Report

ESG Disclosure Standards for Nonbank Financial Institutions (NBFIs) with Recommendations

Prepared by:
Yawar Herekar

2022

Disclaimer

The views expressed in this publication reflect the views of the author and do not necessarily represent those of the United Nations Development Programme

Notice

Kyiv
2022

Abbreviations

ABP	Stichting Pensioenfonds ABP
AIFMD	Alternative Investment Fund Managers
DNSH	Do No Significant Harm
EBRD	European Bank for Reconstruction and Development
EP	Equator Principles
ESG	Environmental, Social and Governance
ETF	Exchange Traded Funds
GBP	Green Bond Principles
GHG	Greenhouse Gas
GRI	Global Reporting Initiative
GSAM	Goldman Sachs Asset Management
ICBC	Industrial and Commerce Bank of China (ICBC)
ICMA	International Capital Markets Association
IIRC	International Integrated Reporting Council
KKR	Kravis, Kohlberg and Roberts
KPI	Key Performance Indicators
MiFID II	Markets in Financial Instruments Directive 2
MRV	Monitoring, Reporting and Verification
NBFI	Nonbank Financial Institution
NBU	National Bank of Ukraine
NCSSM	National Commission on Securities and Stock Market (NCSSM)
NGFS	Network for Greening the Financial System
OECD	Organization for Economic Co-operation and Development
OMFIF	Official Monetary and Financial Institutions Forum
PAI	Principal Adverse Impact
PCAF	Partnership for Carbon Accounting Financials
PRI	Principles for Responsible Investment
REIT	Real Estate Investment Trust
SASB	Sustainability Accounting Standards Board
SBP	Social Bond Principles
SDG	Sustainable Development Goals
SFDR	Sustainable Finance Disclosure Regulation
SLB	Sustainability-Linked Bonds
SLL	Sustainability-Linked Loans
SPT	Sustainability Performance Targets
TCFD	Taskforce on Climate-related Financial Disclosures
UCITS	Undertakings for Collective Investment in Transferable Securities Directive
UNDP	United Nations Development Programme
USD	United States Dollars

Abstract

This report was written for the National Bank of Ukraine (NBU) as a part of the Supporting Green Recovery in Ukraine project by the United Nations Development Programme (UNDP) office in Ukraine. It looks at developing ESG disclosure standards for nonbank financial institutions with the objective of establishing green finance infrastructure.

Five presentations were made to the staff of the National Bank of Ukraine over the course of the project which explained the content of the deliverables. They were then compiled into this summary report.

The supervisors for the project were Mr. Oleksandr Sushchenko, Team Leader, Energy and Environment who can be contacted at oleksandr.sushchenko@undp.org and Mr. Oleksandr Muliar, Project Manager, Supporting Green Recovery in Ukraine who can be contacted at oleksandr.muliar@undp.org. The report was authored by Mr. Yawar Herekar who can be contacted at yaherekar2103@columbia.edu

Disclaimer

Table of Contents

Executive Summary

Since 1993 UNDP has been assisting the government of Ukraine in developing solutions for the transition from a planned to a market economy. Building a green economy in Ukraine is a core of the Association Agreement with the EU and facilitating a green and resilient COVID-19 recovery has become a key area of UNDP support to the Government of Ukraine. Transition to a green economy and climate neutrality in accordance with requirements of the EU will be associated with the need to abandon old and inefficient carbon intensive economic activities by developing and implementing completely new business-models. These new business model should be based on the low carbon content of the products and services, which requires implementation of the Monitoring, Reporting and Verification system (MRV) and better management of the climate-related risks. These steps will be associated with tremendous technical challenges and enormous private investments will be needed to make the necessary changes happen. Transition to a green economy will require adjustments in financial market infrastructure as well and sustainable finance has become a key area of UNDP support to the Government of Ukraine.

This report on ESG Disclosures Standards for nonbank financial institutions (NBFIs) covers the following areas:

1. Overview of the EU Regulation 2019/2088 on sustainability-related disclosures for nonbank financial institutions in the financial services sector with recommendations for Ukraine on implementation
2. Analysis of ESG Disclosure Standards (subject to the principle of proportionality), ESG factors, methodology approaches to measuring and managing ESG risks and integrating the ESG risks into the risk management framework of the firms
3. Analysis of approaches to management of environmental and social risks with an overview of best practice with recommendations for National Bank of Ukraine
4. Standards for sustainable financing with an overview of best practices with recommendations for National Bank of Ukraine

Part 1

The first area that is addressed by the report is that of sustainability risk management which is an essential part of sustainable finance. Sustainability risks can arise in environmental, social, and business contexts and negatively affects the value of an investment. To enable retail and corporate customers and investees to make fully informed decisions, it is important that they know about all sustainability risks and sustainability impacts on the business and have access to information regarding sustainable investments. Additionally, they need to be empowered to assess social and economic roles of financial products.

The disclosure of information on Environmental, Social and Governance (ESG) risks is one of the key components in the policy framework for sustainable finance and these factors should be certainly considered while elaborating recovery packages such as the one being implemented in Ukraine. ESG disclosure regulations ensures that such information is properly disclosed and helps customers to make informed decisions. The Disclosure Regulation (EU 2019/2088) defines new standards for dealing with sustainability risks, negative sustainability impacts, adverse social and environmental aspects, as well as sustainable investments. The Disclosure Regulation explain the levels and characteristics of disclosure for financial market participants and financial advisors.

Part 2

The second part of the report talks about how for a successful transition, effective environmental, social and governance (ESG) disclosure is important as it allows stakeholders to understand both the potential opportunities and the risks to their balance sheets across the corporate landscape. In this way, it allows capital to be better allocated to fund sustainable solutions. Effective ESG disclosure also sets into most government's plans to be better prepared for climate change in the long run and permits them to respond to, appreciate and observe stakeholder concerns.

Along with ESG disclosures, institutions (both banks and nonbank financial institutions) are now expected to understand the impact of climate-related and environmental risks in the short, medium and long term on the business environment in which they operate so as to be able to make informed strategic and business decisions. Legislation such as that in the EU directs such institutions to include climate-related and environmental risks in their risk appetite framework, business strategy and business objectives and those that materially impact their business environment over time. These institutions also must monitor, report and verify such climate risks as well as include them in their existing risk management framework and develop stress-testing scenarios that incorporate climate-related and environmental risks.

As a result of the rapid growth of interest in ESG and sustainable finance by investors and as ESG becomes a part of regulatory requirements, it has become an increasing challenge to financial institutions (especially NBFIs), particularly regarding integrating ESG risk factors into existing risk management frameworks. This is essential because when comparing individual companies in different sectors, a positive assessment of the company's management of its ESG factors has been shown to have a positive impact on its ESG profile and overall outlook.

Part 3

The third part of the report looks at how the integration of environmental and social (E&S) risk management into management systems and practices of financial institutions brings opportunities, including new lines of business, new clients, greater access to financing, greater shareholder value, and improved reputation and goodwill. These E&S risks must be managed effectively because they can lead to a decline in the financial institution's reputation and have legal and regulatory repercussions along with impacting the profitability of the institution. If businesses and the financial institutions that finance them do not identify and manage these risks, they are both likely to lose public support.

Financial institutions do have direct environmental impacts such as the energy used by their office locations and branch network but their principal exposure to E&S risks arises indirectly through their product suite, lending criteria and investing activities into the operations of their clients. A financial institution's environmental and social risks are those of their clients and investees and are inherent in the operations of both. Environmental and social risks can be mitigated through policies and frameworks that meet international environmental and social standards.

E&S risks are of different kinds and range from biodiversity to human health to those activities affecting indigenous people and surrounding communities. These risks depend on several factors, such as the specific issues associated with a client's operations, the industry sector, and the geographic and regulatory contexts. Clients and financial institutions must both build environmental and social management systems and along with disclosure and reporting requirements of climate change-related risks, this can play a critical role in the proper management of such risks. Thus, it is critical in ensuring that the effect of climate change and climate policies are correctly managed by financial institutions. These ESG risks can vary by country or region, line of business, type of cover, economic sectors, client characteristics and due to other factors while ESG opportunities arise from providing services in advisory, financing, investing and market making solutions.

Part 4

The fourth part of the report looks at how sustainable finance in which environmental, social and governance (ESG) considerations are considered when making financial decisions is now considered to be mainstream. According to Bloomberg, sustainable debt hit another record in 2020, with USD 732 billion issued despite the pandemic. This is a 29 percent increase from 2019 with sustainability and social bonds issuances increasing rapidly, while green bond volumes rose 13 percent to a record USD 305 billion.

ESG considerations are also increasingly being applied to the portfolio decisions of financial institutions and to product development, pricing and underwriting, as well as risk management to protect against ESG-related risks. Both banks and nonbank financial institutions have begun developing sustainable finance frameworks to guide decision-making and provide credibility on ESG-related investments and ESG-focused projects.

As demand grows for financing needs for ESG-focused projects, financial institutions have responded by offering new financial instruments, including products that provide access to borrowers in sectors and industries that might not be considered environmentally and socially sustainable.

1. Introduction

Since 1993 UNDP has been assisting the government of Ukraine in developing solutions for the transition from a planned to a market economy. Building a green economy in Ukraine is a core of the Association Agreement with the EU and facilitating a green and resilient COVID-19 recovery has become a key area of UNDP support to the Government of Ukraine. Transition to a green economy and climate neutrality in accordance with requirements of the EU will be associated with the need to abandon old and inefficient carbon intensive economic activities by developing and implementing completely new business-models. These new business model should be based on the low carbon content of the products and services, which requires implementation of the Monitoring, Reporting and Verification system (MRV) and better management of the climate-related risks. These steps will be associated with tremendous technical challenges and enormous private investments will be needed to make the necessary changes happen. Transition to a green economy will require adjustments in financial market infrastructure as well and sustainable finance has become a key area of UNDP support to the Government of Ukraine.

Sustainability risk management is an essential part of sustainable finance. Sustainability risks can arise in environmental, social, and business contexts and negatively affects the value of an investment. To enable retail and corporate customers and investees to make fully informed decisions, it is important that they know about all sustainability risks and sustainability impacts on the business and have access to information regarding sustainable investments. Additionally, they need to be empowered to assess social and economic roles of financial products. The disclosure of information on Environmental, Social and Governance (ESG) risks is one of the key components in the policy framework for sustainable finance and these factors should be certainly considered while elaborating recovery packages such as the one being implemented in Ukraine. ESG disclosure regulations ensures that such information is properly disclosed and helps customers to make informed decisions[1].

The Disclosure Regulation (EU 2019/2088) defines new standards for dealing with sustainability risks, negative sustainability impacts, adverse social and environmental aspects, as well as sustainable investments. The Regulation explain the levels and characteristics of disclosure for financial market participants and financial advisors (**Appendix 1**).

[1] Schlaffer Et Al., Disclosure Regulation EU 2019/2088 2021

2.Project Background

UNDP's "Supporting Green Recovery in Ukraine" Project will provide support while assessing exposure of the Ukrainian economy and financial system to non-financial risks, driven by ESG developments. Within this framework, the Project will support one of two financial sector regulators, the National Bank of Ukraine in developing ESG disclosure standards for nonbank financial institutions.

The two main financial regulators in Ukraine are the National Bank of Ukraine (NBU) and the National Commission on Securities and Stock Market (NCSSM). NBU is the central bank of Ukraine and the banking regulator with its main function being the stability of the banking system. NBU regulates all bank and nonbank financial institutions (NBFIs). NBU oversees the following;

- insurance companies
- leasing and financial companies
- credit unions
- pawn shops and
- credit bureaus

National Commission on Securities and Stock Market (NSSMC) has as its purpose, "to create, through its regulatory and supervisory functions, the conditions for the proper and efficient functioning of the securities market, to provide cash capital to the needs of the country's economy by creating a mechanism for the accumulation, distribution and redistribution of funds from a person who has free investment resources to a person, which needs such resources for development, creation of conditions for formation of powerful domestic investors and protection of rights of investors". NSSMC oversees the following:

- capital market intermediaries
- non-state pension funds and
- construction financing funds[2].

3.Scope of Services

The scope of work of this project will be to work with financial institutions (and specifically nonbank financial institutions) that fall under the purview of the NBU. NBU's organizational chart shows that NBU has a Nonbank Financial Services Supervision Department under the heading of Prudential Supervision and a Nonbank Financial Institutions Regulation Methodology Department under the heading of Monetary Stability.

[2] Investor Briefing - EU Regulation on Sustainability-Related Disclosures In the Financial Services Sector 2021

As per a definition from the World Bank, Nonbank Financial Institutions or NBFIs are financial institutions that do not have full banking licenses and cannot accept deposits. They do however supplement banks by providing the infrastructure to allocate surplus resources to individuals and companies with deficits and introduce competition in the provision of financial services. NBFIs facilitate alternative financial services, such as investment (both collective and individual), risk pooling, financial consulting, brokering, money transmission, and check cashing. They unbundle and tailor financial services to meet the needs of specific clients and specialize in one sector and develop an informational advantage. Examples of nonbank financial institutions in the EU include insurance firms, institutional investors like pension funds, mutual funds, hedge funds, private equity funds, brokers and dealers (money market) and investment banks[3].

Appendix 2 shows which regulators (National Bank of Ukraine in Ukraine (NBU) or National Commission on Securities and Stock Market (NSSMC)) supervise the market participants listed in EU Regulation 2019/2088.

Part 1

This part of the report covers the following area:

- Overview of the EU Regulation 2019/2088 on sustainability-related disclosures for nonbank financial institutions in the financial services sector with recommendations for Ukraine on implementation

4.Summary of the EU Regulation 2019/2088

The EU Regulation 2019/2088 on sustainability-related disclosures (also known as the Sustainable Finance Disclosure Regulation (SFDR)) in the financial services sector entered into force on March 10, 2021. The purpose of the SFDR regulations is to create and clarify disclosure requirements for sustainability risks in the financial services sector in order to achieve more transparency on how financial market participants and financial advisers consider such risks in their investment decisions and insurance or investment advice. The passing of the regulation now means that certain financial market participants in the EU are required to make mandatory environmental, social, and governance (ESG) disclosures and encourages investors to identify, assess and mitigate the potential adverse impacts of their investment on society and the environment.

The purpose of this Regulation is threefold and is as follows:

- To redirect capital flows towards sustainable investments and financial products

[3] World Bank Group, Nonbank Financial Institution 2017

- Promote inclusion of sustainability in risk management and the integration and consideration of sustainability risks and adverse sustainability impacts in decision making or investment advice processes, and
- Foster transparency into financial and economic strategy

The EU Regulation proposes uniform disclosure obligations on how financial market participants and financial advisors integrate ESG factors at the entity level (in their investment decision processes) and at the product level. The reason for this is to make it easier for end-investors to make informed investment decisions, while preventing greenwashing or misleading information about how a company's products are more environmentally sound.

Broadly speaking, the EU Regulation applies to all asset managers and financial advisors, who must publish information on their sustainability processes on their websites and in their pre-contractual disclosures. On their website, asset managers and financial advisers must provide information on their remuneration policies on how they integrate sustainability risks into them; and information on their strategies to consider adverse impacts of investment decisions on sustainability. In their pre-contractual disclosures, asset managers and financial advisers must show the way sustainability risks are integrated into their investment decision or insurance advice, the potential impacts of sustainable risks on the returns of financial products; and information on how the financial products consider principal adverse impacts on sustainability factors[4].

The asset managers must then divide financial products into three categories: dark green, light green, and non-sustainable, depending not only on their environmental but also on their social and governance impact. They must also disclose considerations of adverse sustainability impacts (as per the "Do No Significant Harm" (DNSH) principal which requires that no detrimental impact should come to any of the six environmental objectives of the EU Taxonomy regulation) on a comply or explain basis.

Asset managers and financial advisers must also publish on their websites information about their policies on the integration of sustainability risks in their investment decision making process or their investment advice or insurance advice; and include descriptions of the following in precontractual disclosures:

- the way sustainability risks are integrated into their investment decisions or investment or insurance advice; and
- the results of the assessment of the likely impacts of sustainability risks on the returns of the financial products they make available or advise on.

[4] EU Regulation on Sustainability-Related Disclosures 2020

5. Recommendations for NBU

To help Ukraine shift to a low-carbon and resilient economy, the country needs to adopt appropriate standards and policies to build a sustainable financial sector, and that which would help it with further European integration. The recommendations for NBU on implementation of sustainability-related disclosures in the financial services sector are as follows:

RECOMMENDATION #1:

NBU should encourage the entities that it supervises to introduce sustainability risks and impact disclosures at the entity and the financial product level in a bid to increase transparency

To help develop a Ukrainian sustainable finance action plan that will focus on green financing and good environmental, social, and governance (ESG) standards to help banks and NBFIs in Ukraine operate more sustainably, NBU should consider amending its existing regulations to introduce sustainability risks and impact disclosures at the entity and the product level. The regulation to be introduced should look at helping the market develop more sustainable investment products and a more transparent offering. The effect that this will have would be to encourage consideration of sustainability risks and ESG incorporation into investment decisions.

Similar to the requirements of the SFDR, such regulations should have transparency requirements on the characteristics of financial products such as including the risk of depreciation in the value of underlying assets due to environmental or social events and considering Principal Adverse Impacts (PAIs) on sustainability factors which are defined as the negative effects that may happen on environmental, social and employee matters, respect for human rights, anti-corruption and anti-bribery, resulting from an investment decision[5].

Due diligence and engagement policies regarding the consideration of PAIs arising from sustainability factor must also be disclosed at the entity level. These steps will ensure that financial products' characteristics can be compared to each other on the basis of their degree of sustainability.

[5] Ter Laag, An Introduction to The Sustainable Finance Disclosure Regulation 2021)

RECOMMENDATION #2:

NBU should make it mandatory for the entities that it supervises to publish information on their sustainability process on their websites, pre-contractual disclosures and through periodic product disclosures to strengthen protection for end investors

EU Regulation 2019/2088 (SFDR) keeps transparency at the forefront. Publishing information is key to this as it allows engaging with investees to provide the relevant ESG metrics and data that is needed to account for investment practices

To be aligned with SFDR, NBU must make it mandatory for the entities it supervises (asset managers and financial advisers) to periodically publish on their websites the following at the entity level:

- Policies on the integration of sustainability risks in their decision-making
- A Principal Adverse Impacts (PAI) sustainability statement
- An adverse sustainability impacts statement
- Renumeration policies

For the product level, entities should periodically publish on their websites the following:

- How sustainability risks are integrated into investment decisions
- The likely impact of integrating sustainability risks on the return of the financial product

NBU must also mandate that precontractual and periodic disclosures must identify the environmental objectives to which the product contributes and show how and to what extent the product's investments are aligned with existing Ukrainian sustainable finance classification. These will take the form of graphs and changes to the existing SFDR mandatory templates to make them more aligned with Ukrainian regulation. In addition, independent assurance should be considered.

Publishing this information will allow investors to evaluate company ESG data to quantify sustainability risks and evaluate the extent to which they represent investment material risks as well as adverse sustainability risks to society[6].

[6] Welling-Steffens Et Al., The EU Sustainable Finance Disclosure Regulation Enters into Force 2021)
(Principals For Responsible Investment, Investor Briefing - EU Regulation on Sustainability-Related Disclosures In the Financial Services Sector 2021)

RECOMMENDATION #3:

NBU should recommend to the entities that it supervises that they should disclose considerations of adverse sustainability impacts and adhere to a principal like the "Do No Significant Harm" criteria present in the EU Taxonomy

To comply with the SFDR regulation, NBU should recommend to the entities that it supervises that they should consider a range of adverse sustainability impacts and continuously seek additional ways to mitigate adverse impacts in a robust and meaningful way. Integrating PAIs into the investment process allows for following of the "Doing No Significant Harm" criteria that is present in EU Regulation 2019/2088.

NBU should also inform these entities that compliance and consideration of sustainability factors can increase resilience and the stability of the financial system. There is ample evidence that poor environmental performance and undesirable corporate impacts may negatively impact operations, limit access to capital, and cause adverse reputational effects. Disclosing such impacts require an asset manager to describe its due diligence policy on how it will take adverse sustainability impacts which investee companies have on sustainability factors into account when making investment decisions.

The consequence of this would be to lead some asset managers to adopt investment restrictions on certain borrowers based on the ESG profile of their economic activities and how well these are being managed. NBU can also recommend to the entities to publish statements on their websites that they have a due diligence policy on considering investment decisions on sustainability factors in relation to climate and other environment-related impacts and adverse impacts in the field of social and employee matters, respect for human rights, anti-corruption and anti-bribery matters. This statement could also be then disclosed on the website of the entity[7]. NBU could also ask these asset managers to divide financial products into three categories: dark green, light green, and non-sustainable, depending on their environmental, social and governance impact.

With regards to financial products, if any of these products involve sustainable investments, NBU should recommend to the asset manager to disclose how those investments comply with a principal similar to the 'Do No Significant Harm' criteria laid out in EU regulation 2019/2088. The 'Do No Significant Harm' criteria ensures that no significant harm should be done to the six environmental objectives of the EU Taxonomy (climate change mitigation, climate change adaptation, sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control and protection and restoration of biodiversity and ecosystems).

[7] Principal Adverse Impacts - Citi.Com 2020

RECOMMENDATION #4:

NBU should inform the entities that it supervises that non-disclosure can lead to reputational risk and the perception among regulators, investors and investees that entities with non-disclosure have inadequate risk management capacity

Reputational risk is becoming increasingly important for organizations, and it directly depends on the information available about companies' environmental performances. Non-compliance with EU Regulation 2019/2088 can possibly lead to such a reputational risk.

As the regulator, NBU should inform the entities that it is supervising that they should incorporate sustainability risks into their investment policies to avoid the perception of inadequate risk management. One of the main reasons being that an entity may suffer financially if it gains a negative reputation in connection with its sustainability-related disclosures. Where corporate environmental management and reporting have an impact on corporate reputation, a regulatory authority like the NBU could promote the use of information about the environmental performance of entities as an environmental policy instrument. Further, the NBU could clarify to the entities that it supervises that any reputational damage could potentially hamper investment flows in the future leading to a financial loss[8].

RECOMMENDATION #5:

NBU should endeavor to create a domestic green taxonomy comparable to the EU Taxonomy with a harmonized definition of sustainable investments

The EU Taxonomy establishes a list of environmentally sustainable economic activities and provides companies, investors, and policymakers with appropriate definitions for which economic activities can be considered environmentally sustainable. By doing this, it creates security for investors and helps shift investments where they are needed the most[9]. The EU Taxonomy is a transparency tool that introduces mandatory disclosure obligations on some companies and investors while establishing and maintaining clear criteria for activities to define what it means to make a substantial contribution and what it means to do no significant harm[10].

NBU should make efforts to create a domestic green taxonomy like the EU Taxonomy because of the following reasons:

[8] Pineiro-Chousa Et Al., Managing Reputational Risk Through Environmental Management and Reporting: An Options Theory Approach 2017
[9] EU Taxonomy for Sustainable Activities 2021
[10] FAQ: What Is the EU Taxonomy and How Will It Work in Practice?

- Will allow for comparison between the portfolios of Ukrainian financial market participants and financial advisers
- Will guide financial market participants in their investment decisions
- Companies can plan their environmental and climate transition and raise finance for this transition
- Will allow for companies to design credible financial products because it could happen that financial products that do not claim to achieve any degree of sustainability may face distribution difficulties as they will have to clearly disclose that they consider neither sustainability risks, nor PAI on sustainability factors, nor meet the Ukrainian taxonomy criteria that define environmentally sustainable economic activities.

Like the EU Taxonomy which is meant as an enabler of change and encourages a transition towards sustainability, a Ukrainian domestic green taxonomy may have a trickle-down effect on investors who require the information from businesses to ascertain the level of sustainability risk on their investments, and on the businesses that will have to provide such information in a manner that aligns with such a taxonomy, to remain an interesting prospect for investors.

RECOMMENDATION #6:

NBU should seek to achieve more transparency on the renumeration policies of financial market participants and financial advisers related to the entities that they supervise, with respect to their investment advice

EU Regulation 2019/2088 requires financial market participants and financial advisers to gather information on how remuneration policies are consistent with the integration of sustainability risks. NBU should ask the entities that it supervises to design their remuneration policies to ensure employees are rewarded for behavior that upholds a culture that aligns with the interests of their clients and investees and that individual variable remuneration may be reduced in the light of any associated risk outcomes. Such a policy must then motivate employees to achieve individual and corporate performance outcomes that deliver long-term sustainable results while complying with applicable regulations, enhance client experience, promote sound and effective risk management and avoid conflicts of interest[11].

NBU can ask that remuneration policies be aligned to this and state that according to a sound and prudent risk management, the entity does not encourage risk taking (including sustainability risks) or that variable remuneration can depend on the achievement of specific professional and technical objectives and in identifying such objectives, the entity does not encourage an excessive assumption of risks related to sustainability[12].

[11] EU Regulation on Sustainability-Related Disclosures 2020
[12] Hog-Jensen & Poncin, Impact of SFDR On Non-EU Managers 2021

Part 2

For a successful transition, effective environmental, social and governance (ESG) disclosure is important as it allows stakeholders to understand both the potential opportunities and the risks to their balance sheets across the corporate landscape. In this way, it allows capital to be better allocated to fund sustainable solutions. Effective ESG disclosure also sets into most government's plans to be better prepared for climate change in the long run and permits them to respond to, appreciate and observe stakeholder concerns[13].

Along with ESG disclosures, institutions (both banks and NBFIs) are now expected to understand the impact of climate-related and environmental risks in the short, medium and long term on the business environment in which they operate so as to be able to make informed strategic and business decisions. Legislation such as that in the EU directs such institutions to include climate-related and environmental risks in their risk appetite framework, business strategy and business objectives and those that materially impact their business environment over time. These institutions also must monitor, report and verify such climate risks as well as include them in their existing risk management framework and develop stress-testing scenarios that incorporate climate-related and environmental risks.

As a result of the rapid growth of interest in ESG and sustainable finance by investors and as ESG becomes a part of regulatory requirements, it has become an increasing challenge to financial institutions (especially NBFIs), particularly regarding integrating ESG risk factors into existing risk management frameworks[14]. This is essential because when comparing individual companies in different sectors, a positive assessment of the company's management of its ESG factors has been shown to have a positive impact on its ESG profile and overall outlook [15].

This part of the report covers the following area which is as follows:

Analysis of ESG Disclosure Standards (subject to the principle of proportionality), the ESG factors, methodology approaches to measuring and managing ESG risks and integrating the ESG risks into the risk management framework of the firms

[13] Deckelbaum Et Al., ESG Disclosures: Frameworks and Standards Developed by Intergovernmental and Non-Governmental Organizations 2020
[14] Deloitte, ESG Risk Management Framework 2019
[15] BNPP Reply to The EBA Discussion Paper on Management and Supervision of ESG Risks for Credit Institutions and Investment Firms 2021

6. ESG Disclosure Standards

As ESG gains momentum and urgency, measuring value and providing transparency through disclosure has taken the forefront. Risk management has also started including ESG to mitigate the potential impacts of such risks. Various EU legislation such as MiFID II (Markets in Financial Instruments Directive 2), AIFMD (Alternative Investment Fund Managers), UCITS (Undertakings for Collective Investment in Transferable Securities Directive) and Insurance (Solvency II and IDD) have played a key role in ensuring that there is voluntary and market-based integration of ESG integration and disclosure[16] **(Appendix 3)**. Such measures also need to adhere to the proportionality principle. Within EU law, proportionality is a principle that mainly serves as a framework for decisions to determine whether and/or to what extent rights can be limited by governmental intervention (such as legislation) that is motivated by public interests. The proportionality test applies to acts of the EU institutions as well as to acts of the Member States[17].

For instance, standardizing ESG disclosures reporting needs to be pursued through mandatory regulatory and legislative measures, such as the recent proposal for a Corporate Sustainability Reporting Directive (CSRD). The multitude of disclosure standards and divergence in how companies are graded on their ESG risks however has led to confusion about actual ESG performance.

Some of the intergovernmental initiatives and ESG Frameworks currently present globally are given below:

6.1 Principles of Responsible Investment (PRI)

The PRI was launched in April 2006, and since then the number of signatories has reached over 4200. PRI partners with the UN Environment Programme Finance Initiative (UNEPFI) (a collaboration between the UN Environment Programme and the private financial sector) and the UN Global Compact (a multi-stakeholder leadership initiative), and signatories to the PRI commit to adopting and implementing its six principals:

- to incorporate ESG issues into investment analysis and decision-making processes.
- be active owners and incorporate ESG issues into asset ownership policies and practices;
- seek appropriate disclosures on ESG issues by investee companies;
- promote acceptance and implementation of the Principles within the investment industry;

[16] Vergauwen Et Al., EU: ESG Regulations and Directives Amending MIFID II, UCITS, AIFMD And Insurance Regimes Published In the OJ 2021
17 Sauter, AOP Cambridge Core

- work together to enhance our effectiveness in implementing the Principles; and
- report on their activities and progress towards implementing the Principles[18]

6.2 UN Sustainable Development Goals

In 2015, the UN General Assembly adopted 17 SDGs as part of its 2030 Agenda for Sustainable Development. The UN SDGs are viewed as a framework for shaping and prioritizing business strategy and associated reporting. Over time, they have been incorporated in a growing number of ESG assessment frameworks and investment structures. The SDGs and their targets provide a way to understand and measure investors' real-world impact, and a way for responsible investors to demonstrate how their efforts to incorporate issues such as climate change, working conditions and board diversity into their investment approach are contributing to the kind of world their beneficiaries want to live in. SDGs are used as the foundation of sustainable bonds where funds are raised to align themselves with these goals[19].

6.3 Task Force on Climate-related Financial Disclosures (TCFD)

The Financial Stability Board (FSB) developed a framework for consistent climate-related financial risk disclosures for use by companies, insurance companies and investors. Following this, the TCFD was later launched to develop recommendations on climate-related financial disclosure for such entities through their existing reporting processes and to improve and increase reporting of climate-related financial information. TCFD consists of governance, strategy, risk management, and metrics and targets. Its purpose is to allow companies to incorporate climate-related risks and opportunities into their risk management and strategic planning processes. As this occurs, companies' and investors' understanding of the financial implications grows and empowers the markets to channel investment to sustainable and resilient solutions, opportunities, and business models[20].

6.4 Sustainability Accounting Standards Board (SASB)

The Sustainability Accounting Standards Board (SASB) issues sustainability accounting standards to help public companies disclose material and decision-useful ESG information to investors in their mandatory filings, based on their industry, in line with the notion that under existing regulation, material information should be disclosed. SASB currently offers 77 different industry-specific standards. Its primary aim is to develop standards for use in corporate filings to the U.S. Securities and Exchange Commission (SEC). The intention is to provide investors with comparable, non-financial

[18] About The PRI. 2017
[19] PRI, The SDG Investment Case 2017
[20] About: Task Force on Climate-Related Financial Disclosures (TCFD) 2020

information about the companies whose stocks they or their investment funds owned and to allow investors and financial analysts to compare performance on critical environmental, social, and governance (ESG) issues within an industry[21].

6.5 International Integrated Reporting Council (IIRC)

Through integrated reporting, IIRC aims to do the following:

- Improve the quality of information available to providers of financial capital to enable a more efficient and productive allocation of capital
- Promote a more cohesive and efficient approach to corporate reporting that draws on different reporting strands and communicates the full range of factors that materially affect the ability of an organization to create value over time
- Enhance accountability and stewardship for the broad base of capitals (financial, manufactured, intellectual, human, social and relationship, and natural) and promote understanding of their independencies
- Support integrated thinking, decision-making and actions that focus on the creation of value over the short, medium and long term[22]

6.6 Value Reporting Foundation/Climate Disclosure Standards Board

At the start of 2021, SASB and IIRC merged into the Value Reporting Foundation, a global NGO that offers a comprehensive suite of resources designed to help businesses and investors develop a shared understanding of enterprise value. The International Financial Reporting Standards Foundation (IFRS) further announced in November 2021 that it intends to consolidate the Value Reporting Foundation (VRF) and the Climate Disclosure Standards Board (CDSB), an initiative of the CDP (formerly known as the Carbon Disclosure Project), into the International Sustainability Standards Board (ISSB). The intention is for the ISSB to deliver a comprehensive global baseline of sustainability-related disclosure standards that provide investors and other capital market participants with information about companies' sustainability-related risks and opportunities to help them make informed decisions[23].

6.7 Global Reporting Initiative (GRI)

Global Reporting Initiative (GRI) is an international independent standards organization, whose sustainability reporting standards are widely used for reporting on ESG impacts globally. These standards have been developed through multi-stakeholder contributions. GRI standards support both comprehensive reports and selected disclosures. GRI

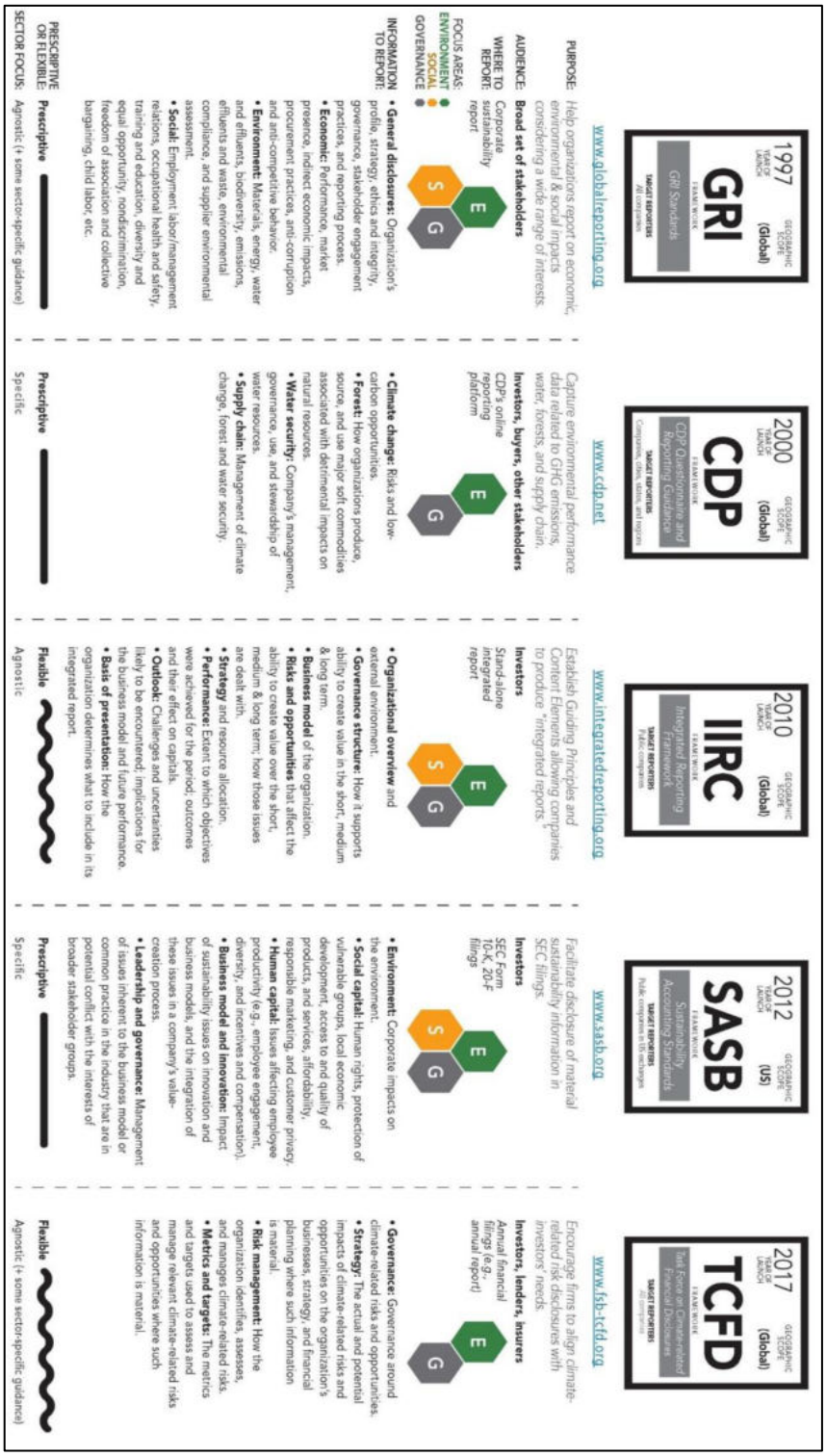
[21] SASB, About Us 2021
[22] VRF, About Us
[23] IFRS, About the International Sustainability Standards Board 2021

provides disclosure standards for companies to communicate their impact on critical sustainability issues such as climate change, human rights, governance, and social well-being. The Initiative focuses on creating standards and guidance for advancing sustainable development, harmonizing the sustainability landscape, leading efficient and effective sustainability reporting and driving effective use of sustainability information to improve performance[24].

6.8 CFA Institute

The CFA Institute's standards on ESG are the most recently released standards and are designed to enable investors, consultants, advisors, and distributors to better understand, compare, and evaluate ESG investment products. These Standards are based on the principles of fair representation and full disclosure of environmental, social, and governance issues within the objectives, investment process, and stewardship activities of investment products. The Standards apply to all types of investment vehicles, asset classes, and ESG approaches, and aim to support investors with information that is complete, reliable, consistent, clear, and accessible.

[24] About GRI



Source: The Conference Board. 2018.
https://esgnavigator.com/knowledge-hub/esg-ratings-library/esg-reporting-frameworks/#gallery

6.9 Comparing and Analyzing ESG Disclosure Standards

The table provides a snapshot of the details of the above standards and what their focus in on, the assessment methodology they use and what type of entities mostly report using these standards.

Standard	Description	Assessment Methodology	Type of Entities Using Them
Principles of Responsible Investment (PRI)	Voluntary and can be used by all investors to incorporate ESG issues into their decision-making and ownership practices	A numerical grading system ranging from 1 to 5 stars, with 1 being the lowest and 5 being the highest	Pension funds, endowments, foundations, insurance providers, development finance institutions, sovereign wealth funds, family offices, wealth managers and asset managers
Taskforce on Climate-related Financial Disclosures (TCFD)	Used by companies, banks, and investors in providing information to stakeholders	Uses physical and transition risk scenarios to help understand and guide decision-making as it relates to climate	Mostly public companies but is applicable to organizations across sectors and jurisdictions
Sustainability Accounting Standards Board (SASB)	Reporting is focused purely on financial materiality	Review the SASB disclosure topics for each industry and identify which disclosure topics are applicable to your company	Some of the most influential asset managers such as BlackRock, State Street and Vanguard all recommend that issuers use the SASB standards in concert with the TCFD framework
International Integrated Reporting Council (IIRC)	Used by diverse organizations to create value creation over time	Uses the IIRC principle-based framework for assessing organizations	The IIRC framework is meant for private-sector businesses but can be applied to public companies as well as not-for-profit entities
Global Reporting Initiative	Materiality is the cornerstone of reporting	Assesses using the three pillars of sustainability: environmental, social and governance	Most widely used by multinational organizations, governments, small and medium enterprises (SMEs), NGOs and industry groups
CFA Institute	Voluntary and used for disclosing how an investment product considers ESG issues in its objectives, investment strategy, and stewardship activities.	Focused primarily on the ESG-related features of investment products such as listed equities and bonds, private equity, private debt, infrastructure, real estate, and other investments	Targeted towards investment managers

6.10 Examples of Disclosure Standards Used by NBFIs

The table provides a diverse set of nonbank financial institutions (investment managers, pension funds, private equity funds and mutual funds) and shows the various types of ESG disclosure standards that they use when reporting.

Name	Type of Institution	Disclosure Standards
Prudential Financial[25]	Financial institution that provides insurance, investment	The ESG Report for Prudential was prepared in accordance with the Global Reporting Initiative (GRI) Standards Core option—in support of the Task Force on Climate-related

[25] Prudential Financial, 2020 ESG Report: Transformation

	management, and other financial products and services	Financial Disclosures (TCFD)—and in accordance with the Sustainability Accounting Standards Board's provisional guidelines for insurance companies.
PensionDanmark[26]	Non-commercial pension company managing labor market funds	PensionDanmark's approach to responsible investment is governed by the 17 SDGs, the Principles for Responsible Investment (PRI), the principles of the OECD's Responsible Business Conduct for Institutional Investors, the Paris Agreement, international conventions and norms and the recommendations of the UN Global Compact.
Carlyle Group[27]	Multinational private equity, alternative asset management and financial services corporation. It specializes in private equity, real assets, and private credit.	Developed an in-house reporting method with guidance from frameworks such as the Sustainability Accounting Standards Board (SASB)
Vanguard Group[28]	Investment advisor and world's largest provider of mutual funds and exchange traded funds	Has a Disclosure Information Statement as per the requirements of EU SFDR and Vanguard Group is a signatory of the UN PRI

[26] Corporate Social Responsibility Report, Om PensionDanmark
[27] The Carlyle Group, Disclosure of Third-Party Compensation
[28] The Vanguard Group, Disclosure Information Statement

7. ESG Factors

ESG factors cover a wide range of subjects that are not usually a part of financial analysis but are considered because they may have financial relevance. These factors are used to evaluate corporates and sovereigns on how far advanced they are with sustainability. ESG factors can trigger either a reduction of ESG risks or a materialization of some risk types such as credit risk, market risk or operational risk[29].

ESG factors are significant for two reasons; the first is role of investors in society and the other focuses on risk management. Large investment management firms manage substantial amounts of capital and decide how and where they want their funds allocated, which now tend to move into areas which have a positive effect on society. For investors, ESG data is increasingly important to identify those companies that are well positioned for a future where climate change might have severe impacts and to avoid those which are likely to underperform or fail[30]. Once enough data has been acquired on the three metrics of environment, social and governance, they are then integrated into the investment process when deciding what financial instruments to purchase[31].

The other reason to consider ESG factors is to incorporate ESG into the investment process to help mitigate risk. Investment in a company with poor ESG standards can expose the portfolio to a variety of risks faced by the company such as worker strikes, litigation and negative publicity, resulting in lower future returns. For investors, monitoring the ESG credentials of an investment can lead to better risk-based judgements[32].

Appendix 4 shows the ESG factors that may be material to a particular investment.

The three factors of ESG are described below in more detail:

7.1 Environmental

Environmental factors include the influence that an entity makes to climate change through greenhouse gas emissions, along with waste management and energy efficiency. Given renewed interest in making efforts to combat global warming, cutting emissions and decarbonizing is gaining importance. These environmental factors can include a company's carbon footprint, waste involved in its manufacturing processes, deforestation and supply chain impacts.

[29] BNPP Reply to The EBA Discussion Paper on Management and Supervision of ESG Risks for Credit Institutions and Investment Firms 2021
[30] Kell, The Remarkable Rise of ESG 2021
[31] Robeco, ESG Definition - Sustainable Investing 2021
[32] Fidelity International, What Is ESG Investing?

7.2 Social

Social factors are wide-ranging and include human rights, labor standards in the supply chain, child labor, as well as workplace health and safety. A social issue may also present itself if a company is well integrated with its local community or a sovereign is involved in looking after indigenous lands. Racial equality and diversity and inclusion program are also included in social factors.

7.3 Governance

Governance refers to a set of rules, policies or principles defining rights, responsibilities and expectations between different groups or stakeholders. A well-defined corporate governance system can be used to line up differing opinions and interests between stakeholders and can work as a tool to support a company's long-term strategy. Governance includes everything from issues such as boardroom diversity, executive pay to gender equality as well as how well that leadership responds to and interacts with shareholders. Governance is important because governance failures have become a growing financial material risk for investors. In the context of increasing scrutiny over ESG metrics, the right governance structure is also seen as key to ensuring transparency, compliance, and veracity with the ESG corporate disclosures and metrics being requested by investors, rating agencies, and potentially regulators[33]

ESG criteria is also used to determine whether a company complies with a preferred level of standards, and many follow an exclusions list.

7.4 Exclusions List

ESG factors also involve an exclusions list, also known as negative screening, where there is exclusion of investments based on one factor or a combination of factors such as ethical, values, or religious considerations; or for violation of compliance with international standards and norms. Exclusion is only used as a last resort when engagement is either not possible, or has failed to achieve the required objective due to a lack of cooperation from the company This is when an potential investee is not considered because their business activities are deemed unethical, harmful to society, or in breach of laws or regulations **(see Appendix 6)**.

[33] EC Study Endorses Faster Integration of ESG Into Bank Risk Management 2021

8. Methodology Approaches to Measuring and Managing ESG Risks

Financial institutions need to proactively start incorporating considerations concerning ESG factors into their business strategy and risk management plans as well as to integrate ESG risks into their internal control frameworks, and decision-making processes. ESG risks can affect various risks that a financial institution is exposed to such as counterparty, market price, liquidity, and operational risks. When measuring and managing ESG risks, the risk management function of financial institutions and NBFIs must consider not only the impact ESG risks have on the organization, but also the potential impact of stakeholders on the NBFI and vice versa the risks to which the NBFI's exposing its stakeholders and the environment due to its business activities.

Embedding ESG risk into the risk management framework of financial institutions requires a sound governance structure. This is because ESG risks can affect all divisions and departments of financial institutions through financial risk and reputational risk. The institution's strategy on ESG risks must also be aligned closely with their business strategy and be constantly updated. For this to happen, financial institutions must assess their ESG exposure including the consideration of ESG risks while evaluating capital adequacy as well as calculating regulatory and economic capital. This must be followed by an exercise in climate risk stress testing which covers both physical and transition risk in the context of climate change. To conclude the process, ESG disclosure and reporting is imperative. As per certain regulations present globally, the publication of a non-financial statement is mandatory for companies of public interest.

For managing ESG risks, financial institutions must also follow the three lines of defense model. The first line of defense affected by ESG risks include the credit and trading business divisions of a financial institution. For this, the financial institutions must consider ESG risk factors in their product development as well as their pricing and sales processes. The second line of defense includes, but is not limited to, functions such as risk controlling, compliance, and business continuity management (BCM) functions. The risk department must develop the methods, processes and tools for dealing with ESG risks and include results in risk reporting. Compliance in turn must examine if the entity meets legal or voluntarily introduced ESG guidelines such as the various EU legislation. Moreover, the BCM function must regard ESG risks as a trigger for business disruptions and provide for continuity. The third line of defense is Internal audit, and this function has to ensure that all relevant processes include aspects of ESG risks in an adequate manner and that they are being met consistently[34].

[34] KPMG, ESG Risks in Financial Institutions 2021

9.Integrating ESG Risks into the Risk Management Framework of the Firms

Several research studies and recent trends have shown ESG's positive impact in creating higher value, increasing demand by investors in transparency and a reduction in the cost of capital that leads to effective management of risks faced by firms[35]. The European Commission (EC) published a report on the study that explores the development of tools and mechanisms for integration of environmental, social, and governance (ESG) factors into the regulatory framework as well as into the business strategies and investment policies of financial institutions. Findings that were discovered and written about in the report show that ESG integration is at an early stage and the pace of implementation needs to be accelerated. To quicken the speed, enhancements are required on ESG definitions, measurement methodologies, and associated quantitative indicators. Data inadequacy and common standards remain key challenges to be overcome to drive ESG integration[36].

Integrating ESG factors into existing risk management frameworks nonetheless poses a challenge to financial institutions and NBFIs in the EU. ESG integration is important not only for financial institutions' risk management but also for ensuring safety and soundness of the EU financial system. Unmanaged climate risks can impact financial institutions and investment firms' clients' viability, solvency and returns potential and with that the profitability and risk of the institutions themselves.

For a financial institution to integrate ESG risks, it should have an ESG framework to fit into the risk management framework. Such frameworks distinguish between three risk horizons: short-term (1-3 years), medium-term (4-9 years) and long-term (10+ years). In the short-term horizon, the focus is on the harmonized implementation of ESG risks definitions, with appropriate Key Performance Indicators (KPIs). In the medium term, the focus is on the vulnerability and sustainability of the business models of clients and the institution and in the long term, the objective is to achieve carbon neutrality[37].

Most financial institutions would need to make amendments in their risk management frameworks for ESG risk integration. Their risk management should be adjusted to include the following components such as:

- Risk Appetite Statement – An institution's risk appetite statement should state that sustainability risks are considered
- Governance Structure – Senior management should be responsible for integrating sustainability risks into the governance structure

[35] Gross & Viard, Opportunities and Challenges for Integrating ESG Risk into Existing Frameworks 2021
[36] EC Study Endorses Faster Integration of ESG Into Bank Risk Management 2021
[37] Banking Stakeholder Group, Discussion Paper on Management and Supervision of ESG Risks for Credit Institutions and Investment Firms 2021

- Risk Ownership – Ensuring that the institution has sufficient human resources to integrate sustainability risks
- Engagement – There should be thorough engagement with investee companies on the issue of sustainability risk
- Compliance – Financial institutions like banks and NBFIs should comply with relevant EU legislation around environmentally sustainable investments
- Reporting – There should be effective reporting on sustainability risks including the use of reliable and available data [38]

The risk appetite statement of DHB Bank, a Dutch banking group is given in **Appendix 5**. Among other risks that are accounted for, it shows that DHB Bank also factors in climate risk as a part of credit risk.

Some of the best practices as given by a report written by BlackRock for the European Commission[39] for financial institutions is to integrate ESG into their risk management are as follows:

- Financial institutions and supervisors should work to develop a common framework for understanding ESG risks and consider the double materiality perspective. This means that financial institutions should be subject to a single and consistent set of ESG requirements, from disclosure to risk management and the focus should not only be on a client's financial risks but also on the impact of their activities on the environment and society.
- Financial institutions should make public commitments so that they can be held accountable on their progress on ESG risk integration.
- Financial institutions should develop internal capabilities through capacity building measures, data enhancement and infrastructure improvements for measurement of ESG risks. Reliable, and standardized data are prerequisites for the development of quantification and forward-looking methodologies but reporting and data availability is not yet at the expected level of the financial reporting
- Approaches to measure exposure to ESG risks, such as internal stress testing and scenario analysis, should be further refined through more market collaboration and the development of dedicated methodologies for risk measurement and vulnerability.
- To harmonize and improve ESG product classification and offerings and reduce the risk of greenwashing, compliance with certain standards, such as the EU Green Bond Standard or the EU Taxonomy, could be made compulsory.
- Measures aimed at increasing accountability of ESG strategies at executive and board level could be introduced and increasing alignment with international agreements and initiatives.
- Where possible, quantitative KPIs should be attached with ESG risks, and these should be integrated in risk management frameworks through quantitative approaches and ESG risks should be treated similarly to established financial and non-financial risk types.

[38] Deloitte, ESG Risk Management Framework 2019
[39] Development Of Tools and Mechanisms for The Integration of ESG Factors into The EU Banking Prudential Framework and Into Financial Institutions ' Business Strategies and Investment Policies: Final Study. 2021

The report also highlights the role of regulatory supervisors and states the following:

- Regulatory supervisors in the EU are still debating whether ESG risks are principal risks or risks that mitigate or exacerbate existing risk types.
- There is no consensus among supervisors on how to measure ESG risks quantitatively with ESG risks being measured mostly qualitatively with a lack of prioritization
- A lack of categorization of assets based on their ESG risk profiles is absent and an expanded taxonomy is needed for this
- Many of the supervisors/regulators in the EU have communicated guidelines and best practices of ESG integration covering ESG strategy and governance

As ESG becomes an integral part of the risk and governance framework, it should be included in key decision-making processes as essential drivers in assessing prudential risk. Similarly, ESG should be embedded into firms' values and mission statements to show that such values are held in high regard by decision-making authorities.

Part 3

The integration of environmental and social (E&S) risk management into management systems and practices of financial institutions brings opportunities, including new lines of business, new clients, greater access to financing, greater shareholder value, and improved reputation and goodwill. These E&S risks must be managed effectively because they can lead to a decline in the financial institution's reputation, have legal and regulatory repercussions along with impacting the profitability of the institution. If businesses and the financial institutions that finance them do not identify and manage these risks, they are both likely to lose public support.

Financial institutions do have direct environmental impacts such as the energy used by their office locations and branch network but their principal exposure to E&S risks arises indirectly through their product suite, lending criteria and investing activities into the operations of their clients. A financial institution's environmental and social risks are those of their clients and investees and are inherent in the operations of both. Environmental and social risks can be mitigated through policies and frameworks that meet international environmental and social standards[40].

E&S risks are of different kinds and range from biodiversity to human health to those activities affecting indigenous people and surrounding communities. These risks depend on several factors, such as the specific issues associated with a client's operations, the industry sector, and the geographic and regulatory contexts. Clients and financial institutions must both build environmental and social management systems and along with disclosure and reporting requirements of climate change-related risks, this can play a critical role in the proper management of such risks. Thus, it is critical in ensuring that the effect of climate change and climate policies are correctly managed by financial institutions[41].

These ESG risks can vary by country or region, line of business, type of cover, economic sectors, client characteristics and due to other factors while ESG opportunities arise from providing services in advisory, financing, investing and market making solutions.

This part of the report covers the third deliverable which is as follows:

Preparation of a summary report with analysis of approaches to management of environmental and social risks. Included will be an overview of best practice with recommendations for National Bank of Ukraine

[40] First For Sustainability, Environmental and Social Risk for Financial Institutions
[41] Martin Et Al., Working Paper Series (ESCAP/ 1-Wp/ 1): Factors Affecting the Environmental and Social Risk Management of Financial Institutions In Selected Asia-Pacific Developing Countries 2021)

10. Management of Environmental and Social Risks

Client demand from institutional investors and concerns about materiality are leading to financial institutions looking at driving positive environmental, social and governance (ESG) outcomes. These ESG outcomes come with positive benefits for financial institutions (banks and nonbank financial institutions) when they take an active role in developing a sound risk management approach in mitigating environmental and social risk. The business case for environmental and social risk management and sustainable finance for financial institutions means having an expanded market share through new business lines, a first mover advantage by enabling greater margins and less competition and monetizing of an existing client base while attracting new and quality clients. It also reduces reputational risks and enhances brand value.

This is also demonstrated when financial institutions have clients with strong E&S risk performance or those who are working towards this. For managing E&S risks, the setting up of an Environmental and Social Management System (ESMS) and an E&S policy for banks and NBFIs is essential.

10.1 Environmental and Social Management System

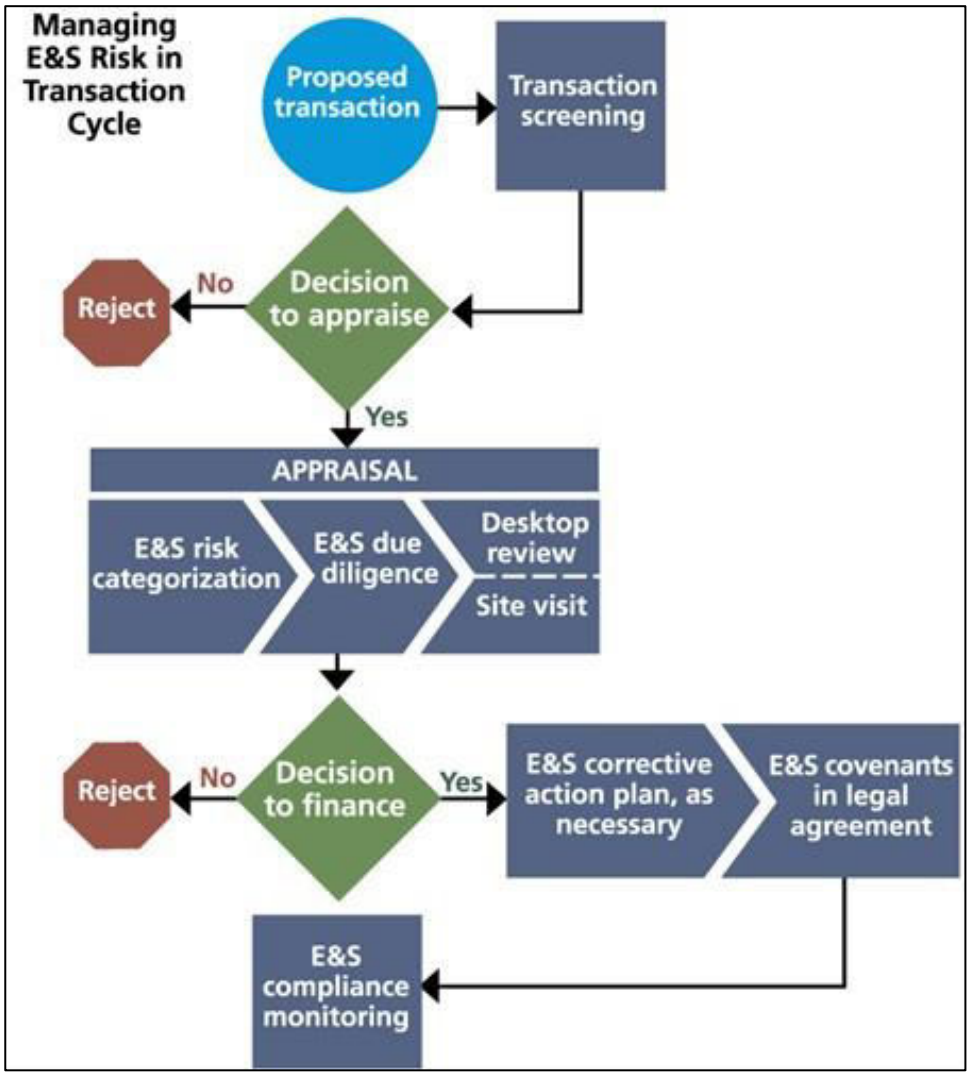
Some potential environmental and social risks may not seem significant or relevant at the time of approval of a financial transaction, but may become so during execution, for instance because of higher regulatory standards and increased levels of enforcement. To deal with this, a financial institution must have an ESMS that states the commitment to environmental and social management, explains its procedures for identifying, assessing and managing environmental and social risk of financial transactions, defines the decision-making process and the roles and responsibilities of different departments and capacity needs of staff for doing so. It also states the documentation and recordkeeping requirements. The management of these risks should also be tailored to the individual institutional characteristics of each financial institution, which are different for banks and NBFIs[42].

To mitigate such risks, it requires proactive identification, assessment, and management of environmental and social risks before they become significant or result in an adverse outcome. A financial institution's transaction cycle typically includes identification, screening, appraisal, formal approval, negotiation, disbursement and then the monitoring. In the case of documentation, a financial institution's documents associated with each stage of the transaction cycle should be revised to incorporate environmental and social risk considerations or new forms should be developed, if necessary[43]. Documentation and recordkeeping are important because it allows the financial institution to track the environmental and social performance of each transaction and to assess the financial institution's overall exposure to risk. Once a transaction has been approved, the financial

[42] First For Sustainability, What Is An ESMS?
[43] First For Sustainability, Integrate with Existing Risk Procedures

institution needs to monitor the client's/investee's ongoing compliance with the environmental and social clauses. The monitoring process generally involves a review of periodic environmental and social performance reports submitted by the client/investee and regular site visits[44].

The chart below shows how E&S risks can be managed in a transaction cycle.



Source: Managing Environmental and Social Risk. First for Sustainability

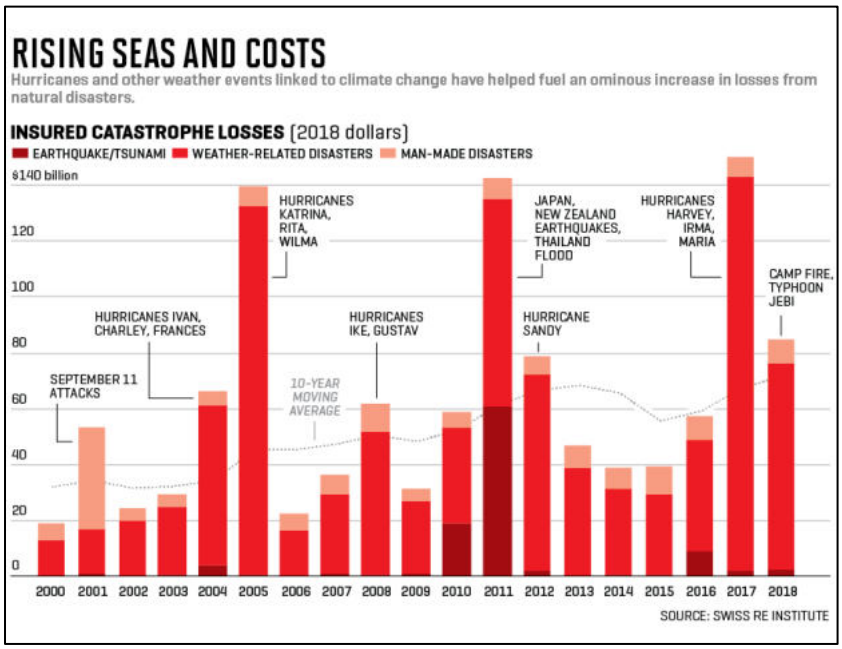
[44] First For Sustainability, Documentation and Recordkeeping

10.2 E&S Risks in Insurance Companies

When insurance companies sell insurance policies to clients, they agree to cover the potential damages associated with an event that meets pre-established requirements in exchange for the regular payment of a premium. Insurance such as that for property carries some environmental and social risks, usually associated with natural disasters like fires and earthquakes. Companies that operate in shipping, construction, and infrastructure development and in extractive industries like mining also have exposure to significant environmental and social risks.

When an insurance company underwrites their potential exposure to claims that are related to environmental and social issues, such as damages resulting from industrial mishaps or natural causes, they factor these risks into the cost of the insurance policy and often work with their clients to minimize them. Insurance companies may also face reputational risk due to their association with high-risk projects, such as those in extractive industries[45].

For instance, one of the world's largest insurance providers Swiss Re estimated insured losses in 2016 amounted to less than one-third of the approximately USD 175 billion in total disaster-related losses, leaving a protection gap of USD 121 billion[46]. The chart given below from the Swiss Re Institute shows how climate related natural disasters have led to an increase in losses for the insurance company



Source: Swiss Re Institute

[45] First For Sustainability. Risk In Insurance.
[46] NGFS Secretariat, Overview of Environmental Risk Analysis by Financial Institutions 2020

11.Models Used for Assessing Different Types of ESG Risks

A lack of recognition and pricing of environmental and social risks could lead to significant financial losses for financial institutions that provide financing to those exposed to such risks. To mitigate such risks stemming from physical and transition risk related to climate, financial institutions use forms of scenario analysis and stress tests to judge the financial impact.

11.1 Physical Risks

Models assessing physical risks first capture the impact on company financials. Declining revenues or rising costs can be the direct result of environmental or climate events that cause property and other damages, or an indirect or secondary effect of physical events. The most common secondary impact is business interruptions and reduced economic activities. Examples include electricity outages, disruptions to supply chains and declining demand for the company's products due to an economic slowdown. The resulting changes in financial statements are then integrated into financial models to quantify the financial risks both on a portfolio basis and individual client basis. Results are then presented as a scenario analysis or a stress test. An example of this is when financial models are used to analyze the impact of natural disasters by inputting them in financial variables related to insurance, asset management and banking operations.

11.2 Transition Risks

Like physical risk models, typical models used for assessing transition risks try to first capture the financial statement impact of policy and technological changes at the company level driven by environmental and climatic factors under various scenarios. Using temperature-based or event-based scenarios, the financial models seek to quantify the loss in revenue or costs by the impact of energy-transition policies and technology changes in industries that are carbon-intensive. These changes in the financial statements of corporates, banks and nonbank financial institutions are then integrated into risk models by financial institution to assess financial risks on a portfolio basis and on an individual transaction basis.

Such as when in 2015, the Industrial and Commerce Bank of China (ICBC) developed its first environmental stress test to analyze the impact of environmental policy changes. This was because China was then facing very serious air pollution and the government announced a series of anti-pollution measures and its intention to adopt even tougher measures in the following years[47].

[47] NGFS Secretariat, Overview of Environmental Risk Analysis by Financial Institutions 2020

The chart given below shows examples of climate-related financial risks (physical and transitional) to a financial institution's assets

	Credit	Market	Operational
Physical	Increasing flood risk to mortgage portfolios Declining agricultural output increases default rates	Severe weather events lead to re-pricing of sovereign debt	Severe weather events impact business continuity
Transition	Tightening energy efficiency standards impact property exposures Stranded assets impair loan portfolios Disruptive technology leads to auto finance losses	Tightening climate-related policy leads to re-pricing of securities and derivatives	Changing sentiment on climate issues leads to reputational risks

Source: Bank of England Prudential Regulation Authority

11.3 Models Used by Asset Managers

Models typically used by asset managers show how environmental factors lead to declining revenues and increasing costs for a carbon-intensive portfolio, which in turn reduce the present values of their future dividends or cash flows. The model then shows the estimated changes in the valuation of a security, an asset (e.g., stock, bond, property or infrastructure) or a portfolio under various scenarios and they are the typical "output" of the model.

11.4 Models Used by Insurance Companies

Insurance companies underwrite business by providing companies who are their policyholders with insurance services and solutions while acting as major institutional investors by investing the premiums they receive. For underwriting, insurance companies face increased liabilities from physical risk due to climate change and therefore use catastrophe modelling to estimate the potential charge they might get in the future. For investing their premiums, they typically use the same models as asset managers[48].

[48] NGFS Secretariat. Overview Of Environmental Risk Analysis by Financial Institutions 2020

12. Examples of Approaches to Management of Environmental and Social Risk by NBFIs

It has been recognized globally that financial institutions must acknowledge the challenges posed by climate change. Many of these FIs have drawn out sustainability roadmaps to promote sustainable economic growth while ensuring that capital, both financial and human is used to address critical environmental issues. Many are using this to create new business opportunities that benefit the environment while creating long-term value for their shareholders and serving the long-term interests of their clients.

NBFIs have adopted different approaches to the management of environmental and social risk (**see Appendix 6**). Some examples are listed below:

12.1 Investment Managers

Goldman Sachs Asset Management (GSAM)

As an investment manager, Goldman Sachs Asset Management does the following in terms of environmental and social risk:

- *ESG Integration:* The asset management firm integrates analysis of environmental, social and governance into its investment process and ESG concerns into their proxy voting policies. It also reports on best practices and its progress in terms of ESG
- *Portfolio Diagnostics:* The firm works with its clients to analyze and understand the impacts of their portfolios in terms of ESG using a carbon footprint analysis to quantify the absolute and intensity of greenhouse gas emissions embedded in the portfolio
- *ESG Product Development:* The asset manager works with its clients to reduce their carbon intensity by developing products and solutions that exclude fossil fuel heavy industries. They have also launched an energy efficiency initiative across their current portfolio of real estate holdings to maximize operating efficiencies and minimize environmental impact[49].

12.2 Hedge Funds

A report written by BNP Paribas in October 2020[50] about hedge funds and ESG states that by mid-2022, there will be more funds integrating ESG into their investment process than not, driven by client demand. The survey also says that a vast majority of hedge

[49] Goldman Sachs, Environmental Policy Framework
[50] BNP Paribas, The Hedge Funds and ESG Report 2021

funds state that social factors are the most difficult to analyze and integrate into investment decision-making.

Bridgewater Associates

As one of the largest hedge funds in the world, Bridgewater Associates has listed sustainable investing and ESG integration as one of its strategic priorities. It divides its sustainable investing strategy into three pillars: macro research, portfolio construction and their sustainable investing policy.

- *Macro Research:* The hedge fund researches ESG considerations that affect markets and economies to understand ESG issues and integrates that research into their investment process in a manner that is consistent with the way they manage their money. For example, the research that Bridgewater does into low-carbon economy scenarios flows into their projections on the impact of demand for commodities, influencing the way they invest
- *Portfolio Construction:* Bridgewater Associates designs the portfolios of its clients in a bid to achieve financial and sustainability goals including those that have environmental and social impacts
- *ESG Policy:* The ESG Policy of Bridgewater Associates is directly overseen by a Sustainable Investing Committee within the fund which and reviewed on a regular, ongoing basis. The Sustainable Investing Committee also provides quarterly business updates to the CEO as well as regular updates to Bridgewater's Investment Committee, which may result in updates to the policy

Bridgewater Associates also states that it is compliant with all applicable sanctions on their asset holdings but do not have a firmwide exclusions list that excludes investments solely for environmental or social impact reasons.

12.3 Mutual Funds and Exchange Traded Funds (ETFs)

Fidelity International

Fidelity International is a global leader in the investment and retirement savings industry and manages a large family of mutual funds. According to its Sustainable Investing Policy, the fund's manager tries to integrate environmental, social and governance (ESG) factors into its investment research and security selection process. Fidelity International does this to seek measurable improvements in the behavior of the companies it invests in or lends to, both directly and through cooperation with their clients.

For sustainable investing purposes, Fidelity International has developed its own proprietary framework for ESG analysis, which is integrated into the analysis of companies and depends upon the exposure of its financial securities to sustainability risks. The framework divides the investment universe into 99 subsectors, each with industry specific criteria against which the issuer is assessed relative to its peers, using

an A to E rating scale (A being the top rating). The sustainability ratings which are updated annually and on the occurrence of a significant ESG event draw upon the assessments of more than 180 equities and fixed income analysts who take part in more than 15,000 company meetings a year. It is used overall as a tool to support investment decisions[51].

12.4 Pension Funds

Pension funds are particularly vulnerable to ESG risks due to the long-term nature of their investments. Climate change can adversely affect asset values, particularly for long term investors yet it is difficult to price and hedge. This problem arises because there is insufficient disclosure by the funds and the firms whose securities they are holding in their portfolios, and because it is difficult to find suitable hedging instruments[52].

Stichting Pensioenfonds ABP

ABP is the pension fund for government and education employees in the Netherlands. in Europe, ABP is a major investor in financial markets including public equity, fixed income, real estate, commodities, hedge funds and private equity.

For managing environmental and social risks, it looks at the following:

- *Sustainable and Just Transitions:* ABP looks at transitions to renewable energy sources and the conservation of natural resources. In October 2021, ABP decided to stop investing in fossil energy producers to mitigate its risks in potential stranded assets[53]
- *Human Rights and Corporate Governance:* Good governance and responsible investment are inherent to ABP's investment processes as they believe this contributes to the risk-adjusted returns of their portfolios
- Renumeration Policy: ABP believes that pay policies should support long-term value creation for shareholders by aligning management interests with the strategy and risk objectives of shareholders and other stakeholders, and with its business cycle
- *Transparency and Accountability:* In general, ABP supports resolutions that seek to generate greater transparency and accountability when we deem this to be reasonable and practical and especially in cases where problems have already arisen, suggesting risks are not adequately managed[54]

ABP has an exclusions list of the types of companies it does not invest in such as those involved in the production of banned and nuclear weapons and those involved in the production of tobacco

[51] Fidelity International, Sustainable Investing Policy
[52] Mitchell & Parameshwaran, Can Pension Funds Integrate Environmental, Social, And Governance Principles? 2021
[53] ABP, ABP's Sustainable and Responsible Investment Policy (2020 - 2025)
[54] ABP, Global Corporate Governance Framework - ABP

12.5 Private Equity Funds

ESG in private equity is focused on the General Partner (GP) which manages the private equity fund. The integration of ESG factors is about having the processes in place to help GPs identify, manage and report ESG related risks and opportunities in their investment decisions and monitoring activities[55].

KKR (Kravis Kohlberg and Roberts)

As one of the largest private equity funds in the world, through its Responsible Investment policy KKR seeks to reduce risk and enhance value by building a proactive focus on these issues across the investment life cycle, wherever possible. The purpose of its policy is to articulate its approach to integrating the consideration of ESG risks and value creation opportunities into investment processes across various asset classes

KKR also looks at engaging with management teams of its portfolio companies to provide guidance and support on key cross-portfolio ESG risks and opportunities[56]. KKR recently launched the Sustainability Expert Advisory Council, or SEAC to provide guidance on how it should be approaching environmental, social, and governance issues that may affect its business, investment theses, and portfolio companies[57]

13.Recommendations for NBU

Sustainability achievements are now routinely acknowledged alongside traditional key performance indicators (KPIs). There is increasing evidence in the academic literature that sustainability has a positive impact on the bottom line and shareholder value. According to a report by PwC[58], 45 percent of FTSE100 companies now have an ESG measure in executive pay while 78 percent of board members and senior executives agree that strong ESG performance contributes to organizational value and/or financial performance. To help financial institutions in Ukraine integrate appropriate environmental and social risks into their decision-making processes, the recommendations for NBU are as follows:

[55] PRI, A GP's Guide to Integrating ESG Factors In Private Equity 2014
[56] KKR, ESG Policy
[57] Harty, A Private Equity Titan Is Beefing Up Its ESG Work with A New Advisory Council 2021
[58] O'Connor Et Al., Executive Pay and ESG Performance 2021

RECOMMENDATION #1:

NBU should look to tie sustainability and CSR targets with the remuneration of investment professionals and/or senior management working at NBFIs

Many banks and nonbank financial institutions have now started using incentives to motivate their executives to tap big strategic opportunities related to environmental, social, and governance (ESG) goals. This is because sustainability initiatives contribute to intangible, off-balance-sheet assets like brand and reputation enhancement. One way of doing this is by using ESG metrics in tying bonuses and long-term incentives that are related to compliance and risk management with those associated with carbon emission targets recorded in the portfolio of these financial institutions[59].

RECOMMENDATION #2:

NBU should encourage NBFIs to have a sustainable investing committee which reviews the ESG policy on a regular basis and updates it as so needed

A dilemma for governing bodies of financial institutions is determining what aspects of sustainability, or ESG performance, should have priority — and should be linked to pay incentives. Boards and remuneration committees need to become familiar with all these dimensions and understand how executive pay is aligned with the NBFI's stated purpose, which stakeholders will benefit, and why.

By instituting a sustainable investing committee, directors of these governing bodies can continue to monitor the disclosure and many other aspects of ESG performance. These directors can then insist on seeing ESG metrics in corporate or individual scorecards — assuring that executives act responsibly, mitigate risks, and comply with regulations. The compensation committee can then use its discretion to adjust pay after the fact for sustainability performance in these areas. Alternatively, sustainability performance can be addressed in the objectives of individual executives or business units, rather than being used in company-wide objectives[60].

[59] Burchman, How to Tie Executive Compensation to Sustainability 2018
[60] Burchman, How to Tie Executive Compensation to Sustainability 2018

RECOMMENDATION #3:

NBU can ask NBFI's to ensure that they have a firmwide Exclusions Policy

Having a firmwide Exclusions Policy demonstrates that a financial institution restricts investment in or excludes investing in certain companies or industries. Financial institutions which have already invested in certain industries which are later on includes in their Exclusion List can adopt a divestment approach if it is no longer considered feasible to change the company's conduct or involvement in specific business activities. Many banks and NBFIs in Europe also avoid investments that are not in line with the 'do no harm' principle. These activities are deemed unsuitable because they are contradictory to sustainable development and may detract from the ability to reach sustainability objectives[61].

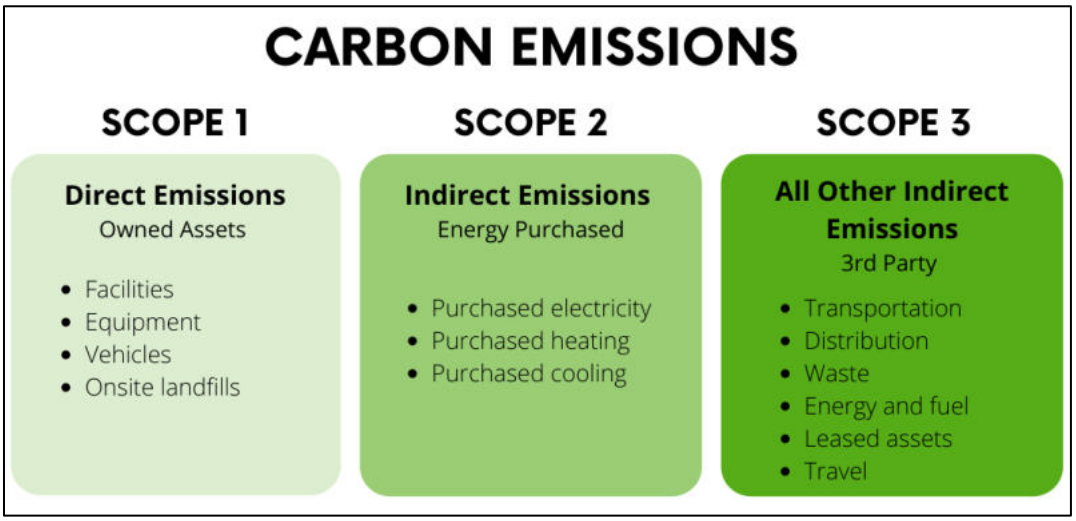
RECOMMENDATION #4:

NBU should mandate NBFI's to conduct a carbon footprint analysis of their portfolios. A carbon footprint analysis is also known as a greenhouse gas (GHG) emissions assessment.

Carbon footprints of entities are often segmented into Scope 1, Scope 2 and Scope 3 emissions. For financial institutions, their carbon footprint is mostly through their Scope 3 emissions present on their loan books and investment portfolios. To disclose their risks properly, financial institutions must understand their carbon footprint through a close examination using reported emissions data at the client level, identification of high emissions segments and clients, benchmarks calculation and comparison with other reporting institutions and ESG information from multiple external data sources[62]. A study conducted by CDP found that the greenhouse gas emissions associated with financial institutions' investing, lending and underwriting activities are more than 700 times higher, on average, than their direct emissions[63].

The chart below shows how carbon emissions are segregated into Scope 1, Scope 2 and Scope 3 emissions. Scope 1 emissions are direct emissions, Scope 2 emissions are indirect emissions and Scope 3 emissions are all other indirect emissions.

[61] NN Investment Partners, Responsible Investing
[62] Pizzola Et Al., Why Calculating Your Company's Carbon Footprint Matters 2021
[63] Marsh, Banks Produce 700 Times More Emissions from Loans Than Offices 2021



Source: Green Business Bureau

RECOMMENDATION #5:

NBU can ask NBFIs to conduct their own research to understand ESG issues and integrates that research into their investment process

Investment firms recognize the opportunity of sustainable investing as well as the regulatory forces and increased client expectations. It is however imperative that portfolio managers in these firms learn more about sustainable investing and have specialized research and resources available to them for the technical aspects of ESG analysis. Most big mutual funds in China have separate or specific ESG research analysts/teams. Their approach to ESG research is mostly qualitative rather than quantitative and can be useful when investing in industries which are not very conventional or typical. ESG research must also be complementary to traditional company research. The research can then also lead to ESG products and data analysis.

Part 4

Sustainable finance in which environmental, social and governance (ESG) considerations are considered when making financial decisions is now considered to be mainstream. According to Bloomberg, sustainable debt hit another record in 2020, with USD 732 billion issued despite the pandemic. This is a 29 percent increase from 2019 with sustainability and social bonds issuances increasing rapidly, while green bond volumes rose 13 percent to a record USD 305 billion[64].

ESG considerations are also increasingly being applied to the portfolio decisions of financial institutions and to product development, pricing and underwriting, as well as risk management to protect against ESG-related risks. Both banks and nonbank financial institutions have begun developing sustainable finance frameworks to guide decision-making and provide credibility on ESG-related investments and ESG-focused projects[65].

As demand grows for financing needs for ESG-focused projects, financial institutions have responded by offering new financial instruments, including products that provide access to borrowers in sectors and industries that might not be considered environmentally and socially sustainable[66].

This report covers the fourth deliverable which is as follows:

Preparation of a summary report on standards for sustainable financing with an overview of best practices with recommendations for National Bank of Ukraine

14. Sustainable Debt

There is strong momentum, and it is building rapidly in the sustainable debt market with sustainable bonds representing 8-10 percent of total global bond issuance in 2021 after accounting for 5.5 percent of total issuance in 2020. As sustainability and climate change has come to the forefront, governmental policy has supported this market growth and development, as governments around the world heighten their focus on climate change and link economic recovery plans with sustainable development goals[67]. This has fueled a growing appetite for nonbank financial institutions like pension funds and insurance companies to assess, monitor and disclose the sustainability of their investments[68].

Other than sustainability bonds of different colors (green, blue), sustainability-linked bonds have shown strong growth potential, as they allow issuers to maintain the flexibility

[64] BNEF, Sustainable Debt Issuance Exceeds $730 Billion In 2020 2021
[65] Sustainalytics, How Sustainable Finance Is Shaping Change in Banking 2021
[66] Gorley, Sustainable Finance and Banks: Reduced Risk, Increased Opportunity 2021
[67] Kuchtyak, Moody's - Sustainable Bond Issuance to Hit a Record $650 2021
[68] Marsh Et. Al, Comparing Sustainable Debt Products and Standards 2021

of general corporate purposes borrowing while potentially still appealing to sustainability-minded investors. Another debt instrument that has gained popularity very recently are transition bonds where companies seek to finance their carbon transition plans by issuing both use-of-proceeds bonds and sustainability-linked instruments.

Sustainable debt products, defined as fixed income instruments keeping in mind environmental and social concerns, are of two main types: activity-based and behavior-based.

14.1 Activity Based Products

Activity based products are debt instruments that are also known as thematic bonds. They are color coded into green or blue or may be those that are for social or sustainability purposes. Most are issued by companies, governments and multilateral entities that are then traded in the capital markets with the purpose of attracting capital to social and environmental related projects. They can be used to finance new projects or refinance existing ones.

14.1.1 Green, Blue and Transition Bonds

Investors globally have started showing an appetite for green investments. These investors appreciate the stability of green investments and view green issuers as more long-term oriented and those who can weather short-term volatility. Green bonds contribute to fill an environmental, social, and governance (ESG) transparency gap in emerging markets and provide investors with confidence over the positive green impacts of the projects financed along with the proper management of associated environmental and social risks. A majority of green bonds issuances follow the International Capital Markets Association (ICMA) Green Bonds Principles (GBP) which are voluntary process guidelines that recommend disclosure and transparency in issuance. Examples of project categories eligible for green bond issuance include renewable energy, energy efficiency, clean transportation, green buildings, wastewater management and climate change adaption[69].

Related to green bonds, blue bonds are used for improving water resources and marine life. The funds coming from issuances are used for a specific purpose that involves water, such as ocean preservation, sustainable fishing or waste management. Blue bonds issuers are also focused on such challenges as sustainable fishing and reducing plastic waste. Investments from such bonds are mostly in water-treatment and fishing-related enterprises that encourage sustainable practices. The projects that these bonds finance may also require multilateral collaboration, given that pollution sources are not restricted to one area and because of differing views in places about maritime boundaries. The Seychelles was the first country to issue one in a private placement that raised USD 15 million to pay for marine protection and fishery management [70]

[69] IFC And Amundi Asset Management, Emerging Market Green Bonds Report 2019 - 2020
[70] Wilkins & Gillespie, Why the Hot New Shade for Green Bonds Could Be Blue 2021

Transition bonds are bonds that target issuers in polluting industries and those that currently have a high carbon footprint, and therefore excluded from existing markets for sustainable finance. Such bonds help issuers take active steps in becoming more sustainable. Some of the sectors that are eligible to issue transition bonds are mining, heavy industry, utilities and transport and mobility. The aim of these bonds is to reduce greenhouse (GHG) emissions, foster inclusive growth, and tackle other biodiversity challenges (such as deforestation, land degradation, desertification, plastic pollution, overfishing and extinction)[71].

14.1.2 Social Bonds

Like green bonds, social bonds have gained more popularity since the COVID-19 crisis and are linked to the bonds' role in implementing crisis-related projects that mitigate the negative health and socio-economic impacts. Social bonds typically follow ICMA's Social Bonds Principles (SBP) when issued.

Common categories of social bonds projects are those that look at basic infrastructure such as clean drinking water, sanitation and energy, access to essential services such as healthcare and education, access to affordable housing, job creation and employment generation, availability and food security and socio-economic advancement and empowerment[72].

14.1.3 Sustainability Bonds

Some projects that are environmentally sustainable may also have social benefits. In such cases the use of proceed categories should be determined by the projects' primary objectives. When there is an intentional mix of environmental and social benefits, the bond is referred to as a Sustainability Bond, for which ICMA provides a separate set of guidelines namely Sustainability Bond Guidelines. Sustainability bonds can be issued by companies, governments, and municipalities, as well as for assets and projects and should follow the Sustainability Bond Guidelines from ICMA, which are aligned with both the GBP and SBP[73].

14.2 Behavior Based Products

Behavior-based products are so called because they tie a financial characteristic of the debt instrument, like its coupon or the loan interest rate, to a sustainability target. Behavior-based debt is dubbed "sustainable" when its coupon or any other financial characteristic is secured to a sustainability target for the issuer, requiring them to modify

[71] BNP Paribas, Transition Bonds: Is Sustainable Finance About to Reach Critical Mass? - 2021
[72] Sustainalytics, Social Bonds
[73] PIMCO. Understanding Green, Social and Sustainability Bonds

their behavior. This modified behavior could be a greenhouse gas emission reduction goal, a quota for diversity in the workforce, or many other types of behavior[74].

14.2.1 Sustainability-Linked Loans (SLLs) and Bonds (SLBs)

Instead of raising funds for a particular category of projects or initiatives, the proceeds of sustainability-linked loans or bonds can be used for general business purposes. The caveat here is that the interest rate is tied in part to the borrower's sustainability performance. It requires the borrower to set ambitious and meaningful Sustainability Performance Targets (SPTs) and report regularly — at least annually — on its progress, ideally with independent verification[75].

The table shows a few examples of NBFIs who have either issued sustainable debt or are invested in sustainable debt through their portfolios or pooled funds.

Type of NBFIs	Name	Bond Type
Investment Managers	Brookfield Asset Management	Green Bond
	Neuberger Berman	Sustainability-Linked Corporate Revolving Credit Facility
	HSBC Asset Management	Green Bond Fund
	BlackRock	Green Bond Fund
Insurance Company	Allianz SE	Green Bond Fund
Pension Funds	CDPQ	Green Bond
Real Estate Investment Trust (REIT)	Hannon Armstrong Sustainable Infrastructure	Sustainability Linked Revolving Credit Facility

15. Sustainable Financing Frameworks

To methodically apply sustainable financing strategies, financial institutions create frameworks to outline the processes they would use to embed sustainable finance criteria into their lending and investment decisions. When developing these sustainable finance frameworks, financial institutions look at well-established international standards such as the Equator Principles, the Green, Social & Sustainability Bond Principles, and Partnership for Carbon Accounting Financials, as well as seeking the support of third-party ESG providers (such as Morningstar's Sustainalytics, MSCI, Moody's Vigeo Eiris)

[74] Pv Magazine, Trends in Sustainable Debt 2021
[75] Makower, The Rise (And Rise) Of Sustainability-Linked Finance 2020

on the classification requirements of sustainable finance instruments through second party opinions and ESG ratings and data service offerings.

15.1 Equator Principles

The Equator Principles (EP) are a financial industry benchmark for determining, assessing and managing environmental and social risk in projects. They are intended to serve as a common baseline and risk management framework for financial institutions to identify, assess and manage environmental and social risks when financing projects. Financial institutions adopt the EP to ensure that the projects they finance are developed in a socially responsible manner and reflect sound environmental management practices. They apply across industries and sectors and cover project finance, project-related acquisition finance and advisory services[76].

15.2 Green, Social, Sustainability and Sustainability-linked Bond Principles

These voluntary principles were formulated by the International Capital Market Association (ICMA) which serves as the Secretariat for them. They are widely regarded as the leading framework globally for the issuance of sustainable bonds and play an essential role in attracting capital to finance the transition to a sustainable global economy. They outline best practices when issuing bonds serving social and/or environmental purposes through global guidelines and recommendations that promote transparency and disclosure, thereby underpinning the integrity of the market[77].

For green, social and sustainability bonds, the four core components for alignment are:

- Use of proceeds whereby all designated eligible projects must provide environmental or social benefits
- Process for project evaluation and selection by which the issuer determines how the projects fit within the eligible green, social or sustainability projects categories
- Management of proceeds to be tracked by the issuer in an appropriate manner, and attested to by the issuer in a formal internal process linked to the issuer's lending and investment operations and
- Reporting where the Issuers make, and keep, readily available up to date information on the use of proceeds to be renewed annually until full allocation[78]

The key recommendations for heightened transparency are Green, Social or Sustainability Bond Frameworks and External Reviews.

For sustainability-linked bonds and loans, the five core components for alignment are:

- Selection of Key Performance Indicators (KPIs) whereby performance is measured using sustainability KPIs that can be external or internal

[76] The Equator Principles 2021
[77] CBI, Sustainable Debt Market Summary H1 2021 - 2021
[78] ICMA, Green Bond Principles (GBP)

- Calibration of Sustainability Performance Targets (SPTs) whereby targets are ambitious and represent a material improvement using a predefined timeline
- Bond characteristics which look at the financial and structural variations (such as the coupon rate)
- Reporting where up-to-date information on the performance of the selected KPIs is published and
- Verification where issuers seek independent and external verification[79]

15.3 Partnership for Carbon Accounting Financials

Partnership for Carbon Accounting Financials (PCAF) is a global partnership of financial institutions that work together to develop and implement a harmonized approach to assess and disclose the greenhouse gas (GHG) emissions associated with their loans and investments. Members of PCAF include NBFI's such as Aviva Investors, an asset management firm, Liberty Mutual, an insurance company and CDC Group, which is a development bank.

The harmonized accounting approach for GHG emissions calculations provide financial institutions with the starting point required to set science-based targets and align their portfolio with the Paris Climate Agreement. PCAF enables transparency and accountability and has developed an open-source global GHG accounting standard for financial institutions, the Global GHG Accounting and Reporting Standard for the Financial Industry[80].

15.4 Third-party ESG Ratings Providers

Many third-party ESG Ratings Providers issue opinions concerning sustainable finance debt instruments. These opinions like those issued by Morningstar's Sustainalytics, S&P Global Ratings or Moody's Vigeo Eiris help companies provide investors with greater insight into how their investments in sustainable debt will impact and align with environmental, social and sustainability goals and show to investors that issuers have aligned their bonds with the relevant framework[81].

With increased integration of ESG factors into the investment decision-making process, it has made the quality and availability of well-structured data provided by ESG rating and data agencies ever more important. Consistency of ESG data is a great challenge however when investors are trying to compare like-for-like. The lack of global reporting standards and agreement on what should be deemed as material for each sector has led to ESG data and ratings providers each adopting their own methodologies and processes, making it difficult for companies to manage their narrative on sustainability and determine how best to allocate internal resources regarding sustainability reporting[82].

[79] ICMA, Sustainability-Linked Bond Principles (SLBP)
[80] PCAF, Financial Institutions Taking Action
[81] Boffo Et Al., OECD: ESG Investing: Practices, Progress and Challenges
[82] Brady & Hirai, Managing ESG Data and Rating Risk 2021

When it comes to data, investors need a baseline level of standardized data to support relevance, objectivity and comparability, but face fragmented data from multiple sources, including company reports, news articles, data vendors and rating agencies. To overcome this challenge, firms must look at internal and external data sources to see what best fulfils data needs, identify any gaps and supplemental data needs, develop a roadmap to integrate ESG data sources into existing data ecosystems and utilize existing regulatory standards as guiding principles to meet evolving regulatory needs[83].

Leading financial services firms such as the Canadian pension fund OMERS and the investment management firm BlackRock have started to integrate ESG into their systems and processes, including comprehensive data and technology solutions that allow portfolio managers to see and integrate ESG metrics as easily as they can traditional financial metrics.

NBFIs have differing sustainable finance frameworks. Some examples are listed below

15.5 Examples of NBFIs with Sustainable Financing Frameworks

Gimv

As a Belgian European investment company with experience in private equity and venture capital, Gimv's approach to ESG consists of 2 pillars; being a responsible company that is committed to the UN PRI and to the UN SDGs, and as a responsible investor that integrates ESG in its investment approach.

Gimv's rationale for sustainable financing is that it wants to provide institutional and retail sustainable investors access to investments in midmarket companies, whose positive impact on society comes to expression in their innovative and sustainable products and services. Its sustainable financing framework is based on the ICMA sustainable debt principles and follows the four components of the principles with a second party opinion provided by Sustainalytics[84].

Swiss Life

Swiss Life is the largest life insurance company of Switzerland and one of Europe's leading comprehensive life and pensions and financial services providers. Its investment strategy which is a part of its sustainable financing framework states that the insurance industry plays an important role in sustainable development both as a provider of risk solutions but also as a responsible steward of capital. In this context, it wishes to re-emphasize its commitment to responsible investing and its focus on contributing to sustainability.

[83] Lofts Et Al., How Environmental, Social and Governance (ESG) Data Providers Compare 2021
[84] Gimv Sustainable Finance Framework 2021

Swiss Life follows the four components of ICMA's Green Bond Principles with its use of proceeds from its sale of green bonds being used to improve the environmental and social performance of real estate assets and its process for project selection and evaluation being aligned with its Responsible Investment Policy. It plans to manage and track its proceeds in accordance with its liquidity management activities while reporting annually on how the funds have been allocated.

16.Sustainable Finance Solutions

As sustainable finance continues to grow, it has come up with new and innovative solutions in equity and debt capital markets. While the issuance of sustainable debt instruments like green bonds and sustainability-linked loans continue to increase annually, new financial instruments such as green deposits and sustainability-linked bonds are expected to rise in prominence.

16.1 Green and Sustainable Deposits

A green deposit is a fixed or a floating-term deposit for investors looking to invest their surplus cash balance in environmentally friendly and sustainable projects. This type of investment is associated with assets and projects consistent with delivering a low carbon and climate resilient economy. The funds from the deposits are utilized to prioritize investments which genuinely contribute to addressing climate change. Assets and projects can range from those that include renewable energy, low carbon transport, low carbon buildings and water infrastructure and are assessed against the sustainable financing framework of the financial institution[85].

Since NBFIs are non-depository institutions and cannot accept deposits from the public, they can offer alternatives such as green securities finance loans. Banks such as Nordea, a Danish financial institution provides financing for clients that have a portfolio of liquid assets. The assets, which could include stocks, bonds or other listed securities, are used as collateral in exchange for cheap, short-term capital[86]. Credit unions can also become more sustainable by ensuring that when considering lending to small businesses or within the community, these businesses are choosing environmentally and socially friendly activities to put their funding towards.

[85] Business Standard. What Are Green Deposits?
[86] Nordea, Filling Short-Term Financing Needs the Green Way 2021

16.2 Sustainable Trade Loans

Sustainable trade finance involves enabling clients to support suppliers that meet pre-agreed criteria about the environmental and social impact of their supply chains. To encourage this, financial institutions try to understand how these clients can be supported in their green transition or improve their sustainable supply chain credentials. The purpose behind this is the speeding up of global trade's role in helping businesses meet both the targets set by Paris agreement and move towards a reduction in global greenhouse gas emissions. Some sustainable trade finance offered by financial institutions in Europe have as their eligibility framework the integration of the 'do no significant harm' principle and the minimum social safeguards of the EU taxonomy[87].

Consumer demand for ethically and sustainably sourced products has grown over time as awareness has spread. Sustainability priorities must be integrated into global supply chains with sustainable practices often playing out in sourcing policies where corporations commit to more sustainable activities such as if their ingredients are more sustainable, their fabrics are ethically sourced, and the agricultural workers who harvest their raw materials have good working conditions. For sustainability to take off in such activities such as trade loans, suppliers must be audited, goods must be carefully tracked from source to product, and third parties must be engaged to act as independent arbiters of compliance demonstrating the green benefits of these solutions[88].

Nonbank financial institutions like export credit agencies are increasingly focusing on ESG metrics, and demanding businesses measure and address their ESG footprints. For example, Credendo is a European credit insurance group which provides customized options for insurance, reinsurance, guarantees, surety and financing related to domestic and international trade transactions or investments abroad. Credendo ensures that its activities are financially sustainable and promotes responsible and sustainable business practices related to the environment, human rights, combating corruption and promoting sustainable lending to lower income countries. As an export credit agency, Credendo takes an insurance application into consideration if the applicant (exporter or investor) conforms to the environmental and social national legislation and if it receives all information requested to assess the environmental and social risks and impacts. Credendo also considers if the environmental and social impacts of its clients are acceptable. It expects exporters to operate as environmentally and socially responsible partners with an ongoing evaluation process for the environmental and social management systems and management capacity of its clients.[89]

16.3 Green Guarantees and Letters of Credit

Green guarantees, letters of credit and stand-by letters of credit are trade finance instruments which support, guarantee and/or finance an underlying project having a clear

[87] Golden, Supply Chains Get More Attention in Sustainable Trade Finance 2021
[88] Condon & Cavalletto, Sustainable Financing: What Does the Rise of ESG Mean for Trade Finance?
[89] Credendo, Corporate Social Responsibility

positive contribution to the environment. Companies can successfully broaden the scope of sustainable finance beyond bonds and loans, integrating sustainability across their entire financing strategy. NBFIs can use such instruments as sustainability-linked bonds and loans to support one of the key performance indicators (KPIs) identified in their client's sustainability-linked financing framework. Such transactions embed sustainability performance targets (SPTs) which the client must meet and help them become more sustainable.

16.4 Sustainable Supply Chain Financing

Some financial institutions have introduced sustainable supply chain financing which allows their clients to strengthen their supplier base and offers financial incentives for their suppliers to become more sustainable. That is, they link supply chain finance discount rates to suppliers' sustainability scores. The benefits this provides is that it improves the financial efficiency of a supply chain by reducing the working capital for both buyers and suppliers and enables a company to proactively manage the sustainability levels of their suppliers by driving environmental and/or social improvements in exchange for financial benefits[90].

The European Bank for Reconstruction and Development's (EBRD) has made efforts for expanding sustainable supply chain financing in its member countries. EBRD's Green Technology Selector is a digital platform that connects vendors of the best green technologies with businesses. The purpose is to create a marketplace that makes green technologies more easily available while promoting cross-border trade between economies in the EBRD regions. Through an app, firms that are committed to operating in an environmentally friendly manner and are looking to make trade finance deals, and who may need to look beyond their traditional markets are connected with new suppliers around the globe. The platform allows users to access a global directory for green technologies and is available across the EBRD regions and beyond[91].

The chart given below shows how ING, a Dutch Bank has developed a sustainable supply chain finance solution. The solution allows their clients to strengthen their supplier base and offers financial incentives in order for their suppliers to become more sustainable. Ing maintains that it has two benefits; improving the financial efficiency of a supply chain by reducing the working capital for both buyers and suppliers and enabling a company to proactively manage the sustainability levels of their suppliers by driving environmental and/or social improvements in exchange for financial benefits

[90] ING, Sustainable Supply Chain Finance
[91] EBRD, EBRD Launches Mobile App Promoting Green Technologies

Source: ING Sustainable Supply Chain Finance. https://www.ingwb.com/en/sustainable-finance/sustainable-supply-chain-finance

17.Recommendations for NBU

RECOMMENDATION #1:

NBU should encourage NBFIs to raise sustainable debt, both for raising funds for projects that are environmentally and socially sustainable but also issue sustainability-linked bonds and loans to be used for general business purposes

Financial institutions are keen to demonstrate their commitments to sustainable practices and make their sustainability initiatives more mainstream. As issuance of sustainable debt witnesses an upsurge, NBU should encourage NBFIs to raise sustainable debt because such financing can sometimes be obtained at lower cost with some investors prepared to offer an interest discount where there is a commitment to use funds for a good cause. It can also boost the image and reputation of issuers and investors and can allow an issuer to diversify its funding profile by attracting new types of investors[92].

RECOMMENDATION #2:

NBU should urge all NBFIs to have sustainable financing frameworks and have targeted emissions reductions for greenhouse (GHG) emissions

Sustainable finance frameworks support organizations by offering potential avenues for new investment, as well as strengthening both their resilience and that of wider society against risks. For NBFIs to develop a sustainable financing framework, they can adopt a use-of-proceeds approach which looks at the categories of projects for which the NBFI would use the proceeds of funds, which categories these projects would fall under, how the proceeds would be managed and the type and frequency of reporting that would be carried out. The benefits of such frameworks are better risk management, more access to capital from different avenues and various lenders who have specific ESG investment criteria and enhanced credibility through increased transparency[93].

[92] Hurley, Opinion: The Pros and Cons of Ethical Debt Instruments | Devex 2017
[93] Fries Et Al., ESG Maturity Map: Example Behaviors for Pension Trustees

RECOMMENDATION #3:

NBU can ask NBFI's to source opinions on their ESG/sustainability practices from third party service providers and see how to gather ESG data for future consumption

As ESG considerations are now moving center stage in the activities of financial services firms, asset managers and other stakeholders are increasingly relying on reports and ratings from third party service providers to assess and measure ESG performance of companies over time and as compared to peers. Even with numerous third-party providers having little correlation between the scores and methodologies that they provide, this information is being used for making daily operational choices to long-term strategic planning. This is because such scores help in identifying and monitoring potential ESG risks for investors when they are deciding on where to invest.

Globally, financial institutions are citing the lack of available relevant data as the single greatest challenge preventing them from adequately addressing climate risk. To overcome this, NBU can ask NBFIs to customize, standardize and structure these ESG scores by narrowing the demand for data into more standardized ESG metrics that can then be compared across companies and industries. For instance, insurers use such data to manage ESG risks by dynamically pricing their policies to improve risk mitigation and their profit. Gathering ESG data for future consumption is therefore imperative to make informed decisions[94].

RECOMMENDATION #4:

NBU should require NBFI's to issue sustainable finance solutions such as securities to be used as collateral for short-term capital and sustainable supply chain financing

Supply chain finance trade payables and receivables can be packaged into securities and distributed to capital markets along with other types of derivatives and can be used as collateral to obtain short-term funds. New solutions in the form of sustainable finance solutions are also appearing in the market that could reduce the risk of a single issuer, distribute an exposure across several suppliers in a bundled security, issue it in capital markets, or sell it directly to private or institutional investors. These solutions can take the form of green guarantees, green products suites for supply chain finance linked to sustainable practices and those that encourage clients to improve disclosure, reporting and definition of use, while meeting their ESG goals[95].

[94] Caplain & Maufe, Closing the Disconnect in ESG Data 2021
[95] He, Standard Chartered Launches New Proposition to Support Sustainable Supply Chains 2021

RECOMMENDATION #5:

NBU can ask NBFIs to design mobile apps that can facilitate meetings between trade finance investors and suppliers of good that use environmentally sustainable sources

Like the EBRD Green Technology Selector tool, NBU can ask NBFIs to harness the use of technology by making a shopping-style platform that lists best-in-class technologies for improving energy or resource efficiency or other sustainable business practices from manufacturers around the world where investors and businesses can go to shop. NBFIs can then provide green financing facilities to support local businesses which will in turn help to promote the green economy and increase the volume of green financing. NBFIs can also mandate these businesses to follow environmental and social best practices, gather ESG and climate-related raw data which can then be shared or inculcate sustainable financing frameworks to generate ESG investment advice or meet future regulatory requirements[96].

18.Suggested Way Forward

As ESG gains importance and becomes more relevant to monetary authorities, central banks must play a key role in promoting green finance and sustainable funding options. As the Ukraine's central bank, the National Bank of Ukraine can do the following:

1. **Provide targets and expectations so that banks and NBFIs can start considering ESG and sustainable investing seriously**

Since it is the function of the central bank to ensure that financial institutions are conducting their business in a manner that is sustainable in the long-term, NBU can provide specific targets and expectations to banks and NBFIs. This should include sustainability trainings on what is expected of them and how these targets could be achieved, how ESG and sustainable investing standards can be developed and what sustainable finance solutions could be identified.

NBU could also introduce climate stress testing and scenario analysis to ascertain the size of probable losses of financial institutions' portfolios, with financial institutions setting out the resilience of their strategy in different climate-related scenarios. This is because the uncertainty associated with climate scenario analysis complicates the challenge of modelling implications for the liabilities of NBFIs like insurance companies. However, it is

[96] Torres & Foster, Opening the Black Box of ESG Data 2021

acknowledged that climate risks are foreseeable and while there is a high degree of uncertainty regarding their nature, this is no excuse for inaction. Some combination of physical and transition risk will materialize eventually

In this way, NBU can show to the entities that it supervises that it is becoming more vocal about the need for greater adoption of ESG and the reason for this is that climate change can create real financial risks to businesses and operations, and therefore requires a strategic response[97]

2. **Work collaboratively in a group to ensure that climate risk and other systemic challenges are incorporated into the functioning of financial institutions that are supervised**

To ensure that it is a part of the growth of ESG globally, NBU can work collaboratively with other central banks who have the same agenda in terms of sustainability. NBU can join groups like the Network for Greening the Financial System (NGFS), a group of central banks and supervisors with the purpose to share best practices around key systemic challenges (such as integrating climate-related risks into financial stability monitoring and micro-supervision). More than 80 central banks, supervisors and other competent authorities have joined the NGFS since its inception in December 2017 and they are estimated to cover more than 35 percent of the world population and almost half of global GDP and global greenhouse emissions. The network also includes observer and stakeholder members such as the Bank for International Settlements, the World Bank, the Organization for Economic Co-operation and Development (OECD), and Official Monetary and Financial Institutions Forum (OMFIF), which is a think tank concerned with central banking, economic policy, and public investment.

[97] Bank Of England PRA, Climate-Related Financial Risk Management and The Role of Capital Requirements 2021

3. **Impart specialized training to mid-level and senior staff on new developments in the ESG and E&S risk management space**

NBU can ensure that through training which focuses on the sustainable development knowledge needs of central bankers, it can ensure that its staff is up to date. These specialized trainings can feature in-depth presentations by experts from the specialty areas in ESG with it being ensured that course content is updated regularly to meet evolving central banking issues and challenges. Some of the suggested trainings could explore key E&S management risk and internal audit practices within the central bank where training participants would have the opportunity to work in small groups. Another suggestion for trainings would be of compliance to new and relevant ESG practices and they could focus on governance, corporate culture, risk assessments.

4. **Establish beneficial capital and regulatory frameworks to encourage financial institutions to lend or invest in low-carbon industries**

The need for macroprudential regulatory frameworks follows the recognition that losses from certain climate related scenarios could lead to declines in the capital and solvency ratios tracked by these regulators and supervisors. Regarding monetary policy, the impact of climate change will be felt most directly through the physical risk channel. The increase in the frequency and severity of weather shocks is likely to raise the volatility of inflation, sectoral relative price levels, and output.

NBU can encourage banks and NBFIs to look beyond their usual business planning horizons and think strategically about future risks and mitigating actions (such as supporting clients in reducing emissions) across different climate scenarios. They can ensure that financial institutions incorporate judgements of their exposure to climate-related financial risks in the way they assess their own capital requirements, as they do for other drivers of financial risks such as credit, market and operational risk.

Similar to what the Bank of England has done, NBU could publish a set of climate-related supervisory expectations that it has from the financial institutions that it supervises. These expectations could cover how to do the following:

- embed the consideration of the financial risks from climate change in their governance arrangements
- incorporate the financial risks from climate change into existing financial risk management practice
- use (long term) scenario analysis to inform strategy setting and risk assessment and identification; and
- develop an approach to disclosure on the financial risks from climate change[98]

[98] Bank Of England, Supervisory Statement 2019

5. **By including ESG considerations in the investment policy of their reserve requirements, central banks can ensure that incorporating ESG is institutionalized as a practice**

Central banks have an important role to play in the development of green finance through their investment portfolios and reserve allocation. Many central banks and supervisors are trying to act on their climate goals by integrating sustainability criteria into their operations and portfolio management. For instance, the Central Bank of Ireland takes ESG criteria into account when managing its portfolio. The equities component of its portfolio is managed in line with the Principles of Responsible Investment. In December 2021, the Central Bank of Ireland announced its participation in the euro-denominated green bond investment fund for central banks established by the Bank for International Settlements (BIS). The investment follows the participation of the Central Bank in the BIS US dollar-denominated green bond investment fund in May 2021[99]. In January 2019, De Nederlandsche Bank signed the UN PRI and adopted a responsible investment charter. Finland's Central Bank has also applied responsible investment standards to its portfolio management.

In the same way, NBU can change its investment mandate to invest in green and sustainable assets. Green bonds are a popular option where NBU can increase its exposure to the asset class over the years[100]

[99] Central Bank of Ireland to Invest In Second BIS Green Bond Fund 2021
[100] Kyriakopoulou, Special Report: Central Banks and Climate Change 2019

Appendix 1

Definition of Financial Market Participants and Financial Products as per EU Regulation 2019/2088

Financial market participants as per the Regulation are the following:

- Direct life or non-life insurance companies (insuring against death and survival in life is known as life insurance, and insuring against all other events is known as non-life insurance)
- Investment firms (giving investors access to securities and derivatives market by training in financial instruments, either for the investment firm itself or for its clients, and help companies raise funds on capital markets)
- Workplace Pension Scheme providers
- Pension funds
- Alternative Investment Fund Managers such as hedge funds, private equity funds and real estate investment funds
- Venture capital funds
- Social entrepreneurship funds (EuSEFs) such as those which invest in businesses that combine a social, ethical or environmental mission
- Collective Investment in Transferable Securities (UCITS) management company such as unit trusts and mutual funds
- Credit institution which provides portfolio management such as banks

Financial products as per the Regulation are the following:

- investment and mutual funds,
- insurance-based investment products,
- private and occupational pensions, and
- both insurance and investment advice

Appendix 2

Regulators in Ukraine supervising Market Participants of EU Regulation 2019/2088

Company	Definition	Regulator in Ukraine
Life or Non-life Insurance Companies[101]	Those companies that are insuring against death and survival in life are known as life insurance, and those companies that are insuring against all other events are known as non-life insurance company	National Bank of Ukraine
Investment Firms	Those companies that give investors access to securities and derivatives market by training in financial instruments, either for the investment firm itself or for its clients, and help companies raise funds on capital markets	National Securities and Stock Market Commission
Workplace Pension Scheme providers	Those financial institutions that manage collective retirement schemes for employers, in order to provide benefits to employees	National Securities and Stock Market Commission
Pension Funds	Financial intermediaries which offer social insurance by providing income to the insured persons following their retirement	National Securities and Stock Market Commission
Hedge Funds	Alternative Investment Funds are institutions funds other than mutual funds	National Securities and Stock Market Commission
Private Equity Funds		National Securities and Stock Market Commission
Real Estate Investment Funds		National Securities and Stock Market Commission
Venture Capital Funds	Funds that use funding from institutional investors to invest large amounts into firms with the potential for rapid growth	National Securities and Stock Market Commission

101 If Insurance Companies Have Concluded Life Insurance Policies with Members of a Private Pension Fund, Insurance Against the Risk of Disability or Death of a Fund Member, Such Insurance Companies Are Under the Regulation Of The National Securities And Stock Market Commission And The National Bank Of Ukraine.

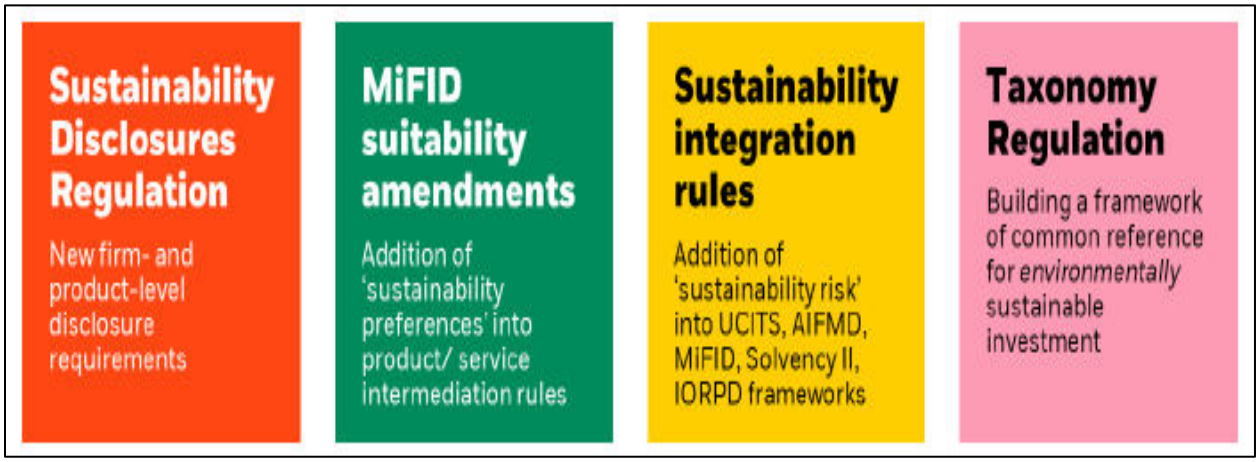
Social Entrepreneurship Funds	Funds that target social impact primarily rather than profit maximization in their effort to reach the most vulnerable groups	Not relevant for Ukraine, but they have to be under the regulation of National Securities and Stock Market Commission
Mutual Funds	UCITS or collective investment undertakings that invests capital collected from the public into financial (equity, debt, money market funds) or non-financial assets (real estate funds, commodity funds)	National Securities and Stock Market Commission
Banks[102]	Credit institutions that provide portfolio management	National Bank of Ukraine

-

[102] If Banks Provide Services for Concluding Agreements on Opening Pension Deposit Accounts, Such Banks Are Under the Regulation of The National Securities and Stock Market Commission and The National Bank of Ukraine.

Appendix 3

Regulations in the EU that are working towards a common language for sustainable investing.



Source: Barbara Novick Towards a Common Language for Sustainable Investing. https://corpgov.law.harvard.edu/2020/01/22/towards-a-common-language-for-sustainable-investing/

Appendix 4

Examples of Material ESG Factors

FRANKLIN TEMPLETON INVESTMENTS

Depending upon asset class, geography, and/or industry, the following are examples of ESG factors that may be material to a particular investment.

Environmental Factors	Social Factors	Governance Factors
May include: • Regulatory breaches/fines • Commodity/raw material access • Natural resource management • Hazardous waste and toxic chemical disposal/cleanup • Carbon emissions, measurement and reporting • Climate change risks and opportunities	May include: • Labour practices (e.g., living wage diversity, discrimination, child or slave labour) • Health and safety of employees and products • Diversity	May include: • Shareholder rights • Board structure and independence • Executive compensation • Accounting standards, independent audits

Source: David Zahn. As Public Attitudes Towards the Environment Change, So Should the Investment Approach.

https://www.franklintempleton.co.uk/investor/commentary-details?contentPath=en-gb/campaigns/esg/as-public-attitudes

Appendix 5

Summary of risk appetite and Pillar 2 capital assignment per risk type for FYE 2020

Risk area	Risk type	Risk appetite*	Regulatory reference, benchmark and method for risk evaluation	Capital requirement calculation approach	
				Pillar 1	Pillar 2
Credit Risk (CR)	Default and rating migration	Medium	Standardized Approach (SA), periodical credit portfolio risk assessment, provisioning and stress testing	✓	
	Underestimation of CR in the SA	Low	Qualitative assessment and adjustment		✓
	Concentration:				
	-Borrower	Medium	Adapted from Bank of Spain Approach		✓
	-Sector	Medium			✓
	Climate	Medium	Qualitative review		No add-on
Country risk		Medium	Policy Rule on country concentration		✓
Market Risk (MR)	Trading risk	Low	Standardized Approach, Value-at-risk model (VaR) and Limits	✓	
	FX risk	Low	Standardized Approach, Value-at-risk model (VaR) and Limits	✓	
	Underestimation of MR in the SA	Low			No add-on
Interest Rate Risk in the Banking Book		Low	(Duration) Gap analysis, Earnings-at-Risk and Capital-at-Risk models		✓
Liquidity Risk		Low	Addressed in Internal Liquidity Adequacy Assessment Process (ILAAP)		No add-on
Operational Risk (OR)	IT related risks	Low to Medium	Basic Indicator Approach	✓	
	Outsourcing	Low			
	Non-IT related risks	Low			
	Underestimation of OR under SA	Low	Qualitative review		No add-on
Other Risks	Legal	Low	Qualitative review		No add-on
	Integrity, compliance and reputational risk				
	Business (incl. strategy)	Low	Policy rule on business model		
	Pension	Low	Qualitative review		
	Model	Low			

Source: DHB Bank Capital Adequacy and Risk Management Report 2020

https://www.dhbbank.com/DHBBank.CorporateWebsite/media/Corporate-website-Docs/Capital-Adequacy-and-Risk-Management-Report-2020.pdf

Appendix 6

Exclusions List

IFC Exclusion List (2007)

The IFC Exclusion List defines the types of projects that IFC **does not** finance.

IFC does not finance the following projects:

- Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCB's, wildlife or products regulated under CITES.
- Production or trade in weapons and munitions.[1]
- Production or trade in alcoholic beverages (excluding beer and wine).[1]
- Production or trade in tobacco.[1]
- Gambling, casinos and equivalent enterprises.[1]
- Production or trade in radioactive materials. This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where IFC considers the radioactive source to be trivial and/or adequately shielded.
- Production or trade in unbonded asbestos fibers. This does not apply to purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.
- Drift net fishing in the marine environment using nets in excess of 2.5 km. in length.

A reasonableness test will be applied when the activities of the project company would have a significant development impact but circumstances of the country require adjustment to the Exclusion List.

All financial intermediaries (FIs), except those engaged in activities specified below*, must apply the following exclusions, in addition to IFC's Exclusion List:

- Production or activities involving harmful or exploitative forms of forced labor[2]/harmful child labor.[3]
- Commercial logging operations for use in primary tropical moist forest.
- Production or trade in wood or other forestry products other than from sustainably managed forests.

* When investing in **microfinance** activities, FIs will apply the following items in addition to the IFC Exclusion List:

- Production or activities involving harmful or exploitative forms of forced labor[2]/harmful child labor.[3]
- Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals. Hazardous chemicals include gasoline, kerosene, and other petroleum products.
- Production or activities that impinge on the lands owned, or claimed under adjudication, by Indigenous Peoples, without full documented consent of such peoples.

* **Trade finance projects**, given the nature of the transactions, FIs will apply the following items in addition to the IFC Exclusion List:

- Production or activities involving harmful or exploitative forms of forced labor[2]/harmful child labor.[3]

[1] This does not apply to project sponsors who are not substantially involved in these activities. "Not substantially involved" means that the activity concerned is ancillary to a project sponsor's primary operations.

[2] Forced labor means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

[3] Harmful child labor means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development.

Appendix 7

Different Approaches to The Management of Environmental and Social Risk by NBFIs

Type of NBFIs	Name	Approaches	Description
Investment Managers	Goldman Sachs Asset Management	ESG Integration	ESG concerns in the proxy voting process
		Portfolio Diagnostics	Uses carbon footprint analysis
		ESG Product Development	Energy efficiency initiative
Hedge Funds	Bridgewater Associates	Macro Research	Research on ESG issues in their investment process
		Portfolio Construction	Designs portfolios of clients keeping in mind ESG
		ESG Policy	Policy is overseen by a Sustainable Investment Committee
Mutual Funds	Fidelity International	Proprietary Framework for ESG Analysis	Divides the investment universe into 99 subsectors, each with industry specific criteria against which the issuer is assessed relative to its peers, using an A to E rating scale
Pension Funds	ABP	Sustainable and Just Transitions	Stop investing in fossil fuel heavy industries
		Human Rights and Corporate Governance	Contributes to the risk-adjusted returns of their portfolios
		Remuneration Policy	Pay policies should support long-term value creation
		Transparency and Accountability	Supports resolutions seeking greater transparency
Private Equity Funds	KKR	Sustainability Expert Advisory Council (SEAC)	Provide guidance on how it should be approaching ESG issues that may affect its business, investment theses, and portfolio companies

Bibliography

1. World Bank Group. (2017, November 7). Nonbank Financial Institution. Nonbanking financial institution. Retrieved November 20, 2021, from https://www.worldbank.org/en/publication/gfdr/gfdr-2016/background/nonbank-financial-institution.
2. Schlaffer, W., Hobisch, M., Schmeing, J., & Sachteleben, N. (2021, March 17). Disclosure regulation EU 2019/2088. BankingHub. Retrieved November 14, 2021, from https://www.bankinghub.eu/banking/research-markets/disclosure-regulation-eu.
3. Investor Briefing - EU Regulation on sustainability-related disclosures in the financial services sector. PRI - Principals for Responsible Investment. (2021, April 15). Retrieved November 13, 2021, from https://www.unpri.org/policy/eu-regulation-on-sustainability-related-disclosures-in-the-financial-services-sector/8645.article.
4. EU Regulation on sustainability-related disclosures. Simmons & Simmons. (2020, February 3). Retrieved November 14, 2021, from https://www.simmons-simmons.com/en/publications/ck66jdb3x2i8y0a592qa33id6/eu-regulation-on-sustainability-related-disclosures.
5. ter Laag, S. (2021, March 15). An introduction to the sustainable finance disclosure regulation. Investors' Corner. Retrieved November 14, 2021, from https://investors-corner.bnpparibas-am.com/investing/an-introduction-to-the-sustainable-finance-disclosure-regulation/.
6. Welling-Steffens, L., Schoute, S., & Bodelier, M. The EU Sustainable Finance Disclosure Regulation enters into force. The National Law Review. Retrieved November 12, 2021, from https://www.natlawreview.com/article/eu-sustainable-finance-disclosure-regulation-enters-force.
7. Principal Adverse Impacts - Citi.com. It's All About the Disclosure. (2020, May). Retrieved November 14, 2021, from https://www.citi.com/mss/solutions/pfss/solutions/fund/fiduciary-services/assets/docs/complexity/sustainable-finance/Principal-Adverse-Impacts.pdf.
8. Pineiro-Chousa, J., Vizcaíno-González, M., López-Cabarcos, M. Á., & Romero-Castro, N. (2017, March 4). Managing reputational risk through Environmental Management and reporting: An options theory approach. MDPI. Retrieved November 14, 2021, from https://www.mdpi.com/2071-1050/9/3/376.
9. EU taxonomy for Sustainable Activities. European Commission - European Commission. (2021, July 27). Retrieved November 14, 2021, from https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en.
10. European Commission. FAQ: What is the EU Taxonomy and how will it work in practice? Retrieved November 15, 2021, from https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/sustainable-finance-taxonomy-faq_en.pdf

11. Hog-Jensen, I., & Poncin, M. (2021, August 11). Impact of SFDR on non-EU managers. Impact of SFDR on non-EU Managers. Retrieved November 15, 2021, from https://www.iflr.com/article/b1sq3skn261fb3/impact-of-sfdr-on-non-eu-managers
12. Hlotov, M. (2021, March 4). Ukraine overhauls the regulatory framework for the Financial Services Industry. Ukraine Overhauls the Regulatory Framework for the Financial Services Industry. Retrieved November 14, 2021, from https://financialinstitutions.bakermckenzie.com/2021/03/04/ukraine-overhauls-the-regulatory-framework-for-the-financial-services-industry/.
13. Adcock, M., & Patterson, J. (2021, November 1). Sustainability Disclosure Requirements Increase. Sustainability disclosure requirements increase. Retrieved November 14, 2021, from https://home.kpmg/xx/en/home/insights/2021/10/sustainability-disclosure-requirements-increase.html
14. Doyle, D. H. (2021, April 1). What is the impact of the EU Sustainable Finance Disclosure Regulation (SFDR)? Blog. Retrieved November 15, 2021, from https://www.spglobal.com/marketintelligence/en/news-insights/blog/what-is-the-impact-of-the-eu-sustainable-finance-disclosure-regulation-sfdr.
15. Deckelbaum, A., Karp, B., Johnson, J. C., Lynch, L., Bergman, M., & Rosen, R. (2020, September 21). ESG disclosures: Frameworks and standards developed by intergovernmental and Non-Governmental Organizations. The Harvard Law School Forum on Corporate Governance. Retrieved November 20, 2021, from https://corpgov.law.harvard.edu/2020/09/21/esg-disclosures-frameworks-and-standards-developed-by-intergovernmental-and-non-governmental-organizations/
16. Deloitte. (2019, December 5). ESG Risk Management Framework. Integrating ESG risk into a risk management framework For Asset Management. Retrieved November 22, 2021, from https://www2.deloitte.com/ie/en/pages/financial-services/articles/esg-risk-management-framework.html.
17. BNP Paribas. (2021, February 3). BNPP reply to the EBA discussion paper on management and supervision of ESG risks for credit institutions and investment firms. Retrieved November 22, 2021, from https://group.bnpparibas/uploads/file/esg_risk_management_bnp_paribas_eab_discussion_paper_february_2021.pdf.
18. European Commission. (2021, October 29). Sustainability-related disclosure in the Financial Services Sector. Retrieved November 28, 2021, from https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/sustainability-related-disclosure-financial-services-sector_bg
19. Vergauwen, J., Naeem, R., Maconick, B., Bernard, S., & Harmsworth, E. (2021, August 3). EU: ESG Regulations and Directives Amending MIFD II, UCITS, AIFMD and insurance regimes published in the OJ. EU: ESG regulations and directives amending MiFID II, UCITS, AIFMD and Insurance regimes published in the OJ. Retrieved November 19, 2021, from https://www.lexology.com/library/detail.aspx?g=604e6551-7050-489c-96c2-6de18659db9e.

20. Sauter, W. Proportionality in EU law: A balancing act? Cambridge Press. Retrieved November 28, 2021, from https://www.cambridge.org/core/services/aop-cambridge-core/content/view/156C8294184A2B4C8C7A619F124D9E82/S1528887000003128a.pdf/proportionality_in_eu_law_a_balancing_act.pdf.
21. Principles for Responsible Investment. (2017, December 1). About the PRI. Retrieved November 23, 2021, from https://www.unpri.org/pri/about-the-pri.
22. Principles for Responsible Investment. (2017, October 12). The SDG Investment Case. More on what the SDGs mean for PRI signatories. Retrieved November 23, 2021, from https://www.unpri.org/sustainable-development-goals/the-sdg-investment-case/303.article.
23. Task Force on Climate-Related Financial Disclosures. (2020, October 1). About: Task force on climate-related financial disclosures (TCFD). About. Retrieved November 23, 2021, from https://www.fsb-tcfd.org/about/.
24. SASB. (2021, June 8). About Us. SASB Standards connect business and investors on the financial impacts of sustainability. Retrieved November 23, 2021, from https://www.sasb.org/about/
25. Value Reporting Foundation. About Us. Integrated Reporting. Retrieved November 27, 2021, from https://www.integratedreporting.org/the-iirc-2/.
26. IFRS. About the International Sustainability Standards Board. International Sustainability Standards Board. Retrieved November 24, 2021, from https://www.ifrs.org/groups/international-sustainability-standards-board/.
27. Global Reporting Initiative. About GRI. Retrieved November 23, 2021, from https://www.globalreporting.org/about-gri/.
28. The Carlyle Group. Disclosure of third-party COMPENSATION. Retrieved December 9, 2021, from https://www.carlyle.com/sites/default/files/item12134.pdf.
29. PensionDanmark. Om PensionDanmark |. Retrieved December 9, 2021, from https://www.pensiondanmark.com/globalassets/dokumenter/rapporter/csr---uk/2020/csr-2020---pensiondanmark---en.pdf.
30. Prudential Financial. 2020 ESG report: Transformation. Retrieved December 9, 2021, from https://s1.q4cdn.com/379746662/files/doc_downloads/2021/07/PRU_ESG20_v9abc.pdf.
31. The Vanguard Group. Disclosure Information Statement. Retrieved December 9, 2021, from https://global.vanguard.com/documents/integration-of-sustainability-risk%20information-statement.pdf.
32. Kell, G. (2021, January 11). The remarkable rise of ESG. Retrieved November 23, 2021, from https://www.forbes.com/sites/georgkell/2018/07/11/the-remarkable-rise-of-esg/?sh=242f89901695.
33. Robeco.com. (2021, November 8). ESG definition - sustainable investing. Pure Play Asset Management. Retrieved November 23, 2021, from https://www.robeco.com/en/key-strengths/sustainable-investing/glossary/esg-definition.html.
34. Fidelity International. What is ESG investing? Retrieved November 24, 2021, from https://www.fidelity.com.sg/beginners/esg-investing/what-is-esg.

35. Regulatory News. (2021, August 27). EC Study Endorses Faster Integration of ESG into Bank Risk Management. Retrieved November 20, 2021, from https://www.moodysanalytics.com/regulatory-news/aug-27-21-ec-study-endorses-faster-integration-of-esg-into-bank-risk-management.
36. Spielberg, H., Manahan, F., Monteforte, M., & Quick, M. (2021, May 19). ESG risks in Banks. ESG risks in banks. Retrieved November 28, 2021, from https://home.kpmg/xx/en/home/insights/2021/05/esg-risks-in-banks.html
37. Cowley, N., & Manahan, F. (2021, May). ESG risks in financial institutions. Effective strategies to use opportunities and mitigate risks. Retrieved November 25, 2021, from https://assets.kpmg/content/dam/kpmg/xx/pdf/2021/05/esg-risks-in-Financial institutions .pdf.
38. Gross, P., & Viard, H. (2021, May 11). Opportunities and challenges for integrating ESG risk into existing frameworks. Financial Services Blog. Retrieved November 24, 2021, from https://financialservicesblog.accenture.com/opportunities-and-challenges-for-integrating-esg-risk-into-existing-frameworks.
39. Banking Stakeholder Group. (2021, June 23). 03/11/2020 - discussion paper on management and supervision of ESG risks for credit institutions and investment firms. EBA Discussion Paper on management and supervision of ESG risks for credit institutions and investment firms. Retrieved November 19, 2021, from https://www.eba.europa.eu/calendar/discussion-paper-management-and-supervision-esg-risks-credit-institutions-and-investment.
40. Kapoor, M. (2021, November 15). Global ESG reporting rules echo existing voluntary standards. Global ESG Reporting Rules Echo Existing Voluntary Standards. Retrieved November 22, 2021, from https://news.bloombergtax.com/financial-accounting/global-esg-reporting-rules-echo-existing-voluntary-standards.
41. Directorate-General for Financial Stability & BlackRock Financial Markets Advisory (2021, August 27). Development of tools and mechanisms for the integration of ESG factors into the EU banking Prudential Framework and into Banks' business strategies and investment q Final Study. Retrieved November 19, 2021, from https://op.europa.eu/en/publication-detail/-/publication/ce43e64f-06e0-11ec-b5d3-01aa75ed71a1/language-en.
42. FIRST for Sustainability. Environmental and Social Risk for Financial Institutions. Retrieved from https://firstforsustainability.org/risk-management/understanding-environmental-and-social-risk/environmental-and-social-risk-for-financial-institutions/.
43. Martin, P., Elbeltagy, Z., Hasannudin, Z., & Abe, M. (2021, February 2). Working Paper Series (ESCAP/ 1-WP/ 1): Factors affecting the environmental and social risk management of financial institutions in selected Asia-Pacific Developing Countries. Retrieved from https://www.unescap.org/kp/2021/working-paper-series-escap-1-wp-1-factors-affecting-environmental-and-social-risk.
44. FIRST for Sustainability. What is an ESMS? Environmental and Social Issues. Retrieved from https://firstforsustainability.org/risk-management/understanding-environmental-and-social-risk/environmental-and-social-issues/.
45. Secretariat, N. G. F. S. (2020, September). Overview of Environmental Risk Analysis by Financial Institutions. Retrieved from

https://www.ngfs.net/sites/default/files/medias/documents/overview_of_environmental_risk_analysis_by_financial_institutions.pdf
46. Goldman Sachs. Environmental Policy Framework. Retrieved from https://www.goldmansachs.com/s/environmental-policy-framework/.
47. BNP Paribas. (2021, July 7). The Hedge Funds and ESG Report. Securities Services. Retrieved December 12, 2021, from https://securities.cib.bnpparibas/hedge-funds-and-esg/.
48. Fidelity International. Sustainable Investing Policy. Retrieved from https://www.fidelityinternational.com/legal/documents/FIC2/en/ar.fic2.en.xx.pdf.
49. Mitchell, O. S., & Parameshwaran, S. (2021, September 9). Can pension funds integrate environmental, social, and governance principles? Pension Research Council. Retrieved December 12, 2021, from https://pensionresearchcouncil.wharton.upenn.edu/blog/can-pension-funds-integrate-environmental-social-and-governance-principles/.
50. ABP. ABP's Sustainable and Responsible Investment Policy (2020 - 2025). Retrieved from https://www.abp.nl/images/summary-sustainable-and-responsible-investment-policy.pdf.
51. ABP. Global Corporate Governance Framework - ABP. Retrieved from https://www.abp.nl/images/corporate-governance-framework.pdf.
52. PRI - Principles for Responsible Investment. (2014, April 9). A GP's guide to integrating ESG factors in private equity. Retrieved from https://www.unpri.org/private-equity/a-gps-guide-to-integrating-esg-factors-in-private-equity/91.article.
53. Harty, D. (2021, December 1). A private equity titan is beefing up its ESG work with a New Advisory Council. Retrieved from https://fortune.com/2021/12/01/kkr-private-equity-esg-advisory-board-wall-street-sustainability/.
54. KKR ESG. ESG Policy. Retrieved from https://kkresg.com/assets/uploads/pdfs/KKR-Overall-RI-Policy-2020-vF.pdf.
55. Burchman, S. (2018, November 12). How to tie executive compensation to sustainability. Retrieved from https://hbr.org/2018/11/how-to-tie-executive-compensation-to-sustainability.
56. O'Connor, P., Harris, L., & Gosling, T. (2021, June 29). Executive pay and ESG performance. Retrieved from https://www.pwc.com/gx/en/issues/esg/exec-pay-and-esg.html.
57. NN Investment Partners. Responsible Investing. Retrieved from https://www.nnip.com/en-INT/professional/asset-management/responsible-investing.
58. Marsh, A. (2021, April 28). Banks produce 700 times more emissions from loans than offices. Bloomberg. Retrieved from https://www.bloomberg.com/markets/banks-produce-700-times-more-emissions-from-loans-than-offices.
59. Pizzola, D. B. M., Koch, C., & Carroll, R. J. (2021, March 22). Why calculating your company's Carbon Footprint Matters? Retrieved from https://www.ey.com/en_us/tax/why-calculating-your-company-s-carbon-footprint-matters.

60. Bloomberg. (2021, February 25). Sustainable Debt Issuance Exceeds $730 Billion In 2020. Retrieved from https://www.bloomberg.com/professional/blog/sustainable-debt-issuance-exceeds-730-billion-in-2020/
61. Sustainalytics. (2021, November). How Sustainable Finance is Shaping Change in Banking. Retrieved from https://connect.sustainalytics.com/ebook-how-sustainable-finance-shaping-banking
62. Gorley, A. (2021, November 30). Sustainable Finance and Banks: Reduced Risk, Increased Opportunity. Retrieved from https://www.sustainalytics.com/esg-research/resource/corporate-esg-blog/benefits-sustainable-banking-approach
63. Kuchtyak, M. (2021, February 9). Moody's - Sustainable Bond Issuance to Hit a Record $650. Retrieved from https://www.csrwire.com/press_releases/718351-moodys-sustainable-bond-issuance-hit-record-650-billion-2021
64. Wilkins, R. C., & Gillespie, T. (2021, March 23). Why the Hot New Shade for Green Bonds Could Be Blue. Retrieved from https://www.bloomberg.com/news/articles/2021-03-22/why-the-hot-new-shade-for-green-bonds-could-be-blue-quicktake
65. BNP Paribas CIB. (2021, April 6). Transition Bonds: Is Sustainable Finance About to Reach Critical Mass? Retrieved from https://cib.bnpparibas/transition-bonds-is-sustainable-finance-about-to-reach-critical-mass/
66. Marsh, R. et. al (2021, February). Comparing Sustainable Debt Products and Standards. Retrieved from https://www.nortonrosefulbright.com/en-pk/knowledge/publications/37dd6a38/comparing-sustainable-debt-products-and-standards
67. IFC and Amundi Asset Management. (2020, May). Emerging Market Green Bonds Report 2019 - IFC. Retrieved from https://www.ifc.org/wps/wcm/connect/a64560ef-b074-4a53-8173-f678ccb4f9cd/202005-EM-Green-Bonds-Report-2019.pdf?MOD=AJPERES&CVID=n7Gtahg
68. Sustainalytics.com. Social Bonds. Retrieved from https://www.sustainalytics.com/social-bonds
69. PIMCO. Understanding Green, Social and Sustainability Bonds. Pacific Investment Management Company LLC. Retrieved from https://europe.pimco.com/en-eu/resources/education/understanding-green-social-and-sustainability-bonds
70. pv magazine International. (2021, September 7). Trends In Sustainable Debt. Retrieved from https://www.pv-magazine.com/magazine-archive/trends-in-sustainable-debt/
71. Makower, J. (2020, August 4). The Rise (And Rise) Of Sustainability-Linked Finance. Retrieved from https://www.greenbiz.com/article/rise-and-rise-sustainability-linked-finance
72. Equator Principles Association. (2021, November 9). The Equator Principles. Retrieved from https://equator-principles.com/about-the-equator-principles/
73. ICMA - International Capital Market Association. Sustainability-Linked Bond Principles (SLBP). Retrieved from https://www.icmagroup.org/sustainable-

finance/the-principles-guidelines-and-handbooks/sustainability-linked-bond-principles-slbp/
74. Climate Bonds Initiative. (2021, September). Sustainable Debt Market Summary H1 2021 - Retrieved from https://www.climatebonds.net/files/reports/cbi_susdebtsum_h12021_02b.pdf
75. ICMA - International Capital Market Association. Green Bond Principles (GBP). Green Bond Principles. Retrieved from https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/
76. Partnership for Carbon Accounting Financials (PCAF). Financial Institutions Taking Action. Retrieved from https://carbonaccountingfinancials.com/financial-institutions-taking-action#overview-of-financial-institutions
77. Boffo, R., and R. Patalano (2020), ESG Investing: Practices, Progress and Challenges, OECD Paris. Retrieved from https://www.oecd.org/finance/ESG-Investing-Practices-Progress-and-Challenges.pdf
78. Brady, A., & Hirai, A. (2021, July 28). Managing ESG Data and Rating Risk. The Harvard Law School Forum on Corporate Governance. Retrieved from https://corpgov.law.harvard.edu/2021/07/28/managing-esg-data-and-rating-risk/
79. Lofts, G., Stoess, P., Zehetmayr, M., & Brandau, N. (2021, October 18). How environmental, social and governance (ESG) data providers compare. Retrieved from https://www.ey.com/en_bh/financial-services-emeia/how-environmental-social-and-governance-esg-data-providers-compare
80. Gimv. (2021, February). Gimv Sustainable Finance Framework. Retrieved from https://www.gimv.com/sites/default/files/2021-03/20210226_Gimv_Sustainable%20Finance%20Framework_vFinal.pdf
81. Business Standard. What are green deposits? Green Deposit Programme. Retrieved from https://www.business-standard.com/about/what-is-green-deposits
82. Filling Short-Term Financing Needs the Green Way. Nordea. (2021, November 15). Retrieved from https://insights.nordea.com/en/sustainability/green-securities-finance/
83. Condon, N., & Cavalletto, J. Sustainable financing: What does the rise of ESG mean for Trade Finance? Retrieved from https://www.citibank.com/tts/insights/articles/article98.html
84. Golden, P. (2021, July 29). Supply Chains Get More Attention in Sustainable Trade Finance. Retrieved from https://www.euromoney.com/article/28ust909kqjrztdxuz0n4/treasury/supply-chains-get-more-attention-in-sustainable-trade-finance
85. Credendo. Corporate Social Responsibility. Retrieved from https://credendo.com/en/about-credendo/credendo-export-credit-agency/corporate-social-responsibility
86. ING. Sustainable Supply Chain Finance. Retrieved from https://www.ingwb.com/en/sustainable-finance/sustainable-supply-chain-finance
87. European Bank for Reconstruction and Development (EBRD). EBRD Launches Mobile App Promoting Green Technologies. Retrieved from https://www.ebrd.com/news/2020/ebrd-launches-mobile-app-promoting-green-technologies.html

88. Hurley, G. (2017, September 4). Opinion: The Pros and Cons of Ethical Debt Instruments | Devex. Retrieved from https://www.devex.com/news/opinion-the-pros-and-cons-of-ethical-debt-instruments-90901
89. Fries, J., Slinger, H., Stewart, J., & To, E. ESG Maturity Map: Example Behaviors for Pension Trustees. Retrieved from https://www.accountingforsustainability.org/content/dam/a4s/corporate/home/KnowledgeHub/Guide-pdf/The%20A4S%20ESG%20Maturity%20Map%20-%20Example%20behaviours%20for%20pension%20trustees.pdf.downloadasset.pdf
90. Caplain, J., & Maufe, Z. (2021, October). Closing The Disconnect in ESG Data. Retrieved from https://assets.kpmg/content/dam/kpmg/xx/pdf/2021/10/closing-the-disconnect-in-esg-data.pdf
91. He, S. (2021, March 24). Standard Chartered Launches New Proposition to Support Sustainable Supply Chains. Standard Chartered USA. Retrieved from https://www.sc.com/us/2021/03/24/standard-chartered-launches-new-proposition-to-support-sustainable-supply-chains/
92. Torres, P., & Foster, B. (2021, July 23). Opening the Black Box of ESG Data. Retrieved from https://www.bloomberg.com/professional/blog/opening-the-black-box-of-esg-data/
93. Bank of England Prudential Regulation Authority. Climate-related financial risk management and the role of capital requirements. Climate Change Adaptation Report 2021. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/publication/2021/october/climate-change-adaptation-report-2021.pdf?la=en&hash=FF4A0C618471462E10BC704D4AA58727EC8F8720
94. Bank of England. (2019, April). Supervisory Statement. Retrieved from https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/supervisory-statement/2019/ss319.pdf?la=en&hash=7BA9824BAC5FB313F42C00889D4E3A6104881C44
95. Kyriakopoulou, D. (2019). Special Report: Central Banks and Climate Change. Retrieved from https://www.omfif.org/wp-content/uploads/2020/02/ESG.pdf