

**UNRAVELLING DISTORTION**

Lumber prices provide a great example of the economic distortions stemming from COVID-19. In the early days of the pandemic, the convergence of falling demand for furniture, the expectation of decreased home construction, and staffing cut-backs due to health concerns caused many sawmills to either reduce output or shut down entirely. Ironically, demand for lumber soared a few months later as do-it-yourself (DIY) work became popular amidst quarantined households and construction of single-family homes increased by 12% in 2020. This was the highest rate of increase since 2006. In reaction to increased demand, lumber prices shot up by unprecedented amounts; from \$349 per thousand board feet in April 2020 to \$1,514 in May 2021, a 334% increase in just over one year!

While prices have since come down into the \$700 to \$800 range, they remain at roughly twice their longer-term averages as supply and demand are expected to remain out of balance for some time. The lumber industry is not one that can easily alter production levels to match demand in the short-run. A new mill costs tens of millions of dollars and takes at least two years to construct (the delivery lead-time for even a back-yard DIY mill was 44 to 59 weeks in May). Labor recruitment is another challenging piece of the capacity puzzle. The logging industry, in addition to being hazardous, is relatively low-paying. For example, the median annual wage of sawing machine setters and operators was \$31,560 in 2020, equivalent to the bottom 24th percentile of household income. Likewise, median wages for the trucking industry are \$47,130, equivalent to the bottom 35th income percentile. The additional \$300 per week in Federal unemployment benefits constitute 49% and 33% of sawing and trucking wages respectively, understandably undercutting any incentive to return to arduous work. Even if labor and industry could immediately correct, wholesalers now sit on inventories of highly-priced lumber and are likely to only slowly reduce their holdings to avoid selling them at a loss. As such, traders expect lumber prices to remain elevated albeit at sub-peak levels.

This commentary is not intended to pin the future of the US economy on the lumber industry, understate its significance (its annual sales are comparable to that of one large-cap US company), or opine on how its troubles will be resolved. Rather, the lumber saga provides one of many examples of an industry whose normal expectations have been thrown far off kilter, for better or worse, by unprecedented events and governmental reactions to COVID-19. Other industry examples include hospitality, restaurants, and online shopping. The timing and manner in which these sectors come back into balance with their peers is difficult to predict; usually these displacements happen to one or two industries or regions at a time and ripple through to the rest. While shrewd investors may have the knowledge of financial markets, valuation, and economic forces to correctly navigate the resolution of these market distortions, the fallout of the global pandemic and the scope of monetary response is beyond their direct experience.

On a high level, what is the best thing to do in this environment? Look past it or at least avoid getting caught up in the near-term industry developments. Interesting as the stories of the lumber industry and so many others may be, extrapolating them into concentrated investment actions over the next few years is a tenuous endeavor. In any case, for all this uncertainty, economic growth expectations appear quite high on aggregated levels. Security prices, while also generally high, do not appear to convey a fear of loss as much as a broad divergence of growth estimates, indicating a path that is moderately upward though hectic. While supply and demand have been disjointed in new and forceful ways, they can still be expected to gravitate towards each other. The routes that industries take back into equilibrium will make for many interesting case studies.

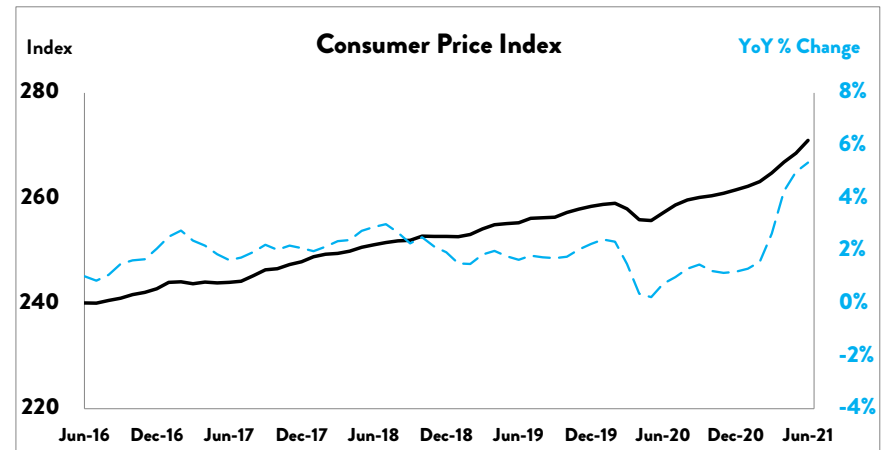
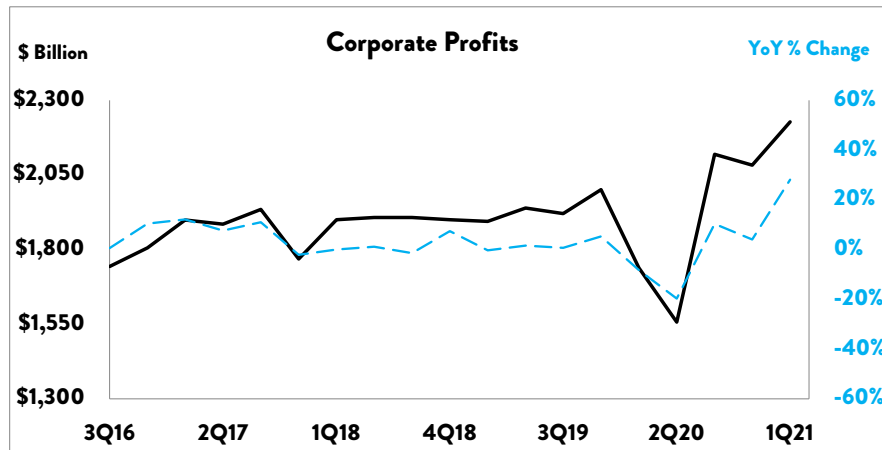
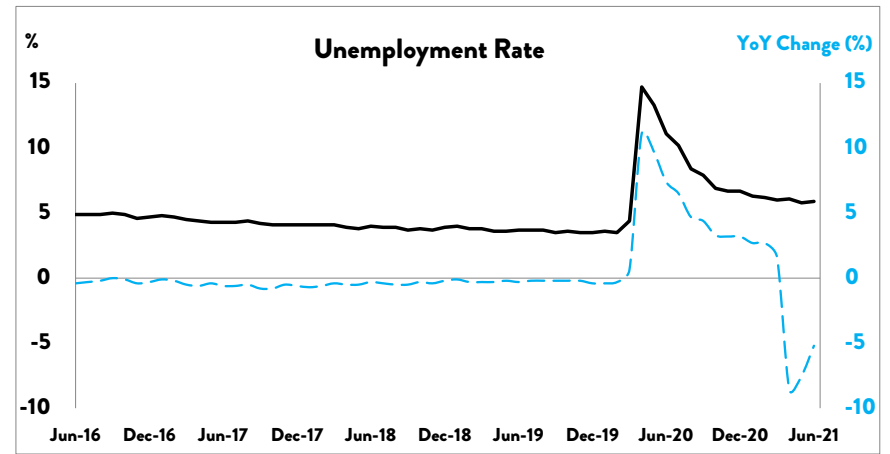
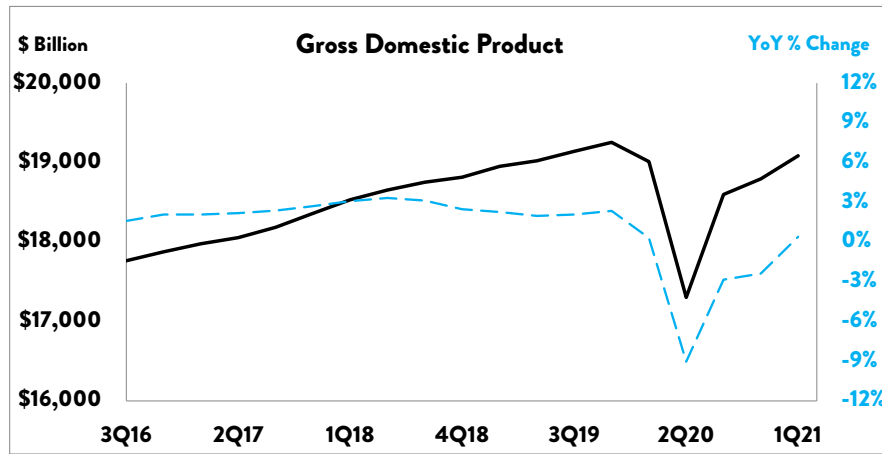
GLOBAL ECONOMIC LANDSCAPE

- Global growth expectations remain high. Global GDP is expected to grow 6.7% after inflation in 2021 and by 4.6% in 2022; a sharp rebound from the -3.8% of 2020. The Global Purchasing Manager Index, an indicator of economic trends, is at its highest level for manufacturing and services in over ten years.
- Falling back on a familiar and longer-term growth story, the emerging market consumer continues to be a driver of global growth. Interestingly, much of the recent growth has come from outside China. From 2015 to 2019 for example, Europe and the US share of global consumption shrank from 51% to 36%, China's share decreased from 23% to 22%, and the rest of the world's portion increased from 26% to 42%. Looking forward, India's middle class is expected to grow from 21% to 79% of its population (approximately 883 million people, nearly twice the expected amount of increase from China) from 2020 to 2030!
- A very tight US labor market reflects the high demand from Federal and monetary stimulus and generally improved economic expectations. As examples, both total nonfarm job openings and small firms with at least one job they are unable to fill stood at their highest levels in decades.
- US inflation expectations range from 2.3% to 2.8% for the next ten years versus the Federal Reserve's long-term goal of 2.0%. Treasury yields reflect a very inflation-tolerant Federal Reserve. Adjusting for inflation, the yield on a ten-year Treasury was -2.35% at quarter-end, the lowest level since the late 1970s. Nonetheless, the yield difference between the US and a basket of developed market bonds stood at 1.3% on June 30, 2021; their highest level since 2006.

GLOBAL FINANCIAL MARKETS

- Stock market valuations appear high, particularly in the US. For example, the S&P 500's forward P/E was 21.5 at quarter-end versus a twenty-five-year average of 16.7. Stock-by-stock valuations appear more disparate however, suggesting the potential for active managers to add or subtract value. The P/E difference between the 20th and 80th percentile S&P 500 stock was 19.7 versus a long-term average of 11.0. International equity valuations also are above long-term averages (excepting Japan, which remains below them) though not to US extents.
- Earnings growth estimates, particularly for cyclical sectors, may explain investors' tolerance of higher valuations. For 2021, earnings growth estimates range from 17% to 50% for various developed and emerging market stock indexes with estimates for cyclical sectors ranging from 33% to 55%! Non-domestic revenue for most developed and emerging markets ranges from 45% to 68% of total, indicating that the myriad of global growth expectations is broadly expected to be high.
- The US high yield bond market continues to show relatively low concern for default risk. Option-adjusted spreads over Treasury bonds stood at 3.04% at the end of 2Q, well below their 10.87% peak on March 23, 2020 and their trailing ten-year average of 4.85%. The range of credit spreads amongst high yield bonds has also tightened up dramatically, suggesting a reduced concern in firm-specific credit risk. Emerging market bonds also reflect this trend, trading at spreads below their longer-term averages.
- Apart from the Federal Reserve, bond purchases by many developed central banks are expected to continue at their current rates for the next few quarters. Though the Federal Reserve is starting to taper off its buying program, the Federal Funds Rate is still expected to remain below 1% through 2023. Given these non-hawkish outlooks, interest rate risk does not appear to be a major concern at this point. However, US and international bond markets have durations of generally over six years, indicating vulnerability to rising rates.

2Q2021 Economic Data



Key: — Economic Series

- - - Year-Over-Year Change

Labor Market Statistics (Monthly)					
Category	Recent	5-Yr High	5-Yr Low	5-Yr Avg.	Date
Jobs Added/Lost Monthly	850,000	4,846,000	-20,679,000	26,817	Jun-21
Unemployment Rate	5.9%	14.7%	3.5%	5.1%	Jun-21
Median Unemployment Length (Weeks)	17.6	22.2	4.0	11.2	Jun-21
Average Hourly Earnings	\$30.40	\$30.40	\$25.70	\$27.74	Jun-21

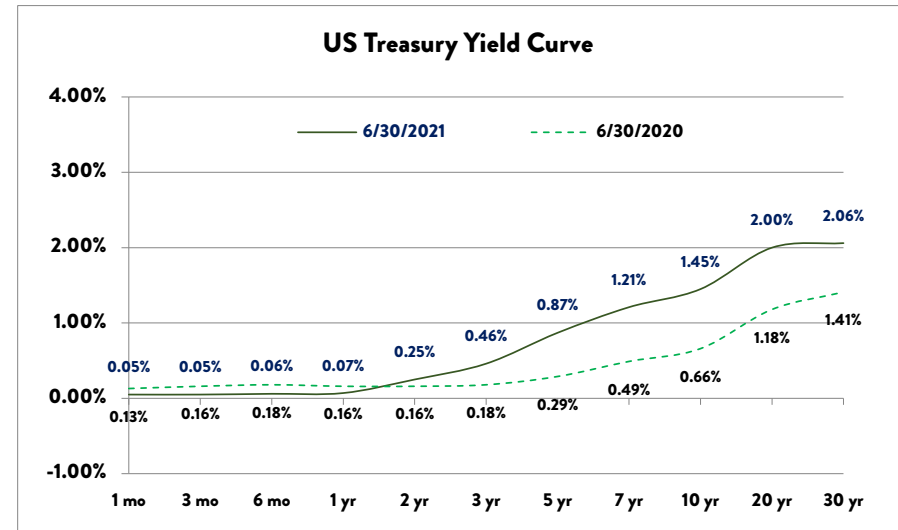
Source: Federal Reserve Bank of St. Louis and Bureau of Labor Statistics

Other Prices and Indexes (Monthly)					
Category	Recent	5-Yr High	5-Yr Low	% Off Peak	Date
Gas: Price per Gallon	\$3.04	\$3.04	\$1.80	0.0%	Jun-21
Spot Oil	\$71.38	\$71.38	\$16.55	0.0%	Jun-21
Case-Shiller Home Price Index	256.5	256.5	187.4	36.8%*	Apr-21
Medical Care CPI	523.1	524.0	464.3	12.7%*	Jun-21

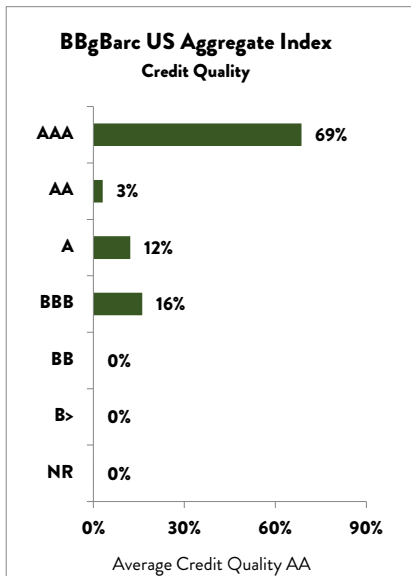
*% Off Low

2Q2021 Bond Market Data

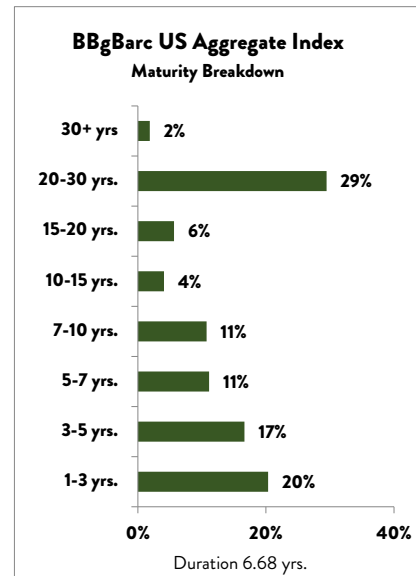
Index	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
90-Day T-Bill	0.01%	0.02%	0.07%	1.20%	1.12%	0.59%
BBgBarc US Aggregate	1.83%	-1.60%	-0.33%	5.34%	3.03%	3.39%
BBgBarc Short US Treasury	0.00%	0.04%	0.11%	1.51%	1.26%	0.72%
BBgBarc Int. US Treasury	0.62%	-1.14%	-1.18%	3.96%	1.93%	2.16%
BBgBarc Long US Treasury	6.46%	-7.92%	-10.58%	7.99%	3.13%	6.66%
BBgBarc US TIPS	3.25%	1.73%	6.51%	6.53%	4.17%	3.40%
BBgBarc US Credit	3.32%	-1.28%	2.99%	7.42%	4.63%	4.92%
BBgBarc US Mortgage-Backed	0.33%	-0.77%	-0.42%	3.78%	2.27%	2.64%
BBgBarc US Asset-Backed	0.34%	0.18%	1.34%	3.65%	2.39%	2.37%
BBgBarc US 20-Yr Municipal	2.10%	1.79%	5.92%	6.30%	4.08%	5.53%
BBgBarc US High Yield	2.74%	3.62%	15.37%	7.45%	7.48%	6.66%
BBgBarc Global	1.31%	-3.21%	2.63%	4.23%	2.34%	2.05%
BBgBarc International	0.92%	-4.42%	4.60%	3.12%	1.63%	0.99%
BBgBarc Emerging Market	2.99%	-0.59%	6.34%	6.70%	4.88%	5.43%



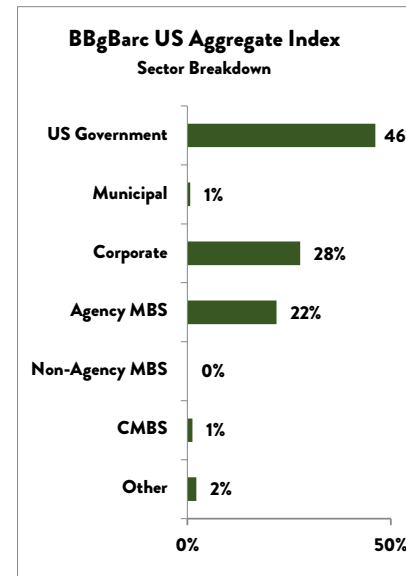
Source: Department of US Treasury



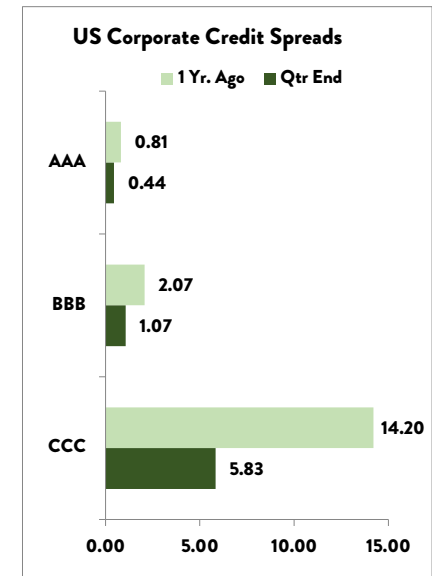
Source: Morningstar



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Source: Morningstar



Source: Federal Reserve / Bank of America

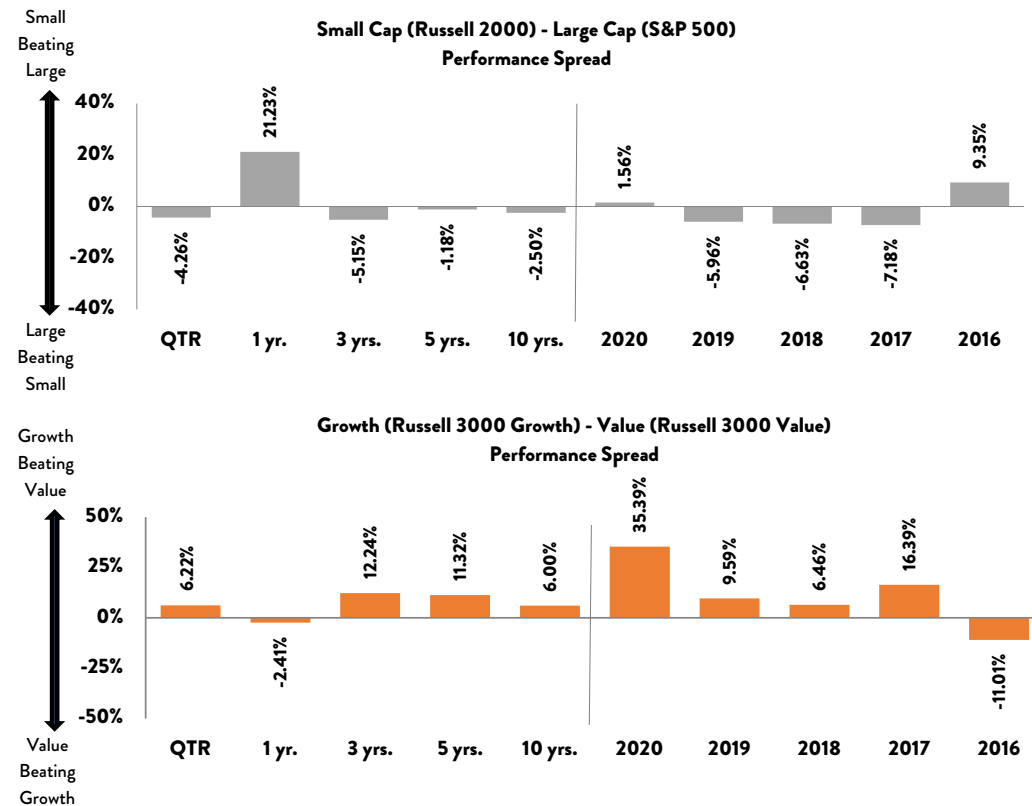
2Q2021 US Equity Market Data

Sectors Weights/Returns (ranked by quarter performance)

	Wgt.	Sector	QTR	YTD	1 yr.
S&P 500 Index	3%	Real Estate	13.09%	23.30%	31.88%
	27%	Information Technology	11.56%	13.76%	42.40%
	3%	Energy	11.30%	45.64%	49.38%
	11%	Communication Services	10.72%	19.67%	48.38%
	13%	Health Care	8.40%	11.85%	27.92%
	11%	Financials	8.36%	25.69%	61.77%
	12%	Consumer Discretionary	6.95%	10.27%	37.08%
	3%	Materials	4.97%	14.50%	48.51%
	9%	Industrials	4.48%	16.40%	51.45%
	6%	Consumer Staples	3.83%	5.02%	23.29%
2%	Utilities	-0.41%	2.38%	15.77%	
S&P Midcap 400 Index	Wgt.	Sector	QTR	YTD	1 yr.
	2%	Energy	14.06%	53.66%	79.46%
	10%	Real Estate	9.11%	18.00%	37.79%
	11%	Health Care	5.47%	10.30%	36.07%
	18%	Industrials	3.97%	18.13%	58.35%
	6%	Materials	3.62%	25.43%	62.24%
	15%	Consumer Discretionary	3.14%	25.16%	74.39%
	15%	Financials	2.92%	22.15%	57.63%
	3%	Utilities	1.79%	11.77%	21.82%
	14%	Information Technology	1.71%	8.19%	53.93%
2%	Communication Services	-3.02%	3.41%	30.51%	
3%	Consumer Staples	-3.41%	11.47%	38.29%	
S&P Smallcap 600 Index	Wgt.	Sector	QTR	YTD	1 yr.
	5%	Energy	27.53%	82.70%	141.78%
	2%	Communication Services	12.95%	32.70%	53.91%
	8%	Real Estate	7.51%	18.45%	42.44%
	4%	Consumer Staples	6.60%	23.31%	49.34%
	12%	Health Care	5.49%	14.38%	60.46%
	14%	Information Technology	5.38%	17.50%	65.56%
	15%	Consumer Discretionary	4.76%	44.45%	114.05%
	5%	Materials	3.16%	13.47%	69.24%
	2%	Utilities	1.16%	9.12%	13.41%
18%	Financials	0.66%	19.68%	54.31%	
17%	Industrials	-0.05%	17.34%	59.57%	

Index Performance Data

Index	QTR	YTD	1 yr.	Annualized		
				3 yrs.	5 yrs.	10 yrs.
S&P 500	8.55%	15.25%	40.79%	18.67%	17.65%	14.84%
Russell 1000 Value	5.21%	17.05%	43.68%	12.42%	11.87%	11.61%
Russell 1000 Growth	11.93%	12.99%	42.50%	25.14%	23.66%	17.87%
Russell Mid Cap	7.50%	16.25%	49.80%	16.45%	15.62%	13.24%
Russell Mid Cap Value	5.66%	19.45%	53.06%	11.86%	11.79%	11.75%
Russell Mid Cap Growth	11.07%	10.44%	43.77%	22.39%	20.52%	15.13%
Russell 2000	4.29%	17.54%	62.03%	13.52%	16.47%	12.34%
Russell 2000 Value	4.56%	26.69%	73.28%	10.27%	13.62%	10.85%
Russell 2000 Growth	3.92%	8.98%	51.36%	15.94%	18.76%	13.52%
Russell 3000	8.24%	15.11%	44.16%	18.73%	17.89%	14.70%
DJ US Select REIT	11.76%	22.94%	39.98%	8.13%	5.16%	8.67%



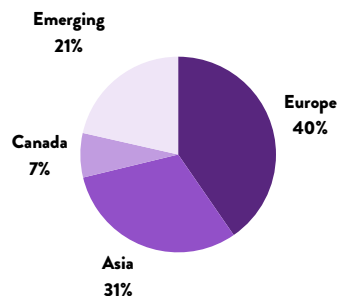
2Q2021 International Market Data

Index Performance Data (net)

Index (US\$)	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
MSCI ACWI ex-US	5.48%	9.16%	35.72%	9.38%	11.08%	5.45%
MSCI EAFE	5.17%	8.83%	32.35%	8.27%	10.28%	5.89%
Europe	7.42%	11.80%	35.09%	8.66%	10.34%	5.58%
United Kingdom	5.97%	12.52%	31.29%	1.90%	5.70%	3.68%
Germany	4.70%	9.13%	31.79%	7.30%	10.27%	5.00%
France	9.07%	13.89%	40.86%	9.18%	12.88%	5.70%
Pacific	1.33%	3.89%	27.80%	7.59%	10.30%	6.58%
Japan	-0.28%	1.28%	24.84%	7.24%	10.19%	7.15%
Hong Kong	2.53%	9.97%	28.95%	6.69%	10.43%	7.65%
Australia	6.87%	10.51%	39.64%	9.60%	11.12%	5.12%
Canada	10.04%	20.59%	45.84%	11.40%	11.00%	3.88%
MSCI EM	5.05%	7.45%	40.90%	11.27%	13.03%	4.28%
MSCI EM Latin America	15.01%	8.89%	44.92%	5.05%	5.89%	-2.45%
MSCI EM Asia	3.77%	6.02%	41.03%	13.06%	15.26%	7.03%
MSCI EM Eur/Mid East	11.29%	18.56%	36.93%	8.98%	9.42%	-1.46%
MSCI ACWI Value ex-US	4.33%	11.69%	37.56%	5.22%	8.54%	3.48%
MSCI ACWI Growth ex-US	6.60%	6.52%	33.68%	13.23%	13.37%	7.28%
MSCI ACWI Sm Cap ex-US	6.35%	12.24%	47.04%	9.78%	11.97%	7.02%

Regional Exposure

MSCI ACWI ex-USA

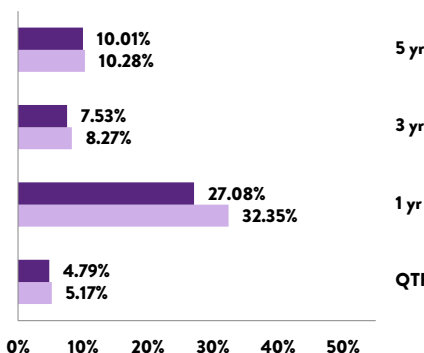


Top 10 Countries (MSCI AC World ex-USA)

Japan	15%
China	11%
UK	9%
France	7%
Canada	7%
Switzerland	6%
Germany	6%
Taiwan	4%
Australia	4%
South Korea	4%

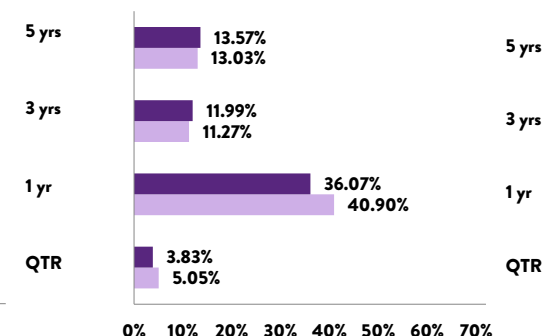
MSCI EAFE Index Return

Local US\$



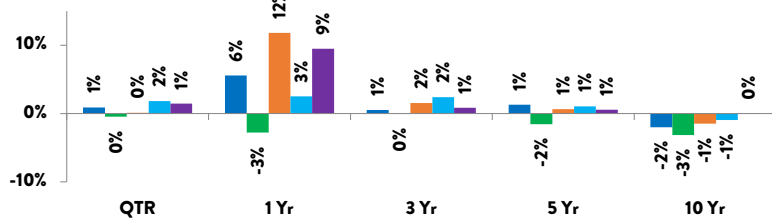
MSCI Emerging Index Return

Local US\$



Foreign Currency v. US\$ Returns

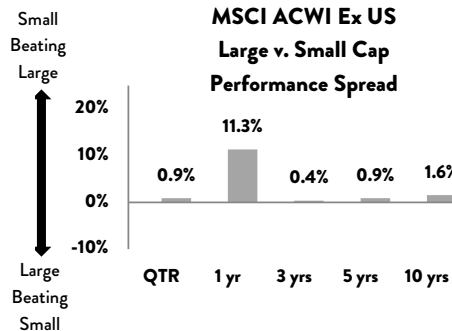
Euro Japanese Yen Pound Sterling Swiss Franc Chinese Yuan



Exchange Rates	QTR	1Q21	4Q20	3Q20	2Q20	1Q20
Japanese Yen	111.05	110.67	103.19	105.58	107.77	107.53
Euro	0.84	0.85	0.82	0.85	0.89	0.91
British Pound	0.72	0.72	0.73	0.77	0.81	0.80
Swiss Franc	0.93	0.94	0.88	0.92	0.95	0.96
Chinese Yuan	6.46	6.55	6.53	6.79	7.07	7.08

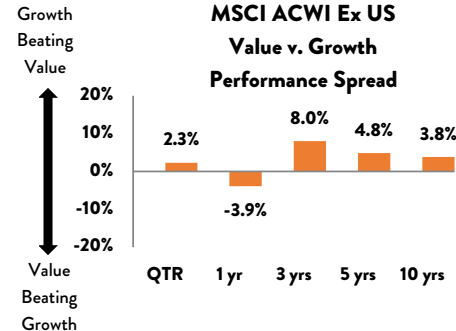
MSCI ACWI Ex US

Large v. Small Cap Performance Spread



MSCI ACWI Ex US

Value v. Growth Performance Spread



Historical Market Returns

Ranked by Performance

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	YTD	2Q21
Emerging Markets 32.14%	Emerging Markets 39.42%	US Bonds 5.24%	Emerging Markets 78.51%	Small Cap 26.85%	Core Real Estate 14.96%	Emerging Markets 18.22%	Small Cap 38.82%	Large Cap 13.68%	Core Real Estate 13.95%	Small Cap 21.30%	Emerging Markets 37.28%	Core Real Estate 7.36%	Large Cap 31.49%	Small Cap 19.96%	Commod. 21.15%	Commod. 13.30%
Intl 26.65%	Intl 16.65%	Global Bonds 4.79%	High Yield 58.21%	Mid Cap 25.48%	TIPS 13.56%	Mid Cap 17.28%	Mid Cap 34.76%	Mid Cap 13.21%	Large Cap 1.38%	High Yield 17.12%	Intl 27.19%	Cash 1.69%	Mid Cap 30.54%	Large Cap 18.40%	Small Cap 17.54%	Large Cap 8.55%
Small Cap 18.37%	Commod. 16.23%	Cash 1.39%	Intl 41.45%	Emerging Markets 18.88%	US Bonds 7.84%	Intl 16.83%	Large Cap 32.39%	Core Real Estate 11.44%	US Bonds 0.55%	Mid Cap 13.79%	Large Cap 21.83%	US Bonds 0.01%	Small Cap 25.52%	Emerging Markets 18.31%	Mid Cap 16.25%	Mid Cap 7.50%
Large Cap 15.79%	Core Real Estate 14.84%	TIPS -2.35%	Mid Cap 40.48%	Commod. 16.83%	Global Bonds 5.64%	Small Cap 16.35%	Intl 15.29%	US Bonds 5.97%	Cash 0.03%	Large Cap 11.95%	Mid Cap 18.52%	Global Bonds -1.20%	Intl 21.51%	Mid Cap 17.10%	Large Cap 15.25%	Intl 5.48%
Core Real Estate 15.27%	TIPS 11.64%	Core Real Estate -10.70%	Small Cap 27.17%	Core Real Estate 15.26%	High Yield 4.98%	Large Cap 16.00%	Global Balanced 14.46%	Small Cap 4.89%	TIPS -1.43%	Commod. 11.76	Global Balanced 15.87%	TIPS -1.26%	Global Balanced 18.86%	Global Balanced 13.93%	Intl 9.16%	Global Balanced 5.11%
Mid Cap 15.26%	Global Bonds 9.48%	Global Balanced -24.51%	Large Cap 26.46%	High Yield 15.12%	Large Cap 2.11%	High Yield 15.81%	Core Real Estate 12.95%	TIPS 3.64%	Global Balanced -1.45%	Emerging Markets 11.18%	Small Cap 14.65%	High Yield -2.08%	Emerging Markets 18.42%	TIPS 10.99%	Emerging Markets 7.45%	Emerging Markets 5.05%
Global Balanced 14.53%	Global Balanced 9.07%	High Yield -26.16%	Global Balanced 20.49%	Large Cap 15.06%	Cash 0.06%	Global Balanced 11.06%	High Yield 7.44%	Global Balanced 3.17%	Mid Cap -2.43%	Core Real Estate 7.76%	High Yield 7.50%	Large Cap -4.38%	High Yield 14.32%	Intl 10.65%	Global Balanced 6.57%	Small Cap 4.29%
High Yield 11.85%	US Bonds 6.97%	Small Cap -33.79%	Commod. 18.91%	Intl 11.15%	Global Balanced -0.97%	Core Real Estate 9.76%	Cash 0.07%	High Yield 2.45%	Global Bonds -3.15%	Global Balanced 5.38%	Global Bonds 7.39%	Global Balanced -5.30%	US Bonds 8.72%	Global Bonds 9.20%	Core Real Estate 5.68%	Core Real Estate 3.72%
Global Bonds 6.64%	Mid Cap 5.60%	Commod. -35.65%	TIPS 11.41%	Global Balanced 9.40%	Mid Cap -1.55%	TIPS 6.98%	US Bonds -2.02%	Global Bonds 0.59%	Small Cap -4.41%	TIPS 4.68%	Core Real Estate 6.66%	Mid Cap -9.06%	TIPS 8.43%	US Bonds 7.51%	High Yield 3.62%	TIPS 3.25%
Cash 4.85%	Large Cap 5.49%	Large Cap -37.00%	Global Bonds 6.93%	US Bonds 6.54%	Small Cap -4.18%	Global Bonds 4.32%	Global Bonds -2.60%	Cash 0.04%	High Yield -4.46%	Intl 4.50%	US Bonds 3.54%	Small Cap -11.01%	Commod. 7.69%	High Yield 7.11%	TIPS 1.73%	High Yield 2.74%
US Bonds 4.33%	Cash 4.44%	Mid Cap -41.46%	US Bonds 5.93%	TIPS 6.31%	Commod. -13.32%	US Bonds 4.21%	Emerging Markets -2.60%	Emerging Markets -2.18%	Intl -5.66%	US Bonds 2.65%	TIPS 3.01%	Commod. -11.25%	Global Bonds 6.84%	Cash 0.37%	Cash 0.02%	US Bonds 1.83%
Commod. 2.07%	High Yield 1.87%	Intl -45.53%	Cash 0.16%	Global Bonds 5.54%	Intl -13.71%	Cash 0.08%	TIPS -8.61%	Intl -3.86%	Emerging Markets -14.90%	Global Bonds 2.09%	Commod. 1.70%	Intl -14.20%	Core Real Estate 4.41%	Core Real Estate 0.35%	US Bonds -1.60%	Global Bonds 1.31%
TIPS 0.41%	Small Cap -1.57%	Emerging Markets -53.33%	Core Real Estate -30.40%	Cash 0.15%	Emerging Markets -18.42%	Commod. -1.06%	Commod. -9.52%	Commod. -17.00%	Commod. -24.60%	Cash 0.25%	Cash 0.71%	Emerging Markets -14.58%	Cash 2.30%	Commod. -3.12%	Global Bonds -3.21%	Cash 0.01%

Global Balanced is composed of 60% MSCI World Stock Index, 35% BBgBarc Global Aggregate Bond Index, and 5% US 90-Day T-Bills.