# How Passive MCAP Investing method is harmful to your wealth!

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28 January 2023

#### **Abstract**

Most Index Funds and ETFs are driven by an underlying Index. Most Indexing companies uses the Market Capitalization [MCAP] Method which has history going back to 1871. The Index funds and ETF industry have seen fast growth because Active Investing underperforms the Passive MCAP based Indexes. The feature below explains that though the MCAP method has brought clear distinction to Active vs. Passive performance, it has also brought concentration, lack of diversification, and hence not the best representation of what the financial literature defines as "Market". And since the Individual and Institutional investors trust their life savings and Passive investments with these MCAP indexes, more should be done to educate the investors about the harmful risks of concentration and the amplifying nature of MCAP.

The paper also explains how the MCAP method benefits from a robust statistical law and how there is a need for a Modern Science approach to creating a robust alternative to the current standard methods which potentially are leaving the investors poorer. Scientific methods that explain statistical laws could not only reduce risk and increase returns but also redefine the definition of "Market".

#### What's an MCAP?

MCAP weighting is the top Indexing popular method both in terms of assets under license and also in terms of popularity. Trillions of dollars are invested using the MCAP method. MCAP is defined as the stock price multiplied by the number of float shares. MCAP is also known as the valuation of the company or its Size. All of the 500 components are scored on Size and weighted according to their proportional percentage in the aggregate weight. This proportion changes with every tick change in price.

#### What's the MCAP Indexing Method?

An Index can be understood as a basket. An Index in stock markets is a basket of stocks. If the total basket value goes up, the Index goes up, and vice versa. There are many ways to calculate an Index. MCAP Indexing method scores and weights companies on MCAP. So if a company is worth a trillion dollars and the total market

value of the S&P 500 is 10 trillion dollars. This company, say Wapple, would be 10% of the total Index value. And if a company, say Lapple has a value of \$ 1 billion, it will be 0.01% of the total MCAP. Every day when the Wapple price goes up, the 10% would increase further and every day when the Lapple price falls, the 0.01% would decrease further. Hence the bigger the size, the bigger the amplification. The smaller the size, the insignificant the decay.

# Why can't Active managers with all their resources beat the MCAP method?

Active Managers can't anticipate over the long term and beat the MCAP method because the selection, un-selection, timing of both the actions, is a probabilistic impossibility when compared to MCAP basket that does not have to anticipate, select, un-select or time. This probabilistic overhang is a job hazard for the Active managers as selections [Stock Picking] is the only way they can charge fees.

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Anyone who has invested in Berkshire Hathaway [BRK] from Jan 1999 till July 2020 could have done equally well by buying the SPY ETF. And if Warren Buffet, the world's best investor has relatively long periods when he has not beaten the S&P 500, we can reasonably assume, that it is not really about the skill of an Active manager to anticipate, it's about his skill to do it recurrently over longer periods, when the game of anticipation gets stacked against him. You can beat the odds created by probability, for a day, for a year, for a decade, but you can not do it at an institutional level over longer periods. The only way to beat the S&P 500 consistently is by finding a probabilistic edge against the incumbent method.

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# Does the MCAP method use active underperformance as a unique selling proposition?

Investment solution today, are not bought, but sold. And if Passive has a clear advantage over Active, it would naturally use it for its advantage. This unique selling proposition has helped the ETFs and Index Funds industry grow fast to their 30th and 50th anniversary respectively. Meanwhile Active Managers have seen their market share decrease as the voice against Active has become prominent over social media with journalists and the anti-Active sentiment torch bearers making a deafening voice, screaming "Passive-Passive-Passive", announcing its victory.

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## Is the MCAP method a good representation of the market?

According to the Passive Investing Businesses, the Passive school of thought and financial literature, the answer is a resounding "Yes".

"Index is nothing more than a representation of the market portfolio."

"MCAP method defines the Market".

"MCAP method is the market".

"It's sacrilegious to question it".

This resistance reminds me of the famous quote of Upton Sinclair.

"It is difficult to get a man to understand something when his salary depends upon his not understanding it."

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I am not a muckraker like Sinclair. I am a simple man with a simple question. How can an investor not be worried about his Pension if one stock Apple has a weightage that is nearly 900 times the weightage of NWS, one of the smallest stock in the S&P 500 portfolio? How can an investor not worry that the changing technology landscape can see more of his investment wealth erode because there is more than some share of Google [Both GOOG and GOGL] in his pension? How can an investor protect his pension from the vagaries of tech destruction, if MCAP exposes him the concentration in the winning sector of yesterday, day after day, year after year, decade after decade, to wake up one day and see the winner go bankrupt, plunge around 80% like META, dragging down his hard-earned pension wealth along with it.

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# Should Investors question the MCAP being the "Market" assumption?

If this extreme concentration is defined as "Market", the investor should rather question this assumption because his life saving and his family's assets are at risk and which is a more important question for him that to worry about than concern himself about voices that tell him to shut up. The investor doesn't care, if it's hard for someone to question assumptions, because some Nobel Prize winner, someday decided to assume the

"Market" as MCAP. The investor is here to question that assumption. He doesn't buy the argument that this is it, take it or leave it. The MCAP method sitting in his pension fund as SPY ETF or all those other MCAP ETFs, cue him and other naive investors to unknowingly run after the top 50 list, while assuming that they are buying a diversified 500 basket.

Concentration for the investors hence is not a function of Representation. Representation is a function of the MCAP method that overweights winners disproportionately in time, and underweights the other 450. If the investor had the newspaper of tomorrow, he would check the leaderboard, pick up the top winners and overweight them. He would naturally lead all the stock pickers who don't have access to the newspaper. And then he would become the Active Manager to beat the S&P 500 day after day using the list from tomorrow's newspaper, which he received today. So please, let's not speak about Passive victory, its unquestionable representation and its "normal" concentration. It does not help an investor. It does not help his pension fund manager. S&P's popularization of MCAP method and the method of all other Index funds that are based on MCAP need to rethink about us small investors. Winner-biased investing instruments are not diversified, create concentration risk, and are risky for global institutional and individual investors, who rely on it for their pensions, their family's wealth, their endowments, their foundations, and sovereign assets.

"Winner-biased investing instruments are not diversified, create concentration risk, and are risky for global institutional and individual investors..."

The investors are forced to live in a MCAPed world, a world popularized by Indexing companies that inflates the value of the winners, creating an illusion of wealth, passiveness, and safety of pension money. MCAP weighted Indices are not a reflection of reality, because running after winners is a strategy to trap us small investors in a momentum crash so that they we can sit and wait from 2000 to 2013 for the benchmark to recover back to its 2000 peaks. It is time every institutional and individual investor should ask, how can a concentrated portfolio be Passive?

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## Which kind of investors are exposed to the MCAP Indexing method?

MCAP Indexing is the most popular Indexing method, which means that any time you pick up a mutual fund, an ETF, an Index fund, a sector fund, a Commodity fund, a bond fund, or any other Passive fund, there is significantly high chance that the MCAP Index is the underlying method that is driving the performance of the fund. This means a large proportion of investors own concentrated portfolios.

How would I summarize the risks of the MCAP Method?

MCAP method is risk increasing and return reducing because of many reasons. The first is ignorance of misrepresentation. Ask the SPY ETF Investor on the street, if he knows that he is buying 500 stocks or a concentrated selection of 50 stocks. If the naive investor thinks the model was broad and diversified all the time, Indexing companies can't be ignorant of this misrepresentation, which harms every individual and institutional investor. Second, concentration is risky. There is no debate about it. Concentration is like sugar, exciting in the short term but health-destroying in the long run. Third; When something is winner biased and creates an illusion of money, in the longer term, it's a sub-optimal process for return generation. This means, that investors could be losing potential wealth by buying into the method, and any enhancement of the method, should potentially generate more returns per unit of risk.

### Why nobody is talking about it?

First, Investors are unaware and need to be educated by their fiduciary partners. Second, the incumbent Indexing companies are aware of agency risk and hence understand that investor education will undermine their business. Third Asset managers are themselves concentrated and are in a similar position to the Incumbent indexing companies. Explaining concentration risks harms both the Active and Passive investing business models.

#### Why did the method not fail if it was inefficient?

The MCAP method drives investing products for global institutional and individual investors. An incumbent method or the company popularizing the method can only fail if the community that uses it rejects it. And a community can reject something they perceive as low risk and Passive only when they are educated about the intrinsic risks. The community also needs an alternative. Without an alternative, society has no choice, but to keep using an inefficient process.

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#### Will the new alternative be another mousetrap, or will it be modern science?

Building an alternative to the MCAP method needs evolution in modern science. Though the method is built on the Laspeyres 1871 method, a positive change in prices amplifies the value into the law of Pareto, i.e. 80% of the value is with 20% of the stocks. Scientists have struggled to understand its formation since 1896, when Vilfredo Pareto, father of microeconomics in "Cours d'économie politique" first observed it in income distribution patterns in Italy and how 80% of the wealth was owned by 20% of the rich Italians.

We had enough mousetraps, and outdated, non-scientific methods, packaged novel investment management solutions. We should thank the MCAP method for shutting many of them down. A huge victory. Now that we have brought the fee near zero, we

should innovate to the next step, welcome a Scientific debate to reduce concentration, and attempt the impossible, beating the S&P 500 with more than 400 bps [4%] on a risk weighted basis every year, year after year and compound it to a place, where inflation won't matter for Asset owners and Investors. This impending change will solve the challenges of modern finance, bring relief to the Investors, which have waited patiently for financial innovation, for their little money to work for them.

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