March 2025 | Investment Perspective

Systematic Credit: The Next Frontier in Credit Investing

This ground-breaking strategy seeks to enhance performance and risk-management opportunities in fixed-income portfolios.

KEY TAKEAWAYS

- A revolution in fixed-income trading has given rise to systematic credit, an innovative fixed-income investment strategy.
- This next-generation approach to credit investing offers investors the potential for attractive, uncorrelated returns at a low cost.
- Its transparent, repeatable approach may make systematic credit an appropriate core allocation or attractive complement to fundamental credit managers.

GLOBAL FIXED INCOME

MUTING REN
Head of Systematic Credit

EMBRACING SYSTEMATIC CREDIT

Investors' corporate credit portfolios have featured systematic strategies since the early 2000s. However, they have not yet gained the wide acceptance they have in equity markets.

Systematic credit strategies seek to generate active returns using a well-defined and repeatable quantitative process. The process identifies factors associated with active return sources and then incorporates these factors into security selection and portfolio construction models. While this is similar to the process used in equities, the systematization of corporate credit is generally much more challenging.

Today, that's all changing. Thanks to the revolution occurring in fixed-income trading, systematic credit has emerged as an innovative strategy that can deliver important enhancements to fixed-income portfolios:

- Active return—driven by security selection—delivering a low correlation with traditional fundamental credit strategies.
- Diversified exposure to various factors that may drive outperformance over time.

TRADING REVOLUTION HAS UNLOCKED SYSTEMATIC CREDIT'S OPPORTUNITIES

Systematic investment strategies are not new. For decades, equity investors have relied on such methods to capture factor-driven return sources.

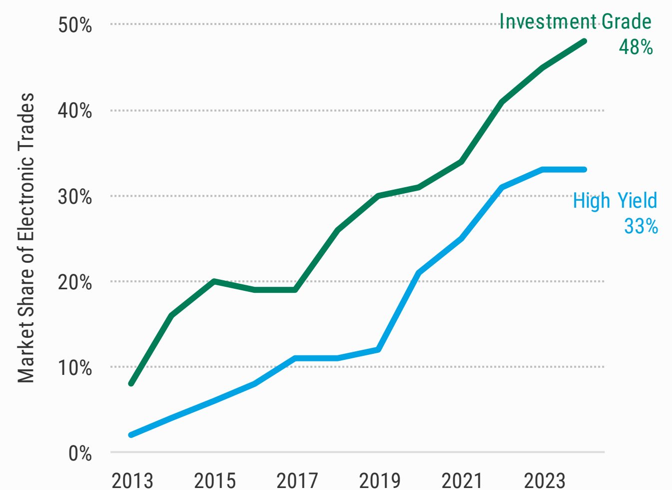
Recently, a revolution in credit trading — the shift from voice-based bond trading to electronic platforms — has unlocked similar opportunities for fixed-income investors. This has been a major boon for systematic managers who thrive when increased volume improves liquidity in overlooked parts of the market. This includes issuers and securities that are not well-covered by fundamental analysts.

Thanks largely to liquidity gains in the credit market, systematic credit managers can now find potential value where most fundamental managers aren't looking.

According to data from Coalition Greenwich, electronic trading now accounts for almost 50% of the average trading volume in the investment-grade corporate credit market. See **Figure 1**. That is up from just 8% in 2013.

In the high-yield market, electronic platforms drive more than 30% of volume. As a result, the liquidity previously concentrated in the largest and most recent bond issues has spread to further areas of the credit markets.

Figure 1 | The Electronification of Credit Markets



Data from 2013-2024. Source: Coalition Greenwich.

In addition, the growing popularity of fixed-income ETFs has further enhanced credit market liquidity. ETF strategies have become significant buyers of bonds, creating more volume across credit markets. Today, ETF-driven corporate bond transactions account for nearly 25% of average daily trading volumes, according to Bloomberg.

These recent developments in credit market trading should drastically improve the implementation of systematic credit strategies. More important, the capture of active return sources may become more robust and sustainable.

CREDIT MARKETS OFFER MANY ACTIVE RETURN SOURCES AND ARE PRIMED FOR AN ACTIVE SYSTEMATIC APPROACH

The credit market offers numerous opportunities for skillful managers to exploit active return sources. By constructing a portfolio emphasizing these sources, investors can more reliably pursue excess returns over the benchmark. Systematic credit strategies that uncover and invest in overlooked sources of active return can deliver diversification and potential performance benefits.

We can broadly categorize these active return sources into three types based on the drivers of expected returns.

1. Structural or Behavioral Inefficiencies

The first active return source is related to market inefficiencies. Institutional constraints, market segmentation and investor behavioral biases can create market inefficiencies that systematic strategies can exploit. For example, institutional investors, such as insurance companies or pension funds, often invest in long-maturity corporate bonds to match their long-duration liabilities.

However, the roll-down return (the price gain created by the decline in a bond's yield as it approaches maturity) is often limited for longer-dated bonds (Figure 2, Panel A). This is because the default risk expectation for long-maturity bonds tends not to change meaningfully over short periods. Combined with volatility caused by credit downgrades, long-maturity corporate bonds tend to deliver lower-than-expected excess returns.

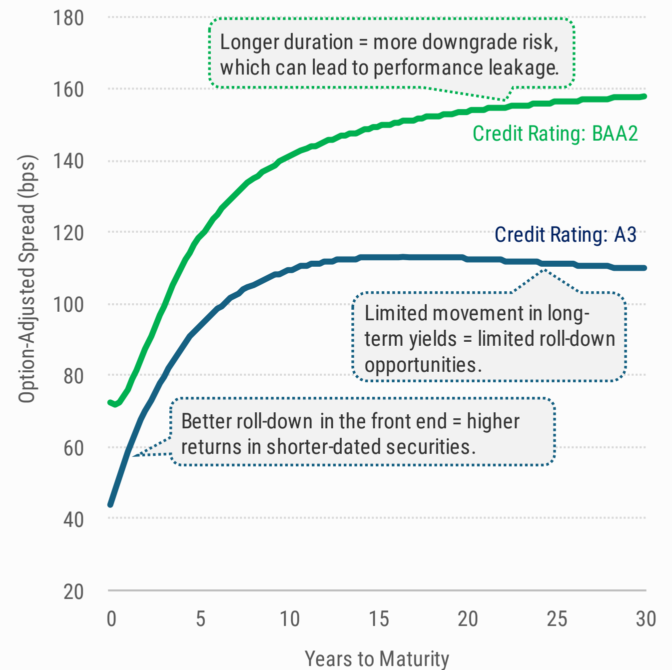
You can see this dynamic in Figure 2, Panel B. The average option adjusted spread (OAS) reflects the expected return investors demand for carrying credit risk. Over the long term, investors should expect a realized excess return close to the starting credit spread.

We define the ratio between the expected excess return (OAS) and the realized excess return as the capture ratio. As Panel B illustrates, OAS for the ICE BofA 10+ Year US Corporate Index was 182 bps, while annual excess returns totaled 98 bps. In this case, performance leakage resulted in a capture ratio of only 54%.

This dynamic indicates investors are under-compensated for extending duration, and better risk-adjusted opportunities exist among shorter maturities. This is a structural inefficiency that systematic strategies can exploit.

Figure 2 | Structural Inefficiency in Long-Dated Bonds

Panel A



Data as of 12/31/2024. Source: ICE BofA US Corporate Index. Credit ratings represent the index's average credit rating from Moody's Ratings, Fitch Ratings and S&P Global Ratings. The A3 rating represents high-quality bonds, while the BAA2 rating represents lower-medium-grade credit quality.

Panel B: Summary Statistics for ICE BofA Indices Compared to Treasuries of Similar Duration for the 20 years ended 12/31/2024

	1-3 YEAR US CORPORATE INDEX	US CORPORATE INDEX	10+ YEAR US CORPORATE INDEX
AVERAGE OAS (bps)	110	152	182
ANNALIZED EXCESS RETURN (bps)	96	111	98
CAPTURE RATIO	87%	73%	54%

Data from 12/31/2004 - 12/31/2024. Source: ICE BofA, American Century Investments.
Past performance is no guarantee of future results.

2. Fundamental Credit Analysis

The second type of active return source involves systematizing the process used by fundamental credit analysts and applying these insights to a broad investment universe.

To understand a company's ability to service its debt, a fundamental credit analyst typically begins by assessing the company's:

- Competitive position.
- Revenue segmentation.
- Profitability.
- Leverage.
- Capital deployment policy.
- Cash flow generation capability.

This analysis requires time and significant resources. It may also introduce certain human biases into the investment process.

Applying a systematic approach to large datasets can replicate these assessments quickly and efficiently. Furthermore, advancements in artificial intelligence and other technology have opened new avenues to capture active return sources previously accessible only through fundamental analysis. For example, these technologies can automatically quantify management's qualitative viewpoints from transcripts and earnings calls.

A systematic process can capture fundamental inputs more efficiently and at a lower cost.

3. Risk Compensation

The third type of active return source is the ability to harvest risk premia within credit markets. Understandably, investors demand appropriate compensation for taking on the risks associated with active return sources. For example, investors pursuing trend-following or momentum (buying winners and selling losers) strategies require a premium due to the perceived higher volatility of these strategies.

Whether it is market inefficiency, fundamental replication or harvesting risk premium, capturing these active return sources requires specific skills. These include understanding the drivers of returns, gauging market dynamics and proficiently applying quantitative tools.

HOW AMERICAN CENTURY'S SYSTEMATIC CREDIT APPROACH CAPTURES ACTIVE RETURN SOURCES

Our Systematic Credit Team identifies factors designed to capture active return sources. The team's factor library houses more than 100 factors categorized into seven groups based on quantitative significance: carry, value, momentum, quality, size, volatility and alternative. Figure 3 shows sample factors within each category.

We believe American Century's proprietary model creation framework identifies the most relevant and powerful factors to include when building our forecasts. The model employs a repeatable, dynamic and multifactor approach aimed to improve the diversification and consistency of returns.

Combining various active return sources allows the team to better navigate real-world complexities, decreasing the potential for large drawdowns. It also highlights a competitive advantage for delivering attractive return potential for clients.

Figure 3 | A Broad Range of Factors Uncovers Alpha-Generation Potential

FACTOR GROUP	EXAMPLE FACTOR	DEFINITION	DIRECTION
CARRY	Spread per duration	The spread compensation on a unit-duration basis	Higher-spread bonds should deliver better returns.
VALUE	OAS sector-rating curve RV	The spread difference between bond OAS and fitted spread at the same maturity on its sector-rating curve	Cheaper bonds should deliver better returns.
MOMENTUM	Equity momentum	Issuer equity performance during a specific lookback window	Bonds with positive equity momentum should deliver better returns.
QUALITY	Cash-based operating profitability	Cash-based operating income as a percentage of total assets	Bonds from more profitable issuers should deliver better returns.
LOW VOLATILITY	Short duration	Measured by the bond's duration	Bonds with shorter duration should deliver better returns.
SIZE	Business diversification	The Herfindahl index for revenues includes business and geography segmentation. A higher value indicates a more diversified business	Bonds from more diversified issuers should deliver better returns.
ALTERNATIVE	Earnings revision	The ratio between analyst upgrade vs. downgrade on an issuer's earning outlook	Bonds from the issuers with more upward revisions should outperform.

Source: American Century Investments.

CORE STRENGTHS OF AMERICAN CENTURY'S SYSTEMATIC CREDIT CAPABILITY

Three core strengths provide the foundation of our systematic credit approach: deep factor research, robust risk management and liquidity integration.

Deep Factor Research

Factor identification requires significant research as high-quality data for corporate bond factor research remains scarce. To address this, the team has meticulously constructed a long historical dataset that facilitates in-depth factor research in the corporate bond market. Using this expanded dataset, we focus our factor research on three distinct investment cases with examples:

Case 1:
Reapply Factors from Different Asset Classes to Credit

Most industry research about factors has focused on the equity market, where certain factors, such as value and momentum, are common. While these factors may also apply to credit, the team must still test and refine them for the corporate bond market.

Equity momentum: Bonds of issuers with positive equity momentum have historically outperformed. This factor leverages the likelihood that bonds from companies with rising stock prices, improving financial strength and solid growth potential will deliver better performance. Because bond price movements generally lag equity price movements, the momentum factor identifies an information inefficiency the team seeks to capture.

Case 2:
In-depth Research and Enhancement of Existing Factors

Proprietary default model: Modeling default risk is a core component of managing credit portfolios. We developed our proprietary default risk model to incorporate state-of-the-art volatility modeling with the ability to better estimate tail risk. It helps identify mispriced securities relative to their default risk and the "falling knives" the portfolio should avoid.

Case 3:
Factors That Other Researchers Have Not Actively Pursued

Earnings announcement drift: Our research shows that bonds of issuers that have beaten their earnings expectations tend to continue to outperform versus those that have not. This proprietary factor captures the mispricing resulting from an anchoring bias that makes security prices slow to reflect the latest information.

Extensive factor research is a key driver of our systematic process. We only select those factors we believe provide significant alpha-generating potential and diversification benefits for our models.

To accomplish this, we developed our next-generation model creation framework. We designed this systematic process to handle a large volume of data and factor information without falling into the trap of overfitting or factor omission.

Much of our research concentrates on this implementation process, which is key to the success of our strategy. It also requires a significant investment in talent, technology and infrastructure. The details of this process merit a much longer discussion, which we will address in our next paper.

Robust Risk Management

Risk management is also integral to American Century's systematic credit investing approach. We use advanced optimization tools to construct portfolios with the highest return potential. These tools also ensure portfolio characteristics do not deviate significantly from the benchmark in terms of duration, credit rating and industry and spread curve exposure.

Beyond that, we recognize that non-traditional risk factors tend to display different return dynamics than traditional ones. Successfully managing these factors can have return and risk benefits for the portfolios.

For example, when investment-grade bonds slip into high-yield territory, they become fallen angels, a dynamic that often leads to forced selling from rating-constrained investors. Despite the short-term volatility, investing in fallen angels provides potential performance advantages from resulting pricing dislocations and subsequent recoveries. Opportunities arise as market participants catch up to index compositions and reevaluate the creditworthiness of these issuers amid credit spread movements.

Our portfolio construction process is balanced and flexible, ensuring disciplined control of all these factors. The process also leverages risk tools to monitor and manage projected beta and tracking errors in line with portfolio targets.[1] This comprehensive risk management framework may help mitigate potential losses and drawdowns while striving to deliver excess returns.

Liquidity Integration

Because effective liquidity management is crucial to credit investing, the team integrates liquidity considerations into the forecast models and portfolio construction process. This helps ensure that the portfolio only includes securities with sufficient trading liquidity.

Such considerations include issue size, time since issuance and past trading volume. The team also integrates transaction cost and slippage assumptions in the back test, along with live liquidity data feeds and input from American Century's securities traders.

Incorporating liquidity factors ensures our systematic credit portfolios remain nimble and can adjust to changing market conditions without incurring significant costs or disruptions.

[1] Targets are not meant to reflect any projection or promise of performance. No guarantee or representation is being made that any account will or is likely to achieve a target.

A COMPLEMENTARY ADDITION TO FIXED-INCOME PORTFOLIOS

Systematic credit investing's investment philosophy, process and tools aim to consistently deliver excess return potential generated entirely from security selection. Advanced technology allows systematic credit managers to access opportunities in often overlooked segments of the credit markets while maintaining well-defined risk guardrails. Overall, this approach potentially leads to:

- Higher capture ratios than passive strategies, with similar diversification benefits.
- Low correlation with fundamental credit strategies (see Figure 4).

Figure 4 | Systematic Investment-Grade Credit Simulation Results vs. ICE BofA Corporate Index

CHARACTERISTIC	RESULTS (1/1/2013-12/31/2024)*
Annualized Active Return (gross of fees)	1.01%
Annualized Active Return (net of fees)	0.86%
Tracking Error Volatility	0.58%
Sharpe Ratio	1.73
Maximum drawdown	-0.81%
Alpha	1.05%
Beta to Benchmark	0.99
Upside Capture	114%
Downside Capture	88%
Correlation vs. Morningstar US Corporate Bond Category Peers	0.28

*This timeframe coincides with the first year for which complete data are available (2013) through the most recent year-end. Data from 1/1/2013 - 12/31/2024. Source: Morningstar, American Century Investments. Correlations vs. peers based on historical monthly analysis of American Century Systematic Investment Grade strategy vs. 24 actively managed funds in the Morningstar US Corporate Bond peer group.

Allocating to systematic credit alongside existing fundamental credit allocations broadens exposure to different credit risk and return factors. This approach is designed to improve a portfolio's overall resilience. Furthermore, given the strategy's scalable and efficient nature, fees are generally low and competitive compared with traditional fundamental strategies.

The recent revolution in corporate bond trading and liquidity has greatly improved the implementation of systematic strategies, unlocking vast opportunities for investors.

As noted previously, our next paper in the series will examine in depth the technology and resource investments required to support a systematic investment strategy.

IMPORTANT: The back-tested performance results provided here are hypothetical. Hypothetical performance results have many inherent limitations. Hypothetical trading does not involve financial risk, and no hypothetical trading record can completely account for the impact of financial risk in actual trading.

In addition, the hypothetical performance results do not represent actual recommendations or trading decisions, and they may not reflect the impact that economic and market factors might have had on the investment decision-making. For example, the ability to withstand losses or to adhere to a particular trading program in spite of losses can adversely affect actual results. There are numerous other factors related to the markets in general or to the implementation of any specific trading program that cannot be fully accounted for in the preparation of hypothetical performance results, but which can adversely affect actual results.

No representation is being made that any account will or is likely to achieve profits or losses similar to those shown. In fact, there are frequently sharp differences between hypothetical performance results and actual results. Back-tested performance results do not represent the results of actual trading using client assets but were achieved by means of the retroactive application of a hypothetical portfolio that was designed with the benefit of hindsight. Thus, the hypothetical performance results should not be considered indicative of any actual performance results, or of any results that could be attained by clients. In fact, American Century was not managing client accounts in accordance with the hypothetical investment strategy during the period depicted.

Hypothetical performance is no guarantee of future results.

The hypothetical portfolio was constructed using a proprietary systematic credit model which drives the security selection and construction of the hypothetical portfolio. The ICE BofA U.S. Corporate Index was used as a proxy for passive exposure to the Investment Grade asset class. Excess return streams were calculated using hypothetical portfolio return minus benchmark return. All performance is shown gross of performance fees and net of estimated transaction costs. There were no material changes to the model or inputs during the simulation period. The hypothetical performance assumes the portfolio remained fully invested with no cash balances, external cash flows or withholding taxes. Interest and gains were reinvested.

Investment return and principal value of security investments will fluctuate. The value at the time of redemption may be more or less than the original cost. **Past performance is no guarantee of future results.**

Investments in fixed income securities are subject to the risks associated with debt securities including credit, price and interest rate risk.

Generally, as interest rates rise, the value of the bonds held in the fund will decline. The opposite is true when interest rates decline.

Diversification does not assure a profit nor does it protect against loss of principal.

No offer of any security is made hereby. This material is provided for informational purposes only and does not constitute a recommendation of any investment strategy or product described herein. This material is directed to professional/institutional clients only and should not be relied upon by retail investors or the public. The content of this document has not been reviewed by any regulatory authority.

The information contained herein must be treated in a confidential manner and may not be reproduced, used or disclosed, in whole or in part, without the prior written consent of American Century. Disclosure to any persons other than the recipient and its representatives is prohibited. More information is available upon request.

This document does not constitute an offer or solicitation to invest. American Century Investment Management (UK) Limited may not be licensed in all jurisdictions, and unless otherwise indicated, no regulator or government authority has reviewed this document, or the merits of the investment referenced herein. This document is provided on a privileged and confidential basis and, where required by local law, at the request of the recipient. This document (and the information contained herein) is for informational purposes only and is not to be reproduced, distributed or transmitted without the written consent of American Century Investment Management (UK) Limited. If you receive a copy of this document, you may not treat this as constituting a public offering and you should note that there may be restrictions or limitations to whom these materials may be made available. You should conduct appropriate checks to ensure that these materials are made available only to eligible recipients, pursuant to private placement exemptions, or are otherwise used in accordance with applicable law. If you wish to invest, it is your duty to inform yourself of, and to observe, all applicable laws and regulations of any relevant jurisdiction. In particular, you should inform yourself as to the legal requirements of so applying, and any applicable exchange control regulations and taxes in the countries of your respective citizenship, residence or domicile as well as any other requisite governmental or other consents or formalities which you might encounter which might be relevant to your purchase, holding or disposal of the investment. Past performance is no indication as to future performance and the value of any investment may fall as well as rise. Any investment is done at the investor's own risk.

This promotion has been approved with limitations, in accordance with Section 21 of the Financial Services and Markets Act, by American Century Investment Management (UK) Limited, which is authorised and regulated by the Financial Conduct Authority. This promotion is directed at persons having professional experience of participating in unregulated schemes and units to which the communication relates are available only to such persons. Persons who do not have professional experience in participation in unregulated schemes should not rely on it.

American Century Investment Management (UK) Limited is registered in England and Wales. Registered number: 06520426. Registered office: 12 Henrietta Street, 4th Floor, London, WC2E 8LH