UNIVERSITÀ DEGLI STUDI DI CATANIA

DOCTORATE DEGREE COURSE IN LAW - XXXVII CYCLE DEPARTMENT OF LAW

Annual report on the progress of research a.y. 2021/2022

Giulia Curcuruto

Research activity

Creditworthiness assessment and technological innovation

The research activity carried out during the first year was aimed at studying banking law issues related to the notion of creditworthiness.

Field of research

The so-called creditworthiness assessment, although inherent to the credit granting activity, has long been entrusted to the discretion of the lenders; it was brought to the attention of regulators only after the financial crisis of 2008, when the mitigation of the feeling of mistrust towards banking companies was among the priorities of the European legislator. In fact, there is no doubt that, together with other causes, the irresponsible behaviour of the lenders in the granting and taking out of mortgages (so-called *predatory lending*) contributed to triggering the crisis.

In this context, the doctrinal debate has developed around the notion of *responsible lending*, the relevance of which will be analysed with reference to contract law and the decision-making processes of the banking company.

Restriction of the field of research

The creditworthiness assessment activity has different characteristics depending on whether it concerns a business or a consumer.

In granting credit to businesses, the lender can rely on the accounting data and the financial flow that the credit will presumably be able to generate. Furthermore, also due to the high value of credit requests, intermediaries usually conduct more accurate procedures, aimed at ensuring the financial stability of the company.

In granting credit to consumers, however, it is necessary to look at the subject's current ability to repay, while the destination of the sums granted on loan is not relevant. In addition, the usually modest amount, and the standardization of the procedures for the conclusion of contracts have led to a particular lightness of the intermediaries in the creditworthiness assessment phase.

For these reasons, it is considered appropriate to limit the field of investigation to consumer credit, excluding the financing of businesses.

Structure of the thesis

The assessment of creditworthiness concerns, on the one hand, the discipline of banking transparency through the provision of a series of pre-contractual obligations which the lender is burdened with, on the other hand, profiles of the banking company organization. The two themes will be analysed in the first and second chapter respectively. The last chapter will, however, be dedicated to the phenomenon of the so-called *Fintech Credit*, that is the use of a series of technological tools capable of affecting the process of granting credit including the creditworthiness assessment phase.

A brief outline of the thesis and bibliography is attached below (Attachment 1).

Seminar activities

Interdisciplinary seminars

- 1. Nascita dello stato di diritto e la separazione dei poteri Prof. Speciale
- 2. Stato di diritto incompiuto? Magistratura ed equilibri istituzionali Prof. Amato
- 3. Principio di "antisubordinazione di genere" nella costituzione italiana Prof.ssa Pezzini
- 4. Principio di legalità: codici di autodisciplina delle società quotate Prof. Regoli
- 5. Diritto e morale. Tra ragione ed emozioni Prof. Amato
- 6. The rule of law in the European Court of Justice's case law Prof. Pitruzzella
- 7. Principi costituzionali e strumenti alternativi di risoluzione delle controversie in Italia e Spagna Prof.ssa Ines Celia Iglesias Canle
- 8. The European Public Prosecutor's Office a game changer for the future of European Criminal Law and Procedure? Prof. Perron

Specialist seminars

Total amount of hours: 35

- 1. Fideiussioni a valle dell'intesa anticoncorrenziale: un problema di diritto privato o di diritto antitrust Prof. Mario Libertini
- 2. The private international law of the EU some long-term lessons after the two first decades Prof. Dutta
- 3. Working & poor Prof.ssa Papa
- 4. Il recepimento della disciplina europea dei contratti di vendita immobiliare Prof. De Cristofaro
- 5. Il diritto antidiscriminatorio. Strategie e tecniche di regolazione Prof.ssa Militello
- 6. *Mediazione e rinegoziazione nei contratti di durata. La mediazione societaria* Prof. Di Cataldo, Prof.ssa Marino, Prof. Sanfilippo
- 7. Nuovi strumenti di intervento pubblico nell'economia. Il caso della Cassa Depositi e Prestiti Prof. Mirone
- 8. *Modelli di appartenenza e gestione dei beni pubblici nei sistemi giuridici occidentali* Prof. Morgante Cascione
- 9. "Non-Fungible Token (NFT)" Nuovi Strumenti di Titolarità e Tecniche di Circolazione della Ricchezza Prof. Gambino
- 10. Laboratorio di diritto Diritto, impresa e intelligenza artificiale Prof. Di Cataldo
- 11. Imposta sui Servizi digitali nella UE e a livello internazionale Prof. Luis Muleiro Parada

- 12. Il regolamento UE 2019/1111 in materia matrimoniale, di responsabilità genitoriale e di sottrazione internazionale di minori Prof.ssa Marino
- 13. *UAF Contratti di impresa e nuove tecnologie* Prof. Arcidiacono (6 ore)
- 14. Le prestazioni di lavoro nei rapporti associativi Prof. Ricci

Free seminars

Total amount of hours: 37

- 1. Progetto Dottorale di Alta Formazione in Scienze Giuridiche Il Diritto tra progettualità e precarietà. Il concetto e la prassi delle riforme, tra UE e ordinamenti nazionali (21 ore)
 - La tutela dei privati nelle norme dell'Accordo sugli scambi commerciali e la cooperazione e dell'Accordo di recesso UK/EU – Prof. Ruotolo
 - Intelligenza Artificiale, Metaverso e tecnologie emergenti: sfide di un'imminente regolazione
 Prof.ssa Danesi
 - La tecnologia come nuovo 'rimedio' per il consumatore digitale? Dott. Bernes
 - Il principio di solidarietà e la risposta dell'UE alla crisi pandemica Prof.ssa Bergamini
 - Piattaforme digitali e proprietà intellettuale: una revisione della giurisprudenza e della nuova normativa dei servizi e mercati digitali – Prof. Carbajo Cascon
 - Convegno "La riforma del processo per le persone, i minorenni e le famiglie: aspetti sostanziali e processuali"
- 2. Corso Special Issues in Patent Law Prof. Sven Bostyn, Prof. Di Cataldo (16 ore)
- 3. La disciplina sulle moratorie e sulle garanzie pubbliche dei finanziamenti bancari tra COVID e post-COVID Prof. Urbani, Prof. Campobasso

Publications

Presentation of the paper "The public recapitalization of private companies in the post-pandemic era" during the conference held in Catania on 30 June and 1 July 2022 entitled "The holding of the constitutional state in the time of the emergency from Covid-19. Legal-financial profiles"

Abstract

The epidemiological emergency linked to the spread of the SARS-CoV-2 virus has ushered in a new recessionary season for the Italian economy, prompting the government to stem the most serious consequences with interventions of various kinds. Among the many, the provision referred to in art. 27 of the Law Decree 19 May 2020 n. 34, which authorizes Cassa Depositi e Prestiti "to set up a designated patrimony called "Patrimonio Rilancio" (paragraph 1), which" operates in the forms and under the conditions provided for by the European Union regulatory framework on state aid adopted to deal with the epidemiological emergency from "Covid-19" or at market conditions "(paragraph 4). Although the provision is of a transitory nature and responds to emergency logics, it can explain its effects on a much more extended temporal level, with possible distorting consequences of the market and competition.

The research examines the compatibility - substantial as well as formal - of the rules with the precepts of a European matrix, as well as the role of CDP which, while not making the recapitalized company a public investee, has a privileged relationship both with the market and with the other shareholders.

Further activities

Attendance of the German course (40 hours) offered to PhD students by the University Language Center.

Attached is the certificate of attendance and passing of the final test (Attachment 2).

Chapter I

The assessment of creditworthiness in consumer credit agreements

The first chapter will deal with the interpretation of the provisions of the Testo Unico Bancario which introduced the obligation to assess creditworthiness in our legal system. The obligations placed on the lender in the pre-contractual phase and the consequences on the intersubjective relationship in the event of an incorrect assessment will be identified and analysed.

Part I

Directive 2008/48/CE

The first references to the assessment of consumers' creditworthiness appear in the Consumer Credit Directive of 2008 (Directive 2008/48 / EC; hereinafter CCD), and in recital no. 26 and art. 8 (in turn included in Chapter II entitled 'Preliminary information and practices to the conclusion of the credit agreement').

The objective pursued by the EU legislator is to promote sustainable development of the consumer credit market through a model of "maximum" harmonization thus making it easier to compare the proposals of credit providers established in different Member States.

Article 124 bis T.U.B.

Art. 8 of the CCD was implemented in Italy, with the legislative decree 13 August 2010, n. 141, which amended the T.U.B. adding art. 124 bis.

Art. 124 bis T.U.B. provides that, before the conclusion of the credit agreement, the lender assesses the creditworthiness of the consumer "on the basis of adequate information, if necessary provided by the consumer himself and, where necessary, obtained by consulting a relevant database" (paragraph 1). The same must happen in the event of "a significant increase in the total amount of credit" (paragraph 2).

Art. 124 bis T.U.B. was supplemented by art. 6 of the decree n. 117 of 3 February 2011 of the Ministry of Economy and Finance, which provided that "the lenders fulfill the obligation to verify the creditworthiness of the consumer, provided for by article 124-bis of the TUB, applying the procedures, and the techniques relating to the assessment and monitoring of the creditworthiness of customers envisaged for the purposes of the sound and prudent management of the supervised entities by articles 53, 67, 108, 109 and 114-quaterdecies of the T.U.B. and the related implementing provisions. "The doctrine immediately highlighted the contradictory nature of the article in question, which would seem to disapply art. 124 bis T.U.B. to the extent that in order to fulfill the obligation to assess creditworthiness it would be sufficient for intermediaries to comply with the rules laid down on prudential supervision.

Directive 2014/17/UE

In the Mortgage Credit Directive of 2014 (Directive 2014/17 / EU; later MCD), an even greater focus on the assessment of creditworthiness emerges. The references are contained both in numerous

recitals and, above all, in articles 18, 19 and 20 (inserted in chapter 6 entitled «creditworthiness assessment»).

The absolute centrality of the evaluation is already found in art. 1 where "the obligation to carry out a creditworthiness assessment before granting a credit" is considered the "basis for the development of effective standards for the stipulation in relation to residential real estate in the Member States"

The MCD, in art. 4 n. 17 also contains a real definition of creditworthiness assessment, consisting in the «assessment of the prospects that the debt obligations resulting from the credit agreement will be respected;».

With the MCD, the European legislator has tried to reconcile, through the moment in which the evaluation is carried out, 1) the interest of the lender in maximizing profits; 2) the consumer's interest in obtaining a loan that he will be able to repay; 3) the public interest in the stability of the financial system as well as of individual intermediaries.

Article 120 undecies T.U.B

Art. 120 undecies T.U.B. was introduced with Legislative Decree 21 April 2016 n. 72, which amended the T.U.B. adding Chapter I-bis to Title VI in transposition of the directive on real estate credit to consumers.

In the legislation in question, the lender is obliged to carry out "an in-depth assessment of the consumer's creditworthiness, taking into account the relevant factors to verify the prospects for the consumer's fulfillment of the obligations established by the credit agreement. The creditworthiness assessment is carried out on the basis of the necessary, sufficient and proportionate information on the economic and financial situation of the consumer and appropriately verified ". The provision is integrated, with regard to the concrete ways of carrying out the assessment, by the EBA Guidelines (EBA / GL / 2015/11).

Some problematic issues are highlighted:

- a) Whether the destination of the sums by the consumer can (or should) be taken into consideration by the lender, is this therefore one of the relevant factors?
- b) Whether any guarantees may be relevant in the assessment of creditworthiness. There are elements that lay in one and the other sense. In fact, according to the textual data of the article in question, reference should only be made to the "consumer's" repayment capacity and again the assessment must concern "the prospects for fulfilling the obligations established by the credit agreement". Any guarantees are not even taken into consideration by the ABE Guidelines

At the same time, recital 55 of the MCD states that "the value of the immovable property is an important element in the assessment of the amount of credit that can be granted to the consumer" and therefore establishes a link between the amount of the credit granted and the property given as a guarantee. Another not without significance data comes from art. 18, paragraph 3 of the same directive which seems to attribute some importance to the property in the assessment when the granting of credit is aimed at the constriction or renovation of a property.

Any loosening in the assessment of creditworthiness in the event that there is a property as collateral could lead to detrimental consequences both for the bank and the consumer and for the stability of the financial system in general.

Databases

In the creditworthiness assessment procedure, it is essential for the lender to access the information on the credit relationships maintained by the consumer with the banking system, these are collected and stored in databases that can be consulted by operators in the sector.

The legislator has paid increasing attention to the functioning of both the public risk center set up at the Bank of Italy and the private risk centers, managed by subjects who collect and store data in the form of business activities, to which the intermediaries can join.

This is a matter also affected by the CCD whose implementation has amended art. 125 T.U.B. Art. 125 provides for obligations for database managers (paragraph 1) but also, and above all, for lenders. Paragraph 2 establishes the obligation for the lender to communicate to the consumer the outcome of the consultation of the database and the details of the same, if the credit refusal is based on the information found in the database. Furthermore, the lenders must inform the consumer the first time they report negative information to a database (paragraph 3), they must ensure that the information transmitted is accurate and up-to-date (paragraph 4) and inform the consumer about the effects that the negative information recorded in his name in a database they can have on his ability to access credit (paragraph 5).

PART II

The remedies applicable in the event of a breach of the obligation to verify creditworthiness

Art. 120 undecies T.U.B., unlike art. 124 bis, expressly takes into consideration the possibility of an "incorrect" creditworthiness assessment, prohibiting the lender from terminating the contract.

It is necessary to ask ourselves, first of all, what is meant by "incorrect" evaluation; There does not seem to be unanimity of views in the doctrine on this point, which has qualified the incorrectness as a generic unsuitability of the evaluation to represent the consumer's restitution capacity.

Even on the sanctions in case of violation of the obligation, in the silence of the law, the doctrine seems not to agree, between those who believe that the contract is certainly valid and those who believe that it is affected by nullity.

As for the consequences in the event of an omitted or incorrect assessment of creditworthiness, part of the doctrine believes that it may integrate an incorrect commercial practice. Others believe that there may be a pre-contractual liability of the lender to be traced back to the category of damage deriving from a valid but "improper" contract, with consequent right to compensation for the consumer.

The various reconstructions will be duly analysed during the research also in the light of the (few) jurisprudential rulings and decisions of the ABF.

Chapter II

Relations with the prudential supervisory regulations: governance of the credit process

During the second chapter, the relevance of the creditworthiness assessment process for the purposes of the prudential supervisory regulations will be analyzed. In particular, the role and responsibilities of the management body will be examined in the preparation of structures suitable for managing credit risk.

Premise

A first link to the prudential discipline is contained in the articles of the T.U.B. dedicated to the assessment of creditworthiness. Art. 120 undecies, paragraph 9 states that "the Bank of Italy dictates implementing provisions of this article", while in art. 124 bis, paragraph 3 reads «the Bank of Italy, in compliance with the resolutions of the CICR, said the implementing provisions of this article».

A second, and more precise, reference is contained in the Provision of the Governor of the Bank of Italy of 29 July 2009, containing provisions on the subject of "Transparency of banking and financial operations and services. Correctness of relations between intermediaries and customers "in Section VI-bis, par. 5.3 entitled "Assessment of the consumer's creditworthiness", which expressly refers to the prudential rules providing that "Banks fulfill the obligation set out in Article 120-undecies, paragraph 1, applying the provisions relating to the assessment of creditworthiness credit line provided for by the Circular of the Bank of Italy no. 285 of 17 December 2013 (Supervisory instructions for banks), Part I, Title IV, Chapter 3, Annex A, paragraph 2. The lenders governed by Title V of the Consolidated Law on Finance they fulfill this by applying the provisions relating to the assessment of creditworthiness provided for by the Circular of the Bank of Italy no. 288 of 3 April 2015, Title III, Chapter I, Section VII, paragraph 2. "Further reference is contained in the article 6 of decree no. 117 of 3 February 2011 of the Ministry of Economy and Finance.

The relevance of the prudential rules makes it possible to frame the articles 120 undecies and 124 bis within the broader theme of governance and risk control.

The role of the administrative body in the governance and control of credit risk

The Supervisory Provisions assign the management of risks and control over risk management to the board of directors (which coincides with the strategic supervisory body in the traditional system in the one-tier system).

The first task of the Board of Directors is to define the Risk Appetite Framework (hereinafter RAF). The RAF indicates the "risk appetite" that characterizes every banking company and constitutes the reference to which both managers and controllers must parameterize their operations. The BoD is also responsible for periodic assessment of the adequacy and effectiveness of the RAF and the consistency between the risk objectives set and the risk actually assumed by the bank.

The second task entrusted to the BoD is to establish the internal control system, defining the guidelines and ensuring their consistency with the risk objectives. Finally, it examines and approves the most important credit applications.

In carrying out the tasks related to the governance of the credit process, the BoD avails itself of the support of the risk committee, an internal body made mandatory (for intermediate and large banks) by Circular 285 of the Bank of Italy.

The managing directors take care of the implementation of the risk management process, build the internal control system and decide on the granting of credits for which they are responsible.

They are also responsible for defining the roles and responsibilities of the corporate structures and functions involved in the risk management process.

The duties of the administrative body with reference to the assessment of creditworthiness

The management body also plays a central role in the approval of the creditworthiness assessment procedure.

Assuming that the score that expresses the customer's repayment capacity can be attributed internally or externally by specialized companies (External Credit Assessment Institutions or ECAI), Circular no. 285 specifies that the use of external rating systems does not exhaust the creditworthiness assessment procedure that banks must perform towards customers, on the contrary, it provides only one of the elements that make up the information framework on the customer's credit quality.

Therefore, banks must adopt internal methodologies that allow an assessment of credit risk and are required to carry out, at least on an annual basis, an assessment of the overall consistency of the ratings of the ECAIs compared to the assessments carried out independently. The results of this examination are formalized in a document approved by the body with management function and brought to the attention of the body with strategic supervision function and the body with control function. Where frequent and significant misalignments between internal and external assessments emerge from the examination, a copy of the aforementioned report is sent to the European Central Bank or the Bank of Italy.

Further obligations are envisaged when the granting of credit is aimed at the purchase of properties, especially with reference to their valuation.

The body with strategic supervision function, at least annually, must approve the policies and processes for evaluating the properties used as collateral for exposures, verifying their adequacy, functionality and consistency with the Risk Appetite Framework and with the management process of the risks.

Responsibility of the directors in the granting and management of loans

The provision of such strict organizational obligations requires the identification of the parameters on the basis of which to judge the responsibility of the administrators in the management and granting of credits. In this regard, the fundamental duty of building adequate organizational structures should be highlighted; in the management of credit risk, the diligence of the directors must be assessed commensurate with the ability to build and evaluate a credit management system suitable for containing risks.

Chapter III

The assessment of creditworthiness through algorithmic models

The last chapter will focus on the creditworthiness assessment process through the use, either exclusively or supported by human intervention, of variously named algorithmic models. The benefits and risks will be analysed and it will be assessed how the use of technology affects, on the one hand, the governance of the credit process, on the other, the relationship with the borrower at the time of disbursement of the loan and, finally, whether assumes importance solely for the purposes of the stability of the intermediary or has repercussions on the intersubjective relationship.

The evolution of creditworthiness assessment models

From the point of view of the banking technique, the moment of assessing the creditworthiness of the person requesting a loan takes the form of the collection of a series of data, often provided by the borrower himself, which are processed in order to establish the reliability and customer restitution capacity.

Credit institutions have traditionally made use of two categories of data: the so-called hard data and the so-called soft data. The first category includes objective and easily verifiable data, in short, all those relating to the customer's credit history; however, soft data are usually acquired through personal experience, consequently, they are verifiable only by the person who produced them. Until relatively recent years, the granting of credit has been based on soft information, that is, on the direct knowledge that the individual banker had towards the customer, however, over the last few decades the relationship between bank and customer has progressively weakened, making it difficult to assess the customer's merit on the basis of personal and direct knowledge.

To overcome the problems related to the depersonalization of the bank-customer relationship, mathematical models have been developed in the United States since the 1950s that are capable of processing a (limited) set of information to facilitate the disbursement of credit. Thanks to the use of statistical models and methods, each applicant is assigned a score that identifies the risk profile, the so-called credit scoring. In the 1980s, credit scoring was almost uniformly used, replacing human judgment in the granting of credit.

Technological evolution

All automated assessment systems are based on algorithms. In the traditional system, developed since the 1950s, the algorithms used are quite simple, think of the widespread FicoScore which uses a limited number of hard data (with the following weighting 35% on credit history; 30% on income; 15% on the length of the credit history; 10% on the type of loans already requested; 10% on the basis of the new type of credit for which the request was submitted), essentially taking into account credit history and income without considering other elements.

However, starting from the financial crisis of 2008, alternative and innovative methods of assessing creditworthiness began to spread. These are systems, for the most part, developed by Fintech credit start-ups and widespread above all in developing countries with poor banking organization and less widespread credit information, where large sections of the population do not have access. to credit.

The new creditworthiness assessment systems differ from the traditional ones in at least three elements: 1) Quantity of data; 2) Data quality; 3) Processing methods.

More sophisticated forms of artificial intelligence, machine learning, and in some cases deep learning are used, capable of processing the aggregate information flows deriving from the so-called Big Data. Within such a multifaceted phenomenon, it is possible to distinguish between pure cases, in which the decision-making process is entirely automated and hybrid cases, in which the human element can be more or less involved in the decision-making process.

Benefits and risks

From the point of view of consumers and the credit market, the undeniable advantage is that of admitting to credit a wider pool of subjects considered unbanked or underbanked who would be excluded using the traditional valuation system.

Furthermore, a more accurate customer profiling would allow to distinguish potential debtors into multiple risk categories, a result that is unattainable through traditional methods which, due to the few variables used, can distinguish debtors in a limited number of categories. Therefore, the most appropriate level of risk could be identified for each customer in order to enter into credit agreements perfectly suited to the interest of the applicant.

Secondly, it would allow access to the market for new operators who lack the information assets of banks and who are traditionally excluded from the system of public risk centers.

Of course, delegating to an algorithm the assessment of the consumer's merit involves specific and different risks compared to those associated with traditional methods. The first is to make the creditworthiness assessment process not very transparent, in fact, even for experts in the sector, it is often impossible to reconstruct the process followed by sophisticated algorithms, which also profile the consumer through data that have nothing to do with the financial sphere. Secondly, it is observed that the greater the number of data involved, the greater the risk of errors combined with the danger of the lack of rigor with which a large number of data used in these processes are formed.

It follows that the algorithm itself could discriminate, helping to generate one of the problems that the use of artificial intelligence should have helped to eliminate, namely the exclusion of a category of customers from the credit market.

All possible risks have the common root in the fact that there are no universally accepted practices for coding, so that not only are they not free from programming errors, but these errors may not even be recognizable by the technicians of the sector themselves. In fact, if on the one hand the correctly packaged algorithm cannot, by definition, have prejudices, there are no guarantees on the packaging methods.

The regulatory framework

The provisions of the T.U.B. which impose on intermediaries the obligation to assess creditworthiness say nothing about the data to be used or the methods with which to process them. Therefore, the choice on the quantity, quality and processing of the data is left to the lender, without prejudice to the limit set by the rules of diligence, correctness and transparency (Article 120 septies T.U.B.) and the duty to use a range of information that allow to obtain an in-depth knowledge of the counterparty. Some indications on the use of algorithmic models for assessing creditworthiness come from the European authorities.

Guidelines on Fintech Banks

In 2018, the ECB adopted the Guide to the evaluation of applications for authorization to carry out the banking activity of fintech credit institutions. In the text, there is a paragraph entitled "Approval of the credit risk assessment and governance method" (section 4.1), in which the ECB notes that "Fintech banks operating in advanced markets often use standardized methods for verifying customer repayment capacity, for example by evaluating:

- identity (for fraud prevention purposes)
- possibility of repayment (based on the customer's current income and debt burden)
- propensity to repay (generally based on the previous trend in credit relations).

Some of this information, in particular the customer's credit history (ie the previous trend of credit relationships), is usually not available in the initial stages of an activity, so it is not possible to build an internal credit scoring model. Fintech banks may therefore tend to use external credit scoring services and / or to make use of other data sources and alternative credit scoring methodologies. "

The Guidelines, explicitly admitting the possibility of resorting to alternative credit scoring methods, recognize the risks that these may entail from a prudential perspective. For this reason, they require the ECB and the competent national authorities, when issuing the authorization, to verify the applicant's internal processes for the assessment of loans, which should provide for minimum information criteria on which to base the analysis.

The supervisory authorities, in short, will have to verify, on the one hand, that the use of innovative creditworthiness assessment systems is supported by an adequate risk management structure and sufficient capital guarantees.

Guidelines on the disbursement and monitoring of loans

Unlike the ECB Guidelines, the EBA Guidelines take into account creditworthiness from the dual perspective of prudential supervision, aimed at ensuring the stability of the intermediary, and the protection of consumers from the risks of over-indebtedness. The Guidelines specify the internal governance methods for the granting and monitoring of loans during their entire life cycle they clarify the decision-making process on credit matters, also through the use of automated models (Paragraph 4.3.3. Technology-enabled innovation for credit granting). In the latter case, the bank is required to capture the specific risks associated with the use of the technology, introducing a series of obligations for the management body which should have a sufficient understanding of the technologies used and their impact on the procedures for granting the credit.

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