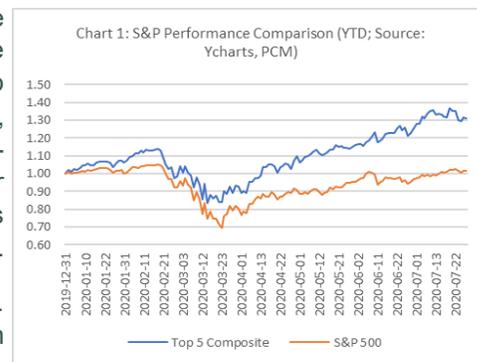


It's a bit of a headscratcher that the most followed index for measuring the performance of the U.S. equity markets is more-or-less flat for the year, given the state of the economy. The Top 5 Names in the S&P 500 represent roughly 20% of the market cap of the entire index, based on today's weights. These names are Microsoft, Apple, Amazon, Facebook and Google. In chart 1 to the right, we created a capitalization-weighted composite of these five stocks year-to-date, and compared it to the broader S&P 500 Index (which is also capitalization-weighted). In aggregate, the top 5 stocks are higher by roughly 31%, versus a modest gain of roughly 1% for the S&P 500 Index.



Not surprisingly, the top five stocks have been resistant to the effects of COVID-19. They are not in the manufacturing, retail, or travel and leisure industries. Working from home, quarantines and social distancing have actually benefitted these companies to a large degree. To better understand the performance breakdown of the S&P 500 for the year, we can take the sector weights within the index at the end of 2019 and apply the year-to-date return for each sector. Table 1 below provides the return contributions:

Sector	12/31/19 Sector Weight	YTD Return	Return Contribution
Information Technology	23.14%	19.41%	4.49%
Health Care	14.17%	6.66%	0.94%
Financials	12.89%	-16.66%	-2.15%
Communication	10.36%	-3.02%	-0.31%
Consumer Discretionary	9.76%	2.74%	0.27%
Industrials	9.02%	-5.45%	-0.49%
Consumer Staples	7.19%	5.96%	0.43%
Energy	4.35%	-36.97%	-1.61%
Utilities	3.32%	-5.92%	-0.20%
Real Estate	2.91%	-11.43%	-0.33%
Materials	2.66%	0.21%	0.01%

As Table 1 illustrates, the technology sector has contributed roughly 4.5% to the total return of the S&P 500 Index for the year, followed by a distant 0.9% for healthcare. Collectively, what has hindered the

performance of the S&P 500 Index has been mainly financials (detracting -2.2%) and energy (detracting -1.6%). There's no doubt that the technology sector is keeping the boat afloat, so to speak, and there's a tug-of-war in play across industries.

We can also view the S&P 500 Index through the lens of risk. To do so, we can take the current sector weights of the S&P 500 Index, and estimate each sector's beta in order to determine its expected risk contribution. In Table 2 below, we estimated the beta of each sector based on the regression of historical returns over the past 30 days. We also illustrate the expected volatility for each sector using one-month, at-the-money sector ETFs.

Currently, the VIX, which is a measure of expected volatility for the S&P 500 over the near term, is trading at about 25. This implies that the market is expecting, on average,

Sector	Current Sector Weights	Estimated Beta	Estimated Volatility	Risk Contribution
Information Technology	26.79%	1.10	32.67%	30.24%
Health Care	14.75%	0.77	18.91%	11.63%
Financials	9.92%	1.16	25.00%	11.73%
Communication	10.87%	0.79	22.75%	8.77%
Consumer Discretionary	11.09%	0.99	28.25%	11.18%
Industrials	7.94%	1.09	27.93%	8.83%
Consumer Staples	7.10%	0.93	15.48%	6.73%
Energy	2.69%	1.59	35.84%	4.38%
Utilities	3.07%	0.40	19.14%	1.24%
Real Estate	2.76%	0.93	26.81%	2.64%
Materials	2.65%	0.97	24.35%	2.63%

daily returns of approximately +/- 1.5% over the next month. Of this volatility of about 25%, roughly 7.5% is likely to come from the technology sector alone. Combined, the staples, energy, utilities, real estate and materials sectors account for roughly 4.4% of total volatility (which is less than the technology sector).

In summary, owning just the S&P 500 Index today is to make a relatively outsized bet on technology. Since the lows in March, this bet has paid off as exhibited in Chart 1. But given current valuations, if investors collectively decide it's time to rotate out of technology, or avoid stocks altogether, the move down in technology could be swift and impactful to the overall S&P 500. We maintain a more diversified approach whereby we weight individual factors by risk contribution. Over time, we feel this will serve us well.