Evolution of Indexes

September 2020

DeMarche

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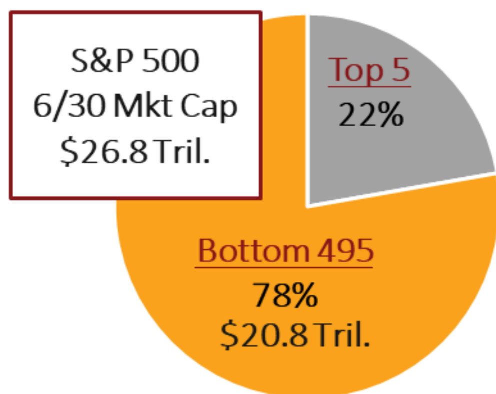
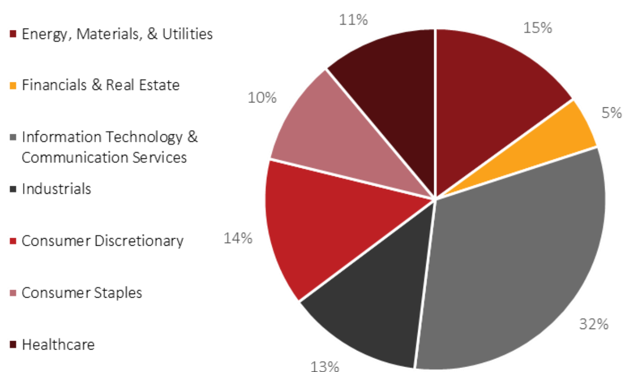
Figure 1



Source: S&P 500. DeMarche

Figure 2

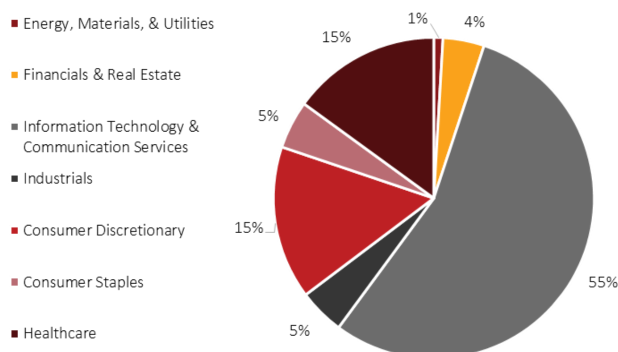


Source: Morningstar

Over the years, equity and bond indexes have changed in light of evolving market and economic realities. These changes impact the overall diversification and risks of investment portfolios. Additionally, it is important to understand how the changing exposures of benchmark indexes have caused investment managers to adjust portfolios to compete in each investment space. In this paper, we will discuss these changes to indexes, the impact they've had on client portfolios and offer some suggestions to broaden portfolio diversification.

Let's discuss the evolution of the S&P 500. The S&P 500 is "top-heavy" to the point where, at the end of second quarter 2020, the largest five companies made up 22% of the market capitalization of the index (see Figure 1). Therefore, the returns of those five stocks strongly influence the direction of the index. Recall that many companies that are thought of as "technology" aren't classified as such (Alphabet and Facebook are classified as communication services, Amazon as consumer discretionary). Information technology makes up about 29% of the index and communication services chips in another 11% of the index. So now, the "core" S&P 500 is skewed toward growth-oriented higher P/E ratio companies. Old school industrial, financial, and energy companies are trailing and losing ground to the "new economy" companies in the "core" S&P 500.

Figure 3

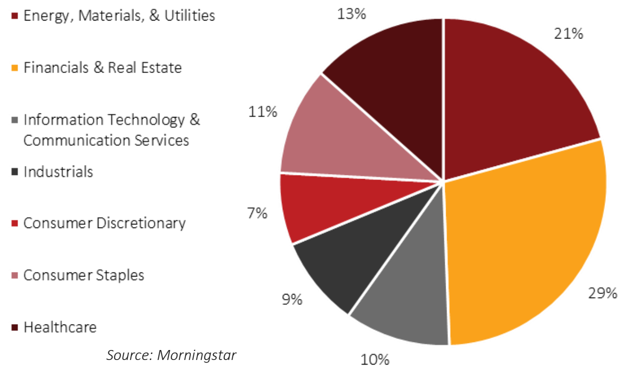


Source: Morningstar

If we dig further into growth by looking at the Russell 1000 Growth Index over the past decade to gauge the changes in these "new economy" companies, the concentration in the mega names is quite clear. Ten years ago, information technology and communication services were a 32% (see Figure 2) weight in the index, now they account for 55%. Add in Amazon, a consumer discretionary company (8% index weight), and we are looking at about a 63% index weight at June 2020. The other startling change is that energy and materials companies had a 15% weight a decade ago. It has now dwindled down to less than 1%. As a result, the large weight in technology and the mega cap stocks have inflated the forward P/E ratio of the index to 35 times earnings at the end of June 2020 (see Figure 3).

Figure 4

Russell 1000 Value - as of 6/30/2010



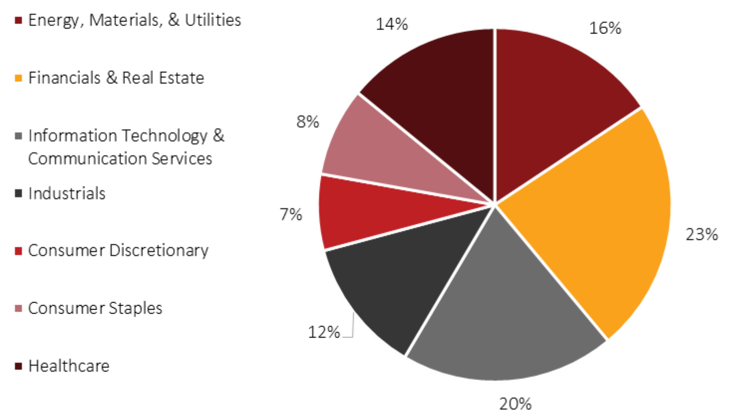
Source: Morningstar

Next, let's compare the Russell 1000 Growth to the large cap value index, the Russell 1000 Value. While the value index has changed over the past decade (see Figure 4), it remains more diversified across industry sectors than the growth index. The value index does not have a dramatic overweight in any one industry sector, instead it has significant weights in financials, healthcare, industrials, energy, and technology – each making up over 10% of the index. Interestingly, technology stocks have increased in weight over the past decade due to many old school tech companies like Intel and Cisco, now classified as value stocks (see Figure 5).

Given the decade long underperformance of value stocks (see Figure 6) to growth stocks, the resulting P/E ratio is slightly less than 14 times earnings. The implication is that if "core" active managers decide to overweight "cheap" stocks as part of the investment process, then it is feasible that investment strategy has had underperformance to the S&P 500 index in recent years due to an underweight in the mega cap stocks with high P/E ratios.

Figure 5

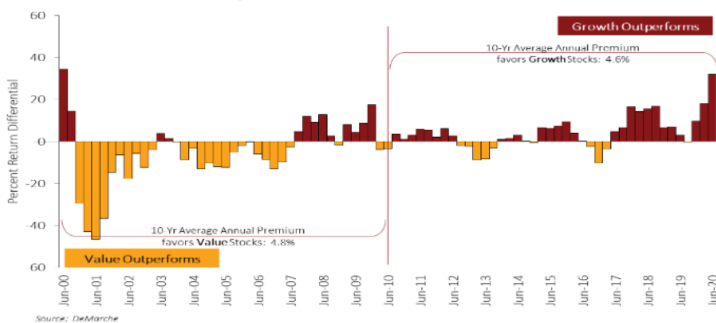
Russell 1000 Value - as of 6/30/2020



Source: Morningstar

Figure 6

Growth Stocks (Russell 1000 Growth) Minus Value Stocks (Russell 1000 Value)
Rolling One Year Performance Differential



Another interesting tidbit — the mega caps have even skewed how many stocks reside in each index. The Russell 1000 Growth has 435 stocks and the Russell 1000 Value has 840 stocks. How can this be? You may ask yourself, "I thought each index has the same number of stocks." Actually, the indexes will contain the same market capitalization when reconstituted. 1000 stocks are split into quartiles by a growth/value score. Some stocks exist only in the growth index, and some stocks exist only in the value index. Some stocks reside in both indexes. Since the mega caps are so big, it takes many more stocks to make up the market capitalization within value than in growth. Therefore, the growth index has become less diversified over time as the mega caps have grown larger and larger.

Let's turn our attention to international stocks. In traditional asset allocations, international stocks have made up a significant percentage of the equity allocation due to its diversification potential. The following chart (see Figure 7), which shows three-year rolling correlations between Russell 1000 Growth and Value to EAFE, seems to show that over the past 20 years, two phenomena have become evident in the evolution of the relationship of international stocks to domestic stocks. The first is that the broad correlation between the MSCI EAFE Index and domestic stocks have trended towards higher correlation. The implication is that international stocks' diversification potential is lower today than it was in the 1990s.

Figure 7

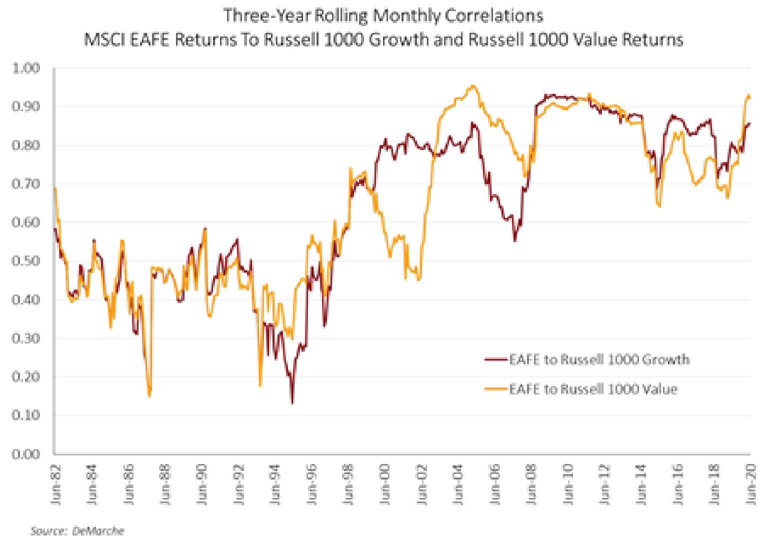
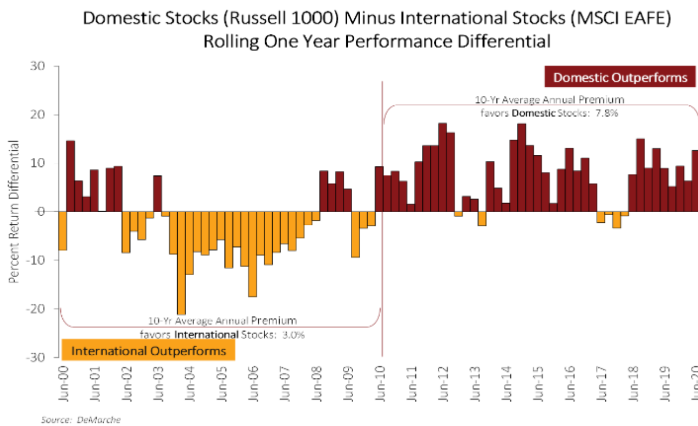


Figure 8



The second phenomenon is the very recent increase in correlation of the EAFE index to domestic value stocks. Let's compare sector exposures to see if there are similarities between the two indexes. We know that the MSCI EAFE index has changed over time, but it has morphed in a way that the S&P 500 has not. Over the past decade, energy and financials have declined in weighting (see Figure 9 and 10), but still make up substantial weights. The top ten stocks in the MSCI EAFE index make up about 12% of the market capitalization of the index. Therefore, the index is much less top-heavy than the S&P 500, not to mention the Russell 1000 Growth. In addition, the top ten EAFE stocks only include one technology stock, SAP, again much less than the growth orientation of the U.S. mega cap industry sectors. The largest exposure in the index is financials. Technology makes up about 8% and when combined with Communication Services, the weight is 12% (see Figure 9). With the exposures to certain sectors within the growth and value space changing over time, growth has become more technology focused with mega caps dominating. This leaves value having more exposure to financials and health care (pharma). We now see similar weightings across industry groups within EAFE and the domestic value space. Over the past decade, the lag in performance of value-oriented industries has resulted in a lag of performance of international stocks.

Figure 9

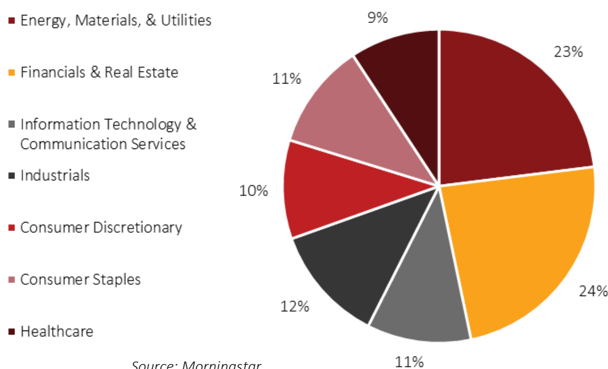
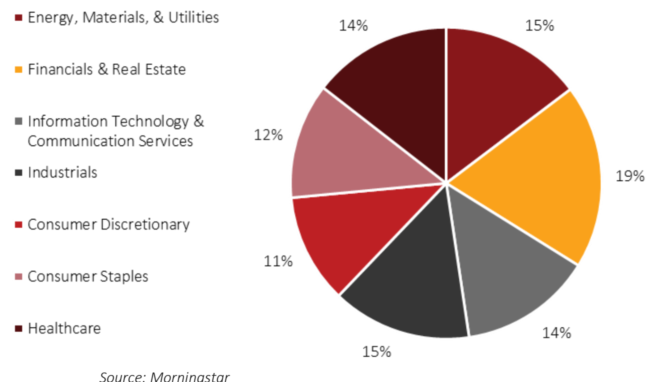


Figure 10



Another implication to asset allocation resulting from changes in the growth and value domestic indexes is that by equal-weighting domestic growth and value and holding core international exposure, the portfolio may be over-weighted to value industry sectors.

Another index that has been fundamentally transformed by economic changes is the MSCI Emerging Market Index. Over the past decade, China has emerged to be the second largest global economy after the United States. Its influence upon the emerging market index is substantial, as the largest companies in China, Alibaba and Tencent, account for about 13% of the index.

Figure 11

MSCI EM - as of 6/30/2010

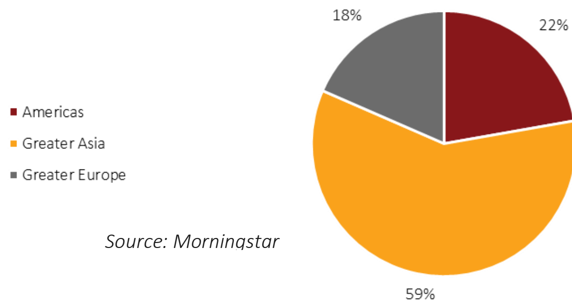
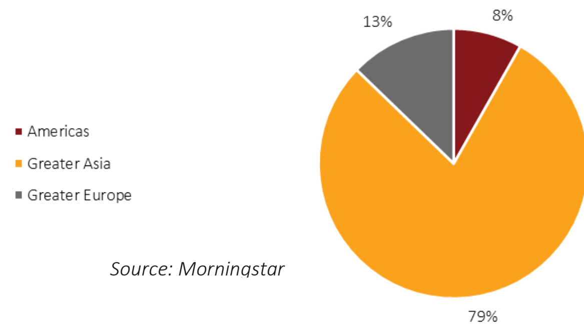


Figure 12

MSCI EM - as of 6/30/2020



China's exposure is expected to grow to over 40% of the index as their local A-Share market is slowly added to the index over the next few years. Another aspect of Chinese dominance is that emerging market investment strategies are becoming more and more Asia-oriented as Chinese companies, along with Korean and Taiwan technology companies, increase in size and scope. Over the past decade Brazil, once the second largest county weight in the index, has fallen to fifth place behind the Asian countries of China, Taiwan, South Korea, and India.

Figure 13

MSCI EM - as of 6/30/2010

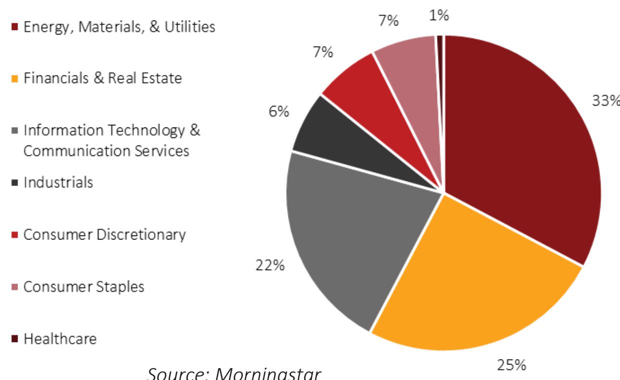
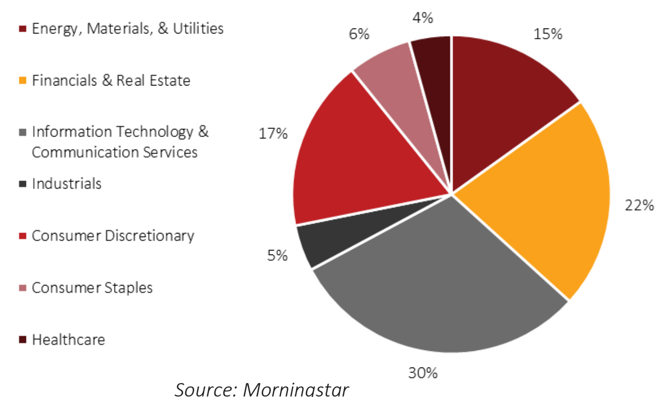


Figure 14

MSCI EM as of 6/30/2020

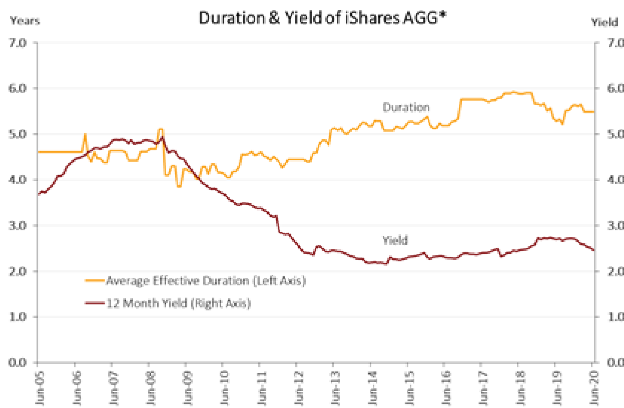


While financials lead the index in single industry weighting, information technology and communication services make 30% of the index when combined together. Growth factors of these industry sectors have a larger influence in emerging market strategies than in decades past (see Figures 13 and 14). With the decline of the Brazil and the Russia country weighting in the index, so too have the commodity and energy weights within the index. The Energy and Materials sector make up 28% and 69% of each country, respectively, but each country weight now makes up about 5% and 3% percent of the index. It stands to reason that the growth-

oriented technology sector and the Asian geographic weighting will continue to grow in importance within the emerging market index and directly influence asset allocation in the coming years when compared to the exposures of a decade ago.

Lastly, let's shift our attention again, this time to bonds. With the growth of government debt issuance, the Bloomberg Barclays Aggregate index is also top-heavy in low-yielding U.S. government debt. The result has been a decrease in yield and lengthening in duration. The U.S. Treasury debt makes up almost 40% of the index, and government agency debt makes up about another 25% of the index. Duration, a measure of price volatility, has increased over the years as longer term debt has increased in size and coupon yields have dropped (see Figure 15). Currently, duration is at 5.8 years, which means that if interest rates increase 100 basis points, the price of the index with fall 5.8%. Ten years ago duration was about 4.5 years. So as you can see, the increase in duration and the larger allocation in lower-yielding bonds within the index ramps up the risk of the index and consequently, the risk within the traditional bond allocation of investment portfolios.

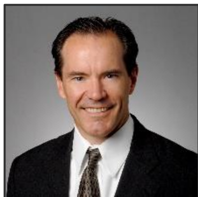
Figure 15



Source: Morningstar Direct, iShares AGG. *Data are net of fees and expenses of the ETF.

In conclusion, the significant changes to the broad mainstream investment indexes over the past decade have forward-looking implications to asset allocation and diversification. Industry exposures have changed and correlations continue to evolve. Now is the time to dig deeper into the factors that will drive investment performance for the next number of years. Few would have thought that over the past decade we would have seen such dominance by large cap domestic growth companies to the chagrin of many investment professionals.

Put Research To Work
with the DeMarche Team



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Sources Utilized:

- *Morningstar*
- S&P 500
- DeMarche