Too many fairy tales in finance

By Ronald Kok

We spoke with Dr. Hsu about a few persistent myths and dogmas present in modern finance. Much or Dr. Hsu's early career focused on US markets (for example, his research on fundamental indexation[1] and option strategies).[2] In this interview, we take a wider view of the often-imperfect world of finance. Dr. Hsu maintains that the financial world is largely a sales-driven industry where people are often lured into investments by stories that are too good to be true. In this interview, we highlight a few of these imperfections.

For investors, the industry is still dominated by practices that are suboptimal for generating wealth. According to Dr. Hsu, investors should broaden their view and consider more progressive approaches to investing by looking outside the classical paradigms and avoid the influence of marketing. In this discussion, Dr. Hsu highlights the most persistent fairy tales in investing.

Here are a few of the myths that we discussed:
- Classic academic research: CAPM and efficient markets
- ESG's promise
- Global investing
- Working back tests
- Low beta
- Small Caps
- Cap-weighted indices (or capitalization-weighted)

WORKING CAPM IS A MASSIVE FAIRY TALE

Most of the financial academic research is based on US data. But still, much of this research seems to dominate the global financial world; for example, take the Capital Asset Pricing Model (CAPM). CAPM is largely based on US data. Is it fair to apply this model globally?

Dr. Hsu: It is indeed correct that CAPM is largely based on US data. In fact, most of the financial academic research is based on US data. And it can sometimes be difficult to apply US research to emerging markets. Using China as an example, it is very common for mainland-listed firms to be engaged in aggressive earnings smoothing. Listing regulations in China actually penalize firms for losing money. So, most firms tend to aggressively under-report earnings in order to build up a rainy-day reserve for years of underperformance. So this means comparing the US standards with the Chinese ones is quickly comparing apples with oranges.

Referring to CAPM, the idea of having a risk-free rate is obviously a fairy tale. In my prior research, I have applied CAPM and was not successful in finding a country where

Dr. Jason Hsu holds many positions in the financial world. He is widely known for his academic research and ground-breaking work in smart beta, co-inventing the fundamental index with Robert Arnott. Today, Dr. Hsu is founder and CIO of Rayliant Global Advisors[3], a firm that specializes in emerging markets – with a particular focus on China.
Recognition for Dr. Hsu's work includes 3 JPM Fabozzi-Bernstein Awards, 3 CFA Institute Graham and Dodd Awards, 3 William Sharpe Awards, and recognition as a 2010 Rising Star in Hedge Funds. He has published over 50 journal articles and has contributed to nine handbooks in finance and economics.
Dr. Hsu also received an Outstanding Service Award from UCLA's Anderson School of Management in 2009, where he serves as professor of finance (along with visiting professorships at UC Irvine, National Taiwan Chengchi University, Kyoto University and Tsinghua University).
In addition to serving as a professor at the UCLA Anderson School of Management, Dr. Hsu also sits on the Board of Advisors and was previously co-founder and CIO of Research Affiliates, a 140B+ quant manager. Dr. Hsu also sits on the editorial board of *Journal of Portfolio Management* and has held similar roles at other notable publications including *Journal of Investment Management* and *Journal of Index Investing*.

CAPM could have worked at all. There is a huge disconnect between research findings and the model. Of course, many finance professors are not billionaires even if they know a lot about markets. They state that it is very hard to find alpha in financial markets. Also, most of the research is centered on efficient markets – so their stance is "why even bother trying to outperform." This is in sharp contrast with the industry and, despite this, the academics still focus their research around a belief in market efficiency each day.

GLOBAL INVESTING NOT STRAIGHT FORWARD

But the world is not exclusively efficient markets. The truth is somewhere in between – especially in Asian markets where we see more opportunities to capture alpha because of the much higher retail investor participation.

ESG: A ONE-SIDED STORY

ESG plays an increasingly important role in finance. For investors, it is very hard to judge which ESG funds achieve their intended objectives. These days almost all funds seem to be ESG-focused. Many outsiders call this practice 'greenwashing' or freeriding. What is your view on this trend that seems to be so prevalent in the industry?

Dr. Hsu: This is a real struggle for investors. The current ESG thinking is, in my view, aggressive and shortsighted. It is simply unfair to say from a distance that one company is okay regarding ESG and that another is not. This is especially true in emerging markets, or "EM", where the real differences are much bigger. Nowadays, ESG investing in EM is more of a 1-sided view rather than a collaboration between two parties. Top down ESG approaches may fail to achieve much of their intended objectives.

GLOBAL INVESTING NOT THAT EASY

Being invested globally is one of the essential 'must dos' for diversification in investor portfolios. Can investors use the developed markets investment models when investing in China and EM? Is investing globally really that simple?

Dr. Hsu: No, unfortunately not. That's a fairy tale, too. Investors cannot simply apply the Western-style approach to asset management in every global market. The differences in accounting practices are one factor that play a role. It is also crucial to have an understanding of what drives investor behavior in these markets. Buying an EM ETF is not enough to access the full potential of these markets. Take the MSCI ACWI equity index: in this index, Apple has a higher weight then the total of China's weight. In many cases, passive funds do not make sense for investors.

CRAZY BACK TESTS ARE EASIER TO SELL

Almost every mutual fund shows a working attractive back test. Of course, they want the product to sell. But in practice, we often see "variations from the back test". How do you see that?

Dr. Hsu: Yes, what you're saying is very much true. Back tests with the most reliable results usually have boring models and hardly ever get funded. But investment products constructed from the craziest ideas and least reliable back tests garner media attention and therefore attract investors). It's remarkable – but it's probably because they are easier to sell. I also feel that quants have a much lower likelihood that their research will get published or have a product created around it if their model is boring – even if the back test is more reliable.

It seems the financial world is always on the hunt for exotic extremes that disregard reality. So, the best quants are not rewarded for solid research. In the US, we have over 60.000 active funds. The ones that stand out and get the most media attention are the ones rooted in risky methodologies and may only invest in a handful of stocks. With these products, there are only 2 outcomes: they will either perform very well or very bad.

CRAZY BACK TESTS GET MOST ATTENTION

Sensible managers with well-diversified portfolios hardly stand out, then fail to generate AUM and therefore struggle to survive. Often times, track records are nearly as unstable as back tests. This is not to suggest the back tests were somehow disingenuous. But they simply can't be replicated. Often times, extreme gambles turn out to be irreplicable luck.

LOW BETA IS A FAIRY TALE

In the last year, we saw interest increase in so-called low vol strategies that depend on the consistency of low betas. But in practice, especially with market crashes, betas are far from stable.

Dr. Hsu: Indeed, low vol strategies are fairy tales because of the inconsistency of betas. The idea of having stable betas is fine for the input of the models. But in practice, they are far from stable. So, the fund managers depend on their models way too much – most of which simply depend on unstable factors (like betas, stationarity, homogeneity over time, etc.).

SMALL CAPS WON'T GIVE YOU A "FREE LUNCH"

Most researchers say that the smaller the company the higher the risk, the higher the return. Therefore, the Small Cap premium exists. But do you really experience that in practice?

Dr. Hsu: No, we don't find a premium on smaller companies. The existing research surrounding a premium on small caps can be mostly attributed to data errors. But what we do see is that when you combine small caps with value strategies, we tend to see more positive results. This is partly because of the lower liquidity of small caps. So, a factor like value can work better with smaller companies.

CAP-WEIGHTED INDICES ARE SUBOPTIMAL

Much of the impressive work from you and Robert Arnott underlines the benefits of fundamental weighting versus capitalization weighting[4]. The concept of distributing weights – or even equal-weighting across a much broader basket of stocks versus putting higher weights in just a handful of stocks – sounds very logical. But nowadays, this idea is still far from dominant. How could you explain this?

Dr. Hsu: Yes, equal weighting makes so much sense. It's much closer to proper diversification than capitalization-weighted approaches. If you look at the Herfindahl score[5] of an common market cap-weighted strategy, you will notice it is usually only comprised of a handful of stocks, which does not provide nearly enough diversification to have a meaningful impact on an investor's portfolio.

STILL SEARCHING FOR A WORKING CAPM

Look at the recent market crash of the S&P 500, where the index was pulled down by just a few big tech stocks. In some geographies this can be even more pronounced. The Taiwan Index for example, is dominated by just a single stock as Taiwan Semiconductor accounts for almost 75% of the weight. Or if you look at Samsung's weight in South Korea's index.

A common view in finance is that you only need 25 or 30 stocks to lower your portfolio's risk. Do you agree with that?

Dr. Hsu: Yes, that sounds very fair to me. But of course, here again, please make sure you weight them equally.

Dr. Hsu sees much to improve in the world of finance – but that's nothing new. And despite his critiques, Dr. Hsu is an optimist. As emerging markets continue their rise to prominence, he believes we will re-examine ESG and traditional financial models in ways that appropriately reflect these unique markets. And with principled practice (and rigorous research), Dr. Hsu is convinced the financial services industry will ultimately fulfill its beneficial purpose in society despite the negative influence of marketing and greed. We hope he is right!

Notes

1 See for example R.D. Arnott, J.C. Hsu and P. Moore, 2005, Fundamental Indexation, Financial Analysts Journal, vol. 61 nr 2: 83-99.
2 See a summary on the CFA Institute website: https://www.cfainstitute.org/en/research/cfa-digest/2016/01/option-writing-strategies-in-a-low-volatility-framework-digest-summary
3 https://rayliant.com/dt_team/jason-hsu/
4 See for example M. Aked, V. Kalesnik, E. Kose, P. Lawton and M. Moroz, Equal-Weight and Fundamental-Weight Index Investing: A Comparison of Two Smart Beta Strategies, available via https://www.researchaffiliates.com/content/dam/ra/publications/pdf/249-equal-weight-and-fundamental-weight-index-investing.pdf
5 For a description of the Herfindahl-Hirschman Index, refer to https://www.investopedia.com/terms/h/hhi.asp