5.4	70	5.1	65	5.1	62	5.1	Nov-11
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>			0.1		5.6		13.9		7.1		6.4		5.6		5.6	Nov-11
Grosvenor SCARF B Diversifying - Gross	228,052	0.0	-3.3	87	-5.7	97	-3.3	99	1.5	96	0.1	99	--	--	0.8	Jan-13
Grosvenor SCARF B Diversifying - Net			-3.3	87	-5.7	97	-3.3	99	1.5	96	0.1	99	--	--	0.8	
<i>HFRI FoF Conservative Index</i>			1.0	44	6.9	41	13.1	53	5.4	70	5.1	65	5.1	62	5.1	Jan-13
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>			0.1		5.6		13.9		7.1		6.4		5.6		5.3	Jan-13
KLS Diversified Fund - Gross	5,348,402	0.0	-0.8	86	1.8	43	6.3	41	--	--	--	--	--	--	-2.0	Dec-18
KLS Diversified Fund - Net			-0.8	86	1.8	43	6.3	41	--	--	--	--	--	--	-2.0	
<i>HFRI FoF Conservative Index</i>			1.0	38	6.9	18	13.1	12	5.4	57	5.1	48	5.1	27	7.2	Dec-18
<i>eV Alt Relative Value - Multi-Market Arbitrage Median</i>			0.8		1.3		4.4		6.9		4.3		4.4		7.3	Dec-18

+ Preliminary quarterly returns as of 9/30/2021.

Total Fund  
Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Laurion Capital - Gross	64,898,217	0.5	-5.1	85	21.3	14	33.2	25	18.5	16	13.4	13	--	--	10.9	Mar-14
Laurion Capital - Net			-5.1	85	21.3	14	33.2	25	18.5	16	13.4	13	--	--	10.9	
<i>HFRI FoF Conservative Index</i>			1.0	62	6.9	66	13.1	54	5.4	76	5.1	70	5.1	72	5.1	Mar-14
<i>eV Alt Relative Value - Equity Relative Value Median</i>			1.2		9.5		19.1		8.8		7.4		5.9		5.9	Mar-14
LMR Fund LTD - Gross	48,839,441	0.4	4.0	11	13.0	25	19.5	38	--	--	--	--	--	--	4.4	Oct-19
LMR Fund LTD - Net			4.0	11	13.0	25	19.5	38	--	--	--	--	--	--	4.4	
<i>HFRI FoF Conservative Index</i>			1.0	36	6.9	48	13.1	56	5.4	52	5.1	56	5.1	57	7.8	Oct-19
<i>eV Alt All Multi-Strategy Median</i>			0.1		6.4		14.4		5.8		5.7		6.3		8.0	Oct-19
MW Global Opportunities Fund - Gross	53,879,885	0.4	4.0	16	-3.7	89	5.1	89	--	--	--	--	--	--	7.4	Dec-18
MW Global Opportunities Fund - Net			4.0	16	-3.7	89	5.1	89	--	--	--	--	--	--	7.4	
<i>HFRI FoF Conservative Index</i>			1.0	36	6.9	57	13.1	69	5.4	76	5.1	83	5.1	85	7.2	Dec-18
<i>eV Alt Fundamental - Long/Short Equity Median</i>			-0.2		8.6		22.2		9.6		9.9		8.8		14.9	Dec-18
PSquared Event Driven Opp Fund - Gross	51,612,558	0.4	1.5	26	1.4	81	3.5	85	--	--	--	--	--	--	2.9	Jul-20
PSquared Event Driven Opp Fund - Net			1.5	26	1.4	81	3.5	85	--	--	--	--	--	--	2.9	
<i>HFRI FoF Conservative Index</i>			1.0	32	6.9	53	13.1	57	5.4	55	5.1	62	5.1	68	12.3	Jul-20
<i>eV Alt All Event Driven Median</i>			-0.1		7.2		16.0		6.2		6.5		6.4		15.2	Jul-20
Two Sigma Risk Premia Enhanced - Gross	44,918,637	0.3	1.3	32	11.9	27	18.1	40	--	--	--	--	--	--	-0.1	Sep-19
Two Sigma Risk Premia Enhanced - Net			1.3	32	11.9	27	18.1	40	--	--	--	--	--	--	-0.1	
<i>HFRI FoF Conservative Index</i>			1.0	36	6.9	48	13.1	56	5.4	52	5.1	56	5.1	57	7.6	Sep-19
<i>eV Alt All Multi-Strategy Median</i>			0.1		6.4		14.4		5.8		5.7		6.3		7.9	Sep-19

# Total Fund Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Real Return (with SSgA RA Overlay Proxy) - Gross	2,148,389,938	16.7	4.9	--	14.0	--	17.9	--	7.3	--	--	--	--	--	8.4	Mar-17
Real Return (with SSgA RA Overlay Proxy) - Net			4.8	--	13.9	--	17.7	--	7.1	--	--	--	--	--	8.2	
<i>Real Return Custom<sup>1</sup></i>			5.1	--	13.1	--	15.8	--	5.2	--	6.1	--	--	--	6.1	Mar-17
Real Return Asset Category - Gross	2,148,389,938	16.7	4.9	--	14.0	--	17.9	--	7.4	--	--	--	--	--	9.1	Mar-17
Real Return Asset Category - Net			4.8	--	13.9	--	17.7	--	7.2	--	--	--	--	--	8.9	
<i>Real Return Custom</i>			5.1	--	13.1	--	15.8	--	5.2	--	6.1	--	--	--	6.1	Mar-17
Real Estate - Gross	921,147,764	7.2	5.0	58	13.4	11	16.7	6	9.1	5	10.0	2	10.9	9	11.0	Jun-11
Real Estate - Net			5.0	59	13.2	11	16.5	6	8.8	5	9.7	2	10.3	15	10.4	
<i>Real Estate Custom<sup>1</sup></i>			5.8	37	12.0	25	12.3	53	6.6	31	7.1	42	9.1	37	9.2	Jun-11
<i>InvMetrics All DB Real Estate Priv Net Median</i>			5.3		11.3		12.5		6.2		6.5		8.6		8.8	Jun-11
Core RE -Limited Partnership - Gross	673,773,844	5.2	5.2	--	15.4	--	19.0	--	10.1	--	10.6	--	11.3	--	6.1	Sep-08
Core RE -Limited Partnership - Net			5.2	--	15.3	--	18.7	--	9.8	--	10.3	--	10.7	--	5.5	
<i>NFI-ODCE</i>			6.6	--	13.1	--	14.6	--	7.1	--	7.5	--	9.9	--	5.9	Sep-08
Brookfield Premier RE Partners - Gross	111,938,527	0.9	4.3	--	11.4	--	13.7	--	7.9	--	--	--	--	--	7.9	Sep-18
Brookfield Premier RE Partners - Net			4.3	--	11.4	--	13.7	--	7.9	--	--	--	--	--	7.9	
<i>NFI-ODCE</i>			6.6	--	13.1	--	14.6	--	7.1	--	7.5	--	9.9	--	7.1	Sep-18
Clarion Lion Properties - Gross	117,589,168	0.9	6.1	--	14.5	--	16.8	--	8.6	--	--	--	--	--	8.6	Sep-18
Clarion Lion Properties - Net			5.9	--	13.8	--	15.8	--	7.7	--	--	--	--	--	7.7	
<i>NFI-ODCE</i>			6.6	--	13.1	--	14.6	--	7.1	--	7.5	--	9.9	--	7.1	Sep-18
Metlife Core Property - Gross	75,286,444	0.6	7.5	--	17.7	--	19.3	--	9.3	--	9.2	--	--	--	11.0	Dec-13
Metlife Core Property - Net			7.4	--	17.3	--	18.8	--	8.7	--	8.7	--	--	--	10.5	
<i>NFI-ODCE</i>			6.6	--	13.1	--	14.6	--	7.1	--	7.5	--	9.9	--	9.2	Dec-13
Principal US Property - Gross	54,441,037	0.4	5.0	--	11.4	--	13.3	--	6.4	--	7.3	--	--	--	7.8	Oct-15
Principal US Property - Net			5.0	--	11.4	--	13.3	--	6.4	--	7.3	--	--	--	7.8	
<i>NFI-ODCE</i>			6.6	--	13.1	--	14.6	--	7.1	--	7.5	--	9.9	--	8.0	Oct-15

1. See Policy Index and Benchmark History.



# Total Fund Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Prologis Targeted Euro Logistics - Gross	72,404,140	0.6	4.6	--	16.1	--	26.8	--	16.2	--	16.0	--	--	--	14.6	Oct-15
Prologis Targeted Euro Logistics - Net			4.6	--	16.1	--	26.8	--	16.2	--	16.0	--	--	--	14.6	
<i>NFI-ODCE</i>			6.6	--	13.1	--	14.6	--	7.1	--	7.5	--	9.9	--	8.0	Oct-15
Prologis Targeted US Logistics - Gross	107,753,912	0.8	11.4	--	31.5	--	39.2	--	20.3	--	19.8	--	--	--	18.7	Jul-15
Prologis Targeted US Logistics - Net			11.4	--	31.5	--	39.2	--	20.3	--	19.8	--	--	--	18.7	
<i>NFI-ODCE</i>			6.6	--	13.1	--	14.6	--	7.1	--	7.5	--	9.9	--	8.3	Jul-15
Townsend Real Estate - Gross*	134,360,616	1.0	0.0	--	9.4	--	11.6	--	6.9	--	8.2	--	--	--	8.4	Mar-16
Townsend Real Estate - Net			0.0	--	9.4	--	11.6	--	6.9	--	8.2	--	--	--	8.4	
<i>NFI-ODCE</i>			6.6	--	13.1	--	14.6	--	7.1	--	7.5	--	9.9	--	7.6	Mar-16
<b>Non-Core RE -Opportunistic - Gross**</b>	<b>172,342,738</b>	<b>1.3</b>	<b>5.1</b>	<b>--</b>	<b>8.9</b>	<b>--</b>	<b>13.1</b>	<b>--</b>	<b>4.6</b>	<b>--</b>	<b>7.2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>16.8</b>	<b>Feb-14</b>
<b>Non-Core RE -Opportunistic - Net</b>			<b>5.1</b>	<b>--</b>	<b>8.9</b>	<b>--</b>	<b>13.1</b>	<b>--</b>	<b>4.6</b>	<b>--</b>	<b>7.2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>16.2</b>	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	--	--	9.0	Feb-14
Carlyle China Realty - Gross	8,431,750	0.1	0.4	--	1.6	--	6.7	--	2.1	--	--	--	--	--	-1.7	Jun-17
Carlyle China Realty - Net			0.4	--	1.6	--	6.7	--	2.1	--	--	--	--	--	-1.7	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	--	--	6.5	Jun-17
Carlyle China Rome Logistics - Gross	37,359,514	0.3	0.3	--	1.7	--	7.2	--	0.1	--	--	--	--	--	-1.2	Jun-17
Carlyle China Rome Logistics - Net			0.3	--	1.7	--	7.2	--	0.1	--	--	--	--	--	-1.2	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	--	--	6.5	Jun-17
CIM Opportunity VIII - Gross	30,220,649	0.2	-3.4	--	-8.7	--	-11.4	--	-7.0	--	-1.6	--	--	--	0.4	Feb-15
CIM Opportunity VIII - Net			-3.4	--	-8.7	--	-11.4	--	-7.0	--	-1.7	--	--	--	-0.4	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	--	--	8.5	Feb-15
Kohlberg Kravis Roberts - Gross	1,942,653	0.0	17.6	--	9.9	--	0.1	--	-7.7	--	-12.9	--	--	--	2.5	Feb-14
Kohlberg Kravis Roberts - Net			17.6	--	9.9	--	0.1	--	-7.7	--	-12.9	--	--	--	2.4	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	--	--	9.0	Feb-14
Lasalle China Logistics Venture LP - Gross	1,011,697	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	Sep-21
Lasalle China Logistics Venture LP - Net			--	--	--	--	--	--	--	--	--	--	--	--	--	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	--	--	--	Sep-21

\* Preliminary quarterly returns as of 9/30/2021.

+ Returns for private markets are shown on a time-weighted basis and may differ substantially from dollar-weighted returns.

\*\* Non-Core RE returns are one-quarter lag.

# Total Fund Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
NREP Nordic Strat FCP-FIS - Gross	252,573	0.0	-10.3	--	-37.1	--	-30.3	--	-7.5	--	7.6	--	--	--	11.3	Dec-14
NREP Nordic Strat FCP-FIS - Net			-10.3	--	-37.1	--	-30.3	--	-7.5	--	7.6	--	--	--	11.3	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	--	--	8.3	Dec-14
NREP Nordic Strat II - Gross	40,771,610	0.3	14.4	--	26.4	--	37.4	--	17.6	--	18.9	--	--	--	17.9	Jun-16
NREP Nordic Strat II - Net			14.4	--	26.4	--	37.4	--	17.6	--	18.9	--	--	--	17.9	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	--	--	6.8	Jun-16
NREP Nordic Strat III - Gross	31,433,119	0.2	7.4	--	18.1	--	33.4	--	6.2	--	--	--	--	--	5.9	Jul-18
NREP Nordic Strat III - Net			7.4	--	18.1	--	33.4	--	6.2	--	--	--	--	--	5.9	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	--	--	6.1	Jul-18
NREP Nordic Strat IV - Gross	9,073,614	0.1	7.1	--	103.4	--	21.2	--	--	--	--	--	--	--	17.9	Jul-20
NREP Nordic Strat IV - Net			7.1	--	103.4	--	21.2	--	--	--	--	--	--	--	17.9	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	--	--	5.8	Jul-20
Sculptor Real Estate Fund III - Gross	9,051,033	0.1	9.0	--	17.9	--	22.8	--	14.0	--	19.1	--	--	--	9.3	Sep-14
Sculptor Real Estate Fund III - Net			9.0	--	17.9	--	22.8	--	14.0	--	18.8	--	--	--	6.3	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	--	--	8.4	Sep-14
Sculptor Real Estate Fund IV - Gross	2,794,526	0.0	8.8	--	22.9	--	16.0	--	--	--	--	--	--	--	-1.1	Jun-20
Sculptor Real Estate Fund IV - Net			8.8	--	22.9	--	16.0	--	--	--	--	--	--	--	-1.1	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	--	--	5.5	Jun-20
<b>Core RE -Value Added - Gross<sup>++</sup></b>	<b>75,031,183</b>	<b>0.6</b>	<b>3.1</b>	<b>--</b>	<b>4.8</b>	<b>--</b>	<b>4.7</b>	<b>--</b>	<b>9.0</b>	<b>--</b>	<b>11.5</b>	<b>--</b>	<b>11.4</b>	<b>--</b>	<b>0.4</b>	<b>Sep-08</b>
<b>Non-Core RE -Value Added - Net</b>			<b>3.1</b>	<b>--</b>	<b>4.8</b>	<b>--</b>	<b>4.7</b>	<b>--</b>	<b>9.0</b>	<b>--</b>	<b>11.4</b>	<b>--</b>	<b>10.7</b>	<b>--</b>	<b>-0.6</b>	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	10.0	--	7.5	Sep-08
Asana Partners Fund II - Gross <sup>*</sup>	18,795,544	0.1	8.9	--	26.3	--	21.7	--	--	--	--	--	--	--	--	Apr-19
Asana Partners Fund II - Net			8.9	--	26.3	--	21.7	--	--	--	--	--	--	--	--	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	10.0	--	5.5	Apr-19

\* Unable to calculate a since inception return due to system limitations when Asana Partners Fund II experienced a quarter of negative fund value in 2019.

+ Returns for private markets are shown on a time-weighted basis and may differ substantially from dollar-weighted returns.

++ Non-Core RE returns are one-quarter lag.

# Total Fund Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
ECE Euro Prime Shopping II - Gross	34,527,444	0.3	0.7	--	-1.9	--	-3.3	--	1.3	--	8.2	--	--	--	9.9	Jul-15
ECE Euro Prime Shopping II - Net			0.7	--	-1.9	--	-3.3	--	1.3	--	7.9	--	--	--	9.2	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	10.0	--	8.0	Jul-15
European RE Debt II - Gross	2,438,493	0.0	6.8	--	-64.1	--	-62.1	--	-26.6	--	-10.0	--	--	--	-8.1	Nov-13
European RE Debt II - Net			6.8	--	-64.1	--	-62.1	--	-26.6	--	-10.0	--	--	--	-8.1	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	10.0	--	9.4	Nov-13
Hammes II - Gross	2,652,005	0.0	5.4	--	1,039.0	--	1,060.6	--	245.1	--	119.1	--	--	--	97.0	Jul-15
Hammes II - Net			5.4	--	1,039.0	--	1,060.6	--	245.1	--	118.7	--	--	--	94.0	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	10.0	--	8.0	Jul-15
Hammes III - Gross	16,617,696	0.1	2.3	--	37.6	--	42.5	--	--	--	--	--	--	--	-10.5	Oct-18
Hammes III - Net			2.3	--	37.6	--	42.5	--	--	--	--	--	--	--	-10.5	
<i>NFI-ODCE net +1% 1Q Lag</i>			4.3	--	9.9	--	8.1	--	5.6	--	6.6	--	10.0	--	5.9	Oct-18
<b>Private Real Assets - Gross**</b>	<b>747,121,013</b>	<b>5.8</b>	<b>7.9</b>	<b>--</b>	<b>18.8</b>	<b>--</b>	<b>20.6</b>	<b>--</b>	<b>7.2</b>	<b>--</b>	<b>10.8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>5.3</b>	<b>Jan-13</b>
<b>Private Real Assets - Net</b>			<b>7.9</b>	<b>--</b>	<b>18.8</b>	<b>--</b>	<b>20.6</b>	<b>--</b>	<b>7.2</b>	<b>--</b>	<b>10.8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>5.3</b>	
<i>Private Real Assets Custom<sup>1</sup></i>			5.4	--	15.2	--	18.0	--	4.1	--	5.9	--	--	--	6.0	Jan-13
<i>CPI-U Headline +5%</i>			2.1	--	8.1	--	10.4	--	7.8	--	7.6	--	--	--	6.9	Jan-13
ACM II - Gross	17,214,272	0.1	-2.2	--	-7.4	--	-7.9	--	-7.9	--	-7.4	--	--	--	-7.4	Sep-16
ACM II - Net			-2.2	--	-7.4	--	-7.9	--	-7.9	--	-7.4	--	--	--	-7.4	
<i>NCREIF Farmland 1 Qtr Lag</i>			1.5	--	4.0	--	5.0	--	4.8	--	5.5	--	10.2	--	5.5	Sep-16
ArcLight Energy VI - Gross	24,715,503	0.2	-4.5	--	-2.4	--	-4.2	--	-8.2	--	0.4	--	--	--	-0.1	Aug-15
ArcLight Energy VI - Net			-4.5	--	-2.4	--	-4.2	--	-8.2	--	0.4	--	--	--	-0.1	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.8	--	12.2	--	16.9	--	9.8	--	10.8	--	9.2	--	11.9	Aug-15
Brookfield Infra III - Gross	33,257,278	0.3	4.5	--	10.8	--	14.1	--	9.8	--	9.2	--	--	--	11.3	May-16
Brookfield Infra III - Net			4.5	--	10.8	--	14.1	--	9.8	--	9.2	--	--	--	11.3	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.8	--	12.2	--	16.9	--	9.8	--	10.8	--	9.2	--	11.6	May-16

1. See Policy and Benchmark History .

\*\* Private Real Assets returns are one-quarter lag.

+ Returns for private markets are shown on a time-weighted basis and may differ substantially from dollar-weighted returns.

Total Fund  
Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Brookfield Infra IV - Gross	23,479,644	0.2	3.1	--	10.7	--	20.6	--	--	--	--	--	--	--	7.6	Sep-19
Brookfield Infra IV - Net			3.1	--	10.7	--	20.6	--	--	--	--	--	--	--	7.6	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.8	--	12.2	--	16.9	--	9.8	--	10.8	--	9.2	--	9.9	Sep-19
Carlyle Power II - Gross	41,996,775	0.3	1.9	--	10.9	--	16.2	--	8.5	--	10.4	--	--	--	2.8	Oct-15
Carlyle Power II - Net			1.9	--	10.9	--	16.2	--	8.5	--	10.4	--	--	--	2.8	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.8	--	12.2	--	16.9	--	9.8	--	10.8	--	9.2	--	11.2	Oct-15
EnCap Energy IX - Gross	14,878,219	0.1	33.8	--	109.6	--	100.2	--	-4.8	--	2.4	--	--	--	-1.9	Jan-13
EnCap Energy IX - Net			33.8	--	109.6	--	100.2	--	-4.8	--	2.4	--	--	--	-1.9	
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			9.6	--	26.3	--	27.8	--	-3.2	--	2.7	--	1.2	--	0.4	Jan-13
EnCap Energy X - Gross	34,283,664	0.3	18.6	--	53.7	--	53.0	--	5.4	--	10.5	--	--	--	0.9	Apr-15
EnCap Energy X - Net			18.6	--	53.7	--	53.0	--	5.4	--	10.5	--	--	--	0.9	
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			9.6	--	26.3	--	27.8	--	-3.2	--	2.7	--	1.2	--	-0.7	Apr-15
EnCap Flatrock Midstream III - Gross	16,761,223	0.1	4.4	--	11.7	--	7.9	--	0.8	--	7.2	--	--	--	5.3	Jul-14
EnCap Flatrock Midstream III - Net			4.4	--	11.7	--	7.9	--	0.8	--	7.2	--	--	--	5.3	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.8	--	12.2	--	16.9	--	9.8	--	10.8	--	9.2	--	10.3	Jul-14
EnCap Flatrock Midstream IV - Gross	10,144,641	0.1	1.6	--	6.9	--	5.7	--	7.2	--	--	--	--	--	0.5	Feb-18
EnCap Flatrock Midstream IV - Net			1.6	--	6.9	--	5.7	--	7.2	--	--	--	--	--	0.5	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.8	--	12.2	--	16.9	--	9.8	--	10.8	--	9.2	--	10.3	Feb-18
EQT Infrastructure Fund IV - Gross	24,640,926	0.2	5.6	--	17.3	--	15.9	--	--	--	--	--	--	--	-3.1	Jun-19
EQT Infrastructure Fund IV - Net			5.6	--	17.3	--	15.9	--	--	--	--	--	--	--	-3.1	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.8	--	12.2	--	16.9	--	9.8	--	10.8	--	9.2	--	9.9	Jun-19

Total Fund  
Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
First Reserve - Gross	19,015,396	0.1	-6.9	--	-10.2	--	-7.1	--	1.6	--	16.8	--	--	--	-1.4	Dec-14
First Reserve - Net			-6.9	--	-10.2	--	-7.1	--	1.6	--	16.8	--	--	--	-1.4	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.8	--	12.2	--	16.9	--	9.8	--	10.8	--	9.2	--	10.6	Dec-14
Harrison St Social Infra Fd - Gross	50,000,000	0.4	--	--	--	--	--	--	--	--	--	--	--	--	0.0	Jul-21
Harrison St Social Infra Fd - Net			--	--	--	--	--	--	--	--	--	--	--	--	0.0	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.8	--	12.2	--	16.9	--	9.8	--	10.8	--	9.2	--	3.8	Jul-21
IFM Global Infrastructure US LP - Gross	136,084,231	1.1	6.5	--	12.5	--	14.6	--	11.7	--	--	--	--	--	12.0	Apr-17
IFM Global Infrastructure US LP - Net			6.5	--	12.5	--	14.6	--	11.7	--	--	--	--	--	12.0	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.8	--	12.2	--	16.9	--	9.8	--	10.8	--	9.2	--	11.8	Apr-17
ISQ Global Infrastructure Fund II - Gross	43,732,728	0.3	2.9	--	13.3	--	19.5	--	--	--	--	--	--	--	12.9	Oct-18
ISQ Global Infrastructure Fund II - Net			2.9	--	13.3	--	19.5	--	--	--	--	--	--	--	12.9	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.8	--	12.2	--	16.9	--	9.8	--	10.8	--	9.2	--	10.1	Oct-18
Meridiam Infra N America III - Gross	5,798,214	0.0	8.2	--	6.5	--	-3.3	--	-63.2	--	--	--	--	--	-75.6	Sep-17
Meridiam Infra N America III - Net			8.2	--	6.5	--	-3.3	--	-63.2	--	--	--	--	--	-75.6	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.8	--	12.2	--	16.9	--	9.8	--	10.8	--	9.2	--	10.5	Sep-17
Meridiam Sa Infra Euro IV - Gross	538,932	0.0	--	--	--	--	--	--	--	--	--	--	--	--	0.0	Jul-21
Meridiam Sa Infra Euro IV - Net			--	--	--	--	--	--	--	--	--	--	--	--	0.0	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.8	--	12.2	--	16.9	--	9.8	--	10.8	--	9.2	--	3.8	Jul-21
NGP Royalty Partners - Gross	21,098,183	0.2	5.6	--	30.0	--	14.1	--	--	--	--	--	--	--	12.9	Aug-20
NGP Royalty Partners - Net			5.6	--	30.0	--	14.1	--	--	--	--	--	--	--	12.9	
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			9.6	--	26.3	--	27.8	--	-3.2	--	2.7	--	1.2	--	30.0	Aug-20

Total Fund  
Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Paine Schwartz Food Chain V - Gross	20,784,803	0.2	12.7	--	14.1	--	27.2	--	--	--	--	--	--	--	-5.9	Jan-20
Paine Schwartz Food Chain V - Net			12.7	--	14.1	--	27.2	--	--	--	--	--	--	--	-5.9	
<i>NCREIF Farmland 1 Qtr Lag</i>			1.5	--	4.0	--	5.0	--	4.8	--	5.5	--	10.2	--	4.7	Jan-20
Pantheon Ventures - Gross	65,312,144	0.5	3.3	--	15.3	--	18.6	--	6.4	--	8.1	--	--	--	17.0	Jul-14
Pantheon Ventures - Net			3.3	--	15.3	--	18.6	--	6.4	--	8.1	--	--	--	17.0	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.8	--	12.2	--	16.9	--	9.8	--	10.8	--	9.2	--	10.3	Jul-14
Quantum Energy VI - Gross	45,021,402	0.4	34.0	--	59.7	--	59.4	--	22.5	--	31.2	--	--	--	23.1	Nov-14
Quantum Energy VI - Net			34.0	--	59.7	--	59.4	--	22.5	--	31.2	--	--	--	23.1	
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			9.6	--	26.3	--	27.8	--	-3.2	--	2.7	--	1.2	--	-2.8	Nov-14
Quantum Energy VII - Gross	34,814,623	0.3	40.1	--	96.4	--	94.4	--	18.3	--	--	--	--	--	11.1	Aug-17
Quantum Energy VII - Net			40.1	--	96.4	--	94.4	--	18.3	--	--	--	--	--	11.1	
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			9.6	--	26.3	--	27.8	--	-3.2	--	2.7	--	1.2	--	-0.1	Aug-17
Tailwater Energy Fund III - Gross	27,388,637	0.2	4.9	--	3.4	--	-1.1	--	-3.9	--	--	--	--	--	-3.9	Sep-18
Tailwater Energy Fund III - Net			4.9	--	3.4	--	-1.1	--	-3.9	--	--	--	--	--	-3.9	
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			9.6	--	26.3	--	27.8	--	-3.2	--	2.7	--	1.2	--	-3.2	Sep-18
Tailwater Energy IV - Gross	19,588,748	0.2	8.3	--	12.7	--	24.7	--	--	--	--	--	--	--	-15.4	Oct-19
Tailwater Energy IV - Net			8.3	--	12.7	--	24.7	--	--	--	--	--	--	--	-15.4	
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			9.6	--	26.3	--	27.8	--	-3.2	--	2.7	--	1.2	--	-2.0	Oct-19
Wastewater Opportunity - Gross	16,570,827	0.1	2.0	--	20.3	--	19.6	--	4.3	--	-2.6	--	--	--	-15.9	Dec-15
Wastewater Opportunity - Net			2.0	--	20.3	--	19.6	--	4.3	--	-2.6	--	--	--	-15.9	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.8	--	12.2	--	16.9	--	9.8	--	10.8	--	9.2	--	11.3	Dec-15

# Total Fund Performance Summary

Period Ending: September 30, 2021

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Liquid Real Return - Gross	480,121,161	3.7	1.0	--	9.4	--	19.1	--	--	--	--	--	--	--	6.6	Jun-19
Liquid Real Return - Net			0.9	--	9.1	--	18.7	--	--	--	--	--	--	--	6.3	
SSgA Real Asset <sup>1</sup>			1.3	--	9.5	--	19.6	--	6.5	--	5.0	--	4.4	--	6.1	Jun-19
Brookfield Liquid Real Return - Gross	111,877,892	0.9	-0.1	--	8.2	--	17.2	--	--	--	--	--	--	--	7.1	Nov-19
Brookfield Liquid Real Return - Net			-0.3	--	7.7	--	16.5	--	--	--	--	--	--	--	6.5	
Brookfield Real Return Custom <sup>1</sup>			0.0	--	6.1	--	14.1	--	--	--	--	--	--	--	5.8	Nov-19
SSgA Passive Real Return Proxy - Gross	368,243,269	2.9	1.3	--	9.7	--	19.8	--	6.8	--	5.3	--	4.6	--	2.4	Jan-08
SSgA Passive Real Return Proxy - Net			1.3	--	9.5	--	19.6	--	6.5	--	5.0	--	4.3	--	2.2	
SSgA Real Asset			1.3	--	9.5	--	19.6	--	6.5	--	5.0	--	4.4	--	--	Jan-08
Opportunities Asset Category - Gross <sup>**++</sup>	4,858,504	0.0	0.3	--	17.1	--	21.2	--	9.1	--	7.0	--	14.9	--	14.3	Oct-07
Opportunities Asset Category - Net			0.3	--	17.1	--	21.2	--	9.1	--	7.0	--	14.9	--	14.3	
Policy Index			1.5	--	10.5	--	20.1	--	10.0	--	9.8	--	9.1	--	8.5	Oct-07
Atalaya Special Opportunities V - Gross	4,858,504	0.0	0.3	--	17.1	--	21.2	--	9.1	--	6.8	--	--	--	6.4	Jul-13
Atalaya Special Opportunities V - Net			0.3	--	17.1	--	21.2	--	9.1	--	6.8	--	--	--	6.4	
Thomson Reuters C A All PE 1 Qtr Lag			12.4	--	41.1	--	54.8	--	21.5	--	19.6	--	17.2	--	17.4	Jul-13
Cash - Gross	386,803,561	3.0	0.2	--	0.6	--	0.7	--	1.8	--	1.8	--	1.3	--	3.0	Jun-92
Cash - Net			0.2	--	0.6	--	0.7	--	1.8	--	1.8	--	1.3	--	--	
91 Day T-Bills			0.0	--	0.0	--	0.0	--	1.0	--	1.1	--	0.6	--	2.3	Jun-92
Cash Account - Gross	290,436,717	2.3	0.3	--	0.9	--	1.1	--	2.1	--	2.0	--	1.3	--	3.1	Jun-92
Cash Account - Net			0.3	--	0.9	--	1.1	--	2.1	--	2.0	--	1.3	--	--	
91 Day T-Bills			0.0	--	0.0	--	0.0	--	1.0	--	1.1	--	0.6	--	2.3	Jun-92
Dedicated Cash Allocation - Gross	96,366,843	0.7	0.0	--	0.1	--	0.1	--	--	--	--	--	--	--	0.6	Jun-19
Dedicated Cash Allocation - Net			0.0	--	0.1	--	0.1	--	--	--	--	--	--	--	0.6	
ICE LIBOR Spot/Next Overnight USD			0.0	--	0.1	--	0.1	--	1.1	--	1.1	--	0.7	--	0.6	Jun-19

1. See Policy and Benchmark History .

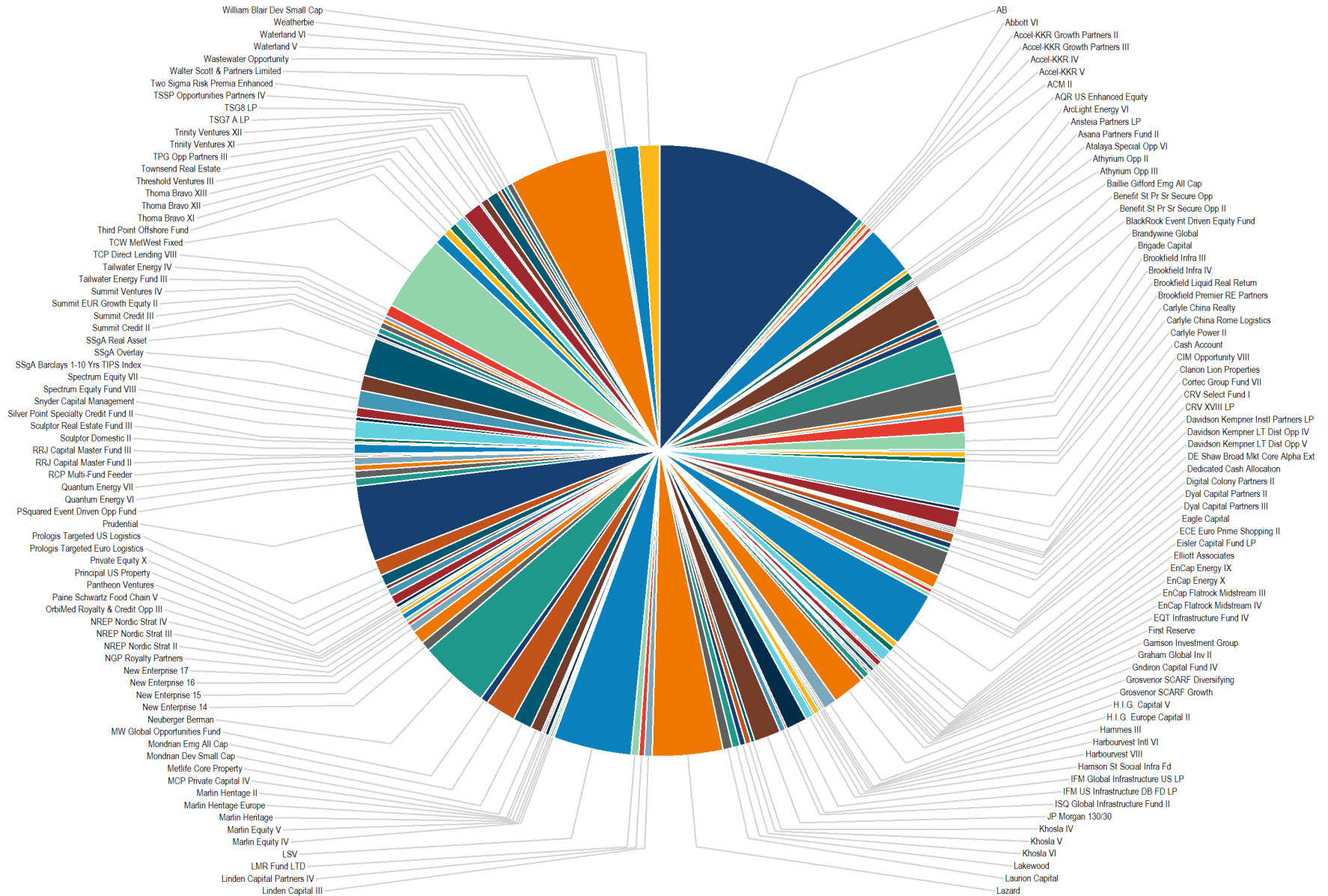
\*\* Composite reflects net returns from Cliffwater up to March 2017.

++ Opportunities Asset returns are one-quarter lag.



# Total Fund Manager Allocation Analysis

Period Ending: September 30, 2021





Total Fund  
 Manager Allocation Analysis

Period Ending: September 30, 2021

	Current	%
AB	\$1,438,307,841	11.2%
AQR US Enhanced Equity	\$335,978,852	2.6%
JP Morgan 130/30	\$179,161,270	1.4%
DE Shaw Broad Mkt Core Alpha Ext	\$166,787,770	1.3%
Eagle Capital	\$368,558,955	2.9%
Huber Capital	\$20,264	0.0%
Weatherbie	\$169,546,126	1.3%
Snyder Capital Management	\$115,702,397	0.9%
Lazard	\$477,910,512	3.7%
Walter Scott & Partners Limited	\$672,171,002	5.2%
LSV	\$533,400,162	4.1%
Mondrian Dev Small Cap	\$125,045,248	1.0%
William Blair Dev Small Cap	\$138,010,524	1.1%
Baillie Gifford Emg All Cap	\$257,796,014	2.0%
Mondrian Emg All Cap	\$205,129,630	1.6%
CBRE Clarion	\$4,369	0.0%
Abbott VI	\$42,170,769	0.3%
Accel-KKR IV	\$15,613,765	0.1%
Accel-KKR V	\$25,369,153	0.2%
Accel-KKR VI	\$3,533,592	0.0%
Accel-KKR Growth Partners II	\$10,182,860	0.1%
Accel-KKR Growth Partners III	\$27,949,663	0.2%
Atalaya Special Opp VI	\$8,734,067	0.1%
Canvas Ventures III	\$5,413,330	0.0%
Cortec Group Fund VII	\$15,615,876	0.1%
CRV Select Fund I	\$14,646,752	0.1%
CRV XVIII LP	\$9,713,119	0.1%
Davidson Kempner LT Dist Opp IV	\$38,704,910	0.3%

Total Fund  
 Manager Allocation Analysis

Period Ending: September 30, 2021

	Current	%
Davidson Kempner LT Dist Opp V	\$21,218,863	0.2%
Digital Colony Partners II	\$8,448,172	0.1%
Dyal Capital Partners II	\$29,111,388	0.2%
Dyal Capital Partners III	\$25,865,398	0.2%
Garrison Investment Group	\$8,468,077	0.1%
Gridiron Capital Fund IV	\$25,268,945	0.2%
Harbourvest VIII	\$10,531,156	0.1%
Harbourvest Intl VI	\$37,743,616	0.3%
H.I.G. Bayside Loan III	\$4,911,612	0.0%
H.I.G. Capital V	\$17,481,760	0.1%
H.I.G. Europe Capital II	\$15,001,720	0.1%
Khosla IV	\$20,014,585	0.2%
Khosla V	\$41,001,263	0.3%
Khosla VI	\$35,230,947	0.3%
Khosla VII	\$4,082,164	0.0%
Linden Capital III	\$50,483,430	0.4%
Linden Capital Partners IV	\$32,551,969	0.3%
Marlin Equity IV	\$11,838,325	0.1%
Marlin Equity V	\$18,483,878	0.1%
Marlin Heritage	\$8,549,259	0.1%
Marlin Heritage II	\$10,335,270	0.1%
Marlin Heritage Europe	\$26,973,158	0.2%
New Enterprise 14	\$65,612,651	0.5%
New Enterprise 15	\$83,644,772	0.7%
New Enterprise 16	\$49,463,623	0.4%
New Enterprise 17	\$20,927,361	0.2%
OrbiMed Private Investments VIII, LP	\$5,476,481	0.0%
Private Equity X	\$28,569,701	0.2%

Total Fund  
 Manager Allocation Analysis

Period Ending: September 30, 2021

	Current	%
RCP Multi-Fund Feeder	\$48,817,749	0.4%
RRJ Capital Master Fund II	\$10,578,374	0.1%
RRJ Capital Master Fund III	\$12,456,397	0.1%
Shamrock Capital II	\$5,539,701	0.0%
Shamrock Capital Growth Fund V	\$818,322	0.0%
Spectrum Equity VII	\$63,589,431	0.5%
Spectrum Equity Fund VIII	\$29,809,937	0.2%
Spectrum Equity Fund IX	\$5,658,428	0.0%
Strategic Value Spl Fund V	\$3,750,000	0.0%
Summit EUR Growth Equity II	\$39,712,897	0.3%
Summit EUR Growth Equity III	\$4,228,764	0.0%
Summit Ventures III	\$3,162,457	0.0%
Summit Ventures IV	\$42,093,098	0.3%
Summit Ventures V	\$3,879,400	0.0%
Thoma Bravo XI	\$54,852,881	0.4%
Thoma Bravo XII	\$49,277,596	0.4%
Thoma Bravo XIII	\$61,230,566	0.5%
Threshold Ventures III	\$18,006,715	0.1%
TPG Opp Partners III	\$14,022,283	0.1%
Trinity Ventures XI	\$56,566,236	0.4%
Trinity Ventures XII	\$76,478,872	0.6%
TSG7 A LP	\$20,221,214	0.2%
TSG7 B LP	\$5,402,941	0.0%
TSG8 LP	\$22,162,246	0.2%
TSSP Opportunities Partners IV	\$24,139,286	0.2%
Waterland V	\$13,021,554	0.1%
Waterland VI	\$22,967,939	0.2%
Wayzata Opportunities III	\$4,790,643	0.0%

Total Fund  
 Manager Allocation Analysis

Period Ending: September 30, 2021

	Current	%
Wynnchurch Capital Partners V	\$5,191,444	0.0%
Brigade Capital	\$219,896,909	1.7%
Ares Capital Europe Fund V	\$4,696,231	0.0%
Athyrium Opp II	\$12,590,451	0.1%
Athyrium Opp III	\$16,064,929	0.1%
Benefit St Pr Sr Secure Opp	\$35,750,075	0.3%
Benefit St Pr Sr Secure Opp II	\$21,452,189	0.2%
IFM US Infrastructure DB FD LP	\$8,863,876	0.1%
MCP Private Capital IV	\$9,824,886	0.1%
OrbiMed Royalty & Credit Opp III	\$10,093,312	0.1%
Shamrock Capital Debt Fund I	\$81,658	0.0%
Silver Point Specialty Credit Fund II	\$20,431,028	0.2%
Summit Credit	\$403,823	0.0%
Summit Credit II	\$16,974,053	0.1%
Summit Credit III	\$30,652,189	0.2%
TCP Direct Lending VIII	\$76,792,530	0.6%
Grosvenor SCARF Growth	\$93,458,191	0.7%
Lakewood	\$56,978,590	0.4%
Sculptor Domestic II	\$67,363,367	0.5%
Third Point Offshore Fund	\$82,405,778	0.6%
Prudential	\$517,503,908	4.0%
TCW MetWest Fixed	\$515,957,636	4.0%
Neuberger Berman	\$481,558,202	3.7%
Brandywine Global	\$275,789,670	2.1%
Aristeia Partners LP	\$47,877,772	0.4%
BlackRock Event Driven Equity Fund	\$53,345,195	0.4%
Davidson Kempner Instl Partners LP	\$58,617,001	0.5%
Eisler Capital Fund LP	\$43,548,012	0.3%

Total Fund  
 Manager Allocation Analysis

Period Ending: September 30, 2021

	Current	%
Elliott Associates	\$71,271,592	0.6%
Graham Global Inv II	\$37,812,539	0.3%
Grosvenor SCARF Diversifying	\$217,952,022	1.7%
Grosvenor SCARF B Diversifying	\$228,052	0.0%
KLS Diversified Fund	\$5,348,402	0.0%
Laurion Capital	\$64,898,217	0.5%
LMR Fund LTD	\$48,839,441	0.4%
MW Global Opportunities Fund	\$53,879,885	0.4%
PSquared Event Driven Opp Fund	\$51,612,558	0.4%
Two Sigma Risk Premia Enhanced	\$44,918,637	0.3%
Brookfield Premier RE Partners	\$111,938,527	0.9%
Clarion Lion Properties	\$117,589,168	0.9%
Metlife Core Property	\$75,286,444	0.6%
Principal US Property	\$54,441,037	0.4%
Prologis Targeted Euro Logistics	\$72,404,140	0.6%
Prologis Targeted US Logistics	\$107,753,912	0.8%
Townsend Real Estate	\$134,360,616	1.0%
Cartyle China Realty	\$8,431,750	0.1%
Carlyle China Rome Logistics	\$37,359,514	0.3%
CIM Opportunity VIII	\$30,220,649	0.2%
Kohlberg Kravis Roberts	\$1,942,653	0.0%
Lasalle China Logistics Venture LP	\$1,011,697	0.0%
NREP Nordic Strat FCP-FIS	\$252,573	0.0%
NREP Nordic Strat II	\$40,771,610	0.3%
NREP Nordic Strat III	\$31,433,119	0.2%
NREP Nordic Strat IV	\$9,073,614	0.1%
Sculptor Real Estate Fund III	\$9,051,033	0.1%
Sculptor Real Estate Fund IV	\$2,794,526	0.0%

Total Fund  
 Manager Allocation Analysis

Period Ending: September 30, 2021

	Current	%
Asana Partners Fund II	\$18,795,544	0.1%
ECE Euro Prime Shopping II	\$34,527,444	0.3%
European RE Debt II	\$2,438,493	0.0%
Hammes II	\$2,652,005	0.0%
Hammes III	\$16,617,696	0.1%
ACM II	\$17,214,272	0.1%
ArcLight Energy VI	\$24,715,503	0.2%
Brookfield Infra III	\$33,257,278	0.3%
Brookfield Infra IV	\$23,479,644	0.2%
Carlyle Power II	\$41,996,775	0.3%
EnCap Energy IX	\$14,878,219	0.1%
EnCap Energy X	\$34,283,664	0.3%
EnCap Flatrock Midstream III	\$16,761,223	0.1%
EnCap Flatrock Midstream IV	\$10,144,641	0.1%
EQT Infrastructure Fund IV	\$24,640,926	0.2%
First Reserve	\$19,015,396	0.1%
Harrison St Social Infra Fd	\$50,000,000	0.4%
IFM Global Infrastructure US LP	\$136,084,231	1.1%
ISQ Global Infrastructure Fund II	\$43,732,728	0.3%
Meridiam Infra N America III	\$5,798,214	0.0%
Meridiam Sa Infra Euro IV	\$538,932	0.0%
NGP Royalty Partners	\$21,098,183	0.2%
Paine Schwartz Food Chain V	\$20,784,803	0.2%
Pantheon Ventures	\$65,312,144	0.5%
Quantum Energy VI	\$45,021,402	0.4%
Quantum Energy VII	\$34,814,623	0.3%
Tailwater Energy Fund III	\$27,388,637	0.2%
Tailwater Energy IV	\$19,588,748	0.2%

Total Fund  
 Manager Allocation Analysis

Period Ending: September 30, 2021

	Current	%
Wastewater Opportunity	\$16,570,827	0.1%
Brookfield Liquid Real Return	\$111,877,892	0.9%
SSgA Barclays 1-10 Yrs TIPS Index	\$110,704,955	0.9%
SSgA Real Asset	\$257,538,314	2.0%
Atalaya Special Opportunities V	\$4,858,504	0.0%
Cash Account	\$290,436,717	2.3%
Dedicated Cash Allocation	\$96,366,843	0.7%
Transition Account	\$0	0.0%
Heitman Adv JMB V	\$8,390	0.0%
SSgA Overlay	\$97,692,438	0.8%
<b>Total</b>	<b>\$12,854,381,344</b>	<b>100.0%</b>

**Statistics Summary**

**3 Years**

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Information Ratio	Information Ratio Rank	Tracking Error	Tracking Error Rank
Total Fund	12.0%	13	8.8%	20	1.2	8	0.6	18	3.4%	85
Policy Index	10.0%	63	8.2%	12	1.1	19	--	--	0.0%	1
Total Fund ex Overlay	11.7%	24	8.7%	17	1.2	9	0.5	24	3.4%	86
Policy Index	10.0%	63	8.2%	12	1.1	19	--	--	0.0%	1

**Statistics Summary**

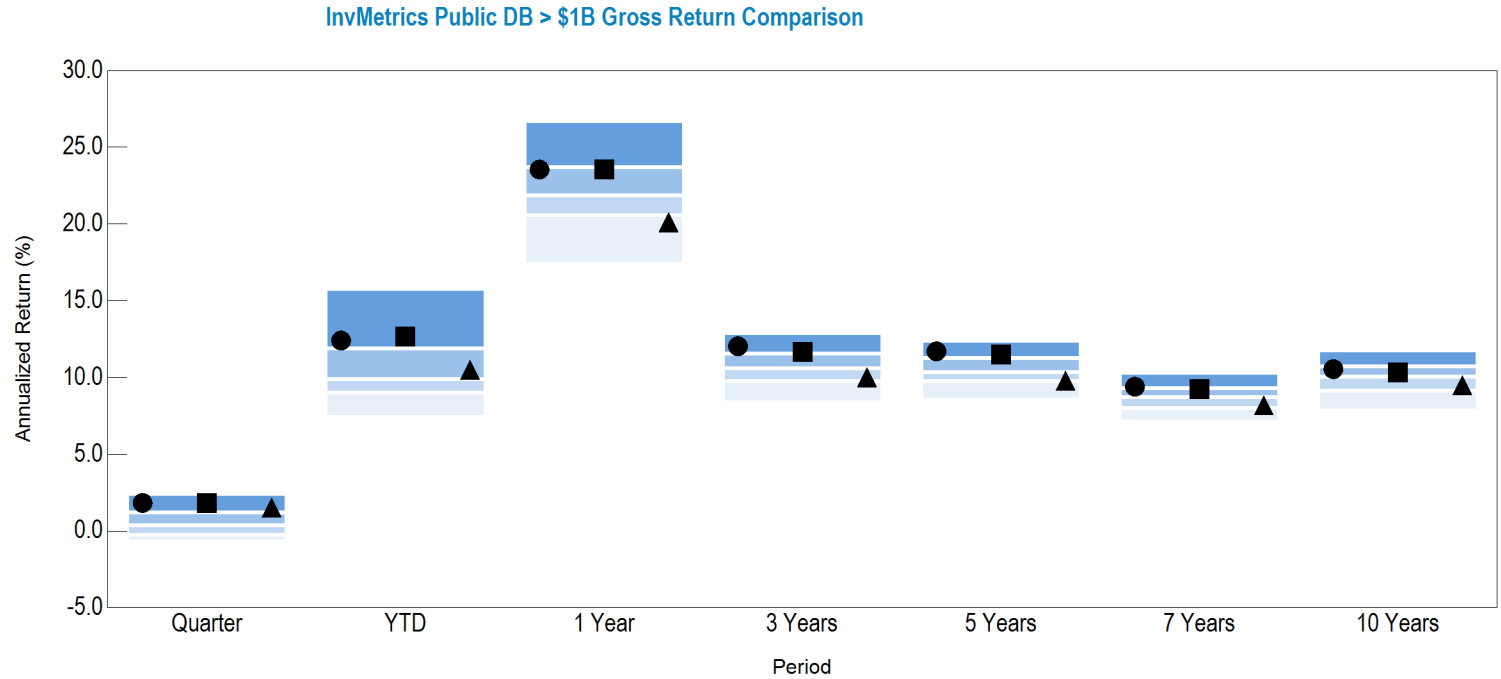
**5 Years**

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Information Ratio	Information Ratio Rank	Tracking Error	Tracking Error Rank
Total Fund	11.7%	14	7.2%	20	1.5	6	0.7	20	2.8%	86
Policy Index	9.8%	75	6.6%	9	1.3	19	--	--	0.0%	1
Total Fund ex Overlay	11.5%	17	7.1%	17	1.5	6	0.6	24	2.8%	86
Policy Index	9.8%	75	6.6%	9	1.3	19	--	--	0.0%	1



Total Fund  
Peer Universe Comparison

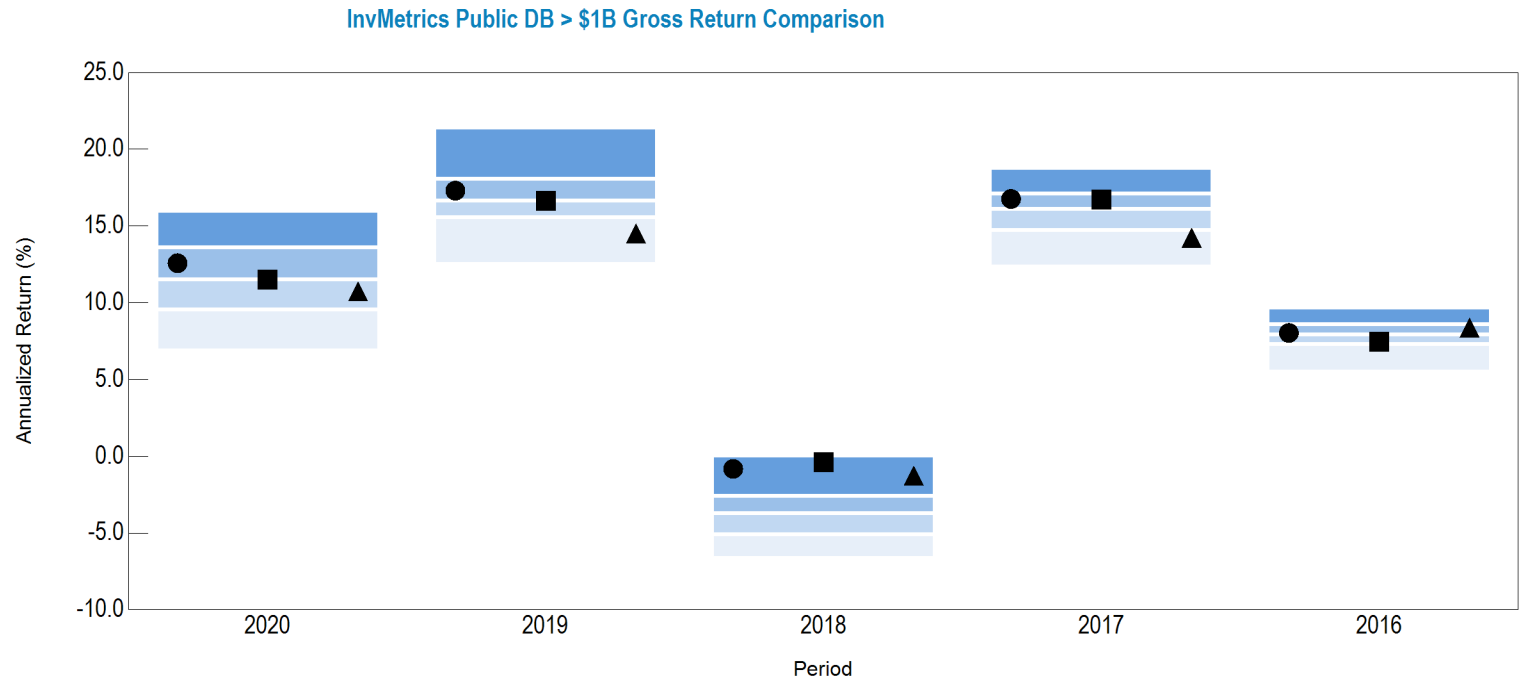
Period Ending: September 30, 2021



	Quarter		YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
<b>5th Percentile</b>	2.4		15.8		26.7		12.9		12.4		10.3		11.8	
<b>25th Percentile</b>	1.2		11.9		23.7		11.6		11.3		9.3		10.7	
<b>Median</b>	0.4		9.9		21.9		10.6		10.4		8.7		10.1	
<b>75th Percentile</b>	-0.2		9.0		20.6		9.8		9.8		8.0		9.1	
<b>95th Percentile</b>	-0.6		7.5		17.4		8.4		8.6		7.2		7.9	
<b># of Portfolios</b>	85		85		85		85		85		84		80	
<b>● Total Fund</b>	1.8	(12)	12.4	(15)	23.5	(31)	12.0	(13)	11.7	(14)	9.4	(20)	10.5	(33)
<b>■ Total Fund ex Overlay</b>	1.8	(12)	12.7	(12)	23.6	(30)	11.7	(24)	11.5	(17)	9.3	(30)	10.3	(38)
<b>▲ Policy Index</b>	1.5	(17)	10.5	(45)	20.1	(80)	10.0	(63)	9.8	(75)	8.2	(67)	9.5	(69)

Total Fund  
Peer Universe Comparison (Calendar Years)

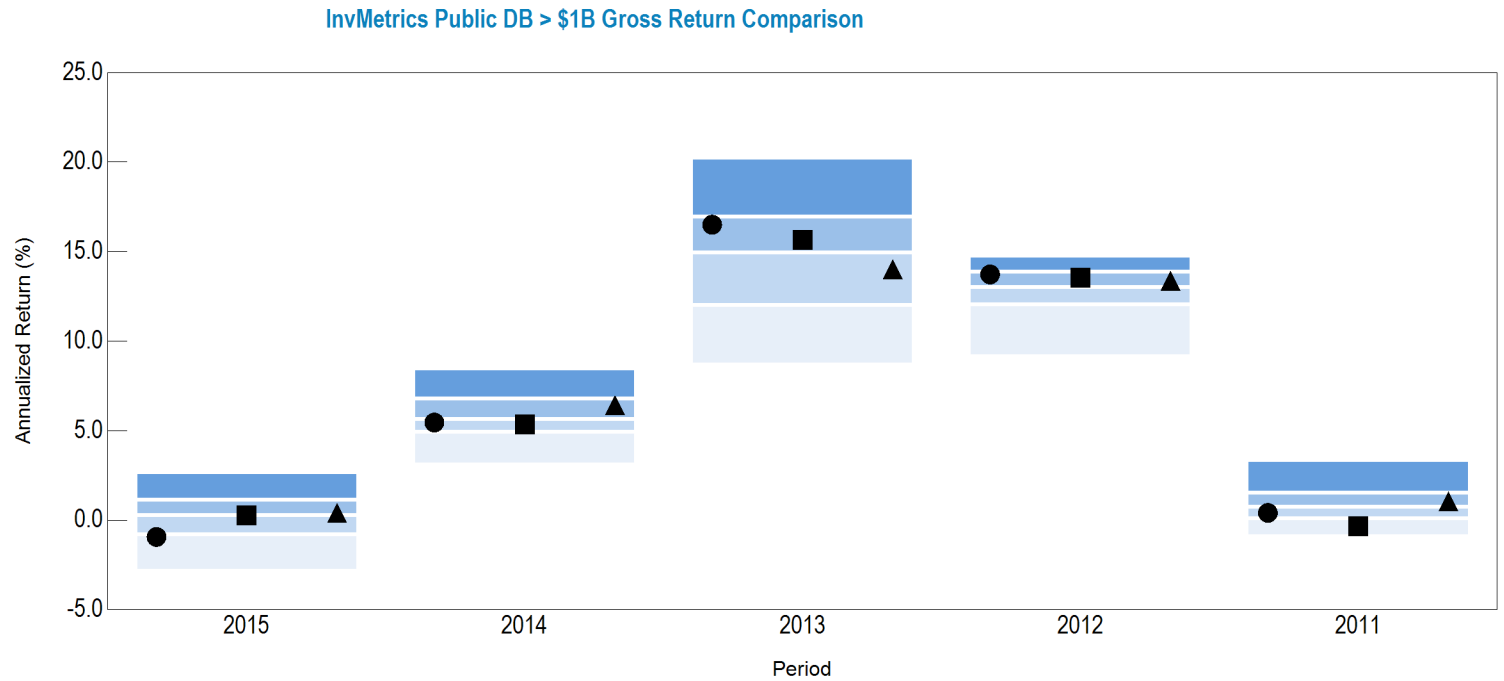
Period Ending: September 30, 2021



	2020		2019		2018		2017		2016	
<b>Return (Rank)</b>	16.0	(36)	21.4	(40)	0.0	(7)	18.8	(38)	9.7	(46)
5th Percentile	13.6		18.1		-2.6		17.2		8.6	
25th Percentile	11.5		16.7		-3.7		16.2		8.0	
Median	9.6		15.6		-5.1		14.8		7.4	
75th Percentile	6.9		12.5		-6.6		12.4		5.5	
95th Percentile	94		81		71		98		92	
# of Portfolios	12.6	(36)	17.3	(40)	-0.8	(7)	16.8	(38)	8.0	(46)
● Total Fund	11.5	(51)	16.6	(52)	-0.4	(6)	16.7	(39)	7.5	(73)
■ Total Fund ex Overlay	10.8	(61)	14.5	(88)	-1.3	(10)	14.2	(82)	8.4	(34)
▲ Policy Index										

Total Fund  
Peer Universe Comparison (Calendar Years)

Period Ending: September 30, 2021



	2015		2014		2013		2012		2011	
<b>Return (Rank)</b>	2.7	(83)	8.5	(61)	20.2	(31)	14.7	(36)	3.3	(60)
5th Percentile	2.7		8.5		20.2		14.7		3.3	
25th Percentile	1.1		6.8		17.0		13.9		1.6	
Median	0.3		5.7		15.0		13.0		0.8	
75th Percentile	-0.7		4.9		12.0		12.1		0.1	
95th Percentile	-2.8		3.1		8.7		9.2		-0.9	
# of Portfolios	98		79		67		74		68	
● Total Fund	-0.9	(83)	5.5	(61)	16.5	(31)	13.7	(36)	0.4	(60)
■ Total Fund ex Overlay	0.3	(51)	5.3	(65)	15.6	(43)	13.6	(41)	-0.3	(86)
▲ Policy Index	0.4	(46)	6.4	(34)	14.0	(64)	13.4	(42)	1.0	(38)

# Policy Index and Benchmark History

Period Ending: September 30, 2021

Total Plan Policy Index	As of:									
	7/1/19	7/1/17	4/1/17	1/1/14	1/1/12	1/1/08	2/1/06	9/1/04	1/1/00	7/1/86
91-day UST Bill +5% (AR)			10.0%	10.0%	10.0%	5.0%	5.0%	5.0%		
Bloomberg Aggregate	10.0%	10.0%	10.0%	15.0%	20.0%	20.0%	25.0%	25.0%	30.0%	
Bloomberg US Treasury	5.0%	5.0%	5.0%							
ICE BofA ML High Yield II	1.0%	1.0%	1.0%	1.0%						
Bloomberg Commodity		2.0%	2.0%			5.0%				
Cambridge Associates Private Energy 1 Qtr Lag	2.5%	2.5%								
Cambridge Associates Private Infrastructure 1 Qtr Lag	3.2%	3.2%								
FTSE BIG										23.0%
FTSE WGBI ex US Unhedged	2.4%	2.4%	2.4%	2.4%						
CPI-U +5% (PRA)			7.0%	15.0%	15.0%					
Credit Suisse Leveraged Loans	1.0%	1.0%	1.0%	1.0%						
Credit Suisse Leveraged Loans +2% 1 Qtr Lag	4.0%	4.0%	4.0%							
JPM GBI EM Diversified	0.6%	0.6%	0.6%	0.6%						
HFRI FoF Composite Index + 1%	3.0%	3.0%								
HFRI FoF Conservative Index	7.0%	7.0%								
MSCI ACWI ex US	20.0%	20.0%	20.0%	22.5%	22.5%	20.0%				
MSCI EAFE							15.0%	15.0%	15.0%	15.0%
MSCI Emerging Markets							5.0%	5.0%	5.0%	
NAREIT						3.0%	3.0%			
NFI-ODCE	4.6%	4.6%								
NFI-ODCE net +1% 1Q Lag	2.5%	2.5%								
NCREIF			7.0%			12.0%	12.0%	15.0%	10.0%	15.0%
NCREIF Farmland 1 Qtr Lag	0.7%	0.7%								
NCREIF Timberland Index Lagged	0.7%	0.7%								
Russell 1000							30.0%	30.0%	35.0%	
Russell 1000 +3% 1QL (PE)				10.0%	10.0%					
Russell 2000							5.0%	5.0%	5.0%	
Russell 3000	20.0%	21.0%	21.0%	22.5%	22.5%	30.0%				47.0%
S&P 500 +2% 1QL (PE)						5.0%				
Thomson Reuters CJA All PE 1 Qtr Lag	9.0%	9.0%	9.0%							
Bloomberg Roll Select Commodity Total Return	0.2%									
Bloomberg Barclays U.S. Floating Rate Note < 5 Yr	0.2%									
S&P Global LargeMidCap Commodity and Resources	0.2%									
S&P Global Infrastructure Index - Net of Tax on Dividend	0.5%									
Bloomberg Barclays U.S. Government Inflation-Linked 1-10 Yrs	0.6%									
FTSE EPRA Nareit Developed Liquid Index	0.3%									
ICE LIBOR Spot/Next Overnight USD	1.0%									
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

# Policy Index and Benchmark History

Period Ending: September 30, 2021

Growth Benchmark	As of:		
	7/1/19	7/1/17	4/1/17
91 Day T-Bill +5%			5.08%
ICE BofA ML High Yield II	1.73%	1.70%	1.70%
Credit Suisse Leveraged Loans	1.73%	1.70%	1.70%
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag	6.90%	6.78%	6.78%
HFRI FoF Composite Index + 1%	5.17%	5.08%	
MSCI ACWI ex US	34.48%	33.90%	33.90%
Russell 3000	34.48%	35.59%	35.59%
Thomson Reuters C A All PE 1 Qtr Lag	15.52%	15.25%	15.25%
	100.0%	100.0%	100.0%

US Equity Benchmark	As of:			
	1/1/08	9/1/04	1/1/00	7/1/86
Russell 1000		85.71%	87.5%	
Russell 2000		14.29%	12.5%	
Russell 3000	100.0%			100.0%
	100.0%	100.0%	100.0%	100.0%

Large Cap Active Benchmark	As of:	
	2/1/19	9/1/08
Russell 1000 Value		100.0%
Russell 1000	100.0%	
	100.0%	100.0%

International Equity Benchmark	As of:		
	1/1/08	1/1/00	7/1/86
MSCI ACWI ex US	100.0%		
MSCI EAFE		75.0%	100.0%
MSCI Emerging Markets		25.0%	
	100.0%	100.0%	100.0%

Private Equity Benchmark	As of:		
	4/1/17	1/1/12	1/1/08
Russell 1000 +3% 1QL		100.0%	
S&P 500 +2% 1QL			100.0%
Thomson Reuters C A All PE 1 Qtr Lag	100.0%		
	100.0%	100.0%	100.0%

Public Credit Benchmark	As of:
	4/1/17
ICE BofA ML High Yield II	50.0%
Credit Suisse Leveraged Loans	50.0%
	100.0%

Private Credit Benchmark	As of:
	4/1/17
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag	100.0%
	100.0%

Growth Oriented Absolute Return Benchmark	As of:	
	7/1/17	4/1/17
91-day UST Bill +5%		100.0%
HFRI FoF Composite Index + 1%	100.0%	
	100.0%	100.0%

Diversifying Benchmark	As of:	
	7/1/17	4/1/17
91 Day T-Bill +5%		28.0%
Bloomberg US Aggregate	40.0%	40.0%
Bloomberg US Treasury	20.0%	20.0%
FTSE WGBI ex US Unhedged	9.6%	9.6%
HFRI FoF Conservative Index	28.0%	
JPM GBI EM Diversified	2.4%	2.4%
	100.0%	100.0%

Global Fixed Income Benchmark	As of:
	6/1/13
FTSE WGBI ex US Unhedged	80.0%
JPM GBI EM Diversified	20.0%
	100.0%

Diversifying Absolute Return Benchmark	As of:	
	7/1/17	4/1/17
91-day UST Bill +5%		100.0%
HFRI FoF Conservative Index	100.0%	
	100.0%	100.0%

Real Return Benchmark	As of:	
	4/1/19	4/1/17
Real Estate Benchmark	43.75%	43.75%
Private Real Assets Benchmark	43.75%	43.75%
Bloomberg Commodity		12.50%
Liquid Real Return Custom Benchmark	12.50%	
	100.0%	100.0%

Real Estate Benchmark	As of:	
	7/1/17	7/1/2011
NCREIF		100.0%
NFI-ODCE	65.0%	
NFI-ODCE net +1% 1Q Lag	35.0%	
	100.0%	100.0%

## Policy Index and Benchmark History

Period Ending: September 30, 2021

RE-Value Added Benchmark	As of:	
	7/1/16	10/1/08
NCREIF +2% 1Q Lag		100.0%
NFI-ODCE net +1% 1Q Lag	100.0%	
	<b>100.0%</b>	<b>100.0%</b>

Private Real Assets Benchmark	As of:	
	7/1/17	4/1/17
CPI-U Headline +5%		100.0%
Cambridge Associates Private Energy 1 Qtr Lag	35.0%	
Cambridge Associates Private Infrastructure 1 Qtr Lag	45.0%	
NCREIF Farmland 1 Qtr Lag	10.0%	
NCREIF Timberland Index Lagged	10.0%	
	<b>100.0%</b>	<b>100.0%</b>

Liquid Real Return Custom Benchmark	As of:
	7/1/19
Bloomberg Roll Select Commodity Total Return	10.0%
Bloomberg Barclays U.S. Floating Rate Note < 5 Yr	10.0%
S&P Global LargeMidCap Commodity and Resources	10.0%
S&P Global Infrastructure Index - Net of Tax on Dividend	25.0%
Bloomberg Barclays U.S. Government Inflation-Linked 1-10 Yrs	30.0%
FTSE EPRA Nareit Developed Liquid Index	15.0%
	<b>100.0%</b>

AllianceBernstein Benchmark	As of:		
	1/1/01	1/1/98	5/1/89
Russell 1000	100.0%		
Russell 3000		100.0%	
Wilshire 2500			100.0%
	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Eagle Capital Benchmark	As of:	
	2/1/19	9/1/08
Russell 1000 Value		100.0%
Russell 1000	100.0%	
	<b>100.0%</b>	<b>100.0%</b>

Brandywine Benchmark	As of:
	6/1/13
FTSE WGBI ex US Unhedged	80.0%
JPM GBI EM Diversified	20.0%
	<b>100.0%</b>

Brigade Benchmark	As of:
	12/1/13
ICE BofA ML High Yield II	50.0%
Credit Suisse Leveraged Loans	50.0%
	<b>100.0%</b>

Brookfield Real Return Custom	As of:
	12/1/2019
FTSE Global Core Infrastructure 50/50 Index	30.0%
FTSE EPRA Nareit Developed Index	20.0%
ICE BofA 7% Constrained REIT Preferred Securities Index	10.0%
ICE BofA USD Real Asset High Yield Custom Index	16.0%
ICE BofA USD Real Asset Corporate Custom Index	24.0%
	<b>100.0%</b>

SSgA Real Asset Benchmark	As of:		
	3/2/2018	10/1/15	2/1/08
Bloomberg US Govt Inflation-Linked 1-10 Yrs		10.0%	
Bloomberg US TIPS		10.0%	20.0%
Bloomberg 1-10 Yr US TIPS	30.0%		
Bloomberg Roll Select Commodity TR	10.0%	20.0%	
Bloomberg USD Floating Rate Note <5yr	10.0%		
DJ US Select REIT			30.0%
FTSE EPRA/NAREIT Developed Liquid	15.0%	10.0%	
MSCI World Natural Resources		20.0%	25.0%
S&P Global Large Mid Cap Commodity Resources	10.0%		
S&P Global Infrastructure	25.0%	20.0%	
S&P GS Commodities			25.0%
S&P MLP		10.0%	
	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

# Glossary

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**Allocation Effect:** An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

**Alpha:** The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as:  $\text{Portfolio Return} - [\text{Risk-free Rate} + \text{Portfolio Beta} \times (\text{Market Return} - \text{Risk-free Rate})]$ .

**Benchmark R-squared:** Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R-squared, the more appropriate the benchmark is for the manager.

**Beta:** A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

**Book-to-Market:** The ratio of book value per share to market price per share. Growth managers typically have low book-to-market ratios while value managers typically have high book-to-market ratios.

**Capture Ratio:** A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

**Correlation:** A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of -1 means the returns of two securities move in the exact opposite direction over time. Correlation is used as a measure to help maximize the benefits of diversification when constructing an investment portfolio.

**Excess Return:** A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

**Information Ratio:** A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: excess return divided by tracking error.

**Interaction Effect:** An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

**Portfolio Turnover:** The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

**Price-to-Earnings Ratio (P/E):** Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price-to-earnings ratios whereas value managers hold stocks with low price-to-earnings ratios.

**R-Squared:** Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

**Selection Effect:** An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

**Sharpe Ratio:** A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as:  $\text{Portfolio Excess Return} / \text{Portfolio Standard Deviation}$ .

**Sortino Ratio:** Measures the risk-adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

**Standard Deviation:** A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two-thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

**Style Analysis:** A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

**Style Map:** A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two-dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from -1 to 1 on each axis and are dependent on the Style Indices comprising the Map.

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