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THEY ALL FALL DOWN?

The Performance Of Large Index Constituents After Their Peak Weights

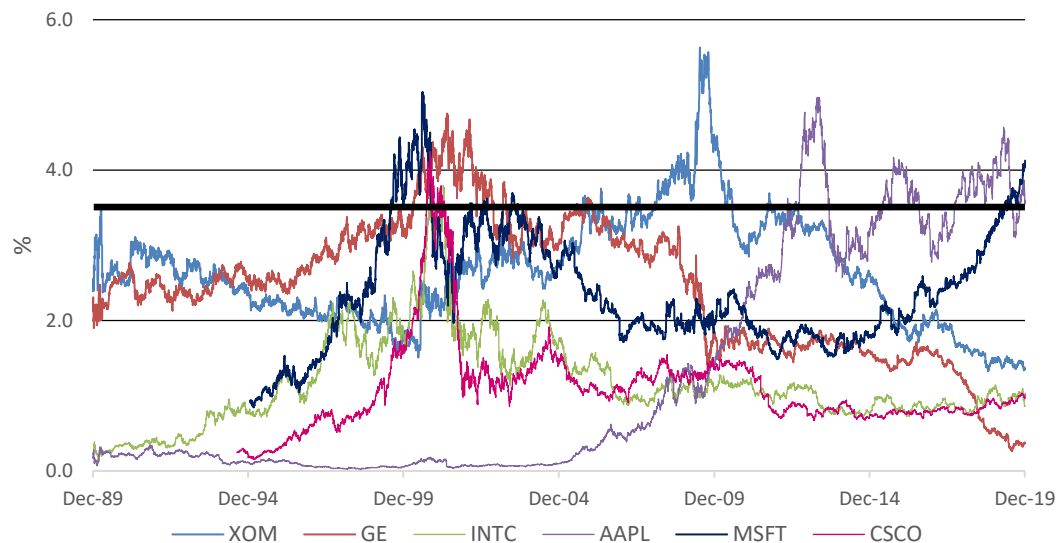
Because many indexes are market-capitalization weighted, index returns—and the funds that track them—are often dominated by a few large companies. Currently, the 10 largest companies in the S&P 500 constitute over 20% of the index. A security's market capitalization is the product of its shares outstanding and its current price, and these mega-cap companies have a continuous base of buyers willing to pay increasingly higher prices. Demand for a security increases its membership share of an index: stocks that are in high demand increase most in price. And continued popularity over time results in noticeably high index representation.

If we consider a threshold of 3.5% index membership, only six such stocks have appeared since 1990—Exxon Mobil, General Electric, Intel, Apple, Microsoft and Cisco. Despite achieving exceptional popularity at some point in time, most of these stocks experienced notable losses after reaching their peak share—which shows that index size and market capitalization are not necessarily signs of safety.

These sudden reversals in a security's price momentum are nearly impossible to forecast. But awareness of the risks involving size is essential for investors with direct (through indexing) or indirect (setting portfolio position weights) index exposure. Index performance is, in part, driven by the momentum of its largest constituents. These securities can experience sudden and persistent losses quickly after amassing an unusual amount of the overall index. Empirically, this number is approximately 4% of the overall S&P 500 benchmark; however, it should be noted that this number is meaningless in the context of future markets.

As we can see in Exhibit 1, the largest of these companies reach a point in the cycle where they no longer grow relative to their index peers and subsequently shed much of their size.

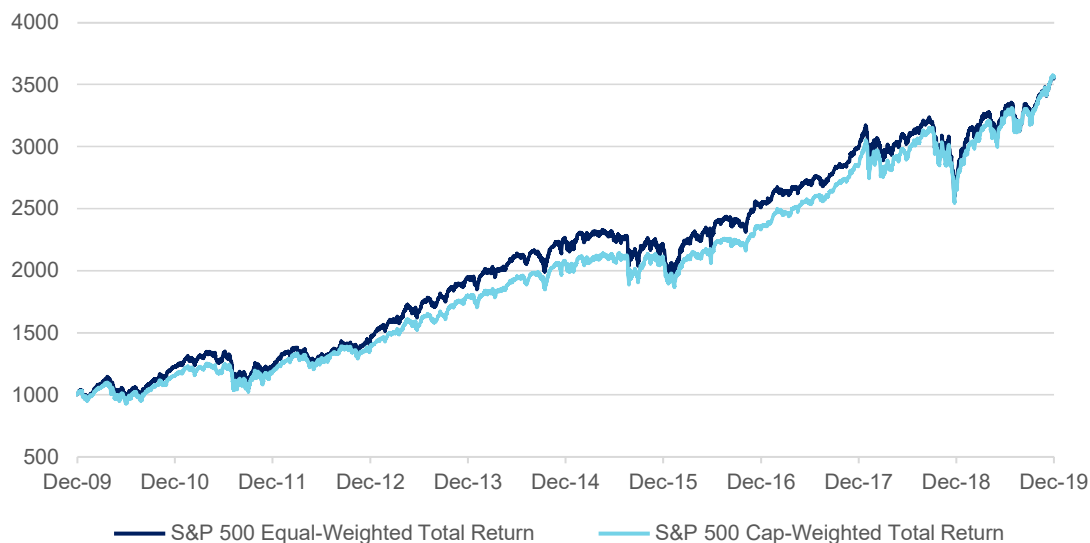
Exhibit 1: The 3.5 club: Largest companies' weights in the S&P 500 (%)



Source: Standard and Poor's. Note: XOM=Exxon Mobil, GE=General Electric, INTC=Intel, AAPL=Apple, MSFT=Microsoft, CSCO=Cisco

There is a tendency to think of the last decade's performance as being driven by a few large-cap growth stocks—the FAANG stocks—to which we can now add Microsoft. A brief analysis of the S&P 500 in its equal- and capitalization-weighted forms reveals that, for most of the decade, considerations of size did not correspond to higher index returns.

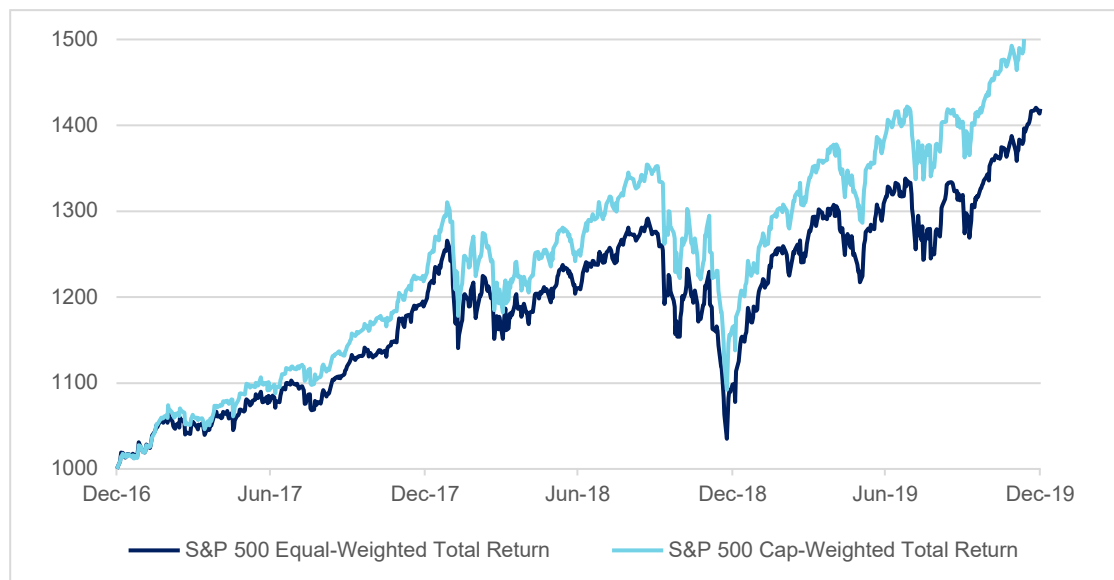
Exhibit 2: Equal- vs. capitalization-weighted cumulative S&P 500 Index returns (2010-2019)



Source: Bloomberg. Note: December 31, 2009=1000

It was not until 2017 that size began to bring benefits to the S&P 500. This point in time also corresponds to a noticeable divergence between growth stocks and their value peers.

Exhibit 3: Equal- vs. capitalization-weighted cumulative S&P 500 index returns (2016-2020)



Source: Bloomberg. Note: December 31, 2016=1000

Historical look

As already mentioned, since 1990 there have only been six companies that have risen so much that their market capitalization-based representation in the S&P 500 Index breached 3.5%. And all but Apple, which reached 3.5% in the last decade, rapidly shed cap size after doing so. As of December 31, 2019, Apple and Microsoft (for the second time) represent more than 3.5%.

Microsoft breached 5% of the overall index in late 1999. The technology giant shed much of its size, as increasing competitive forces emerged in the technology sector. It continued to trade under 3% of the total index until early 2018.

Similarly, Exxon Mobil, which approached 3.5% in the 1980s, grew beyond 5.5% of the index at the cusp of the global financial crisis—as oil prices peaked—and now trades at roughly 1% of the overall benchmark. The remaining four companies—General Electric, Intel, Apple, and Cisco Systems—share similar narratives of industry domination driven by industry trends and macroeconomic conditions.

Companies seem to reach the zenith of their market capitalization prior to major market downturns. During the dot-com bubble, Microsoft, Cisco, Intel and General Electric were each above a 3.5% index weight in the late '90s, as investors ignored valuations that had dislocated from company fundamentals. And each of these four stocks shed significant market capitalization within the next two years. Roughly eight years later, Exxon Mobil was trading above 3.5% market weight, prior to the global financial crisis. It, along with the rest of the market, lost much of its

market capitalization within months as asset prices plunged—especially oil, which fell from over \$140bbl to near \$30bbl.

It wasn't until the market began its recovery in 2009 that the 3.5% club was occupied again. Apple comprised over 3.5% of the index starting in 2011, as it cornered the digital music and smartphone markets, and was joined later in the decade by its old rival, Microsoft. Both companies share a roughly 4.5% market weight as of year end.

Conclusion

Given the cyclical nature of markets, it is reasonable to consider the possibility of these events repeating themselves. As before, investors have become increasingly removed from company fundamentals in the latter part of this past decade. “Crowding” continues to drive investor sentiment toward certain securities, creating a momentum effect that has lasted most of the decade and superseded value factors. When sentiment around the economy falters—last August, for example—these crowded trades weaken quickly and fundamentals-driven investment styles, like value, regain favor. There is a clear relationship between the market's tolerance of size and investor sentiment. That is, the largest corporations—often touted as “too big to fail”—are perhaps the riskiest at times during which economic conditions are weakening and may in fact be too big to grow.

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