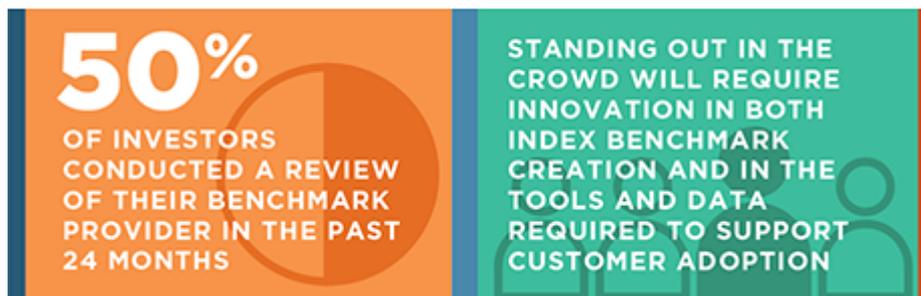


New Opportunities in Fixed-Income Benchmarks

November 7, 2017

Executive Summary:



The performance of 95% of institutionally managed credit funds and 97% of interest-rate-focused funds are benchmarked against an index. While absolute investment performance is important, institutional investors are judged and compensated more commonly on their relative performance. Think of it as grading on a curve—a C+ on a math test is bad if everyone else got an A, but it should be rewarded if everyone else failed.

For fund managers, choosing the right benchmark is clearly of critical importance. Not all benchmarks and, perhaps more importantly, not all benchmark calculations are alike. Pensions, endowments and other asset owners must therefore ensure they are thoroughly educated about all aspects of the indices to which the performance of their assets (and the corresponding fees they pay to their fund managers) are tied.

While always important, several macro factors have added additional complexity to the task of benchmark selection. For instance, low interest rates and low credit spreads over U.S. Treasuries have left investors struggling to find new ways to generate returns. This has led to a variety of investing strategies which utilize new combinations of fixed-income instruments, all needing appropriate benchmarks against which to measure relative performance.

The passive investment boom in general, and the growth in fixed-income ETF assets under management more specifically, have also driven demand for new and more specialized indices. Greenwich Associates interviews with over 1,000 U.S. institutional investors found that 25% now utilize passive fixed-income investment strategies. In an effort to capture these assets, ETF providers are developing ever more creative funds that look at narrow slices of the fixed-income market. Each of these need a custom benchmark to gauge performance—a trend with no sign of abating.

And while technology advancements and increased data quality have made it easier to calculate, trade with and trade alongside an index, it has also driven a boom in custom indices that offer the industry highly relevant options. But this optionality has also created a more difficult selection process.

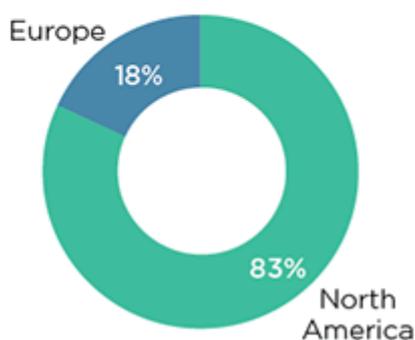
Methodology:

Greenwich Associates interviewed 40 directors of investment at public and private pensions, foundations and endowments in the United States and Europe, with a goal of better understanding their current benchmark selection process, how it has changed over time and how they expect it to change going forward. The study focused on the fixed-income market, where market structure changes have driven a greater need for new and custom benchmarks.

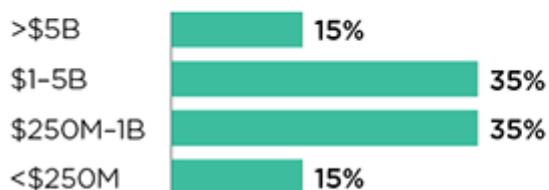
Respondent Job Title



Respondent Location



Respondent Firm AUM



www.greenwich.com | ContactUs@greenwich.com

Coalition Greenwich, a division of CRISIL, an S&P Global Company, is a leading global provider of strategic benchmarking, analytics and insights to the financial services industry.

We specialize in providing unique, high-value and actionable information to help our clients improve their business performance.

Our suite of analytics and insights encompass all key performance metrics and drivers: market share, revenue performance, client relationship share and quality, operational excellence, return on equity, behavioral drivers, and industry evolution.

About CRISIL

CRISIL is a leading, agile and innovative global analytics company driven by its mission of making markets function better. It is majority owned by S&P Global Inc., a leading provider of transparent and independent ratings, benchmarks, analytics, and data to the capital and commodity markets worldwide.

CRISIL is India's foremost provider of ratings, data, research, analytics, and solutions with a strong record of growth, culture of innovation, and global footprint.

It has delivered independent opinions, actionable insights and efficient solutions to over 100,000 customers through businesses that operate from India, the U.S., the U.K., Argentina, Poland, China, Hong Kong, and Singapore.

For more information, visit www.crisil.com

Disclaimer and Copyright

This Document is prepared by Crisil Coalition Greenwich, which is a part of Crisil Ltd, a company of S&P Global. All rights reserved. This Document may contain analysis of commercial data relating to revenues, productivity and headcount of financial services organisations (together with any other commercial information set out in the Document). The Document may also include statements, estimates and projections with respect to the anticipated future performance of certain companies and as to the market for those companies' products and services.

The Document does not constitute (or purport to constitute) an accurate or complete representation of past or future activities of the businesses or companies considered in it but rather is designed to only highlight the trends. This Document is not (and does not purport to be) a comprehensive Document on the financial state of any business or company. The Document represents the views of Crisil Coalition Greenwich as on the date of the Document and Crisil Coalition Greenwich has no obligation to update or change it in the light of new or additional information or changed circumstances after submission of the Document.

This Document is not (and does not purport to be) a credit assessment or investment advice and should not form basis of any lending, investment or credit decision. This Document does not constitute nor form part of an offer or invitation to subscribe for, underwrite or purchase securities in any company. Nor should this Document, or any part of it, form the basis to be relied upon in any way in connection with any contract relating to any securities. The Document is not an investment analysis or research and is not subject to regulatory or legal obligations on the production of, or content of, investment analysis or research.

The data contained in the Document is based upon a particular bank's scope, which reflects a bank's data submission, business structure, and sales revenue Reporting methodology. As a result, any data contained in the Document may not be directly comparable to data presented to another bank. For franchise benchmarking, Crisil Coalition Greenwich has implemented equal ranking logic on aggregate results i.e., when sales revenues are within 5% of at least one competitor ahead, a tie is shown and designated by = (where actual ranks are shown). Entity level data has no equal ranking logic implemented and therefore, on occasion, the differences between rank bands can be very close mathematically.

The data in this Document may reflect the views reported to Crisil Coalition Greenwich by the research

participants. Interviewees may be asked about their use of and demand for financial products and services and about investment practices in relevant financial markets. Crisil Coalition Greenwich compiles the data received, conducts statistical analysis and reviews for presentation purposes to produce the final results.

THE DOCUMENT IS COMPILED FROM SOURCES CRISIL COALITION GREENWICH BELIEVES TO BE RELIABLE. CRISIL COALITION GREENWICH DISCLAIMS ALL REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED, WITH RESPECT TO THIS DOCUMENT, INCLUDING AS TO THE VALIDITY, ACCURACY, REASONABLENESS OR COMPLETENESS OF THE INFORMATION, STATEMENTS, ASSESSMENTS, ESTIMATES AND PROJECTIONS, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARISING OUT OF THE USE OF ALL OR ANY OF THIS DOCUMENT. CRISIL COALITION GREENWICH ACCEPTS NO LIABILITY WHATSOEVER FOR ANY DIRECT, INDIRECT OR CONSEQUENTIAL LOSS OR DAMAGE OF ANY KIND ARISING OUT OF THE USE OF ALL OR ANY OF THIS DOCUMENT.

Crisil Coalition Greenwich is a part of Crisil Ltd., an S&P Global company. ©2026 Crisil Ltd. All rights reserved.

greenwich.com

ContactUs@greenwich.com

Ph +1203.625.5038