

The background is a scenic landscape of a mountain lake. In the foreground, there are large, dark rocks in the water. A small island in the middle of the lake has two tall, thin evergreen trees. The water is calm, reflecting the surrounding mountains and trees. In the background, there are steep, forested mountains with some snow patches. A small village with colorful houses is visible on the right side of the lake. A geometric overlay of blue and white triangles is present on the left side of the image.

**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**

AUGUST 2022
Capital Markets Update

Market commentary

U.S. ECONOMICS

- The U.S. job market remained strong in August as non-farm payrolls increased by 315,000 jobs and measured near expectations. Despite the rise in jobs, the unemployment rate rose +0.2% to 3.7% over the month as the total labor force increased 786,000 since July.
- The U.S. Manufacturing Purchasing Managers' Index (PMI) fell for a fourth consecutive month to 51.5, indicating the weakest business sentiment since July 2020.
- The University of Michigan Consumer Sentiment Index climbed 13.0% to 58.2 in August as slowed inflation growth spurred confidence in U.S. consumers. Despite the month-over-month rise, the print measured -17.2% below August 2021 and -7.5% below its 12-month average.

U.S. EQUITIES

- The S&P 500 Index fell -4.1% over the month, reversing July's bear market rally. The index ended August +8.2% higher than its 2022 low achieved in mid-June but has fallen -16.1% year-to-date.
- Excluding the Energy sector, S&P 500 earnings growth was negative in Q2. While the blended Q2 earnings growth rate for the S&P 500 totaled +6.7%, it measured just -3.7% on an ex-Energy basis. Energy led the 11 GICS Sectors in year-over-year Q2 earnings growth as the sector reported EPS growth of +293% over the period, per FactSet.
- Q2 earnings season neared close at month end as 492 S&P 500 members had reported results, as of 9/2. Per FactSet, "Inflation" was the hottest topic of discussion as 412 index members mentioned the term on Q2 calls. Recession commentary was likewise pertinent as the term was mentioned by 240 members, the most since 2010.

U.S. FIXED INCOME

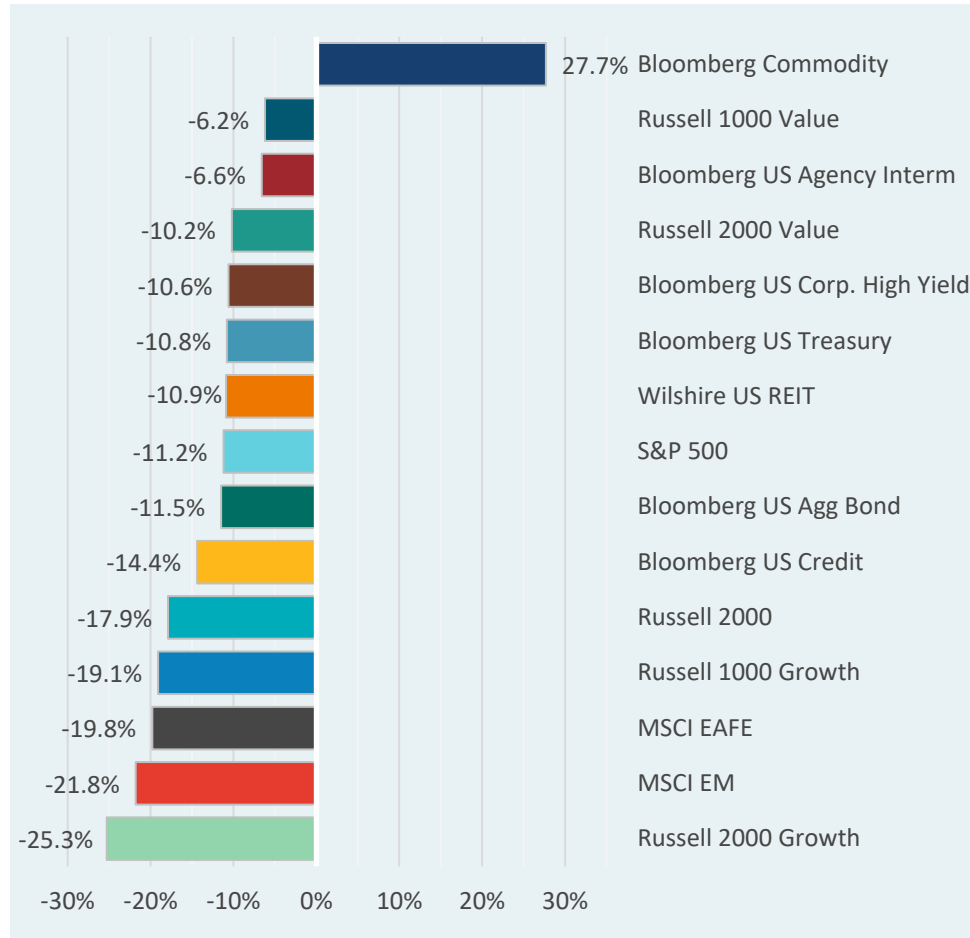
- At the Fed's annual Jackson Hole Economic Symposium, Chairman Jerome Powell reinforced the Central Bank's restrictive policy stance on price stability. Powell remarked that the Fed's current efforts to combat inflation are "likely to require a sustained period of below-trend growth."
- As market participants weighed the Fed's reiterated commitment to lowering inflation to the 2.0% long-term target, market expectations for when the Fed will first cut rates moved back from February to May of 2023.
- The Bloomberg U.S. Aggregate Bond Index declined -2.8% as yields rose across the yield curve and the market priced in the impact of sustained rate increases by the Fed into the longer end of the treasury curve.

INTERNATIONAL MARKETS

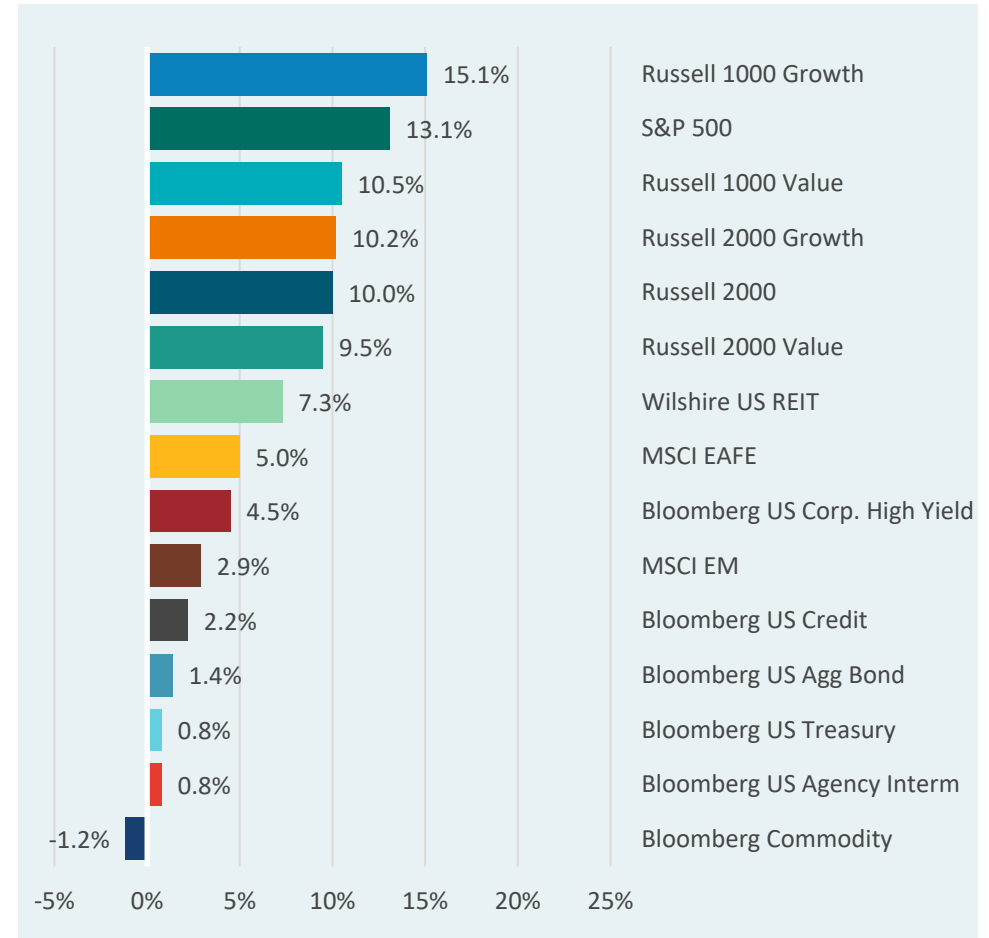
- The People's Bank of China instituted cuts to multiple key policy rates in a move to spur lending growth as zero-covid policies continue to weigh on economic growth. The Bank lowered rates on its one-year medium-term lending facility and seven-day reverse repo by 10 basis points each mid-month and followed with cuts to the one-year and five-year loan prime rates.
- The Japanese Yen (-3.6%) fell to a fresh 24-year low against the U.S. Dollar toward month end as BOJ Governor Kuroda's continued dovish stance alongside hawkish Fed policy added to the disparity between the two currencies.
- UK Gilts sold off sharply as investors reacted to the release of a more than 40-year high inflation print of 10.1% for July. Two-year Gilt yields jumped 128 basis points.

Major asset class returns

ONE YEAR ENDING AUGUST



TEN YEARS ENDING AUGUST



*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 8/31/22

Source: Morningstar, as of 8/31/22

U.S. large cap equities

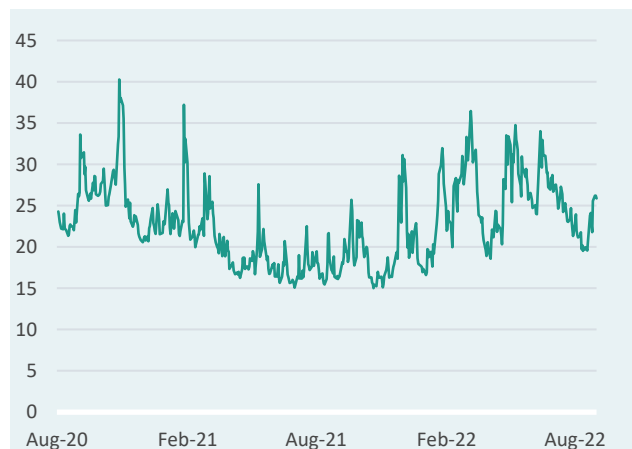
- The S&P 500 Index declined -4.1% in August despite reaching an intra-month high not seen since early May. While stocks climbed early in the month on signs of a reversing inflation trend, hawkish comments from Fed Chairman Jerome Powell at the Jackson Hole Economic Symposium quashed investor optimism.
- Losses within U.S. sectors were broad as 9 of 11 S&P 500 GICS Sectors saw monthly declines. Positive performance was limited to the Energy (+2.8%) and Utilities (+0.5%) sectors while Information Technology (-6.1%), Health Care (-5.8%), and Real Estate (-5.6%) performed the worst.
- The Cboe VIX Index of implied volatility increased materially as volatility accelerated toward month end. The index gained 4.5 points over the month to close August at 25.87 which exceeded both its year-to-date and one-year daily average.
- Congress enacted the \$437 billion Inflation Reduction Act mid-month in a move to address climate concerns, prescription drug costs, and rising energy prices. The bill notably institutes a 15% corporate minimum tax, along with a 1% tax on share buybacks.

S&P 500 PRICE INDEX



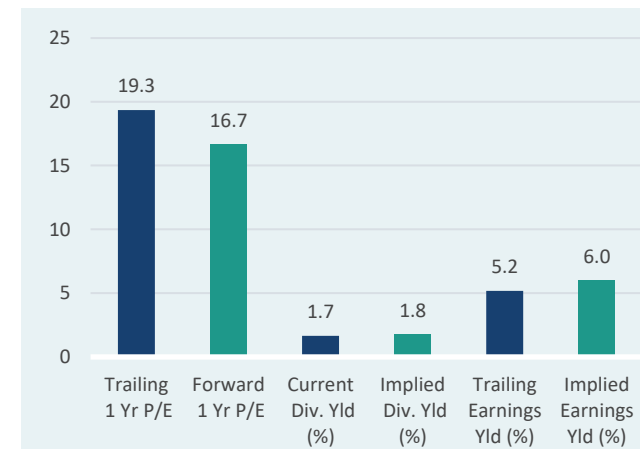
Source: Bloomberg, as of 8/31/22

IMPLIED VOLATILITY (VIX INDEX)



Source: Cboe, as of 8/31/22

S&P 500 VALUATION SNAPSHOT

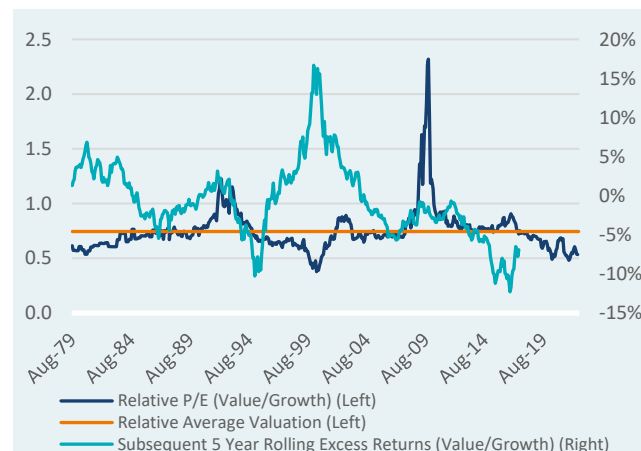


Source: Bloomberg, as of 8/31/22

Domestic equity size and style

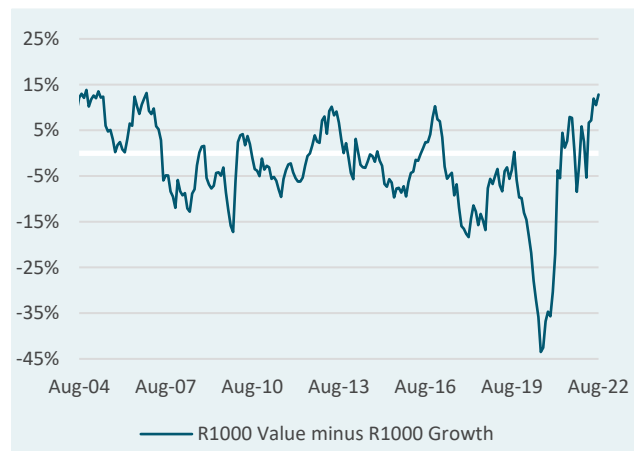
- Value stocks (Russell 3000 Value -3.0%) outperformed growth stocks (Russell 3000 Growth -4.4%) in August as reaffirmed hawkish sentiment from the Fed likely weighed on growth expectations and put a damper on the preceding bear market rally.
- Small-cap equities (Russell 2000 Index -2.0%) fell less than large-cap equities (Russell 1000 Index -3.8%) in August and marked the fourth consecutive month of small-cap outperformance. In contrast to broader trends, small-cap growth (Russell 2000 Growth -0.9%) widely outperformed value (Russell 2000 Value -3.2%).
- Breadth was significantly negative over the month as 73.8% of S&P 500 Index constituents saw negative performance in August. Only 8 index members gained more than 10.0% over the month compared to 217 in July, per S&P Global.
- Over the trailing year ended in August, the Russell 1000 Value Index outperformed the Russell 1000 Growth Index by +11.6% which marked value's highest trailing 12-month overperformance since April 2005. In the last 20 years, value has outperformed growth in just 36.3% of 12-month periods.

VALUE VS. GROWTH RELATIVE VALUATIONS



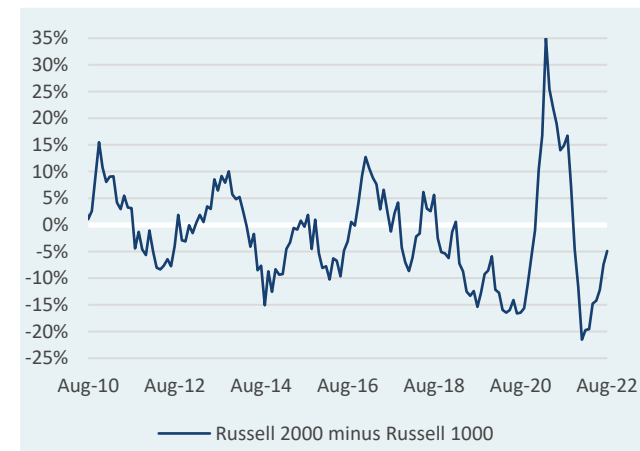
Source: FTSE, Bloomberg, as of 8/31/22

VALUE VS. GROWTH 1-YR ROLLING RELATIVE PERFORMANCE



Source: FTSE, Bloomberg, as of 8/31/22

SMALL VS. LARGE 1-YR ROLLING RELATIVE PERFORMANCE

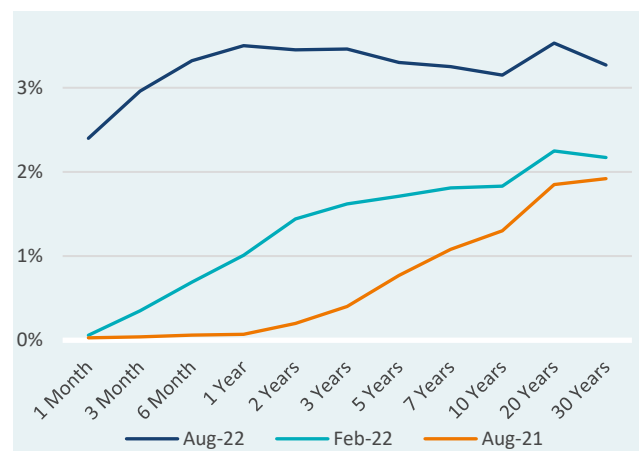


Source: FTSE, Bloomberg, as of 8/31/22

Fixed income

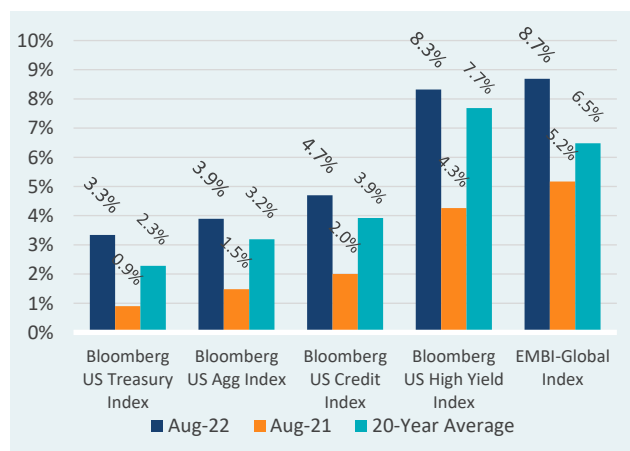
- U.S. Treasury yields rose across tenors, as shorter-term yields rose at a faster rate than longer-term yields – the 2-year climbed 53 basis points and the 10-year rose 17 basis points. The 10-2 spread ended the month inverted by 30 basis points, a potential indicator that investors lack confidence in the Fed's ability to manage a soft landing for the U.S. economy.
- High Yield spreads (ICE BofA US High Yield Index) ended the month 20 basis points higher at 5.0% after an initial -62 basis point decline to start the month. Spreads widened alongside increased hesitancy towards a soft-landing outcome and hawkish remarks by Fed officials.
- The Bloomberg Dollar Spot Index (DXY) reached a 20-year intra-month high and ended the month 2.6% higher in a continuation of recent dollar strength. The Fed's reiterated commitment to hawkish policy likely helped relative dollar strength. The DXY has increased 13.6% year-to-date.
- The Bloomberg Municipal Bond Index declined -2.2% and fared marginally better than the Bloomberg US Aggregate Index (-2.8%) in a continuation of recent outperformance. The index has declined -8.6% year-to-date and net outflows from Muni-focused ETF's and bond funds have totaled \$84B over the same period.

U.S. TREASURY YIELD CURVE



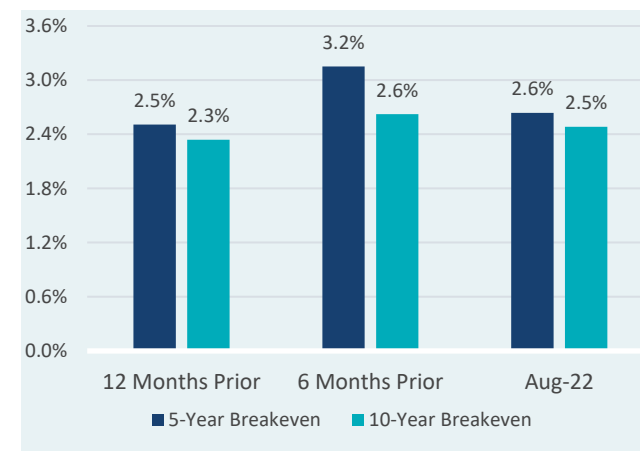
Source: Bloomberg, as of 8/31/22

NOMINAL YIELDS



Source: Morningstar, as of 8/31/22

BREAKEVEN INFLATION RATES

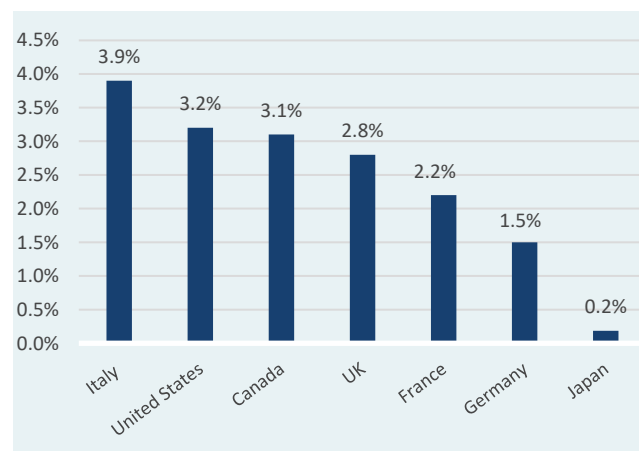


Source: Bloomberg, as of 8/31/22

Global markets

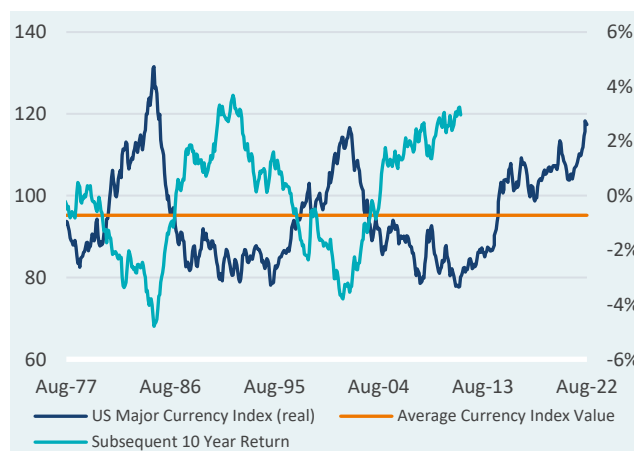
- International equities were lower in August as the MSCI ACWI ex USA Index fell -3.2%. Foreign losses were driven heavily by declines in developed market equities (MSCI EAFE -4.8%) and buoyed by gains in emerging markets (MSCI EM +0.4%).
- The MSCI China Index (+0.3%) was mostly flat over the month as investors balanced the impact of Covid-19 pressures with a fresh release of \$1 trillion yuan in economic stimulus. Gains in Chinese equities were concentrated in the country's Energy sector (+7.5%) as companies have resold natural gas imports to Europe in record quantities.
- European stocks (MSCI Euro Index -6.3%) fell in excess of foreign peers as recession fears continued to heighten. Halted natural gas flows from Russia pressured energy prices higher which helped drive August Eurozone inflation to a record 9.1%.
- Israeli (MSCI Israel Index +5.2%) and Turkish (MSCI Turkey Index +22.7%) equities trounced international peers as the two countries announced normalized relations. The MSCI Turkey Index posted the best performance of MSCI EM constituents while the MSCI Israel Index was the only MSCI EAFE constituent to record gains in August.

GLOBAL SOVEREIGN 10-YEAR YIELDS



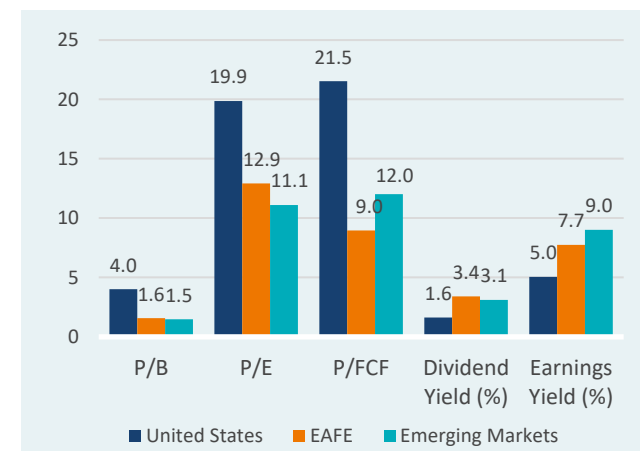
Source: Bloomberg, as of 8/31/22

U.S. DOLLAR MAJOR CURRENCY INDEX



Source: Federal Reserve, as of 8/31/22

MSCI VALUATION METRICS (3-MONTH AVG)



Source: Bloomberg, as of 8/31/22

Commodities

- The Bloomberg Commodity Index (+0.1%) ended the month relatively flat as declines in oil prices (Bloomberg Petroleum Sub-Index -5.4%) and precious metals (Bloomberg Precious Metals Sub-Index -4.9%) prices were partially offset by advances in agriculture (Bloomberg Agriculture Sub-Index +3.6%).
- Natural gas prices jumped +10.9% over the month as Europe's energy crisis intensified. Toward month end, Russia's Gazprom ceased gas flows to Europe entirely which added pressure to sparse supply and further complicates the ability of European governments to hit storage goals ahead of winter.

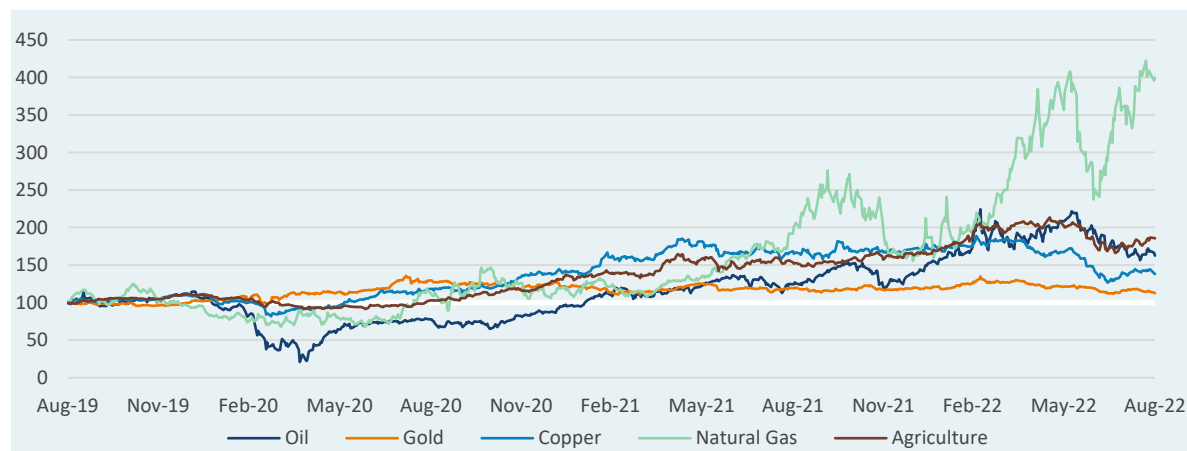
INDEX AND SECTOR PERFORMANCE

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg Commodity	0.1	(6.9)	23.6	27.7	17.2	8.7	(1.1)
Bloomberg Agriculture	3.6	(7.7)	14.7	21.7	23.6	8.5	(2.4)
Bloomberg Energy	1.0	(3.1)	79.7	82.9	18.8	11.5	(4.3)
Bloomberg Grains	2.7	(11.9)	15.8	23.2	22.1	8.5	(4.0)
Bloomberg Industrial Metals	(2.7)	(16.9)	(10.6)	(5.0)	10.8	4.5	1.3
Bloomberg Livestock	(1.7)	4.7	1.5	1.4	(3.1)	(3.6)	(3.5)
Bloomberg Petroleum	(5.4)	(12.3)	49.4	68.1	18.6	14.1	(3.5)
Bloomberg Precious Metals	(4.9)	(9.7)	(10.9)	(11.1)	1.4	3.0	(2.2)
Bloomberg Softs	8.4	(2.7)	6.8	14.7	23.4	5.4	(2.6)

Source: Morningstar, as of 8/31/22

- Corn prices rallied +8.8% in a continuation of the prior month trend as present crop conditions have worsened and yield estimates fell short of expectations. In the U.S., 2022 corn production estimates from the Pro Farmer Crop Tour near month end measured -4.2% lower than USDA estimates released early in the month.
- The Bloomberg Precious Metals Sub-Index (-4.9%) declined over the month as gold (-3.1%), which accounts for 77.6% of the Sub-Index, fell for a fifth consecutive month and spot prices for silver (-11.5%) submerged \$18 per ounce for the first time since June 2020.

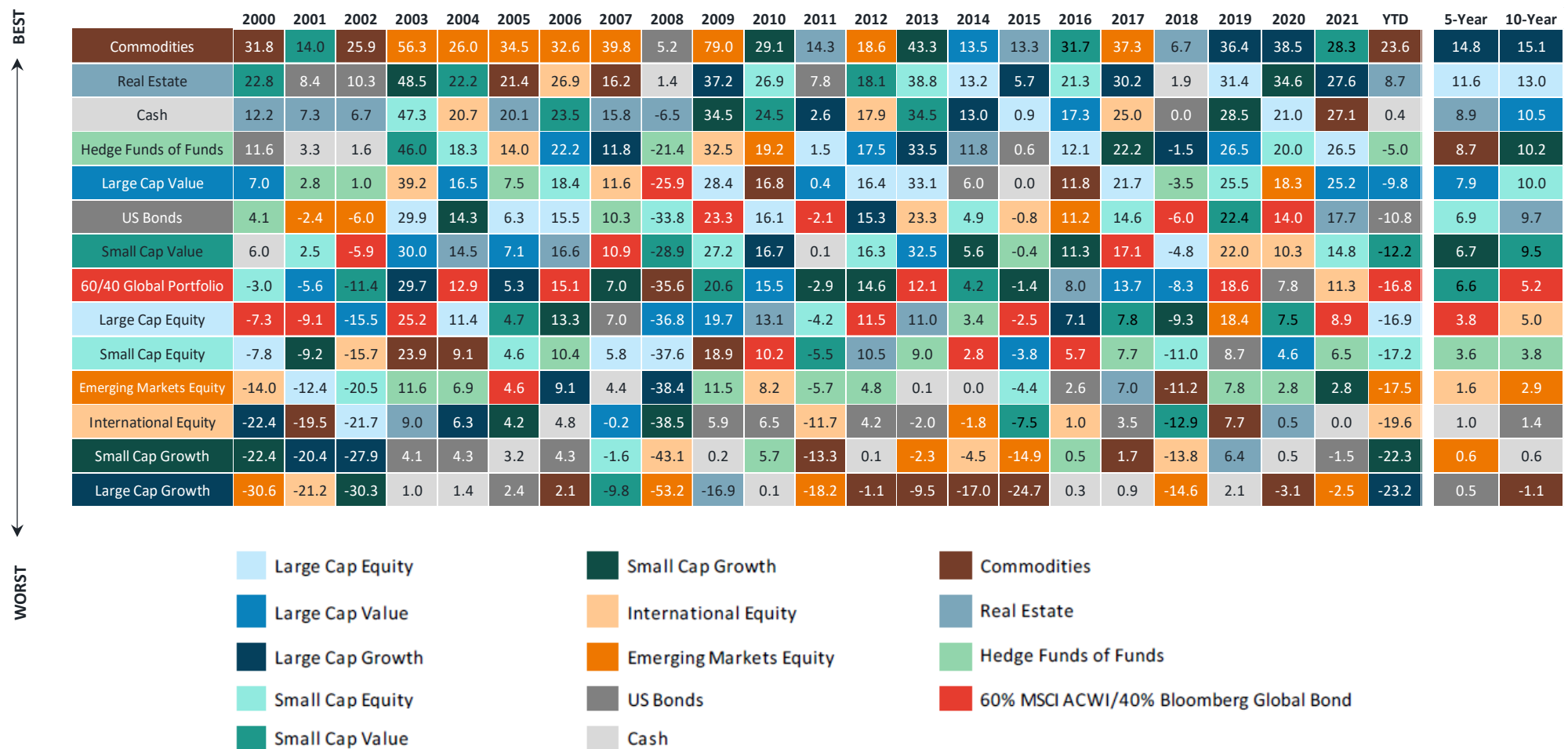
COMMODITY PERFORMANCE



Source: Bloomberg, as of 8/31/22

Appendix

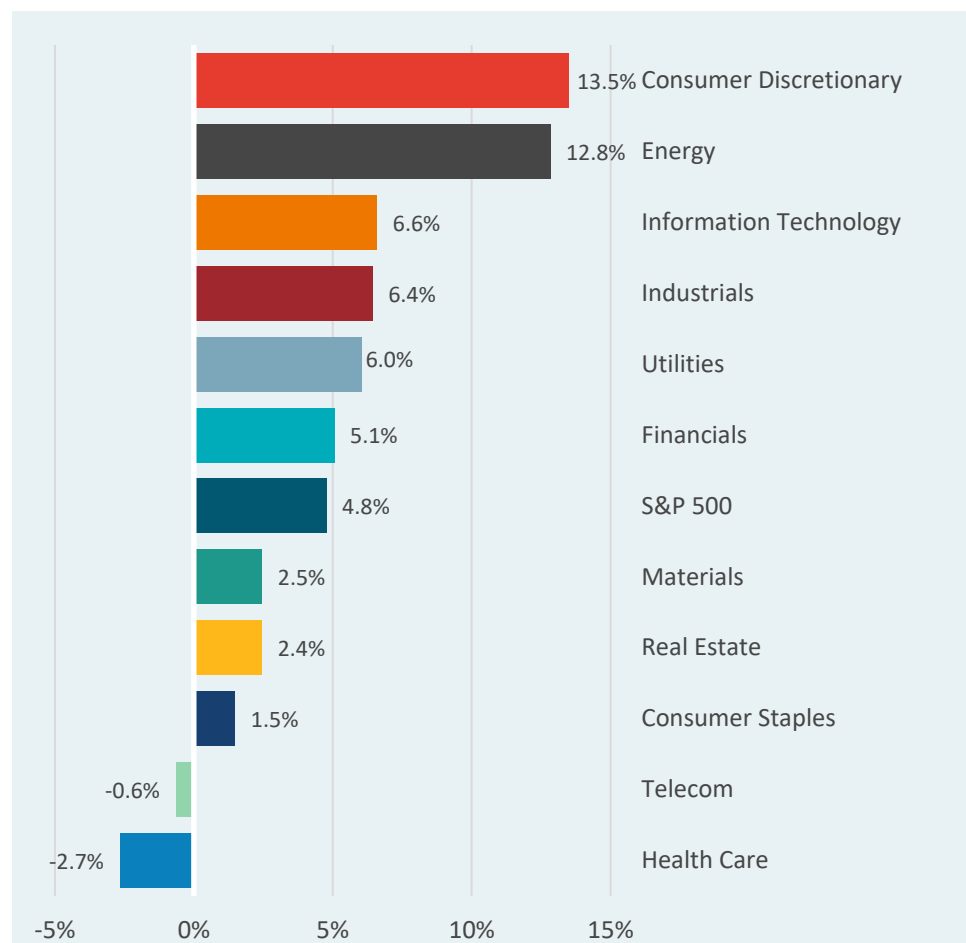
Periodic table of returns



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 6/30/22.

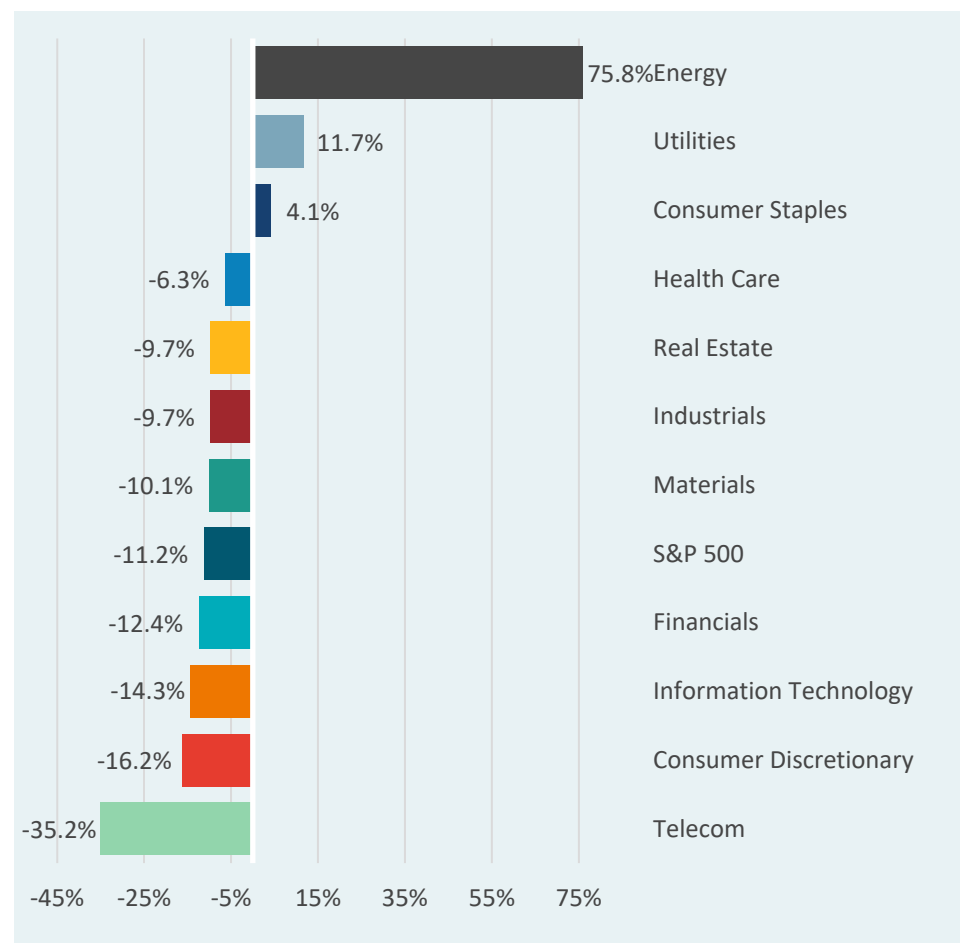
S&P 500 sector returns

QTD



Source: Morningstar, as of 8/31/22

ONE YEAR ENDING AUGUST



Source: Morningstar, as of 8/31/22

Detailed index returns

DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	(4.1)	4.8	(16.1)	(11.2)	12.4	11.8	13.1
S&P 500 Equal Weighted	(3.5)	4.9	(12.6)	(8.3)	12.4	10.8	12.8
DJ Industrial Average	(3.7)	2.8	(12.0)	(9.1)	8.3	9.9	11.8
Russell Top 200	(4.1)	4.7	(17.0)	(12.3)	13.2	12.5	13.5
Russell 1000	(3.8)	5.1	(16.9)	(13.0)	12.1	11.6	13.0
Russell 2000	(2.0)	8.2	(17.2)	(17.9)	8.6	6.9	10.0
Russell 3000	(3.7)	5.3	(16.9)	(13.3)	11.9	11.3	12.8
Russell Mid Cap	(3.1)	6.4	(16.5)	(14.8)	9.4	9.2	11.6
Style Index							
Russell 1000 Growth	(4.7)	6.8	(23.2)	(19.1)	14.5	14.8	15.1
Russell 1000 Value	(3.0)	3.5	(9.8)	(6.2)	8.9	7.9	10.5
Russell 2000 Growth	(0.9)	10.2	(22.3)	(25.3)	5.9	6.7	10.2
Russell 2000 Value	(3.2)	6.2	(12.2)	(10.2)	10.4	6.6	9.5

INTERNATIONAL EQUITY

Broad Index							
MSCI ACWI	(3.7)	3.0	(17.8)	(15.9)	8.0	7.0	8.7
MSCI ACWI ex US	(3.2)	0.1	(18.3)	(19.5)	2.9	1.7	4.5
MSCI EAFE	(4.7)	(0.0)	(19.6)	(19.8)	2.4	1.6	5.0
MSCI EM	0.4	0.2	(17.5)	(21.8)	2.7	0.6	2.9
MSCI EAFE Small Cap	(4.4)	1.9	(23.3)	(26.0)	2.8	1.2	7.1
Style Index							
MSCI EAFE Growth	(6.1)	1.4	(25.8)	(25.8)	2.3	3.1	6.1
MSCI EAFE Value	(3.4)	(1.4)	(13.3)	(13.9)	1.9	(0.3)	3.7
Regional Index							
MSCI UK	(5.6)	(2.1)	(10.8)	(7.7)	2.7	1.4	3.1
MSCI Japan	(2.6)	3.0	(17.9)	(19.0)	2.3	2.0	6.2
MSCI Euro	(6.3)	(1.8)	(26.5)	(27.4)	(0.1)	(0.7)	4.4
MSCI EM Asia	0.4	(0.9)	(18.0)	(22.1)	4.7	1.8	5.3
MSCI EM Latin American	2.7	7.1	6.5	(7.1)	(1.5)	(1.7)	(1.6)

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
Bloomberg US TIPS	(2.7)	1.6	(7.5)	(6.0)	2.7	3.2	1.7
Bloomberg US Treasury Bills	0.2	0.2	0.3	0.3	0.6	1.1	0.7
Bloomberg US Agg Bond	(2.8)	(0.5)	(10.8)	(11.5)	(2.0)	0.5	1.4
Bloomberg US Universal	(2.6)	(0.2)	(11.1)	(11.9)	(1.8)	0.6	1.6
Duration							
Bloomberg US Treasury 1-3 Yr	(0.8)	(0.4)	(3.4)	(4.0)	(0.2)	0.7	0.7
Bloomberg US Treasury Long	(4.4)	(1.9)	(22.7)	(22.6)	(6.8)	(0.4)	1.2
Bloomberg US Treasury	(2.5)	(0.9)	(10.0)	(10.8)	(2.2)	0.3	0.8
Issuer							
Bloomberg US MBS	(3.4)	(0.3)	(9.1)	(9.7)	(2.0)	0.1	1.1
Bloomberg US Corp. High Yield	(2.3)	3.5	(11.2)	(10.6)	1.0	2.6	4.5
Bloomberg US Agency Interm	(1.5)	(0.6)	(5.5)	(6.6)	(0.9)	0.5	0.8
Bloomberg US Credit	(2.8)	0.1	(13.7)	(14.4)	(2.1)	1.0	2.2

OTHER

Index							
Bloomberg Commodity	0.1	4.4	23.6	27.7	17.2	8.7	(1.1)
Wilshire US REIT	(5.9)	2.3	(19.8)	(10.9)	3.1	5.6	7.3
CS Leveraged Loans	1.5	3.4	(1.2)	0.2	3.0	3.5	4.0
S&P Global Infrastructure	(1.5)	2.4	1.9	5.2	4.9	4.3	7.3
Alerian MLP	4.0	17.1	28.6	33.6	6.1	2.9	1.7
Regional Index							
JPM EMBI Global Div	(0.9)	1.9	(18.8)	(20.8)	(5.2)	(1.3)	1.9
JPM GBI-EM Global Div	(0.1)	0.2	(14.4)	(19.4)	(5.2)	(3.0)	(1.7)
Hedge Funds							
HFRI Composite	0.5	1.8	(4.0)	(3.8)	6.9	5.1	5.0
HFRI FOF Composite	0.9	1.7	(5.0)	(4.5)	4.7	3.6	3.8
Currency (Spot)							
Euro	(1.4)	(3.8)	(11.6)	(14.8)	(3.0)	(3.3)	(2.2)
Pound Sterling	(4.4)	(4.2)	(14.1)	(15.5)	(1.5)	(2.0)	(3.1)
Yen	(3.6)	(2.0)	(16.9)	(20.8)	(8.5)	(4.5)	(5.6)

Source: Morningstar, HFRI, as of 8/31/22.

Detailed private market returns

Comparison to public market index returns

Private Equity Pooled IRRs	1 Year	3 Year	5 Year	10 Year
Global Private Equity FoFs & Secondary Funds	38.9	26.4	20.7	14.7
Global Private Equity Direct Funds *	37.9	29.1	23.6	17.7
U.S. Private Equity Direct Funds *	45.0	32.1	25.2	19.1
Europe Private Equity Direct Funds *	33.1	27.6	24.8	16.2
Asia Private Equity Direct Funds *	15.7	18.4	16.6	14.7

Public Index Time-weighted Returns				
MSCI World	21.8	21.7	15.0	12.7
S&P 500	28.7	26.1	18.5	16.6
MSCI Europe	16.3	14.9	10.1	8.2
MSCI AC Asia Pacific	(1.5)	12.1	9.9	8.0

Private Real Estate Pooled IRRs	1 Year	3 Year	5 Year	10 Year
U.S. All Private Real Estate	30.0	13.0	11.8	13.0

Public Index Time-weighted Returns				
FTSE NAREIT Equity REIT	43.2	18.4	10.8	11.4

Private Credit Pooled IRRs	1 Year	3 Year	5 Year	10 Year
U.S. All Private Debt **	32.4	16.8	13.9	12.6

Public Index Time-weighted Returns				
S&P / LSTA U.S. Leveraged Loan 100 Index	3.5	5.6	3.9	4.3

Private Real Assets Pooled IRRs	1 Year	3 Year	5 Year	10 Year
Global Nature Resources ***	31.3	1.9	2.5	2.1
Global Infrastructure	13.8	11.6	12.4	11.0

Public Index Time-weighted Returns				
S&P Global Natural Resources	25.2	13.9	9.6	4.6
S&P Global Infrastructure	11.9	10.2	7.8	7.7

Source: Pooled IRRs are from Thompson Reuters C/A and Time-weighted Returns are from Investment Metrics, as of December 31st, 2021. All returns in U.S. dollars.

* Includes Buyout, Growth Equity and Venture Capital.

** Includes Control-Oriented Distressed, Credit Opportunities, Senior Debt and Subordinated Capital.

*** Includes Private Equity Energy, Timber and Upstream Energy & Royalties.

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