

EBI Portfolios Investment Philosophy

Evidence Based Investing – *The process of systematically reviewing, appraising and implementing academic research findings to aid the delivery of optimum investment solutions to investors*

1 Introduction

EBI Portfolios (EBI) provides a Turnkey Asset Management Programme (TAMP) to UK Independent Financial Advisers, allowing them to outsource time-consuming functions such as research, portfolio construction, performance reporting and portfolio management tasks such as fund swaps and efficient portfolio rebalancing.

The following pages outline in detail the Investment philosophy that underlies EBI's proposition.

The value of investments can go down as well as up, so you could get back less than you invested.



2 EBI's Investment Philosophy

EBI accepts that investors, advisers and portfolio managers are better served following the evidence as outlined in this document, than embarking on the traditional speculative investment route, which has been, overall, of little benefit to all but a few investors and been of great benefit to all but a few fund managers.

2.1 Core principles

2.1.1 A process built on a robust academic body of "evidence".

Core elements of this include:

- Modern Portfolio Theory that explains the benefits of portfolio diversification
- The Capital Asset Pricing Model (CAPM) that links returns to non-diversifiable market risk
- The Fama-French Multifactor Asset Pricing Model extension to CAPM that introduces the size and value components of equity return (and the maturity and default factors for fixed income)
- Carhart four-factor model extension of the Fama–French model, containing an additional momentum factor
- The Efficient Market Hypothesis that proposes that prices reflect values and information both accurately and quickly. Prices should therefore reflect the market's estimate of intrinsic value of a company (and in aggregate the market), until such time as further information becomes available

2.1.2 An understandable and simple approach

EBI's goal of keeping its investment process relatively simple is not for simplicity's sake, but because that is what the empirical evidence suggests we should be doing.

2.1.3 Obtain economies of scale

The vast majority of Financial Advisers in the UK cannot influence product or service providers, they simply do not produce enough business to have a voice. However, EBI can and does act as an agent on behalf of its users and their clients and EBI users have acted together to obtain lower trading costs, launch new funds and access otherwise unavailable share classes with lower charging structures.

2.1.4 Capitalism works (mostly)

In a capitalist society, where individuals and companies rather than the state own assets; capital and labour are generally put to efficient use, seeking to generate the maximum wealth for those who take on the risk of enterprise. It is assumed that free markets price financial assets effectively and fairly, based on supply and demand, where profits are ultimately expected to flow through to owners.



Whilst this may not always be the case in individual circumstances, it is largely a fair description and expectation.

2.1.5 Risk and reward go hand in hand

A basic underlying assumption is that achieving higher level of return requires an investor to assume a higher level of risk, assuming that the alternative investments are maximising the return per unit of risk undertaken. The Capital Asset Pricing Model (CAPM), developed by the Nobel Prize winning academic Professor William Sharpe et al which describes the relationship between market risk taken and the level of expected return, is assumed to be largely valid.

It is accepted that this relationship exists and is only altered through the risk reducing benefits of diversification.

2.1.6 The mathematics of diversification works

The concept that spreading investments around into different building blocks (asset classes) is intuitively easy to accept. The mathematics underlying the concept is: knowing the return, risk (annualised standard deviation) and the relationship between the return series of every pair of asset classes in the mix (correlation), one can calculate the beneficial effect in the reduction of risk per unit of return achieved and vice versa.

2.1.7 Investing is a (less than) zero sum game

An under-performer must offset every out-performer of the market in investing. As all investors constitute the market, the average investor will receive the market return before costs. In the real world, costs in their widest sense, including taxes, make a substantial impact on returns, thus making investing a significantly less-than-zero-sum game, and implying that the average investor will be below the market by the sum of these costs.

2.2 Core rules of successful investing

2.2.1 The right strategic asset allocation for a client is key

Strategic asset allocation (investment policy) overwhelms all other investment decisions in importance for clients. The choice of ownership and subsequent adherence to a well-defined strategic asset allocation is the core driver of long-term portfolio returns, describing over 100% of total return of portfolios and 90% of the variability of portfolio returns over time.

2.2.2 Diversification is essential to all investors

The only certainty in financial markets is uncertainty; and this reality requires the astute investor to take advantage, wherever they can, of the diversification benefits on offer. The real risk to the long-term investor is not return volatility but the lack of certainty that equity markets will act as the engines of portfolio returns over the coming years. Owning a diverse portfolio, both in asset classes and material allocations to them, is critical to long-term portfolio survivability and the chances of a successful outcome.



2.2.3 Let time and compounding work in the client's favour

Time and compounding play important roles in successful investing; time tends to smooth out some of the more extreme market returns evidenced over shorter periods of time, allowing portfolios and the individual building blocks from which they are built, to deliver the hoped for long term returns that they are associated with. Second, time goes hand in hand with the compounding of returns. Time and compounding have an exponential effect on outcomes, magnifying even slight differences in annual return into significantly different outcomes, both in a positive and a negative manner (through returns and costs respectively).

2.2.4 Create solutions that mitigate the very real threat of inflation

EBI provides Monte Carlo simulations software which uses real (after inflation) returns, allowing Financial Advisers' clients to think in purchasing power terms and not tomorrow's debased money terms as it is stripped from both sides of a client's personal balance sheet. This threat of inflation can be mitigated through diversification of the portfolio into building blocks that have the ability to provide good short and long-term inflation protection.

2.2.5 Identify and minimise costs of all kinds

A pound of costs saved is different to a pound of outperformance by an active manager in £ terms, in that it is more valuable due to the certainty of its effect and consistency over time yet is achieved without taking any additional risk. In today's benign return environment, costs deserve greater scrutiny than ever. In their widest sense, costs include fees for advice (developing investment policy) and on-going client portfolio management, total expense ratios for individual building block products, trading commissions and custody (platform) fees. Other unseen costs include inappropriate investment policy advice, active manager underperformance, the impact of taxes for taxable investors, the holding of material levels of un-invested cash, and market impact costs.

2.2.6 Keep emotions in check and stay the course

EBI helps Financial Advisers' clients to keep their emotions in control, and to stay the course, in two main ways:

- First, EBI has developed an investment process that removes many of the points of emotion from an investor's portfolio including the psychological implications of using active managers and the consequences of being part of an industry trying to time markets and select stocks itself.
- Second, EBI seeks to provide Financial Advisers with the appropriate information for their clients to help them choose the ideal portfolio in the first place and fully understand the implications of being invested in this manner

2.2.7 Choose your funds wisely

Market indexes were originally not designed to be funds although some now are. The first market index was created by Charles H. Dow (Dow Jones Industrial index) in 1896, it and all subsequent indexes were in the main, simply an incremental list of stocks in a select universe, listed in order of



market cap weighting. The idea of creating funds to replicate indexes came later in 1973. The evidence repeatedly shows that when indexes are used to determine the stocks held in an 'index tracker' fund, such funds became very hard for active fund mangers to beat.

However, it can often be the case that an index fund is either not available for the asset class required or the asset class is better captured via a 'rules based' fund, often refered to as a passively managed fund.

Such funds aim to capture asset class returns from a similar universe of stocks to an index, but usually avoids some of the problems that might be inherent in a tracker fund trying to replicate an index. For example, a given index may be extremely biased to certain sectors or many of the constituents of an index are illiquid and thus dificult, and typically expensive to aquire.

Sometimes the choice is easily made, but often there are competing tracker and passively managed funds available; close attention needs to be paid to the relative merits of each approach.

2.2.8 Rebalance efficiently

The concept of rebalancing a portfolio (i.e. returning some or all of the funds held in a portfolio back to their original proportions) is an often-overlooked risk-management mechanism. Left unattended, the portfolio will increasingly become overpowered by the riskier asset class. The primary role of rebalancing is to maintain the risk profile of the portfolio in a zone in which the client feels comfortable, established at the start of the relationship. A beneficial by-product that occurs in portfolios that contain higher volatility and lowly correlated asset classes, and in mean reverting markets, is a rebalancing return bonus that comes from a buy-low, sell-high strategy at the margin of the portfolio.

2.3 Core Investment Beliefs

EBI holds a set of core investment beliefs based on the theory and evidence that is available today and its assessment of the probability of a favourable impact on client portfolios of holding them. These beliefs are reflected in the structure and implementation choices that EBI makes.

2.3.1 Major markets are, by and large, reasonably efficient

'Efficiency' describes the fact that prices reflect all known information. An active manager needs either better information or an ability to use it more effectively than others do, in order to beat the market.

EBI believes that the major world markets are relatively macro-efficient, which include the UK investment grade bond market, the UK large cap equity market, and other major developed global equity and fixed income markets, making active management a challenging proposition. As such, EBI employs a healthy degree of scepticism over active managers' claims to deliver consistent market beating returns, after costs.

2.3.2 Passive investing strategies are favoured over active management

Based on probability, indexing wins out over active management. The decision of whether to employ



a passive or an active approach revolves around three key questions: Do markets exhibit inefficiencies that managers can take advantage of? Can these inefficiencies be profitably exploited after all costs, including taxes? Moreover, can managers who have persistent skill as opposed to luck be identified in advance? In short, the probability of success lies in favour of index investing over the long-odds of identifying market beating active managers, despite the potential benefits of doing so.

2321 FBI's stance

EBI uses index products as its default implementation strategy in all building blocks as far as is practicably possible and does not seek to add incremental active returns by trying to time markets (tactical asset allocation) or select individual securities. The evidence indicates that in both equity and fixed income investing, index investing provides the greatest probability of a success for a client (if not necessarily the very best outcome).

Index products provide a high degree of certainty over future performance relative to the market, eliminating significant risk from client portfolios (that of active manager under-performance). With all the difficulties of choosing the best active managers ex-ante, and the added risks of clients abandoning good managers going through tough times relative to the market, the probabilities of success lie with the certainties of index investing. Selecting passive/index products is relatively straightforward.

2.4 Factor Based Investing

Since the early 1960s, the academic community has been on a quest to uncover the 'secret sauce' of investing – the characteristics of stocks and other securities that both explain performance and provide premiums above market returns.

Factor investing is an investment approach that involves targeting quantifiable firm characteristics or "factors" that can explain differences in stock returns.

The earliest theory of factor investing originated with a research paper by Stephen A. Ross in 1976 on Arbitrage Pricing Theory, which argued that security returns are best explained by multiple factors. A factor-based investment strategy involves tilting portfolios towards and away from specific factors in an attempt to generate long-term investment returns in excess of benchmarks. The approach is quantitative and based on observable data, such as stock prices and financial information, rather than on opinion or speculation.

Factors are simply a set of properties common to a broad set of securities.

Contrary to popular belief, it is the exposure to these factors, and not fund management skill, that determines performance.

To be worthy of exposure, a factor must be:

- PERSISTENT (it works across long periods of time and different economic regions);
- PERVASIVE (it works across countries, regions, sectors and even asset classes);



- ROBUST (it works for various definitions);
- INVESTABLE (it works not just on paper, but also after considering implementation issues like trading costs);
- INTUITIVE (there are logical risk-based or behavioural-based explanations for its premium and why it should continue to exist).

On this basis, a study from 2016 (which appeared in the Financial Analysts Journal in 2016) narrowed the field down to just 6 factors, being Low Beta, Size, Value, Momentum, Illiquidity and Quality.

EBI portfolios include Size (meaning Small Company shares), Value and Momentum. See below the reasons why we don't use the other factors (Low Beta, Illiquidity and Quality) in our portfolios, adding Carry (Dividend Yield), Low Volatility and Profitability to the list (taken from Larry Swedroe's 'Your Complete Guide to Factor-Based Investing') for the sake of completeness.

The problem is that many of these are related in some way;

- Illiquidity is a generalised proxy for Small Companies (as the former tend to be, but are not exclusively) small companies;
- Low Beta shares tend to be Low (or Minimum) Volatility (as a firm with a Low Beta will tend to move less than the overall market, ceteris paribus).
- Firms with a High Dividend Yield (aka Carry), are often Value Firms, (as a high yield is often seen as a sign of relative cheapness) and returns are thus likely to be due to exposure to common factors;
- although not exactly alike, Quality is often a synonym for Profitability (a "High Quality" company would be expected to be highly Profitable).

Thus many of the Factors are at least partly correlated, reducing their diversification benefits. In many cases, there is no universal agreement on what constitutes the criteria for inclusion as a factor. In the case of Profitability, one could use EBITDA Yield (Earnings Before Interest, Taxation, Depreciation, and Amortisation divided by the Firms Enterprise Value), Return on Assets etc. but both of these are extremely dependent on accounting measures that are subject to Company Executive's discretion.

In reality, many of the same securities could be in two or more universes, diluting the potential benefits of using them. Taken to extremes, tilting to multiple factors would end up with overall market exposure, potentially more expensively than just buying Index funds themselves. Introducing Profitability into a portfolio, for example, would tend to skew market cap averages upwards (as highly profitable firms - and those deemed high Quality - will likely be larger firms or they would not be as profitable). They would also be more growth orientated, thus mostly offsetting the Value factor exposure, blunting the positive effect of the latter (one in which we have far higher confidence).

Finally, to be useful, the factor must be investable - i.e. there must be a (cheap) product out there in which we can invest. For Value, Size, and Momentum this is not a problem, but Profitability, for example, is very hard to obtain (unless one were to pay a price premium).



2.4.1 Equity Factors within EBI portfolios

2.4.2 A 'Value' premium appears to exist

Value stocks are generally described as stocks that are undervalued and unappreciated, and growth stocks as those with great future stories. A premium of around 3% per annum appears to exist for holding US large cap value stocks over US large cap growth stocks ², explained in part, but not entirely, by higher volatility. The value premium has been identified in the data series of a wide range of major global equity markets including Australia, Canada, the Eurozone, Japan and the UK.

2.4.2.1 EBI's stance

EBI makes a material yet constrained, long-term exposure to value stocks to exploit the value premium throughout its global exposure, where suitable implementation products are available. It does not seek to try to make market-timing moves between investment styles. While the value premium appears to exist in the UK and on a global long-term basis, lengthy periods exist when growth stocks outperform value stocks.

2.4.3 A 'small company' premium (probably) exists, but is not certain

It appears that small company stocks deliver a premium above the returns of large cap stocks, even after taking the additional market risk that they exhibit into account. Some debate exists over the quality of the data, the reasons for the premium and even whether it exists at all. It is not guaranteed. In fact, most of the outperformance from 1926 occurred in the 8-year period from 1975-83.

2.4.3.1 EBI's stance

EBI seeks to exploit the possible existence of the small company premium. It does not seek to try to make market-timing moves between investment styles, but will offer a modest, systematic exposure throughout its global exposure to capture the premium for long-term investors by making a material allocation to smaller companies. Due to the lower level of confidence in the small company premium assumption, portfolio allocations are made on circa 2:1 ratio of value: small cap in UK Bias and Global portfolios and an equal weighting of value: small cap: momentum in World Portfolios.

244 Momentum Works:

Momentum investing is an investment strategy that aims to capitalise on the continuance of existing trends in the market, thus an asset which is rising in price tends to continue to do so, (and vice versa) for a period, as result of Investor's consistent "under-reaction" to both good and bad news concerning a stock or bond etc. Thus once an asset starts to rise (or fall) it tends to continue to do so.

2.4.4.1 EBI's stance

EBI aims to have (via ETFs) an exposure to Momentum strategies as they provide a good proxy for growth stocks and thus a negative correlation with Value strategies thereby aiding diversification.

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² Data source: Ibbotson 1928-2005

Momentum strategies often involve higher levels of trading than other factors and so it is important to take transaction costs into account. Like Value, the premium appears to be significant and is robust to different regions, asset classes and time periods.

- 2.4.5 Fixed Income factors within EBI portfolios
- 2.4.5.1 Using credit risk to generate higher returns adds unwanted characteristics to portfolios

The primary reason for owning fixed income is to protect a growth-oriented investor from periods of severe equity market trauma. Unfortunately, at these times, credit spreads tend to widen and liquidity shrinks; thus, bonds with high credit risk will likely underperform those issued by the Government (with comparable duration).

2.4.5.2 EBI's stance

EBI will include investment-grade and government bonds from around the world (currency exposure is hedged to avoid unwanted exhange rate driven volatility) with varying maturities focussed to the shorter end of the maturity range, that pass screening for size and liquidity. Liquidity means the extent to which a bond may be bought and sold without significantly distorting its price. The fixed income holdings of EBI's portfolios will normally maintain a weighted average maturity of between 4 and 6 years.

2.4.5.3 Longer-duration Fixed Income

The beneficial effects of owning longer dated bonds which may or may not rise in value due to a flight to quality during a market downturn is unreliable.

2.4.5.4 EBI's stance

EBI believes the "flight to quality" benefits of longer dated fixed income securities are not sufficiently consistent or of a sufficiently large enough magnitude, to warrant enduring the higher volatility such securities exhibit with little or no premium as compensation. If the volatility of holding longer term fixed income securities is to be born for prolonged periods it would be better to accept marginally higher exposure to equities, which have a far greater likelihood of providing a premium for the volatility.



2.5 EBI's investment philosophy in summary

EBI believes that:

- Every investment decision it makes needs to be based on insight and an understanding of the probability of success, given the evidence available, academic theory and common sense.
- Setting an appropriate asset allocation for a client, given their goals and cash flow needs, is the major contributor to investment success. This solution should represent a robust diversified portfolio, geographically and mathematically split between multiple asset classes.
- Making material but not overpowering allocations to capture the value premium, momentum
 premium (where accessible) and to a lesser extent the small cap premium in developed and
 emerging markets.
- Avoiding below-investment grade credit risk in portfolios.
- Consistent with Modern Portfolio Theory, one's risk budget should be spent on the equity
 content of the portfolio and the fixed income element used purely to dilute this risk. Shorter
 duration, hedged to Sterling, high quality corporate and government instruments are preferred.
- Holding this strategy over time, rebalancing in a timely manner, and ensuring that clients'
 emotions do not precipitate wealth destroying 'buy-high, sell-low' behaviour is critical.
- The highest chance of a successful outcome lies in passive (index) investing. EBI does not make
 active market timing or security selection decisions nor does it employ managers who do either
 (rules based passively managed funds will be used in the absence of suitable passive index
 tracker products). This approach significantly improves the predictability of portfolio
 characteristics, over time.
- A proactive focus on costs in all elements of decision-making and implementation will provide substantial benefit to its clients.



3 On-going Portfolio Management

3.1 Regular rebalancing

As explored earlier, rebalancing is an important risk management tool that keeps the risk of the portfolio at a level with which the client feels comfortable. Allowing risky assets to dominate over time inevitably increases the risk inherent in the portfolio. Rebalancing can be a tough path to follow, particularly at times of very strong, upward (or downward) market momentum, as it requires selling out of assets doing well and investing in assets that have done less well.

EBI research indicates that rebalancing to "tolerance bands" is preferable to not rebalancing or rebalancing based on set or random dates. In essence, portfolios should be rebalanced only when a group of assets held in the portfolio, collectively breach certain tolerance bands. See our <u>Vantage brochure</u> for more details.

4 Investment Decision Making

4.1 The 'Investment Team'

Key areas for which it has responsibility include:

- Review of existing products used in Model Portfolio implementation.
- Review of due diligence on any new products to be used in implementation and sign-off of agreed use.
- Oversight of training and competence program for EBI staff.
- Review of the Model Portfolio structures and decisions on the addition of new asset classes to the mix.
- Review of the underlying assumptions made for each asset class.
- Ongoing review and refinement of the investment process.
- Notes are prepared for each meeting recording the discussions and decisions taken. They are to be signed off by the Committee and will be held indefinitely on file.

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MORE <u>INFORMATION</u>

For more information about EBI Model Portfolios, or any of the other products and services that EBI provide, please contact us:

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