# Weighing the Risks of a Top-heavy Market

## Three reasons why now may be the time to rethink large-cap passive allocations

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### Key Ideas

- U.S. large-cap market gains continue to be largely driven by a handful of mega-cap stocks.
- The incredible run-up in these companies has significantly distorted the diversification characteristics and recent returns of most popular capitalization-weighted U.S. large-cap indices.
- The U.S. stock market capital distribution curve—which has historically tended to remain remarkably consistent over time—has recently seen a sharp uptick in the eight largest stock weights, unlike anything observed in the past 40 years.
- Capitalization-to-GDP ratios for the largest mega-cap stocks have climbed to historically high levels, indicating valuations now appear to be overvalued relative to their histories, similar to the increases seen in the dot-com bubble.
- Consequently, investors may want to review their mega-cap exposures in U.S. large-cap allocations, especially in passive strategies where concentrations have likely spiked higher.
- Markets have tended to revert to the mean in the long term, indicating it may be prudent to reallocate a portion of large-cap allocations to actively managed, risk-controlled strategies emphasizing broad diversification to help cover investors' bases should current mega-cap momentum begin to shift.



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# Mega-cap momentum and capital concentration

U.S. large-cap markets delivered another impressive year of returns in 2021. And once again the vast bulk of gains were driven by a handful of mega-cap stocks.

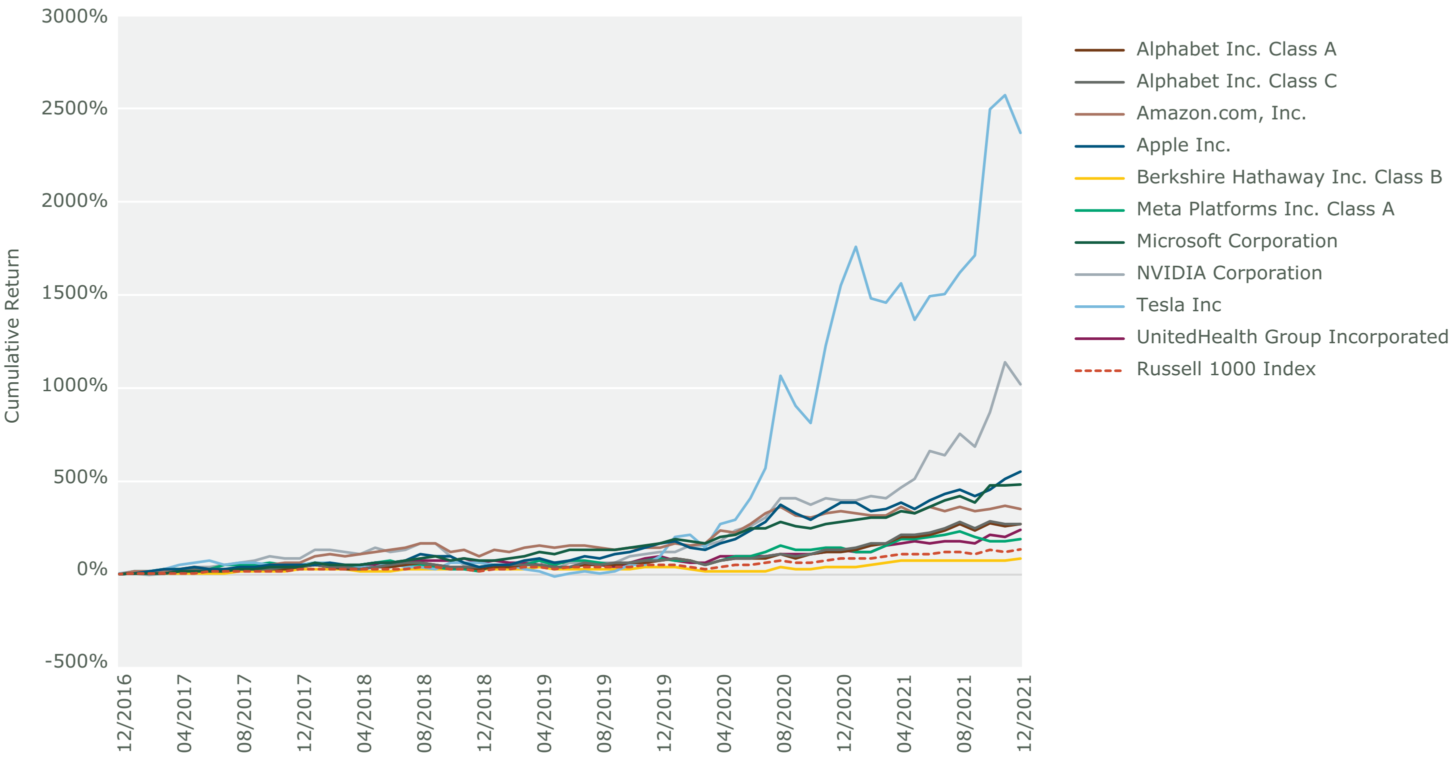
The largest of the large caps—companies such as Apple, Amazon and Tesla—continued to wildly outperform the broader Russell 1000 Index, expanding on the mega-cap momentum cycle that has surged since 2018. Indeed, take out its top five mega-cap names and the index's 2021 total return falls 6.53%, from 26.46% to 19.93%.[1]

This run-up has resulted in more than just spectacular returns for investors. It also has pushed market capitalizations for these companies to unprecedented levels, dramatic in both magnitude and pace, with no signs of slowing down. Consider, for example, that Apple took nearly 40 years to become the first publicly traded company to reach a market capitalization of $1 trillion in 2018 and then only three more to almost triple its value to $2.94 trillion by the end of 2021. Four other companies have also surpassed the $1 trillion threshold.

FIGURE 1

**BIG NAMES, BIG RETURNS**

Cumulative returns of the Russell 1000 Index compared to its largest stocks, January 1, 2017 - December 31, 2021
Source: FactSet.



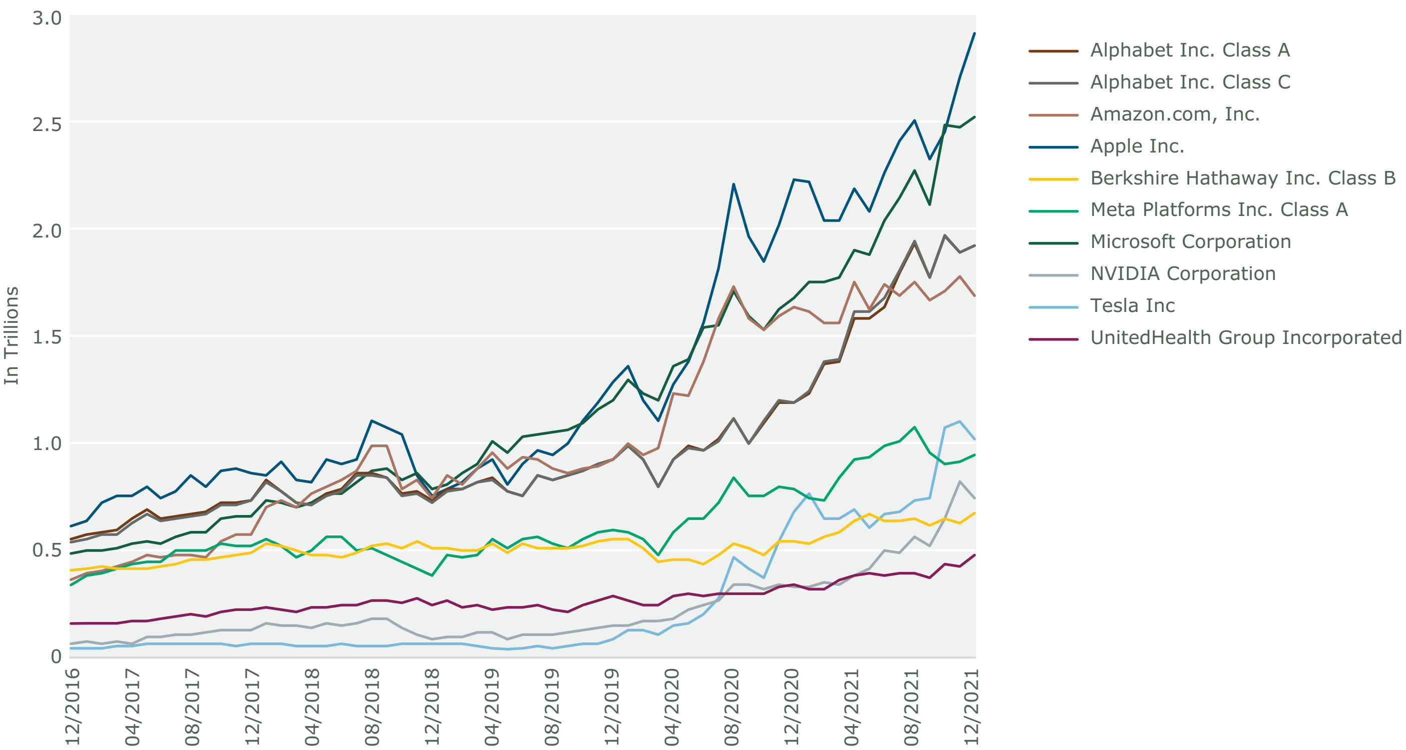

Past performance does not predict future returns. Performance includes the reinvestment of dividends and other earnings.

[1] This calculation does not reweight the index to 100% without the five top-performing mega-cap stocks. Removing these five stocks and reweighting the index results in a 2021 total return decline of 2.20%, from 26.46% to 24.26%.

FIGURE 2

**GROWING BIGGER, FASTER**

Market capitalizations for the Russell 1000 Index's largest stocks over time, December 31, 2016 - December 31, 2021
Source: FactSet.




Past performance does not predict future returns.

This type of remarkable price expansion in just a few stocks has pushed market capital concentrations to historically high—and potentially troubling—levels. In this paper, we discuss the current top-heavy nature of the U.S. large-cap market from a historical perspective and what it may mean for investors looking ahead. Here are three key points to consider:

## 1. The top-heavy market has significantly skewed index diversification and returns

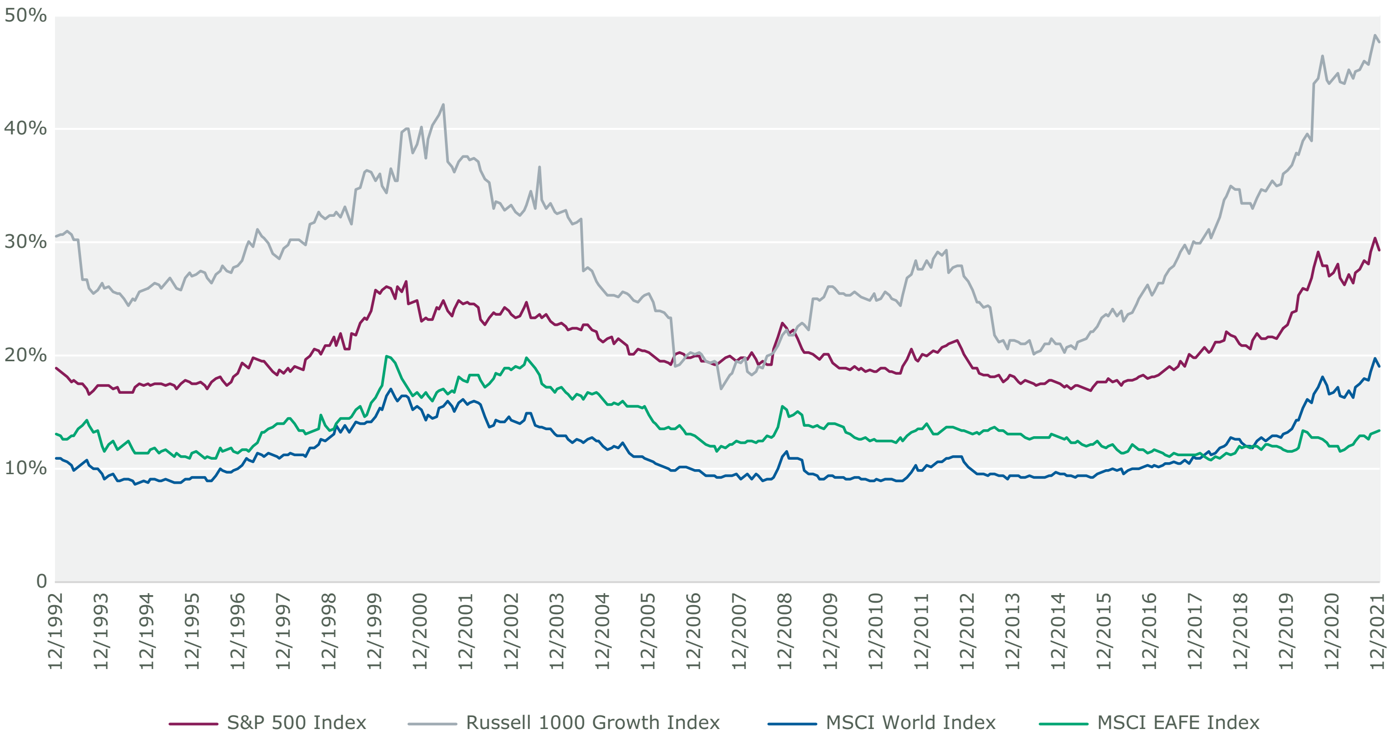
As of December 31, 2021, the 10-largest stocks in the S&P 500 make up 29% of the index, with the two largest, Apple and Microsoft, weighing over 6% each. This has never occurred in 30 years of data! The combined weight of Apple and Microsoft is larger than that of all stocks in the utilities, real estate, materials and energy sectors.

Figure 3 shows the market weight of the 10 largest stocks within their respective market indexes. It illustrates that market capital concentration is at extremely high levels in the U.S. and global markets based on their relative index history. Conversely, we observe that non-U.S. developed equity market concentration is on the lower end of the spectrum.

FIGURE 3

**THE HIGHEST MARKET CAPITAL CONCENTRATION**

Weight of the 10 largest stocks as a percentage of overall market, December 31, 1992 - December 31, 2021
Source: FactSet.




Past performance does not predict future returns.

A deeper look shows that capital concentration has been led by the seven largest U.S. growth companies (eight stocks given Alphabet Class A and C); Apple, Microsoft, Amazon.com, Alphabet, Tesla, Meta Platforms and Nvidia now have a combined weight of 27% in the S&P 500 Index. As little as three years ago, Nvidia wasn’t even the largest or second-largest stock in the semiconductor industry, but is one of the largest companies overall in the index at the end of 2021.

The weight of the consumer discretionary sector within the S&P 500 briefly surpassed the healthcare sector for the first time in almost 20 years, due primarily to Amazon.com and Tesla. The information technology sector comprises 29% of the index, more than half of which is just three stocks (Apple, Microsoft and Nvidia). The three largest communication services stocks, Alphabet Class A and C and Meta Platforms, represent roughly 60% of the sector, whereas the three largest industrials stocks represent just 15% of the industrials sector. The list of these kinds of concentration shifts goes on and on.

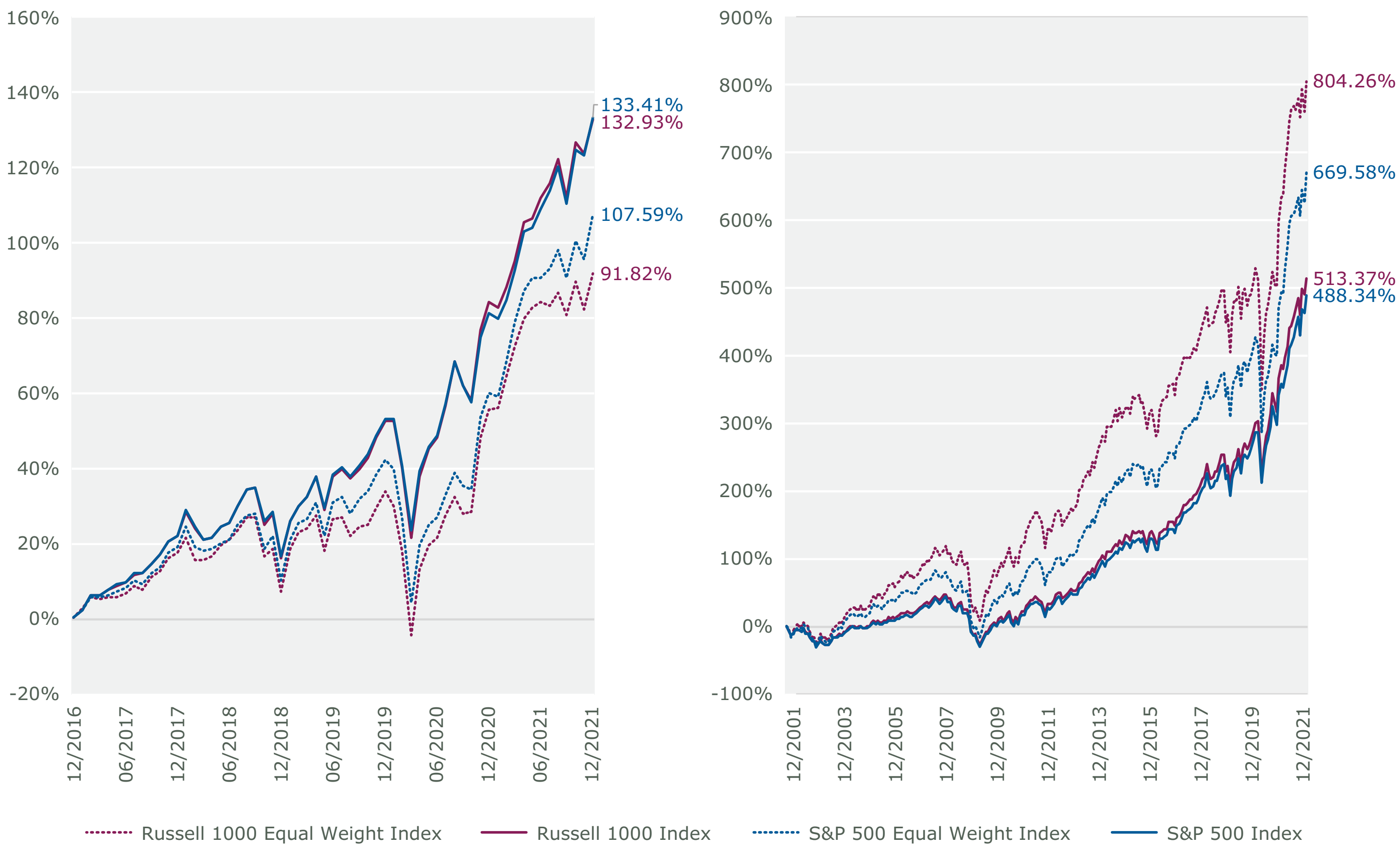
The net result is that the S&P 500 and most other popular capitalization-weighted U.S. large-cap indices are now much less diversified than they were just a few years ago, in terms of both individual stock weights and performance drivers. This is evidenced by the large outperformance in capitalization-weighted returns versus equal-weighted returns. Over the past five years, the capitalization-weighted returns for the S&P 500 and Russell 1000 indices have outperformed their equal-weighted returns by more than 25.8% and 41.1%, respectively. Compare this to the 20-year longer-term cumulative returns where the equal-weighted indices both consistently and significantly outperformed.[2]

FIGURE 4

**CAPITALIZATION-WEIGHTED RETURNS HAVE SIGNIFICANTLY OUTPERFORMED EQUAL-WEIGHTED RETURNS IN THE PAST FIVE YEARS, REVERSING THE LONGER-TERM TREND**

Five-year cumulative returns vs. twenty-year cumulative returns as of December 31, 2021

Source: FactSet.




Past performance does not predict future returns.

[2]All weights and figures as of December 31, 2021.

## 2. There's been a major uptick in the largest capital distribution weights compared to long-term averages

Stock market capital distribution has tended to remain very consistent over time. Figure 5 shows the capital distribution curve of the U.S. stock market (using the CRSP database as a proxy) based on the capitalization weights of its stock positions ranked from largest to smallest. Beginning-of-year snapshots using 10-year intervals between 1981 and 2021 show this distribution has been remarkably stable, with stocks at each size ranking generally maintaining a similar average capitalization weight throughout the past 40 years.

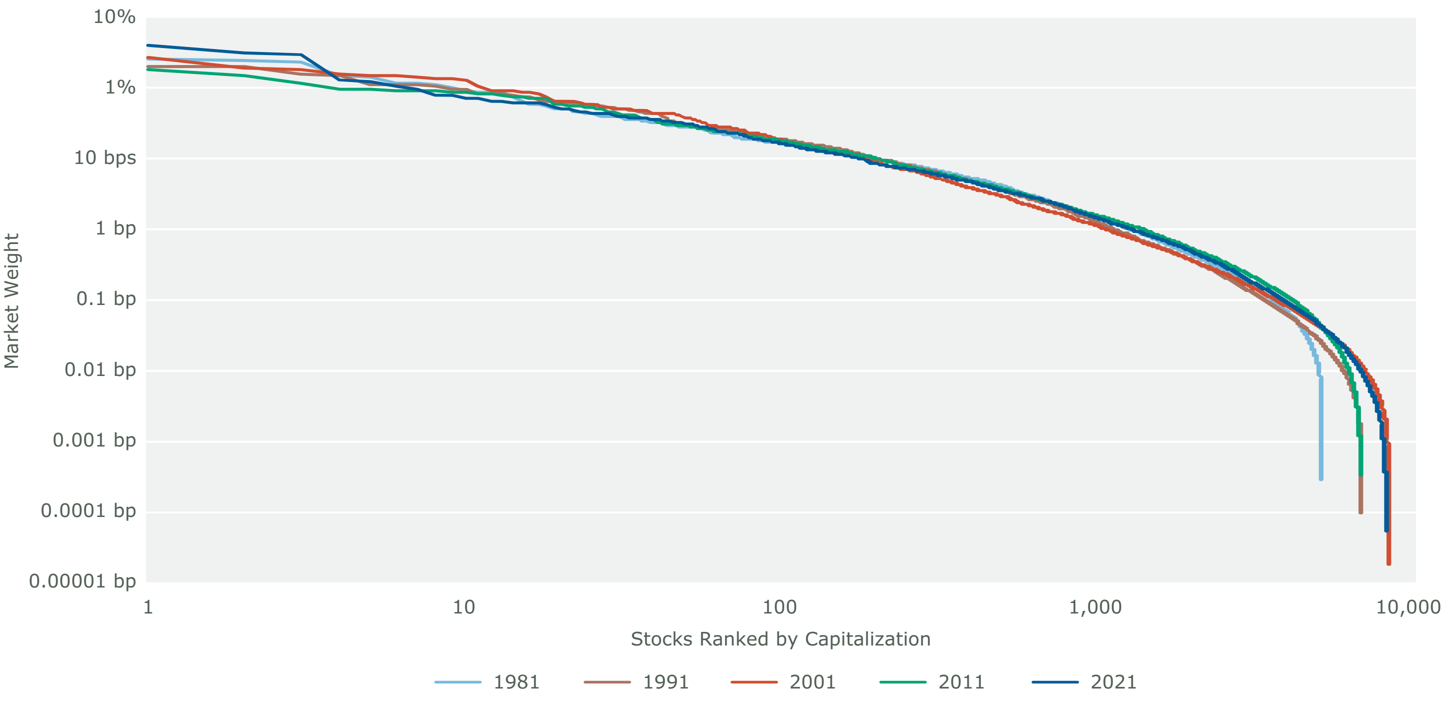
Most shorter-term variances from these longer-term averages have been at the largest and smallest ends of the distribution curve. This definitely has been the case in the most recent period, which has experienced a sharp jump in the eight largest stock weights, unlike anything observed in the earlier timeframes. Based on history, we expect this type of disruption should return to a more stabilized norm at some point, as has been the case across prior periods.

FIGURE 5

**A DRAMATIC RISE IN CAPITAL DISTRIBUTION WEIGHTS FOR THE EIGHT LARGEST STOCKS**

Distribution of Capital: U.S. Stocks over 10-year intervals, 1981—2021

Source: CRSP.




The curves were generated using the capitalization data from the daily stock database of the Center for Research in Securities Prices (CRSP) U.S. Stock Database. The market weight of a stock is defined to be the ratio of its market capitalization to the total market capitalization of all stocks in the database. Each snapshot consists of the constituents of the index on the first trading day in each year shown. Stocks are log-ranked by capitalization from the largest (rank 1) to the smallest.

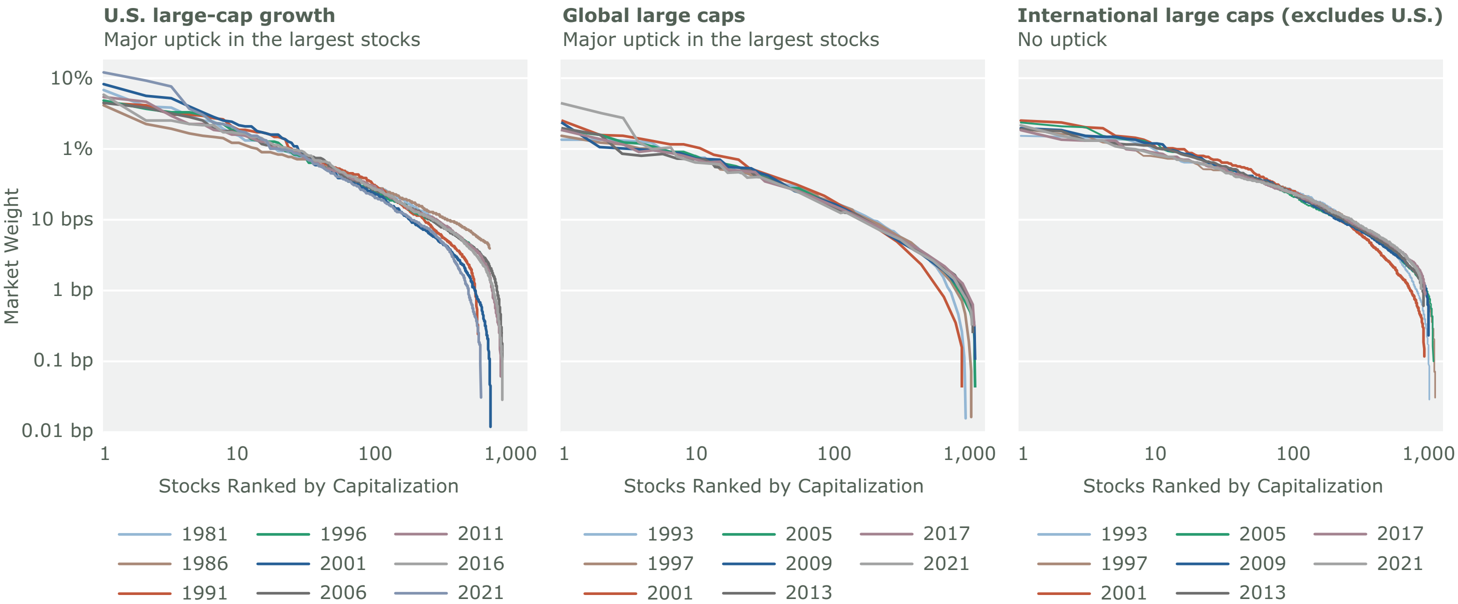
Figure 6 examines how this trend has played out in three major large-cap indices: the Russell 1000 Growth, representing U.S. large-cap growth stocks; the MSCI World, representing global large-cap stocks across developed markets, including the U.S.; and the MSCI EAFE, representing large-cap stocks of developed markets, excluding the U.S. and Canada.

Recently, both the growth and global indices have seen similar large increases in the capital distribution weightings of their very largest stocks. There is, however, no such uptick in global developed markets when U.S. stocks are taken out of the equation. Consequently, it appears that investors should currently be most concerned with market capital concentration risk in their U.S. large-cap exposures, especially in growth security heavy allocations.

FIGURE 6

**CAPITAL DISTRIBUTION WEIGHTINGS ACROSS VARIOUS MARKETS**

Source: FTSE Russell and MSCI.




The curves were generated using the daily capitalization data of the Russell 1000 Growth Index.

The curves were generated using the daily capitalization data of the MSCI World Index.

The curves were generated using the daily capitalization data of the MSCI EAFE Index.

Each snapshot consists of the constituents of the index on the first trading day in each year shown. Stocks are log-ranked by capitalization from the largest (rank 1) to the smallest.

## 3. Mega-cap stocks now appear to be overvalued based on capitalization-to-GDP ratios

Warren Buffet made famous the total stock market capitalization-to-GDP ratio to determine whether the overall market appeared undervalued or overvalued compared to its historical average. The ratio of these two values represents expected future returns relative to current price because stock market capitalization represents expectations of *future* economic activity, while GDP is a measure of *actual* economic activity. The expectation is that this ratio should be relatively stable over time, only slowly increasing as technology allows for greater efficiencies in labor and capital over time. When the ratio rises quickly, it should be a red flag for investors that the market appears overvalued.

We analyzed this ratio using just the largest 10 stocks by market capitalization. Figure 7 shows the ratio (blue line) compared to these stocks' weight relative to the entire U.S. market (grey line) and also to their collective market capitalizations (red line).

Observing this data, it seems clear that there have been two broad eras of stock market growth in terms of the largest stocks. For much of the 1930s, '40s, '50s and '60s, it was not uncommon for the 10 largest stocks to represent anywhere between a high-20 to low-30 percent of the market. This began to substantially change through the '70s until reaching a post-1980 era of much greater market capital diversification, due to a broadening of publicly traded firms from across the economy, increased competition, higher profit margins, lower taxes and a decreasing discount rate.

However, even if we take the position that at the end of 2021 the weight in the largest stocks is no different from a prior era, the ratio of capitalization-to-GDP has risen significantly during the past three years and is at a level that suggests valuations are quite extended relative to these securities' histories. A similar rise can be seen during the dot-com bubble.

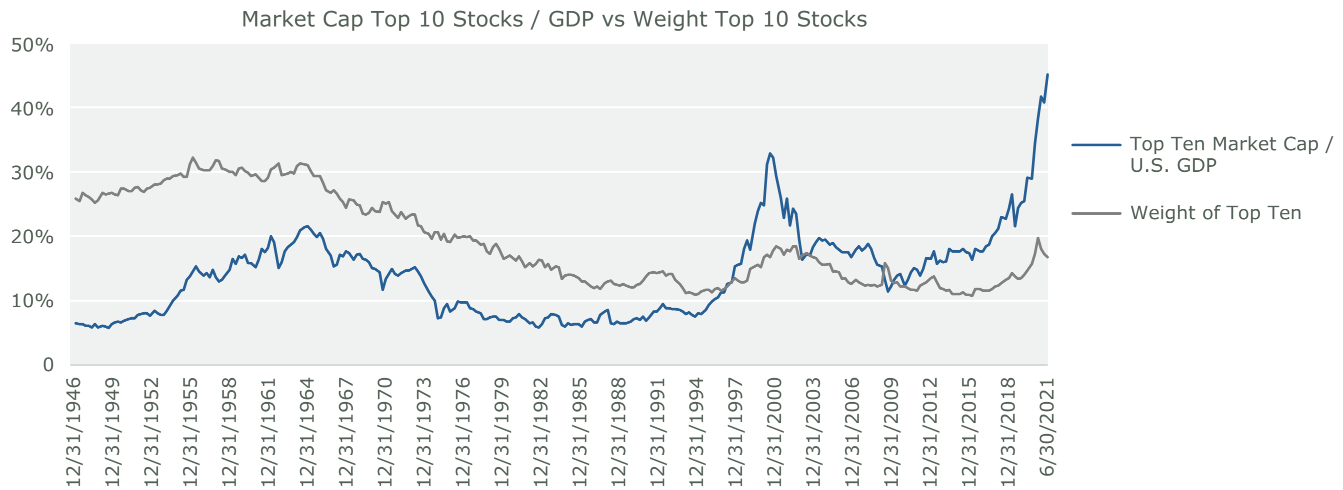
Of course, extremely low interest rates may help to continue the large flow of capital to these stocks. It appears, however, that rising rates or shifting capital to smaller stocks could result in substantial performance headwinds if these stocks fall short of expectations.

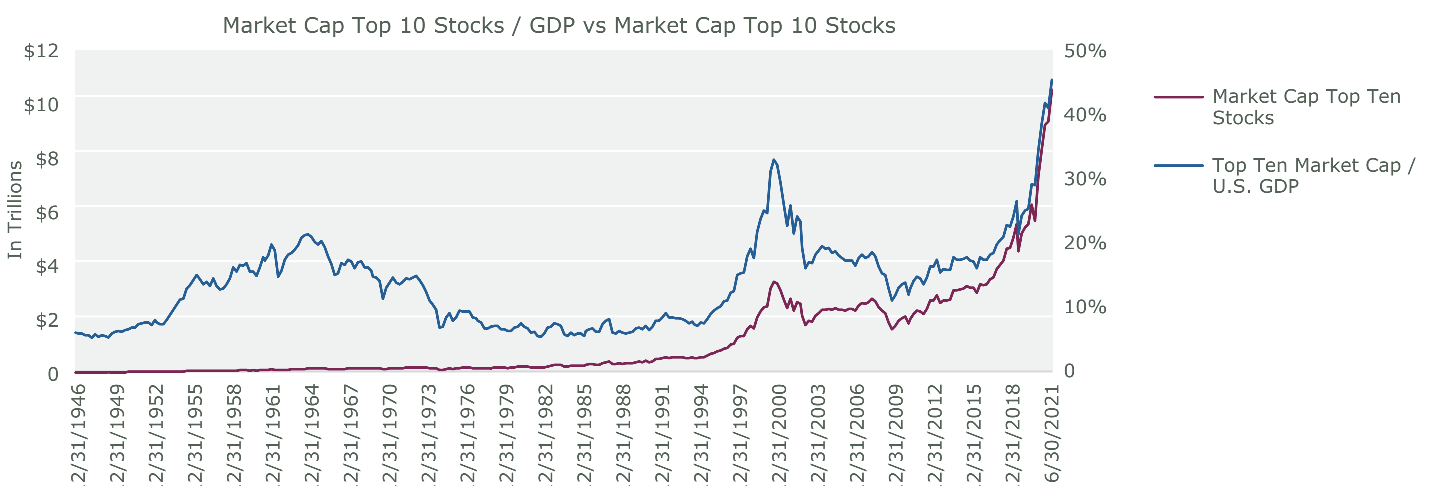
FIGURE 7

**A SHARP RISE IN CAPITALIZATION-TO-GDP RATIO IN THE 10 LARGEST STOCKS**

December 31, 1946 - June 30, 2021

Source: CRSP and FRED.



## Implications for investors

In our view, the main takeaway from this research is that investors may want to review mega-cap exposures in their U.S. large-cap holdings, particularly if they are highly concentrated in passive strategies where allocations have likely escalated. Current momentum may certainly continue for the time being, but history has shown that investors ignore the long-term trend of mean reversion at their own risk. Reversals tend to occur quickly and often with consequential market moves. The question is: will investors be ready?

At this point, it seems prudent to keep your bases covered by reallocating at least a portion of large-cap exposures to strategies that can help lower mega-cap concentration risk. The current climate has been a significant headwind for actively managed, risk-controlled strategies focused on broad diversification, as any active large-cap manager who didn't own the top mega-cap names in a major way during the past several years was almost certain to lag its index. Looking ahead, these types of strategies should be well-positioned to outperform and help protect assets when this cycle shifts.

# Conclusion

The current top-heavy nature of the U.S. large-cap market should give investors pause. Most capitalization-weighted U.S. large-cap indices now appear highly concentrated at both stock and sector levels, which has meaningfully diminished the diversification characteristics of these benchmarks and the passive strategies that seek to mirror them.

Additionally, after three years of sizable outperformance, the largest U.S. mega-cap stocks now also look to be richly valued by some market measures. This potentially precarious combination of relatively high valuations and reduced diversification may have notably elevated the risk profiles of many investors' large-cap allocations.

Markets have taught time and time again that momentum trends don't last forever. While we remain broadly constructive on large-cap markets looking ahead, at this point in the cycle we believe investors should consider reducing their exposure to passively managed U.S. mega-cap-dominated strategies and ensure they are also incorporating actively managed, risk-controlled strategies that offer broader diversification into their large-cap allocations. This should help to provide a more balanced risk-reward profile, while remaining fully invested.

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