DATA USAGE, ACCESS & SHARING IN THE DIGITAL ECONOMY:
DETAILED USE CASES

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Introduction

Data sharing can open up great opportunities for Europe to increase prosperity for citizens and boost growth for businesses. For the banking industry, this can enable major innovations which help to enhance customer experience, democratize financial services, improve cybersecurity and consumer protection and strengthen risk management.

The use cases detailed below demonstrate some of the possibilities, which range from improved credit assessment and enhanced fraud detection and prevention, to allowing a more accurate calculation of an individual's environmental footprint. They show the benefit that increased access to data can bring, both for the consumer and the larger economy (e.g. increased competitiveness, sustainability). The ethical use of data, the protection of customer privacy and safeguarding data integrity through secure and standardised access, use and storage is the foundation for all of the use cases and without them, their potential cannot be realised.

However, the data relevant for financial services is not exclusively in the hands of the financial sector, it goes well beyond to other sectors. EBF members believe a cross-sectoral regulatory approach, including also public authorities, is required to unlock the real benefits of data cross-fertilisation for the digital economy in Europe.

For this to unfold, it is crucial to ensure that service providers when accessing customer data held by other companies/entities make use of appropriate and transparent access mechanisms with the adequate consent of the data owner (customer), and which allow upholding appropriate security levels and ensure a sufficient transaction audit trail.

The use cases below come as a follow up to the EBF's paper "Data Usage, Access & Sharing in the Digital Economy" of January 2020.

Data access and sharing for better credit assessment

A wider array of data enables financial institutions to do more accurate and faster (up to real-time) credit risk assessment. For financial institutions, faster and better credit assessment not only means fewer "false negatives" and unjustified

credit denial, but also means anticipating consumers' future needs, improving efficiency, reducing costs for consumers, and the possibility of a credit crunch[1]. This greatly benefits the client (both retail and corporate) who may have easier access to credit and receives a more tailor-made lending offer (e.g. better refund conditions, lower interest rate, fewer guarantees required, higher percentage of loan to value), as well as the wider economy through a more efficient allocation of funds.

More concretely for example, data access to the online lodging marketplaces, to the Point of Sale (POS) transaction, to the third parties' transactions (e.g.through online marketplaces), to other bank accounts would mean an improvement of the credit risk assessment of the customer (having access to more information related to a customer's additional revenues, costs and expenses). With reference to business customers, the same benefit will derive, for instance, from access/sharing of data related to sales trends of their products on e-commerce platforms or from the so called "web sentiment" data. Through this data, financial institutions may evaluate the reputation/trust that customers have of the companies they interact with, as well as the relationship of each business to other businesses and/or private customers.

Use case: Improved credit assessment

Data needed and how it could be used: Numerous studies[2] have shown that using non-financial data can improve creditworthiness assessment. Analysis shows there are important correlations with digital footprints, such as how the customer interacts with digital platforms and social networks, the number of connections made to a webpage and the device(s) used. Access to this data can significantly help to assess the capacity to repay a short-term loan.
In this use case, in order to be offered different credit options the consumer in need of finance/credit would provide this data to a set of providers: banks, investment funds, crowdfunding platforms, and merchants. Once the customer receives the credit, they would be able to choose whether to withdraw the permission to access their data from all providers or to maintain access for the final credit provider.

Benefits for the consumer: Access to more data can help to improve credit worthiness assessment by helping to avoid errors and providing too much or too little credit. This will also help to balance the need of access to finance on one side,

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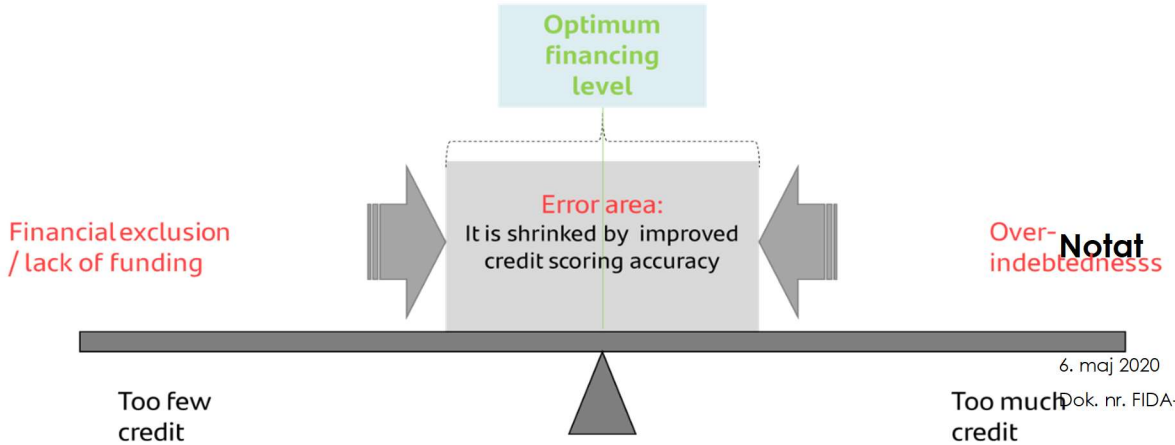
1 Lenders that use information from both sources (credit bureau score + digital footprint) can make superior lending decisions. The AUC (Area Under the Curve) of the combined model is 73.6% (where 100% means perfect predictions). AUC using credit bureau score alone is set around 66% - Credit scoring using digital footprints, Berg, Burg, Gombovi, Puri, 2018

2 BIS Working Papers No 779. BigTech and the changing structure of financial intermediation; Credit Scoring using digital footprints. US National Bureau of Economic Research, Berg, Burg, Gombovi, Puri, 2018.

and the need to control over indebtedness on the other, helping the customer on both fronts. Diagram A illustrates this desired balance.

Diagram A



The consumer will also be empowered to explore a wider range of potential credit providers (e.g. crowdfunding platforms) as this data will be available to all financial service providers, not just banks, thereby helping to increase competition in the sector. The consumer, and the wider economy, will benefit from a more solvent financial ecosystem, in which risk is better priced.

Data access for consumers' empowerment

Improved insight into spending habits allows supporting users in improving their grip on their finances via personalised advice. Proper advice becomes increasingly challenging as the trends towards disintermediation bring financial institutions towards restricted overviews of transaction information, for example, if transactions flow through wallet providers (who may not themselves be subject to PSD2 access to account requirements). This also supports financial inclusion by

supporting, for example, access to credit for consumers by overcoming traditional information asymmetries[3]. In order to be able to provide these advisory and financial inclusion services, data sharing across all players is needed.

Use case: Retail purchase information and user transportation optimization.
Data needed and how it could be used: The breakdown of transportation-related products and services acquired through card payments either on-site or on-line, such as fuel, maintenance, vehicle purchases, and tickets. This data is gathered by retailers and travel service providers.
By understanding user travel habits associated with transportation-related purchases, it would be possible to add value and increase customer convenience by suggesting cheaper or more efficient alternatives, offering credit for more efficient / cleaner transportation options, anticipating maintenance needs, or notifying about disruptions on common routes.

Benefits for the consumer: An enhanced user experience through personalization, real-time relevant offers and relevant information. Giving more choices, recommendations, and more information helps to empower customers and could even support them in taking action to reduce their environmental impact.
There is also a benefit for the wider market and economy from the:

- Increased competition on data-based business models, as there are more players and more diverse value proposals, and the
- Increased innovation in the financial industry, through new products and services and new customer relationship models.
- A contribution to sustainability may also be envisaged in terms of recommendations and financing of more sustainable travel solutions.

Use case: Improved personalized financial advice
Data needed and how it could be used: Customer purchase logs and wish lists in a defined online marketplace, prior to the purchase being made by the consumer. The customer provides access to this data to their bank or other financial advice providers when shopping online. This could help the customer in assessing whether they can afford a certain item given their current financial situation and future financial needs. The customer could even be provided with the option to find alternative, cheaper suppliers for a given product. Access to this data would be ongoing, but the customer should be able to withdraw consent in case he is not satisfied with the service received.

[3] Digital footprints can facilitate access to credit when credit bureau scores do not exist, thereby fostering financial inclusion and lowering inequality - *Japelli and Pagano, 1993; Djankov, McLiesh, and Shleifer, 2007; Beck, Demirguc-Kunt, and Honohan, 2009; and Brown, Jappelli and Pagano, 2009*

Benefits for the consumer: The short-term benefit for customers is a tool which helps to manage their finances in an anticipated way, not only at an ex-post manner where a purchase has already been made. Helping the customer make more informed consumption decisions, in the long term, could help against over-consumption and contribute to the Green Economy.

Data access for better SME financial advisory services

Accessing online platforms transactional data (such as sales, customer returns or pricing), banks can offer personalised B2B financial advisory (from cost management and financial coaching to payments services, insurance, etc.) based on knowledge of the SME's needs and its market trends. It allows banks to become more effective financial services providers, by improving SMEs' banking experience and helping them in running their business.

Use case: Personalized B2B financial advisory

Data needed and how it could be used: The most relevant data in this case is held by online marketplaces: real time sales, inventory (frequently managed by online platforms as well), customer reviews, wish lists, and refunds. Many SMEs are using online platforms, to reach their customers. This relationship generates a vast amount of real time data that could be used to provide SMEs financial advice. When helped by its bank to manage this data, the SME can predict its cashflows, determine their financial needs and options, choose the most convenient payment service for their customers, and take more informed financial decisions overall.

Benefit to the customer: The direct benefit is for the SME which can receive this additional service from financial advice providers. There could also be a larger benefit for the EU economy, which is sustained by SMEs. Further empowering the latter financially helps to strengthen the entire ecosystem.

Data access and sharing for fraud detection and prevention

This could help to combine the different databases' information, increasing customer security, and fraud detection and prevention.

Use case: Fraud detection and prevention to increase trust in the digital economy

Data needed and how it could be used: Access to a customer's localisation and metadata from social platforms.

Banks are committed to fighting fraud and money laundering by putting their knowledge and information at the service of the ecosystem. Access to additional data can help to support this objective. For example, access to a cus-

tomer's localisation can help payment service providers quickly detect if the customer is located near the point of interaction where the payment transaction is taking place.

Benefit to the consumer: Improved fraud detection and prevention, as well as increased consumer trust. Fraud is one of the most relevant causes of consumer mistrust in the digital economy. Another benefit is a decrease in false fraud alerts from the payment-service provider.

Data access to enhance green financing and provide sustainable investment opportunities

By allowing consumers to share information about their energy use banks could build specifications to facilitate green loans for renewable energy installation. Access, for instance, to data related to the purchase of organic products, donations to associations active in the field of sustainable development, expenses related to energy efficiency, food safety, waste management and climate change, would allow financial institutions to provide better advice on sustainable investments, offering tailor-made proposals on financial instruments related to the Environmental, Social and Governance (ESG) sector. The tailor-made proposal can be sent to the targeted customers (e.g. retail customers, existing investors) who have given their consent to provide access to such data to their banks via direct email marketing or mobile application (displaying the product sheet). The customer can directly accept the proposal via online banking or by requesting an appointment to the bank.

Use case: Carbon footprint calculations and sustainability recommendations.

Data needed and how it could be used: Prices and quantities of utilities and goods consumed such as petrol, electricity or water. This data would allow a more accurate calculation of an individual's environmental footprint, allowing comparisons regarding their efficiency and recommendations for cheaper and/or more sustainable suppliers.

Benefits for the consumer: An enhanced user experience through personalization and relevant information provision. Providing broader choices, recommendations and more information can help consumers take action to reduce their environmental impact.

There are also benefits for the wider market and economy through the increased competition due to more comparison and active recommendations of alternative utilities providers. It also helps to increase sustainability by promoting individual action to reduce the environmental footprint.

Data access for improving financial advisory services / or financial advice related to pension and social security

Access to pension and social security data would allow financial institutions to elaborate a more complete and in-depth social security profile for the customer, with the possibility of analysing the coverage of pension requirements and any social security gap, based on his/her own future public pension estimated directly by the National Social Security Institute as well as his/her last estimated salary. This would greatly improve customer position by overcoming the negative effects of behavioural biases and temporal discounting on their pension planning and ability to build savings. A possible use case scenario is the following:

Data needed and how it could be used: Access to pension and social security data.

A customer makes a request to the bank for information related to pension and social security funds. The bank proposes to make an estimation of the customer's pension gap. Compared with what happens today, the customer does not have to collect and provide all his/her working data, e.g. type and duration of jobs and related present and future income as well as his/her first public pension. The customer only provides their personal data.

The bank collects all the working and income data directly from the website of the National Social Security Institute or from the social security funds, thus easing the customer burden. The bank promptly releases the latest customer estimated income and pension, while a third party is engaged to calculate the supplementary pension.

Benefit to the consumer: The customer receives a more appropriate estimate of the pension gap calculated with an official estimate of the future public pension, complemented with the supplementary pension. The bank releases the Social Security Report with the indication of the social security gap directly to the customer.

Use case: **Improving asset allocation**

Data needed and what it could be used for: Data that could be used to improve portfolio allocations includes data from social platforms (particularly on consumer behaviour and risk aversion), search engines (particularly useful for understanding consumer knowledge on available investment products) marketplaces and utilities (for expected consumption), and government data (for future public pension streams).

A lack of full understanding of financial markets has resulted individual investor portfolios which are not always balanced with their future needs and actual preferences. Financial information, together with customer interviews, is the basis on which current portfolios have been built, yet this composition does not always offer the best picture. For example, the current composition could be more linked

to the last occasion the customer spent time to review the portfolio or recommendations in investment newsletters or media, instead of financial needs of the customer. Current roboadvisors are facing the same issue, since they rely on the same kind of financial information.

Other information sources can help to refine portfolio allocation. Key elements to build a financial portfolio include customer profiles, including behavioural factors such as risk aversion, financial knowledge and experience, customer's future financial needs including consumption patterns, expected public pension streams and market and product analysis.

Benefit to the consumer: The direct benefit for the customer is a complete picture of his future financial needs and resources which helps them to make better asset allocation decisions for the future. It could also help to channel funds to long terms investments.

Access to public data

Digitalization of public authorities and access to publicly held data is an important enabler for (cross border) digital financial services to develop. Many public registries hold data that are highly relevant for developing digital financial services. To exemplify, digital land registries will allow for a digital customer journey when buying real estate or when re-mortgaging. The Danish digital infrastructure for this serves as a good example.

Similarly, access to tax returns and company accounts, allow banks to access basic financial data for credit assessments. Having access to passport registries would allow banks and payment service providers to improve the quality of customer onboarding and ongoing due AML due diligence.

Thus, public data are key for the development of data-enabled financial service offerings, both by updating regulation and sectoral policies to reflect the opportunities provided by data and by ensuring that they are harmonized and standardized across EU Member States.