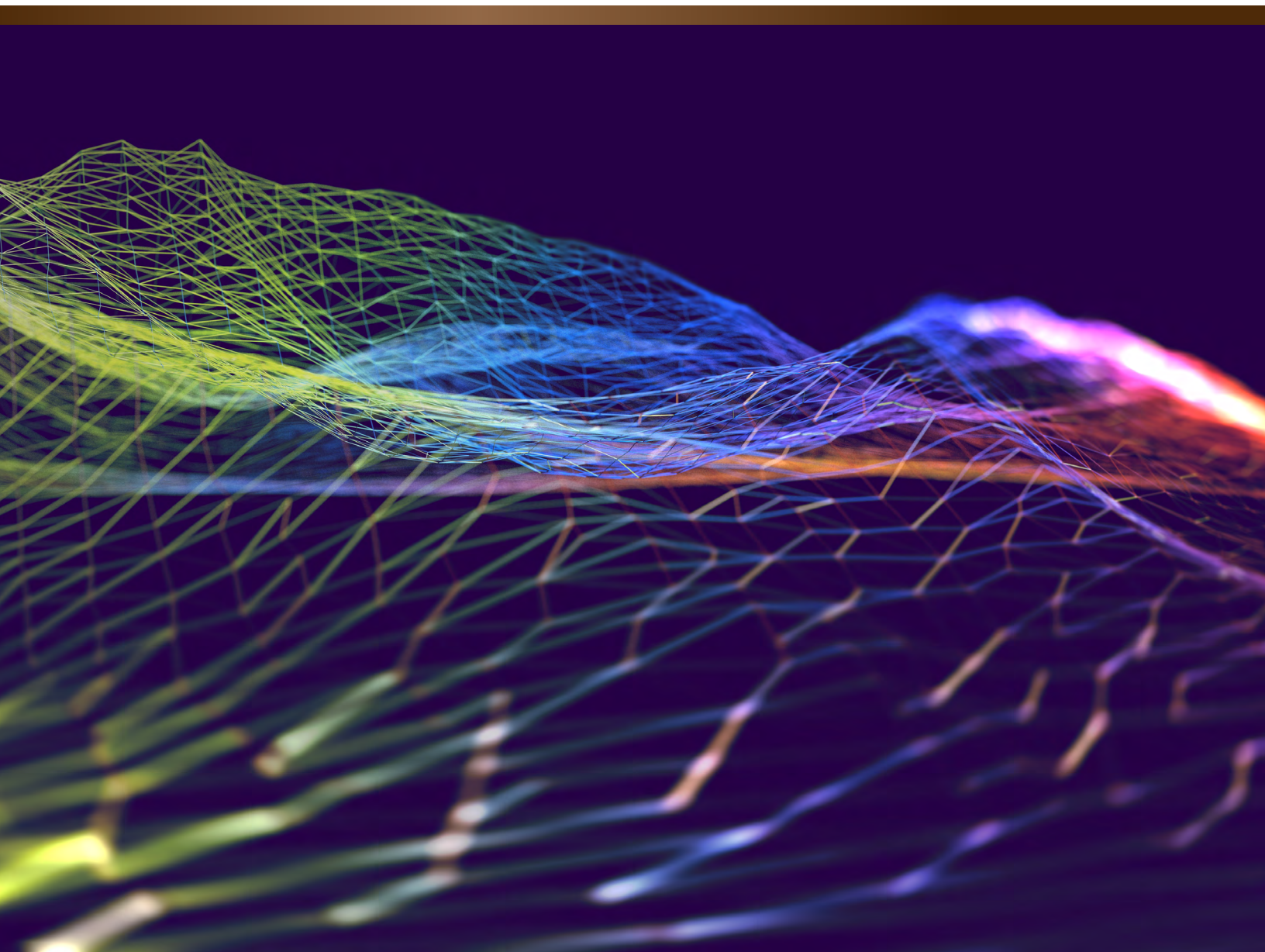
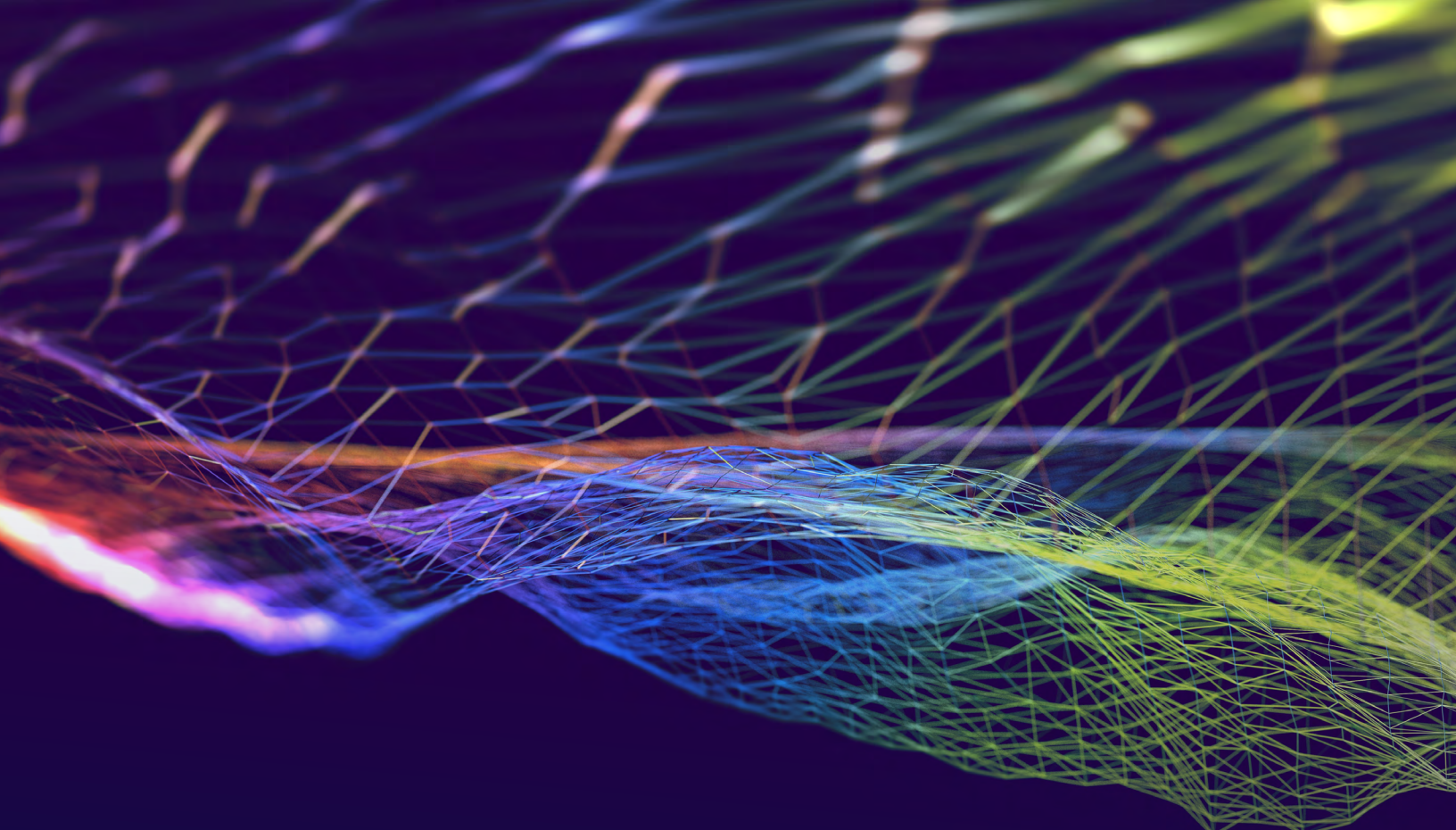


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Mitigating Enterprise Risk Through Data Analytics

As institutional investors' portfolios grow in complexity and the market contends with volatility and uncertainty, institutional investors must seek solutions to manage risk and liquidity.





Introduction

Institutional investors hold a variety of goals in their sights: pensions seek to neutralize liabilities and have a 100% funding ratio, endowments endeavor to fund the operations of their universities, and asset managers aim to minimize tracking error and generate alpha. But attaining such objectives can prove difficult, especially during periods of volatility.

As such, institutional investors with increasingly complex pools of assets are eager to manage performance and risk, along with liquidity, across their portfolios and accounts. That is proving increasingly challenging, because the convergence of public and private assets in portfolios means asset managers and asset owners are further contending with unstandardized, decentralized data and less liquid assets.

To take on these difficulties broadly speaking, institutional investors can consider enhancing their data management capabilities. In order to measure performance and risk, in particular, they can bolster their front-office analytics capabilities. On the liquidity management front, asset managers and asset owners would do well to employ a tool that can forecast transaction costs given various liquidation scenarios. Third-party tools that utilize automation can help institutional investors be better positioned to make anticipatory, strategic trade decisions and meet their payment obligations to investors.

Risk-Averse Business

During times of volatility, institutional investors aim to build resilient, high-performing portfolios and meet or exceed benchmarks.

While they measure their progress through achieving a comprehensive view of their exposures and reporting results to investors in an efficient manner, they need third-party assistance navigating risk and performance measures to enhance front-office analytics.

Traditional methods of measuring performance may require error-prone and time-consuming manual data entry and reconciliation. In fact, some 64% of fund accounting professionals noted time-consuming reporting processes are a major challenge for them, and 61% cited manual workflows as a barrier to efficiency, per a Dynamo Software survey.¹ Automation and AI are proving increasingly coveted to accelerate fund accounting, with 61% of respondents in the Dynamo Software survey predicting these technologies will play a major role in fund accounting processes.²

Institutional investor front offices are looking to evaluate a portfolio's performance against benchmarks and analyze data to make informed, proactive trading decisions. This means modernizing the approach to data analysis with a clear public-private look-through. Given that institutional investors are contending with portfolios of increased scale, volume, and complexity, institutional investors want access to actionable, normalized data. This means creating a dashboard that feeds portfolio managers granular analytics that might help them generate more strategic trade ideas and potentially boost their returns. Fundamentally, institutional investors want the opportunity to get

out ahead of the challenges of protecting assets and adjusting exposures by employing data-backed assessments of their holdings rather than extemporizing.

But beyond enhancing data management capabilities to assess risk and performance, institutional investors may want to improve their ability to evaluate the consequences of exiting positions.



¹ [Dynamo Frontline Insight Report: Trends, Challenges, and Insights from Leading PE/VC Fund Accountants](#), Dynamo Software, February 2025

² *Ibid.*

Liquidity Management

Market risk can escalate amid particular events that highlight instability in asset pricing and expose the precariousness of markets. Geopolitical skirmishes or trade difficulties, such as tariff challenges, present broader market risk that can rattle indexes and drive institutional investors to consider selling off assets, rebalancing, or generating cash for investors.

Amid precipitous market drops, institutional investors may need to generate liquidity due to investor redemptions. That is increasingly of the essence given the increase in the proportion of portfolio assets in private markets, assets that are inherently less liquid. When exiting positions, though, institutional investors have to be mindful of the costs involved – whether selling off immediately or at a slow drip over a particular time horizon. When rebalancing, the investor gets charged, and in this risk measurement, the institutional investor must assess the transaction cost. Given liquidity challenges that arose during the COVID-19 pandemic and leverage challenges of the GBP-denominated Liability-Driven Investments (LDI) funds during the UK gilt market crisis, for example, regulatory and supervisory authorities are keen on implementing tightened policy recommendations³ from the Financial Stability Board (FSB) and the International Organization of Securities Commissions (IOSCO) to address liquidity mismatch in Open-Ended Funds (OEFs).⁴

A swing pricing tool can help determine what the transaction costs will be for institutional investors, including tax burdens and administration fees, in addition to what the cost will be to end investors. This adds transparency and serves as an anti-dilution mechanism for institutional investors to ensure they can fulfil their obligations to their investors. Essentially, swing pricing facilitates the ability for OEFs to toggle the NAV per share up or down depending on the volume of net inflows or outflows of securities. That passes the costs of trading onto the investors executing those trades, rather than to the existing shareholders, thus protecting the latter from diluting their holdings and fairly allocating the costs to investors driving the redemptions. Swing pricing can be a linchpin tool for beating benchmarks: if an asset manager lacks the ability to utilize swing pricing, there is an increased likelihood its funds could face higher levels of dilution, thus potentially lowering their long-term performance.⁵

In times of volatility, utilizing swing pricing becomes a more common occurrence. Luxembourg, as a global hub for the fund industry where 71% of asset managers use swing pricing per the 2022 Association of the Luxembourg Fund Industry (ALFI) Swing Pricing Survey,⁶ can serve as an illuminating microcosm for the growing importance and sophistication of swing pricing during times of extreme volatility compared to those of relative normalcy. Typically, more than half (59%) of asset managers employing swing pricing would review and calculate swing factors on a quarterly basis while nearly a quarter (24%) would do so monthly, per the 2022 ALFI Swing Pricing Survey.⁷ Yet the survey revealed that during the pandemic-driven volatility of March and April 2020, more than two-thirds of asset managers using swing pricing were conducting daily review of swing factors at certain points over that time window.⁸

³ [Navigating Liquidity Risk in Investment Funds](#), J.P. Morgan, May 2025

⁴ [Revised Recommendations for Liquidity Risk Management for Collective Investment Schemes](#), IOSCO, May 2025

⁵ [Swing pricing – Raising the bar](#), BlackRock, September 2021

⁶ [Swing Pricing Survey 2022](#), Association of the Luxembourg Fund Industry

^{7,8} *Ibid.*

Decode, Demystify, Decipher

As institutional investors strive to seek alpha, build resilient portfolios, neutralize liabilities, and manage liquidity, enlisting a third-party may be helpful to build a more robust data management framework, especially during times of elevated volatility. J.P. Morgan can help asset owners and asset managers enhance their front-office analytics capabilities to measure performance and risk. In addition, J.P. Morgan is able to assist institutional investors in managing their liquidity through a transaction cost measurement tool.

In terms of performance and risk measurement, it is possible for institutional investors to generate valuable insights with powerful analytics by using Fusion by J.P. Morgan, a cloud-native data technology solution for institutional investors that provides end-to-end data management, analytics, and reporting across the

investment lifecycle. The platform seamlessly integrates and combines data around positions and transactions from multiple sources – including J.P. Morgan Securities Services lines of business Custody, Fund Accounting and/or Middle Office, as well as external providers – into a single, normalized data model that delivers the benefits of scale and reduced costs, along with the ability to more easily unlock timely analysis and insights. Fusion Analytics, a module within the larger Fusion platform, integrates multiple providers to deliver powerful analytical capabilities in a managed solution featuring a full-service operating model that extends from data ingestion through analytics and reporting delivery.

Fusion integrates advanced calculations capabilities from FactSet (a premier performance measurement platform) and MSCI (a premier risk measurement platform), and J.P. Morgan itself to deliver a powerful analytics ecosystem, enabling institutional investors to produce impactful insights. In addition, the analytics data is securely stored in Fusion Data Warehouse, ready for easy retrieval. FactSet and MSCI may be the engines for performance and risk assessment, respectively, but J.P. Morgan is the vehicle that advances these efforts forward with its concierge-style attention. These platforms enjoy seamless technical and operating model



integration into the J.P. Morgan framework, thus allowing our institutional clients to avail themselves of these services without the need to seek out external solutions. This is an add-on to the full stack of J.P. Morgan's Securities Services capabilities.

Fusion's easy-to-use dashboards and reporting flows make it simple to visualize data and produce board-ready reports. Fusion Data Mesh provides modern delivery channels to receive their analytics, including API, BI dashboards, and cloud providers like Snowflake and Databricks.

Fusion Performance Analytics allows institutional investors to monitor portfolio risk and return and identify drivers of performance across asset classes. It helps institutional investors ascertain precise absolute or relative returns and contributions over time. It can quantify excess return drivers with a range of models, including Brinson, top-down, fixed income, macro, and investment process attributions, with optional currency effects. It can also analyze portfolio volatility and risk-adjusted returns with more than 130 ex-post risk measures. In terms of reporting, FactSet allows for board quality publisher reports paired with dashboards and APIs via Fusion. J.P. Morgan's collaboration with FactSet blends Fusion's award-winning capabilities for asset servicing and data management with FactSet's industry-leading performance and attribution analytics.

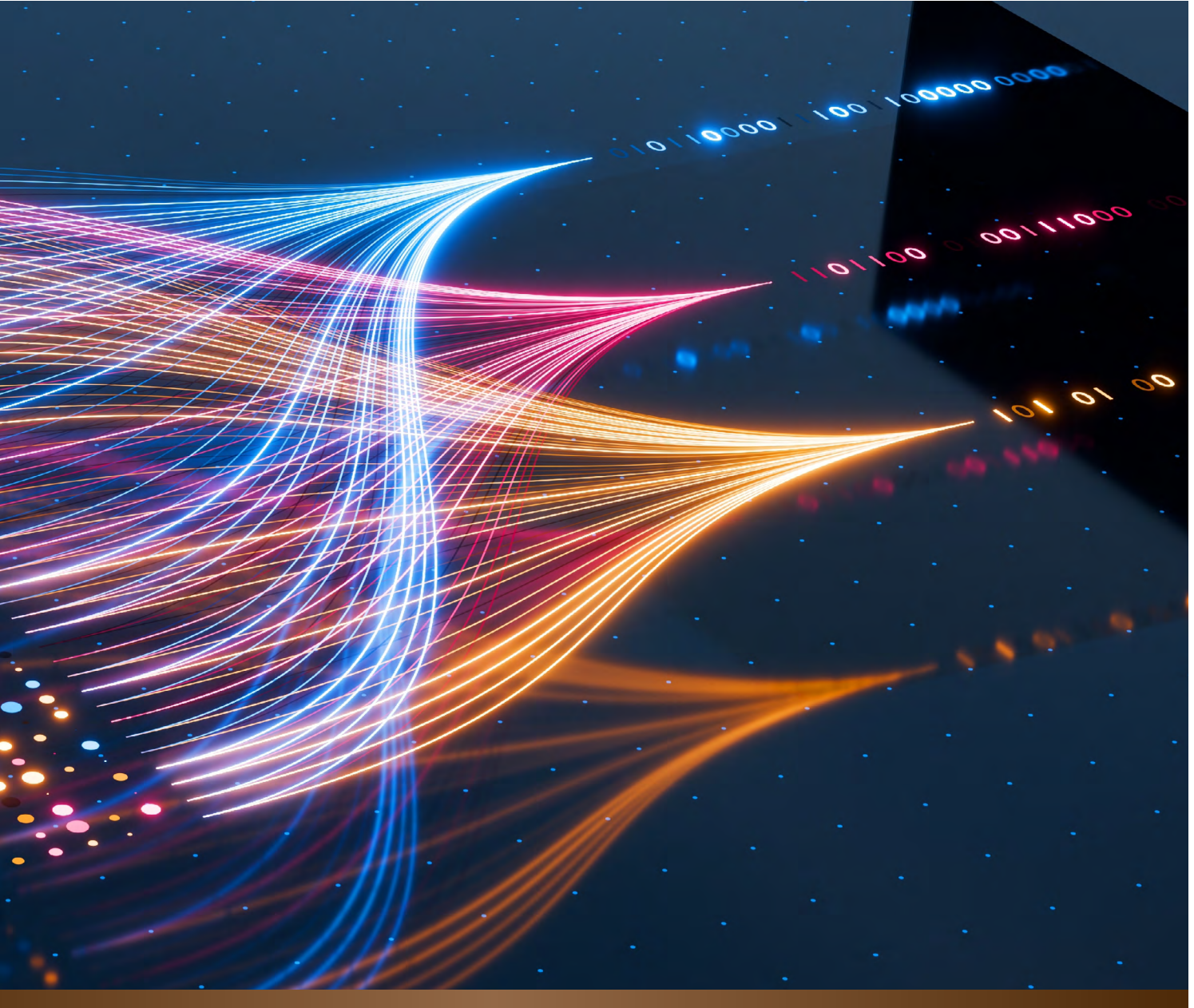
Fusion Risk Analytics provides risk analytics across a broad range of asset classes using multiple Value at Risk methodologies and comprehensive stress-testing scenarios. This helps institutional investors proactively measure risk, identify sources of risk, and manage risk through "what if" scenarios, in order to boost systematic returns while mitigating idiosyncratic risks.

In a recent initiative, J.P. Morgan Securities Services has focused on developing a bespoke swing pricing solution in partnership with MSCI. The solution offers to support our clients' liquidity risk workflow and manage transaction costs effectively under various market conditions. By utilizing position-level fund accounting data and MSCI's advanced liquidity risk calculation engine, the service supports multiple asset class funds, including global equities, bonds, and derivatives, helping clients meet regulatory reporting requirements. Using MSCI's liquidity models, the expected transaction cost is calculated for each position within the fund, based on order size and liquidation horizon. The aggregation of position level data into fund level transaction cost supports 55 swing pricing thresholds across multiple liquidation horizons.



The liquidity analytics output allows for detailed position-level diagnostics reporting, providing full transparency of the contributory drivers of the overall fund transaction cost.

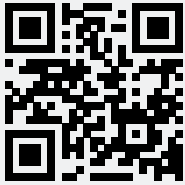
The service includes the impact of explicit trading costs (total expenses including commission) by utilizing fund specific historical trading data at the security level for purchases and sales. This data is calculated and weighted according to the country of risk. Explicit and implicit trading costs are aggregated to calculate a fund bid and offer swing factor.



Hypothetical scenario stress tests across the investment fund show the impact of shifts in the bid ask spread, market depth, and volatility. Historical replays are also captured to assess the potential impact to the fund should there be a repeat of past market events.

Fusion Analytics has created an end-to-end solution, optimizing the process of calculating the swing factor, attaining client approval of the output, and integrating the factor into the fund accounting NAV calculation process.

As asset owners and asset managers seek to meet or beat benchmarks and achieve their various other goals, institutional investors might consider outsourcing data management capabilities to manage risk and performance on the one hand and liquidity on the other. Partners like J.P. Morgan can help institutional investors make strategic, proactive decisions that aim to enhance returns and mitigate risk while also running stress-tests.



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