

## Banking and Financial Technology

**Department:** Fudan International Summer Session 2024

<b>Course Code</b>	ECON130283		
<b>Course Title</b>	Overseas Lecturers' Short Courses 海外学者专题 (Note: Topic for 2024: Banking and Financial Technology)		
<b>Credit</b>	2	<b>Credit Hours</b>	36+3 tutorial hours (one credit hour is 45 minutes)
<b>Course Nature</b>	<input type="checkbox"/> Specific General Education Courses <input type="checkbox"/> Core Courses <input checked="" type="checkbox"/> General Education Elective Courses <input type="checkbox"/> Basic Courses in General Discipline <input type="checkbox"/> Professional Compulsory Courses <input type="checkbox"/> Professional Elective Courses <input type="checkbox"/> Others		
<b>Course Objectives</b>	Acquire basic knowledge about bank and fintech business models and risks; understand the functioning of contemporary financial technologies and discuss their merits and flaws; evaluate the impact of digitalization and fintech firm entrants on the banking sector.		
<b>Course Description</b>	<p>This course introduces banks and their business models and discusses how trends in financial technologies affect the banking sector. The course combines academic rigour and literature review with practical insights from case studies, e.g., based on financial statements and industry reports.</p> <p>First, we will discuss the role of banks in the financial system and why they exist. We briefly introduce the business model of banks and take a closer look at their balance sheets. We focus on the different aspects of how banks are managed and issues relating to banks' asset and funding structure and then analyse the various risks they are exposed to, their measurement, and how banks manage these risks.</p> <p>Second, regarding FinTech and digital disruption in banking, we will develop a conceptual framework that guides us in thinking about innovation in banking and briefly introduce the financial technologies which enable respective innovation and disruption and the policies around them (e.g., Open Banking/PSD2). We then focus on analysing the business model of new fintech firm entrants competing with incumbent banks and how the use of financial technologies enhances banks' business models. We will cover fintech lending as a complement or substitute to traditional bank lending. Finally, we peruse applications of distributed ledger technology in banking and financial markets, such as blockchains and smart contract based financial protocols, and discuss how they disrupt traditional financial intermediation processes.</p>		
<b>Course Requirements: (Pre-reqs)</b>			
Prerequisites: None.			

**Teaching Methods:**

Lectures, numerical exercises and case studies in groups; group presentations and discussions.

**Instructor's Academic Background:**

Professor Felix Irresberger, professor of Finance at Durham University (UK)

PhD in Finance

MSC in Statistics

MSC in Mathematics

BSC in Mathematics

<https://www.durham.ac.uk/business/our-people/felix-irresberger/>

**Course Schedule**Banking Basics

- Bank Balance Sheets
- Interest Rate Risks
- Commercial Bank Loan Portfolios
- Liquidity Management
- Funding Structure & Capital Adequacy
- Securitisation

Digital Disruption in Banking & FinTech Business Models

- Innovation and Efficiency in Banking
- Current Trends and Policies in Banking & FinTech (e.g., Challenger/NEO Banks & Open Banking Ecosystems)
- FinTech Lending (Peer-to-Peer, ML/AI in credit & advisory)
- Digital Money & Payment Systems (E-Money, CBDC vs Bitcoin)
- Blockchain Applications in Banking (Smart Contracts, Automated Market Makers, Lending Pools, Tokenisation)

**The design of class discussion or exercise, practice, experience and so on:****Grading & Evaluation:**

Group presentations and oral feedback / Analyst slide deck.

Final grade will be P/NP.

**Teaching Materials & References (Including Author, Title, Publisher and Publishing time):**

Banking

Materials in the banking portion of the module would primarily be drawn from the following two textbooks. The readings from these textbooks would form the core of the “essential reading”.

**1. Saunders, Cornett and Erhemjants (2021).** *Financial Institutions Management: A Risk Management Approach*, Tenth Edition, International Edition, McGraw Hill.

**2. Casu, Girardone and Molyneux (2015).** *Introduction to Banking*, Second Edition, Pearson.

Additional materials such as academic journal articles would be made available throughout the sessions.

FinTech/Digital Disruption in Banking

Financial technology in the context of banking is an emerging, contemporary area so that reading material will be drawn from various sources that are not necessarily covered by existing textbooks. Reading material will be made available throughout the sessions and may include industry reports, academic journal articles and excerpts from books and financial news websites (e.g., the Financial Times). Overview articles may include the following:

- Vives, X. (2019): “Digital Disruption in Banking.” *Annual Review of Financial Economics*, 11, 243-272.
- Thakor, A.V. (2020): “Fintech and banking: What do we know?” *Journal of Financial Intermediation*, 41.
- Berg, T.; Fuster, A.; Puri, M. (2022): “FinTech Lending.” *Annual Review of Financial Economics*, 14, 1-21.
- Morse, A. (2015): “Peer-to-Peer Crowdfunding: Information and the Potential for Disruption in Consumer Lending.” *Annual Review of Financial Economics*, 7, 463-482.
- Tang, H. (2019). “Peer-to-Peer Lenders versus Banks: Substitute or Complements?” *Review of Financial Studies*, 32(5), 1900-1938.
- Babina, T. et al. (2022): “Customer Data Access and Fintech Entry: Early Evidence from Open Banking.” *Stanford University Graduate School of Business Research Paper*.
- Suri, T. (2017): “Mobile Money.” *Annual Review of Economics*, 9, 497-520.
- Adrian, T.; Mancini-Griffoli, T. (2021): “The Rise of Digital Money.” *Annual Review of Financial Economics*, 13, 57-77.
- Auer, R. et al. (2022): “Central Bank Digital Currencies: Motives, Economic Implications, and the Research Frontier.” *Annual Review of Economics*, 14, 697-721.
- McAndrews, J.; Nosal, E.; Rocheteau, G. (2011): “Payment Systems.” *Annual Review of Financial Economics*, 3, 259-287.
- John, K.; O’Hara, M.; Saleh, F. (2022): “Bitcoin and Beyond.” *Annual Review of Financial Economics*, 14, 1-21.
- Catalini, C.; de Gortari, A.; Shah, N. (2022): “Some Simple Economics of Stablecoins.” *Annual Review of Financial Economics*, 14, 1-19.
- John, K.; Kogan, L.; Saleh, F. (2022): “Smart Contracts and Decentralized Finance.” *Annual Review of Financial Economics*, forthcoming.

