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Technological change, data and banking competition: account interest rates

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A brief bio and background of the instructor

Professor Markos Zachariadis



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Currently:

- **Professor/Chair** in Financial Technology (FinTech) & Information Systems & **Director** of the **Centre for Financial Technology Studies (CFTS)** at the **Alliance Manchester Business School**
- FinTech Research Fellow, Cambridge Digital Innovation (CDI), **University of Cambridge**
- AI in Financial Services Initiative, **World Economic Forum**
- Consultant, Project Rosalind, **Bank for International Settlements**
- Advisory Board member, **Abu Dhabi Global Markets (ADGM) Academy**
- Member of the **UK FinTech Strategy Group**
- International Faculty at **ALBA Graduate Business School**
- Research advisor on Banking Competition, **Hellenic Competition Commission (HCC)**

Previously:

- Member of the **Open Finance Taskforce** (HM Treasury) & **CFIT**
- Executive Education, **Oxford Said Business School, Oxford University**
- Member of the **Open Banking Expert Consumer Group**, Open Banking Limited (OBIE)
- Chief FinTech Advisor to the President, **Hellenic Competition Commission (HCC)**
- Associate Professor in Information Systems & Management, **Warwick Business School**
- Visiting Professor in Financial Technologies (FinTech), **Ivey Business School**
- Visiting Professor in Financial Technology, **The Antai College of Economics and Management, Shanghai Jiao Tong University**
- Research Associate at the **London School of Economics**, Dept. of Management, Information Systems & Innovation Group
- Research Associate at **Judge Business School**, University of Cambridge
- Visiting Scholar and Tutorial Fellow, at **London Business School**, Dept. of Management Science and Operations
- Research Economist at the **Centre for Economic Performance**, London School of Economics

- Business Analyst at **UBS Investment Bank**, London office
- Sales Operations & Transactions Management at **Hewlett Packard (HP)**, Greece and Spain



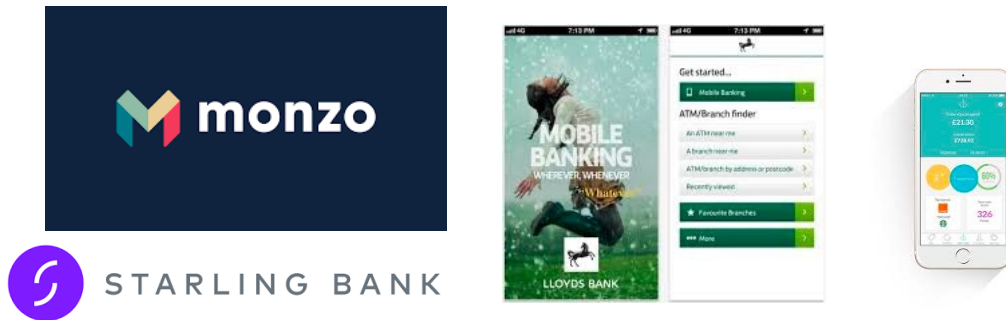


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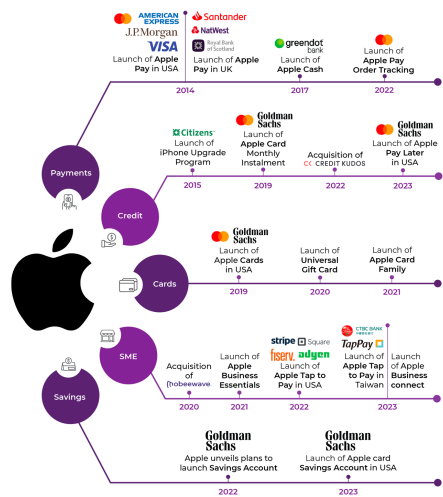
Emerging Banking competition from 'Neo-banks' BankTech or Digital Banking

- “E-Banking”: mobile banking, digital-only (branchless) banks, online banking - “app economy”...
- Examples: Mobile Apps, challenger banks, etc.

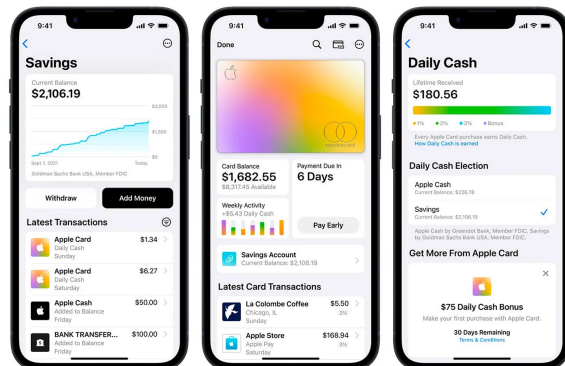


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Banks acing competition from outside-in BigTech competition



- Apple is now offering savings products in the US.



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Deposits, Savings Accounts & Bank Intermediation

What does the literature say?

Key role of banks

- Banks transform short-term deposits into long-term loans (financial intermediation).
- They earn income from the spread between loan and deposit interest rates.
- Deposit and savings accounts are rewarded with interest, but at lower rates than loans.

Why the spread matters

- Ensures banks can manage risk and remain profitable.
- Raises questions about:
 - Appropriate size of the spread
 - Speed of adjustment to central bank policy rates

Macroeconomic relevance

- Retail interest rates are crucial for monetary policy transmission.
- Interest rate pass-through is a key focus for policymakers and researchers.

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Interest Rate Pass-Through Framework

What does the literature say?

Traditional (money) view

- Policy rates should transmit one-for-one to retail bank rates.
- Assumes homogeneous bank behaviour.
- Known as the **completeness hypothesis**.

Credit view

- Banks differ in financial structure.
- Leads to heterogeneous pricing behaviour across institutions.

Microeconomic insights

- Pass-through analysis reveals banks' pricing motivations.
- Bank-specific differences help test theoretical models.

Types of retail deposit products

Time deposits: fixed maturity, predetermined rate.

Savings accounts: flexible access, floating rate.

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Macroeconomic Determinants of Deposit Rates

What does the literature say?

Three main variable groups

- Macroeconomic factors
- Bank-specific factors
- Account-specific factors

1) Key macro drivers

- Market interest rates
- Inflation
- Market rate volatility
- Stock market volatility

2) Factors typically associated with lower deposit rates

- Economic growth (higher income increases deposit supply)
- Higher bank market concentration (market power hypothesis)

3) Important dynamics

- Deposit rates tend to follow interbank rates.
- Time deposits show stronger long-run pass-through than savings accounts.
- Inflation expectations may directly influence retail rates.

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Bank-Specific Determinants

What does the literature say?

Market discipline mechanism

- Depositors demand higher rates from riskier banks.
- Deposit insurance weakens this sensitivity.

Core risk indicators

- CDS credit spreads
- Credit ratings
- BIS capital ratio

Expected relationships

- Higher bank risk → higher deposit rates
- Strong capitalization → lower funding costs
- Weakly capitalized banks compete aggressively for deposits

Other bank characteristics

- Deposit funding gap → higher offered rates
- Lower liquidity → higher deposit rates
- Greater efficiency may allow more competitive pricing
- Challenger banks sometimes use higher rates to gain market share

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Account Features & Crisis Context

What does the literature say?

Account-specific pricing factors

- Longer maturity → higher rates (time deposits).
- Withdrawal fees → typically compensated with higher rates.
- Bonus/loyalty rates → associated with higher returns.
- Minimum balance requirements → often linked to higher rates.
- Payment frequency (monthly/quarterly) can affect effective yield.

Financial crisis considerations

- During crises, bank risk may lose power.
- Government guarantees can distort depositor discipline.
- Country experience matters:
 - US/EU saw extensive interventions.
 - Dutch market experienced multiple bank failures and nationalisations.

Key takeaway

- Deposit pricing must be analysed within each country's institutional and historical context.

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Regulation in financial services

Conflicting targets



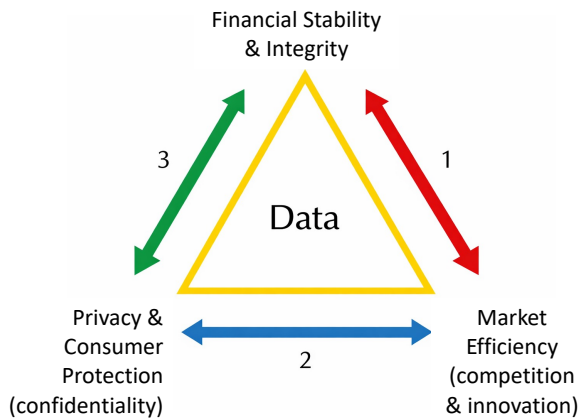
- The mandate of the regulators is to guarantee **stability and integrity** of the market, **competition**, fair **consumer protection**.
- These are often in conflict usually at the expense of competition which produces high-entry costs & lack of innovation (SSE & PA, 2017)
- In 2016, FS which amounts to 6% of global GDP, spent less than 1.5% of global R&D expenditure (OECD, 2017).

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Data are central to future financial services policies and regulation

New trade-offs in the digital economy



- (1) the ‘traditional’ stability-competition trade-off.
- (2) trade-off between access to data for private providers and anonymity (e.g., better/worse access to credit versus the risk of misuse of data).
- (3) trade-off between access to data for regulatory goals vs anonymity and privacy (e.g., the application of AML/ CFT or supervisory data versus privacy).

Sources: Petralia et al. (2019); Carletti et al. (2020)

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How lack of access to Data distorts competition

HCC chapter "Η διαμόρφωση των επιτοκίων καταθέσεων" (adapted from ODI & Fingleton, 2014)

Conditions of a well-functioning market	Current issues in the banking deposit and savings account rates	How access to data and data portability can improve market outcomes
Price transparency	The setting of deposit and savings rates are highly opaque with little room for effective and meaningful comparison between market offerings.	Improving access to deposit rates data for consumers will enable them to fully exploit competition by comparing offers and choosing the most advantageous based on their circumstances.
Quality transparency	Terms and conditions between different account offerings (deposits or savings) can be confusing as well as non-transparent leading to non-optimal decisions by consumers who struggle to understand the differences.	Improving information and data around the terms and conditions of various account services will enable consumers to compare offers meaningfully and choose the most advantageous, thus, fully exploiting competition between providers.
Low switching costs	Customers struggle to switch accounts as the process requires complex KYC operations and are time-consuming to perform. In additions, customers face challenges by losing their account history, having to issue new IBANs, and set from the beginning all payments arrangements to/from their accounts.	Simplifying the administrative and technological (data portability) constraints involved in changing banks and especially associated with loss of account history, difficulties in transferring direct debits, etc. (information costs).
Low barriers to entry	Competitors currently do not have access to savings accounts customer data in order to interrogate these and come up with alternative and more competitive offerings that match the customers’ needs. This creates a large barrier to entry for other banks or non-bank competitors.	If alternative providers were able to access customer data from their deposit and savings accounts, they could use it to make more accurate decisions around personalised and competitive offerings to potential customers without being at an informational disadvantage compared to incumbent players in the market.

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Changes in the industry

Changing banking architecture → more modular

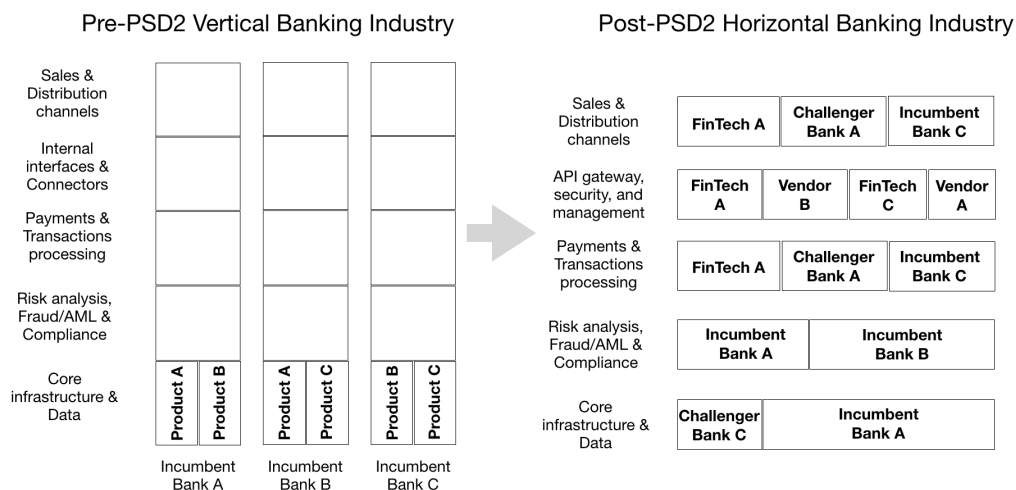
- Open Banking will potentially change the way banks operate and will lead to a more **”modular” architecture** and way of organizing.
- Banks operate on a **traditional “pipeline” business model**/arrangement. They produce everything themselves (vertical integration).
- Opening up their APIs will potentially allow to 3rd party developers to deliver parts of the **value chain** of the banking service (e.g. distribution, or API layer, etc.)



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Changes in the industry

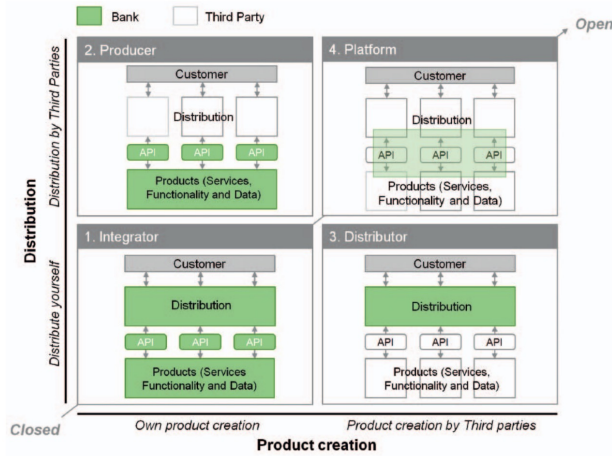
Changing banking architecture → more modular



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New business models for banks in the emerging financial value chain

From integrators to producers, platforms and distributors



- We have identified 4 types of business models or roles banks can play that are emerging due to PSD2 regulation:
 - Incumbent bank platforms
 - Challenger platform banks
 - API Aggregator platforms
 - Account Aggregator platforms

Source: e.g. EBA; Dinckol, Ozcan & Zachariadis (2026) Markos Zachariadis

Business model innovation

JP Morgan Chase: Open Banking – research results!

What our research says!



Open data and API adoption of U.S. banks

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ABSTRACT
Bank adoption of external application programming interfaces (APIs) enables bank customers to share their data more efficiently and securely with other third-party financial institutions and fintechs, thus enabling open banking and bank data portability. Analyzing determinants of API adoption by U.S. banks from 2007 to 2022, we show that banks that adopt APIs tend to be larger and face lower competitive pressures. The announcement of President Biden's executive order in July 2021 encouraged increased bank data portability and led to an acceleration in bank API adoption. Banks that adopt APIs experience an increase in Return on Assets (ROA) and Tobin's Q and a decrease in loan loss provisions, particularly after President Biden's executive order. We find that APIs' ability to facilitate data access and sharing improves bank information flows and supports banks' loan and deposit services which form the foundation of notable improvements in bank performance. Overall, our results on the determinants and implications of API adoption have important policy implications for the discussion on open banking regulation and bank data portability.

1. Introduction
The recent decades have seen a transformation of the banking landscape, with respect to the adoption of Information Technology (IT) by traditional banks and the advent of FinTechs which created additional pressure on the retail banking sector. Furthermore, the financial services sector has experienced a drive for open data in recent years, reflected in regulatory open banking initiatives in several countries that have compelled banks to provide their customers with greater access to their data (such as their transaction and credit history) and more control to share such data with other third-party providers and financial institutions. While discussions on open banking in the U.S. have been more focused on voluntary market-based initiatives, the Biden administration published an executive order on July 9, 2021, that "encourage[s] the Consumer Financial Protection Bureau (CFPB) to issue rules allowing consumers to download their bank data and take it with them", enhancing data portability for bank customers.¹

Analyzing determinants of API adoption by U.S. banks from 2007 to 2022, we show that banks that adopt APIs tend to be larger and face lower competitive pressures. The announcement of President Biden's executive order in July 2021 encouraged increased bank data portability and led to an acceleration in bank API adoption. **Banks that adopt APIs experience an increase in Return on Assets (ROA) and Tobin's Q and a decrease in loan loss provisions, particularly after President Biden's executive order.** We find that APIs' ability to facilitate data access and sharing improves bank information flows and supports banks' loan and deposit services which form the foundation of notable improvements in bank performance. Overall, our results on the determinants and implications of API adoption have important policy implications for the discussion on open banking regulation and bank data portability.

Cited in US Congress Research!!!!

<https://www.congress.gov/crs-product/IF/>



Access to Consumer Financial Data: Open Banking and the CFPB's Section 1033 Rule

Open banking refers to a relationship among consumers, financial services providers, and authorized third parties that enables consumers to transfer their information electronically from one firm to another for varied purposes. Motivations for open banking include making it easier to move financial accounts between providers and enabling the flow of information to novel applications. However, the degree to which adoption of open banking should be

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⁴ The European Union countries and the United Kingdom are working towards an open financial framework with the implementation of the EU Payment Services Directive 2 (PSD2) and the open banking initiative. See Jaitta et al. (2020) for an overview of open banking regulation in different countries.

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Key themes and debates around developing an open finance framework Regulating (or not!) data-sharing in financial services

DATA-SHARING FRAMEWORKS IN FINANCIAL SERVICES: FINAL REPORT
Discussing Open Banking Regulation for Canada



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- Data openness and competition (types of data access and permission)
- Digital Identity & Identification of TPPs (ledger of regulated TPPs)
- API adoption and standards (OBIE is a good example)
- Security (authorization and authentication standards as well as standardized permission frameworks)
- Data standards (ISO 20022)
- Payment systems (access and relevance)

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Improving Transparency, Data Portability, and Market Access Possible recommendations

Goal: Empower consumers with information and remove structural barriers.

- **Increase transparency in savings products**
 - Require banks to present products in clear, understandable formats.
 - Include concrete calculation examples of returns.
 - Mandate annual communication on interest structure.
 - Improve data availability for comparison websites.
- **Extend PSD2 to savings and interoperability**
 - Establish industry-wide standards for data portability & allow customers to transfer transaction history when switching banks.
 - Enable reusable KYC/identification processes across banks.
 - Reduce onboarding friction for consumers and SMEs.
- **Remove forced product bundling**
 - Allow fully functional savings accounts without requiring a checking account and prohibit banks from tying savings access to current accounts.
 - Eliminate unnecessary switching barriers and boost competition.

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Enhancing Account Switching and Portability

Possible recommendations

Goal: Lower barriers and increase competition in the deposit and savings market.

Introduce a mandatory bank switching service

- Allow consumers to instruct the new provider on transfer.
- Old and new banks settle the transfer. automatically
- Improve on past initiatives (e.g., UK CASS, PSD2) with stronger execution and usability.
- Ensure effectiveness for both consumers and SMEs. amounts



Implement IBAN number portability

- Enable customers to switch banks without changing account numbers.
- Reduce switching costs and administrative burden.
- Prevent disruption to existing payment setups (especially for SMEs).
- Increase customer mobility and competitive pressure on banks.

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Thank you!

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