

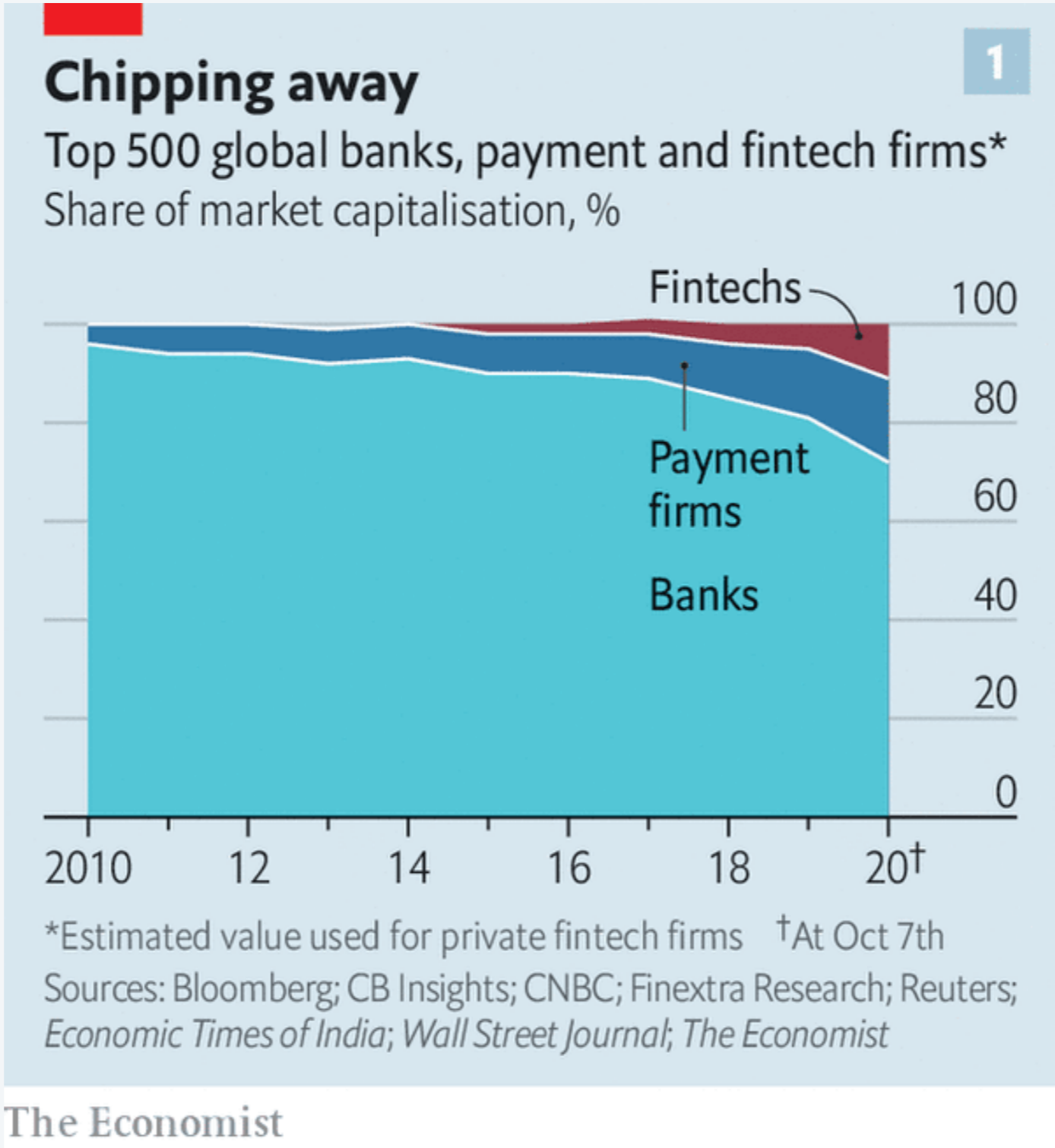
Discussion at IMF Macro-Financial Research Conference 2021

Does IT help? Information technology in banking and
entrepreneurship

Tarun Ramadorai (Imperial College and CEPR)

Context: Rapid growth of technology in banking-related financial services

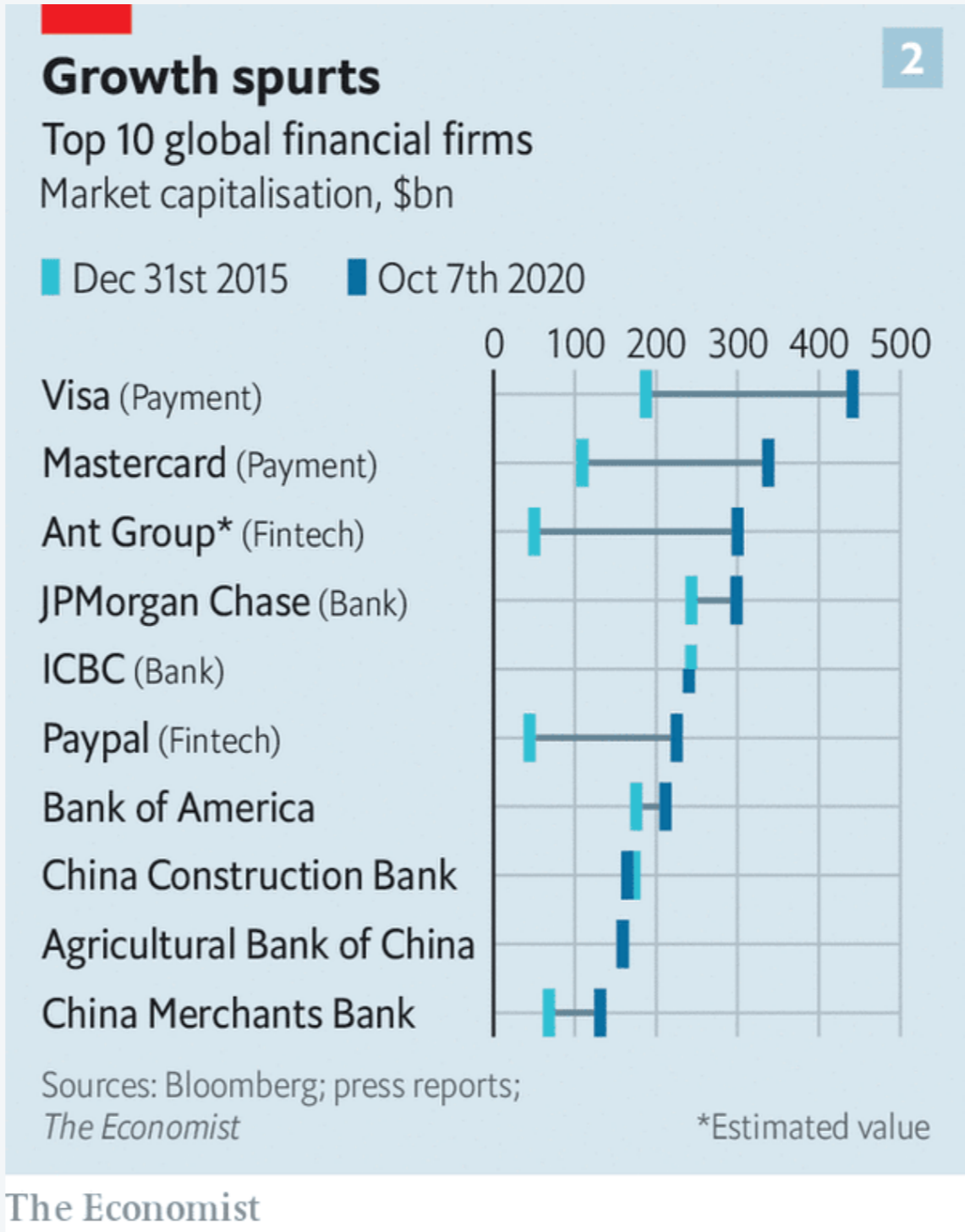
Source: The Economist, 2020



Context: Adapt to survive

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- ▶ Significant changes to relative position of technology adopters.



Broad questions

- ▶ Advent of new technology poses existential challenges to supply-side of finance. And important questions arise on consequences for demand-side of finance.
- ▶ Who wins and who loses? Answers slowly emerging in household finance. (Berg, Burg, Gombovic, Puri, 2020, Fuster, Goldsmith-Pinkham, Walther, Ramadorai, 2021).
- ▶ Similar distributional questions arise for *businesses* accessing financial services, with equally important consequences.
- ▶ This paper attempts to shed light on consequences for **young versus old firms**, inspecting data from an earlier period.

This paper

- ▶ Acquires interesting granular survey data on technology purchases by U.S. commercial banks.
 - ▶ Measure: Establishment-level survey of personal computers per employee, 1999, 2003, 2004, 2006.
- ▶ Aggregates and processes this measure to attempt to measure geographical (county-level) variation in the use of technology in banks.
- ▶ Links this measure to differential outcomes for young (linked to entrepreneurial) versus more established firms.
 - ▶ Share of employment in young firms higher in counties with greater “exposure” to IT-adopting banks.
- ▶ Rationalizes findings using a simple model of screening, which relies on the role of IT in aiding collateral verification and valuation, and tests auxiliary model predictions.

Comments

1. IT adoption as a choice and more evidence on causality.
2. Is a collateral channel really at work?

IT adoption is a choice

- ▶ Significant work to measure IT adoption and persuade reader of a *causal* channel at work (greater presence of “IT-savvy” banks generates increased credit flow to small businesses).
- ▶ Findings are intriguing, and authors certainly work hard on robustness and IV.

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- ▶ Difficulty 1 (Conceptual): Using/adopting more PCs is a choice. This raises questions about unobserved characteristics of bank holding companies that choose to do so, and indeed, of entrepreneurs who choose to seek capital from particular banks.
 - ▶ Skill-biased technical change literature (e.g., Bresnahan et al., 2002) relates IT adoption to quality of human capital and new work organization practices.

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 - ▶ Skill-biased technical change literature (e.g., Bresnahan et al., 2002) relates IT adoption to quality of human capital and new work organization practices.
- ▶ Difficulty 2 (Empirical): IV strategy mainly predicts branching/location variation, to break the link between features of local environment that attract entrepreneurs and IT-adopting banks. But greater concern is bank-level variation.

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- ▶ Suggestion 1: Paper could use crisis period, in which any collateral-based channel is potentially easier to verify with ex-post writeoffs.
- ▶ Suggestion 2: “Case study” style evidence potentially very useful in this situation to enrich the underlying economic assumptions.

Conclusion

- ▶ Paper is about an important broad topic.
- ▶ Commend the authors for their work on assembling interesting evidence and writing a thought-provoking paper.
- ▶ Good luck!

