



BENEFITS AND CHALLENGES OF OPEN BANKING



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Open banking represents a regulatory approach designed to enhance competition and innovation in financial services by requiring banks to share customer data with third parties through standardized APIs. This policy tool aims to reduce switching costs that traditionally lock consumers into relationships with incumbent banks, thereby fostering market competition and enabling fintech innovation. While open banking promises significant benefits — including lower fees, improved services, and greater consumer choice — implementation reveals substantial challenges. Drawing on the UK's open banking experience, this article examines both the theoretical advantages and practical obstacles of open banking policies. Key challenges include incumbent bank resistance, legacy infrastructure constraints and other technical difficulties, operational hurdles for fintech startups, and the paradoxical risk of creating new forms of market concentration through large tech platforms. Understanding these implementation challenges is crucial for policymakers seeking to design effective open banking frameworks that genuinely benefit consumers while avoiding unintended consequences that could undermine competitive objectives.

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INTRODUCTION

The financial services industry comprises a large part of most economies. Financial services account for about [7.5 percent of the U.S. economy](#)² and about 8.8 percent of the [UK economy](#),³ and banks play an important role—assets held by the [EU banking sector](#) are about 300 percent of the EU GDP,⁴ and banking deposits are about [80 percent of the U.S. GDP](#).⁵ A well-functioning financial services sector benefits consumers, businesses, governments, and other organizations, all of whom rely on the sector for a variety of needs, including deposits and withdrawals, making and receiving payments, and obtaining and paying back loans used for business startup, expansion or operating expenses, or used for home purchases or other needs.

Competition in the sector helps ensure that consumers and businesses benefit. For example, banks compete against each other to offer lines of credit to businesses, resulting in loans with lower interest rates. And, banks compete against each other to attract consumer deposits, resulting in accounts that pay higher interest rates on funds held in saving accounts. If a customer does not like the service they are receiving from their current bank, they can take their money to a competitor. This potential loss of a customer, in principle, incentivizes banks to provide competitive rates, and to innovate and find new ways to keep their customers happy.

However, banking customers face switching costs, making it harder for customers to switch to competing banks. For the customer, these costs can include actual transaction costs, such as the difficulty of collecting and moving relevant information (e.g., transaction history) from one bank to another. There might also be information costs borne by the customer and the competing bank. For example, an existing bank knows which of its customers are high quality borrowers, but a competing bank lacks this information, and may (incorrectly) group high quality borrowers together with

low quality borrowers, leading to worse borrowing rates offered to the high quality borrower (Sharpe 1990).⁶ These and other switching costs dull the competitive pressure that banks face. The importance of addressing switching costs is even more important in areas where banking activity is concentrated among a few large incumbent firms. [Some recent research](#) suggests that banking has become more concentrated over time.⁷

Open banking is a recent competition policy tool that regulators have used to keep competitive pressure on incumbent banks. In principle, open banking makes it easier for bank customers to switch from one bank to another. Open banking also helps enable third party providers (TPP), such as fintech startups, to provide innovative new services that connect with banks. In practice, however, there are a number of challenges that make it difficult to realize the promise of open banking.

In this article we describe the benefits of open banking and then turn to the recent case of open banking in the UK to describe the challenges. These challenges include incumbent bank resistance, legacy infrastructure constraints and other technical difficulties, operational hurdles for startups, and the paradoxical risk of creating new forms of market concentration through large tech platforms.

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BENEFITS OF OPEN BANKING

Open banking is a regulatory tool that requires banks to make customer data easily available to third parties via an application programming interface (API). The goal is to foster greater competition, support innovation, and empower consumers with more choice and control over their financial data. Innovation is fostered by allowing third party providers (TPPs) to integrate customer data into their offerings. Examples of TPPs include budgeting or other personal fi-

2 See <https://fred.stlouisfed.org/series/VAPGDPI>.

3 See <https://commonslibrary.parliament.uk/research-briefings/sn06193/>.

4 See https://ec.europa.eu/eurostat/cache/digpub/european_economy/bloc-3d.html.

5 See <https://fred.stlouisfed.org/series/DDDI02USA156NWDB>.

6 Sharpe, S. A. (1990). Asymmetric information, bank lending, and implicit contracts: A stylized model of customer relationships. *The Journal of Finance*, 45(4), 1069-1087.

7 See <https://www.philadelphiafed.org/the-economy/banking-and-financial-markets/banking-trends-has-the-banking-industry-become-too-concentrated>.

nance tools, tax preparation tools, payment tools, and others. Open banking is therefore a competition policy tool and enabler of digital innovation, that works through its reliance on interoperability.

Traditional banking systems often lock consumers into long-term relationships with incumbent banks due to high switching costs, and research shows that these switching costs increase without competition (Kim et al., 2003).⁸ Without open banking, transferring transaction histories, account details, and spending patterns to a competing bank or a TPP can be cumbersome or impossible, deterring consumers from switching to a new bank, even when better options exist, or from utilizing an innovative product or service offered by a third party.

Open banking addresses these issues by mandating that banks provide account and transaction data through standardized APIs (Gulati-Gilbert & Seamans, 2023).⁹ This interoperability allows consumers to switch banks or stay at their current bank and share their data easily and securely with third-party providers, including fintech startups offering innovative financial products (Babina et al., 2025).¹⁰ By lowering switching costs, open banking enhances competition among financial institutions. Consumers can explore alternative providers without the burden of manually transferring their financial history, thus driving incumbent banks to offer better services and more competitive rates to retain customers. In this way, open banking aims to shift the market from entrenched incumbents towards dynamic competition.

As new entrants become viable, markets shift from being dominated by a few players to supporting multiple competing providers. This transition from “competition for the market” to “competition in the market” can lead to better outcomes for consumers, including lower fees, more tailored products, and higher service quality (Scott Morton et al., 2023).¹¹ In this sense, open banking acts as a structural remedy to address market concentration.

Interoperability via open banking APIs empowers third-party developers to create innovative financial services layered

atop traditional banking infrastructure (Xie & Hu, 2024).¹² For example, fintech startups can build apps that analyze spending habits, offer tailored savings plans, or streamline payment processes, all by accessing real-time banking data with customer consent.

Importantly, API-based data sharing represents a major improvement in security and user control compared to earlier practices — most notably, screen scraping, a method where users had to share their bank login credentials with third-party apps to retrieve financial data (Dinçkol, Ozcan & Zachariadis, 2023). Screen scraping not only posed significant security risks but also created compliance and reliability concerns, as it often operated without the bank’s explicit cooperation. In contrast, open banking APIs allow for consented, tokenized, and auditable data access, providing a far safer and more transparent alternative for consumers and providers alike.

This access democratizes innovation: smaller players without legacy infrastructure can develop competitive products. The result is a more diverse ecosystem of financial services, offering consumers enhanced personalization and convenience. Moreover, open banking facilitates cross-sector innovation. For example, personal finance tools can integrate with tax preparation software, or small business accounting platforms can link directly with bank accounts for real-time financial management.

Ultimately, open banking is about consumer choice. By granting consumers the right to share their data across financial service providers, open banking policies give individuals greater control over their financial lives. Consumers can choose services that best meet their needs without being constrained by their current bank’s offerings. For instance, a consumer could authorize a budgeting app to access their latest account transactions continuously, allowing for up-to-date financial insights. In this way, consumers are no longer passive data sources but active participants who decide when, how, and with whom their financial information is shared.

8 Kim, M., Kliger, D., & Vale, B. (2003). Estimating switching costs: the case of banking. *Journal of Financial Intermediation*, 12(1), 25-56.

9 Gulati-Gilbert, S. & Seamans, R. (2023). Data portability and interoperability: A primer on two policy tools for regulation of digitized industries. *Brookings*. May, 9, 2023.

10 Babina, T., Bahaj, S., Buchak, G., De Marco, F., Foulis, A., Gornall, W., Mazzola, F. & Yu, T. (2025). Customer data access and fintech entry: Early evidence from open banking. *Journal of Financial Economics*, 169, 103950.

11 Morton, F. M. S., Crawford, G. S., Crémer, J., Dinielli, D., Fletcher, A., Heidhues, P., & Schnitzer, M. (2023). Equitable interoperability: the “supertool” of digital platform governance. *Yale J. on Reg.*, 40, 1013.

12 Xie, C., & Hu, S. (2024). Open banking: An early review. *Journal of Internet and Digital Economics*, 4(2), 73-82.

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CHALLENGES OF OPEN BANKING

While open banking has been heralded as a breakthrough for competition and innovation in financial services, the path from regulatory ambition to real-world impact is far from straightforward. Research by Dinçkol, Ozcan & Zachariadis (2023) has shown that the implementation of open banking in Europe and the UK has revealed a number of technical, organizational, and strategic challenges that complicate its potential benefits.¹³

A. Incumbent Resistance

Open banking is, at its core, a pro-competition policy—designed to “unbundle” banking services and shift power away from entrenched incumbents. It is not surprising, then, that incumbent banks may resist the policy. In the UK case, Dinçkol, Ozcan, and Zachariadis (2023) found that banks often delayed publishing fully functional APIs, introduced friction into user journeys, or limited the visibility of third-party services on their platforms. In some cases, banks strategically collaborated only with fintechs in non-core product areas, avoiding direct competition. Others limited branding opportunities for TPPs, making it harder for these new entrants to build trust with end-users. This defensive behavior not only slowed the growth of open banking ecosystems but also undermined the spirit of openness intended by the regulation.

Resistance also took more subtle, operational forms—including a lack of investment in underlying systems that would ensure stable and reliable API functionality. This led to the next major barrier: the technical and operational complexities that often arise from such resistance or under-investment.

One of the biggest hurdles in the UK case has been the technical implementation of open banking APIs. Despite regulatory mandates, banks’ APIs have often proven unreliable or incomplete, especially in the early stages of implementation. Many third-party providers have reported high error rates, latency issues, and inconsistent data formats across banks. Even in the UK, where a central implementation entity — initially called the Open Banking Implementation Entity (“OBIE”), now called [Open Banking Limited](#)

(“OBL”) — helped coordinate the rollout, integration remained difficult due to banks’ lack of developer experience, limited documentation, and non-standardized customer experiences when visiting banking websites.¹⁴

In the case of open banking, technical shortcomings were intertwined with strategic resistance. For instance, many incumbents operate on fragmented IT systems, with different “product silos” developed over decades. Connecting these systems to external APIs requires significant digital transformation, often involving major investment, operational risk, and reputational exposure.

In one case studied by Dinçkol, Ozcan, and Zachariadis (2023),¹⁵ a UK bank’s IT restructuring led to prolonged outages and data access errors, prompting an investigation by regulators. Such incidents illustrate how open banking demands not only API compliance, but also a rethinking of internal architecture—a transition that is neither easy nor fast.

The result was not just inconvenient, but also damaging to trust and user experience. For example, in the UK, payment initiation services (PIS) suffered from particularly high failure rates, undermining the viability of new services built on top of these APIs. This in turn discouraged consumers from adopting third-party apps, and dampened the initial momentum of open banking ecosystems.

B. Striking the Right Regulatory Balance

A major challenge in implementing open banking lies in regulatory ambiguity—particularly in the difficult balance regulators must strike between dictating the terms of change and allowing the market to innovate and adapt. While clear rules can lower entry barriers and promote consistency, overly prescriptive regulation may stifle experimentation and lock in suboptimal solutions. On the other hand, too much regulatory flexibility can create confusion, fragmentation, and interoperability failures.

This tradeoff was especially evident in the EU’s implementation of PSD2, which left key technical details—such as API standards and authentication protocols—to the market. Although this approach allowed for flexibility, it also led to inconsistent implementations across banks, forcing third-party providers to adjust to a fragmented system. These gaps increased operational costs and slowed adoption, undermining the very goals open banking sought to achieve.

13 Ozcan, P., Dinçkol, D. & Zachariadis, M (2025). “Platformification” of Banking: Strategy and challenges of challenger versus incumbent banks in response to regulatory change in the UK. *Research Policy*, accepted manuscript.

14 See <https://www.openbanking.org.uk/about-us/>.

15 Dinçkol, D., Ozcan, P., & Zachariadis, M. (2023). Regulatory standards and consequences for industry architecture: The case of UK Open Banking. *Research Policy*, 52(6), 104760.

More broadly, the open-ended nature of early regulations delayed the development of robust accountability structures, particularly around liability and security. In the absence of aligned incentives, some incumbents used ambiguity to resist meaningful cooperation, while newer entrants faced uncertainty about compliance and risk exposure. As Dinçkol, Ozcan, and Zachariadis (2023) show, effective open banking regimes require continuous standard-setting, coordination mechanisms, and iterative guidance—none of which emerge automatically from high-level mandates.

In the case of open banking, technical shortcomings were intertwined with strategic resistance

One particularly profound regulatory concern is that open banking, despite its pro-competitive aims, may unintentionally fuel new forms of market concentration. Large digital platforms—especially GAFAM firms (Google, Apple, Facebook, Amazon, Microsoft)—are uniquely positioned to benefit from standardized data access. With their established brands, technical capacity, and massive user bases, these firms can integrate financial data into broader ecosystems without needing to become fully regulated financial institutions. By combining open banking data with consumer information from other domains, they can deploy powerful personalization tools powered by AI, potentially shifting market power not from banks to consumers, but from banks to tech platforms. This raises new policy concerns about data concentration, gatekeeping, and regulatory asymmetry that existing frameworks are not well equipped to handle.

C. Challenges for New Entrants

While open banking is designed to lower entry barriers, fintechs and challenger banks continue to face persistent challenges that limit their ability to scale and compete effectively. These challenges stem not only from resource constraints but also from broader issues of consumer trust, regulatory ambiguity, and incumbent resistance.

Trust is foundational in financial services, and new entrants struggle to match the credibility that established banks enjoy through long-standing customer relationships. As Iyer & Puri (2012) note, such relationships help insulate incumbents during periods of stress and rein-

force consumer loyalty.¹⁶ Although users may try new fintech apps, few are willing to fully switch—keeping core activities like salary deposits or savings with legacy banks. This results in high user sign-up but low transaction volumes, delaying profitability (Ozcan, Dinçkol & Zachariadis, 2025).

Many fintechs also rely on third-party processors for back-end services, making them vulnerable to technical failures and eroding user confidence. Similarly, use confidence is worsened when incumbent banks fail to provide reliable or standardized APIs, undermining the seamless integration that open banking is meant to enable. Critically, when these API connections break or perform poorly, users typically experience the failure through the fintech app interface, not the underlying bank. As a result, consumers often blame the fintech, not the incumbent institution, for the disruption—damaging trust in the very innovations open banking is supposed to encourage. This misattribution creates an even more uneven playing field, where fintechs bear the reputational costs of infrastructural failures they cannot control.

Geographic expansion brings additional hurdles. The uneven implementation of PSD2 across EU countries and the lack of open banking regulation in the U.S. force startups to adapt to fragmented legal environments, raising compliance costs. This is especially burdensome given the regulatory ambiguities around liability and authentication standards discussed earlier.

Finally, the rise of dominant tech platforms further complicates the competitive landscape. While fintechs struggle for user trust and operational stability, firms like Google or Apple are well-positioned to scale financial services rapidly, leveraging brand power and infrastructure. This creates a paradox where open banking may ultimately reinforce market concentration rather than reduce it.

In sum, while open banking removes formal barriers to entry, deeper structural constraints—trust deficits, infrastructural dependencies, regulatory inconsistencies, and strategic opposition—continue to make survival and growth challenging for new entrants.

¹⁶ Iyer, R., & Puri, M. (2012). Understanding bank runs: The importance of depositor-bank relationships and networks. *American Economic Review*, 102(4), 1414-1445.

04

CONCLUSION

Open banking has become an increasingly popular policy tool to increase competition between banks, and facilitate innovation in the financial sector. In principle, open banking promises to reduce switching costs for bank customers, be they individuals, households, or businesses, and facilitate innovation by fintech startups and other third party providers. Both of these effects benefit bank customers, and should lead to increased benefits in the form of lower prices, higher quality, and more innovative products. However, as the case of UK open banking suggests, open banking also comes with a variety of challenges which include technical and operational complexity, regulatory ambiguity, incumbent resistance, legacy infrastructure and challenges associated with a broader digital transformation, operational challenges specific for startups, and the risk of creating more not less concentration.

While we highlight the case of the UK's experience with open banking in this article, there are a number of [other examples](#) of open banking policies, including in the EU, Australia, Japan, Mexico, and Singapore.¹⁷ In the U.S., President Biden's 2021 executive order "[Promoting Competition in the American Economy](#)" specifically encourages the Consumer Financial Protection Bureau to consider "commencing or continuing a rulemaking under section 1033 of the Dodd-Frank Act to facilitate the portability of consumer financial transaction data so consumers can more easily switch financial institutions and use new, innovative financial products."¹⁸

Our article aims to highlight both the benefits of open banking, as well as the challenges that can be faced when implementing open banking policies. Knowing these challenges ahead of time may help policymakers to craft policies that best benefit bank customers, be they individuals, households or businesses. ■

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

18 See <https://bidenwhitehouse.archives.gov/briefing-room/presidential-actions/2021/07/09/executive-order-on-promoting-competition-in-the-american-economy/>.

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