

Research session  
**Implications of  
big tech in finance**

Wednesday 6 October  
14:00 CEST (UTC +2)



#BISResearchConference  
#RegulatingBigTech



**"Big tech banking"**

**Jorge Padilla**  
Senior Managing Director  
Compass Lexecon



**"Platform-based business  
models and financial inclusion"**

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Head of Research  
Financial Conduct Authority

Chair: **Hyun Song Shin** Economic Adviser and Head of Research, BIS



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## Platform-based business models and financial inclusion

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BIS conference on "Regulating big tech", 6 October 2021

\*The views expressed here are those of the authors and not necessarily the Bank for International Settlements, the Financial Conduct Authority or the European Commission.



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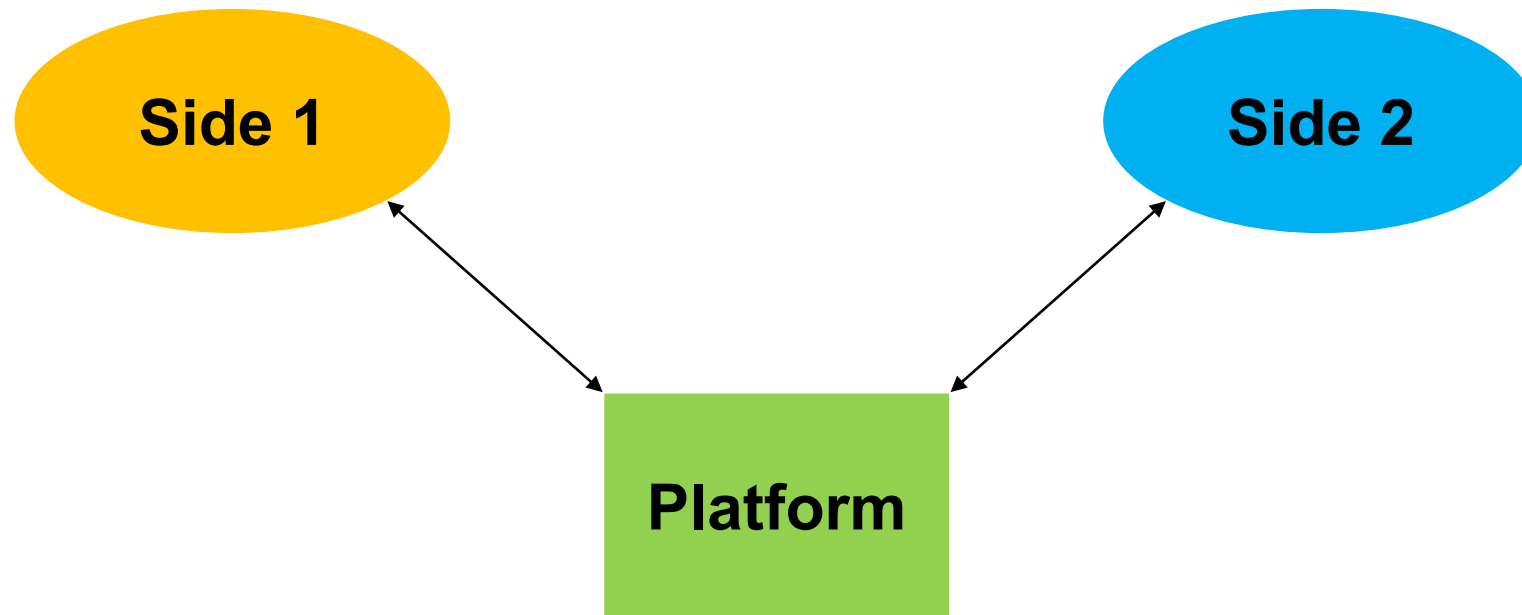
## Platforms in finance



# Three types of platforms in finance: definitions and examples

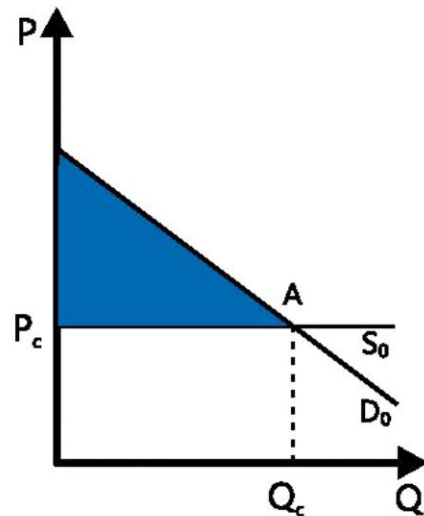
	Fintech	Big tech	Incumbent responses
Definition	Technology-enabled innovation in financial services that could result in new business models, applications, processes or products ... ( <a href="#">FSB</a> , 2017)	Large companies whose primary activity is digital services, rather than financial services ( <a href="#">Frost et al.</a> , 2019; <a href="#">BIS</a> , 2019)	Move to business model that brings together two or more types of economic agents and facilitates trade between them (Evans and Schmalensee, 2014)
Examples			

## Platform economics: a simple representation

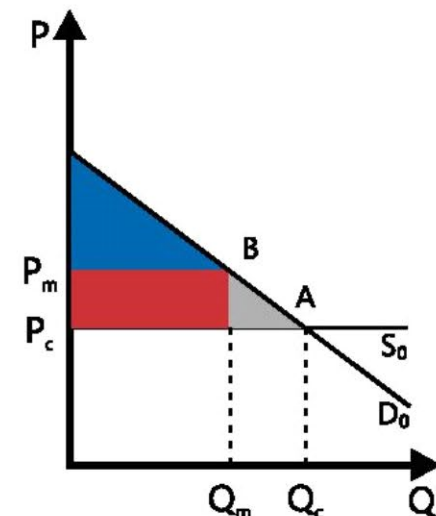


# What is unique about digital platforms?

A. Perfect competition

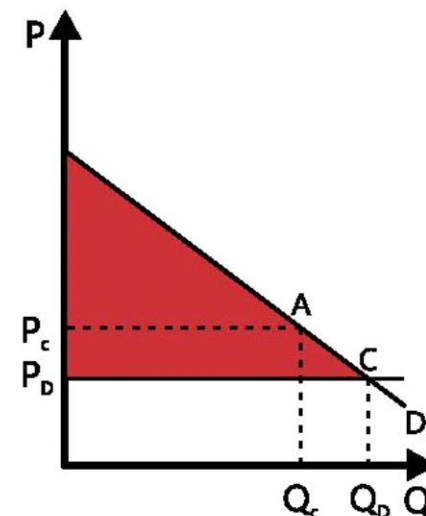


B. Pure monopoly



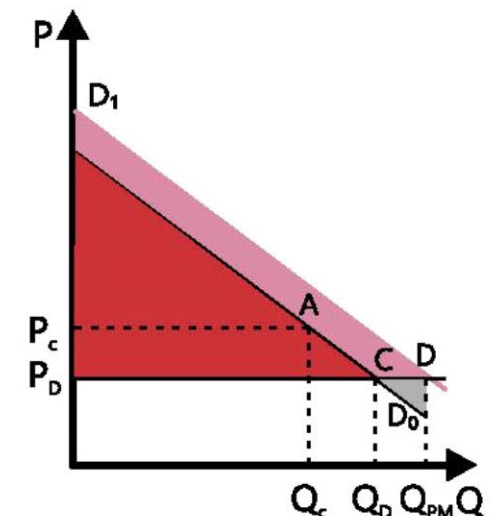
■ Consumer surplus  
■ Welfare (dead weight) loss

C. Digital monopoly



■ Monopoly surplus  
incl. perceived surplus

D. Preference manipulation



Source: Boissay et al (2020); authors' elaboration.



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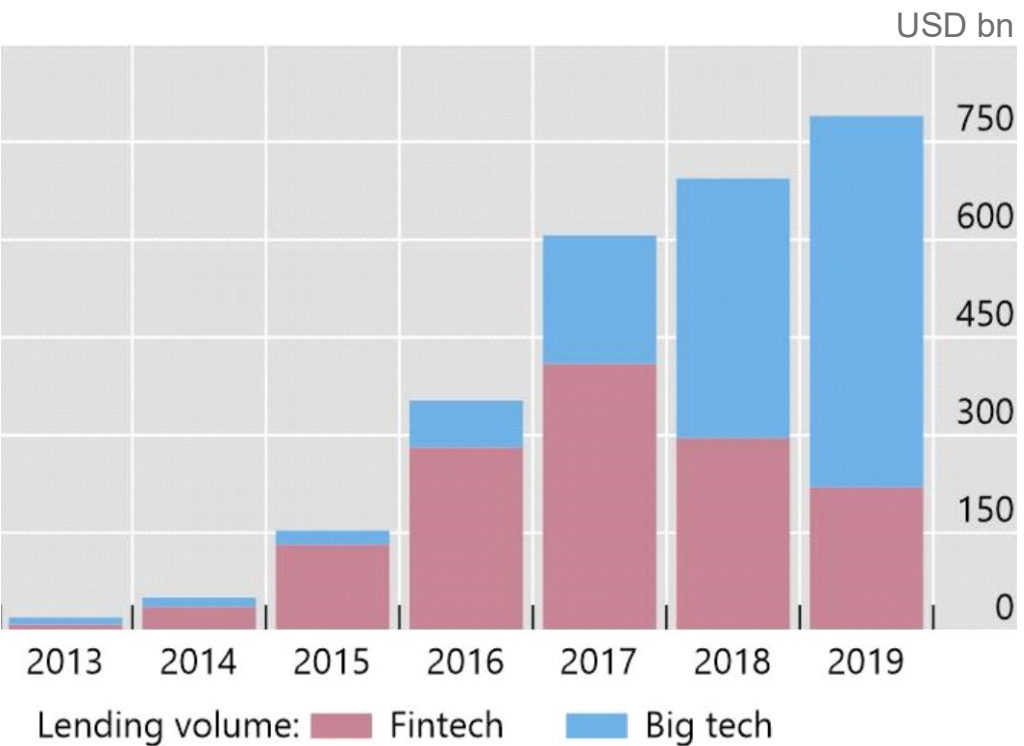
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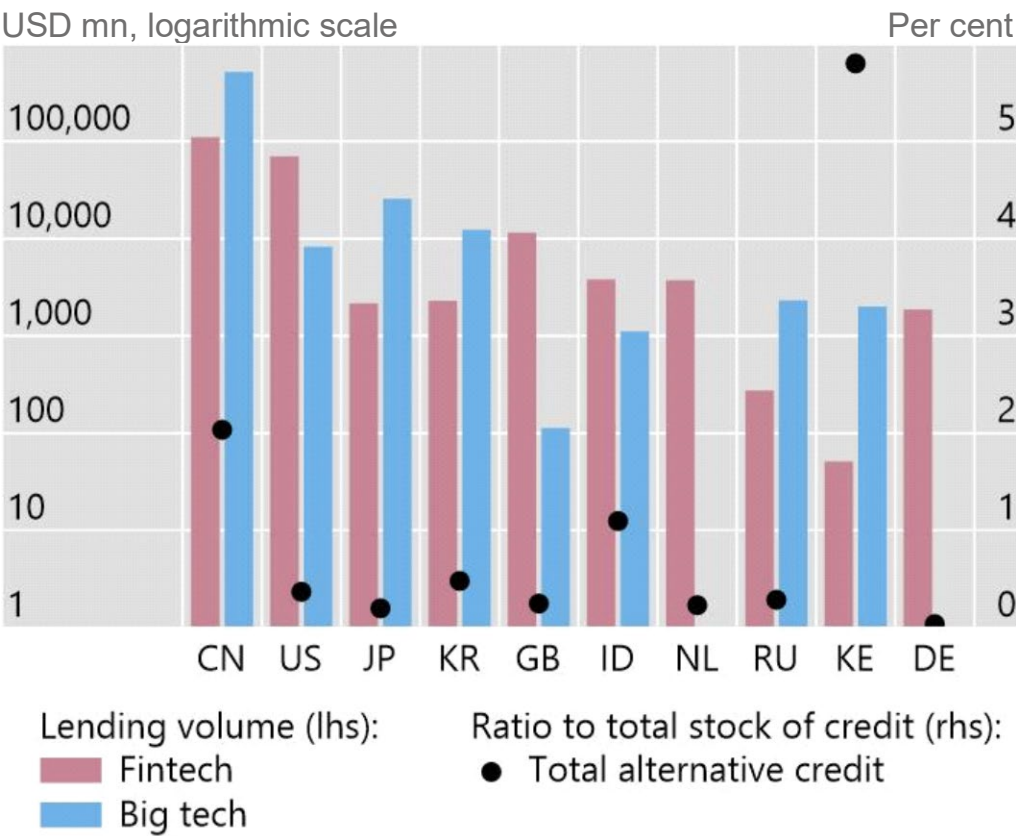
## Platforms and financial inclusion

# Platforms scale fast, and big tech credit is booming

Big tech credit is overtaking fintech credit



Global lending is small, but larger in some economies

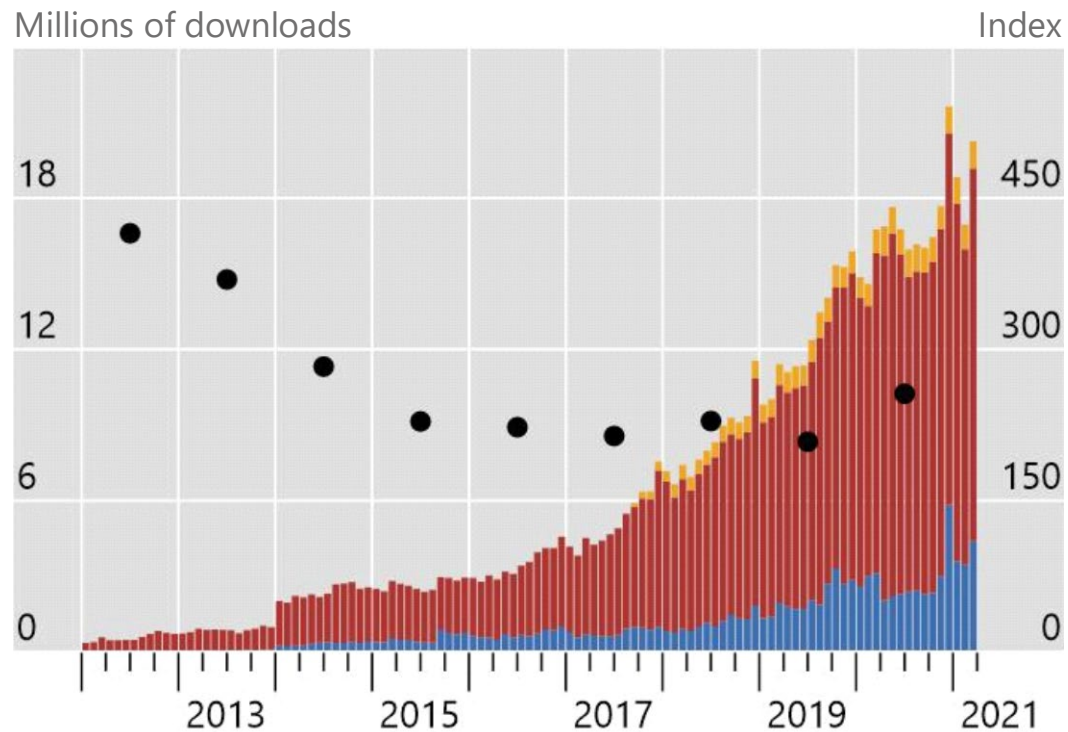


Source: Cornelli et al (2020).

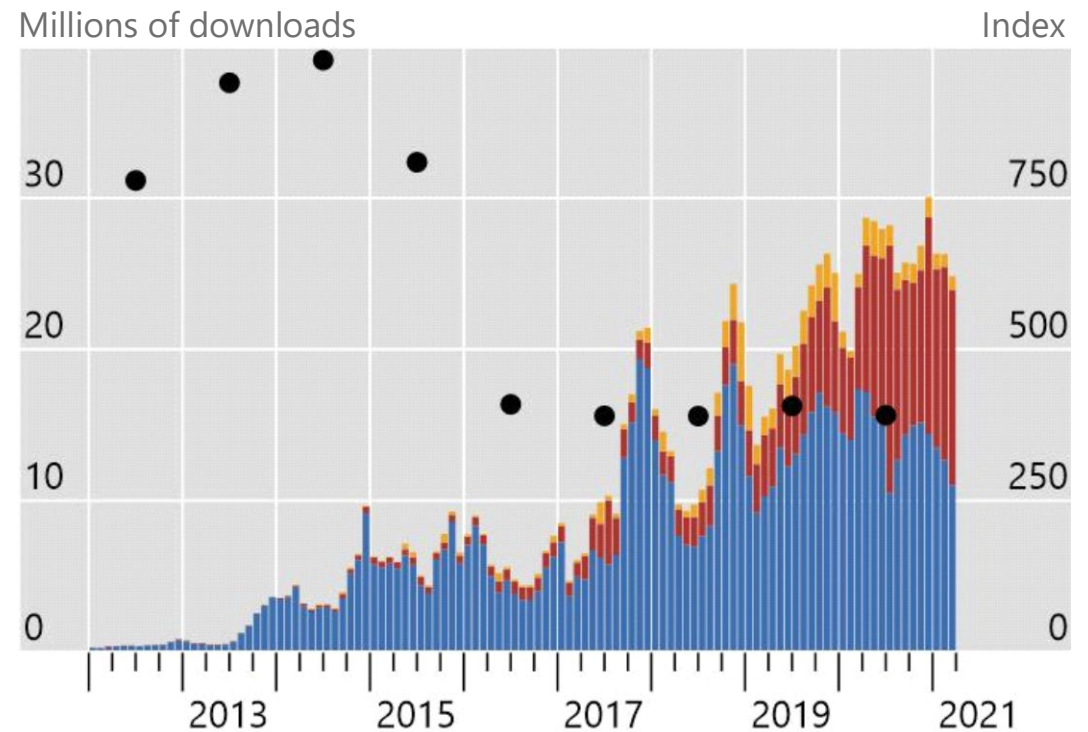


## These forces also mean rising downloads of fintech and big tech payment apps

### Advanced economies



### Emerging market economies



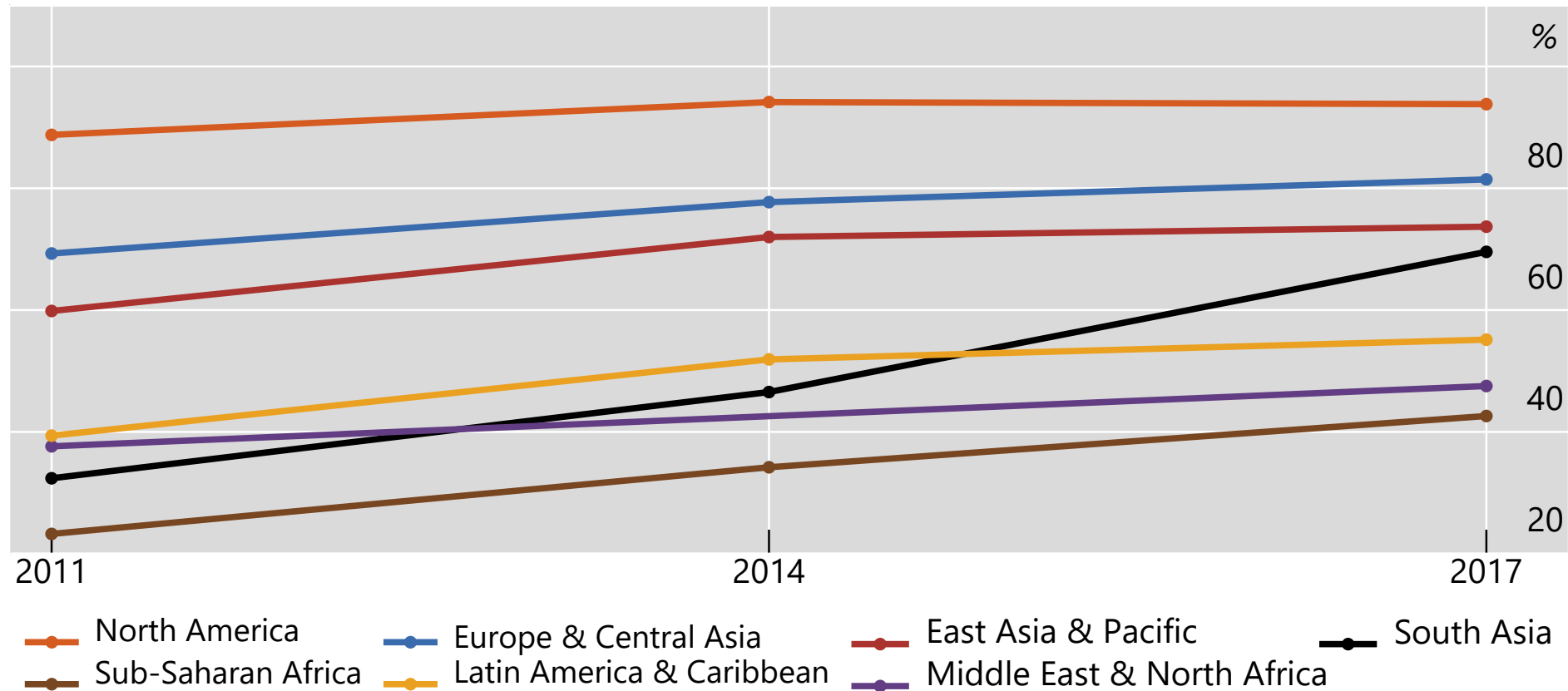
Payment app downloads (lhs): ■ Big tech ■ Fintech

■ Incumbent financial institutions Rhs: ● HHI

Sources: Sensor Tower; authors' calculations.

## Platforms have helped drive the rise in account access

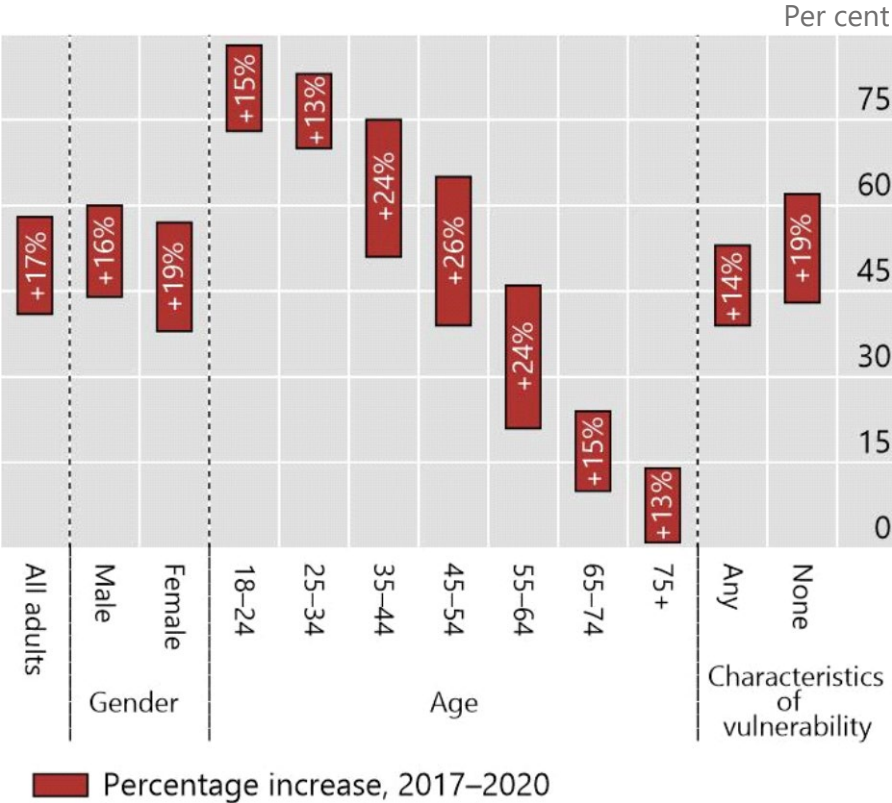
Percentage of adults with a transaction account



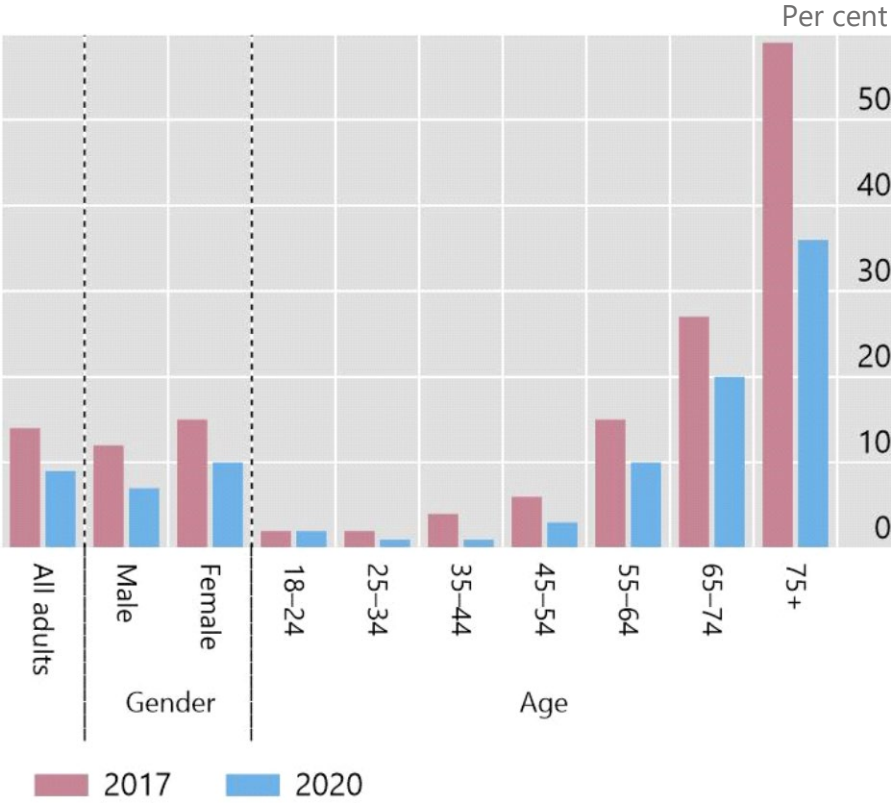
Source: World Bank Findex (2018).

# In the UK, platforms have helped to close some gaps in inclusion

Increase in share of adults who used a mobile app to undertake day-to-day banking activities

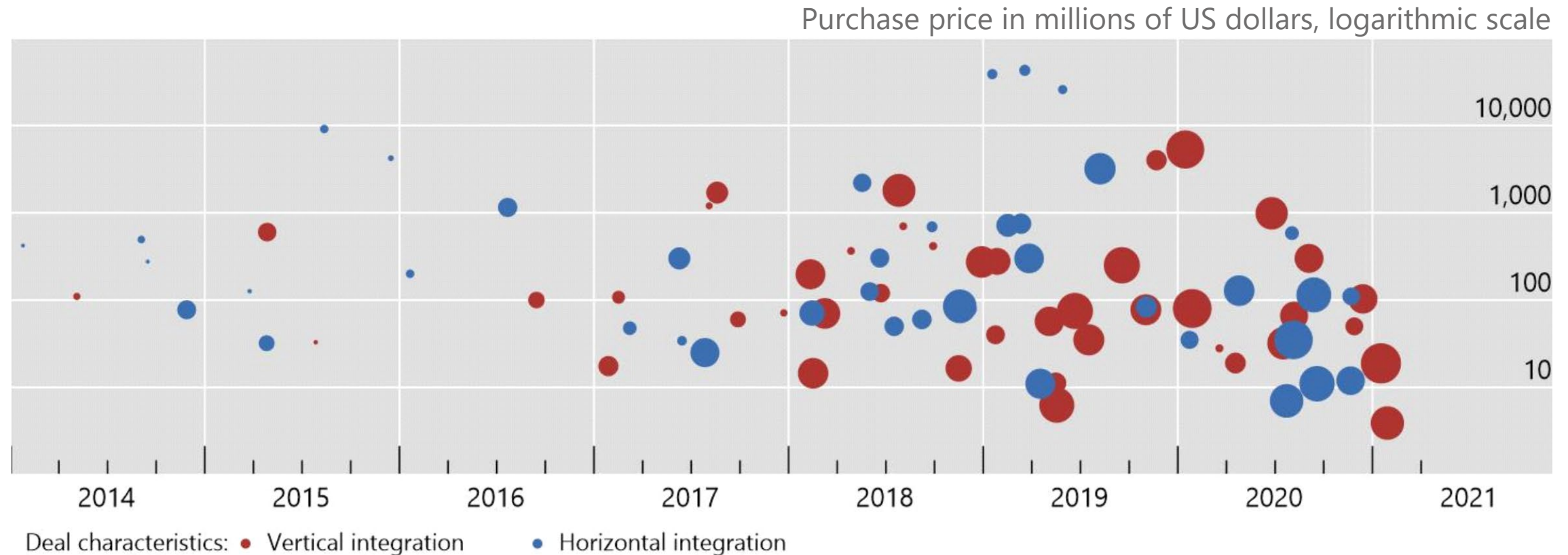


Share of adults who are digitally excluded by age and gender (April 2017/ Feb 2020)



Source: UK FCA Financial Lives Survey (FLS), April 2017 / February 2020.

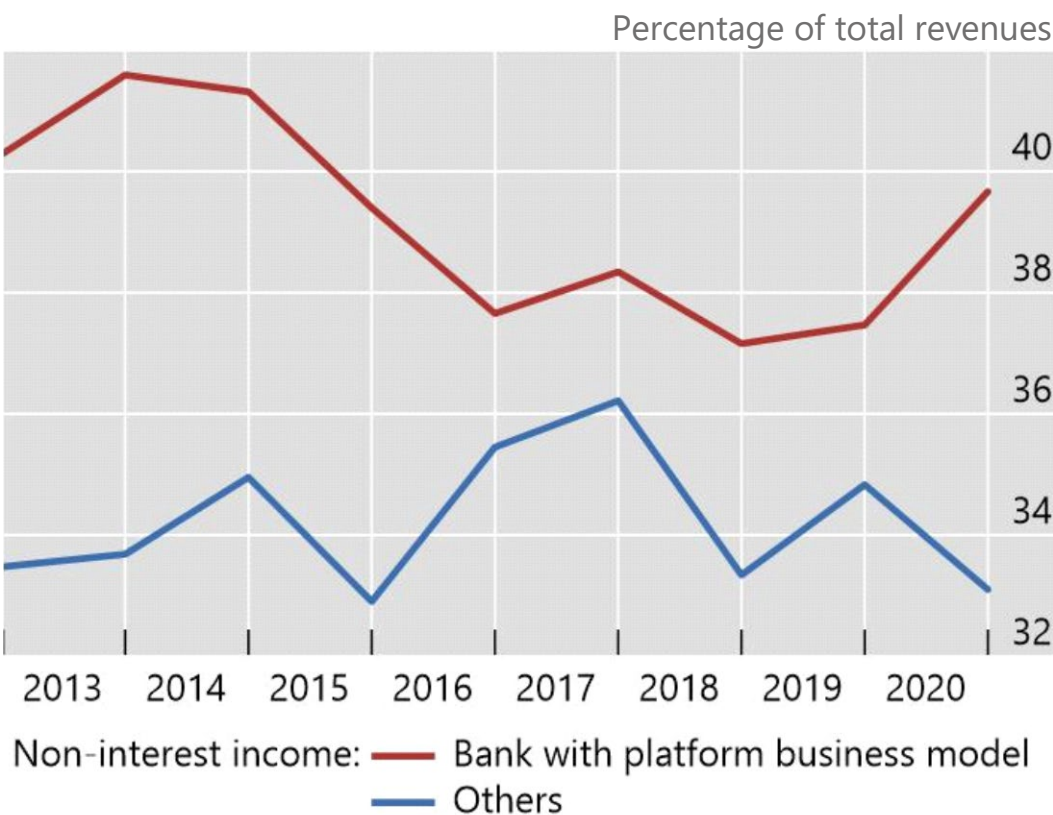
## Platforms are on a buying spree – M&A activity by global payment platforms



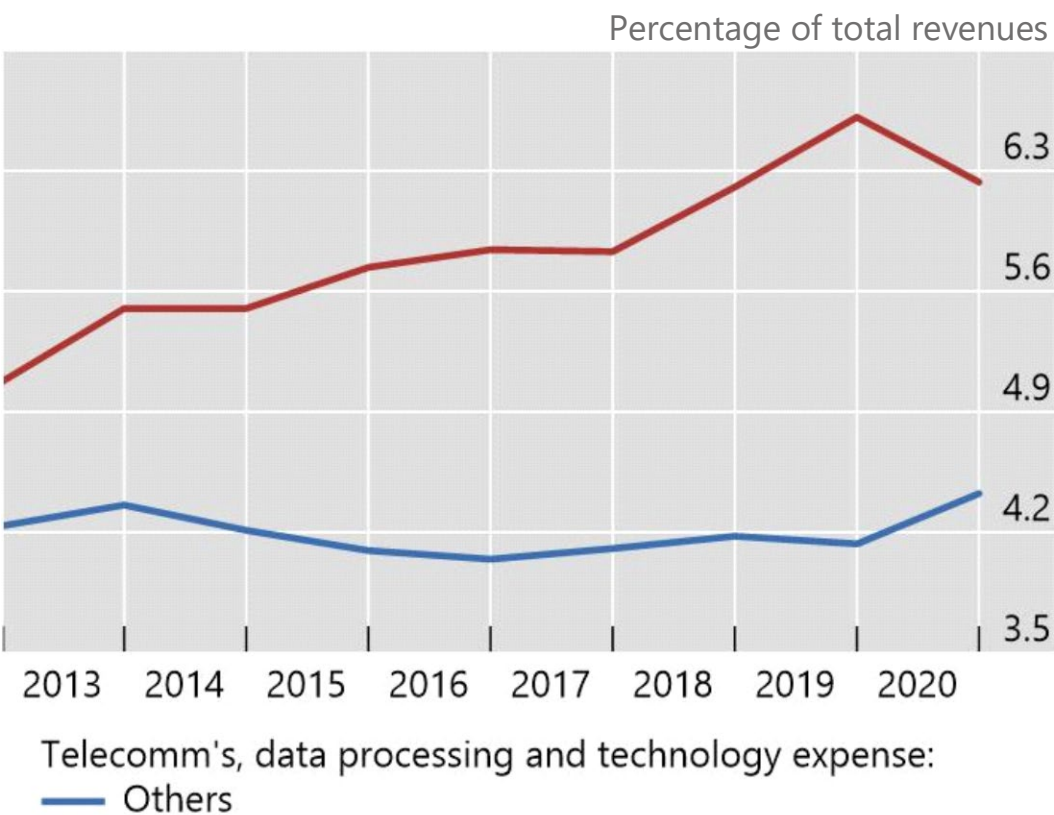
Sources: BIS (2020): "Central banks and payments in the digital era", *Annual Economic Report*, ch 3, pp 67–96, June.

# Some incumbent banks are following suit, moving toward platform models

Income composition



Expenditure on technology



Sources: S&P Market Intelligence; authors' calculations.





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## Public policy options

## Option 1: Apply existing financial regulation, competition and data privacy rules

- Many authorities explicitly adopt a “same business, same risks, same rules” approach to providers with a platform-based business model
  - Apply existing licensing, regulatory reporting, deposit insurance, capital and liquidity requirements, etc to fintech and big tech platforms (see eg Crisanto et al, 2021)
  - Where needed, “fit” new models into existing regulatory categories
- Yet a few challenges:
  - financial regulation, competition law not always agile enough to prevent concentration
  - trade-offs between policy goals (Carrière-Swallow and Haksar, 2019; Feyen et al, 2021)
  - possible information advantages of new platforms – particularly big techs – given divergent asymmetries in data regulation (Padilla and de la Mano, 2018; Stulz, 2019)
  - potential for systemic importance of big techs (Carstens et al, 2021)

## Option 2: Adapt old and adopt new policy rules

- New financial regulation and competition rules explicitly tailored to platforms:
  - new types of licenses (eg for virtual banks)
  - enhancing competition through application programming interfaces (APIs) and other tools to enhance data portability
  - developing new ex ante regimes (eg Digital Markets Unit in the UK)
- Enhancing interoperability can be particularly powerful (see telecommunications in the EU)
- Data protection rules can impact on competition and financial stability
  - EU General Data Protection Regulation (GDPR) includes data minimisation principle
  - California Consumer Protection Act (CCPA) defines sanctions for data breaches – also relevant for those concerning financial data

## Option 3: Provide public infrastructures

- Private sector platform services are often built on a public sector infrastructure, eg:
  - government digital identity (ID) initiatives (eg Aadhaar in India, MyInfo in Singapore)
  - enhancements to real-time gross settlement systems (RTGS) and retail fast payment systems (FPS) (eg UPI in India, Pix in Brazil)
- Public infrastructures can facilitate entry, ensure greater competition between platforms
- Retail central bank digital currencies (CBDCs) can be seen in the same light (BIS, 2021)

## Conclusion

- Platform-based business models are changing market structure in financial services
  - Fintech and big tech entrants are booming, and some incumbents are adopting a platform model
  - Platforms are highly scalable due to network effects and economies of scale and scope
- The same forces that enhance financial inclusion can also lead to “tipping” and concentration
- To capture benefits and mitigate risks, authorities are choosing among three approaches:
  - Apply existing financial regulation, competition and data protection rules
  - Adapt old and adopt new rules in these areas
  - Provide public infrastructures for digital ID, fast payments, etc.
- Important for central banks and regulators, within their legal mandate, to work closely with competition and data protection authorities, building on existing mechanisms