



Economic Situation and Strategy

29 May 2025

Index construction: Constant concentration portfolios (Part 2)

In the first part of a series on alternative index weighting structures, we addressed the question of whether market capitalization-weighted index structures are an optimal or meaningful starting point for portfolio construction in the coming years. Our reasoning was as follows: Today's market capitalization is always a function of the performance of past stocks. If the world is not subject to major disruptions, then it can be assumed as a working hypothesis that the successful companies of the past will, on average, also be the successful companies of the future. In such a comparatively stable world without "regime change," there is indeed a strong case for using market capitalization-weighted indices as a standard solution when it comes to choosing an anchor for portfolio construction. However, the question now arises as to whether we might not be living in disruptive times that could undermine this working hypothesis.

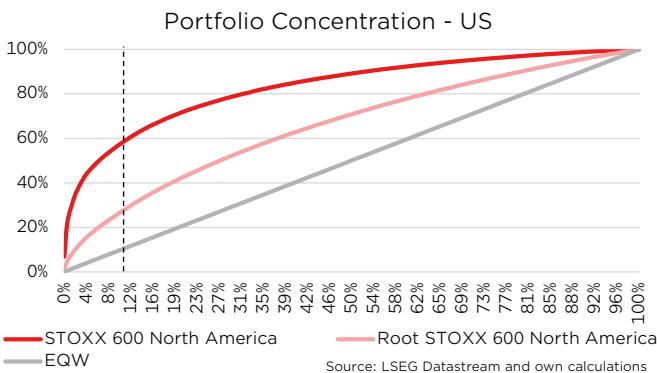
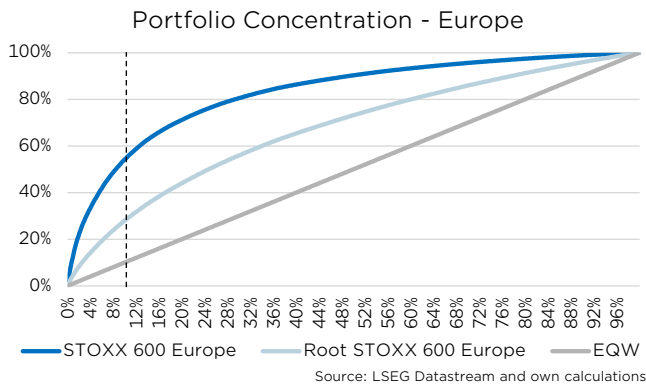
In a world that increasingly exhibits characteristics of authoritarian mercantilism, for example, a focus on maximum globalization is no longer necessarily a criterion for entrepreneurial success. Indeed, many recent geopolitical and geoeconomic developments suggest that the world is heading toward a structural disruption. It is not certain that economies will continue to have unrestricted access to critical raw materials in the coming years, and the risk of attacks on critical infrastructure has objectively increased. If one also assumes that technological upheavals of historic proportions are also imminent (AI, quantum computing, fusion technology), then there are further reasons to believe that the capital markets cannot simply continue past trends without reflection.

Against this backdrop, it must be viewed very critically that many stock indices (not only in the US) have in some cases reached an absurd level of concentration. The dominant companies are those that have profited almost linearly over the past 10 or 15 years from an environment that cannot necessarily be extrapolated. However, this also means that the current index structures involve enormous implicit bets, which, in our view, should be avoided.

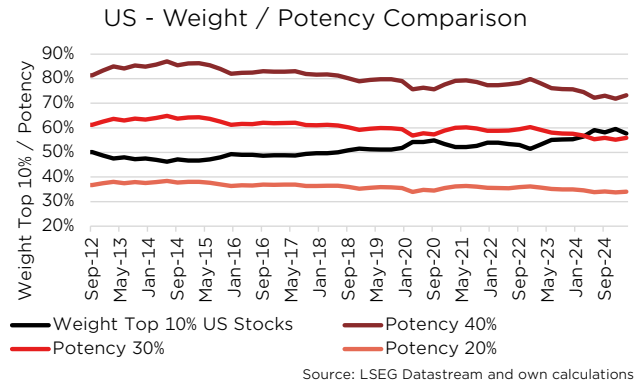
We therefore proposed, as a first step, that index weightings should not be directly aligned with market capitalization, but rather with the root of market capitalization. In today's issue of Economic Situation and Strategy, however, we go a step further and generalize this concept. Even the alignment with the root of market capitalization has something arbitrary about it. With this solution, too, one has no direct influence on the index's concentration level. It merely ensures that the concentration is lower than in the case of direct linking to market capitalization. For this reason, it seems logical to further develop the approach to allow for the direct targeting of a desired concentration level. There are certainly many ways to define concentration measures. For the sake of simplicity, we have decided to measure concentration using the cumulative weight of the largest 10% of stocks in an index. In the market-capitalized STOXX 600 North America, this value is currently 60%; in the European STOXX 600, it is slightly above 50%. What if one could directly define that this concentration level could always be maintained at 30% (or 20%, or 40%)? In phases of increasing concentration, this would result in the weighting of the very heavily weighted stocks being slightly reduced at the rebalancing date, while in phases of decreasing concentration, the heavily weighted stocks

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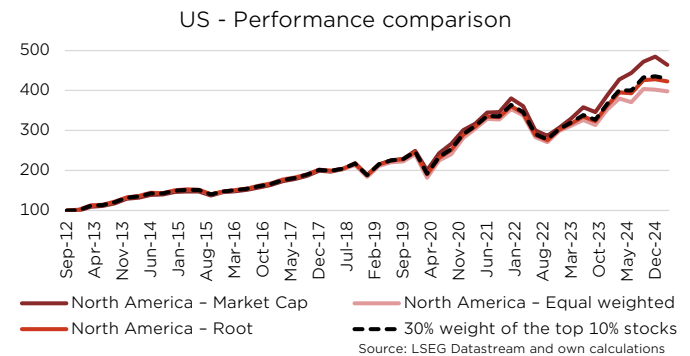
would actually be increased. This approach would therefore be based on an inherently countercyclical investment approach with clearly defined "cluster risks."



Mathematically, this trick is achieved by determining not the square root of the market capitalization, but the n th root, with the value n chosen so that the desired concentration level is achieved exactly at each rebalancing date. Thus, the power to which the market capitalization is raised (see the values in the following two charts) becomes a function of the initial distribution of the weights in the market-capitalized index. The following two charts show how the power must be selected in each case to achieve the desired concentration level of 20%, 30%, and 40% cumulative weight for the largest 10% of stocks in the respective indices.

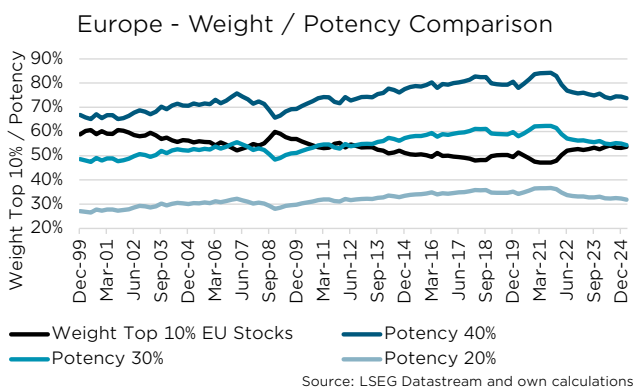


Since 2012, this form of index construction has performed roughly as well in Europe as the "official" STOX 600; in the USA, the performance was marginally below that of the STOX 600 North America.



However, the performance of the last few months is interesting. While the STOX 600 North America experienced massive setbacks at times, the index construction we proposed did not result in any overall decline in performance. This may be an indication that this is an index construction that could achieve superior results, especially in the future (but also during the current transition phase). Even for pure stock pickers, a portfolio construction based on the above method would be useful – more on this in the third part of this series.

Dr. Christian Jasperneite



Market data

Stock marktes	As of	Change versus				
	30.05.2025 10:11	08.05.2025 -1 week	14.04.2025 -1 month	14.02.2025 -3 months	14.05.2024 -1 year	31.12.2024 YTD
Dow Jones	42216	2,0%	4,2%	-5,2%	6,7%	-0,8%
S&P 500	5916	4,4%	9,4%	-3,3%	12,7%	0,6%
Nasdaq	19176	7,0%	13,9%	-4,2%	16,1%	-0,7%
DAX	24135	3,3%	15,2%	7,2%	29,0%	21,2%
MDAX	30913	4,6%	16,1%	11,8%	13,6%	20,8%
TecDAX	3877	4,2%	14,4%	1,1%	13,3%	13,5%
EuroStoxx 50	5382	1,8%	9,6%	-2,0%	5,9%	9,9%
Stoxx 50	4533	2,0%	8,0%	-3,6%	0,2%	5,2%
SMI (Swiss Market Index)	12254	1,6%	6,6%	-4,6%	4,0%	5,6%
Nikkei 225	37965	2,8%	11,7%	-3,0%	-1,0%	-4,8%
Brasilien BOVESPA	138534	1,7%	7,0%	8,0%	7,8%	15,2%
Indien BSE 30	81387	1,3%	8,3%	7,2%	11,3%	4,2%
China CSI 300	3840	-0,3%	2,2%	-2,5%	5,0%	-2,4%
MSCI Welt	3862	4,2%	9,9%	-0,9%	12,4%	4,2%
MSCI Emerging Markets	1170	3,2%	10,4%	4,0%	8,3%	8,8%
Bond markets						
Bund-Future	131,20	3	16	-165	69	-224
Bobl-Future	119,10	-16	-2	160	248	124
Schatz-Future	107,35	-8	-10	55	217	36
3 Monats Euribor	2,01	-13	-24	-51	-181	-70
3M Euribor Future, Dec 2025	1,72	3	-2	-28	-101	-17
3 Monats \$ Libor	4,41	7	8	7	-103	4
Fed Funds Future, Dec 2025	3,89	5	39	-5	-31	-2
10 year US Treasuries	4,43	5	5	-5	-3	-14
10 year Bunds	2,52	0	3	12	0	16
10 year JGB	1,50	17	20	16	55	42
10 year Swiss Government	0,27	-1	-18	-22	-51	0
US Treas 10Y Performance	603,67	-1,1%	-0,8%	0,7%	3,7%	2,0%
Bund 10Y Performance	554,36	-1,5%	-1,3%	-1,8%	1,3%	-1,8%
REX Performance Index	458,66	-0,1%	0,4%	1,0%	4,1%	1,3%
IBOXX AA, €	3,15	10	2	19	-30	11
IBOXX BBB, €	3,59	9	-9	22	-43	14
ML US High Yield	7,71	-22	-69	35	-36	6
Commodities						
MG Base Metal Index	423,30	3,6%	4,4%	-1,5%	-5,6%	4,4%
Crude oil Brent	64,21	2,1%	-1,9%	-14,4%	-22,1%	-14,1%
Gold	3293,24	-1,9%	2,6%	13,5%	40,1%	25,4%
Silver	32,30	-1,0%	1,0%	-0,4%	13,7%	8,8%
Aluminium	2529,51	5,1%	8,4%	-5,0%	1,3%	0,1%
Copper	9621,33	1,5%	5,1%	1,4%	-3,9%	11,2%
Iron ore	99,27	1,1%	-0,8%	-7,1%	-14,9%	-4,2%
Freight rates Baltic Dry Index	1353	2,8%	5,5%	70,8%	-32,1%	35,7%
Currencies						
EUR/ USD	1,1330	0,3%	-0,4%	8,1%	4,9%	9,1%
EUR/ GBP	0,8409	-0,8%	-2,5%	1,0%	-2,2%	1,7%
EUR/ JPY	163,21	-0,1%	0,1%	1,9%	-3,4%	0,1%
EUR/ CHF	0,9337	0,1%	0,1%	-1,1%	-4,7%	-0,8%
USD/ CNY	7,1968	-0,6%	-1,6%	-0,8%	-0,5%	-1,5%
USD/ JPY	146,76	0,6%	2,6%	-3,7%	-6,2%	-6,6%
USD/ GBP	0,74	-1,2%	-2,1%	-6,3%	-6,5%	-7,0%

Source: LSEG Datastream

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