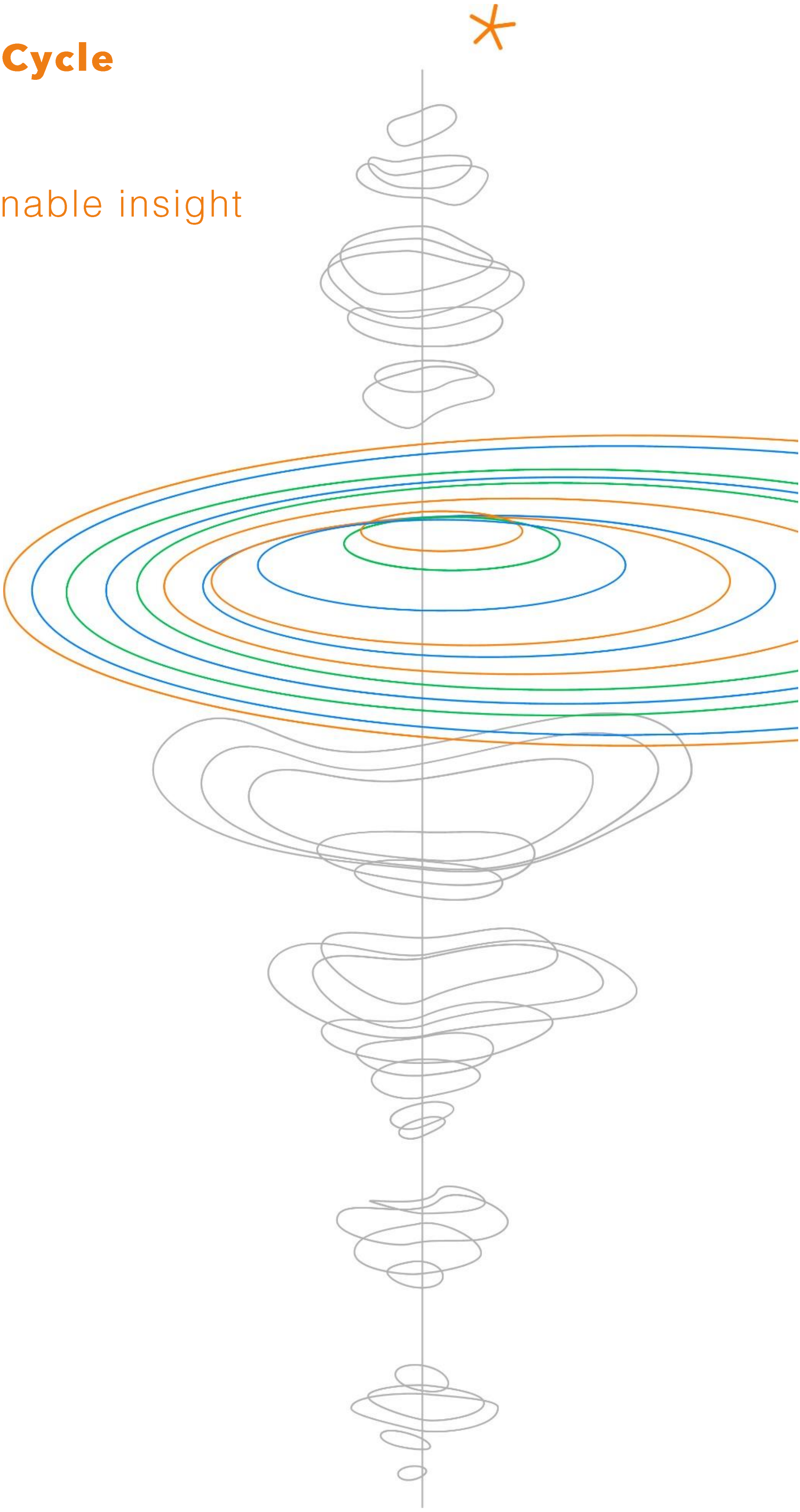
Is The Concentration Cycle Coming to An End?

Original research, actionable insight



January 2023

out-of-the-box thinking

noun. Thinking that moves away from established convention to incorporate alternative perspectives and which sometimes leads to novel ideas and solutions.

A note from the Portfolio Management desk...

2022 turned out totally different from what most investors had anticipated in the beginning of the year – this shows yet again that trying to predict asset prices is anything but an easy exercise.

In this note, we do not aspire to make predictions about the future. Instead, we provide an interpretation of the most recent evolutions in markets that focuses on the observation of cycles of concentration and deconcentration; after a long period of record market concentration, equity markets experienced a first mean reversion. Even more interestingly, **we argue why this first mean reversion still leaves a lot of room for a massive reduction of the still high market concentration**.

The topic seems to be even more relevant today than ever before, given the large exposure of investors to passive strategies. After the extremely large drop of market concentration in 2000, index mutual funds' total net assets grew significantly. According to the ICI 2022 factbook, in the US they grew from $384 billion to $5.7 trillion. The ICI numbers document that index mutual funds' share of long-term mutual fund net assets more than tripled, from 7.5 percent at year-end 2000 to 25.9 percent at year-end 2021. Within index mutual funds, equity flows accounted for the bulk (82 percent) of net assets at year-end 2021.

To all investors who have large allocations to passive and benchmark-constrained strategies: hopefully you have enjoyed the concentration ride over the past years and acknowledge that now might be a good time to, at least partially, reduce the big concentration bet and to opt for more diversification.

To all investors who allocate to active managers taking large bets: crystal balls often become less effective during highly uncertain & volatile times such as the ones we face now. Diversification could very well make a lot of sense for you right now!

Dr. Tatjana Xenia Puhan
Deputy Chief Investment Officer

I. FIRST DROP OF MARKET CONCENTRATION

Key take-aways of this section

- In 2022, geopolitical tensions, inflation fears and rising rates around the world triggered a drop of market concentration in many markets, notably in US/World equity universes.
- Even if mega-caps also erased a significant amount of market cap and underperformed a lot most notably in Q4 2022, this repricing has mainly been driven by growth stocks ex mega caps, leaving still a lot of room for further drop of market concentration.
- Moreover, in many regions outside the US, market concentration remains at all-time highs.

After 2020 and 2021, investors started the year 2022 on a very bullish note, believing in the transitory inflation story that central bankers were still telling then and ignoring the potential consequences of China's continued Zero Covid policy. Putin's saber-rattling at the Ukrainian border had also been as much shrugged away by markets as the potential for a turning point in central bank policy, which later proved to have huge consequences for the economy and market valuations.

Investors remained on the (over-?) confident side, reflected by spectacular rebounds of risky assets rebounds in July, October and November. Putin was already in the middle of a war with the Ukraine, China continued to make its economy choke with a hard-line Zero Covid policy and central bankers started to admit that they were wrong about inflation and all of a sudden, the Fed/BOE/ECB puts expired one after the other.

But of course, with hindsight, it is always easy to play the smart oracle, which is therefore not what we want to do here. Rather, we simply think that 2022 has been a very good show case example for how predictions made at about this time last year or even still in mid-2022 have been completely wrong about almost everything.

Looking back today, and knowing what happened:

- Central Banks turned more hawkish than investors had originally anticipated.
- The Russia-Ukraine war contributed significantly to continued high inflation and increased economic uncertainty, particularly in Europe.
- China and its increasingly hostile relationship with the Western world as well as its zero Covid policy have been a large unknown variable that weighed on emerging as well as developed markets' indices.
- Equities and bond yields became negatively correlated, sending both broad equities and bonds markets into negative territory while the drawdown, especially in the high-grade credit market, reached extreme and clearly unexpected levels.
- Tech companies as well as increasingly mega-cap tech in the US have started to reprice, which potentially means that regarding market concentration we have reached a turning point at least in the US (and hence in all cap-weighted indices that include the US market)
- In EM markets, India had a huge run in relative terms on the back of China's weakness, while this pattern started to reverse towards the end of the year when the Zero Covid policy was lifted.

What can we make of this? What is the outlook for financial markets and specifically market concentration for 2023?

Without making any predictions, we think that the following possible outcomes seem to be relatively weakly priced into the still relatively high valuations of at least some segments of the risky asset markets:

- Investors should not underestimate the risk of Central Banks' continuing to rise rates even if the economy starts to cool down significantly.
- Any positive macro data point does not mean that recessionary trends cannot deepen further because it is possible (and has happened in the past) that an economy falls into a recession while GDP growth is still positive.

- Longer-term high levels of inflation due to climate and demographic changes should be on every investor's radar.
- Central Bank puts seem to have really expired – any speculation about policy pivoting back to the accommodating low rates environment is a dangerous one.
- As a turning point has been reached for Central Bank policy, reversing globalization and slowing consumer growth, further revaluations of risky assets might be needed, which eventually would deepen the deconcentration already seen in the US this year and that we may also see in other regions going forward.

For 2023, we would like to highlight in more details a few points that you probably will have a hard time to find in the plethora of outlook reports produced by the financial industry every year.

The year 2022 felt like a rollercoaster and at least the US market seems to have arrived at a turning point in terms of market concentration. Collectively, the six stocks that are most well-known as Tech mega caps in the US lost on average 46% in return and together 4.5 trillion market cap during the year as Figure 1 highlights.

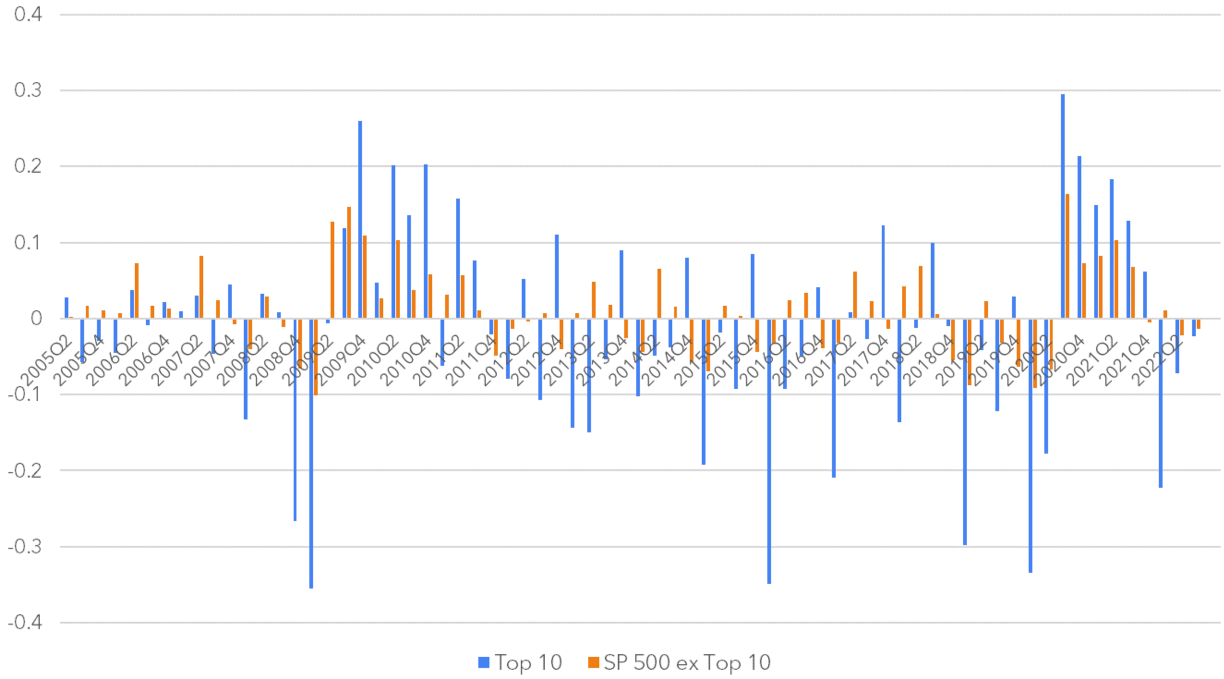
Figure 1: Performance and change in market cap of US mega cap stocks in 2022

	Return in 2022	Market cap erased in 2022 (USD bn)
Amazon	-50.19%	-834.06
Apple	-26.66%	-846.34
Google	-39.65%	-776.55
Meta	-65.05%	-620.09
Microsoft	-28.65%	-737.35
Tesla	-65.47%	-672.32

Source: TOBAM and Bloomberg.

Figure 2 below illustrates earnings surprises for the Top 10 S&P 500 companies in blue vs the S&P 500 ex-Top 10 stocks in orange. On average, the Top 10 S&P 500 companies have surprised much more to the downside compared to the rest of the market.

Figure 2: S&P 500 Top 10 vs ex Top 10 – Historical earnings surprises of the ten largest stocks vs the rest of the market (Q2 2005 – Q3 2022)



Source: TOBAM, Bloomberg (Q2 2005 – Q3 2022)

The more often this happens, the more investors need to start reconsidering the high valuations they still assign to those companies. The reasons for this are plentiful.

Since very large cap stocks have already priced in a lot of future excess growth, anything which may point toward a consumer recession as well as further interest rate increases (that apply a higher discount factor to these growth expectations), could likely trigger a further repricing of the mega-cap stocks.
However, as highlighted in the left panel of Figure 3, the top ten stocks in terms of S&P500 market cap are still pricing into their high market share a significant amount of future excess growth. The very large gap in valuations of these stocks vs the rest of the market has decreased throughout the year (corresponding roughly to the huge toll that these companies have taken) but remains wide, as visible in the right-hand panel of the figure.

Figure 3: S&P 500 – Historical valuations of the ten largest stocks (12/30/1998 – 12/30/2022)

Source: TOBAM, Bloomberg (12/30/1998 – 12/30/2022)

After a slight increase in concentration in the first quarter mainly due to large cap Financials and Energy names outperforming, market concentration in the USA started to decrease in Q2 (see Figure 5) driven by a more hawkish Fed and high inflation uncertainty. However, in July, markets rebounded strongly because investors were pricing in a scenario where Central Banks could get inflation quickly under control and then would decrease interest rates again to support the economy. During August and on the back of bad inflation data towards the end of September, fading hopes for a "soft landing" made investors reconsider the excessive valuations of certain stocks and made markets retreat again along with market concentration. This trend persisted until the end of the year on the back of very negative earnings surprises for several mega cap stocks and a hawkish Fed.

Figure 4 emphasizes that finally, the weight of the Top 5 stocks in the US market cap weighted index started to decrease. And notably Tesla and Meta have vanished out of the Top 10 stocks.

Figure 4: Top 5 market cap USA stocks and their weight/performance evolution along with the DR²

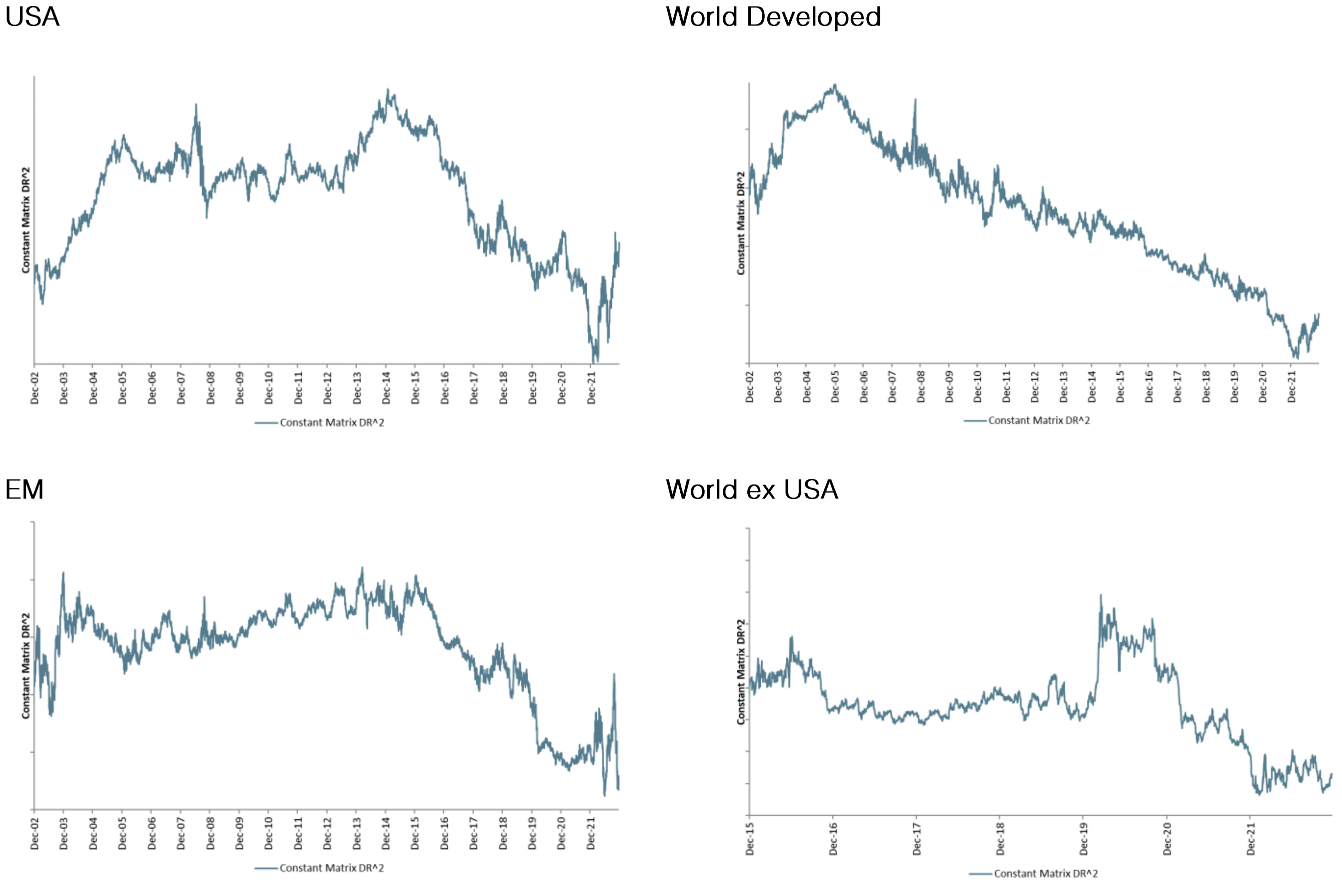
Security Name	31/12/2019	31/12/2020	31/12/2021	30/12/2022	YTD Return
APPLE INC	4.06%	5.86%	6.35%	5.79%	-26.40%
MICROSOFT CORP	4.12%	4.88%	5.78%	5.25%	-28.02%
ALPHABET	2.80%	3.02%	3.77%	2.93%	-38.93%
AMAZON.COM INC	2.67%	4.08%	3.32%	2.19%	-49.62%
UNITEDHEALTH GROUP INC	0.96%	0.97%	1.08%	1.45%	6.94%
Top 5 USA Benchmark	**14.61%**	**18.81%**	**20.30%**	**17.61%**	**-31.30%**
USA Benchmark ex Top 5	**85.39%**	**81.19%**	**79.70%**	**82.39%**	**-16.69%**
Weight change with respect to previous year		**28.71%**	**7.94%**	**-13.26%**	
Constant Matrix DR2 % Change wrt Previous Year		**0.64%**	**-3.76%**	**4.36%**	

Source: TOBAM and Bloomberg.

Investors have not yet been willing to substantially reprice the US mega-caps and close the valuation gap. However, this also means that there is still a lot of potential for repricing and outperformance for a diversified portfolio once investors start to reconsider the valuations of these behemoths.

Looking at our measure of market concentration for the different regions in Figure 5, we can see that the reversal in market concentration indeed seems to have started this year in the US market, which has translated also into World and World Developed indices, but other markets have remained very concentrated for various reasons (e.g., in EM it is mainly China and India, in Europe it is the outperformance of its strong Value bias).

Figure 5: Market cap weighted benchmark constant matrix DR2 for various regions, (12/30/2002 – 12/30/2022)



Source: TOBAM and Bloomberg (12/30/2002 – 12/30/2022)

What we can take away from Figure 5 is that even if a period of deconcentration has started in the US market, the level of concentration remains high compared to where the market was before the large tech mega-cap momentum began. It will be crucial for what happens next to see how earnings growth of these large stocks has already been affected by the overall adverse economic environment.

II. TAKING A LONGER-TERM PERSPECTIVE

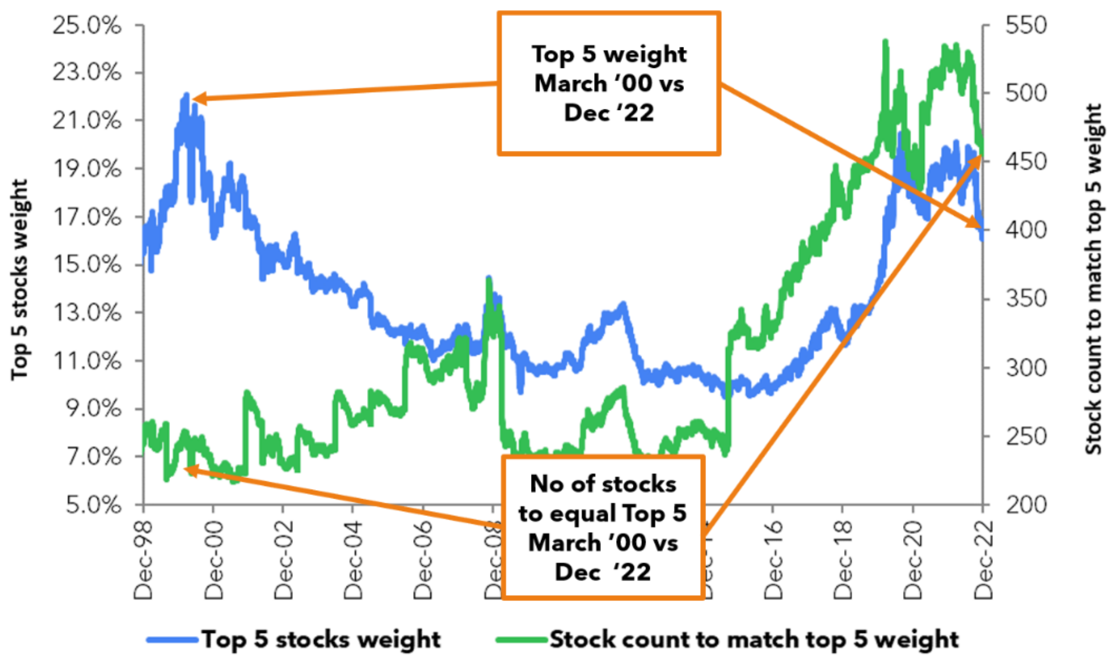
Key take-aways of this section

- The current concentration cycle seems to be even more extreme than the TMT bubble, which was also preceded by a massive concentration of the cap-weighted index.
- The large excess returns delivered in only a few months and a relatively moderate increase in diversification provides an indication of the huge potential that could be unleashed in case of a more significant mean reversion.

Taking a longer-term perspective helps to even better understand why the snap back of the extremely stretched rubber band of market concentration can lead to quite a violent repricing. As a comparison, market concentration nowadays is even worse than during the TMT-related concentration cycle in the late 90s and early 2000s, as shown by Figure 6. The great concentration cycle, which was due to the excessively increasing valuations of Telecom, Media and Technology stocks, started in the 90's; it reached its highest point in March 2000.

Until the end of Q3 2022, the five largest stocks of a major market cap US benchmark represented still more than 20% of the index (very similar to 2000). This number has decreased now to around 17% due to the beginning of the correction of the mega-cap stocks that we could observe in Q4.
However, in March 2000, one would have needed approximately half as many stocks (253) of the smallest caps in the benchmark as today (458) to get to the same weight as the top five stocks. This remarkable observation indicates that market concentration today is even more extreme than it used to be in 2000.

Figure 6: Market cap US benchmark: Top 5 weights vs. number of stocks to equal top 5 weights (12/30/2002-12/30/2022)



Source: TOBAM and Bloomberg (12/30/2002-12/30/2022)

It is difficult to say what made this concentration so excessive. Was it the massive adoption of passive investing that started after 2000? In the US alone, according to the ICI 2022 factbook, index funds grew from $384 billion to $5.7 trillion tripling their market share from 7.5 percent at year-end 2000 to 25.9 percent at year-end 2021, while index equity mutual funds accounted for the bulk (82 percent) of index mutual fund net assets. A recent study by Haddad et al. (2022)[1] highlights that an increase in passive investing, as large as the increase over the last 20 years, leads to substantially more inelastic aggregate demand curves for individual stocks (by 15%). In short, it destroys competition in the stock market and can exacerbate inefficient risk concentrations. And to what extent has retail investors' increased participation in the market through online brokerages contributed to market concentration?

From a performance point of view, an extreme concentration cycle such as the one we have experienced back in the late 90s and early 2000s already created a massive difference in performances between a diversified investor and an investor exposed to the massive bets of the cap-weighted index portfolio. We plot the effect of concentration/deconcentration cycles in the US equity market as an

[1] Haddad, Valentin, Huebner, Paul and Loualiche, Erik, 2022, How Competitive is the Stock Market? Theory, Evidence from Portfolios, and Implications for the Rise of Passive Investing, Working Paper UCLA.

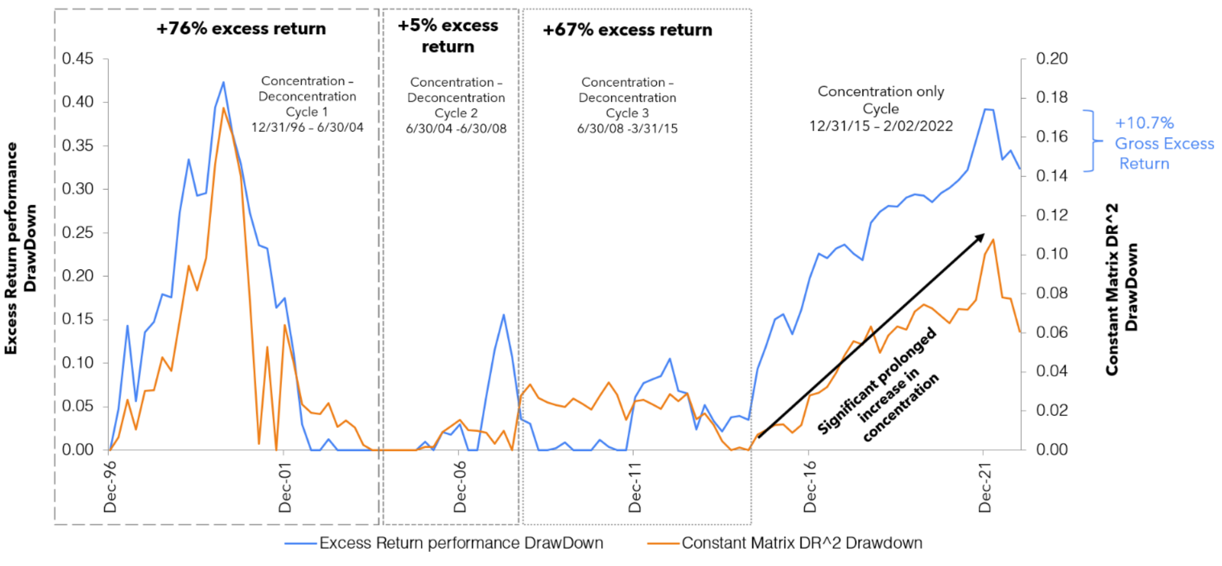
example (Figure 7) and try to link this to the performance of a maximally diversified portfolio. We have segmented the period into concentration/deconcentration cycles.

The orange line on the Z-Axis depicts the cumulative changes of the square of the "Constant Matrix Diversification Ratios®" for a major market cap US benchmark, for as long as these changes were negative. When the orange line increases, the cap-weighted index is concentrating. Conversely, when the orange line decreases, it indicates that the cap-weighted index becomes less concentrated (more diversified).
The blue line represents the cumulative negative gross excess returns of the implementable version of a maximally diversified portfolio. This means that whenever this blue line increases, the maxdiv strategy underperforms the market cap US index and the other way around. At the top of the graph in Figure 7, we have noted the cumulative gross outperformance of the strategy that investors could have earned had they invested right in the very beginning of the respective concentration/deconcentration cycle and had they stayed invested until the very end of the cycle.

As Figure 7 highlights, an investor who started to invest into a diversified US large cap equity portfolio just before the big concentration driven by the TMT stocks started, would have outperformed an investor in the cap-weighted portfolio by +76% at the end of the full concentration and deconcentration cycle.

How large is this effect going to be this time when the rubber band seems to be even more stretched? Indeed, we cannot make any statement about his. A first indication is, however, visible when reviewing the period in 2022 when, as explained in Section 1, a mild deconcentration started. Since end of March 2022, the diversified portfolio has outperformed by more than 10%, whereas the excess valuation of the Top stocks in the US still leaves a lot of room for correction as Figure 3 highlights.

Figure 7: Market cap US index cycles of market concentration and deconcentration and gross returns of a simulated maximum diversification portfolio (12/30/1996-12/30/2022)



Source: Bloomberg, TOBAM as of December 30th 2022

III. CONCLUSION

While we do not attempt to forecast what the months to come are going to bring, we feel that it is probably unrealistic to hope for a sudden resolution of the Ukraine-Russia tension, supply chain constraints, inflation, or a turnaround in the heightened tensions among democratic and authoritarian regimes in geopolitics that has developed. Moreover, the slowdown in earnings momentum points towards potentially negative surprises that are still to come and that haven't really been anticipated yet by investors.

All of this together has a very large potential to trigger the mean reversion or re-ordering of record market concentration that will eventually happen.
In this context, rethinking portfolio risk management and reducing risk concentrations might turn out to be not only a good idea, but rather an imperative.

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The Maximum Diversification® approach, TOBAM's flagship investment process founded in 2006, is supported by original, patented research and a mathematical definition of diversification and provides clients with diversified core exposures, across equity and fixed income markets.

In line with its mission statement and commitment to diversification, TOBAM also launched a separate activity on cryptocurrencies in 2017.

As at December 2022, TOBAM manages approx. $6 billion on behalf of clients globally. TOBAM's team is composed of 47 professionals.

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