



AI in Capital Markets

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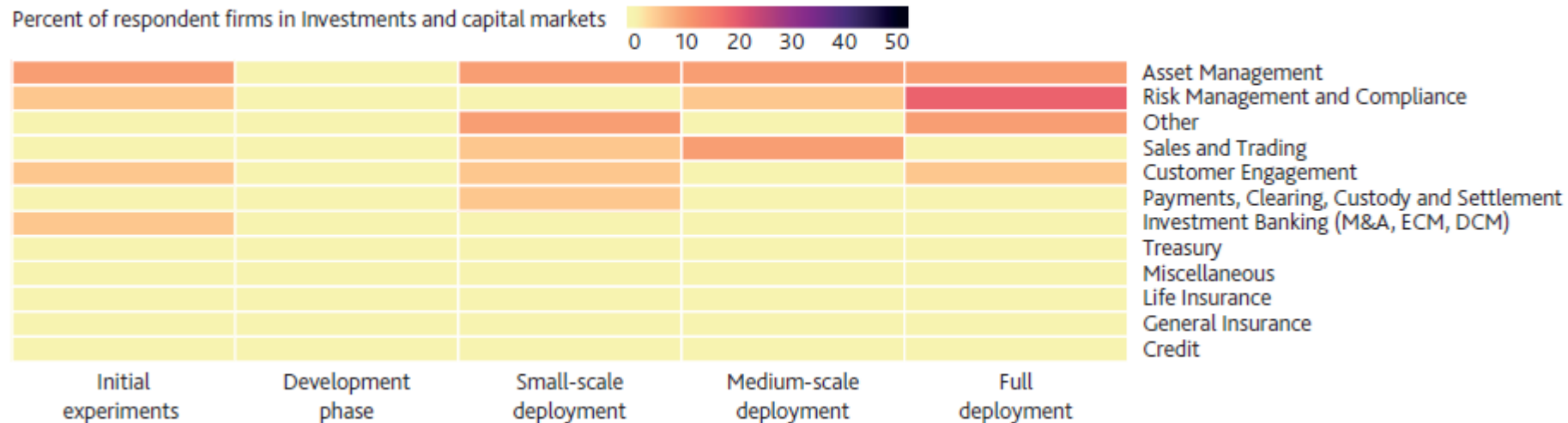


What makes a use-case well-suited to AI?

- Data availability - lots of it (so models can be trained!)
- Resulting in a decision, recommendation or actionable insight
- Either impossible to do, or requires significant manual effort
- Typically subject to variable quality of outcomes and/or efficiency, depending on experience of the human performing it

How does that translate into the Capital Markets context?

Maturity of ML, by business area, in the Investments and Capital Markets sector



Source: Machine Learning in UK financial services, Bank of England, 2019

Non-exhaustive list of use cases

- Defensive: KYC, AML, Trade and Communications Surveillance, Cyber-security
- Operational efficiency: Automated reconciliations and matching; extracting information from contracts; processing quotes from clients using NLP
- Offensive: Pricing; Trading execution: Venue/ timing/ order size/ broker optimisation; Sales opportunity identification; (Buy side) Asset selection, asset monitoring and portfolio rebalancing

What are the key barriers to adoption?

AI just not good enough yet! (for a specific use case)

Not enough data (or at least not of the right quality!)

Lack of Trustworthiness

Talent constraints

Lack of scalable infrastructure (art not science)

AI's 'trustworthiness' problem



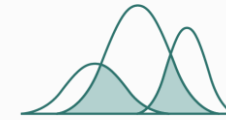
Explainability

Inability to explain how the model is making its decisions



Unjust Bias

Potential to introduce unjust biases, or amplify existing ones



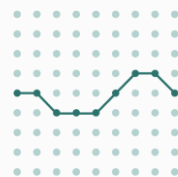
Stability

Inability to deal with significant shifts in data (vis-a-vis the data used for training)



Conceptual Soundness

Difficulty in reconciling model decisions with domain knowledge



Reliability

Issues with respect to calibration and confidence of models



Data Bias

Inaccuracies due to use of training data sets that do not reflect the population

The future of work in an AI-enabled world

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Are we all data scientists?



Source: Datalq.co.uk