

FSB Financial Innovation Network

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FSB Financial Innovation Network

- Monitors and assesses financial innovation
- Identifies and understands implications for financial stability
- c. 70 members; biannual meetings
- Substantial outreach with the private sector



Background to the reports

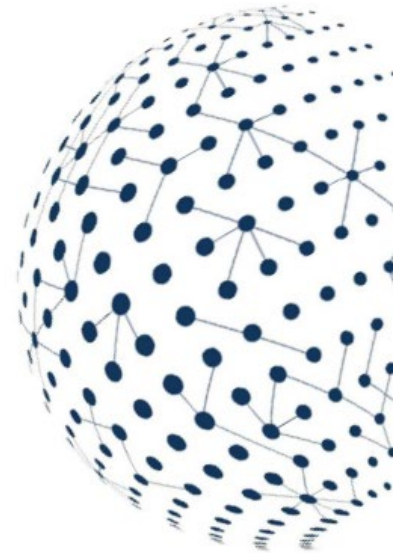
- Published on 9 October
- Commissioned following proposal by 2020 Saudi Arabian G20 presidency
- Follows internal work by FIN on RTST in 2018
- ...and report on BigTech firms' global activities in December 2019
- Extensive surveys and industry engagement...
 - ...and meetings with BigTech firms with significant EMDE business

BigTech firms in Finance in Emerging Market and Developing Economies



BigTech Firms in Finance in Emerging Market and Developing Economies

Market developments and potential financial stability implications

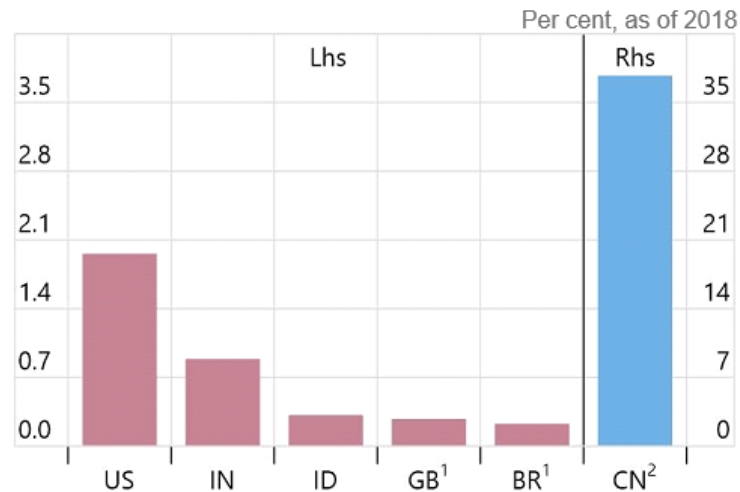


12 October 2020

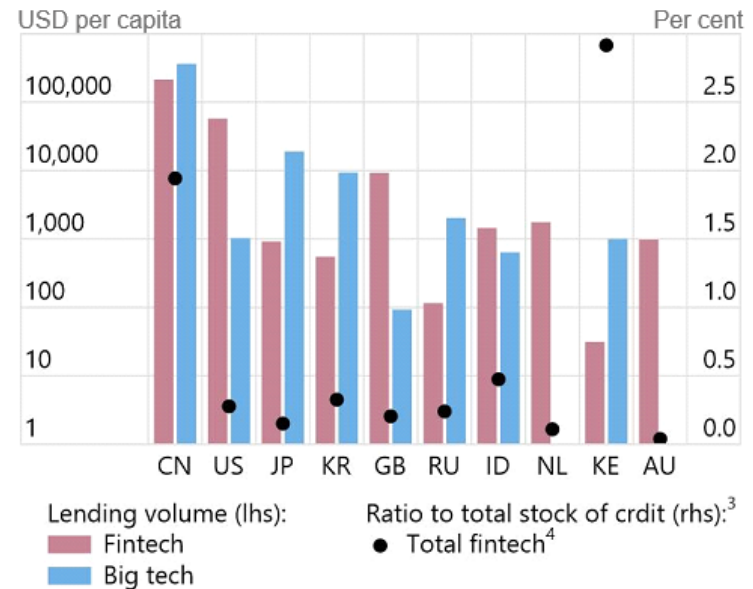
Trends and patterns

BigTech mobile payment and credit services around the world

Yearly volume of mobile payments to GDP



FinTech and BigTech credit in the largest 10 markets⁴



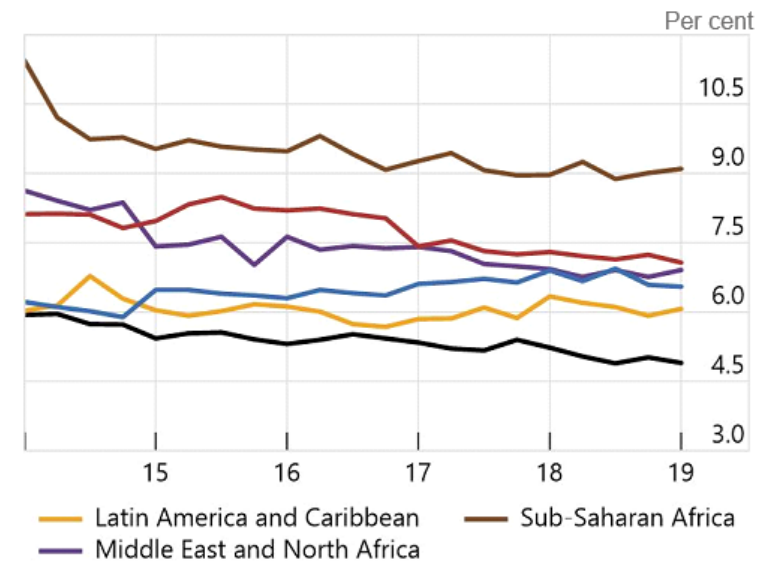
- Substantial presence in financial services in some EMDEs (e.g. payments in China) particularly through the provision of mobile money
- BigTechs offer a wide variety of services in EMDEs (often through single platform) (e.g. small yet economically significant proportion of lending in some jurisdictions)

Drivers: demand side

- **Lower financial inclusion** (half of world's unbanked in EMDEs)
- Higher **income remittances**
- Younger, **tech-savvy populations...** (90% of EMDE populations under 30)
- ...attracted to **lower marginal cost** of financial services provided by BigTech firms

Cost of remittances by region

Average cost of sending USD 100 to different regions



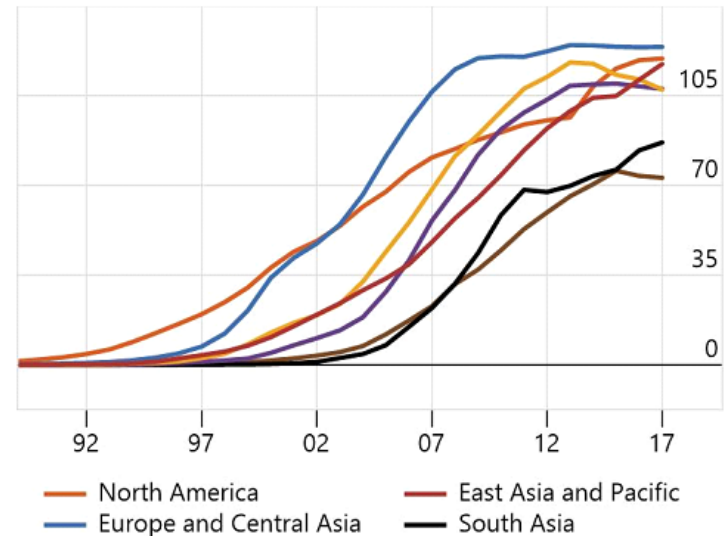
Source: World Bank.

Drivers: supply side

- **Growth in mobile phones and internet:** opportunities to access underserved markets and creates significant (novel) data
- **Role of official sector** (faster payments systems, digital identify technology, open banking, innovation facilitators)
- **Catalysing effects of COVID-19:** growth in electronic payments; e-commerce, G2P payouts etc

Mobile phone access is rising worldwide

Mobile cellular subscriptions per 100 people



Source: Feyen, Frost, Natarajan and Rice (2020); World Bank.

Benefits



Financial inclusion. Bringing consumers into formal financial system.



Efficiency and tailoring of financial services



Economies of scale across product lines

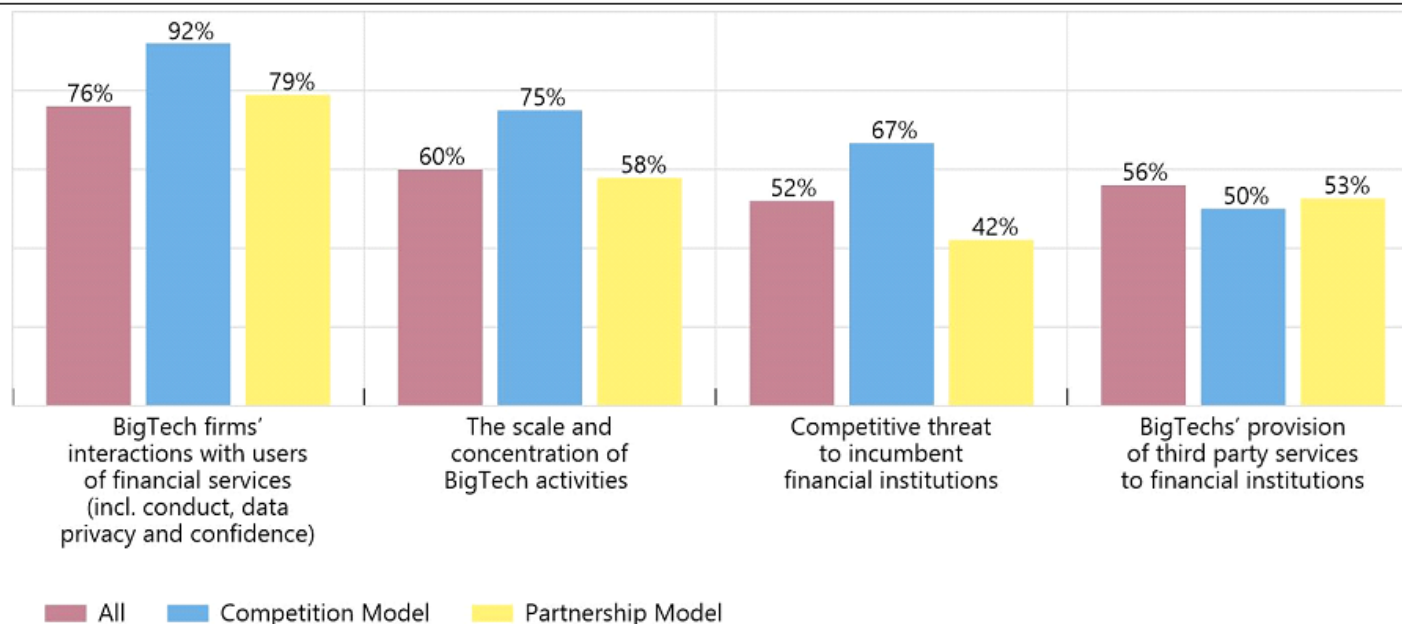


Positive effects of competition on incumbent institutions (e.g. incentives for innovation) or from partnerships (e.g. leveraging analytical tools or digital infrastructures)

Potential risks

Risks to financial stability identified by survey respondents associated with BigTech firms' provision of financial services

Risks rated moderate/large as a percentage of survey respondents



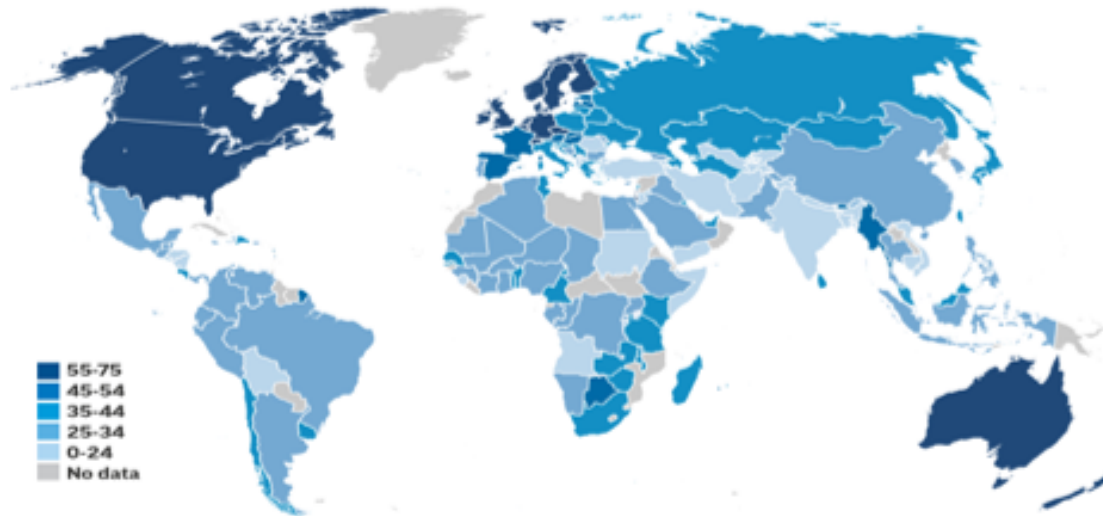
- **Scale and concentration**– tendency to dominate certain markets or operate within an unequal playing field in some regulatory or supervisory environments; disruption could have FS implications;
- **Disruptive** effects on incumbent financial institutions and their funding
- **Operational risks**, particularly in rural areas, and where providing third-party services

Potential risks (2): consumer protection

Global Variation in Financial Literacy

Percentage of adults who are financially literate

per cent



Source: S&P Global Fintech Survey (2015).

- Consumers may be less familiar with financial services, and be offered inappropriate products or subject to less scrupulous behaviours
- Issues concerning customer data (including that acquired from non-financial service business)
- Issues concerning customer rights and safeguarding of customer funds

Policy implications

- EMDE experience illustrates the **positive role of regulation** (infrastructure, facilitation)
- **Different implications depending on mode of interaction** with incumbents (competition and incumbent resilience; cooperation and interlinkages)
- **Same risk – same regulation** (non-bank finance being undertaken by businesses whose core activity is financial services)
- ...but also potential to **tailor activity-based** regulation in places (e.g. e-money regulation in sub-Saharan Africa; size-based regulation)
- **Data governance** (e.g. the ability to leverage customer data, the role of robust data governance frameworks, confidentiality etc)

Use of SupTech and RegTech



The Use of Supervisory and Regulatory Technology by Authorities and Regulated Institutions

Market developments and financial stability implications

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- SupTech = innovations to help authorities improve supervision
 - RegTech = innovations by institutions to help meet regulatory requirements



9 October 2020



Demand drivers



Strengthening of regulatory requirements – how to increase efficiency and **operational resilience** for both authorities and market participants



Quest for **agility** in use of expanded data sets (real-time monitoring?)



More regulatory entities (growth of FinTech)

Supply drivers



New analytical methods (e.g. AI) allow for provision and processing of regulatory and supervisory data (both structured and unstructured), more rapidly



Greater interoperability (e.g. APIs) may enable **higher** rates of adoption for SupTech and RegTech.



Technological infrastructure developments (e.g. cloud) have **reduced the cost** and **increased the available capacity** for handling large datasets

Benefits



SupTech may allow for **integration of additional** structured and unstructured data sources making analysis **richer**, while also **identifying patterns** in the data that may not be apparent to **human review**.



The ongoing digitalisation of data may improve the **efficiency and effectiveness of operational procedures**, while the automation of processes may **reduce IT and staffing costs**, in particular those related to fraud detection, reporting and risk management.



More **capital-efficient decision making** (e.g. RegTech for capital allocation for trading; compliance with pre-set credit or capital thresholds) may be possible allowing for **real-time settlement**.



SupTech may leverage AI and ML models, which could **improve surveillance and assessment** of systemic risks in **real-time** and through **forecasting**.

Improved **comprehensibility, interoperability** and **visualisation** of data by reducing its complexity and transforming it into **meaningful indicators**.

Challenges and Risks



Data **quality** and **completeness**



Risk of **measuring what you know**, now what you need to know



Is **historic data** a guide to the future? **Spurious** correlations.



Regulatory arbitrage, if institutions learn up RTST applications are calibrated

Data collection and analysis

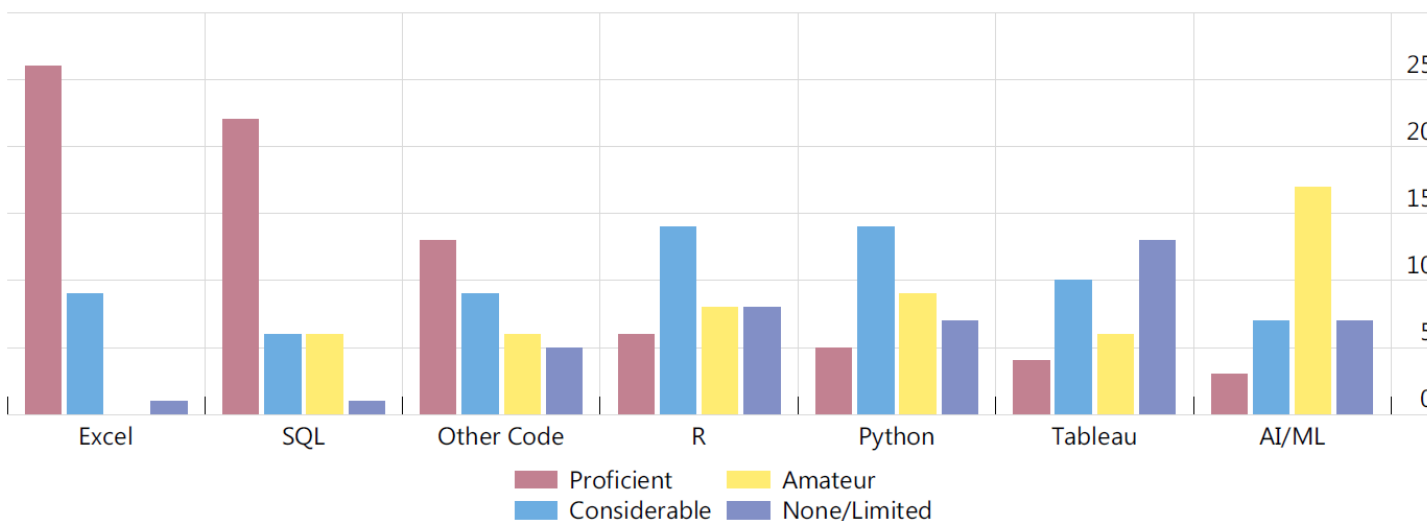
Data collection issues:

- Heterogeneity of regulated institutions' data
- Heterogeneity of authorities' own data needs

Move toward unstructured data requires new means of analysis:

No. of authorities

Graph 7



Source: FSB survey

Future policy considerations



Need for strong governance and human (forward-looking) oversight



Translating rules into machine readable format ('pull data' pilots)



Ethics of AI (how to overcome charge of discrimination; legal and reputational challenges)



Increased dependency on third-party technology/cloud



Increasing collaboration with regulated institutions and other authorities

COVID-19 Use Cases

The **increased pressure** on authorities to cope with large volumes of data while working remotely has resulted in a number of **COVID-19 specific applications** aimed at improving the **timeliness** and **accuracy** of critical information, while also providing supervisors with critical perspectives.



Federal reserve: NLP for continuous monitoring and web searches –tool historically used for **reading large amounts** of documentation and **identifying emerging** trends was **adapted** by expanding its lexicon to support examiners in the review of documents submitted by firms during the COVID-19 crisis.



ECB: Improved credit risk forecasting – combining sectoral loan level data (currently only used for monetary policy and financial stability purposes) **with prudential information** to allow supervisors to drill down into **specific exposure types**, as well as viewing **risk trends** and **clusters** of risks **across sectors** prone to COVID-related shocks.



COVID-19 Use Cases *continued*



ECB: Sentiment analysis – tool seeking to assess the **reputational risk** of a financial institution by looking at **news on a range of topics** and **multiple different languages**.

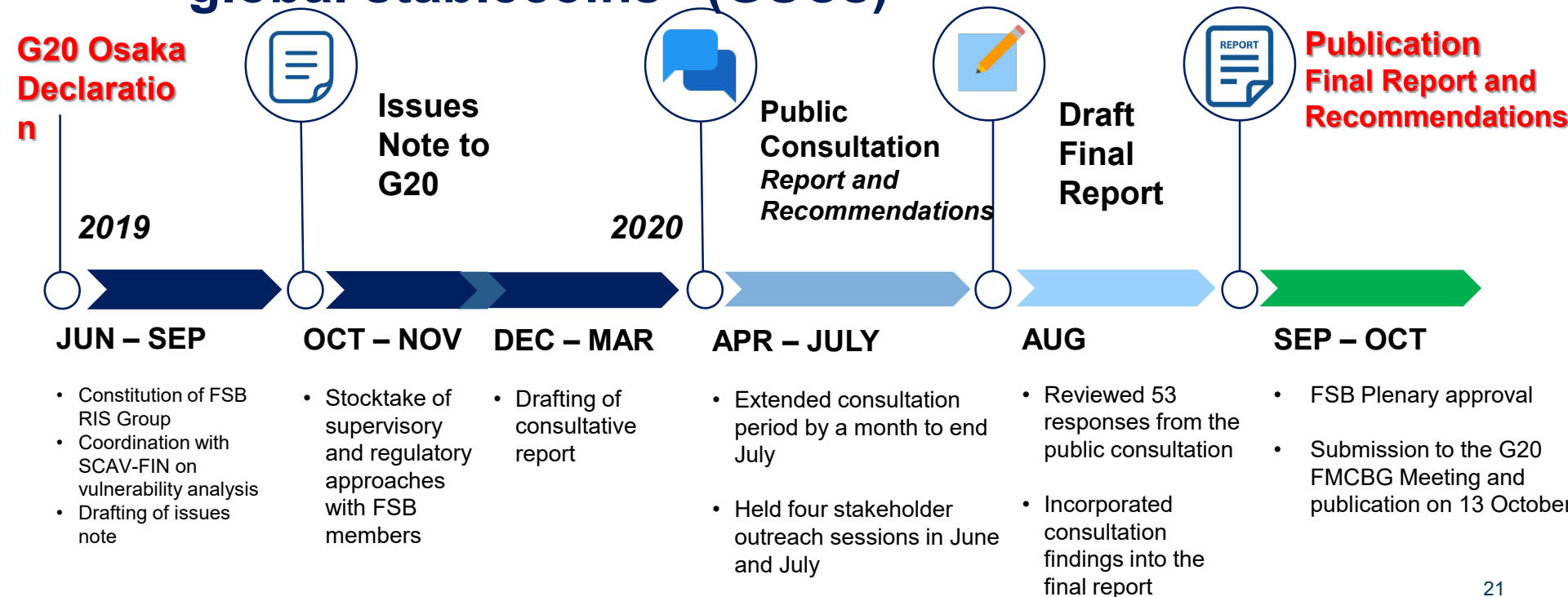


BOE: Policy response tracker – a dashboard where supervisors can see **at a glance** the latest and most recent **policy rate** and **QE decisions**, as well as **press releases** and **fiscal actions** in more than 50 countries.



DNB: SAS-VA Covid-19 dashboard – **interactive** dashboard to provide **insight** for supervisors on COVID-19 related risks. Supervisors would be able to have **different data views** (e.g. benchmarking, trends, single bank).

FSB implementation of the G20 mandate on “global stablecoins” (GSCs)

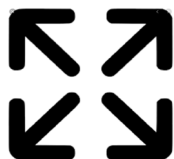


What are so called “global stablecoins”..?

FSB work on regulatory issues of stablecoins



Crypto-asset referencing a basket of fiat currencies or other assets



Potential scale
(network effects,
underlying
technology)



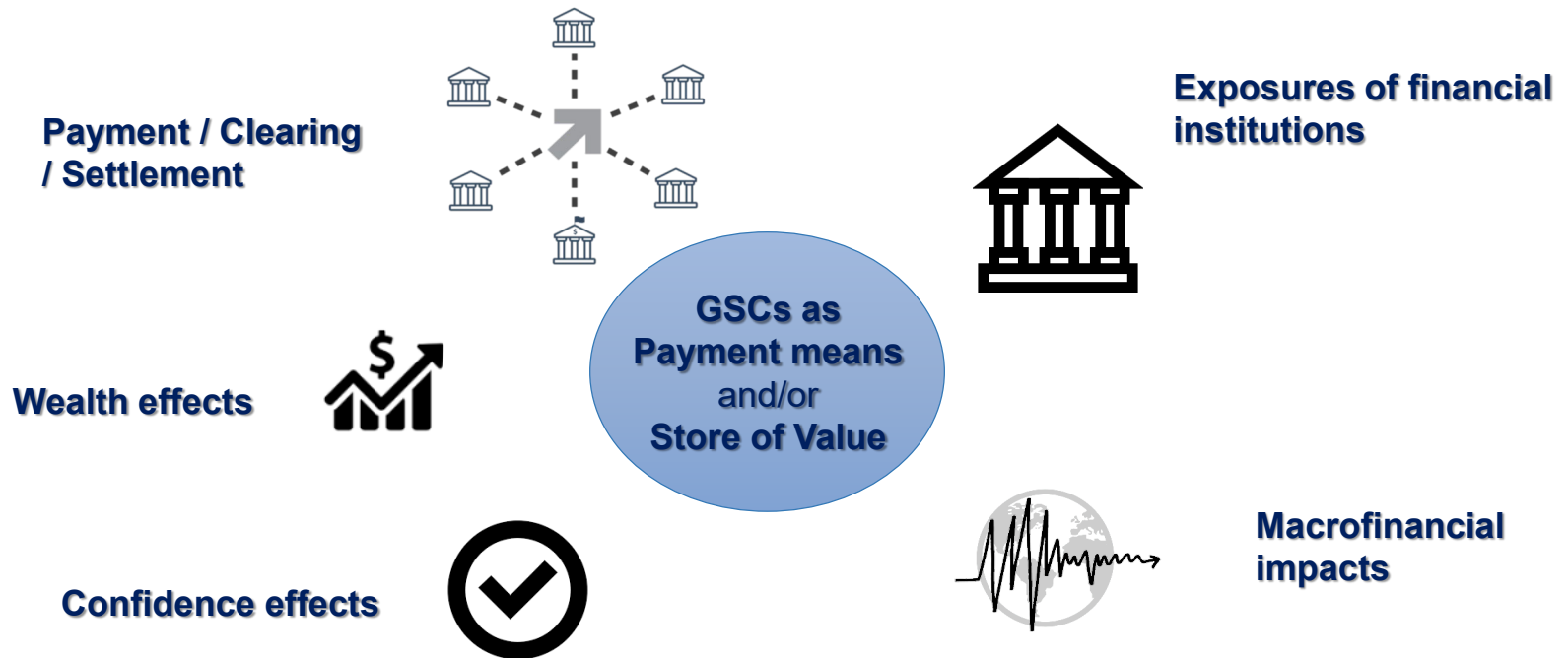
**Linkages to
existing financial
system**



**Large number of
actors**

Consider risks to financial stability

FSB work on regulatory issues of stablecoins



Adopt a holistic approach for the regulation, supervision and oversight of GSCs

FSB work on regulatory issues of stablecoins



Cross-border



Regulatory
arbitrage



Spillover effects



Cross-sector

Financial stability
ML-FT
Legal certainty
Market integrity
Consumer/investor
protection
Data privacy
Competition
Monetary policy



10 High-level Recommendations

FSB work on regulatory issues of stablecoins

Addressed to authorities...

- 1. Necessary powers and tools**
- 2. Comprehensive regulatory, supervisory and oversight requirements applied on a functional basis and proportionate to their risks**

“Same business – same risks – same rules” principle

- 3. Cross-border and cross-sector regulation supported by cooperation and coordination between authorities**

10 High-level Recommendations




FSB work on regulatory issues of stablecoins

Addressed to authorities, applicable to GSC arrangements...

- 4. Comprehensive governance**
- 5. Effective risk management**
- 6. Robust systems for handling data**
- 7. Appropriate recovery and resolution plans**
- 8. Appropriate disclosure of information to users and relevant stakeholders**
- 9. Legal clarity on redemption rights**
- 10. Meet all applicable requirements before commencing any operations**

Way forward

- Fostering the soundness of global stablecoin arrangements for cross-border payments is **one Building Block of the FSB roadmap for enhancing cross-border payments**
- This Building Block (18) includes **actions** to
 - **Complete international standard setting work** (in 2021)
 - **Implement international standards in national jurisdictions**, including effective cooperation, coordination and information sharing arrangements (2021-2022)
 - **Review the implementation and assess the need to refine or adapt international standards** (2022-2023)

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