Finance Watch

Making finance serve society

FINANCE WATCH
DISCUSSION PAPER

October 2020

Responsible lending and privacy protection: A consumer perspective

Content

Authors: Olivier Jérusalmy, Paul Fox, Greg Ford.

Finance Watch has received funding from the European Union to implement its work programme. There is no implied endorsement by the EU or the European Commission of Finance Watch's work, which remains the sole responsibility of Finance Watch.

This paper seeks to discuss ways that EU policymakers could help to reduce irresponsible consumer lending in the wake of the Covid-19 crisis and data misuse following recent changes in the EU payments industry. The proposal is for a new approach to assessing consumer creditworthiness that could, with the right legislative support, replace the current credit scoring approach and, in so doing, greatly reduce the incidence of irresponsible lending, discrimination, exclusion from accessing credit and data abuse.

Key points

- **Focus on household budget data** – when lenders assess the creditworthiness of potential customers, they should look only at core household budget data: income and essential expenditure, as well as data on the consumer's ability to manage their budget. Other data should not be processed.

- **Respect consumers' ownership of data** – lenders should only obtain personal data with their owners' informed consent and in line with GDPR principles. Further regulatory guidance will be needed for data access via third party aggregators under Open Banking. A privacy-focused approach could even forbid financial service providers from obtaining access to the raw consumer data, limiting them to receiving inferred or aggregated data, such as the results of an analysis of a consumer's budget.

- **Limited data storage** – when prospective lenders collect and process people's data for the purpose of offering credit, they should only retain the data if they go on to sell a credit product and should only store it for the duration of the contract.

- **The benefits of handling data properly** – applying these principles to creditworthiness assessments should improve trust and transparency and reduce exploitation and financial exclusion.

Recommendations

The advocacy ideas in this paper are targeted at three institutions:

European Commission - DG JUST

DG JUST's review of the Consumer Credit Directive is an opportunity to narrow the types of information that lenders are allowed to use to assess creditworthiness and to update their conditions of use:

- Only data that relates directly to the borrower's ability to repay should be used, namely household budget data including incomes and essential expenditures, and data that indicates a borrower's ability to manage their household budget, all of which can typically be extracted from customers' payment accounts.

- Access to this data should only be granted with the borrower's informed consent.

- Credit providers should be prevented from collecting and using protected data (gender, religion etc.) and other data (personal consumption habits etc.) that are not directly relevant to the ability to repay, in order to prevent discrimination and protect privacy.

- Lenders should be at risk of sanction if they offer credit without first establishing that the borrower has the ability to repay.

- Lenders should be able to access and store relevant household budget data only for the duration of the contract.

- Public authorities should have access to lending data and default rates from all credit providers in order to identify financial institutions which deviate from an average rate of default, which might signal abusive practices.

European Data Protection Board (EDPB)

The EDPB may wish to clarify how the principles of necessity and data minimisation in its draft "Guidelines on Data Protection by Design and by Default"[1] would apply to financial services and credit providers in light of the Open Banking changes introduced by PSD2.

Open Banking allows customers to access and operate multiple payment accounts from different providers through third party aggregators, known as Account Information Service Providers and Payment Initiation Service Providers. These aggregators can retrieve data and supply it to lenders to make creditworthiness assessments, subject to the customer's consent.

Aggregators will need further guidance to identify which data are necessary for creditworthiness assessments and which are not, in particular:

- Coding data at the right level of granularity: in order to limit data processing for creditworthiness to items of household budget data that directly determine the ability to repay, information may need to be coded so that it can be easily differentiated (probably by operator - professional activity code) and thus ensure compliance with the rules on privacy protection.

- Anonymise the use of metadata: Finance Watch recommends that metadata should only be made usable by companies once anonymized and should not be used for personalized targeting.

- Whenever possible, third parties should only get access to inferred data or processed data and not raw data from the consumer's payment account.

European Banking Authority

Digitalisation is speeding up the ways in which citizens obtain information and make decisions to consume, invest or borrow. This increases convenience but can lead to poor-quality information and impulsive decisions that may have consequences for the

1 EDPB Work Program 2019/2020, https://edpb.europa.eu/sites/edpb/files/files/file1/edpb-2019-02-12plen-2.1edpb_work_program_en.pdf

consumer's wellbeing over many years. Consumers would benefit from having a trusted and neutral source of information about their own credit profile, which could help them understand their financial situation and make suitable choices about consumer credit products they are considering.

- The European Banking Authority could develop standards for a neutral financial education 'app', unconnected to commercial providers, that could provide personalised feedback and education to consumers about their own credit situation and creditworthiness at the point of contract.

Context

The pandemic is creating financial distress

The current health crisis reveals the economic vulnerability of millions of Europeans. Many borrowers are facing serious difficulties in meeting their obligations. The most fragile have suffered significant losses of income (self-employed, zero-hour contracts, etc) without adequate compensation. Some may find themselves destitute because they have not been able to build up precautionary savings and have difficulty making ends meet. The explosion of requests to food banks from new "clients" is a sad indicator of this reality.

Such financial distress and precarity increases the siren calls of credit providers. How can families under pressure resist temptation when credit is available at their fingertips?

A responsible credit practice that refuses credit in cases of unproven solvency would be the best protection against exploitation and over-indebtedness.

Credit is getting easier to access via smartphones and online

The digital offer is growing rapidly and access to small, large, and sometimes very expensive loans is possible in some European countries with just a few clicks or even a few thumbs-up on a smartphone screen. This is a profound transformation in the way that credit is accessed, with a reduction in human interaction and an acceleration of automated credit granting procedures. Under these conditions, how can we guarantee quality information and advice? How can the borrower make a judicious decision and the lender ensure that their client can honour their financial obligations? Clearly, responsible credit practices must also cover the online world.

There is a plethora of personal data available

The explosion of data generated from the use of digital interfaces has not yet reached its full maturity. Work remains to be done in many directions to domesticate this new ogre that fascinates as much as it frightens. The practice of responsible lending undoubtedly requires access to personal data. In these circumstances and faced with the mountains of information that may be useful or even relevant in the practice of credit, it is a matter of defining the minimum perimeter (as prescribed by the GDPR) necessary for its implementation. Without this, we run the serious risk of emptying the GDPR of its protective substance in the field of financial services and credit and witnessing the use of dubious algorithms claiming to make relevant statistically significant links between information collected from social networks and consumers' likelihood of defaulting on a loan.

These elements underpin several initiatives at European level. Three of them are, in our view, particularly relevant:

1) EU Commission: DG JUST

The European Commission's Directorate-General for Justice and Consumers is evaluating the Consumer Credit Directive for possible revision, which is an opportunity to strengthen the obligations around responsible credit.

2) European Data Protection Board (EDPB)

The EDPB is engaged in the production of guidelines that specify the concrete implementation modalities of the general principles as described in the GDPR. We advocate a clarification of the concepts of necessity and minimisation, and how these should be translated into concrete terms for financial institutions in the exercise of their various business activities (banking, credit, insurance, investments). The scope of the data required for granting credit should be clarified, as should the scope of data required for other financial products such as investments and insurance.

3) European Banking Authority

The EBA plays an increasing role in financial education and is central to the coordination of national financial education and financial literacy initiatives at European level. We believe that digital tools, using the potential of artificial intelligence, should be developed by public authorities in order to offer real-time, personalised information and advice. It seems essential to build today independent, digital, real-time diagnostic tools and advice 'apps', which could accompany any online credit subscription.

Irresponsible lending and over-indebtedness

Irresponsible lending is one of the key drivers of over-indebtedness among consumers. There are differences in how member states treat non-performing loans and enforce responsible lending, as can be seen from the different rules on mortgages concerning loan-to-income ratios, maximum duration (under 25 years), interest rate caps, etc.

Over-indebtedness that results from smaller consumer credits (such as personal loans, overdrafts, credit cards, hire purchase, payday loans etc.) can hit financially vulnerable citizens especially hard, forcing them to choose between expensive or exploitative credit and immediate financial hardship. The variation in how member states regulate these markets is proof that substantial improvements are possible at EU level (interest rate caps are one of the most effective measures, for example).

An effective framework for responsible lending begins with identifying when "responsible" lending turns into "irresponsible" lending, which should, in our view, focus on the financial situation of the borrower. This question must be addressed directly in the revision of the CCD or in other regulations.

Irresponsible lending can be understood as a credit proposed when the borrower, at the time of the contract signature, has insufficient financial means to pay it back or has a foreseeable chance to see his or her income diminish during the reimbursement period.

A loan where the borrower's ability to repay is in doubt can create additional profits for the lender but also social costs. If creditworthiness assessments were properly made in the pre-contractual phase, a large part of future defaults and their social costs could be avoided. Consumers in financial distress should still have access to solutions suitable for their situation, which may include welfare or other state-provided forms of assistance. Indeed, not having such options would be an invitation to black market or unregulated financial service providers to try and fill the gap, which would be a backwards step for borrowers and society alike.

Defining "irresponsible lending" and especially the point at which a consumer can be deemed non-creditworthy is thus a crucial step for policymakers seeking to reduce irresponsible lending. The current practice among many financial institutions, from our understanding, is to use a statistical approach that assesses the creditworthiness of consumers by creating various consumer "pools" based on their apparent risk. A very low-risk pool might contain consumers of whom fewer than 1% are likely to default on a loan and offer very low interest rates and good borrowing conditions. Higher-risk pools might contain a substantial percentage of consumers who are expected to default and so require higher interest rates and tougher borrowing conditions to compensate for the risk (which ironically may increase the risk of defaulting on a loan).

But it is difficult to say where on this risk spectrum a loan could be deemed "irresponsible" – is it when 5% of the consumers in a pool are expected to default on the loan, 10%, 20%? How much does a borrower's statistical probability of default tell us about their real world ability to repay, or whether the loan was made responsibly or not?

This question is deeper than it may seem and raises sociological and moral issues. For instance, when lending to people in a vulnerable situation, is it considered irresponsible lending if the consumer does not have the financial means to repay but the financial institution knows from experience that the default rate of similar consumers is low because they will first resort to borrowing from their friends and family before defaulting on a loan, or cut down on their healthcare expenditure? Looking at "cold numbers" and statistics, one may find that the default rate of some people is reasonably low but the numbers hide a very harsh reality, where consumers are putting other people at financial risk (family and friends) or sacrificing access to goods/services of first necessity.

These are impossible questions for financial policymakers and highlight why default probabilities are not a suitable tool for distinguishing responsible from irresponsible lending. A serious creditworthiness assessment should, in our view, look at the individual borrower's ability to repay and manage a budget.

Creditworthiness assessments (CWA)

Creditworthiness assessments (CWA) can do a lot to prevent harm in cases where dangerous or exploitative products are allowed to be sold. Such products can easily cause consumer detriment and, if targeted at low income borrowers, could be considered irresponsible lending. CWAs that filter out borrowers who cannot afford the credit are thus an essential step in avoiding irresponsible lending and should be considered a first step in creating a sustainable credit market.

Several broad questions arise in relation to CWAs:

What data is to be processed?

In order to assess what financial means are available for servicing and repaying credit, the credit provider needs to assess the budget of the household to assess how much money remains after necessary expenditures. This requires access to private data about the household's sources of income and its spending and saving patterns.

What are the privacy issues?

There is a risk that data intended for use in a creditworthiness assessment includes direct or proxy information about protected attributes such as gender, religion, health, trade-union affiliation, raising questions about legality.[2]

The development of big data has enlarged the capacity for lenders and credit bureaus to access data. The question is where to put the limit? What is lawful and what is not? What are the adequate, relevant and limited[3] data to be used for the sake of responsible lending?

What are the financial inclusion issues?

The type of data collected and the way it is treated can lead to widely different consequences for borrowers. What should be avoided are situations where, for example, the late payment of a disputed invoice leads to a negative credit record on a credit bureau database that, by a cascade effect, leads to a range of disproportionate or unwarranted refusals that end up harming the consumer. This situation could be commonplace in EU countries where private credit bureaus are authorised to collect a large range of data and might require some time and energy on the part of the borrower to resolve.

What solution can fix this problem?

Due to the complexity of the situation, a consumer-friendly approach has to reconcile and achieve three outcomes:

- qualitative creditworthiness assessment by credit providers,
- a high level of privacy protection, and
- an inclusive and responsible consumer credit market.

Legal environment

Four key pieces of EU regulation make up the EU framework for creditworthiness assessments. These rules currently differentiate between mortgage credit and consumer credit. This means that almost all credit over 200 euros requires some form of creditworthiness assessment to be undertaken by creditors before signing a contract with a borrower.

The Mortgage Credit Directive (MCD) introduces stricter requirements on creditors than the Consumer Credit Directive (CCD) to ensure the protection and limit the processing of borrowers' data. It also introduces a higher level of borrower protection by seeking to address conflicts of interest and introduce proportionality in creditworthiness assessments. Both directives ensure that all creditworthiness assessments must be compliant with the GDPR.

2 Art 6 GDPR

3 Art 5 §1.c GDPR

The GDPR states that where data provided by borrowers for creditworthiness assessment are used for any other purpose, it must be based on explicit consent given by the borrower for that purpose. It also prevents the use of many kinds of identity data[4] and allows only data that can be considered necessary for undertaking creditworthiness assessment. It restricts how data used for creditworthiness assessment should be stored.

Cases taken before the Court of Justice of the European Union have clarified that where higher levels of consumer protection exist at national level, they should take precedence over EU laws. They have also outlined that creditworthiness assessments can be undertaken solely on the basis of data provided by a borrower.

This framework falls into the remit of two kinds of national competent authorities; those responsible for supervising sales of credit under the CCD and MCD and those responsible for supervising compliance with the GDPR. These are always two separate authorities.

Here is a summary of the main provisions and rulings:

Consumer Credit Directive

Article 5(q) & Article 6(j) – informs consumers of their right to know the results of database consultations to assess their creditworthiness.

Article 8 – sets out the obligation to undertake creditworthiness assessments, with use/access of a database where necessary or required by national legislation.

Article 9 – sets out the right of creditors to access database information across EU borders. It also ensures that all access to databases must be in line with the GDPR.

Mortgage Credit Directive

Article 4(17) – defines a creditworthiness assessment as the evaluation of a borrower's capacity to repay.

Article 7(3) – sets out rules on remuneration and conflicts of interest for staff responsible for carrying out creditworthiness assessments.

Article 18 – sets out the obligation to undertake creditworthiness assessments. It also requires creditors to document and maintain information used as part of this assessment. It sets out that consumers must be informed in advance that a database will be accessed for the assessment and to know the results of use of the database. It also sets out that creditworthiness assessments must be in line with the GDPR.

Article 20 – limits the use of information about consumers' financial and economic situations for creditworthiness assessment to cases where it is necessary, sufficient and proportionate. It also allows creditors to seek clarifications on information provided by consumers where relevant to the creditworthiness assessment.

Article 21 – limits the access to databases, of private credit bureaus, credit rating agencies and public registers, to where it is necessary to assess creditworthiness and monitor compliance with credit obligations. It also ensures that all access to databases must be in line with the GDPR.

4 Article 9 GDPR – "*Processing of personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and the processing of genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person's sex life or sexual orientation shall be prohibited.*"

Payment Services Directive II

Article 67 – limits the remit of account information service providers to where explicit consent is given and not to include data on sensitive payment transactions.

General Data Protection Regulation

Articles 2 & 3 – set out the scope of the regulation, which includes any information relating to an identified or identifiable natural person, including a name, an identification number, location data, an online identifier and information on economic or social factors of a person in the EU.

Article 5 & 6 – set out the principles of purpose limitation, data minimisation and storage limitation and the need for consent.

Article 7 – highlights the need for specific attention to be given in cases where performance of a contract, including, service provision, is conditional on consenting to the processing of data that is not needed for the performance of a contract.

Article 9 – limits the processing of certain kinds of personal data relating to identity to very specific set of circumstances.

Article 20 – sets out the right to data portability.

Article 22 – limits automated decision-making, including data processing to where explicit consent has been given.

European Court of Justice rulings

18 December 2014[5] – "*[...] Article 8(1) of Directive 2008/48 must be interpreted to the effect that, first, it does not preclude the consumer's creditworthiness assessment from being carried out solely on the basis of information supplied by the consumer, provided that that information is sufficient and that mere declarations by the consumer are also accompanied by supporting evidence and, secondly, that it does not require the creditor to carry out systematic checks of the veracity of the information supplied by the consumer.*"

6 June 2019[6] – sets out that national rules to ensure that credit is the most suitable considering a borrower's financial situation should be adhered to ahead of Articles 5(6) and 8(1) of the CCD. It is not sufficient to claim that borrowers should take a final decision on the basis of these articles under the CCD in this case and creditors should not offer credit if the creditworthiness assessment indicates that the borrower may not reasonably be able to repay their debt.

5 March 2020[7] – where national rules on penalties for cases where creditworthiness assessment has not been properly done apply, this must be in line with Articles 8 and 23 of the CCD before the penalty can apply.

Data inputs for a qualitative CWA

Creditworthiness assessments should provide credit providers with the information they need to assess whether the borrower's household has sufficient current and expected income to cover not only the essential expenditures needed for a satisfactory standard of living - that is to say a standard that the borrower might not be able to reduce for the sake of a credit repayment - and also the new financial liability.

5 Judgment of the European Court of Justice (Fourth Chamber), Case C-449/13, 18 December 2014, http://curia.europa.eu/juris/document/document.jsf?docid=160946&doclang=EN

6 Judgment of the European Court of Justice (First Chamber), Case C-58/18, 6 June 2019, http://curia.europa.eu/juris/document/document.jsf?text=creditworthiness%2Bassessment&docid=214762&pageIndex=0&doclang=EN&mode=req&dir=&occ=first&part=1&cid=199290#ctx1

7 Judgment of the European Court of Justice (Second Chamber), Case C-679/18, 5 March 2020, http://curia.europa.eu/juris/document/document.jsf?text=creditworthiness%2Bassessment&docid=224110&pageIndex=0&doclang=EN&mode=req&dir=&occ=first&part=1&cid=199290#ctx1

The information needed includes:

- **Monthly balance of the household budget:** looking at the borrower's payment accounts over a given period, including the income and essential expenditure items and whether they are in credit or overdrawn, gives a useful first picture of the borrower's finances.

- **Existing debts:** when looking at incomes and expenditures in the payment accounts, it is important for credit providers to identify items relating to existing credits and loans; these illustrate the existing level of financial debt and give a key indication of risk appetite and management capacity, as well as the possible financial fragility or distress of the borrower.

- **Arrears and penalties:** the amounts of extra costs or fees charged when legal delays, enforcement actions or court decisions are applied because of arrears are useful to identify financially distressed households.

- **The household composition of the borrower:** data about the number of people living at the borrower's address is generally available from local authorities and allows the credit provider or their intermediaries to consider whether one or two persons will sign the credit contract, and if necessary to analyse the payment accounts of the co-signatory.

Analysing the household budget

For financially included citizens, data for the first three points above can be collected easily from their payment accounts. For those without payment accounts, a safe alternative supply of data should be developed to reduce the risk of financial exclusion. Mainstream credit providers might not be, for the time being, the best equipped market player to supply this; personal microfinance institutions and credit unions have developed solutions that may be better suited to these types of situation.[8]

A key question for analysing income sources and expenditure is what level of granularity, or detail, is needed to avoid discrimination and be GDPR compliant?

We suggest that more granularity of data should be allowed for data about incomes than for data about expenditure, and that metadata should not be used at all. In an ideal scenario, financial service providers could only gain access to inferred or processed data from an algorithm, which analyses the raw consumer data, thus preventing any third party from accessing detailed data about income or expenditure.

Incomes

The nature of a borrower's sources of income – including salary, honoraria, fees, allowances etc. and the proportions between them – gives information about their past and expected future financial stability. It also allows further and differentiated analysis by credit providers: indeed, if some social allowances might be flagged and lead to credit refusal, some other players might develop a data analysis that identifies if the borrower accesses all the "allowances" he or she is entitled to receive. Should the use of this information lead to market failure or undue exclusion, complementary action might be needed.

8 Finance Watch Report "Basic Financial Services", 7 July 2020 https://www.finance-watch.org/publication/report-basic-financial-services/

In general, a good level of granularity about income data is useful and appropriate. However, some limitation on the granularity may be needed for data relating to protected or sensitive attributes:

1. Health-related income (health care reimbursement, …)
2. Trade Union (allowances…)
3. Religious affiliations
4. Financial institution: credit disbursements should be identifiable but that does not mean that the name of the financial institution also needs to be revealed.

For income data, the principle would be to allow full granularity with some pre-defined limitations. But it may be possible to prevent all of these issues should financial institutions only access inferred data or processed data without any access to the raw data. An algorithm can easily identify patterns in steady income streams (for instance, a salary payment) and trends in other income streams (such as healthcare reimbursements) to create an analysis of the budget with expected future incomes without labelling the source of the income or disclosing sensitive information.

Expenditure

For expenditures, the situation is the reverse. The consumption habits, the nature of the shops and providers used by the borrower, the way the expenditures are made (online/offline) at what time of day and with what means of payment etc., are factors that open the door to data that is not needed for a proper CWA and could be unnecessarily intrusive. This suggests that a higher, or at least intermediate, level of granularity would be appropriate.

In practice that would involve identifying certain large sections of the family budget where transactions could be grouped to allow an assessment of the borrower's budget management skills without revealing the names and details of each transaction. To illustrate, we propose for discussion with stakeholders the following budget sections:

1. Rent/housing-related credit
2. Essential monthly expenditures attached to housing: energy, phone (connectivity), water…
3. Insurance
4. Credit and credit providers (anonymised but identified)
5. Arrears
6. Transport and mobility
7. OTHER: consolidated sum for foods, leisure, health, religion, trade-union, …

Items 4 and 5 from this list – existing credit and arrears - can be particularly helpful for credit providers to understand a borrower's circumstances and how well they manage and use credit. Data on existing credit, however, should only be provided in anonymised form to limit the risk of conflicts of interest between competing credit providers. Data on arrears and debt collection could be provided in full.

For expenditure data, the general approach would be to limit granularity but allow more details in certain specific cases. As is the case for income data, expenditure data can also be analysed by an algorithm which can identify regular expenditure (rent, utilities and so on) and trends in other expenditures, without having to disclose the recipient, and come up with future expenditure predictions, which are precise enough for financial institutions.

Metadata

Metadata refers to data about data, such as what time of day a purchase or enquiry was made or from what device. Although this data is of great value for companies, particularly in the area of marketing, it is not necessary for creditworthiness analysis and does not respect the principle of minimisation (Art. 5 § 1(c), GDPR) because the data is not part of the minimum information required for granting credit.

This metadata has only recently been available to lenders; its absence before that did not appear to have affected the growth of the credit market.

We propose therefore that metadata be excluded from the types of data that can be used in carrying out a CWA.

Conclusion on CWAs

CWAs could be based on a finely-tuned selection of data taken from the borrower's payment accounts, supplemented with data on the borrower's household composition from a local authority. The selection process should distinguish between data that is necessary for CWAs and data that is not, data that relate to protected attributes, and between data and metadata. With an appropriate selection of data, it should be possible to finalise a CWA that is aligned not only with the text but also the spirit of the GDPR.

Privacy considerations

The exercise carried out in the previous section endeavours to apply both the letter and the spirit of the GDPR and its emerging jurisprudence, while guaranteeing lenders the possibility of carrying out a thorough credit assessment that can address the main issue of this paper, namely to enable responsible credit practice.

It also aims to improve privacy protection and limit the risk of data breaches, by limiting the selection of data and granularity to information that is useful for a CWA and is used only for that purpose.

Open banking and PSD2 'aggregators'

Applying GDPR principles to credit provision is complicated by the Open Banking initiative introduced with the Payment Services Directive (PSD2), which allows for third party aggregators to enter the market.

Aggregators provide an interface through which consumers can access and operate payment accounts. Known in the legislation as "Account Information Service Providers" or "Payment Initiation Service Providers" (PSD2, Art 4), aggregators can connect to bank accounts and retrieve information that can be used by financial services providers for creditworthiness assessments, investment recommendation services, etc. The aggregator is therefore the one to carry out the data extraction, in compliance with GDPR.

Giving consent to use data

Only the consumer can grant access to their data when looking for credit, by giving permission to the credit provider, perhaps via an aggregator to collect and use their data. The consenting process could be designed in the following way:

Access to data requires a one-off consent for an explicit credit demand

- Personal data are made accessible by an explicit consent at the moment of a credit demand.
- Access is provided to the exact "credit provider(s)" from whom the consumer wants a credit offer.
- The data is very sensitive and requires a one-off consent.
- The data is not stored by companies which have not finalised a credit agreement within the 30 following days.

Use of data is allowed only for a decision

- Once accessed for a specific credit demand, the data can only be used or processed by the credit provider for the purpose of making that credit decision at that time.
- After the decision has been made, the data collected should be archived and made available only for an appropriate reason (e.g. to compare it with an update of the creditworthiness assessment, or to check the assessment if a default occurs).
- Should another credit demand be made to the same credit provider, the explicit consent should be asked again.

Reducing the number of unnecessary credit databases

GDPR and PSD2 are challenging the traditional approach to managing credit risk information, in which public or private credit bureaus maintained registers of customers in default or arrears, that credit providers could consult.

Now, credit providers can access this and other data directly via aggregators, solving a number of problems, including:

- data inaccuracy,[9] out-of-date data, data not "fully representing the credit market" because all the credit providers active[10] on a market do not contribute to the credit register,

- biases in the nature of data, but also in the way they are collected and analysed that can lead to direct and indirect discrimination[11] and or unlawful treatment and undue exclusion,

- difficulties for citizens to access and correct data,[12]

- exposure to data breaches (Equifax,[13] Yahoo, JP Morgan Chase, …),

- hard to control pan-European credit register network: cross-border credit providers should be entitled to access the same set of data as local credit providers. This qualitative data should increase the confidence of the credit

9 Walter Palmetshofer, We crack the Schufa, the German credit scoring, Open Knowledge Foundation, 2018, URL - https://blog.okfn.org/2018/02/22/we-crack-the-schufa-the-german-credit-scoring/

10 Aaron Klein, The real problem with credit reports is the astounding number od errors, Brookings Center on Regulation and Markets, 2017, URL - https://www.brookings.edu/research/the-real-problem-with-credit-reports-is-the-astounding-number-of-errors/

11 T. Loenen – P.R. Rodrigues, Non-discrimintaion law: comparative perspectives, Kluwer Law International, p.83, "Whether the SCHUFA criteria in addition comprise socio-demographic data is still unknown. Given the rather high degree of racial segregation in Germany, socio-demographic data is likely to have discriminatory effects on racial minorities"

12 C. Norris – P. de Hert – X. L'Hoiry -A. Galette, The Unaccountable State of Surveillance Exercing Access Rights in Europe, Law, Governance and Technology Series 34, Springer, 2017

13 Federal Trade Commission, The Equifax Data Breach: What to do, 2017, by Seena Gression, Attorney, URL - https://www.consumer.ftc.gov/blog/2017/09/equifax-data-breach-what-do´

providers to approach new markets, and therefore boost competition. This benefit will not depend on the proliferation of private data storage and exchanges across national borders, which should be seen as an outlier as regards the efforts of GDPR to protect citizens' privacy.

Financial exclusion

"Financial exclusion refers to a process whereby people encounter difficulties accessing and/or using financial services and products in the mainstream market that are appropriate to their needs and enable them to lead a normal social life in the society in which they belong." [14]

This definition of financial exclusion underlines the two dimensions of being included: having no restriction to "access" a credit, but also being able to live with it and lead a "normal social life". The second dimension refers to the quality of life that any credit user (borrower) is entitled to experience. Concretely, it means borrowers should be protected against over-indebtedness (in the sense of protection from irresponsible lending practices) because being over-indebted is not compatible with any life quality standard. It also means the credit proposed should be easy to understand and managed to avoid everyday worries.

Removing biases that wrongly exclude people

The set of data proposed for CWAs helps to protect against unfair exclusion caused by biases in the data used in automatic decision-making, for example in credit scoring. European Parliament researchers describe the problems as follows:

- *"The first type of bias could be described as biased values in design. An algorithm might be considered biased if it is designed to favour one feature over another…*
- *A second type of bias can also occur during the development of an algorithmic system. This form stems from the data used to train the model…*
- *The third problem source also relates to biased data. When an algorithmic system has been developed and is functioning, its outcomes might be problematic if the data it is working on is problematic…*
- *The final area relates to the application or implementation of the model. In this case unfairness results not from the design of the model itself but the way in which it is applied…"*[15]

This list of biases can easily lead to the exclusion of people if a biased risk assessment leads to an unwarranted increase in the price of the credit proposed which in turn makes the credit unaffordable (inaccessible) or unsustainable because of its high cost.

14 Financement Alternatif, Financial services provision and the prevention of financial exclusion , European Commission, May 2008, URL: https://www.finance-watch.org/wp-content/uploads/2018/06/FINANCIAL-SERVICES-PROVISION-AND-PREVENTION-OF-FINANCIAL-EXCLUSION-Final-report.pdf

15 European Parliamentary Research Service, A governance framework for algorithmic accountability and transparency, April 2019, p.20

- The CWA avoids all the inconveniences of the credit register:

- Credit registers usually list a range of past bad payers,[16] but do not assess creditworthiness[17] or future expectations.

- When credit registers collect a large range of payment defaults (rent, credit, energy providers, insurance, IT and communication, …), consumers can find themselves easily black-listed with negative consequences[18] that bear no proportion to the default registered.

- Numerous studies of credit registers have documented problems with accuracy, transparency, and poor capacity to correct errors.

The CWA allows a high-quality creditworthiness assessment based on high-quality data (unbiased, complete, structured, legitimate) strongly protected against data breach by credit institutions' existing, regulated and supervised security measures.

Promoting financial inclusion

The CWA approach can improve financial inclusion in several ways:

- The low cost of CWA algorithms, once developed, means that credit providers can enlarge their offer to low income households.

- The approach should allow a broader range of credit institutions to offer "responsible micro-credits", not only microfinance institutions.

- It avoids the tendency of traditional credit scoring methods[19] to favour borrowers who fit the original sample while penalising those outside the sample because they are financially excluded or because they have new and emerging profiles, such as part-time workers, the self-employed, mixed activity workers, single parents, co-users, new types of partnership, and so on.

- Perhaps the most inclusive aspect of the CWA approach is that newcomers are not penalised for a lack of prior credit use. CWAs use data about borrowers' ability to manage their household budget, save on a regular basis, avoid financial penalties due to delayed payments and so on to assess the budgeting skills and financial margins the consumer has built.

How to scale up the CWA approach

The true innovation is one that can scale up!

As has already been said, credit analysis based on budget components is not a revolution; it used to be the standard, common-sense approach before automated credit-scoring based on probabilistic techniques was developed in the last few decades to industrialise the supply of consumer credit.

The attractiveness of the arrival of aggregators is that they can combine the efficiency of an industrial credit supply with the accuracy of personalised household

16 O. Jérusalmy, Défaut de paiement : une obligation incomplète, Réseau Financité, 2007, URL ; https://www.financite.be/fr/reference/defaut-de-paiement-une-obligation-incomplete

17 O. Jérusalmy, Credit scoring : décryptage d'une pratique discriminante... et discriminatoire ?, Réseau Financité, 2007,URL : https://www.financite.be/sites/default/files/references/files/214_0.pdf

18 O. Jérusalmy, Centrale des crédits aux particuliers : quels élargissements souhaitables pour une meilleure prévention du surendettement ?, Réseau Financité, 2009, URL : https://www.financite.be/fr/reference/centrale-des-credits-aux-particuliers-quels-elargissements-souhaitables-pour-une-meilleure

19 O. Jérusalmy, Credit scoring: une approche objective dans l'octroi de crédit ?, Réseau Financité, 2007, URL: https://www.financite.be/fr/reference/credit-scoring-une-approche-objective-dans-loctroi-de-credit

budget data. They do not have to rely on probabilistic laws built on databases of questionable quality.

Microfinance has proven to be able to serve previously excluded groups thanks to a solvency analysis adapted to the reality of these groups on the one hand, and on the other hand by an offer adapted to the needs and circumstances of these groups. However, the cost of the method (manual analysis of account statements) has limited its expansion.

In the business environment, new entrants[20] in the credit market have already developed the analysis of SME accounts in order to meet their financing needs reliably and quickly, while very effectively limiting default rates.

Credit bureaus as aggregators?

Aggregators could play a central role in CWA if the large-scale deployment of Open Banking is a success, although at this stage the economic model of these new operators is still being developed.

Nevertheless, the gains that can be achieved in terms of financial inclusion and also in terms of protection and respect for privacy, non-discrimination and fair play could be substantial. It is to be hoped that private initiatives will seize the chance to modernise and bring to an end the period in which the assessment of solvency relied too much on approximate data, such as employment or housing stability, marital status, gender or address etc..

In addition to the arrival of these new entrants, created ex nihilo, it is conceivable and even desirable that the existing credit bureaus will transform themselves into aggregators: from today's data collectors (with or without analyses) widely used by lenders and others, they could tomorrow carry out CWAs on behalf of their clients, without needing to store data, since the creation of a database is no longer a requirement.

Key steps for an operational implementation

- Credit providers should develop algorithms to analyse the payment accounts of consumers over a period of time. A 12-month period might be seen as appropriate to take into account all types of income and expenditures including annual items.

- The development phase, in partnership with aggregators, should allow credit providers to fine tune the "algorithm tool" to adjust it to their client segment and to potential new targets. The question of how best to organise this would require further analysis and cooperation between stakeholders and regulators. For the specific purpose of the development phase, a more detailed level of granularity on the transactions might be necessary to allow the fine tuning of the algorithm, which might be authorised purposely.

- Once developed, credit providers can assess the credit demands of their clients by asking the aggregators to process the data for which they have received the consumer's consent. The report generated by the aggregator for

20 For example www.kabbage.com

each credit provider should (beyond being compliant) allow the credit provider to give /refuse/ propose an alternative offer that better fits the credit profile and provide a clear explanation of the decision. For credit offers from multiple lenders, the report should adjust to each credit provider, in a way to allow differentiation of the type of data used, the way analysis is built, the type of weighting used, the nature of report/budget diagnostic they might be willing to develop, the granularity of the reason for a refusal, and so on.

- Consumers should have full access to such aggregators and use them as tools to assess their own creditworthiness and receive "tips" or general advice on what they could improve such as to increase their savings capacity, identify problematic spending patterns etc..

This implementation scheme is not the only one possible, as we can imagine aggregators developing their own analysis and proposing them to consumers when they might be looking for budget advice or a credit: this can support their financial education, provide them with a budget diagnosis and management advice. Should this analysis be useful for one or more credit providers, the consumer could provide them with this analysis when they make a credit demand.

A role for the European Banking Authority

The new approach described in this paper shows what benefit consumers could receive, for the sake of their own understanding and management skills, from an algorithm designed purposely to process their payment accounts.

The benefit of a consumer protection "diagnosis tool" should lead to a massive empowerment of European consumers: from better management of their financial services (to avoid penalties and extra fees) to wiser use of consumer credit (avoiding high risk taking) and proper information to build a meaningful saving strategy (for rainy days or pension).

Considering the EBA remit in financial education, EBA could take the lead in the research and development of such a tool. If EBA were to receive the support of Member States' central banks to finalise the necessary national adjustment of the tool, financial education for EU citizens could truly enter the 21st century.

Finance Watch
Making finance serve society

Rue Ducale 67 b3
1000 Bruxelles
T: + 32 (0)2 880 0430
contact@finance-watch.org

www.finance-watch.org