

HOW WE TRACK



27 Global Offices
10 Investment Centres
3 Trading Desks

INSTITUTIONAL CLIENT FOCUS

Client Objectives

- Every client has different objectives for their investments.
- We work with our clients to determine how we can best meet their aims.

Client Constraints

- Many clients have restrictions on what they are able to invest in or they may wish to take a particular investment position.

Benchmark Choice

- Domestic vs Non-Domestic
- Region vs World
- EM vs Developed
- Large/Mid Cap vs Small Cap

The choice of benchmark is one of the most critical decisions for investors.

IMPLEMENTATION

As expert indexers we are able to accommodate many different client constraints and objectives into our tracking. This level of control and customization allows our clients to really own and implement their investment views. Some of the factors we target:

Tracking-Error Levels	Low Turnover	ESG Objectives
Ex Post and/or Ex Ante Performance Targets	Timing of Cashflows into Investment	

INDEX ANNOUNCEMENTS

- Index announcements, such as changes to the index composition, must also be dealt with appropriately. Index announcements are typically known in advance but their impact can vary and good planning is essential.
- Announcements are considered individually for each client portfolio. We look to ensure that we trade the changes intelligently, with the goal of maximizing value for our clients' portfolios.

INDEX CHANGE STRATEGIES

- Changes in the benchmark and in the index composition lead to a pipeline of actions that require insight, planning and expert trading to maintain precision index tracking and add value.
- At SSGA we endeavour to assess the impact of every potential change on every portfolio to help ensure the right outcome for our clients.

Overriding Principles

- Strategies must treat each client fairly.
- It must make investment sense to implement the changes.

TRADING AND EXECUTION

We run a global trading book with on-the-ground trading desks located in Boston, London and Hong Kong. SSGA utilizes state-of-the-art technology for its equity, fixed income, futures and currency trading desks worldwide.

One Seamless Interface
Seamless integration helps give us exceptional control and trading advantages.

- Order Generation
- Order Routing
- Execution
- Reporting
- Cash Management
- Accounting
- Custody Functions

Sophisticated Performance Attribution
Analytics allow us to see exactly what parameters are contributing and help ensure that trading aims are being met.

BENCHMARK EVENTS

- Corporate Actions
- Weights in the Index
- Shares-in-Issue Changes
- Dividends
- Takeovers
- Rights Issues

Benchmarks assume friction-free additions/deletions and stock-related events. In the real world, indexers must overcome these costs and seek to add extra value while still maintaining close tracking error.

RISK MANAGEMENT IS EMBEDDED THROUGHOUT

Investment, Credit, Governance and Operational Risk Teams operate in an independent assessment framework to evaluate risk exposures and process controls across asset classes.

PRECISION TRACKING, SKILFULLY DELIVERED

Select the Most Appropriate Methodology

To determine which indexing methodology best suits each specific case, we consider:

- Size of the portfolio
- Breadth of the benchmark
- Liquidity of constituents
- Custody costs
- Tracking-error tolerances
- Availability of data
- Portfolio seasoning

Replication

Our preferred approach to indexing is full replication since we seek to deliver as close to the benchmark — subject to client constraints or guidelines — as possible.

Sampling

For certain benchmarks it makes more sense to buy the securities that provide the most representative sample of the index, based on correlations, exposure and risk.