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The New Physics of Financial Services

Understanding how artificial intelligence is transforming the financial ecosystem



Capital markets sector summary

Al is changing the physics of financial services

As artificial intelligence (AI) significantly changes the traditional operating models of financial institutions, Deloitte and the World Economic Forum's latest report in their 'Future of Financial Services' series explores how financial services firms can better embrace AI. The report is comprehensive, so here we have explored the sector-specific findings relating to capital markets

A quick look at the impact of Al on capital markets



Al has the potential to democratise access to capital across the global economy by unlocking greater efficiency, safety and performance in capital markets. Potential strategies include:

- Simplify the deal-making process. For example, using predictive analytics to automate due diligence.
- Improve investment performance through research insights. For example, using machine learning to pinpoint deal prospects based on non-traditional or unstructured datasets.
- Deploy advanced capital and risk-management solutions. For example, using machine learning to detect and report anomalies in stress-testing results.



Al can perform administrative tasks faster and better than humans, enabling the latter to focus on higher-value activities. New capabilities include:

- New document-preparation tools and platforms allow for the large-scale automation of key services such as duediligence documentation and routine preparatory tasks.
- Digitised information sharing enables content such as reports, performance data, pitch decks and legal
 documents to be easily circulated with deal prospects in open and automated virtual data rooms.
- Automated investor reports can streamline the valuation process at scale through the collection, normalisation and analysis of financial data using document recognition.
- Voice assistants allow clients to ask an institution specific questions and receive personalised answers 24/7/365, reducing the reliance on manual work for rote question and answer.



Al can help discover promising investment opportunities by tracking down patterns that are not detectable through conventional research methods. New capabilities include:

- Analysis of unstructured data (e.g. old deals, total money raised, founding-team background etc.) using machine learning can generate indicators of future success.
- Increased speed of analysis using machine learning allows institutions to test correlations in a more automated way. This reduces the effort required to build models, freeing resources to do more qualitative analysis (e.g. interviews).
- Synthesis of deal prospects and "partners most likely to invest" using machine learning can improve sales
 efficiency. Proprietary data from investment banks can be used to understand the views and preferred
 opportunities of different investors.
- Algorithmic matching systems can support the creation of pitch books by determining the most important factors that investors consider and synthesising key points, which will better identify and match deal prospects and deal opportunities.



Al allows institutions to track their risk exposure more accurately and optimise capital reserves in real-time. New capabilities include:

- Pre-trade risk analysis can determine the impact of different trade scenarios on overall portfolio positions and factor in the cost of risk capital in profitability calculations.
- Continuous risk modelling enables institutions to automate risk models, understand changes to exposure in realtime and recalibrate capital levels.
- Scrutinising alternative datasets with machine learning algorithms can improve the coverage and granularity of risk models, as well as improve the quality of data fed into the system overall.
- Analysis of new risk parameters that influence initial margin requirements via machine learning (e.g. offsetting pairs of trades, offsetting strategies at the same dealer, and innovation in trades from one dealer to another).

Download the full report at Deloitte.co.uk/AIFSfuture



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This report forms part of the 'Future of Financial Services' report series by Deloitte and the World Economic Forum. Access the report library at **Deloitte.co.uk/WEF**

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