Where's the Exit?

A practical guide to getting out of assets that no longer perform

By Dr Steven Bates and John Bennett

The Active Manager Dilemma

The party is in full swing, music playing, crowd buzzing, and you don't want to be the first to leave. Then, a scratch on the turntable, the music stops, the lights come on, and you find yourself alone wondering where the exit is.

Every active manager knows this feeling: the moment you realise you stayed in a crowded trade just a little too long.

In more formal terms, up until recently you strongly favoured a particular asset, but now believe it is expensive and vulnerable to correction, but:

- It has a significant index weight
- Performance is still strong
- Your mandate is benchmarked.

Portfolio managers often say *nobody complains when you take profit*. Which is short-sighted in our view. Yes, taking profit sounds good, but you then need to hold that profit in another asset in the portfolio and you will be judged on overall portfolio performance rather than individual trade performance.

It's actually a trilemma, and there are 3 usual approaches:

1. Underweight or maybe exit now. The timing risk is clear as you will underperform if the asset keeps rising. As we've seen time and time again, asset strength can continue for years, far beyond rational valuations. This is especially the case in US Technology stocks currently.
2. Hedge with options. Whilst economically the same as underweighting, it is often explained as being more sophisticated. Yes, if the convexity is high and pricing good,

then it can be a reasonable choice. But the timing risk can come with considerable cost if you have to keep rolling the options, over and over again.

3. Set a stop-loss. Which sounds logical to many, and certainly can limit the drawdown, but only on this particular trade. If you do get stopped out and the asset rises after, you will have sold low and bought high by the time your conviction to buy again returns. Over a broad portfolio and the longer term, stop-loss is often detrimental to Sharpe ratio despite curtailing drawdown.

If you are judged against a benchmark, then relative performance and tracking error matter. Given the timing risk inherent in active management, this has unfortunately resulted in some active managers staying rather closer to the benchmark than they should.

We certainly have nothing against buy-and-hold or passive investing, as long as that is the mandate, it's very low cost and you don't interfere. That would, of course, make it active. But if you are an active manager or an active asset allocator then you do need to solve this trilemma.

For many institutional investors, especially pension funds, simply staying passive and relying on long-term policy weights and low cost is unlikely to meet future challenges. A recent survey of 158 pension plans globally found that 75% expect to adopt dynamic asset allocation over the next three years, a clear sign that institutions are recognising the need to respond more actively to changing market conditions[1].

While no framework can eliminate timing risk entirely, a fourth path offers a disciplined alternative: momentum.

Harnessing Momentum as a Rules-based Exit and Entry Mechanism

A number of meta studies (see bibliography) analysing hundreds of research papers spanning decades of study offer a compelling set of conclusions.

1. Momentum Is a Persistent, Pervasive and Diversifiable Source of Return

- Decades of research, including recent meta-studies, conclude that momentum is one of the most robust and persistent return premia observed in markets.

- It appears across asset classes, regions, sectors and time periods, and is validated in both foundational empirical work (Jegadeesh & Titman; Asness et al.; Fama & French) and modern literature reviews.

- Its consistency across geographies and asset classes makes momentum a reliable signal for dynamic asset allocation, especially when applied across a broad opportunity set to filter out noise.

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[1] create research, Dynamic asset allocation on the rise as pension plans face an era of controlled disorder, 2025

2. Momentum Provides a Systematic and Behaviourally Advantageous Timing Mechanism

- Momentum acts as a rules-based exit and entry framework, removing dependence on discretionary timing calls which can be undermined by behavioural biases.

- Instead of forecasting turning points, momentum responds to the information contained within price series, allowing portfolios to scale exposures up or down as momentum strengthens or weakens.

- This makes momentum particularly valuable for active managers seeking a disciplined alternative to the trilemma of underweighting, hedging, or stop-losses, all of which require stronger views on timing than most managers can reliably form.

3. Momentum Enhances Portfolio-Level Risk Management and Complements Valuation-Based Allocation

- Studies show that momentum can improve risk-adjusted returns, reduce drawdowns, improve recovery times and help portfolios adjust more effectively during major market shifts.

- Momentum is also highly complementary to valuation-based approaches.

- For institutional and multi-asset portfolios, this makes momentum a practical dynamic allocation tool, offering a disciplined mechanism to rebalance toward strength and away from weakness without relying on perfect foresight.

Naturally there are caveats to consider.

1. Vulnerability to Sharp Reversals and Regime Shifts

- Relative momentum can suffer during rapid market reversals or range-bound whipsaw market patterns.

- Concentrated trends can also leave momentum portfolios overexposed to crowded trades before they reverse.

2. Implementation Sensitivity and Trading Costs

- Results depend on signal design choices (lookback window, asset weighting, rebalancing frequency).

- Momentum typically induces higher portfolio turnover, making transaction costs, liquidity management and execution quality critical to preserving returns.

3. Governance, Behavioural and Practical Constraints

- Momentum signals can necessitate a dramatic reduction in exposure or the exit of recent winners completely, actions that can be psychologically uncomfortable and politically difficult within benchmark-constrained mandates.

- Consistency is essential: momentum only works when applied systematically, as discretionary overrides can easily undermine it.

At Future Index Partners, we have rigorously tested our momentum models with these caveats explicitly in mind. Our evidence shows that a well-engineered momentum framework can withstand these risks, with results available on an NDA basis.

Putting it into Practice in a Benchmarked Portfolio

In a benchmarked portfolio, the goal is to capture cross-sectional (relative) momentum, not time-series trend-following. Assets must be treated as competing. The task is not simply to judge whether an asset is rising, but whether it merits a larger or smaller weight than others in the benchmark. This approach enhances upside potential while remaining defensive in crises, helping to reduce drawdowns and improve recovery dynamics.

Momentum does not forecast fair value; it reacts to price movement and assumes some persistence. Long-term evidence across many decades and asset classes shows strong robustness, particularly during major crises. This supports the behavioural view that momentum arises from investor greed, fear, and slow reaction, creating exploitable trends in relative performance.

With this perspective, momentum becomes less a style bet and more a governance tool for systematic entries and exits. It provides discipline in scaling down exposure when leadership weakens, regardless of valuation comfort. Equally, it offers a structured path to re-enter assets as strength returns, avoiding the discretionary paralysis common after sharp losses or volatility spikes.

A pragmatic, rules-based framework follows:

- **Define a diversified investment universe**. For this particular paper, we use the 11 GICS primary global equity sectors, each representing hundreds of stocks, reducing idiosyncratic risk. Sector returns show meaningful dispersion and periods of low correlation, enabling momentum to rotate away from weakening leaders and capture emerging strength. This also works well in European and US sectors as well across regional indexes.
- **Rank sectors monthly using Future Index Partners' relative momentum measure.** This proprietary metric, developed over a decade ago, can be discussed under NDA.
- **Allocate to the top six sectors**. While seemingly arbitrary, six balances conviction with diversification. Our research shows that holding roughly half the opportunity set can deliver meaningful outperformance with comparable volatility, lower drawdowns, and moderate tracking error, which are sensible objectives for a relative-return strategy.
- **Weight positions by rank ("conviction weighting").** This increases exposure to stronger signals and phases adjustments more smoothly than binary entries and exits. Alternatives such as market-cap, equal, or risk-parity weighting carry drawbacks which we can elaborate on separately.
- **Convert model weights into a rules-based index.** We have signed an agreement with a leading market infrastructure and index provider who will independently calculate and publish the index, ensuring transparency and replicability.

- **Replicate the index in the preferred vehicle.** It can be implemented via mutual fund, ETF, AMC, or managed account.

A Notable Example Period

Given the focus of this article is the value of a disciplined entry and exit mechanism, the following example highlights asset allocation during one recent and challenging market episode. This period is also well after the model was completed and as such can be considered "out-of-sample", although as a back-test rather than live track record, the usual caveats apply. Full 30-year test results and performance statistics are available here[2].

Ukraine War and Inflationary Shock (2022)

In late 2021, equities were still benefiting from the post-COVID recovery and MSCI World was near all-time highs. Early in 2022, however, Russia's invasion of Ukraine and rapidly rising inflation expectations triggered a sharp hawkish shift among major central banks. Global equities corrected more than 20%, with sectors such as Consumer Discretionary and Communication Services falling over 30%.

Figure 1 shows allocations to four sectors, enough to illustrate the entry and exit dynamics of relative momentum.

Exits

Technology had rallied strongly post-COVID but declined 34% by mid-2022. The model reduced exposure from 23% in December 2021 to 15% in January and exited entirely at month-end. It re-entered only briefly during two short-lived rallies and did not hold Technology meaningfully again until March 2023, when a sustained recovery began and the sector rose over 40%.

Consumer Discretionary had performed well heading into 2021, with a 19% allocation. After a 33% decline beginning in December 2021, the model sold the sector at month-end and did not re-enter for more than a year, only returning when momentum turned decisively positive.

Entries

Energy rallied strongly from mid-2021 and gained over 80% through mid-2023. The model entered at the end of September 2021, one month after the low, and maintained a 17–23% weight through the period, aside from a single brief exit.

Consumer Staples held up relatively well during the inflation shock. Although absolute returns were modest, Staples was the second-best sector after Energy. The model bought in January 2022 and held a meaningful weight until mid-2023. Even with subdued absolute performance, Staples delivered strong relative outperformance versus the benchmark.

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[2] Equity Sector Rotation with Momentum – Does it work? Steven Bates, John Bennett
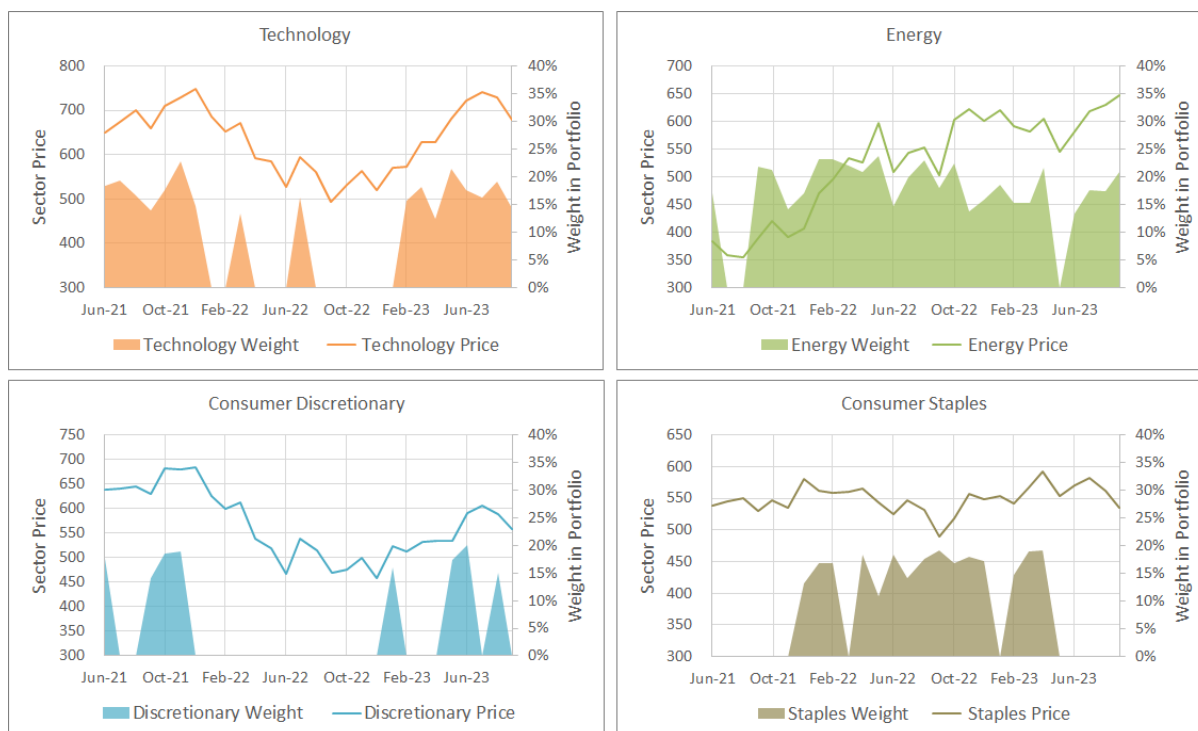
Figure 1: Sector prices and portfolio weights of four sectors

Portfolio Impact

Figure 2 shows indexed of the model and benchmark performance from the market peak in December 2021. MSCI World fell over 20% by mid-2022, while the model declined roughly 15%, with reduced drawdown largely attributable to timely exits from Technology and Consumer Discretionary.

During the subsequent recovery, the model maintained exposure to Energy and re-entered Technology as momentum improved. By the end of this difficult period, the model was up 12%, compared with 3% for the benchmark.
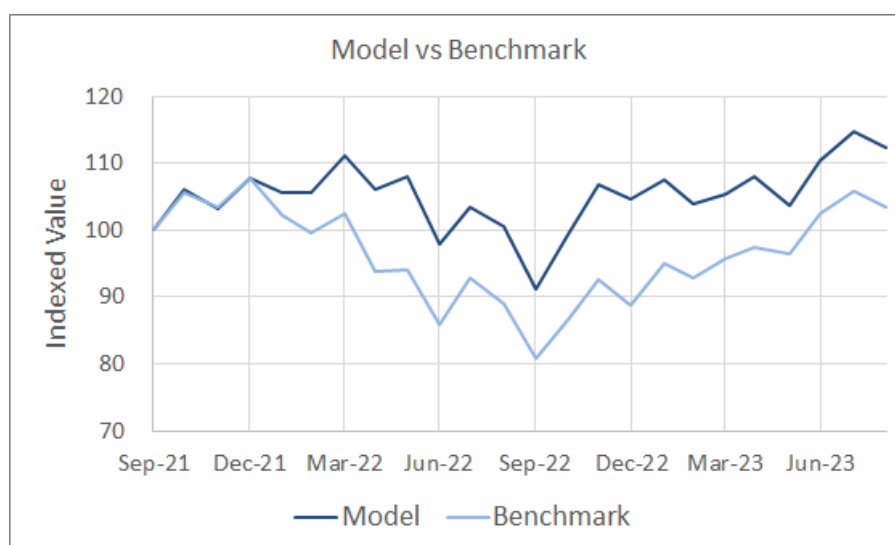

Figure 2: The indexed price development of the model vs the benchmark (MSCI World)

Evidence of Robustness

The above is just one example and of course could have been cherry picked. So now we shall look at more statistically robust evidence of the effectiveness of relative momentum in dynamically allocating across equity sectors.

Firstly in Figure 3 which shows the average allocation to the best 3 peforming sectors and the worst 3 performing sectors plotted against time. The line representing the allocation to the best sectors sits comfortably above the line representing the worst sectors. This is a snapshot at year end, so looks back at the year just closed, much like an investor might. With hindsight it's clear what the best sectors were and where the majority of the allocation should have been. But the model doesn't have this hindsight. It adjusts according to relative momentum every month as time goes by. But the result is clear, the momentum signals provide exposure to persistent outperformance. Allocating in this way and operating over time in a disciplined fashion tilts the portfolio towards the best sectors and away from the worst.
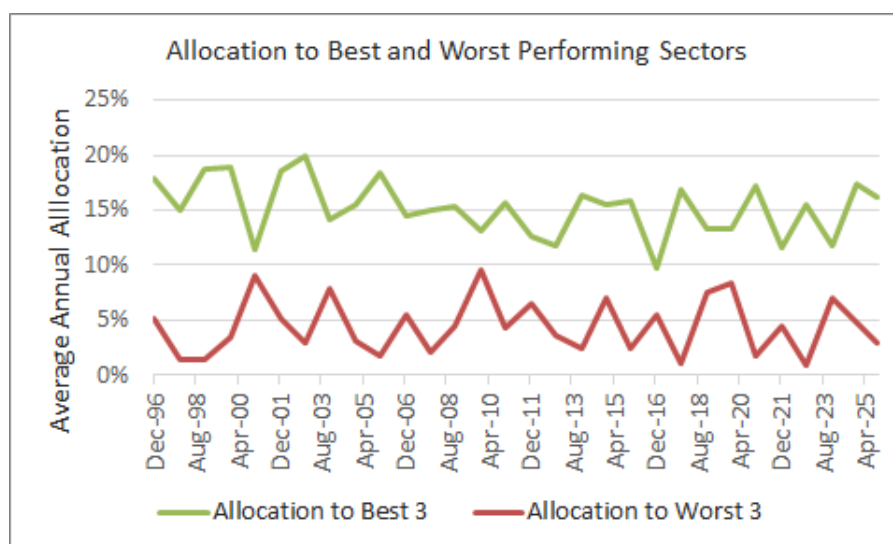

Figure 3: Allocation to the best and worst sectors at the end of each year

Another view of allocating to winners and avoiding losers is shown in Figure 4. This chart shows the average allocation to each individual sector over the last 6 months versus the outperformance of each sector versus the benchmark over the same timeframe. There are more points now as we look at each individual sector on a biannual basis. The dotted line shows the high positive correlation of allocating to sectors with stronger relative performance. Whilst not perfect, this allocation approach is successful and generates outperformance. The process also avoids the worst sectors in period of crisis which lowers losses and improves recovery time.
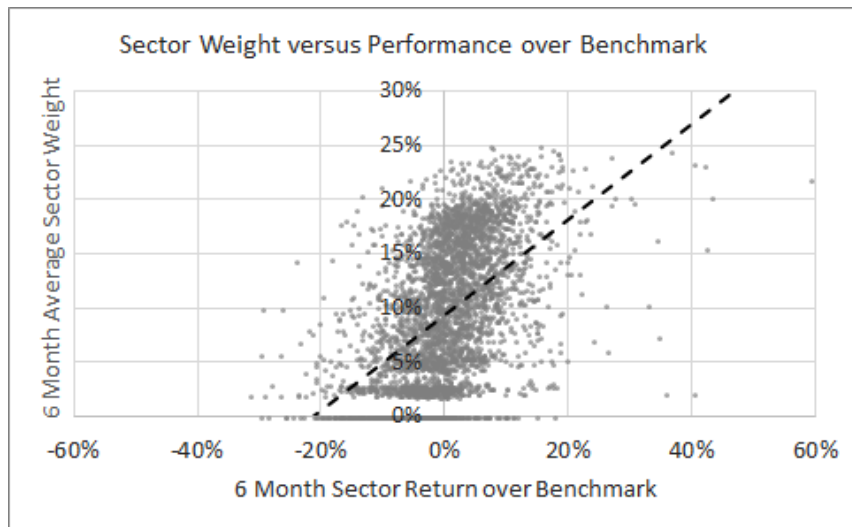
Figure 4: Sector allocation versus sector performance over the benchmark

The keen mathematicians amongst you are now expecting a statistical measure of the power of momentum, not visuals or snapshots. So here are two measures.

Hypergeometric z-test (top k hit test)

This test answers a very simple question:

> *If sectors were selected at random, how often would we expect our chosen sectors to overlap with the actual top performers?*

It compares the observed overlap between:

- the sectors selected by the model (top k by weight), and
- the sectors that over the **next 3 months** turn out to be the top performers,

against what would be expected purely by chance, given:

- the total number of sectors,
- how many sectors are selected, we set k=3 in the test, approximately top quartile,
- and how many sectors performed the best.

This test is relevant because the model makes discrete selections and the question in this test is selection skill, not return magnitude. In other words, it directly measures whether the model is systematically picking winners.

The results are shown in Table 1 below.

Hypergeometric z-test	
Number of months, T	355
Number of sectors, N	11
Top quartile sectors, k	3
Expected overlaps	290
Actual overlaps	339
Z-stat for overlap	3.734
Two-tailed p-value	0.0002
Z-stat confidence	99.98%
Probability by chance	0.02%

Here's how to interpret these numbers:

- T is sufficiently large for results to converge to normality
- The number of expected overlaps is $\frac{k^2}{N} \cdot T = 290$ meaning we would expect to see 290 overlaps over this time period
- The number of observed overlaps is 339
- The significance of this improved overlap number is measured by the z-statistic which has a value of 3.73 which is high and equivalent to the number of sigma or standard deviations away from zero on a return distribution. It's interesting to note that discoveries in physics require a sigma of 5, whilst in financial markets, due to higher noise levels, a sigma over 3 is considered significant
- The p-value measures the probability of this result happening by chance, the number represents a 0.02% probability, which is very low.

In short, this means the model identifies future winning sectors far more often than random chance would allow providing robust evidence that the model's sector selections contain genuine predictive information rather than statistical coincidence.

Spearman Information Coefficient (IC)

The Spearman Information Coefficient (IC) measures how well the model's ranking of sectors **today** aligns with their actual performance in the **future** (3 months). Unlike performance metrics that depend on portfolio construction choices, the IC focuses purely on ranking skill: whether sectors assigned higher model weights subsequently outperform those with lower weights. It is particularly relevant because momentum models are fundamentally ordinal in that they aim to order opportunities correctly rather than predict exact returns. The IC is complementary to the hypergeometric z-test: while the z-test evaluates discrete selection success (did the top picks land among the winners), the IC evaluates the entire cross-section, capturing whether higher conviction consistently translates into better outcomes across all sectors.

Each month, sectors were ranked according to the model's relative momentum measure. These ranks were then compared to the ranks of the sectors' realised forward returns over the **subsequent three-month period**. The Spearman rank correlation (IC) between the two rankings was computed for each month, producing a time series of monthly IC values.

The average IC across all months measures the model's typical ranking effectiveness, while the associated t-statistic tests whether this average differs meaningfully from zero. This approach isolates the model's predictive ordering ability, independent of portfolio or return magnitudes. Table 2 shows the results.

Table 2: Results of the Spearman Information Coefficient test

Spearman Information Coefficient	
Number of months, T	355
Mean IC	0.118
Standard deviation IC	0.396
Standard error	0.001
T-stat	5.635
Two tailed p-value	3.5×10^{-8}
IC hit ratio	65%

Here's how to interpret these numbers:

- T is sufficiently large, as before
- Mean IC of 0.118 although difficult to understand in isolation, confirms that on average, sectors receiving higher model rankings tend to achieve higher subsequent returns, indicating a strong and economically meaningful ranking signal
- Standard deviation of IC = 0.396 which indicates monthly outcomes are volatile, reflecting the naturally noisy and unpredictable nature of financial markets and a reminder that consistent application of the model over time creates the value
- Standard error of 0.001 is very small due to the large sample size, allowing for precise estimation of the model's true ranking ability
- The t-statistic of 5.6 is very high, more than 5 standard deviations away from zero, providing extremely strong evidence that the model's ranking skill is not due to chance. It's worth noting that the standard deviation of IC appears large compared to the mean IC, but aggregating over this lengthy time-period greatly reduces the error in estimation which leads to the very high t-stat.
- The p-value means there is an exceptionally low probability (less than one in ten million) that this result could arise randomly, confirming the statistical robustness of the signal
- IC hit ratio of 65% means than in nearly two thirds of the months, the model correctly ranks sectors such that higher-weighted sectors outperform lower-weighted sectors, demonstrating consistent directional accuracy.

In short, the Spearman Information Coefficient results show that the model delivers persistent, statistically robust, and economically meaningful sector-ranking skill, with performance that is highly unlikely to be explained by randomness and that is consistent across time, in this case a 30 year test.

Finally, as mentioned, this model was developed more than ten years ago. We are now in the process of building replicable indices and planning to launch early in 2026, allowing for wealth managers and product manufacturers to launch compelling products for end investors.

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