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Leszek Borowiec*
ORCID: 0000-0002-6113-9191
lborowiec@wz.uw.edu.pl

Żaneta Broczkowska**
zaneta.jaworska@gmail.com

ESG risk and banks' propensity to finance enterprises

Abstract

Sustainable development is present in literature and practice, and regulations require reporting, even in cases where the actual willingness to achieve the goals and objectives of this concept is limited. This applies particularly to reporting on the implementation of ESG objectives. Relatively little is known about the impact of a company's ESG information on third parties, especially in the area of providing financing. The aim of this study is to assess the impact of a company's ESG information on the risk assessment of its financing by banks. This article tests the hypothesis that ESG information disclosed by a company is crucial for assessing the possibility of banks providing financing. The article conducts a critical analysis of literature, legal acts, and internal bank documents regarding ESG. Finally, available industry reports are used. In addition to the issue of granting or not granting financing through the prism of the applied creditworthiness criteria, special attention is paid to assessing the ESG risk – the loss of value of accepted collateral (e.g., real estate). From the perspective of companies, the research results support the conclusion that ESG risk management, depending on the effectiveness of this process, can mitigate the negative impact on an entity's creditworthiness.

Keywords: sustainable development, ESG reporting (environmental, social, governance), bank, credit, creditworthiness.

JEL Codes: G15, G18, G20, Q54

* Leszek Borowiec – Faculty of Management, University of Warsaw.
** Żaneta Broczkowska – Faculty of Business, Vizja University.

Introduction

The concept of sustainable development and its legitimacy in the documents or normative acts of international organisations, especially the European Union, stems from the objective challenges of civilisation in the 21st century. Unfortunately, it is increasingly contested, mainly because of the necessary investments in its implementation, especially the goals and objectives in the ESG triad. Nevertheless, it still enjoys the support of actors (institutions, companies, individuals) aware of civilisational risks or conflicts. Conscious customers expect new types of services or products that meet environmental standards, are ethically produced and do not negatively impact the future of planet Earth. Some potential investors or consumers, and sometimes even job applicants, look more favourably on companies that take ESG factors into account in their operations and identify the resulting risks, creating tools for their effective mitigation. The adoption of UN resolutions by member states (Agenda 2030, 2015) is forcing business entities to take steps towards transformation and the achievement of sustainable development goals. Subsequent EU directives expand the scope and structure of mandatory disclosures by imposing, inter alia, the need to monitor and manage the impact that a company's activities have on its environment and to assess the impact that the environment has on its performance. Given this broad systemic context, the research problem in this article is to assess the impact of ESG risk management information; environmental (E – Environmental), social (S – Social) and governance (G – Governance), of non-financial entities on the willingness of banks to provide them with financing in the form of business loans.

The aim of this article is to assess the impact of ESG information disclosed by companies in the process of applying for a bank loan. At the same time, it was hypothesised that this information is crucial in the process of banks' consideration of corporate loan applications. In the analysis of the problem and the verification of the hypothesis, data sources were used for the initial assessment of the level of ESG risk It was also examined what range of information Banks obtain from customers to deepen the analysis of ESG risk, what methods they use to mitigate this risk, and how the outcome of the assessment affects the assessment of creditworthiness. The final section identifies directions for the development of banks' financial offerings as a method of disseminating sustainable finance. The methodology of the study included a critical analysis of the literature, legal acts and non-financial reports of selected banks. An assessment of banks' internal regulations in the studied area as well as the few industries reports available in the financial sector was also carried out.

1. Literature review

Sustainability topics are popular in the literature across a broad spectrum of issues, with interest stimulated by extensive regulation (e.g. NFRD Directive 2014; CSRD Directive 2022) on ESG reporting and auditing. A consensus is forming that corporate financial reporting is no longer a sufficient way of communicating with

the public because it does not fully reflect economic reality (Rogowski, Lipski 2022). Companies are compelled by law to expand non-financial reporting to include ESG aspects (Morrison 2021), not least because access to external capital is determined by the scope and nature of the information reported (Rau, Yu 2023). It is also argued that maintaining or gaining competitive advantage or access to capital will require robust implementation of ESG principles across all entities, with appropriate application of the principle of proportionality (Wróbel, Kowalski 2022).

Ongoing research indicates that investors – by and large – share the view that returns on investment and corporate sustainability resulting from ESG strategies go hand in hand. Therefore, companies are increasingly recognising the economic value of integrating ESG criteria into their operations (Levantesi et al. 2023). This approach is fast becoming a pillar of many companies' growth strategies (DeCotis 2021), and an appropriate ESG strategy is becoming essential for the proper management of a company's operational risks (Herrera & Brenneis 2020). Unfortunately, it is also possible to find evidence of a different approach to this issue exemplified by legislation in some US states prohibiting public entities from investing in funds whose investment policy is compatible with the concept of sustainability and ESG (Krosinsky 2023).

Developing an ESG reporting policy requires expenditures on its design, due diligence and disclosure finally implementation (Nizam et al. 2019). These outlays should be compensated by stability or increased revenues, lower business risk, increased efficiency finally greater attractiveness of the company (Buallay 2019). ESG risk management should also bring benefits in terms of improving a company's creditworthiness.

Polish banks are increasingly aware of ESG risks and the need to take them into account in their risk management processes (Pyka, Nocoń 2024). For banks, the development of sustainable finance and risk management is doubly important (Buallay et al. 2020). Firstly, banks need to integrate social and environmental aspects into their business operations to minimise the impact of ESG risks on the environment. An analysis of disclosures (e.g. environmental disclosures of selected Polish banks against the guidelines of the European Sustainability Reporting Standards), has shown that the required data are found in various documents and their availability on websites is limited (Broniewicz, Jastrzębska, Lulewicz-Sas). Secondly, banks are obliged to consider ESG factors in lending, financing and investment decisions. Furthermore, banks, as public trust institutions, should give more importance to the promotion of the public good including environmental protection (Chen, Wan 2020). This is all the more so as research demonstrates the impact of ESG activities and reporting on bank reputation (Murè et al. 2020; Dabkowska 2023).

Banks are extending the non-financial ESG reporting initiative also to companies to which they provide financing (Zabawa, Łosiewicz-Dniestrzańska 2023). In this way, banks' environmental, social and corporate governance policies inform the environment that they are more likely to work with borrowers who have high

ESG index scores (Houston and Shan 2022; Chang et al. 2021). They adopt pro-environmental measures in their credit assessment process, thus promoting green lending to applicants. Banks, using their knowledge of the green transformation process of companies, will be able to advise clients on the selection of energy transformation projects that lead to carbon neutrality (Dwojak 2023).

It is anticipated that even if some banks will lend to finance dirty assets, these will only be short-term loans, with a high cost of servicing them (commission, margin, legal collateral and insurance) (Costowniak 2024). This is because a portfolio with credit exposures in so-called dirty industries will escalate with an increase in ESG risk (Adrian et al. 2022; Monasterelo 2020; Monasterello, Battiston 2020). Such a portfolio with dirty exposures will require banks to provide additional collateral, increase sectoral risk and consequently lead to higher operating costs (ECB 2022; ESRB 2020; Giuzio et al. 2019). Some banks will cease financing assets from dirty industries, which will mean, their liquidation or abandonment, due to the lack or high cost of upgrading, however, triggering negative socio-economic consequences (Xu et al. 2018).

The literature on the impact of ESG on business performance is rich from narrowly specialised items to broad reviews of the existing body of work (Menicucci, Paolucci 2022). Table 1 presents an overview of current research on the study of the impact of ESG factors on different areas of corporate performance.

Table 1. Scope of research on the impact of ESG factors

Scope of research	Authors of the studies
Study of the relationship between corporate risk and ESG factors	Di Tommaso, Thorton, 2020; Gangi, Meles, D'Angelo, Daniele, 2018; Sassen, Hinze, Hardeck, 2016
Exploring the relationship between ESG and corporate performance	Esteban-Sanchez, de la Cuesta-Gonzalez, Paredes-Gazquez, 2017; Friede, Busch, Bassen, 2015; Xie, Nozawa, Yagi, Fujii, Managi, 2018
Assessing the impact of sustainability indices on profitability indicators	Utz, 2019, Nizam et al, 2019, Siuela, Wang, Deladem, 2019, Forcadell, Aracil, 2017
Research on the impact of ESG factors on market performance and portfolio strategies	Sherwood, Pollard, 2018; Verheyden, Eccles, Feiner, 2016
Research on ESG ratings and measures	Berg, Kölbel, Rigobon, 2019; Eccles, Stroehle, 2018; Escrig-Olmedo, Rivera-Lirio, Muñoz-Torres, Fernández-Izquierdo, 2017; Huber, Comstock, Polk, Wardwell, 2017

Source: own study.

Research findings demonstrate the positive impact of sustainability on banks' share price growth (Carnevale, Mazzuca 2014) and in relation to the impact of the degree of engagement in CSR activities on return on assets and return on equity (Shen, Wu, Chen, Fang 2016). Regarding the banking sector, several studies confirm the relevance of the impact of climate change on credit management (Georgopoulou et al. 2015) and the need for a prudential framework to mitigate the potential impact on financial stability (Nieto 2019, Marcinkowska 2022, Smolenska 2023, Kulińska-Sładocha 2022). In contrast, other studies (Batten, Sowerbutts and Tanaka 2016; Campiglio et al. 2018; Monnin 2018) suggest that climate change may affect not only banks' operations but also central banks' financial stability objectives.

Recent research in the field of ESG and the banking sector examines the integration of environmental, social and corporate governance factors into credit ratings, focusing on the methods used by external credit assessment institutions (Reil 2025). Some studies focus on discussing the types of ESG risks, their interrelationship with corporate credit risk and the methodologies that can be used (Bukreeva, Grishunin 2024). There are also comprehensive studies assessing the impact of environmental risk on the banking sector and strategies to mitigate it, with a particular focus on the role of modelling (Zioło 2023). Environmental risk modelling allows banks to estimate the patterns and consequences of environmental risks on their operations and to take action in the context of asset and liability management to minimise the probability of losses.

The examples cited illustrate the diversity in banks' approaches to ESG risk consideration and the analytical methods or procedures used. However, it is difficult to identify research on the comprehensive impact of ESG risks to be included in analyses and models. This is particularly true for the assessment of borrower perceptions of banking sector actors in the context of the presence of ESG risks. The following section of the paper attempts to capture this in order to manage the risks effectively.

2. ESG risks in bank operations

Risk is often defined as the likelihood of events (positive and negative) that may affect the achievement of objectives or expected outcomes (Aven, Renn 2009). Some authors use the word ‚risk' to describe the essence of risk as the appearance of the probability of negative outcomes of a decision (Gędek 2018). ESG risks should be seen in this context when assessing a bank customer interested in lending.

ESG risks for banks are the possible negative effects resulting from the impact of ESG factors on the financial performance or liquidity of the lending entity. In broad terms, both the direct impact of ESG factors on an entity and the indirect impact (i.e. through its counterparties or invested assets) should be viewed. In the narrow (regulatory-supervisory) view, ESG risk is seen only as the financial consequences of the impact of environmental, social and corporate governance factors on an institution's counterparties or its invested assets (EBA 2021). A bank's assessment that ESG risk

is non-existent or low will be treated neutrally (at best) as a lower probability of loan default/loss of collateral value. Generally, this will not improve the credit rating. Bank practice indicates that the identification of ESG risks can only worsen a borrower's rating. A positive assessment by the bank of ESG risks results in no deterioration of the entity's overall rating.

Currently, banks perform analyses on a sectoral basis to create lists of prospective/preferred industries. But simply including an entity in these industries does not give additional points to the credit score. ESG risk assessments are also analysed on a portfolio basis, but serve to verify the methods used to assess these risks. E.g. when problems are identified in the timely payment of liabilities in customer groups for which ESG risks have been determined to be high. It cannot be ruled out that the practice of banks will change once ESG reporting is fully implemented by operators.

Opportunities from the implementation of the ESG concept in the context of client cooperation policy can be seen in that only preferred investments (e.g. transformation e.g. towards de-carbonisation (as appropriate to the business strategy) will be funded.

Risks arising from ESG factors imply the possibility of their negative impact on a company's operations, including access to capital, as they are taken into account by banks at the stage of assessing an application for financing. Banks expect to be provided with information that allows them to estimate what ESG risks are present in the company applying for a loan and to what extent they may increase the likelihood of loan default, or what difficulties there may be in the potential liquidation of collateral if enforcement occurs.

The potential impact of the emergence of ESG risks may be short, medium or long-term. ESG risk should be considered as a cross-cutting risk of significant importance to the company in the long term. Its mitigation is an important factor for building the value of the company and the sustainability of its growth in the long term. There are tools that make it possible to use the market practices developed in this respect, e.g. the Good Practice Scanner provided by the Stock Exchange.

Taking into account risks related to environmental (physical) factors, they can be divided into sudden risks (e.g. storms and floods) and chronic risks, which are the result of long-term climate change (e.g. droughts, heat). In the environmental scope, transition (transformation) risks can also be defined, which refer to situations where a business is unable to respond adequately to legal changes related to the ESG area.

The indicated risks are taken into account by financial institutions as causing potentially negative consequences for the assessment of cooperation with the customer, or the possibility of repayment of a given credit exposure. Their negative repercussions may affect the value of the property serving as security for repayment. The identification of the absence of risks or their low level can be treated by banks as increasing the probability of continuing business operations and maintaining financial performance at a level no worse than at the stage of applying for a loan.

Table 2. Scope of ESG risk and its possible impact on borrowers

Scope of risk	Impact on borrowers
Environmental risk	• represents the risk of possible deterioration in the borrower's ability to repay its obligations as a result of operating in an area exposed to negative environmental impacts • environmental risk shall also be taken into account in the context of assessing the environmental exposure of the property accepted as security for repayment
Social risk	• represents the risk of possible losses for the bank as a result of negative consequences of social factors (current and future) • the estimation of this risk takes into account the impact of the customer on the local community, violation of applicable laws (e.g. labour law, human rights law), which may end up in legal proceedings
Management risk	• represents the risk of possible losses to the bank as a result of the negative effects of a mismanagement process in the borrower's business, • the impact on the operation of the business and the property serving as security for repayment is taken into account

Source: own compilation based on (Iwanicz-Drozdowska 2024, pp. 161–164).

Table 3. Potential impact of materialisation of environmental risks

Type of ESG risk	Areas of impact	Potential impacts
Physical risks (sudden and chronic)	Change in the value of the entity's assets (effects of sudden weather events like storms, or chronic ones like soil erosion and landslides)	• increased costs resulting from the need to deal with the consequences of risk materialisation • increased costs of insuring assets • the need to obtain funding for replacement investments • risk of loss of business continuity, forced interruptions in the operation of the company due to the materialisation of risk • risk of reduced liquidity and profitability of operations
Transition risk	changing legal environment	• increase in legal costs resulting from the need to adapt to changing legislation (lower profitability) • Reputational risk in case of failure to adapt to changes

Source: own compilation based on (Redqueen 2023).

The combined analysis of physical and transition risks results from the possibility of their initial estimation on the basis of publicly available data, allows the level of risk to be identified even before reference is made to the statements and documents submitted by the client as part of the credit application or before the disclosure report is verified. Table 3 shows examples of areas that may be affected

by physical risks and transitions and the potential impact of such a situation. The range presented is not a closed catalogue, and issues relating to, among other things, location, the industry in which it operates and its markets should be taken into account in a given company. The scope of data extracted by banks from the disclosures prepared by business entities will increase accordingly as more entities are covered. The NFRD requires companies meeting a total of two criteria (public interest entity and employment exceeding 500 employees at the balance sheet date) to prepare and publish a non-financial statement on sustainability issues. From 2025 onwards, the group of entities subject to mandatory disclosure will gradually increase, although this process has been slowed down in light of the European Commission's recent regulations (Directive 2025).

Table 4. Timetable for implementation of the CSRD

First period covered by disclosures	Year of first disclosures	Criteria for companies
Report for financial year 2024	2025	Companies meeting the criteria set out in the NRFD (JZPs and parent companies) for which a total of two of the following criteria are met: • employment > 500 employees • net turnover > EUR 40 million • balance sheet total > EUR 20 million
Report for the financial year 2027	2028	Large entities and parent companies for which a total of two of the following criteria are met: • employment > 250 employees • net turnover > EUR 40 million • balance sheet total > EUR 20 million
Report for the financial year 2028	2029	Entities defined as small and medium-sized (listed on an EU regulated market) for which a total of two of the following criteria are met: • employment > 10 employees • net turnover > EUR 700 thousand • balance sheet total > EUR 350 thousand
Report for the financial year 2028	2029	Indirect non-EU entities which: • have a branch in the EU and have a net turnover in the EU of more than EUR 150 million, or • are a parent company and their subsidiary operating in the EU has a turnover in excess of EUR 40 million.

Source: own elaboration based on the CSRD of 14.04.2025.

Table 4 indicates the criteria on the basis of which the scope of the reporting obligations will be expanded in subsequent years. The CSRD increases the catalogue of companies obliged to prepare disclosures. The eligibility criteria for companies

relate directly to the number of employees and the result of the entity's activities as reflected in the accounts, i. e. net turnover understood as sales revenue and the company's balance sheet total.

Currently, companies have to take into account the transition risks associated with the large number of changing regulations and the fact that their content may evolve. The range of possible risks is very wide and requires consideration of potential risks in every aspect concerning business operations (Marcinkowska 2022). The materialisation of ESG risks may have an indirect or direct impact on the maintenance of adequate profitability of the business, e.g. due to the need to incur investment and regulatory compliance costs or replacement investments in the case of materialisation of sudden physical risks. Sudden and chronic physical risks can have the effect of reducing the value of a company's assets. It should also be pointed out that it is standard practice for valuers to identify in appraisal reports risks related to environmental factors such as flooding. If identified, this has a direct impact on the estimated value of the property when presented to the bank as security for repayment of a debt.

3. Examination of ESG risk in the context of assessing the creditworthiness of companies

3.1. Source data for determining the level of ESG risk

Given that banks will condition their willingness to provide financing on the level of exposure to ESG risks and, in addition, the degree of compliance of the business and the purpose of the investment with the EU Taxonomy, among others, there will be types of business with easier access to capital (mBank 2023). Such a division will result in the selection of industries more willingly financed by banks and those for which credit exposure will be successively limited (PKO BP 2023).

Table 5. Summary of industries with impeded and facilitated access to capital

Industries with impeded access to capital	Industries with facilitated access to capital (preferred)
• those related to hard coal and lignite mining, • industries related to coal (production of machinery for mining, coal trade), • carbon-intensive • extraction of oil, gas • production and distribution of liquid and gaseous fuels, • production and trade in chemicals and rubber products	• RES (photovoltaic and wind farms) • electromobility • recycling • low-carbon industries • construction (investments with energy performance certificates)

Source: own compilation based on non-financial reports: (PKO BP 2023; mBank 2023).

Banks are required by the EBA (European Banking Authority) guidelines to identify borrowers who are exposed directly and indirectly to ESG risks (EBA Guidelines 2020). For this purpose, banks can use risk maps that relate climate-related risks to the relevant economic sectors. The assessment of ESG risks on the basis of risk maps is, in this respect, the first step in the analysis conducted by financial institutions towards the customer. Financial institutions make different assumptions and data sources when creating risk maps, but they always start from two basic issues, i.e. the business object and the location.

Table 6. Extent of information considered when assessing ESG risks based on risk maps

Parameter	Type of code	Scope of analysis
Object of activity	PKD codes	• the type of activity conducted is analysed (the main activity will be taken into account) • each PKD code is assigned a level for E, S and G risks according to gradation, e.g.: high, medium, low or none • each PAC code is also assigned a transition risk level, e.g. significant, insignificant or none
Location	TERYT or postal codes	• the location of the business is analysed, and if the loan is for an investment, the location of the investment project is analysed • location information provides knowledge about exposure to physical climate risks (chronic and sudden)

Source: own elaboration based on EC Regulation 2022/2453.

Data on the type of activity carried out on the basis of the PKD code are uniform and used in business registers (CEIDG, KRS) and for the purposes of public statistics (Table 6). In the case of TERYT codes and postal codes used less frequently for ESG risk assessment purposes, these are unified systems. Financial institutions are more likely to use TERYT codes because they are a set of non-repeating elements, unlike postal codes, where there are already identical codes for different locations.

A much more difficult task is to determine the second component (potential exposure to ESG risks) needed to determine the value of the risks in the matrix. There is currently no single regulatory-approved data source. Currently, banks use a variety of sources including publicly available ones such as Klimada 2.0, Copernicus and those available by subscription such as data from the Cenatorium database (Table 7).

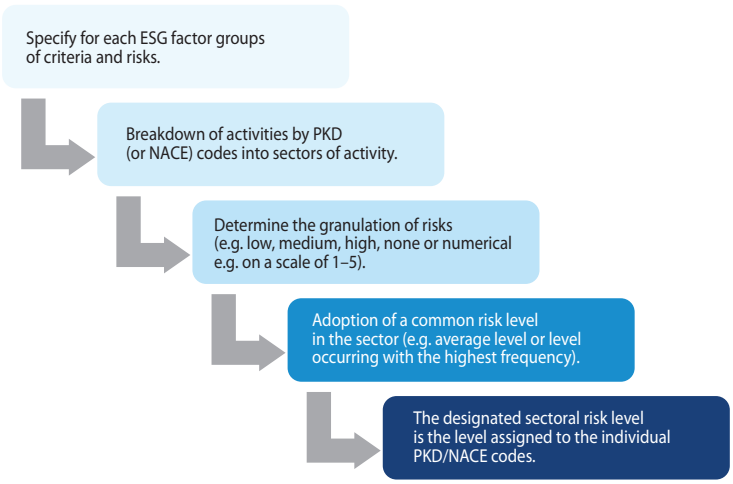
Once the sources of information, the location and the potential exposure to ESG risks have been extracted, a risk map is created to enable the assessment of individual clients. The EBA, in its lending and credit monitoring guidelines, also indicates the need to deepen the analysis if the assessment of potential ESG risks carried out on the basis of the risk maps shows high risks.

Table 7. Scope of available data depending on the source

Type of source	Scope of available information	Source availability
Climatology 2. 0	• climate scenarios (for existing gas emissions and for reductions) • risks associated with environmental impacts (e.g. heat and droughts) • information and analysis on climate change adaptation (can be sorted by decade and factors e.g. temperature, precipitation) • knowledge base on environmental risk legislation	An open resource does not require a contract. Information available at: (15.10.2024) https://klimada2.ios.gov.pl/
Copernicus	• contains statistical data, e.g. number of days with frost, days with heat, days without rain, etc. • collects data in many areas, including by sector using a so-called climate data warehouse • contains historical data and forecasts up to the year 2100	Open resource does not require a contract (EU programme). Information available at: (15.10.2024)https://www.copernicus.eu/pl
ThinkHazard	• allows you to determine the impact of a given factor (e.g. river floods, fires, landslides) on a specific geographical area.	An open resource does not require a contract. Information available at: (15.10.2024) https://thinkhazard.org/en/
Cenatorium Sp. z o. o. (ul. Piękna 68, 00-672 Warsaw)	• a tool designed to assess the ESG risk exposure of real estate collateral • in addition to information on environmental risks, the scope of the presented data can be expanded to include, among other things, the frequency of crimes committed in a given area and their type • includes information on energy certificates and year of construction of the property	Database available after conclusion of a contract, in which the scope of data is defined.

Source: own elaboration.

Figure 1. Example of the ESG risk mapping process



Source: own development.

3.2. Methods for relating the level of ESG risk to creditworthiness

Banks view ESG risk as a cross-cutting risk embedded in all other relevant banking risks, i. e. concentration, operational, reputational, compliance, liquidity and, of course, credit risk. The FSA expects financial institutions to explain whether and how they have integrated ESG risks into the management framework of the other risk areas when answering questions in the BION process.

The processes carried out in banks as part of credit risk assessment are used to determine whether an applicant has creditworthiness, defined as the ability to repay an obligation (loan) incurred with the bank together with the consideration for it (interest) with compliance with the deadlines indicated in the agreement (Article 70(1) of the Banking Act, 1997). Creditworthiness is determined by the bank for a specific transaction, but credit risk is a much broader concept and refers to all activities carried out in cooperation with the bank, such as guarantees, letters of credit, sureties, foreign exchange operations, among others (Iwanicz-Drozdowska et al. 2013, p. 255) As part of the credit process, ESG risk is considered in terms of the risk associated with the requested financing and in relation to the entity with which the bank establishes a credit relationship (Table 8).

Table 8. ESG risks in the lending process

Question	Establishing a relationship with the applicant	As part of the requested credit transaction
What is assessed?	• the extent to which ESG factors have been implemented as part of the entity's policies • the extent to which the entity has taken steps to identify and, where necessary, mitigate ESG risks	• assessment of the investment project's objective, e.g. by evaluating its compliance with the EU Taxonomy • assessment of the positive/negative impact of the financing in terms of environmental, social and governance factors • in the case of working capital finance, an assessment in the context of the business activity
With what frequency is the evaluation carried out?	• at the stage of establishing a relationship or reapplying for financing • as part of credit monitoring	• at the stage of application for financing • as part of credit monitoring
What are the data sources	• reports from the entity • information available on the entity's website • ratings (including search engines on rating companies' websites) • customer statements	• entity reports and information available on the entity's website • ratings (including search engines on rating companies' websites) • technical documentation relating to the investment • expert reports and opinions relating to the investment • statements and questionnaires completed by the client • conclusions from inspections of the investment site

Source: own compilation based on (Iwanicz-Drozdowska 2024, pp. 161–164).

There are methods of calculating ESG risks that, by using a matrix approach, result in a single combined score. The simplified rating assessment constructed in this way forms part of the opinion provided by the staff analysing the credit application to the decision-maker (decision-maker) (Figure 2).

Figure 2. Example of ESG risk assessment in the credit process in matrix terms

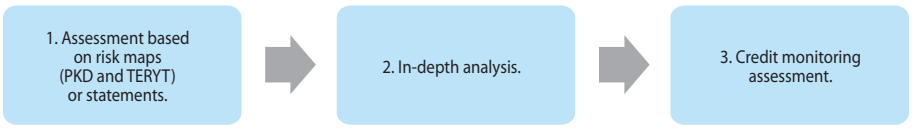
Relationship risk, where: a – low b – medium c – high d – unacceptable	d I	d II	d III	d IV	d V
	c I	c II	c III	c IV	c V
	b I	b II	b III	b IV	b V
	a I	a II	a III	a IV	a V
	Risk of the proposed transaction, where: I – negligible, II – low, III – medium, IV – high, V – unacceptable				

Source: own elaboration.

4. Methods of mitigating ESG risk – market experience

The determination of the basic (first) level of potential exposure to ESG risks takes place at the stage of the customer's contact with the business unit, i. e. the employees responsible for sales and customer service. Banks, in order to reconcile the need to expand business, acquire new customers, maintain profitability with keeping credit risk at an acceptable level, use an additional intermediate risk assessment stage. This is used to classify customers according to the level of ESG risk obtained at the first stage. If ESG risks are identified at a high level, an in-depth analysis is applied.

Figure 3. Stages of ESG risk assessment in the credit process



Source: own compilation based on (EBA Guidelines 2020).

For customers for whom a high level of ESG risk is identified (by default more damaging), the bank will look for opportunities to mitigate credit risk by assuming a higher level of detail. The bank may scrutinise in greater detail, e.g. the management report, the additional information, the entity's website, press releases in search of information on investments made by the company to, for example, reduce electricity consumption, minimise the negative impact of environmental risks (e.g. flooding). Statements and other documents containing ESG information submitted by the client at the loan application stage are also re-examined at this stage.

The extent of information collected varies between financial institutions. Some banks use very extensive questionnaires and tailor the questions in them to the sector or industry in which clients operate. Bank Gospodarstwa Krajowego has a general questionnaire and special questionnaires for entities operating in the health care,

heating and social housing sectors. The cooperative banks (association 2) present their clients with questionnaires in which the questions are divided into blocks on environmental risk, social risk, management risk and, in addition, physical risk and transition risk. The questions also relate to the methods used to mitigate the negative impact of individual risks on stakeholders and the environment. The cooperative banks use questionnaires by customer segment (large entity, small entity, farmer). The smallest range of questions on ESG issues was included in the commercial bank applicant data sheet. Ultimately, the primary information role on ESG risks should be taken over by mandatory ESG reporting.

Table 9. ESG information required by banks in a loan application

Thematic scope of statements made at the loan application stage	Name of bank	Source
• no surveys by sector/industry • thematic scope of the questions concerns: possession of permits, approvals and concessions required by law, impact of the business on protected areas, areas under archaeological protection, areas of particular cultural significance, areas of ecological importance, possible penalties imposed on it (in the last 2 years) resulting from non-compliance with: health and safety rules, labour code, environmental regulations	Commercial bank	Form on information about the applicant.
• 3 questionnaires: for large companies, small companies and farmers • range of questions divided into three blocks, i.e. environmental, social and managerial factors	Cooperative Banks Association 1	Questionnaire to be completed at the loan application stage.
• two questionnaires per segment defined as micro/small/medium and large • division of issues in the questionnaire into environmental, social, governance and in addition physical and transition risks • for the large customer, the expectation of the provision of emissions information from SCOPE 1, SCOPE 2 and SCOPE 3[a] • the possibility of providing information on risk mitigation was included in the survey	Cooperative Banks association 2	Questionnaire to be completed at the loan application stage.
• general questionnaire and specific questionnaires (health, heating, social housing) • scope of questions in specific questionnaires concern: obligation to prepare non-financial statements (according to the Accounting Act), estimation of the carbon footprint, planned measures for its reduction, question on information on whether the area of operation has historically been affected by climatic events with a sudden course, information on water and waste management policy	Bank Gospodarstwa Krajowego	Presentation by a representative of Bank Gospodarstwa Krajowego at the ESG 2024 Conference (18–19.03.2024 Warsaw).

Table 9. (cont.)

Thematic scope of statements made at the loan application stage	Name of bank	Source
• the range of questions in the standard questionnaire concerns: estimation of the carbon footprint, water consumption, procedures regarding employees' rights, carrying out public consultations prior to the start of the project, the scope of activities implemented as part of the fight against climate change		

[a] SCOPE 1 – Scope 1 emissions, these are the direct emissions of the entity (e.g. heating, emissions from the use of owned vehicles, air conditioning). SCOPE 2 – Scope 2 emissions is the value of indirect emissions resulting from e.g. purchased electricity. SCOPE 3 – Scope three emissions are indirect emissions resulting from the values established in the value chain (emissions resulting from the activities of the entity's suppliers and customers).

Source: own study.

The above summary shows the significant discrepancies in the information collected, and the fact that already at this stage banks have extensive information on the client's response to ESG risk factors. When the level of ESG risk is identified as high, the credit process is halted and the applicant is requested to provide additional documentation or clarification.

Table 10. ESG risk mitigation tools following a credit application

Type of document	Type of financing		Comments
	targeted	revolving	
Additional questionnaire with detailed questions	+	+	Constitutes a client statement, there may be difficulties in verifying the reliability of the information.
Statement on high-risk activities	+	+	Represents client statement, may be difficult to verify reliability of information.
Environmental report	+*		Document prepared by a competent person, does not pose risks related to the reliability of the documents. Does not give information on all the activities carried out (* not applicable to SPVs).
ESG rating		+	Prepared by a firm specialising in ESG ratings, addresses ESG risks in the context of the entire business not of individual investment projects. The wide divergence in rating scales and assessment methodologies adopted raises the risk of misreading the level of risk.

Table 10. (cont.)

Type of document	Type of financing		Comments
	targe-ted	revo-lving	
Investment permits (e.g. planning permission), technical opinions	+*		Documents drawn up by persons with relevant competence and authority. Document relates to individual investments from not all activities (* not applicable to SPVs).[a]

[a] SPV or special purpose vehicle, or SPE a special purpose vehicle. Usually a limited liability company or limited partnership that has been established for a specific purpose, e.g. the implementation of a single investment project.

Source: own compilation.

The documents and statements indicated in Tables 9 and 10, depending on the methodology adopted in each bank, can serve to reduce ESG risk in aggregate or for its individual components. The assessment of ESG risk as part of the monitoring indicated in Figure 2 as the third step, is secondary and serves as an assessment within the portfolio analysis. It does not affect further lending per se, but may involve the need for additional information from the client, e.g. when there is a significant change in a previously established risk level.

Conclusion

The implementation of ESG concepts into the company's operations and the appropriate disclosure of the components in cyclical reports is inevitable. In addition, it will be associated with easier access to programmes supporting the implementation of activities in line with the objectives of the concept, in particular obtaining financial support and especially environmental or climate objectives. The assessment of a company through the lens of sustainability, including the proper identification of ESG risks and the implementation of effective ways to mitigate them, already affects access to capital. Entrepreneurs applying for funding are subject to scrutiny on how ESG risks affect their business. Hence, the need to prioritise ESG activities in company strategy (Khalid et al. 2021).

Financial institutions are also subject to mandatory disclosures, and the natural corollary of this will be the increasing demands placed on those applying for finance. Entrepreneurs are currently confronted with an increase in expectations regarding the extent of information that banks deem necessary as part of loan applications – and this process will intensify.

The banking sector is relatively strongly stimulated by, among other things, supervisory policy to implement ESG concepts. Responsibility for the quality of the loan portfolio, the share of projects that comply with sustainability standards, as

well as opportunities to use aid programmes or preferential credit lines to finance them are also becoming a focus for shareholders. At the same time, financial institutions see the obligations arising from the transition towards a sustainable economy as an opportunity to develop lending and even expand their offerings to include services that facilitate entrepreneurs' disclosures in exchange for loyalty to the bank serving the customer in terms of lending, transactions and deposits.

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