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COMMISSION DELEGATED REGULATION (EU) 2024/358

of 29 September 2023

supplementing Regulation (EU) 2020/1503 of the European Parliament and of the Council with regard to regulatory technical standards specifying requirements on credit scoring of crowdfunding projects, pricing of crowdfunding offers, and risk management policies and procedures

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) 2020/1503 of the European Parliament and of the Council of 7 October 2020 on European crowdfunding service providers for business, and amending Regulation (EU) 2017/1129 and Directive (EU) 2019/1937 ⁽¹⁾, and in particular Article 19(7) thereof,

Whereas:

- (1) Article 23 of Regulation (EU) 2020/1503 requires crowdfunding service providers to provide sufficient information to investors on the quality of crowdfunding projects and project owners, in particular by providing a key investment information sheet (KIIS), which contains the information needed to make an informed investment decision. However, investors should also be adequately informed on how crowdfunding service providers calculate credit scores for crowdfunding projects and project owners to allow them to better understand and compare the risks underlying different crowdfunding loans.
- (2) In recent years, the techniques of credit risk assessment and the calculation of credit risk scores, in addition to more traditional statistical techniques, have been developed under innovative approaches based on artificial intelligence and machine learning. For example, for small and medium-sized enterprises without a long credit history, innovative methods based on transactional data may prove more useful than methods based on traditional balance sheet data. Due to their complexity, the use of those techniques may increase the asymmetry of information between investors and crowdfunding service providers. Therefore, the description of the method used by crowdfunding service providers to calculate credit scores should indicate the scoring model used to support such calculation, as well as sufficient information on the financial and non-financial factors that are used as input in those scoring models and on the output provided by the scoring models.
- (3) Investors may not be fully aware of the mechanism for, and the several factors involved in, the price formation for crowdfunding offers. Transparency should therefore be increased to facilitate the comparison between different loans. In particular, when crowdfunding service providers suggest the price of a crowdfunding offer, they should accurately describe the method used to calculate those prices. That description should consider those elements that are relevant both at the time and after the point when a loan is originated, in particular having regard to the fees that a crowdfunding service provider may ask from investors and project owners for the services provided to them.
- (4) The price of loans facilitated on crowdfunding service provider's platform should be fair and appropriate. It should thus be ensured that the price reflects the risk profile and the net present value of the loan, and that the crowdfunding service provider has taken into account the general market conditions.
- (5) Crowdfunding service providers should carry out a reliable assessment of credit risk as minimum protection for investors that do not have sufficient information on the creditworthiness of project owners and on the sustainability of crowdfunding projects. To ensure that crowdfunding service providers assess the credit risk of crowdfunding projects and project owners in a sound and robust manner, they should consider a sufficient amount

⁽¹⁾ OJ L 347, 20.10.2020, p. 1.

of information on those factors that affect the financial situation and the business strategy of project owners and crowdfunding projects. Furthermore, as a comprehensive assessment of credit risk has to consider also whether such risk is offset by the availability of credit protection arrangements, crowdfunding service providers should also consider information on collateral and guarantees used to mitigate credit risk.

- (6) Crowdfunding service providers should have access to relevant information contained in the documentation related to credit risk assessments to allow adequate benchmarking analysis on the creditworthiness of perspective project owners and improve the models and tools used for approving projects to be financed on their platforms. Personal data included in that information should be stored for a period of no more than five years and anyway treated in accordance with Regulation (EU) 2016/679 of the European Parliament and the Council ^(?).
- (7) The process to determine the price of a crowdfunding offer should also include an accurate valuation of crowdfunding loans. Crowdfunding service providers should therefore ensure that, during the life-cycle of the loan, such valuation is based on a sufficient number of factors that reflect the income and cost structure of the loan, as well as its riskiness.
- (8) Sound governance structures enhance investor protection. To that end, crowdfunding service providers should have in place governance arrangements that are proportionate to their complexity, together with policies specifying the elements of a disclosure that ensure that the information provided to investors is accurately and sufficiently in detail representing the crowdfunding project. Moreover, a due diligence should be carried out on the crowdfunding projects and on project owners. The risk-management framework referred to in Article 4(4), point (f), of Regulation (EU) 2020/1503 should therefore identify the main roles and functions that are responsible for the credit risk assessment and for the assignment of loans to the respective risk categories. Such framework should match the complexity of the business model of the crowdfunding providers and the type of lending facilitated, and reflect the safeguards established in the Regulation (EU) 2020/1503 to manage money laundering and terrorist financing risks.
- (9) This Regulation is based on the draft regulatory technical standards developed by the European Banking Authority (EBA) in close cooperation with the European Securities and Markets Authority (ESMA) and submitted to the Commission.
- (10) EBA has conducted open public consultations on the draft regulatory technical standards on which this Regulation is based, analysed the potential related costs and benefits and requested the advice of the Banking Stakeholder Group established in accordance with Article 37 of Regulation (EU) No 1093/2010 of the European Parliament and of the Council ^(?).
- (11) The European Data Protection Supervisor was consulted in accordance with Article 42(1) of Regulation (EU) 2018/1725 of the European Parliament and of the Council ^(*) and delivered an opinion on 10 January 2023,

^(?) Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (OJ L 119, 4.5.2016, p. 1).

^(?) Regulation (EU) No 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/78/EC (OJ L 331, 15.12.2010, p. 12).

^(*) Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC (OJ L 295, 21.11.2018, p. 39).

HAS ADOPTED THIS REGULATION:

CHAPTER I

DESCRIPTION OF THE METHOD USED TO CALCULATE CREDIT SCORES FOR CROWDFUNDING PROJECTS AND PRICES OF CROWDFUNDING OFFERS

Article 1

Format of the description of the method to calculate credit scores for crowdfunding projects and prices of crowdfunding offers

Crowdfunding service providers that apply credit scores to crowdfunding projects or suggest the pricing of crowdfunding offers shall ensure that the description of the methods used to calculate those credit scores or prices is accurate, reliable and regularly updated, and complies with all of the following:

- (a) the description is clearly distinguishable from marketing communications;
- (b) the description is presented in a way that is easy to read and expressed in a manner that facilitates its understanding.

Article 2

Elements to be included in the description of the method used to calculate credit scores for crowdfunding projects

1. The description of the method used to calculate crowdfunding projects' credit scores shall contain all of the following information:

- (a) which of the following scoring models has been used:
 - (i) a statistical model;
 - (ii) a judgement-based model, where statistical techniques are integrated with discretionary elements of decision-making;
 - (iii) an automated model;
 - (iv) another model;
- (b) whether there are appropriate governance arrangements in place for the design and use of the model;
- (c) a description of the framework applied to ensure that the quality of the model output is regularly assessed and monitored;
- (d) whether a model was used that was developed by third-party providers.

2. In addition to the information referred to in paragraph 1, the description of the method used to calculate crowdfunding projects' credit scores shall contain all of the following information:

- (a) information on the source of any data used to feed scoring models, and indicating, in particular, whether the information is:
 - (i) received from the project owner;
 - (ii) obtained from external credit registers;
 - (iii) obtained from publicly available sources;
 - (iv) obtained from any other sources;
- (b) an explanation of how the method considers the following financial factors relating to the project owner and to the crowdfunding project and uses them as input in the scoring model:
 - (i) profitability of the crowdfunding project;
 - (ii) cash flow generated by the crowdfunding project;

- (iii) leverage, level of indebtedness and solvency of the project owner;
 - (iv) credit history of the project owner;
 - (v) availability of collateral or guarantees;
- (c) an explanation of how the method considers the following non-financial factors relating to the project owner and uses them as input in the scoring model:
- (i) macroeconomic conditions in the jurisdiction where the project will take place;
 - (ii) degree of competition in the industry where the project will be developed;
 - (iii) the project owner's knowledge and experience of the specific sector in which it does business;
 - (iv) the project owner's reputation;
- (d) the weights assigned to the financial and non-financial factors referred to in points (b) and (c);
- (e) the relevant metrics that are taken into account in relation to the financial and non-financial factors referred to in points (b) and (c);
- (f) an explanation of how risks stemming from money laundering and terrorist financing activities are taken into account when assigning credit scores;
- (g) a description of the output of the scoring model, including a table indicating the credit score steps, indicating for each step:
- (i) the credit rating;
 - (ii) the probability of default;
 - (iii) a qualitative interpretation of the credit score step;
 - (iv) the acceptance or rejection of the funding of the project by the crowdfunding service provider;
- (h) a description of how often the credit scores and the corresponding ratings of the crowdfunding project are updated during the lifetime of the loan financing the project;
- (i) an indication of whether credit scores obtained using automated models can be corrected manually, and the circumstances in which such manual corrections are made;
- (j) an indication of how the output of the method is considered in the determination of:
- (i) the maximum loan amount offered to a prospective project owner;
 - (ii) the maximum duration of the loan offered to a prospective project owner.
3. Crowdfunding service providers shall inform investors when a change in the method used to determine the credit scores leads to material changes in the results of that method.
4. For the purposes of paragraph 2, point (a)(i), where the information referred to in that point is based on non-audited accounts, crowdfunding service providers shall disclose to investors sufficient information on the reliability of that information.

Article 3

Elements to be included in the description of the method used to calculate prices of crowdfunding offers

1. The description of the method used to calculate the price for crowdfunding offers shall explain how all of the following elements of the loan are considered in the pricing strategy:
- (a) the principal amount of the loan;
 - (b) the maturity of the loan;
 - (c) the time structure of repayment instalments;
 - (d) the results of the scoring models.

2. The description of the method referred to in paragraph 1 shall indicate how all of the following elements are considered at the point of loan origination:

- (a) the risk-free interest rate used;
- (b) the risk category of the project owner assigned in accordance with Article 19;
- (c) the availability of collateral or guarantees;
- (d) any operating and administrative costs, and fees levied by the crowdfunding service provider for services provided in connection with the loan;
- (e) where relevant, any other risk associated with the loan.

3. In addition to the elements referred to in paragraphs 1 and 2, the description of the method referred to in paragraph 1 shall also indicate how all of the following elements are taken into account after the point of loan origination:

- (a) fees for loan administration and monitoring;
- (b) fees in relation to re-evaluation of collateral;
- (c) fees for changes to loan agreement terms or restructuring conditions, including changes following default by the project owner;
- (d) fees for the sale of the loan by the investor;
- (e) fees for the early repayment of the loan;
- (f) fees for contingency funds as referred to in Article 6(5) and (6) of Regulation (EU) 2020/1503.

CHAPTER II

CREDIT RISK ASSESSMENT AND LOAN VALUATION

Article 4

Approaches and information for credit risk assessment and loan valuation

For the purposes of this chapter, crowdfunding service providers shall:

- (a) adopt methods and approaches to credit risk assessment and loan valuation that are proportionate to the size, type and maturity of the loan and to the characteristics of the project owner and of the crowdfunding project;
- (b) use accurate, reliable and up-to-date information and data.

Article 5

General requirements for credit risk assessments of crowdfunding projects or project owners

1. When assessing the credit risk of crowdfunding projects or project owners, crowdfunding service providers shall assess the project owner's current and future ability to meet the financial obligations set out in the loan agreement.
2. Crowdfunding service providers shall well document decisions on the assessment referred to in paragraph 1 and shall keep that documentation for at least 5 years after the repayment of the final instalment of the loan.
3. For the purpose of paragraph 2, any personal data as defined in Article 4(1) of Regulation (EU) 2016/679 shall be kept for no longer than 5 years after the repayment of the final instalment of the loan.

*Article 6***Information to be considered in the credit risk assessments of crowdfunding projects or project owners**

When assessing the credit risk of crowdfunding projects or project owners, crowdfunding service providers shall consider all of the following information:

- (a) the description of the crowdfunding project;
- (b) the purpose of the loan;
- (c) the ownership structure of the project owner;
- (d) the business plan underlying the crowdfunding project;
- (e) the availability of collateral or guarantees.

*Article 7***Factors to be considered in assessing the financial situation of the project owner or of the crowdfunding project**

1. When assessing the credit risk of crowdfunding projects or project owners, crowdfunding service providers shall consider all of the following factors in relation to the financial situation of the project owner or of the crowdfunding project:

- (a) the income and cash flow generated by the crowdfunding project over the past 2 years, where available;
- (b) the expected income and cash flows of the crowdfunding project in different scenarios;
- (c) the current and projected financial situation of the project owner, including any other existing loans and liabilities;
- (d) the availability of collateral or other guarantees.

2. For the purposes of paragraph 1, point (c), crowdfunding service providers shall consider the following factors when assessing other loans and liabilities that the project owner may have in place at the time of the loan request:

- (a) the amount of those other loans or liabilities;
- (b) the currency in which those other loans or liabilities are issued;
- (c) the maturity of those other loans or liabilities;
- (d) the repayment schedule for those other loans or liabilities;
- (e) the interest rate or any other compensation provided for in those other loan or liabilities contracts.

3. When performing the assessment referred to in paragraphs 1 and 2, crowdfunding service providers shall consider relevant financial, asset class-specific or product type-specific indicators for the last 3 financial years, where available, in line with the policies set out in Chapter IV. Those indicators shall be calculated in accordance with the International Financial Reporting Standards (IFRS) or local Generally Accepted Accounting Principles (GAAP), in line with the policies set out in Chapter IV.

4. Relevant financial indicators may include, but are not limited to, the items listed in the Annex.

5. When using financial projections to assess the credit risk, crowdfunding service providers shall ensure that those projections are based on solid and prudent assumptions and are consistent with historical data and reasonable market expectations.

*Article 8***Information to be considered in assessing of the business model and strategy of crowdfunding projects or project owners**

When assessing the credit risk of crowdfunding projects or project owners, crowdfunding service providers shall consider the following information in relation to the crowdfunding project's business model and business strategy:

- (a) the project owner's knowledge of the business sector relating to the crowdfunding project and experience in similar projects;
- (b) the feasibility and sustainability of the business plan linked to the crowdfunding project;
- (c) an analysis of the strengths and weaknesses of the crowdfunding project;
- (d) the degree of competition in the business sector in which the crowdfunding project is taking place;
- (e) the type of customers and their geographical location.

*Article 9***Information on credit protection arrangements**

1. When a loan granted to a project owner is secured by credit protection arrangements, crowdfunding service providers shall take all reasonable steps to gather information on:

- (a) the accuracy of the valuation of the collateral and guarantees;
- (b) the effectiveness and enforceability of the collateral and guarantees.

2. Crowdfunding service providers shall regularly assess and monitor the value of collateral and guarantees, and take appropriate action if the value of collateral materially decreases.

*Article 10***Information on funded credit protection**

1. When the loan is guaranteed by collateral, crowdfunding service providers shall ensure that valuation of the collateral takes into account all of the following information:

- (a) information about the maturity of the collateral;
- (b) for financial collaterals, the latest available price for the collateral and the average price over the previous 12 months on a liquid and traded market;
- (c) for physical collaterals, the latest available market value;
- (d) information about the existence of a market to liquidate the collateral readily;
- (e) a measure of the volatility of the value of the collateral.

2. In the absence of a market to establish objectively a price or market value for the collateral, crowdfunding service providers shall consider all of the following information:

- (a) the assumptions that have been used to assess the value of the collateral;
- (b) the frequency with which the value can readily be obtained, including a professional appraisal or valuation.

3. For the purposes of paragraphs 1 and 2, crowdfunding service providers shall have in place policies and procedures to monitor the value of collateral.

*Article 11***Information on unfunded credit protection**

Where the loan is guaranteed, crowdfunding service providers shall ensure that the valuation of the guarantee takes into account all of the following information:

- (a) the identity of the guarantor;
- (b) the type of guarantee;
- (c) the enforceability of the guarantee;
- (d) the level of protection provided by the guarantee;
- (e) the amount that the guarantor has committed to pay in the event of the default of the project owner or non-payment by that project owner.

*Article 12***Accounting information**

Where audited financial statements are not available for the latest two financial years, crowdfunding service providers shall, for the purposes of Article 4(4), point (b)(i) of Regulation (EU) 2020/1503, base the assessment of the project owner's financial situation on documents prepared by a tax adviser, sworn accountant or other certified person subject to a professional quality assurance system.

*Article 13***Information to be considered for loan valuation**

1. When valuing each loan as referred to in Article 4(4), point (e)(i), of Regulation (EU) 2020/1503, crowdfunding service providers shall:

- (a) conduct a valuation of the loans granted to project owners taking account of sufficient and updated information;
- (b) conduct the valuation within 3 months before the granting of the loan.

2. For the purposes of paragraph 1, at the point of loan origination, crowdfunding service providers shall consider all of the following factors:

- (a) the maturity of the loan;
- (b) the frequency of instalment payments and expected future cash flows;
- (c) whether there is any prepayments option provided for in the loan contract;
- (d) a risk-free interest rate to discount the payments made out of the loan;
- (e) the interest rate set out in the loan agreement;
- (f) the probability of default by the project owner as laid down in Article 1(1) of Commission Delegated Regulation (EU) 2022/2115 ⁽³⁾;
- (g) the value of any collateral, if any, that the project owner has used as part of the loan agreement;
- (h) any guarantees and the level of protection provided by those guarantees.

⁽³⁾ Commission Delegated Regulation (EU) 2022/2115 of 13 July 2022 supplementing Regulation (EU) 2020/1503 of the European Parliament and of the Council with regard to regulatory technical standards specifying the methodology for calculating default rates of loans offered on a crowdfunding platform (OJ L 287, 8.11.2022, p. 33).

3. For the purposes of paragraph 1, after the point of loan origination, the crowdfunding service provider shall take account, in addition to the factors referred to in paragraph 2, of the following factors:

- (a) the time to maturity of the loan;
- (b) expectation of future losses.

4. When crowdfunding service providers, in accordance with Article 4(4), point (e)(iii), of Regulation (EU) 2020/1503, conduct the valuation of a loan following a default, they shall carry out the valuation of collateral and guarantees in a conservative manner and shall consider other fees and expenses related to debt collection.

CHAPTER III

FAIR AND APPROPRIATE PRICING OF LOANS

Article 14

Factors to ensure fair and appropriate pricing of loans

1. When determining the price for a loan they facilitate, crowdfunding service providers shall take into account all of the following factors:

- (a) the risk profile of the project owner or crowdfunding project, as determined in the risk categories referred to in Article 19;
- (b) the net present value of the loan;
- (c) the prevailing market conditions at the point of loan origination and during the lifetime of the loan;
- (d) their business strategy.

2. When calculating the net present value referred in paragraph 1, point (b), crowdfunding service providers shall consider all of the following factors:

- (a) the principal amount of the loan;
- (b) the maturity of the loan;
- (c) the frequency of instalments of the loan;
- (d) an appropriate interest rate to discount future repayments.

CHAPTER IV

POLICIES AND PROCEDURES TO ENSURE SUFFICIENT INFORMATION FOR CLIENTS AND TO ENABLE CREDIT RISK ASSESSMENTS, LOAN VALUATION AND PRICING

Article 15

Governance arrangements for information for clients

1. For the information to clients as referred to in Article 19 of Regulation (EU) 2020/1503, crowdfunding service providers shall have in place an adequate governance framework and shall have a written description thereof.

2. For the purposes of paragraph 1, crowdfunding service providers shall ensure all of the following:

- (a) that all information provided to clients is complete and updated;
- (b) that internal governance arrangements, processes and mechanisms for disclosing information to clients are proportionate to the size and complexity of the crowdfunding service provider.

3. Crowdfunding service providers shall ensure that all quantitative disclosures to clients are accompanied by a qualitative narrative and other supplementary information that may be necessary for clients to gain a full understanding of the quantitative disclosures.

Article 16

Policies for disclosing information to clients

1. The policies for disclosure of information to clients as referred to in Article 19 of Regulation (EU) 2020/1503 shall ensure that all the information for clients is presented in a way that is easy to read, and expressed in a manner that facilitates understanding, in particular by prospective non-sophisticated investors.
2. Crowdfunding service providers shall ensure that the policies to provide sufficient information to clients contain all of the following elements:
 - (a) the frequency for updating information provided to clients;
 - (b) the roles or functions responsible for preparing the information for clients
 - (c) the treatment of information that may impact the pricing of a loan (price sensitive information);
 - (d) the process for validating information for clients.
3. The management body of the crowdfunding service provider shall approve the policies, procedures and organisational arrangements relating to the disclosure of information to clients, and those policies shall be in writing, regularly updated, and well documented.

Article 17

Establishment of a risk management framework

1. The risk-management framework referred to in Article 4(4)(f) of Regulation (EU) 2020/1503 shall be:
 - (a) integrated into the crowdfunding service provider's overall organisational and decision-making structure;
 - (b) proportionate to the complexity of the crowdfunding service provider business operating model.
2. Within their risk-management framework, crowdfunding service providers shall specify the roles or functions responsible for credit risk assessment and monitoring tasks, the process of approval of crowdfunding projects to be proposed to investors, and loan valuation.
3. Crowdfunding service providers shall establish transparent reporting frameworks. Those reporting frameworks shall ensure that the management body of crowdfunding service providers and roles and functions are provided with adequate information enabling them to measure, assess and monitor credit risk. The reporting framework shall be sufficiently detailed and documented.
4. The management body of the crowdfunding service provider shall oversee implementation of the governance and organisational arrangements relating to the risk-management framework, including the establishment, maintenance and publication of the respective policies and procedures.

Article 18

Roles and functions established in the risk management framework

1. The roles and functions established in the risk management framework shall be responsible for the following:
 - (a) assessing the credit risk of crowdfunding projects and project owners for scoring purposes in accordance with Chapter III;
 - (b) assigning loans to appropriate risk categories;

- (c) designing appropriate processes for credit risk monitoring and reporting;
- (d) establishing appropriate processes to deal with situations in which the project owner is unable to fulfil its obligations or is in default, as laid down in Article 1(1) of the Delegated Regulation (EU) 2022/2115.

2. Where crowdfunding service providers perform individual portfolio management tasks in respect of loans in accordance with Article 6 of Regulation (EU) 2020/1503, they shall have in place a detailed and documented process to allocate investors' funds among crowdfunding projects.

3. Crowdfunding service providers that suggest the pricing of crowdfunding offers shall have in place an adequate pricing framework, supported by appropriate documentation and governance structures responsible for taking pricing decisions.

Article 19

Risk categories

1. Crowdfunding service providers shall ensure that the assignment of loans to risk categories in accordance with Article 18(1)(b) reflects:

- (a) the levels of risk of the respective crowdfunding projects as determined by the output of internal credit scoring models in accordance with Chapter I;
- (b) specific factors that are related to the loan, including, but not limited to, the interest rate, the maturity of the loan and the frequency of payment instalments.

2. Crowdfunding service providers shall ensure that:

- (a) the risk-management framework contains adequate procedures for reviewing the assignment of loans to categories and for re-assigning them to a new risk category whenever there is a change in the respective credit scoring or in other factors related to the loan;
- (b) each risk category is associated with a probability of default.

Article 20

Approval of crowdfunding projects

1. Within the risk-management framework, crowdfunding service providers shall establish clear and well-documented processes for approving crowdfunding projects to be proposed to investors.

2. The processes established in accordance with paragraph 1 shall set out the responsibilities of the relevant role and functions within the organisational structure of the crowdfunding service provider.

3. Crowdfunding service providers shall ensure that members of staff that can approve projects to be proposed to investors are adequately trained and have relevant expertise and seniority in relation to the specific powers delegated to them.

Article 21

Use of automated models

1. Where automated models are used for assessing credit risk of crowdfunding projects or project owners and for approving crowdfunding projects to be proposed to investors, crowdfunding service providers shall ensure that:

- (a) the roles and functions concerned have a good understanding of the methodology of those models, their input data, and their assumptions and limitations;
- (b) the management body has a sufficient understanding of the use of technology-enabled innovation applied to financial products;

- (c) the automated models are fit for purpose, and that their use is proportionate to the size and complexity of the activity of the project owner, of the crowdfunding project and the amount of the loan.
2. For the purposes of paragraph 1, crowdfunding service providers shall have in place policies and procedures and set out appropriate governance arrangements for the design and use of such automated models.
3. The policies and procedures referred to in paragraph 2 shall:
 - (a) ensure the quality of data used as input for the automated models;
 - (b) ensure that the quality of output of the automated models is regularly assessed;
 - (c) establish criteria for deciding when the outcome of such automated models can be overruled.
4. Crowdfunding service providers shall have in place adequate documentation covering the methodology, data input and the criteria that automated models use for assessing credit risk, monitoring credit risk and approving crowdfunding projects to be proposed to investors.

Article 22

Policies for credit risk assessment

1. Within their credit risk management framework, crowdfunding service providers shall set out appropriate credit risk policies and procedures for determining the criteria for credit risk assessment and monitoring.
2. Crowdfunding service providers shall have in place credit risk management policies and procedures specifying all of the following:
 - (a) the process for approving crowdfunding projects to be proposed to investors;
 - (b) the process for assigning crowdfunding projects and project owners to risk categories in accordance with Article 19;
 - (c) the information and factors to be used to assess the creditworthiness of crowdfunding projects and project owners in accordance with Chapter II;
 - (d) the criteria for accepting and using credit risk mitigation measures;
 - (e) the conditions for the use of automated decision-making in the process for approving crowdfunding projects to be proposed to investors;
 - (f) the circumstances in which deviations from standard procedures are possible;
 - (g) the process for monitoring credit risk after the point of loan origination;
 - (h) the processes for dealing with project owners who are late in repaying their loans.
3. The credit risk policies and procedures referred to in paragraph 1 shall:
 - (a) be proportionate to the size and complexity of the crowdfunding projects offered on the crowdfunding platform;
 - (b) clearly identify the roles and/or functions responsible for carrying out the relevant tasks;
 - (c) be documented and kept updated.
4. The credit risk policies referred to in paragraph 1 shall specify whether and how crowdfunding service providers include environmental, social and governance risks in crowdfunding projects' credit risk assessment.

Article 23

Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 29 September 2023.

For the Commission
The President
Ursula VON DER LEYEN

ANNEX

Relevant financial indicators to be considered in the assessment of the financial situation referred to in Article 7(4)

- (I) Profitability indicators:
- (a) Annual Net Income
 - (b) EBITDA
 - (c) Return on Equity (RoE) – $RoE = (EBIT - \text{Tax} - \text{Interest Paid}) / (\text{Average Equity})$
 - (d) Return on Assets (RoA) – $RoA = (EBIT - \text{Tax}) / (\text{Average Total Assets})$
 - (e) Net Profit Margin (NPM) – $NPM = (EBIT - \text{Tax}) / (\text{Average Total Assets})$
 - (f) Sales to Total Assets (STA) – $STA = \text{Sales} / (\text{Average Total Assets})$
- (II) Leverage and debt indicators:
- (a) Debt to Equity Ratio (DER) – $DER = (\text{Debt} + \text{Value of Leases}) / \text{Equity}$
 - (b) Debt Ratio (DR) – $DR = (\text{Total Debt}) / (\text{Total Assets})$
 - (c) Debt Yield (DY) – $DY = EBITDA / \text{Loan Amount}$
 - (d) Loan to Cost (LC) – $LC = (\text{Loan Amount}) / (\text{Construction Cost})$
 - (e) Loan to Value (LV) – $LV = (\text{Loan Amount}) / (\text{Value of the Property})$
- (III) Liquidity indicators:
- (a) Interest Coverage Ratio (ICR) – $ICR = EBIT / \text{Interest Expenses}$
 - (b) Debt Service Coverage Ratio (DSCR) – $DSCR = EBITDA / (\text{Principal Amount} + \text{Interest Amount})$
 - (c) Cash Flow to Debt Ratio (CFD) – $CFD = (\text{Cash Flow}) / \text{Debt}$
 - (d) Cash Ratio (CR) – $CR = (\text{Cash} + \text{Marketable Securities}) / (\text{Current Liabilities})$
 - (e) Net Working Capital to Total Assets (NWCTA) – $NWCTA = (\text{Current Assets (Cash, Short-Term Securities, Receivable, Inventories, Other Current Assets)}) / \text{Assets}$
- (IV) Capital indicators:
- (a) Capitalisation Rate (CR) – $CR = (\text{Net Operating Income}) / \text{Capital}$
 - (b) Profit Yield (PY) – $PY = (\text{Net Income}) / \text{Capital}$
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