

August 2023

# Top 11 Use Cases for AI in Capital Markets

Capital Markets Team



## Table of Contents

Summary and Key Findings .....	2
Introduction .....	3
Methodology .....	3
Top Use Cases for AI.....	4
Data Validation, Enrichment, Governance .....	5
Pricing and Validation .....	5
Investment Research, Trade Optimization, and Portfolio Commentary .....	6
Proactive Compliance.....	6
Acceleration in Electronic Trading .....	7
Seeking Fixed Income Liquidity .....	7
Trade Surveillance.....	8
Trade Matching/Reconciliations .....	8
Client Onboarding.....	9
Private Market Analysis .....	10
Development and Integrations .....	10
Conclusion.....	11

## List of Figures

Figure 1: Tree of AI in Capital Markets .....	4
---	---

# Summary and Key Findings

The definition of artificial intelligence (AI), long established in the academic community, seems to be evolving. Rather than talk about AI, robotic process automation, machine learning, natural language processing, generative AI, and the broader nest of alphabet soup, this report looks at broader use cases under the umbrella of intelligent automation. The use of intelligent automation in capital markets seems to fall into five main categories:

- **Document management:** Parsing documents, digitizing the data, and summarizing or integrating it with broader systems have become common areas for applying AI. Use cases include investment research, corporate actions, investment policies, onboarding, and institutional client billing. In the private markets, Datos Insights has seen increasing instances of users loading company data, documents, cash flow, and valuation data.
- **Intelligent workflow:** AI is leveraged to intelligently route everything from orders (e.g., smart order routing) to client communications and trade errors. As new trading protocols emerge in the fixed income market, workflow integration becomes crucial to manage the order flow. Integrating client communication into orders can reduce the trade errors resulting from a manual copy of instructions from the communication system into the trade order booking system.
- **Errors and omissions:** This is one of the more mature areas we see the application of AI, robotic process automation, and machine learning. Leveraging intelligent automation to support reconciliations and automate the addition of missing data can help firms move away from simply adding more bodies to the operational infrastructure and instead think more long-term regarding how to further automate the operational process to lessen recurring errors.
- **Intelligence and insights from large data sets:** We see extensive use of AI to support everything from identifying trends in data sets to leveraging tools to search, filter, and make sense of often unstructured data. Use cases include everything from trade surveillance to mining annual and other regulatory reports for specific characteristics.
- **Accelerating DevOps:** Firms are leveraging AI to identify errors and weaknesses in code, automating the data mapping of trade and position files to accelerate development and operations. Fintech firms have adopted AI to accelerate the development process for a minimum viable product and reduce the time to market. Similarly, testing teams have adopted AI tools to develop automated test case scenarios.

## About Datos Insights

Datos Insights is an advisory firm providing mission-critical insights on technology, regulations, strategy, and operations to hundreds of banks, insurers, payments providers, and investment firms—as well as the technology and service providers that support them. Comprising former senior technology, strategy, and operations executives as well as experienced researchers and consultants, our experts provide actionable advice to our client base, leveraging deep insights developed via our extensive network of clients and other industry contacts.

### Contact

**Research, consulting, and events:**

[sales@datos-insights.com](mailto:sales@datos-insights.com)

**Press inquiries:**

[pr@datos-insights.com](mailto:pr@datos-insights.com)

**All other inquiries:**

[info@datos-insights.com](mailto:info@datos-insights.com)

**Global headquarters:**

6 Liberty Square #2779  
Boston, MA 02109

[www.datos-insights.com](http://www.datos-insights.com)

### Author information

Gavin Little-Gill

[glittle-gill@datos-insights.com](mailto:glittle-gill@datos-insights.com)

© 2023 Datos Insights or its affiliates. All rights reserved. This publication may not be reproduced or distributed in any form without Datos Insights' prior written permission. It consists of information collected by and the opinions of Datos Insights' research organization, which should not be construed as statements of fact. While we endeavor to provide the most accurate information, Datos Insights' recommendations are advisory only, and we disclaim all warranties as to the accuracy, completeness, adequacy, or fitness of such information. Datos Insights does not provide legal or investment advice, and its research should not be construed or used as such. Your access and use of this publication are further governed by Datos Insights' Terms of Use.