EY Wealth & Asset Management viewpoint

Joined-up data: a Board imperative
The data revolution

A few years ago, only a handful of observers would have expected data to play a central role in the evolution of asset management. Yet, today, data is the heart of the industry’s development. It has emerged as the fourth pillar of business in addition to people, process, and technology. Firms of every size are working to become data-driven organizations in which vast amounts of information can be analyzed in real time and put to a myriad of uses. Good data is vital to effective management and reporting. Data analysis is seen as a growing source of insight and an increasingly important way to identify opportunities for investment or expansion. For example, joining financial data to investment data can help shape product development strategy by identifying the best performing and most cost effective funds.

Of course, in the real world, few asset managers have succeeded in becoming truly data-driven enterprises. It is not hard to see why. Most asset managers have expanded through a mixture of organic and inorganic growth, going through periods of under- and over-investment in the process. In many cases, the result is a fragmented, inconsistent data infrastructure that is overly reliant on manual processes.

In this Viewpoint, we provide a high level assessment of the gap between the data ideal and the current reality, and what we believe asset managers can do to bridge it.

Joined-up data is increasingly crucial to creating shareholder value

With the benefit of hindsight, it is easy to see why data has had such a meteoric rise up the agenda of asset managers’ executive teams. The explosion in the volume and speed of data accumulation across the industry – and the interest in developing new analytic capabilities to make sense of that data – has been phenomenal.

Data and analytics are already being used in activities as diverse as client segmentation, investment research, risk management and fraud prevention. Boards are beginning to realize that joined-up data is essential to achieving core shareholder value objectives such as cost reduction, revenue growth, investor satisfaction and, of course, total shareholder return. An effective data strategy is also recognized as crucial to meeting the challenges of digital distribution, enabling asset managers to distribute their products directly to their investors online. The emergence of robo-advisors, the growing power and diversity of Financial Technology (FinTech) and technology giants’ interest in asset management are focusing the minds of established firms on the need to deliver radically-different customer experiences in future, especially to younger investors.

Above all, though, Executive teams are aware that compliance with a range of regulatory requirements will be reliant on data management. Dodd-Frank, FATCA, MiFID II, PRIIPs (Packaged retail and insurance-based investment products) and others call for asset managers to provide regulators with ever more detailed, timely and granular data. Addressing these overlapping requirements (see Figure 1) is the greatest single driver of firms’ need for effective joined-up data. This in turn is creating a broader awareness that reliable, centralized data management systems and processes can help Boards achieve many of their strategic objectives.

Joined-up data: a Board imperative

In this Viewpoint, we consider what asset managers can do to achieve the elusive goal of becoming truly ‘data-driven enterprises’. Joined-up data – the ability to effectively link all data sets in an organization – is increasingly vital to a range of Board-level objectives. We believe a holistic data strategy, underpinned by an operating model and extensible technology architecture that deliver joined-up data as a service, is the ideal approach to take. Extensible architecture can deliver a wide range of lasting benefits, at similar or lower costs than many asset managers are already incurring. However, we see Board support and commitment as vital to realizing the value of joined-up data.
The desire to move from silo-based data management to a more centralized approach is about much more than eliminating duplication and reducing costs. It also reflects growing awareness of the value hidden in asset managers’ data and the potential synergies of comparing or combining different data sets. Ideally, firms would like to achieve strategic insight by having total transparency of their operational and investment performance – gaining the ability to “view the organization as a portfolio.” This not only implies a holistic view across all securities, asset classes, legal entities, products, clients and markets, but also the ability to look at that data from a range of different perspectives such as compliance, profitability and investment performance etc.

Many asset managers are spending significant amounts in their quest for transparency, but there is no consensus on the best approach to follow. Multiple requirements from a variety of directorates are encouraging some firms to pursue a piecemeal, silo-focused approach. This can appear to achieve comparatively quick, low-cost wins but, in our experience, isolated projects rarely provide a lasting or reliable solution. They are often a response to the limitations of existing technology, or the result of excessive delegation to a single team or function, and, when replicated across a large organization, they inevitably lead to cost multiplication.

At the other end of the spectrum, some asset managers are migrating to completely new full-featured investment platforms supplied by major software vendors. “Big Bang” projects such as these have the potential to be more effective but, without the right governance and oversight, they tend to overrun in terms of time and cost. They can also generate uneven value for different functions or business units, and are often poorly integrated into the broader organization. Additionally, the lack of flexibility impedes organizations into meeting changing requirements when delivered in a timely and cost-effective manner.

**Figure 1:** The overlapping data demands of regulation

![Diagram of overlapping data demands of regulation](image-url)
A holistic data strategy is the key to unlocking joined-up data

Whichever approach they choose, we believe that too many asset managers are all failing to derive full value from their investments in data. However, we see an alternative third way to achieve data transparency that combines the benefits of both approaches.

This alternative approach involves creating a new operating model for data management, made up of several vital elements. The first is a lightweight governance structure that unites senior executives such as the CFO, COO and CTO around data. This coordinates core shareholder value objectives with tactical data goals, key performance indicators (KPIs) that measure success and the levers available to staff – empowering the whole firm to deliver joined-up data. That governance framework then needs to be supported by an integrated organizational structure that brings all data management skills and processes – including technology, finance, risk, compliance, operations and change management – under the centralized oversight of a single figure, such as a Chief Data Officer.

Finally, the operating model is underpinned by an extensible technology architecture that delivers joined-up data as a service. The defining feature of this approach is that it places an infrastructure for gathering, cleaning, analyzing and reporting data on top of an asset manager’s existing systems. Instead of creating a data warehouse, it captures data from a wide variety of sources and uses multiple metadata – descriptive features – as the basis for subsequent analysis. Conceptually, this extensible architecture is made up of three “layers” (see Figure 2):

- The semantic layer, which allows data – with different characteristics and stored on different systems – to be defined in a standardized way
- The calculation layer, which structures the data according to best practice business models, and enriches it from external sources and performs checks not previously possible
- The analytic and reporting layer, which provides internal and external users with a far more timely, flexible and detailed range of options for analysis and reporting

The defining feature of this approach is that it superimposes an infrastructure for gathering, cleaning, analyzing and reporting data onto an asset manager’s existing systems. Instead of creating a data warehouse, it captures data from a wide variety of sources and uses metadata – descriptive information – as the basis for subsequent analysis.

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**Figure 2:** conceptual design of extensible architecture

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A holistic data strategy is the key to unlocking joined-up data (contd.)

The extensible architecture can also be defined in purely technological terms (see Figure 3). Once up and running, the architecture delivers joined-up data by:

► Extracting data from an asset manager’s existing systems and transferring it to a separate server.
► Cleansing and reformatting the data into standardized business models.
► Enriching it with external data such as market prices or customer characteristics.
► Moving the data to a separate “reservoir” for analysis and extraction.
► Allowing users to interrogate the data using a powerful analytics module.
► Giving a range of internal and external users secure reporting access.

The importance of the ‘overlaid’ nature of extensible architecture is hard to overstate. It enables users to drill down into data where required, but also to extract simple, single-figure measures of performance, cost and risk. Equally importantly, it allows firms to leverage their existing technology without the need to decommission systems – even if multiple platforms are performing similar functions – and permits underlying platforms to be maintained or upgraded without affecting analytics or reporting. It makes use of unstructured external data, as well as proprietary information. Finally, it allows analytics and reporting to evolve dynamically over time.

Extensible architecture can be implemented internally or externally, on a managed service basis. In our experience, either approach can work well, as long as asset managers have access to the right capabilities. Technological expertise alone is not enough; firms also need regulatory, tax and legal knowledge, along with guidance on best practices in management information, financial and regulatory reporting.
This approach delivers lasting simplicity, not temporary fixes

In our experience, using extensible architecture to deliver joined-up data can bring asset managers a wide range of operational and strategic benefits. These can be summarized as “simplicity on the far side of complexity.” In other words, by giving firms a granular understanding of their data, extensible architecture enables them to derive clear, powerful insights from it.

This contrasts with the illusion of simplicity provided by a smaller, piecemeal approach. Projects focused on individual data requirements tend to simplify each problem down to the bare minimum of delivery, increasing inefficiency and only achieving temporary solutions. Simplicity on the far side of complexity can help to achieve a range of internal and external objectives, as outlined below.

► **Cost reduction:** the approach can not only deliver quick wins by reducing duplication, but also longer-term efficiencies via increased automation. An aggregated view of fund costs, such as administration and custody, can help to identify further savings. We have seen asset managers reduce their technology and financial reporting costs by as much as half.

► **Revenue generation:** better analysis allows firms to strengthen revenues by enhancing product development processes and focusing on the strategies and clients that create the most value. It also makes it easier to develop multichannel distribution, digital strategies that play to a firm’s strengths.

► **Portfolio management:** better transparency of overall market exposure can help to highlight potential risks, identify anomalies in investment strategy and provide a more accurate basis for performance-based rewards. Firms are also increasingly interested in using the analysis of unstructured external data as an indicator of market sentiment.

► **Governance and risk management:** boards and senior management will see a marked improvement in their ability to monitor group-wide market and investment risks. They will also be able to conduct end-to-end checks on fees and costs that were not previously possible. We know of cases where firms have detected significant assets being charged the wrong level of fees or no fees at all.

► **Data quality:** a detailed focus on data and its characteristics allows firms to identify and tackle problems of data reliability at their root, making permanent improvements to the way that data is created and stored.

► **Management information:** extensible architecture reduces the time and effort of management information (MI) preparation, and allows firms to make decisions based on facts rather than estimates. This increases the value of analysis, enabling management to target areas of priority and identify optimal responses. Better data and detailed KPIs also empower staff to deliver against these objectives. Better MI not only improves management oversight, it also builds investor confidence.

► **Investor reporting:** investors will see a dramatic improvement in the quality and timeliness of the reporting they receive. Digital portals will deliver bespoke reporting, tailored to each client’s requirements. Investors will be able to see the overall value, returns and costs of their investments instantly, but can also have access to finer details if desired.

► **Regulatory reporting:** extensible architecture enables asset managers to meet regulators’ increasingly-demanding expectations, such as near-real-time reporting and international consistency in client classification. Like investors, regulators will not only be able to access summarized measures of risk, cost and profitability, but will also be able to drill down into granular detail.

Looking further ahead, we believe that the simplicity, adaptability and flexibility that extensible architecture delivers will also give asset managers some lasting strategic advantages. Separating the reporting layer from underlying systems makes it easier for firms to grow. This includes the ability to integrate acquisitions without affecting key reporting processes – reducing the cost and risk of M&A – as well as to incorporate new platforms as products and markets evolve.
Value lies not just in joining up data, but also in joining up spending

We recognize that some asset managers will be instinctively wary of using extensible architecture to deliver joined-up data. In our experience, initial skepticism is typically based on perceived levels of cost or disruption.

These are understandable views, given the institutional fatigue that many asset managers are experiencing after several years of upheaval. All too often, firms will already have made failed attempts to deliver joined-up data. Historic obstacles to success can include cultural factors, such as organizational inertia or a lack of broad-based stakeholder support; legacy issues, such as complex organizations or data landscapes; and governance weaknesses, such as poor accountability or the absence of a robust data model.

Even so, we believe that there are powerful arguments in favour of extensible architecture. The most important point is that most firms are already making heavy investments in data-related projects, even if fragmentation between work streams may mean that this is “under the radar” or simply seen as a cost of doing business. By coordinating and centralizing existing spend, most asset managers could implement an extensible architecture approach for the same – or lower – level of cost that they are already incurring, while realizing far greater benefits.

Furthermore, it is worth remembering that regulation will, in any case, compel all asset managers to make significant changes to their data infrastructure in the coming years. The benefits of an overall end state that all projects contribute to are illustrated by a quick look at the requirements of MiFID II. By 2017, European firms will need to be able to report total investment costs at client, portfolio and fund level. Successful compliance with MiFID II is likely to involve many of the elements covered by an extensible architecture approach (see Figure 3).

In summary, we believe that channelling current areas of effort and expenditure into the creation of a new operating model for joined-up data will overcome historical obstacles, enabling asset managers to meet all their data management goals without increasing their total level of expense.

Figure 3: areas of extensible architecture required for MiFID II compliance (colored in yellow)
In our view, an extensible technology architecture that sits above existing systems offers many asset managers an ideal way to improve the value of their data while reducing disruption and cost. However, we could not conclude this Viewpoint without stressing that clear central leadership is critical to achieving the full benefits of a holistic data strategy.

Vision, drive and support at Board and C-suite level are essential to achieving buy-in from all functions and business units, and to confirming that the approach is implemented fully and successfully. This includes creating an information management framework for the whole organization covering data governance, quality, usage, management and architecture. Otherwise, weak links in the chain will develop and firms will struggle to extract full value from their investments. Board-level commitment is also vital to fostering a culture which recognizes the value of data management and prioritizes accordingly.

In short, joined-up data is not a concern for one function or department. It needs to be identified as a Board-level priority. Executive teams can then set a holistic data strategy supported by an extensible technology architecture which realizes the value of a truly data-driven enterprise.

Conclusion:

joined-up data is a Board-level issue
EY contacts

**Alex Birkin**  
Global Wealth & Asset Management  
Advisory Leader  
+ 44 20 7951 1751  
abirkin@uk.ey.com

**Howard Mannion**  
+ 44 20 7951 3689  
hmannion@uk.ey.com

**David Marriage**  
+ 44 7941 670 320  
dmarriage@uk.ey.com

**George N Kaczmarskyj**  
+ 170 3747 1887  
george.kaczmarskyj@ey.com
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