# **S&P Dow Jones** Indices

A Division of S&P Global

# **TalkingPoints**

### The Democratization of Bond Markets and the Evolution of Fixed Income Indexing



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## 1. What innovations have you seen in fixed income, and what's the role of indices?

Fixed income markets have evolved tremendously over the last decade and continue to do so. Changes in fixed income market structure and constraints on bank balance sheets after the Global Financial Crisis both contributed to a more transparent and transactable bond market, with fixed income indices at the core. The growth of fixed income ETFs, bond portfolio trading, electronic trading and algorithmic trading have all occurred alongside the increased utility for fixed income indices and index-linked products. The resulting fixed income ecosystem has become the new marketplace for practitioners on both the sell-side and buy-side to source liquidity, gain exposures and manage risk. Fixed income indices have been, and continue to be, the instruments at the core of these vehicles.

S&P Dow Jones Indices' (S&P DJI's) index offerings have played a critical role in the evolution of the fixed income ecosystem, supporting greater access and democratization of fixed income instruments in the form of ETFs or index-linked securities. The bond markets have traditionally been difficult to access for many market participants. Indexation in fixed income has contributed to greater liquidity, transparency and accessibility for investors far and wide, providing access to an asset class that was inaccessible decades ago.

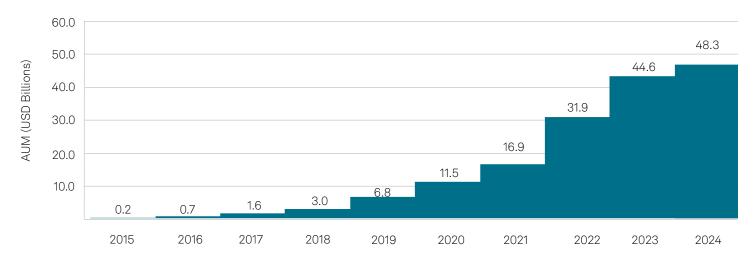
## 2. How is S&P DJI innovating in the fixed maturity indexing space?

Another recent product innovation has been the development of fixed maturity indices. We've seen the growth in the U.S. occur over the last 10 years, and it has begun this past year in Europe. Fixed maturity indices are an interesting concept that may provide investors with greater visibility into maturity and potential income, with a 'fixed' year in which the index will expire. This is important for many practitioners who have cash flow needs with a specific time schedule. In the U.S., where the market has already existed, we've seen an uptick in interest and growth in the last five years. In Europe, where the market is new, the number of asset managers launching fixed maturity vehicles has been notable.

For example, in the U.S. market, S&P DJI has carried a U.S. Municipal Bond Fixed Maturity Suite for over a decade and was one of the early adopters of this index construct as practitioners began utilizing indices to construct bond ladders. Our suite, the S&P AMT-Free Municipal Series, includes indices in consecutive maturity years from 2024 to 2030. As interest in European markets is newer, we have seen interest across corporate credit and sovereigns, both of which S&P DJI has capabilities in.

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#### **Exhibit 1: U.S. Fixed Maturity ETF AUM**



Source: Morningstar. Data as of April 30, 2024. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

The utility and use case of the fixed maturity index is the main driver of this growing popularity. These indices are typically launched as a suite of consecutive years, and one can construct a bond index ladder with the maturity years that are applicable to that investor. Cash flow needs that are required for specific years can be mapped to the respective years of the fixed income index.

#### 3. What impact has fixed income indexing had on the bond market?

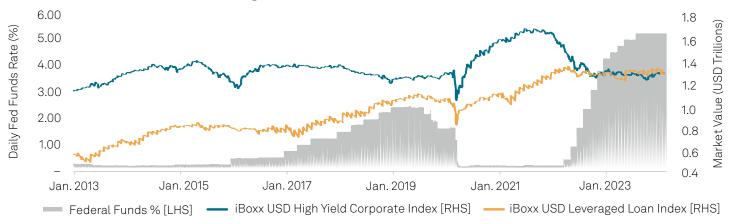
Fixed income indexing has been a core instrument in the democratization that the bond market has experienced over the last decade. Indexing and index-linked products enhance the ability to transact in basket or portfolio form. The ETF wrapper, with a fixed income index as the backbone, has opened access to the traditional bond market in a way that did not previously exist. The innovation and comfort in ETF creation/redemption protocols have also influenced how the bond market transacts and the growth of bond portfolio trading. What we've seen is this broader liquidity ecosystem emerge, with fixed income ETF trading, bond portfolio trading and bond algorithmic trading all intertwined, enhancing liquidity and redefining bond trading protocols from the past.

It's incredible to think that 10 years ago, global fixed income ETF assets were less than USD 500 million, and today they are over USD 2 trillion, a testament to foundational shifts in the ecosystem. Indexing solutions that narrow in on liquidity or try to minimize transaction costs have played a key role in this growth. Our iBoxx® USD Liquid High Yield Index and iBoxx EUR Liquid High Yield Index, which seek to select a liquid subset of bonds from the broader universe, are prime examples of liquidity-focused indices that practitioners have used to navigate the changing landscape of fixed income.

The utility of ETFs and index-linked products has also emerged as a vehicle of choice in stressed markets, where accessibility, transparency and liquidity take center stage. In March 2020, we saw index-linked products like ETFs and credit default swap indices (CDX indices) serve as the go-to instruments for market participants who needed to transact, choosing these instruments over single bonds that were difficult and costly to access in an environment of poor liquidity. As the index-based product became the vehicle of choice during this period of stress, it also became the leading price indicator for the portfolio or index of constituents, a transparent representation of fair value for the individual bonds.

The growth of certain markets, such as leveraged loans, may also be connected to the proliferation of index-linked products in this asset class. The U.S. leveraged loan market as a whole has grown significantly over the last 10 years, from about USD 400 million to USD 1.2 trillion, as defined by the iBoxx USD Leveraged Loan Index, now rivaling the U.S. high yield bond market. This has been alongside the growth of the broader loan ecosystem, which includes index-linked products and derivatives in the loan space.

#### Exhibit 2: Growth of the U.S. Leveraged Loan Market



Source: S&P Dow Jones Indices LLC, FRED Economic Data, St. Louis Fed. Data from Jan. 2, 2013, to Feb. 19, 2024. The iBoxx USD High Yield Developed Markets Index was launched May 1, 2018. All data prior to such date is back-tested hypothetical data. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

## 4. What opportunities are there to create outcome-based index strategies in fixed income?

While 10–15 years ago, most of the demand was for fixed income exposure that represented the broad market or asset class, we have seen demand evolve beyond this, with market participants wanting indices that differentiate from the foundational beta index. We have seen this 'Fixed Income 2.0' phase play out in a few different directions.

The first, I would say, is the interest in factor-based fixed income indices. The growth of systematic credit strategies and factor-based strategies in fixed income portfolio construction has shown up in the indexing world, with demand for overlays using ratings data and default rates or using core metrics like duration and yield as a target variable to achieve a specified outcome. Fixed maturity indices are a version of this, as they have a defined maturity. However, some of the newer indices that target duration specifically, with a constantly managed duration or maturity level of X years, are also quite interesting.

Another area of opportunity relates to the growth of asset allocation models and model portfolios that the industry has experienced. The adoption of fixed income index solutions and ETFs within these models has supported demand for suites of more granular or targeted slices of the market. This would include ratings or sector and industry slices, exposures that serve as single tools for portfolio construction, yet are part of a broader family of specified indices that in aggregate represent the entire market.

Expanding beyond fixed income, multi-asset strategies that allocate risk across equity, fixed income and commodity futures is another area of opportunity for outcome-based index strategies. S&P DJI's risk parity indices are a suite of indices that offer this construct that combines equities, fixed income and commodities into one index, while targeting a specified volatility at the index level.

## 5. How can index customization help with this?

As the fixed income indexing markets navigate through the 2.0 phase, index customization becomes increasingly critical. At S&P DJI, we feel it is necessary to provide flexible and customized index solutions. Through our experience, we understand that client needs are often unique. While having a one-size-fits-all product or approach may fit some situations, it is more often the case that it does not.

The interest in customization comes from the innovation in index constructs, the increasing choice in data and the technological advancements in calculation protocols. At the forefront are the preferences of the client's investment and risk management framework, which can range in flexibility. We have invested heavily in expanding our capabilities to address the bespoke needs of our clients and to be able to develop custom indices that meet their requirements. We are able to leverage our broad global index universe and our calculation capabilities, as well as the wealth of unique datasets we have in-house at S&P DJI. For example, clients may have a strong preference for a sustainability data provider or may ask to see constructs across several data sets and then decide. At S&P DJI, we are well-positioned to have these conversations and construct indices with overlays from a multitude of well-respected third-party data providers, to ultimately offer our clients the best solution for a variety of needs. On the calculation side, S&P DJI can support an incredibly wide range of calculation variations targeting index characteristics, such as duration and yield, in an automated index build tool, offering a quick time to market for our clients. The ability to be nimble across various inputs as the market evolves is imperative to keep pace with the needs of our clients.

#### Performance Disclosure/Back-Tested Data

The iBoxx USD High Yield Developed Markets Index was launched May 1, 2018. 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. Also, the treatment of corporate actions in back-tested performance may differ from treatment for live indices due to limitations in replicating index management decisions. Complete index methodology details are available at www.spglobal.com/spdji. 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).

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