
Fixed Income Index Investing

Transparent,
Reliable Outcomes

Why Indexing?

Today's investors are increasingly realizing the benefits of fixed income indexing.

Indexing in fixed income appeals to investors for many of the same reasons it appeals in equity: diversified, transparent and cost-effective exposure, which also simplifies both governance and manager oversight, thereby offering a very strong value proposition.

Today's ultra-low rate and spread environment, means fees have a larger impact on yields and returns, making fixed income indexing's cost-effectiveness more attractive than ever.

Index strategies are increasingly seen as a complement to active strategies, given their broader, less concentrated portfolios and consequently higher liquidity. This provides investors with greater flexibility and choice in their asset allocations.

Why State Street Global Advisors?

Our Global Fixed Income Beta Solutions team was founded in the late 1990s and has accumulated significant knowledge and insights through multiple market cycles, crises and conditions.

Precise, Cost-Effective Delivery

Our mission is to deliver reliable, transparent and risk-controlled exposure to our clients' benchmarks as precisely and cost-effectively as possible.

Unrivalled Capability

We have a comprehensive platform of indexed fixed income capabilities that addresses multiple client objectives ranging from simple to complex. Our fixed income platform and capabilities span global rates, multi-sector/aggregate, investment grade and high yield credit as well as emerging market debt and convertible bonds.

Today, the team is responsible for managing billions in fixed income indexing assets, invested across 1,000+ portfolios, tracking more than 400 different indices.

Last year alone, we traded over \$540 billion in fixed income instruments. Trading at such scale and frequency gives us deep insights into bond market dynamics and liquidity, helping us build and manage client portfolios in a consistent, transparent and cost-effective way.

Research-Led Innovation

Over the past three decades we have been true pioneers in indexed fixed income. Through continuous research and innovation, we have developed sophisticated techniques and approaches that have delivered enhanced outcomes for our clients, while simultaneously breaking new ground in what's possible in indexed fixed income.

Additionally, we have dedicated considerable resources and skill to developing leading fixed income ESG solutions, such as Sustainable Climate and Low Carbon strategies.

**Deep
Experience**

We created our first index strategy almost 40 years ago and we now track well over 400 different fixed income indexes, including many that are custom. We believe that our expertise, market knowledge and fixed income index implementation skills are second to none in the market place.

Our fixed income team is experienced with long-tenured portfolio managers. With an average of 15 years' industry experience, this deep retention of indexing intelligence is a key competitive advantage.

**Operational
Excellence**

Our position as one of the world's leading and largest asset managers also provides us with the scale and the means to support many dedicated and specialist functions which smaller managers simply cannot achieve.

Our clients connect into a global network of investment expertise and fixed income indexing skill that we believe is unrivalled.

**Access to
Liquidity**

Transparency and liquidity in the fixed income market is much lower than exchange-traded markets such as equities. With decades of experience and as drivers of substantial daily trading volumes, the team has deep knowledge of the market and an extensive network of relationships to help source liquidity and access bond inventory.

We trade with global investment banks and local brokers to ensure we find the liquidity wherever it exists. Given the scale, frequency and granularity of our indexed driven flows, we are a tier-one counterparty for pricing.

We aim to minimize the impact of trading costs on clients' returns, improving the return profile and bringing our clients' investment objectives closer to realization.

Global Scale

One of the world's largest investment managers. Over 400 investment professionals, 150+ of which are fixed income specialists, delivering daily for over 2400 clients.

Access

The depth and breadth of our book of business brings experience, market access and efficient implementation to all our indexing portfolios.

Product Range

Comprehensive product suite offering the entire fixed income spectrum. Our range evolves to suit investor needs.

Experience

We've built truly extensive knowledge in index investing and the opportunities and challenges it presents. All of this is embedded in our processes, to the benefit of our clients.

Client Focus

We keep our clients' interests at the forefront of everything we do and this will not change. We take our fiduciary responsibility very seriously.

Customization

One size does not fit all - we understand our clients' needs and challenges are different. We are here to help with strategy customization.

Performance

Index funds that precisely track their benchmark. Results that are relied on. Custom-built from the ground up to target the desired exposures in the most efficient way.

Trading

We aim to optimize all aspects of trading for our clients. Our size and volume helps us provide effective and cost-efficient implementation.

Value

We offer competitive management fees. Our dedicated trading desk helps ensure best execution and low transaction costs.

Innovation

With dedicated research resources within the group, we can provide insights into index construction methodology and innovative indexing strategies.

Delivering Results

State Street Global Advisor's depth of global resources allows us to deliver portfolio returns that track their benchmarks as closely as possible.

World-Class Index Tracking

Our overriding indexing philosophy is to deliver the returns our clients expect at the best implementation cost. We can track indexes with incredible precision, which helps our clients meet their investment objectives.

Our mastery in this area also means that we can customize our tracking levels, incorporate client constraints and objectives or otherwise customize our solutions to match investors' needs.

Our index funds have long track records and have done what they're expected to do — closely track the index. Our experience in index funds and solutions has contributed to the company becoming an index manager of choice for some of the world's largest and most sophisticated investors.

RELIABLE DELIVERY Precision tracking means clear, reliable benchmark returns with no surprises or unintended biases: investors can get the exposure they want and expect.

PRECISELY TARGETED SOLUTIONS Our skill and expertise in index tracking, means we can provide the same reliable delivery to client portfolios that track customized indexes.

FREEDOM TO FOCUS We believe that index allocations should be the solid foundation of an investment portfolio, something investors can rely on to deliver and that frees them to consider other parts of their portfolio. Our indexing expertise gives investors that freedom to focus.

Better Where It Matters

Truly successful indexing requires that investment managers make many thousands of individual decisions correctly. We look to get these decisions correct and to add value relative to the benchmarks, while still delivering low tracking error and a better risk profile. We aim to deliver steady returns without excessive risk.

Experienced Indexing Team

Our highly experienced indexing teams help manage these strategies. Clients benefit from our extensive global network, sophisticated trading capabilities and rigorous risk management processes.

Effective ESG Solutions

Increased awareness of ESG concerns introduces exciting opportunities for fixed income investors to rethink their traditional investment models.

Whether driven by regulation, a desire to reduce risk or by stakeholder pressure, investors around the world are increasingly looking to adopt solutions that enable them to improve the carbon profile of their portfolio.

But we know that carbon reduction alone is not sufficient. Investors are looking for solutions that not only deliver on carbon but also give them the returns they need.

With these requirements in mind, we've developed a range of solutions that give investors the tools they need to meet their objectives, whatever the stage of their ESG journey and without jeopardizing the return objectives.

We offer solutions that aim to dramatically improve your fixed income portfolio's carbon profile while reducing climate risk. Importantly, these solutions are designed to keep the risk and return characteristics of their benchmarks broadly in place.

ESG Investing with State Street Global Advisors

Our ESG experience covers portfolio management, investment research, proxy voting and engagement, as well as valuable relationships with third-party research providers. While some clients' custom ESG criteria require a separate account, we have created pooled funds that address many of the more common client approaches. Pooled vehicles may offer advantages such as economies of scale, lower fees and administrative costs.

SPDR® For Index Investing

Our indexing capabilities are offered through a variety of investment vehicles, including our range of trailblazing SPDR ETFs — providing investors with exceptional flexibility and choice when building or managing their portfolio and asset allocation.

First and Still a Leader

State Street Global Advisors pioneered the exchange traded fund (ETF) industry in 1993 by launching the very first US-listed ETF, which is still the largest and most actively traded ETF in the world.

Over the last 20 years we've built a worldwide family of ETFs, under our SPDR brand, that gives investors an effective way to passively access the market segments they need.

Structured like mutual funds but listed and traded on an exchange like stocks, ETFs are flexible trading and investment vehicles that allow investors to easily gain exposure to broad market segments. They cover a wide range of asset classes, market capitalizations and sectors.

Today we manage more than \$980 billion in hundreds of ETFs. Supported by the stability and strength of State Street Global Advisors — one of the largest asset managers in the world, with \$3.6 trillion of assets under management — the SPDR ETF family benefits from the expertise and industry relationships of one of the world's most trusted institutions.*

Precision Where It Counts Our ETFs give our institutional investor clients the flexibility to select investments that align to their strategy. We believe that they deliver what investors need in a reliable, straightforward way.

The Backing to Succeed With close to 40 years of indexing experience, we are able to provide our client base with in-depth expertise on both tactical and strategic investment strategy, from helping determine the best asset class to meet their investment aims, to customizing their strategy if an existing index does not meet their needs.

Clear Range A client-friendly, navigable range is our focus — we focus on developing the most relevant and timely ETFs. This client-led strategy helps us build exposures that we know investors need, across the risk, diversification and yield spectrum.

* Source: State Street Global Advisors, as at March 2021.

Use SPDR ETFs For

The Right Exposures We build exposures that we know are needed in investors' portfolios and that cross the spectrum of assets, risk, diversification and yield. For investors seeking passive, flexible and cost-efficient exposure to more niche markets, our range includes emerging market local debt, global convertible bonds, multi-asset infrastructure, and smart beta dividend equity ETFs.

Liquidity Buffering Many investors hold a percentage of their portfolio in SPDR ETFs and, since they are highly liquid, they allow for truly effective cash management.

Implementing Views With a broad, granular range, SPDR ETFs are a cost-efficient and transparent way to implement model portfolios or particular investment views.

Nimble Asset Allocation Investors are increasingly using SPDR ETFs as strategic building blocks in multi-asset portfolios or to add an effective overlay onto existing investments. ETFs are also useful for tactical allocation such as sector or industry investing.

Immediate Diversification Investors can use ETFs to achieve diversification across hundreds of assets in one single security.

Access All Areas The continued development of the ETF market means that previously hard-to-access segments, such as emerging market debt and global convertibles, are now accessible in cost-efficient, easily tradable and transparent funds. SPDRs help investors access the right investment exposure quickly and efficiently.

Exposure in Any Segment

From the broadest global aggregate to the most niche high yield, State Street Global Advisors offers a complete range of investment possibilities with specific expertise in managing complex exposures.

Aggregate

The term "aggregate" is used for an exposure that encompasses all fixed-rate investment grade securities in a market; this can include treasury, government-related, corporate and securitized bonds.

The Global Aggregate is typically seen as the index that best represents the global fixed income universe. It consists of over 20 currencies with index rules defining the minimum issue size and eligibility criteria.

While the weightings in the Global Aggregate universe will ebb and flow, traditionally the treasury segment accounts for over 50% of the total.

Treasury

The term "treasury" is used to define the government bond sector and, from an index perspective, it includes investment grade fixed-rate bonds issued by sovereign governments in their own local currency. Examples include US Treasuries, UK Gilts, Japanese Government Bonds and euro-denominated bonds issued by member states of the eurozone (including Germany, France, Italy and Spain, amongst others).

The US, Japan and Europe have historically been the biggest issuers in the government bond market. To the extent that a sovereign government issues other types of securities — such as inflation-linked securities, floating-rate notes or bonds denominated in another country's currency — then these would typically not be included in a treasury index. Similarly, if a sovereign is not investment-grade rated then typically its local-currency bond issues will be categorized as Emerging Markets.

Corporate

Corporate bonds are now the biggest sector after treasuries. This sector consists of bonds issued by industrial companies, utilities and financials. It includes investment-grade fixed-rate debt. Typically, corporates use the bond market to fund ongoing operations, to expand their business or to finance mergers and acquisitions.

They are an alternate to bank debt as a source of funding. On a global basis US dollar-denominated debt dominates the corporate landscape, accounting for approximately two-thirds, while euro-denominated debt is a distant second at slightly less than one-quarter.

For corporates the investment-grade designation is important, as a company which loses its investment-grade rating falls into the high-yield category.

Our value-added investment process and skilful portfolio management seeks to minimise negative drag on the index return and deliver highly efficient bond exposure to our clients. Here are just some of the steps that we take to enhance investor returns and achieve the optimal balance between tracking error and trading costs.

Inflation-Linked

Inflation-linked bonds (colloquially known as “linkers”) are bonds where the principal is indexed to the inflation or deflation rate of a given country or region.

The two biggest examples globally are US Treasury Inflation- Protected Securities (TIPS) and UK Index-Linked Gilts.

In addition to indexing the principal to inflation, the coupons typically include a fixed element plus or minus the inflation or deflation rate based on a specified inflation index. They are therefore designed to hedge the inflation risk of a bond, whereas fixed-rate bonds have no inbuilt inflation protection.

Emerging Markets

Emerging markets are those countries with some of the characteristics of developed markets but that fall short on other standards, such as income levels per capita. For this reason they are seen as riskier than developed markets and are categorised separately from the treasury universe.

Emerging Market Debt (EMD) is the term used to encompass bonds issued by such countries. There are two main categories: hard-currency EMD, which is debt issued by an emerging market country and generally denominated in US dollars; and local-currency EMD, which is debt issued in the currency of the issuing emerging market.

Historically, the majority of EMD was issued by sovereigns but there has been considerable growth in corporate issuance over recent years, as well as the emergence of an index-linked market.

High Yield

This sector has many different names including “high yield”, “speculative grade”, “non-investment grade” and the more pejorative “junk bonds”.

The sector includes corporate bonds that are rated below investment grade and, as with corporates, includes fixed-rate bonds issued by industrial companies, utilities and financials.

High-yield debt is a riskier proposition than investment-grade debt since the issuers within this universe have a higher level of credit risk and a greater propensity to default.

This may arise for various reasons, for example because of higher levels of indebtedness, poor internal cash flow generation or riskier business models. For this reason these bonds typically pay a higher coupon or yield – giving rise to their name.

Adding Value in Fixed Income

Comprehensive Platform of Superior Building Blocks

- Provide a breadth of offerings across global markets, asset classes and disciplines, with a leadership position in fixed income indexed management.
- Recognise, understand and capitalize on inefficiencies in global fixed income markets to benefit portfolio returns.
- We apply our deep market insights within a risk-controlled, stratified sampling approach to efficiently manage risk and generate benchmark returns.
- Our stratified sampling approach delivers reliable outcomes by controlling risks, minimizing costs and also adding incremental returns.
- Offer liquidity, cost efficiencies and significant capacity through our scale and breadth of expertise.

Creation of Client Solutions from Simple to Complex

- Work with clients and consultants to create solutions with appropriate risk/return exposures to achieve specific client objectives.
- Combine human insights with technology.
- Leverage collective expertise of fixed income professionals across multiple geographies, sectors and strategies.
- Rebalance and execute.
- Trade opportunistically, pragmatically and selectively.
- Ensure no conflicts of interest.

Transparent and Reliable Outcomes

- Deliver objective-specific investment outcomes that are transparent, reliable and risk-controlled.

To learn more about how we can help you get the best from your fixed income index investing, please contact your State Street Global Advisors representative.

To discover our complete range of fixed income solutions please visit [ssga.com](https://www.ssga.com)

About State Street Global Advisors

Our clients are the world's governments, institutions and financial advisors. To help them achieve their financial goals we live our guiding principles each and every day:

Start with rigour
Build from breadth
Invest as stewards
Invent the future

For four decades, these principles have helped us be the quiet power in a tumultuous investing world.

Helping millions of people secure their financial futures.

This takes each of our employees in 27 offices around the world, and a firm-wide conviction that we can always do it better. As a result, we are the world's third-largest asset manager with \$3.6 trillion* under our care.

* This figure is presented as of 31 March 2021 and includes approximately \$60.33 billion 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.

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Marketing Communication

Information Classification: General

Important Risk Information

For a complete list of State Street Global Advisors Global Entities please visit: <https://www.ssga.com/global/en/our-insights/state-street-global-advisors-worldwide-entities.html>

The views expressed in this material are the views of the Global Fixed Income Beta team through the period ended April 2021 and are subject to change based on market and other conditions. This document contains certain statements that may be deemed forward-looking statements. Please note that any such statements are not guarantees of any future performance and actual results or developments may differ materially from those projected.

Investing involves risk including the risk of loss of principal.

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Equity securities may fluctuate in value and can decline significantly in response to the activities of individual companies and general market and

economic conditions.

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Bonds generally present less short-term risk and volatility than stocks, but contain interest rate risk (as interest rates rise, bond prices usually fall); issuer default risk; issuer credit risk; liquidity risk; and inflation risk. These effects are usually pronounced for longer-term securities. Any fixed income security sold or redeemed prior to maturity may be subject to a substantial gain or loss.

Generally, among asset classes, stocks are more volatile than bonds or short-term instruments. Government bonds and corporate bonds generally have more moderate short-term price fluctuations than stocks, but provide lower potential long-term returns. U.S. Treasury Bills maintain a stable value if held to maturity, but returns are generally only slightly above the inflation rate.

While diversification does not ensure a profit or guarantee against loss, investors in Smart Beta may diversify across a mix of factors to address cyclical changes in factor performance. However, factors may have high or increasing correlation to each other.

A Smart Beta strategy does not seek to replicate the performance of a specified cap-weighted index and as such may underperform such an index. The factors to which a Smart Beta strategy seeks to deliver exposure may

themselves undergo cyclical performance. As such, a Smart Beta strategy may underperform the market or other Smart Beta strategies exposed to similar or other targeted factors. In fact, we believe that factor premia accrue over the long term (5-10 years), and investors must keep that long time horizon in mind when investing.

ETFs trade like stocks, are subject to investment risk, fluctuate in market value and may trade at prices above or below the ETFs net asset value. Brokerage commissions and ETF expenses will reduce returns. Frequent trading of ETFs could significantly increase commissions and other costs such that they may offset any savings from low fees or costs.

Derivative investments may involve risks such as potential illiquidity of the markets and additional risk of loss of principal.

Passively managed funds hold a range of securities that, in the aggregate, approximates the full index in terms of key risk factors and other characteristics. This may cause the fund to experience tracking errors relative to performance of the index.

Frequent trading of ETFs could significantly increase commissions and other costs such that they may offset any savings from low fees or costs.

Actively managed funds do not seek to replicate the performance of a specified index and therefore may underperform its benchmarks.

Asset Allocation is a method of diversification which positions assets among major investment categories. Asset Allocation may be used in an effort to manage risk and enhance returns. It does not, however, guarantee a profit or protect against loss.

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35685771.GBL.RTL
Exp. Date 30 April 2022