

The Case for Systematic Investing in Credit

We believe that now is the time for systematic investing in credit. Only more recently with the advances in technology, electronic trading, portfolio trading and market efficiency in credit have we finally seen an enabling environment for the capture of value-add from a systematic, factor-based investing approach.

Historical backtesting of quantitative signals suggests that a factor-based, systematic approach to investing in credit can drive outperformance relative to a broad benchmark index. In addition, systematic investing can provide significant benefits to investors, such as consistent signal-driven excess returns, a diversifying return profile as compared to active fundamental managers, and a clear and transparent process. An important contributor to this outcome includes the availability of frequent signal updates across broad universes of securities. Credit market innovations such as electronic trading and portfolio trading have led to greater transparency in corporate bond trading and lower transaction costs over time, facilitating the successful implementation of systematic strategies today. Management of systematic portfolios relies on data analysis and implementation skill to achieve three objectives:

- Aims to maximize exposure to high scoring bonds;
- Adhere to defined risk constraints; and
- Control costs by balancing limits on turnover with expected benefits of each transaction.

Strong Evidence for Factor-Based Signals Driving Alpha Generation in Credit

Within the investment grade corporate universe, some issuers and bonds have more (or less) desirable characteristics than others. For example, some companies may exhibit fundamentals such as profitability or indebtedness that are not fully reflected in their pricing. Alternatively, market sentiment may favor a different set of companies. Each characteristic that could potentially lead to outperformance (or underperformance) can be identified as an alpha factor and can be applied to create a portfolio tilt. A systematic strategy takes an algorithmic approach that evaluates all securities in an investment universe based on their exposures to these factors to best position the portfolio. Three alpha factors that are often identified in the investment grade corporate bond market include value, momentum, and sentiment.

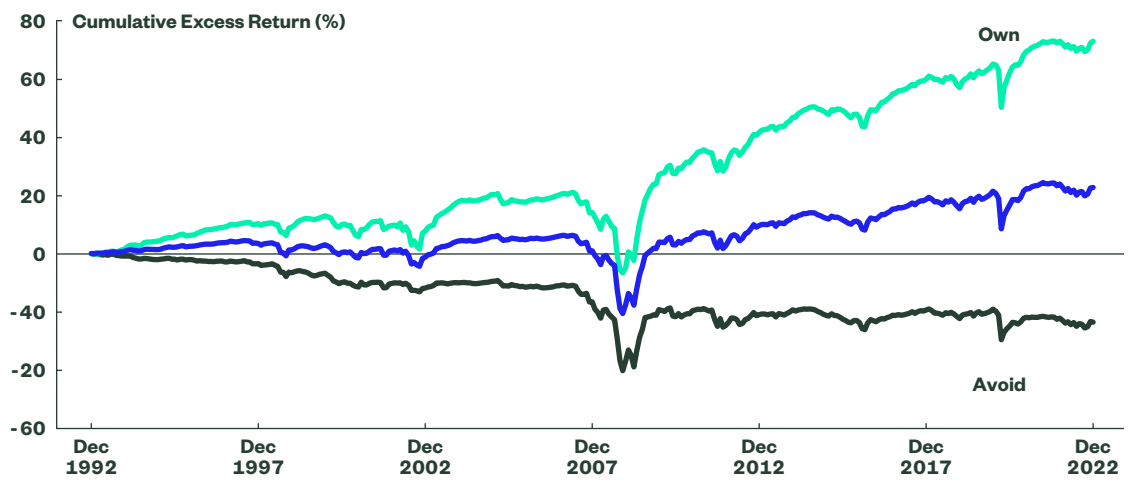
As an illustration of value as an alpha factor, we looked at its performance over time. Value addresses how attractive (rich or cheap) a bond is relative to a group of peers with comparable issuer fundamentals and bond characteristics (such as quality, sector, and maturity). To capture relative value for corporate bonds, the Barclays Quantitative Portfolio Strategy (QPS) team developed a relative value signal based on an innovative methodology.¹ It assigns numerical scores to each bond in the relevant investment universe according to its relative valuation versus peers, adjusted for company fundamentals. A high score indicates attractiveness.

In a simple performance test, over a series of months, we partitioned the bond universe into quintile portfolios based on their value scores and measured their returns. Figure 1 shows the cumulative excess return performance (versus like-duration Treasuries) going back to 1993 of the top-quintile portfolio, the bottom-quintile portfolio, and the index.

This analysis demonstrates the predictive power of the value signal. High-value bonds have delivered consistently better performance than low-value bonds, resulting in both higher average excess returns and higher information ratios.

Figure 1
Bonds That Score High on Value Have Outperformed

■ Low Value Portfolio (Q1)
■ High Value Portfolio (Q5)
■ US IG Corporate Index



Source: Barclays QPS Research. Analysis uses monthly data from January 1993 to December 2022. Performance is shown as cumulative excess return over US Treasuries of identical duration, before transaction costs. Past performance is not a reliable indicator of future performance. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable.

Similarly, we can use momentum and sentiment signals as alpha factors to complement the relative value signal. A composite signal that combines relative value, momentum and sentiment has been shown to deliver stable and significant alpha in corporate bond markets.

Harnessing the Strength of Signals: A Lesson in Systematic Investing

Historical backtesting shows that maximizing exposure to value and other quantitative signals with demonstrated efficacy is likely to result in positive outcomes for investors. Systematic strategies rely on data analysis and implementation skill to incorporate these quantitative signals into portfolio construction. This approach aims to outperform an index by seeking opportunities to allocate to attractive securities, and away from those deemed unattractive according to these signals. These strategies aim to take a rules-based approach to decision-making, with a three-fold objective:

- **Maximize exposure to high-scoring bonds**, continuously evaluating opportunities across a broad investment universe of securities.
- **Perform highly disciplined risk management**, limiting issuer concentration and deviations from benchmark risk exposures, avoiding unintended risks, and restricting the possibility of large unexpected deviations from benchmark returns.
- **Control costs by balancing limits on turnover with the expected benefits of each transaction.**

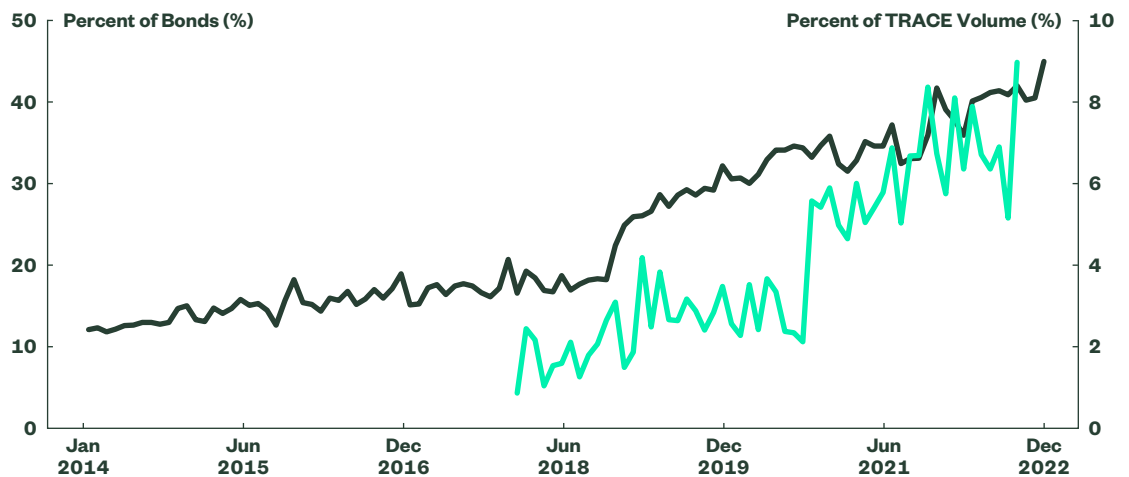
Guardrails ensure that portfolio outcomes are driven by issuer and security selection, rather than by unintentional exposures to market risk.

Why Now: Advances in Data and Technology Enabling the Rise of Systematic Investing in Credit

The key reason why systematic investing has been much more widely adopted in equity markets than in credit markets is that equities are far more liquid. However, recent innovations in fixed income markets make it possible to overcome this liquidity barrier. The proliferation of electronic trading and fixed income ETFs, giving rise to basket and portfolio trading, has improved price transparency and increased the efficiency of trading in credit, even in the face of more recent upticks in volatility. **Figure 2** shows the growth of electronic trading and the rapid rise in the volume of portfolio trading inquiries over time, which have helped facilitate greater transparency and efficiency in the corporate bond market.

Figure 2
Innovations Including Portfolio Trading Continue to See Rapid Growth

■ % of US IG Corp Bonds Trading Electronically
■ IG Portfolio Trades as % of TRACE Volume (RHS)



Sources: Greenwich Coalition, as of December 31, 2022. Past performance is not a reliable indicator of future performance.

The key to a systematic strategy is breadth, or the ability to spread risk among a large number of small active risk exposures to issuers and bonds that score highly on various signals. This was not practical when only a thin layer of the most active corporate bonds could be traded on a liquid basis. The technological innovations in credit markets now make it more feasible to transact more bonds, allowing for greater portfolio breadth. Armed with these new tools, as well as expertise in substituting hard-to-trade bonds with more investable equivalents, an experienced execution team can finally make systematic investing in credit economically viable.

Concluding Thoughts

The systematic approach provides several benefits to investors:

- **Algorithmic Excess Returns** Quantitative signals, powered by Barclays QPS and based on alpha factors, can help investors differentiate between attractive and unattractive opportunities in credit, and therefore drive above-benchmark index returns.
- **A Diversifying Return Profile** By drawing on multiple algorithmic signals to drive outcomes, systematic strategies can offer a differentiated return profile free of biases. The performance of the systematic strategy can be complementary to many fundamental active strategies, whose performance tends to be highly correlated with corporate bond index excess returns.
- **Clear Transparency and Process** Awareness of how the data is being used to derive signals leads to greater transparency of portfolio construction parameters. The result is greater clarity on precisely how investment outcomes are achieved.

With clear rules-based signals and implementation processes in place, systematic strategies offer transparency; a complementary, diversifying return profile relative to fundamental active strategies; and attractive economics to investors.

Endnote

- 1 Simon Polbennikov, Albert Desclée, and Mathieu Dubois, "Implementing Value and Momentum Strategies in Credit Portfolios," *The Journal of Portfolio Management, Quantitative Special Issue*, 47, no. 2 (2021): 82–98, <https://doi.org/10.3905/jpm.2020.1190>.

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* Pensions & Investments Research Center, as of December 31, 2022.

[†] This figure is presented as of June 30, 2023 and includes approximately \$63 billion USD of 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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prior to maturity may be subject to a substantial gain or loss.

Sample portfolio returns shown above are hypothetical and are based on the returns of the underlying market indices in the proportions shown above. The methodology used was taking the Bloomberg US Corporate Index, dividing it into quintiles from lowest to highest Value score, and measuring the returns. The Value score is a proprietary relative value score from Barclays QPS. Market indices are unmanaged and not subject to fees and expenses, which would lower returns. Neither index performance nor sample portfolio performance is intended to represent the performance of any particular mutual fund, exchange-traded fund, or product offered by SSGA. SSGA has not managed any accounts or assets in the strategies represented by the sample portfolios. Actual performance may differ substantially from the hypothetical performance presented. Past performance is not a guarantee of future results.

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