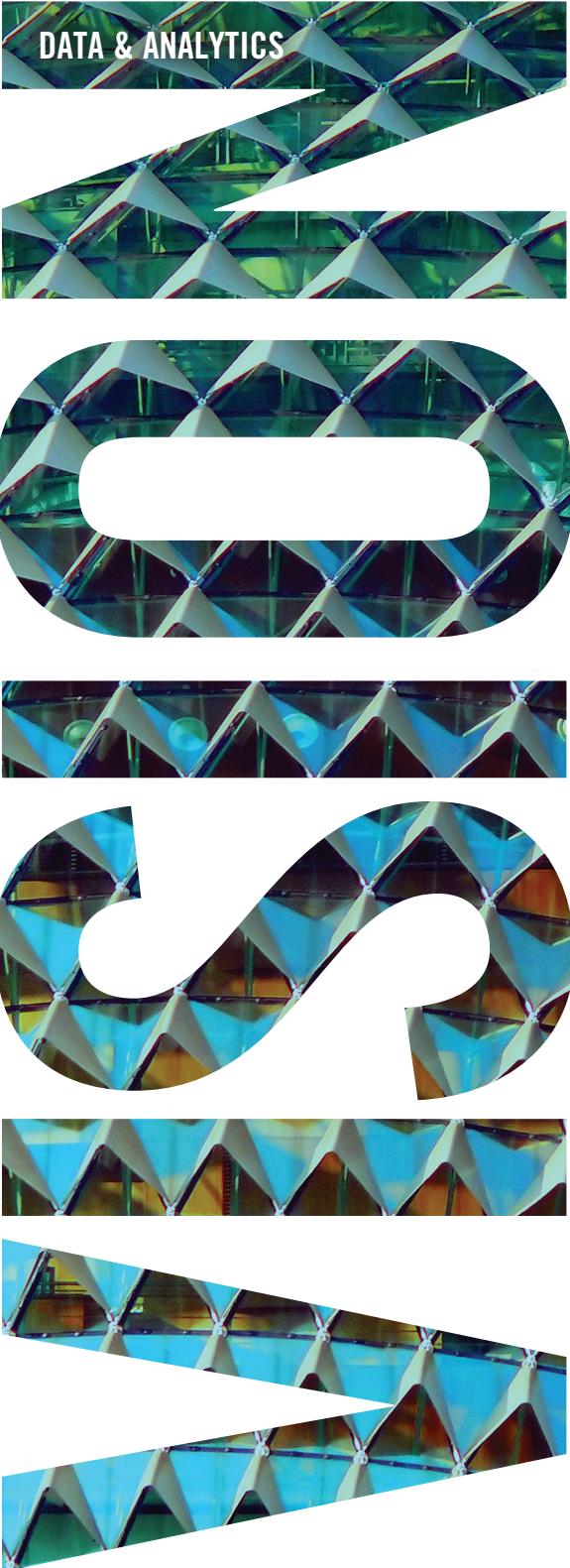


# DATA AND ANALYTICS

## A NEW TOOLKIT FOR ASSET MANAGERS

The asset management industry has had strong growth in recent years, with total assets under management surging back toward pre-crisis levels.<sup>1</sup> But not all asset managers are equipped to thrive in the new investment climate. In the coming years, powerful tools that extract insights and value from a growing volume of investment data will increasingly determine asset managers' success.



**STATE STREET®**

<sup>1</sup> "Global Asset Management 2013: Capitalizing on the Recovery," Boston Consulting Group, July 2013.

## **This Is State Street**

With \$27.4 trillion in assets under custody and administration and \$2.3 trillion in assets under management\* as of December 31, 2013, State Street is a leading financial services provider serving some of the world's most sophisticated institutions.

We offer a flexible suite of services that spans the investment spectrum, including investment management, research and trading, and investment servicing.

With operations in 29 countries serving clients in more than 100 geographic markets, our global reach, expertise, and unique combination of consistency and innovation help clients manage uncertainty, act on growth opportunities, and enhance the value of their services.

State Street Corporation  
State Street Financial Center  
One Lincoln Street  
Boston, Massachusetts 02111-2900  
+1 617 786 3000  
[www.statestreet.com](http://www.statestreet.com)  
NYSE ticker symbol: STT

For questions or comments about our Vision series,  
e-mail us at **[vision@statestreet.com](mailto:vision@statestreet.com)**.

\*This AUM includes the assets of the SPDR Gold Trust (approx. \$31 billion as of December 31, 2013), for which State Street Global Markets, LLC, an affiliate of State Street Global Advisors, serves as the marketing agent.

# About the Research

State Street commissioned the Economist Intelligence Unit to conduct a survey of more than 400 asset owners and asset managers — collectively termed institutional investors for this report — to gather insight into how they are using investment data and analytics. The survey — conducted from August to September 2013 — included 198 asset managers, of which 74 were asset managers whose businesses are primarily focused on fixed income and/or equities investment products.

Among all respondents, roughly one-third were based in North America, one-third in Asia Pacific and one-third in Europe. All data featured in this report is derived from the *State Street 2013 Data and Analytics Survey* conducted by the Economist Intelligence Unit, unless otherwise noted. The survey results were supported by in-depth interviews with industry executives.

# Introduction

Trends toward multi-asset investment strategies and greater transparency are forcing asset managers to provide a more integrated view of risk and performance across today's complex portfolios. Meanwhile, the evolution of electronic trading means that asset managers increasingly need real-time data at their fingertips to make faster, informed investment decisions.

Against this backdrop, more asset managers are finding that their IT systems are no longer serving their needs. For example, only 18 percent of asset managers in the survey are very confident in their ability to integrate their risk and performance analytics (less than any other industry sector covered by the research). A similarly small proportion (19 percent) feel very confident that they have optimized their electronic trading strategies.

Our survey shows that asset managers now view improving their data and analytics tools as key to survival. In the survey, 93 percent say data is a high strategic priority (see Figure 1). Only with the right tools and processes in place can they gain competitive advantage in an investment environment that grows infinitely more complex and challenging.

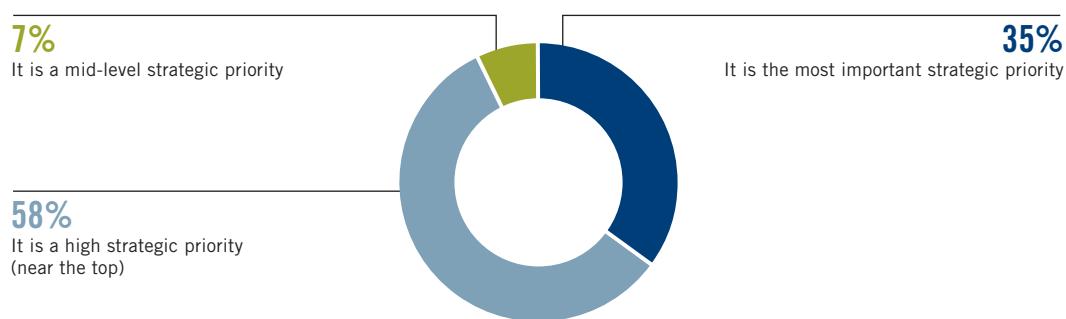
"The market is pushing investment managers to innovate. There is a demand for multi-asset class solutions — and new data infrastructures will be required to support these new offerings," says Barbara Wentzel, senior vice president within Asset Management Sector Solutions at State Street.

## Key Conclusions

- **Asset managers are playing catch-up on data.** The ability to capture, transform and analyze data is now integral to asset managers' ability to compete. But today, only 14 percent of asset managers are confident in their ability to extract investable insights from a large volume of data.
- **New tools are required to manage risk and regulation.** Asset managers need flexible reporting systems that can support different regulatory demands across multiple jurisdictions. They also need integrated analytics to understand and report on risk as they develop more complex investment solutions for their clients.
- **Technology increases trading efficiency.** With the industry becoming increasingly fast-paced, it's vital to act decisively on new investment insights. Tools to optimize front office capabilities are a priority for investment, with 81 percent of asset managers planning to spend more on order management and execution systems over the next three years.
- **"Data leaders" are outperforming their peers.** Two-thirds of asset managers in our survey agree that data and analytics capabilities will be among their most important competitive advantages in the future. But only a minority feels confident that they are deriving a competitive advantage from these capabilities today — a group we have termed "data leaders."

---

**Figure 1: How do the most senior leaders at your institution view the importance of investment data and analytics relative to other major strategic priorities? (Asset manager respondents only)**



Source: State Street 2013 Data and Analytics Survey conducted by the Economist Intelligence Unit

## Asset Managers Face New Demands

### Drivers of Change

	Strategic Impact	Data Challenge
Outcome-based investment solutions	Investment strategies and benchmarks will be personalized to investors' goals	Custom benchmarks require specific data and tools to measure performance
New standards on risk	Investors and regulators are demanding greater transparency	Collecting, integrating and analyzing data on more complex asset classes
Regulatory complexity	Greatly increased reporting requirements as regulators adopt a "look through" approach to risk	Flexible platforms that enable data to be collected, transformed and reported across multiple regulatory regimes
Electronic trading	Decision-makers in the front office need to act fast on investment insights	Real-time data and better order management and portfolio optimization tools
Accessing new growth markets	Need broader insights to select investments and ways to service local needs	Systems that can adapt to meet local market demands, while retaining the benefits of scale

In the wake of the 2008 financial crisis, institutional investors are moving away from traditional investment strategies and looking toward more customized investment solutions based on their specific goals. Many are looking for alternative asset classes to feature more prominently within their portfolios. Revenues for multi-asset solutions alone are expected to rise 2.5 times faster than actively-managed traditional assets.<sup>2</sup>

This is a significant growth opportunity for asset managers that can service the new investment solutions effectively — but this requires a radically different set of tools and capabilities. For example, as investment portfolios start to include more alternatives, analyzing risk and

<sup>2</sup> "Global Asset Management 2013: Harvesting Rewards by Offering Solutions," Boston Consulting Group, July 2013.

performance becomes more complex. Christian Franzen, global head of Performance and Portfolio Risk at Allianz Global Investors, says that in general, the requirements for multi-asset risk analytics are more comprehensive, creating technology and risk-modeling challenges. “The risk system has to evenly capture instruments from various asset classes, such as simple cash equity and fixed income instruments, as well as derivatives, alternative investments or funds — with the option of look-through in case of data availability,” says Franzen.

He adds, “Users would like to slice and dice the risk results according to various dimensions for the overall portfolio, but also for asset-class specific sub-portfolios. There are also many different multi-asset investment processes in existence, which need quite different types of risk analysis, adding yet further complexity.”

In addition, there’s a broader requirement to provide greater transparency on risk to investors. “The importance attached to your capabilities with regard to risk management has grown immensely, especially by institutional clients,” says Michael Schmid, head of Risk, Raiffeisen Capital Management.

Only 28 percent of asset managers in the survey believe their capabilities in the area of multi-asset class risk tools are very strong — and this is also one of the key areas where they plan to invest to improve their capabilities. They also struggle to provide a holistic view of risk-weighted performance. For example, only 18 percent of asset managers in the survey report high confidence in integrating performance and risk analytics.

Asset managers’ tools and technologies are not always capable of supporting the new outcome-based investment solutions that clients increasingly demand. Those who want to tap the growing market for more sophisticated investment strategies will need to integrate their risk and performance technologies much more effectively. This will also mean capturing data on less traditional asset classes and integrating these data streams to build a coherent view of risk and performance.

### **Increased Regulatory Pressures**

Regulation is another force straining asset managers’ data and analytics capabilities. The industry is adapting to numerous regulatory proposals designed to promote greater transparency and reduce systemic risk. Centralized clearing of over-the-counter (OTC) derivatives and other Dodd-Frank provisions, Foreign Account Tax Compliance Act (FACTA) reporting, and capital requirements under Basel III/CRD IV are among the most prominent initiatives for traditional managers. The Alternative Investment Fund Managers Directive (AIMFD) will affect managers

that want to service the growing demand for alternatives. Moving forward, the rules governing capital, liquidity and transparency will have a continued structural impact on the industry.

According to our survey, increased demands from regulators is one of the most influential factors in driving changes to the way asset management firms manage investment data over the next three years. Almost three-quarters (72 percent) of respondents predict that compliance with new regulations will require major technology investments in the future.

### **Electronic Trading and the Need for Real-Time Solutions**

The evolution of electronic and high-frequency trading has led to an upsurge in trading volumes and an explosion of trading-related data. New technology reduces the lag between a portfolio manager's investment decision and order execution to a matter of seconds, allowing firms to maximize returns. But to do this, asset managers need accurate real-time data and fully integrated order and execution management systems — a key challenge today as many companies use point solutions for different asset classes.

In this survey, “the growing volume of trading data” is cited as one of the most important trends driving change in the way asset managers will manage their investment data over the next three years. Only 19 percent of respondents have high confidence in their ability to optimize electronic trading strategies. Given that new technology has the potential to accelerate and streamline practices in the front office, it is no surprise that 88 percent of asset managers will increase investment in order and execution management systems over the next three years.

### **Closing the Data Gap**

Addressing each of the challenges outlined above will require asset managers to achieve a much greater mastery of their data. This is not easy, but our research reveals that for those that succeed there is an opportunity to develop a significant competitive edge over their rivals.

Analysis of our overall survey reveals a divide in the investment industry between “data leaders” — institutional investors that strongly feel they can harness data for competitive advantage — and “data laggards” who struggle to extract value from a growing mountain of data.

**Figure 2: Data Leaders versus Data Laggards**

### DATA LEADERS ARE BETTER AT...



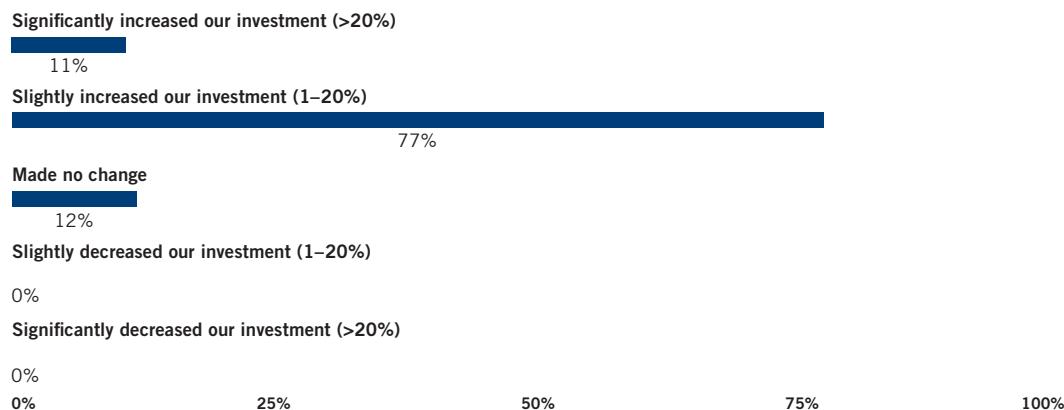
This divide is significant — our research shows that the data leaders consistently outperform their peers across many vital areas (see Figure 2). For example, data leaders are more able to extract investable insights from their data, and they are more likely to have systems and infrastructures that will keep pace with their organizations' growth. They are also more confident in their ability to provide an integrated view of risk and performance, and have stronger tools for regulatory compliance. For these reasons, a mastery of data gives the data leaders a decisive advantage over those with less advanced data management tools and strategies.

The gap in capability that we have observed in the overall research is very evident among the asset managers in the survey. In this sector, only 23 percent are currently data leaders, while 30 percent fall into the category of laggards. This suggests that the majority of asset managers need to upgrade their data capabilities quickly or risk falling behind.

Asset managers are well aware of what is at stake. Many are responding by investing heavily in new systems. As shown in Figure 3, the majority — 88 percent of respondents — have increased their investment in data and analytics infrastructure in the past three years. Portfolio modeling tools and order execution management systems will see the biggest investment over the next three years — both are cited as priorities for investment by more than four out of five asset managers (see Figure 4). However, the breadth of overall investment priorities emphasizes the importance of combining technology investments with a broader strategy for data governance.

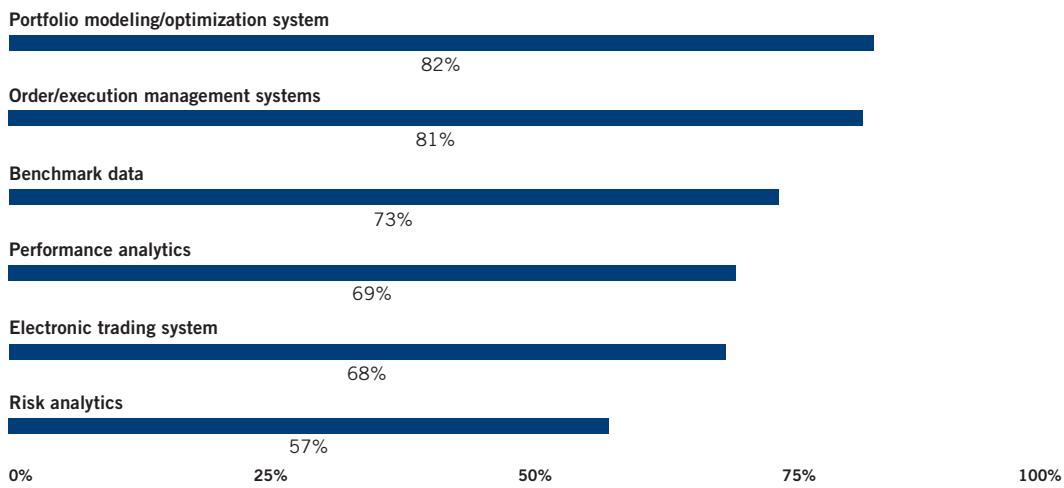
---

**Figure 3: Has your institution changed its level of investment in data and analytics infrastructure over the past three years? (Asset manager respondents only)**



Source: State Street 2013 Data and Analytics Survey conducted by the Economist Intelligence Unit

**Figure 4: Expected change to levels of investment in types of technology or data over the next three years (Asset manager respondents only)**



Source: State Street 2013 Data and Analytics Survey conducted by the Economist Intelligence Unit

### The Asset Managers' Toolkit: Five Steps to Mastering Data

- 1. Accelerate decision-making in the front office.** The shift toward more electronic trading means that asset managers need to give their portfolio managers the tools to make better, more informed investment decisions. “When portfolio managers make decisions, the order needs to happen almost instantaneously,” says Joerg Ambrosius, head of Asset Manager sector solutions, EMEA, at State Street. Asset managers must invest in integrated technologies that can deliver real-time data, more intuitive tools for portfolio optimization and more integrated tools for order execution.
- 2. Enhanced integration capability.** Asset managers’ legacy systems make it difficult to get the right information to the right people in the right format. To address this need, they’ll be investing more in data warehouses (data stores that make data more accessible and easier to analyze and deliver). These technologies will need to be accompanied by a coherent strategy for data governance.

- 3. Flexible and modular data strategies.** Many established asset managers run their businesses on a combination of legacy and best-of-breed systems, creating a patchwork of technologies that makes it hard to respond to new business demands. Going forward, some asset managers will seek to simplify and consolidate their data infrastructures in-house, although this is costly and may not be scalable for the future. Others will prefer to outsource the more onerous aspects of data management to service providers with an established data infrastructure that they can trust.
- 4. Better risk and performance analytics.** The onus is on asset managers to implement analytic tools that enable portfolio managers, clients and regulators to understand the relationship between risk and performance at a deeper, more sophisticated level. Asset managers moving into more customized solutions will need risk and analytics tools with multi-asset class capabilities. Over the next three years, 57 percent of asset managers will invest in risk analytics and 69 percent will spend more on performance analytics, according to our survey. Many will also need better integration between their risk and performance analytics.
- 5. Streamline regulatory complexity.** A complex and evolving regulatory environment requires asset managers to upgrade their reporting platforms to streamline compliance across their global operations. Regulatory rules and restrictions need to be integrated into investment, risk and trading platforms. Asset managers must also develop strategies to make sure new types of data demanded by regulators are captured, processed and stored appropriately.

#### **Asset Manager Tackles Form PF**

Since the global financial crisis of 2008, asset managers have had to meet more rigorous regulatory standards. “In the five years that I have been director of data governance, regulatory demand for information has grown exponentially, largely due to the Dodd-Frank Act,” says a director of data governance at a US investment management firm.

Many of the regulators demand data to be delivered in a very precise format. Form PF, for example, requires extensive information from Securities and Exchange Commission (SEC)-registered investment advisors who manage private funds. “There are two questions on Form PF that ask for the breakdown of security holdings in two completely different ways,” says the data governance director. “To do this, you have to get the information you need from separate data systems. Then, you need to put it all together in a centralized repository, so it’s permanently available in the future.”

The process entails creating entirely different data groupings with different levels of granularity and hierarchies. This requires changes to the security master file, a kind of data warehouse for all the descriptive information — benchmarks, pricing history, analytics and analytic history — on every security or investment a firm owns or has owned in the past.

## **Conclusion: The New Toolkit for Asset Managers**

The asset management industry is undergoing a major transformation. As they look to new growth opportunities, many asset managers are choosing to develop sophisticated investment solutions that are customized around their clients' needs. To thrive in this new environment, however, asset managers will need to develop a much more advanced set of data, tools and practices.

Adding to this pressure, regulators around the world are requiring asset managers to collect and report on a much greater variety of data. Institutional clients want much more transparency on risk and better performance attribution. Their operations in the front office also need better technology to keep pace with the increased use of electronic trading.

Addressing these inter-related challenges will require many asset managers to completely overhaul their technology and data systems. It is a serious undertaking. But as our research reveals, the “data leaders” that have invested in advanced data management are already harvesting the rewards. Increasingly, the asset managers that are best poised to dominate this new industry landscape will see past the complexity of today’s data systems, to seize the opportunities ahead.

## Contact Information

If you have questions regarding State Street's solutions and capabilities, please e-mail [contactssgx@statestreet.com](mailto:contactssgx@statestreet.com).



**STATE STREET®**

This document is offered to professional investors only — not directed at retail clients.

This document is for marketing and/or informational purposes only; it does not take into account any investor's particular investment objectives, strategies, or tax and legal status, nor does it purport to be comprehensive or intended to replace the exercise of a clients' own careful independent review regarding any corresponding investment decision or review of our products and services prior to making any decision regarding their utilization. This does not constitute investment, legal or tax advice and is not a solicitation for products or services or intended to constitute any binding contractual arrangement or commitment by State Street and/or any subsidiary referenced herein to provide securities services. State Street hereby disclaims all liability, whether arising in contract, tort or otherwise, for any losses, liabilities, damages, expenses or costs arising, either direct or consequential, from or in connection with the use of this document and/or the information herein.

This document contains certain statements that may be deemed forward-looking statements, which are based on certain assumptions and analyses made in light of experience and perception of historical trends, current conditions, expected future developments and other factors believed appropriate in the circumstances.

State Street Corporation  
State Street Financial Center  
One Lincoln Street  
Boston, Massachusetts 02111-2900  
+1 617 786 3000  
[www.statestreet.com](http://www.statestreet.com)

CORP-0931 14-20767-0114  
©2014 STATE STREET CORPORATION