Financial technologies and new information needs

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Overview

1. Introduction
2. Fintech data issues for central banks
3. Data gaps
4. Users’ needs in central banks
5. Initiatives to close data gaps
6. IFC contribution to global cooperation
1. Introduction – What is fintech?

- Broadly defined as **technology innovation in financial services**
  - FSB: “Technology-enabled innovation in financial services that could result in new business models, applications, processes or products with an associated material effect on the provision of financial services”

- **Not so new…**
  - But high **scale / speed** of innovations, in **parallel**
  - **In various sectors** (eg outside traditional banking)
1. Introduction – *What is the impact of fintech?*

- Affect the **provision of 5 main types of financial services**
  - Payments, clearing and settlement
  - Deposits, lending and capital raising
  - Insurance
  - Investment management & investor services
  - Market support

- Impact on **market functioning**
  - New firms eg big techs, neobanks
  - New services provided by traditional players (“in-house fintech”)
  - New products eg crypto assets
1. Introduction – *Policy importance of fintech*...

- Increased **policy attention** among financial stability groups
  
  - **FSB** (2019): *FinTech and market structure in financial services: Market developments and potential financial stability implications*
  
  - **BCBS** (2018): *Sound Practices - Implications of fintech developments for banks and bank supervisors*
  
  - **CPMI / Markets Committee** (2018): *Central bank digital currencies*
  
  - **CGFS / FSB** (2017): *FinTech credit: Market structure, business models and financial stability implications*
  
  - **FSI** (2018): *Innovative technology in financial supervision (suptech) - the experience of early users*
1. Introduction – … reflecting several factors

- Balancing opportunities / risks to financial stability - Examples
  - Fintech can support financial inclusion: but money laundering & consumer protection issues
  - Fintech can favour sound market competition: but risk posed by regulatory arbitrage & non-regulated entities
  - Digitalisation benefits (eg speed, efficiency) vs risks (eg system control, IT security, identity protection)

- Need for regulatory evolution?
  - New types of financial products
  - New actors outside regulation perimeter
  - Cross-sector and cross-border aspects
2. Fintech data issues – General aspects

- “Big Data” sets
  - Granularity, size, quality, veracity, continuity...

- Statistical treatments
  - Classification, harmonisation, identifiers, control relationships

- Statistical frameworks
  - Local vs global collection, entity- vs function-based datasets, residency- vs consolidated-reporting...

- Information management
  - IT systems, security protection, use of big data analytics (automation benefits vs “black box” issues)

- Governance
  - Data sharing, ownership, access, fundamental principles for official statistics...
2. Fintech data issues – Central bank statisticians’ interest...

- **Information needs** associated with fintech
  - Assess (rapid) innovation trends
  - Identify data gaps and ways to close them

- Rethinking the **general statistical framework**
  - Classify new types of activities / actors, or correct current classification (eg evidence of fintechs classified in IT subsectors)
  - Need for concrete, applicable and harmonised definitions
  - Collect new datasets

- **Interaction between policy and statistics**
  - Without data difficult to regulate
  - Regulation defines what is measured
2. Fintech data issues – ... depending on central banks’ existing statistical infrastructures...

- **Central banks produce various types of data**
  - “Traditional” monetary aggregates
  - Macro statistics (FAs, BoP, ...)
  - Micro datasets (eg institution-, instrument- & transaction-level)
  - Payments
  - Lists of entities (eg registers)
  - Financial access information
  - etc.
2. Fintech data issues – ... especially when dealing with financial market-related information

- Example: **multiform information on credit provision** (a key component of fintech services)
  - Balance sheet data (positions & flows)
  - Prices (interest rates)
  - Amounts (loans granted / applications)
  - Risks (non-performing loans, defaults, credit rating)

- **Key challenges**
  - Country-specific issues but need for data harmonisation and internationally-agreed definitions
  - Need for clear, concrete definitions but rapidly evolving fintech firms & services
2. Fintech data issues – ... collected by various compilers

- Information on fintech can be collected by various authorities
  - NSOs
  - Central banks
  - Regulators
  - Private sector data vendors
  - Market associations
  - Foreign authorities
  - International bodies
  - etc.
Fintech-related data gaps can affect various statistical areas:

- Monetary aggregates
- Monetary and financial institutions (e.g., credit, loans, securities)
- Financial & non-financial corporations balance sheet statistics
- Lists of financial & non-financial firms
- Banking supervision (e.g., consolidated data)
- Balance of payments, trade & external debt statistics
- Financial accounts statistics
- Payments
- Household & non-financial corporations financial access surveys
- etc.

3. Fintech data gaps: impact on central bank statistics...
3. Fintech data gaps: ... reflecting various developments

- Emergence of **new firms not or only partially covered** by the regulatory perimeter
- Emergence of new entities covered by the regulatory perimeter but that cannot be distinguished
- Emergence of **new products** (eg crypto-assets) / **types of services** (eg crowdfunding)
- Traditional financial service **providers using / providing fintech** services
4. Users’ needs: various types of demands...

- Data needs **vary across central banks’ areas**
  - Financial stability
  - Monetary policy
  - Payment systems
  - Banking supervision
  - Research

- Focus on a **variety of fintech-related data issues**
  - RegTech & SupTech for financial institutions and supervisors
  - Big Tech firms
  - Financial inclusion aspects
  - Etc.
4. Users’ needs: ... but 5 areas of common interest

- **(i) Lists of fintech firms**
  - Neobanks
  - Insurance companies
  - Asset managers
  - Providers of payments, clearing of settlement services
  - Credit platforms (peer-to-peer lenders)

- **(ii) Fintech credit**
  - Stocks
  - Flows
  - Interest rates
  - Model
  - Counterparties features (eg location, SMEs)
4. Users’ needs: ... but common areas of interest (cont’d)

- **(iii) Crypto-assets**
  - Prices and trading, market capitalisation, holdings
  - Exchanges, Block chain-based indicators
  - Exposures to crypto-assets, by sectors

- **(iv) Supply-side information on fintech services**
  - Banks’ in-house use of fintech (eg Big Data analytics)
  - Banks’ external use of fintech (eg outsourced BD analytics)
  - Retail fintech payments (eg digital wallets)
  - Wholesale payments (eg Distributed Ledger Technology DLT)

- **(v) Demand-side: use of fintech services** (eg access surveys)
5. Five main initiatives to close data gaps: (i) statistical frameworks

• (i) Actions to enhance existing statistical frameworks
  ➢ Updating lists of fintech firms
  ➢ Reclassifying firms across sectors
  ➢ Adjusting reporting requirements to cover fintech firms (eg neobanks)
  ➢ Amending financial access surveys
  ➢ Adapting statistical manuals for instance to:
    ➢ Correctly identify fintech services providers
    ➢ Separately classify these entities
    ➢ Measure IT intensity in financial services provision to facilitate distinction with traditional service providers
5. Five main initiatives to close data gaps: (ii) new techniques & sources

- **(ii) Use new techniques / alternative data sources**
  - Web scraping techniques & Application Programming Interfaces (APIs)
  - Data from commercial vendors
  - Business registers
  - Adjusted reporting requirements
  - Fintech industry association
  - Etc.
5. Five main initiatives to close data gaps: (iii) data collections

- (iii) Launch new data collections focussed on fintech
  - Loan (transaction)-level data from fintech credit institutions (eg fintech credit platforms)
  - Crypto-assets statistics
  - Financial statements from fintech firms
  - Government use of fintech services
  - International fintech data hub?
5. Five main initiatives to close data gaps: (iv) use of fintech

- (iv) Potential **role of fintech to close data gaps to**
  - Better measure **cross-border payments** (eg trade finance)
  - **Ease data collections** (eg use of suptech solutions)
  - Consider **alternative reporting entities**; for instance if it is easier to collect data from fintechs (eg credit platforms) than from traditional financial intermediaries
5. Five main initiatives to close data gaps: (v) enhanced cooperation

- **Various cooperation levels** can be considered to close fintech data gaps
  - Central bank-level (e.g., internal fintech hub)
  - With other domestic authorities (e.g., NSOs, supervisors)
  - With industry associations
  - With other central banks
  - With international financial institutions
6. Importance of global cooperation

- **Cooperative actions** can be envisaged at the global level, focusing on concrete deliverables

  - Clarify statistical definitions of fintech (firms and services)
  - Adjust compilation guidance
  - Revise statistical standards like SNA, BoP (eg to better measure intangible capital, role of data as an asset)
  - Set up a global registry of fintech firms
  - Foster common identifiers (eg LEI)
  - Share data across domestic authorities / jurisdictions
6. Role of the Irving Fisher Committee on Central Bank Statistics (IFC) in supporting global cooperative efforts

- Set up (2018) of a Working Group to investigate issues surrounding fintech data and work on statistical definitions (Secretary: Jose Maria Serena Garralda, BIS)

- IFC Survey of central banks on Fintech data issues (May-June 2019)

- IFC-Bank Negara Malaysia satellite seminar on “Statistics on fintech - bringing together demand and supply to measure its impact“ at the 62nd World Statistics Congress of the International Statistical Institute (ISI), August 2019

- Working Group IFC Report
Thank you!!

Questions?
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https://www.bis.org/ifc/index.htm?m=3%7C46