National Bank of the Republic of North Macedonia
Financial Stability and Macroprudential Policy Department

Climate Risks – Results from the Survey conducted in banks and savings houses in the Republic of North Macedonia

February 2022

Contents

Introduction 3
Summary 4
I. General questions 5
II. Strategy.. 5
III. Risk management...10
IV. Threshold indicators and internal exposure limits...13
V. Stress testing...13
VI. Public availability of information/transparency 15
Annex 1: Climate Risk Maturity Model...16
Annex 2: Green loans provided by banks in Republic of North Macedonia..........................17

Introduction

The activities that central banks are undertaking to mitigate the adverse economic effects of climate changes, including the effects on the financial systems, are becoming increasingly important. The National Bank of the Republic of North Macedonia joined this trend at the end of 2020 by amending its Strategic Plan. The amendment to this document has given priority to climate change activities for the first time aimed to contribute towards creating green and sustainable economy. Moreover, at the beginning of 2021, the National Bank took initiative and became a member of The Network of Central Banks and Supervisors for Greening the Financial System - NGFS, consisting of 105 central banks and supervisory institutions and 16 observers worldwide[1]. The National Bank, as a member having representatives in the working groups, actively observes the activities and initiatives that central banks are undertaking in terms of climate risk management and monitoring. Currently, central banks' activities are aimed at increasing the institutions' awareness of risks arising from climate change.

To perceive the practices and policies, which are currently applicable to banks and savings houses for monitoring and management of climate risks and thus the climate risk awareness, the National Bank prepared a questionnaire on climate change at the end of 2021. At the beginning of 2022 the national bank carried out a Survey in which all banks (thirteen) and savings houses (two) in the country (hereinafter: respondents and/or institutions) participated. The questionnaire includes questions related to climate risks and their scope in the strategic documents of institutions, organizational setup and manner of climate risk management as well as questions on transparency and information related to climate risk management.

A model of *maturity* for climate risk management was designed based on the results from the Questionnaire. Questions considered most important in terms of banks and savings houses' knowledge, practices and policies related to the subject of climate change were singled out from each part of the questionnaire. These questions are weighted and rated according to internal methodology[2] and are included in the final score calculation of each institution. The model indicates the status of the current climate risk management policies and practices for individual institutions and for all institutions in total. According to the model, one medium and one large bank are the most advanced[3] with knowledge in the field of climate risk as well as with the implementation of practices and policies in relation to climate risks. (Annex 1).

In addition to the analysis are the data on approved green loans to the private sector in the Republic of North Macedonia in the last two years. According to these data, the stock of approved green loans to the private sector in 2021 has an annual growth of 13.0% (23.5% in 2020) *(Annex 2).*

---

[1] The number of members in the Green Financial System Network is constantly growing. As of April 13, 2022, the Network has 114 central banks and supervisory institutions and 18 observers from around the world.

[2] Such model is applied by Global Association of Risk Professionals (GARP) in the regular annual evaluation of the climate risk management with financial companies worldwide. In our case, the methodology of the model is adjusted to the structure and type of questions in the Questionnaire on climate changes.

[3] The respondents that have over 50% of the maximum points have been pointed to as *the most advanced*. For each part of the questionnaire, the respondents can make a maximum of 100 points, which means that an institution can make a maximum score of 600 points.

Summary

Almost 90% of the respondents consider climate changes to be an important source of risk to financial stability. Recognizing the importance of climate risks for the financial system indicates a certain level of awareness of these risks and consequences of their potential materialization. However, small number of banks and savings houses have taken climate change into account in their development plans. This corresponds with the answers of most of the respondents (87%) that have not established internal acts for climate risks management and that most of them (80%) have not started monitoring climate risk in details and do not evaluate the impact of climate risks while investing or establishing business relations with the client. In this context, most of the institutions do not have a body that is exclusively responsible/ involved in this matter. Such answers indicate that **the process of climate risks management in banks and savings houses is at the initial stage.**

Less than half of the respondents have introduced new products / services as a response to climate change. Generally, these are credits financed with credit lines concluded with the European Bank for Reconstruction and Development-EBRD to support the competitiveness of the small and medium enterprises for projects in the field of energy efficiency and renewable energy sources as well as protection at work, and energy efficiency loans to households through the GEEF program by the EBRD. **The fact that more respondents intend / consider introducing new or changing the current products / services in response to climate change is encouraging.** They generally refer to loans for financing energy efficiency projects and *green* loans to households and to the corporate sector, as well as *green* project financing, most of them suggesting that they plan to launch their new products in 2022.

The role of regulators is especially important for the institutions' approach towards strengthening the climate risks management. The main drivers that encourage institutions to strengthen climate risks management include **requirements of investors / institutions that provide financial support and good practices of financial institutions.** Clients' requirements, policies of parent entities and the availability of consulting / expert assistance are also indicated, but by a smaller number of respondents. The main obstacles for better management of this type of risks include **lack of standards and tools, absence of guidelines from the regulator and lack of adequate data,** indicating **limited internal resources and policies.**

To sum up, the conclusions from the survey confirm the strategic importance of the climate risks and emphasize the need for more detailed guidelines from the regulator with clear expectations for the financial institutions. The scope of these risks in the risks management system within the institutions and their effective management is aimed at mitigating the consequences of their potential materialization.

I. General questions

The Paris Agreement aims to involve all countries in the global efforts to curb global warming. Our country signed this Agreement in April 2016[4]. According to the answers to the general questions related to the climate change topic and the Paris Agreement, just over half of the respondents (60%) are familiar with the content of the Paris Climate Agreement, but most of them have no personal expectations for global temperature rise by the end of this century. The respondents having certain expectations (three) believe that the global temperature by the middle of this century will rise by maximum 2°C. It is **encouraging that almost 90% of respondents believe that climate change is an important source of risk for the financial stability.**

Chart 1

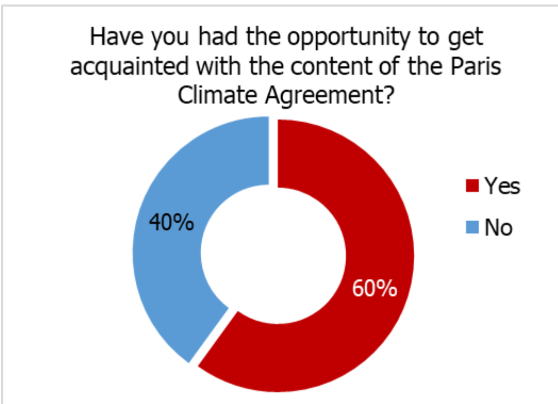
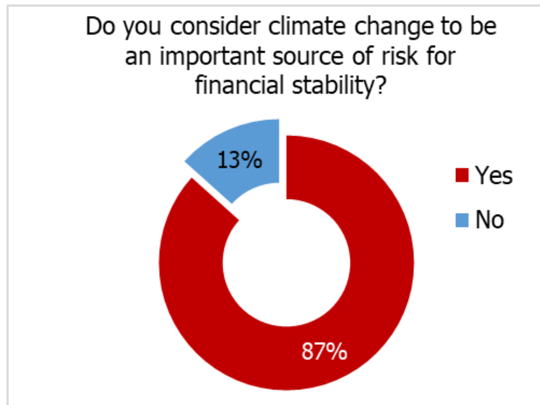


Chart 2



II. Strategy

Climate risks can directly affect the effectiveness of the current and future strategy of the institution. Hence, the Questionnaire included a set of questions in order to see how many of the institutions have included climate risks as a strategic priority in their development plans. This section also includes questions that aim to answer whether the institutions undertake certain activities, i.e. develop new products in response to climate change, what type of products are in question and when they are scheduled for launching to the market. This section also contains questions about external factors that motivate institutions to strengthen climate risk management and questions about the obstacles they face along that process.

Only a few respondents (20% or 3 institutions) answered that they considered the climate change in their Development Plan. When asked does certain activities / asset classes on the balance sheet could be significantly affected by climate change, 5 respondents answered in the affirmative, or about 1/3 of the total number of respondents. One respondent explains that these are funds placed for financing small hydropower plants, to support agriculture, while another respondent points to the total loan portfolio.

[4] Our country contributes to the global effort by setting a long-term goal: **to reduce national net greenhouse gas emissions** (excluding aviation emissions and electricity imports) **by 72% by 2050** compared to 1990 levels (or **a 42% reduction in greenhouse gas emissions by 2050** compared to 1990, excluding the forestry and other land use sectors and aviation emissions and electricity imports) and **increased social resilience**, the country's economy and ecosystems to the impacts of climate change.

Chart 3

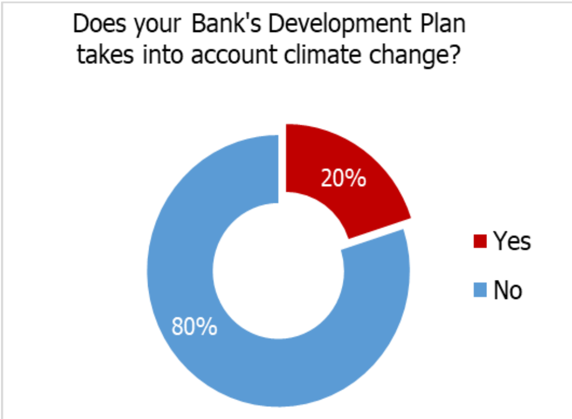
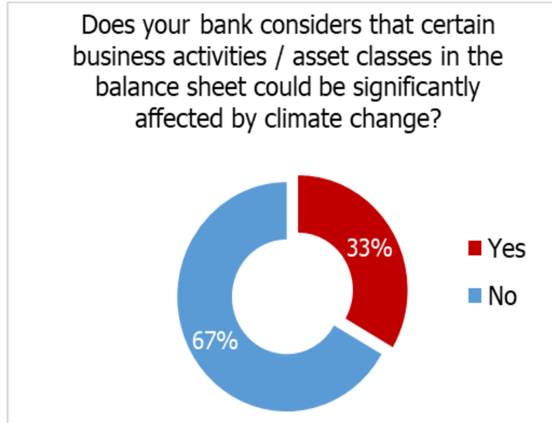
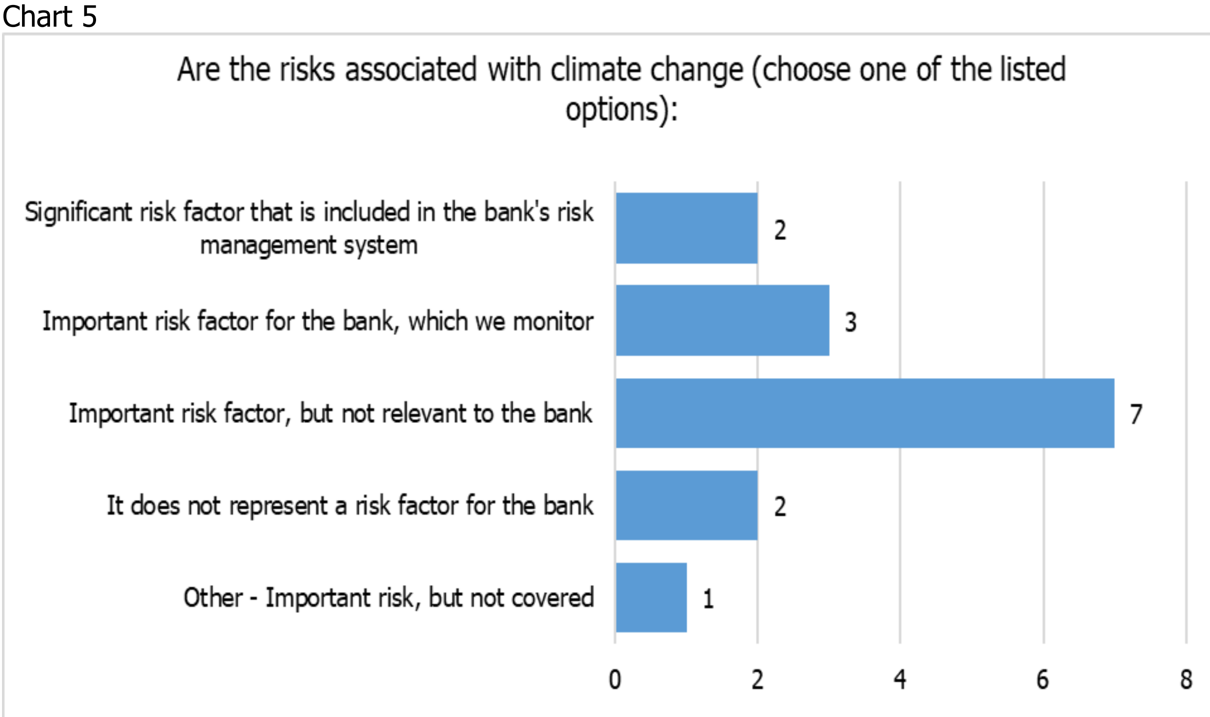


Chart 4



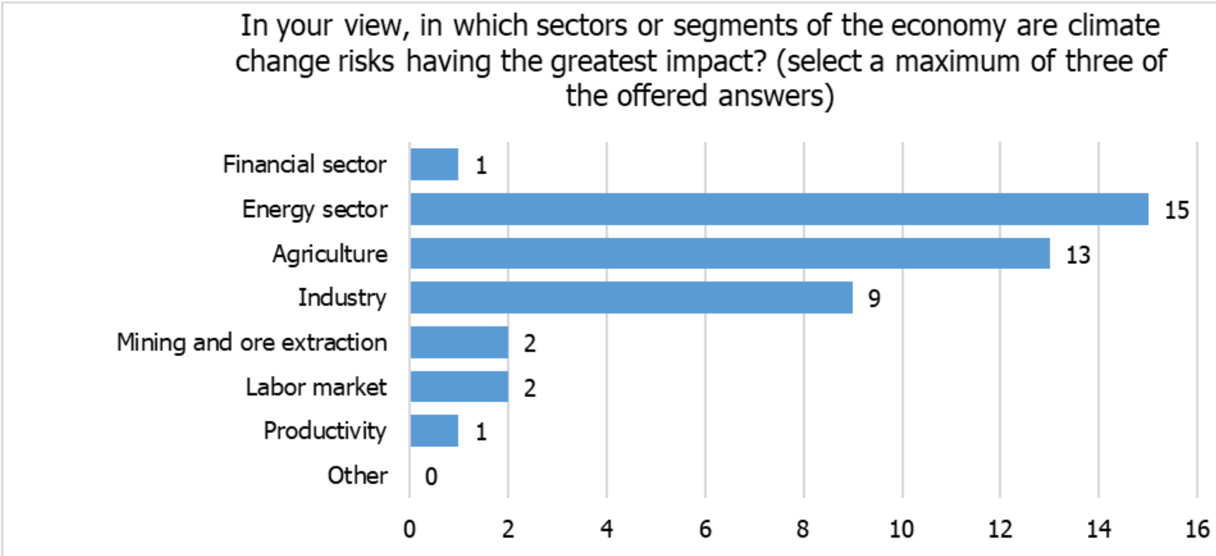
To see how institutions view climate risks, respondents had the opportunity to answer the question of the extent to which climate risks are an important risk factor for their institution. More specifically, whether they are included in their risk management system, whether they are monitored or not relevant or do not represent a risk factor for the institution. According to the answers to this question, **almost half of the respondents (47%) consider that climate risks are an important risk factor, but they are not important for the institution.**

Chart 5



Regarding the impact of climate change on the economy, most respondents point to the **energy sector, agriculture, and industry** as sectors that may be most affected by climate change.

Chart 6



Less than half of the respondents **(40% or 6 institutions) answered that their institution has introduced new products / services in response to climate change.** One of the banks responded that "these are credit lines concluded with the European Bank for Reconstruction and Development - EBRD, to support the competitiveness of SMEs with a grant component of 15% for successfully implemented projects in the field of energy efficiency and renewable energy sources, as well as energy efficiency loans through the EBRD GEFF Program, with a 20% grant component intended for households".

According to another respondent: "The bank is actively involved in financing projects that aim to reduce pollution and greenhouse gas emissions, as well as projects that lead to transition to a lower carbon dioxide economy." Part of these projects is the financing of biogas power plants, hydropower plants and photovoltaic power plants. In the area of household lending, consumer loans for reconstruction purposes, which include replacement of old windows with new energy efficient ones, investments in isolation and energy facades, etc. which reduce electricity consumption".

The third respondent details the products its institution finance, which mainly refer to dedicated consumer and mortgage loans for energy efficiency (EBRD) and dedicated loans for energy efficiency.

Chart 7

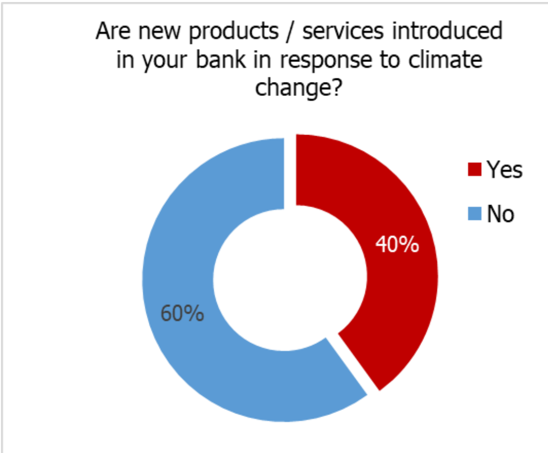
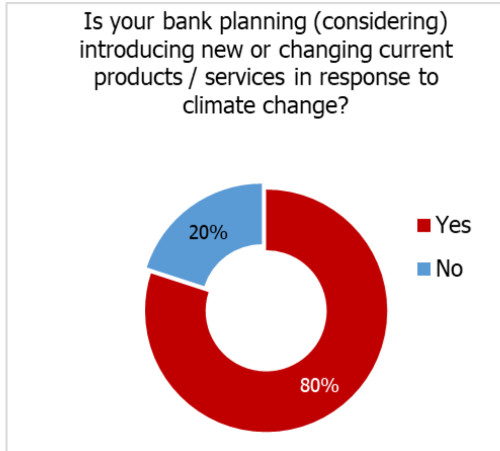
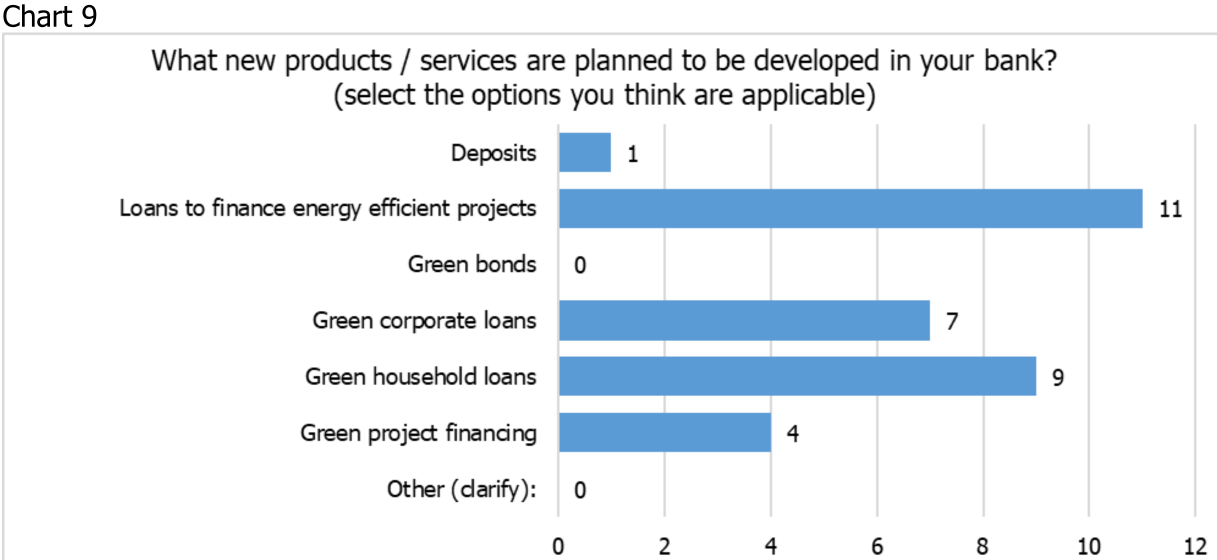


Chart 8



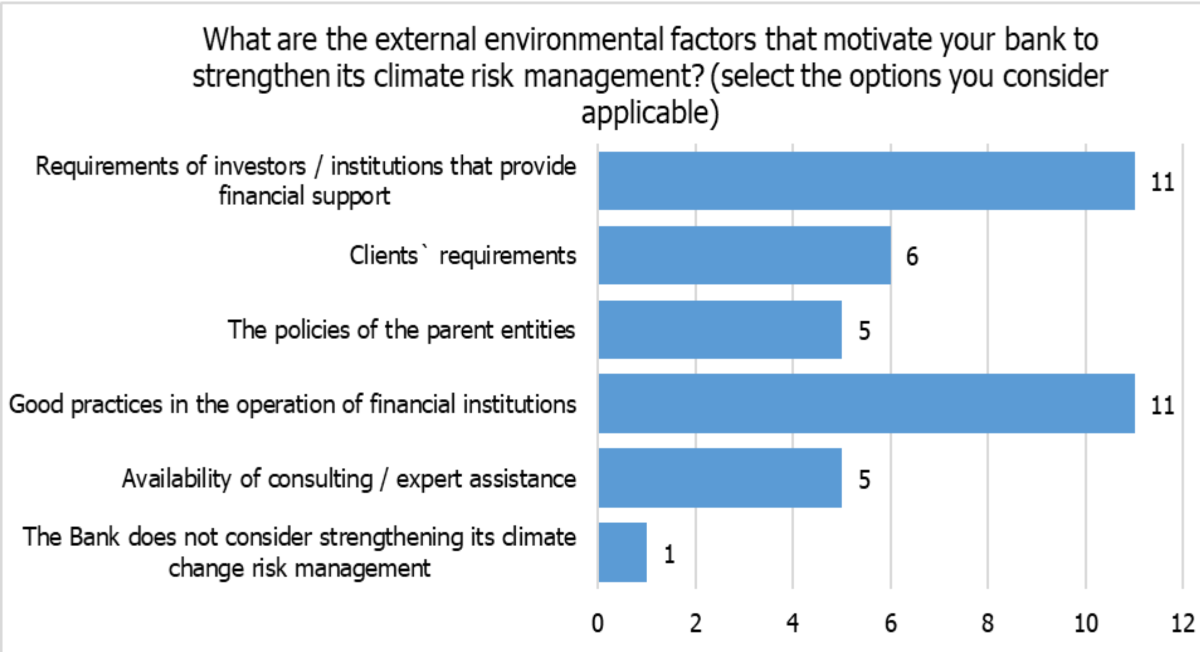
Most of the respondents (80%) intend / consider introducing new or changing current products / services in response to climate change. In the answers of the respondents for the new products / services that they plan to develop in the next period, the most common are: **loans for financing energy efficient projects and green loans intended for households and the corporate sector, as well as green project financing.** At the same time, only one institution has answered that it is considering a new product / service such as deposits, while green bonds, according to the respondents, are not the focus of any institution. **Most of the respondents (7) plan to launch new products in 2022,** some of the respondents (4) indicate that they will do so in 2023-2024, while the answer of 3 respondents refers to the period after 2024.

Chart 9



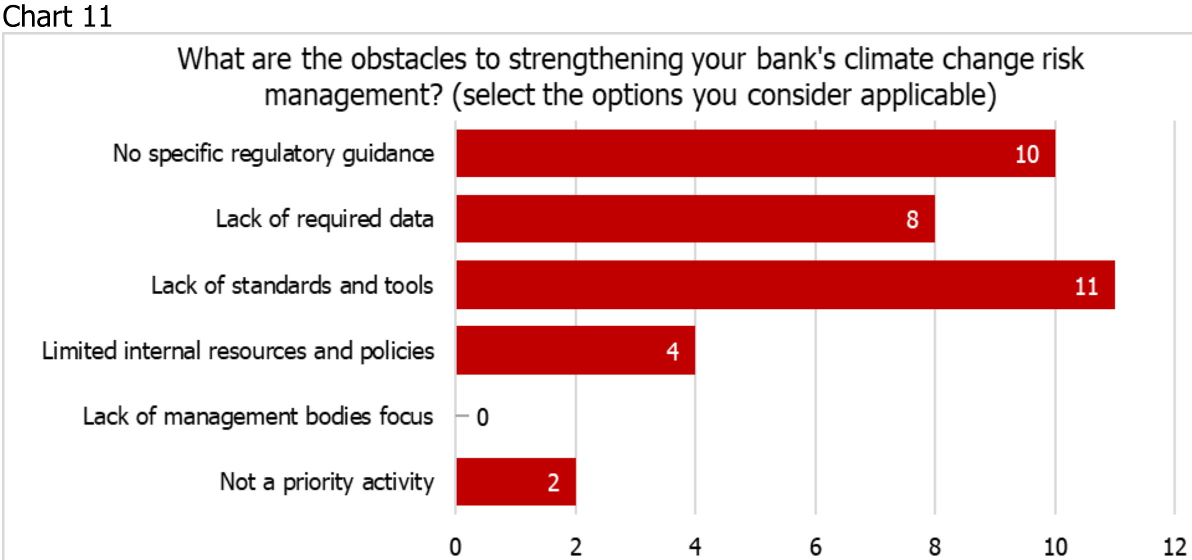
Most of the respondents indicate **the requirements of investors / institutions that provide financial support and good practices in the operation of financial institutions as the most important external factors** that encourage strengthening climate risk management. Clients' requirements, policies of parent entities and the availability of consulting / expert assistance are also indicated, but by a smaller number of respondents.

Chart 10



Regarding the obstacles to strengthening climate risk management, **the most common answers are lack of standards and tools, lack of regulatory guidance and lack of adequate data.** Limited internal resources and policies are also pointed out as an obstacle, but by a small number (4) of respondents.

Chart 11



III. Risk management

Pursuant to Article 4 of the *Decision on the methodology for risk management*, the **risk management system** and its scope should be in line with the bank's development plan and business policy, be adequate to the nature, type and scope of the financial activities the bank performs and should be regularly updated taking into account changes in the external environment, the bank's risk profile, the growth of bank's markets' presence, etc.

Pursuant to Article 16 of the *Decision on the methodology for risk management*, the bank should adopt **policies and other internal acts on risk management** that should enable identification, measurement or evaluation, control or mitigation and monitoring of individual risks. With this in mind, the Questionnaire also contained questions related to risk management. Through these questions, the goal is to see **whether the institutions have included climate risks in the risk management system** i.e. to understand how many of them have established internal acts and procedures for monitoring and managing climate risks, which management level is involved / responsible for monitoring of these risks and whether the institution assesses climate risks.

The majority of respondents (87%) answered that their institutions have not established internal acts on managing climate risks. The two respondents that answered in the affirmative explain that these are physical and transitional risks and that these risks are included in the *Framework Policy*[5] *and Methodology for Environmental and Social Aspects*, i.e. in the answer of the second respondent in the *Environment Protection Policy*. At the same time, **none of the institutions allocate internal capital for covering the risk of exposure or possibility to be exposed to climate risks**.

Most of the respondents (12 or 80%) answered that they have not started to monitor climate risks in more details. Only one respondent answered that their institution monitored climate risks in more details before 2019, while the answers of the other two respondents refer to 2021 and 2019/2020. Regarding the time period for which the respondents perceive the climate risks, the answers of the respondents (three) that monitor the risk refer to the next 5 to 15 years, while one respondent indicated a period longer than 15 years, and according to the perceptions of another respondent, the climate risks refer to the next 1 to 5 years.

[5] In the answer, one respondent explains that "The Framework Policy for Environmental and Social Aspects in the Bank is one of the few requirements of the risk management system that consist of *Policies and Procedures* that enable us to better understand the activities of our clients, help us appropriately consider any effect on the environment and the social aspects, to minimize the risk and to manage the expectations of all stakeholders. The Policy provides a reference point for our employees for the minimum standards, procedures and management and the monitoring of environmental and social risks when dealing with clients and transactions. We are in a procedure of revising the existing Policy and Methodology to address the physical and transitional risks".

Chart 12

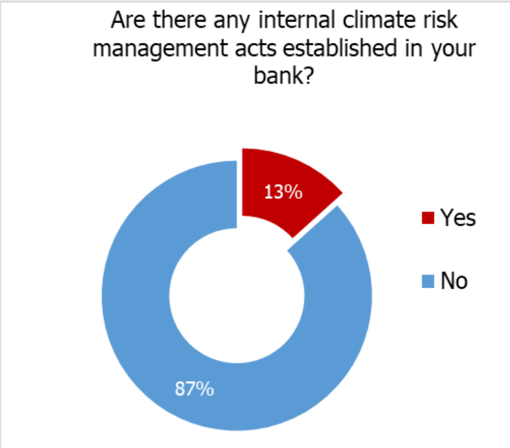
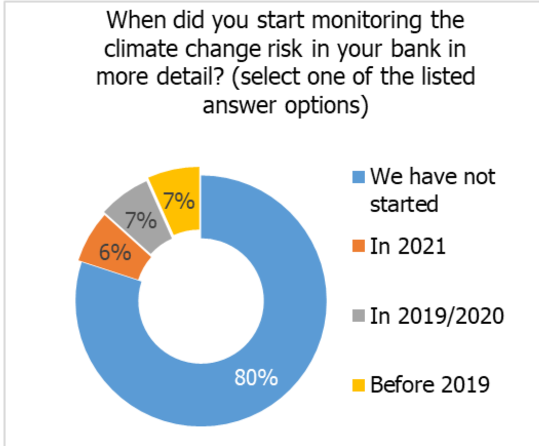


Chart 13



However, it is noticed that 9 respondents or **60% of the total number of respondents answered that they have policies/practices in place that determine unacceptability of clients whose activities may be detrimental to the environment**. They explain that:

- these policies / practices address activities that are detrimental to the environment. According to the answer of one respondent, such activities include financing of thermic excavation of coal or capacities for production of electricity of coal, including possible transitional improvements, RSV substances that damage the ozone layer, activities in the nuclear fuel production cycle, production or trade in radioactive materials, production or trade in asbestos fibers, production or trade of wood or other products from forests other than sustainably managed forests etc.
- Another respondent pointed out that prohibited activities include production and trade in products that contain polychlorinated biphenyls (PCBS`s), production or trade in medicines, pesticides / herbicides and other hazardous substances that are subject to an international ban or are in the process of gradual abolition; production or trade in ozone-depleting substances, that are subject to international process of gradual abolition; production, use or trade in asbestos fibers or products containing asbestos; production of tobacco products, production of weapons and ammunition, combat vehicles.
- within the process of lending to companies, a practice has been established for determining the environmental risk posed by the company and accordingly, the need for analyzing the effect of the company on the environment.
- it is partially covered in some policies and procedures of the group, but in the period ahead we expect strengthened monitoring of these risks, so we also consider including calculation of buffer in the credit risk provisions in risky industries in terms of climate changes.
- the risk management system in the Bank identifies such clients and manages the credit risk through risk mitigation tools or restrictions on clients identified to have detrimental effect on the environment.
- at the moment, the Bank is in the process of implementation of an E&S policy.

- the Bank has adopted a list of activities detrimental to the environment and social area that are not financed by the bank. The list is publicly available and published on the bank's website.
- one of the main tasks of the Bank as specified in the Development Plan and the business policy is to finance projects for environment safety and protection, for saving energy and renewable energy sources. Also, according to the Bank's credit policy, there is a ban on financing activities that have an adverse impact on the environment.

When it comes to the climate risk management structure, i.e. whether the institutions have a body / organizational unit or a person competent for monitoring of these risks, the **majority of the respondents (80%) answered that their institutions have no body that is solely responsible / involved in this issue.** From the three respondents who answered that such body exists in the bank, one of the respondent said that it is the Bank's Management Board, while another respondent said that this issue is within the competence of the Bank's Risk Management Committee and Management Board. The third respondent chose the option *Other*, specifying that it is the Environment Protection Department. Furthermore, the three respondents answered that these bodies / department regularly follow the international discussions, assessments, and proposals for climate risk management.

Chart 14

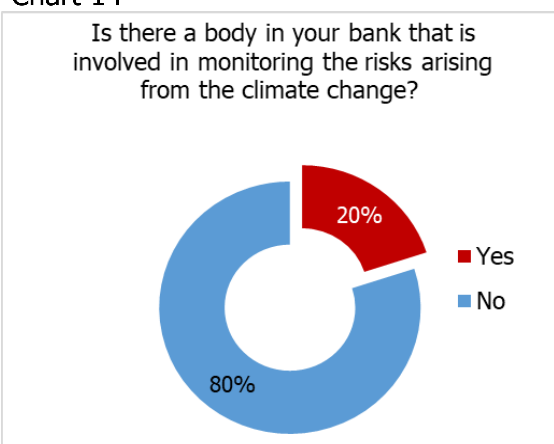
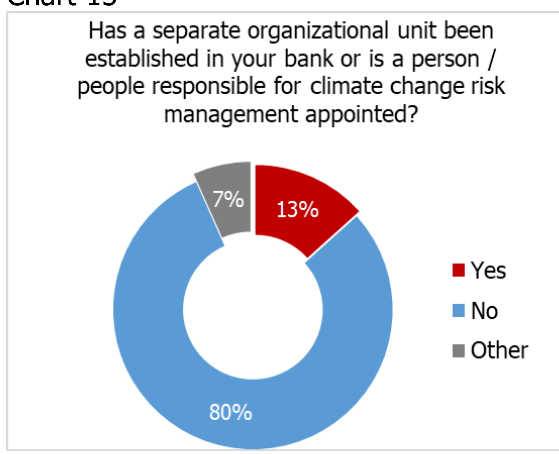


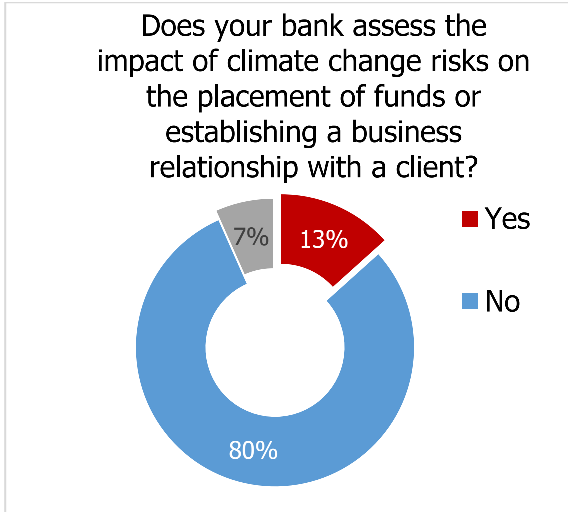
Chart 15



When asked whether they have established a separate organizational unit within the institution or appointed a climate risk officer, two respondents answered in the affirmative, and one respondent chose the option *Other* with clarification. One of these respondents clarified that the Bank has appointed an ESMS Officer/ESG Coordinator and established an ESMS support group, while the other respondent who answered in the affirmative clarified that the Bank has an Environmental Management Department in charge of implementing the Environment Protection Policy. The Department reports directly to the member of the Board of Directors responsible for environmental management. The third respondent, who chose the option *Other* explained that the Bank has appointed a compliance officer in charge of the EBRD agreements in the field of ESMS policy.

Most of the institutions (80%) do not assess the impact of climate risks when investing or establishing a business relationship with a client. Only two respondents answered this question in the affirmative, and a third respondent added the option *Other* and explained that their institution *make categorization of environmental risks, social risks and overall risk, depending on the client's activity*. Respondents, which answered this question in the affirmative, on the next question regarding the type of analysis (quantitative/qualitative), stated that they do a quantitative analysis.

Chart 16



IV. Threshold indicators and internal exposure limits

The questions in this section are aimed to give answer whether and at what pace the institutions use indicators and/or limits to restrict climate risk exposure.

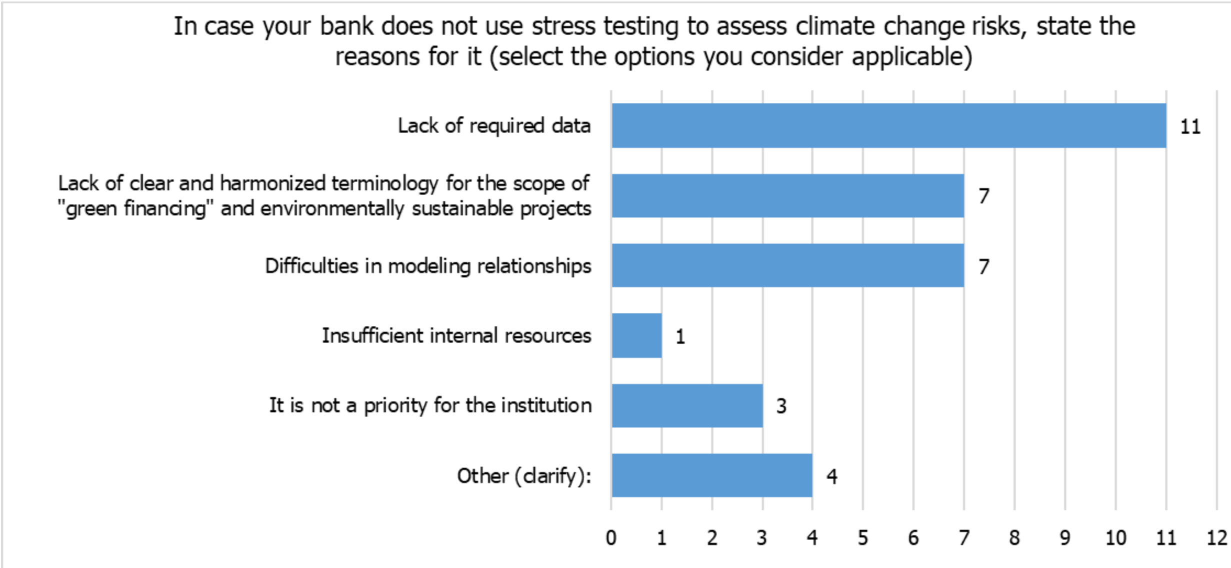
Only one respondent answered that the institution uses quantitative indicators with thresholds. According to the respondent's answer, these quantitative indicators with thresholds are used **on a quarterly / annual basis**. All other institutions do not use quantitative and / or qualitative indicators and their thresholds and do not apply internal limits to restrict climate risk exposure.

V. Stress testing

In order to get an idea of whether and to what extent the institutions have built capacity to assess climate risks, the questionnaire included questions related to stress testing.

All respondents said that they did not use stress testing as a tool to assess climate risks. Thus, one respondent explained that *starting from 31.12.2021, stress testing is carried out on a Group level and the results are expected by 31.03.2022*. The lack of application of this tool for climate risk assessment is most often **explained with the following factors: lack of required data, lack of clear and harmonized terminology for the scope of *green financing* and environmentally sustainable projects, difficulties in modeling relationships.** Three respondents answered that stress testing is not a priority for the institution, while one respondent pointed to resource scarcity in the institution.

Chart 17

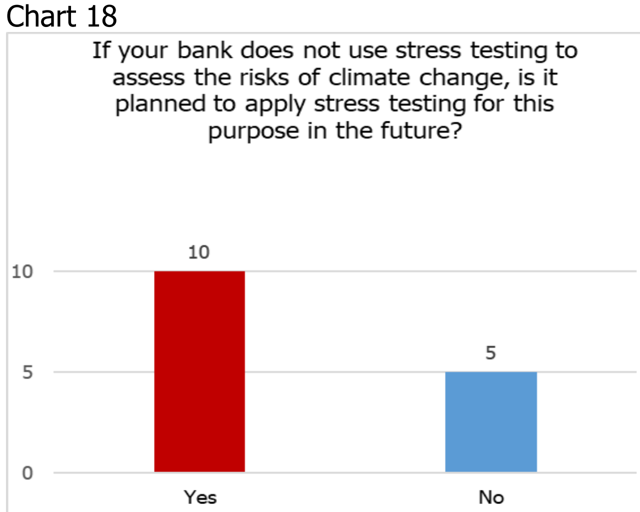


Also, several respondents under the answer *Other* state the following factors as reasons:

- There is no clear methodology and guidelines
- In its current operation, the savings house does not use stress testing to assess climate risks, but in the future they will develop stress scenarios
- The current portfolio structure is not directly exposed to climate risks
- Low share of standard *green* loans in the Bank's loan portfolio
- During stress testing, the Bank regularly covers the external environment risk through underlining and negative assumptions about macroeconomic indicators. Thus, although the Bank does not directly assess climate risks, it indirectly assesses the risks of any changes that would affect the comprehensive macroeconomic variables such as GDP, inflation, private consumption, investment etc.

As stress testing is not used as a tool to assess climate risks, respondents did not answer the questions about the period to which the results of these analyses relate and the activities that have been undertaken or is assessed that have to be done on the basis of the conclusions from the stress testing. However, **it is encouraging that 2/3 of the total number of respondents plan to apply stress testing to assess climate risks in the future.**

Chart 18



VI. Public availability of information/transparency

Access to information is essential to promote transparency in institutions. The answers to the questions in this section tend to provide information on **whether institutions are transparent** when it comes to **climate risk information**. Hence, one part of the questionnaire contained questions related to the reporting / disclosure of key climate risk information, their availability to the public and their compliance with TCFD standards[6].

Chart 19

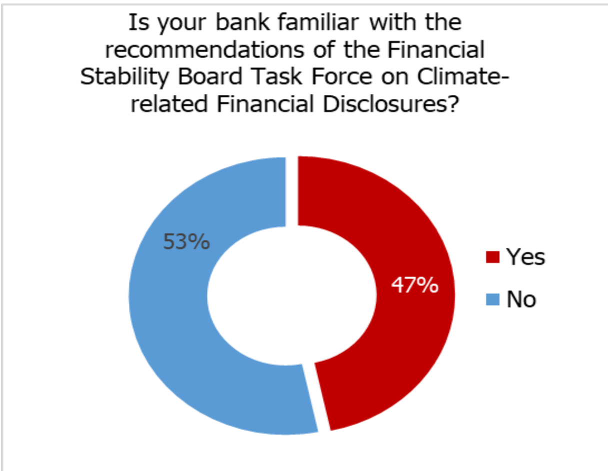
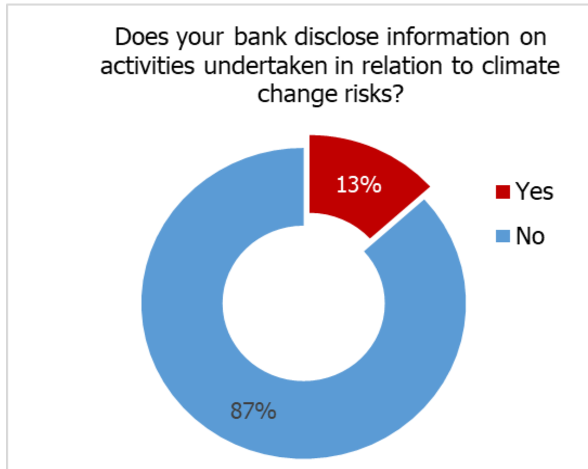


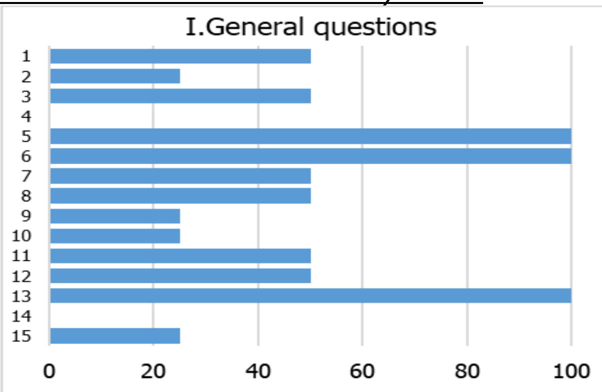
Chart 20

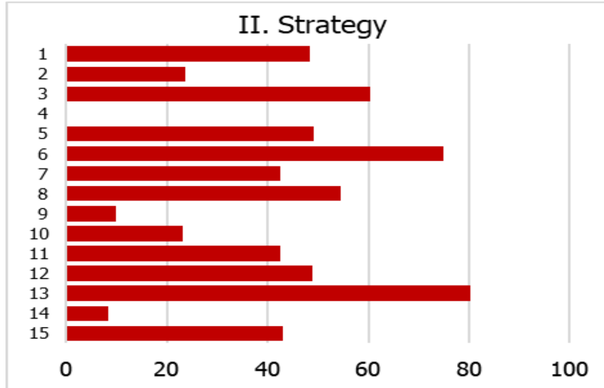


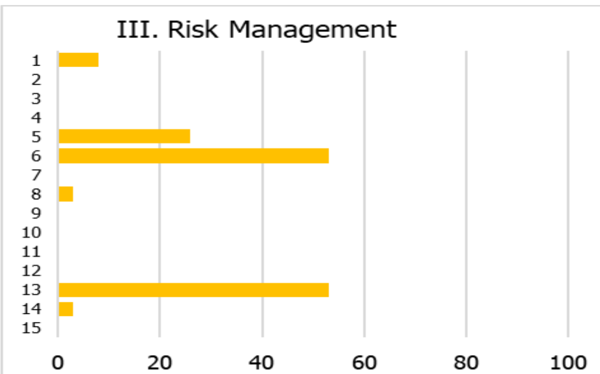
Almost half of the respondents are familiar with the recommendations of the Task Force on Climate-related Financial Disclosure set up by the Financial Stability Board. However, only two of the respondents answered in the affirmative to the question whether their institutions disclose information on the activities undertaken in relation to the climate risks.

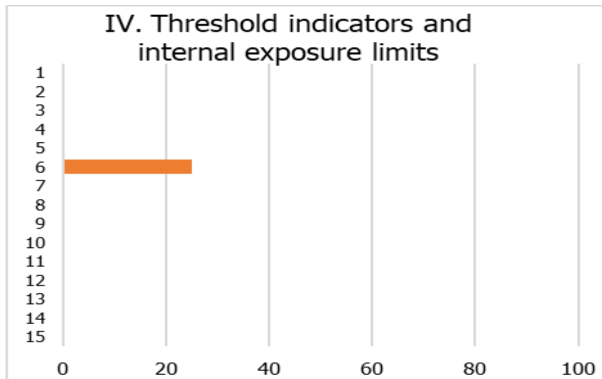
[6] These are the recommendations of the Task Force on Climate-related Financial Disclosures set up by the Financial Stability Board.

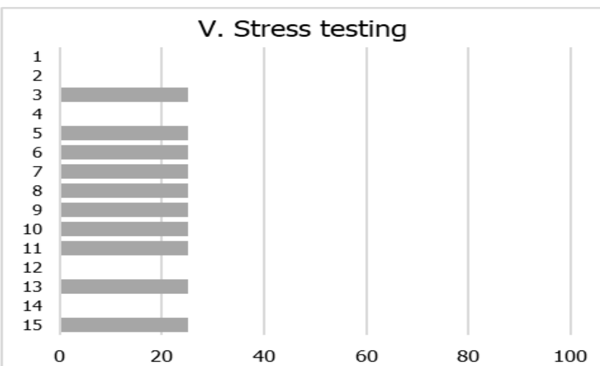
Annex 1: Climate Risk Maturity Model

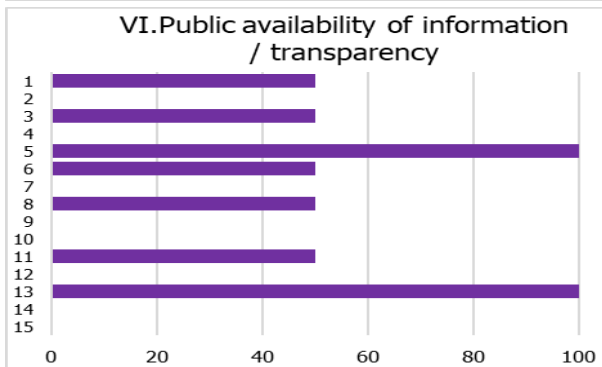


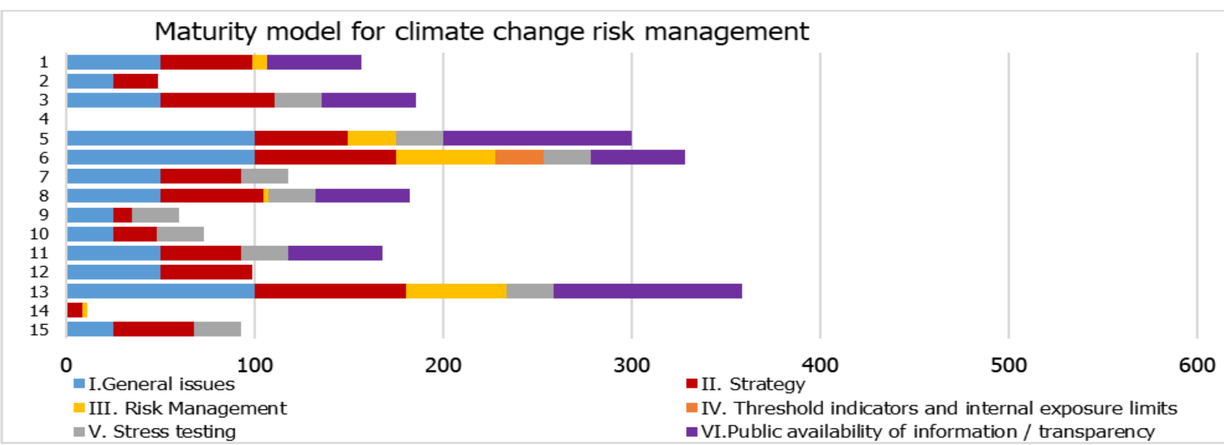




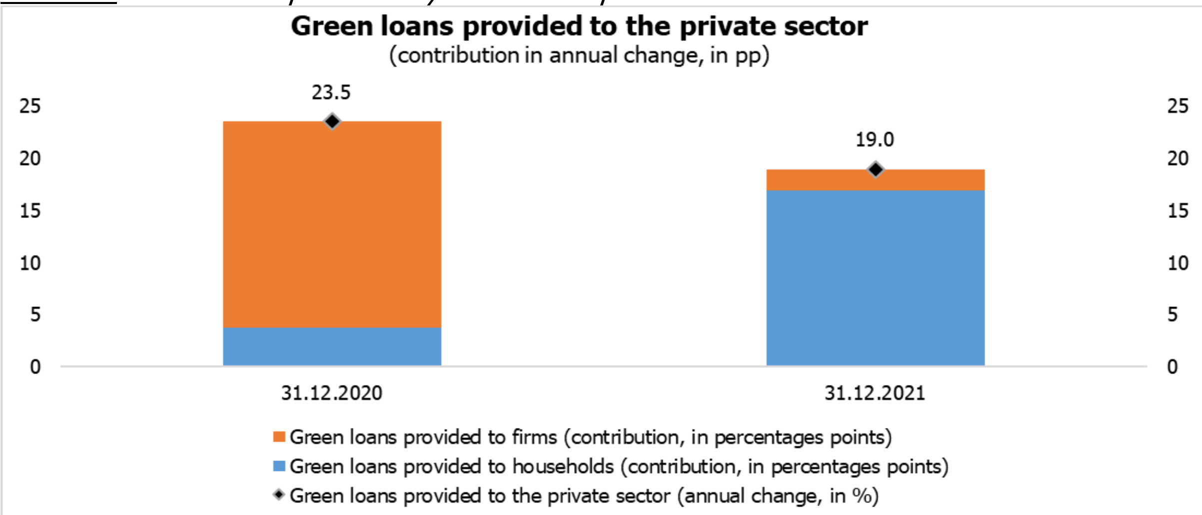








<u>Annex 2:</u> Green loans provided by banks in Republic of North Macedonia[7]



[7] According to banks` data provided to the National Bank.