Turing Technology

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Ensemble Active Management (EAM) Portfolios – Executive Summary

EAM Portfolios are the natural evolution of traditional active investment management. They are grounded in core investment fundamentals that institutional investors have embraced for decades. They reflect the latest research on alpha sourcing and delivery[1]. The approach, in hindsight, is almost obvious. But EAM Portfolios were not viable until recent Machine Learning-based technology advances were able to unlock the true potential of EAM Portfolios.

There is no longer an active debate on active management versus passive management. In the main, traditional active management has proven inferior. But recent research published by, among other sources, the CFA Institute[1], have shown that active managers have the ability to generate significant stock selection alpha through their highest conviction stock picks. However, the same research shows that the alpha is diluted or even lost in the delivery process due to the corrosive impact of over-diversification and the reliance on a 'Beta Anchor'. ***Institutional Investor has referred to this fact as a "genetic defect"[2] inherent in active management***.

EAM Portfolios reflect the following core investment principles:

- ***Multi-manager design***, sourced independently from virtually any active investment portfolio. Typical design uses 12 underlying managers. Typical underlying manager has a 3+-year proven track record.
- ***Only uses each manager's High Confident Overweight selections*** ("HCOs", and also, by definition, the best ideas), and strips out the Beta Anchors. The HCOs are captured on a real-time, daily basis.
- ***Final stock selection reflects the highest consensus agreement across the underlying set of managers***, identified through the application of proven Machine Learning techniques known as Ensemble Methods.

Advanced technology has transformed one industry after another, increasing consumer benefits while dramatically lowering costs. Uber and the taxi cab industry. Amazon and retail shopping. Netflix and entertainment. ***Now advanced technology is poised to transform investment management***.

The key technology breakthrough behind EAM Portfolios is the ability to replicate public mutual funds 1) using only public data, 2) with a high degree of accuracy, and 3) on a real-time, daily basis. Turing Technology has developed such technology (the Hercules System), and ***currently tracks $3.5 trillion in actively managed funds on a bi-weekly basis***. This represents the vast majority of all actively managed, US equity funds in the country.

The process behind EAM Portfolios incorporates the following steps:

1. An institutional investor or investment manager ***selects 12-15 proven investment managers***, using their own insights into manager selection. The underlying strategies should reflect the same investment mandate (e.g., large core), but should be diversified regarding firms and approach.
2. The ***HCOs are identified relative to a standard benchmark, and are extracted from each of the underlying strategies***. Only stocks that fall within the benchmark are selected.
3. Ensemble Methods is used to quantitatively assess the degree of consensus agreement for each stock. ***The stocks with the highest 'consensus score' are selected for the final EAM Portfolio*** (typically 50 stocks, although designs with fewer stocks are viable).
4. The stocks are ***given investment weights reflective of the pro rata 'strength of signal'*** based on the Ensemble Methods analysis.

EAM Portfolios were initially validated through a White Paper published in September 2018[3]. This paper randomly constructed 30,000 large cap EAM Portfolios and evaluated them for up to 10 years. The final analysis reflected 165 million data points, and the results were highly compelling:

- The EAM Portfolios ***outperformed the S&P 500 for 72.3% of rolling one-year periods, and 93.6% of the rolling three-year periods***.
- The EAM Portfolios had an ***average annualized excess return versus the S&P 500 of 340 basis points (3.4%) for rolling one-year periods and 380 basis points (3.8%) for rolling three-year periods***.

This initial breakthrough research triggered a series of live market testing of EAM Portfolios, many of which now reflect track records of more than a year in length. (As reference, EAM Portfolios are almost exclusively based upon underlying managers with proven track records of at least 3 years.)

Turing Technology currently has more than 30 EAM Portfolios that have been created by clients and are in live production. Of these, 24 have at least a 3-month track record and are delivering performance that reflects the original White Paper research, and in fact enhances it. Through June 30, 2020 (gross of fee results):

- ***75% of these EAM Portfolios are currently outperforming their primary benchmark***.
- The ***average excess return is 9.14%*** (914 bp); the ***average annual excess return is 14.51%*** (1,451 bp).
- The average length of track record is 50 weeks.

Starting in 2020, multiple firms have completed their due diligence and are launching. Other scaled firms are nearing the launch point. These firms include 1) dedicated companies launched exclusively to exploit the performance advantages of EAM Portfolios (conceptually similar to Vanguard's singular focus on index funds in the 1970s), 2) multi-billion dollar investment firms with scaled distribution, 3) money center banks, 4) smaller wealth managers.

A critical component of the investment appeal for EAM Portfolios is not simply a statistically-based expectation to outperform passive benchmarks, but also ***strong risk management elements***. The capacity of EAM Portfolios to 'disappoint' through significant underperformance is limited by the following elements embedded in all EAM Portfolios:

- All stocks are within the primary benchmark.
- No leverage or non-liquid holdings.
- ***Two layers of diversification***. At 50 stocks, there is more than adequate diversification at the stock level. Using consensus agreement across stocks from 12 proven managers creates an added layer of diversification at the process level.

Finally, the mechanics of EAM construction easily enables certain types of customization that have appeal to investors, especially institutional investors. Examples would include ESG (Environment, Social and Governance) screens, elimination of single stocks from the benchmark, or caps on sectors.

[1] "**The Active Manager Paradox: High Conviction Overweight Positions**," 10/3/2019; *CFA Institute: Enterprising Investor*, by Alexey Panchekha, CFA; Edited by the CFA Institute. "**Ensemble Active Management (EAM): Taming Toxic Tails**," 1/31/2019; *CFA Institute: Enterprising Investor*, by Alexey Panchekha, CFA, Matthew Bell, CFA, and Robert Tull; edited by CFA Institute.

[2] "**The 'Genetic Defect' in Active Management**," 10/18/2019; *Institutional Investor*, by Julie Segal. **"Research Shows Asset Management Has a 'Genetic Defect.' This Manager Says He Has a Cure**." 6/24/2020; *Institutional Investor*, by Julie Segal.

[3] "Ensemble Active Management – The Next Evolution in Investment Management," September 2018; EAM Research Consortium.