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THE IMPACT OF ESG REGULATIONS AND TAXONOMY ON THE CREDIT PROCESS IN COMMERCIAL BANKS

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ABSTRACT

The purpose of the article is to present the impact of legal regulations in the field of sustainable development (ESG) and taxonomies on the course of credit processes in commercial banks.

Methodology refers to studies of legal regulations, comparative analysis of cases (case study) and inference.

Results of the research show that the implementation of ESG regulations and taxonomies and the adaptation of credit processes in commercial banks will result in structural changes in loan portfolios in the near future while moving away from financing dirty industries towards the green ones. As a result, the financing stream for green assets and those supporting sustainable development will be increased, while the financing of dirty assets will be significantly reduced due to the increase in risks and accompanying costs for customers and banks. It is expected that even if some banks grant loans to finance dirty assets, they will only be short-term loans and will require high servicing costs (commission, margin, legal security, and insurance). This is due to the fact that the portfolio with credit exposures in the so-called dirty industries (mining, construction, trade) will escalate the increase in ESG risk. Such a portfolio with dirty exposures will require banks to secure additional reserve capital to maintain higher general and sector systemic risk buffers. Some banks will completely stop financing assets from dirty industries, which will mean that some of them will be abandoned due to the lack or high costs of their modernization, intensifying the negative socio-economic consequences. The ongoing process of redirecting the financing stream to green assets in banks means that enterprises and households need to take earlier adaptation

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actions. These include actions against financing constraints in dirty sectors and likely future losses in infrastructure and assets related to them.

Keywords: ESG, taxonomy, banks, procedures, credit processes.

JEL Class: G15, G18, G20, Q54.

INTRODUCTION

Under the influence of regulatory and supervisory requirements as well as market pressure, banks undertake intensive implementation activities in the field of broadly understood sustainable development. EU regulations in the field of environment, social policy and corporate governance (Environmental, Social, Corporate Governance, ESG) together with reporting provisions cover a wide range of applicable regulations. Banks are one of the first groups of financial entities to quickly take up implementation challenges, even though the ESG legislative process is still ongoing and is expected to last several years. Nevertheless, banks' adaptation of various areas of their activities, including the pillar of their activity, i.e., lending policy, is crucial. The implementation process is important both for banks (their own competitiveness, profitability) and many entities with which they conduct business (borrowers, investors, cooperators, etc.).

The presentation of ESG regulations, the tools for their implementation by banks and the further impact on entities in the EU economies allow us to indicate the requirements currently and in the perspective of 2050. Understanding the mechanisms of the impact of ESG regulations on the activities of commercial banks is crucial due to the numerous spillover effects manifesting themselves in the economies of EU countries. These effects have financial and socio-economic dimensions. The adaptation process to ESG regulations and taxonomies is a difficult challenge for many entities. The efficiency of its implementation determines the use of opportunities, which has already been noticed by many banks and is treated as a tool for both adaptation and improvement of competitiveness.

The indicated premises constitute the basis for defining the purpose of the article and formulating the research hypothesis. The aim of the article is to present the impact of EU legal regulations in the field of sustainable development (ESG) and taxonomies on the credit processes of commercial banks. An attempt was made to verify the following research hypothesis: *The result of implementing ESG regulations and taxonomies and adapting credit processes in commercial banks will be structural changes in loan portfolios in the near future while moving away from financing dirty industries towards the green ones. As a result, the financing stream for green assets and those supporting sustainable development will be increased, whereas the financing of dirty assets will be significantly reduced due to the increase in risks and accompanying costs for customers and banks.*

1. REVIEW OF LEGAL REGULATIONS AND LITERATURE

ESG regulations constitute a broad set of regulations issued in the form of directives, regulations and implementing acts. These regulations are characterized by a wide subjective and objective scope and numerous references to other industry regulations, e.g., the real estate market, or numerous activities in the green (renewable energy sources) and dirty (mining, extraction, trade) sectors.

There are key regulations included in five basics documents i.e., Sustainable Finance Disclosure Regulation (SFDR), taxonomy on reporting: Nonfinancial Disclosure Reporting Directive (NFRD), Corporate Sustainability Reporting Directive (CSRD), European Sustainability Reporting Standard (ESRS), Corporate Sustainability Due Diligence Directive (CSDD) and guidelines of Task Force on Climate – Realized Financial Disclosures (TCFD). The above-mentioned main group of regulations is supplemented by, among others, disclosure of ESG risk in accordance with the requirements of the third pillar of the CRR and climate risk management or the European Green Bond Standard.

As of May 2020, the European Central Bank (ECB) guidelines on disclosures related to climate risk have been in force. The SFDR Directive on the disclosure of information on sustainable investments by financial market participants (Regulation 2019/2088) aims to increase market transparency and prevent the so-called greenwashing. It covers two groups of entities: financial market participants offering financial products defined in the SFDR (Article 2) and financial advisors providing insurance and investment advisory services. The SFDR Directive entered into force in March 2021 (replacing the previously existing NFRD) requires financial market participants to present how ESG risks are integrated in the investment process.

The NFRD Directive (Directive 2014/95/EU) defined the basis for non-financial reporting. This directive was an amendment to earlier Directive (2013/34/EU) on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings. The initial personal scope of the directive included the so-called public interest entities[1]. These entities, in accordance with the NFRD directive, were obliged to include additional statements on non-financial ESG information in their activity reports. While the NFRD did not impose a specific form of disclosure by reporting entities and it was difficult to compare non-financial reports of different entities, the

[1] Public trust entities in accordance with Art. 2 of Directive 2013/34/EU implemented through Art. 2 of the Act of 11 May 2017 on statutory auditors, audit firms and public supervision (Journal of Laws, item 1089, as amended) are: domestic banks, branches of foreign credit institutions, branches of foreign banks, pension funds, securities issuers securities, investment funds, insurance and reinsurance companies, cooperative savings and credit unions.

CSRD guidelines already standardized the rules and requirements for non-financial reporting.

The changes introduced in connection with the implementation of Basel IV in the EU countries obliged banks to deal with climate risk (ESG) in the risk management system, in terms of: assessing, limiting and monitoring exposures sensitive to this risk.

From June 30, 2021 banks and other financial institutions have guidelines for granting and monitoring loans (EBA/GL/2020/06, 2020). From June 2022, disclosures regarding ESG risk are part of the so-called Pillar III under the capital requirements of CRR 2 (Capital Requirements Regulation).

The CSRD Directive (Directive, 2022) is part of a comprehensive package of legislative changes for the sustainable financing of economic growth aimed at achieving climate neutrality by the EU by 2050. The CSRD is Directive of the European Parliament and of the Council of December 14, 2022 and one of the most important EU legal acts specifying which entities and from what year are subject to the ESG reporting obligation.

The CSRD introduced changes to four legal acts:

- EU Regulation No. 537/2014 on specific requirements for statutory audits of the financial statements of public-interest entities (2013/34/EU);
- Directive 2004/109/EC on the harmonization of transparency requirements for information about issuers whose securities are admitted to trading on a regulated market;
- Directive 2006/43/EC on statutory audits of annual accounts and consolidated financial statements;
- Directive 2013/34/EU on the annual accounts, consolidated financial statements and related reports of certain types of undertakings.

The uniform non-financial reporting framework was prepared in accordance with ESRS standards (ESRS, 2023) as mandatory and common reporting standards in the field of sustainable development. The unified reporting standards are intended to ensure the comparability and reliability of disclosed data, which will be subject to mandatory verification by statutory auditors and, depending on the arrangements in individual Member States, by other certified assurance service providers.

The ESRS includes three principles for disclosing material information:

- three layers (sector-independent, sector-specific, entity-specific);
- three reporting areas (strategy, implementation, effect measurement);
- three topics (environment, society, corporate governance).

In terms of ESRS materiality analysis (2023), the principle of double materiality has been introduced, i.e.:

- impact on the environment or only on the financial consequences for the company;
- or meeting both criteria.

From 2024, the CSDD corporate due diligence directive will apply. The directive highlights companies' obligations to identify actual and potential harmful impacts on human rights and the environment and establishes liability for breaches of these obligations. The scope of the CSDD directive covers companies' own activities, activities of subsidiaries, and entities in the value chain with which the company has regulated business relationships – direct or indirect.

The literature review in the field of sustainable development covers numerous topics in the field of environment, management, and social policy. Generally, ESG risk in financial institutions, including the banking sector, is understood as the risk of negative financial effects resulting from the impact of ESG factors on customers and contractors or banks' balance sheet positions. The aim of ESG risk management is to support sustainable development and build the bank's long-term value through integrated management of the impact of ESG factors.

The key scope of sustainable development is the area of the environment and related climate risks, which can affect the financial system and the real economy through two risk channels (IMF, 2022; Battiston and Monastero, 2019; ESRB, 2016):

- *physical risk* covers the economic costs and financial losses resulting from the increasing severity and frequency of extreme weather events caused by climate change;
- *transition risk* is related to the costs generated by the need to adapt the economy to a more sustainable and low-emission development path, will materialize before a significant part of the physical risk materializes.

With respect to financial institutions, including banks, multidimensional ESG risk is mainly associated with climate, financial and financial stability risk (Table 1).

Table 1. Key areas of ESG risk analyses

ESG risk versus	Literature item
Climate risk (general)	Adrian et al., (2022); Kosztowniak (2023a); EBA (2021); Oswald and Nowakowski (2020); Xu et al., (2018); IPCC (2018); Nordhaus (2017); IPCC (2014).
Physical risk	IMF (2022); Bank of England (2021); Kalkuhl and Wenz (2020); Monastelo (2020); NGFS (2019); Hsiang et al., (2017); OECD (2017).
Transformation risk	Battiston and Monasterolo (2019); ESRB (2016).
Relevant sectors for climate policy (CPRS)	Battiston et al., (2017); Monasterolo (2020); Monasterolo and Battiston (2020); Kosztowniak (2023b).
Stress tests, analysis scenarios	Battiston et. al. (2017); Gross and Población (2017).
Financial risk: investment, portfolio	Aligishiev et al., (2022); OECD (2017); Kelly and Reynolds (2015).
Financial stability	ECB (2022); ESRB (2020); Giuzio et al., (2019); ECB (2019).
Monetary policy and financial supervision	EBA (2021); NGFS (2020a); NGFS (2020b); NGFS (2020c).

Source: own study.

In research on estimating exposure to climate risk, banks mostly use two identification approaches: entities emitting carbon dioxide (CO2) and high-emission industries (NACE activity code). The initial stage in assessing the level of ESG risk are often surveys addressed to financial institutions and their clients.

Banks' loan portfolios of companies operating in high-emission industries, i.e., those emitting greenhouse gases (GHG), are directly exposed to ESG risk. Climate transition risk is the risk that arises when, during the transition to a low-carbon economy, adjustments to the value of financial assets occur that investors do not fully anticipate or hedge against. There are several reasons why this may be the case (OECD, 2017; Monasterolo and Battiston, 2020), e.g., if the transition is late and sudden ESRB (2016) and therefore "disorderly" (NGFS, 2019).

Since granting loans to companies operating in dirty industries will increase ESG risks (including climate risks), banks will have to absorb them by increasing capital requirements. These requirements, in accordance with the regulations of macroprudential policy, mean a need to maintain general and sector systemic risk buffers at a reduced level (Kosztowniak, 2023c).

2. NON-FINANCIAL REPORTING GUIDELINES

The CSRD Directive provides for the mandatory use of EU reporting standards, i.e., ESRS (European Sustainability Reporting Standards), which include the obligation to report indicators, among others, in the spheres of:

- environmental protection: climate change, drought and water scarcity, biodiversity, land use, raw materials management, pollution and waste;
- impact on society: employee issues, occupational health and safety, human rights, relations with the environment and product safety;
- corporate governance: ethical standards, counteracting corruption and bribery, privacy protection and data security.

Pursuant to CSRD regulations, reporting entities are obliged to include and demonstrate the impact of ESG factors on business decisions and energy and climate transformation programs. These requirements impose an obligation to confirm a need for a company to conduct a reliable analysis of the financial and business impact of ESG factors on its value and strategy. This means it is necessary to include non-financial factors in operational processes. Thus, while ensuring the value of the company in business models, banks are forced to consider ESG assumptions in their long-term management and business strategies.

In accordance with the evolution of reporting requirements for public trust entities, the CSRD Directive provides for subsequent reporting years 2024–2028, for groups of entities depending on whether they meet two of three criteria, i.e., balance sheet total, net sales revenues, and a number of employees (Table 2).

Table 2. Non-financial reporting obligations under CSRD

<table>
<tr><th>Fiscal year</th><th>Report submission deadline</th><th>Entities</th><th>Balance sheet total (EUR million)</th><th>Net sales revenues (EUR million)</th><th>Number of employees</th></tr>
<tr><td>2024</td><td>2025</td><td colspan="3">Large entities and those with the status of public interest entities</td><td>>500</td></tr>
<tr><td>2025</td><td>2026</td><td>Other large enterprises</td><td>≥ 20</td><td>≥ 40</td><td>≥250</td></tr>
<tr><td rowspan="2">2026</td><td rowspan="2">2027</td><td rowspan="2">Medium and small enterprises with issuer status*</td><td>< 20</td><td>< 40</td><td><250</td></tr>
<tr><td>< 4</td><td>< 8</td><td><50</td></tr>
<tr><td>2028</td><td>2029</td><td>Companies from outside the EU</td><td colspan="3">Turnover > 150</td></tr>
</table>

*The number of medium and small enterprises throughout the EU is over 50,000 and in Poland there is a total of 3,500 companies (as of June 30, 2022).

Source: CSRD (2023).

According to the CSRD, there is a two-stage measurement of environmental load:

1. classification of the financing granted: loan, purchase of securities or other debt, etc. in the context of sustainable development;
2. walking through the supply chain and reporting how many exposures (how many financing agreements) are attributable to the credit risk of the credited entity (subject to reporting) and meet the classification requirements for green investments.

When reporting, the categories of environmental burdens of an entity/ investment include, for example, the following information:

- type of building, object of production and what environmental emissions it generates;
- what the borrower buys – what fuels and type of energy is purchased;
- what is the supply chain and all connections, indirect emissions of environmental burdens from suppliers, producers – from the borrower through the borrower to the last contractor of the borrower in the supply chain;
- carbon footprint and the emission of air and water (soil) pollutants, which constitute the basis for determining the degree of greenness (sustainable development).

In banking activities, the entire reporting process (in accordance with the concept of supply chain) covers the following entities with environmental reporting:

- providing financing for the purpose (project);
- using financing for a given purpose (project);
- related to the entity benefiting from the financing of a given investment process or project.

This means that:

- a loan granted to a mine for the modernization of a sewage treatment plant – is classified only in the context of the sewage treatment plant project;
- a loan granted for current operations – is classified in the context of the entire operation of the mine as an entity, taking into account individual investments related to the operation of the mine;
- a lending bank – is classified in the context of the quantity and quality of granular exposures in the portfolio to given entities and/or specific projects.

Such a reporting process means a wide range of collected individual data, not only between the lender and the borrower, but also, more broadly, between cooperators. This means that all entities become "interdependent" and the result may be limited cooperation with entities with a low degree of ESG transformation.

The benefits of introducing reporting will be felt directly by entities obtaining financing, such as borrowers, issuers of securities and entities providing financing. For example, it will be an energy company (covered by the reporting obligation in 2026) with mines in its structure, thanks to which:

- on the one hand, it obtains the fuel necessary to generate electricity;
- on the other hand, it is perceived as an entity emitting negative externalities to be opened (e.g., open-pit lignite mine).

Such a plant will be able to obtain financing for its projects to produce the so-called green energy (e.g., soil and/or groundwater treatment installations). The bank financing the project in question will be able to offer "cheaper money" due to the possibility of using more favorable risk weights and a lower burden on the capital adequacy of the bank financing or purchasing debt securities.

Reported ESG indicators, the so-called greenness, in accordance with the EFRAG group guidelines (EFRAG, 2023), include two cross-sectional standards and three thematic standards, which were adopted on October 23, 2023 (Table 3).

Table 3. ESG indicators in accordance with CSRD cross-sectional and thematic standards, according to EFRAG nomenclature

Standards	ESRS	
Cross-sectional	General	1 General requirements
		2 General Disclosures
Thematic	Environmental	E1 Climate change E2 Pollution E3 Water and marine resources E4 Biodiversity and ecosystems E5 Resources and the circular economy
	Social	S1 Own working range S2 Employees in the value chain S3 Affected Communities S4 Customers and end users
	Governance	G1 Internal governance, risk management and internal control G2 Business Conduct

Source: EFRAG (2022).

It should be taken into account that the purpose of non-financial reporting is to obtain information by entities obtaining financing (borrowers, issuers of debt securities) and entities providing financing. This means that banks will be able to more precisely analyze the risks associated with a given borrower (financed venture), i.e., determine risk weights and capital adequacy more precisely. However, those purchasing securities, e.g., green bonds, will have more detailed knowledge about the use of funds from these bonds for investment purposes.

The presented ESG regulations and taxonomies confirm a need for banks to conduct a wide range of analyzes and disclosures of ESG risks, including in their key activity, i.e., lending. The presented premises lead to the formulation of the following research hypothesis: *The result of implementing ESG regulations and taxonomies and adapting credit processes in commercial banks will be structural changes in loan portfolios in the near future. It will translate into moving away from financing dirty industries towards the green ones. As a result, the financing stream for green assets and those supporting sustainable development will be increased, with a significant reduction in financing for dirty assets due to the increase in risks and costs for customers and banks*.

3. SCOPE OF ESG RISK ASSESSMENT IN THE CREDIT PROCESS

ESG and taxonomy regulations have become an integral element of banks' lending procedures. These regulations affect both the assessment of the potential borrower (partner's ESG risk) and the investment expected to be financed (ESG financing risk). Credit processes include:

- stage I – data acquisition and ESG assessment;
- stage II – ESG risk calculation;
- stage III – results of ESG risk assessment and decision making by the bank's Credit Committee (ESG).

The first stage of data acquisition and ESG assessment is performed on the basis of collected data from the ESG survey and indicators – enabling the determination and monitoring of the risk level of partners and financing in relation to exposure to ESG factors. The result of these activities is the aggregated data collected for the disclosures specified in the delegated act to Article 8 of the EU Taxonomy and ESG risk management disclosures under Pillar III. Conducting detailed analyzes for the most exposed financing allows for effective ESG risk management in the bank.

The ESG survey is a source of information:

- determining the level of advancement of the business partner in terms of implemented ESG activities;
- regarding the activities and investments of business partners in the area of sustainable development;
- for the purposes of analyzing compliance with the uniform classification system for sustainable activities and ESG risk management disclosures under Pillar III.

Banks send surveys to all their customers, although they are not mandatory for now, more and more customers agree to complete them. Data collected in this way

from enterprises is stored in a data warehouse to be able to analyze and report on various occasions, not only in the case of ESG risk.

The questions addressed to customers in the surveys primarily take into account ESG risk factors, such as:

- emission of pollutants into the atmosphere (e.g., direct and indirect activities introducing pollutants and dust into the air);
- waste management (for waste-generating industries);
- consumption of natural resources (use and exploitation of natural resources, with particular emphasis on non-renewable resources);
- respect for human rights (across the entire value chain);
- impact on the local community, including issues of use and change of land owners;
- protection of cultural heritage;
- certificates and management systems held;
- compliance with legal regulations.

Example questions in an ESG survey include, among others, questions regarding emissions and the impact of the borrower (project) on the environment. These questions often depend on the clients' main type of activity, i.e., by sector/type of activity – NACE (Table 4).

Table 4. Examples of banks' questions addressed to customers in ESG surveys

	Scope of questions
1	Has your organization calculated its carbon footprint for the last calendar year? If YES, please provide the amount of emissions.
2	Will water consumption increase (compared to the current level) as a result of the implementation of the project? If YES, please provide the expected increase.
3	Do you have procedures in place to ensure that the contractors employed to carry out the project will respect labor rights and human rights towards employees?
4	Was the project preceded by public consultations or was/is there any other form of dialogue with the social environment/stakeholders?
5	Have you implemented an environmental management system compliant with PN-EN-ISO 14001 or the European Eco-Management and Audit System (EMAS) and do you have current certificates?

Source: own study based on BGK (2023a).

The data collected from customers is then the basis for calculating ESG indicators important in subsequent stages of a credit process, including indicators: GAR, BTAR or portfolio carbon footprint (Table 5).

Table 5. ESG indicators calculated by banks, important in further stages of a credit process

	Indicator	Specification
1	Green Asset Ratio (GAR)	- exposures to companies that are subject to non-financial disclosure requirements under Directive 2014/95/EU
2	Banking Book Taxonomy Alignment Ratio (BTAR)	- exposures to companies that are not subject to disclosure obligations under the NFRD
3	Exposures exposed to physical risk	- the part of the banking portfolio that is exposed to physical risk, divided into acute factors (heat waves, droughts, floods) and chronic factors (water deficit, changes in wind circulation)
4	Carbon footprint of the wallet	- the level of financing of emissions from "Scope 1", "Scope 2" and "Scope 3" of Partners expressed in tones of CO2 equivalent

Source: own study based on BGK (2023a).

ESG risk assessment concerns two dimensions of risk, i.e., partner (entity – borrower) and financing (investment project).

Partner's ESG risk:

- is a measure of the maturity of the existing or new Partner bank in matters related to ESG factors;
- is perceived through the prism of conducted activities and compliance with applicable (and planned to be implemented) environmental regulations, including climate, social and organizational management;
- is the result of analyzes of compliance with regulations and best practices in ESG aspects among organizations with similar activities;
- its assessment is performed annually,
- the assessment consists of the result of the analysis of data provided via the ESG Survey, previous customer discovery processes and, if any, the reputational risk assessment process (Figure 1).

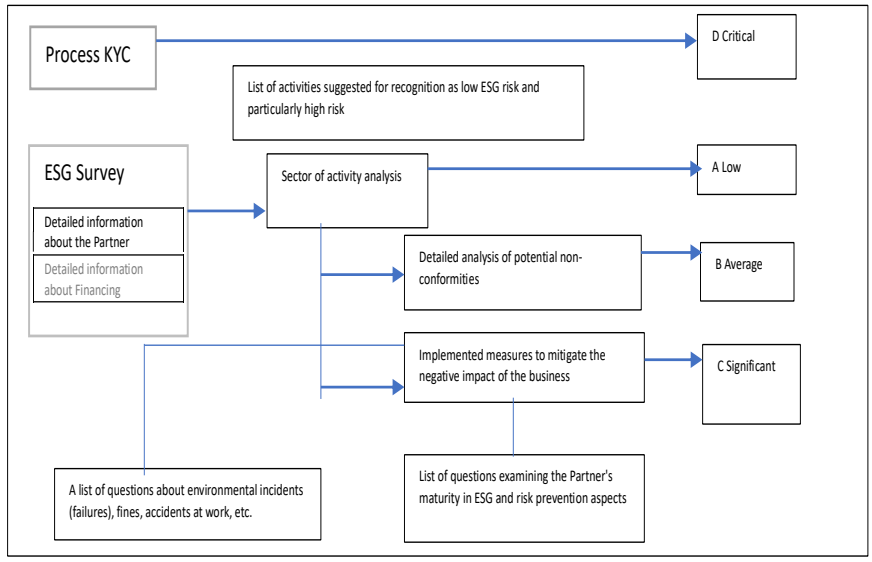

Figure 1. Simplified process of classifying projects in terms of the Partner's ESG risk

Source: own study based on BGK (2023b).

ESG risk of financing:

- is related to the financing purpose and analyzed in terms of the classification of activities that fit into the framework of sustainable development, considering all required stages of analysis;
- the project's impact on the natural environment, climate, social environment and corporate governance is taken into account;
- is performed on the basis of ESG Survey analyses, the detailed purpose of financing and additional documents confirming the scope of financing;
- in the case of financing other than "targeted", the general activity of the Partner is analyzed (Figure 2).

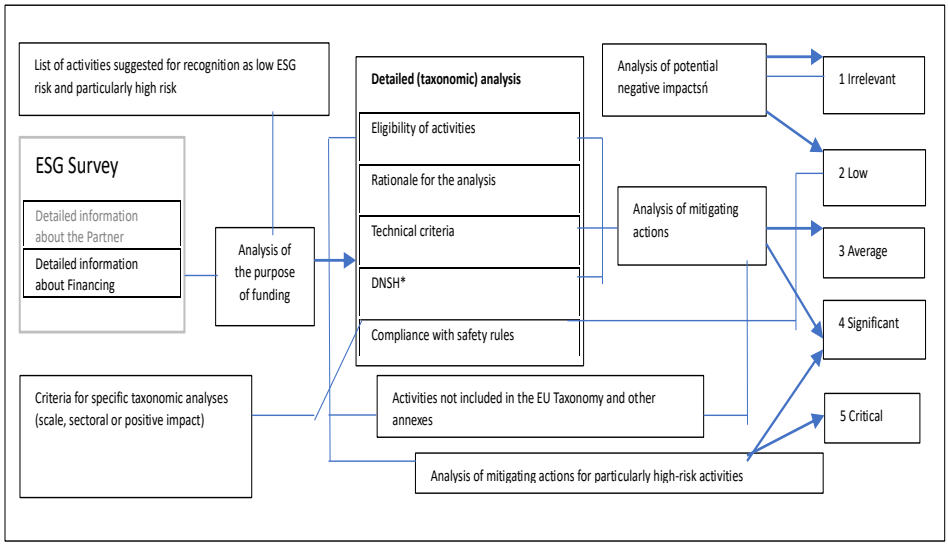

Figure 2. Simplified process of classifying projects in terms of ESG financing risk

*DNSH - the principle of not causing serious damage to the environment (do no significant harm).
Source: own study based on BGK (2023b).

As part of the second stage, ESG risk calculation and its analysis are carried out in a matrix as a component of two analysis results, on the partner's side and on the financing side:

- the effect of the analysis is to determine the level of ESG risk to support the process of making a credit decision, where it will be an additional factor determining the non-financial impact of the decision;
- the result of a matrix combination of two assessments is a simplified "rating" assessment that helps define the level of ESG risk;
- the final assessment of the partner's ESG risk is determined on a four-point scale: low, medium, significant, critical, and ESG risks in financing: immaterial, low, medium, significant and critical;
- the result, together with the specification of the assessment components (rating) and the justification for the assessment or what criterion resulted in a given choice, is transferred to the decision-making process (Table 6).

Table 6. Example of ESG risk calculation as part of loan application processing processes in banks

Partner ESG Risk (AC)	Critical					
	C Significant	C1	C2	C3	C4	C5
	B Medium	B1	B2	B3	B4	B5
	A Low	A1	A2	A3	A4	A5
		1 not relevant	2 low	3 medium	4 significant	5 critical
	ESG risk of financing (1-5)					

Source: own study based on BGK (2023b).

It is worth adding that many banks "cross-verify" information, i.e., they compare information collected from companies and their contractors. This method of verification confirms the bank that the collected data is correct. In case of differences in the data provided by companies or their contractors, they should be explained.

The following steps are taken in the risk calculation process:

- partner identification;
- initial verification of the partner and financing;
- partner and financing assessment;
- opinion of the credit risk department.

The third stage concerns the compilation of the results of the ESG risk assessment and decision making by the bank's Credit Committee (ESG). As part of detailed analyzes in the partner assessment process, a positive opinion is issued if the assessment concerns acceptable levels of ESG risks (AC) and a negative decision (on lack of cooperation) is issued in the case of a critical ESG risk (D). Similarly, in the financing assessment process, a positive opinion is issued if the assessment concerns acceptable ESG risk levels (1–4), and a negative decision (no financing) is issued if the ESG risk level is critical (5). Then, the partner and financing ratings are combined, and the bank's Credit Committee (ESG) issues a final positive or negative decision.

To manage ESG risk and constantly monitor it, many banks have established *ESG Committees, ESG risk offices and ESG risk disclosure teams* in their organizational structures.

The management structure of *the ESG Committee* includes, for example:

- Head of ESG;
- Environmental Protection Inspector;
- social inspector; corporate governance specialist;
- representatives of key areas of the bank.

The purpose of *ESG Committees* is to supervise:

- effectiveness of ESG risk management;
- maintaining ESG risk related to lending and investment activities at an acceptable level;
- effectiveness of the ESG reporting system, including ESG risk;
- ESG risk limit level;
- disclosures regarding ESG risk management (3rd pillar) prepared by ESG risk disclosure teams.

In turn, the *ESG Risk Office* is responsible for:

- monitoring the size and profile of ESG risk in the lending and investment process;
- ESG risk assessment in the lending process;
- reviews of financing granted in terms of ESG risk;
- coordinating the process of collecting ESG data in the credit process;
- conducting training in the field of ESG risk management.

The activities of *the ESG Risk Disclosure Team* include the preparation of disclosures regarding ESG risk management in the bank (3rd pillar).

When indicating the place of ESG risk assessment in the credit process, it is worth emphasizing that the assessment results constitute information needed to: decide to grant financing, measure the bank's portfolio and, in the future, be used in the ESG rating. The acquired data is used to calculate indicators for individual industries (as part of the financing granted) or exposure to climate change, to obtain the results of the analysis of compliance with the system of uniform classification of sustainable activities, as well as for the preparation of an integrated report.

CONCLUSION

Banks are nowadays adapting their lending procedures to ESG regulations and non-financial reporting. It is evidenced by the activities implemented at every stage of the lending process, from data acquisition, through ESG risk calculation, to assessment results and making a lending decision. The accepted level of ESG risk and creditworthiness assessment are important factors determining the issuance of positive or negative credit decisions. Because the entire transaction chain is analyzed in the credit assessment process (lender – borrower – cooperators), the decision to grant a loan is extended to include a new element, i.e., ESG assessment. In practice, this means that the result of the credit process assessment may determine both the decision issued by the bank's Credit Committee (ESG), but also affect the selection of cooperators or the amount of loan servicing costs.

The presented results of the review of legal regulations and implementation practices of banks prove the correctness of the formulated hypothesis. The implementation of ESG regulations and taxonomies and the adaptation of lending processes in commercial banks will result in structural changes in loan portfolios in the near future while moving away from financing dirty industries towards the green ones. As a result, the financing stream for green assets and those supporting sustainable development will be increased, whereas the financing of dirty assets will be significantly reduced due to the increase in risks and accompanying costs for customers and banks.

It is expected that even if some banks grant loans to finance dirty assets, they will only be short-term loans and will require high servicing costs (commission, margin, legal security, and insurance). This is due to the fact that the portfolio with credit exposures in the so-called dirty industries (mining, construction, trade) will escalate the increase in ESG risk (Adrian et al., 2022; Monasterolo, 2020; Battiston and Monasterolo, 2019). Such a portfolio with dirty exposures will, to secure it, require additional reserve capital from banks to maintain higher buffers of general and sector systemic risk (ECB, 2022; ESRB, 2020; Giuzio et. al., 2019). Some banks will completely stop financing assets from dirty industries, which will mean that some of them will be abandoned due to the lack, or high costs of their modernization, intensifying the negative socio-economic consequences (Zamid et al., 2022; Xu et al., 2018).

To sum up, the ongoing process of redirecting the financing stream to green assets in banks means that enterprises and households need to take earlier adaptation actions. These include actions against financing constraints in dirty sectors and likely future losses in infrastructure and assets related to them.

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DECLARATION BY THE AUTHORS

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WPŁYW REGULACJI ESG I TAKSONOMII NA PROCES KREDYTOWY W BANKACH KOMERCYJNYCH

Celem artykułu jest przedstawienie wpływu regulacji prawnych z zakresu zrównoważonego rozwoju (ESG) oraz taksonomii na przebieg procesów kredytowych w bankach komercyjnych.

Metoda badawcza odnosi się do badań regulacji prawnych, wykorzystano analizę porównawczą przypadków (case study) oraz wnioskowanie.

Wyniki badań pokazują, że rezultatem wdrażania regulacji ESG i taksonomii oraz dostosowania do nich procesów kredytowych w bankach komercyjnych będą w najbliższej przyszłości zmiany strukturalne portfeli kredytowych. Odchodzenie od finansowania branż brudnych na rzecz zielonych. W efekcie zwiększony zostanie strumień finansowania aktywów zielonych i wspierających zrównoważony rozwój, przy znacznym ograniczeniu finansowania aktywów brudnych, z powodu wzrostu ryzyk i towarzyszących im kosztów po stronie klientów oraz banków.

Przewiduje się, że jeśli nawet część banków będzie udzielać kredytów na finansowanie aktywów brudnych, to będą to wyłącznie kredyty krótkoterminowe i z wysokim kosztem ich obsługi (prowizji, marży, zabezpieczenia prawnego i ubezpieczenia). Wynika to z faktu, że portfel z ekspozycjami kredytowymi w tzw. brudnych branżach (górnictwo, budownictwo, handel) będzie eskalował wzrost ryzyka ESG. Taki portfel z ekspozycjami brudnymi będzie wymagał od banków w celu jego zabezpieczenia dodatkowych kapitałów rezerwowych, dla utrzymania wyższych buforów ogólnego i sektorowego bufora ryzyka systemowego. Część banków zaprzestanie finansowania całkowicie aktyw z branż brudnych, co oznaczać będzie, że część z nich zostanie porzucana, ze względu na brak czy wysokie koszty ich modernizacji, potęgując negatywne konsekwencje społeczno-gospodarcze. Postępujący w bankach proces przekierowania strumienia finansowania do aktywów zielonych oznacza konieczność podejmowania wcześniejszych działań adaptacyjnych przez przedsiębiorstwa i gospodarstwa domowe. Działań przed wystąpieniem ograniczeń w finansowania w sektorach brudnych oraz prawdopodobnych strat na infrastrukturze oraz majątku związanych z nimi w przyszłości.

Słowa kluczowe: ESG, taksonomia, banki, procedury, procesy kredytowe.

JEL Class: G15, G18, G20, Q54.

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