
SAFI Update and Review

Strategy Generates
+100-125 bps of Alpha
in Its First Year

We posted strong results in 2024, the first full year of performance for our live Systematic Active Fixed Income (SAFI) strategies. Our Systematic US High Quality (“HQ”) Intermediate and Long Corporate Bond strategies have achieved excess returns of +99 and +125 basis points (bps), respectively, against their A-rated or better corporate benchmarks in 2024, with limited tracking error of approximately 40 bps. Thus far, they have exceeded our performance expectations with respect to both alpha (25–75bps targeted over a full cycle) and tracking error (75–125bps over a cycle).¹

Strategy Update
**Systematic Active
Fixed Income**

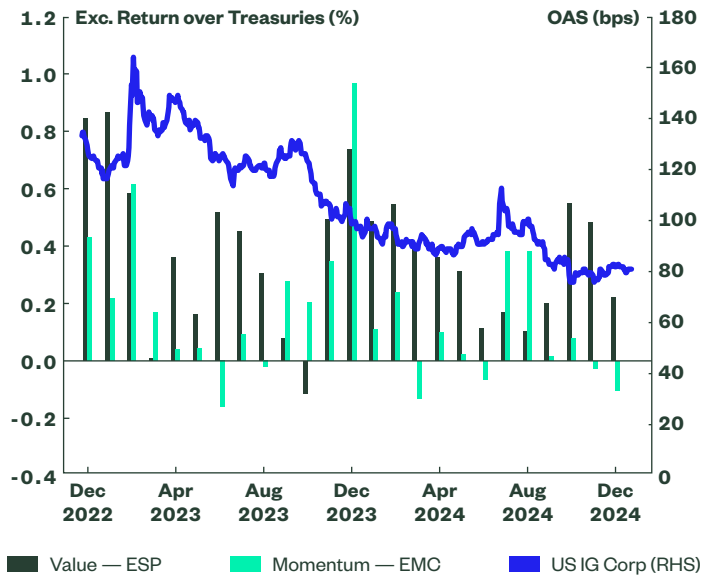
March 2025

The 2024 Credit Environment Favored Value; Momentum Shined During Volatile Periods

Over the past two years, with the exception of limited periods of volatility in March 2023 and July/August 2024, credit markets have been in a steady spread-tightening trend. Since the wides of over 160bps in early 2023, spreads have tightened to 100bps at the end of 2023, when we launched our live SAFI strategies. Since then, on the back of a continued resilient economy, solid corporate earnings results, and a healthy labor market — as well as an election-related risk-on rally in Q4 2024, spreads further tightened to 80bps in February 2025.

Factor data from the Barclays Quantitative Portfolio Strategy team (QPS) shows that the combination of value, momentum and sentiment factors performed well in 2024. Value effectively captured mean reversion in corporate bond pricing, while momentum and sentiment acted as risk control mechanisms and added to performance. These issuer and bond selection strategies within our SAFI portfolios are expected to perform in a variety of market regimes, with equity momentum being particularly useful in market downturns.

Figure 1 Value and Momentum Factor Returns Complement Each Other Through Spread Tightening and Widening Regimes



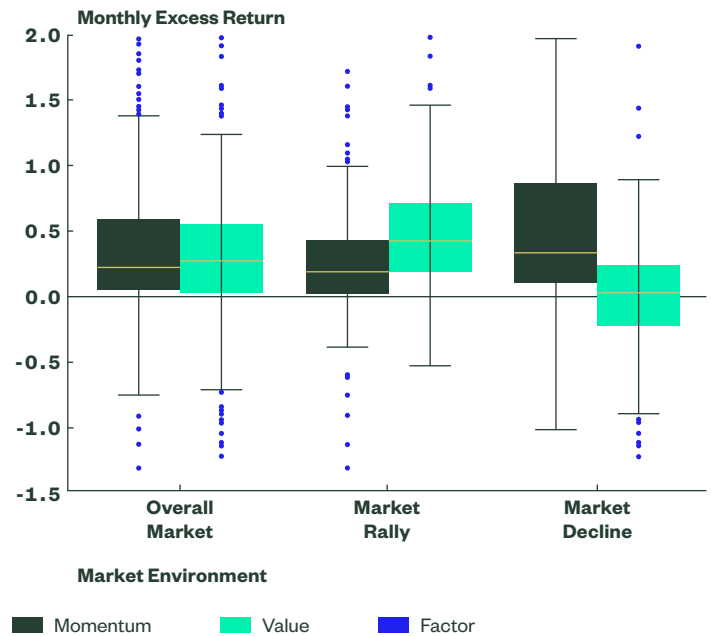
Sources: State Street Global Advisors, Bloomberg Finance L.P., Barclays QPS. The QPS factor performance analysis monthly divides the investment universe (Bloomberg US Investment Grade Corporate Index) into quintile portfolios sorted by signal score. Factor performance is calculated as the difference in returns over duration-matched Treasuries between the top-quintile scoring bonds and the bottom-quintile scoring bonds. Turnover is not controlled, and transaction costs are ignored.

All three factors had positive performances in 2024.

Background: The Diversification Qualities of the Value and Momentum Factors

We observe that value and momentum factors complemented each other well. Value — which tends to focus on relatively cheap wider-spread bonds within peer categories — performs well in credit-up markets. For momentum, there is a clear upward shift in the distribution of excess returns during credit-down markets (Figure 2). To learn more about how value and momentum can be complementary in certain market environments, see [Credit Style Factors Can Provide Crucial Insights During Late-Cycle Market Resilience](#).

Figure 2 Factor Performance in Credit Up and Down Markets: Value Versus Momentum



Sources: State Street Global Advisors, Barclays QPS. Analysis is conducted on monthly excess returns over like-duration Treasuries for the 1st-quintile portfolio of the highest-scoring bonds minus the 5th-quintile portfolio of the lowest-scoring bonds over the period from January 1993 to December 2024. The investment universe is the Bloomberg US Investment Grade Corporate Bond Index. Turnover is not controlled, and transaction costs are ignored. Past performance is not a reliable indicator of future performance.

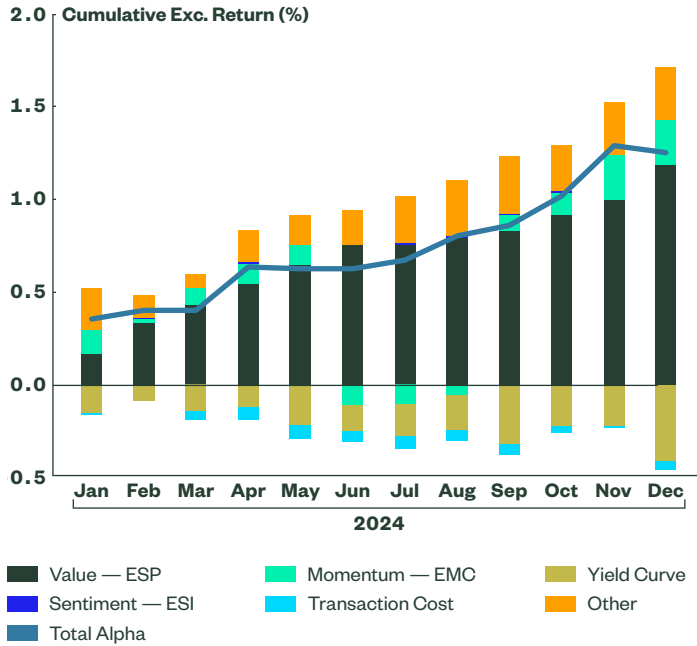
How Factor Theory Was Put into Practice in 2024

Factor attributions of our live SAFI HQ intermediate and long portfolios show three key takeaways:

- 1 As expected, the Value factor was the primary driver of performance in 2024 (Figure 3).
- 2 The Momentum factor played a more substantive role in the intermediate portfolio (Figure 4).
- 3 Transaction costs were overall very small, highlighting the key role of execution management for systematic credit, and thus, importantly, did not detract meaningfully from performance.

Figure 3 The Value Factor Was the Largest Contributor to 2024 Returns

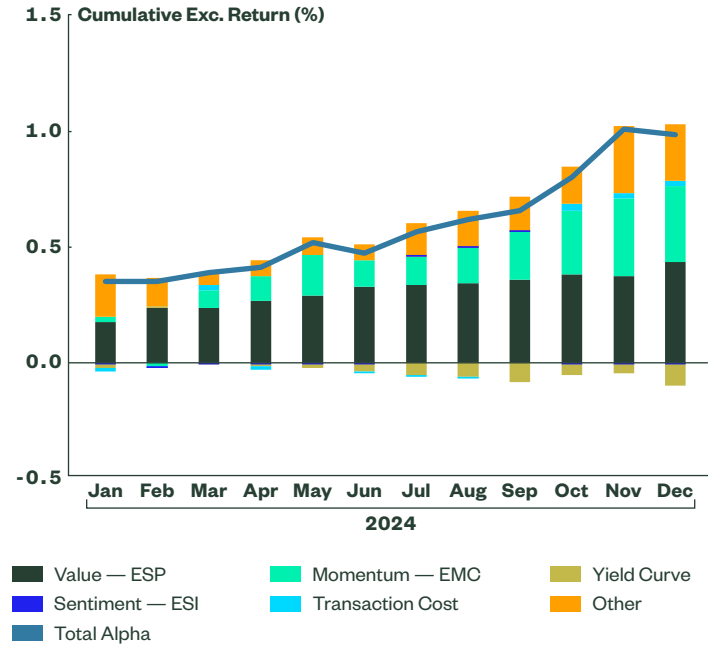
Systematic US High Quality Long Corporate Bond Portfolio Attribution



Sources: State Street Global Advisors, Bloomberg Finance, L.P. Attribution is conducted on the period from January 1, 2024, through December 31, 2024. Excess return is relative to the stated benchmark, which is the Bloomberg US Long Corporate A or Better Index. Other accounts for pricing differences as well as any bond-specific returns that could not be attributed to systematic value, momentum or sentiment styles.

Figure 4 Momentum Contributed More Prominently to Intermediate Performance

Systematic US High Quality Intermediate Corporate Bond Portfolio Attribution



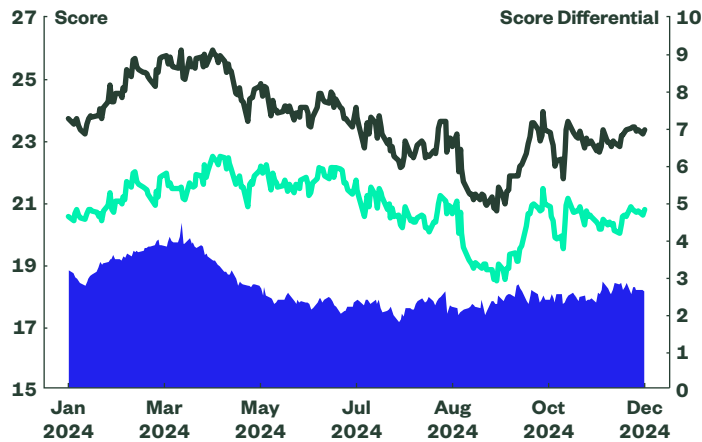
Sources: State Street Global Advisors, Bloomberg Finance, L.P. Attribution is conducted on the period from January 1, 2024, through December 31, 2024. Excess return is relative to the stated benchmark, which is the Bloomberg US Intermediate Corporate ex-Baa Index. Other accounts for pricing differences as well as any bond-specific returns that could not be attributed to systematic value, momentum or sentiment styles.

Our SAFI investment process is clear and transparent, with the objective being to maximize the composite factor exposure of the SAFI portfolio, subject to investment constraints. While the Value signal is designed to identify attractive, undervalued bonds, Momentum and Sentiment help improve accuracy and limit the risk of investing in “value traps.”

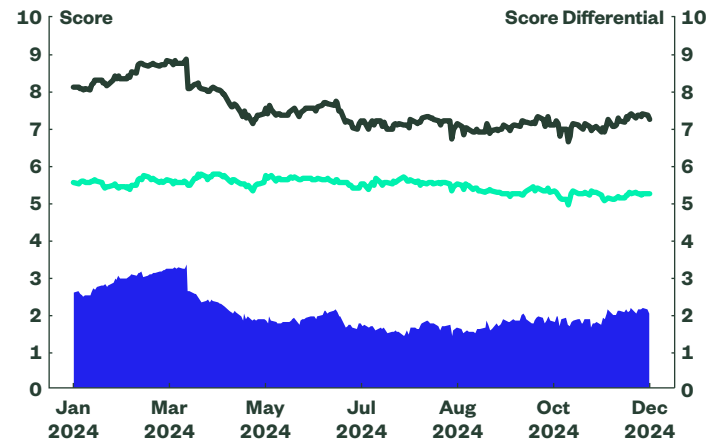
At the top level, we were able to maintain the net composite factor score of the systematic HQ intermediate portfolio relative to the benchmark ranging between +2 and +4.² In 2024, the portfolio’s combined score averaged 23.6 while the benchmark averaged 20.9. Most of that differential is attributed to the more stable value factor. As momentum scores tend to be more volatile than value scores, portfolio exposure to momentum can dissipate quickly and may require higher turnover to remain at a high level. Sentiment scores are almost identical between the portfolio and benchmark because only a handful of IG issuers had high equity short interest in 2024.

Figure 5 Portfolio Retains a Significant Signal Tilt Versus the Benchmark, Which Drives Alpha Generation

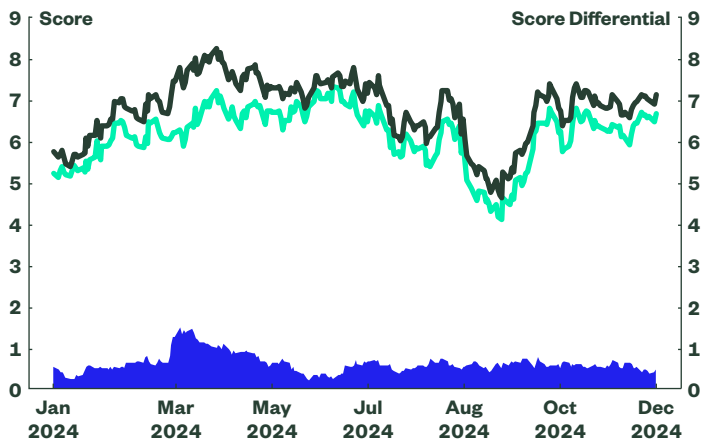
Combined Score



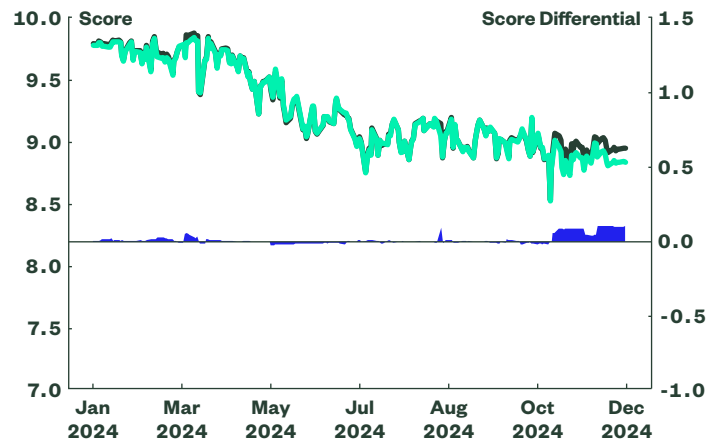
Value — ESP



Momentum — EMC



Sentiment — ESI



■ Portfolio
 ■ Benchmark
 ■ Score Differential (RHS)

Sources: State Street Global Advisors, Barclays QPS. Analysis uses daily data for the Systematic US High Quality Intermediate Corporate portfolio from January 1, 2024, to December 31, 2024. Individual scores range from 1 to 10 for individual signals and from 3 to 30 for the composite signal.

The Bottom Line: Skill in Trading and Execution Is a Key Ingredient for Success in Systematic Fixed Income

Portfolio positioning to create exposure to systematic style scores can enhance expected returns, but that's just one side of the equation; what about the cost side? Frequent buying and selling in fixed income erodes performance net of transaction costs.

Our and QPS research on portfolio construction document the trade-off between turnover and net performance using a realistic backtest of a systematic portfolio based on value, momentum, and sentiment. According to our analysis, incrementally raising monthly turnover increases transaction costs linearly, but not so with alpha net of t-costs. There is a diminishing marginal benefit to net performance, leading to a "sweet spot" that maximizes net excess return and information ratio. While a higher turnover does increase transaction costs, operating with a lower turnover could limit the ability to implement the strategies.

We target the average long-term turnover in the SAFI portfolio of 10% per month to achieve target returns. While this long-term level is consistent with turnover in a typical active credit mandate, lower or higher turnover can be realized over shorter periods depending on portfolio composition and market conditions. Higher turnover might be desirable in a volatile environment, while lower turnover can suffice during benign periods. For example, if most positions in the portfolio remain attractive from a score perspective, less turnover may be warranted. On the other hand, when a large proportion of the portfolio starts to look unattractive, more turnover may be desirable. Buy/sell transactions are always implemented in the context of the factor scores and execution costs.

Also, specific long-term turnover targets can be implemented at clients' discretion within our customizable framework. This is where our experience in fixed income markets, trading and execution can add value.

Improved execution and lower transaction costs are likely to make higher rebalancing beneficial for the performance of systematic portfolios. Indeed, when we compare our realized bid-ask spread to other commonly used liquidity metrics such as the Bloomberg LQA ("Liquidity Assessment") and Barclays LCS ("Liquidity Cost Scores"), we find that our trading results are better than these benchmarks would suggest.³

In conclusion, skill in execution and turnover management is critically important for the success of systematic fixed income strategies. The best quantitative research in the world remains a theoretical exercise until a skilled and experienced manager can take the ideas, implement them in a live portfolio, and ultimately generate outperformance.

Endnotes

- 1 Note: Due to significant spread tightening in 2024, along with strong performance in the Value and Momentum factors and solid trading execution from State Street Global Advisors, results for the year were stronger than indicated by back-tests.
- 2 On a combined score basis. Combined scores are calculated using an equal weighting of value, momentum, and sentiment factor scores, also referred to as signal scores. For further understanding of these scores, refer to [Constructing and Implementing a SAFI Portfolio](#).
- 3 State Street Global Advisors, Bloomberg Finance, L.P. Analysis was conducted on the Systematic US High Quality Intermediate Corporate Bond portfolio.

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* Pensions & Investments Research Center, as of December 31, 2023.

[†]This figure is presented as of December 31, 2024 and includes ETF AUM of \$1,577.74 billion USD of which approximately \$82.19 billion USD in gold assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated. Please note all AUM is unaudited.

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This document provides summary information regarding the Strategy. This document should be read in conjunction with the Strategy's Disclosure Document, which is available from SSGA. The Strategy Disclosure Document contains important information about the Strategy, including a description of a number of risks.

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