Fixed Income Indexing Dynamics

Index-Linked Liquidity and Credit Market Price Discovery

S&P Dow Jones Indices
A Division of S&P Global

Randolf Tantzscher,
Senior Fixed Income Product Manager

5th March, 2026

S&P Dow Jones Indices Fixed Income

Over 20 years of experience
delivering and commercializing independent benchmarks and tradable fixed income and derivative indices

S&P Dow Jones Indices Fixed Income Solutions

World-class brands (iBoxx, CDX, iTraxx)
recognized for innovation, insight, quality and independence

Bonds (iBoxx / S&P DJI)
Broad, government, munis, corporate, inflation-linked, EM, hard and local currency

Credit (CDX / iTraxx)
Europe IG/HY, US IG/HY, EM, APAC

Leveraged Loans (iBoxx)
U.S. Leveraged Loans

Factors / Custom
Yield enhancement, risk protection, targeted exposure, duration targeting, bond ladder, fixed maturity, etc.

Sustainability Solutions
Climate (PAB / CTB), SRI screens, ESG scores, green, social and sustainability bonds

30,000+
Indices

$30T
CDS Trade Notional

100B+
TRS Trade Notional

$190B+
AUM in ETFs

250+
ETFs

Source: S&P Dow Jones Indices LLC, Morningstar, DTCC, OSTTRA. Data as of Dec 31, 2025. Chart is provided for illustrative purposes.

SPIVA® Fixed Income Around the World

Percentage of active funds underperforming their assigned benchmarks over 1-, 3-, and 5-year periods

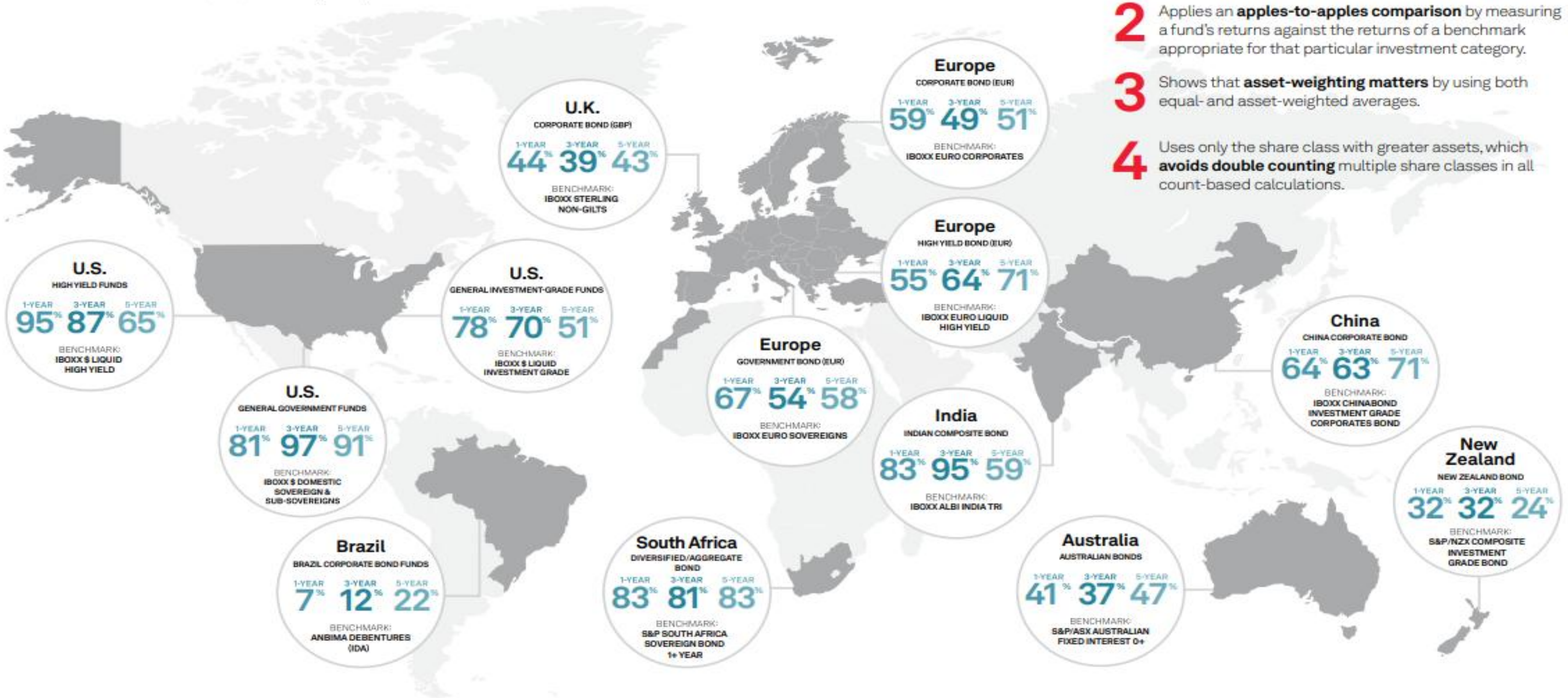
The SPIVA Difference

1 Accounts for the entire opportunity set — not just the survivors — thereby **eliminating survivorship bias**.

2 Applies an **apples-to-apples comparison** by measuring a fund's returns against the returns of a benchmark appropriate for that particular investment category.

3 Shows that **asset-weighting matters** by using both equal- and asset-weighted averages.

4 Uses only the share class with greater assets, which **avoids double counting** multiple share classes in all count-based calculations.



*Multiple benchmarks exist in all regions tracked by SPIVA. For more information on SPIVA methodology, including a full list of regional benchmarks and results, visit https://www.spglobal.com/spdji/en/research-insights/spiva.

Source: S&P Dow Jones Indices LLC, Morningstar, CRSP. Data as of June 30, 2025. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Key Index Uses Cases for Investors

Indices support assets allocation, ALM, risk management and specific cashflow solutions

Strategic Asset Allocation & Benchmarking

Rules-based indices for a reliable comprehensive dataset that supports research and decisions on **long-term allocation** and consistent performance measurement for portfolios.

Trading & Risk Management

Tradable fixed income instruments are tools to quickly adjust portfolio risks and exposures.

Asset-Liability Management

Liability discounting and duration-targeted benchmarks that can be customized to match liability profiles and help reduce funding-ratio volatility.

Specific Cashflow Solutions

Index-based solutions that help insurers manage predictable cashflows and build **maturity-aligned** portfolios.

Index Data for Strategic Asset Allocation

Indices provide a rich data set to understand the investment landscape

GEOGRAPHY

Country-of-risk specific exposures that support the understanding of how individual jurisdictions / groups of countries are positioned.

Regular breakdowns include:

EM/DM
Individual countries.

SECTORS

Sectors provide insight into issuers with similar risk characteristics or exposed to common economic forces.

Regular breakdown include:

Government, corporates, covered bonds
Corporate sectors (Financials, Non-Financials, industries)

RATINGS

Standard separation between Investment Grade and High Yield as well as indices for individual rating grades.

Regular breakdowns include:

IG, HY, Fallen Angels, Rising Stars and AAA, BBB, BB, CCC, etc.

MATURITIES

Maturity sub-indices highlight the risk-return profiles of short, medium and long-term exposures. Maturity exposures are often further customized to specific targets.

Regular breakdowns include:

0-1, 1–3, 3–5, 5–7, 7–10, and 10+.

S&P Dow Jones Indices Credit Ecosystem

Liquid fixed income instruments provide ease of trading, hedging and exposure

Exchange traded and centrally cleared

First U.S. Corporate Bond Index Futures

10 active market makers

250+ market participants

Seven iBoxx indices traded

Zero tracking error

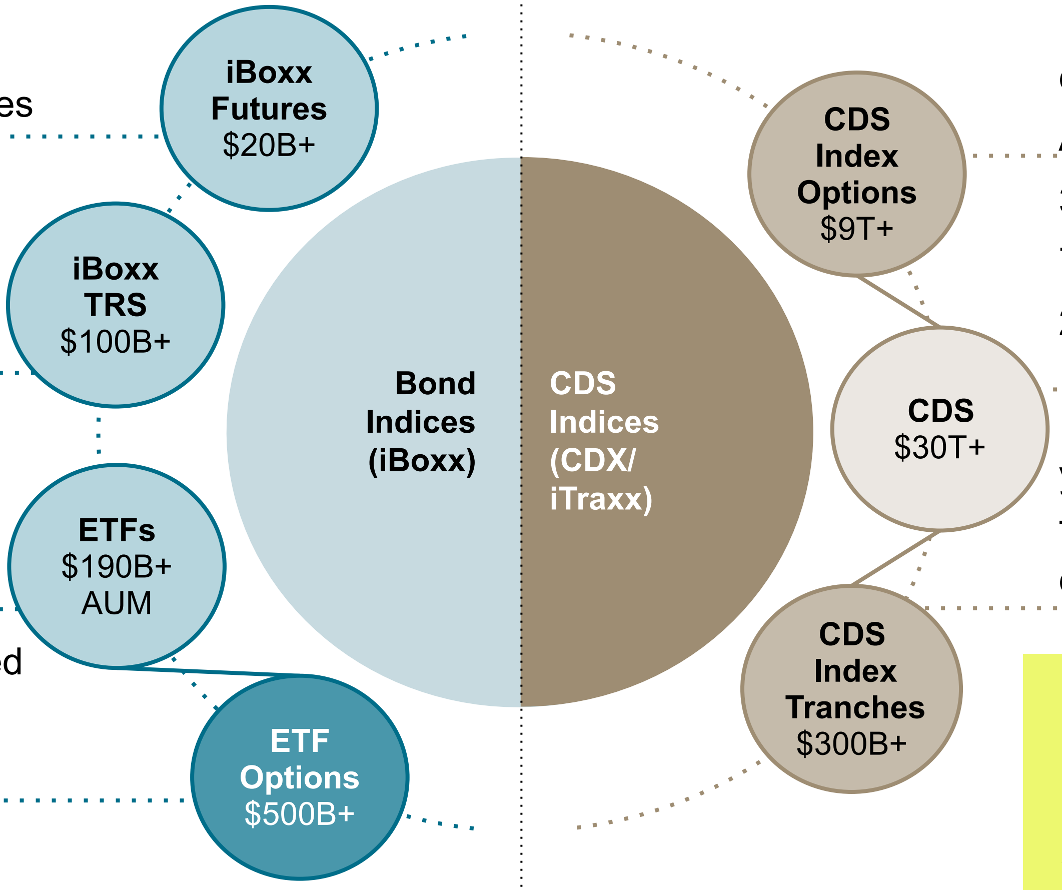
ADV of $5B – $9B

The most liquid fixed income ETFs in the market

Securities lending | Portfolio trading

Exposure to ETF volatility through listed options

Access tail risk



Industry preferred instrument to trade credit volatility

Access tail risk

30+ active market makers

70% of all corporate CDS exposure

2,500+ market participants

100% increase in trading in last 5 years

Targeted exposure to segments of credit risk

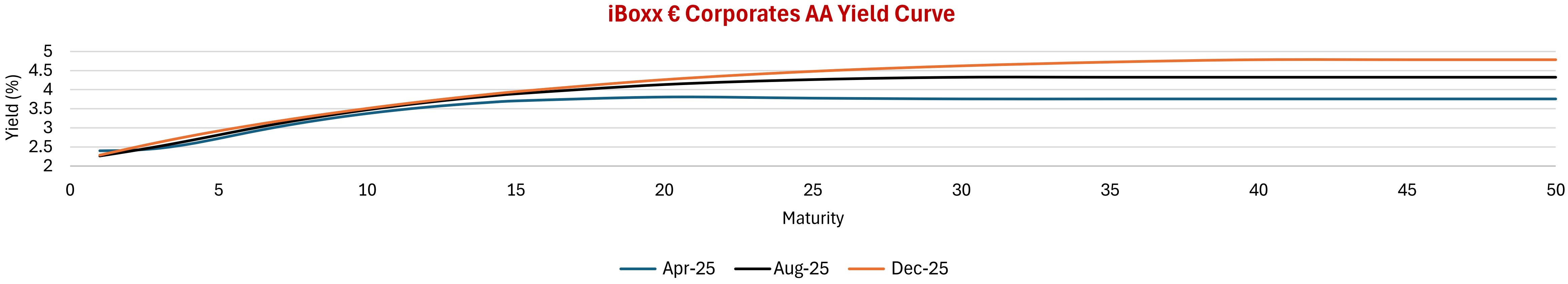
The ecosystem is **supported by strategic relationships** with asset managers, investment banks and exchanges across the fixed income value chain

Except where noted otherwise, data refers to annual gross notional traded. Sources: DTCC, OSTTRA, CBOE, S&P Dow Jones Indices LLC. Data as of 31, Dec 2025

ALM: Discounting Pension Liabilities with Corporate Yield Curves

Corporate yield curves support solutions for pension funds deploying LDI strategies

CHALLENGE	SOLUTION
Pension funds need of a data sources for a **corporate yield curve for assessing NPV of future liabilities and deploying LDI strategies**. Developing a well-sourced and high-quality yield curve for the relevant asset classes of the pension fund has been a growing need across European pension plans over the last ten years.	Corporate bond index yield curves give insurers reliable, independent data for modelling liabilities, setting duration targets, and supporting LDI frameworks across multiple currencies and maturities. **EIOPA (European Insurance & Occupational Pensions Authority)**: iBoxx indices are used as the official source of corporate bond yield data for calculating the Solvency II risk-free rate and volatility adjustments for non-government bonds.



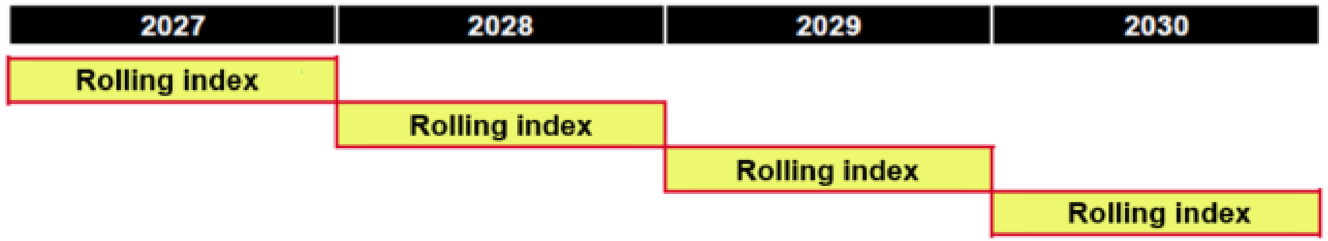
Source: S&P Dow Jones Indices LLC. Data from December 31, 2024, to August 31, 2025. Chart is provided for illustrative purposes. Past performance is no guarantee of future results.

Cash Flow & Maturity Solutions: Mirroring the Cash Flow Profile of a Bond

Fixed Maturity Indices and ETFs have grown in adoption over the last decade

CHALLENGE	INVESTOR USE
Creating a flexible solution that provides precise cashflows and allows for an easy assembly and adjustment of a target cashflow profile. These solutions were originally meant for a group of non-institutional clients and financial advisors who typically utilized single bonds to build bond ladders to manage interest rate risk and cash flow needs. Fixed Maturity ETFs had not existed prior to 2010.	Fixed maturity indices offer insurers **defined end dates and predictable cashflow profiles**, providing a diversified alternative to holding individual bonds. The indices help insurers plan reinvestment needs and structure portfolios with staggered maturities that align more naturally with liability and cashflow requirements.

Rolling Fixed Maturity ETFs Ladder (ETFs)



+ Predictable maturity cashflows
+ Payout when index matures
+ Smaller minimum size for ETFs
+ Diversification
+ Automatic Reinvestment

Source: S&P Dow Jones Indices LLC. Data from January 1, 2015, to November 30, 2023. Chart is provided for illustrative purposes. Past performance is no guarantee of future results.

Indexing Emerging Asset Classes

EMERGING MARKETS

Emerging market debt has been expanding as an asset class – with more EM countries becoming part of global benchmarks.
EM debt covers a wide array of instruments, including hard currency debt, local debt, inflation-linked debt and Sukuk

LEVERAGED LOANS

Leveraged loans are high yield instruments mainly linked to floating rates and are an alternative to traditional high yield bonds, especially during times of interest rate rises.

The S&P UBS Global Leveraged Loan index currently covers around U.S.$ 2 trillion of loans.

PRIVATE MARKETS

Increasing interest in Private Markets as an asset class require data solutions to improve transparency. Areas include

- Private Equity
- Private Stocks
- Private Credit

CLO

CLO as an asset class has grown significantly over the last 10 years - current size is around U.S.$ 1.5 trillion globally.

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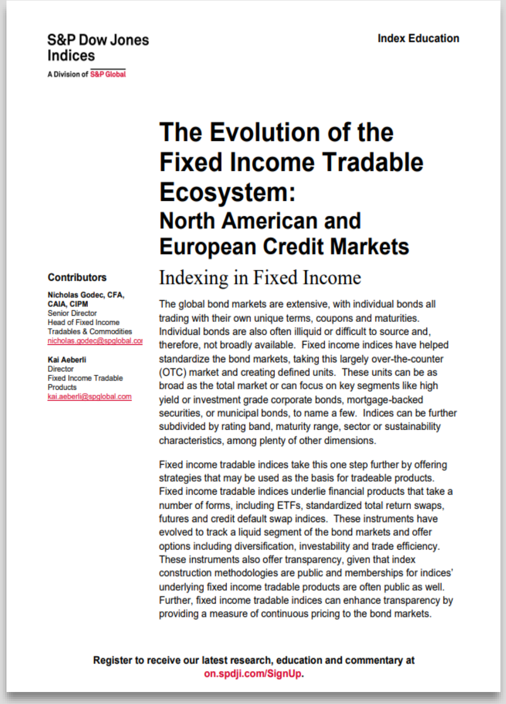
Examine the performance of sectors, markets, and asset classes—and the economic and current events that drive them—through the lens of market indices.

Resources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Index Education

The Evolution of the Fixed Income Tradable Ecosystem: North American and European Credit Markets

Indexing in Fixed Income

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The global bond markets are extensive, with individual bonds all trading with their own unique terms, coupons and maturities. Individual bonds are also often illiquid or difficult to source and, therefore, not broadly available. Fixed income indices have helped standardize the bond markets, taking this largely over-the-counter (OTC) market and creating defined units. These units can be as broad as the total market or can focus on key segments like high yield or investment grade corporate bonds, mortgage-backed securities, or municipal bonds, to name a few. Indices can be further subdivided by rating band, maturity range, sector or sustainability characteristics, among plenty of other dimensions.

Fixed income tradable indices take this one step further by offering strategies that may be used as the basis for tradeable products. Fixed income tradable indices underlie financial products that take a number of forms, including ETFs, standardized total return swaps, futures and credit default swap indices. These instruments have evolved to track a liquid segment of the bond markets and offer options including diversification, investability and trade efficiency. These instruments also offer transparency, given that index construction methodologies are public and memberships for indices' underlying fixed income tradable products are often public as well. Further, fixed income tradable indices can enhance transparency by providing a measure of continuous pricing to the bond markets.

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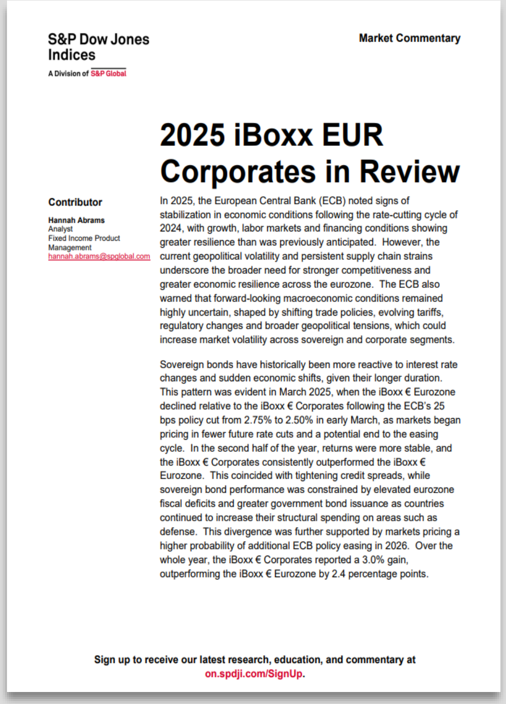
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Market Commentary

2025 iBoxx EUR Corporates in Review

Contributor

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In 2025, the European Central Bank (ECB) noted signs of stabilization in economic conditions following the rate-cutting cycle of 2024, with growth, labor markets and financing conditions showing greater resilience than was previously anticipated. However, the current geopolitical volatility and persistent supply chain strains underscore the broader need for stronger competitiveness and greater economic resilience across the eurozone. The ECB also warned that forward-looking macroeconomic conditions remained highly uncertain, shaped by shifting trade policies, evolving tariffs, regulatory changes and broader geopolitical tensions, which could increase market volatility across sovereign and corporate segments.

Sovereign bonds have historically been more reactive to interest rate changes and sudden economic shifts, given their longer duration. This pattern was evident in March 2025, when the iBoxx € Eurozone declined relative to the iBoxx € Corporates following the ECB's 25 bps policy cut from 2.75% to 2.50% in early March, as markets began pricing in fewer future rate cuts and a potential end to the easing cycle. In the second half of the year, returns were more stable, and the iBoxx € Corporates consistently outperformed the iBoxx € Eurozone. This coincided with tightening credit spreads, while sovereign bond performance was constrained by elevated eurozone fiscal deficits and greater government bond issuance as countries continued to increase their structural spending on areas such as defense. This divergence was further supported by markets pricing a higher probability of additional ECB policy easing in 2026. Over the whole year, the iBoxx € Corporates reported a 3.0% gain, outperforming the iBoxx € Eurozone by 2.4 percentage points.

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Market Commentary

2025 iBoxx EUR High Yield Indices Highlights

Overview

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In 2025, the iBoxx EUR High Yield Capped cum-crossover (hereafter referred to as the iBoxx EUR High Yield) delivered positive full-year performance despite periodic volatility and market repricing. Performance was largely income driven, supported by elevated yields at the beginning of the year and a moderate spread compression through 2025. Although credit spreads widened sharply in April due to heightened tariff-related uncertainty, spreads retracted and ended the year within multi-year historical ranges.

Index performance varied across maturities, ratings and sectors, highlighting the role of index composition in shaping results. Yield and spread dynamics remained the primary drivers of return dispersion, while sector-level developments, most notably the reduction in Core Financials weight, introduced sector composition changes within the iBoxx EUR High Yield over the year. The rating composition remained broadly stable, with only modest shifts across segments rated B, CCC and below.

Exhibit 1: 2025 Performance

Source: S&P Dow Jones Indices LLC. Data as of Dec. 31, 2025. Indices were rebased to 100 on Dec. 31, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

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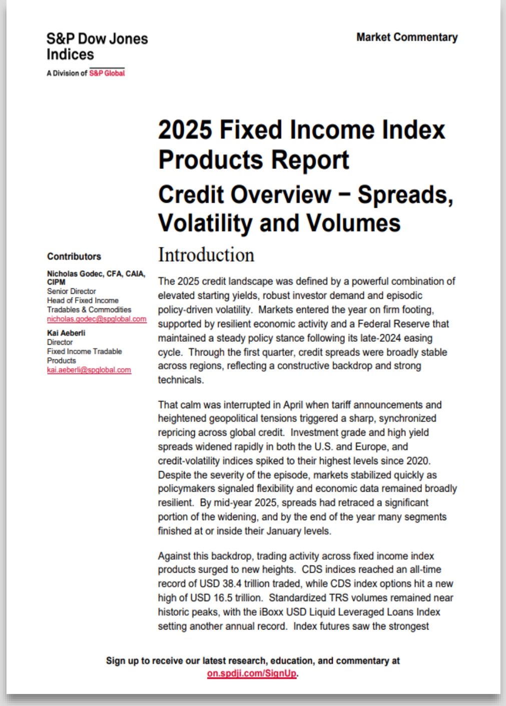
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Market Commentary

2025 Fixed Income Index Products Report

Credit Overview − Spreads, Volatility and Volumes

Introduction

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The 2025 credit landscape was defined by a powerful combination of elevated starting yields, robust investor demand and episodic policy-driven volatility. Markets entered the year on firm footing, supported by resilient economic activity and a Federal Reserve that maintained a steady policy stance following its late-2024 easing cycle. Through the first quarter, credit spreads were broadly stable across regions, reflecting a constructive backdrop and strong technicals.

That calm was interrupted in April when tariff announcements and heightened geopolitical tensions triggered a sharp, synchronized repricing across global credit. Investment grade and high yield spreads widened rapidly in both the U.S. and Europe, and credit-volatility indices spiked to their highest levels since 2020. Despite the severity of the episode, markets stabilized quickly as policymakers signaled flexibility and economic data remained broadly resilient. By mid-year 2025, spreads had retraced a significant portion of the widening, and by the end of the year many segments finished at or inside their January levels.

Against this backdrop, trading activity across fixed income index products surged to new heights. CDS indices reached an all-time record of USD 38.4 trillion traded, while CDS index options hit a new high of USD 16.5 trillion. Standardized TRS volumes remained near historic peaks, with the iBoxx USD Liquid Leveraged Loans Index setting another annual record. Index futures saw the strongest

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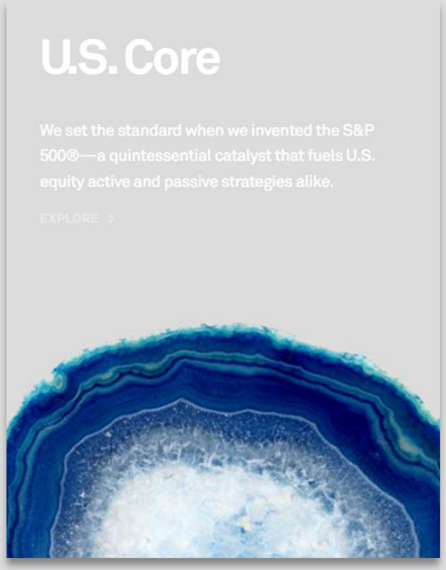

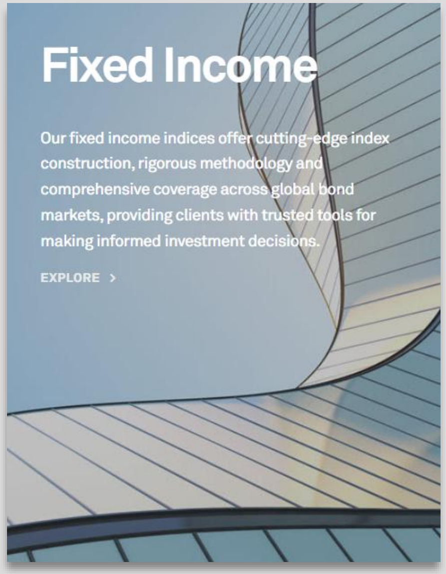

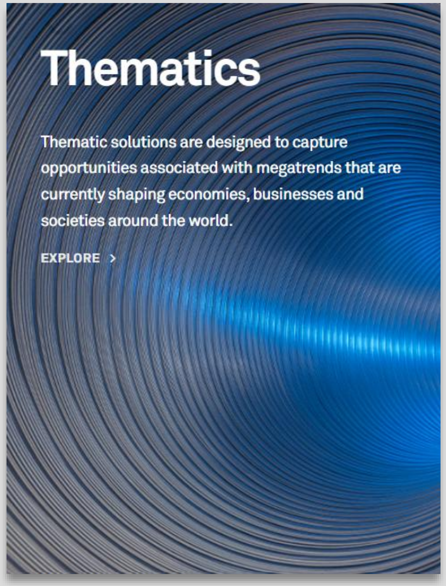

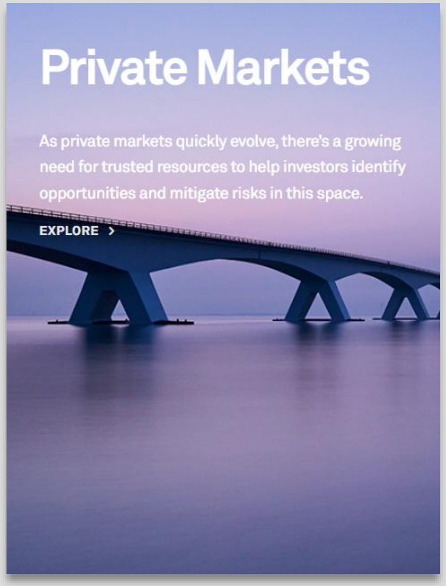

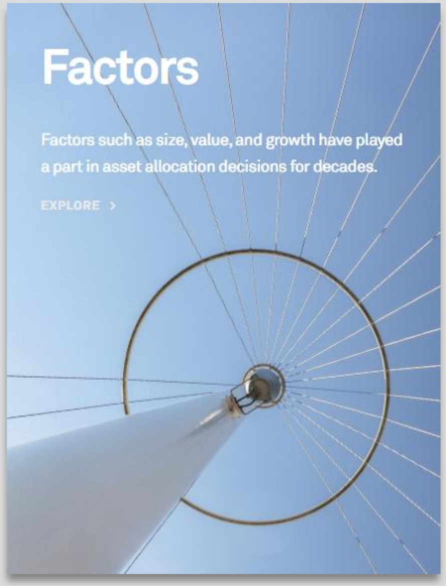

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Performance Disclosure/Back-tested Data

The Markit iBoxx EUR indices were launched 4/18/21. The Markit iBoxx EUR High Yield Indices were launched 1/1/07. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance, and is based on the index methodology in effect on the index launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Complete index methodology details are available at www.spdji.com. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations. Back-tested performance is for use with institutions only; not for use with retail investors.

S&P Dow Jones Indices defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the index is set to a fixed value for calculation purposes. The Launch Date designates the date when the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P Dow Jones Indices defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its data feed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

Typically, when S&P DJI creates back-tested index data, S&P DJI uses actual historical constituent-level data (e.g., historical price, market capitalization, and corporate action data) in its calculations. As ESG investing is still in early stages of development, certain datapoints used to calculate S&P DJI's ESG indices may not be available for the entire desired period of back-tested history. The same data availability issue could be true for other indices as well. In cases when actual data is not available for all relevant historical periods, S&P DJI may employ a process of using "Backward Data Assumption" (or pulling back) of ESG data for the calculation of back-tested historical performance. "Backward Data Assumption" is a process that applies the earliest actual live data point available for an index constituent company to all prior historical instances in the index performance. For example, Backward Data Assumption inherently assumes that companies currently not involved in a specific business activity (also known as "product involvement") were never involved historically and similarly also assumes that companies currently involved in a specific business activity were involved historically too. The Backward Data Assumption allows the hypothetical back-test to be extended over more historical years than would be feasible using only actual data. For more information on "Backward Data Assumption" please refer to the FAQ. The methodology and factsheets of any index that employs backward assumption in the back-tested history will explicitly state so. The methodology will include an Appendix with a table setting forth the specific data points and relevant time period for which backward projected data was used.

Index returns shown do not represent the results of actual trading of investable assets/securities. S&P Dow Jones Indices maintains the index and calculates the index levels and performance shown or discussed but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the Index or investment funds that are intended to track the performance of the Index. The imposition of these fees and charges would cause actual and back-tested performance of the securities/fund to be lower than the Index performance shown. As a simple example, if an index returned 10% on a US $100,000 investment for a 12-month period (or US $10,000) and an actual asset-based fee of 1.5% was imposed at the end of the period on the investment plus accrued interest (or US $1,650), the net return would be 8.35% (or US $8,350) for the year. Over a three-year period, an annual 1.5% fee taken at year end with an assumed 10% return per year would result in a cumulative gross return of 33.10%, a total fee of US $5,375, and a cumulative net return of 27.2% (or US $27,200).