AI in Finance: Legal, Regulatory and Governance Considerations

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AI in finance

- Artificial Intelligence in Finance: Putting the Human in the Loop by Dirk A. Zetzsche, Douglas W. Arner, Ross P. Buckley, Brian Tang :: SSRN

- Digitisation and datafication
- Fourth Industrial Revolution: “Digitisation of Everything”
- Digital financial transformation

- Financial industry
- Regulators
- Competitiveness / system design
The Evolution of FinTech:
Characteristics

• Data
• Storage
• Communication
• Computing power
• Analytics
AI + finance?

• Data
• Financial resources
• Human resources
• Incentives
The Future of Data Drive Finance and RegTech: Lessons from EU Big Bang II

EU Big Bang II?

• MiFID 2: Markets in Financial Instruments Directive 2 – transparency across markets
• GDPR: General Data Protection Regulation
• PSD 2: Payment Services Directive 2 – open API banking
• eIDAS Regulation
Covid impact

• Digitisation

• RegTech / SupTech: digital reporting
• AML / market integrity?
• Payments / CBDCs?
• BigTech / data
Use cases

• Data security
• Customer interface
• Operations and risk management
• Finance and investment: trading, investment, lending
• Payments and infrastructure
• Compliance and regulation: RegTech – AML / market integrity
Risks

• Financial stability
• Fairness / consumer & investor protection / market integrity
• Data risks: dependency, availability, interdependence
• Cybersecurity
• Innovation / development
Legal and regulatory issues

• Authorisation?
  • Outsourcing / epersonhood?
  • Fit and proper?
  • Key function holder?
• Data protection / privacy
• Protected factors
• Accountability
Approaches

• Voluntary / private law / industry-self-regulation / co-regulation / regulation: range – permissive / supportive to prohibitive

• Internal: corporate governance / risk management
• External: capital, stress testing, licensing etc
• Manager responsibility systems
• Due diligence / explainability
RegTech and the Reconceptualisation of Regulation

RegTech digital disruption is not just about greater efficiency in existing processes but new processes altogether.

RegTech and the Reconceptualization of Regulation
SSRN: http://ssrn.com/abstract=2847806
RegTech / SupTech

• US: SEC, Finra, CFTC, Fed
• UK: FCA, BoE
• EU: ECB, ESMA
• Singapore: MAS
• HK: SFC, HKMA, HKEx
• Innovation Hubs, Sandboxes and EcoSystems:
  • BIS Innovation Hub
• Regulatory Sandboxes: [https://ssrn.com/abstract=3018534](https://ssrn.com/abstract=3018534)
RegTech+ : Smart Regulation

Information and monitoring – FSB (2017)
Systems design
Digitisation
Datification
AI in regulation

• Digitisation
• Reporting
• Analytics
• Communications
• Support
## Approaches to data

<table>
<thead>
<tr>
<th></th>
<th>Market</th>
<th>Government / state</th>
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<tbody>
<tr>
<td>EU</td>
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<td>Distrust / restrict</td>
</tr>
<tr>
<td>China</td>
<td>Market: property</td>
<td>Trust / enable</td>
</tr>
</tbody>
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Data localization (sovereignty?) in finance

- National security
- Financial stability
- Customer protection
- Development
Approaches to concentration in data and finance

• Economies of scope / scale / network effects
• Competition / antitrust
• National control / provision
• Data regulation
• Financial regulation
• Convergence?
• Decentralization
• Open banking / finance
Introduction to FinTech:
The world’s most popular FinTech online course, with edX

https://www.edx.org/course/introduction-to-fintech