

# Streamlining Front Office Technology

## With Consolidated Portfolio Construction and Analytics

Risk modeling, performance measurement, and scenario analysis play an increasingly critical role in the buy-side portfolio management process. Together, these capabilities help managers construct smarter portfolios, respond faster to market opportunities and implement effective hedging strategies. However, several challenges prevent portfolio managers from realizing the full potential of these capabilities. This brief discusses Charles River's approach to mitigating those challenges with an integrated solution for portfolio construction and analytics.

### Disparate Systems, Multiple Problems



**Lack of  
Integration**



**Redundant  
Data**



**Inconsistent  
Analytics**



**Asset Class  
Limitations**

# Disparate Systems, Multiple Problems

Traditionally, risk management and performance measurement and attribution (PMAR) were viewed as middle office functions used to satisfy regulatory and client reporting requirements. This resulted in backward looking views of risk that provided little value to the front office. In response, technology vendors began offering specialized risk and performance systems targeted to portfolio managers.

Although these systems empowered the front office with new capabilities, the fragmented approach to system acquisition created new problems. Most importantly, portfolio construction systems remained largely separate from this new class of product offerings, with few meaningful integration options.



## Lack of Integration

Disparate systems often prove difficult if not impossible to integrate with an existing front office environment, with varying levels of API support and web services provided by the individual system vendors. This results in a “swivel chair” effect, where portfolio managers have to work with multiple systems and acclimate to different user interfaces in order to manage their investment process. This also explains the still prevalent over dependence on spreadsheets to aggregate and consolidate data from the various systems into usable views of risk exposures, performance and portfolio positions.



## Redundant Data

Firms using multiple systems for portfolio construction and analytics typically find they are paying for redundant data feeds. Attempts to rationalize these pre-configured feeds are often prohibited by system licensing terms and conditions, even when feeds are provided by the same data vendor.



## Inconsistent Analytics

The lack of a shared analytics engine across the firm’s disparate portfolio management tools has the potential to create inconsistent assessments of risk and performance. Lacking a single, consistent portfolio view results in wasted time reconciling data produced by these systems to uncover the source of the misalignment. More importantly, over time it leads to a lack of confidence in these systems, with portfolio managers reverting to their spreadsheets for manually calculating and verifying analytics.



## Asset Class Limitations

Asset-class specific portfolio construction, risk and performance systems may be adequate for managing a single, narrowly defined mandate or fund. However, these systems prove unworkable for large multi-asset managers. It’s not uncommon to find firms with multiple specialized portfolio construction and analytics tools, with each system focused on a single asset class or sub-class. This leads to even more inefficiencies, and expensive system integration challenges.

# A Better Approach: Charles River Portfolio Management and Analytics



## A Single, Consistent Portfolio View

Charles River helps firms reduce front office system fragmentation by providing a unified platform for portfolio construction and analytics. Using a common data set and natively calculated analytics, the platform delivers a single, consistent portfolio view. Risk exposures are updated in real time and displayed directly in the portfolio management workspace, so managers can make decisions based on the latest data. Helping eliminate redundant data feeds and disparate specialized systems helps firms gain confidence in the analytics driving their asset valuations, risk forecasts and performance metrics.



## Packaged Workflows

By making risk and performance capabilities an integral part of the portfolio management process, Charles River adds additional value by providing asset managers with packaged workflows. These include factor model-based asset allocation, dynamic hedge construction, and portfolio stress testing. Interactive what-if modeling of portfolio construction and de-risking activities gives managers immediate feedback on how those activities will impact the portfolio.



## Collaborative Decision Making

A shared, consistent view of risk metrics and asset valuations promotes collaboration across the front and middle office. Compliance officers, risk analysts, portfolio managers and traders can work more closely to implement investment ideas, manage risk, and clearly understand the factors driving performance. A consolidated view of portfolio holdings and performance metrics also expedites client reporting activities by providing visibility into the manager's asset allocation and targeting decisions.



## One Platform, Multiple Mandates

Charles River provides the analytics and asset class coverage required to manage global multi-asset portfolios. Institutional asset managers, insurers and pensions can support multiple investment mandates on one platform, including benchmark-, liability-, or return-driven, and active or passively managed funds. Firms can add new investment products, geographies and asset classes without having to bring new specialty systems online to support that expansion. Charles River's single-solution approach to portfolio construction and analytics helps eliminate the shortcomings posed by disparate front office systems. By making risk and performance an integral part of the investment process, firms can make more informed and timelier decisions. More importantly, a shared and consistent portfolio view enables a collaborative approach to investment management across the front and middle office.

# Charles River Development, A State Street Company

Investment firms, asset owners, wealth managers, hedge funds and insurers in more than 30 countries rely on Charles River's front and middle office investment management platform to manage nearly US\$48 Trillion in assets. Together with State Street's middle and back office capabilities, Charles River's cloud-deployed software technology forms the foundation of State Street Alpha<sup>SM</sup>. The Charles River Investment Management Solution (Charles River IMS) is designed to automate and simplify the institutional investment process across asset classes, from portfolio management and risk analytics through trading and post-trade settlement, with integrated compliance and managed data throughout. Charles River's growing partner ecosystem enables clients to seamlessly access external data and analytics, applications and liquidity venues that support the demands of their product and asset class mix. Headquartered in Burlington, Massachusetts, we serve clients globally with more than 1,250 employees in 11 regional offices. (Statistics as of Q4 2022)

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