ESG Factors and ESG Risk in Bank Lending

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Abstract

Credit risk assessment, management and reporting are central to the bank lending process. This publication argues that new requirements related to the reporting of specific indicators related to sustainability will be a driver of change in bank lending. The role of ESG factors will become more and more significant, which requires banks to implement in the evaluation criteria of their lending process an ESG assessment of the financed businesses in the context of the EU taxonomy for sustainable activity. The results of the research show that there are significant differences between the studied Bulgarian banks in terms of their reported asset ratios that are or are not within the scope of the taxonomy. This leads to the conclusion that assessing the specific ESG risks of financed businesses will be a serious challenge for banks.

Keywords: ESG factors, credit risk, bank lending, sustainability reporting, GAR, BTAR

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Introduction

At the current stage of economic development, sustainability is becoming one of the mandatory characteristics of modern business and provides competitive advantages to those businesses that succeed to implement sustainable practices as part of their business model. Financial institutions are also involved in this process, as apart from implementing sustainability in their own business practices, they also have the obligation to exercise a kind of external control regarding the qualities of their clients in the financing process. It is known that bank lending is one of the main forms of business financing. In this regard, it can be said that the assessment, management and reporting of credit risk occupy a central place in the process of bank lending. The presence of requirements regarding sustainable lending laid down in a number of EU regulatory documents makes this process even more significant and demanding attention.

This publication argues that new requirements related to the reporting of specific indicators related to sustainability will be a driver of change in bank lending. The role of ESG factors will become increasingly significant, which requires banks to implement in the evaluation criteria of their financed activities an ESG assessment of the financed businesses in the context of the EU taxonomy for sustainable activity. The purpose of the publication is to clarify the role of ESG factors in the bank lending process in the context of the existing requirements in the EU and to analyze the state of the main Bulgarian banks with regard to the reporting of bank-specific indicators in the bank lending process.

1. Regulatory framework of ESG reporting in banks.

Banks have been at the center of numerous legislative sustainability reporting initiatives in recent years, and the focus on their operations continues to evolve. The whole process of creating sustainable finance in the EU started with the adoption of one of the key legal acts in the field of sustainable finance at the EU level, which is Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the creation of framework for facilitating sustainable investment (known as the Taxonomy Regulation) and amending Regulation (EU) 2019/2088. Later in 2021, the European Green Deal was adopted, and in April of the same year, the European Union adopted a Sustainable Financing Package, the aim of which is to guide the private investments that should be made in the transition to a climate-neutral economy. As part of the 2022 Sustainable

Finance Package, the EU finally adopted the new Corporate Sustainability Reporting Directive (CSRD), which is due to enter into force from 2024 and replace the current Directive 2014/95/EU (NFRD).

As stated in par.6 of the EU Taxonomy Regulation, to successfully redirect capital flows towards sustainable investment practices and achieve sustainable and inclusive growth, it is crucial to establish a unified classification system for sustainable activities. It is the classification of sustainable activities that will play an essential role in the future, as in practice it defines which of the bank-financed activities will be classified as sustainable and which will not. It is therefore also shared the view that the EU Taxonomy aims to become an important tool for channeling capital flows so that these objectives can be achieved. As the EBF and UNEP FI point out, the EU taxonomy has become one of the most important components of the sustainable finance regulatory agenda. (European Banking Federation, UNEP FI, & EY, 2022)

In this regard, it is important to point out that par. 40 of Regulation (EU) 2020/852 states that an economic activity should not be qualified as ecologically sustainable if it causes more harm to the environment than benefits. (EC, 2020) An economic activity should be qualified as contributing substantially to one or more of the environmental objectives provided for in this regulation, when this activity directly helps other activities to make a substantial contribution to one or more such objectives. (EC, 2020) It is clearly stated that such enabling activities should not result in a tie-up with assets that impede long-term environmental objectives given the economic life cycle of those assets. Also, ancillary activities must have a significant positive impact on the environment based on life cycle considerations.

In Art. 2 of the regulation a definition of environmentally sustainable investment is given. An investment in one or more economic activities that qualify as environmentally sustainable according to this regulation is considered as such. The criteria for whether a given economic activity is sustainable are specified in Art. 3, namely:

- contributes substantially to one or more of the environmental objectives provided for in the Regulation;
- does not significantly harm any of the environmental objectives;
- is carried out in accordance with the minimum guarantees established in Article 18 of the Regulation; and
- meets the technical verification criteria established by the Commission in accordance with Article 10 of the Regulation.

The Regulation introduces a requirement to create technical criteria for verification. These criteria should set out the minimum requirements necessary to avoid significant harm to other objectives, including using as a basis any minimum requirements established in EU law.

It is assumed that financial institutions will have to change their sustainability reporting policies in connection with the introduction of CSRD from 2024, as already under the current NFRD, banks are among the companies that fall under the scope of NFRD and which must disclose additional information regarding the EU Taxonomy. For this reason and in order to supplement Article 8 of the EU Taxonomy Regulation, on 6 July 2021 the European Commission published a Delegated Act on Article 8 which introduces a requirement on the disclosures expected of financial and non-financial undertakings, which includes KPIs and reporting templates that financial and non-financial institutions should use to reveal how sustainable their operations really are. According to these requirements, the main KPI for banks is the Green Asset Ratio (GAR), which shows the ratio of exposures related to taxonomy-compliant activities compared to the total covered assets of those banks. Interpreted another way, GAR effectively shows the "green part" of their share of "sustainable loans" meeting the criteria of the EU taxonomy compared to most of the balance sheet assets represented in the bank book. The exhaustive list of KPIs for banks is set out in Annex V to the Article 8 Disclosure Delegated Act. Brühl believes that the purpose of the new KPIs for banks is

to give investors an indication of the extent to which the financial institution's economic activities are according to the taxonomy. (Brühl, 2023) He points out that it is the disaggregation of the GAR into separate indicators (components) - a ratio of green assets covering exposures to non-financial enterprises (GARNF), to retail customers (GARRE) and to financial enterprises (GARFU) - that allows detailed analysis of the GAR drivers and makes the interdependencies between the various GAR components more transparent. (Brühl, 2023)

The brief analysis of the mentioned provisions shows that, in relation to the banks, the benefits of the disclosure of information in the sense of Article 8 can be in two directions:

- such disclosure could help them understand their client's level of alignment with the EU taxonomy; and
- helps them fulfill their obligations under Article 8 of the Regulation.

In May 2021 European Banking Authority (EBA) has published a report with the findings of its first EU-wide pilot study on climate risk. According to the results of this report, the average green asset ratio (GAR) is 7.9% in a sample of 29 banks from ten EU countries aligned with the EU taxonomy. The EBA's scenario analysis shows that the impact of climate-related risks in banks varies in magnitude and is concentrated in some specific sectors. Scenario analysis tools are developing rapidly and further progress should be made in modeling the transmission channels of climate risk shocks to bank balance sheets. (EBA, 2021)

In January 2022, the EBA published its final draft Implementing Technical Standards (ITS) on the implementation of Pillar 3, which relates to environmental, social and governance risk disclosures. These final draft standards include information that can be compared to explain how climate change may contribute to amplifying other risks related to the presentation of information in the financial statements of financial institutions. (European Banking Authority , 2022) It also looks at how institutions seek to mitigate these risks, including GAR, for exposures financing taxonomy-compliant activities, such as those that are consistent with the objectives of the Paris Agreement.

The specific regulatory requirement for the development of the standards is indicated in Article 449a of the Capital Requirements Regulation (CRR), according to which the EBA is authorized to develop draft technical standards for implementation. These standards should achieve the definition of uniform disclosure formats and associated instructions in accordance with which the disclosures required by Part Eight of the CRR are made (European Banking Authority, 2022). Undoubtedly, the goal is to harmonize disclosures, and through the use of uniform formats, the aim is to report sufficiently comprehensive and comparable information for the users of this information to have a basis to assess the risk profiles of the institutions.

Due to the limited scope of the GAR for banks, the European Banking Authority requires reporting of the entire bank portfolio, which is mandatory for Pillar 3 banks. The disclosure metric is called the Banking Book Taxonomy Alignment Ratio (BTAR), which unlike the GAR is based on all loans, the entire bank portfolio. ESG risk disclosure is a vital tool to promote market discipline, enabling stakeholders to assess banks' ESG-related risks and sustainable financial strategy. The EBA ESG Pillar 3 package will help address the shortcomings of institutions' current ESG disclosures at EU level by setting out mandatory and consistent disclosure requirements, including detailed templates, tables and related instructions. It will also help establish best practices at an international level. We also accept the higher reach of BTAR as a serious tool that has the potential to deliver on those interested countries wider look on sustainability and will encouraged the institutions Yes understand sustainability on theirs lending for SMEs. The focus that BTAR places on SMEs, too so will gave some incentives on the institutions Yes them support, as well as others corporations outside the NFRD in the process on transition, so like these efforts are reflected in BTAR.

Due to the nature of the new requirements and with the aim of uniform application of the EU taxonomy, the European Banking Federation in cooperation with the United Nations Environment Program - Finance Initiative (UNEP FI) have prepared a handbook "Practical approaches to

applying the EU taxonomy to bank lending" (European Banking Federation , UNEP FI, & EY, 2022). The EU taxonomy sets out three general requirements for an activity to be considered environmentally sustainable. This is determined by the regulatory text as well as secondary legislation (delegated acts), the latter of which defines the more technical parameters:

- The economic activity must significantly contribute to at least one of the six environmental objectives set out in Article 9 of the EU Taxonomy Regulation;
- The economic activity must not cause significant harm (DNSH) to any of the other five environmental objectives;
- An economic activity must meet the minimum safety measures, which in practice means that Art. 18 of the EU Taxonomy Regulation, according to which, in order to comply with the minimum safeguards, such procedures must be implemented by the enterprise that ensure compliance with the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights , as well as compliance with fundamental principles and rights at work and the International Bill of Human Rights.

The specified requirements should also be considered in the light of their financial and accounting dimensions in relation to the requirements for disclosure of credit risk in the line of IFRS 7, according to which credit risk is defined as the risk that one party to a financial instrument will cause a loss to the other party, by defaulting on its obligation (IFRS 7), as the risk of default for banks increases given the requirements that are placed on the activities of financed businesses with the new regulatory requirements.

2. ESG factors in bank lending.

After the European Union took the political decision to transition to a "green economy" and introduced a number of requirements regarding the activities of banks, the issue of the role of ESG factors in bank lending and the risks associated with them stands out.

Benabou and Tyrol (Benabou & Tirole, 2009) identify three main motives for the development of ESG activities in corporations: (1) the company undertakes ESG activities to maximize its long-term profit; (2) the company acts philanthropically to achieve the social goals of stakeholders; and (3) the company engages in ESG activities to reflect the own desires of senior management or board members. Azmi et al. 's analysis is similarly structured, according to which environmental activities have the greatest effect on bank value. They examine the channels through which ESG activity affects bank value and find a positive relationship between ESG activity on the one hand and cash flows and performance on the other. However, we believe that these theories are not applicable in our case, since banks do not determine their ESG activities in the field of lending themselves, but rather are forced to implement them in their activity due to the presence of regulatory requirements for them (Azmi et al., 2021).

Palmieri et al. do research on a sample of 211 European registered companies for the period from 2013 to 2022 as analyze t the mitigator effect on the probability from default on companies tied to ESG performance of the company, combined with the industry and the presence in a specific stock exchange index. The results show that improvements in companies' environmental assessments reduce the probability of default. From the banks' perspective, the authors say they favor a holistic approach that integrates ESG scores into industry- or stock-index-adjusted lending practices. Moreover, the authors consider that the regulators must Yes support the wide acceptance on ESG indicators at the assessment on credit risk . (Palmieri, Ferilli, Stefanelli, Geretto, & Polato, 2023)

Ahmed, Ahmed & Hasan (Ahmed, Ahmed, & Hasan, 2018) examine the motivations and outcomes of incorporating ESG criteria into bank lending. The survey findings show that banks mostly report qualitatively on key environmental, social and governance factors as defined by

regulators. They are lagging behind in addressing the advanced ESG criteria required for sustainable and effective credit risk management. Based on the motivation to incorporate ESG factors, they find that banks that pioneer ESG factors in their lending decisions have better financial performance. Here again, the authors expect more pragmatic steps to be taken to quantitatively incorporate ESG risk factors into the lending decision-making process.

At the same time, in its research, the rating agency Fitch reveals that part of the banks refer to the companies you are policies and regulations like the most common basic engines for turn on of ESG in their processes on lending. An interesting fact is that reputational risks are listed as important factors for assessing ESG risks in their activities, a a few banks indicate pressure on those interested countries or the investors like their main engine for evaluation of ESG risk (Fitch, 2020).

The question of the importance of ESG risks and their inclusion in the assessment of credit risk by banks is key in the research of Brogi, Lagasio and Porretta (Brogi, Lagasio, & Porretta, 2022) They believe that the integration of environmental, social and governance (ESG) factors into credit risk assessment articulates the new border for credit risk management as regulators and investors increasingly require banks to target lending to "sustainable" borrowers and ultimately account promote sustainable growth. The findings show that higher ESG awareness is strongly associated with better creditworthiness (represented by Altman's Z-score). According to the research, high ESG awareness scores are strongly associated with reducing a firm's credit risk.

The significant role of ESG risks in bank lending is indicated by the fact that on October 12, 2023, the EBA published report regarding the role on environmental and social risks in the prudential frame on the credit ones institutions and investment intermediaries . The report states that the ecological and social risks change the risky one profile for the bank sector and se expects Yes become more prominent with current on the weather. They affect the traditional financial risks categories such as credit, market and operational risk (European Banking Authority, 2023). Therefore, environmental, and social factors can affect both the risks faced by individual institutions and the financial stability of the entire financial system, since according to data from the quarterly report of the BNB as of 30.06.2023, loans represent 65% of the total value of assets in the balance sheets of banks in Bulgaria. (BNB, 2023) In the context of future banking policy, these new requirements mean that, in practice, banks will be forced Yes review the probabilities for default and losses and assessment of expected credit losses in the sense of IFRS 9, as well as the risk weights which _ enter the determination on this how much capital set aside for each client's account. All of this could be crucial for those sectors of the economy that generate large quantities harmful emissions.

In relation to the potential impacts on risk management strategies as a result of the introduced regulations, Cepni et al . note that financial institutions should focus on climate-friendly projects, as climate risk appears to be a price risk factor in capital markets (Cepni, Demirer & Rognone, 2022). Similar conclusions regarding the effects of introducing ESG practices in the operations of banks share Chiaramonte et al ., and their results show that after the introduction of the NFRD, the overall ESG score, as well as its sub-pillars , reduce bank volatility during periods of financial distress. This stabilizing effect applies strongly to banks with higher ESG ratings. (Chiaramonte, Dreassi, Girardone & Pisera, 2022)

At the same time, banks must meet the ever-increasing demands on them in the expectation that they will play the role of a major transformer of economic processes towards a "green" economy by directing capital flows to sustainable activities at the expense of those that do not meet the criteria for sustainability. In this regard, the new short-term actions proposed by the EBA for the next three years are as follows (European Banking Authority, 2023):

- Incorporating environmental risks as part of the stress testing programs in both the Internal Ratings Approaches (IRB) and the Internal Model Approaches (IMA) within the Fundamental Review of the Trading Portfolio (FRTB);

- Encouraging the inclusion of environmental and social factors as part of external credit assessments by credit rating agencies;
- Encouraging the inclusion of environmental and social factors as part of the requirements for due diligence and valuation of real estate collateral;
- To require institutions to determine whether environmental and social factors are causes of operational risk losses;
- Progressive development of environmental concentration risk indicators as part of supervisory reporting.

We believe that banks can use the taxonomy and new macroprudential regulations to identify and promote sustainable financial products, such as green mortgage financing or loans for energy-efficient building renovations and upgrades. This tool can also help banks comply with regulatory requirements related to disclosing the impact of their activities on the environment and integrate sustainability into their risk management processes, but with detailed disclosure of specific data about these processes, as otherwise they risk being accused of "Greenwashing".

3. Study of the banks in Bulgaria - scope, methodology and results.

The scope of the study includes the banks from the first group according to the quarterly bulletin of the BNB as of 30.06.2023: United Bulgarian bank, DSK bank, UniCredit Bulbank, Eurobank Bulgaria and First Investment Bank. It is stated in the methodological notes of the BNB that the first group everything consists of from the five biggest banks up basis on the general ones them assets to everyone reported period. We believe that the selected sample is significant and representative of the considered industry, since the market share on the five significant banking institutions (according to the criteria of the ECB) at the end on June represents 68,1% of the assets on the bank system according to BNB data (БНБ, 2023).

The main information source for the research is the annual financial reports of the banks for 2022 and the annual reports on their activities (in particular the non-financial declarations of the banks), considering the main indicators in the field of ESG reporting and of importance in the formation of the credit policy and the definition of the ESG risks in the credit process of the respective bank.

The empirical part of the study aims to reveal to what extent the studied banks apply Art. 8 of Regulation 2020/852 (Taxonomy Regulation). In the context of this, a requirement has been introduced for banks to report how and to what extent the lending process fits into the definition of sustainable activities, and for this purpose they must disclose information on the GAR (Green Asset Ration) indicator in relation to the activities of the bank's borrowers eligible under the taxonomy. In this way, the banks will fulfill a part of their commitment under the declaration of how and to what extent their activities are associated with environmentally sustainable economic activities.

A specific feature of the introduced requirements is that they are applied in separate stages, such as from January 1, 2022 to December 31, 2023, banks should only disclose the eligibility of the climate change mitigation and adaptation taxonomy. After 1 January 2024, they should now also disclose key performance indicators in accordance with the Taxonomy Regulation in relation to all environmental objectives, and reporting can be on an individual and/or consolidated basis.

Table 1. 2022 NFRD Taxonomy Regulation

Indicator	**UBB**	**DSK Bank**	**Uni credit Bulbank***	**Euro Bank Bulgaria**	**FI Bank**
Assets related activities _ in charge on the conditions on the taxonomy / Amount on Covered assets	39%	16.3%	34%	28.79%	13%

Indicator	UBB	DSK Bank	Uni credit Bulbank*	Euro Bank Bulgaria	FI Bank
Assets related to activities not in the line of the conditions on the taxonomy / Amount on Covered assets	32.84%	30.94%	43.5%	71.21%	70%
Assets related to unobligated enterprises for NFRD / General sum on the assets	24.93%	30.11%	40.6%	28.53%	55%
Derivatives / General sum on the assets	0.03%	0.34%	0.3%	0.18%	0%
Assets for trading and interbank credits on request / General sum on the assets	0.73%	10.25%	8.4%	1.6%	-
Governments, Central banks, supranational issuers / General assets	32.76%	22.07%	15%	17.4%	22%

** Data are from UniCredit Group Integrated Report for 2022 and are not comparable*

Source: Financial statements and Annual Reports of the surveyed banks for 2022.

The results in Table 1 show a different degree of coverage of the assets that are related to activities corresponding to the taxonomy or the so-called "green" activities. The percentage of coverage varies between 13% and 39% for different banks, showing significant differences between them and a difference of three times in the coverage of "green" assets between the banks with the highest and lowest coverage. A similar conclusion was drawn by Bobeva et al. in researching the management of risks related to climate change by Bulgarian banks in 2021. In this regard, Bobeva et al. accept that the assessment of climate-related risks is yet to converge across banks and that the differences are due to the early stages of regulatory compliance rather than significant differences in banks' climate risk profiles (Bobeva, Zhelyazkova, Aleksandrova-Zlatinska, & Palyova, 2023). We take the view that banks are still adapting to regulatory requirements and this is part of a step-based model. However, such a finding could not be accepted unequivocally given the fact that a significant part of the assets of some banks do not meet the requirements of the taxonomy on the one hand, and at the same time between 25% and 50% of borrower enterprises are not obliged to report information within the meaning of the Non-Financial Reporting Directive (NFRD). In this regard, it can also be assumed that in some banks the concentration of risk is rather higher, as these banks are challenged to make their own assessment regarding the extent to which the activities, they finance fall into the scope of "green" activities in the sense of the taxonomy.

We consider the latter particularly important in the future, as the "green" pressure on banks will increase given the role of bank lending, especially in countries with underdeveloped capital markets and other sources of financing, and the fact that the transformation of economies is supposed to be through the rules for financing. The presence of activities in part of the enterprises that cannot cover the "green" criterion may prove to be a key argument for future provisions and write-downs by the banks regarding their exposures when applying IFRS 9, which will have a direct effect on the bank's financial results and performance.

For the purposes of this research, in connection with the assessment of ESG risks to banks, we used the platform of Morningstar Sustainalytics, which provides high quality, analytical, environmental, social and governance (ESG) research, ratings and data on institutional investors and companies. The company is recognized for best supplier of ESG research and data from Environmental Finance and Investment Week. Given the specificity of the studied region, a data for Bulgarian banks was not found in the Sustainalytics platform. Given the fact that four of the examined banks from the first group of the BNB are owned by foreign banking groups, we examined the complex assessment related to ESG risks regarding the activity of the parent banking groups of the Bulgarian banks. Regarding First Investment Bank AD, no information was found on the Sustainalytics platform.

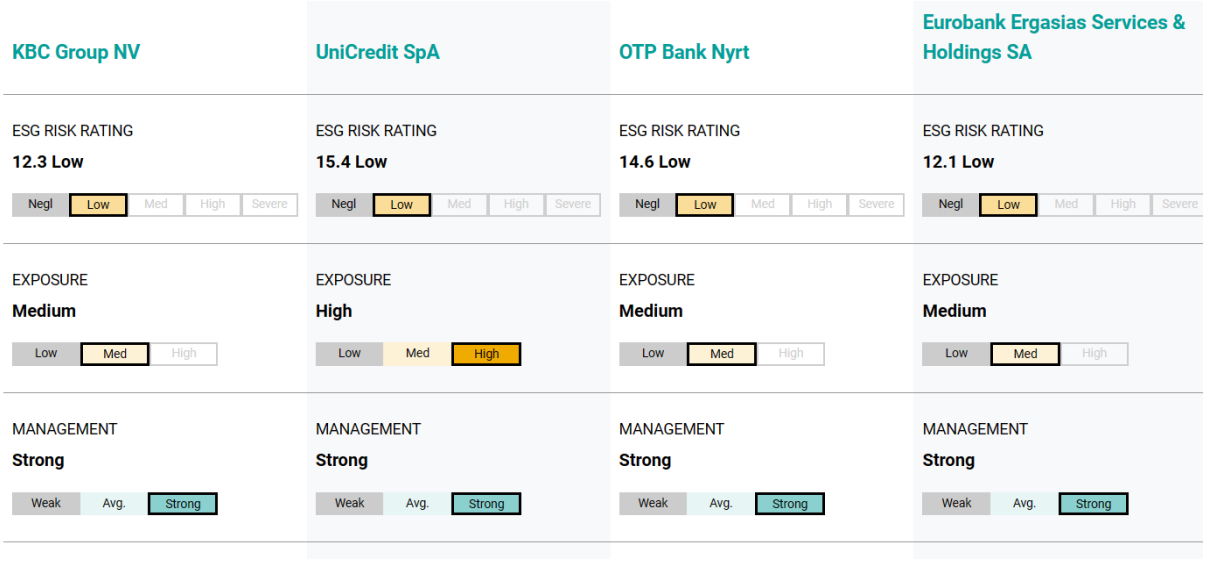

Figure 1. Assessment of ESG risks of the surveyed banks.
Source: Sustainalytics (www. sustainalytics.com)

Information on the assessment of ESG risks shows that the risk ratings of all surveyed banking groups are low. This can be due both to activities that have not yet been transformed in the direction of ESG, and to objective facts from the structure of their credit portfolios, which, at least according to data from the latest EBA study for 2021, is confirmed. The results achieved by Bulgarian banks also fit into the general context of the results of the pilot study of the European Banking Authority (EBA) in 2021 on a sample of 29 volunteer banks from 10 countries, representing 50% of the total assets of the banking sector in the EU. The first estimate of the starting point of the Aggregate Green Asset Ratio (GAR) for all surveyed banks stands at 7.9%.

The presented results of the examined banks force the conclusion that those of them who claim to have implemented ESG as part of their strategy should track the impact of their loans, investments and other products in order to be able to provide objective evidence of their "green " politics. Otherwise, they can easily be accused of "green washing".

We believe that despite the significant share of loans for non-financial enterprises, which according to BNB data as of 30.06.2023 represent 43.2% of all loans provided, serious attention should also be paid to loans for households, whose share is also significant - 33.7%. This issue will be the subject of a separate study, but in the context of the concept of sustainable finance and the taxonomy, important questions should be raised as to how sustainable household lending activities will be defined as sustainable, and whether this would lead to a major change in the structure of the banks' credit portfolios, which may reflect much higher levels of credit risk.

Our analysis directly corresponds to that published by the EBA report regarding the role on environmental and social risks in the prudential frame on the credit institutions and investment intermediaries. As we already noted in this one report everything does evaluation on the way _ which the current one prudential frame covers environmental and social risks (European Banking Authority, 2023).

Conclusion

Due to the limited volume, the indicators of only the banks from the first group according to the BNB have been analyzed in this report, and the potential effects of the application of the regulatory requirements in the banks and the implementation of these requirements in the activities of the banks in the EU will not be considered.

The concept of sustainability, which has become more and more important in recent years, incl. and through institutionalized actions, needs serious support and reaching a certain level of thinking from the management of all companies, incl. of the banks. The development of a framework for reporting by financial institutions in the EU is another challenge in the field of reporting on ESG factors and sustainability in general, since the lack of a framework and standards to cover it is a prerequisite for the emergence of heterogeneous practices that would lead to generating data and information that would be incomparable and would not achieve the purpose for which they were created.

We believe that attempts to enforce sustainability through legal regulation at the EU level aim to achieve a transformation that requires a change in thinking and perceptions of business on the part of management. It is absolutely imperative to understand that the ESG concept and the risks associated with its introduction represent a transformation that needs innovative thinking and a large-scale change in the entire organization of banks' activities and accountability. ESG efforts extend downstream in the activities that are financed by the bank, but also upstream in products and services acquired through the supply chain.

Moreover, ESG risks have the potential to even change a bank's risk profile, with the EBA report expected to become more prominent over time. It is inevitable that these changes will also affect the traditional categories of financial risks, such as credit, market and operational risk. Therefore, we believe that environmental and social factors and the risks associated with them should be the subject of special analysis and inclusion in the general framework for credit risk assessment, since their importance can lead to serious changes not only in individual banks, but also throughout the banking system.

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