Against the Gods

Lessons from the first 5 years of Multi-Asset Portfolios - Part IV

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Part 4 - The nonlinear path ahead

"In physics there are 3 laws that explain 99% of outcomes. In finance, there are 99 laws that explain 3% of outcomes"
Andrew Lo

Evidence-based investing may sound simple on the surface: just do what has worked historically. The problem is that finance isn't physics – in science, progress is cumulative, whereas in finance, it is cyclical. Every ounce of objective evidence in the academic finance literature comes with a tonne of nuance and subjectivity. Finance is one of the few fields where journal articles are never retracted, even when subsequently disproved.

What we know, that just ain't so

The first market anomaly discovered in academic finance was the 'size effect' documented by Rolf Banz almost five decades ago. Using 40 years of US single stock data between 1936-1975, he found that *"the average excess return from holding very small firms long and very large firms short is, on average, 1.52% per month, or 19.8% on an annualized basis"* - Banz (1981). This has since been adopted by academics (including Nobel prize winners) and practitioners alike as self-evident - small caps outperformed large caps. If you were to run the same analysis today however, you would get dramatically different results. The database at the time didn't account for delisted firms (many of them smaller firms), which were found to return between -30% and -55% on average – this delisting bias was not corrected until the late 1990s. Additionally, there is now more than double the amount of history to test the effect - all the years since the original study plus additional history that has been gathered going back to 1926. On the current 90+ years of clean(er) data available, the statistical evidence of the original size effect is insignificant, in the US or globally (even before factoring in their higher trading costs).

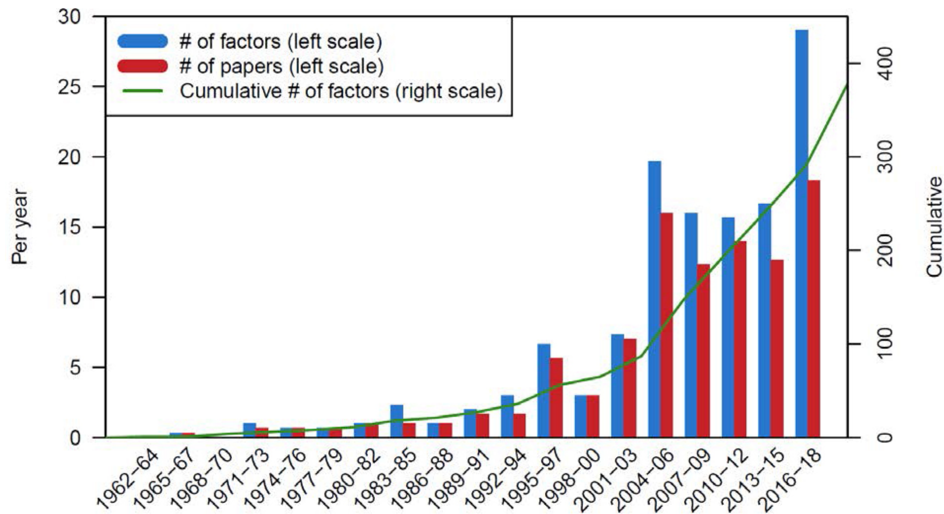

Chart 1: From Harvey and Liu 2019 “A Census of the Factor Zoo“

* Journals published through December 2018. Data collection in January 2019.

Of course, since then there have been many more market anomalies “discovered”. Today there are over 400, with between 15 to 30 new anomalies documented per year. This may sound like a wonderful investment opportunity, however many of the results from these publications are failing to replicate, even on the same data the authors claim to use. ***There is more fiction written in Microsoft Excel than in Microsoft Word*** (or in MATLAB than LaTeX in an academic’s case). Just being “evidence-based” is no panacea for avoiding poor outcomes - there are both good and bad academic studies. The replication crisis that plagues other sciences is especially prevalent in academic finance, where one can “p-hack” new backtests at the press of a button – the researcher simply tries different things until they find something that works and report only that result. This can negate the usefulness of statistical significance. If you try 100 things, at the traditional 95% level of confidence you will have 5 things that are significant just from chance alone. The key to idea generation in evidence-based investing is being able to differentiate between research of real value from cleverly reverse-engineered product pitches. You need to keep an open mind, but not so open that your brain falls out. The difficulty is that it can’t be determined in advance what research you do will turn out to be useful and what will end up being useless (that’s why it is called research in the first place!). Given our long research cycle and high hurdle for implementing new ideas, I would forgive many of my colleagues for mistakenly assuming that I don’t do any work (though in my defence, Buffett suggested he spends 80% of his day just reading).

Evolution vs Revolution

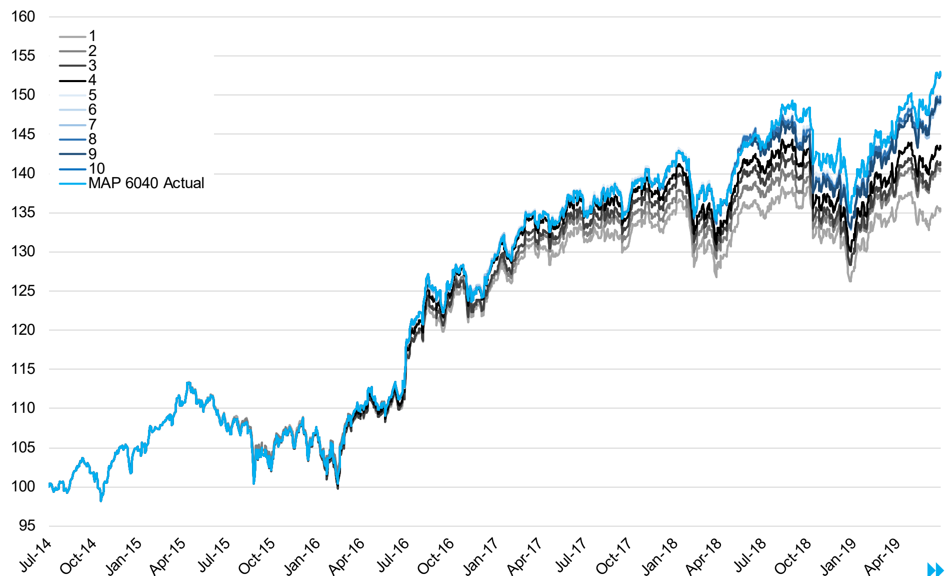

Chart 2: MAP 6040 Evolution

Chart 2 attempts to illustrate the benefits of evolving the investment process by comparing the performance of changes made in the Multi-Asset Portfolios (MAP) since inception, with the actual portfolio in blue and 1 to 10 representing the performance of "legacy" portfolios had they been left unchanged. Whilst five years is still a relatively short time to judge results, the positive impact of the incremental improvements has been evident thus far.

Our belief is that continuous research and introspection is key to ensuring MAP continues to evolve with the ever-changing landscape going forward.

"I refuse to join any club that would have me as a member."
Groucho Marx

So where next for improving MAP now that the low hanging fruits in reducing costs (Part I) and improving diversification (Part III) have been well absorbed into the process? Pursuing the ever tempting quest for uncorrelated alpha has ended the careers of many people far more intelligent and talented than I. Selection bias is also against traditional multi-asset investors in this instance – within the universe of liquid strategies which are open to new money, the biggest names in true alpha are beyond our reach (but if Renaissance Technologies ever reopens Medallion and comes knocking on our door, rest assured that we'll be ready to pounce…). We are focused more on satisficing than optimising – more speculative changes that might be optimal in theory are less preferable than an imperfect but more practically robust solution.

There are fertile grounds for research in more sophisticated methods for improving diversification and into strategies that are taking advantage of nonlinear patterns in markets. Though enhancements going forward will be one of stable evolution and not the initial revolution in thinking that was required to put an evidence-based process in place. The key is a steady and humble approach to innovation which will bring investors (and the agents that represent them) along the journey at an appropriate pace.

Conclusion

"Remember not to believe your own bullshit."
Deon Gouws

Writing marketing pieces is a treacherous balancing act between creating interesting and easy to read content whilst remaining true to commercial goals and being authentic to your own beliefs whilst minimising potential future embarrassment. And although I might cringe at my own writing style from yesteryear, looking back at my own thinking over seven years ago gives me comfort that the core message has remained the same because the core evidence has not changed:

keep costs low, diversify as much as your constraints allow, maintain a long time horizon, be humble with your assumptions, and ignore the noise.

We indeed look forward to a time when the phrase "evidence-based investing" is obsolete because it is self-evidently the only credible way to invest. Whether or not this comes in time for the 10-year update on Credo MAP, you'll have to stay tuned to find out. ■