

# Moving markets towards open finance:

## Policy considerations for emerging markets and developing economies



**Fair Finance Consulting**

*Consumer protection and competition research and advisory services*

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# Moving markets towards open finance: Policy considerations for emerging markets and developing economies (EMDEs)

Rafe Mazer, Fair Finance Consulting | April, 2023

**For a consumer in the digital economy, having control over your data—who can access it, how it is used, when data usage can be revoked—is increasingly recognized as an essential right which supports consumer protection and competition in digital markets.**

Financial data is one of the more valuable and vulnerable data types in the digital economy. Valuable in that a consumer's credit history, bank statements, or even their basic cash-flow data from a mobile money provider<sup>2</sup> can unlock access to financial services for individuals and businesses. Vulnerable in that increased data sharing and connectivity brings new types of fraud, scams, and phishing which seeks to access consumers' digital accounts to take their funds or perpetrate identity theft.

**To help consumers better control and benefit from their financial information, new models for consumer-led data sharing have emerged in countries across the globe.** These models take different names, including “open banking,” “open finance,” “consumer data rights,” “data exchanges,” and vary in the types of firms, data sources, and industries they cover. (This report uses open finance as the primary term of reference, and focuses mainly on the financial sector.) At their most useful, most of these models appear to share a few elements:

1. Consumer-led functionality. **The ability for consumers to direct financial service providers to share the consumer's financial data with another service provider at the discretion of the consumer**—and not just to providers the financial service provider chooses to integrate with.
2. Formal policy mandate. **The more successful open finance models generally have a mandatory participation requirement for at least some major financial service providers**, and regulatory standards on the data which must be shared and services which must be provided.
3. Connected infrastructure and standards. This includes **standardized APIs with strong governance mechanisms to address operational issues or misconduct**, and **interoperable payments connections**, so that both data exchange and financial transactions can be executed on the consumer's behalf, linking data sharing with payment initiation and product delivery.
4. Adjustable, expansionary mandates. **The ability to expand and adjust the types of providers, data, and products covered** so that consumer data from **more financial services** (e.g. insurance, securities) and **additional industries** (e.g. utilities, telecommunications, e-commerce) can be linked to a consumer's banking and payments data to provide better and new products and services.

These elements cover both technical design aspects of open finance and policy design for rules and participation. These elements are based on a review of relevant policies and regulations in markets with

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<sup>2</sup> [The Use of Cash-Flow Data in Underwriting Credit: Empirical research findings](#). July, 2019. FinReg Lab.

live or in-development data-sharing in financial services; recent literature on competition and consumer protection in data-sharing models; and interviews with regulators, financial service providers, and researchers involved in data-sharing regimes.

There is a growing number of technical documents and experts building the next generation of open finance ecosystems across the globe. This alone is a noteworthy sign of maturity and expansion of the sector, and these builders are making it possible for faster and more efficient design of the next generation of open finance models.

**The growing industry of open finance service providers will be particularly important as we think about how open finance might reach larger portions of emerging markets and developing economies (EMDEs) in regions like sub-Saharan Africa, where it may not be possible for government agencies to invest the staff and institutional resources seen in countries like Brazil, India, or the United Kingdom.** These new open finance implementing firms and experts may make it possible to build open finance without having to staff up to the level seen in those markets.

This matters for EMDEs because I would argue that in those markets the potential of open finance is not just additive, but truly transformative.<sup>3</sup> I say this because of the higher number of individuals without access to formal financial services, the relatively underdeveloped state of consumer and small business credit markets in these countries, and the growing number of mobile-based payments, deposit, and consumer loan accounts, which offer invaluable data to provide these consumers with more choice and better matched products. But **such choice and competition may only occur if this data is accessible in a fair, open, and consumer-focused manner like open finance provides. Many EMDEs have highly concentrated banking and payments markets, which open finance could improve upon by breaking down data silos and exclusive access to valuable consumer data, thereby allowing for greater competition and choice for consumers.**

Considering the potential of open finance for EMDEs, and the lessons from early open finance markets identified during conversations with local experts, this paper focuses on two insights from the first 5 years of open finance for EMDEs:

1. **Voluntary data-sharing models are less likely to provide robust competition and inclusion benefits;** and
2. **Government data can help unlock financial innovation and incentivize provider participation.**

These insights are intended to focus on what I view as the most important challenge for open finance to succeed in EMDEs: Political economy and the disincentives of powerful incumbents to participate in open finance. It is no accident that, with the notable exception of the United States, the most successful open finance models to date are also the ones where there has been some element of mandatory opening for financial service providers. Unfortunately, a review of open banking and open finance models in EMDEs shows that some markets are continuing to design voluntary models, although there appears to be a shift in thinking globally. Where mandatory regimes may not be politically possible, there may be ways to bring some actors into an open finance-style ecosystem. To not discourage

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<sup>3</sup> For a broader discussion of the potential of data-sharing models and their design considerations in EMDEs, see also: Rafe Mazer. [Emerging Data-Sharing Models to Promote Financial Service Innovation](#). June, 2018. Financial Sector Deepening Kenya.

markets where a broad open finance model is not yet possible, there may be ways to leverage government infrastructure and consumer data or accounts held by the government to expand the frontier even if no broad open finance policy is in place. Recent developments in India demonstrate just such a possible path, and so are covered extensively in the second section of this report. Finally, the report concludes with some suggestions on how more EMDEs can begin the policy journey towards open finance.

### Which open finance use cases are experts particularly excited about?

As part of the interviews with open finance experts across the globe, participants discussed the innovations brought out by open finance in their markets they are most excited for. Some of the more common innovations mentioned are noted below, categorized into innovations in Products and Market Segments, Data Availability, and Financial Infrastructure:

#### Products and Market Segments

1. Lending marketplaces where multiple lenders using the same set of consumer data
2. Improving credit access for micro, small, and medium enterprise finance, and other thin file and underserved populations, such as women and rural residents.
3. More efficient and effective debt counseling and debt restructuring through centralized consumer records and account portability.
4. Expanding insurance access and driving more competitive premium pricing.

#### Data Availability

5. The sharing of tax, procurement, and other government data, to catalyze small business financial access in particular.
6. The availability of cash-flow data for lending decisions.
7. Fast-moving consumer goods and retail distribution chain data.

#### Financial Infrastructure

8. Reducing the costs of government-to-person or person-to-government payments by removing card network and banking interchange fees.
9. Reduced customer acquisition and KYC costs.
10. Payment initiation, including recurring payments.

## I. Voluntary data-sharing models are less likely to provide robust competition and inclusion benefits

### Growing momentum for mandatory open finance models

When reviewing the state of financial data-sharing globally, it can be difficult to parse the criteria by which some markets are deemed to “have” open banking or open finance in place. **In many cases the definition of what is or isn’t open banking and open finance is too loose to be useful.** This liberal labeling of “open finance” runs the risk of diluting the meaning of open finance. There is also the risk that limited, mainly voluntary models, will be thought to be on par with more robust models. This could lead to eventual disappointment for policymakers and industry, as uptake is typically lower in voluntary than in mandatory models, with the United States a noteworthy exception.

**What is sometimes called open banking or open finance can in fact lack robust and wide-reaching consumer-led financial information sharing, and instead allows providers to determine how interconnected they want to be with others, and whether they will or will not make it easy for consumers to share their data with third parties.**

The World Bank distinguishes between three primary open banking models: Prescriptive, which require sharing of data and registration of third parties; facilitative, where guidance and recommended standards are issued; and market-driven, with no explicit rules or guidance for sharing or refusing to share customer-permissioned data with third parties.<sup>4</sup>

However, not all approaches appear to be as effective in driving the rapid advancement of data-sharing models. As Greznik notes when reviewing open banking in Latin America, “One common theme though, is that advance stages of implementation and adoption are directly correlated to regions where national regulators have publicly recognised and regulated Open Banking.”<sup>5</sup> Going further, Bungay argues:

*...we are yet to see whether voluntary open banking regimes work at all. The existing voluntary regimes are often highly prescriptive and quasi-mandatory either in the way they are implemented (e.g., Hong Kong) or seen by regulators (e.g., [Japan](#)); and even the explicitly mandatory regimes need to strive at promoting incentives for all key players to participate actively rather than default to a defensive strategy. These incentives are missing if the incumbent providers, which are typically least excited about open banking, are also given the most control over the framework’s implementation and success – especially where compliance comes at a high cost.*<sup>6</sup>

Bungay argues this during a discussion in 2022 of the experience of open banking in Nigeria, which to that point had not achieved voluntary implementation of an open finance system, despite years of advocacy and development of API standards by civil society organizations such as Open Banking Nigeria. In March, 2023, the Central Bank of Nigeria released the final versions of their Open Banking Guidelines,

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<sup>4</sup> [Technical Note on Open Banking: Comparative Study on Regulatory Approaches](#). 2022. World Bank Group.

<sup>5</sup> Michel Greznik. [Open Finance Progress in LatAm](#). 2022. Open Future World.

<sup>6</sup> Stuart Bungay. [Can Open Banking Support Financial Inclusion in Nigeria or Elsewhere?](#) November 2, 2022. CGAP.

which do not compel data sharing by any actors, instead stating (bold added) “Given the open banking regulation, any organisation that has data of customers which may be exchanged with other entities for the purpose of providing innovative financial services within Nigeria, **shall be eligible to participate** in the Open Banking ecosystem.”<sup>7</sup> There is some discussion in Nigeria currently that the voluntary status of open banking may be only temporary, and banks may be compelled to share certain data through open banking in the future. For now though, in a market where in 2022 the top five banks accounted for approximately 75% of total banking assets,<sup>8</sup> Bungay’s warnings about the disincentives for incumbent providers to join voluntary models seem particularly relevant. If Nigeria’s current voluntary model is maintained, it will offer an important test case whether a purely voluntary regime can reach a scale that impacts financial inclusion and innovation.

**Even where voluntary models have achieved private sector participation, what is being called open banking by the global community—but not always the local government—can be better described as a set of standards for voluntary connectivity.** In Singapore, the Monetary Authority of Singapore and various industry associations and representatives have collaborated to develop a set of standard APIs for financial institutions—named APIX—and a data exchange—named SG FinDex—which some have referred to as an example of open banking. However, participation in APIX and SG FinDex is not mandatory, and agreements to share data are dependent on firms making private commercial agreements. The APIX/SG FinDex infrastructure is a commendable innovation and provides several benefits, but it does not appear to be driving data-sharing at the scale of other more compulsory open finance models. To date, the SG FinDex reports counting with 16 participating financial institutions, 290,000+ connections made, 620,000+ data retrievals made, and 150,000+ unique users.<sup>9</sup>

By contrast, the Central Bank of Brazil launched their Open Finance regime in February, 2021, and required certain banks and payment service providers to let their customers enact consumer-led data sharing with third parties. **By the fourth quarter of 2022, Brazil’s Open Finance ecosystem reported more than 4.9 billion API calls, 18.7 million active consents since inception, as well as more than 800 active institutions participating in open finance.**<sup>10</sup> An example of open finance impact in Brazil is Banco do Brasil, which in April, 2023 reported that access to new customer data via open finance allowed them to increase customer credit limits by a cumulative R\$ 700 million (\$1.4M).<sup>11</sup> In January, 2023, Brazil also launched open insurance, which brings the insurance sector into the same data sharing system, and have announced plans to include securities and investment products next.

In Brazil implementation of open finance was initially planned for a technical group under a directive board comprised of industry representatives to take the basic ground rules set by the Central Bank of Brazil (BCB) and implement them in a self-regulated process. However, achieving industry consensus on these details proved challenging, and a “semi-self-regulated” approach was adopted, with a more direct involvement of the regulator in the implementation of the open finance systems and services. This role

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<sup>7</sup> Section 4.1. Operational Guidelines for Open Banking. March 2023. Central Bank of Nigeria.

<sup>8</sup> [Largest banks in Nigeria by total assets as of H1 2022](#). September 9, 2022. Nairametrics.

<sup>9</sup> Figures from <https://www.singpass.gov.sg/main/sgfindex/> accessed April 19, 2023

<sup>10</sup> [Relatorio Trimestral: Estrutura Inicial do Open Finance Brasil Principais Indicadores](#), 4to trimestre de 2022. 2023. Open Finance Brasil.

<sup>11</sup> Matheus Piovesana. [Banco do Brasil aumenta em mais de R\\$ 700 mi limites de clientes PF com auxílio do Open Finance](#). April 5, 2023. Broadcast.com.br.

of the BCB is similar to the power provided to the Open Banking Implementation Entity (OBIE) in the United Kingdom to intervene and decide on standards when the industry cannot achieve consensus, something that the OBIE had to do on several occasions in the first years of the ecosystem.<sup>12</sup> **Such a “veto power” style of regulatory involvement is worth considering in other markets where the regulator does not want to dictate technical standards, but does want to assure that implementation does not delay due to commercial actors being unable to agree on standards.** In fact, a 2022 OECD survey on open finance found that 26 of 33 respondents affirmed that their open finance model includes standardized APIs.<sup>13</sup>

**While some new open finance models are voluntary (e.g. Nigeria or Colombia), most countries appear to be moving toward open finance ecosystems with some mandatory participation. This includes several markets where initially market-driven approaches are being reconsidered and enhanced with more prescriptive policy approaches.** New Zealand, which originally considered voluntary open banking models, is implementing a Consumer Data Right which would begin with the banking sector.<sup>14</sup> In Hong Kong, the World Bank reports that “having reviewed implementation challenges after a year, the [Hong Kong Monetary Authority] HKMA signaled its intent to play a more proactive role in the definition of standards and security for the higher-risk phases 3 and 4 of API implementation for account information and debit initiation.”<sup>15</sup> Malaysia issued an Open API framework in 2019, and Open API Implementation Groups with banking and insurance industries, but has yet to see industry voluntarily build this network at scale.<sup>16</sup> However, their 2023-2026 Financial Inclusion Framework Discussion Paper puts open data sharing as one of four strategic enablers, noting “the emphasis will be on establishing data sharing arrangements with relevant agencies to improve data access on the profiles, needs, and behaviour of the unserved and underserved segments,” suggesting a possible new policy approach to open finance.<sup>17</sup> In Chile, the new “Fintech Law” includes a section on open finance, which as a first step requires financial institutions to let consumers request their account data for banking accounts, credit cards, payment cards and other payment services be provided to a new category of entities known as “Institutions Providing Services Based on Information.” This is similar to the first stages of mandatory open banking regimes in markets such as Australia, Brazil, and the United Kingdom.<sup>18</sup> Finally, the Bank of Namibia “Position Paper on the Feasibility of Open Banking within the Namibian Financial Sector” of October 31, 2022, presents a plan to mandate data sharing within 18 months from the date through a regulatory approach.<sup>19</sup>

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<sup>12</sup> Mazer. 2018.

<sup>13</sup> OECD. [Shifting from Open Banking to Open Finance: Results from the 2022 OECD survey on data sharing frameworks](#). 2023. OECD Business and Finance Policy Papers, OECD Publishing.

<sup>14</sup> [Further decisions on the consumer data right](#). December 19, 2022. New Zealand Ministry of Business, Innovation, and Employment.

<sup>15</sup> World Bank Group. 2022.

<sup>16</sup> [Publishing Open Data using Open API](#). January 2, 2019. Bank Negara Malaysia. See also the Open API versions, last updated 2020, here: <https://github.com/BankNegaraMY>

<sup>17</sup> [Financial Inclusion Framework Discussion Paper](#). February 3, 2023. Bank Negara Malaysia.

<sup>18</sup> [Ley 21.521 \(Ley Fintec\)](#). January 4, 2023. Ministerio del Interior y Seguridad Pública. Gobierno de la República de Chile.

<sup>19</sup> [Position Paper on the Feasibility of Open Banking within the Namibian Financial Sector](#). October 31, 2022. Bank of Namibia.

**As markets like Brazil and the United Kingdom lead the global open finance race, there is a growing recognition of the importance of mandatory data-sharing and other minimum requirements for at least the largest participants in financial data-sharing models.** The OECD survey on open finance found that 19 of 30 markets reported having a mandatory data sharing model, while 7 reported voluntary arrangements, and 4 reported “other” arrangements. The Middle East region has also seen a rapid rise in open finance models recently, the majority of which have substantial regulator involvement.<sup>20</sup> There are of course exceptions to this trend, such as Colombia, where it appears that the open finance regime will begin as voluntary<sup>21</sup>, and India, where a mix of government and civil society initiatives are working together to develop their own style of open finance which appears to not fit neatly in either the mandatory or voluntary models.

## Neither mandatory nor voluntary – Financial information-sharing in India

**Financial information-sharing in India combines mandatory and voluntary aspects, with government infrastructure investments facilitating pilots of open finance solutions, even if the mandate for data-sharing is less prescriptive than markets like Brazil or the United Kingdom.** India does not have a central open banking or open finance law or regulation, nor a GDPR-style data protection law which mandates consumer-directed data portability. However, the Reserve Bank of India’s Account Aggregator Directions<sup>22</sup>, first issued in 2016 and since updated on six occasions, do establish a new licensing window for account aggregators, who can facilitate secure exchange of data from Financial Information Providers (FIPs)<sup>23</sup> to Financial Information Users (FIUs)<sup>24</sup>.

The Directions state that banks shall, upon a consumer’s request and proof of consent, share certain financial information<sup>25</sup> with an FIU through an account aggregator (AA), which manages consent and encryption of data. **However, the requirement to let consumers share their financial information currently only applies to those FIPs who have joined the account aggregator ecosystem, so “The AA system is yet to become mandatory for any of the ecosystem partners.”**<sup>26</sup> According to the Centre for Internet and Digital Economy, “For the ecosystem to mature, each FIP must be integrated with all AAs in

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<sup>20</sup> [Doors Wide Open for Open Finance in the Middle East](#). March 19, 2023. Salt Edge.

<sup>21</sup> While the current policy framework for open finance in Colombia does not mandate data-sharing, there is discussion of a potential future consumer data right similar policy, which would likely compel data-sharing in financial services and across the economy.

<sup>22</sup> [Account Aggregator Directions](#). 2022. Reserve Bank of India.

<sup>23</sup> FIPs are defined in the Directions to include “bank, banking company, non-banking financial company, asset management company, depository, depository participant, insurance company, insurance repository, pension fund, Goods and Services Tax Network (GSTN) and such other entity as may be identified by the Bank for the purposes of these directions, from time to time.”

<sup>24</sup> FIUs are defined in the Directions as “an entity registered with and regulated by any financial sector regulator.”

<sup>25</sup> Defined in the Master Directions as “a. bank deposits including fixed deposit accounts, savings deposit accounts, recurring deposit accounts and current deposit accounts, b. Deposits with NBFCs c. Structured Investment Product (SIP) d. Commercial Paper (CP) e. Certificates of Deposit (CD) f. Government Securities (Tradable) g. Equity Shares h. Bonds i. Debentures j. Mutual Fund Units k. Exchange Traded Funds l. Indian Depository Receipts m. CIS (Collective Investment Schemes) units n. Alternate Investment Funds (AIF) units o. Insurance Policies p. Balances under the National Pension System (NPS) q. Units of Infrastructure Investment Trusts r. Units of Real Estate Investment Trusts s. Goods and Services Tax (GST) Returns, viz. Form GSTR-1 and Form GSTR-3B t. Any other information as may be specified by the Bank for the purposes of these directions, from time to time;”

<sup>26</sup> [State of India’s Digital Economy](#). February, 2023. Centre for Internet and Digital Economy.

the market. The type of data sets accessible to FIUs also needs to be broadened and regulatory compliance needs to be strengthened to ensure protection from risks of ecosystem monopolisation either by TSPs or AAs.<sup>27</sup> There is an expectation from some that **while industry-led initiatives are building the account aggregator ecosystem currently, there will be more long-term involvement of the relevant regulatory authorities.** This could include the government providing self-regulatory status to some of the networks which are building and overseeing the current ecosystem; increasing the scope of firms and data types which must be shared at the consumer's request; or even placing the regulator in the "middle layer" of the system between the financial information providers, aggregators, and financial information users to improve oversight. Such requirements might be beneficial to ensure coverage, fairness, and reciprocity in the Indian account aggregator model in the long-run.

**Since the details of the APIs for sharing of the information are not specified in the Account Aggregator Directions,<sup>28</sup> several civil society organizations have taken the lead in building the API infrastructure, governance rules, codes of conduct, and consent architecture for the FIP, FIU and AA ecosystem.**

Sahamati, a nonprofit which has built AA standards, has brought on 14 aggregators, 221 FIPs and 326 FIUs, and reports 4.2 million linked accounts and 4.45 million consent requests as of April, 2023.<sup>29</sup> Current use cases being implemented by these members include lending, customer onboarding, and wealth management. **Initial experiences with lending disbursed through account aggregators show the promise of this data-sharing model, with reports of increased use of income verification for loan applications from 7%-10% to 35%-42% percent, increased credit limits of almost 55%, and 75% reduction in loan processing costs.**<sup>30</sup> These benefits in a relatively small, voluntary pilot point to the potential that a wider, mandatory open finance ecosystem could have for consumer welfare and competition.

India also benefits from public infrastructure which facilitates information sharing, including: 1. The Aadhar national ID system, which has reduced account opening and customer verification costs; 2. UPI, a low-cost national payments switch; and 3. Government data linked to an individual or business' Aadhar ID, such as tax records and government contracts. While at this point consumer-led data sharing is not available for all financial consumers, providers, and data types, limiting the scope and reach of India's open finance to date; there are several emerging networks of firms and industry bodies which are leveraging the carrots of government data sources and infrastructure to incentivize provider participation in a voluntary data-sharing ecosystem. The potential for government data to incentivize data-sharing model participation and expand product use cases is discussed in more detail in Section II.

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<sup>27</sup> Centre for Internet and Digital Economy. 2023.

<sup>28</sup> The Master Directions only establish broad criteria that "Financial information providers shall: a. implement interfaces that will allow an Account Aggregator to submit consent artefacts, and authenticate each other, and would enable secure flow of financial information to the Account Aggregator; b. adopt means to verify the consent including digital signatures, if any, contained in the consent artefact; c. implement means to digitally sign the financial information that is shared by them about the customers; d. maintain a log of all information sharing requests and the actions performed by them pursuant to such requests, and submit the same to the Account Aggregator."

<sup>29</sup> <https://sahamati.org.in/certified-entities/> and <https://sahamati.org.in/fip-fiu-in-account-aggregators-ecosystem/> accessed April 19, 2023

<sup>30</sup> Centre for Internet and Digital Economy. 2023.

## Voluntary and Voluminous: The case of FDX in the United States

The data-sharing network Financial Data Exchange (FDX) is a non-profit which has built “a common, interoperable, and royalty-free technical standard for the secure and convenient access of permissioned consumer and business financial data, aptly named the FDX Application Programming Interface (FDX API).” **FDX has connected more than 42 million unique consumers across 230 member organizations in the U.S. from sectors as diverse as banks, auto finance, and civil society organizations like Consumer Reports, all through a voluntary basis.**

FDX offers several benefits which have incentivized large-scale voluntary participation. For banks their solution makes it easier to distinguish between malicious traffic to the bank, “benign automation” from aggregators and apps, and traffic from individuals. For aggregators the FDX APIs offer a more reliable, less fragile data access channel than the screen-scraping solutions they previously relied on—although screen scraping is still widely used in the U.S. The democratic nature of a voluntary system like FDX also allows for many voices to propose innovations, which may allow new ideas to enter the ecosystem faster than where government rules dictate the permissible activities. At the same time, this also means there could be beneficial innovations or rules—such as enhanced consumer protection standards—which a regulator might be inclined to enforce in a mandatory model, but could be deemed not a priority by the voting participants in a voluntary and so not implemented. For example, FDX does not have payment initiation within their current features, and would not be able to mandate its inclusion since this is a voluntary network, although that would not preclude a voluntary payment initiation solution from emerging.

FDX has achieved great success through a purely voluntary model, a contrast to most open finance experiences globally. At the same time, policy may be shifting in the U.S. In March, 2023, the CFPB released their “Final Report of the Small Business Review Panel on the CFPB’s Proposals Under Consideration for the Required Rulemaking on Personal Financial Data Rights” as part of their plans to enact section 1033 of the Dodd-Frank Act, which authorizes the CFPB to prescribe rules requiring financial service providers to make available to consumers “information relating to any transaction, series of transactions, or to the account including costs, charges and usage data.” The report signals likely rule-making in the future, arguing that “While the CFPB is encouraged by some of the competitive effects of market-driven data access occurring today, it has become clear that these gains cannot be guaranteed until disagreements over consumer-authorized information sharing are addressed through rulemaking.”<sup>1</sup> Hopefully these rules will address some of the limitations that voluntary models face in full-market participation or consumer protection enforcement, while leaving space for FDX and others to leverage the new rules for further growth and innovation in consumer-led data-sharing services.

<sup>1</sup> “Final Report of the Small Business Review Panel on the CFPB’s Proposals and Alternatives Under Consideration for the Required Rulemaking on Personal Financial Data Rights”. March, 30, 2023. U.S. Consumer Financial Protection Bureau

## The long-term benefits of government oversight

As noted above, **I would argue that in nearly all cases policymakers should mandate a minimum amount of compulsory participation and data-sharing to avoid the first-mover disincentives that arise in voluntary models.** Such approaches would also place policymakers in a better position to address the risk that digital financial services, like most digital markets, will trend towards concentration to the detriment of consumers. Croxson, et al, note digital markets may be particularly prone to competition risks. First, big tech providers have shown dominance in payments in emerging markets such as China,

India, and Kenya. Second, there are risks of exclusion or discrimination based on new data sources. Finally, they find platforms can lead to more fees for consumers: “Platform-based banks derived nearly 40 per cent of their revenues from fees and other noninterest income in 2020, as compared with 33 per cent for peers.”<sup>31</sup>

**Mandatory data sharing requirements may be a useful remedy not only for concentrated markets, but also for fragmented markets.** Awrey and Macey (2022) argue that in the U.S. “This high level of industry fragmentation is the source of massive coordination problems that make it difficult for financial institutions to develop the standardized APIs necessary to unleash the promise of Open Finance. In the absence of both common industry standards and government intervention, responsibility for developing these APIs has instead largely fallen to a small cadre of technology firms known as data aggregators.”<sup>32</sup> They further raise concerns that the central role of these aggregators, in an unregulated open finance ecosystem, could lead them to have a level of dominance and centrality which gives them market-maker status.<sup>33</sup> In India, the Centre for Internet and Digital Economy raises similar concerns about possible concentration of market participants, noting that “in the absence of good governance and regulation, DPIPs could grow to become digital monopolies, and thus, carry the risk of concentration.”<sup>34</sup>

These concerns echo concentration risks observed in some mobile money markets in Africa, where mobile network operators have used their role as both the dominant telecommunications and payment service provider to restrict market entry of new financial service providers or increase their dominance through vertical integration of telecommunications, payments, and other banking products, often leveraging exclusive access to valuable data such as payments account history and digital credit loan repayment.<sup>35</sup>

**This last risk of concentration may be the most important argument for mandatory regimes in EMDEs.** It is likely no accident that the U.S. has one of the largest and least-concentrated financial sectors globally, creating an environment for innovators like FDX to build impressive and far-reaching voluntary networks. However, **the high concentration of financial services, especially banking and payments, in many EMDEs creates a very real risk that the majority of accounts and related data will be held by large actors who will actively resist open finance.** Already this behavior has been observed in the negotiations over payments interoperability in several African digital financial services markets, and it is likely that these larger actors will similarly resist any efforts to share their valuable customer data with third party competitors, calling to question the likelihood for success of voluntary open finance models in these markets in particular.

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<sup>31</sup> Karen Croxson, Jon Frost, Leonardo Gambacorta and Tommaso Valletti. January, 2022. [Platform-based Business Models and Financial Inclusion](#). Bank for International Settlements.

<sup>32</sup> Dan Awrey and Joshua Macey. [The Promise and Perils of Open Finance](#). Yale Journal on Regulation. Vol 40, Issue 1: 2023.

<sup>33</sup> A US-based expert provided a countering argument that in these cases there should still be a way to directly connect with the endpoint of a financial institution a firm wanted to connect with. In this case the primary barrier would be establishing the initial connection without an aggregator, although they did note that in cases of monopoly or duopoly this risk may be relevant, which speaks to the need for competitive and diverse aggregator ecosystems when the government is not overseeing the open finance ecosystem.

<sup>34</sup> Centre for Internet and Digital Economy. 2023.

<sup>35</sup> Rafe Mazer and Philip Rowan. [Competition in Mobile Financial Services: Lessons from Kenya and Tanzania](#). January, 2016. The African Journal of Information and Communication, Vol. 2016, No 17.

At the same time, the success of a model like FDX—more than 40 million accounts connected—should not be discounted when most public sector open finance models are still seeking scale. **In EMDEs the resources and staffing of the authorities responsible for overseeing open finance need to be considered before seeking to develop open finance models.** It is not uncommon to hear complaints from financial service providers regarding delays in issuances of licenses for financial institutions, and the success of regulatory sandboxes in EMDEs is so far mixed. These examples point to struggles many EMDE financial sector authorities face to keep pace with innovations in digital financial services. I would argue this speaks more to the fact that **many EMDEs are simply not ready yet for open finance than a criticism of mandatory open finance regimes versus voluntary regimes.** In assessing the relative readiness for financial data-sharing of three leading East African mobile money markets, Mazer (2018) identifies enabling infrastructure such as e-KYC, high use of digital financial services, and modern data protection laws as important factors to consider when determining if open finance or similar models are right for a particular market. The author concludes that amongst Kenya, Tanzania, and Uganda, only Kenya is in a position to execute a far-reaching financial information sharing system.<sup>36</sup> (The primary limitation in Kenya is likely the political economy of high market concentration—Safaricom accounts for 97% of mobile money subscriptions<sup>37</sup>, and 95% of all digital loans<sup>38</sup>.) **From a policymaker perspective, an honest self-assessment of market readiness is important before determining whether to pursue an open finance regime, or to instead focus limited resources on other financial sector innovations and infrastructure that could make open finance feasible in the future. However, it is likely that expending policy efforts on open finance in a purely voluntary regime will not yield the competition and innovation outcomes many hope for in open finance.**

### The importance of interoperable payments in open finance models

Many data-sharing models have a strong linkage to interoperable payments infrastructure, and in some models payments system development is part of open finance requirements. Her Majesty's Revenue and Customs (HMRC), the UK's national tax authority, has enabled payment of taxes through open banking's payment initiation APIs, saving HMRC more than 500,000 British Pounds in fees to card companies for tax payments since launching the service in March, 2021. The government is now planning to use the system for welfare payments to reduce costs for that government service as well. In Brazil The Open Finance Framework includes interoperability as one of its core principles, and the BCB's development of the widely-used PIX interoperable payment system has been linked to the success of the Open Finance model there. By contrast, in Australia it has been argued that the lack of requiring payment initiation in the open banking standards has limited usage, as transactions cannot be seamlessly integrated into data sharing interactions.<sup>1</sup> This may be why the Australian government, in 2022, put forth legislation that would allow for this payment initiation within the consumer data right framework. In Latin America, Chile and Colombia have included payment initiation as one of the first phases of their open finance implementation plans.<sup>2</sup>

#### Sources

1. Clancy Yeates. A whimper rather than a bang: Why open banking has had a slow start. January, 28, 2023. The Sydney Morning Herald.
2. Proceso de Implementación: Ley que promueve la Competencia e Innovación Financiera." December, 2022. Chile Comisión para el Mercado Financiero; Proyecto Finanzas Abiertas SFC, presented at the "Mesa de trabajo Finanzas Abiertas SFC público – privada". February 13, 2023. Superintendencia Financiera de Colombia.

<sup>36</sup> Mazer. 2018.

<sup>37</sup> [Second Quarter Sector Statistics Report for the Financial Year 2022/2023 \(1<sup>st</sup> October – 31<sup>st</sup> December 2022\)](#). 2023. Communications Authority of Kenya.

<sup>38</sup> Analysis of publicly available data provided by MicroSave Consulting, March, 2023.

## II. Government data can unlock financial innovation and incentivize provider participation

**In addition to setting rules for data-sharing and interoperable payments that facilitate open finance, policymakers are leveraging government-held data on consumers and businesses to incentivize participation and support new financial services for consumers and small businesses.** Early experiences from India show the promise of these sources of data to inspire innovations in digital financial services for underserved financial consumers in EMDEs.

**In India, the government has helped to incentivize early use cases of the Account Aggregator and Loan Service Provider licenses by making available tax and public procurement invoicing data held on businesses.** The availability of this data for consumer and small-business benefit is being facilitated by civil society actors such as Credall and the Open Network for Digital Commerce (ONDC). Credall is a non-profit which seeks to democratize access to affordable credit for small businesses and individuals, where “Even pre-COVID-19, 92% of small businesses in India lacked access to formal credit.”<sup>39</sup> Credall’s Open Credit Enablement Network APIs offer a standardized channel by which lenders and borrowers can connect and utilize data for improved product offerings and loan underwriting. ONDC is building an open e-commerce network where “buyers and sellers can transact no matter what platform/application they use to be digitally visible/available.”<sup>40</sup> Models like Credall and ONDC benefit from several policy actions taken by the Indian government:

1. **Allowing citizens and businesses to electronically access and share their value added tax (VAT) and goods and services tax (GST) data** (the 2023 Finance Bill (158A) also proposes to expand this existing accessibility even further.)<sup>41</sup>
2. **The launch of the Government e-Marketplace, GeM Sahay**, which allows firms to access invoice financing based on government purchase orders they have received.
3. **The establishment of the Lending Service Provider (LSP) license.** LSPs work with lenders to facilitate activities referrals for loans and integration of new applications or underwriting models into their operations.<sup>42</sup> LSPs are not able to lend themselves, and are expected to act in the customer’s interest, to avoid the conflict of interest and steering concerns common to many financial and e-commerce search platforms.

There are several features of the LSP model which could support both increased access and greater competition in small-value lending. **Unlike when consumers apply for loans bilaterally, in the LSP model consumers can simultaneously share their data to several lenders on the LSP’s platform and receive competing offers through a single channel.** The LSP can also ensure standardized provision of loan information through common formats for product offers and key facts statements, reducing the challenge of comparing loan offers in differing formats and with differing terms across providers. LSPs should also be able to standardize, and hopefully reduce, the commissions and other costs that can be charged by third-parties who facilitate consumers access to loans. Finally, given the numerous consumer protection issues which have arisen in the digital credit market in India, having centralized loan records

<sup>39</sup> [Data Empowerment and Protection Architecture](#). 2020. NITI.

<sup>40</sup> Democratizing Digital Commerce in India. January, 2022. Open Network for Digital Commerce.

<sup>41</sup> Clause 141. Insertion of new section 158A. Finance Bill of 2023. Ministry of Finance of the Government of India.

<sup>42</sup> [Report of the Expert Committee on Micro, Small and Medium Enterprises](#). June 2019. Reserve Bank of India.

from multiple lenders within the LSP network could improve visibility of different conduct issues and allow for better monitoring of risks such as over-indebtedness, penalty fees, and multiple borrowing by already indebted consumers.

In its pilot phase has been able to offer a range of financing types including buffalo financing, seed purchase financing, and microloans. During a pilot of the LSP lending model using the GEM-Sahay platform, lenders were able to offer loans ranging from \$2 to \$1,500 USD equivalent to small firms providing goods and services to the government. In the case of the \$2 loan, this was for a vendor supplying rubber bands to the government, demonstrating the potential of such a model to provide very small ticket loans to individuals, similar to nano-credit models in Africa, but with a more competitive multi-lender structure that benefits consumer choice and price-based competition.

Taxation, procurement, and identity data are not the only ways governments can facilitate better financial access through improved data sharing. Digitizing and sharing records such as land titles or collateral registries held by governments can provide a more accurate view of the assets held by businesses or individuals, which reduces their perceived risk and can help providers make more tailored product recommendations and offers. In India a recent pilot in 2 states—with 3 more states to be added in March, 2023—digitized land titles to help improve access to finance for farmers, reducing the time to receive a loan from 4-6 weeks to just days. There is hope that this pilot could be expanded to include up to 100,000,000 farmers in the future.

**There are several other potential sources for data which governments could consider making available through data-sharing frameworks to catalyze information-sharing where the private sector is not serving certain segments of the population.** This could include: Educational degrees and government educational loans; public sector employee records; or government-to-person payments (although this raises some ethical concerns discussed in the text box below). Where governments have useful data to avail digitally on behalf of interested citizens, they could require participating firms obey principles of reciprocity of data-sharing to access valuable government-held information. Firms would then have to be willing to share their customers' account or identity information with others in the data-sharing system or be left out of this particular government data system and the customers it serves.

In countries where the public sector is a large part of the formal workforce and/or the economy, or where the government provides essential infrastructure like digital identity verification, approaches like those being piloted in India could be worth pursuing where they are legally permissible. **Leveraging government data to spur participation may be more relevant for EMDEs, as these countries are more likely to have gaps in regulatory coverage; limited competition mandates or data protection laws to enact open finance regimes; and concentrated banking or electronic payments which resist open finance policies.** In these countries there are often numerous government programs serving stakeholders like smallholder farmers or microenterprises who could benefit from these services, enhancing the financial inclusion potential of open finance. A government data access strategy could also be a way to expand participation beyond regulated financial sector entities to include unregulated fintechs or e-commerce platforms, since the ecosystem would be voluntary and could be open to a wider range of entities that are willing to meet any criteria for participation set forth by the government. **Where mandates are limited or political will difficult to obtain, governments may want to think**

creatively about what useful data for consumers they can bring to the table, and use this as a building block toward a more comprehensive open finance ecosystem in the long run.

### Government welfare payments and open finance—a complex choice

The United States Consumer Financial Protection Bureau, in its consultation process regarding possible rules related to consumers' personal financial data rights, presented the public with an interesting question for consideration (**bold added**):

*Please provide input on the approach the CFPB is considering with respect to the coverage of data providers. What alternative approaches should the CFPB consider? For example, should the CFPB also consider covering payment account providers that are not Regulation E financial institutions as presently defined, **such as providers of government benefit accounts used to distribute needs-based benefits programs?**<sup>1</sup>*

Including electronic payments data such as welfare payments in data sharing ecosystems was raised in interviews across multiple markets. The interest in considering government assistance payments for data sharing regimes is understandable: These programs serve tens or hundreds of millions of individuals; the data is related to government payments, so could be shared in markets where banks and payment service providers are not compelled to let consumers share account data; and the beneficiaries are often financially underserved populations such as rural or lower-income individuals.

However, the nature of qualification for many of these programs—economic vulnerability—and the most likely early use cases for such data—underwriting small-value consumer loans, raises substantial concerns about the ethics and risks of including this data. It is easy to imagine lower-income consumers being aggressively targeted for loans which base affordability assessment on welfare payments. Further, if these loans include automatic sweeping of repayments from deposit or payments accounts, a beneficiary's vital welfare assistance could be swept from their account to service a debt they previously took.

At the same time, consumer-led data sharing emphasizes the rights of consumer to control their financial data, and these welfare payments are certainly consumer financial data. In EMDEs government payment recipients may be more likely to be excluded from formal financial services outside of government transfers, and less likely to have other government-derived data such as tax filings, educational loans, or public salaries. Including these accounts could improve the quality and value of these accounts for consumers. A March, 2023 report by the U.S. Consumer Financial Protection Bureau documented issues such as excessive fees and poor customer service for government beneficiaries who receive benefits from deposit accounts and prepaid cards.<sup>1</sup> One of the objectives of some open finance regimes is to facilitate account switching, and these types of consumers may benefit from the ability to share their account data—including fees charged—so that they can more easily leave providers which charge higher account fees.

There is a complex policy decision each government will regarding access which could increase financial service options, but may risk exploitation of particularly vulnerable financial consumers—undermining the objectives of the government's welfare program, versus restricting some consumers' rights over their data in a way likely not applied to any other consumers in the data sharing ecosystem.

### III. The importance of policy mandates to enable open finance

Five years ago, the number of live financial data-sharing systems globally could probably be counted on one hand. **In 2023 there are now enough models of open finance across enough market types globally that policymakers have a range of design choices they can consider and learn from.** Some of the most important considerations include:

- The types of providers, products, and data to include;
- The governance models for development and maintenance of open finance; and
- How to effectively supervise for competition and conduct concerns (see the companion piece to this report, “Consumer Protection for Open Finance Ecosystems”.)

**There is no one model that will work for open finance policy, but global experience shows that if governments are going to pursue open finance policy, they are best served to include some mandatory requirements for data sharing and interconnectivity.** This could be relatively limited such as a few leading banks, or multi-sectoral such as a consumer data right. The decisions on these and other factors should be left to the particularities of each country, and each market.

This report is not, however, arguing that all countries should pursue open finance now. **It is possible that many, or even most, EMDEs are not ready for open finance, due to factors such as low formal financial access, limited digital infrastructure, unreliable ID and KYC systems, or lack of modern data protection laws.** It is also worth noting that there are interesting private-sector initiatives in spaces such as alternative IDs, blockchain, and data interoperability which may develop solutions that can serve segments of EMDEs even if a national-level policy is not in place.

However, every policy action represents a choice to dedicate a government’s human and financial resources to one activity, and consequently a decision to not allocate resources to other policy activities. In the case of open finance, **where governments do decide their market is ready and open finance is a policy priority, they should take heed of the experiences to date, and determine if they are not willing to spend the political will and supervisory resources to implement a mandatory model for at least some actors.** As some of the examples described in this report show, an investment in building the political will to enact open finance may yield significant benefits for competition, consumer welfare, and financial sector innovation, even if it requires greater upfront effort than purely voluntary models.