

Banking Disrupted? Financial Intermediation in an Era of Transformational Technology

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Geneva Report 22









- Annual Series since 1999
- Led by Ugo Panizza (ICMB Geneva) with support from CEPR
- #22 co-authored with Kathryn Petralia (Kabbage), Thomas Philippon (NYU Stern), Tara Rice (BIS / CPMI Secretariat)
 - with generous help from Sam Taussig at Kabbage



Outline

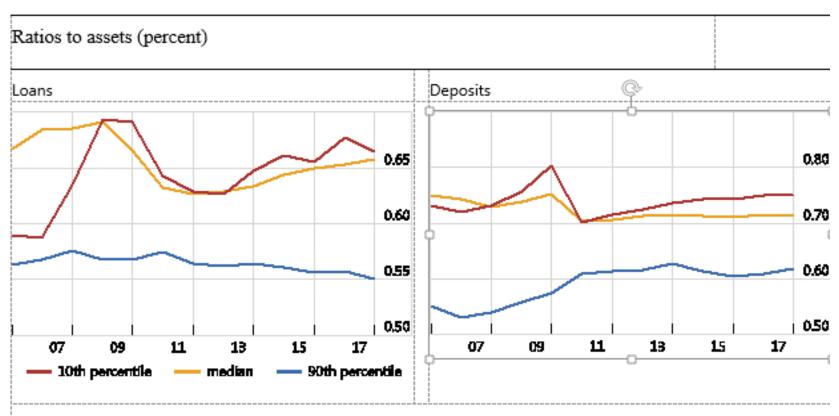
Big banks

Competition from FinTech & Big Tech

Policy issues



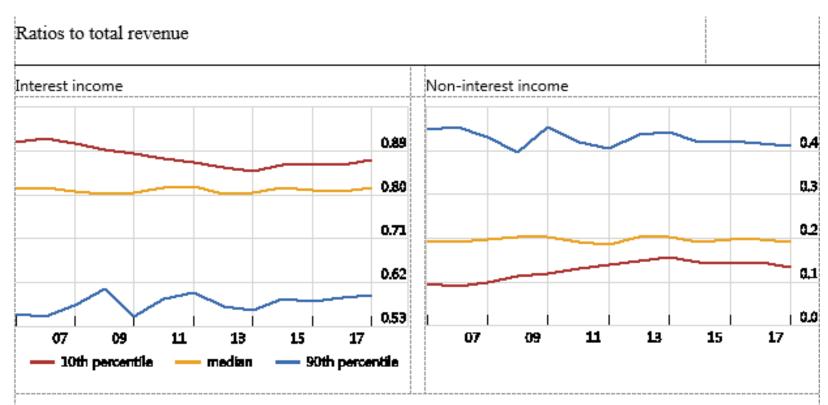
Big Banks Are Still Banks (1/2)



Source: authors' calculations using data from S&P Global. Based on a sample of roughly 2200 banks. The 10th and the 90th percentiles are based on total assets, where the 10th percentile represents the smallest banks by total assets in the sample and the 90th percentile, the largest banks.



Big Banks Are Still Banks (2/2)

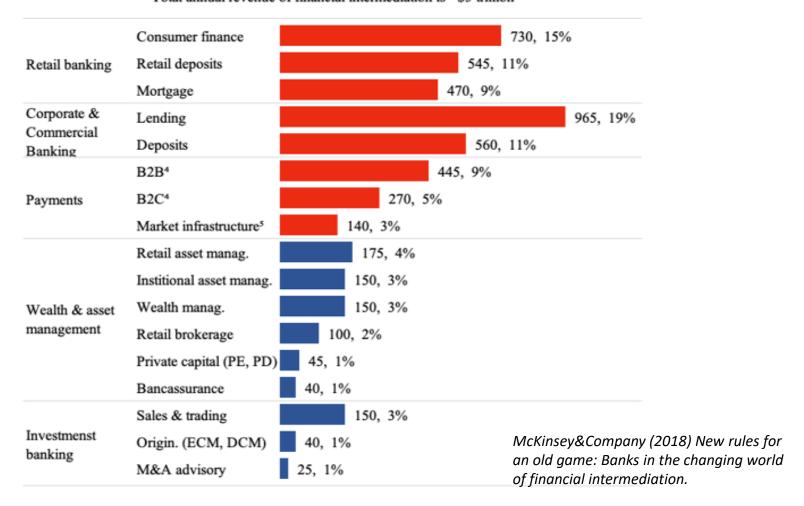


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"Traditional Banking" Revenue = 4/5 of Total Financial Intermediation



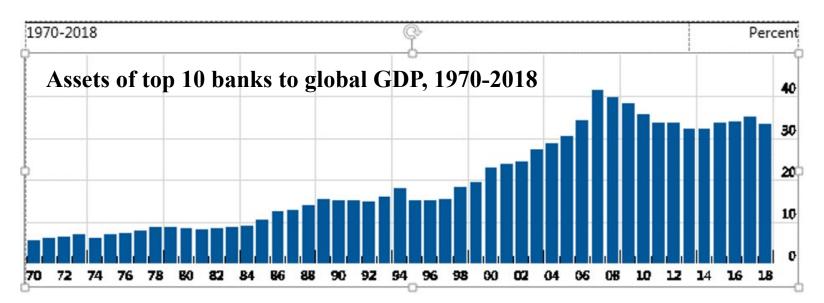
Annual revenue in 2017, % share of total - \$ billion Total annual revenue of financial intermediation is ~\$5 trillion





Big Banks: Scale and scope

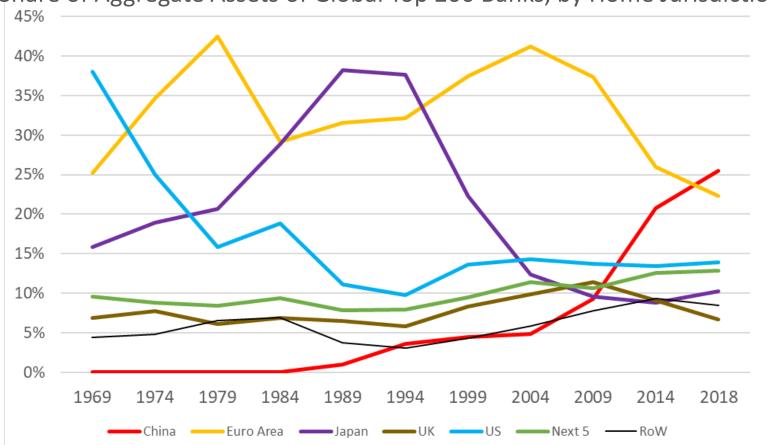
- Mixed evidence of scale and scope economies
- Pre-2000 studies: Banks exhaust scale economies at low levels of input
- 2000+ studies: stronger evidence especially in terms of costs
- But "ending TBTF" reforms could create incentives to downsize





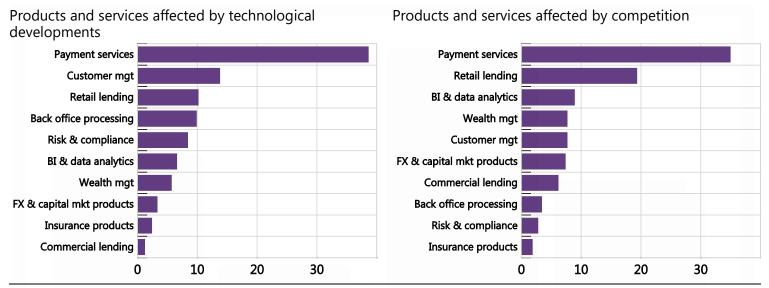
Big Banks: Geography

Share of Aggregate Assets of Global Top 200 Banks, by Home Jurisdiction

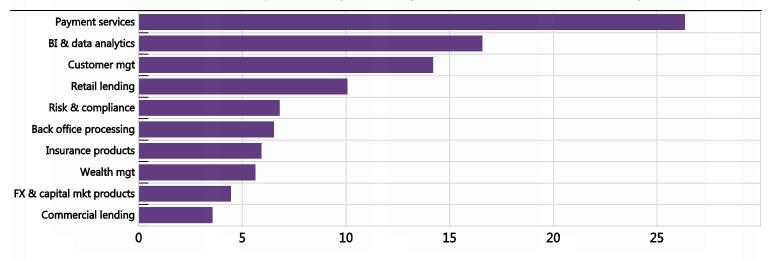


Source: The Banker Database, a service from The Financial Times Limited, 2019; authors' calculations. "Next 5" = AU, CA, CH, IN, KR; RoW = rest of world





Products and services that will be mostly affected by technological developments over the next 5 years





What FinTech Offers

- Speed & customization that banks can't offer:
 - "Instant" (<10 minute) bank onboarding
 - "Instant" loan decisioning and cash disbursement
 - Custom views of historical spend and expected future spend

- What enables FinTechs to do this:
 - Iterative, customer-backed product development
 - No slow-to-update legacy technology
 - Focus on automated, datadriven decisions
 - Ability to serve early adopters & early majority; does not have to contend with technology adoption laggards



What Big Tech Offers

- Big Techs' scale and scope enables them to:
 - Reach a wide group of potential customers
 - Leverage the trust of their users and aggregate data
 - Offer a broad suite of financial services potentially cheaper and more quickly than a bank

- What enables Big Techs to do this:
 - Very large networks (established through ecommerce platforms or messaging services)
 - Big Data & cutting edge technology



Big Tech in Banking?

- Separation of banking and commerce still relevant
 - US: Walmart was denied (ILC) banking license in 2005
 - Europe: less settled separation principle, but concerns about US-based Big Tech
 - China an outlier: Ant Financial, Tencent have banking licenses
- E-money and virtual banking licenses
- Early days



How Disruptive?

- Banks have survived many evolutions
- Online banking and challenger banks in the 1990s
- Example of Wingspan Bank
 - Much hope, much disappointment
 - A bit ahead of its time
 - A lot of misunderstanding of consumer demand

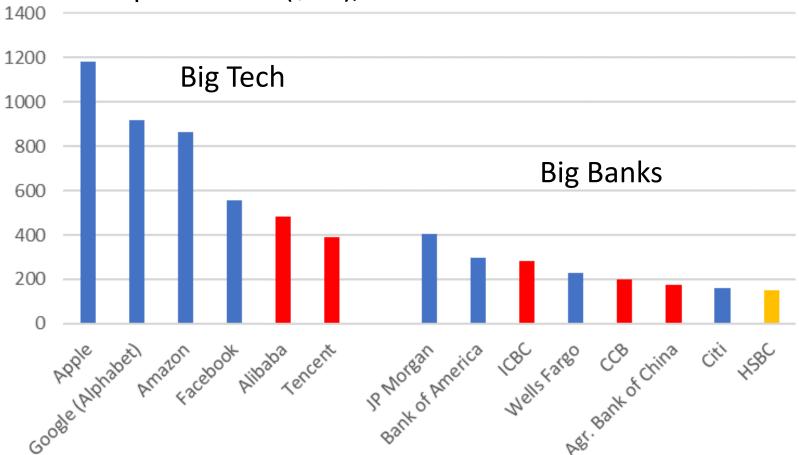
However, this time might be different

- Big Tech are very big
- Big banks are in check due to post crisis regulations
- Consumers are keen for better experience



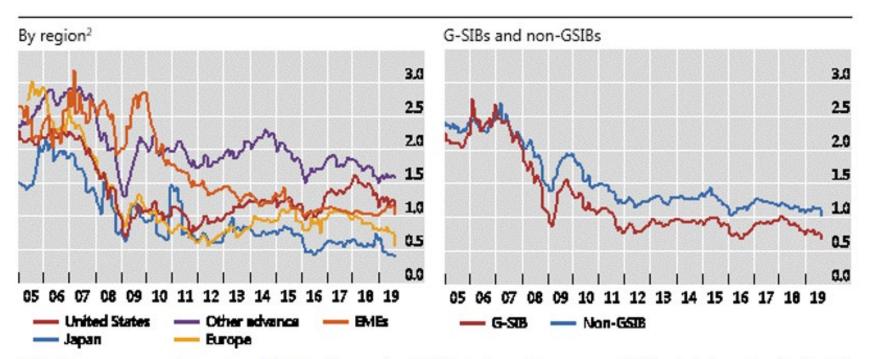
Big Tech Worth More than Big Banks

Market capitalization (\$bn), November 17 2019





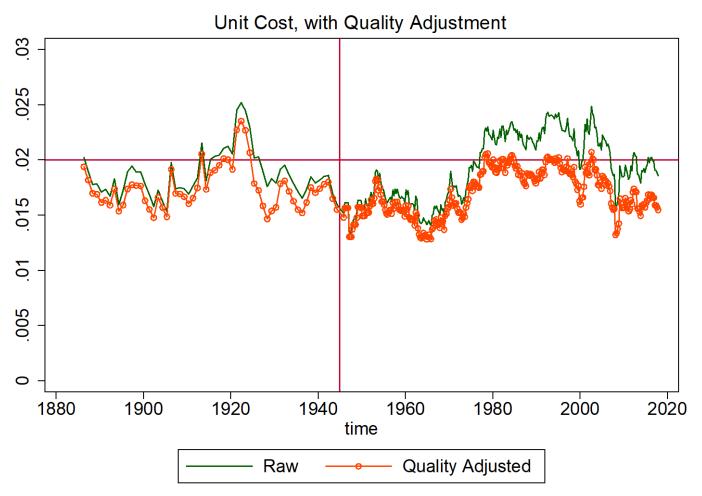
Price / Book Ratios Remain Low



Simple averages across the sample. ² Based on the sample of individual advanced economy and EME banks in Annex 2, subject to data availability. ³ Australia and Canada. ⁴ Brazil, China, Chinese Taipei, Hong Kong SAR, India, Israel, Korea, Malaysia, Mexico, Qatar, Russia, Saudi Arabia, Singapore, South Africa, Turkey and Venezuela.

Committee on the Global Financial System (2018). Structural changes in banking after the crisis. CGFS Papers No 60 (January).

Financial Efficiency: Up At Last? (US)



Philippon, T. (2015): Has the US finance industry become less efficient? On the theory and measurement of financial intermediation, AER 105 (4).



Policy Challenges

- Financial stability
 - Financial sector
 - Currencies
- Competition
- Data rights & obligations
- Consumer & investor protection
- Financial inclusion
- (National security)



Libra: Wake-Up Call

- June Proposal: Potential to become globally adopted, raises concerns of global currency / monetary policy transmission mechanism, financial stability
- Additional risks: AML/CFT compliance, data protection, consumer and investor protection, fair competition, tax compliance, market integrity
- Authorities highlighted need for globally consistent view on how Big Tech, FinTech, banks compete, exchange data & protect consumers

Significant work...and further engagement with the public and authorities will be required before they can expect approval by relevant authorities



International Coordination

- Pressures towards jurisdictional fragmentation
 - Could cripple desirable global data-driven business
 - Unavoidable vs avoidable fragmentation
- Supranational supervision?
 - Not for banks
 - Conceivably for some infrastructures?
 - Possibly for data service providers?



Wrap-Up

- Transformation still at early stage
- Likely to fall short of mass exitinction of banks
- Public policy choices will be critical
 - Financial regulators must embrace new technologies
 - Different preferences in different jurisdictions
 - Forthcoming frictions with competition / data regulators
 - Cross-border challenges: case for international experimentation