A data-centric approach to portfolio management

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Executive summary

A fast, flexible and reliable investment decision-making process must be based on access to accurate and consistent information throughout an organization. The right portfolio management solution will underpin the creation of an enterprise-wide approach to trade order management, compliance, investment analysis, investment accounting, analytics and client reporting. Every part of the business should have access to the same information to ensure the investment decision-making process is consistent, compliant and yields optimum results.

As such, compiling an Investment Book of Record (IBOR) is a crucial element of the portfolio management process because it can provide a single, consolidated view of an organization’s investments. However, traditional approaches to the creation of an IBOR can result in a cumbersome network of systems, requiring reprocessing of data that can compromise quality. But, by using a data-centric portfolio management solution, an organization gains access to a single, consolidated view of its positions and investible cash at any time during the trading day. Under this approach, a hub of quality investment data provides reliable, detailed information fit for enterprise-wide consumption. The creation of an IBOR that is underpinned by a data-centric approach can provide a company with the flexibility to quickly respond to internal developments, external changes, and regulatory mandates—a significant benefit in today’s fast-paced financial markets.

WatersTechnology conducted an exclusive survey of senior data management executives in September and October of 2013 to assess current practices in relation to IBOR and portfolio management. Participants from a range of investment management companies and asset management arms of banks answered questions regarding their data management needs, current use of IBOR, and the pros and cons of the portfolio management solutions used by their businesses. The survey was designed to assess how investment management organizations currently approach the creation of an IBOR, how valuable this function is—or could be—to these businesses, and how portfolio management systems might benefit from the adoption of a data-centric approach.

Most importantly, the survey results highlighted the fact that many organizations still use several different systems to compile IBORs. Such an approach tends to defeat the purpose of creating an IBOR to provide an overview of the company’s assets in the first place because the use of different systems can lead to inaccurate data and operational complexity. This is mainly because of the need for data reprocessing under such circumstances, as well as the limited options for data validation, storage and access. Many survey participants also cited concerns about access to business intelligence tools and other third-party products with current infrastructure.

The other major issue highlighted by participants in the survey is that of flexibility, or rather, the lack thereof within current systems. More than 40 percent of respondents say portfolio management infrastructure can be quite difficult to adapt in line with organizational or market changes.

This white paper argues that these concerns and many more could be eliminated under a data-centric portfolio management solution. In order to gain the most value from its IBOR, an organization must implement an underlying data management solution that can support a single, consolidated view of company assets for
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enterprise-wide consumption, without the need for reprocessing of data. A data-centric approach promotes the use of one system into which all data is fed and all decision-making information is extracted. This reduces waste and increases accuracy, consistency and reliability. It also allows for ease of integration with investment accounting, analytics workflow processing and business intelligence tools.

The investment data-centric method strengthens the sourcing, management and analysis of an organization's vital data and this, in turn, strengthens the IBOR that underpins the overall investment decision-making process.

Why IBOR?

Making sense of the abundance of information facing investment managers in today's markets is not an easy task. The availability of increasing amounts of data from a growing range of sources has intensified the complexity of the investment decision-making process. New financial regulations implemented in recent years have also increased this data management burden. As a result, the IBOR is emerging as a valuable tool in the arsenal of those investment management companies that wish to harness the power of their organization's data infrastructure.

An IBOR uses information gathered from across the business to provide a consistent and accurate overview of a company's assets for enterprise-wide consumption. It is invaluable when generating an overview of start-of-day, end-of-day and intraday positions, and can support an organization's compliance efforts and help optimize collateral and cash holdings.

Adapting to Change

A major issue identified by participants in a recent WatersTechnology survey, A Data-Centric Approach to Portfolio Management, was the inflexibility of current portfolio management infrastructure. This is an important concern since companies must be able to constantly evolve in response to internal and external market changes, such as the integration of new systems, expansion into new product areas or asset classes, and changing rules and regulations or market trends. A flexible portfolio management infrastructure plays a key role in a company's ability to respond to organizational, market and regulatory changes without missing a beat. However, according to 44.3 percent of respondents to the WatersTechnology survey, it is presently quite difficult to adapt their organizations' portfolio management infrastructure in the face of such internal or external changes.

A data-centric approach provides a solid basis for the effective sourcing, organization and management of data now and in the future, even as changes occur within a company and the markets in which it operates. The flexibility inherent in a platform based on this methodology primes the business for future change, whether that is in the form of internal developments or external events in the market. It allows for integration with market and reference data sources and third-party applications, while maintaining source integrity and the data points from those sources, and providing the underpinning workflow processes. As such, in addition to many other benefits explored throughout this report, a data-centric approach delivers the means to adapt with speed and accuracy in response to the fast-paced evolution of financial markets.
Multiple Systems

A total of 73.5 percent of the respondents to the WatersTechnology survey manage multiple asset classes, including equities, fixed income and real estate (see Figure 1). And while 53.8 percent can access a single, consolidated view of IBOR that is available for enterprise-wide consumption, about half (50.5 percent) of the respondents use different systems to generate IBORs for each of the asset classes managed by their companies. According to the survey, these organizations can use anywhere from two to eight systems to complete the process of generating an IBOR.

Figure 1: Do you manage multiple asset classes, and if so, which ones?

Collecting and maintaining the data necessary to generate an accurate IBOR can be tricky—and only becomes more difficult as a company grows. The underlying information is typically sourced from a range of departments and sources within those departments. Often, each will use a different system and information may be siloed according to asset class or geography, for example. It is often the case that the use of multiple systems leads to problems related to accuracy of information and operational complexity. A certain amount of data reprocessing may be necessary with such an approach, which eliminates the original source integrity. There may also be limited options for data validation, storage and access.
There may also be an impact on the level of detail available in the final consolidated overview. When an asset class has multiple components to track—an over-the-counter (OTC) derivative with an equity component linked to the S&P 500, for example—some systems only input one line of data relating to the trade, rather than including the data relating to the benchmark as well. In addition to this, little to no access to workflow and business intelligence tools can hinder these systems. Organizations may also use what they need from each source and throw away the rest—an inefficient use of resources and a waste of valuable data.

As such, an investment manager may find that generating a single, consolidated IBOR is a complicated process and ultimately a drain on time and resources that would be put to better use elsewhere within the business. In fact, nearly a third (28.6 percent) of respondents to the WatersTechnology survey currently feel effective management of the data required to produce an IBOR for their organization remains out of reach. A total of 66.7 percent of participants indicate that they would be open to adopting system changes that would lead to better data management practices in order to deliver an IBOR. (see Figure 2).

**Figure 2: How satisfied are you with your ability to deliver IBOR?**

- **Very satisfied, we do not need to make any changes in this area for the foreseeable future (17.4%)**
- **Fairly satisfied, we are open to adopting certain system changes to allow for better data management practices (66.7%)**
- **Not satisfied, we are actively looking for ways to integrate sources and validate and enrich data (15.9%)**

More specifically, 82.9 percent of respondents to the survey would consider making changes to improve the sourcing, organization and management of data under their current portfolio management solution (see Figure 3, page 7). For example, the quality of the investment data used is a concern for many investment managers. In fact, 62.7 percent of participants in the survey cite concerns about components of current systems through which data quality could be compromised. Figure 4 on page 7 depicts the concerns reported by these respondents.
Figure 3: With your current portfolio management solution, how satisfied are you with sourcing, organising, and managing data?

- Very satisfied, we do not think any adjustments or changes need to be made to our organisation’s systems in this area at present (17.1%)
- Fairly satisfied, we are generally happy with our current systems but would be open to certain changes (58.6%)
- Not satisfied at all, this is an area in which we would like to make extensive changes (24.3%)

Figure 4: In which area(s) are you most concerned about data quality?

- Enterprise reporting (30.8%)
- Exposure and investment analysis (36.9%)
- The use of spreadsheets (56.9%)
- Pre- and post-trade compliance (30.8%)
- Investment decision support (18.5%)
- Creation of IBOR (18.5%)
- Performance measurement (33.8%)
- Performance attribution (30.9%)
- Ex post and ex ante risk (21.5%)
- Client reporting (44.6%)
- Regulatory reporting (41.5%)
Spreadsheet risk was the largest area of concern for respondents, with 56.9 percent expressing unease about this element of the process. Many of the companies that participated in the survey currently use multiple spreadsheets to consolidate the data necessary to achieve a single enterprise-wide IBOR. Managing and consolidating multiple spreadsheets in this way can be cumbersome and time-consuming. But, perhaps more importantly, relying on a number of separate instruments can result in compliance issues and errors that may cause the front office to overlook valuable investment opportunities.

Multiple IBORs

Data-centricity, however, uses a single platform to provide a strong foundation for the development of multiple IBORs within an organization, as required. And while an IBOR can be broadly characterized as the single version of the truth across an entire business, it is also possible for a company to create multiple IBORs in line with different business lines or geographical areas it might cover. According to the survey, the ability to create multiple IBORs by location or organizational structure was important to 67.2 percent of respondents (see Figure 5).

Figure 5: How important is creating multiple IBORs by location or organizational structure?

These IBORs sit beneath an overarching global IBOR, providing specific information about certain parts of the business such as geographical locations, business lines or asset types. For example, a large global asset management company that has offices in every time zone, would use a global IBOR to get a single view of all of its assets around the world. It would use one platform to generate the global IBOR, but it could also have in place a set of processes to generate regional IBORs from the same platform to allow for decision-making specifically related to books in its Hong Kong, London or New York offices.
If the organization takes a data-centric approach to portfolio management, only the highest-quality data will be fed into the investment portfolio management solution. This provides a uniform source of information on the company’s position and is integrated with investment accounting and analytics tools so users can drill down to access specific information for any analytical purpose. As such, these regional IBORs, which are subsets of the global IBOR, are generated from the same information gleaned from the same sources. This ensures accuracy and consistency throughout the business when it comes to the investment decision-making process.

Integration Issues

Another area of concern for participants in the WatersTechnology survey relates to access to third-party systems and business intelligence tools. An organization’s data management platform must allow for ease of integration with a wide range of market and reference data sources and third-party applications. This helps interested parties within an organization assess the future of the business and that of the market in which it operates. But 75.7 percent of respondents are not entirely happy with this area of the portfolio management solutions currently used within their organizations at the moment and would consider making changes to improve the level of access to business intelligence tools (see Figure 6).

Figure 6: With your current portfolio management solution, how satisfied are you with providing efficient access to/integration with business intelligence tools?

- Not satisfied at all, this is an area in which we would like to make extensive changes (27.1%)
- Very satisfied, we do not think any adjustments or changes need to be made to our organisation’s systems in this area at present (24.3%)
- Fairly satisfied, we are generally happy with our current systems but would be open to certain changes (48.6%)
Many participants in the WatersTechnology survey are also not entirely satisfied with the ability to retrieve timely and relevant reference data under their companies’ current portfolio management solutions. A full 81.4 percent of participants say they would be open to adjusting their organizations’ systems to enable improvements in this area (see Figure 7). Such data is generally sourced from third parties and so an organization’s infrastructure must be able to integrate with and tie back to applications provided by vendors and other key third parties.

Figure 7: With your current portfolio management solution, how satisfied are you with accessing timely and relevant reference data?

- Very satisfied, we do not think any adjustments or changes need to be made to our organisation’s systems in this area at present (18.6%)
- Not satisfied at all, this is an area in which we would like to make extensive changes (21.4%)
- Fairly satisfied, we are generally happy with our current systems but would be open to certain changes (60.0%)
Conclusion

Addressing the Need for Change

The concerns and the desire for change expressed by the participants in the survey could be addressed by the adoption of a data-centric approach to portfolio management. Under this methodology, investment data related to all assets can be viewed via a centralized database generated from multiple sources of validated information, with no need for reprocessing. With access to a single source of data, the investment decision-making process becomes more accurate and reliable. The data-centric approach is also more flexible, enabling users to drill down into source data for specific purposes, if required. It allows for easy integration with third-party applications and data sources, supports source integrity and ties back to the original source.

Data centricity can also provide the level of detail required to accurately track assets with multiple components, something that can be lacking with other approaches. For example, a company trading an OTC derivative such as a total return swap with an equity component can include the data associated with the trade, as well as the data linked to the underlying benchmark for the trade such as the S&P 500 or the FTSE. Therefore, the organization can include the data relating to the trade itself and the underlying benchmark in its IBOR, as opposed to being limited to one line of data for each asset class, as with other types of systems.

The survey results hint at the fact that, while current portfolio management systems work, they may not operate in the most efficient or effective way. Concerns surrounding data accuracy, quality and system inflexibility, as well as the sheer number of systems that are in use within some organizations, show that many investment management companies still have some way to go toward creating a solid and reliable investment decision-making infrastructure. An IBOR can provide an organization with a master copy overview of it assets that can be used on an enterprise-wide basis. But it must be generated under optimal conditions to ensure accuracy and consistency. By implementing a data-centric approach to portfolio management, organizations can ensure that all of the data used to make their most important decisions adheres to the same version of the truth. This guarantees a solid foundation for the entire investment decision-making process.
About Eagle

Eagle is committed to helping financial institutions worldwide grow assets efficiently with its award-winning portfolio management suite of data management, investment accounting and performance measurement solutions that are delivered over its secure private cloud, Eagle ACCESS™. Eagle deploys trusted solutions and services that create operational efficiencies and help reduce complexity and risk. Eagle Investment Systems LLC is a subsidiary of BNY Mellon.

Additional information is available at www.eagleinvsys.com