CAPCO

a **wipro** company

REGULATION

Open Finance in Europe: What
is coming and why it matters

EMANUEL VAN PRAAG | EUGERTA MUÇI

CRISIS MANAGEMENT

OPEN FINANCE IN EUROPE: WHAT IS COMING AND WHY IT MATTERS

EMANUEL VAN PRAAG | Professor of Financial Technology and Law, Erasmus School of Law,
Erasmus University Rotterdam, and Attorney-at-Law, Kennedy Van der Laan[1]

EUGERTA MUÇI | PhD Candidate – Open Finance, Erasmus School of Law, Erasmus University Rotterdam

ABSTRACT

Open Finance is a new development in the financial services industry that entails the sharing, access, and reuse of customer (business and consumer) data with customer agreement across, and in order to provide, a wide range of financial services. This article explains a number of use cases of "Open Finance" in order to understand its potential and then discusses some important aspects of this regime, which are still to be decided upon by the legislator. The advantages and disadvantages are explained in order to have a critical view of this development in the financial services industry. The article concludes with a number of recommendations for financial institutions.

1. INTRODUCTION: WHAT IS OPEN FINANCE?[2]

A data economy is rapidly emerging in the European continent and globally. Simultaneously, digitalization is growing, bringing efficiencies for customers (both business and consumer). Policymakers, therefore, need to decide how to bring these developments to their advantage. Open Finance is a policy choice of the European Union (E.U.) in the financial services sector and part of a wider strategy to progress towards a digital economy.[3] Open Finance can be defined as the sharing, access, and reuse of customer data with customer agreement across, and in order to provide, a wide range of financial services.[4] It aims to address the difficulties that arise in accessing and reuse of customer data and the low interoperability of data in the financial services sector. This problem hinders innovations and constrains customer choice. By sharing data with third parties, more tailored services can be offered and comparison will be possible leading to improved outcomes.[5]

While currently there is no legislation on Open Finance, the European Commission is expected to publish a proposal by the mid-2023.[6] In the E.U., a call for impact assessment has been made[7] and an expert group has been set up[8] in order to work out the features of such a regime. A number of principles of Open Finance can be identified at the time of writing.

---

1   Emanuel van Praag is also member of the EC Expert Group on European Financial Data Space.

2   This article builds on one of the authors' prior articles and draws from its ideas. The article is in Dutch: van Praag, E., 2022, "The European financial data space: Open Banking in actie," 5:33, Ondernemingsrecht 6-8, https://bit.ly/3KXyhxU.

3   European Commission, 2022, "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A European strategy for data," (COM(2020)) 66 final, February 19, https://bit.ly/3ZjwJ5R

4   See the definition in European Commission, 2022, "Call for evidence for an impact assessment," May 10, https://bit.ly/41xaScN; and in EC Expert Group on European Financial Data Space, 2022, "Report on Open Finance," October 24, https://bit.ly/3ZsFhXI

5   European Commission, 2022, "Call for evidence for an impact assessment," September 28, https://bit.ly/3ILvrcC

6   European Commission, 2022, "Annexes to the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Commission work programme 2023, a Union standing firm and united," October 18, https://bit.ly/3II5riC

7   European Commission, 2022, "Call for evidence for an impact assessment," September 28, https://bit.ly/3ILvrcC

8   European Commission, 2021, "Expert group on European financial data space," March 15, https://bit.ly/3EQ2hbd
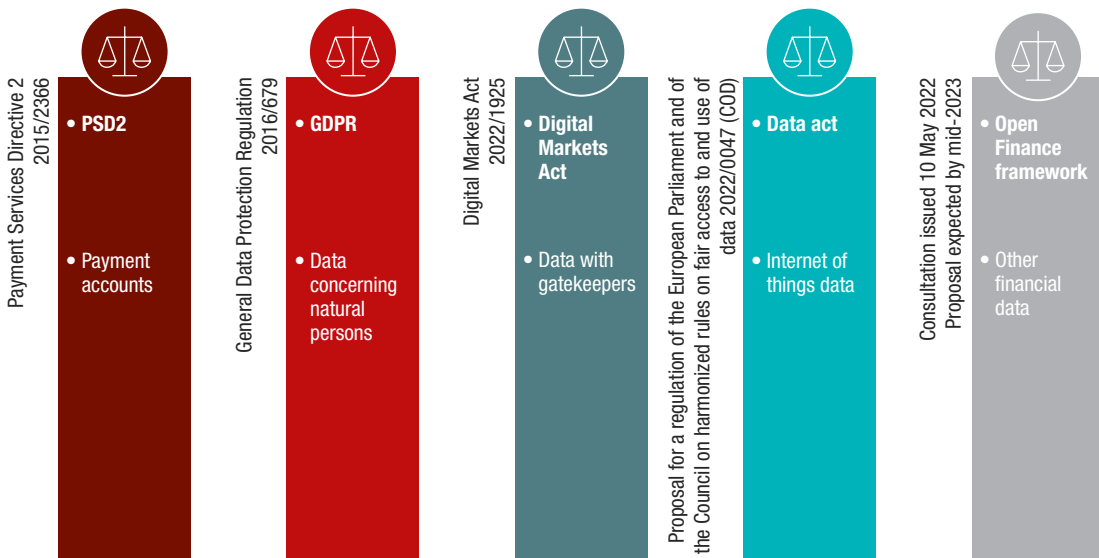
1.1 Data portability: Data is controlled by the customer

In an Open Finance system, data supplied by and created on behalf of financial services customers is controlled by those customers.[9] As such, they can make this data available to third parties or other financial institutions. The concerned financial institution holding the data (data holder, e.g., a bank) will be obliged to share this data. This data-sharing can be considered as a sector-specific data portability right of the customer, initially enshrined in the General Data Protection Regulation (GDPR).[10] The GDPR right to data portability, however, is limited and in practice hardly operational.[11] Two key reasons are that it only provides for direct portability from one firm to the other "where technically feasible," leaving much room for interpretation, and that it only applies to personal data. Open Finance, on the other hand, will have a broader scope of data, not only personal but also non-personal data[12] and portability will take place in a smoother way.

1.2 Standardization and machine-readability: Data should be made available in a machine-readable and standardized format

In order to facilitate the sharing of data, they should be in a machine-readable (think of CSV or XML files instead of Word or PDF) and standardized format. This process should be as smooth as possible and machine-readability is instrumental in that regard. Machine-readable means "a file format structured so that software applications can easily identify, recognize and extract specific data, including individual statements of fact, and their internal structure."[13] Emphasis in having more data made available in a machine-readable way can be seen across E.U. financial regulation. See, for example, in relation to crypto's the MiCA[14] and in relation to sustainability reporting the CSRD.[15]

Figure 1: Relevant rules to Open Finance

Payment Services Directive 2 2015/2366	General Data Protection Regulation 2016/679	Digital Markets Act 2022/1925	Proposal for a regulation of the European Parliament and of the Council on harmonized rules on fair access to and use of data 2022/0047 (COD)	Consultation issued 10 May 2022 Proposal expected by mid-2023
• **PSD2** • Payment accounts	• **GDPR** • Data concerning natural persons	• **Digital Markets Act** • Data with gatekeepers	• **Data act** • Internet of things data	• **Open Finance framework** • Other financial data

---

9 FCA, 2021, "Feedback statement: Open Finance," Financial Conduct Authority, FS21/7, March, https://bit.ly/3FcriOj

10 Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (2016) OJ L 119/1, Article 20.

11 A European strategy for data (no. 3) 10; European Commission, "Public consultation on the Data Act," https://bit.ly/3kDaF75; Kuebler-Wachendorff, S., R. Luzsa, J. Kranz, S. Mager, E. Syrmoudis, S. Mayr and J. Grossklags, 2021, "The right to data portability: conception, status quo, and future directions," 44 Informatik Spektrum 264, https://bit.ly/3y5k3Uo

12 EC Expert Group on European Financial Data Space (2022)

13 Article 13(2) of Directive (EU) 2019/1024 of the European Parliament and the Council of 20 June 2019 on open data and re-use of public sector information [2019] OJ L 172/56.

14 Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, https://bit.ly/3lltn5t

15 Proposal for a Directive of the European Parliament and of the Council amending Directive 2013/34/EU, Directive 2004/109/EC, Directive 2006/43/EC and Regulation (EU) No 537/2014, as regards corporate sustainability reporting, https://bit.ly/41Hr1wq

## 1.3 General accessibility to data

This principle means that data should be reused as much as possible not only by individual clients porting their data but as wider datasets. The problem with individual clients porting their data to other institutions is that it is not sufficient to train models. A customer's dataset can be helpful to understand that one client's history, but it is not enough for the third-party firm to train a model. This is still an outstanding issue regarding the Open Finance proposal.[16] The Dutch Central Bank and the Dutch Authority for Financial Markets have recommended that the Open Finance scope should include the sharing of datasets too, and not be limited to the specific use cases. This can be important for innovation and a level data playing field, including in the financial services sector.[17] Governments in the E.U. already have to share and publish (public) data based on the Open Data Directive.[18]

2. OPEN FINANCE 1.0: PSD2

The Open Finance journey is a further step towards creating a system in which data is shared across sectors. It can be seen as an extension of the "Open Banking" framework,[19] which is enshrined in the PSD2 (the revised Payment Services Directive). The PSD2 introduced inter alia a new right called "access to account" (XS2A) and two new kinds of payment service providers, which provide their services with respect to accounts at other financial institutions and were, therefore, called "third-party services providers" (TPPs). The two types of third parties introduced in the PSD2 are:

- **Account information service providers (AISPs):** these offer the new payment service introduced in the PSD2: "account information service". The latter is defined as "an online service to provide consolidated information on one or more payment accounts[20] held by the payment service user with other payment service provider(s)".[21] This means that AISPs can retrieve and use the data, but no payment

Figure 2: Overview of data streams in the PSD2 business model
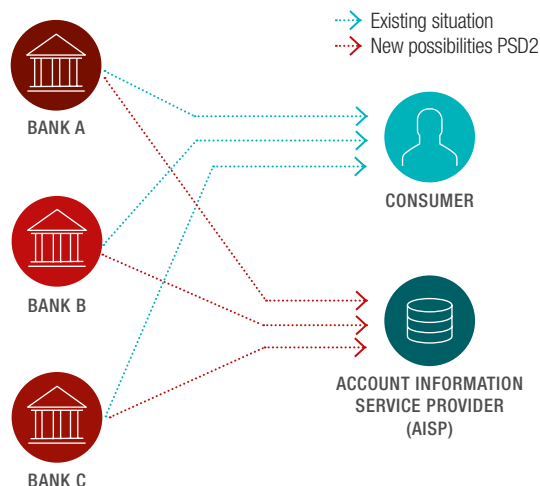
can be made with it ("read" function only). They can use the data to offer added value for the customer but also for third parties. AISPs must at least have a registration and meet various requirements.[22] Customer's agreement is necessary in order to provide account information services, but a contract between the bank[23] and the third party is not needed.[24]

- **Payment initiation service providers (PISPs):** these cannot see what happens at a customer's account running at an account servicing payment service provider (ASPSP) but can initiate a payment on their behalf ("write"[25] function), so-called "account to account" (A2A) payments. Their added benefit is that they can confirm when the payee has paid for the goods bought, for example, and as such the seller can release the goods, without the money arriving in their account being necessary. This has the potential to act as an alternative to the major credit card schemes, such as Visa and MasterCard.

---

[16] See the EC Expert Group on European Financial Data Space (2022)

[17] The Dutch Central Bank (De Nederlandsche Bank) and the Authority for Financial Markets (Autoriteit Financiële Markten), 2022, "Data mobility and the financial sector: discussion paper," September, https://bit.ly/3ZkJY6w

[18] Open Data and Public Sector Information Directive (n 13)

[19] See for a similar approach, di Pascalis, F., 2022, "The journey to Open Finance: learning from the Open Banking movement," 33:3 European Business Law Review 397, 399; Vezzoso, S., 2022, "The critical journey from Open Banking to Open Finance," SSRN, https://bit.ly/3SGxPGg; Securities and Markets Stakeholder Group, 2021, "Advice to ESMA: European Commission's Request to EBA, EIOPA and ESMA for technical advice on digital finance and related issues," July 30, ESMA22-106-3473, https://bit.ly/3ZdV0dA

[20] Article 66 (1) and 67(1) of Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2012/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC [2015] OJ L 337/35 (PSD2)

[21] Article 4(16) and Recital 28 PSD2

[22] See for example Article 5 in conjunction with Article 33 PSD2

[23] In the PSD2, the institution where the payment account is held is termed: account servicing payment service provider (ASPSP). Although other parties are allowed to offer payment accounts, the ASPSP usually is a bank.

[24] Article 66 (5) and 67(4) PSD2

[25] Defined as the ability to initiate a transaction, Jeng, L., 2021, Open Banking, Oxford University Press

Regarding the background to such a sea change legislation, there was quite a competition angle to it. The aim was to enhance competition in the financial services sector, banking in particular.[26] Banks were considered gatekeepers, because they keep customers' finances and the latter represent a significant barrier to entry because information is vital to compete in the financial services sector. As such, banks leverage significant advantage over other parties in the market.[27] TPP business models were in existence prior to the PSD2 but they needed access to customers' finances, which banks did not have an economic interest in sharing and in fact refused to share.[28] As a result, it was legislated in the PSD2 that customers can make their payment account data available to third parties, without the bank having any say in it. The underlying logic is that customers own the data.

3. USE CASES UNDER PSD2

TPPs business models based on PSD2 data sharing have been numerous. They vary from general view of own finances, facilitating lending (creditworthiness assessments), money management for consumers and businesses, and accounting tools for businesses to PSD2 as a service, etc. Some are explained below.

3.1. Insight into (personal or business) finances

Open Banking enables customers to get better insights into their own finances. It is often cumbersome to have a comprehensive overview of all accounts and finances in one place when the individual or business has accounts in multiple financial institutions. There are budget tools and providers of tips to save money that target consumers. These were the apps that the European legislators had in mind when introducing AISPs in the PSD2.[29] For example, apps like Plaid offer Open Banking solutions for firms by looking at the payment account(s) after the customer's permission and consolidating more than five years of payment account data (one's subscriptions, expenditures, etc.). It will then categorize these transactions and make clear to the user

what is wasteful spending and guide them to investment and savings goals. Plaid does not do this under its own name, but facilitates other firms in offering such services.[30] Apps like Dyme, for example, would also suggest actual ways to save money, such as by switching energy suppliers. The aim is to help customers improve their financial health through categorized transactions.[31]

The same goes for accounting tools for businesses. MoneyMonk or 9Spokes are good examples. MoneyMonk is an accounting app that has existed since 2012. Using the AISP license, it transfers data from the bank directly to the accounting app its client already has.[32] The advantage that Open Banking brings is that this transfer is automatic and there will be no need to copy the data manually from the bank statement to the accounting software. 9Spokes, another example, offers a business dashboard service, whereby all business metrics can be seen in one dashboard for 360° coverage of performance. The user can choose the most important business metrics to see and put on the app. It also consolidates data to see the past and forecast the future. The app makes it possible to see the net profits, last transactions, actions, recent documents, inventory value, and staff wages, etc. It also provides expert knowledge on the business progress (e.g., tips for business growth).[33]

3.2. Facilitating lending (creditworthiness assessments)

Accessing a huge amount of payment account data easily can improve evaluating creditworthiness and, therefore, reduce information asymmetry in the lending market. AISPs can help by gathering customer payment account data, e.g., seeing their spending or saving habits, and make a more accurate creditworthiness assessment. It can be done as part of one's business of lending, or only a credit rating as a business in itself, and give it as a service to lenders. An interesting example is FinCredible GmbH,[34] an Austrian company that offers two types of creditworthiness solutions for businesses: KontoCheck (AccountCheck) and MietCheck (RentCheck).

[26] Commission Staff Working Document, 2013, "Impact assessment: accompanying the document Proposal for a directive of the European parliament and of the Council on payment services in the internal market and amending Directives 2002/65/EC, 2013/36/UE and 2009/110/EC and repealing Directive 2007/64/EC and Proposal for a Regulation of the European Parliament and of the Council on interchange fees for card-based payment transactions," July 24, https://bit.ly/3kKzBcP; FCA (2021)

[27] Borgogno, O., and G. Colangelo, 2020, "Data, innovation and competition in finance: the case of the access to account rule," 31(4) European Business Law Review 573 4-7, https://bit.ly/3YdxMTB

[28] See the following court cases where third-party providers wanted access but were blocked by banks, BGH, Urteil vom 18. Juli 2017 – KZR 39/16; The Central Netherlands Court (Rechtbank Midden-Nederlands) Utrecht 30 July 2014, (ING Bank N.V. and ING Group N.V. / AFAS) ECLI:NL:RBMNE:2014:3250.

[29] Article 4(16) and Recital 28 PSD2; van Praag (n 2) 4.

[30] Plaid, "Use cases," https://bit.ly/3SEZK9I

[31] Dyme, "Our story," https://bit.ly/3ZvisTI

[32] MoneyMonk, "Online accounting for freelancers," https://bit.ly/3ZfZKPP

[33] 9Spokes, "You know banking, we know small businesses: together we're a powerful team," https://bit.ly/3Y89ri0

[34] FinCredible, part of KSV1870, https://bit.ly/3KRdcW2

With KontoCheck, FinCredible checks the solvency of customers with real-time bank data by accessing the payment account. It is ideal for businesses in e-commerce and retail applications.[35] With MietCheck, this AISP checks the solvency of tenants for the landlord, who wants to make sure that their tenant has enough money to afford the rent for the defined period.[36]

Another example of using Open Banking or PSD2 data to support a firm's lending business is Floryn. This app extends loans to businesses and estimates their creditworthiness by checking their turnover over the past six months, which the company provides.[37] With the AISP license, Floryn looks at this data directly by accessing the company's payment account, hence being less cumbersome and more time-efficient. Importantly, the data is far more reliable as it comes from the bank directly and cannot be tempered with, such as is possible with PDFs.

3.3. Sale of Open Banking data to interested companies

An example of firms that do this is the Belgian firm Cake, founded in 2018. Cake earns money from selling the data that the client offers when providing access to the payment account. This data is sold (anonymized) to interested companies with the proceeds being shared with the client (by creating targeted cashback campaigns).[38] For example, as Cake puts it in their website: AVA wants to give 10 percent cashback on the first shopping basket for customers who haven't been to AVA in the last three months.[39] Cake's role, as an AISP in this case, is to approach these customers on behalf of AVA and pay them the cash back on behalf of AVA if they use the offer.

4. OPEN FINANCE 2.0: THE COMING E.U. OPEN FINANCE FRAMEWORK

PSD2 has provided the basis for TPPs to build applications and services around banks' customer data by granting them access to it. What is being done today with customer payment account data held by banks is planned to be done across the financial services sector, with more data (mortgage, pensions, investments, etc.) and more holistically (banking, insurance, investments). Thus, Open Banking can be considered a subset of Open Finance. As already mentioned, an Open Finance

framework is expected to be proposed in the second quarter of 2023. The European Commission has launched an expert group[40] to inform of the developments made towards an Open Finance legislative initiative. Below, we will discuss some use cases as well as the data fields that may be in the scope of the European financial data space.

4.1. Use cases under Open Finance

Open Finance will arguably bring many benefits and new business models based on data-sharing between financial institutions and with non-financial players. The expert group on Open Finance has identified, among others, five use cases where Open Finance can play a role. The following use cases are not exhaustive, but aim to highlight the potential of Open Finance.

4.1.1. MORTGAGE CREDIT

In this use case, the involved actors are the creditor (data holder), the credit intermediary (data user), and the borrower (data subject). The borrower would go to the credit intermediary for advice on the best creditor. The credit intermediary will gather data from the borrower and several creditors (e.g., banks) and provide a preliminary risk assessment and a comparison tool. Open Finance would help in every step of this process. The data gathering process of credit intermediaries and the creditor is often manual and cumbersome and although data is standardized it is not harmonized across all players.[41] Open Finance will make this process smoother as well and help improve the customer experience. The products, advice, and creditworthiness decisions will be improved and transparency is increased due to a more effective and less costly data access process.[42]

4.1.2. IMPROVING SME FINANCING BY ENHANCING THEIR "CREDITWORTHINESS ASSESSMENT" (CWA)

This use case takes into consideration small- and medium-sized enterprises' (SMEs) difficulties in obtaining financing due to the lack of data regarding their activities, constituting a limitation to an accurate CWA. For example, the traditional information used for CWA, i.e., balance sheet and profit and loss statements, tend to have a delay of nine months up to one

---

35 KontoCheck, https://bit.ly/3YiZ62K
36 MietCheck, https://bit.ly/3SOlBeY
37 Floryn, "When waiting for your couch costs opportunities: who should you be then?" https://bit.ly/3kCy7kU
38 Cake for Business, "Market insights and cashback campaigns for retailers and brands," https://bit.ly/3kHnRYA
39 The Cake campaigns can reach up to around 150,000 consumers, Cake for Business, "Cake campaigns" https://bit.ly/41Cr4tf
40 Register of Commission Expert Groups and Other Similar Entities, 2021, "Expert Group on European Financial Data Space," (E03763), March 15,
    https://bit.ly/41BUlEo
41 See the EC Expert Group on European Financial Data Space (2022)
42 Ibid. Notably the banking sector members did not agree to this use case's assessment, see footnotes 35 and 42.

year since the end of the fiscal year,[43] which means that they do not reflect the current state of SME activity and financial situation. Consequently, other reliable and up-to-date data can be used to offer a current picture of SME activity. This use case aims to broaden the type of data on which this CWA is done by including SME online commercial activity and other cross-sectoral data. For example, the lender would have access to data from:[44]

- **utilities provider** of the SME, which is an indication of an SME's activity: an increase in electricity and water consumption indicates an increase in production and, possibly, future sales

- **e-commerce platforms**[45] regarding B2B activity, aggregated real-time sales, inventory, customer satisfaction, cross-border activity, wish lists, refunds, etc.[46]

- **supply chain platforms** regarding purchase orders, invoice flows, financial reports, etc.

Open Finance would facilitate access to such financial and non-financial data, consequently facilitating and improving the CWA leading to lower default rates, higher acceptance rates, up-to-date sources of information and reduction of lead times, and reduction of collection of data costs.[47]

4.1.3. OPEN INVESTMENT DATA, FINANCIAL ADVISORY, SAVINGS, AND PENSIONS

Open Finance in this use case will target the need to improve financial advice regarding retirement planning, saving levels, and their investments. Regarding retirement, a national system would be created that has access to customers' social benefits or social security, tax payments, pensions, and data from land registry offices in order to obtain an accurate view of the customer's portfolio and thereafter, offer personalized financial advice, personalized retirement planning advice, and a comparison tool for insurance, and increasing customers' awareness and financial literacy.[48] Additionally, Open Finance will help create an aggregated view of investments, help consumers manage them, and advise on alternative options.[49]

Regarding savings, automated account switching to higher interest rate accounts, access to accounts and budgeting tools, and the ability to see all savings and investment products in one place to ensure risk is appropriate to needs (e.g., not over-saving in low return cash products) are possible.[50]

4.1.4. ENERGY, SUSTAINABILITY, AND CLIMATE DATA

This use case aims to contribute towards sustainability and fighting climate change. By using data such as acquisition of energy efficiency, energy consumption, and climate data, Open Finance can support consumers in protecting the value of their property. For example, a bank can offer loans to customers for renovating their house and improve their energy efficiency class ratings. This use case benefits consumers because they maintain the value of their property, achieve energy efficiency, and reduce energy consumption. Furthermore, it helps with the broader E.U. objectives of environmental transition and sustainability. But it also benefits financial institutions, as they adhere better to corporate social responsibility policies, increased consumer loyalty, and improved consumer solvency risk.

4.1.5. INSURANCE, E.G., SHARING OF IN-VEHICLE DATA

In this use case, insurers are given access to the data generated by vehicles, including usage and accident data. By using this information, insurers could draw up a more personalized and appropriate policy based on the actual risk of the driver or usage-based insurance. This will lead to financial inclusion because younger people, who tend to get higher cost policies regardless of how they drive, will have access to policies that are suited to their specific way of driving. An example is Tesla's real-time driving behavior-based insurance,[51] though in a future Open Finance ecosystem the insurance would be provided by an insurer independent of Tesla. Additionally, opening up vehicle data will help insurers understand risks related to automated and autonomous driving and, therefore, be able to insure such vehicles. Moreover, in damage claims vehicle data would clarify the causal events and, therefore, allocation of liability. Generally, sharing insurance data can

---

[43] Ibid 58

[44] Ibid 58 ff

[45] An example of lenders (banks) partnering with e-commerce platforms inter alia to enhance creditworthiness assessment is the partnership between ING Germany and Amazon aiming at facilitating SME lending. See ING, 2020, "ING in Germany and Amazon join forces in SME Lending," June 30, https://bit.ly/3ETdxnh

[46] See also, Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector (Digital Markets Act) [2022] OJ L 265/1 Article 6(9) and (10), according to which the designated gatekeeper should provide a third party or an end-user or business user with the data of the end-user or business user accordingly, at the latter's request free of charge.

[47] EC Expert Group on European Financial Data Space (2022)

[48] Inspiration in the E.U. was drawn from the Danish National Pension Tracking Services called "PensionsInfo," https://bit.ly/3ES3zTk; ibid 71 ff; FCA (2021)

[49] FCA (2021)

[50] Ibid 31

[51] Tesla, "Tesla insurance using real-time driving behaviour: how it works," https://bit.ly/3KPlgW5

help in creating aggregated services and determining when a person is over- or under-insured, will increase consumer understanding and, therefore, demonstrate "good risk" characteristics, and create bespoke deals and offers catered to a person's lifestyle, financial habits, and needs.[52]

4.2. Potential data fields

Open Finance will broaden access to much more data than in PSD2 Open Banking (payment accounts). As seen in the above use cases, and considering the Commission Communications relating to Open Finance,[53] there are three categories of data concerned:

- **Financial data:** this category will broaden to include other financial products such as client data on loans, investments, mortgages, pensions, savings accounts, and insurance. It will also include information about financial products (product characteristics).

- **Non-financial data:** including turnover at platforms, tax data, energy consumption, utilities subscriptions, social security, etc. This data can be held by public authorities or private parties.

- **Publicly disclosed data:** financial institutions constantly disclose large amounts of data to public authorities as part of the supervisory process. All this information is readily available but not accessible for use. Policymakers, therefore, aim to facilitate its use to the benefit of business. In other words, it should be easier for businesses to supply data that is public but not accessible and it should also be easier to make use of this data. In this regard, the proposal for a European Single Access Point (ESAP) will be helpful for the increased use of reporting data.[54] ESAP is part of the European financial data space[55] and it prescribes that entities should make such information available in a data extractable format[56] or where required by Union law in a machine-readable format.[57] It sets a standard for how the existing obligatory data should be reported.

5. THE KEY DISCUSSION POINTS

In the following, we will present and discuss some aspects of the Open Finance framework in the E.U. that are not straightforward considering other legislative pieces and current proposals, such as the compensation infrastructure, consent model, bigtech, permission model, regulatory status of Open Finance players, and standardization.

5.1. Who pays the costs for the data infrastructure

There is a divergence in E.U. law on whether the data holder can ask for compensation for the data and the costs of investment of infrastructure for collecting and maintaining that data from the data recipients. Starting out with the PSD2, it mandates that ASPSPs (banks) should provide their application programming interfaces (APIs)[58] to TPPs free of charge.[59] The Data Act (proposal) on the other hand explicitly provides for compensation.[60] In other words, the data holder is entitled to a fee for the data that it shares. Specifically, the data should be given for free to the customer, only covering costs to SME data recipients, and reasonable for other data recipients.[61] The Data Act will be a horizontal regulation, meaning that it envisages basic rules for all sectors as regards to the rights to use data.

Taking the above into consideration, Open Finance will in all likelihood be in convergence with the Data Act Proposal's principles, meaning that compensation should be allowed. What has been experienced so far is that because banks have been obliged to share their APIs with TPPs free of charge under the PSD2, they did not have incentives to invest in developing high-quality APIs,[62] standardization,

---

[52] FCA (2021)

[53] A European Strategy for Data (n 3); Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 2020, "On a digital finance strategy for the EU," September 24, https://bit.ly/41Ct58N; Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 2018, "Towards a common European data space" April 25, https://bit.ly/3mkKvqp

[54] Proposal for a Regulation of the European Parliament and of the Council establishing a European single access point providing centralised access to publicly available information of relevance to financial services, capital markets and sustainability (COM/2021/723), November 25, 2021, https://bit.ly/3y6NHZ8

[55] On a Digital Finance Strategy for the EU (n 53)

[56] Data extractable format "means any electronic open format – as defined in Article 2(14) of Directive (EU) 2019/1024 – that is widely used or required by law, that allows data extraction by a machine, and that is not only human-readable" at Article 2(3) ESAP Regulation Proposal. Open format "means a file format that is platform-independent and made available to the public without any restriction that impedes the re-use of documents" at Article 2(14) Open Data and Public Sector Information Directive (n 13). Examples are certain PDF, Excel, CSV, XML with stylesheet, XHTML, HTML, and iXBRL.

[57] Recital 4 ESAP Regulation Proposal. For a definition of "machine readable" see above in section 1, principle 1.2.

[58] See below at 5.6. Standardization

[59] Article 66(5) and 67(4) PSD2

[60] Proposal for a Regulation of the European Parliament and of the Council on harmonized rules on fair access to and use of data (Data Act) Article 5 and 9(1).

[61] Article 9 Data Act Proposal

[62] EBA, 2022, "Opinion of the European Banking Authority on its Technical Advice on the Review of Directive (EU) 2015/2366 on Payment Services in the Internal Market," June 23, https://bit.ly/3y24I6O; DNB and AFM (n 17) 38

Figure 3: Overview of data sources subject to Open Finance
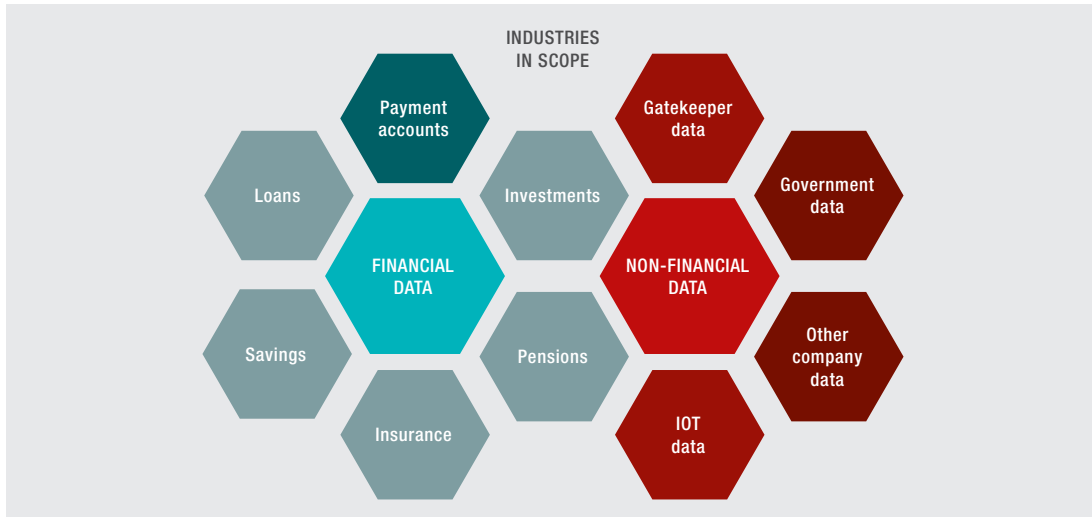
or a good user experience.[63] This might be an issue when the aim of policymakers is to encourage the development of an E.U. data economy, because no economic incentives are provided to invest in gathering and maintaining high-quality data. Furthermore, in the Data Act Impact Assessment it is noted that data holders would be disincentivized to invest in data generation.[64] These disincentives require thereafter more extensive supervision aimed at establishing proper access.[65] A no-compensation scheme can create other costs. An example comes from the lack of standardization in bank APIs, which has led to the creation of API aggregators.[66] This is translated into higher transaction costs.[67] Compensation is also part of the industry-led SEPA Payment Account Access (SPAA) Scheme, developed by a multi-stakeholder group within the European Payments Council, as part of the wider SEPA API Access initiative. The SPAA scheme includes fees for the use of APIs, except for data covered by the PSD2 prohibition.[68] Considering that the PSD2 is currently under review,[69] the sharing of payment data may also be brought in line with the Data Act as future legislation should in principle be aligned

with the horizontal principles of the Data Act.[70] However, the Data Act also leaves room for alternative compensation models when the specifics of an industry justify this.

Within the expert group, no consensus was achieved, though some notable recommendations have emerged. Firstly, it was noted that there should be a fair allocation of costs among different players of the data value chain to safeguard fair competition. A fair allocation of costs could mean that data holders are able to recover the costs of collecting, generating, preparing, and sharing the data, and eventually a reasonable margin of profit.[71] Secondly, Open Finance should be based on fair and proportionate access to data for market participants. Thirdly, the compensation scheme should, in principle, have incentives for data holders to encourage high-quality data sharing and any compensation exceeding the cost of data sharing should be reasonable and not lead to anti-competitive outcomes. Finally, some members suggested that there should be at least one free-of-charge, real-time (user) interface for data subjects to retrieve their data.

---

[63] DNB and AFM (n 17) 38

[64] Commission Staff Working Document, 2022, "Impact Assessment Report: Accompanying the Document Proposal for a Regulation of the European Parliament and of the Council on Harmonised Rules on Fair Access to and Use of Data (Data Act)," February 23, https://bit.ly/3y5FRPC

[65] DNB and AFM (n 17) 38

[66] Data aggregators are service providers that "translate" a data-access request from a third-party provider to the various bank APIs, thus removing the need for the third party to be able to link to a wide variety of bank APIs at ibid.

[67] Ibid.

[68] European Payments Council, 2022, "SEPA Payment Account Access (SPAA): Scheme Rulebook," (EPC012-22, Version 1.0, November 30, https://bit. ly/3YfUH0C

[69] European Commission, 2022, "Targeted Consultation on the Review of the Revised Payment Services Directive (PSD2)," https://bit.ly/3kCFSYd

[70] Proposal for a Regulation of the European Parliament and of the Council on harmonized rules on fair access to and use of data (Data Act), February 23, https://bit.ly/3JfUDtD

[71] EC Expert Group on European Financial Data Space (2022)

5.2. Voluntary or mandatory data sharing

Another issue for discussion is whether Open Finance should be mandatory or voluntary. In other words, should financial institutions (data holders) be obliged to share the data? According to the expert group, the decision by the legislator whether to impose an obligation to open data or not will be key to the success of Open Finance.[72] Both models are currently present in the E.U. market. The PSD2 represents an example of the mandatory model, i.e., a regulatory compliance incentive to share data. On the other hand, an example of financial firms sharing data voluntarily is the SEPA API Access Scheme of the European Retail Payments Board.[73] After having analyzed the developer portals of a large number of banks and insurance companies, it seems that only a few – often large and avant-garde – institutions have taken the step to go beyond PSD2 APIs (e.g., Deutsche Bank, BPCE, or BBVA).[74]

In the U.S., New Zealand, Singapore, China and Hong Kong, the voluntary or market-driven model for Open Banking is present.[75] It is argued in fact that this lack of obligation in the U.S. has enabled the development of Open Banking,[76] though it is not certain whether the case will be the same in the E.U. While the objective of achieving the full potential of the data-related innovation could be established by voluntary data sharing, holders of data, such as incumbents, may lack the incentive to share their data. Consequently, a legislative initiative that obliges the data holder to share data with third parties will likely be needed.[77] Additionally, analysis has shown that most of the data needed is already available but not accessible and access is currently based on either bilateral agreements or web scraping (screen scraping). A compulsory regime would also be useful for SMEs that do not have enough negotiation power in concluding contracts on data sharing.

5.3. Bigtech

Notably, in this context the status of bigtech companies[78] is important to mention. In the Data Act Proposal, bigtechs are prohibited from receiving data from third parties, aimed at restricting the concentration of data.[79] Considering the rationale of this horizontal proposal, it is likely that the Open Finance proposal will not deviate. Hence, regardless of how the Open Finance regime will be decided, there is a category of firms that will not be allowed to receive data.

5.4. The permission model

The PSD2 had, among others, two notable requirements for third parties: explicit consent[80] and strong customer authentication (SCA).[81]

Firstly, TPPs (AISPs and PISPs) can only provide their services to the customer if the latter has given explicit consent for these services.[82] Asking for consent (or permission) should not be merely in the general terms and conditions, but be flagged to the customer so that they can explicitly agree to it.

Secondly, SCA is aimed at improving security of customer data. In order to provide access to their payment account to AISPs or PIPSs, the customer has to authenticate themselves based on at least two of the three elements categorized as knowledge (something that only the user knows, e.g., PIN or password), possession (something that only the user possesses, e.g., card or card reader), and inherence (something the user is e.g., face identification or fingerprint),[83,84] also known as "strong customer authentication" (SCA). For AISPs, this requirement can be burdensome. In order to avoid such requirements from undermining the viability of their businesses, the European Banking Authority (EBA) introduced an exemption allowing payment service providers to apply SCA every 90-days instead of for each account access.[85] As of July 25, 2023, this re-authentication period will be extended to 180 days.[86]

---

[72] Ibid 7

[73] European Payments Council, "SEPA Payment Scheme Management," https://bit.ly/3YfVvma

[74] Morvan, A-S., 2022, "The Open Finance report is out: what's in it & what's next?" November 15, https://bit.ly/3EQABmR

[75] di Pascalis (n 19) 404

[76] Mr. Open Banking Podcast, Season 3, Episode 5: Made in America, September 12, 2022, https://bit.ly/3kN6hT0

[77] DNB and AFM (n 17) 33

[78] Big technological companies like Amazon, Google, Microsoft, Apple, Meta.

[79] Article 5(2) and 6(2)(d) Data Act Proposal

[80] Article 66(2) and 67(2)(a) PSD2

[81] Article 67 and 97 PSD2

[82] For PISPs see Article 66(2) and 94(2) and for AISPs see Article 67(2)(a) PSD2

[83] Article 4(30) PSD2

[84] Articles 97(1)(a) and 97(4) PSD2 require "strong customer authentication" to be applied each time the payment is initiated through a PISP; and each time the payment service user accesses its payment account online, "including though an AISP".

[85] Commission Delegated Regulation (EU) 2018/389 of November 27, 2017 supplementing Directive (EU) 2015/2366 of the European Parliament and of the Council with regard to regulatory technical standards for strong customer authentication and common and secure open standards of communication OJ L 69/23 Article 10.

[86] Commission Delegated Regulation (EU) 2022/2360 of August 3, 2022 amending the regulatory technical standards laid down in Delegated Regulation (EU) 2018/389 as regards the 90-day exemption for account access [2022] OJ L 312/1 Article 1(2).

These two requirements imply hurdles for TPPs, especially AISPs, which have to go through such cumbersome procedures in order to provide their services. It also means that it is difficult for them to ensure a smooth and good user experience. Given that policymakers are thinking of Open Finance for the entire financial services industry, they may revisit these requirements and adapt them proportionally to the business model of AISPs. The key question here is whether a registered TPP that informs a data owner that they have got permission from the customer to access certain data, must be trusted by the data holder or whether the data holder can check this by applying SCA.

5.5. Regulatory status of Open Finance players

This section deals with the conditions for market players to participate in the Open Finance ecosystem. It is unresolved whether every market actor that obtains Open Finance data needs to be regulated. In other words, can anyone exercise Open Finance rights, or do they have to meet certain requirements? Under Open Banking, for example, AISPs and PISPs are under many requirements per the PSD2. For example, AISPs must at least have a registration and must meet various requirements.[87] In the Data Governance Act proposal, on the other hand, a service provider[88] with similar operations to that of an AISP is under a much lighter regime. They can opt for a simple notification[89] or ask for an authorization as "provider of data intermediation services recognized in the Union." The latter is subject to the requirement that the competent authority confirms that the provider meets various demands, but which are less cumbersome than those for AISPs.[90] Regarding Open Finance, this is an ongoing discussion.

5.6. Standardization

Standardization is discussed in this section from two perspectives: standardization of data fields and standardization of data access. The former refers to the general data fields

stored by data holders.[91] Standardizing them would mean delineating which data fields should be shared, how to fill such data fields, and the minimum criteria that should be observed to implement established APIs.[92] On the one hand, standardization ensures legal certainty, clarity, and security for customers and market participants. On the other hand, risks that hinder innovation can become an obstacle for new business models to thrive. Nonetheless, in order to avoid different interpretation and thus, fragmentation in the E.U. internal market, the expert group identified the need for a higher standardization of core data fields.[93]

The second issue related to standardization is the route through which data is accessed. The PSD2 is technology-neutral and does not suggest a particular method. Previously, screen scraping has been used, which entails asking customers to hand over their user IDs and passwords and then using these credentials to sign in to the data holder (e.g., bank) by impersonating the customer.[94] Clearly, this is not a safe practice because the data holder will not recognize if the entry is by the user or the third-party and once the customer has given their credentials they have also given up control over their data.

On the other hand, a technology called application programming interfaces (APIs)[95] is more secure and many financial institutions are using it. Standardization bodies like the Berlin Group[96] or STET[97] have designed standard APIs for banks or other data holders to use. The EBA has also suggested the possibility of a common API standard across the E.U. and for it to be developed by the industry.[98] A single API would improve the data sharing process by reducing fragmentation and variability of data formats. But it would also hinder innovation and be difficult to implement due to extensive technical and/or cost requirements.[99] This would especially be the case for market participants who are already using a certain API. They would have to change their systems

---

[87] Article 33 PSD2 in conjunction with Article 5 PSD2

[88] There are two types of providers of data sharing services that are similar to AISPs: intermediation services between data holders (Article 9(1)(a)) and intermediation services between data subjects (Article 9(1)(b)) at "Proposal for a Regulation of the European Parliament and of the Council on European data governance (Data Governance Act)", November 25, 2020, https://bit.ly/3J6zXE3.

[89] Article 10 Data Governance Act

[90] Article 11 Data Governance Act

[91] EC Expert Group on European Financial Data Space (2022)

[92] Ibid. (n 4) 25

[93] Ibid.

[94] Jeng (n 25) 19-20

[95] APIs are defined as "a set of rules and specifications for software programs to communicate with each other, that forms an interface between different programs to facilitate their interaction," Basel Committee on Banking Supervision, 2019, "Report on Open Banking and application programming interfaces," November, https://bit.ly/3KRhn4a.

[96] The Berlin Group, "About," https://bit.ly/3KPLd97

[97] STET, "About us," https://bit.ly/3YgdjgK

[98] EBA Opinion on PSD2 Review (n 61) 8

[99] EC Expert Group on European Financial Data Space (2022)

Table 1: Overview of key expected differences between PSD2, Data Act Proposal, and the potential Open Finance model

	CAN THE DATA HOLDER REQUIRE COMPENSATION?	CONTRACT BETWEEN DATA HOLDER AND DATA RECEIVER?	CAN GAFA OBTAIN THE DATA?	CAN THE DATA BE USED TO OFFER COMPETING PRODUCTS?
PSD2	✖	✖	✓	✓
DATA ACT	✓	✓	✖	✖ (but an aftermarket is not considered a competing product)
OPEN FINANCE	Subject of discussion, probably yes	Subject of discussion, probably yes	Level playing field is an important subject of discussion	✓

and spend money to implement the standard API, though having several APIs under PSD2 might not be considered a problem because business models have arisen out of it. For example, API aggregators that connect different APIs into one single output and act as another commercial solution to the existing market situation.[100] The downside, however, is increased transaction costs.[101] A solution could be to establish at least one API standard for each sector or sub-sector (e.g., vehicle insurance, life insurance) beyond existing PSD2 API standards, and then individual firms be given the choice between the standard API or an API of their own.

6. EXPECTED MARKET IMPACT

6.1. Two-sided markets

In order for Open Finance to thrive, the right economic incentives should be provided for the market actors firstly, and secondly, both sides of the market (data holders and data users) ought to be met at a common interest. Banks as data holders have large amounts of data and new firms as data recipients or data users have agile technologies and innovative business models to offer. Consequently, both sides can benefit from each other's advantages, but in order to develop their products they need to know that there will be demand in the market. A firm would only develop a product if they have a demand for it. For example, a data holder will develop APIs and invest in collecting and maintaining data only if they know that there will be demand, i.e., a data recipient interested in that data. And there will be a demand if there is an offer for such data. In order to break such a vicious circle, firms from both sides of the market have to come together and agree on matching the offer and demand in order to develop a viable business model. This aspect might well determine the supply and demand side of the data sharing ecosystem. Notably, in Open Finance, a contractual agreement will likely be required between the data holder and the data recipient in the Open Finance framework, unlike the PSD2 that does not allow it.

6.2. Schemes

Open Banking and Open Finance generate the need for cooperation in the financial services sector. Both Open Banking and Open Finance have data exchange at their core, but Open Finance on a large basis implies schemes. The reason is that if data exchange requires contracts and compensation payments, the only way to facilitate it would be through a scheme. Otherwise, hundreds of parties would need to contract with each other and handle payments to each other. A scheme would lower such transaction costs and give some coherence in the ecosystem.

An example of a scheme is the Single Euro Payments Area (SEPA) Payment Account Access (SPAA) scheme. According to this scheme, data holders (such as banks) share customer data – with customer permission – to data brokers (third parties) for a fee. Third parties can then offer services beyond those in PSD2. The SPAA covers the set of rules, practices, and standards that allow the exchange of payment accounts related data and facilitates the initiation of payment transactions in the context of "value-added" (premium)[102] services provided by asset holders (i.e., ASPSPs) to asset

---

[100] EC Expert Group on European Financial Data Space (2022)

[101] DNB and AFM (n 17) 38

[102] Premium services are to be considered as: services building on PSD2-regulated ones, but going beyond the minimum regulatory requirements via the combination with (a) so-called premium feature(s). For example, the transaction asset "one-off payments" is a basic service but when combined with a premium feature, such as a "Payment certainty mechanism", it becomes a premium service as described under the rulebook; PSD2 services that are not available via online banking interfaces but provided via a SPAA API; at European Payments Council, "What we do: SEPA payment account access," https://bit.ly/3mn3H6Y.

brokers (e.g., TPPs).[103] The SPAA is set up by the European Payments Council, an organization composed of banks or association of banks,[104] and is developed collaboratively by the retail payment industry (supply and demand) and the end-user community as represented by the Euro Retail Payments Board (ERPB), and with the support of the E.U. institutions.[105] This scheme is industry-led and has the potential to facilitate the transition of the financial services industry towards Open Finance. It is voluntary to implement.

6.3. Advantages and disadvantages of Open Finance

E.U. policymakers have ambitious aims with Open Finance, also building upon the experience gained with PSD2 Open Banking. Up to now, a good deal of creativity and innovation in imagining new services of interest to bank account holders and others in the banking data value chain[106] has been witnessed with the PSD2 Open Banking. There are numerous advantages, as there are disadvantages, to this data sharing ecosystem. They will be analyzed below non-exhaustively.

6.3.1. FINANCIAL STABILITY AND COMPETITION PERSPECTIVE

Generally, Open Finance is aimed at improved financial stability of the ecosystem with more dynamic data sharing.[107] Data sharing with third parties has the potential to build a diversified ecosystem that allows more businesses to compete in the provision of financial services, thus widening the range of products and offering more choice to customers.[108] Hence, the availability of new and secure services will likely increase.[109] Another notable advantage will be enhanced competition of third parties with competing banks.[110] Secondly, customers are arguably given more power in this ecosystem, they are in control of their data as they are considered the data owners. This implies a more customer-centric approach.[111]

Additionally, operational risks are present, such as cybersecurity. Entry of small fintech firms ought to be closely monitored because they are conceivably not capable of dealing with anti-money laundering, cybersecurity, etc. risks, and may channel these risks to the other institutions and the financial system due to interconnectedness.[112] Furthermore, since banks have to open channels for accessing their customer data, they have to make sure that this is done in a safe and secure manner with proper safeguards.

Lastly, systemic risk might be present. Services that allow customers to move more of their money in real time could make it harder for firms to understand their liquidity position. Moreover, effects of deposit volatility on firm liquidity are not well understood and this could threaten the stability of the overall financial system.[113] Caution should also be taken towards the concentration of data as it can lead to new sources of systemic risk. When the power is in the data, financial regulators should address the new systemic risk stemming from concentration of data in the hands of a few technology firms. This risk is similar to the traditional systemic risk represented by banks that are too-big-to-fail or too-connected-to-fail.[114]

6.3.2. FINANCIAL INCLUSION PERSPECTIVE

Financial inclusion is expected to be a main advantage. Greater transparency around people's finances would improve access to a wider range of financial products and services. It could also lead to basic financial services for some currently excluded or underserved consumers.[115]

On the other hand, the use of alternative credit scoring methods,[116] such as psychometrics questionnaires that look for personality traits or the combination of mobile data, has been considered for customers, such as younger people or those who are self-employed (often called thin file customers) who cannot access mortgage credit or access it at higher price due to the lack of availability of data for an accurate creditworthiness assessment.[117] Open Finance would help by giving access to such non-traditional information and promote credit inclusion; however, other risks for the consumer simultaneously emerge.

---

[103] Ibid.

[104] European Payments Council, "List of members," https://bit.ly/3kDMwxc

[105] European Payments Council, 2022, "SEPA payment account access scheme: going beyond Open Banking," December 21, https://bit.ly/3JfXHG9

[106] Vezzoso (n 19) 4

[107] EC Expert Group on European Financial Data Space (2022)

[108] Open Banking Europe, 2020, "Open Banking: revolution or evolution? The Economist Intelligent Unit Limited, https://bit.ly/3ZACSdt

[109] Verbrauchzentrale, 2021, "Gutachten zur PSD2-Umsetzung in Deutschland," January 28, https://bit.ly/3ZeTnwi

[110] Innovation to offer compelling customer services would flourish, driving competition between firms, FCA (2021)

[111] di Pascalis (n 19) 417

[112] Institute of International Finance, 'Response to EBA Consultation Paper on EBA's Approach to FinTech' (Submission #53), https://bit.ly/3ZhC3H4

[113] FCA (2021) (n 9) 16

[114] Jeng (n 25) 41-42

[115] FCA (2021) (n 9) 3

[116] FCA (2021) (n 48) 33

[117] EC Expert Group on European Financial Data Space (2022) (n 4) 51 ff

6.3.3. CONSUMER DETRIMENT PERSPECTIVE

From another perspective, this innovation in the financial services industry comes with its own issues; chief among them are consumer concerns.[118]

Over-simplification of products for comparison purposes could lead to poor consumer outcomes. Furthermore, product comparisons focused solely on price could mean that scope and other value factors are not considered, which could result in consumers choosing unsuitable products; for example, risking under-insurance.[119] Another aspect is discrimination,[120] as big data and algorithms could exacerbate existing biases in society.

Creditworthiness checks might become a condition for consumer market participation more broadly, leading to exclusion of those consumers who cannot participate in Open Finance for lack of digital skills or who do not want to participate in Open Finance.[121]

Open Finance could potentially also worsen data holders' circumstances because firstly, customers can give more data due to being unable to understand the impact of their granting access and, therefore, not be adequately compensated; secondly, silent party data[122] will be visible to the data recipient, thus causing privacy loss; and finally, because companies with pricing power can use data they have received to implement price differentiation.[123] This can make consumers worse off, whether or not they have shared data with the user.[124]

6.3.4. SUCCESS FACTORS

There is a risk that Open Finance use cases will not work in practice, because individuals may be cautious of losing control over their data and, therefore, not participate in the Open Finance ecosystem.[125] Not only because of choice, but also lack of participation may be a consequence of digital illiteracy; for example, in older age groups. The issue of lack of trust in the sharing and reuse of personal financial data, and generally in Open Finance, is an important issue on its own and needs to be addressed.[126]

7. CONCLUSION: WHAT SHOULD FINANCIAL INSTITUTIONS DO?

Financial industry participants might want to adapt to these developments and, further, take advantage of the benefits that Open Finance promises to bring. There are several ways for incumbents to monetize Open Banking and Open Finance.

Firstly, investing in information technology (IT) is an essential recommendation. Otherwise, laggard financial institutions might find themselves unable to deliver the quality of service or price competitiveness necessary to maintain their market share and revenue streams.[127] Banks have gained substantial experience in the development of API catalogues[128] and can consider monetizing it, for example, by not only providing the main PSD2 APIs but also creating more advanced payment and non-payment APIs that they could charge for, hence creating new revenue opportunities.[129]

Another option for incumbents is to ponder around their relationship with fintechs, new firms in the financial services industry. They have the advantage of developing the latest technological solutions and be agile enough to implement them and reap the benefits. Financial institutions can consider partnerships, investments in, or acquisition of fintechs.[130] For example, the Financial Stability Board in a report on bigtech, envisaged banks partnering with fintechs.[131] This would help incumbents take advantage of the latest technology and allow the third parties to access the client base that they – as start-ups – lack but banks enjoy as the general public have more trust in them.[132]

---

[118] Ibid 21 ff

[119] FCA (2021) (n 9) 16

[120] EC Expert Group on European Financial Data Space (2022) (n 4) 55-58, ff

[121] Vezzoso (n 19) 4

[122] When the data shared by one data holder provides the data user with information about other data holders. For example, when the TPPs access information on a payment, besides the information on the data subject, they also access information about the recipient or sender of that payment, which may reveal information about that other data subject.

[123] EC Expert Group on European Financial Data Space (2022) (n 4) 6

[124] DNB and AFM (n 17) 5

[125] EC Expert Group on European Financial Data Space (2022) (n 4) 74

[126] Ibid 14 ff, 21

[127] Moody's Investor's Service, 2018, "Innovative incumbents will thrive; laggards will be disrupted," April 25, https://bit.ly/41ByTiN

[128] DNB and AFM (n 17) 42, 43

[129] Guibaud, S., 2016, "How to develop a profitable customer-focused digital banking strategy: Open Banking services and developer-friendly APIs," 1(1) Journal of Digital Banking 6 12

[130] Ibid 6

[131] Financial Stability Board, 2019, "BigTech in finance: market developments and potential financial stability implications," December 9, https://bit.ly/3YdRezu

[132] Ibid.

Thirdly, financial institutions should consider how to help their customers stay in control of their data. They have a good starting position compared to other competitors, as they have large amounts of data and – most importantly – benefit from having the customers' trust.[133] Trust between the parties is the basis of a financial relationship.[134] A study from the Dutch Central Bank shows that Dutch consumers are not eager to share their transactions data, and if they do it is mostly with banks. They also trust their banks more than bigtechs when it concerns their privacy.[135] Hence, this means that incumbents are already powerful and it is more likely that they will receive more data as customers trust them more. They can use this trust and provide a helping hand to customers to safely navigate them through the coming Open Finance ecosystem.

All in all, when planning to launch a new business model, a firm should weigh their risk appetite, the reputational risk, which is higher for financial institutions as customers confide in them more, and the potential benefits. Financial institutions should think about the kinds of new services that will appeal to customers and how they can execute them properly (either by themselves internally or by integrating third-party services directly onto their platform) to maximize their chances of remaining the preferred personal finance management interface of their customers.[136] The digital economy will grow and data sharing will be central to it. Consequently, actors should consider obtaining and providing data that can add value to their clients, thus giving them a competitive advantage.

---

[133] The German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), 2018, "Big data meets artificial intelligence," July 16, https://bit.ly/3mkrx39

[134] van Praag, E., 2022, "What should a bank know about us?" September 27, https://bit.ly/3EKA3if

[135] Dutch Central Bank (De Nederlandsche Bank), 2021, "Changing landscape, changing supervision: developments in the relationship between bigtechs and financial institutions," 18 Figure 3, https://bit.ly/3Zzi9ac

[136] Guibaud (n 129) 12