

The power of data

Brazilian fintech [Nubank](#) offers low-fee digital banking services. In 2020, it [acquired Easynvest](#), an online investment brokerage. This has allowed it to launch [NuInvest](#), a digital investment platform that lets customers invest in a range of financial products, including stocks, fixed-income investments, and mutual funds, all within the same app. The platform also provides customers with personalised investment recommendations based on their financial profile and investment goals. NuInvest was designed with the Brazilian market in mind, specifically with the goal of increasing financial inclusion. The platform has no minimum investment amount, making it easier for low-income individuals to start investing.

The success of fintechs or neobanks like Nubank often rests in the ability to use customer data to provide a tailored offering that meets an individual client's specific needs and realities – such as the individualised investment recommendations offered by NuInvest. Thus, data is a powerful enabler of innovation.

However, data can also be a tool for market power. For large market players that hold extensive client data, such as mobile network operators or banks, such data is a precious competitive advantage that they guard closely to prevent competitors from “poaching” their clientele.

This doesn't necessarily need to be the case. When data is appropriately shared between firms, it can overcome power imbalances and open new avenues for innovation by all market players – incumbents and startups alike. However, overcoming the traditional notion of data as power requires careful orchestration.

The open movement

In September 2022, [Nubank joined](#) the [Open Finance Brasil](#) initiative, launched by the Central Bank to allow participants to use open banking APIs to securely access consenting customers' financial data held by other firms. Doing so makes it possible for players like Nubank to see customers' overall financial picture and to help them make informed investment decisions.

In doing so, Nubank is joining fintechs and financial service providers in a growing number of countries globally which, recognising the power of data, have started to consider or implement an **open finance** regime.

Consented sharing of consumer data. Open finance evolved out of the narrower concept of open banking, first adopted in the UK and EU, whereby banks in the UK, and payment institutions in the EU, were mandated to share their customer data with third-party providers with customers' permission:

- **Open banking** is defined as the exchange of consumer data between banks and other FSPs and/or regulated third-party services providers on the basis of

consumer consent. Open banking typically only allows for the exchange of or access to transactional and bank payment data.

- **Open finance** extends the data sharing realm to all FSPs, such as insurance providers or investment advisors and includes other financial products such as pensions, investments and insurance.

The next round of evolution would be a full-on **open data** approach where all types of consumer data can be used, re-used or re-distributed freely between financial and non-financial institutions on the basis of consumer consent. Australia is already exploring a version of this through their CDR ([Consumer Data Right](#)) approach that aims to roll out consented data sharing across all sectors of the economy

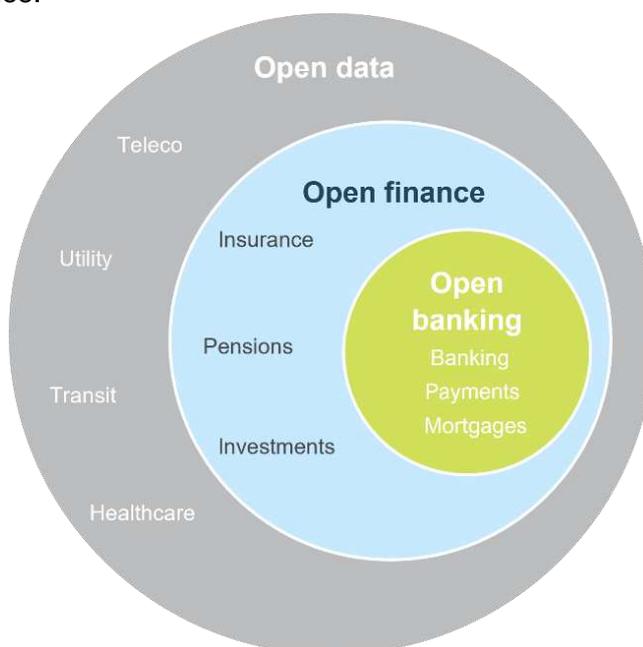


Figure 1 shows how the data ambit broadens from open banking to open finance, to open data.

Figure 1. Open finance in the context of open banking and open data

Source: [Gray et al, 2022](#)

An interrelated ecosystem

Four parties. Open finance entails a relationship between four core parties:

- **Customers as data owners:** Open finance is underpinned by the human rights principle that consumers are the owners of their data. Thus, consumer consent is the foundation for data sharing. This decision can be on an opt-in or opt-out basis. For example, consumers could be required to give consent, should they want to access a certain service. While they are free to opt out, that would mean that the service would not be available to them, the same way that accepting cookies on a website is a required step in accessing that website.
- **Data holders:** Financial service providers are the holders of the data owned by their customers. They are either mandated to share, or voluntarily opt into sharing data, depending on the nature of the open finance regime, and may only share consenting customers' data. The term used for this role is different among different jurisdictions. For example, in Rwanda and in the UK, those that hold the data are called data controllers. In Australia, the legal term is data holders.
- **Data users:** Third-party data users request access to customer data held by other players. Data users can be incumbent financial service providers, new entrants and startups, brokers and fintechs. They then use the data to develop new products and services. The success of open finance centres on the principle of reciprocity – if you share data, you also have a right to access it. Thus, the same financial service provider can both be a data holder and a data user.

- Architects.** Regulators and policymakers are involved in the design of the regime and play an enabling role in the proper determine the type of regime, who the lead regulator would be, the scope of financial services included, which participants are allowed and the types of data that are eligible for sharing. They will also set standards for how data is shared and how costs are determined. In market-led open finance models, the role of the architect can be fulfilled by industry associations.

What data is typically shared?



Generic services data: publicly available information on financial services like product details, branch or ATM location



Customer data: personally identifiable data required for account opening and administration purposes



Transaction data: data on customers' financial transactions

Enabled by technology. Application Programming Interfaces (APIs) underpin the exchange between the three core parties. Standardised APIs and/or Open APIs are developed by data holders and used to enable third-party data users to access data in a secure manner. Data users then connect to the APIs to request the data from the data holders. Thus, APIs form the technology backbone of the ecosystem. APIs are not a new phenomenon: they are used extensively in many markets and by many players to share key information securely and in real-time. However, sharing is usually done in a closed manner, between partners with a bilateral agreement. An open API uses the same technology but opens the sharing of data up to all accredited open finance participants.

The figure below outlines the open finance ecosystem.

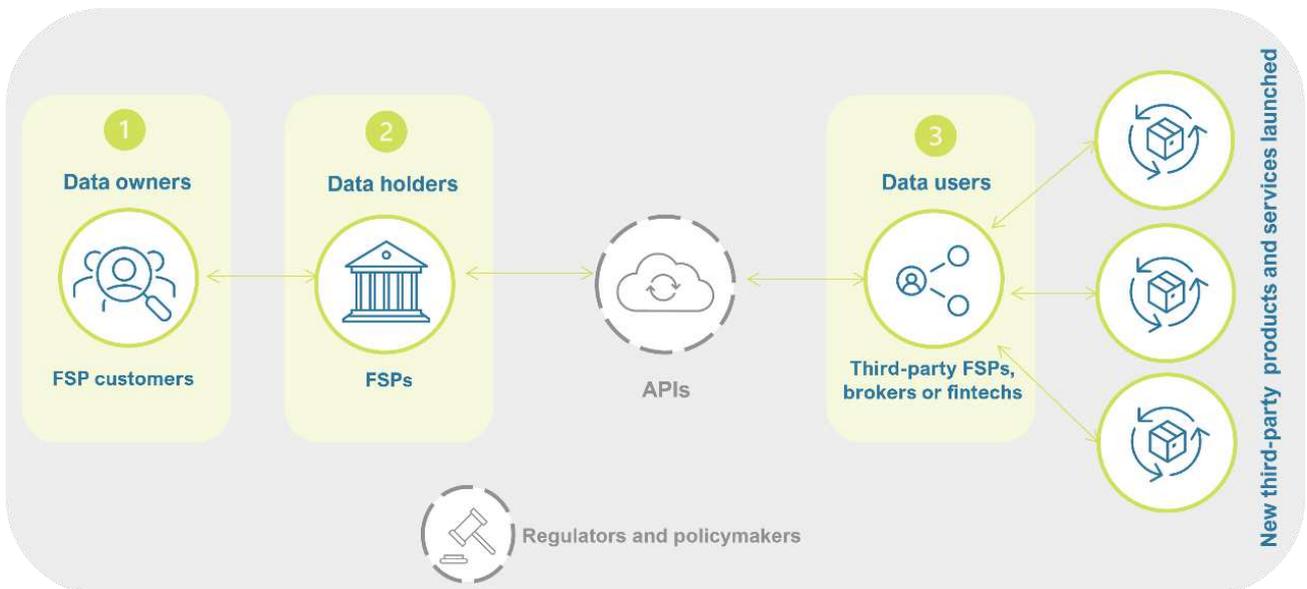


Figure 2. Open finance ecosystem

Source: Adapted from (Plaitakis & Staschen, 2020)

No one size fits all

Open data sharing happens within a framework or regime to agree the rules for exchange within the ecosystem.

A continuum of regulator vs. industry roles. The exact approach to open finance differs across different contexts: from a laissez-faire approach based only on industry initiatives (as is found in the USA) to a regime where participation is voluntary, but the authorities nevertheless play a key orchestrating role (Singapore), to a regime where participation is mandated for certain players, but they are actively consulted in the process (Brazil), to a mandatory framework implemented independently by each country in a regional block (the EU), to a system where players are only consulted on the details of the framework once they have been mandated to participate (the UK).

The diagram below illustrates the continuum of regulatory involvement found across existing open banking or open finance regimes, globally:



Figure 3. Types of approaches to open finance

Source: [Gray et al., 2022](#)

Context-specific cost-benefit analysis

Substantial potential benefits. In principle, Open finance holds enormous opportunity. [McKinsey](#) expects that, by 2030, GDP growth will be positively impacted in economies that use data sharing for finance. Sharing data is and will give an edge to enterprises too. [Gartner](#) predicts that organisations encouraging data sharing will do better than their competition on most business value criteria. Better use of data can enable and encourage innovation, enhance efficiency and reduce costs for both established financial service providers and fintechs, thereby boosting competition and enhancing efficiency. This has several benefits:

- **Better product design:** Access to more client data can strengthen the business case for – and ability of – financial service providers and fintechs to tailor products to reach underserved populations, both individuals and MSMEs, with better-designed financial services.
- **Easier customer access.** Data sharing can help financial service providers to more easily and cost-effectively onboard new customers without redoing know-your-customer (KYC) procedures already performed at another institution.

- **Improved risk modelling:** Access to more data on consumers can lead to improved and more accurate risk scoring (for insurance) or credit scoring (for credit), which reduces risk. Reduced risk, in turn, leads to reduced cost, and improved risk modelling means a wider range of customers can be reached.

In this way, the widespread use of open data can foster financial inclusion. It can also improve the ability of economies to identify, mitigate and manage risks to the benefit of low-income and vulnerable consumers.

But also large challenges. Though the in-principle benefits are clear, open finance is not a panacea: it heightens data privacy and cybersecurity risks and, contrary to its intention, could exacerbate financial exclusion for offline population segments or those who are deemed to be high risk. Common challenges include:

- Reluctance on the part of consumers to share their data
- Low buy-in from incumbent players, associated with the high cost of implementation that they need to bear
- Difficulties in ironing out jurisdiction overlaps between regulatory authorities as well as the mode of engagement between market participants and regulators.

These challenges are particularly pronounced in the developing country context, where resource constraints and limited data capabilities among market players and regulatory authorities alike, coupled with often-nascent data protection frameworks and low consumer financial literacy, may challenge the implementation of open finance.

Dangers of jumping on the bandwagon. Open finance has been implemented across several markets, including developing markets in Asia, Latin America and, in Sub-Saharan Africa, Nigeria. Other countries may feel that it's good to follow suit. Simply jumping on the bandwagon will be dangerous, though. Open finance implementation approaches that are not tailored to the contextual realities of individual markets will introduce substantial cyber-security and data privacy risks for both providers and consumers. The need to mitigate risk and implement new technologies to facilitate data sharing will impose large costs on providers. If they do not see or are not able to realise the accompanying benefits from the additional data they can access, they will not have the incentive to cooperate to make the regime a success. They may also pass costs onto consumers. Moreover, if some customer segments are deemed too high risk to serve, it would undermine the financial inclusion objective of open finance.

Weighing up the options in the local context. Overall, a negative experience with open finance will tarnish the concept of open data sharing across society more broadly, meaning that the potential benefits will be slower and more challenging to achieve in future. This underlines the importance of making the decision to adopt open finance in a cautious way, with careful consideration of the local context and the corresponding implementation implications.

A two-step decision framework

Countries interested in the potential benefits of open finance face two sequential context-specific decisions:

- **Will it make sense?** Firstly, they need to assess whether open finance is at all an option in the local context. This requires them to answer “yes”, “potentially, yes” or “maybe” to all of the following five questions:
 1. Are the benefits of open finance aligned with the **policy and regulatory imperatives** of the country?
 2. Are there sufficient **policy, regulatory and institutional mechanisms** to implement an open finance regime or are there sufficient tools to implement the necessary mechanisms if they are not yet in place?
 3. Could there be a **perceived net benefit for data holders** to participate in open finance?
 4. Is there a **market for the effective use of shared data** by innovators?
 5. Are **consumers likely to see benefits and participate** in open data markets?
- **What should it look like?** If the answer is that open finance *could* be an option, the next question is what model of open finance would best serve the specific country’s purposes and, out of that, what is needed to design and implement the system for maximum success. Here, again, five key considerations come into play:
 1. **Which type of regime and implementation process to adopt?** This is the first, and arguably most important decision, as it can make or break the success of the model. There are two sub-considerations: which type of approach to follow – mandatory versus voluntary – and, within the two options, to what extent the regulator will be in the driving seat or industry will be consulted. It is also important to map out the steps of the implementation and take stock of the institutional and regulatory prerequisites or building blocks that need to be put in place.
 2. **How should the regime be regulated and governed?** This decision spans three-sub-considerations: who should be the lead regulator, what additional legislation or regulation needs to be introduced and should a separate implementation entity be established? These are the institutional mechanisms to put in place as foundation for the regime, so careful upfront consideration of the options is needed.
 3. **Which entities will be required and allowed to participate?** The next consideration is who the regime will apply to: who should be required to share data, who will be able to access data, what are the licensing and regulatory requirements for the data accessors, and how can the data holders be encouraged to proactively participate in the open finance regime, rather than just do the bare minimum?
 4. **How should data sharing be approached?** Getting further into the details of the regime requires consideration of what the rules of engagement for data sharing will be: what data will be shared, who should set the technical specifications and standards of the APIs, and how should data reciprocity be tackled?

5. **Which entities should bear the implementation costs?** Finally, given the substantial cost of implementing open finance, careful deliberation is needed regarding who will bear which costs, to ensure that the system is perceived as equitable. This decision considers who carries the infrastructure costs, and the associated cost for setting up and running the implementation agency, as well as what the fees for data access would be to compensate data holders for the cost that they incur in sharing the data.

After further interrogating the design and implementation considerations, it may very well be that the policymaker and regulator determine that open finance is not the right tool to achieve their policy and regulatory imperatives and decide not to implement the regime for the time being. If the answer remains yes, the framework then forms the parameters for the design and implementation process to follow.

Where to next?

On the front foot. It is no longer possible to ignore the topic of open finance. It is a real part of the future of finance and, as such, requires due consideration – even if the answer is “not yet”. Going through the steps in the decision framework is not an overnight job. Being considerate in how you go about the decision will require a substantial investment of time and effort. It requires a review of the local regulatory framework and market dynamics, extensive consultation with industry, doing comparative international case studies – including of emerging economy first movers such as Brazil, Mexico and Nigeria, and developed country pioneers such as the UK, Singapore and the EU – and forming an understanding of the technical requirements and evaluating the capacity and skills of the regulator and industry accordingly. Taking the time to make an informed decision is an investment well made – it allows developing country regulators and policymakers to drive their own agenda, rather than react to peer pressure.

Embarking on the journey. Once the in-principle decisions have been made, the real work begins. It is in the implementation of the regime where the true test of the design will lie. As different countries embark on the design and implementation journey, it will be important to generate learning through peer exchange and revisit and evolve the decision framework accordingly.

About this focus note

This focus note draws on the full Cenfri report by Jeremy Gray et al, titled [Open Finance: Prerequisites and considerations for fit-for-context implementation in Africa](#), published in April 2022.

It incorporates subsequent insights from engagements with policymakers and supervisors in Sub-Saharan Africa as they start to consider the feasibility of open finance in the local context.

Cenfri, together with Smart Africa and the William and Flora Hewlett Foundation, is in the process of working with key decision-makers in selected African countries to assess the feasibility of, and current market readiness for, Open Finance through comprehensive diagnostic assessments. This project aims to support key decision-makers within these countries by providing the evidence base to proactively consider context-appropriate approaches to Open Finance and support inclusive and responsible approaches to data sharing in the financial sector. Lessons from these focus countries will further be synthesised and shared with a regional audience to inform a deeper understanding of responsible approaches to Open Finance in local markets.