

# AI in Finance: Legal, Regulatory and Governance Considerations

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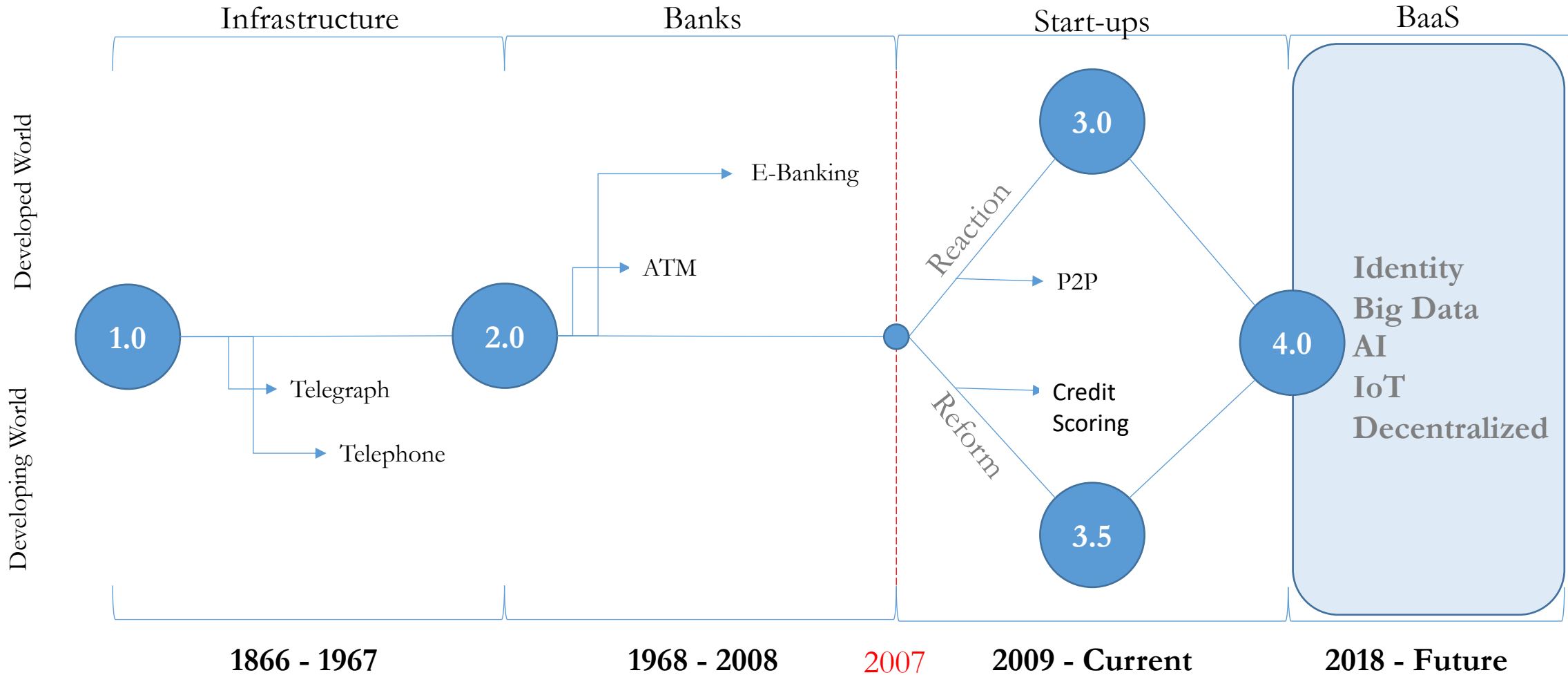
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# AI in finance

- [Artificial Intelligence in Finance: Putting the Human in the Loop by Dirk A. Zetsche, 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:

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2676553](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2676553)



# 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

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3359399](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3359399)

# 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 Reconceptualization





- <https://www.wiley.com/en-us/The+REGTECH+Book%3A+The+Financial+Technology+Handbook+for+Investors%2C+Entrepreneurs+and+Visionaries+in+Regulation-p-9781119362142>

# 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>

# RegTech+ : Smart Regulation

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Information and monitoring – FSB (2017)

Systems design

Digitisation

Datification

**Regulatory Sandboxes**





# AI in regulation

- Digitisation
- Reporting
- Analytics
- Communications
- Support

# Approaches to data

	Market	Government / state
EU	Restricted: rights	Distrust / restrict
US	Market: property	Distrust / restrict
China	Market: property	Trust / enable

# 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>

