



3CHOPT

INVESTMENT PARTNERS

Quarterly Considerations

April 2022



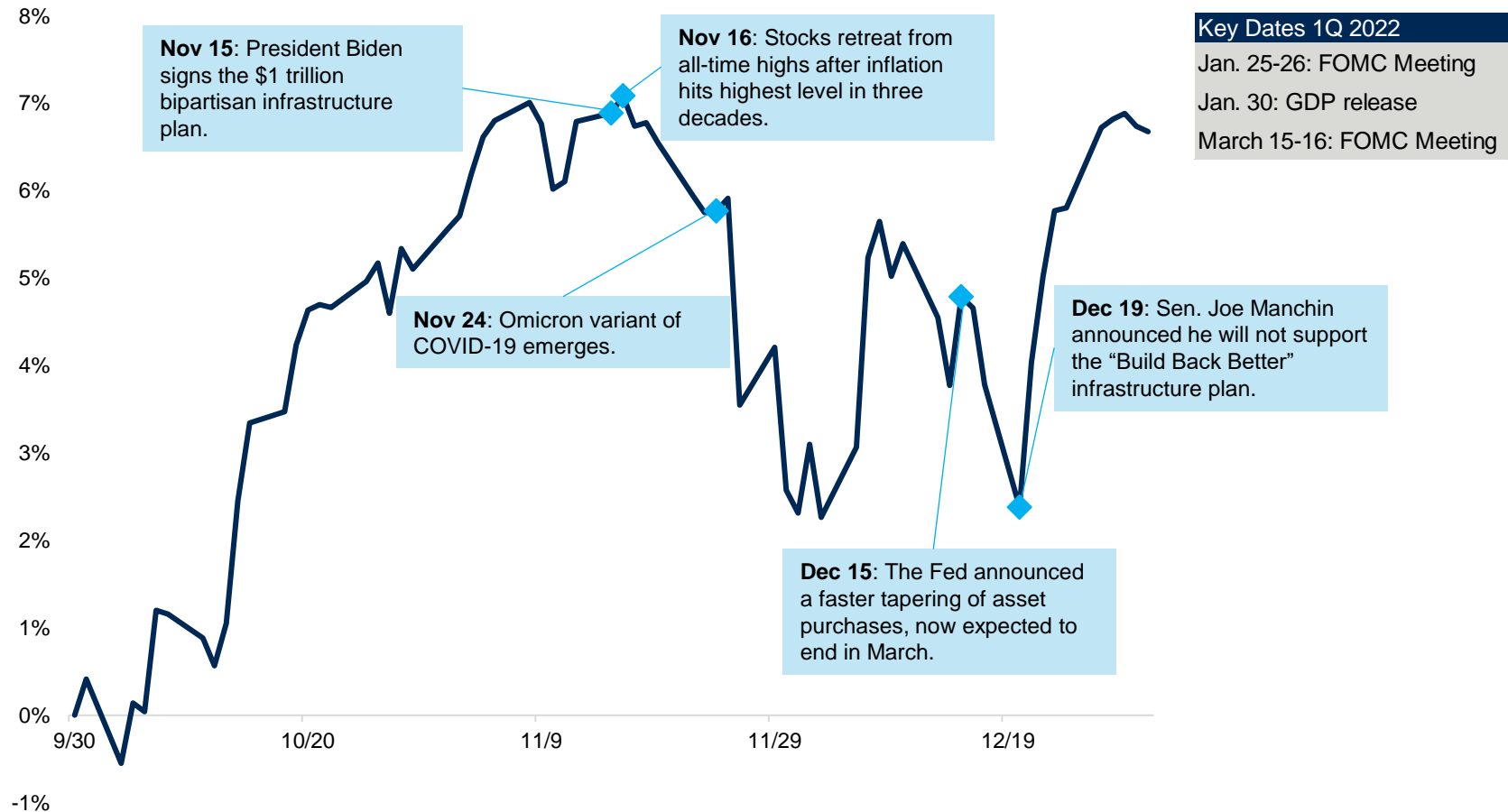
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Market Events



Global Equity Total Return (October 1, 2021 – December 31, 2021)



Source: FactSet as of December 31, 2021. Global Equity represented by MSCI ACWI Net Total Return USD Index.

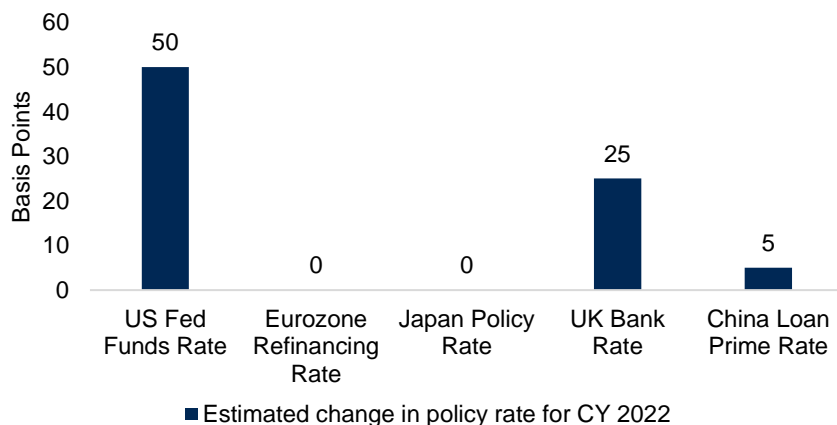
Market Themes



1. Adaptation and flexibility should prove key for investors in 2022, driven by concern for moderating return opportunities and heightened capital market volatility.
2. Investors should remain attuned to a more differentiated array of central bank responses in the New Year as authorities increasingly customize policies to their particular economic circumstances.
3. U.S. large cap equities were among the leaders this quarter as the reopening trade took a back seat and large growth outpaced value. Real estate markets continued their banner year while fixed income was relatively flat, despite increased rate volatility.

Global Policy Rates

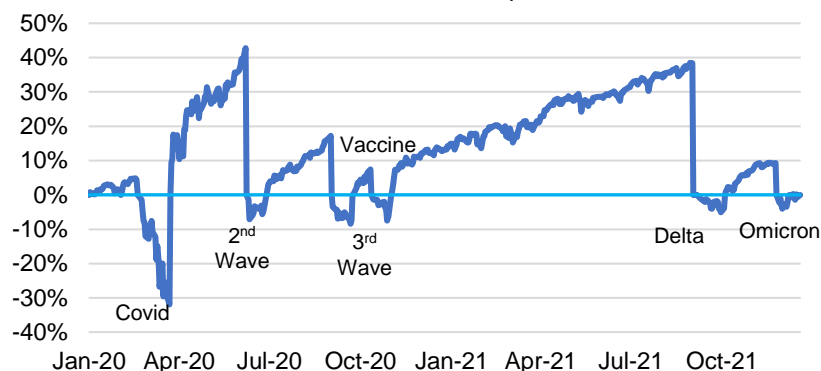
Market expectations are such that central bank coordination is likely to wane in 2022 as policy makers around the world react to their individual markets. This may present both opportunities and risks for investors in the coming quarters.



Source: FactSet. As of January 5, 2022

S&P 500 Drawdowns (% Change from Previous High/Low)

The COVID-19 pandemic has driven volatility over the past two years. Recent variants have had a more subdued impact.



Source: FactSet. As of December 20, 2021

Elevated Rate Volatility

The 10-year U.S. Treasury yield experienced elevated volatility in Q4 as investors digested the emergence of the omicron variant, elevated inflation, an increasingly hawkish Fed and prospects for further economic recovery.



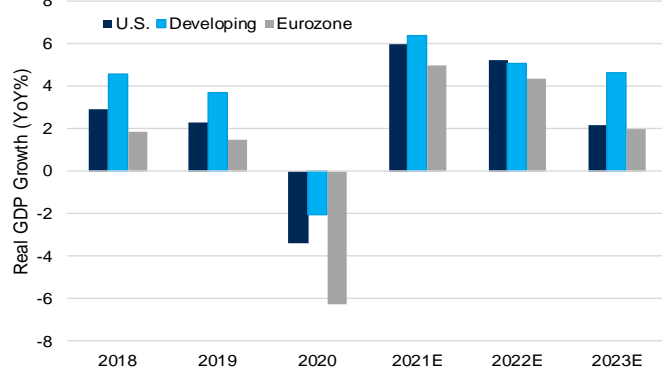
Source: FactSet. As of December 31, 2021.

Economic Review



Real GDP Growth (YoY)

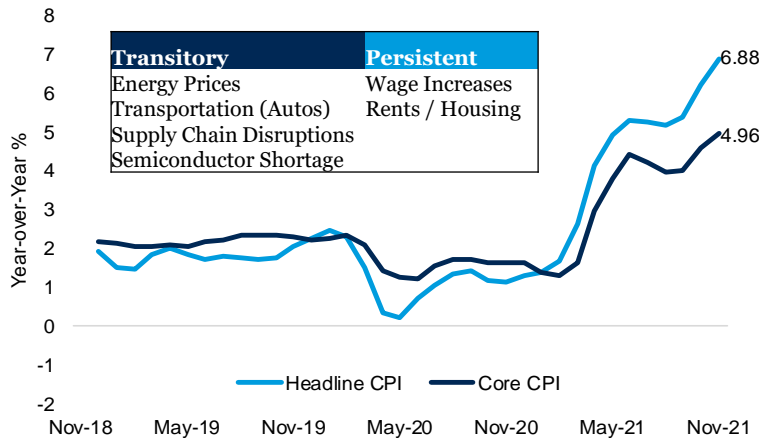
Estimates for positive GDP growth remain strong for 2022. A favorable consumer profile and corporate health provide a solid foundation for continued recovery, if at a somewhat moderating pace.



Source: FactSet, IMF World Economic Outlook. As of December 31, 2021.

U.S. Inflation

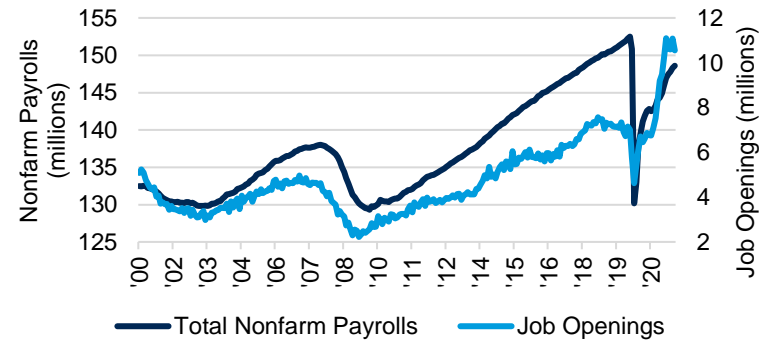
Inflation remains elevated, with energy and transportation seeing the largest increases year-over-year. Inflation may moderate but we don't expect it to revert to benign pre-pandemic levels.



Source: FactSet, Fiducient Advisors. As of November 30, 2021.

U.S. Labor Market

Job openings are at twenty-year highs, yet employment levels (nonfarm payrolls) are still below pre-pandemic levels. This supply/demand imbalance could lead to higher wages and a stronger consumer.



Source: FactSet, U.S. DOL. As of November 30, 2021

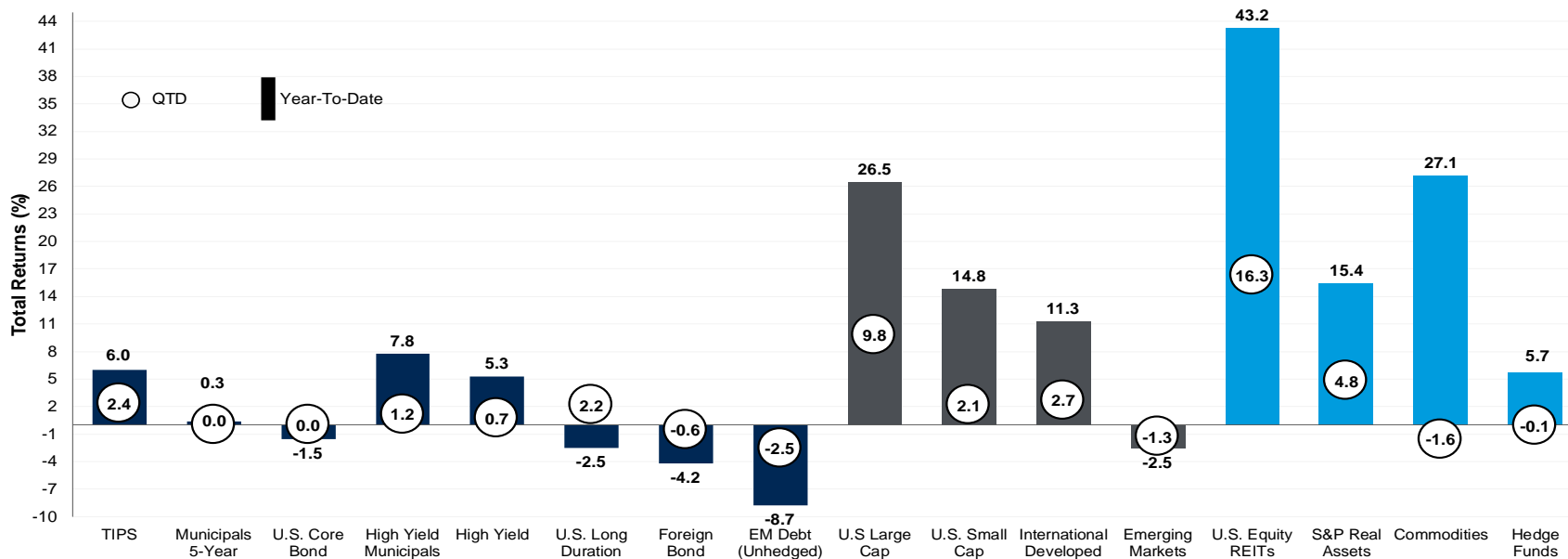
Shipping Costs

Supply chain issues are easing somewhat. The Baltic Dry Index, a measure of shipping costs of raw materials, has come off recent highs, which could alleviate inflation pressure in the future.



Source: FactSet, Baltic Exchange. As of December 31, 2021

Asset Class Returns



*Hedge fund returns are lagged 1 month. Sources: FactSet, J.P. Morgan, Russell, MSCI, FTSE Russell, Alerian, Morningstar. As of December 31, 2021.

Fixed Income (4Q)

- +/- U.S. bonds were flat on the quarter. A hawkish Federal Reserve incited a flatter yield curve.
- + Credit spreads ultimately ended the quarter tighter as investors continued to demand yield in the low-rate environment.
- Non-USD debt struggled in the period. A rising U.S. dollar coupled with Evergrande's debt default was a headwind for EM debt.

Equity (4Q)

- + Despite a volatile quarter, U.S. and developed international equities ultimately ended the quarter higher following a year-end rally.
- Government regulation and intervention in China continued to weigh on investor enthusiasm, pushing emerging markets into negative territory for the quarter.

Real Asset / Alternatives (4Q)

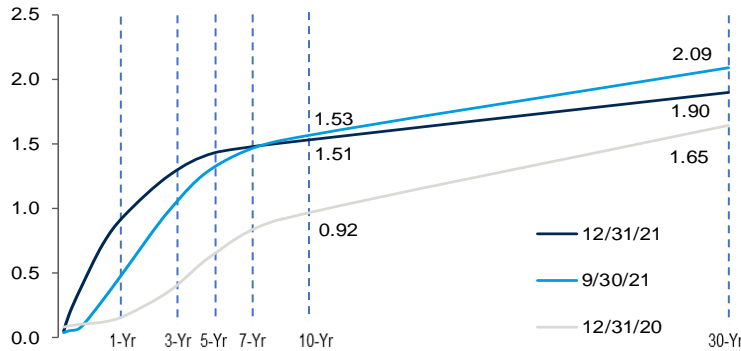
- + REITs benefited from strong industrial, self-storage and residential performance, areas that have continued to benefit during the COVID-19 era.
- Perceptions of lower energy demand due to COVID outbreaks led to falling energy prices, which weighed on the commodity market.

Fixed Income Market Update



U.S. Treasury Yields Curve

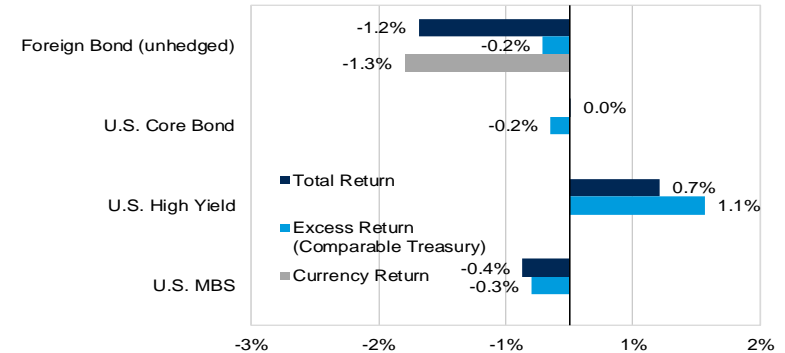
The U.S. curve flattened as the Fed accelerated their tapering program and outlook for rate hikes in 2022 solidified. Concerns about the impact of the omicron variant on the economy put pressure on the long-dated rates.



Source: FactSet

Index Performance Attribution (4Q 2021)

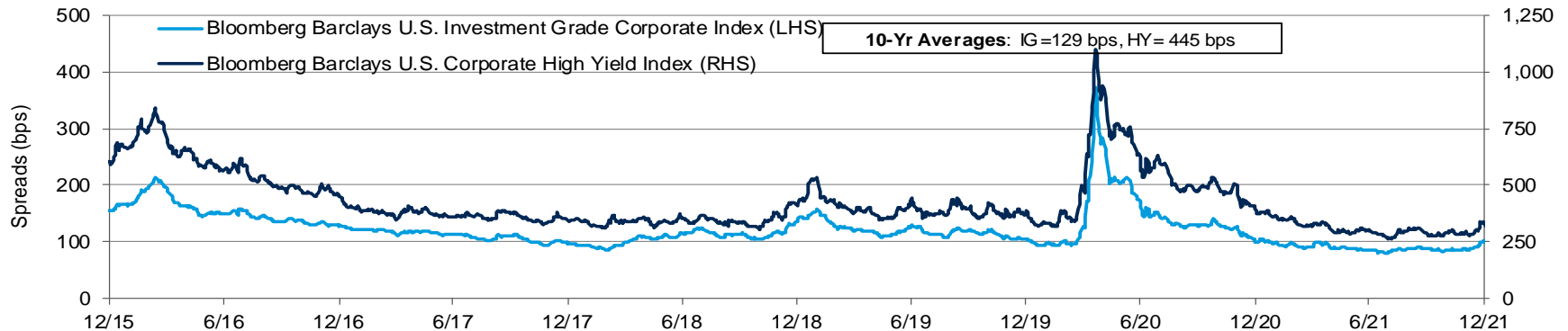
On a duration adjusted basis, high yield outpaced U.S. Treasuries while the mortgage market came under pressure as the Fed began its tapering program. A strengthening U.S. dollar was a major headwind for non-USD debt.



Source: FactSet. As of December 31, 2021

Credit Market Spreads – Trailing 5 Years

Credit spreads ultimately ended the quarter tighter, but the ride through the quarter was bumpy. Investor demand for yield continued to provide a tailwind for credit. Credit spreads sit well within their 10-year averages and, when coupled with heightened rate volatility, we currently favor active management.



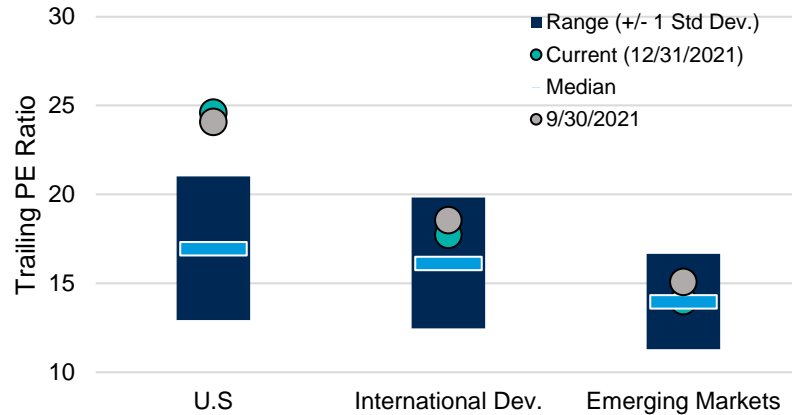
Source: FactSet. As of December 31, 2021

Equity Market Update



Equity Valuations (Trailing 15 Years)

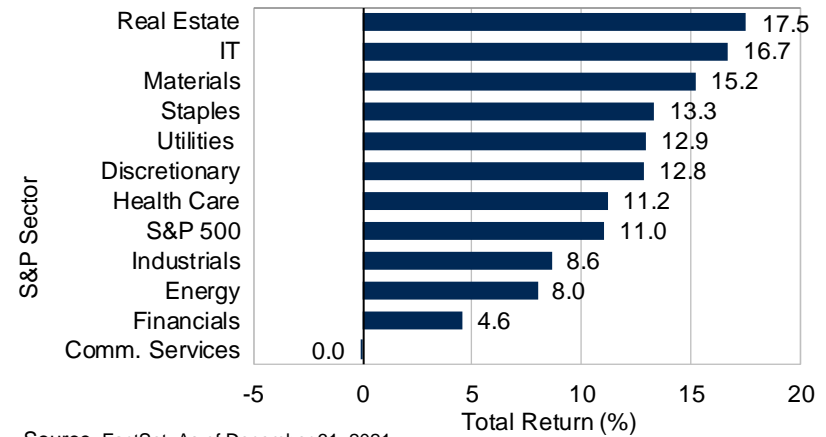
Valuations persist above longer-term averages in the U.S. but are less pronounced elsewhere in the world. Falling equity prices within emerging markets moved valuations lower and in-line with the 15-year median.



Source: FactSet. As of December 31, 2021

U.S. Equities – Return by Sector (4Q 2021)

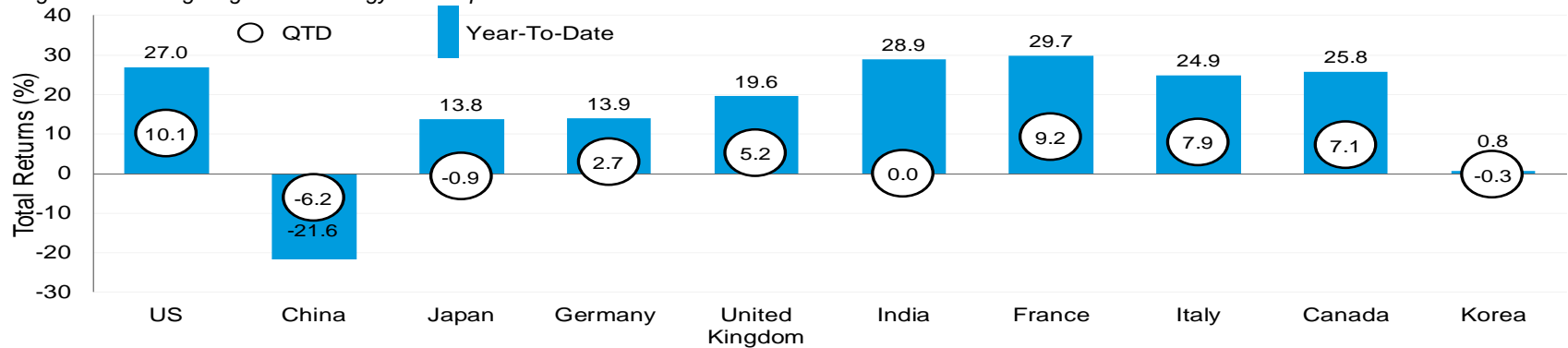
Real Estate and Information Technology led the way as the reopening trade reversed course, while energy and financials lagged the broader equity market.



Source: FactSet. As of December 31, 2021

Country Total Returns (%) – Top 10 Largest Economies

Equities were generally positive within developed regions, with the United States leading the way as COVID precautionary measures domestically were not as intense as those abroad. Chinese equities continued to be a drag on emerging market performance. Lingering concerns about the Chinese government targeting the technology and for-profit education sectors sent returns lower.



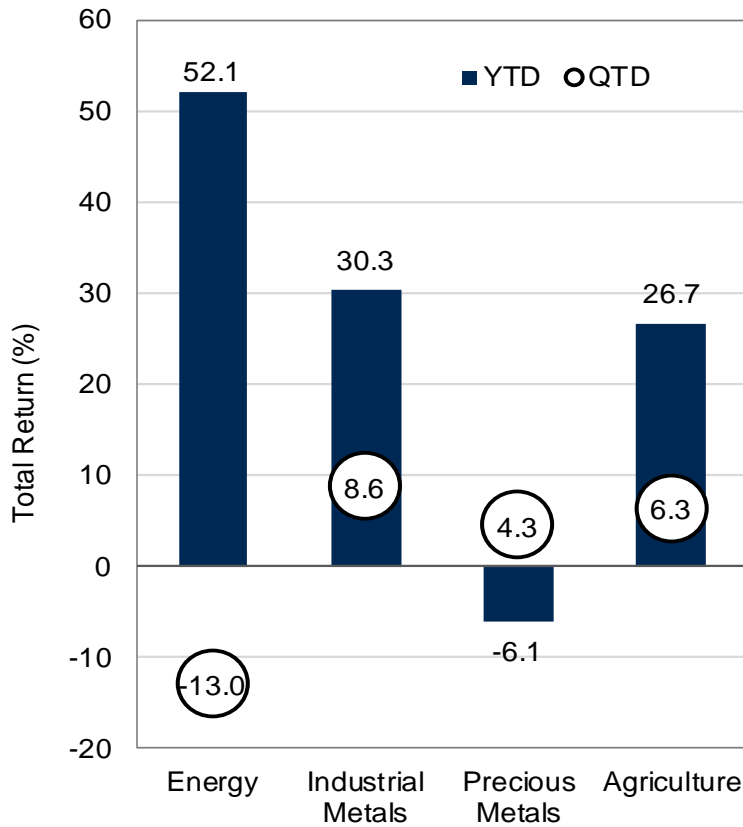
Source: FactSet. As of December 31, 2021.

Alternatives Market Update



Real Assets Performance

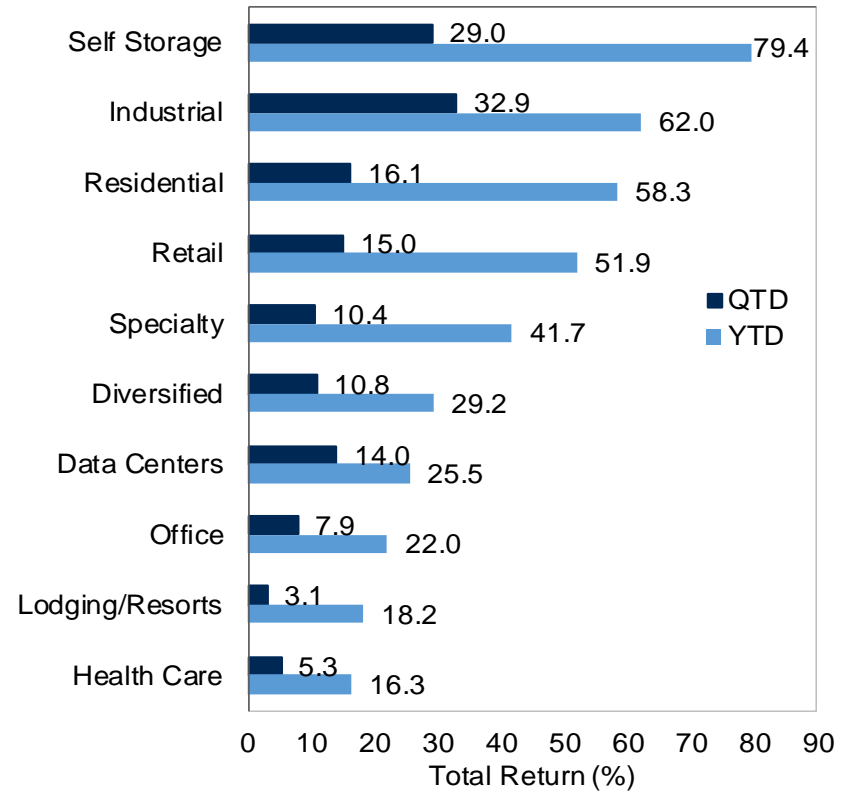
Energy reversed course in the fourth quarter as the breakout of COVID-19 cases weakened demand amid new lockdowns around the globe, while the supply chain backlog pushed industrial metals prices higher.



Source: FactSet. As of December 31, 2021

REIT Sector Performance

The Industrial and Self Storage sectors were the highlights this quarter, driven by the uncertainty generated by the omicron wave. Conversely, Lodging and Office lagged in the quarter. Real Estate, overall, performed well for the 2021 calendar year.



Source: FactSet. As of December 31, 2021

The Case For Diversification



2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	YTD	10Yr (Ann)
TIPS 13.6	Emerging Markets 18.2	U.S. Small Cap 38.8	U.S. Equity REITs 30.1	U.S. Equity REITs 3.2	U.S. Small Cap 21.3	Emerging Markets 37.3	High Yield Munis 4.8	U.S. Large Cap 31.5	U.S. Small Cap 20.0	U.S. Equity REITs 43.2	US Large Cap 16.5
High Yield Munis 9.3	High Yield Munis 18.1	U.S. Large Cap 32.4	High Yield Munis 13.8	Municipals 5-Year 2.4	High Yield 17.1	International Dev. 25.0	Municipals 5-Year 1.7	U.S. Equity REITs 26.0	U.S. Large Cap 18.4	Commodities 27.1	US Small Cap 13.2
U.S. Equity REITs 8.3	U.S. Equity REITs 18.1	International Dev. 22.8	U.S. Large Cap 13.7	High Yield Munis 1.8	U.S. Large Cap 12.0	U.S. Large Cap 21.8	Foreign Bond 0.5	U.S. Small Cap 25.5	Emerging Markets 18.3	US Large Cap 26.5	U.S. Equity REITs 11.4
Core Bond 7.8	International Dev. 17.3	Balanced 12.2	Core Bond 6.0	U.S. Large Cap 1.4	Commodities 11.7	EM Debt (unhedged) 15.2	Core Bond 0.0	International Dev. 22.5	TIPS 11.0	US Small Cap 14.8	International Dev. 8.0
Municipals 5-Year 6.9	EM Debt (unhedged) 16.9	Hedge Funds 9.0	Balanced 5.1	Core Bond 0.6	Emerging Markets 11.2	U.S. Small Cap 14.6	TIPS -1.3	Emerging Markets 18.4	Balanced 8.8	International Dev. 11.3	Balanced 7.4
High Yield 5.0	U.S. Small Cap 16.3	High Yield 7.4	U.S. Small Cap 4.9	Hedge Funds -0.3	EM Debt (unhedged) 9.9	Balanced 13.6	High Yield -2.1	Balanced 17.5	International Dev. 7.8	Balanced 9.8	High Yield 6.8
Foreign Bond 4.2	U.S. Large Cap 16.0	U.S. Equity REITs 2.5	TIPS 3.6	International Dev. -0.8	U.S. Equity REITs 8.5	High Yield Munis 9.7	Hedge Funds -4.0	High Yield 14.3	Core Bond 7.5	High Yield Munis 7.8	High Yield Municipals 6.7
U.S. Large Cap 2.1	High Yield 15.8	Municipals 5-Year 0.8	Hedge Funds 3.4	TIPS -1.4	Balanced 7.6	Hedge Funds 7.8	U.S. Large Cap -4.4	EM Debt (unhedged) 13.5	Hedge Funds 7.1	TIPS 6.0	Emerging Markets 5.5
Balanced 0.9	Balanced 11.5	Foreign Bond -1.0	Municipals 5-Year 3.2	Foreign Bond -2.3	TIPS 4.7	High Yield 7.5	U.S. Equity REITs -4.6	High Yield Munis 10.7	High Yield 7.1	Hedge Funds 5.7	Hedge Funds 4.4
EM Debt (unhedged) -1.8	TIPS 7.0	Core Bond -2.0	Foreign Bond 2.9	Balanced -3.3	Foreign Bond 3.2	Foreign Bond 6.5	Balanced -5.8	Core Bond 8.7	Foreign Bond 7.0	High Yield 5.3	TIPS 3.1
U.S. Small Cap -4.2	Foreign Bond 5.3	Emerging Markets -2.6	High Yield 2.5	U.S. Small Cap -4.4	High Yield Munis 3.0	U.S. Equity REITs 5.2	EM Debt (unhedged) -6.2	TIPS 8.4	High Yield Munis 4.9	Municipals 5-Year 0.3	Core Bond 2.9
Hedge Funds -5.7	Hedge Funds 4.8	High Yield Munis -5.5	Emerging Markets -2.2	High Yield -4.5	Core Bond 2.6	Core Bond 3.5	U.S. Small Cap -11.0	Hedge Funds 7.8	Municipals 5-Year 4.3	Core Bond -1.5	Municipals 5-Year 2.4
Commodities -13.3	Core Bond 4.2	TIPS -8.6	International Dev. -4.9	Emerging Markets -14.9	International Dev. 1.0	Municipals 5-Year 3.1	Commodities -11.2	Commodities 7.7	EM Debt (unhedged) 2.7	Emerging Markets -2.5	Foreign Bond 2.3
International Dev. -12.1	Municipals 5-Year 3.0	EM Debt (unhedged) -9.0	EM Debt (unhedged) -5.7	EM Debt (unhedged) -14.9	Hedge Funds 0.5	TIPS 3.0	International Dev. -13.8	Foreign Bond 6.3	Commodities -3.1	Foreign Bond -4.2	EM Debt (unhedged) 0.7
Emerging Markets -18.4	Commodities -1.1	Commodities -9.5	Commodities -17.0	Commodities -24.7	Municipals 5-Year -0.4	Commodities 1.7	Emerging Markets -14.6	Municipals 5-Year 5.4	U.S. Equity REITs -8.0	EM Debt (unhedged) -8.7	Commodities -2.9

Source: FactSet & Morningstar as of December 31, 2021. Periods greater than one year are annualized. All returns are in U.S. dollar terms. One month lag for Hedge Funds.

See disclosures for list of indices representing each asset class. Past performance does not indicate future performance and there is a possibility of a loss.

Financials Markets Performance



Financial Markets Performance

Total return as of December 31, 2021

Periods greater than one year are annualized

All returns are in U.S. dollar terms

	QTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
Global Fixed Income Markets								
Bloomberg 1-3-Month T-Bill	0.0%	0.0%	0.0%	0.9%	1.1%	0.8%	0.6%	0.8%
Bloomberg U.S. TIPS	2.4%	6.0%	6.0%	8.4%	5.3%	4.2%	3.1%	4.7%
Bloomberg Municipal Bond (5 Year)	0.0%	0.3%	0.3%	3.3%	3.0%	2.4%	2.4%	3.5%
Bloomberg High Yield Municipal Bond	1.2%	7.8%	7.8%	7.8%	7.5%	6.0%	6.7%	5.2%
Bloomberg U.S. Aggregate	0.0%	-1.5%	-1.5%	4.8%	3.6%	3.0%	2.9%	4.1%
Bloomberg U.S. Corporate High Yield	0.7%	5.3%	5.3%	8.8%	6.3%	6.1%	6.8%	7.1%
Bloomberg Global Aggregate ex-U.S. Hedged	-1.2%	-1.4%	-1.4%	3.3%	3.1%	3.1%	3.8%	4.0%
Bloomberg Global Aggregate ex-U.S. Unhedged	-1.2%	-7.0%	-7.0%	2.5%	3.1%	1.5%	0.8%	2.6%
Bloomberg U.S. Long Gov / Credit	2.2%	-2.5%	-2.5%	10.6%	7.4%	5.7%	5.7%	7.0%
JPMorgan GBI-EM Global Diversified	-2.5%	-8.7%	-8.7%	2.1%	2.8%	1.0%	0.7%	3.5%
Global Equity Markets								
S&P 500	11.0%	28.7%	28.7%	26.1%	18.5%	14.9%	16.6%	10.7%
Dow Jones Industrial Average	7.9%	20.9%	20.9%	18.5%	15.5%	13.3%	14.2%	10.1%
NASDAQ Composite	8.4%	22.2%	22.2%	34.3%	25.0%	19.8%	21.0%	14.4%
Russell 3000	9.3%	25.7%	25.7%	25.8%	18.0%	14.5%	16.3%	10.6%
Russell 1000	9.8%	26.5%	26.5%	26.2%	18.4%	14.8%	16.5%	10.7%
Russell 1000 Growth	11.6%	27.6%	27.6%	34.1%	25.3%	19.6%	19.8%	13.7%
Russell 1000 Value	7.8%	25.2%	25.2%	17.6%	11.2%	9.7%	13.0%	7.5%
Russell Mid Cap	6.4%	22.6%	22.6%	23.3%	15.1%	12.2%	14.9%	10.2%
Russell Mid Cap Growth	2.8%	12.7%	12.7%	27.5%	19.8%	14.9%	16.6%	11.7%
Russell Mid Cap Value	8.5%	28.3%	28.3%	19.6%	11.2%	10.0%	13.4%	8.8%
Russell 2000	2.1%	14.8%	14.8%	20.0%	12.0%	10.8%	13.2%	8.7%
Russell 2000 Growth	0.0%	2.8%	2.8%	21.2%	14.5%	11.7%	14.1%	10.0%
Russell 2000 Value	4.4%	28.3%	28.3%	18.0%	9.1%	9.5%	12.0%	7.2%
MSCI ACWI	6.7%	18.5%	18.5%	20.4%	14.4%	10.9%	11.9%	7.1%
MSCI ACWI ex U.S.	1.8%	7.8%	7.8%	13.2%	9.6%	6.6%	7.3%	3.8%
MSCI EAFE	2.7%	11.3%	11.3%	13.5%	9.5%	6.8%	8.0%	3.6%
MSCI EAFE Growth	4.1%	11.3%	11.3%	19.0%	13.6%	9.7%	10.1%	5.5%
MSCI EAFE Value	1.2%	10.9%	10.9%	7.8%	5.3%	3.6%	5.8%	1.6%
MSCI EAFE Small Cap	0.1%	10.1%	10.1%	15.6%	11.0%	9.5%	10.8%	5.6%
MSCI Emerging Markets	-1.3%	-2.5%	-2.5%	10.9%	9.9%	6.1%	5.5%	4.5%
Alternatives								
Consumer Price Index*	1.7%	6.6%	6.2%	3.3%	2.9%	2.4%	2.1%	2.2%
FTSE NAREIT Equity REITs	16.3%	43.2%	43.2%	18.4%	10.8%	9.3%	11.4%	6.9%
S&P Real Assets	4.8%	15.4%	15.4%	11.0%	7.4%	5.2%	5.9%	5.5%
FTSE EPRA NAREIT Developed	12.5%	36.9%	36.9%	13.1%	7.2%	7.9%	11.0%	5.4%
FTSE EPRA NAREIT Developed ex U.S.	2.1%	8.8%	8.8%	7.4%	7.1%	4.8%	7.8%	2.4%
Bloomberg Commodity Total Return	-1.6%	27.1%	27.1%	9.9%	3.7%	0.1%	-2.9%	-2.6%
HFRI Fund of Funds Composite*	-0.1%	5.7%	9.6%	7.7%	5.8%	4.1%	4.4%	2.8%
HFRI Fund Weighted Composite*	-0.7%	8.9%	13.9%	9.4%	7.0%	5.4%	5.6%	4.6%
Alerian MLP	0.6%	40.2%	40.2%	2.1%	-2.7%	-5.1%	-0.3%	4.3%

*One month lag.

Source: FactSet & Morningstar as of December 31, 2021. Periods greater than 1 year are annualized. All returns are in U.S. dollar terms.

Disclosures and Definitions



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When referencing asset class returns or statistics, the following indices are used to represent those asset classes, unless otherwise notes. Each index is unmanaged and investors can not actually invest directly into an index:

TIPS: Bloomberg Global Inflation-Linked: U.S. TIPS Total Return Index Unhedged
Municipals 5-Year: Bloomberg Municipal Bond 5 Year (4-6) Total Return Index Unhedged USD
Core Bond: Bloomberg US Agg Total Return Value Unhedged USD
High Yield Municipals: Bloomberg Muni High Yield Total Return Index Value Unhedged USD
High Yield: Bloomberg US Corporate High Yield Total Return Index Value Unhedged USD
U.S. Long Duration: Bloomberg U.S. Long Government/Credit Total Return Index Unhedged USD
Foreign Bond: Bloomberg Global Aggregate ex-USD Total Return Index Value USD (50/50 blend of hedged and unhedged)
EM Debt (unhedged): J.P. Morgan GBI-EM Global Diversified Composite Unhedged USD
Real Assets: S&P Real Assets
U.S. Large Cap: S&P 500 Total Return Index
U.S. Small Cap : Russell 2000 Total Return Index
International Developed: MSCI EAFE Net Total Return USD Index
Emerging Markets: MSCI Emerging Markets Net Total Return USD Index
World: MSCI ACWI Net Total Return USD Index
U.S. Equity REITs: FTSE Nareit Equity REITs Total Return Index USD
Commodities: Bloomberg Commodity Total Return Index
Midstream Energy: Alerian MLP Total Return Index
Hedge Funds: Hedge Fund Research HFRI Fund of Funds Composite Index
Event Driven: Hedge Fund Research HFRI Event-Driven Total Index
Relative Value: Hedge Fund Research HFRI Relative Value Fixed Income-Convertible Arbitrage Index
Equity Hedge: Hedge Fund Research HFRI Equity Hedge Total Index
Direct Fund Composite: Hedge Fund Research HFRI Fund Weighted Composite Index
Fund of Funds Composite: Hedge Fund Research HFRI Fund of Funds Composite Index
Macro: Hedge Fund Research HFRI Macro Total Index
International, 7% Emerging Markets, 5% U.S. Equity REITs, 6% MLPs
U.S.: MSCI USA Net Total Return USD Index
China: MSCI CHINA Net Total Return USD Index
Japan: MSCI Japan Net Total Return USD Index
Germany: MSCI Germany Net Total Return USD Index
India: MSCI India Net Total Return USD Index
United Kingdom: MSCI UK Net Total Return USD Index
France: MSCI France Net Total Return USD Index
Italy: MSCI Italy Net Total Return USD Index
Brazil: MSCI Brazil Net Total Return USD Index
Canada: MSCI Canada Net Total Return USD Index