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Open Banking: Lessons, Challenges, and Opportunities

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I. Executive Summary

In October 2024, the Consumer Financial Protection Bureau (CFPB) released its final rule on Personal Financial Data Rights, known as the Open Banking rule, but also popularly known as the Section 1033 rule from its section in the Dodd-Frank banking regulation legislation. Open banking is when customer financial data is shared between financial institutions and third parties with customers' consent. The rule mandated data sharing availability, established an authorization scheme for third parties, and detailed data privacy expectations. This is the first overarching regulation meant to develop open banking in the United States. With it, the United States switches from allowing open banking to grow via the market towards the models of regulatory-driven open banking initiatives like those in Europe, Australia, and Brazil.

The rule brought greater attention to the concept and future of open banking, which is often held up as a solution to current inefficiencies and inequities. Examples of use cases include allowing consumers to aggregate their data into one convenient platform, facilitating direct payments, and expanding the idea of what constitutes credit. Open banking is also intended to do away with the problematic practice of screen scraping, or the use of customer's login details by third-party aggregators. Ultimately, open banking is meant to be consumer-oriented technology, bringing ordinary people greater freedom of choice, access to services, and determination over their own data.

However, there have been a number of concerns and issues raised over the implementation of open banking. From the banks' perspective, open banking may be an unfair deal, putting uneven liability and onus on banks for data security and application programming interface (API) construction costs. From the perspective of fintechs, the lack of technological standardization has been an issue. Most importantly, from the perspective of consumers, open banking may fail to resonate with actual needs and present data privacy and security risks against a backdrop of rising data privacy-related distrust. By examining global instances of open banking, we conclude that for open banking to succeed, it must have a standardized technological foundation; it must address widely necessary, repetitive financial tasks; and it must actively contend with probable low rates of usage.

II. What is open banking?

Open banking is the sharing of financial data between financial institutions and third parties, typically through application programming interfaces (APIs), with consumers' express consent. In other words, the goal of open banking is to give consumers the option to allow third parties—usually fintech companies—access to their finances in order to receive improved services¹.

¹ Chengbo Xie and Sijia Hu, "Open Banking: An Early Review," *Journal of Internet and Digital Economics* 4, no. 2 (July 5, 2024), <https://doi.org/10.1108/jide-03-2024-0009>.

History

Open banking became of interest as an element of the larger conversation around digitizing modern banking and the growth of fintech, especially in the payments market.² However, the concept rose in prominence after the EU's 2015 adoption and 2018 enactment of their Payment Services Directive (PSD2), an endeavor aimed at integrating European markets.³ PSD2 mandated banks to provide technology, usually APIs, that would allow third-party providers to access consumers' account information and process payments. Shortly after, the term "open banking" itself was enshrined in legislation by the UK's Open Banking Standard.

Since then, open banking has continued to grow around the world, usually under two main kinds of regimes: regulatory-led and market-led. The EU and Australia are examples of regulatory-led open banking environments. PSD2 is seen as the progenitor of contemporary open banking, and the EU has since continued to amend regulations to encourage open banking. Australia's counterpart to PSD2 is 2017's Consumer Data Right Act (CDR), a broader initiative meant to eventually act as a framework for all consumer data sharing, though the banking industry was the first and is the primary area of application. Meanwhile, countries like India and Singapore have relied on market-led approaches to developing open banking: unlike the EU and Australia, regulators have not mandated data sharing from banks, at most issuing guidelines for private actors to consult.⁴ In these places, the growth of open banking is characterized by pre-emptive adoption by banks seeking to take advantage of an opportunity to digitize.

Before the recent inclination towards open banking, the main alternative has been screen scraping, a practice in which customers' financial data is "scraped" from the "screens" of their various financial accounts, often accessed through consumers' login information by fintech firms without knowledge from banks.⁵ Screen scraping is extremely controversial because it poses huge privacy, security, and liability risks: consumers do not have control over what data is collected, nor is there any concrete liability framework to cover cases of compromised data or unauthorized transactions.⁶ Nonetheless, screen scraping has become commonplace: in 2020, Financial Data Exchange, a nonprofit aimed at developing open banking in the United States and Canada, estimated that 60 to 85 million Americans accessed their financial data through services that used screen scraping.⁷ However, according to the CFPB, screen scraping has declined by a

² PwC, "PSD2 in a Nutshell," (PowerPoint Slides, September 2016),

<https://www.pwc.com/cz/en/bankovnictvi/assets/psd2-nutshell-n01-en.pdf>.

³ Nick Maynard, "The Disruptive Nature of Open Banking," November 2021,

<https://www.juniperresearch.com/resources/blog/the-disruptive-nature-of-open-banking/>.

⁴ EMEA Center for Regulatory Strategy, "Open Banking around the World," n.d.,

<https://www.deloitte.com/global/en/Industries/financial-services/perspectives/open-banking-around-the-world.html>.

⁵ Natalia Jevglevskaia and Ross P. Buckley, "Screen Scraping of Bank Customer Data: A Lamentable Practice," *UNSW Law Research Paper* 23, no. 3 (2023), <https://doi.org/10.2139/ssrn.4382528>.

⁶ Han-Wei Liu, "Two Decades of Laws and Practice around Screen Scraping in the Common Law World and Its Open Banking Watershed Moment," *Washington International Law Journal* 30, no. 1 (2020), <https://digitalcommons.law.uw.edu/wilj/vol30/iss1/5>.

⁷ Financial Data Exchange Comments, Consumer Access to Financial Records. Docket No. CFPB-2020-0034. (sent March, 2021)

<https://finledger.com/wp-content/uploads/sites/5/2021/03/Financial-Data-Exchange-Comments-to-CFPB.pdf>

third since 2019, which means the current figure is likely significantly lower.⁸ Banks view screen scraping as a thorn in their side, as the platforms' frequent automated logins stress their online systems.⁹ By contrast, fintech companies, looking to avoid contractual obligations and costs, have continued to rely on the practice, even in countries with more developed API services. After all, screen scraping affords fintech companies the greatest freedom in what data they can collect, how they can use it, and for how long they can keep it.¹⁰ It eliminates certain open banking costs, such as those related to negotiating arrangements with banks and maintaining API connections, as well as the costs of obtaining accreditation, which are especially salient for smaller fintech firms¹¹. Although open banking seeks to permanently replace screen scraping, big banks and fintechs have found an intermediate solution: contracts that grant API access in exchange for eliminating some of the worst risks of the process.¹²

The recent ruling by the CFPB is justified as part of their regulatory power by Section 1033 of the Dodd-Frank Act, which is why the rule is often called the “Section 1033 rule.” Section 1033 is a provision of the Dodd-Frank Act that outlines how consumer financial services providers must make the financial product-related information under their possession available to consumers according to rules drawn by the CFPB.¹³ The section lay dormant until spurred by President Biden’s 2021 Executive Order on promoting competition in the American economy; the CFPB returned to it as a way to spur the development of open banking as a pro-competitive measure.¹⁴

Personal Financial Data Rights: What’s Being Proposed

Though the US has historically been considered an example of market-led open banking development, the CFPB’s Personal Financial Data Rights rule, also referred to as the Open Banking rule or the Section 1033 rule, marks a pivot towards a more regulatory-driven approach.

The primary takeaway from the CFPB’s rule on open banking is that it recognizes the consumer as the owner of their financial data, requiring data providers—mainly banks—to build and maintain interfaces—likely APIs—to allow for the transfer of that data to third parties at consumer request. The exact definition of “data providers” includes financial institutions as defined by Regulation E, card issuers as defined by Regulation Z, and other persons that control information concerning Regulation E accounts or Regulation Z credit cards, such as a digital

⁸ Giuseppe Colangelo, “Open Banking Goes to Washington: Lessons from the EU on Data-Sharing Regimes” (Working Paper, 2024), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4861679.

⁹ Financial Data Exchange, *Consumer Access*, 3

¹⁰ Frollo, “Fintechs: A Long List of Possibilities,” 2023, <https://blog.frollo.com.au/fintechs/>.

¹¹ Jevglevskaia and Buckley, “Screen Scraping,” 20-21.

¹² Andrew Dresner, “CFPB’s 1033 Rule Won’t Change Much,” *Payments in Full* (blog), November 3, 2024, <https://paymentsinfull.substack.com/p/cfpbs-1033-rule-wont-change-much>.

¹³ Consumer Financial Protection Bureau (CFPB), “Dodd-Frank Act Section 1033 – Consumer Access to Financial Records,” November 6, 2020, <https://www.consumerfinance.gov/rules-policy/notice-opportunities-comment/archive-closed/dodd-frank-act-section-1033-consumer-access-to-financial-records/>.

¹⁴ Colangelo, “Lessons from the EU”

wallet.¹⁵ Regulation E financial institutions refer to banks, but also savings associations, credit unions, and other organizations that hold consumer asset accounts.¹⁶ Regulation Z card issuers refer to a body that issues a credit card, both for open and closed credit accounts.¹⁷ “Other persons” seems to exclude fintechs that act on behalf of financial institutions, but may perhaps include fintechs that act in concert with them, depending on the extent to which they control the information. For example, the regulation specifies that companies that merely facilitate payments would not count as data providers.¹⁸

Under the rule, data providers are obligated to share information related to transactions, account balances, payment initiation, terms and conditions, upcoming bills, and basic account verification.¹⁹ Other forms of information are explicitly excluded from obligatory data sharing, including those that must be kept confidential, whether for commercial reasons or by law, as well as information collected solely to prevent fraud and information that data providers cannot normally collect.²⁰ The rule also imposes a ban on data providers charging fees from consumers or third parties for data-sharing technology.

Authorized third parties, or third parties that have complied with authorization processes, are required to supply a clear, conspicuous authorization disclosure that informs consumers of the conditions of data sharing and through which the consumer can express their consent.²¹ The responsibilities of authorized third parties are informed by the rule’s aim to balance data sharing with consumer data privacy and informed consent. Data privacy guardrails take the form of data use limitations, data security standards, and mandates for how information must be made available to consumers—collected data cannot be directly sold, used for targeted advertising, or used for cross-selling products, and third parties must either comply with the Gramm-Leach-Bliley Act or the Federal Trade Commission’s Standards for Safeguarding Customer Information.²²

With regards to screen scraping, the regulation did not outright ban the custom, though it did make it clear that it is heavily disfavored. The rule places the burden of preventing screen scraping on data providers but only explicitly limits screen scraping of the developer interface.

¹⁵ Consumer Financial Protection Bureau (CFPB), “Personal Financial Data Rights Rule,” October 2024, https://files.consumerfinance.gov/f/documents/cfpb_personal-financial-data-rights-final-rule-reg-text_2024-10.pdf, 4.

¹⁶ Barrage Alexandra et al., “First Impressions on CFPB’s Proposed Open Banking Rule: Considerations for Key Stakeholders,” October 25, 2023, <https://www.dwt.com/blogs/financial-services-law-advisor/2023/10/cfpb-consumer-data-access-third-parties-fintech>.

¹⁷ Barrage et al., “First Impressions.”

¹⁸ CFPB, “Personal Financial Data Rights,” 11.

¹⁹ CFPB, “Personal Financial Data Rights,” 11-12.

²⁰ CFPB, “Personal Financial Data Rights,” 11-12.

²¹ CFPB, “Personal Financial Data Rights,” 27-28.

²² CFPB, “Personal Financial Data Rights,” 29, 31.

III. Contemporary Applications and Regulatory Approaches Abroad

Regulatory-Led Approaches

Regulatory-led open banking trajectories in the EU, Australia, and Brazil provide helpful parallels for examining the possible trajectory and outcomes of the CFPB rule. In the EU, PSD2 was controversial among banks, who asserted that the liability framework of the directive was unfair—though banks would be liable for fraudulent use of customer data, they could not have full control over it.²³ On the other hand, since its implementation, a common complaint on the part of third parties has been the lack of API standardization and faulty technology. There are 3 main API standards in Europe: STET, UK Open Banking, and XS2A.²⁴ Yet, the existence of standards does not guarantee standardized implementation: in reality, European banks have had the freedom to interpret API standards and mandates the way they see fit, leading to insufficient uniformity across the industry.²⁵ Meanwhile, faulty technology has proliferated and proven costly; a recent assessment of PSD2 for the European Commission found that third-party providers spent about €140 million on maintaining legacy applications due to APIs not working, matching the lower end of the estimated costs of developing API-based products.²⁶

These technological problems, as well as differences in digital trust, national legislation, and local payments industries, mean that there is significant variation in open banking progression across the continent. At the same time, there is at least one commonality with regard to EU open banking: that is, modest user adoption. In 2021, around 7% of Dutch adults, 8.5% in France, and 9.8% in Spain used open banking.²⁷ Even in the Nordic countries, traditional leaders in the digital sphere, adoption still hovers at less than one-third.²⁸

To harmonize fragmented approaches to regulation and advance open banking, the European Commission proposed a set of new regulations in 2023—the Payment Services Regulation (PSR1), Payment Services Directive 3 (PSD3), and the Financial Data Access Regulation (FIDA). PSR1 gives less flexibility to EU countries, allowing for greater cohesion in the open banking ecosystem.²⁹ It is meant to effectively replace PSD2, while PSD3 is mostly

²³ Steve Mansfield-Devine, “Open Banking: Opportunity and Danger,” *Computer Fraud & Security* 2016, no. 10 (October 1, 2016): 8–13, [https://doi.org/10.1016/S1361-3723\(16\)30080-X](https://doi.org/10.1016/S1361-3723(16)30080-X).

²⁴ Jevglevskaia and Buckley, “Screen Scraping,” 21.

²⁵ Andrei Cazacu, “PSD2: Does Europe Need a Single API Standard?,” July 13, 2022, <https://truelayer.com/blog/product/psd2-does-europe-need-a-single-api/>.

²⁶ European Commission: Directorate-General for Financial Stability, Financial Services and Capital Markets Union et al., “A Study on the Application and Impact of Directive (EU) 2015/2366 on Payment Services (PSD2),” 2023, <https://data.europa.eu/doi/10.2874/996945>, 154.

²⁷ Mastercard, “Four European Takes on Open Banking,” *Mastercardservices.com*, 2023, <https://go.mastercardservices.com/four-european-takes-on-open-banking>.

²⁸ BCG and QED Investors, “Prudence, Profits, and Growth,” June 2024, <https://web-assets.bcg.com/a9/4e/eeb7ae814bf98d918fac0fcc4ce/2024-fintech-report-june-2024-edit-03.pdf>; Open Banking Limited, Open Banking Impact Report, 19 October 2023; Finansinspektionen. Open Finance in Sweden, 28 June 2023; Finanstilsynets.

²⁹ Cazacu, “Single API Standard?”; Cameron D’Ambrosi, Jennie Berry, and Stacy Schulman, “A New Chapter in EU Payment Regulations: The Role of PSD3, PSR1, and FIDA,” January 3, 2024, <https://liminal.co/articles/a-new-chapter-in-eu-payment-regulations/>.

designed to help cement PSR1. FIDA, meanwhile, broadens the scope of open banking and emphasizes transparency, strengthening consumer data safeguards to incentivize participation.³⁰

Australia's Consumer Data Right differentiates itself from PSD2 in multiple ways. For one, it employs a principle of reciprocity, which aims to establish a level playing field for data-sharing obligations. In other words, data recipients must make available equivalent data with other CDR participants at customer discretion.³¹ In addition, the ambitious, multi-industry scope of CDR has resulted in a segmented rollout strategy. It is made of "phases" of focus, with the Open Banking phase beginning in 2019 and ending in October 2022.³² The implementation has come with some successes: almost all household deposits are covered by API data sharing, and APIs are both quick and reliable.³³ Fintechs have largely utilized open banking technology for personal financial management, connectivity, business management, digital lending, and product comparison services, accounting for 70% of total use cases offered by data recipients.³⁴

Data providers, or banks, have argued that CDR has fallen short of expectations due to lack of customer uptake and burdensome compliance costs, especially for mid-tier banks.³⁵ Accenture and the Australian Banking Association's most notable finding was that only 0.31% of bank customers had an active data-sharing arrangement. Other particularly concerning trends were the stark drop in growth rate for CDR active arrangements between 2022-2023 and 2023-2024 (429% to 149%) and the 51% revocation rate, indicating that the majority of CDR arrangements are not maintained. As a point of comparison, PayID and mobile wallets have shown far greater numbers of adoption and a more sustained rate of growth. The two therefore hypothesize that product innovation may have diminishing returns. Data recipients have interpreted these concerns differently, arguing that much of the current applications of CDR are in single-use activities like lending, meaning active data sharing arrangements are an unsuitable measure of success; that PayID and digital wallets face structural advantages in adoption; and that the report misses "huge growth in other regulated access methods."³⁶

In Brazil, open banking regulation began in 2020 with the central bank's issuance of a joint resolution on its implementation.³⁷ Like CDR, the rollout of the regulation was broken into phases that slowly expanded the scope of open banking until it became open finance.³⁸ Since

³⁰ D'Ambrosi, Berry, and Schulman, "A New Chapter."

³¹ Department of the Prime Minister and Cabinet, "Supplementary Analysis: Inquiry into the Future Directions for the Consumer Data Right," 2023,

<https://oia.pmc.gov.au/sites/default/files/posts/2023/02/Supplementary%20Analysis.docx>.

³² Frollo, "Open Banking: Done but Not Dusted," 2023, <https://blog.frollo.com.au/open-banking/>.

³³ Frollo, "Open Banking."

³⁴ Australian Banking Association and Accenture, "Consumer Data Right Strategic Review July 2024," July 2024, https://www.ausbanking.org.au/wp-content/uploads/2024/07/CDR-Strategic-Review_July-2024.pdf, 16.

³⁵ Australian Banking Association and Accenture, "Consumer Data Right Review"

³⁶ Liz Lumley, "Australian Fintechs Defend Open Banking after Industry Criticism," *The Banker*, July 10, 2024, <https://www.thebanker.com/Australian-fintechs-defend-open-banking-after-industry-criticism-1720603906>.

³⁷ Banco Central Do Brasil, "Regulation on Open Banking," May 4, 2020, https://www.bcb.gov.br/content/config/Documents/Open_Banking_Regulation_Joint%20Resolution_No_1_Updated.pdf.

³⁸ Fabio de Almeida Braga and Daniel Oliveira Andreoli, "How Brazil Regulates Open Banking," www.ibanet.org, November 25, 2021, <https://www.ibanet.org/how-brazil-regulates-open-banking>.

then, user growth has been impressive: despite implementing regulation three years later, by June 2023, Brazil reported over quadruple the number of successful API calls as in the UK ([Mastercard 2024](#)). As Latin America's fintech hub, Brazil is a hotbed for payment innovation. In the same year as the open banking resolution, the central bank also launched Pix, an instant retail payments system now used by over 70% of the country's population, with usage still on the rise ([Banco Central do Brasil 2024](#)). Integration with Pix is commonly cited as one reason why open banking has seen success ([Aleman 2024](#); [Fernandez Vidal et al. 2023](#)). Still, open banking does face barriers to further expansion. Though Brazil has significant digital banking penetration, consumers largely do not trust their data to be shared between banks, with only 26.9% answering that they would be willing to share their data in a survey by the CGAP ([Fernandez Vidal et al. 2023](#)). According to the CGAP survey, rates of trust decrease by income class and number of accounts. The correlation aligns with their findings on the rates of joining open banking, which demonstrate the exact same pattern.

Market-Led Approaches

Now that the US has pivoted towards a more regulatory-driven strategy, market-led open banking development models are largely found in Asia and Latin America in countries like Singapore, India, Peru, and Japan.

Though open banking in Singapore is not regulatory-driven, the Monetary Authority of Singapore has still played an essential role in guiding its development. Singapore's world-leading digital identity platform, Singpass, and government data-sharing framework, APEX, have allowed it to consolidate consumer data into a singular location. Through technology supported by APEX, customers can open bank accounts with up to 100 fewer steps than before, resulting in an average decrease in application time of up to 80%.³⁹ Within this system is Singapore's Financial Data Exchange (SGFinDex), which aggregates consumer financial information from 15 different contributors, including some of the biggest banks in the country, like Citi, HSBC, and DBS.⁴⁰ However, use of SGFinDex data is limited to those 15 providers and the Ministry of Manpower, a tiny sliver of the 1,580 fintech firms operating in Singapore as of 2022.⁴¹ In this way, Singapore demonstrates the potential of a well-integrated data-sharing scheme for elevating consumer experience, but also the way that it can be limited to only incumbent actors.

³⁹ World Bank, "National Digital Identity and Government Data Sharing in Singapore," 2022, <https://documents1.worldbank.org/curated/en/0993300010212228518/pdf/P171592079b3e50d70a1630d5663205bf94.pdf>, 46.

⁴⁰ SGFinDex, "Frequently Asked Questions on Singapore Financial Data Exchange (SGFinDex)," accessed December 16, 2024, https://resource.fpsapim.myinfo.gov.sg/SGFinDex_Frequently%20Asked%20Questions.pdf, 2.

⁴¹ SGFinDex, "Frequently Asked Questions," 3; United Overseas Bank, "Number of operating fintech companies in Singapore from 2018 to third quarter of 2022," Chart, November 22, 2022, Statista, accessed December 16, 2024, <https://www.statista.com/statistics/1296289/singapore-number-of-operating-fintech-firms/>.

India's digital public infrastructure has likewise been applauded as revolutionary, including by the chief fintech officer at the Monetary Authority of Singapore.⁴² The country's standout project is India Stack, a set of government-supported APIs that allows third parties to build upon the country's digital identity system to access data and handle payments. The Aadhaar biometric digital identity layer serves as the foundation, upon which sit the payments layer and the data layer. The payments layer houses the Unified Payments Interface (UPI) API, which allows for bank and nonbank communication and electronic transactions.⁴³ Like Pix, UPI is extraordinarily popular. Even before COVID, UPI usage was growing exponentially, and rates were predictably then spurred by the pandemic.⁴⁴ UPI dominates retail transactions; it processes over 80% of India's retail digital payments and is predicted to account for 91% by 2028-29.⁴⁵ The existence of this open payments infrastructure has been linked to expanded credit access among underserved populations.⁴⁶

India Stack is not without controversy. Aadhaar has been criticized for laying the bedrock for a surveillance state, and data breaches have allegedly put tens of millions of records at risk, belying the lack of concern for citizens' privacy and security.⁴⁷ Concurrently, the pro-competitive promises of UPI have not panned out: two companies—PhonePe and Google—account for over 80% of UPI transactions.⁴⁸

There also exists the Account Aggregator (AA) framework, which allows individuals to share their information between financial institutions. The system is regulated by the central bank.⁴⁹ Like Singapore's system, the framework has reduced paperwork and streamlined loan application processes, though it encompasses far more financial institutions and actors.⁵⁰ While data-sharing requests have grown since its introduction, they are still not comparable to the commonness of UPI.

Though these approaches are meant to be market-led, these two examples still prominently feature state-led initiatives for the development of open banking. Even if there is no central regulation, the need for standardized, universal foundational technology is unmistakable.

⁴² Benjamin Parkin, John Reed, and Jyotsna Singh, "The India Stack: Opening the Digital Marketplace to the Masses," *Financial Times*, April 20, 2023, <https://www.ft.com/content/cf75a136-c6c7-49d0-8c1c-89e046b8a170>.

⁴³ Yan Carrière-Swallow, Vikram Haksar, and Manasa Patnam, "Stacking up Financial Inclusion Gains in India," International Monetary Fund, July 2021, <https://www.imf.org/external/pubs/ft/fandd/2021/07/india-stack-financial-access-and-digital-inclusion.htm>.

⁴⁴ Shashwat Alok et al., "Does Open Banking Expand Credit Access?," April 8, 2024, <https://thedocs.worldbank.org/en/doc/224ef95415948656163953f97acbeffe-0050062024/original/Open-Banking-Latest-PPT.pdf>; Carrière-Swallow, Haksar, and Patnam, "Financial Inclusion Gains."

⁴⁵ PwC India and Global Fintech Test, "The Indian Payments Handbook - 2024-2029," August 2024, https://www.pwc.in/assets/pdfs/indian-payment_handbook-2024.pdf.

⁴⁶ Alok et al., "Open Banking Credit Access."

⁴⁷ Parkin, Reed, and Singh, "The India Stack."

⁴⁸ Sidhartha Shukla, "PhonePe, Google Pay Cede Online Payment Share to New Entrants," *Bloomberg*, July 22, 2024, <https://www.bloomberg.com/news/articles/2024-07-22/phonepe-google-pay-cede-online-payment-share-to-new-entrants>.

⁴⁹ Radhicka Kapoor and Tanu M. Goyal, "Open Banking Systems for Enhancing Financial Access for Micro, Small, and Medium-Sized Enterprises: The Case of India" (ABDI Institute, June 2024), <https://doi.org/10.56506/okna5983>.

⁵⁰ Kapoor and Goyal, "Enhancing Financial Access."

IV. Who Stands to Gain or Lose?

Potential Benefits

Open banking would allow for greater availability of financial services that do not rely on incumbent financial institutions. A current example would be account management services that do not go through a bank, like those offered by Fiserv and Zūm Rails.⁵¹ Likewise, open banking could expand the kinds of possible transactions that had been hamstrung by conventional payment methods and/or cut costs associated with traditional payment processing. According to fintech company Aeropay, direct payments between two bank accounts done through open banking have lower transaction costs than credit cards, debit cards, checks, and even digital wallets.⁵² Though some of these savings would be offset by the costs of maintaining API connectivity, the consensus is that the net effect would still be cost reduction.

With open banking also comes the gradual elimination of the need for screen scraping, as the former is considered more desirable.⁵³ Putting aside the clear data security risk advantages, APIs also boast straightforward technical advantages: a study by open banking provider Frollo found that open banking offered more comprehensive access to data points and had connectivity issues in only 0.5% of attempts, a vast improvement on screen scraping's 22%.⁵⁴

From the customer perspective, open banking is thought to lead to improved customer experience. Fintechs around the world have already developed and proposed a litany of new products based on open banking, including services for account aggregation, payment initiation directly from bank accounts, instant loans and credit scoring, automated budgeting, and real-time fraud detection.⁵⁵ A particularly interesting application is financial inclusion. Transaction data, made available through API connections, could serve as an alternative for evaluating creditworthiness, allowing those without long credit histories to participate in financial services. Transaction data could also be used to more accurately analyze risk, especially gender-segmented risk, permitting greater and more equitable access to credit without increased risk to providers.⁵⁶

Open banking is often held up as a way to promote competition between banks by reducing switching costs for customers. However, there is little evidence that open banking has actually brought this about. Though open banking would reduce hurdles to opening accounts, it would not eliminate Know Your Customer (KYC) costs, as even with data sharing, each bank

⁵¹ Patrick Cooley, "Fiserv Teams with Canadian Company on Open Banking," Payments Dive, October 7, 2024, <https://www.paymentsdive.com/news/fiserv-teams-with-canadian-company-on-open-banking/729077/>.

⁵² Aeropay Team, "Open Banking in the U.S. | A Guide to America's Next Generation of Consumer Financial Data," Aeropay, 2024, <https://www.aeropay.com/guides/open-banking>.

⁵³ Liu, "Two Decades," 31.

⁵⁴ Frollo, "Open Banking vs Screen Scraping: A Data-Backed Comparison," 2023, <https://blog.frollo.com.au/open-banking-vs-screen-scraping/>.

⁵⁵ Stripe, "Open Banking Explained: What It Is and How It's Changing Financial Services," Stripe, June 5, 2023, <https://stripe.com/resources/more/open-banking-explained>.

⁵⁶ Maria Fernandez Vidal and Sophie Sirtaine, "Open Finance Can Reduce Financial Inclusion Gaps: Here's How," March 10, 2024, <https://www.cgap.org/blog/open-finance-can-reduce-financial-inclusion-gaps-heres-how>.

would have to conduct its own KYC processes.⁵⁷ Additionally, customers generally choose their checking bank by physical proximity, a consideration that open banking would not change.⁵⁸

Challenges and Limitations

Privacy and security tend to dominate the realm of open banking concerns. Most people don't trust companies with their data, financial or otherwise. 81% of Americans are concerned about how companies use their data, and only 57% of Americans trust financial institutions to protect their information.⁵⁹ These worries are not unfounded: there are going to be risks to dramatically changing the availability of long-guarded, sensitive consumer data. Being a heavily regulated industry, banks are accustomed to putting security first but being a new, "disruptive" industry, fintechs are not.⁶⁰ Applying universal security standards across third-party actors is also much more difficult than solely among financial institutions; when there are more actors, there are more possibilities for failure.⁶¹

Lack of standardization is another issue that has come up in global implementations of open banking, most notably in the EU. API variation is not the only issue, however. Similar problems arise in data security and privacy infrastructures. Up until recently, banks have been left to their own devices when developing authentication systems that would work best for themselves, leading to little overlap.

Perspectives of Relevant Actors

Banks' views on open banking are complicated—some view it as a threat and others as an opportunity. A McKinsey report on open banking noted that banks often view the sharing of their data as more of a threat than an opportunity, but a Roland Berger report in the wake of PSD2 found that the vast majority of surveyed EU banks saw the directive as more of an opportunity than a threat.⁶² Of course, individual attitudes vary according to the particular situation of each individual actor. For instance, smaller banks tend to be more enthusiastic about open banking, while banks dealing with higher levels of fraud are more skeptical than banks that are not.⁶³

⁵⁷ Dresner, "Won't Change Much."

⁵⁸ Dresner, "Won't Change Much."

⁵⁹ Pew Research Center, "How Americans View Data Privacy," October 2023, https://www.pewresearch.org/wp-content/uploads/sites/20/2023/10/PI_2023.10.18_Data-Privacy_FINAL.pdf, 3; PYMNTS, "57% of Americans Trust Financial Institutions to Protect Their Data," PYMNTS, September 12, 2024, <https://www.pymnts.com/news/banking/2024/57percent-of-americans-trust-financial-institutions-to-protect-their-data/>.

⁶⁰ Mansfield-Devine, "Opportunity and Danger."

⁶¹ Mansfield-Devine, "Opportunity and Danger."

⁶² Laura Brodsky and Liz Oakes, "Data Sharing and Open Banking," July 2017, <https://www.mckinsey.com/~/media/McKinsey/Industries/Financial%20Services/Our%20Insights/Data%20sharing%20and%20open%20banking/Data-sharing-and-open-banking.pdf>; Sebastian Maus and Pontus Mannberg, "PSD2 and Open Banking – How Banks Can Succeed in an Increasingly Competitive World" (Roland Berger, November 2019), https://www.rolandberger.com/publications/publication_pdf/roland_berger_psd2.pdf.

⁶³ PYMNTS, "Nearly Half of Financial Institutions Believe Open Banking Risks Outweigh Rewards," PYMNTS, February 27, 2024,

Financial institutions often cite a number of downsides to open banking. The competitive pressures of open banking are the most direct, especially as banks become more and more certain that new technologies are the future.⁶⁴ The loss of control that open banking imposes over banks is also a major concern that manifests in multiple ways. Losing control over customer experience means fewer opportunities to cross-sell or upsell while losing control over data exposes banks to reputational risks in the case of fraud.⁶⁵ Banks are especially troubled at the prospect of being held more liable for improper data security than third-party providers. In the case of the CFPB rule, this grievance seemed to have been affirmed by the differing standards for data providers and data recipients. The former is held to the Gramm-Leach-Bliley Act (GLBA), while the latter is governed by the Federal Trade Commission's (FTC's) Standards for Safeguarding Customer Information. Enforcement for the GLBA is proactive, while enforcement of FTC regulations is responsive, implying a lesser standard for data recipients.⁶⁶ This is not the only unequal delegation of responsibility that banks take issue with. The expectation for banks to build API infrastructure without receiving anything in return is criticized as unbalanced, burdensome, and not aligned with their incentives, especially when combined with slow consumer uptake.⁶⁷ In general, the costs of developing APIs are both upfront and significant, and the benefits of open banking are meant to materialize gradually over the long term, culminating in an unfavorable short-term trade-off for financial institutions.⁶⁸

However, banks still stand to gain plenty from open banking. As the incumbent gatekeepers of financial services, banks have a “first mover” advantage when it comes to seizing opportunities in a new area of finance.⁶⁹ In this way, open banking affords a great opportunity for banks willing to innovate. These opportunities exist for the short and long term. In the short term, open banking can deliver methods for efficiency and risk optimization, expand the customer pool through financial inclusion, and better detect fraud.⁷⁰ In the long term, open banking can be the way through which banks grow their services and reposition themselves in a new digital environment.

As recipients of long-guarded, valuable data, fintech companies are generally considered the primary beneficiaries of open banking. After all, one of the primary challenges they face is

<https://www.pymnts.com/news/security-and-risk/2024/nearly-half-financial-institutions-believe-open-banking-risks-outweigh-rewards/>.

⁶⁴ Economist Impact, “Byte-Sized Banking: Can Banks Create a True Ecosystem with Embedded Finance?,” 2023, <https://www.paymentscardsandmobile.com/wp-content/uploads/2023/11/Economist-Impact-report.pdf>.

⁶⁵ Mansfield-Devine, “Opportunity and Danger.”

⁶⁶ Carter Pape, “What the CFPB’s Open Banking Rule Will Do to Data Privacy, Security,” American Banker, October 22, 2024, <https://www.americanbanker.com/news/how-the-cfpbs-1033-rule-changes-data-security-for-banks>.

⁶⁷ European Commission: Directorate-General for Financial Stability, Financial Services and Capital Markets Union et al., “Impact of Directive (EU) 2015/2366,” 95; Australian Banking Association and Accenture, “Consumer Data Right Review”

⁶⁸ European Commission: Directorate-General for Financial Stability, Financial Services and Capital Markets Union et al., “Impact of Directive (EU) 2015/2366,” 15.

⁶⁹ Brodsky and Oakes, “Data Sharing,” 6.

⁷⁰ Pascal Gautheron and Katrina Cuthell, “Open Banking in Australia: An Opportunity to Regain Trust,” September 2019, <https://www.bain.com/insights/open-banking-in-australia-an-opportunity-to-regain-trust/>.

the cost of accessing relevant consumer financial data. Like with banks, open access to data is an opportunity for fintechs to out-innovate their competition by providing more convenient and efficient financial services. The current imbalance between banks and fintechs regarding data holdings and data analytical abilities illuminates the extent of this opportunity: 70% of traditional banking executives are concerned about their lack of data analysis capabilities, which may explain why 75% of customers say they are attracted to newer, more agile competitors offering easy-to-use products.⁷¹ However, fintechs are not the only kind of tech company interested in open banking. Big tech, or established tech companies looking to expand into financial services, command major potential to take advantage of open banking systems by leveraging their “access to non-payments related data, existing customer base, [and] technology.”⁷² Other industry actors recognize this, too: in 2019, 71.1% of EU banks believed that big tech was the biggest long-term threat under PSD2.⁷³

At the end of the day, open banking is seen as a customer-centric technology. Many of the benefits assigned to open banking are about building easier, more useful, and more inclusive financial products for consumers. Ultimately, the goal is to bring consumers greater freedom of choice, access to services, and determination over their own data. However, a number of theoretical economic analyses of a data-sharing environment forecast negative outcomes for consumers. According to Acemoglu et al., in a model where one customer’s data inadvertently reveals information about others, data markets a la open banking lead to excessive data sharing and diminished total welfare.⁷⁴ Meanwhile, Brunnermeier and Payne design a mechanism that indicates that open banking may actually decrease access to uncollateralized credit.⁷⁵ Though there has not been any empirical manifestation of these findings, they nonetheless illustrate the complexity of the topic.

To take the example of the CFPB’s Personal Financial Data Rights rule, reactions were sharply divided by industry bloc. The American Banking Association condemned the rule. President Rob Nichols stated that, “it is clear that our longstanding concerns about scope, liability, and cost remain largely unaddressed,” and that the finalized rule puts both data security and “responsible innovation” at risk.⁷⁶ Lindsey Johnson of the Consumer Bankers Association had a similarly negative response, remarking that the CFPB overstepped statutory bounds and that “this final rule severely misses the mark... This has created an even less durable final rule

⁷¹ Capgemini and Efma, “World Retail Banking Report 2022,” April 21, 2022, <https://www.capgemini.com/news/press-releases/world-retail-banking-report-2022-incumbent-banks-must-embrace-data-centric-capabilities-to-drive-personalized-customer-experiences/>.

⁷² European Commission: Directorate-General for Financial Stability, Financial Services and Capital Markets Union et al., “Impact of Directive (EU) 2015/2366,” 16.

⁷³ Maus and Mannberg, “PSD2 and Open Banking.”

⁷⁴ Daron Acemoglu et al., “Too Much Data: Prices and Inefficiencies in Data Markets,” *American Economic Journal: Microeconomics* 14, no. 4 (November 1, 2022): 218–56, <https://doi.org/10.1257/mic.20200200>.

⁷⁵ Markus Brunnermeier and Jonathan Payne, “Platforms, Tokens, and Interoperability” (Working Paper, 2023), <https://economics.princeton.edu/working-papers/platforms-tokens-and-interoperability/>.

⁷⁶ Rob Nichols, “Statement on CFPB Section 1033 Final Rule,” ABA (American Bankers Association, October 22, 2024), <https://www.aba.com/about-us/press-room/press-releases/statement-on-cfpb-section-1033-final-rule>.

that does not reflect market, technological, and practical realities.”⁷⁷ President of the Financial Technology Association Penny Lee, however, was pleased. She called the decision a “win for consumers, guaranteeing their right to own and securely share their financial data” and hoped that it would eventually expand to cover “payroll, student loan, investment, and mortgage accounts.”⁷⁸ A senior attorney at the National Consumer Law Center, Chi Chi Wu, was also optimistic about the regulation, asserting that “[i]t should serve as a model for all data privacy regimes in the United States. It far exceeds the protection of weaker privacy laws that preceded it, such as the Gramm-Leach-Bliley Act.”⁷⁹

V. The Solution

The promises of open banking are admirable. The avenues it opens up could provide better services for consumers and small businesses and promote financial inclusion. Its ability to dissolve frictions would expand dramatically as it gets integrated into other sectors, like insurance, utilities, and other common billing sources. However, concerns with implementation cannot be ignored. In our opinion, low consumer value is by far the most important issue. Other implementation problems, like API standardization and liability frameworks, are typical growing pains of any disruptive technology. Yet, dealing with these growing pains can only be justified if the product is useful.

From looking at international examples, we identify two points of note. The first is low user uptake, despite high upfront costs, paired with a lack of outstanding use cases. It is not clear that a thorough cost-benefit analysis of open banking has been or even can be credibly done. In regulatory open banking environments especially, such analysis has not been incentivized due to open banking being imposed by decree. It is only natural for banks to complain about the millions of dollars they have invested in API infrastructures going to waste when active data-sharing arrangements are used by a mere 0.31% of Australian consumers. Although all of the rates cited in this report are predicted to increase, there are cases of growth plateauing early, namely Australia and the UK. Even forecasted adoption rates still suggest significantly slower growth than other digital financial services, like mobile and instant payments (e.g. Pix, UPI, Apple Pay).

Instant payments have the utility that account information-only open banking does not provide. To take the Australian example, CDR has been restricted to “read-only” data for most of its existence, which means it does not cover payment initiation data. As a result, the use cases that have emerged under CDR—personal financial management, digital lending, product comparison services—are geared towards those who are very financially literate. The CFPB’s

⁷⁷ Weston Loyd, “CBA Statement on CFPB’s Section 1033 Final Rule on Personal Financial Data Rights,” *Consumer Bankers Association*, October 22, 2024, <https://consumerbankers.com/press-release/cba-statement-on-cfpbs-section-1033-final-rule-on-personal-financial-data-rights/>.

⁷⁸ Financial Technology Association, “FTA Statement on Final Open Banking Rule,” Financial Technology Association, October 22, 2024, <https://www.ftassociation.org/fta-statement-on-final-open-banking-rule/>.

⁷⁹ Pape, “CFPB’s Open Banking Rule.”

decision to not include electronic benefit transfer (EBT) cards in their Personal Financial Data Rights rule has similar implications for open banking's US audience. The consequence is like that of the CGAP survey in Brazil, where richer respondents with more bank accounts were more likely to have used open finance. Though digital lending and alternate credit evaluation methods do try to broaden the customer pool, they are still one-time-use services. Payments, on the other hand, are a far more accessible, repetitive activity: everyone has to pay for their groceries. After payments initiation was included under open banking in the UK, open banking payments penetration growth has consistently outpaced that of data connection services.⁸⁰ This is not to say that including payment initiation will automatically bring user adoption to Pix levels; Brazil's open banking resolution covers both account information and transaction services. Rather, this is to illustrate that, at least early on, the primary use cases of open banking either naturally include a smaller, wealthier audience or have been more easily fulfilled by standalone instant payment services.

The second point of note is the balance between privacy and security concerns and open banking usage. A key element of all open banking schemes is express consumer consent, yet consumer data privacy concerns are rising around the world.⁸¹ Efforts to buoy customer uptake of open banking will have difficulty avoiding the erosion of privacy protections. Though big tech has the market share and lots to gain from taking up open banking, consumers are growing distrustful of their approach to data privacy.⁸² India's Aadhaar identity system provides an extreme example in the context of open banking, but it serves to clarify that widely available information-sharing networks can expose users to serious privacy risks.

We want to highlight three elements of our recommendation: standardized technology, data coverage, and the expectation of low uptake. The EU example demonstrates the pitfalls of insufficiently standardized technology, which has fragmented the open banking scene and made it much more difficult to evaluate, in turn costing banks extra to cover for faulty products. On the flip side, Singapore, Brazil, and India exemplify the possibilities of centralized digital public infrastructure, which has netted massive voluntary participation from private firms and citizens. Of course, designing a project in the United States at the scale of India Stack for open banking is not feasible. However, these contrasting examples still underscore the necessity of having a universal baseline.

As open banking expands to cover more kinds of data, the dilemma between privacy and penetration may end up resolving itself. The aforementioned example of including payments-initiation data exhibits this exact phenomenon. After all, if additional parts of the

⁸⁰ Open Banking, "The Open Banking Impact Report," March 2024, <https://openbanking.foleon.com/live-publications/the-open-banking-impact-report-2024-march/>, 5.

⁸¹ Deloitte, "New Deloitte Survey: Increasing Consumer Privacy and Security Concerns in the Generative AI Era," *Deloitte*, December 3, 2024, <https://www2.deloitte.com/us/en/pages/about-deloitte/articles/press-releases/increasing-consumer-privacy-and-security-concerns-in-the-generative-ai-era.html>.

⁸² Parmy Olson, "AI Can't Solve Tech's Trust Problem," *Bloomberg*, October 16, 2024, <https://www.bloomberg.com/graphics/2024-opinion-ai-solution-big-tech-trust-problem/>.

financial system were included, like insurance or retirement, then more use cases would crop up, drawing more people to data sharing.

However, the road to open finance would be rockier if open banking is not able to prove itself early on. As a result, it is critical to understand that the existence of the technology itself is not sufficient for bringing about widespread use of data sharing or increasing banking competition by promoting account switching. The ultimate vision of open banking, in which banks, businesses, and a plurality of the population voluntarily share their data to get the best deal for themselves, should be recognized as a goal that requires the success of auxiliary efforts, like fostering financial literacy. In the meantime, adoption rates should be actively monitored as a metric for assessing the efficacy of open banking policy, including API standards.

The challenge, then, is stomaching the upfront costs of developing a strong, standardized technological framework that can handle the eventual financial demands of day-to-day life.

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