# Seminar: Fintechs and Digitalization of Banking (23104) — Syllabus —

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This is a master seminar course at Otto von Guericke University Magdeburg (OVGU). This course covers the research in Fintechs, digitalization of banking, and related new regulations. The goal of the course is for students to acquire knowledge of ongoing technological changes in financial services, especially banklike services, explore the economic and financial consequences of the digital transformation in bank-like financial services and develop the ability to present, discuss and write a research proposal in this field.

# **Format**

- Friday 11am, hybrid
- Classroom G22A-217 if in person

## Plan

- Introduction and Methodology
- Fintechs Review
- Fintechs Research Paper Presentation and Discussion
- Digital Banks Review
- Digital Banks Research Paper Presentation and Discussion
- Research Proposal

# Assessment

- (1) 35%, 20 min presentation of a paper
- (2) 50%, research proposal 3-4 pages on a related topic
- (3) 15%, discussion in class

**Submission Deadlines**: (1) Paper Pre Slides: the 24pm before your presentation day; (2) Research Proposal File: July 14 24pm.

**How to Submit**: send email to shasha.li@iwh-halle.de with the subject "TECHBANK23" and name your files as "StudentID\_paperslides.pdf" and "StudentID\_rp.pdf".

# Reading List

### Intro and How to

- René M Stulz. Fintech, bigtech, and the future of banks. *Journal of Applied Corporate Finance*, 31(4):86–97, 2019
- Anjan V Thakor. Fintech and banking: What do we know? Journal of Financial Intermediation, 41:100833, 2020
- Santiago Carbó Valverde and Francisco Rodríguez Fernández. Financial digitalization: banks, fintech, bigtech, and consumers. *Journal of Financial Management, Markets and Institutions*, 8(01):2040001, 2020
- Anne-Laure Mention. The age of fintech: Implications for research, policy and practice. *The Journal of FinTech*, 1(01):2050002, 2021
- Itay Goldstein, Wei Jiang, and G Andrew Karolyi. To fintech and beyond. The Review of Financial Studies, 32(5):1647–1661, 2019
- Franklin Allen, Xian Gu, and Julapa Jagtiani. A survey of fintech research and policy discussion. 2020
- Lucía Pacheco Rodríguez and Pablo Urbiola Ortún. From fintech to bigtech: An evolving regulatory response. *Boletín de Estudios Económicos*, 75(229):119–141, 2020
- Miguel De la Mano and Jorge Padilla. Big tech banking. *Journal of Competition Law & Economics*, 14(4):494–526, 2018
- Xavier Vives. Digital disruption in banking. *Annual Review of Financial Economics*, 11:243–272, 2019
- Tavneet Suri. Mobile money. Annual Review of Economics, 9:497–520, 2017

- Adolfo Barajas, Thorsten Beck, Mohamed Belhaj, Sami Ben Naceur, Valerie Cerra, and Mahvash Saeed Qureshi. Financial inclusion: what have we learned so far? what do we have to learn? *IMF Working Papers*, 2020(157), 2020
- X Vives. Digital disruption in banking and its impact on competition, 2020
- Luigi Wewege and Michael C Thomsett. The digital banking revolution. In *The Digital Banking Revolution*. De Gruyter, 2019
- Maryam Farboodi, Adrien Matray, Laura Veldkamp, and Venky Venkateswaran.
   Where has all the data gone? Technical report, National Bureau of Economic Research, 2020
- Matthew O. Jackson, Notes on Presenting a Paper
- Plamen Nikolov et al. Writing tips for economics research papers-2021-2022 edition. Technical report, Institute of Labor Economics (IZA), 2022

#### **Fintechs**

- Payment
  - Jean-Noël Barrot and Ramana Nanda. The employment effects of faster payment: evidence from the federal quickpay reform. The Journal of Finance, 75(6):3139–3173, 2020
  - Jialan Wang. To pay or autopay? fintech innovation and credit card payments. 2022
  - Pulak Ghosh, Boris Vallee, and Yao Zeng. Fintech lending and cashless payments. Available at SSRN 3766250, 2021
  - \* Sumit Agarwal, Wenlan Qian, Yuan Ren, Hsin-Tien Tsai, and Bernard Yin Yeung. The real impact of fintech: Evidence from mobile payment technology. Available at SSRN 3556340, 2020
  - Nicolas Crouzet, Apoorv Gupta, and Filippo Mezzanotti. Shocks and technology adoption: Evidence from electronic payment systems
  - Gabriel Chodorow-Reich, Gita Gopinath, Prachi Mishra, and Abhinav Narayanan. Cash and the economy: Evidence from india's demonetization. The Quarterly Journal of Economics, 135(1):57–103, 2020
  - \* Thorsten Beck, Haki Pamuk, Ravindra Ramrattan, and Burak R Uras. Payment instruments, finance and development. Journal of Development Economics, 133:162–186, 2018
  - \* Joshua Blumenstock, Michael Callen, Tarek Ghani, and Robert Gonzalez. Violence and financial decisions: Evidence from mobile money in afghanistan. The Review of Economics and Statistics, pages 1–45, 2014

- \* Michał Polasik, Agnieszka Huterska, Rehan Iftikhar, and Štěpán Mikula. The impact of payment services directive 2 on the paytech sector development in europe. Journal of Economic Behavior & Organization, 178:385–401, 2020
- Thorsten Beck, Leonardo Gambacorta, Yiping Huang, Zhenhua Li, and Han Qiu. Big techs, qr code payments and financial inclusion. 2022
- William Jack and Tavneet Suri. Risk sharing and transactions costs:
   Evidence from kenya's mobile money revolution. American Economic Review, 104(1):183–223, 2014

#### Lending

- Prashant Bharadwaj, William Jack, and Tavneet Suri. Fintech and household resilience to shocks: Evidence from digital loans in kenya.
   Technical report, National Bureau of Economic Research, 2019
- John M Griffin, Samuel Kruger, and Prateek Mahajan. Did fintech lenders facilitate ppp fraud? Journal of Finance, forthcoming, 2022
- Jian Li and Stefano Pegoraro. Borrowing from a bigtech platform.
   Available at SSRN, 2022
- Manasa Gopal and Philipp Schnabl. The rise of finance companies and fintech lenders in small business lending. NYU Stern School of Business, 2020
- \* Tobias Berg, Valentin Burg, Ana Gombović, and Manju Puri. On the rise of fintechs: Credit scoring using digital footprints. The Review of Financial Studies, 33(7):2845–2897, 2020
- Boris Vallee and Yao Zeng. Marketplace lending: A new banking paradigm? The Review of Financial Studies, 32(5):1939–1982, 2019
- Greg Buchak, Gregor Matvos, Tomasz Piskorski, and Amit Seru. Fintech, regulatory arbitrage, and the rise of shadow banks. *Journal of financial economics*, 130(3):453–483, 2018
- Li Liao, Zhengwei Wang, Jia Xiang, Hongjun Yan, and Jun Yang.
   User interface and firsthand experience in retail investing. The Review of Financial Studies, 34(9):4486-4523, 2021
- Qing He and Xiaoyang Li. The failures of peer-to-peer lending platform finance and politics. *Journal of Corporate Finance*, 66(101852), 2021
- Seth M Freedman and Ginger Zhe Jin. Learning by doing with asymmetric information: Evidence from prosper. com. Technical report, National Bureau of Economic Research, 2011
- Greg Buchak, Jiayin Hu, and Shang-Jin Wei. Fintech as a financial liberator. Technical report, National Bureau of Economic Research, 2021

- Greg Buchak, Gregor Matvos, Tomasz Piskorski, and Amit Seru. Fintech, regulatory arbitrage, and the rise of shadow banks. *Journal of financial economics*, 130(3):453–483, 2018
- Itzhak Ben-David, Mark J Johnson, and René M Stulz. Why did small business fintech lending dry up during march 2020? Technical report, National Bureau of Economic Research, 2021
- Julian Franks, Nicolas Serrano-Velarde, and Oren Sussman. Marketplace lending, information aggregation, and liquidity. The Review of Financial Studies, 34(5):2318–2361, 2021
- Fabio Braggion, Alberto Manconi, and Haikun Zhu. Can technology undermine macroprudential regulation? evidence from peer-to-peer credit in china. 2021
- Ha Diep-Nguyen and Jun Yang. Trust in crowdfunding: Experimental evidence from a fundraising campaign. Available at SSRN 3972418, 2021

#### • Investment and Business

- Cynthia A Pagliaro, Tarun Ramadorai, Alberto G Rossi, Stephen P Utkus, and Ansgar Walther. Algorithm aversion: Theory and evidence from robo-advice. Available at SSRN, 2022
- Francesco D'Acunto, Nagpurnanand Prabhala, and Alberto G Rossi.
   The promises and pitfalls of robo-advising. The Review of Financial Studies, 32(5):1983–2020, 2019
- Liudmila Alekseeva, Silvia Dalla Fontana, Caroline Genc, and Hedieh Rashidi Ranjbar. From in-person to online: the new shape of the vc industry. Available at SSRN, 2022
- Alejandro Lopez-Lira and Yuehua Tang. Can chatgpt forecast stock price movements? return predictability and large language models. Return Predictability and Large Language Models (April 6, 2023), 2023
- Maxime Bonelli. The adoption of artificial intelligence by venture capitalists. 2022

#### • Other: privacy, regulation, etc

- Bo Bian, Xinchen Ma, and Huan Tang. The supply and demand for data privacy: Evidence from mobile apps. Available at SSRN, 2021
- Jillian Grennan and Roni Michaely. Fintechs and the market for financial analysis. Journal of Financial and Quantitative Analysis, 56(6):1877-1907, 2021
- Iftekhar Hasan, Boreum Kwak, and Xiang Li. Financial technologies and the effectiveness of monetary policy transmission. Available at SSRN 3743203, 2020

- \* Jonathan Fu and Mrinal Mishra. Fintech in the time of covid-19: Trust and technological adoption during crises. Swiss Finance Institute Research Paper, (20-38), 2021
- Pengpeng Yue, Aslihan Gizem Korkmaz, Zhichao Yin, and Haigang Zhou. The rise of digital finance: Financial inclusion or debt trap? Finance Research Letters, page 102604, 2021
- Dario Salerno, Gabriele Sampagnaro, and Vincenzo Verdoliva. Fintech and ipo underpricing: An explorative study. Finance Research Letters, 44:102071, 2022
- Ayse Demir, Vanesa Pesqué-Cela, Yener Altunbas, and Victor Murinde.
   Fintech, financial inclusion and income inequality: a quantile regression approach. The European Journal of Finance, pages 1–22, 2020
- \* Gregor Becker. Does fintech affect household saving behavior. Journal of Economic Literature, 2017
- Claire Yurong Hong, Xiaomeng Lu, and Jun Pan. Fintech adoption and household risk-taking. Technical report, National Bureau of Economic Research, 2020
- \* Jei Young Lee. A decentralized token economy: How blockchain and cryptocurrency can revolutionize business. *Business Horizons*, 62(6):773-784, 2019
- Francesco D'Acunto, Alberto G Rossi, and Michael Weber. Peer effects in consumption: The role of information. Chicago Booth Research Paper, (19-09), 2022
- Ankit Kalda, Benjamin Loos, Alessandro Previtero, and Andreas Hackethal. Smart (phone) investing? a within investor-time analysis of new technologies and trading behavior. Technical report, National Bureau of Economic Research, 2021
- Can Blockchain Technology Help Overcome Contractual Incompleteness? Evidence from State Laws (Mark Chen1, Sophia Shuting Hu2, Joanna Xiaoyu Wang1, Qinxi Wu2 EFA 2023)

#### Digitalization of Banking

- Empirical
  - Lending
    - \* Manasa Gopal and Philipp Schnabl. The rise of finance companies and fintech lenders in small business lending. NYU Stern School of Business, 2020
    - \* Tetyana Balyuk, Allen N Berger, and John Hackney. What is fueling fintech lending? the role of banking market structure. The Role of Banking Market Structure (June 23, 2020), 2020

- \* Panagiotis Avramidis, Nikolaos Mylonopoulos, and George G Pennacchi. The role of marketplace lending in credit markets: Evidence from bank mergers. *Management Science*, 2021
- \* \* Huan Tang. Peer-to-peer lenders versus banks: substitutes or complements? The Review of Financial Studies, 32(5):1900–1938, 2019
- \* Andreas Fuster, Paul Goldsmith-Pinkham, Tarun Ramadorai, and Ansgar Walther. Predictably unequal? the effects of machine learning on credit markets. *The Journal of Finance*, 77(1):5–47, 2022
- \* Marco Di Maggio and Vincent Yao. Fintech borrowers: Lax screening or cream-skimming? The Review of Financial Studies, 34(10):4565–4618, 2021
- \* Vitaly M Bord, Victoria Ivashina, and Ryan D Taliaferro. Large banks and small firm lending. *Journal of Financial Intermedia*tion, 48:100924, 2021
- \* Robert Bartlett, Adair Morse, Richard Stanton, and Nancy Wallace. Consumer-lending discrimination in the fintech era. *Journal of Financial Economics*, 143(1):30–56, 2022
- \* Calebe De Roure, Loriana Pelizzon, and Anjan V Thakor. P2p lenders versus banks: Cream skimming or bottom fishing? 2021
- $\ast$  Clément Mazet-Sonilhac. Information frictions in credit markets. Available at SSRN 3969990, 2021
- \* \* Allen N Berger and Lamont K Black. Bank size, lending technologies, and small business finance. *Journal of Banking & Finance*, 35(3):724–735, 2011
- \* Quirin Fleckenstein, Manasa Gopal, German Gutierrez Gallardo, and Sebastian Hillenbrand. Nonbank lending and credit cyclicality. NYU Stern School of Business, 2020
- \* Paul Beaumont, Huan Tang, and Eric Vansteenberghe. The role of fintech in small business lending. *Available at SSRN 4260842*, 2022
- \* Taylor A Begley and Kandarp Srinivasan. Small bank lending in the era of fintech and shadow banking: a sideshow? Northeastern U. D'Amore-McKim School of Business Research Paper, (3317672), 2021
- Technology Adoption and Digital Transformation
  - \* Hyun-Soo Choi and Roger Loh. Physical frictions and digital banking adoption. *Available at SSRN 3333636*, 2021
  - \* \* S Ananda, Sonal Devesh, and Anis Moosa Al Lawati. What factors drive the adoption of digital banking? an empirical study from the perspective of omani retail banking. *Journal of Financial Services Marketing*, 25(1):14–24, 2020

- \* \* Moritz Jünger and Mark Mietzner. Banking goes digital: The adoption of fintech services by german households. Finance Research Letters, 34:101260, 2020
- \* Timothy H Hannan and John M McDowell. The determinants of technology adoption: The case of the banking firm. *The RAND Journal of Economics*, pages 328–335, 1984
- \* Yannick Timmer, Nicola Pierri, Toni Ahnert, and Sebastian Doerr. Does it help? information technology in banking and entrepreneurship. *Information Technology in Banking and Entrepreneurship (August 2021)*. *IMF Working Paper*, (2021/214), 2021
- \* \* Nicola Pierri and Yannick Timmer. The importance of technology in banking during a crisis. 2021
- \* Alan Kwan, Chen Lin, Vesa Pursiainen, and Mingzhu Tai. Stress testing banks' digital capabilities: Evidence from the covid-19 pandemic. Available at SSRN 3694288, 2021
- \* Zhiguo He, Sheila Jiang, Douglas Xu, and Xiao Yin. Investing in lending technology: It spending in banking. *University of Chicago, Becker Friedman Institute for Economics Working Paper*, (2021-116), 2021
- \* Erica Xuewei Jiang, Gloria Yang Yu, and Jinyuan Zhang. Bank competition amid digital disruption: Implications for financial inclusion. Available at SSRN 4178420, 2022

#### - Banks vs Fintechs

- \* Milan Frederik Klus, Todor Stefan Lohwasser, Friedrich Holotiuk, and Jürgen Moormann. Strategic alliances between banks and fintechs for digital innovation: motives to collaborate and types of interaction. *The Journal of Entrepreneurial Finance*, 21(1):1, 2019
- \* Oana Peia, Theodor Cojoianu, Doina Caragea, Mihai Dobri, and Andreas GF Hoepner. Competition and innovation in the financial sector: evidence from the rise of fintech start-ups. *Available at SSRN 4021161*, 2022
- \* Emma Li, Mike Qinghao Mao, Hong Feng Zhang, and Hao Zheng. Banks' investments in fintech ventures. Journal of Banking & Finance, 149:106754, 2023

#### - Investment

- \* Ankit Kalda, Benjamin Loos, Alessandro Previtero, and Andreas Hackethal. Smart (phone) investing? a within investor-time analysis of new technologies and trading behavior. Technical report, National Bureau of Economic Research, 2021
- \* Federico Carlini, Belinda Laura Del Gaudio, Claudio Porzio, and Daniele Previtali. Banks, fintech and stock returns. Finance Research Letters, 45:102252, 2022

#### - Deposit

\* Yueteng Zhu and Jiajun Lu. Fintech and bank intermediation—evidence from the deposit market in china. *Available at SSRN* 4030108, 2021

#### - Monetary Policy

- \* Anne Lundgaard Hansen and Sophia Kazinnik. Can chatgpt decipher fedspeak? Available at SSRN, 2023
- \* Iftekhar Hasan and Xiang Li. Technology adoption and the bank lending channel of monetary policy transmission. *Available at SSRN 3928813*, 2021
- \* Yiping Huang, Xiang Li, Han Qiu, and Changhua Yu. Bigtech credit and monetary policy transmission: Micro-level evidence from china. *Available at SSRN 4176100*, 2022

#### • Theory

- Dan Su. The macroeconomics of techfin. Available at SSRN 3965971, 2021
- Yasser Boualam and Paul Yoo. Fintech disruption, banks, and credit (dis-) intermediation: When do foes become friends? Banks, and Credit (Dis-) Intermediation: When Do Foes Become Friends, 2022
- Zhiguo He, Jing Huang, and Jidong Zhou. Open banking: credit market competition when borrowers own the data. Technical report, National Bureau of Economic Research, 2020
- Jason Roderick Donaldson, Giorgia Piacentino, and Anjan Thakor.
   Intermediation variety. The Journal of Finance, 76(6):3103-3152, 2021
- Toni Ahnert, Peter Hoffmann, and Cyril Monet. The digital economy, privacy, and cbdc. 2022