Supervisory approaches to consumers' creditworthiness assessments

November 2021

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Disclaimer

This report is based on information and responses gathered from FinCoNet members between November 2019 and February 2020. While the information was accurate and up-to-date at the time of collection, subsequent changes in circumstances and practices may render some information out-of-date.

The opinions expressed and arguments employed herein do not necessarily reflect the official views of FinCoNet member organisations.

About FinCoNet

In November 2013, FinCoNet was formally established as a new international organisation of financial consumer protection supervisory authorities. FinCoNet is recognised by the Financial Stability Board and the G20.

The goal of FinCoNet is to promote sound market conduct and enhance financial consumer protection through efficient and effective financial market conduct supervision, with a focus on banking and credit.

FinCoNet members see the Organisation as a valuable forum for sharing information on supervisory tools and best practices for consumer protection regulators in financial services. By sharing best practices and by promoting fair and transparent market practices, FinCoNet aims to strengthen consumer confidence and reduce systemic consumer risk.

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Table of acronyms and abbreviations

AI	Artificial intelligence
CWA	Creditworthiness assessments
DSTI	Debt-service-to-income
FinCoNet	International Financial Consumer Protection Organisation
LTI	Loan-to-income
LTV	Loan-to-value
ML	Machine learning
OECD	Organisation for Economic Co-operation and Development

Glossary

Term	Definition
Advanced analytics	Autonomous or semi-autonomous examination of data or content using sophisticated techniques and tools, typically beyond those of traditional business intelligence. It is often based on ML, to discover deeper insights, make predictions or generate recommendations.
Artificial Intelligence (AI)	Field of computer science that allows computer programs to perform tasks such as problem-solving, speech recognition, visual perception, decision-making and language translation. AI can ask questions, discover and test hypotheses and make decisions automatically based on advanced analytics operating on extensive data sets.
Audio and text data	Source of information related to the analysis of the consumer's audio/speech (spoken word) and text data (written word).
Big Data	Digital tools and information systems capable of analysing large volumes of different types of data from varied sources, often in real time. This capability is driven by the increased availability of structured data, the ability to process unstructured data, increased data storage capabilities, advances in computing power and specialised parallel computer architectures.
Clickstream data	The collection of information during clickstream analysis, which includes the webpages that the consumer visits and the sequential stream of clicks consumers create as they move across the web.
Consumer	Individual acting for personal, domestic or household purposes, not business purposes.
Credit intermediary	Natural or legal person who is not acting as a creditor and who, in the course of his/her trade, business or profession: • Presents or offers credit agreements to consumers; • Assists consumers by undertaking preparatory work or other pre-contractual administration in respect of credit agreements; or • Concludes credit agreements with consumers on behalf of the creditor. In some jurisdictions, this figure is known as a 'credit assistance provider'.
Credit scoring model	Risk management tool that assesses the creditworthiness of a consumer by estimating his/her probability of default based on historical data. It uses numerical tools to rank order cases using data integrated into a single value that attempts to measure risk or creditworthiness.

Creditworthiness assessments	Evaluation of a consumer's ability to repay the obligations resulting from the credit agreement.
Debt-service-to-income (DSTI)	The ratio between monthly installments of total credit agreements and the consumer's income.
Firm / Lender	A financial services provider licensed to provide credit to consumers (including a financial, credit or banking institution).
Loan-to-income (LTI)	The ratio between monthly installments of the loan being offered and the consumer's income.
Loan-to-value (LTV)	The ratio between housing loan and the purchase price or the appraisal value of the house granted as collateral.
Machine learning	Ability to perform tasks by computer systems based on patterns and continuous inference. Supervised ML uses an approach based on training a model with already known inputs and outputs (e.g. list of customer credit status) which will result in a general rule to apply to future cases.
P2P lending	The use of an electronic platform that matches lenders/investors with borrowers/issuers in order to provide unsecured loans, including consumer and business lending, as well as lending against real estate.
Respondent or jurisdiction	One of the responding jurisdictions including in the list of the Appendix A of this Report.
Social network data	The collection of information by the study of behavioural patterns observed in online services and in social networks.
Social profile data	Source of information related to the consumer's social media profiles.
Survey data	Information gathered in result of surveys conducted on specific respondents.
Telecom / utility / rental data	The gathering of information on the consumer's usage of telecommunication networks and essential services expenses.
Transaction data	The collection of information from the consumer's current account transactions, including payments and account management.

Executive summary

Responsible lending is a key priority for market conduct supervisors around the world. While the promotion of transparency in the marketing and selling of credit products and services is still considered to be an essential component of financial consumer protection, particularly in contributing to minimising information asymmetry, it is also acknowledged that disclosure duties should be complemented with other obligations on financial service providers to actively consider the consumer's interests and needs in the provision of credit. Responsible lending requires that firms do not act solely in their own interests, but focus on the consumer, evaluating whether the credit product is suitable and affordable to the consumer before entering into the credit agreement. Responsible lending gained considerable traction following the 2008 Global Financial Crisis, and is once again at the heart of regulatory and supervisory concerns in the current context of financial recession caused by the COVID-19 pandemic.

The obligation to carry out a thorough assessment of the consumer's creditworthiness is a crucial element of responsible lending. Apart from the prudential analysis of credit risk, which focuses on the ability of the lender to recover funds in situations of credit default, CWA obligations require firms to assess whether the borrower is likely to be able to repay the debt without undue financial hardship. This consumer-focused assessment implies that the lender would need to evaluate the consumer's ability to comply with the repayment obligations under the credit agreement, preventing over-indebtedness and eventual default situations. It may also require lenders to refuse to enter into the agreement if it is likely that the consumer will not be able to repay the debt within a reasonable time and/or in a sustainable way, even if, from a strict prudential perspective, the risk of the credit agreement is acceptable.

Responses to the 'Questionnaire on supervisory approaches to consumers' creditworthiness assessments' indicate that most jurisdictions around the world impose an obligation upon lenders to carry out consumer's CWA before entering into a credit agreement with a consumer, or increasing the loan amount of an existing credit agreement. The level of detail and granularity of the regulatory solutions vary across jurisdictions. Some jurisdictions follow a principles' based approach, setting out the main outputs that must be pursued by firms, but allowing some flexibility in the definition of the procedures and criteria to be taken into consideration, while others set out precise requirements on how firms should carry out CWA. Those requirements also vary depending on the type and characteristics of the credit agreement that is being offered, as well as the characteristics of the potential borrower.

In general terms, existing regulatory approaches tend to require firms to follow a traditional approach to 'CWA', taking into consideration the consumer's actual financial situation. Most jurisdictions require firms to obtain relevant information and documents about the consumer's financial situation in the context of CWA – income, debt service obligations, living expenses and other financial circumstances – and to take necessary action to verify if the information provided is accurate and up-to-date. Consultation of available data, including credit register databases, is also a common requirement.

Market conduct supervisors generally make use of conventional tools to oversee compliance with CWA obligations, especially on-site and off-site inspections, which are frequently complemented with meetings with the senior management of the inspected firms. Complaints' handling and the analysis of data reported by firms are also considered to be important tools, allowing supervisors to follow an

approach focused on the firms and products which are likely to present higher risks for consumers.

In the context of a "new wave" of digitalisation of credit products, fostered by technological developments and the increasing availability and use of consumers' data, firms are changing the way they assess consumers' creditworthiness. Policymakers and supervisors are following this process with great attention. CWA is increasingly relying on alternative and non-financial sources of information, which may include the consumer's digital footprint, social networks data and/or consumption habits. Additionally, the use of sophisticated algorithms, enhanced by cutting-edge technology, including ML and other AI based tools, allow considerable amounts of data to be analysed very quickly and efficiently.

While innovation in this field may provide benefits and opportunities – greater accuracy, quicker credit decisions, reducing the risk of human errors or frauds - it is certainly not exempt from new challenges and risks to consumers and to market conduct supervisors. Besides data protection and privacy concerns, the use of complex ML algorithms, if not adequately regulated and supervised, may lead to potential obscure, discriminatory and subjective lending policies.

The COVID-19 pandemic, which arose during the preparation of this report, has made it even more relevant to address this topic. Some of the measures implemented in response to this pandemic led to a decline in economic activity, with a significant effect on unemployment and the reduction of income of households around the world, requiring firms to take special attention to the analysis and monitoring of the financial capacity of consumers. Additionally, the context of uncertainty and instability caused by this pandemic challenged the importance of consumers' credit history and other sources of information traditionally used in CWA. These circumstances, as well as the rapid increase in digitalisation accelerated by social distancing requirements, placed pressure on firms to speed-up the process of automation of their CWA models and the search for alternative sources of data. Regulators and supervisors need to be vigilant in order to keep up with the pace of innovation and adequately respond to the challenges ahead.

1. Introduction and purpose of the report

1.1 Background

This report is an initiative of the International Financial Consumer Protection Organisation (FinCoNet). FinCoNet is an international organisation of supervisory authorities responsible for financial consumer protection. FinCoNet seeks to enhance the protection of consumers and strengthen consumer confidence by promoting robust and effective supervisory standards and practices and by sharing best practices among supervisors. It also seeks to promote fair and transparent market practices and effective disclosure to consumers regarding financial services.

Since its establishment, in 2013, FinCoNet has focused its attention on the topic of responsible lending. FinCoNet set up a Standing Committee (Standing Committee 2 – 'SC2') to undertake work to identify regulatory and supervisory tools for supporting appropriate consumer lending practices. The aim of this Standing Committee's work is to help supervisors share information about current developments in supervisory tools and responsible lending practices, thus enabling jurisdictions to review the adequacy of their responsible lending arrangements. The intended outcome of this work is to see a strengthening in the development and use of supervisory tools aimed at deterring unsuitable or irresponsible lending by helping jurisdictions to identify current gaps and weaknesses in their regulatory regimes, including their supervisory and enforcement capabilities.

Following the publication of the '*Report on responsible lending'* (July 2014)[1], which provides a holistic overview of the supervisory approaches for ensuring suitable consumer lending practices, FinCoNet focused its analysis on the impact of incentives on the sale of credit products. In the *'Report on sales incentives and responsible lending – A study of the impact of sales incentives on the sale of credit products'* (January 2016)[2], FinCoNet examined the role sales incentives play in responsible lending obligations, with a focus on consumer protection. The conclusions of this report led FinCoNet to issue *'Guidance to Supervisors on the setting of Standards in the field of Sales Incentives and Responsible Lending'* (December 2016)[3].

In November 2017, FinCoNet published its *'Report on the Digitalisation of Short-term, High-Cost Consumer Credit'*[4], with an in-depth analysis of the supervisory challenges posed to market conduct supervisors by digitalisation of consumer credit. As an output of this work, FinCoNet published a set of guidance for supervisors in this field, '*Digitalisation of short-term, high-cost consumer credit - Guidance to supervisors*' (February 2019)[5].

Since 2019, FinCoNet has been working on the topic of supervisory approaches to consumers' CWA. Building on the previous reports, especially on the *'FinCoNet report on responsible lending - Review of supervisory tools* for *suitable consumer lending practices'* (July 2014) and the '*Report on Digitalisation of*

[1] Available at http://www.finconet.org/FinCoNet-Responsible-Lending-2014.pdf.

[2] Available at http://www.finconet.org/Report_Sales_Incentives%20_Responsible_Lending.pdf.

[3] Available at http://www.finconet.org/Guidance_SS_Sales_Incentives_Responsible_Lending.pdf.

[4] Available at http://www.finconet.org/Digtalisation-Short-term-High-cost-Consumer-Credit.pdf.

[5] Available at http://www.finconet.org/Guidance_Supervisors_Digitalisation_STHCCC.pdf.

Short-term, High-Cost Consumer Credit' (November 2017), SC2 intends to provide a comprehensive overview of how market conduct supervisors are addressing the important issues posed by CWA in the context of the provision of consumer credit, taking into consideration the recent developments in this area.

1.2 Overview of the survey

To prepare this report, SC2 developed the '*Questionnaire on supervisory approaches to consumers' creditworthiness assessments'* ("Questionnaire") (see Appendix B for the full text of the survey), which was distributed to FinCoNet Members in November 2019 and was opened for responses until February 2020[6].

The questionnaire was divided into three main sections:

- The first section invited the respondents to describe the legal and regulatory framework applicable to CWA in their jurisdictions;
- The second section aimed at obtaining qualitative information on the main practices, developments and risks associated with consumers' CWA which have been identified by supervisors when monitoring consumer credit markets;
- In the third section, respondents were invited to describe the strategies and tools implemented to oversee compliance by firms of the regulatory framework applicable to CWA.

The questionnaire was distributed to a large number of jurisdictions and representative bodies, including FinCoNet members and observers. A total of 29 participating jurisdictions provided responses to the questionnaire (see Appendix A "List of responding jurisdictions" for a full list of respondents).

Following the analysis of the responses to the questionnaire, SC2 held follow-up interviews with some respondents in order to confirm or develop some of the topics that were addressed in their responses.

1.3 Purpose and structure of the report

This report aims at providing an overview on how market conduct supervisors are addressing the issues related with CWA in the context of the provision of consumer credit (covering both housing loans and mortgages and unsecured consumer credit), whilst taking into consideration the existing national regulatory frameworks and market practices. It sets out the main findings from the 29 responses provided to the Questionnaire, as well as international developments and experience to date.

The report is organised according to the following chapters:

- The **first chapter** presents a general overview of the regulatory approaches to CWA, including a description of the specific requirements regarding the obligation to perform CWA, the procedures, data and criteria that should be taken into consideration by firms, the provision of information to consumers on the output of CWA and the existing rules to prevent conflict of interests of staff involved in CWA processes;

[6] In the first half of 2019, FinCoNet conducted a stocktaking exercise, aiming at obtaining a high-level overview of regulatory approaches to CWA among FinCoNet members. The information collected from the 16 responses to this exercise contributed to inform a more comprehensive questionnaire.

- The **second chapter** addresses the different approaches followed by supervisory authorities to oversee compliance with the CWA legal and regulatory requirements, by describing their supervisory remit and the main oversight strategies and tools, as well as enforcement measures at their disposal.
- The **third chapter** points out recent market practices concerning CWA that were identified by supervisory authorities and provides examples of regulatory and supervisory approaches implemented to respond to innovation in this field;
- The **fourth chapter** contains an overview of the main conclusions that may be drawn from this report and the next steps regarding the work allocated to SC2.

A number of jurisdictional examples have been chosen to illustrate particular points in the Report. Some of these practical examples have been highlighted as case studies, as they were considered particularly relevant and representative of the topic under discussion.

2. Regulatory approaches and market practices

This chapter provides an overview of the regulatory approaches to CWA in the 29 responding jurisdictions (1.1), including a description of the requirements firms need to comply with when assessing consumers' creditworthiness (1.2), the procedures, data and criteria that should be taken into consideration in that exercise (1.3), the provision of information to consumers on the output of the CWA (1.4), and the existing rules to prevent conflict of interests of staff involved in CWA processes (1.5).

2.1 General overview

Key findings

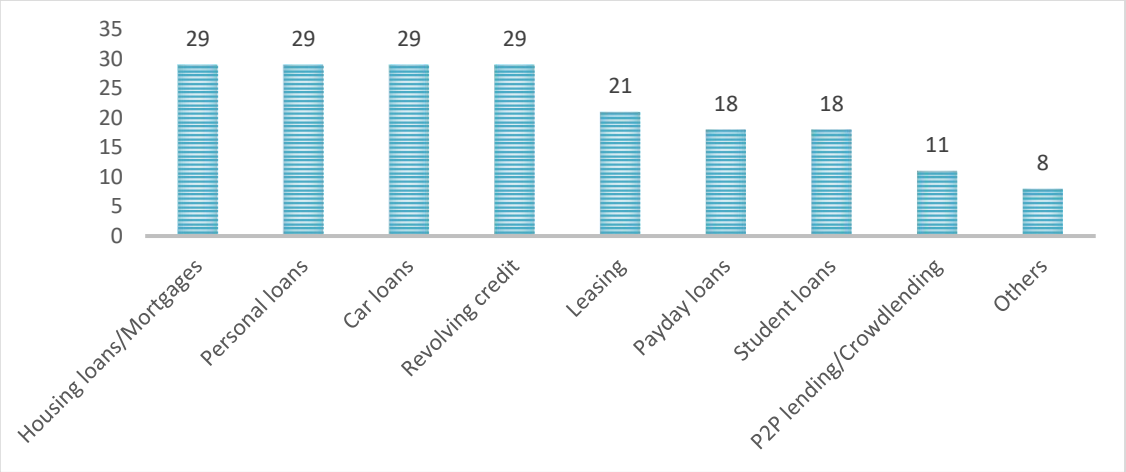
- The importance of CWA, as a key element of responsible lending, is **reflected in most of the responding jurisdictions' legal and regulatory frameworks**.
- While some jurisdictions follow a **principles-based approach** to regulate CWA, others rely on **strict legal rules.**
- The **CWA obligations vary depending on a series of factors**, including the type of credit being provided, the loan amount and maturity and the characteristics of the potential borrower.

The importance of carrying out a thorough assessment of the consumer's creditworthiness before entering a consumer into a credit agreement, as a key dimension of responsible lending, is generally reflected in the national legal and regulatory frameworks around the world. All responding jurisdictions have in place principles or rules governing consumers' CWA, with the majority applying a combination of both. Seventeen respondents added that the existing legal principles or rules were complemented by regulatory initiatives taken by the national supervisory authority.

Those principles and/or rules usually apply to the provision of a comprehensive set of credit products offered to consumers, including housing loans and mortgages and unsecured consumer loans. In some jurisdictions, those requirements extend to other types of financial products, such as loans offered through P2P platforms[7].

[7] P2P lending / crowdlending is not within the supervisory remit of all supervisory authorities.

Figure 1. Credit products covered by the legal and regulatory frameworks on CWA



The requirements set out in the national legal and regulatory frameworks tend to vary depending on several factors, including but not limited to:

a. The type of credit being offered

More prescriptive requirements tend to apply to the provision of housing loans and mortgage credits when compared to unsecured consumer loans. For instance, the need to comply with mandatory ratios (e.g. LTV or DSTI) is more common when the credit being offered is a mortgage, while it is less common in relation to unsecured consumer loans. Among other factors, this reflects the commitment of this type of credit product for consumers, given its characteristics (e.g. amount of credit granted, maturity and purpose for the loan). Indeed, for most consumers taking out a mortgage loan is likely to be one of the most important financial decisions they will take in their lifetime and the consequences of default are more severe.

Additionally, some responding jurisdictions impose specific requirements for the provision of certain types of credit products that, due to their particular characteristics, are more likely to cause consumer detriment.

In **Australia**, there are additional responsible lending obligations applicable to some types of consumer credit loans (such as, reverse mortgages[8], 'small amount loans'[9] and credit cards), which aim to address the specific risks that these products, due to their characteristics, pose to consumers, including the risk of over-indebtedness.

- **Reverse mortgages:** these products are commonly marketed to senior citizens who have no way of accurately determine the value of their home equity over time. Therefore, before entering into a reverse mortgage, consumers must be provided with projections that relate to the value of the property that may be covered by the reverse mortgage and the consumers' indebtedness over time if the reverse

[8] Credit agreements that are secured against residential land and/or property. The facility may be provided a fixed lump sum, income stream or combination of both and interest typically compounds against the draw down amount. Borrowers do not need to make repayments until a specified event occurs (typically when all the borrowers under the loan have vacated the property or passed away.

[9] A small amount loan is an unsecured loan of up to AUD 2,000 (excluding fees). The loan term must be between 6 days to one year and the loan cannot be a continuing credit contract or offered by an Authorised Deposit Taking Institution (i.e. not regulated by the Australian Prudential Regulation Authority).

mortgage was entered into. The assessment of whether a reverse mortgage is suitable or unsuitable must also include reasonable inquiries about the borrower's potential future needs, including possible need for aged care accommodation and whether the consumer prefers to leave equity in the dwelling or land to the consumer's estate. Where the youngest borrower is older than 55 years old, the credit contract will also be considered unsuitable if the LTV ratio of the reverse mortgage is above prescribed limits[10].

- **Small amount loans:** credit providers are required to obtain from the consumer, and consider, 90 days of bank statements. In addition, providers are not allowed to grant credit to consumers who receive 50% or more of their gross income under the *Social Security Act 1991* whenever the credit installments under the loan proposal, together with the installment amounts on any other small amount loans, is more than 20% of the consumer's gross income for the same period.
- **Credit cards:** providers must assess whether the consumer is able or not to repay the proposed credit limit within a maximum three-year period.

b. The loan amount and maturity

In some jurisdictions, firms are required to comply with stricter rules on CWA when granting loans with higher amounts. In those cases, when the credit being offered has a loan amount exceeding a certain threshold, or the consumer intends to increase the loan amount beyond such limit, firms need to collect and consider a wider range of information about the financial status of the consumer and collect evidence that such information is accurate and up-to-date before granting the credit or increasing the loan amount. Those requirements are less demanding or do not apply when the credit being proposed is of a lower amount.

In **France**, CWA for loans provided at points of sale and online, of an amount below € 3,000, are based only on the consumer's sworn statement about his/her income, expenses and current credit agreements, while for credit agreements over that threshold supporting documents are required to prove the identity, address and income of the consumer. In the **Netherlands**, a credit provider shall not enter into a credit agreement with a consumer where the credit amount or credit limit exceeds € 1,000 if the credit provider does not have sufficient information, either in writing or through another reliable medium (e.g. salary slips), about the consumer's financial position.

The maturity of the loan is also an important aspect to take into consideration in the context of consumers' CWA. Credit agreements with longer maturities may imply a higher risk, particularly when the maturity extends into the future so far that the consumer will still be repaying the debt after retirement, as it is likely that the consumer will experience a decrease in his/her level of income. Additionally, credit agreements with shorter maturities provide more flexibility in terms of renegotiation or restructuring of the debt, which may be important to overcome potential payment difficulties of the borrower, preventing arrears situations.

[10] The LTC ratio is the sum of 15% and 1% for each year that the borrower is older than 55.

In **Portugal**, firms are entitled to estimate the consumer's income and expenses (without the need to collect documents to confirm the information provided by the consumer) if the amount of the credit agreement being offered is below ten times the legal minimum wage (€ 6,650 in 2021). This possibility aims at allowing firms to use swifter processes to assess consumers' creditworthiness in the context of the provision of consumer credit though digital channels, where convenience and speed are key factors. When the loan amount exceeds that threshold, firms are required to collect and take into consideration information about the consumer's income and expenses and to obtain documental evidence of the information provided.

Additionally, the following limits should be observed as regards the maturity of new credit agreements:

a For credit agreements relating to residential immovable property and credit secured by mortgage or equivalent guarantee: 40 years and gradual convergence towards an average maturity of 30 years by the end of 2022;

b For new unsecured consumer credit agreements:

- 7 years for personal loans;
- 10 years for car loans and personal loans with specific purposes (e.g. education, healthcare or renewable energy).

c. The nature or type of consumer

Some respondents mentioned the existence of specific requirements applicable to the provision of loans to certain categories of consumers, due to their vulnerability. In those cases, stricter requirements apply when the credit is being offered to pensioners / elderly people or to consumers with lower financial capability.

In **Italy**, loans granted to pensioners or employees with a permanent contract against the unconditional transfer of part of the borrower's pension or salary have a loan maturity limit of up to 10 years and are subject to a special regime.

In **Australia**, the requirements applicable to the provision of small amount loans are stricter when 50% or more of the consumer's income comes from Government's benefits.

2.2 Obligation to perform CWA

Key findings

- In most jurisdictions there is an **obligation upon firms to perform CWA** prior to **entering into a credit agreement** and, in some of them, this obligation also applies prior to an **increase / significant increase of the loan amount** or whenever there is a **renegotiation** of the credit agreement's terms and conditions.
- Most jurisdictions set out **rules preventing firms from entering into a credit agreement / increasing the loan amount where the output of the CWA reveals that it is likely that the consumer will not be able to repay the loan**.

Almost all responding jurisdictions expressly establish an obligation upon firms to assess the creditworthiness of the potential borrower before entering into a credit agreement.

In 27 responding jurisdictions (93%), the obligation to perform CWA also applies prior to an increase of the loan amount or an increase of the credit limit within the lifetime of a credit agreement.

In four jurisdictions, firms are only required to perform CWA prior to an increase of the loan amount when that increase is considered 'significant'. In **Slovak Republic**, for instance, an increase of the loan amount is deemed ´significant´ when it is over 5% of the initial loan amount or above € 2,000. In the **United Kingdom,** further CWA is required when there is a significant increase in the credit limit of credit cards or other revolving credit agreements. Although the Financial Conduct Authority (FCA) has decided not to issue guidance on what may constitute a 'significant' increase, as it may vary according to the circumstances, it has clarified that *'a number of separate increases, which may be insignificant individually, could amount to a significant increase, triggering a further creditworthiness assessment'*[11].

According to 18 respondents (62%), firms are required to conduct CWA before a renegotiation of the applicable terms and conditions of the credit agreement. In **Lithuania**, although there is no express obligation to perform CWA prior to a renegotiation of the credit agreement, the supervisory authority follows the interpretation that CWA is mandatory if there is a change to the material terms and conditions of the credit agreement, such as the loan amount, its maturity or the interest rate.

Other circumstances may also determine the need for firms to conduct CWA, as it is the case in **France**, where providers of revolving credit loans are required to assess, every three years, the consumer's ability to repay the debt. Furthermore, before offering the renewal of the revolving credit, the provider shall consult annually the national file containing information on payment incidents related to loans granted to the relevant borrower.

In the **European Union**, both the Mortgage Credit Directive[12] ("MCD") and the Consumer Credit Directive[13] ("CCD") set out requirements regarding consumers' CWA.

The MCD requires lenders to conduct a thorough assessment of the borrower's creditworthiness, taking into consideration *'all necessary and relevant factors that could influence a consumer's ability to repay the credit over its lifetime'*[14].

That includes taking into consideration future payments or payment increases needed due to negative amortisation or deferred payments of principal or interest and making prudent allowances for potential negative scenarios in the future (e.g. reduction in income where the credit term lasts into retirement or, where applicable, an increase in the borrowing rate or a negative change in the exchange rate).

[11] *Assessing creditworthiness in consumer credit – Feedback on CP17/27 and final rules and guidance*, Policy Statement PS18/19, July 2018, page 11, available at https://www.fca.org.uk/publication/policy/ps18-19.pdf.

[12] Directive 2014/17/EU of the European Parliament and of the Council of 4 February 2014 on credit agreements for consumers relating to residential immovable property and amending Directives 2008/48/EC and 2013/36/EU and Regulation (EU) No 1093/2010 - https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32014L0017&from=EN#d1e2142-34-1

[13] Directive 2008/48/EC of the European Parliament and of the Council of 23 April 2008 on credit agreements for consumers and repealing Council Directive 87/102/EEC - https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32008L0048

[14] Recital 55 of the MCD.

In this context, the creditor should only make 'the credit available to the consumer where the result of the creditworthiness assessment indicates that the obligations resulting from the credit agreement are likely to be met in the manner required under that agreement'[15].

While the value of the immovable property is an important element in ascertaining the amount of the credit that may be granted to a consumer under a mortgage, CWA *'shall not rely predominantly on the value of the residential immovable property exceeding the amount of the credit or the assumption that the residential immovable property will increase in value'*[16] (unless the purpose of the credit agreement is to construct or renovate the residential immovable property), but rather on the consumer's ability to meet his/her obligations under the credit agreement.

According to this Directive, Member States should be able to issue additional guidance on these or additional criteria and on methods to assess a consumer's creditworthiness, for example by setting limits on LTV or DSTI ratios, and are encouraged to implement the Financial Stability Board's Principles for Sound Residential Mortgage Underwriting Practices[17].

As regards unsecured consumer credit agreements, the CCD establishes a general obligation for lenders to assess the consumer's creditworthiness before the conclusion of the agreement and before any significant increase in the total amount of credit[18]. This assessment shall be based on sufficient information, where appropriate obtained from the consumer and, where necessary, upon consultation of relevant databases.

On June 30, the European Commission issued a proposal for a new Consumer Credit Directive. This proposal contains new rules on the assessment of consumers' creditworthiness that require the creditor, or the provider of crowdfunding credit services, to assess the consumer's ability to repay the credit, taking into account the consumer's interests and based on necessary and proportionate information on the consumer's income and expenses and other financial and economic circumstances. Additionally, this proposal establishes that when CWA is based on automated processing, including profiling, consumers have the right to request and obtain human intervention on the part of the creditor, as well as to obtain a meaningful explanation of the assessments and may contest the result of the CWA.

In most responding jurisdictions, firms are prevented from entering into a credit agreement (or from increasing, or 'significantly' increasing, the loan amount) following a negative CWA output (e.g. when the result of the assessments indicates that it is likely that the consumer will not be able to comply with the obligations arising from the credit agreement or will not be able to repay the debt without undue financial hardship), albeit in some jurisdiction such prohibition only applies in relation to the provision of certain types of loans, namely mortgages and housing loans.

Despite this obligation, in several jurisdictions the existing rules do not specify the circumstances that should lead to a negative CWA output, allowing firms to design and apply their own criteria. In other jurisdictions, firms are required to refuse the provision of a loan when certain requirements are not met. For instance, those requirements are usually associated with mandatory ratios or aim at preventing the provision of the loan when the potential borrower is already in arrears under other credit agreements.

[15] Article 18 (5) (a) of the MCD.

[16] Article 18 (3) of the MCD.

[17] https://www.fsb.org/wp-content/uploads/r_120418.pdf?page_moved=1

[18] Article 8 of the CCD.

More than half of the responding jurisdictions (69%) establish ratios to be complied with in the process of CWA. As regards housing loans and mortgage credit, most jurisdictions refer to LTV ratios, ranging from 20% to 100%. These ratios may vary depending on the circumstances of the collateral (such as location, size, purpose, who holds the collateral, etc.). DSTI is also commonly required to both housing loans or mortgages and consumer credit.

In **Australia**, in the provision of small amount loans, there is a presumption that the loan is unsuitable if the consumer has another small amount loan in default or if the consumer has had two or more small amount credit contracts in the past 90 days. In **France**, a recommendation has been issued, by the High Council for Financial Stability (HCSF)[19] relating to mortgage credit granting. In particular, credit institutions must respect a 35% limit as regards a borrower's committed proportion of income when renegotiating, and the credits must not exceed a term of 25 years (this limit will become legally binding from 1 January 2022). In the **Netherlands**, legislation regarding mortgage credit stipulates which part of the income, in percentage, is available for repayment of the mortgage, based on a 30 year mortgage-annuity. The lending standards are drawn up by an independent institute (the National Institute for Family Finance Information, Nibud) and are based on the income and expenses of an average family of two people, with no children. The maximum costs for housing (LTI) are the product of the multiplication of the (test) income by the maximum-cost-of-mortgage-expenditure-ratio (the housing ratio). In addition, the LTV may not be higher than 100%.

In **Slovak Republic**, firms are required to apply the following formula in the provision of all types of consumer credit products:

$$I = \frac{CI + FL}{(NI - CO) \times (1 + BUFF)}$$

Where:

I means indicator of the consumer's ability to repay the consumer credit

CI means amount of the instalments of the proposed credit agreement

FL means other financial liabilities of the consumer (according to the information available at a credit register)

NI means consumer's net income. Data about employees and retired persons are verified in a state social bureau via credit register. Income of other than employees and retired persons cannot be verified electronically and must be verified from documents (e.g. financial statements).

CO means the costs of providing for basic needs of the consumer and their dependents.

BUFF means buffer, which currently is 40 % (which add to the difference between the total amount of the consumer's net income and the subsistence minimum of the consumer and his/her dependents)

[19] The High Council for Financial Stability (HCSF)[19] is in charge of supervising the financial system as a whole, with the aim of safeguarding its stability and ensuring a sustainable contribution of the financial sector to economic growth.

2.3 Collection of information from the consumer and from credit register databases

Key findings

- Responding jurisdictions require firms to **conduct CWA taking into consideration the consumer's actual financial and personal circumstances**.
- Firms are required to **obtain information from the consumer and to collect evidence that such information is accurate and up-to-date**.
- Firms are also required to take into consideration **future events** that may impact the repayment capacity of the consumer.
- **Consultation of credit register databases or other external databases** is another common requirement.
- In general, **firms tend to apply less stringent criteria to assess the accuracy of data on consumer creditworthiness in the context of unsecured consumer credit**.

Under the legal and regulatory frameworks in place in the responding jurisdictions, firms are required to follow specific procedures when performing CWA. Typically, those procedures encompass (i) collecting information and documents to verify the financial status and other relevant circumstances of the potential borrowers and, where applicable, the guarantors, (ii) consulting information available in credit register databases and (iii) archiving the information and documents collected during a certain period of time.

The information that firms are required to collect from potential borrowers, is targeted to assess, among other information, the consumer's:

- Level of regular income and general expenses;
- Debt service obligations under other credit agreements;
- Personal and household situation, including age, employment and professional situation, civil status and household composition.

Respondents also explained that firms usually collect other types of data from consumers, including information from external credit rating agencies, current account transactions, the existence of assets, savings or pensions or home ownership.

Most respondents consider that firms take into consideration similar data in CWA regardless of the channel used to provide the credit but some found evidence that credit providers tend to be more flexible, and require less information, when the loan is provided through digital channels.

Additionally, there is a general view that firms take into consideration different sources of information depending on the nature of the credit agreements that is being provided. For example, some respondents have evidence that firms tend to request a higher level of information to perform CWA in the provision of mortgages and housing loans and to be less demanding when it comes to the provision of unsecured consumer loans.

Figure 2. Main information used by firms in CWA | mortgage credit

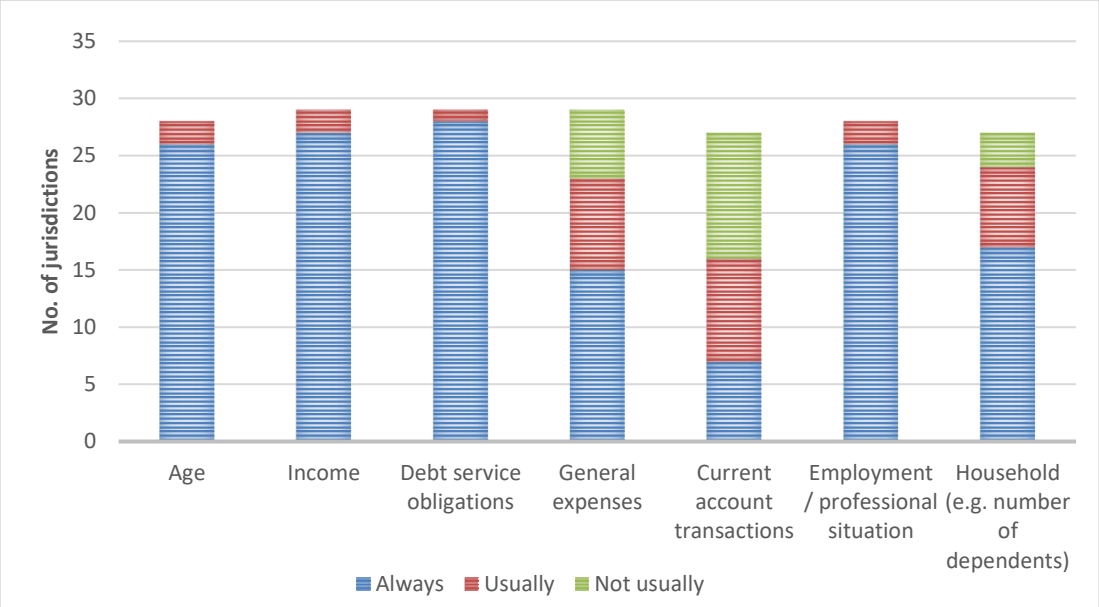
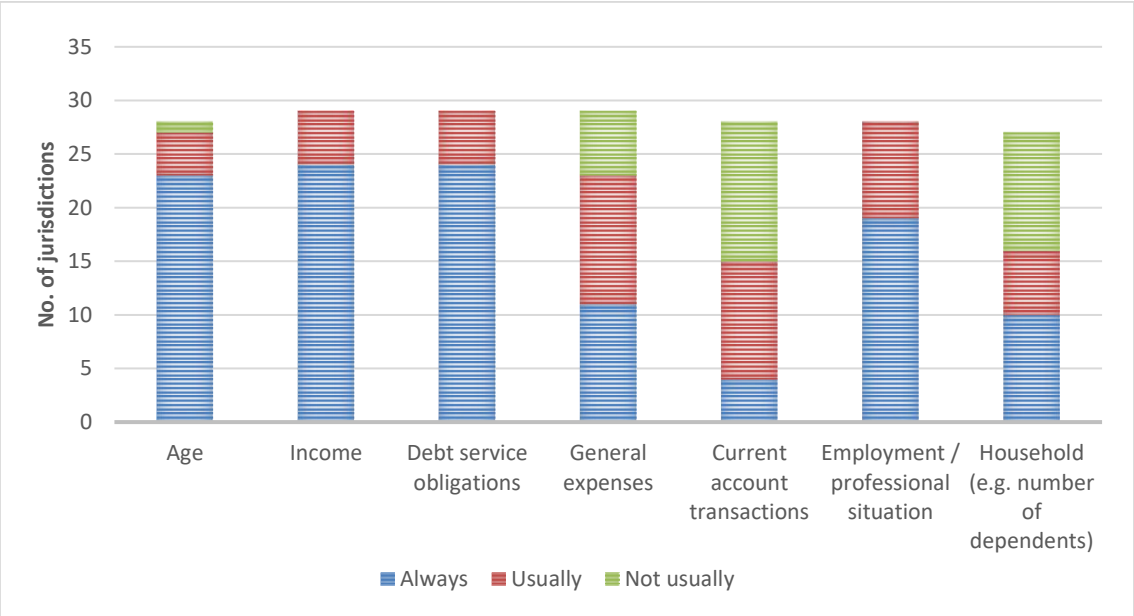


Figure 3. Main information used by firms in CWA | Unsecured consumer credit



Firms are usually required to confirm the information provided by consumers for CWA purposes, either by further inquiries or by requesting supporting documentation (e.g. payslips, tax returns, proof of residence, etc.).

According to some respondents, such confirmation also encompasses (i) the collection of data on income and taxes from third official entities, such as the tax authority, (ii) the collection of information on debt from central credit registers (e.g. **Norway, Portugal** and the **Netherlands**) and (iii) the use of innovative tools (e.g. blockchain, big data) to verify the integrity of the information obtained from consumers when performing CWA in the context of the provision of credit through digital channels (e.g. **Korea**).

In **Australia** credit providers are required to make reasonable inquiries about the consumer's requirements and objectives in relation to the credit product and financial situation, in order to ensure the credit contract is not unsuitable.

In certain circumstances, verification steps that lenders might consider reasonable include obtaining (i) credit reports, (ii) bank statements, (iii) payslips, (iv) bill and home rental invoices, (v) income tax returns (for self-employed consumers) and reviewing this information for inconsistencies or other indications that may suggest inaccurate information (e.g. reported salary may appear outside the range expected for the job description).

In most jurisdictions, available credit register databases contain information about all or most credit agreements, irrespective of their payment situation, covering credit agreements in arrears, but also those which are being duly repaid. In many jurisdictions, available credit register databases also provide risk profiling/scoring information. However, the nature of those credit register databases differs significantly among responding jurisdictions.

The nature of credit register databases tends to depend on the entity responsible for their management, which were described as follows:

- 13 respondents stated that credit register databases in their jurisdictions are exclusively managed by private corporations;
- 13 respondents reported having credit register databases managed by public authorities (typically, the supervisory authority) and others managed by private companies;
- Three respondents stated that the supervisory authority is the only entity responsible for managing the credit register database available for firms to perform consumer CWA.

Since 2000, **Brazil** maintains the Credit Information System (SCR), which is a database tool that contains a broad range of information provided by firms, on a monthly basis, concerning credit products, including data about guarantees and credit limits granted, enabling the assessment of firms' compliance to several regulatory standards in order to detect regulatory arbitrage or misconduct in f0ace of laws and regulations on loan amounts above BRL 200 (roughly US$ 40).

In the meantime, major changes in credit products and services, arising from amendments to the regulatory framework, introduction of new business models and recent technological innovations entailed the inception of the SCR3 Project for the period 2019-2021.

In order to improve CWA, SCR3 Project aims to provide a more granular credit data flow, to be sent by firms to the Central Bank of Brazil on a weekly basis rather than the current monthly one. SCR will receive information about the payment of instalments (e.g. default or arrears) that will complement private credit register databases queries.

The availability of more timely and accurate information is in line with the standard adopted by the firms integrating the positive registration, pursuant to legislation governing databases for borrower's loan repayment record.

Spain has a credit register database operated by the Bank of Spain – the Risk Information Centre (also known as 'CIR') – which includes information on loans (direct exposure) and guarantees / collateral (indirect exposure) granted by credit providers to consumers. The CIR is not a register of default loans. Credit providers report information regularly to the CIR. The CIR provides two types of reports:

- The first is aimed at interested parties (credit providers) and contains monthly aggregate information on borrowers with a cumulative exposure greater than € 9,000;
- The second is aimed at borrowers and consists of a detailed credit report, giving details of each loan (it includes, inter alia, information about the identification code, the amount and the credit providers that granted the loan).

The data recorded in the CIR reflects the information that such credit providers have on their customers in their databases.

On the other hand, there are private credit register databases that provide information about default loans, which are regularly consulted by firms when performing CWA. Creditors communicate the following information to private credit register databases: original amount, start date, maturity date, outstanding amount, type of loan and existing guarantees (and respective value).

Access to credit register databases or other external databases is a widespread practice in the context of CWA and, in many of the respondents' jurisdictions it is mandatory, in all or, at least, in certain circumstances. In **Ireland**, for example, credit providers have to access the Central Credit Register when considering loan applications for € 2,000 or more. The information contained in the Central Credit Register should also be considered (even if the loan amount is less than € 2,000) when the borrower has sought a re-structure of a loan, there are arrears on a loan or there has been a breach in the limit of an overdraft or credit card. In **Portugal**, consultation of the information available at the Central Credit Register is always mandatory, irrespectively of the loan amount being granted. In **Slovak Republic**, firms are required to verify some elements of CWA by using data from external sources, such as state social insurance bureau or any official documents issued or verified by a state authority.

In some jurisdictions, future events that may have a negative impact on the consumer's overall indebtedness and on consumer's capacity to comply with the obligations arising from the credit agreement should also be considered by firms in the context of CWA. This means that a firm should consider any foreseeable circumstances and risks to the consumer's financial situation, e.g. retirement or any absence from employment, interest rate or exchange rate risk.

The **Danish** Financial Supervisory Authority's and the Danish Consumer Ombudsman's 'Guidelines on Creditworthiness assessment', issued in March 2021[20], set out that, '*if the interest rate and/or expenses for the new loan is/are variable, the consumer's finances must be able to tolerate a certain increase in the interest rate and/or expenses. The creditor must assess whether the consumer will still be able to repay the loan if there is a suitable interest rate increase*'. Additionally, *´If the credit agreement contains several options, the calculation must be based on the scenario with the highest payment.*'

In **Portugal**, according to an Instruction the Central Bank of Portugal, when the interest rate of the credit agreement is variable, the firm should consider the impact of an increase of the interest rate of:

- 1 p.p. if the maturity of the credit agreement is 5 years or less;
- 2 p.p. if the maturity of the credit agreement is between 5 and 10 years;
- 3 p.p. if the maturity of the credit agreement is above 10 years.

[20] Available at https://www.consumerombudsman.dk/media/56671/creditworthiness-assessment.pdf.

2.4 Provision of information to the consumer on the results of CWA

Key findings

- **Firms are not usually required to provide the consumer with information about the grounds for a refusal of a credit application.**
- Where firms are required to provide information, such obligation usually only applies **when the refusal is based on negative information available on a credit register database**, due to data protection issues.

In most jurisdictions there is no general obligation on firms to inform the consumer about the grounds for a refusal of a credit application. However, there are common exceptions to this principle. In many jurisdictions, due to data protection requirements, firms are required to inform the consumer when the refusal is based on negative information available on a credit register database. In other jurisdictions, the consumer has the right to be informed of the reasons for the refusal upon request or when the loan application refers to specific types of credits, namely housing loans or mortgages.

In six jurisdictions, credit providers are not required to inform the consumer in any case of the grounds for the refusal of a credit application, while in seven jurisdictions credit providers are always required to inform the consumer of the reasons behind the refusal of a credit application.

In **Canada**, a consumer can ask the creditor to explain the reasons for a denial. Consumers also have the right to know what information is in their credit report, as they are responsible for checking if the information is complete and accurate. In **Serbia**, if the application for credit is refused based on the consultation of data available in credit register databases, there is an obligation to notify the consumer immediately, in writing and free of charge, on the data obtained. In **Spain**, in the provision of residential mortgages, firms are always required to inform the consumer of the grounds for the refusal of a credit application based on the output of his/her CWA, whereas in relation to unsecured consumer credit, the consumer only has the right to be informed when the refusal is based on the consultation of credit register databases. In the **United Kingdom**, data protection rules set out that the consumer has the right to be informed if the refusal was based on entirely automated scoring and, in this case, the lender can be asked to review the decision.

In **Portugal**, firms are required to inform consumers, without undue delay, of the rejection of a loan application but they are not obliged to convey the reasons for such decision.

However, when the rejection is based on the result of a database consultation, firms shall inform the consumer of the result of such consultation and of the particulars of the database consulted. This requirement has its roots in the EU Consumer Credit Directive (CCD) and the Mortgage Credit (MCD) and is justified by data protection reasons.

The Central Bank of Portugal oversees compliance with this rule in the course of its supervisory actions on consumers' CWA.

2.5 Prevention of conflict of interests

Key finding

- In order to mitigate the risk of conflict of interests, **most jurisdictions have in place rules on remuneration and incentives paid to staff engaged in consumer CWA**.

Another important aspect that has been addressed by some of the responding jurisdictions is the need to ensure adequate management of conflicts of interests in the context of CWA, ensuring that the staff responsible for, or with a relevant role in, the CWA processes are not influenced by poorly designed remuneration or incentives schemes. Remuneration structures that do not reflect a consumer-first focus may affect an employee's incentives to perform an unbiased, thorough and accurate analysis of consumers' creditworthiness.

With this risk in mind, more than half of the respondents reported that their jurisdictions have in place rules governing the remuneration policies of staff engaged in consumer CWA. Typically, these requirements prevent staff involved in CWA from having all or part of their remuneration linked to approval ratios or sales volume.

Some respondents, as it is the case of **Brazil**, **Malaysia** and **Portugal**, also mentioned that their legal and regulatory frameworks require firms to establish and maintain remuneration policies and procedures that promote fair and responsible conduct by its sales and marketing staff. For that purpose, the reward system shall ensure an adequate balance between fixed and variable remuneration and include non-financial indicators in the performance assessment, such as direct customer feedback or the number of complaints lodged to the supervisory authorities.

3. Supervisory approaches to CWA

This chapter presents the approaches taken by supervisory authorities in relation to CWA. The respondents outlined their supervisory activities to oversee compliance with the CWA legal and regulatory requirements in their jurisdictions, by describing their supervisory remit (2.1), the supervisory strategies and tools used (2.2) and the enforcement measures taken when infringements are detected (2.3).

3.1 Supervisory remit

Key findings

- Supervisory authorities of the responding jurisdictions have a **comprehensive mandate to oversee CWA rules and principles** (credit providers / credit products).
- However, **gaps in the supervisory remit may be a challenge for some supervisory authorities**
- In some jurisdictions, **credit intermediaries are referred to play a role in the CWA process, but they are not always under the remit of the supervisory authority**.
- Supervisory authorities consider that **credit intermediaries' involvement in the process of CWA may bring about specific risks that should be addressed**.

Most respondents are responsible for overseeing firms' compliance with CWA requirements set out in their jurisdiction's legal and regulatory framework. However, there are some nuances with respect to the firms and products under their supervisory scope.

Generally, respondent supervisory authorities have a comprehensive mandate to oversee CWA rules and principles, covering all credit products targeted to consumers, as well as all, or most of, credit providers acting in their jurisdictions.

However, some respondents explained that certain specific products (e.g. student loans, P2P lending, overdrafts) are not within their supervisory remit. Similarly, many respondents refer that their supervisory scope does not cover all credit providers in all markets. For example, in **Mauritius**, **North Macedonia** and **Peru**, the supervisory authority's mandate is limited to deposit-taking institutions.

Twelve supervisory authorities are also competent to supervise the activities relating to mortgages and, sometimes, consumer credit intermediaries. In **Portugal**, since 2018, the Central Bank of Portugal is responsible for authorising and supervising the activities of all credit intermediaries. In **Italy**, the Bank of Italy monitors the proper functioning of the public body in charge of supervising credit intermediaries.

More than half of the respondents (16 jurisdictions) stated that credit intermediaries play a role in the CWA process but the nature and responsibilities of such role differ from one jurisdiction to another. Usually, credit intermediaries are only allowed to collect relevant information and documentation from a consumer and pass it to the credit provider, who is in charge of performing CWA. However, in some jurisdictions credit intermediaries may assume further responsibilities, including assessing the suitability of the product to the consumer,

ensuring the integrity, reliability, security and confidentiality of transactions and providing appropriate advice to consumers.

The responses to the Questionnaire revealed that some supervisory authorities are concerned about specific risks that credit intermediaries' involvement in CWA may pose to consumers, especially when remuneration schemes agreed with firms are poorly designed (e.g. the credit intermediary's remuneration depends on the number of credit agreements entered into) or when credit intermediaries act on behalf of more than one credit provider.

3.2 Oversight tools and strategies

Key findings

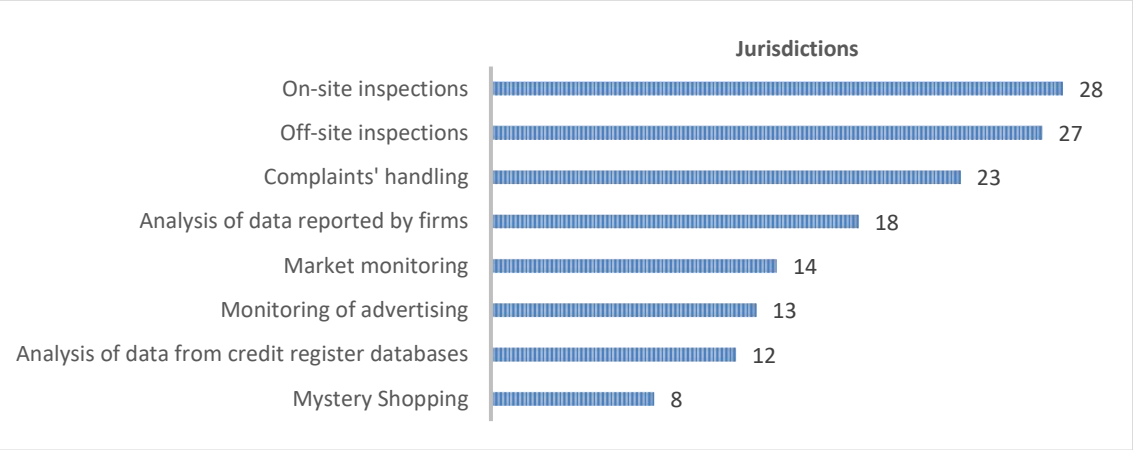
- In order to oversee firms' compliance with CWA obligations, **market conduct supervisors make use of the traditional set of supervisory tools**.
- **On-site and off-site inspections and complaints handling are the most used supervisory tools**.
- **Only a few respondent authorities are considering implementing new tools or approaches** to oversee CWA obligations.
- Some respondent authorities **follow a risk-based approach to develop their oversight activities in this field**, in particular to decide which credit providers, products and distribution channels pose higher risks to consumers

According to the information provided in the responses to the Questionnaire, supervisors make use of the traditional set of oversight tools when overseeing compliance with CWA obligations. On-site (28 jurisdictions) and off-site inspections (27 jurisdictions) are the most commonly used oversight tools.

The information collected through complaints' handling is also referred to by most respondents as being an important tool to identify irresponsible lending practices and infringements to CWA legal and regulatory requirements (24 jurisdictions).

Additionally, a significant number of respondents analyse information reported by credit providers (18 jurisdictions), as well as information from credit register databases (12 jurisdictions). The analysis of this information allows supervisory authorities to monitor credit in arrears or default within firms' portfolios, which may indicate the level of compliance with responsible lending and CWA requirements. The monitoring of advertising is another tool used by 13 jurisdictions to identify lending practices that may contravene such requirements. Conversely, only a minority of the respondent supervisory authorities (eight jurisdictions) conduct mystery shopping activities to identify poor practices in this field.

Figure 4. Supervisory tools used to oversee CWA requirements



Most of the respondents use a combination of oversight tools to assess compliance with CWA requirements. In **Croatia**, the supervisor carries out regular on-site inspections to analyse consumers' credit files and conducts interviews with the institutions' staff to obtain detailed information on the CWA process. This intervention is often complemented with off-site inspections to evaluate the data collected. In **Spain**, off-site surveillance and on-site inspections are the main supervisory tools used to verify compliance with CWA requirements, as well as collecting information through complaints' handling.

In **Serbia**, complaints' handling allowed the National Bank of Serbia to detect that a credit provider presented a credit offer whenever a consumer opened a current account and took out a debit card.

Although consumers were led to believe that credit approval was guaranteed (both through advertising and the application process), the credit agreement was entered into without prior CWA. CWA was only performed after the conclusion of the current account agreement (when the consumer had already opened a current account and the debit card had been issued) and the credit agreement could be terminated based on an *ex-post* assessment of the consumer's ability to meet the obligations arising therefrom.

The National Bank of Serbia concluded that this credit provider was engaging in an unfair business practice that acted contrarily to the applicable legal and regulatory framework. Therefore, administrative fines were applied and this credit provider was ordered to cease the practice and correct any irregularities.

Some supervisory authorities adopt a risk-based approach to their oversight activities in this area, focusing their attention on credit providers, products and/or distribution channels which are considered to pose higher risks to consumers. For example, the **Central Bank of Brazil** performs specific on-site inspection actions, called Continuous Monitoring of Conduct, in firms considered to present a high level of risk. During the preparation of the annual Supervision Action Plan, the list of firms subject to the Continuous Monitoring of Conduct is reassessed based on the results of the priority matrix, built from a set of the following indicators of conduct supervision for each supervised entity: overall number of clients, pre-paid accounts, facilities and banking agents facilities, portability requests submitted and complaints. This approach provides for the optimisation of the allocation of available resources in situations of greater risk of consumer detriment.

In the **United Kingdom,** the FCA focuses its attention on credit sectors that are likely to cause greatest risk to consumers (e.g. products aimed at consumers with low incomes or with poor credit histories). The FCA often requests information from credit providers to evaluate if they are complying with CWA rules, including information on arrears and complaints, credit policies and customer files. In some cases, the FCA conducts interviews with firms' senior management in order to obtain a more in-depth analysis of the practices and procedures followed in this regard.

Only a few respondent authorities (six) are considering implementing new tools or approaches to oversee compliance with CWA rules. In **Serbia**, a legal amendment is expected to be implemented which will allow the supervisory authority to perform mystery shopping. In **Italy**, the Bank of Italy intends to hold meetings with staff involved in the process of evaluating the creditworthiness of consumers following on-site inspections actions.

The conduct market supervision department of the **Central Bank of Malaysia** is developing a new SupTech project based on data analytics to monitor compliance with CWA requirements. The goal of this project is to get indicators, patterns and trends on how firms are assessing the repayment ability of borrowers based on the information collected through three sources of data: complaints' data, financial data (e.g. delinquency data, growth rate of a certain product) and DSTI, per reference to groups of consumers defined according to levels of income.

The information collected will help identify situations where the combination of these factors (e.g. the growth of a certain product associated to an increasing number of complaints submitted by consumers) may indicate situations of non-compliance with the existent rules on responsible lending and lead to the intervention of the supervisory authority.

3.3 Enforcement measures

Key finding

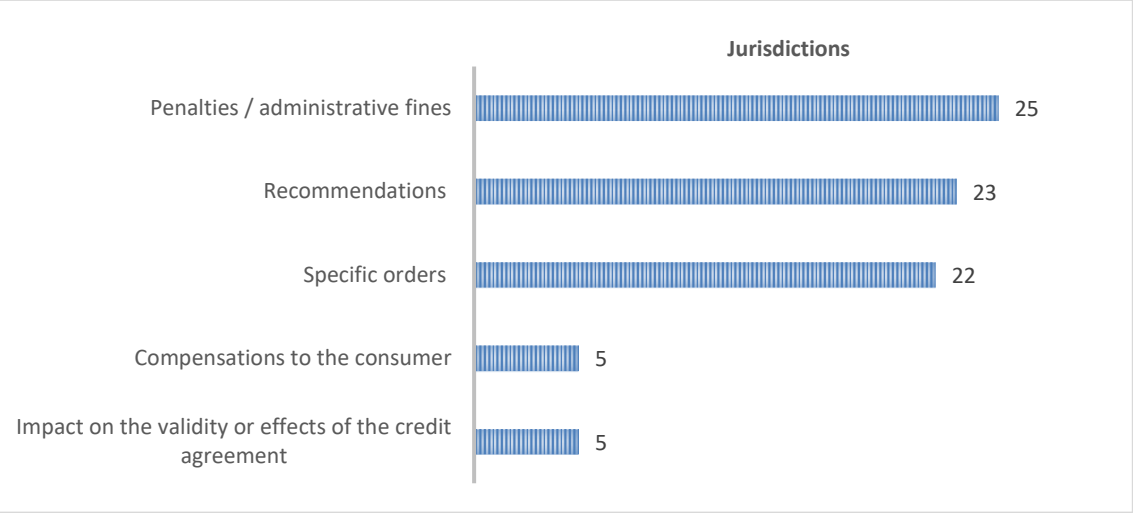
- **Supervisory authorities make use of a wide set of enforcement powers to ensure compliance with the applicable rules**, including recommendations, specific orders and penalties.

To ensure that credit providers comply with the legal and regulatory framework applicable to CWA, supervisory authorities in most responding jurisdictions have a wide range of enforcement measures at their disposal.

Most respondents are empowered to impose penalties / administrative fines (25 jurisdictions) or to recommend or impose a firm to change its practices, by issuing of recommendations (23 jurisdictions) and/or specific orders (22 jurisdictions).

In a small number of supervisory authorities, infringements to CWA rules, in certain circumstances, may result in the consumer receiving compensation (5 jurisdictions). In five jurisdictions, failure to comply with the obligation to assess the creditworthiness of a consumer may impact on the validity or effect of the credit agreement.

Figure 5. Enforcement measures used by supervisory authorities



In **Australia**, the Australian Securities and Investments Commission (ASIC) commenced civil penalty proceedings against a car financier for contravening responsible lending provisions of the National Credit Act. The court found that the car financier had failed to take reasonable steps to verify the consumer's income in 12 car loan applications because it relied only on payslips in circumstances where it knew that payslips could be easily falsified and it had reason to doubt the reliability of information provided by the particular broker. The court ordered the car financier to pay AUD 5 million in penalties in addition to a similar amount of remediation it had agreed to pay to customers[21].

In the **Netherlands**, the Dutch Authority for the Financial Markets (AFM) may use penalties/administrative fines, specific orders and issue recommendations. The supervisory authority may impose an order for incremental penalty payments in relation to a violation of regulations concerning credit risk assessments.

In **Greece**, if the creditor breaches the requirements for CWA, the consumer is relieved from the total cost of credit, including interest, and is required to repay only the capital in accordance with the installments provided for in the credit agreement.

[21] https://asic.gov.au/about-asic/news-centre/find-a-media-release/2018-releases/18-057mr-court-finds-anz-breached-responsible-lending-laws-in-its-former-esanda-car-finance-business/

4. Recent market practices and supervisory approaches to innovation in CWA

This chapter provides an overview on the evolution of the methods used to assess consumers' creditworthiness, including (3.1), the main developments identified by respondent supervisory authorities in relation to consumers' CWA (3.2), as well as some of the regulatory (3.3) and supervisory approaches (3.4) to innovation in this field.

4.1 Overview

Key findings

- **Digitalisation and availability of different sources of information may increase the use of automated CWA models**, based on innovative technology and alternative sources of information.
- **This brings new challenges for market conduct supervisors**, related to data privacy and data protection issues, but also with ensuring the transparency and accuracy of these innovative models.

Conventional CWA models endeavour to identify the characteristics of the consumer that indicate his/her capacity to comply with the obligations arising from the proposed credit agreement, which, (as outlined in previous chapters) includes the analysis of the consumer's level of regular income and expenses, the existence of arrears in other credit agreements and other professional and personal circumstances.

Until the 1980s, '*most credit decisions were entrusted by individual loan officers and specialists who evaluated applicants on an individual basis*'[22]. Such processes were demanding and were likely to be influenced by personal biases. Scoring models have since appeared as a better alternative, enabling increased efficiency and limiting the risk of discrimination in access to credit. These scoring models make use of '*statistical and mathematical techniques, including models, algorithms, and their outputs, that are traditionally used in automated credit processes, especially linear and logistic regression methods*' [23].

However, traditional credit scoring also involves consumers' credit related data, which is influenced by '*the consumer's own financial conduct, such as whether the person paid their loans on time or how much credit the person has obtained and utilized*'[24]. As a consequence, loan scoring models require that the potential borrower has a sufficient amount of historical credit information available to be

[22] In *'Credit scoring in the era of big data'* – Yale Journal of Law and Technology, volume 18, issue 1, article 5, p. 8.

[23] *Idem*. Albeit lenders use automated decision-making, it does not mean that they do so exclusively. Even when decisions are essentially automated, the outcome may be reviewed or even overridden manually, in cases where employees have some degree of discretion (see "*Assessing creditworthiness in consumer finance – Summary of research findings*, July 2017, pages 5 et seq., published by the Financial Conduct Authority).

[24] Bureau of Consumer Financial Protection – *Request for Information Regarding Use of Alternative Data and Modeling Techniques in the Credit Process* - [Docket No. CFPB-2017-0005].

considered 'scorable' – '*consumers must have a credit-data footprint*'[25]. Since these credit scoring models sometimes do not provide the full picture of consumers' credit history, and may not capture all relevant details of an applicant's behaviour, they tend to leave outside of the perimeter of eligibility certain consumer groups and segments.

In the context of a 'new wave' of digitalisation of credit products, fostered by technological developments and the increasing availability and use of consumers' data, traditional credit scoring models are also being challenged. In parallel with more traditional approaches, firms have been changing the way they assess consumers' creditworthiness, namely by increasingly using indirect and automated models to assess the propensity of the consumer to comply with the credit agreement's obligations.

A data-driven approach, in which '*all data is credit data*'[26], combining *'conventional credit information with thousands of data mined from consumers' offline and online activities'*[27], is increasingly being used by firms in the context of CWA. The inability of traditional credit scores to adequately identify good customers from thin credit file populations has prompted the emergence of alternative, big data tools, which in turn rely on external, non-traditional sources of information.

Non-traditional data goes beyond traditional credit history and may include:

- Payment data relating to non-financial products requiring regular (typically monthly) payments (e.g. telecommunications, rent, insurance, or utilities);
- Data that some consider to be related to a consumer's stability (e.g. information about the frequency of changes in residences, employment, phone numbers or e-mail addresses);
- Data about a consumer's educational or occupational attainment (e.g. information about schools attended, degrees obtained, and job positions held);
- Behavioural data, such as how consumers interact with a web interface or answer specific questions, or data about how they shop, browse, use devices, and on log in data and social media posts;
- Data about consumers' friends and associates, including data about connections on social media[28].

[25] Feinstein, Jeffrey, '*Alternative Data and Fair Lending'*, White Paper, August 2013.

[26] Hurley, M. and Adebayo, J. (2017), "Credit scoring in the era of big data", Yale Journal of Law and Technology, volume 18, issue 1, article 5.

[27] *Idem*.

[28] These examples of non-traditional data were based on the article "*Data Modeling Remains Auto Finance Target in CFPB's Fair Lending Governance*", available at https://www.financialservicesperspectives.com/2019/07/data-modeling-remains-auto-finance-target-in-cfpbs-fair-lending-governance/

As it can be drawn from the above, alternative credit data is data coming from non-conventional sources that *"have not customarily been used in decisions in the credit process"*[29] as they may not be directly related to credit[30].

Together with a greater use of data is the development and implementation of new technologies, such as artificial intelligence. These are tools and techniques that *"go beyond traditional business intelligence to gain deeper insights, make predictions or generate recommendations using various types of data from various sources"*[31].

In fact, *'[w]ith the development of new technologies, widespread use of big data technics, and the emergence of FinTechs, some lenders and lending platforms have started using consumer data from external, non-traditional sources to build credit scores'*[32]. Scoring tools can now base their credit decisions on where people shop, the purchases they make, their online social media networks and *'other various factors that are not intuitively related to creditworthiness assessment'*[33].

While innovation in this field may provide benefits and opportunities, it is not free from new challenges and risks to consumers and to market conduct supervisors.

According to relevant literature, the main advantages / benefits of the use of alternative data and innovative CWA tools include:

- Greater credit access, fostering financial inclusion;
- Faster credit decisions: massive amounts of data are analysed very quickly and time-consuming tasks are eliminated. This reduces the administrative burden and waiting times on the credit application decision;
- Enhanced creditworthiness predictions: by offering a 'holistic view' of the consumer, the credit scoring models that are based on external data are able to enhance creditworthiness predictions and therefore improve risk assessment, by assessing qualitative factors, such as consumption behaviour and the ability and willingness to pay;
- Lower costs: the fact that the lenders can automate processing data tasks means that their processing and internal costs will be significantly lower. These cost savings might be passed along to consumers, meaning more attractive rates. From the lenders' perspective, automating the process from the credit application to the credit decision will make the process of lending more efficient and effective.

However, these innovative artificial intelligence models raise several issues of accuracy, transparency, fairness, privacy and exclusion.

In the first place, albeit millions of data points might suggest the existence of correlations between web searches, IP addresses, or social media posts and likelihood of repayment, *'correlation does not mean causality'*[34]. The input data

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[29] Bureau of Consumer Financial Protection – Request for Information Regarding Use of Alternative Data and Modeling Techniques in the Credit Process - [Docket No. CFPB-2017-0005].

[30] '*Data sharing in credit markets: does comprehensiveness matter?*' – Research report no. 23, September 2019, byEuropean Credit Research Institute – ECRI.

[31] "EBA Report on Big Data and Advanced Analytics", January 2021 (EBA/REP/2020/01).

[32] In '*Responsible consumer credit lending'* – FSUG opinion and recommendations for the review of the Consumer Credit Directive, Financial Services User Group, p. 13.

[33] Hurley, M. and Adebayo, J. (2017), "*Credit scoring in the era of big data*", Yale Journal of Law and Technology, volume 18, issue 1, article 5.

[34] *Idem*.

may also be considered inaccurate. Certain types of alternative data sources have greater rates of error due to their nature or the fact that the quality standards for their original purpose are less than those associated with decisions in the credit process. Therefore, alternative data could raise concerns of consistency, completeness and accuracy.

Additionally, the use of credit-scoring tools that integrate thousands or millions of data points (most of which are collected without consumer knowledge) and complex artificial intelligence algorithms can result in a lack of transparency to consumers. When using artificial intelligence to assist credit decisions, it is generally more difficult to provide consumers, auditors, and supervisors with an explanation of a credit score. Consumers have limited ability to identify and contest unfair credit decisions and little chance to understand what steps they should take to improve their credit rating.

Another important risk is the potential creation of a system of "creditworthiness by association" in which consumers' familial, religious, social and other affiliations determine their eligibility for an affordable loan, leading to unlawful discriminatory lending practices. Sophisticated algorithms may combine facially neutral data points and treat them as proxies for immutable characteristics such as race or gender, thereby circumventing existing non-discrimination laws and systematically denying credit access to certain groups.

The use of personal data also raises policy issues, including those related to data privacy and data protections.

In this context, regulators and supervisors should be aware of such risks and consider ways to mitigate them, in particular by:

- Ensuring that '*only pertinent and well-founded data are used by lenders when assessing consumers' creditworthiness*'[35];
- Collecting information about the performance of these models;
- Investigating and regulating practices by private credit bureaus ('*what type of data they collect and for what purpose, whether and to what extent credit bureaus contribute to responsible lending and reducing over-indebtedness'*, whether they comply with data protection rules, etc.)[36];
- Defining '*reasonable procedures for ensuring accuracy when using big data*'[37];
- Ensuring that consumers can undertake '*a meaningful review of their files*'[38];
- Defining '*reasonable procedures for disputing the accuracy of information*'[39].

[35] In '*Responsible consumer credit lending'* – FSUG opinion and recommendations for the review of the Consumer Credit Directive, Financial Services User Group, p. 13.

[36] *Idem*.

[37] In "*Big Data – A big disappointment for scoring consumer credit risk*", National Consumer Law Center, March 2014, p. 6.

[38] *Idem*.

[39] *Ibidem*.

In May 2019, the OECD adopted its Principles on Artificial Intelligence, the first international standards agreed by governments for the responsible stewardship of trustworthy AI. They were adopted when OECD member countries approved the OECD Council Recommendation on Artificial Intelligence[40].

The Recommendation identifies five complementary values-based principles for the responsible stewardship of trustworthy AI:

- AI should benefit people and the planet by driving inclusive growth, sustainable development and well-being.
- AI systems should be designed in a way that respects the rule of law, human rights, democratic values and diversity, and they should include appropriate safeguards – for example, enabling human intervention where necessary – to ensure a fair and just society.
- There should be transparency and responsible disclosure around AI systems to ensure that people understand AI-based outcomes and can challenge them.
- AI systems must function in a robust, secure and safe way throughout their life cycles and potential risks should be continually assessed and managed.
- Organisations and individuals developing, deploying or operating AI systems should be held accountable for their proper functioning in line with the above principles.

A particular focus of the Recommendation is the development of metrics to measure AI research, development and deployment, and to gather the evidence base to assess progress in its implementation. The online OECD.AI Policy Observatory[41], launched in February 2020, aims to facilitate this by providing evidence and guidance on AI metrics, policies and practices to help implement the Principles, and constitute a hub to facilitate dialogue and share best practices on AI policies.

In April 2021, the European Commission announced a Proposal for a Regulation of the European Parliament and of The Council laying down harmonised rules for Artificial Intelligence with the following objectives:

- ensure that AI systems placed on the Union market and used are safe and respect existing law on fundamental rights and Union values;
- ensure legal certainty to facilitate investment and innovation in AI;
- enhance governance and effective enforcement of existing law on fundamental rights and safety requirements applicable to AI systems; and
- facilitate the development of a single market for lawful, safe and trustworthy AI applications and prevent market fragmentation.

To achieve those objectives, the proposal presents a balanced and proportionate horizontal regulatory approach to AI that is limited to the minimum necessary requirements to address the risks and problems linked to AI, without unduly constraining or hindering technological development or otherwise disproportionately increasing the cost of placing AI solutions on the market. The proposal sets a robust and flexible legal framework. It is comprehensive

[40] For more information, consult the following link https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449.

[41] For more information, consult the following link: https://oecd.ai/policy-areas.

and future-proof in its fundamental regulatory choices, including the principle-based requirements that AI systems should comply with.

The proposal makes explicit reference to AI systems used to evaluate a consumers credit score or creditworthiness as 'high-risk AI systems' (Recital no. 37), including provisions aimed at ensuring that related algorithmic outputs can be traced back, and requiring that internal control functions are in charge of assessing AI-based credit scoring models.[42]

4.2 Market practices

Key findings

- Despite the increasingly frequent recourse to indirect and automated methods to perform CWA, in most of the jurisdictions **there is no evidence of the use of ML nor that firms resort to non-conventional sources of data in a large scale in the context of CWA**.
- **Most responding jurisdictions do not have specific requirements in this regard.** Limitations to the use of alternative sources of data, when exist, are above all related to data protection / privacy regulations.
- Notwithstanding, **supervisory authorities are duly aware of the advantages and disadvantages of the move to the use of artificial intelligence's technologies in CWA.**

In ten responding jurisdictions there is evidence of the use of ML by firms in the context of consumers' CWA. From those, in two (**Brazil** and **Latvia**) this AI technique is already considered to be largely used. In the remaining 19 jurisdictions, however, there is no data available to confirm the use of this technology by firms in the context of consumers' CWA.

In **Peru**, the use of ML was identified as an innovative practice adopted by some credit providers in the context of consumers' CWA. In 2019, the SBS identified two credit providers that apply ML techniques to estimate consumers' income. One of these credit providers created five segments of consumers and, for each segment, used a boosting approach (boosting is an approach to ML based on the idea of creating a highly accurate predictor by combining many weak and inaccurate, yet valid, "rules of thumb") to estimate consumers' income. The results were accurate and the credit providers monitor the accuracy on a monthly basis. However, there is no certainty as to how these models would work under a context of stress.

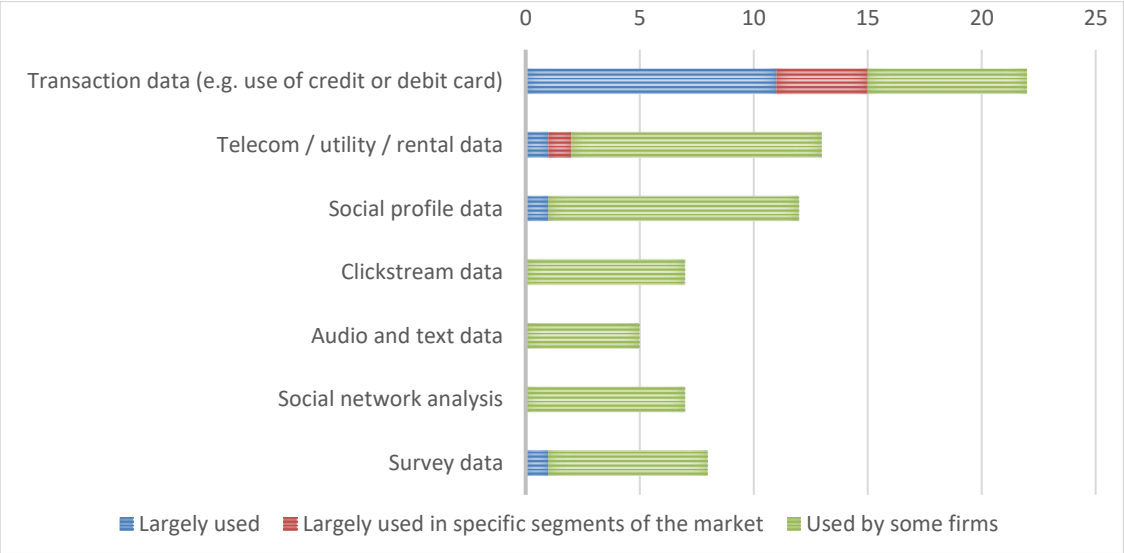
In **Brazil**, by applying algorithms on more than two thousand client variables related to people's lives events, data and ML allowed further understanding of client behaviour with the view to find the best approach to suggest financial products and services. As a result, one systemically important financial institution (SIFI) had an increase of 30% in acceptance of the financial product by the clients in 2019. In addition, by processing a much bigger data volume, another SIFI segregated clients into related groups, allowing working on specific variables for each group. Therefore, interest rates offered became related to the credit risk of each group rather than to clients as a whole. In the future, a customised interest rate for every individual is expected, and financial products and services offered through appropriate channels, such as mobile and internet banking. Also, by allowing cost

[42] For more information consult the following link: https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1623335154975&uri=CELEX%3A52021PC0206.

reduction, a third SIFI jumped from forty thousand-credit CWA processes per month to two hundred thousand assessments every day. This daily assessment would require twenty thousand employees in the traditional credit scoring models assessment, much more than the five hundred currently needed. The same institution reduced from six months to one month the time needed to develop a new CWA model.

Additionally, the answers to the questionnaire indicate that non-conventional sources of data are not yet used in the broader context of CWA. However, some supervisory authorities have found evidence of the use by credit providers of alternative sources of information in the context of CWA. Transaction data, which is also commonly used in traditional credit scoring models by deposit taking institutions, was indicated as being the most common 'alternative' source of information used by credit providers when performing CWA. The most common alternative data, after transaction data, are data on telecom, utility and rental.

Figure 6. Use of alternative sources of data in the context of CWA



The benefits associated with these innovative approaches to CWA are recognised by respondent supervisory authorities. Respondents consider that the use of ML has the capacity to raise the accuracy of CWA, by increasing the perception of consumers' financial situation, reducing human error/subjectivity and enables a more efficient and quick loan approval process. In addition, when receiving applications from third parties, ML may assist in detecting fraudulent or misleading applications. Respondents also said that the use of ML may enhance the level of financial inclusion for unbanked population and persons without credit history.

On the other side, a significant number of respondents consider that the use of automated models, resorting to new technologies and recourse to alternative sources of data in the context of CWA, also pose specific risks for consumers. These risks relate to risks of data privacy and data protection, lack of transparency for the consumer and increasing risk of credit default / over-indebtedness.

4.3 Regulatory and supervisory approaches

Key findings

- Concerns regarding the use of innovative CWA models are being addressed by some international authorities. At a national level, **regulatory approaches in this field are mainly focused on data protection / privacy issues**.
- **The monitoring of innovative credit scoring models is also being recognised as an important issue by market conduct supervisors**, with relevant impacts on consumer protection.

Most respondents classify their regulatory framework regarding CWA as being *'technologically neutral'*, which means that the requirements are not specific to the particular channel used to assess the credit application or the technology used to perform CWA. However, some jurisdictions are in the process of adapting their legal / regulatory frameworks to respond to the challenges posed by innovative approaches to CWA.

Although a significant number of respondents consider that the use of automated models, resorting to new technologies, and recourse to alternative sources of data in the context of CWA, poses specific risks for consumers, most respondents (78%) stated their legal and regulatory frameworks do not contain specific requirements to address these issues. The existing requirements to the use of alternative sources of data are above all related to data protection regulations.

This indicates that many national legal and regulatory frameworks do not yet reflect the conclusions and recommendations issued by international bodies that have been focusing on this subject.

In the **European Union**, **the EBA Guidelines on Loan Origination and Monitoring** (EBA/GL/2020/06)[43], which apply from 30 June 2021, set out specific standards regarding the use of automated models for CWA and credit decision-making, which aim at ensuring quality of data used, preventing bias and ensuring auditability.

The Guidelines establish that 'when using automated models for CWA and credit decision-making (section 4.3.4), institutions should understand the models used, and their methodology, input data, assumptions, limitations and outputs, and should have in place:

- Internal policies and procedures detecting and preventing bias and ensuring the quality of the input data;
- Measures to ensure the traceability, auditability, and robustness and resilience of the inputs and outputs;
- Internal policies and procedures ensuring that the quality of the model output is regularly assessed, using measures appropriate to the model's use, including backtesting the performance of the model; and
- Control mechanisms, model overrides and escalation procedures within the regular credit decision-making framework, including qualitative approaches, qualitative risk assessment tools (including expert judgment and critical analysis) and quantitative limits.

[43] Available at https://www.eba.europa.eu/regulation-and-policy/credit-risk/guidelines-on-loan-origination-and-monitoring.

In addition, 'institutions should have adequate model documentation that covers:

- Methodology, assumptions and data inputs, and an approach to detecting and preventing bias and ensuring the quality of input data; and
- The use of model outputs in the decision-making process and the monitoring of these automated decisions on the overall quality of the portfolio or products in which these models are used.'

Brazil's General Personal Data Protection Act (LGPD) sets out the following requirements regarding CWA and credit scoring process:

- The data subject has the right to request a review of decisions taken solely on the basis of automated processing of personal data affecting his/her interests, including decisions aimed at defining his/her personal, professional, consumer and credit profile or personality traits.
- The controller shall provide, whenever requested, clear and adequate information regarding the criteria and procedures used for the automated decision, in compliance with commercial and industrial secrets.
- In case of non-disclosure of the requested information on the grounds of compliance with commercial and industrial secrecy, National Data Protection Authority (ANPD) may perform audits to verify discriminatory aspects in automated processing of personal data.

One of the principles enshrined in the LGPD is that of non-discrimination, which guarantees the "impossibility of carrying out treatment for illicit or abusive discriminatory purposes". Therefore, personal data about racial or ethnic origin, religious belief, political opinion, union membership or organisation of a religious, philosophical or political nature, data relating to health or sexual life, genetic or biometric data, when linked to a natural person, it is considered sensitive personal data, having special treatment by law and depending on the express consent of the holder, except for some specific cases.

The monitoring of innovative credit scoring models is also being recognised as an important issue by market conduct supervisors.

Nine respondents perform on-site inspections to supervise credit scoring models used by firms, which is the case of **Slovak Republic**, **Norway**, **Korea**, **Serbia**, **North of Macedonia**, **Peru**, **Croatia**, **Malaysia**, and the **United Kingdom**.

Some authorities opt for overseeing credit providers' credit scoring models in specific circumstances, which is the case of **Australia**, the **Netherlands** and the **United Kingdom** (the latter, despite not actively monitoring credit scoring models, may look at the credit providers' credit scoring models in sectors it may have concerns over, such as in high-cost credit).

In the **North of Macedonia,** during on-site examinations, the Central Bank carries out a detailed assessment of the parameters of the credit scoring models that refer to the creditworthiness of clients. All the paperwork regarding the score development is evaluated. Also, analyses are done to the pass rate of the score and the quality of that portfolio. The back testing process is evaluated too. Most of the recommendations refer to required improvements in the back testing process.

In **Peru**, SBS conducts onsite examinations to verify the management and the quality of credit scoring models: it verifies roles, responsibilities, whether independent reviews are carried out; the scope, approval procedures, changes and corrective actions. It is also confirmed consistency with credit risk management policies, model replication, it is tested the model with out-of-sample and out-of-time data; and, evaluated the quality of

monitoring and validation reports. For these examinations, SBS requires model documentation, approval documents, monitoring and validation reports, and databases.

In **Serbia**, the supervisory authority monitors the following aspects of the credit scoring models: design (parameters that the bank uses in the credit scoring model as creditworthiness indicators), implementation and validation (whether the bank regularly performs validation tests of the model, whether results of validation confirm the discriminatory power of the model, etc.).

In **Korea**, credit providers are required to obtain prior approval of their credit scoring models from the supervisor.

Three respondent authorities are also considering monitoring credit scoring models: (i) **Bank of Italy** assesses and validates credit scoring models under the scope of prudential supervision, and is considering how to ensure closer coordination with consumer protection supervision; (ii) the **Bank of Russia** is planning to develop supervisory guidance on consumer credit scoring models developed by credit bureaus, targeting, for example, the quality of data samples and the predictive power of scoring factors and (iii) the **Central Bank of Portugal** is assessing how such monitoring could be carried out in a systematic way. The Central Bank is already requesting institutions to provide information and data used in credit scoring models doing on an *ad hoc* basis, particularly within the scope of inspections.

Taking into consideration the responses to the Questionnaire, the monitoring of credit scoring models allows supervisors, among other aspects, to ensure that the results of the rating system are in line with a specific customer's real risk. It also ensures consumers have sufficient buffers for living expenses and income shocks and that they do not lead to overextension of credit on an ad-hoc and risk basis. Institutions may be required to make changes and improvements to the back testing system when the model lacks predictive power or stability, for instance.

In **Australia**, ASIC found fault with the models used by two small amount lenders in undertaking their CWA.

ASIC found that one of those firms did not take reasonable steps to verify consumers' expenses in accordance with its responsible lending obligations. Instead of assessing the actual expenses recorded in a consumer's bank statements, it applied an internally generated assumed benchmark that had no relationship to the real expenses of the individual consumer.

ASIC accepted an enforceable undertaking from the firm to refund AUD10.8 million to consumers who received small amount loans. The firm also paid a AUD1.35 million penalty following the infringement notices[44].

In the other case, the firm refunded over 7,000 customers more than AUD1.5 million after ASIC found that:

- It had not properly assessed the financial circumstances of many consumers before providing them with loans. The firm relied on algorithms which did not properly take consumers' financial information into account;
- It failed to consistently recognise where consumers had obtained repeat loans from payday lenders within a short period of time. Even where repeat loans were

[44] https://asic.gov.au/about-asic/news-centre/find-a-media-release/2016-releases/16-380mr-cash-converters-to-pay-over-12m-following-asic-probe/

properly identified, the firm did not take sufficient or appropriate steps as required by law before providing a loan to the consumer;

The firm failed to make proper inquiries of consumers' requirements and objectives, and inquiries that were made were of a general nature and resulted in not enough information to fully understand the consumer's needs[45].

Another important aspect for supervisors is the data sources and/or types of data used by firms in their credit scoring models.

In **Croatia**, firms primarily use internal data to develop their credit scoring models. The exceptions include the use of data on living costs or average monthly salary that are publicly available from the Croatian Central Bureau of Statistics, as well as data about situations where a consumer has previously failed to meet repayment obligations. This data is exchanged between firms through the Croatian Credit Information Registry. In general, the Croatian National Bank (HNB) monitors the firm's database focusing on the sample included in the scoring model and which is defined on a level of exposure, client, and payments.

In **Italy**, all types of data used in CWA are assessed during on-site inspections, investigating the information requirements set out by firms' internal procedures including, at least, income, rents, debt servicing obligation, general expenses (and related sources), and evaluating the consistency of actual processes with the internal rules.

In the course of offsite banking supervision, the **Bank of Russia** evaluates credit scoring models used by firms *inter alia* in terms of the quality of data used in the models.

In **Peru**, the issue of the assessment of the sources and/or types of data used by credit providers in their credit scoring models is under consideration. SBS is developing a regulatory proposal for model risk management, which includes specific requirements for data quality, such as data reliability and integrity, consistency of data processing, and quality of the procedures or supporting documentation that describe the construction of the databases, among others.

On 13 November 2020, **FinCoNet held an International Seminar on *Creditworthiness Assessment: current issues and challenges***.[46] The Seminar brought together FinCoNet members, academics and other external stakeholders to hear from experts in the field and join an engaging discussion on the topic. The Seminar focused on the discussion around the advantages and disadvantages of the move to the use of AI's technologies in CWA, the benefits and potential drawbacks of using alternative data and how COVID-19 pandemics have impacted the access to credit and the assessment of the ability of consumers to repay their credits.

Dr. Katja Langenbucher, Professor at University of Frankfurt/Sciences Po presented an overview of the use of AI in CWA, describing the benefits and risks of such technological developments and the appropriate checks and balances to ensure good outcomes for consumers and credit providers ("Use of AI in assessing creditworthiness: what are the right check as balances?"). There is currently a shift from statistical evidence in credit scoring to AI. While it may provide better access for the 'credit invisible' and have the potential to better quantify risk, it also raises concerns regarding the potential for

[45] https://asic.gov.au/about-asic/news-centre/find-a-media-release/2016-releases/16-089mr-payday-lender-nimble-to-refund-15-million-following-asic-probe/.

[46] The FinCoNet Annual Meeting 2020 press release is available at: http://www.finconet.org/Press-release-FinCoNet_AGM-Nov-2020.pdf.

discriminatory lending. Quality control and appropriate oversight are essential. Dr. Langenbucher clarified that, in the COVID-19 context, AI scoring can be of interest when considering why a consumer is taking out a loan, whether it is related to the pandemic (and thus the consumer's credit score should not be affected) or not. Regarding the explainability aspect of AI, there could be a role for raising awareness among consumers about the way their data is collected and used in assessing their creditworthiness.

The Seminar also included a panel discussion, featuring a range of supervisory, industry, research and consumer perspectives, in particular Mr Ali Erbilgic and Mr Oleg Shmeljov, from the European Banking Authority, Professor Umberto Filotto, Vice-chair of Eurofinas, Ms Deepti George, from Dvara Research, Ms Avitha Nofal and Mr Liaquat Soobrathi, from the Credit Ombud of South Africa and Mr Ira Rheingold, Executive Director of National Association of Consumer Advocates. This panel session focused on developments and challenges concerning CWA, including in light of COVID-19.

Despite the developments regarding CWA that have been observed in jurisdictions, there are several concerns from a consumer protection perspective, namely credit provided by firms outside the supervisory perimeter, legislation that does not foresee responsible CWA, lack of accuracy of credit information and of transparency regarding its use. Issues regarding CWA are being exacerbated by the COVID-19 pandemic, in particular the risks to consumers of additional debt burden and increase of evictions and foreclosures. As a result of the pandemic, there is a need to be innovative and flexible in the way credit providers use the information they have available, particularly given that CWA is mostly based on consumers' past behaviours.

The EBA Guidelines on Loan Origination and Monitoring (EBA/GL/2020/06) cover several areas, with the objective of improving and aligning prudential practices across jurisdictions and also to address issues around asset quality and consumer protection (preventing undue hardship and over-indebtedness). CWA provisions should be adequate to the purpose, size and complexity of the loan. The assessment must look at information about a borrower's employment, expenses, household and financial commitments. One challenge is to establish a robust assessment of the repayment capacity of borrower with up-to-date financial data. Other challenge is to ensure that CWA obligations do not lead to unintended consequences such as financial exclusion and increased borrowing from unregulated lenders.

Arguably, the use of AI raises the potential to increase financial inclusion and allow different and alternative data to be used in different ways. However, its results should be assessed carefully. The use of alternative data may create biased correlations. Assessments need to use all the information available, but there also needs to be rules around using this information, bearing in mind that '*one size does not fit all'*.

5. Conclusions

The main conclusions that can be drawn from this Report include:

- CWA's have been an important topic for market conduct supervisors for several years, as it is considered to be a key element of responsible lending aiming to prevent consumer over-indebtedness and arrears situations. When carrying out CWA, firms are required to take into consideration the consumer's interests and needs in the decision making process. In some circumstances, this consumer-focused approach may lead to decisions that differ from those arising from the application of prudential criteria.
- The importance of consumers' CWA is generally reflected in national legal and regulatory frameworks across the responding jurisdictions. All responding jurisdictions establish an obligation upon firms to carry out a thorough assessment of the consumer's creditworthiness before the conclusion of a credit agreement or before an increase or a significant increase of the loan amount.
- Existing regulatory approaches follow a conventional paradigm of CWA, focused on the consumer's actual financial and personal circumstances. Firms are required to collect information about the consumer's income and level of expenses, as well as his/her professional situation and household composition, and obtain evidence that such information is accurate and up-to-date. Consultation of credit register databases or other external databases is a common requirement. In some jurisdictions, firms also have to take into consideration any foreseeable circumstances that may impact the ability of the consumer to repay the debt without undue financial hardship.
- The requirements to be complied with by firms when performing CWA depend on a series of factors, including, among others, the type of credit being provided, the loan amount and maturity and the nature or type of the consumer.
- Many supervisory authorities have a comprehensive mandate to oversee compliance with CWA principles and rules. In performing this task, supervisors make use of traditional oversight tools, such on-site and off-site inspections and complaints' handling. Some supervisory authorities collect regular information from firms in order to evaluate whether CWA is contributing to responsible lending decisions. In general, supervisory authorities follow a risk-based approach in the supervision of CWA, focusing its attention on the firms, credit segments/products or distribution channels which are more likely to cause consumer detriment. Only a few supervisory authorities are considering implementing new tools or approaches to oversee CWA despite the significant developments that are occurring in this field.
- The increasing availability of alternative sources of data, and the application of innovative technologies, including AI, allows for quicker credit decisions based on complex algorithms which process thousands or millions of data points. The benefits brought by these automated models are counterbalanced by new challenges and risks to consumers and to market conduct supervisors. Besides data protection and privacy concerns,

there is evidence that an inadequate use of these tools may lead to potential obscure discriminatory and subjective lending policies.

- International organisations, such as the OECD or the European Banking Authority, are dedicating special attention to the use of automated models and AI in CWA, and have issued recommendations to policymakers in order to address such challenges. These recommendations aim at ensuring the quality of data used, preventing bias and ensuring auditability of the credit scoring models.
- The COVID-19 pandemic, which arose during the preparation of this report, challenged the importance of consumers' credit history and other traditionally considered sources of information, which may contribute to accelerate this process of change. Regulators and supervisors should be vigilant in order to keep up with the pace of innovation and adequately respond to the challenges ahead.

6. Areas for future consideration

Responsible lending principles should guide the lender's conduct throughout all stages of the credit relationship. Previously to the conclusion of the credit agreement, this implies that the consumer is adequately enlightened about the characteristics and risks of the credit agreement, through the disclosure of complete and accurate information and the provision of adequate explanations. It also requires lenders to perform a thorough assessment of the consumer's creditworthiness, ensuring that the credit agreement that is being proposed is adequate to the consumer's repayment capacity. During the lifetime of the credit agreement, apart from the regular provision of information to the consumer, it is important to ensure that lenders conduct continuous monitoring of the financial capacity of the borrower, detecting early signs of financial difficulties and providing adequate assistance to consumers in pre-arrears and arrears, in order to prevent foreclosure and judicial enforcement of the debt.

The COVID-19 pandemic, given its sudden and substantial impact on the economic activity, put a significant pressure on the financial resilience of consumers and led many jurisdictions to put in place emergency measures to prevent borrowers in payment difficulties from entering into default in their credit arrangements. The most common measures implemented included restructuring programs and the possibility to defer payments, either through public or private credit moratoria. In many jurisdictions, credit moratoria, which allowed for an immediate relief of the financial burden over many households, were extended after its approval, in order to respond to the challenges posed by the subsequent waves of the pandemic. But these measures were designed to be exceptional and temporary.

In this context, market conduct regulators and supervisors focused their attention on the adequacy of their jurisdictions' legal and regulatory arrangements on the management of pre-arrears and arrears situations, in order to ensure a soft exit from credit moratoria and avoid an escalation of default levels. Given the uncertainty about the extent of the effects of this pandemic to financial consumers, this will certainly be a hot topic in the agenda of market conduct supervisors in the near future.

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Annex A. List of responding jurisdictions

Jurisdiction	Organisation
Australia	Australian Securities and Investments Commission (ASIC)
Brazil	Central Bank of Brazil (BCB)
Canada	Financial Consumer Agency of Canada (FCAC)
Croatia	Croatian National Bank (HNB)
France	Autorité de contrôle prudentiel et de résolution (ACPR)
Germany	Federal Financial Supervisory Authority (BaFin)
Greece	Bank of Greece
Indonesia	Financial Services Authority (OJK)
Ireland	Central Bank of Ireland
Italy	Bank of Italy
Japan	Financial Services Agency (FSA)
Jordan	Central Bank of Jordan
Korea	Financial Services Commission
Latvia	Consumer Rights Protection Center (PTAC)
Lithuania	Bank of Lithuania
Malaysia	Bank Negara Malaysia
Mauritius	Bank of Mauritius
Mozambique	Bank of Mozambique
Netherlands	Dutch Authority for the Financial Markets (AFM)
North Macedonia	National Bank of North Macedonia
Norway	Financial Supervisory Authority of Norway
Peru	Superintendency of Banking, Insurance and Private Pension Funds Administrator (SBS)

Portugal	Central Bank of Portugal
Russia	Bank of Russia
Saudi Arabia	Saudi Arabian Monetary Authority (SAMA)
Serbia	National Bank of Serbia
Slovak Republic	National Bank of Slovakia
Spain	Bank of Spain
United Kingdom	Financial Conduct Authority (FCA)

Annex B. Questionnaire

Introduction

This questionnaire on "Supervisory approaches to consumers' creditworthiness assessment" is an initiative of the International Financial Consumer Protection Organisation (FinCoNet).

Since 2013, FinCoNet's Standing Committee 2 ('SC2') has been in charge of identifying regulatory and supervisory approaches and tools for supporting responsible lending practices. In doing so, it has addressed responsible lending from multiple and complementary perspectives.

Previous work of SC2 includes:

- the 2014 'Report on Responsible Lending';
- the 2016 'Report on Sales Incentives and Responsible Lending';
- the 2016 'Guidance to Supervisors on the setting of Standards in the field of Sales Incentives and Responsible Lending';
- the 2017 'Report on the digitalisation of short-term, high-cost consumer credit'; and, most recently,
- the 2019 'Guidance to supervisors in the field of digitalisation of short-term, high-cost consumer credit'.

In its Open Meeting in March 2019, FinCoNet's Governing Council agreed that SC2 should focus its future work on the supervisory approaches to consumers' creditworthiness assessment.

The creditworthiness assessment is a key dimension of responsible lending and it has been on the agenda of market conduct supervisors for several years.

In a context of growing digitalisation of credit products, firms are changing the way they assess consumers' creditworthiness, which is fostered by the increasing availability of consumers' data and by technological developments. In tandem with approaches that rely on information provided by consumers on their financial situation and other personal circumstances, firms are increasingly making use of models based on automated processes and alternative types and sources of information.

Although innovation in this field may encompass benefits and opportunities, it also raises new challenges and risks to consumers and to market conduct supervisors, which should be thoroughly analysed from a consumer protection perspective.

As a first step to address these issues, in July 2019, SC2 conducted a stocktaking exercise, aimed at obtaining a high-level overview of regulatory approaches to creditworthiness assessment among FinCoNet members. The answers provided by the 16 supervisory authorities that have responded to the stocktaking exercise revealed the importance of the existence of a regulatory framework governing consumers' creditworthiness assessment. The questionnaire takes into consideration the insights obtained through the stocktaking exercise, but intends to go further in-depth in the description of the regulatory solutions and the powers granted to supervisory authorities to effectively oversee compliance with the existing regulations.

The questionnaire focuses on creditworthiness assessment in the context of the provision of consumer credit - covering both housing loans and mortgages and unsecured consumer credit - and aims at gathering relevant information on how market conduct supervisors are currently addressing the issues related to creditworthiness assessment, taking into consideration the existing regulatory framework and the market practices in this field.

The questionnaire is structured as follows:

(a) In the first section, respondents are invited to describe the regulatory framework applicable to creditworthiness assessment in their jurisdiction.

(b) The second section of the questionnaire aims at obtaining qualitative information on the main practices, developments and risks associated with consumers' creditworthiness

assessment which have been identified by supervisors when monitoring consumer credit markets.

(c) Finally, in the third section, respondents are invited to describe the strategies and tools implemented to oversee compliance by firms of the regulatory framework applicable to creditworthiness assessment.

Although the questionnaire consists mostly of closed-ended questions, respondents are invited to describe any practices/initiatives/lines of action that they would like to highlight and that could be considered an effective or innovative supervisory approach to consumers' creditworthiness assessment.

Instructions for responding to this questionnaire

a Please answer each question by referring to your own jurisdiction.

b If the answer to a question depends on the type of credit which is being offered, please specify the existing differences.

c Case studies and statistical data, where available, are welcomed.

d Kindly provide your answers to the questionnaire by email to the OECD Secretariat (sally.day-hanotiaux@oecd.org / miles.larbey@oecd.org) by **14 February 2020**.

e Should you need any further information or guidance in order to complete the questionnaire, please contact the OECD Secretariat (sally.day-hanotiaux@oecd.org / miles.larbey@oecd.org)

Contact point

Please indicate contact point for any questions that may arise in respect to this questionnaire:

Name:

Position:

E-mail:

Telephone:

Glossary

Term	Meaning
Big Data[47]	Large volume of different types of data, produced with high velocity from many and varied sources which are processed, often in real time, by technology tools such as powerful processors and algorithms.
Consumer	Individual acting for personal, domestic or household purposes, not business purposes.
Credit Intermediary	Natural or legal person who is not acting as a creditor and who, in course of his / her trade, business or profession: • Presents or offers credit agreements to consumers; • Assists consumers by undertaking preparatory work or other pre-contractual administration in respect of credit agreements other than as referred to in the previous point; or • Concludes credit agreements with consumers on behalf of the creditor. In some jurisdictions, this figure is known as a 'credit assistance provider'.
Creditworthiness assessment	Evaluation of a consumer's ability to repay the obligations resulting from the credit agreement.
Digital channels	Any online, mobile or other technological means through which a consumer can obtain consumer credit.
Machine learning	A subset of Artificial Intelligence that allows a program or system to build a predictive model from input data, without being explicitly programmed. The system uses the learned model to make useful predictions from new (never-before-seen) data drawn from the same distribution as the one used to train the model.
Sources of data	Consumer data obtained both from internal and external sources. Internal sources include data provided by consumers to firms. External sources include information that firms collect outside of their own network, namely from other public or private companies.

[47] EBA (2017), Report on innovative uses of consumer data by financial institutions, 28 June 2017.

Section 1

Regulatory framework on consumers' creditworthiness assessment

This first set of questions aims to **obtain a general overview of the legal and regulatory framework** applicable to consumers' creditworthiness assessment in each jurisdiction.

1. Does your jurisdiction have in place any rules or principles governing consumers' creditworthiness assessment? *(please select all applicable options)*

☐ Yes, rules

☐ Yes, principles

☐ No

☐ Under consideration / In progress (*please provide details)*

1.1. If you answered 'Yes', please specify, from the list below, which entities are responsible for issuing the applicable rules and principles.

☐ Supervisory authority

☐ National legislator

☐ Other authorities *(please provide details)*

1.2. If you answered 'Yes' to question 1, please specify, from the list below, which credit products are covered by the existing legal and regulatory framework.

☐ Housing loans / mortgages

☐ Personal loans

☐ Car loans

☐ Revolving credit (e.g. credit cards, overdrafts)

☐ Payday loans

☐ Student loans

☐ Leasing

☐ P2P lending / Crowdlending

☐ If others, please specify

2. Does the legal and regulatory framework governing creditworthiness assessment in your jurisdiction establish different rules or principles depending on the credit product being provided?

☐ Yes *(please provide details)*

☐ No *(additional information - optional)*

☐ Not applicable

3. Does the legal and regulatory framework governing creditworthiness assessment in your jurisdiction establish different rules or principles depending on the features of the credit agreement being provided (e.g. loan amount, loan maturity, distribution channel)?

☐ Yes *(please provide details)*

☐ No *(additional information - optional)*

4. In your jurisdiction, when are firms required to perform consumers' creditworthiness assessment? *(please select all applicable options)*

☐ Before the conclusion of a credit agreement

☐ Prior to an increase of the loan amount

☐ Prior to a renegotiation of the credit agreement's terms and conditions

☐ Other circumstances *(please provide details)*

5. In your jurisdiction, are firms allowed to charge consumers any fees or charges related to creditworthiness assessment?

☐ Yes (*please provide details*)

☐ No *(additional information - optional)*

6. In your jurisdiction, are firms prevented from concluding a credit agreement where the creditworthiness assessment reveals that it is unlikely for the consumer to comply with the terms of the agreement?

☐ Yes *(please provide details)*

☐ No *(additional information - optional)*

7. In your jurisdiction, are firms required to inform the consumer of the grounds for the refusal of a credit application based on the output of his / her creditworthiness assessment?

☐ Always

☐ In certain circumstances *(please provide details)*

☐ No

8. Does your jurisdiction set forth criteria to ascertain the cases in which a credit agreement shall not be concluded based on the output of the creditworthiness assessment?

☐ Yes *(please provide details)*

☐ No *(additional information - optional)*

9. In your jurisdiction, are firms required to follow specific procedures when carrying out consumers' creditworthiness assessment?

☐ Yes

☐ No

9.1. If you answered 'Yes', please indicate which type of procedures firms are required to observe: *(please select all applicable options)*

☐ Consultation of credit register databases

☐ Collection of information from the consumer

☐ Collection of information from the guarantors

☐ Collection of documents to confirm the information provided

☐ Archiving the information and documents collected during a certain period of time

☐ Producing a report with the main elements and conclusions of the creditworthiness assessment

☐ If others, please specify

10. In your jurisdiction, are firms required to take any specific criteria into consideration in consumers' creditworthiness assessment?

☐ Yes

☐ No

10.1. If you answered 'Yes', please identify in the following table which criteria firms shall take into consideration when assessing consumers' creditworthiness:

	Housing loans / Mortgage credit	**Unsecured consumer credit**
Financial situation of the consumer (income and expenses)		
Other personal circumstances of the consumer:		
Age		
Household (e.g. number of dependents)		
Employment / professional situation		
Other circumstances (please specify)		
Compliance with obligations under other credit agreements		
Loan maturity		
Value of the collateral		
Financial situation and other personal circumstances of the guarantor		
Future events which may have a negative impact on		

the consumer's ability to repay the credit *(please specify)*		
If other, please specify		

11. Does your jurisdiction set out *ratios* to be complied with by firms when assessing consumers' creditworthiness?

☐ Yes

☐ No

11.1. If you answered 'Yes', please fill in the following table with the value of the applicable ratios:

	Housing loans / Mortgage credit	Unsecured consumer credit
Loan-to-income		
Loan-to-value		
Debt-to-income		
Debt-service-to-income		
Loan maturity / age of the consumer		
If others, please specify		

12. Does your jurisdiction set out obligations on credit intermediaries related to consumers' creditworthiness assessment?

☐ Yes *(please provide details)*

☐ No *(additional information - optional)*

13. Does your legal and regulatory framework set any restrictions in respect to remuneration policies of staff engaged in consumers' creditworthiness assessment (e.g. to avoid conflict of interests)?

☐ Yes *(please provide details)*

☐ No

14. Does the legal and regulatory framework in your jurisdiction govern the use of scoring models to assess consumers' creditworthiness?

☐ Yes *(please provide details)*

☐ No *(additional information - optional)*

15. Does the legal and regulatory framework in your jurisdiction govern the use of alternative sources of data, such as social media, mobile phone payments, browsing data and data from commercial partners, to assess consumers' creditworthiness?

☐ Yes *(please provide details)*

☐ No *(additional information - optional)*

16. Please classify your regulatory framework regarding the innovative approaches to creditworthiness assessment:

☐ Technologically neutral *(please provide details)*

☐ Technologically driven *(please provide details)*

☐ In the process of adapting to innovative approaches *(please provide details)*

☐ Other, please specify

Section 2

Market practices

This second set of questions aims to identify the **main practices, developments and risks** associated with consumers' creditworthiness assessment in each jurisdiction, based on the experience of the supervisory authorities.

17. What kind of information do firms usually obtain from the consumer in order to assess his / her creditworthiness, depending on the type of credit being provided and the channel used to provide the credit?

	Housing loans / mortgages			**Unsecured consumer credit**			**Unsecured consumer credit provided through digital channels**		
	Always	Usually	Not usually	Always	Usually	Not usually	Always	Usually	Not usually
Age (for ID/anti money laundering legislation purposes)									
Income									
Debt service obligations									
General expenses									
Current account transactions									
Employment / professional situation									
Household (e.g. number of dependents)									
Other *(please specify)*									

18. Do firms in your jurisdiction have mechanisms in place to mitigate risks linked to the provision of inaccurate information by the consumer, especially as regards his / her level of income / expenses?

☐ Yes

☐ No

18.1. If you answered 'Yes', please explain which mechanisms firms have in place to mitigate those risks, especially when the credit is provided through digital channels.

18.2. Have you identified situations in which the procedures implemented by firms to collect information from consumers in the creditworthiness assessment process were inducing or facilitating the provision of inaccurate information?

☐ Yes *(please provide details)*

☐ No *(additional information - optional)*

19. Do firms, in your jurisdiction, have access to credit register databases to perform creditworthiness assessment?

☐ Yes

☐ No

19.1. If you answered 'Yes' to the previous question, please indicate the nature of the entity(ies) responsible for managing those credit register databases: (*Please select all applicable options*)

☐ The supervisory authority

☐ Other public bodies

☐ Private companies

19.2. If you selected 'Private companies' in the previous question, please inform whether those companies are under the supervision of your authority and, if so, specify the rules applicable to their activity.

19.3. Is there any information sharing by credit register databases operating in your jurisdiction?

☐ Yes *(please provide details)*

☐ No

19.4. What sort of information is included in those credit register databases? (*Please select all applicable options*)

☐ Only negative information

☐ Both positive and negative information

☐ Risk profiling / Scoring

☐ If other, please specify

19.5. Please indicate which entities provide information to credit register databases.

19.6. Is there a minimum threshold regarding the loan amount of credit agreements registered in the credit register databases?

☐ Yes *(please provide details)*

☐ No *(additional information - optional)*

19.7. What information is available in credit register databases to firms when assessing creditworthiness?

☐ Only recent information

☐ Historical information *(please provide details)*

☐ Consumers' full credit history

☐ If other, please specify

19.8. How often do firms collect information from credit register databases in order to assess a consumer's creditworthiness?

☐ Always

☐ In certain circumstances *(please provide details)*

☐ Not applicable

20. Do credit intermediaries in your jurisdiction play a role in consumers' creditworthiness assessment?

☐ Yes *(please provide details)*

☐ No *(additional information - optional)*

20.1. Do you consider that the intervention of credit intermediaries in the credit granting process poses specific risks to the consumers' creditworthiness assessment?

☐ Yes *(please provide details)*

☐ No *(additional information - optional)*

☐ Not applicable

20.2. Do firms have mechanisms in place to mitigate the risks arising from the intervention of credit intermediaries in consumers' creditworthiness?

☐ Yes *(please provide details)*

☐ No *(additional information - optional)*

☐ Not applicable

21. Based on your experience, how would you classify the use by firms under your supervision of alternative sources of data in the context of consumers' creditworthiness assessment?

	Largely used	Largely used in specific segments of the market *(please provide details)*	Used by some firms	No data available
Transaction data (e.g. use of credit or debit card)				
Telecom / utility / rental data				
Social profile data				
Clickstream data				
Audio and text data				
Social network analysis				
Survey data				
If others:				

22. Based on your experience, how would you classify the use of machine learning by firms in your jurisdiction in the context of consumers' creditworthiness assessment?

☐ Largely used

☐ Largely used in specific market segments *(please provide details)*

☐ Used by some firms

☐ No data available

23. Based on your experience, what kind of benefits do you consider that the use of alternative sources of data and machine learning in the context of the creditworthiness assessment bring to consumers?

24. Based on your experience, please classify (from 0 to 5, in which 0 is "no risk" and 5 is "very high risk") the risks to consumers associated to the use of alternative sources of data and machine learning in the context of the creditworthiness assessment?

Risks	**Ranking**
Data privacy and protection	
Lack of transparency for the consumer	
Risk of consumer default / Over indebtedness	
Financial exclusion	
Other (Please indicate in the box below):	

24.1. Please provide additional information to explain the answer to the previous question.

25. Please describe any procedures or practices associated to consumers' creditworthiness assessment that you have identified in your market which you would like to highlight, for instance due to its innovative nature or due to the specific risks raised for consumers.

Section 3

Supervisory approaches to the creditworthiness assessment

This third section aims to gather information on **how supervisory authorities address issues related with firms' assessment by of consumers' creditworthiness**, with special focus on new strategies and oversight tools.

26. Is your supervisory authority responsible for overseeing compliance with creditworthiness assessment requirements?

☐ Yes

☐ No

27. Does your supervision cover all credit products identified in answer to question 1.2 above?

☐ Yes

☐ No *(please provide details)*

28. Does your supervisory scope cover all entities providing credit in your jurisdiction?

☐ Yes

☐ No *(please provide details)*

29. Does your supervisory scope cover the activities carried out by credit intermediaries?

☐ Yes

☐ No

30. Please indicate the enforcement powers that your supervisory authority has in relation to creditworthiness assessment requirements. *(Please select all applicable options)*

☐ Penalties / administrative fines

☐ Imposition of compensation to the consumer

☐ Specific orders

☐ Recommendations

☐ Imposition of contractual effects

☐ Alternative dispute resolution

☐ If others, please specify

30.1. Please provide additional information on the circumstances in which these enforcement powers are used.

31. Which tools do your supervisory authority use to oversee compliance with the requirements on creditworthiness assessment? *(Please select all applicable options)*

☐ Off-site inspections

☐ On-site inspections

☐ Mystery shopping

☐ Analysis of data reported by firms

☐ Analysis of data from credit register databases

☐ Complaints handling

☐ Advertising analysis

☐ Market monitoring

☐ If others, please specify

31.1. Please explain how your supervisory authority applies each of the oversight tools selected in the answer to the previous question in the supervision of consumers' creditworthiness assessment.

31.2. If you selected 'Analysis of data reported by firms', please describe which kind of information firms are required to report and the frequency of such a report.

32. Is your supervisory authority considering implementing new tools or approaches to oversee compliance with rules governing consumers' creditworthiness assessments?

☐ Yes *(please provide details)*

☐ No *(additional information - optional)*

33. Does your supervisory authority monitor scoring models used by firms in consumers' creditworthiness assessments?

☐ Yes

☐ No

☐ Under consideration / in progress *(please provide details)*

33.1. If you answered 'Yes', please explain to what extent you monitor the scoring models implemented by firms and, if possible, illustrate your answer with some examples of actions your supervisory authority has undertaken.

34. Does your supervisory authority assess the sources and/or types of data used by firms in their scoring models to assess consumers' creditworthiness?

☐ Yes *(please provide details)*

☐ No *(additional information - optional)*

☐ Under consideration / in progress *(please provide details)*

34.1. If you answered 'Yes', please explain to what extent you monitor the use of big data and alternative sources of data by firms and, if possible, illustrate your answer with some examples of actions your supervisory authority has undertaken.

35. How does your supervisory authority decide which firms, products or distribution channels to take action on (e.g. data on default credit, alerts from complaints, advertising)?

36. Please present examples of action taken by your supervisory authority in the oversight of the creditworthiness assessment regulatory framework, describing the triggers, the detected infringements and the enforcement powers used.

37. What are the main challenges and difficulties faced by your supervisory authority in relation to supervising consumers' creditworthiness assessment?

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INTERNATIONAL FINANCIAL CONSUMER PROTECTION ORGANISATION