



BANCA D'ITALIA  
EUROSISTEMA

# Technological innovation in banking

Rome – 25 February 2025

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Bank of Italy – Financial Stability Directorate

# Agenda

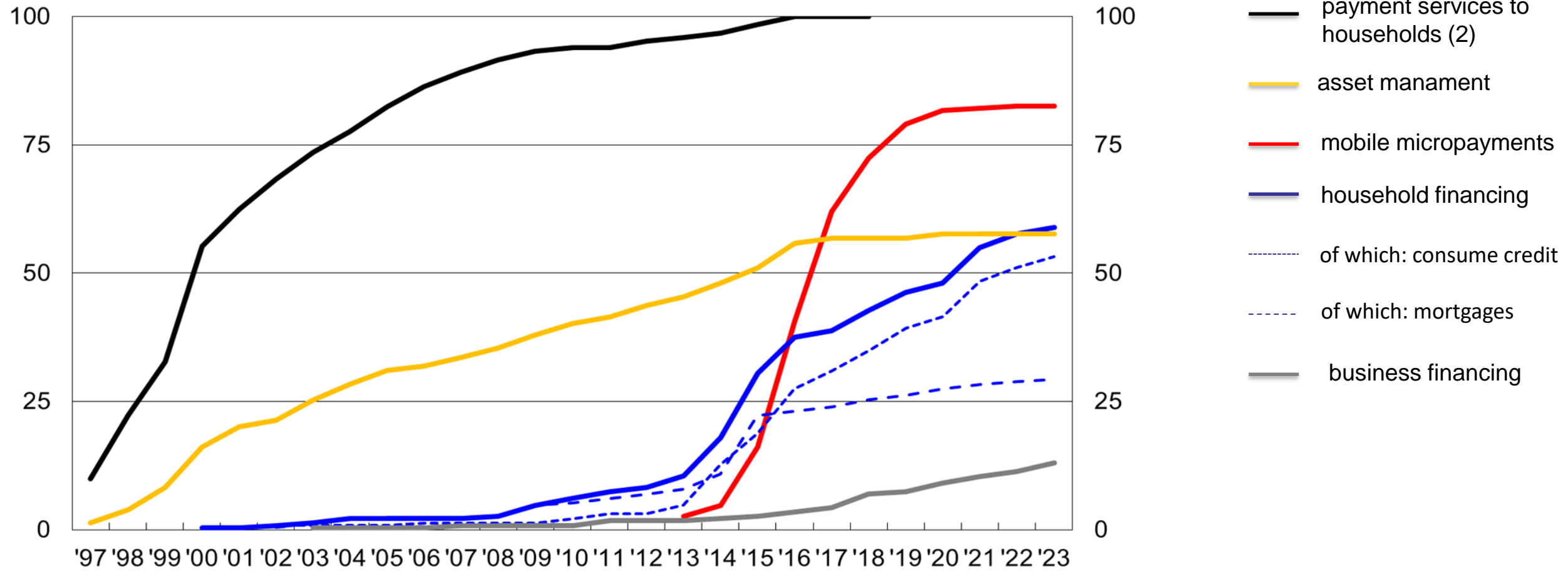
- 1. The evolution of digital services in the banking sector**
- 2. Banks' investments in innovative technology**
- 3. Digitisation and access to banking services for households and businesses**
- 4. Potential risks**

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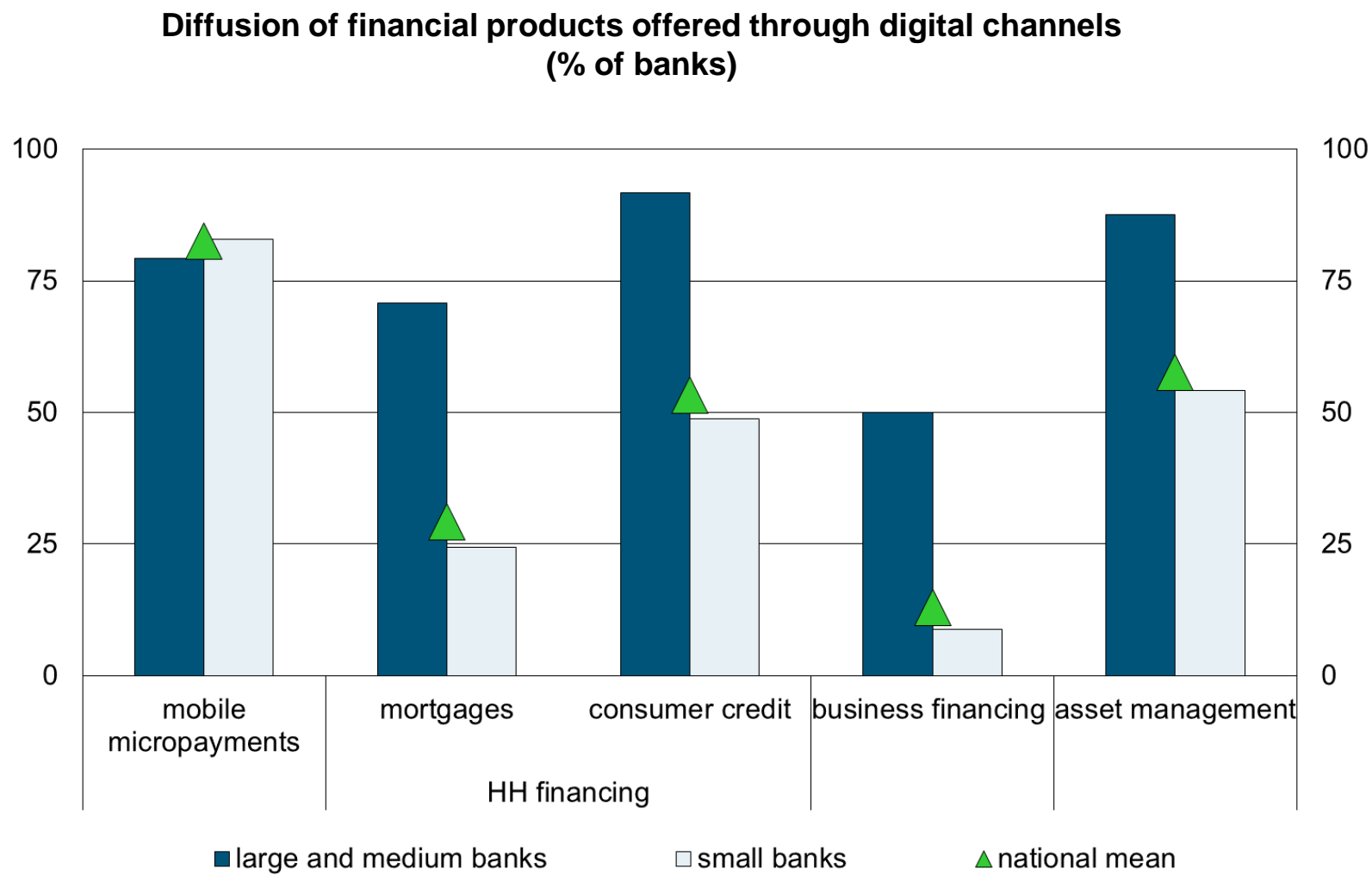
# Over the past decade, banks have continued to expand the digital services they offer...

Diffusion of financial products offered through digital channels  
(% of banks)



Source: Regional Bank Lending Survey. Data collected until 2018.

....especially larger ones...



Source: Regional Bank Lending Survey. Data from 2022.

# ...but the use of digital remains heterogeneous across financial services.

**90%**

the percentage of online bank transfers out of all bank transfers

**>80%**

the percentage of depositors who have used digital banking channels at least once in the past year.

**6%**

the proportion of households that have applied for financing online.

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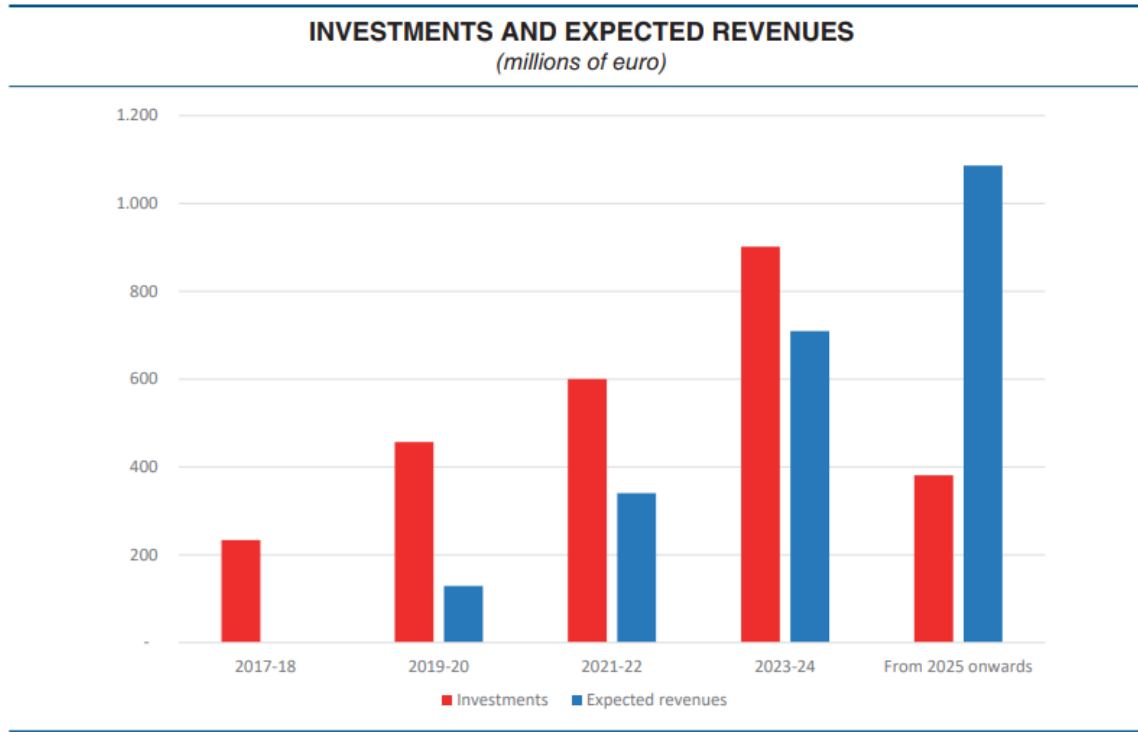
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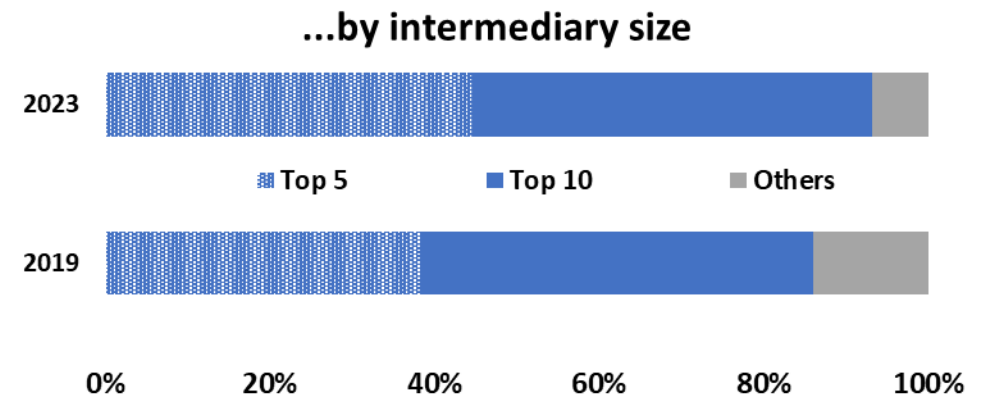
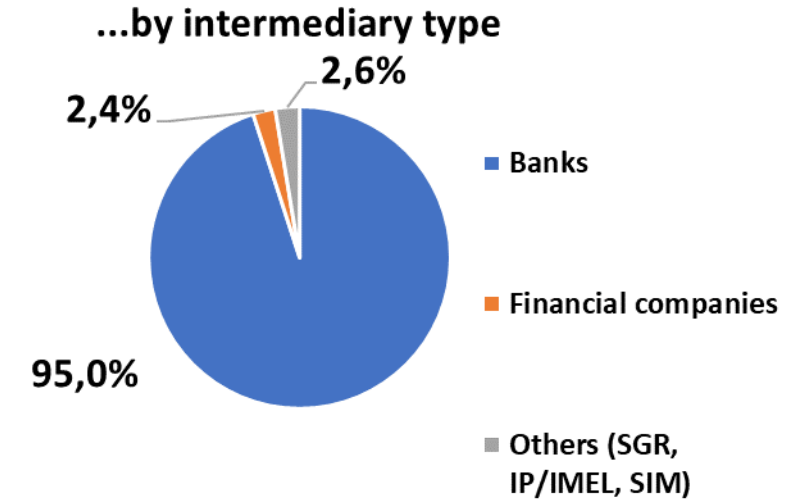


# Investments in technology have increased over the past few years, but they still remain relatively low and are concentrated



- These investments represent 5% of overall spending on technologies that facilitate information processing.
- For significant banks, investments in innovative technologies are lower than those of their European competitors.

## Tech investments...



# Web-mobile apps, AI, and APIs are the main focus of fintech projects.

**Half of the projects  
are focused on:**

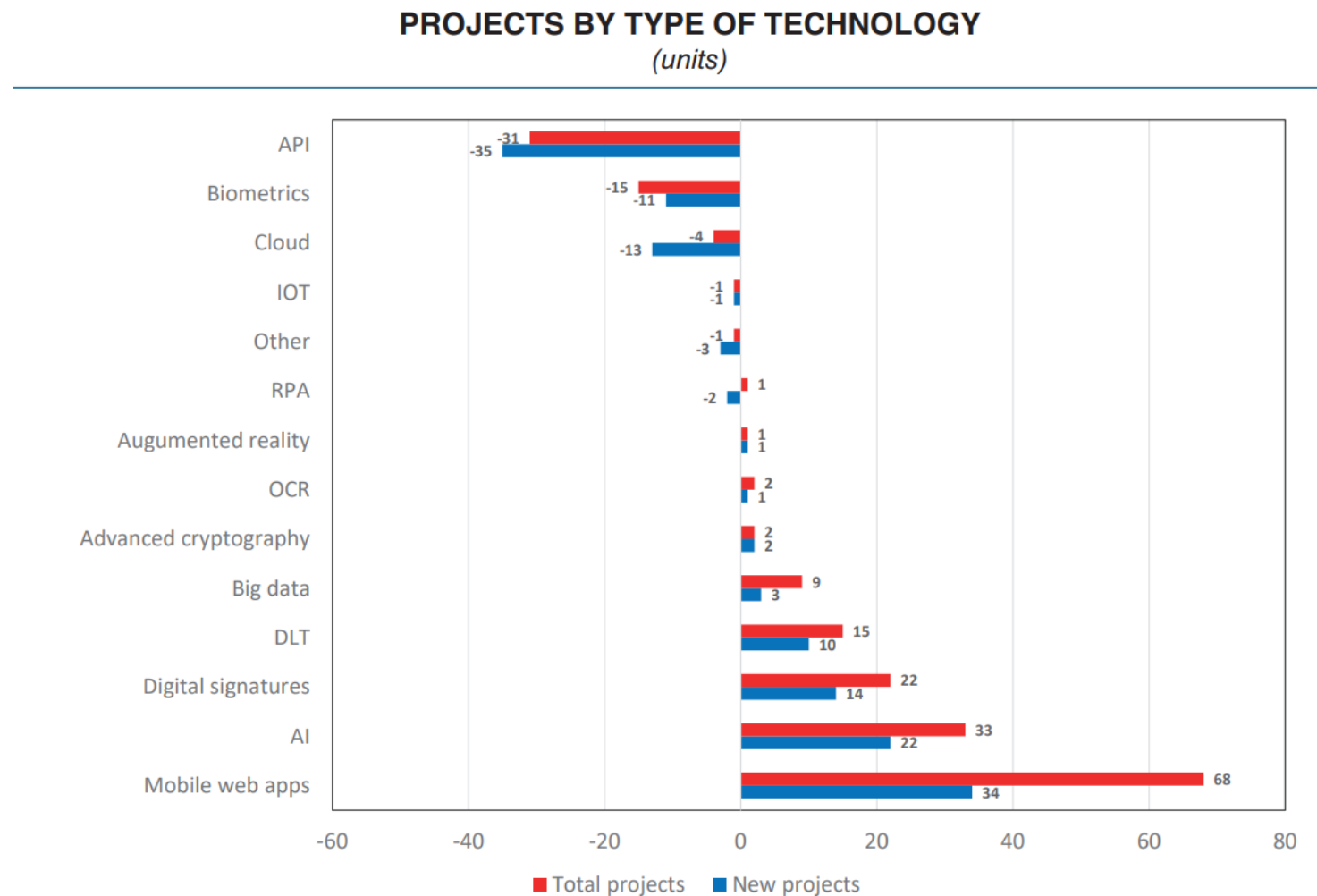
Web-mobile apps (20.5%)

AI (16.5%)

APIs (14.9%)

Other: cloud computing, digital  
signatures, DLT-Blockchain, big data,  
advanced analytics

Web-mobile apps and AI  
continue to grow.



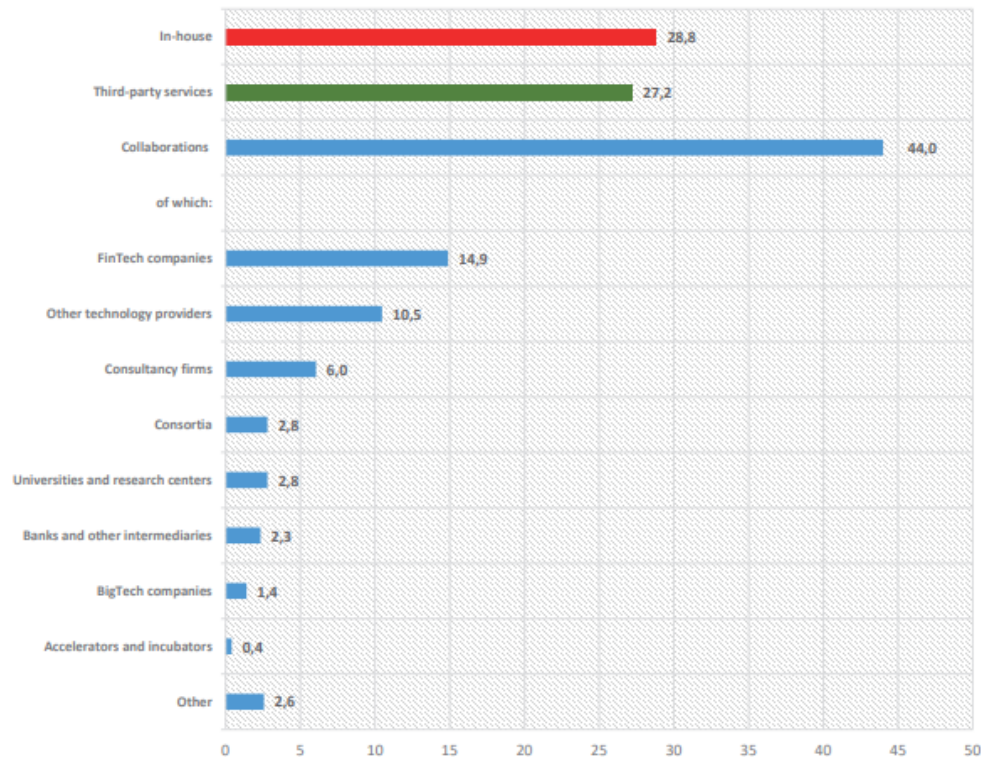
Source: [Indagine Fintech Banca d'Italia](#) (2024)

Note: Variations in the number of projects compared with the previous survey.

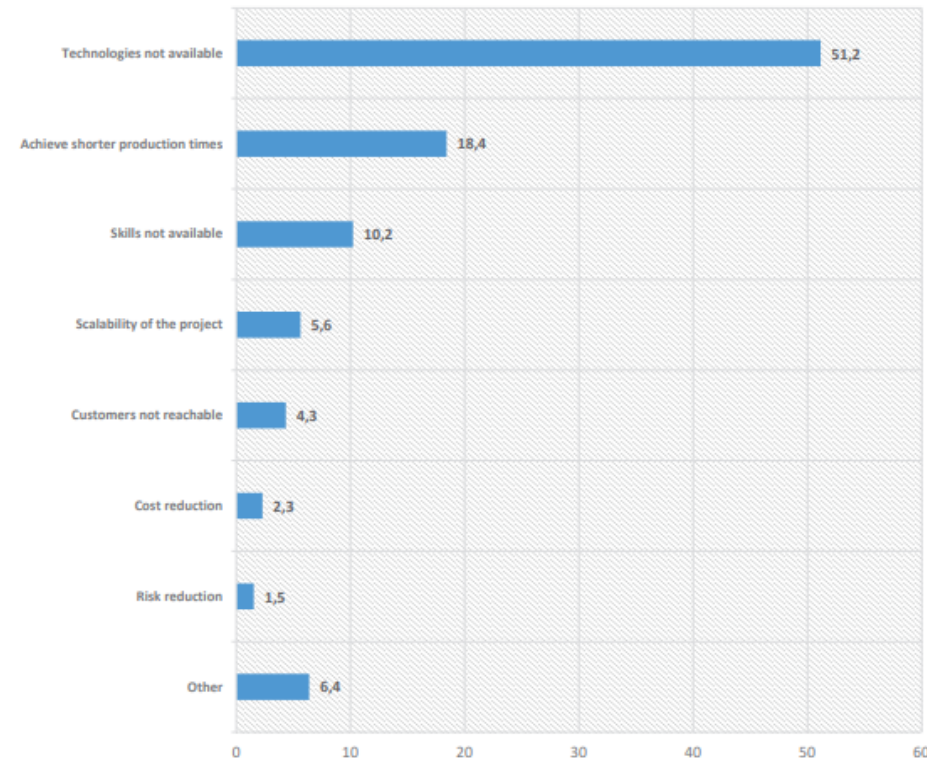
# Banks are increasingly partnering with new operators, including fintech firms.

## NUMBER OF PARTNERSHIPS (per cent)

METHOD OF REALIZATION  
Project (a)



REASON FOR PARTNERSHIP  
Projects (b)



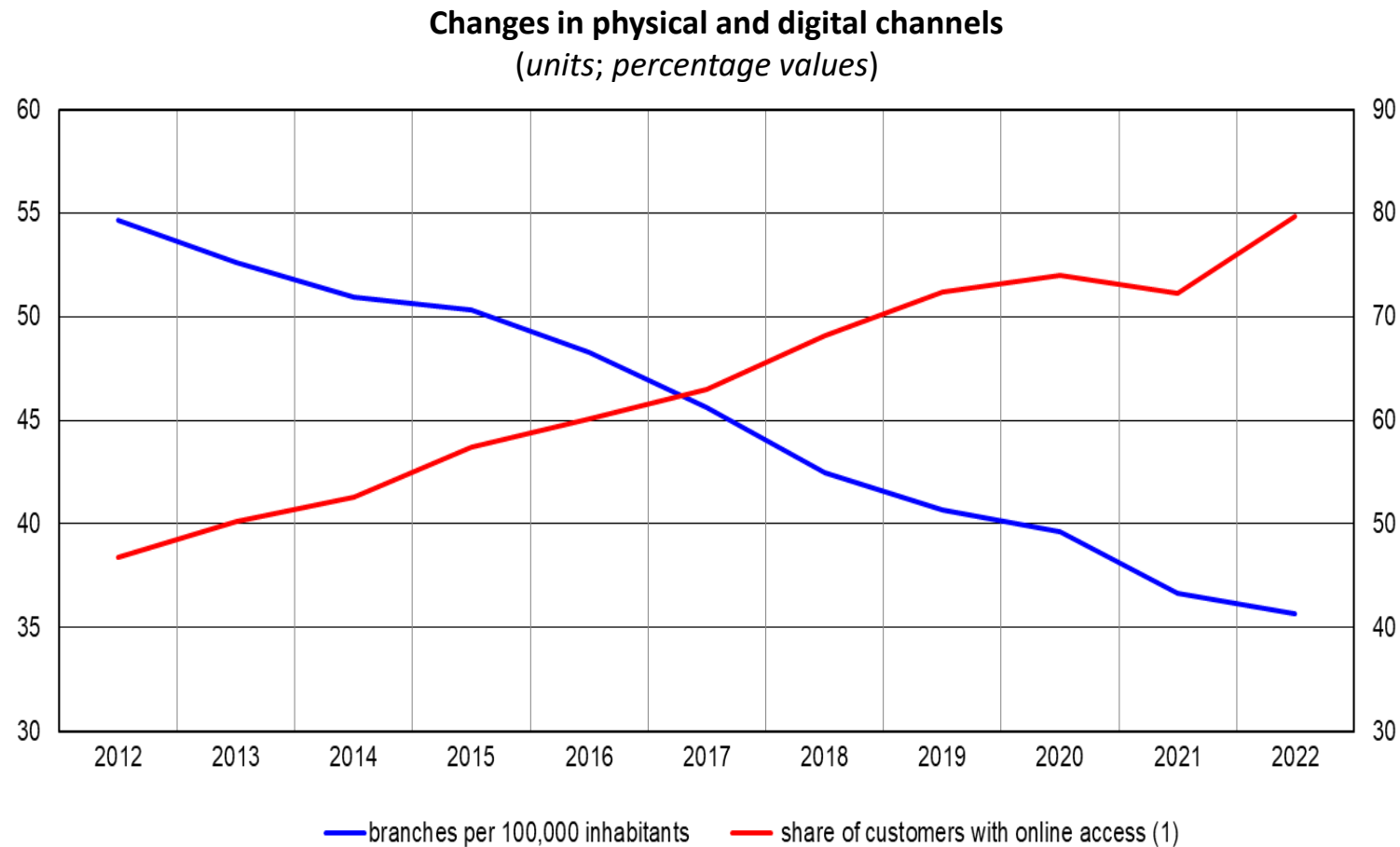
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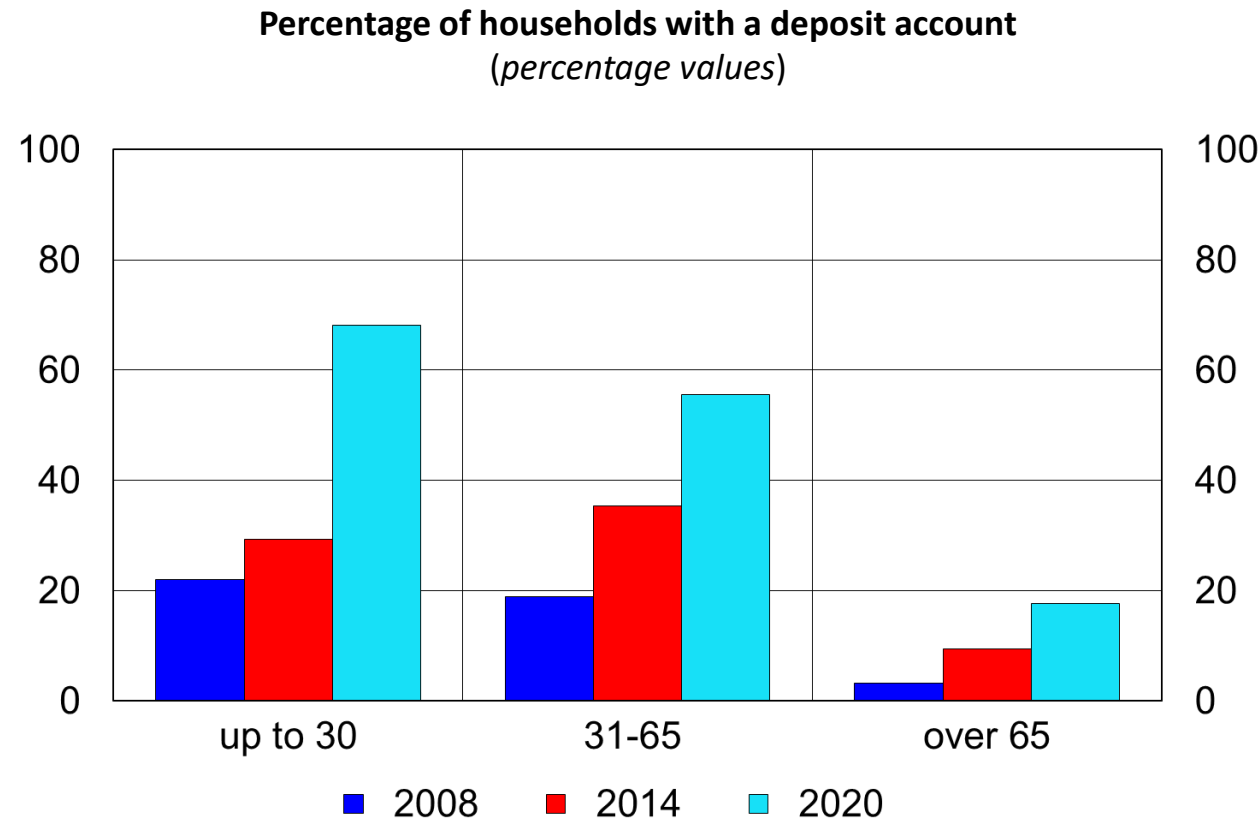
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# The way financial services are distributed is shifting. Digital has helped to ensure that families can still access these services.



Note: demographic archives of intermediaries, Istat and supervisory reports. (1) Right-hand scale.

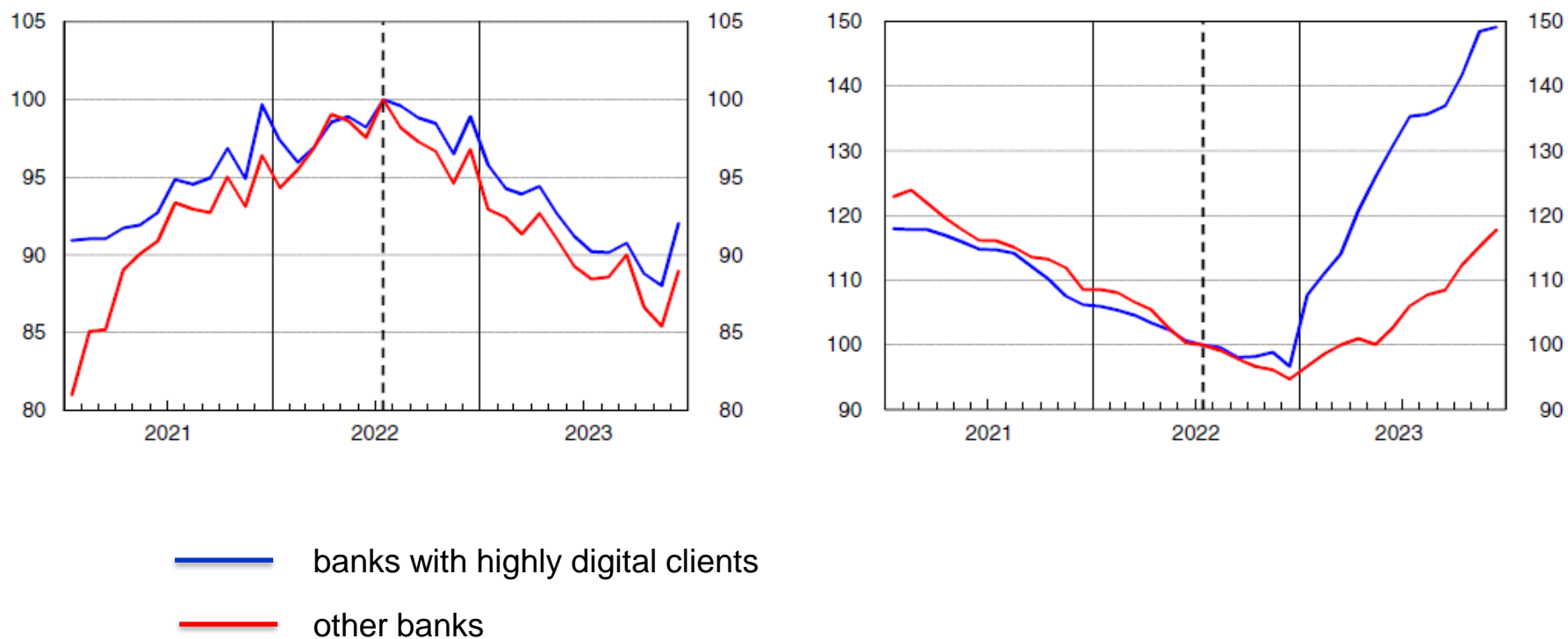
# The way financial services are distributed is shifting. Digital has helped to ensure that families can still access these services.



Note: Survey on Household Income and Wealth (SHIW). Age refers to the head of the household. (1) Right-hand scale.

# Online deposit transfers and bank funding stability

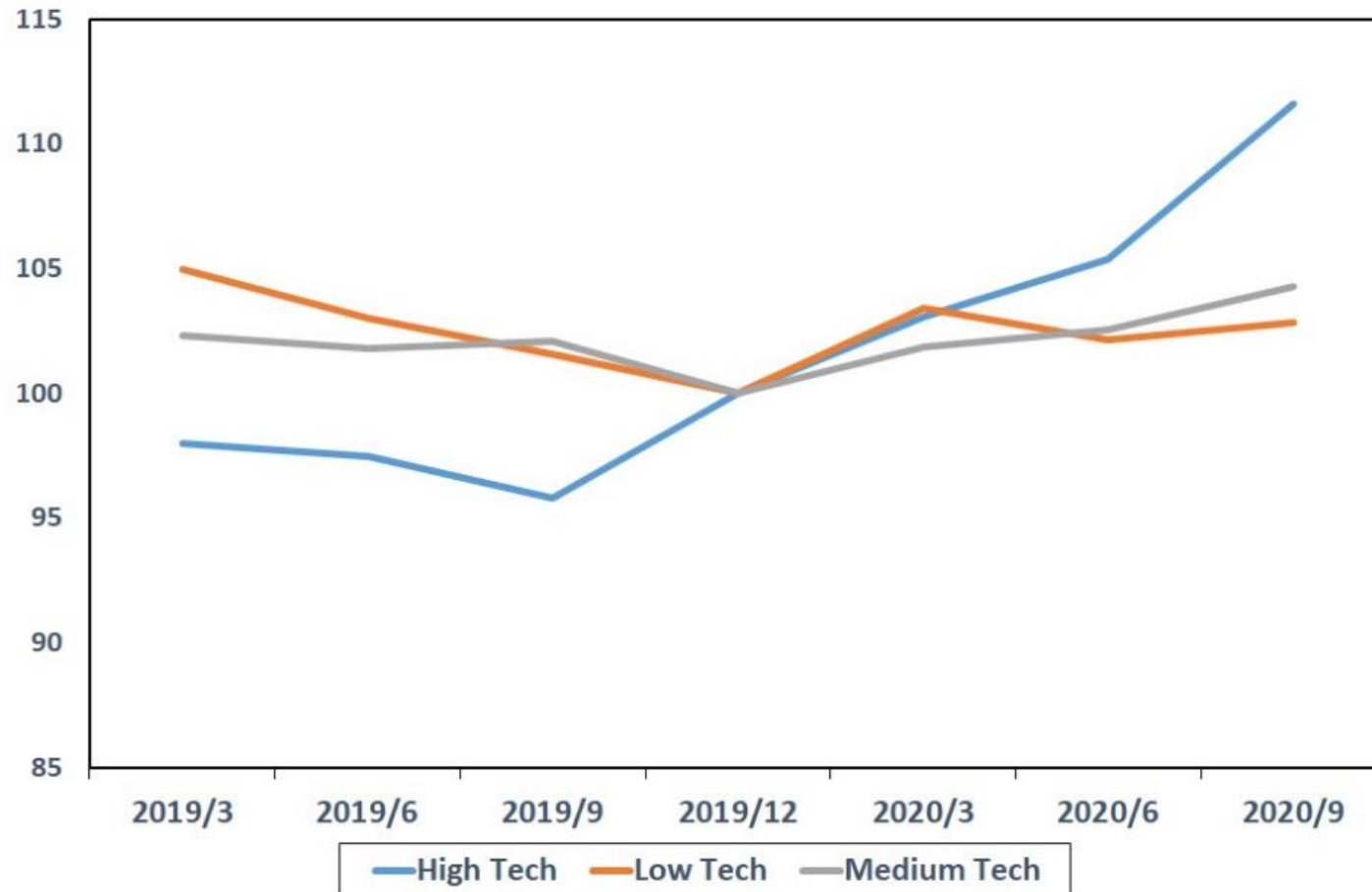
**Deposits held at banks with highly digital customers compared with other bank**  
(index numbers: July 2022=100)





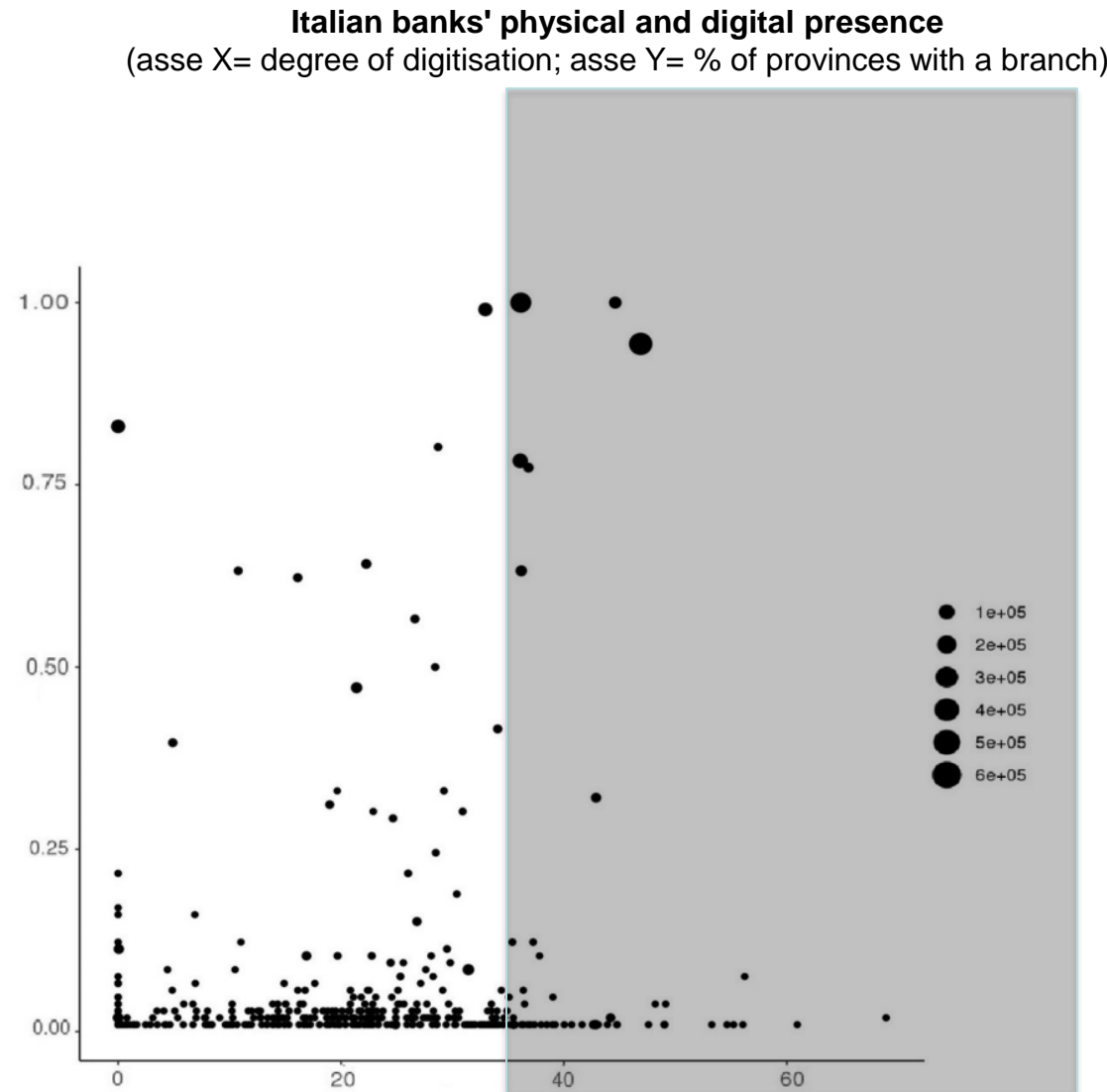
# Throughout the pandemic, the more digitally advanced banks were better positioned to support companies...

**Lending to firms during the pandemic,  
categorized by bank's digital maturity.**



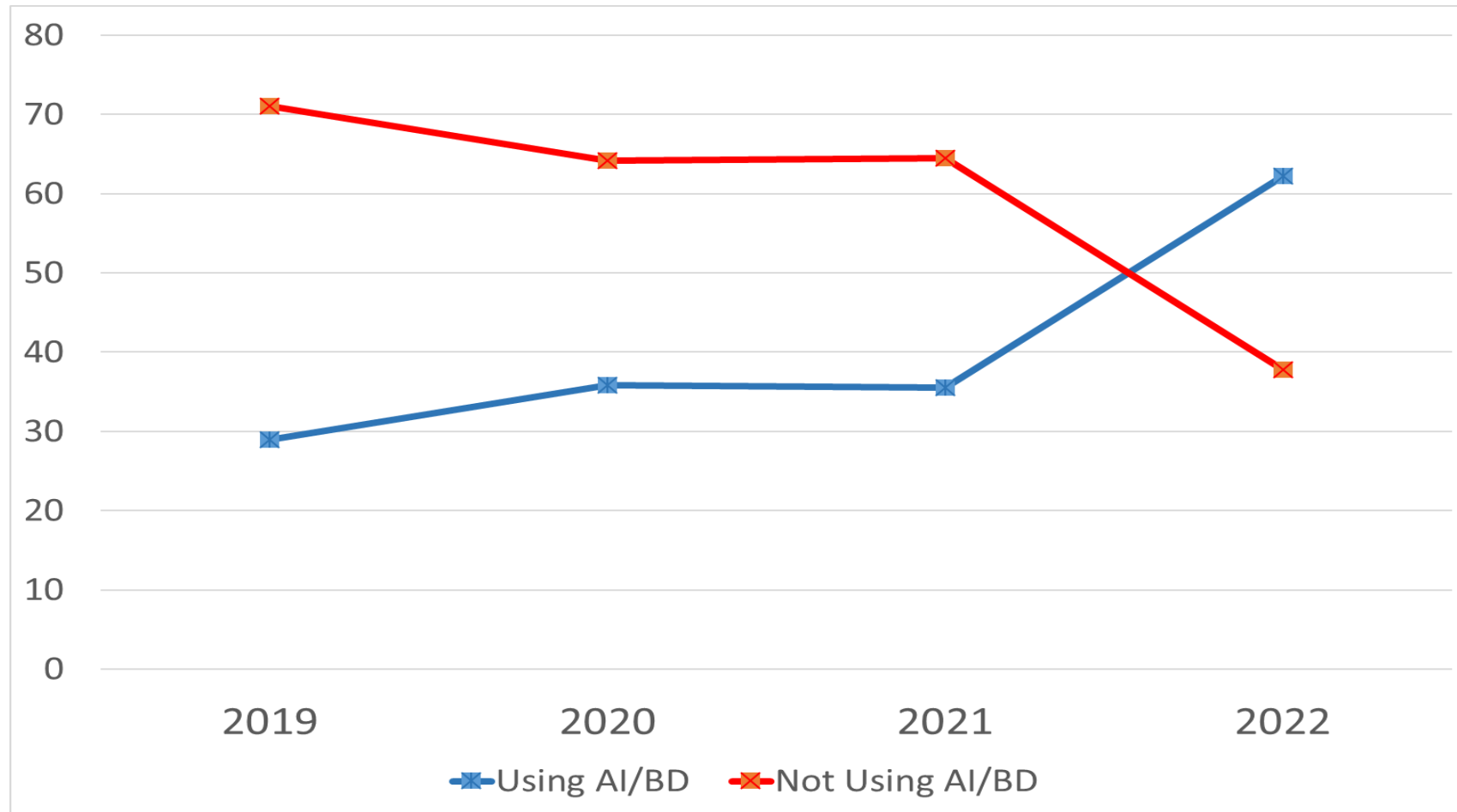
Loan provision was stronger especially for banks that combined a high level of digitalization with geographical closeness, suggesting a complementary relationship between technology and physical presence.

... especially when the highest level of digitisation is combined with a physical presence.



# More banks are using AI/Big Data in credit scoring, with larger banks leading the way.

**Banks using AI/Big Data for credit risk assessment:  
market share of business loans**  
*(percentage values)*



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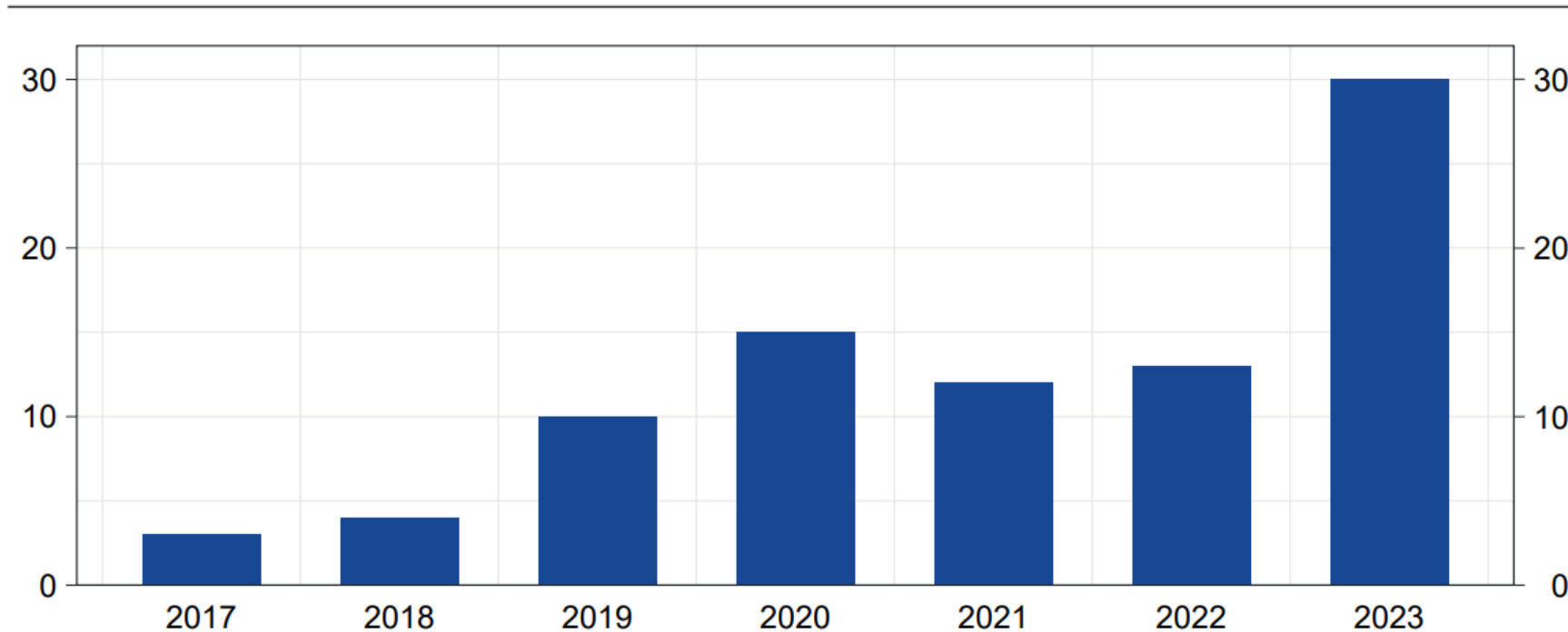
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# As technology advances, so do the potential cyber risks...

**Serious cyber incident reports from Italian intermediaries**  
*number of reports*



Source: Banca d'Italia (2024)

- In 2023, intermediaries reported a sharp increase in serious incidents.
- Numerous national and international initiatives: G7; SSM Cyber Stress test; Bdl-ABI CERTfin; BI-ACN.

## ...and those associated with outsourcing

- >5,000 contracts for outsourcing essential functions.
- 82% of intermediaries outsource ICT functions, entering into an average of 5 contracts.
- Open banking remains limited, although growing.
- The supervisory authorities' capacity to intervene with suppliers will be strengthened by the entry into force of the European regulation on the digital operational resilience of the financial sector (DORA).

# Conclusions

- Italian banks have significantly expanded their offering of digital services and their technological investments, but further expansion is needed to avoid lagging behind.
- Increased reliance on technology offers opportunities to the financial industry – and therefore to individuals and companies...
- .....but also poses risks that need to be addressed, balancing the competitiveness needs of the banking system, protecting customers, and ensuring financial inclusion.



**Thanks!**