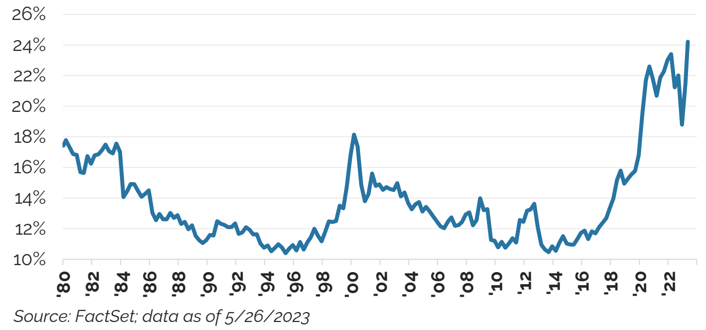
DISTILLATE CAPITAL

# Concentration Risk (May 2023)

After dropping last year, the weight of the five largest stocks in the S&P 500 Index is back above its prior peak. Market concentration by this measure is elevated and well above where it was even during the bubble in 2000 (see **Figure 1**).

*The largest 5 stocks in the S&P 500 Index (currently MSFT, AAPL, AMZN, GOOGL[1], & NVDA) make up a record portion of its overall value.*

## Figure 1: Weight of Biggest 5 Stocks in the S&P 500

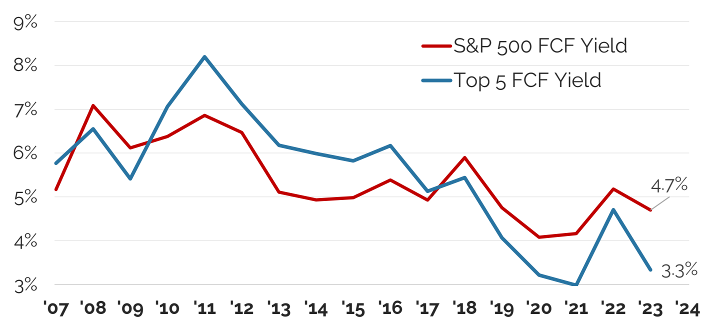



*Source: FactSet; data as of 5/26/2023*

Beyond the inherent risk in concentration, we believe it is important to examine the underlying fundamentals as well. **Figure 2** does this by looking at the valuation of that same group of 5 companies compared to the S&P 500 using consensus estimated next-twelve-month free cash flows to calculate a yield against market cap. The chart, which looks at annual data historically and then as of May 26th for 2023, shows that while the five biggest stocks were actually less expensive than the broader market from around 2010 through 2017, this has reversed and they are now considerably more expensive with an estimated free cash flow yield of just 3.3% compared to the broader market's 4.7%. The increase in the collective share of the largest five stocks most recently has therefore been underpinned more by a significant relative valuation expansion rather than by fundamental growth. **Figure 3** plots the difference between the two free cash flow yields and highlights that the biggest stocks are now above the levels of relative richness reached in 2021, and are more expensive than they have been on this measure since reliable forward estimates became available in 2007.

*After being more attractively valued than the overall market, the largest 5 stocks are now considerably more expensive.*

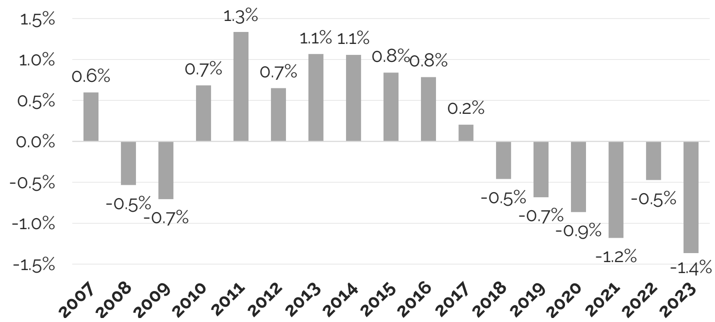
## Figure 2: Free Cash Yield of Top 5 vs. the S&P 500




*Source: FactSet; excludes stocks without data, 2023 as of May 26 2023*

*The difference between the free cash yield of the largest 5 stocks and the overall market is extremely wide.*

## Figure 3: Top 5 Stocks Free Cash Yield less S&P 500



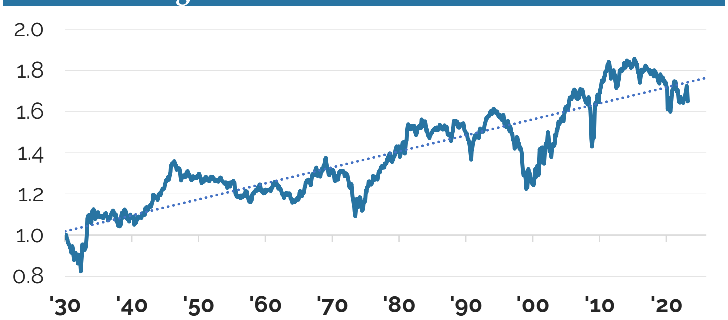

*Source: FactSet; excludes stocks without data, 2023 as of May 26 2023*

In addition to the concentration and valuation risks, it is worth noting that there is a historical disadvantage in cap-weighted indexes versus indexes with alternative weighting schemes. Inherent in their design, cap-weighted indexes tend to place more weight in stocks with higher valuations and less weight in shares that are potentially less expensive. **Figure 4** uses the Ken French data Library to track the relative performance of an equal-weighted index of large U.S. stocks versus a cap-weighted version, highlighting the long-term disadvantage of using a cap-weighted benchmark. Over the long-term, an equal-weighted index of the largest U.S. stocks has outperformed the cap-weighted group by over a half percentage point per year.

Consistent with the better performance of an equally-weighted index, **Table 1** on the following page looks at the weights of the largest ten stocks in the S&P 500 Index over time. This simple analysis is not perfect as stocks like Shell Oil have gone through mergers, but note the summary stats below each decade's grouping, where the weight diminishes over time, indicating the chronic lagging historical performance of being exposed to these groups of large stocks.

*An equal-weighted index of the largest U.S. stocks has outperformed a market-cap weighted one over time, though the reverse tends to occur around periods of economic weakness or valuation bubbles.*

## Figure 4: Performance of Equal vs. Cap-Weighted U.S. Large Stocks Over Time*




** Top 30% of all U.S. stocks which currently corresponds to ~550 stocks.*
*Source: Ken French Data Library, data through March '23*

*The largest stocks rarely remain so.*

## Table 1: Largest 10 S&P 500 Stocks by Decade

**December '80**

| Company | Weight | +10 Yrs | +20 Yrs | Curr. |
|---|---|---|---|---|
| IBM Corp. | 4.3% | 3.0% | 1.3% | 0.3% |
| AT&T Inc. | 3.9% | 1.5% | 0.6% | 0.3% |
| Exxon | 3.7% | 2.9% | 2.6% | 1.2% |
| Amoco Corp. | 2.5% | 1.2% | | |
| Schlumberger | 2.4% | 0.6% | 0.4% | 0.2% |
| Shell Oil | 1.9% | | | |
| Mobil | 1.8% | 1.1% | | |
| Chevron Corp. | 1.8% | 1.2% | 0.5% | 0.8% |
| Atlantic Richfield | 1.6% | 0.9% | | |
| General Electric | 1.5% | 2.3% | 4.1% | 0.3% |
| **Total** | **25.6%** | **14.7%** | **9.4%** | **3.2%** |

**December '90**

| Company | Weight | +10 Yrs | +20 Yrs | Curr. |
|---|---|---|---|---|
| IBM | 3.0% | 1.3% | 1.6% | 0.3% |
| Exxon Mobil | 2.9% | 2.6% | 3.2% | 1.2% |
| General Electric | 2.3% | 4.1% | 1.7% | 0.3% |
| Altria Group | 2.2% | 0.8% | 0.4% | 0.4% |
| Royal Dutch | 1.9% | 1.1% | | |
| Bristol-Myers | 1.6% | 1.2% | 0.4% | 0.4% |
| Merck | 1.6% | 1.9% | 1.0% | 0.8% |
| Wal-Mart | 1.6% | 2.0% | 0.9% | 0.6% |
| AT&T | 1.5% | 0.6% | 1.5% | 0.3% |
| Coca Cola | 1.4% | 1.3% | 1.3% | 0.7% |
| **Total** | **20.0%** | **16.9%** | **12.1%** | **5.0%** |

**December '00**

| Company | Weight | +10 Yrs | +20 Yrs | Curr. |
|---|---|---|---|---|
| General Electric | 4.1% | 1.7% | 0.3% | 0.3% |
| Exxon Mobil | 2.6% | 3.2% | 0.6% | 1.2% |
| Pfizer | 2.5% | 1.2% | 0.6% | 0.6% |
| Cisco | 2.4% | 1.0% | 0.6% | 0.6% |
| Citigroup | 2.2% | 1.2% | 0.4% | 0.2% |
| Wal-Mart | 2.0% | 0.9% | 0.6% | 0.6% |
| Microsoft | 2.0% | 1.8% | 5.3% | 7.1% |
| AIG | 2.0% | 0.3% | 0.1% | 0.1% |
| Merck | 1.9% | 1.0% | 0.7% | 0.8% |
| Intel | 1.7% | 1.0% | 0.6% | 0.3% |
| **Total** | **23.4%** | **13.4%** | **9.8%** | **11.9%** |
| **Ex MSFT** | **21.4%** | **11.6%** | **4.5%** | **4.8%** |

**December '10**

| Company | Weight | +10 Yrs | Curr. |
|---|---|---|---|
| Exxon Mobil | 3.2% | 0.6% | 1.2% |
| Apple | 2.6% | 6.7% | 7.4% |
| Microsoft | 1.8% | 5.3% | 7.1% |
| General Electric | 1.7% | 0.3% | 0.3% |
| Chevron | 1.6% | 0.5% | 0.8% |
| IBM | 1.6% | 0.4% | 0.3% |
| P&G | 1.6% | 1.1% | 1.0% |
| AT&T | 1.5% | 0.6% | 0.3% |
| J&J | 1.5% | 1.3% | 1.1% |
| JPMorgan | 1.5% | 1.2% | 1.1% |
| **Total** | **18.6%** | **18.0%** | **20.7%** |
| **Ex APPL & MSFT** | **14.2%** | **6.0%** | **6.2%** |

**December '20**

| Company | Weight | Curr. |
|---|---|---|
| Apple | 6.7% | 7.4% |
| Microsoft | 5.3% | 7.1% |
| Amazon | 4.4% | 3.0% |
| Alphabet | 3.3% | 4.0% |
| Facebook | 2.1% | 1.7% |
| Tesla | 1.7% | 1.5% |
| Berkshire | 1.4% | 1.6% |
| J&J | 1.3% | 1.1% |
| JPMorgan | 1.2% | 1.1% |
| Visa | 1.2% | 1.0% |
| **Total** | **28.6%** | **29.6%** |
| **Ex APPL & MSFT** | **16.6%** | **15.1%** |

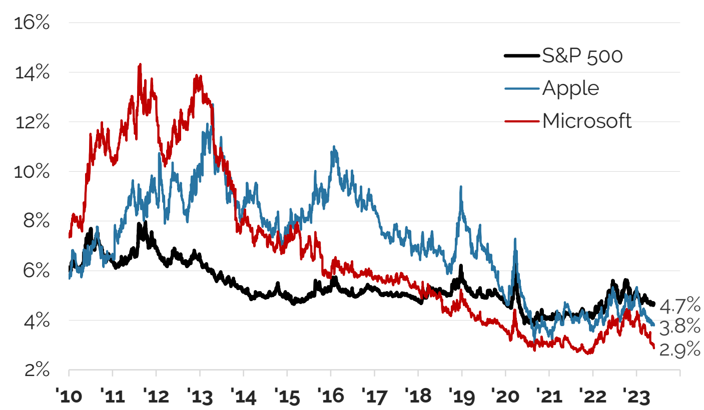
**May '23**

| Company | Weight |
|---|---|
| Apple | 7.4% |
| Microsoft | 7.0% |
| Alphabet | 4.0% |
| Amazon | 3.0% |
| NVIDIA | 2.7% |
| Berkshire | 1.7% |
| Facebook | 1.6% |
| Tesla | 1.5% |
| UnitedHealth | 1.3% |
| Exxon Mobil | 1.2% |
| **Total** | **31.4%** |
| **Ex APPL & MSFT** | **17.0%** |

Microsoft and Apple stand out in this analysis. Bucking the trend in both cases, their weights increased from both 2000 and 2010. Much of each stock's recent surge in weight, however, was driven by a valuation rerating similar to what was shown for the collective group in **Figures 3 and 4**. Apple and Microsoft went from being considerably less expensive than the overall benchmark to now being substantially more expensive. The extent of how cheap each stock was a decade ago is staggering. Implicit in Microsoft yielding 14% when measuring free cash flow generation against market cap at its peak is the implication that all of the company's equity (and it had negligible debt) could have been completely retired in 7 years – for a deeply embedded global company with annuity characteristics. Staggeringly cheap! When we launched our U.S. FSV strategy in 2017, Microsoft and Apple were our largest positions, while neither is owned currently. Microsoft's valuation alone has increased by 5x from its valuation trough in that period and Apple's more than tripled. As valuation has fueled the majority of each stock's increase in weight in the overall index, and with valuations already stretched above the market's free cash flow yield, it will be very difficult for Microsoft and Apple repeat this feat. Continued increases in their weights in the S&P 500 Index would instead likely need to come from fundamentals, where history suggests this may prove difficult.

*After being more attractively valued than the overall market, the largest 5 stocks are now considerably more expensive.*

## Figure 5: Apple & Microsoft Free Cash Yield vs. S&P 500




*Source: FactSet; data as of 5/26/2023*

**Today's valuations leave us with a position in only Alphabet among the five largest U.S. stocks. Given their collective weight, near-term variability in performance of Distillate's U.S. FSV strategy versus the S&P 500 is likely and our lack of ownership in this group has been a headwind year-to-date. However, our priority remains long-term capital preservation and appreciation and we believe the level of concentration risk in the benchmark is high and that there are better value opportunities outside of these largest stocks.**

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*Data for the Firm's investment strategies are based on a representative account for each composite. Actual holdings and performance may differ between accounts or vehicles offered by the Firm due to the size of an account, client guidelines, or other constraints and restrictions related to that account or vehicle.*

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*The* ***U.S. Fundamental Stability & Value*** *composite seeks to distill a starting universe of large cap U.S. equities into only the stocks where quality and value overlap using Distillate's proprietary definitions. Its goal is to achieve superior compounded long-term returns by limiting downside in periods of market stress, while still providing strong performance in up markets. This composite was created in May 2017.*

***Figure 1 Methodology notes:***

*1. The A and C share classes of Alphabet, the parent company of Google, are combined.*

***Free Cash Flow (****or* ***"Free Cash")*** *refers to a company's operating cash flow, less its capital expenditures.* ***Free Cash Flow Yield*** *refers to a company's or group of companies' free cash flow divided by the company's (or companies') Market Value, with a higher resulting ratio indicating a more attractive valuation. This metric is a valuation measure and not a form of investor yield.*

*In calculating the free cash flow and market cap share of the overall index, stocks without estimated free cash flows in any given period are excluded from both the free cash flow and market cap calculations and the rest of the index re-weighted accordingly.*

*The* ***S&P 500 Index*** *is an index of roughly the largest 500 U.S. listed stocks maintained by Standard & Poor's.*

***Indices are not available for direct investment. Investment in a security or strategy designed to replicate the performance of an index will incur expenses, such as management fees and transaction costs, which would reduce returns.***