



مجلس محافظي المصارف المركزية ومؤسسات النقد العربيّة
COUNCIL OF ARAB CENTRAL BANKS AND
MONETARY AUTHORITIES GOVERNORS



صندوق النقد العربي
ARAB MONETARY FUND

Building Better Financial Systems: Regulatory and Supervisory Technology – An Ecosystem Approach

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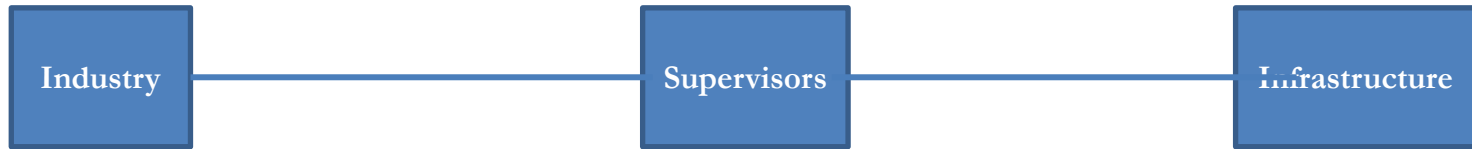
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Arab Regional Fintech WG Sixth Meeting
24-25 November 2021

RegTech / SupTech?

- Use of technology – particularly IT – for regulatory implementation, compliance and monitoring, by regulators, supervisors, market participants, infrastructure providers and others
- A subset of Fintech? No – uses across all sectors
- Vs Suptech? Two sides of the same coin, focusing on supervisory uses
- Regtechs? Startups not the major industry players eg IBM Promontory, LSE Refinitiv, NASDAQ, Amazon ...

The RegTech Continuum



Taxonomy

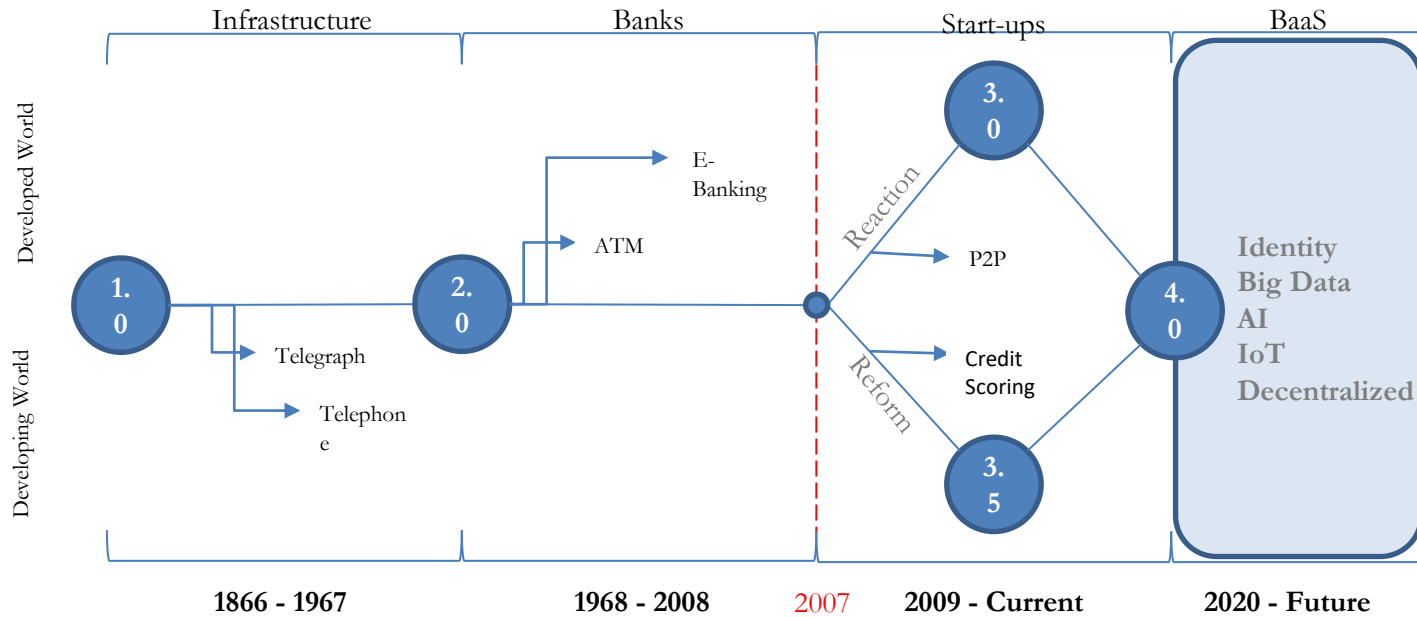
- Start ups / incumbents / BigTechs / supervisors / individuals
- Efficiency / stability / integrity / sustainable development-inclusion / innovation / competition
- Market integrity / conduct: AML/CFT, reporting, monitoring, enforcement etc
- Financial stability: macro/micro pru – reporting, risk management
- Sustainable development and inclusion: infrastructure
- TechRisk: data / cyber / infrastructure
- Internal / external systems

Origins

- 1980s: Finra, Edgar, etc
- 1990s: VaR

The Evolution of FinTech:

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2676553



Finance in the 2010s

- Crisis
- Regulation
- Technology

Drivers 2008-2020: Regulation

- Post crisis regulatory changes
- AML
- BCBS 239
- Mifid, Mifid 2 etc
- GDPR

Regtech and compliance

- Compliance evolution / topology: Legal, hr, FCPA / bribery / corruption, AML, financial regulation pre / post 2008, tax, data
- Biggest growth area of finance

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

**The Future of Data Drive Finance and RegTech:
Lessons from EU Big Bang II**

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3359399

RegTech 1.0 – 1987-2008

Internal Risk Management

EDGAR

Quantitative IT

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RegTech 2.0 – 2009 - 2019

Risk Aggregation

Know Your Customer

Artificial Intelligence

Authentication

Conduct Risk

Repeated Process Automation (RPA)

Sandbox

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RegTech 3.0 – 2020-2025

Full Digital Onboarding

Data Standardization

Real-Time Reporting

Dynamic Surveillance

Blockchain

Open Banking/ API Driven

Know Your Data

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RegTech 4.0 beyond 2025

Embedded RegTech

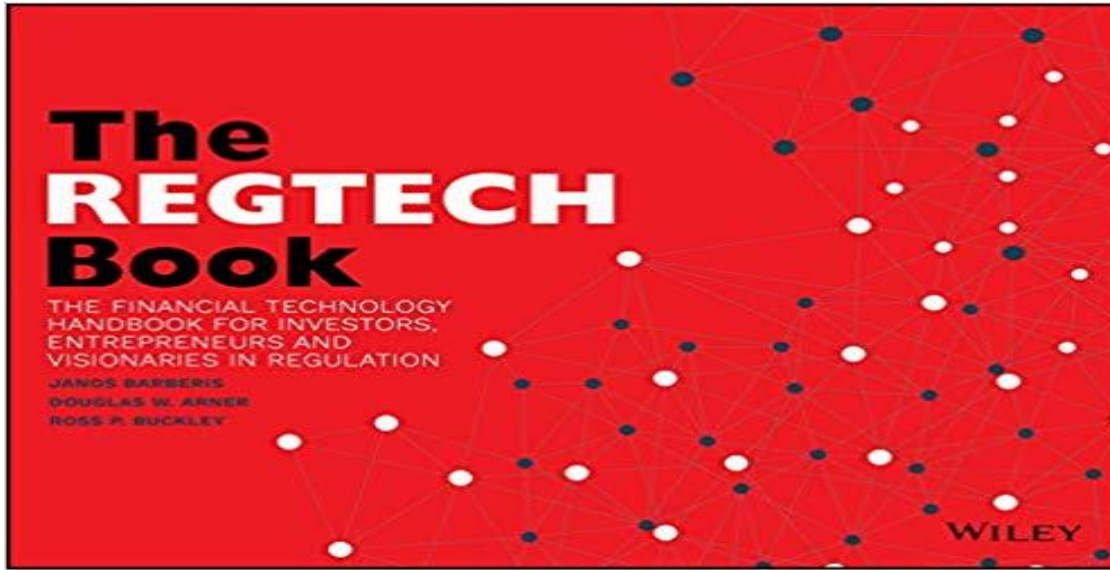
Programmable CBDC

Open-Source Compliance

MetaVerse

Trustless

Neural Networks



- <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 encompasses industry and regulators

Financial institutions and industry

- Major drivers of RegTech development
- Demand efficient tools to deal with regulatory and compliance demands
- Global firms developing centralized risk management

Regulators

- Lag in regulator adoption relative to private sector
- Yet need to develop systems to deal with rivers of new data and cybersecurity

Start-ups

- Incentives to trade off-data for faster market entry
- Automation of reporting and compliance more aligned with lean business model

The RegTech Opportunity

- USD 300b: fines 2008-2019
- USD 300b: approximate financial sector IT spending (2019)
- USD 300b: approximate financial sector compliance spending (2019)

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



Finance in the 2020s: Pandemic Impact

- Technology
 - Digitisation: track / trace / test / ecommerce etc
 - BigTech / scale
 - Infrastructure
 - CBDCs
 - Techrisk
- Sustainability
 - Development
 - Travel
 - Small businesses
 - Future crises: resilience? (jared diamond): digital ID / simplified account opening / eKYC / electronic payment (CBDCs?)
- Globalisation / fragmentation
 - Trade patterns
 - Movement
 - Finance / money
 - Geopolitics

COVID-19 and Digital Financial Transformation: Building Better Financial Systems

[Digital Finance, COVID-19 and Existential Sustainability Crises: Setting the Agenda for the 2020s by Douglas W. Arner, Ross P. Buckley, Andrew M. Dahdal, Dirk A. Zetsche :: SSRN](#)

- Digitisation
- Payments / CBDCs: [Sovereign Digital Currencies: Reshaping the Design of Money and Payments Systems by Ross P. Buckley, Douglas W. Arner, Dirk A. Zetsche, Anton N. Didenko, Lucien van Romburg :: SSRN](#)
- RegTech / SupTech
- AML / market integrity
- BigTech / data: [Towards an Inclusive, SDG-Aligned Governance of Global FinTech Platforms \(BigFintechs\) | United Nations Development Programme \(undp.org\)](#)

[Enabling Ecosystems: How To Boost Fintech Innovation and Financial Inclusion During and After COVID-19 – NextBillion](#)

- Building the infrastructure of finance
- Designing appropriate regulatory approaches
- Supporting the wider ecosystem

Financial Stability Board (Oct. 2020)

- <https://www.fsb.org/2020/10/fsb-report-highlights-increased-use-of-regtech-and-suptech/>

RegTech and regulators

- Enforcement: GS / UBS, Citi
- Areas: AML / KYC, Digital regulatory reporting, risk management / data aggregation / analytics
- MAS
- US: SEC, Finra, CFTC, Fed
- UK: FCA, BoE
- EU: ECB, ESMA
- BIS
- HK: SFC, HKMA, HKEx
- China: Ant

Strategy Lessons

- High level commitment
- Digital first: Internal / external
- Digitization of everything: Digital regulatory reporting, System design
- Tech
- HR
- Datafication

Providers

- Drivers: regulators, regulated institutions, startups, techs
- Providers: systems, tech, data, analytics, outsourcing

EU DFS

- removing fragmentation in the Digital Single Market
- adapting the EU regulatory framework to facilitate digital innovation
- promoting a data-driven finance
- addressing the challenges and risks with digital transformation, including enhancing the digital operational resilience of the financial system

Market Integrity

- Analog framework: FATF
- “recommendations”
- Soft law / hard law
- AML / CFT / KYC / CDD
- Onboarding / Monitoring / STR
- Internal / compliance: “risk-based”
- Digitisation / datafication / regtech

Framework

- Digital ID: sovereign, non-sovereign?
- Simplified account opening: low risk, government payments
- Cf India / Aadhar
- eKYC: linking golden source government data
- Cf MyInfo (Sg)
- RegTech / SupTech
- Invest in infrastructure for future financial inclusion and sustainable development
- Individuals / companies

Regional role

- Cf EU
- Sovereign digital ID cross-recognition
- LEIs / corporate data: CRS / beneficial ownership transparency
- RegTech / SupTech standards

Thank you



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