FRESH INNOVATION APPEARS POISED TO DRIVE THE ETF INDUSTRY FOR THE NEXT 25 YEARS

I was fortunate to have been part of the small group of professionals that launched Exchange Traded Funds ("ETFs") roughly 25 years ago. In 1993, SSgA and the AMEX debuted the SPY ETF (which grew into the SPDR ETFs) and I led the team that introduced the first WEBS for Morgan Stanley (which evolved into the iShares product line). Over the next quarter century, I was there every step of the way, as this once upstart product concept emerged as a dominant force in the investment industry. Globally, ETFs now command more than $5 trillion in assets, and the ETF has arguably supplanted traditional mutual funds as the primary vehicle for delivering passive, or index-based, investment management.

The ETF industry is known for its innovation, and waves of innovation have driven ever higher levels of asset dominance, led by breakthrough successes such as GLD, fixed income ETFs, and 'smart beta' ETFs. I have personally advised multiple countries as they attempted to keep pace with the U.S. by creating the operational infrastructure and regulatory framework for their countries to enter the global ETF marketplace. And the band keeps playing on.

None of this success has surprised me in the least based on the natural advantages of the ETF vs traditional funds in such critical features as cost, intra-day trading, and tax efficiency. However, what has surprised me is that the ETF has yet to successfully disintermediate traditional mutual funds for active investment management. For years I have received requests from active fund managers for assistance in finding a means of accessing the ETF market. And to date neither their efforts nor my own have been sufficient to solve the challenges blocking the path forward towards a true *actively managed ETF*.

Until perhaps now.

Like most great innovations, this potential solution did not come from an expected source. It is not an operational fix, nor enabled by a new set of regulatory guidelines, nor even conceived by an industry insider. Rather, it came out of proverbial left field, where Artificial Intelligence ("AI") and traditional investment management were brought together by a small team of mathematicians to create a new approach to generating active investment solutions. They called it *Ensemble Active Management*, or EAM.

And even better, it is not a singular strategy. It is better described as a new paradigm towards investing, a new approach that is as philosophically different from traditional active management as passive management is from active. As such, it is applicable to most any asset class, any geography, and capable of generating thousands of distinct and viable strategies.

Nearly a year ago I was introduced to EAM, which is created by applying the decades-old mathematical techniques known as Ensemble Methods to the high conviction stock predictions of fund managers. Over the ensuing 10 months I have been able to do a deep dive into the concept, talking in-depth to the originating professionals to understand the mathematical (and common sense) underpinning of this amazing new paradigm. Having seen a significant amount of backtested data, and a growing amount of live performance data. I eventually agreed to participate as a Contributing Editor for a new White Paper that introduced Ensemble Active Management ("EAM") to the industry, and along the way sharpened my knowledge of the concept even further. (The White Paper, "*Ensemble Active Management – the Next Evolution in Investment Management*" is currently available for free download at ensembleactivemanagement.com.)

Based on what I have seen and learned over the past year, and reflective of my quarter century of experience understanding the drivers of growth and success in the ETF industry, EAM appears to me to be well poised to lead the next wave of innovation-driven expansion of the ETF industry. This time, potentially setting sights on the trillions of dollars in assets held in traditional actively managed mutual funds.

The White Paper does a great job of laying out the premise and promise of EAM, and I will not attempt to summarize it here. The White Paper was also supported by a massive dataset created to test the validity and viability of EAM (165 *million* data points), and reams of analysis was generated. However, the one pair of statistics from the White Paper that truly captured my attention related to the statistical probability of outperforming the S&P 500 over rolling one-year periods:

- *Statistic #1:* Over the past decade, the average Large Blend active fund outperformed the S&P 500 over rolling one-year periods only 14% of the time[1].
- *Statistic #2:* Over the past decade, and based on 30,000 test EAM portfolios, the average EAM portfolio outperformed the S&P 500 over rolling one-year periods 72% of the time. The average annual excess return was an amazing 340bp[2].

I found this pair of statistics stunning and intuitive. It certainly explains why active managers have seen a decade's long rut of net outflows. It also suggested to me that perhaps now there is a class of investments that have the required horsepower to beat passive investing more often than it lost, and enough excess returns to justify the higher fees of active managers. There is no doubt that such a statistical probability of outperformance would capture the attention of ETF investors – especially their financial advisors whose very business model is traditionally predicated on providing value to their clients in the form of excess returns versus the market.

Based on my due diligence into EAM portfolios over the past 10 months, I can also state that I believe that EAM-powered ETFs will be able to manage the daily transparency of holdings currently required for ETFs (this is due to the mathematical underpinning of EAM portfolios, and too involved to address in this forum).

There is no doubt that the thoughtful exploration and due diligence into EAM portfolios is still in the early stages. After my 10 month journey, while my confidence is high, I still have some uncertainty. Uncertainty that will not be fully resolved until there are a few years of live experience behind us. However, I cannot prevent myself from asking "what if?".

What if Ensemble Active Management is shown to be a superior means of delivering active management? *What if* EAM portfolios are strong enough to re-open the active vs passive debate? *What if* EAM-powered active ETFs are readily available to the investing public?

My experience tells me that ETFs, powered by an active investment approach that is equal to or superior to traditional active funds, will disintermediate those funds within a matter of years. The ETF is simply a better wrapper, and if quality active management were available in an ETF side-by-side to a traditional fund, the ETF wins. Hands down.

If a series of EAM-powered active ETFs emerged, and EAM proves over time to live up to the expectations set in the White Paper, then all of those investors (and their advisors) who flocked to passive ETFs over the past decade due to higher expected returns might be looking to shift assets back to the active side. To put this potential asset shift into perspective, there has been more than a trillion dollars of net flows into passive investments over the past decade, and roughly a trillion dollars of outflows out of active funds. Large numbers to say the least.

The ETF industry has long been driven by innovation, and I have no doubt that forward-thinking ETF executives are even now exploring the cost-benefit of becoming a first-mover by launching an Ensemble Active Management-powered active ETF. And if EAM solutions live up to what I have seen and learned over the past year, then ETFs might just be positioned for another 25 years of dynamic growth to reach the next plateau of asset growth.

Robert S. Tull, Jr. – *President and Chief Operating Officer*

Bob Tull is one of the founders of ProcureAM, LLC. Prior to ProcureAM, Bob was the owner and primary consultant of Robert Tull & Company. Bob is a well-recognized expert in the ETF market since 1993 consulting to issuers and governments on ETF infrastructure support. He is a named inventor on multiple patents involving exchange-traded products, and he has been influential in successfully presenting innovative registration requests for ETFs to the SEC since 1994. Bob has been instrumental in getting several ETF issuers to be first-to-market with a new product strategies or structures. Recently, Bob was presented the ETF 2018 Nate Most Lifetime Achievement Award.

Bob has played a leading role in the design and development of over 400 exchange traded products in the U.S., Europe and Pacific Rim. He has advised or developed ETFs structures and ETF based indexes that are among the largest and most well-known brands, including iShares (WEBS), PowerShares, Deutsche Bank, WisdomTree, MacroMarkets, Van Eck, Claymore and First Trust.

From 2000 to 2005, Bob was Vice President of New Product Development at the American Stock Exchange LLC (AMEX) and Executive Director of AMEX ETF Services, the international ETF consulting arm of the AMEX. During his tenure there, Bob led the development of over 275 ETFs across equities, commodities, currency, money market, active strategies, fundamental and factor indexes.

From 1996-2000, Bob held several senior roles at Deutsche Bank (DB) including Managing Director and COO of Bankers Trust Global Custody, Benefit Payments and Master Trust business units. He also co-managed DB Securities' Y2K & Euro conversion programs and was Chief Administrative Officer for DB's first ETF business unit, in 1996 and responsible for all its related operations.

Prior to joining Deutsche Bank, Bob spent 14 years at Morgan Stanley and was responsible for the development, operations and systems management needs of various trading and fee-based business units. His new business development included commodities trading, global custody, international stock loans, dividend arbitrage support, development of the MSCI corporate actions data feed, big data needs for storage and retrieval, index fund development and systems migration. Bob's accomplishments include the development of WEBS -- the precursor to iShares ETFs.