National Bank of the Republic of North Macedonia
Financial Stability and Banking Regulations Department

SURVEY ON BANKS' PERCEPTIONS FOR THE RISKS COMING FROM THE ENVIRONMENT AND THE PLANNED BUSINESS ACTIVITIES IN 2019

March 2019

Introduction

At the beginning of each calendar year, the National Bank of the Republic of North Macedonia conducts a survey on the banks' perceptions for the risks coming from the environment. The main aim of the Survey is to provide information on the banks' perceptions for the main risks that they face with during their operations and their sources, i.e. the risks that they assess as significant and relevant. Compared with previous years, this year the Survey has been quantitatively and qualitatively improved, and its drafting took into account also the examples of the institutions from other countries that conduct similar surveys. As in the past years, the Survey was conducted to all banks operating in the Macedonian banking system (a total of fifteen banks).

The objective of this Report, which for the first time is prepared in such format and content, is to give a more detailed and aggregate review of the results of the conducted Survey, and which could serve for informing the general public and better business decision-making of economic agents in the country. A short review of the results of the conducted surveys in the past years can be found in the Financial Stability Reports of the National Bank[1] for the relevant years, where, so far, these surveys were usually treated.

In this Report, the results of the Survey are presented in an aggregate form, while the charts are put in order according to the schedule of the questions in the Survey conducted with the banks. The Survey, in the form in which it was submitted to the banks, is attached to this Report. The aggregation of the results is in the form of presentation of the number of banks that gave a specific response, expressed as the number of banks or percentage of the total number of banks covered by the Survey. In the questions from Section I and Section II of the Survey, there is also a presentation of cumulative results calculated as a single average grade of the banks' responses (only in part[2] of the questions, the banks' responses are weighted according to their individual share in the total assets of the banking sector)[3]. For the questions for which only one response is allowed, each potential difference between the sum of presented responses and 100% (or 15, in case of analysis according to the number of banks) is due to the banks that did not respond to the specific question i.e. they considered that it is not applicable for their institution.

The content of the Survey is composed of four sections. In the first two sections, banks give ranking and assessments of the current and future importance and impact on their operations and performances, on five main groups of risks (and their individual factors), as they are defined by the National Bank. The third section of the Survey is drafted on the pattern of the Survey conducted by the European Banking Association (EBA) with the banks of the European Union, and contains questions in relation to profitability, capital position and other activities and performances of banks. The fourth section of the Survey treats certain, specific and currently relevant questions from the banking operations.

[1]The Financial Stability Reports of the National Bank can be found on the following link: http://www.nbrm.mk/izvieshtai_za_finansiskata_stabilnost.nspx

[2] The responses from the table of Section 2 are weighted for their individual share in the total assets of the banking sector, in order to see the level of heterogeneity of the banks' assessments of the probability of materialization and the effect of the materialization of the risks that they are exposed to during their operations.

[3]Under each of the charts, there is an explanation for the manner of aggregation of the results.

Analysis of the results

Risks coming from the environment. Risks arising from the macroeconomic environment and from the regulatory framework, similar to the past years, are ranked as risks with the greatest impact on the banks' operations. However, the average rank of these groups of risks is 3.4 for 2019 (ranging from 1 to 5), indicating expectations by banks for relatively moderate[4] influence of these two groups of risks on their operations. The estimated importance of the risks associated with the financial markets, the banking sector and the strategy of the bank/banking group is somewhat smaller and ranges from small to moderate influence on the operations of the banking sector. Regarding the direction of the expected influence of the individual groups of risks in 2019, almost half of the banks expect an increase in the risks associated with the regulatory framework, whereby as the main risk factor banks point to the possible changes in the national legislation in the field of the risk management, changes in the regulation that regulates the banks' business operations, as well as the possible non-compliance between the domestic regulations. About 60% of the banks point to the amendments to the regulations in the field of finance or the economy in the EU as an important or very important risk factor related to the regulatory framework, which corresponds to the expectations for an acceleration in the process of harmonization of the domestic with the European legislation. Regarding the risks associated with the macroeconomic environment, which banks assess as risks with the greatest impact on the operations, 67% of the banks expect that those risks will be maintained at an unchanged level, while the remaining 33% have expected their reduction during the year. Among the risk factors related to the macroeconomic environment, banks pinpointed the indebtedness and liquidity of the domestic legal entities as factors with the greatest impact, followed by the expected developments in the construction sector. In the remaining groups of risks associated with the strategy of the bank/banking group, the banking sector and the financial markets, most of the banks expect their retention at an unchanged level, while in the minority of banks that expect change, it is mostly aimed at increasing the risks.

According to the results of the Survey, on average, banks assess that the risks associated with the banking sector, compared with the remaining groups of risks, have the highest probability of materialization (highly moderate) in 2019, where the effect of such materialization would have a medium impact on the operations of the banking sector. In the remaining groups of risks, banks assess the probability of materialization as moderate or low, whereby the greatest effect of the materialization (ranked as medium to moderately great effect) is that of the risks associated with the macroeconomic environment and the regulatory framework, which banks assessed as risks with the greatest impact on the operations. The risks associated with the macroeconomic environment and with the financial markets are characterized by a higher level of harmonization of the responses of individual banks in terms of their assessments of the probability and ranking of the effects of materialization. In the remaining three groups of risks, i.e. the risks arising from the banking sector, the risks arising from the strategy or the operations of the bank/banking group/owners and the risks arising from the regulatory framework, the responses are more disperse, which can also indicate differences in the perception for the importance of these groups of risks between individual banks.

[4] "Moderate" denotes the average grade that ranges about 3, while the average grade that approximates to 4 denotes "highly moderate" grade of the risks.

Profitability. The Survey put a question to the banks to assess the rate of return on average equity and reserves (ROAE) which will provide sustainable operations of the bank in the long term. Banks gave different views on this question. Most of the banks (a total of five) assess that even with ROAE lower than 10% they would achieve sustainable operations in the long term. Four banks chose the interval of 10-12%, but there are also banks (a total of three) that assess that the sustainable operations in the long term require ROAE higher than 14%. A high percentage of the banks (80%) assess that the current profit from the regular operations exceeds the cost of equity, the amount of which for a period of one year according to 60% of the banks is assessed at a level lower than 8%. Amid general assessments of moderate relevance and impact of the individual groups of risks on the banks' operations, 60% of the banks expect an increase in profitability in the next 6 to 12 months. The income category for which most of the banks (80%) assess that it will contribute to growth of profitability in 2019, includes the income from commissions (and within their framework the income from commissions from payment services, including card operations and commissions related to lending), followed by the interest income, which was selected by 67% of the surveyed banks. On the expenditures side, banks expect to improve their profitability by reducing operating costs (67%) undertaking activities for greater automation and digitalization in the operations, eliminating the inefficient activities and organizational units in the bank and reducing the general administrative costs, as well as by reducing the costs for impairment of non-financial assets (60%). Most of the banks (66.7%) do not expect that the changes in the slope of the yield curve of the interest rates in domestic currency or in the international markets would have significant effects on the financial result. Such results may suggest that banks do not expect significant changes in the slope of the yield curves in the next 6 to 12 months, or, perhaps, they have already made appropriate adjustments in the structure of their balance sheets, so that they would cushion the significant effect on their financial result of the anticipated changes in the yield curves.

Capital position and sources of financing. In conditions of an appropriate capitalization of the domestic banking sector, only one bank has announced its intentions to issue a capital instrument that meets the requirements for inclusion in the bank's Tier I capital in the next 12 months. There is a relatively small number of banks (four) that plan to issue subordinated instruments that meet the requirements for inclusion in the bank's own funds, and the major limitations on the issuance of this type of instruments are the insufficient experience with issuance of such instruments, the uncertainty in terms of the fulfillment of the requirements for inclusion of the instrument in the bank's own funds and the currently too high price of these instruments. Hence, most of the banks stated that they plan to increase the financing of the bank through larger collection of deposits from both the households and the legal entities. Banks do not plan deleverage during 2019.

Banks' activities and loan portfolio quality. Banks plan to increase the scope of activities in 2019, mostly by increasing the lending to medium and small enterprises (all banks), through growth in housing loans (14 banks), growth in consumer loans (13 banks) and in commercial property loans (11 banks). These are also the portfolios in which according to most of the banks it is expected the largest growth in 2019, with the exception of commercial property loans which were selected by only three banks. Part of the banks expect a reduction of the exposure to foreign countries and financial institutions (40%) and to a country and public sector (33%). In the loan portfolio of medium and small enterprises and housing loans, a significant part of the banks (60% and 40%, respectively) expect an improvement of the credit quality, while in consumer loans, a larger number of the banks (53%) expect deteriorated credit quality. However, most of the banks (nine banks) do not expect significant changes in the amount of the impairment cost in the following period.

Fintech activities and exposure to operational risk. The results of the Survey show a relatively modest share of fintech activities with domestic banks, but also modest plans for more active use of the new financial technologies in the next period. Nine banks responded that they have no current cooperation with some fintech company, while five banks responded that they operate independently, without cooperation with a fintech company, on the application of the new financial technologies in developing their products and services. Four banks reported that they are involved in partnership on a commercial basis with an existing fintech company for the purpose of developing new products and services, while four banks plan to establish cooperation with a fintech company in the next year. Among banks that in some form cooperate with fintech companies, attracting new clients according to five banks is the most significant motive for cooperation. Four of the banks assess benefits of the cooperation with fintech companies aimed at retaining the existing clients and cost rationalization, while three banks see the advantages in increasing revenues, reducing competitive pressure and monitoring market trends. A smaller part of the banks responded that they have already started to apply (or are in a planning, development or testing stage) some of the new financial technologies, such as use of biometric properties for the purposes of identifying users, using the methods of so-called "big data analysis" and credit scoring algorithms, using algorithms to confirm the quality of the input data for the models and using so-called NFC (Near Field Communication) technology for digital wallets for mobile payments, using so-called cloud services. In addition, there are also banks that reported that they work (in a planning or development stage) on even "more innovative" financial technologies, such as using so-called roboadvisers in order to advise their clients on investments or using distributed ledger technology. Most of the banks (80%) assess that the operational risk would remain at a similar level in 2019. Only one bank assessed an increase, whereby the utilization of outsourcing services is stated as a factor for such assessment.

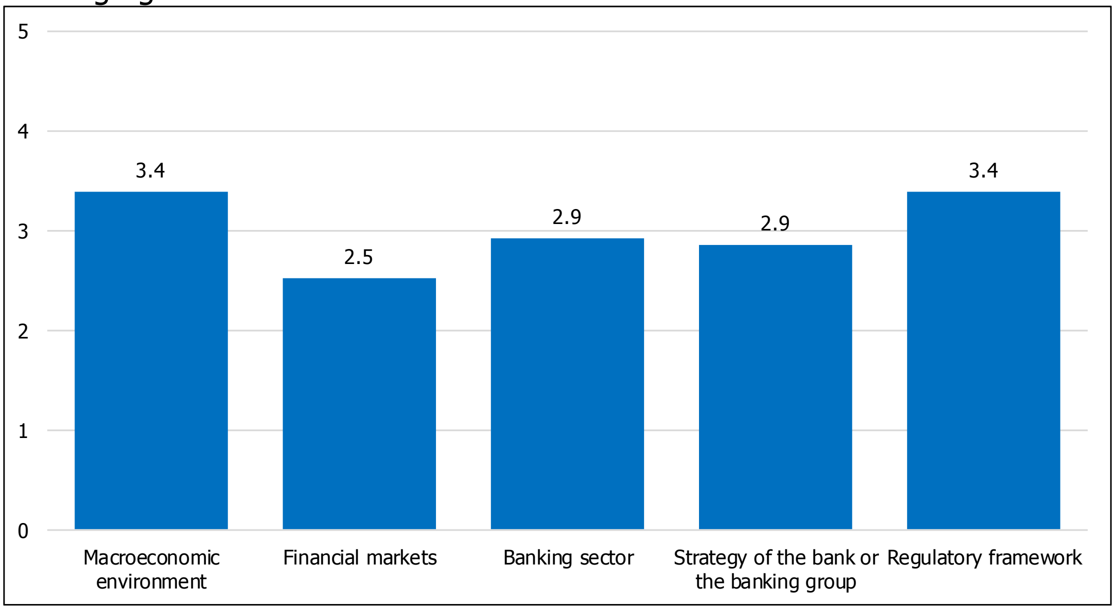
Additional questions. Within the fourth section, the banks were questioned about the approach applied by the bank when abandoning the application of adjustable interest rates on household loans, i.e. whether the bank will apply fixed or variable interest rates. Most of the banks responded that in the long-term household loans, they apply a combination of a fixed interest rate for the initial few years of the loan and a variable interest rate for the remaining years of the loan approval term. In the short-term loans, the banks mainly responded that they applied either only a fixed interest rate or only a variable interest rate. One bank responded that it still applies adjustable interest rates. The following questions referred to the forecasting methods used by the banks in the process of planning and the conduct of stress tests. Thirteen banks responded that they use qualitative (intuitive) forecasting methods in the planning process. The more complex, quantitative methods are applied by only three banks. Hence, there is a relatively high number of banks that express unreadiness to participate in so-called bottom-up stress-tests (six banks) or do not conduct assumed shocks on macroeconomic variables for the needs of their stress-testing (seven banks), which are usually based on econometric modeling, i.e. application of more complex quantitative models. The responses to the remaining additional questions show that a total of 11 banks plan to improve their information system in 2019. Only one bank reported that it has made an assessment of the scope of activities and investments required to harmonize with the principles and rules of the so-called "open banking"[5], as a new trend in the regulation in the field of payment services at European level and which is expected to be implemented in the national legislation in the near future. Domestic banks, with the exception of one bank, responded that they do not consider the risks of climate changes as relevant to their operations.

Below, there are charts of the aggregate results of the Survey, for each question separately.

[5] "Open banking" denotes the concept of providing banking and financial services, which means sharing information owned by banks with third authorized persons who would gain access to the banks' systems through a so-called application programming interface (API).

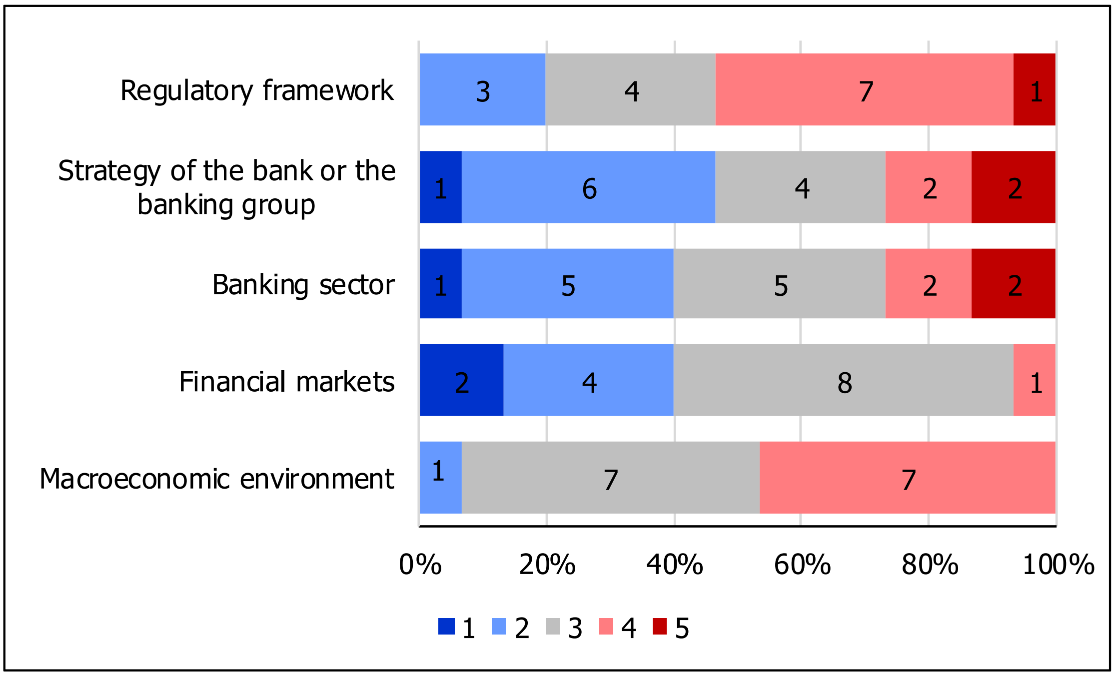
SECTION I.
Grades for the impact of each group of risks on the banks' operations in 2019

Average grade



* The presented grades are an average of the grades of the groups of risks by all banks, that determined the grades in the interval between 1 (group of risks with the smallest impact) to 5 (for the group of risks with the greatest impact).

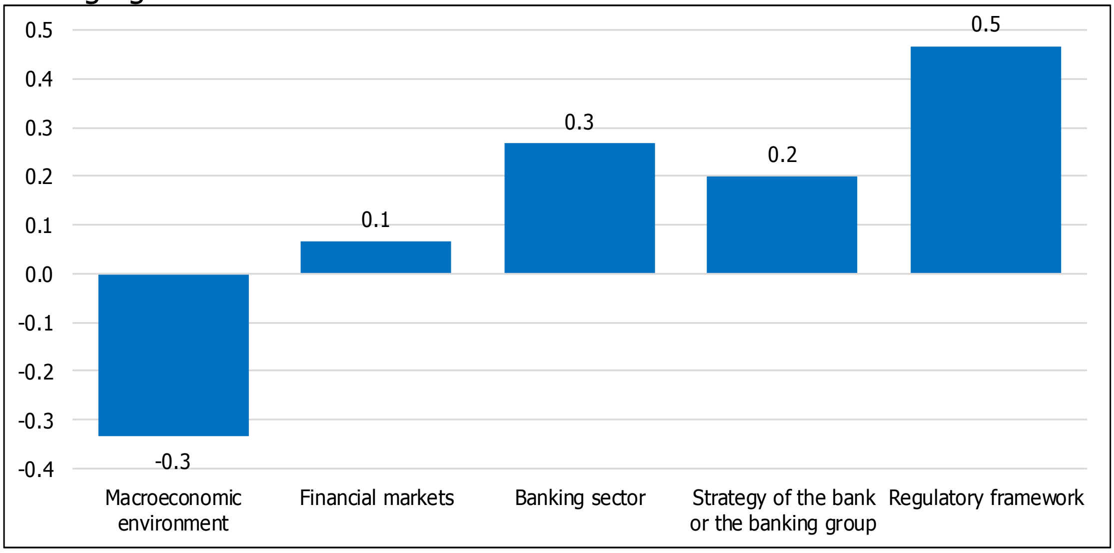
Distribution of the grades of the groups of risks, according to the number of banks



* The horizontal axis shows the percentage share of the banks that gave a specific response in the total number of banks (fifteen).

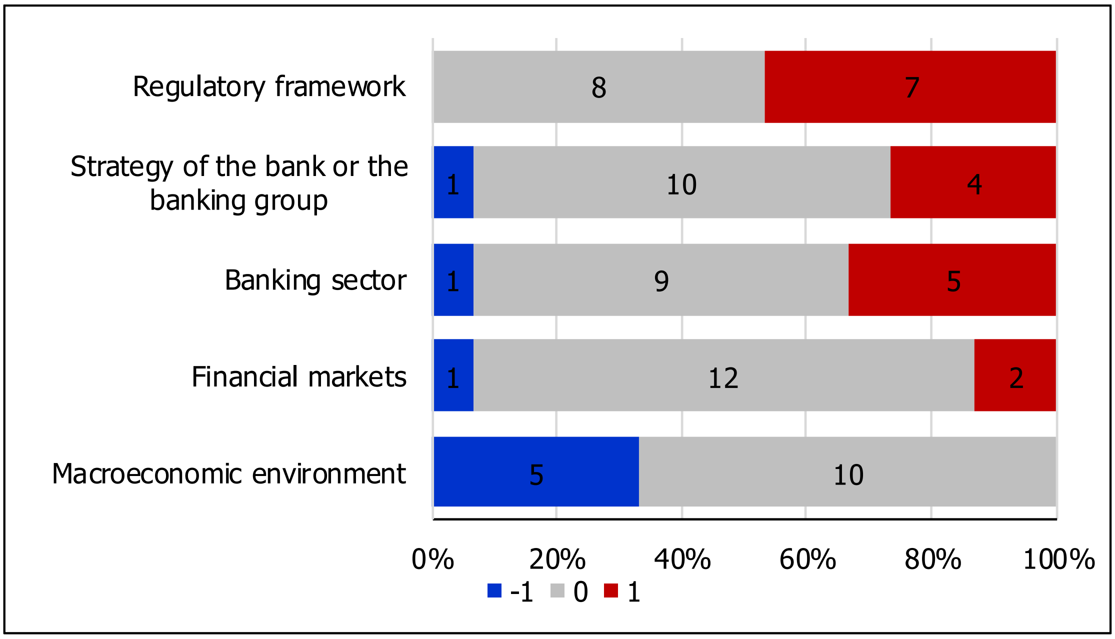
Expectations for the direction of change in the importance of each group of risks in 2019

Average grade



* The presented grades are an average of the grades for the direction of change in the importance of each group of risks by all banks, which could be: -1 (the importance will decline), 0 (will remain the same) and 1 (will grow).

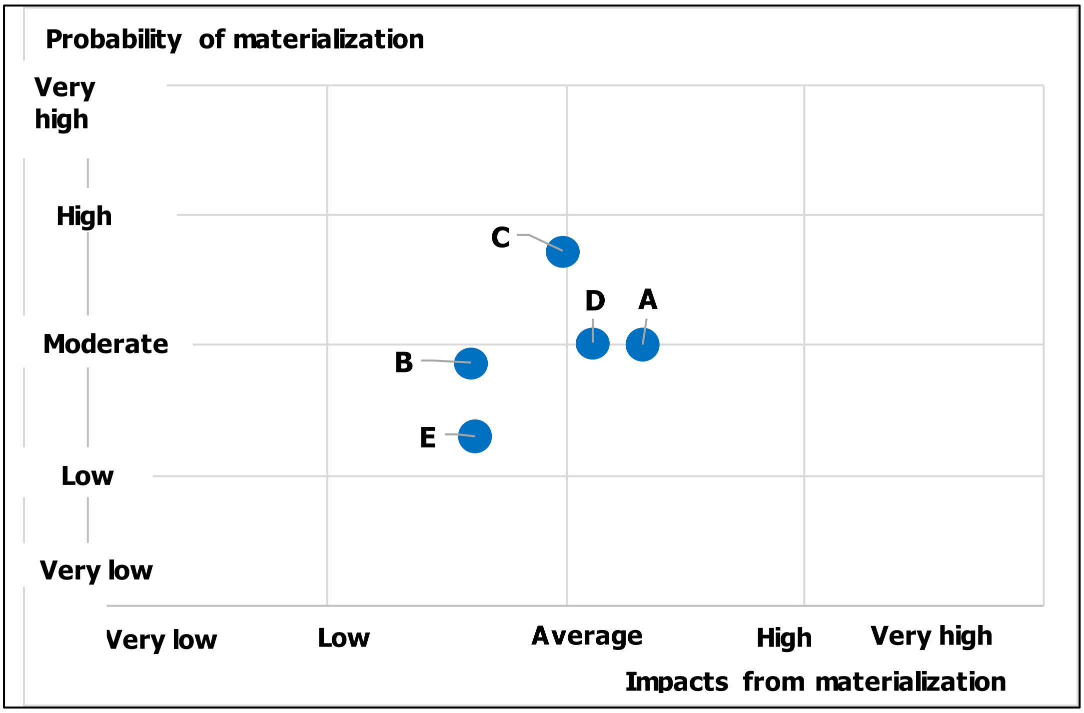
Distribution of the grades for the expectations, according to the number of banks



* The horizontal axis shows the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

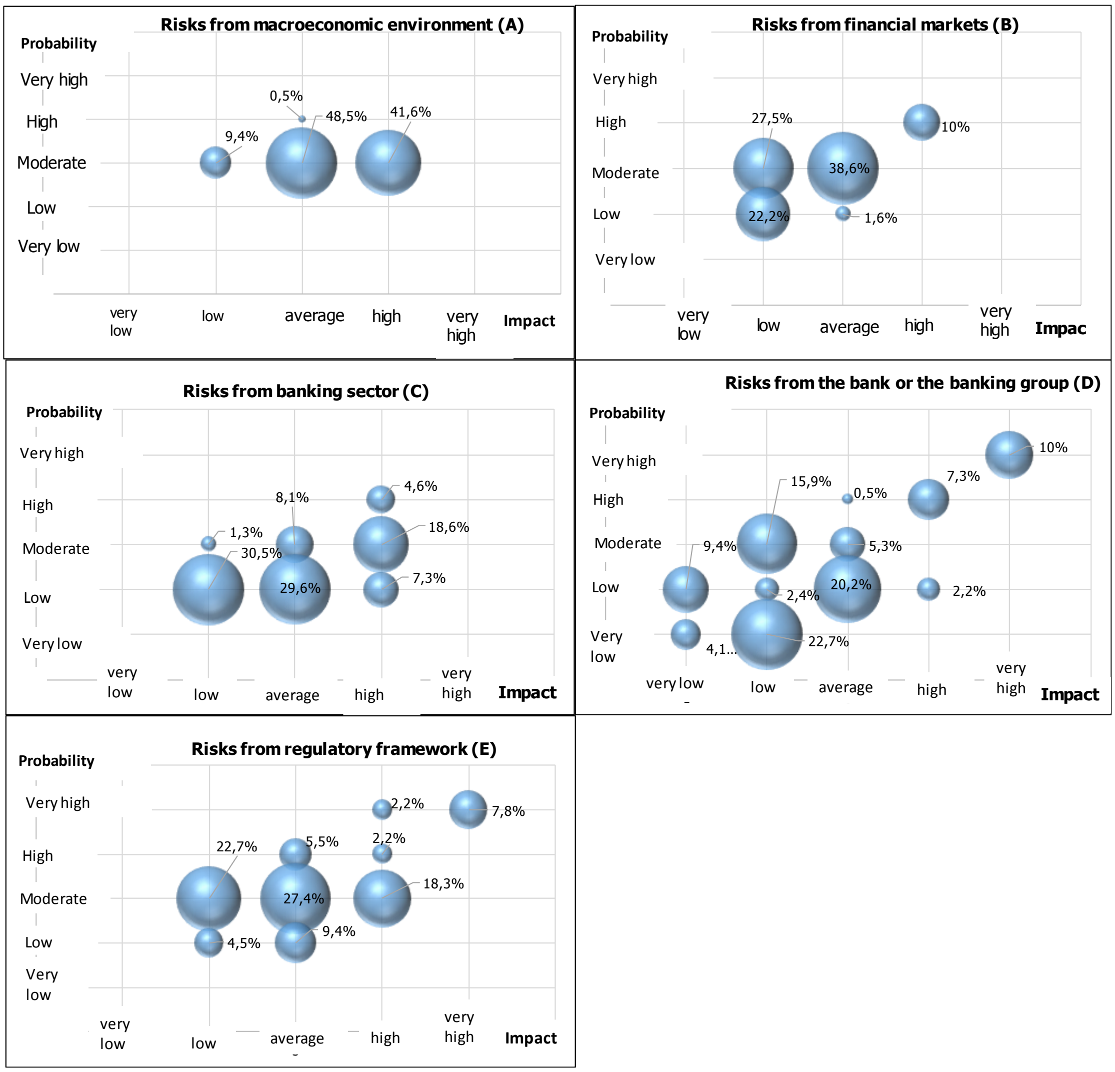
Matrix for arrangement of the groups of risks

The banks have arranged the five main groups of risks in two-dimensional matrix, according to the expected probability of materialization of the groups of risks (first dimension) and the expected effect on the operations of their possible materialization (second dimension). Both dimensions have five degrees of classification, for the probability of materialization: very low, low, moderate, high and very high, and for the expected effect of materialization: very small, small, medium, large and very large.



* The position of the circles is obtained as a weighted average of the ranking of each group of risks, made by the individual banks, for each of the two dimensions, separately. The market share of each bank in the total assets as of 31 December 2018 is used as weight.
Individual letters have the following meaning:

- A - risks arising from the macroeconomic environment;
- B - risks arising from the financial markets developments;
- C - risks arising from the banking sector;
- D - risks arising from the strategy or the operations of the bank/banking group/owners;
- E - risks arising from the current setup and the current and/or the expected changes in the regulatory framework.

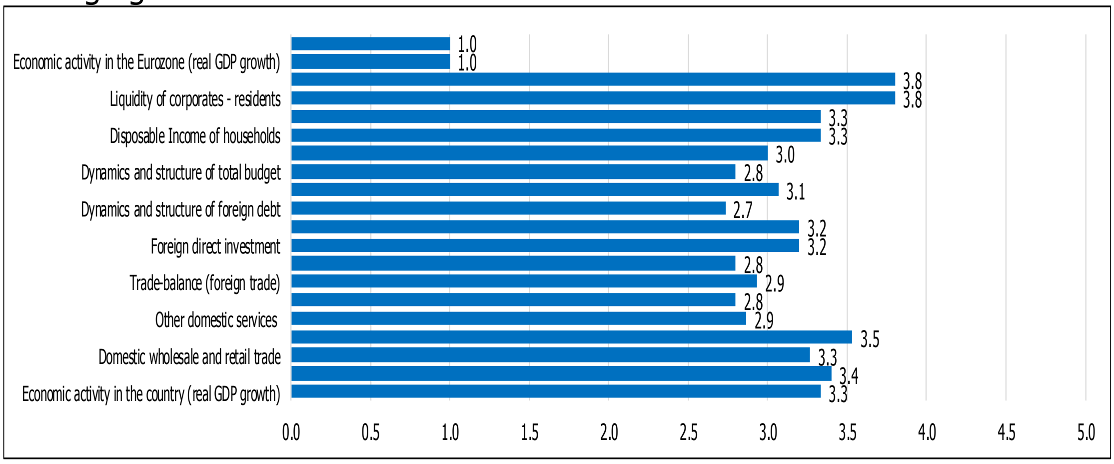


*The position of the circles is obtained according to the banks' classification of the specific group of risks, for each of the two presented dimensions. The smaller number of circles denotes greater consistency of the responses by individual bank, while the larger number of circles is an indicator of differences in the responses. The size of the circles represents the common market share of the banks that gave the same response in terms of the classification of the group of risks, for each of the two dimensions, separately.

Section II. Assessment of the impact of the expected movements or effects of each risk factor on the bank's operations for 2019

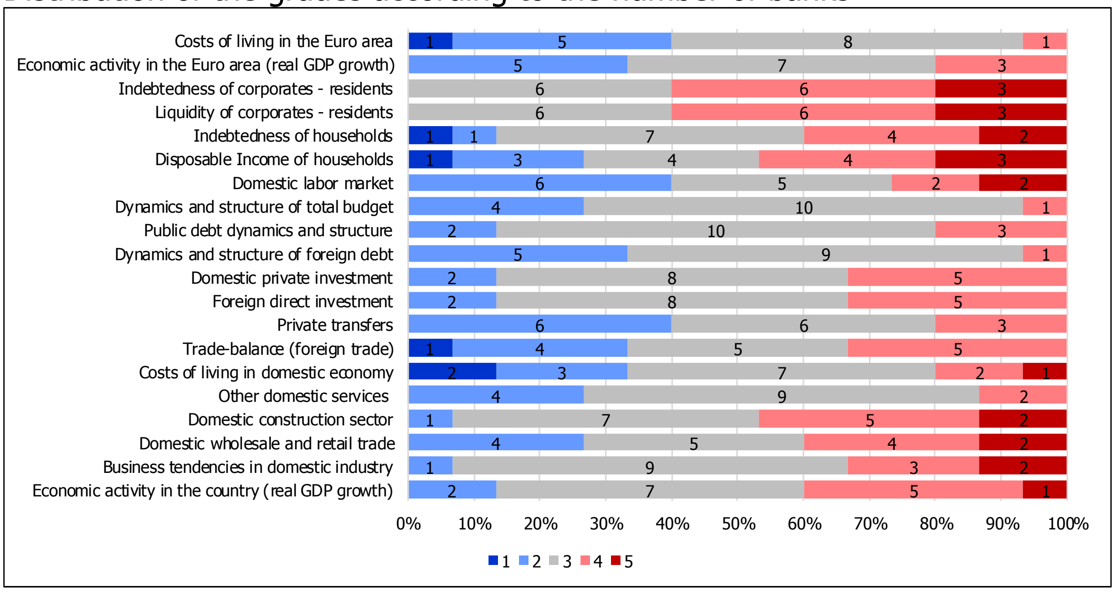
Group A: Risks arising from the macroeconomic environment

Average grade of the risk factors



* The presented grades are an average of the grades of the groups of risks by all banks, that determined the grades in the interval between 1 (group of risks with the smallest impact) to 5 (for the group of risks with the greatest impact).

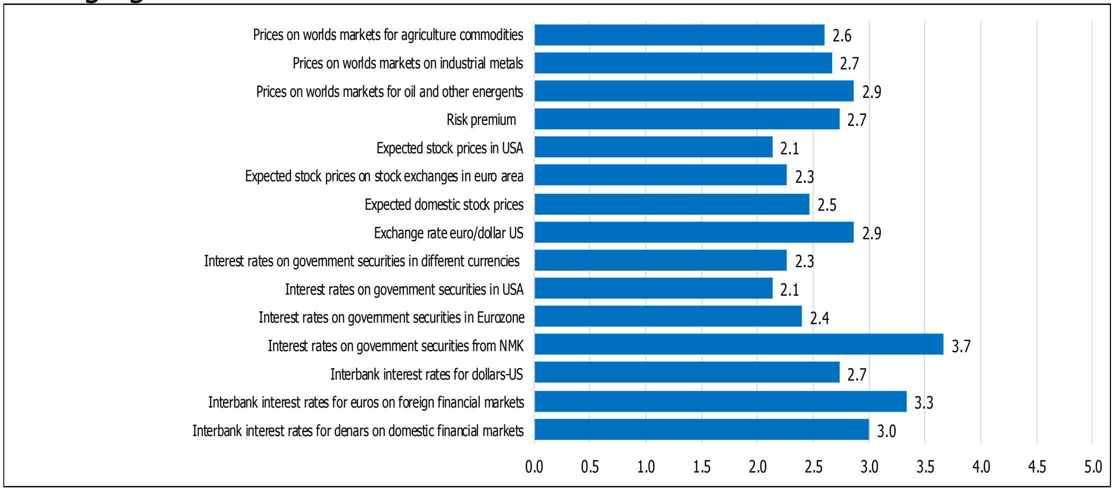
Distribution of the grades according to the number of banks



* The horizontal axis shows the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

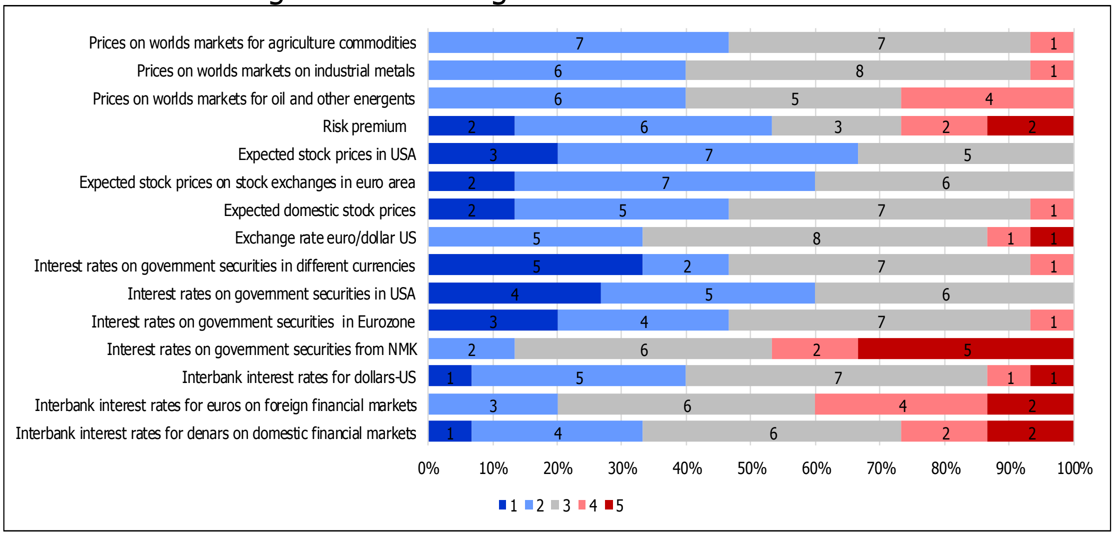
Group B: Risks arising from the expected financial markets developments

Average grade of the risk factors



* The presented grades are an average of the grades of the groups of risks by all banks, that determined the grades in the interval between 1 (group of risks with the smallest impact) to 5 (for the group of risks with the greatest impact).

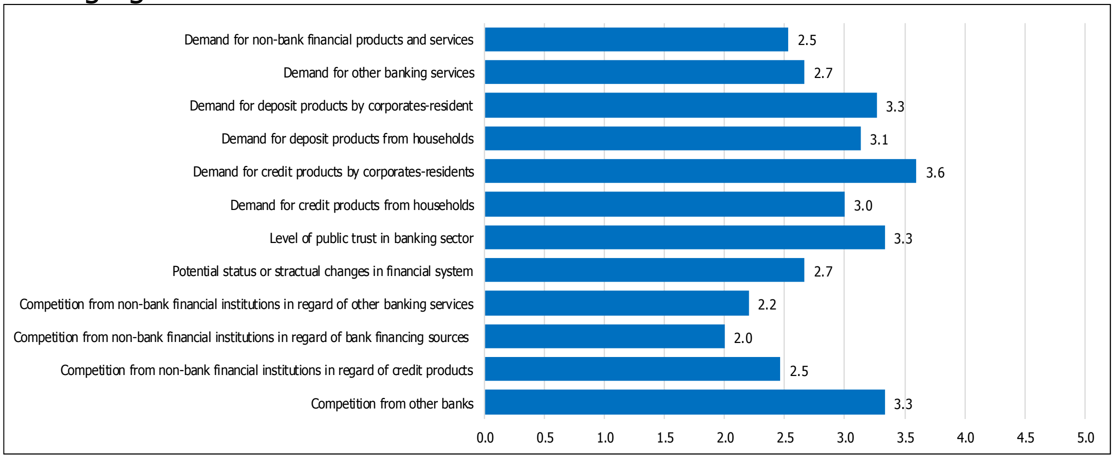
Distribution of the grades according to the number of banks



* The horizontal axis shows the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

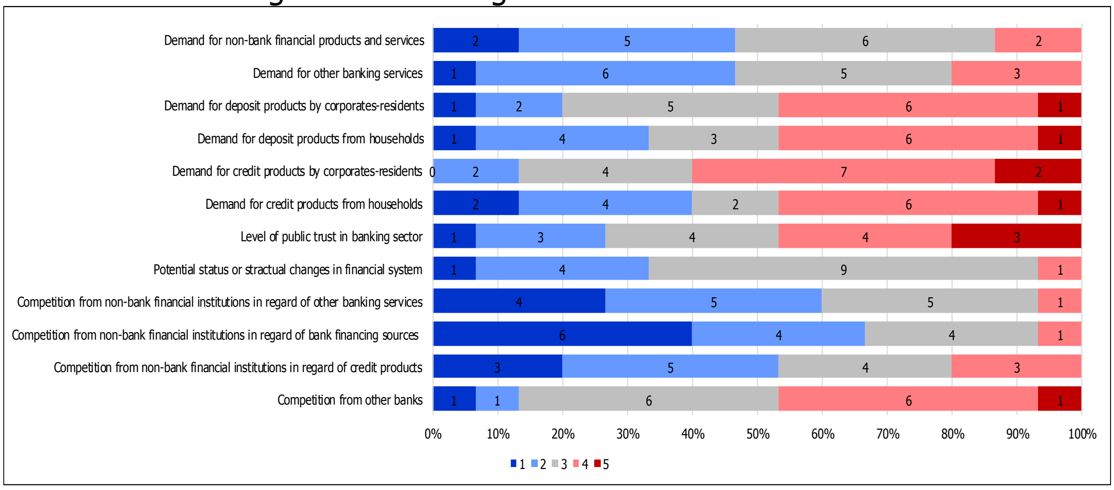
Group C: Risks arising from the banking sector

Average grade of the risk factors



* The presented grades are an average of the grades of the groups of risks by all banks, that determined the grades in the interval between 1 (group of risks with the smallest impact) to 5 (for the group of risks with the greatest impact).

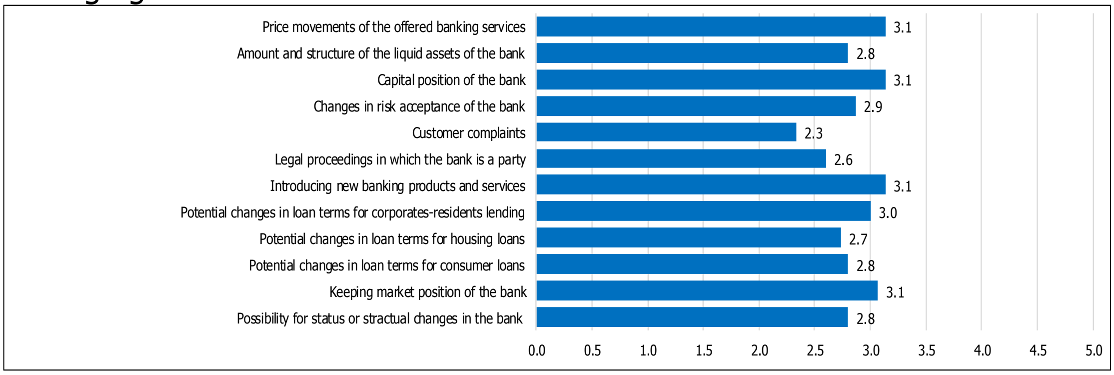
Distribution of the grades according to the number of banks



* The horizontal axis shows the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

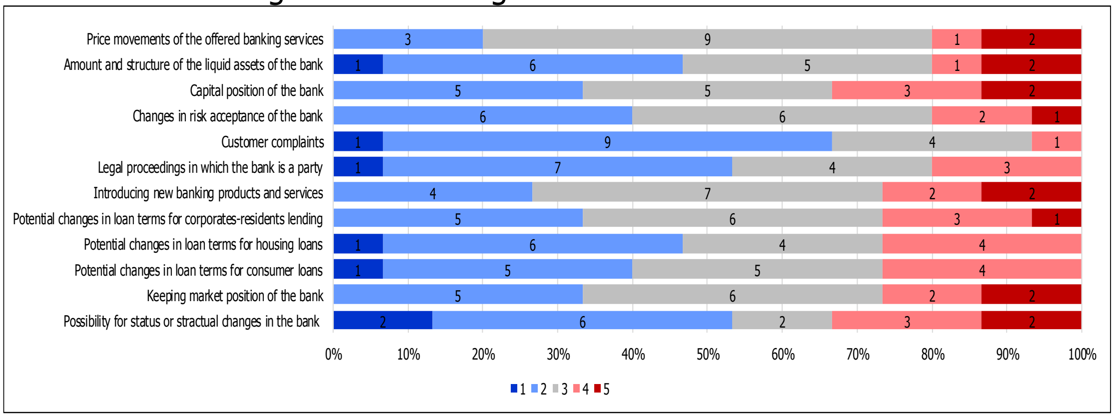
Group D: Risks arising from the strategy or the operations of the bank/banking group/owners

Average grade of the risk factors



* The presented grades are an average of the grades of the groups of risks by all banks, that determined the grades in the interval between 1 (group of risks with the smallest impact) to 5 (for the group of risks with the greatest impact).

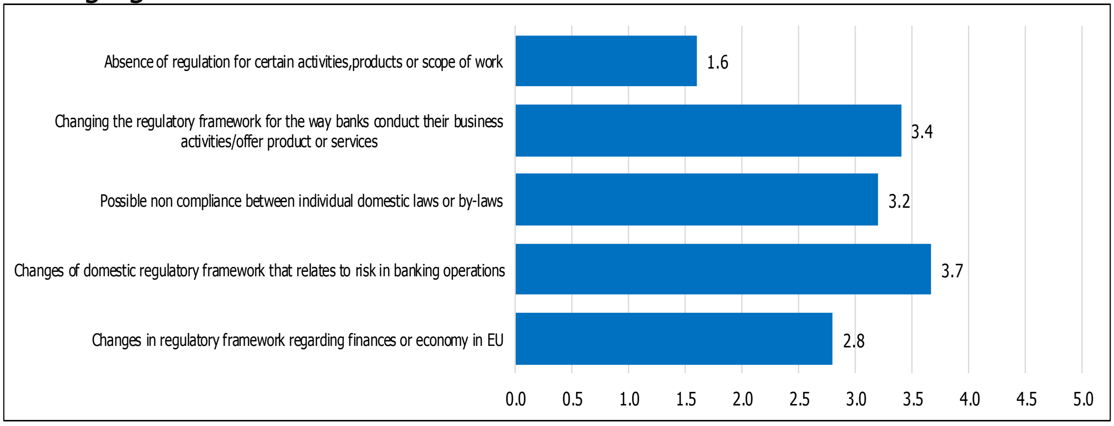
Distribution of the grades according to the number of banks



* The horizontal axis shows the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

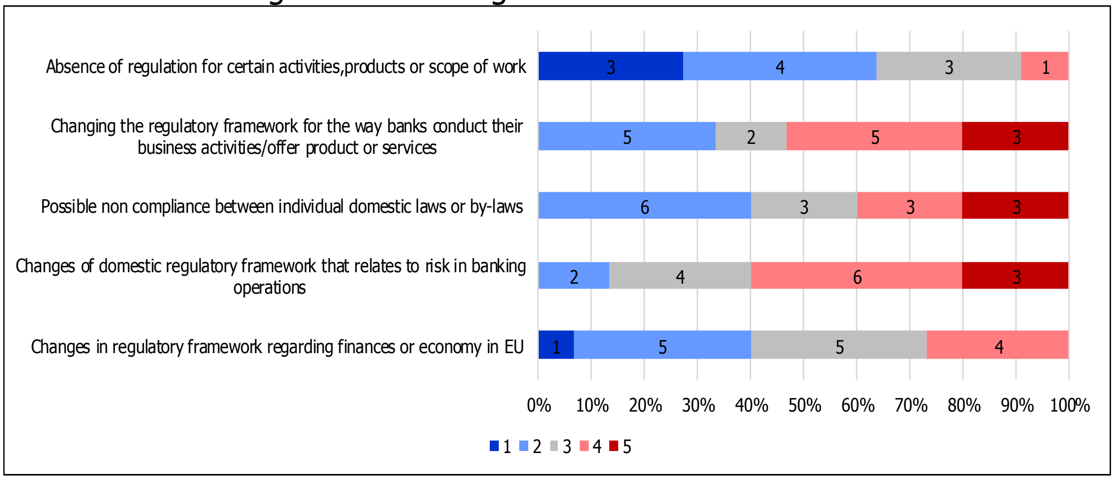
Group D: Risks arising from the current setup and changes in the regulatory framework

Average grade of the risk factors



* The presented grades are an average of the grades of the groups of risks by all banks, that determined the grades in the interval between 1 (group of risks with the smallest impact) to 5 (for the group of risks with the greatest impact).

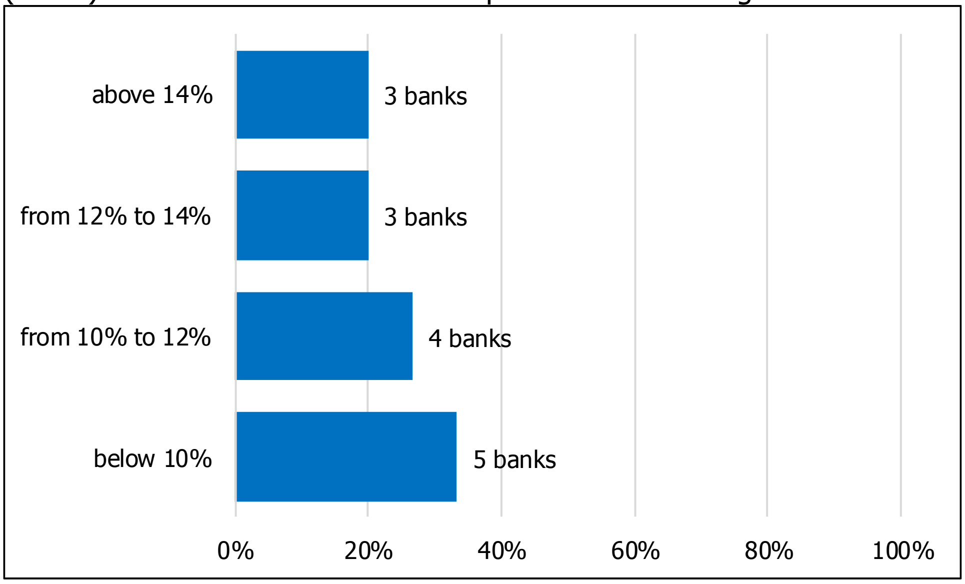
Distribution of the grades according to the number of banks



* The horizontal axis shows the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

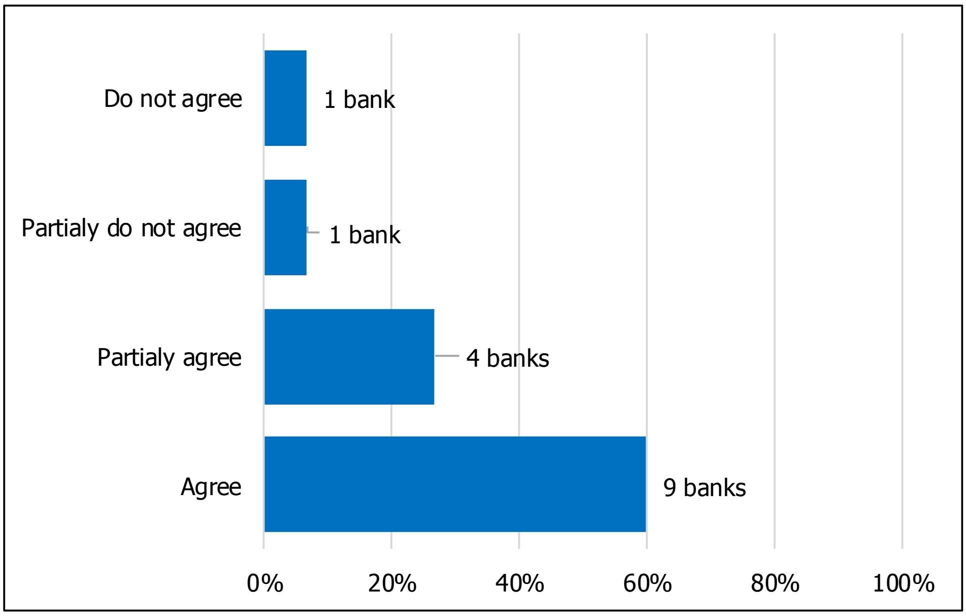
Section III. Responses to the questions about the banks' expectations for profitability, capital position and other activities.

1. According to the bank's assessment, the level of return on equity and reserves (ROAE) that will ensure sustainable operations in the long term is:



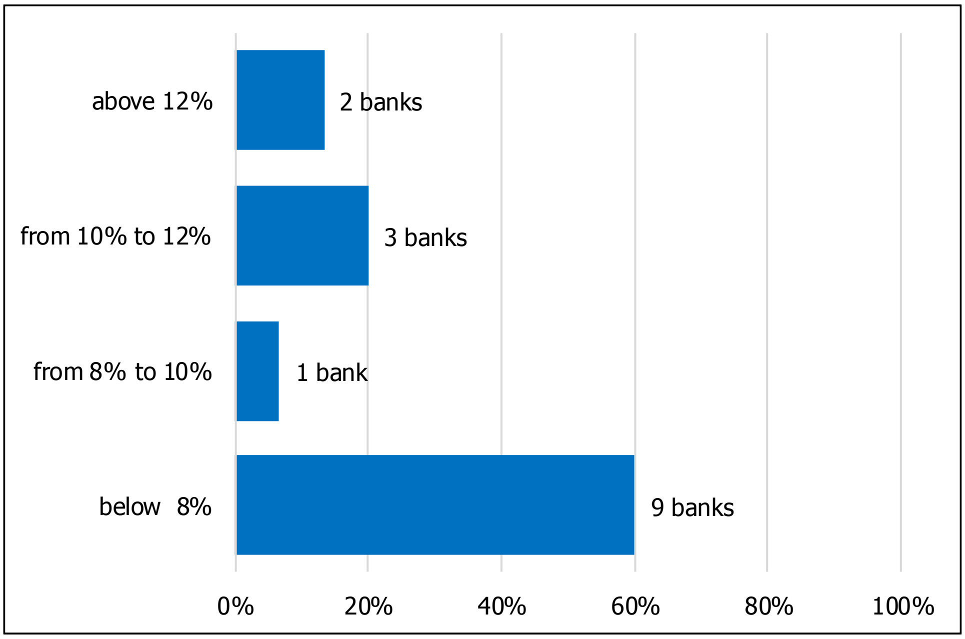
*Percentages (on the horizontal axis) refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

2. Do you expect the profitability of your bank to increase in the next 6 to 12 months?



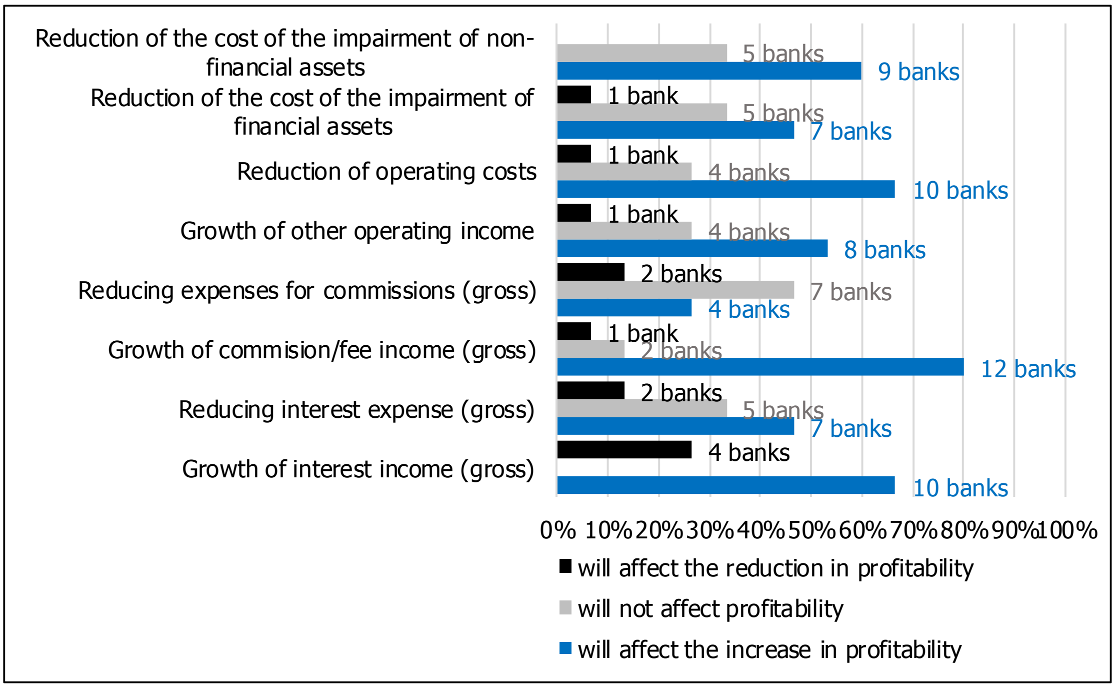
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

3. You estimate your cost of equity for the period of one year at a level:



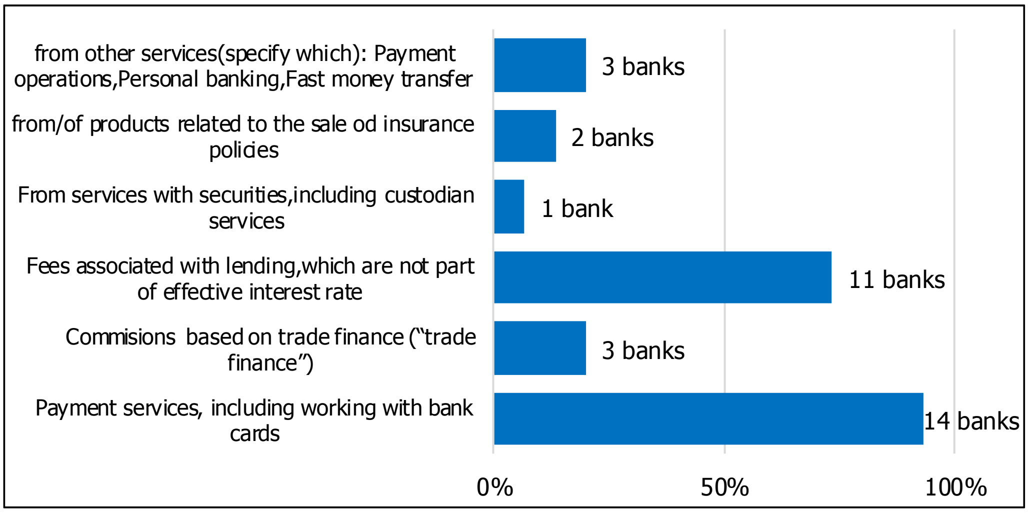
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

4. The impact of the categories of the income statement on the profitability of your bank in 2019 would be of:



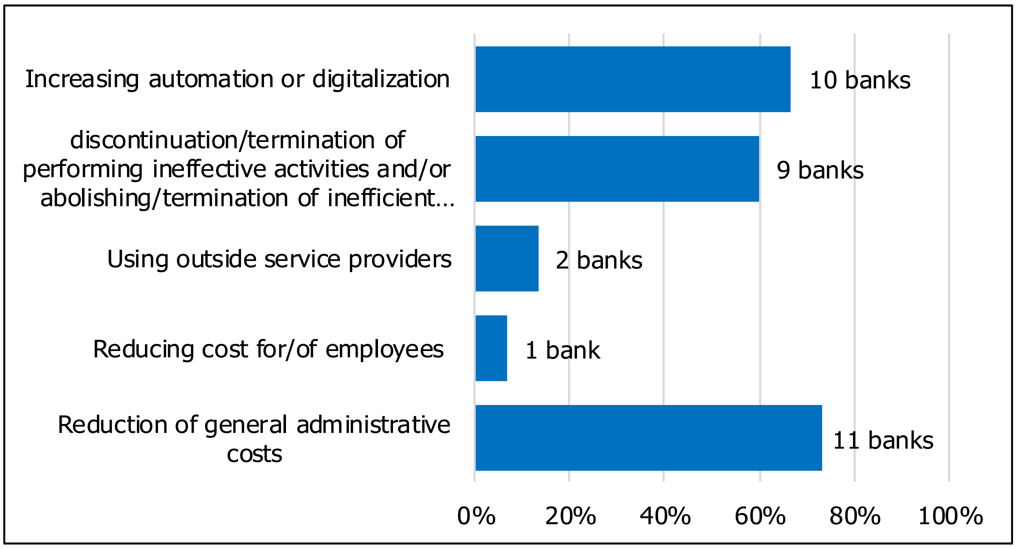
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

5. The contribution of individual types of commissions within the income from commissions of your bank in 2019 would be from:



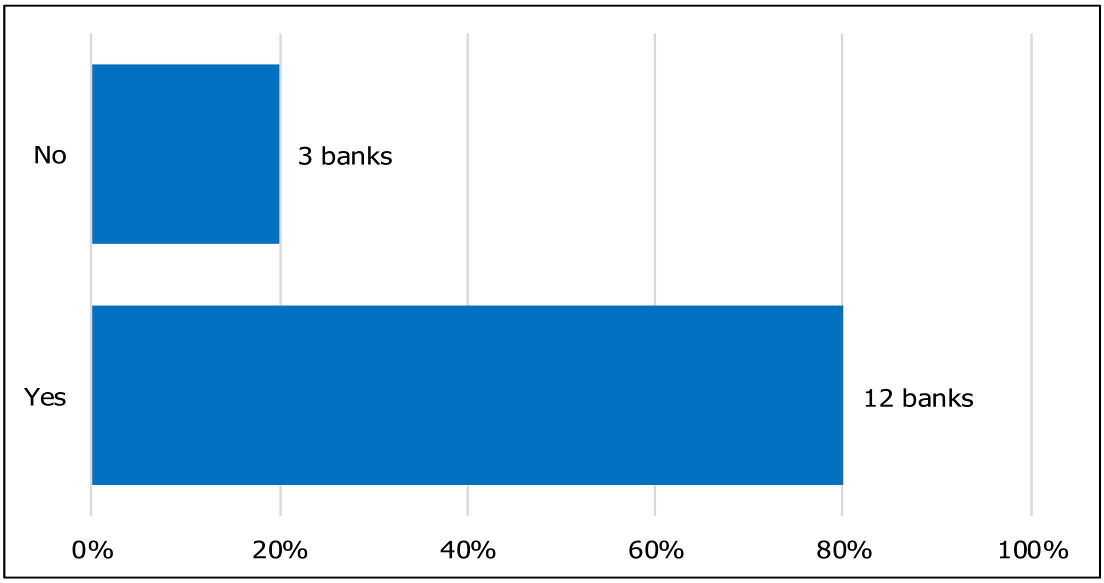
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

6. If you plan to reduce operating costs, you would do that through:



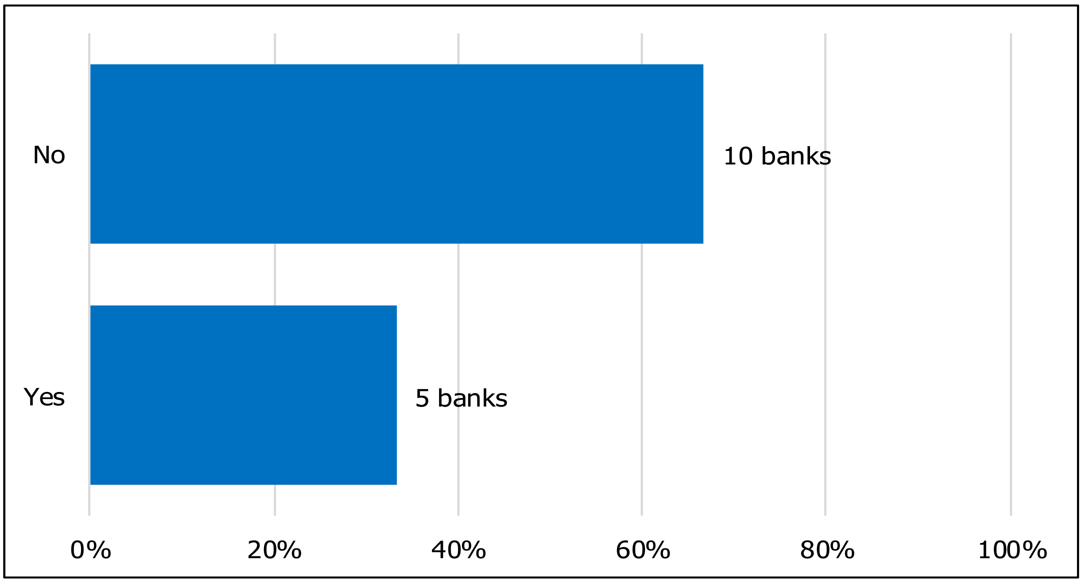
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

7. Does the current profit from regular operations, without the effect of the sale of foreclosed property or similar so-called non-recurring activities, reduced annually (annualized), exceed the bank's cost of equity?



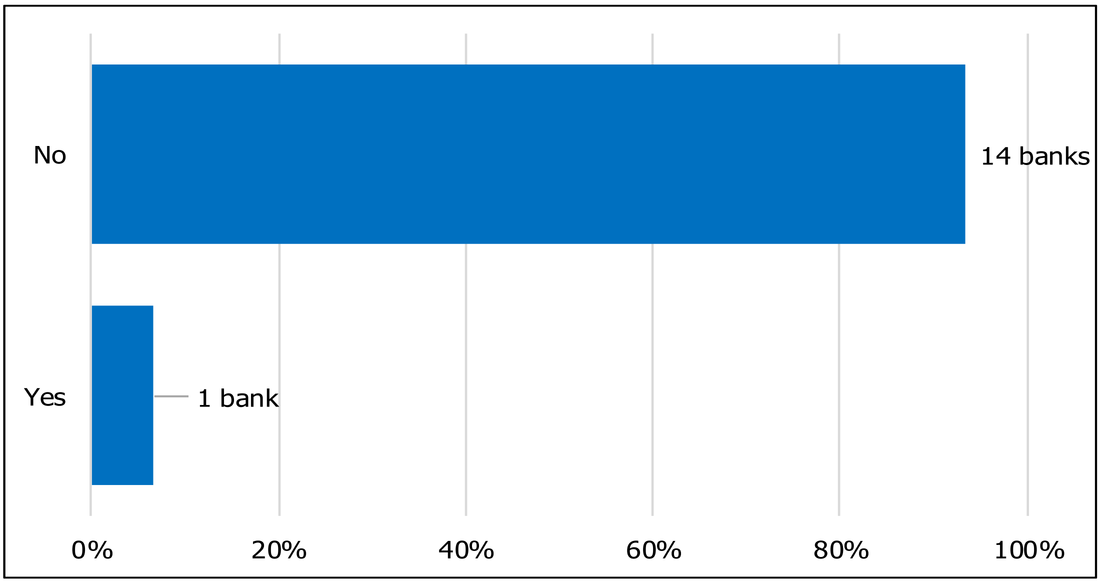
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

8. Do you expect the changes in the slope of the yield curves of the interest rates in the domestic currency or in the international markets to cause a significant effect on your bank's profit in the next 6 to 12 months?



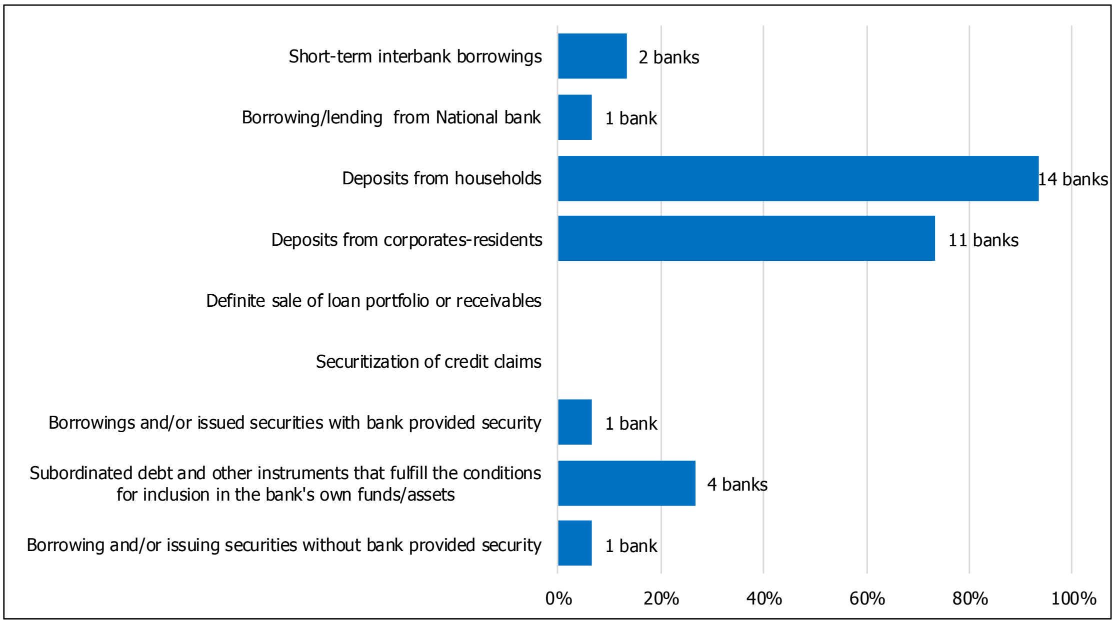
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

9. Do you plan to issue a capital instrument that meets the requirements for inclusion in the bank's Tier I capital in the next 12 months?



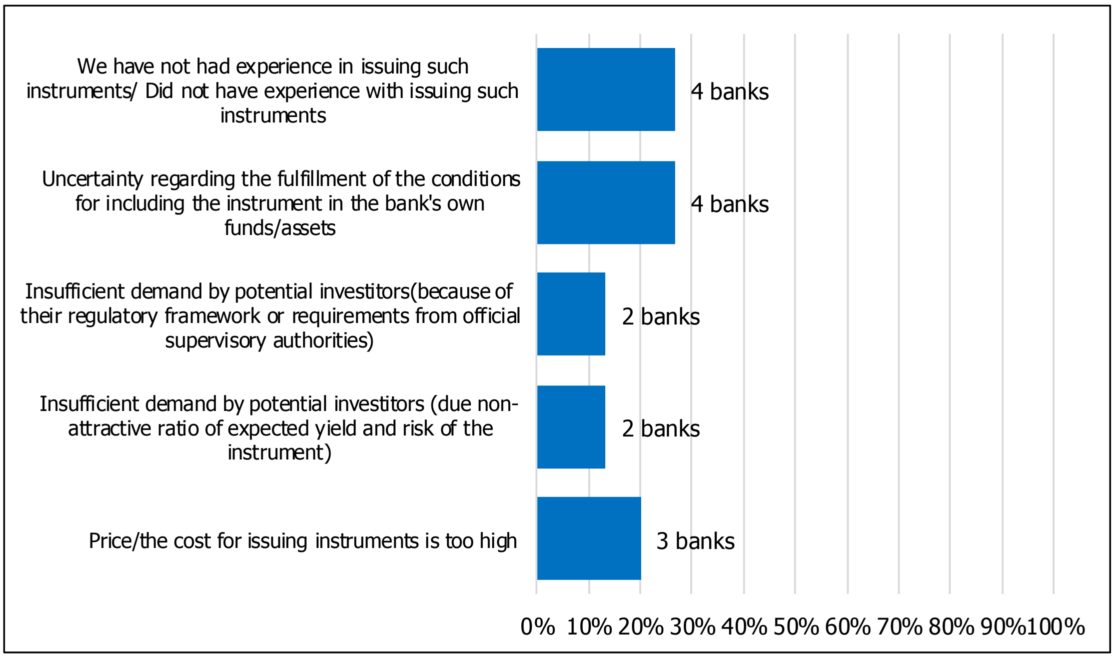
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

10. Do you plan to increase the financing of the bank through:



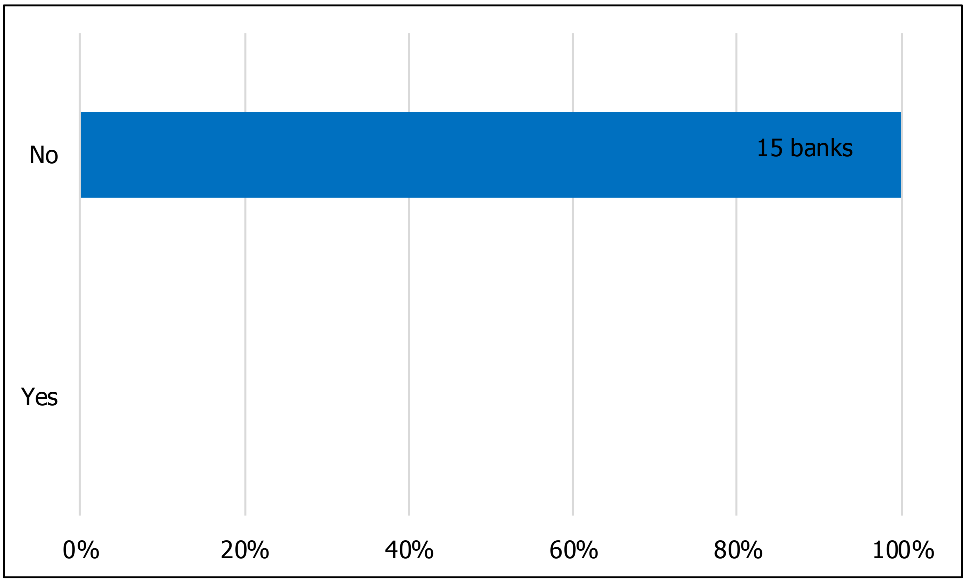
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

11. What are the major limitations on issuing subordinated instruments that meet the requirements for inclusion in the bank's own funds, that your bank has faced with?



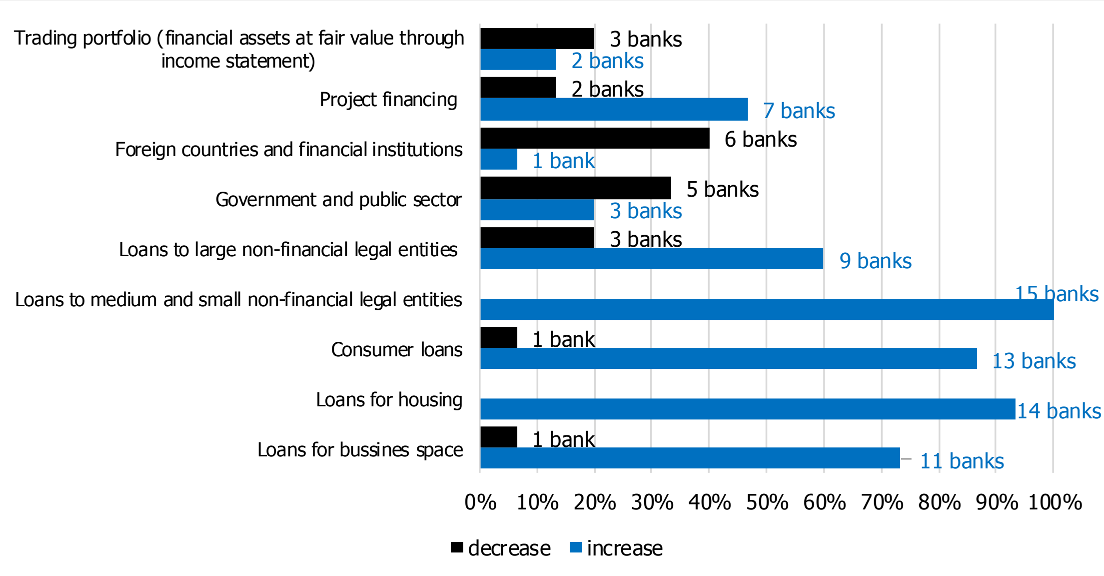
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

12. Do you plan deleverage of your bank?



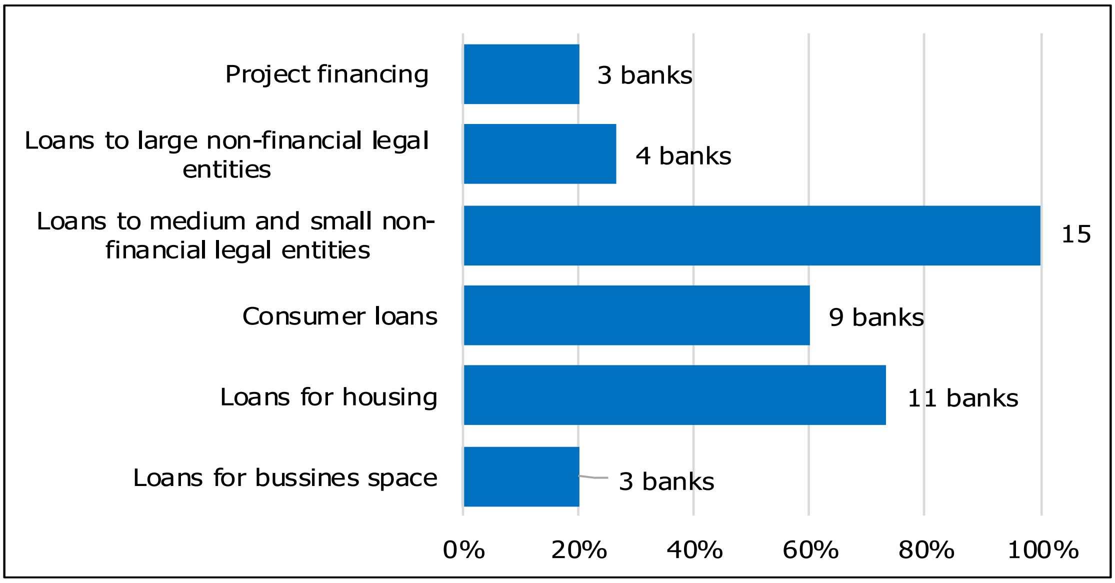
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

13. What change do you plan in each of the stated portfolios in the next 12 months?



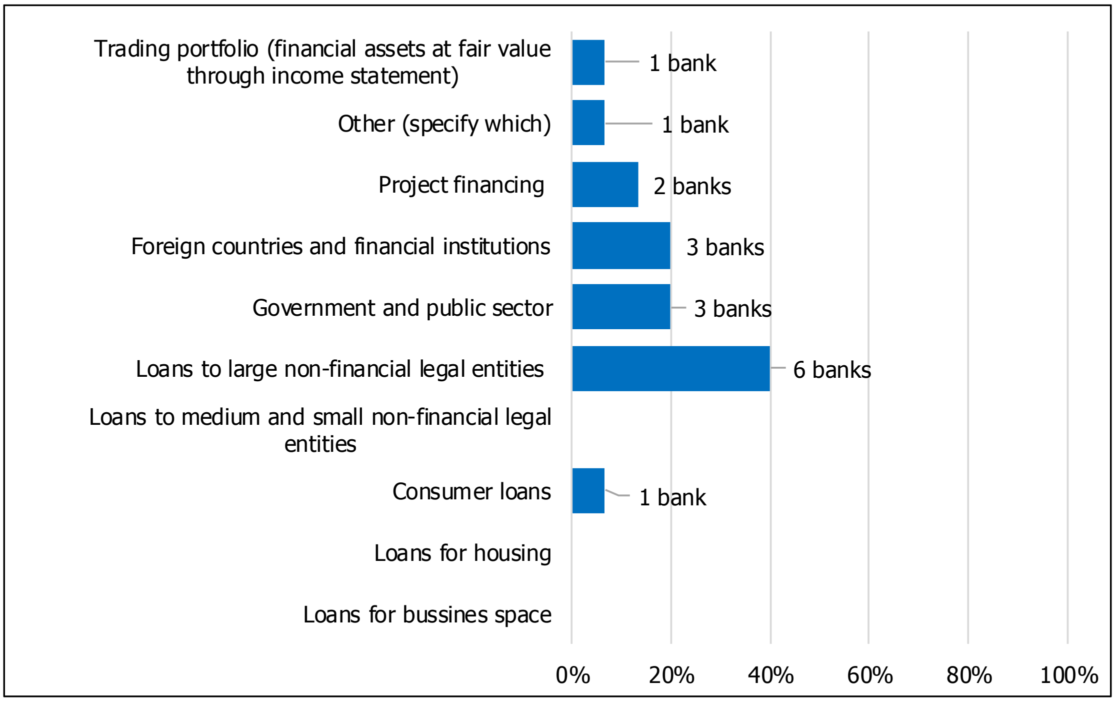
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

14. Of the portfolios for which you plan an increase in the next 12 months, please check in which ones you expect the highest growth:



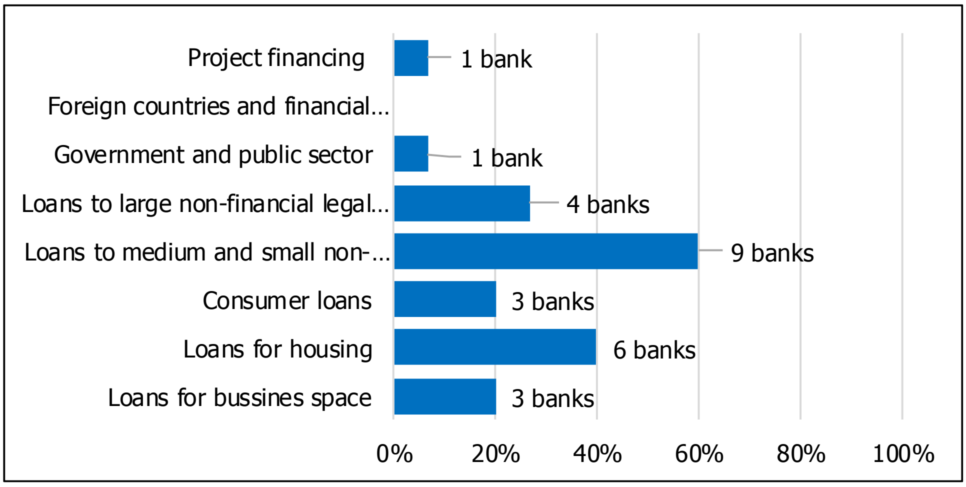
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

15. Of the portfolios for which you plan a reduction in the next 12 months, please check where you expect the reduction to be the greatest:



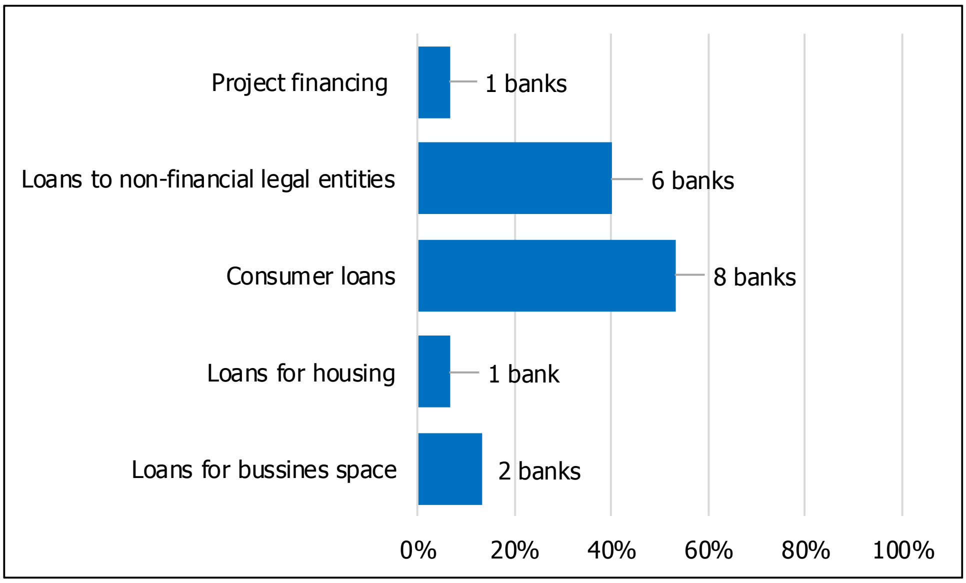
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

16. In which portfolio you expect a possible improvement in the quality in the next 12 months?



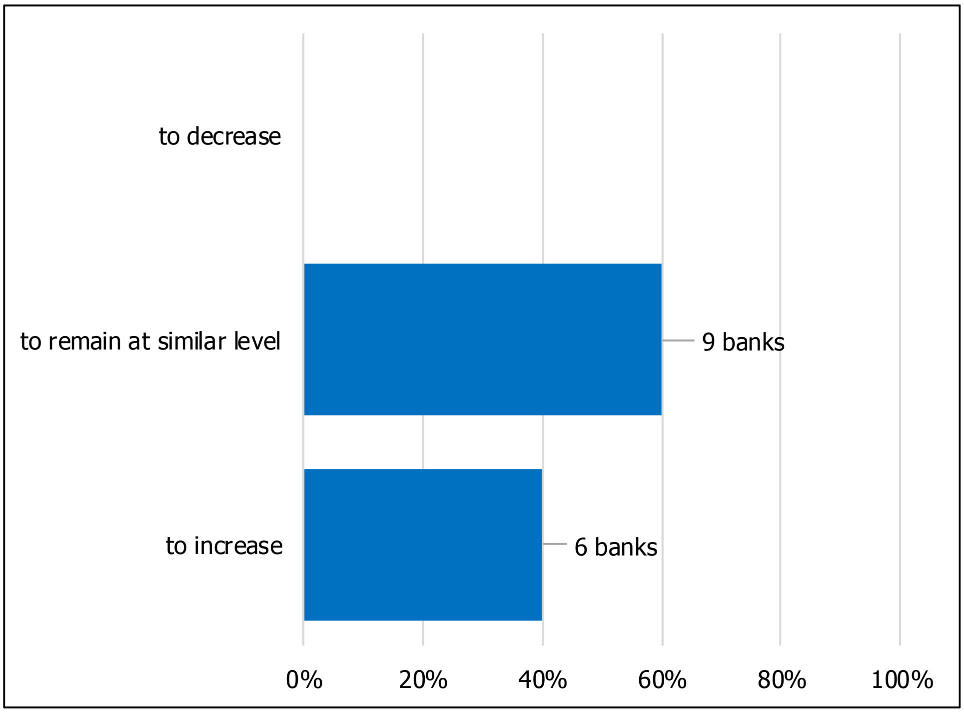
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

17.In which portfolio you expect a possible deterioration of the quality in the next 12 months?



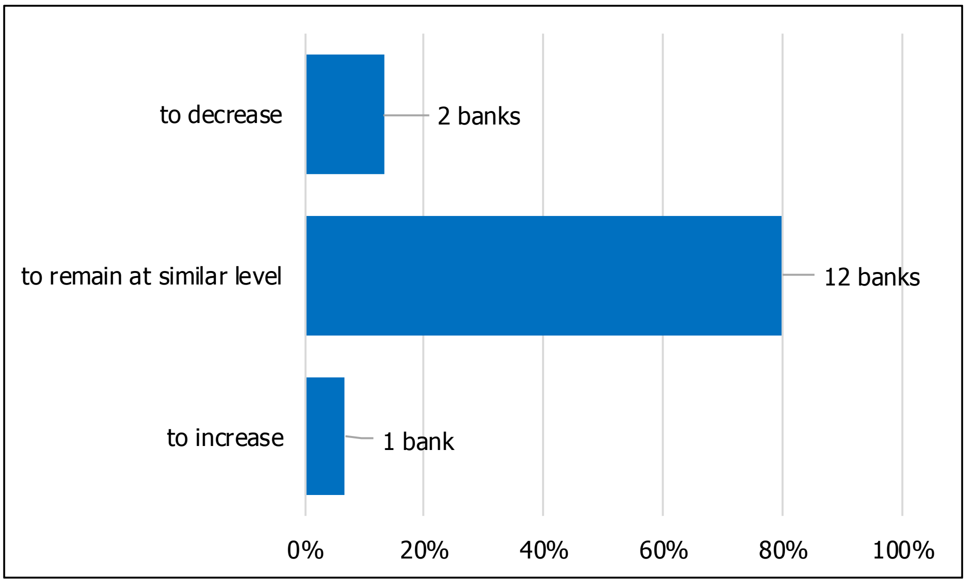
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

18. According to your expectations for the future trend of the credit activity by portfolio and level of coverage with provisions of the assumed credit risk in your bank, do you expect the impairment cost (excluding the initial effect of the application of IFRS 9 and the Decision on the methodology for credit risk management) in the next 12 months to:



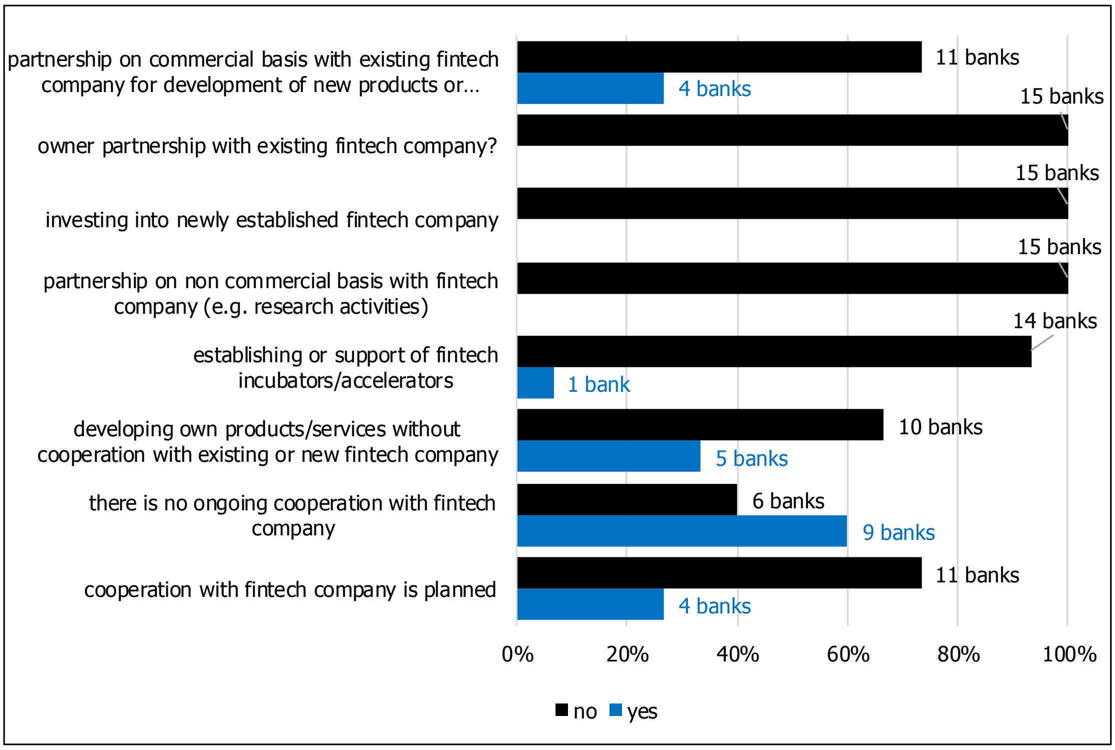
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

19. What are your expectations for 2019 in terms of the operational risk that your bank is exposed to:



*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

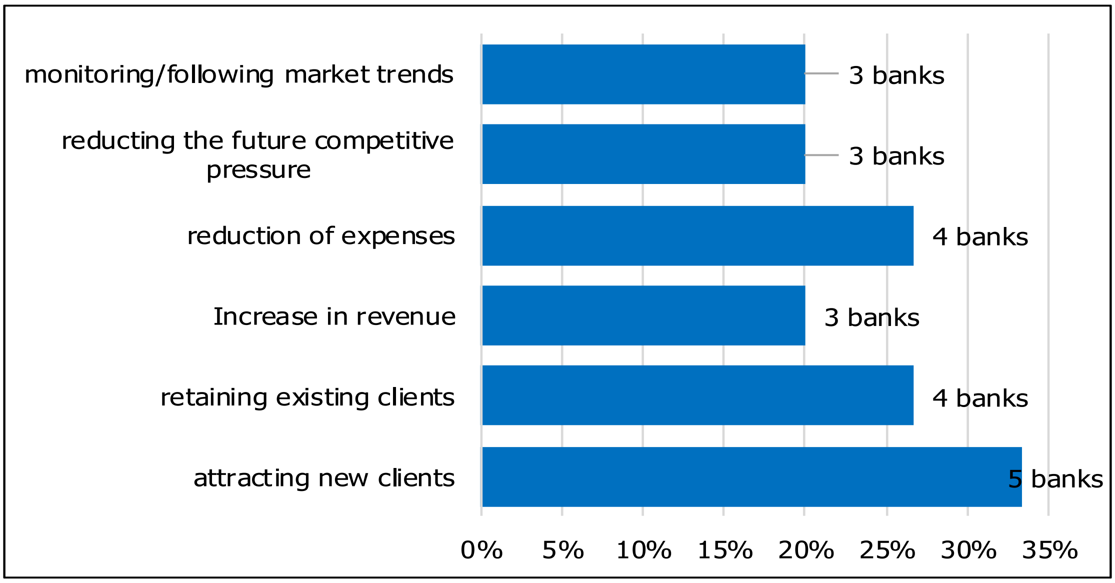
20. Does your bank cooperate with FinTech[6] companies (domestic or foreign)?



*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

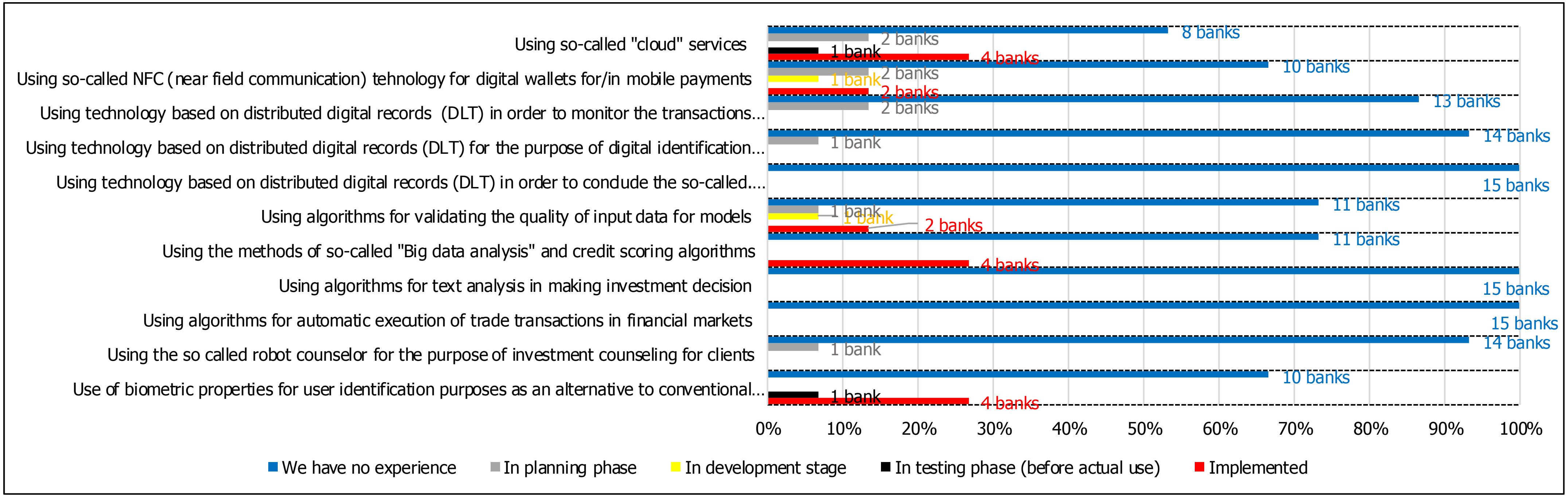
[6] FinTech are defined as technological-financial innovation that can lead to new business models, applications, processes or products with an appropriate material effect on the financial markets and institutions as well as on the provision of financial services. Source: Financial Stability Board, Standing Committee on Assessment of Vulnerabilities, "FinTech: Describing the Landscape and Framework for Analysis", 16 March 2016.

If you agree with one of the first five options of the previous question, please check the factors that are the most significant for the cooperation with FinTech companies?



*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

21. What is the level of involvement of your bank in the following FinTech activities?



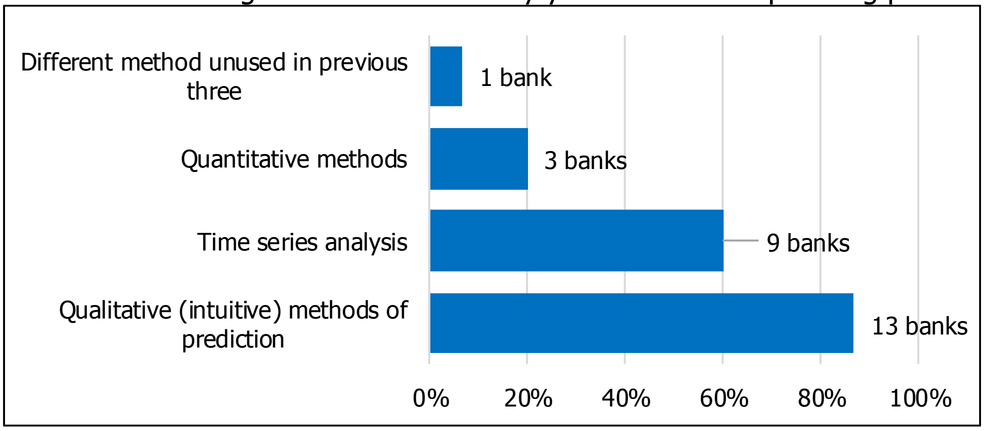
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

Section IV. Other questions

1. What is the approach of your bank when abandoning the application of adjustable interest rates on household loans, i.e. will the bank apply fixed interest rates (thus avoiding the indirect credit risk of a possible increase in the selected reference market interest rates in the future) or your policy is more directed towards application of variable interest rates (thus taking the indirect credit risk of a possible increase in the selected reference market interest rates in the future)?

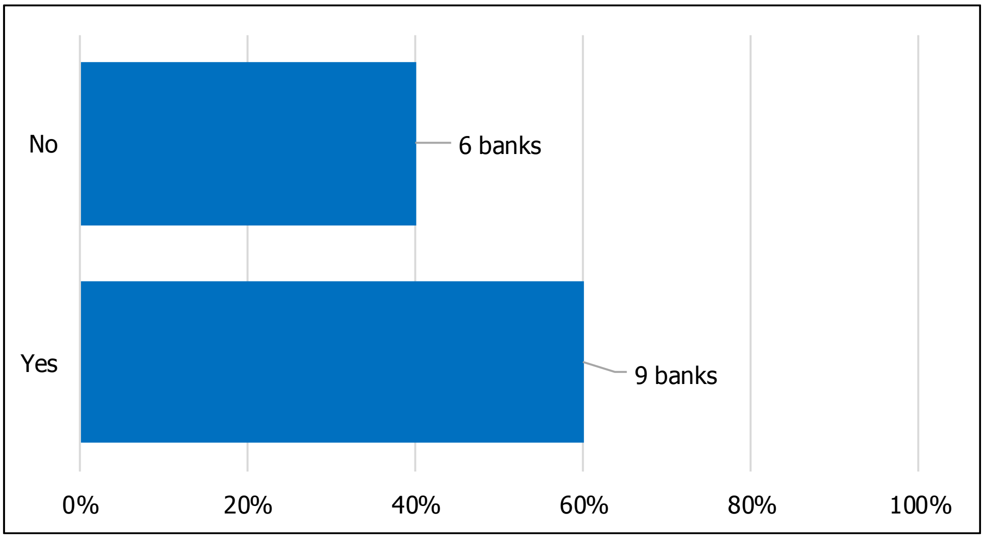
According to most of the banks, in the long-term household loans, they apply a combination of a fixed interest rate for the initial few years of the loan and a variable interest rate for the remaining years of the loan approval term. In the short-term loans, the banks mainly responded that they applied either only a fixed interest rate or only a variable interest rate. Most of the banks failed to provide information on the reference interest rates they use, and one bank responded that it still applies adjustable interest rates.

2. What forecasting methods are used by your bank in the planning process?



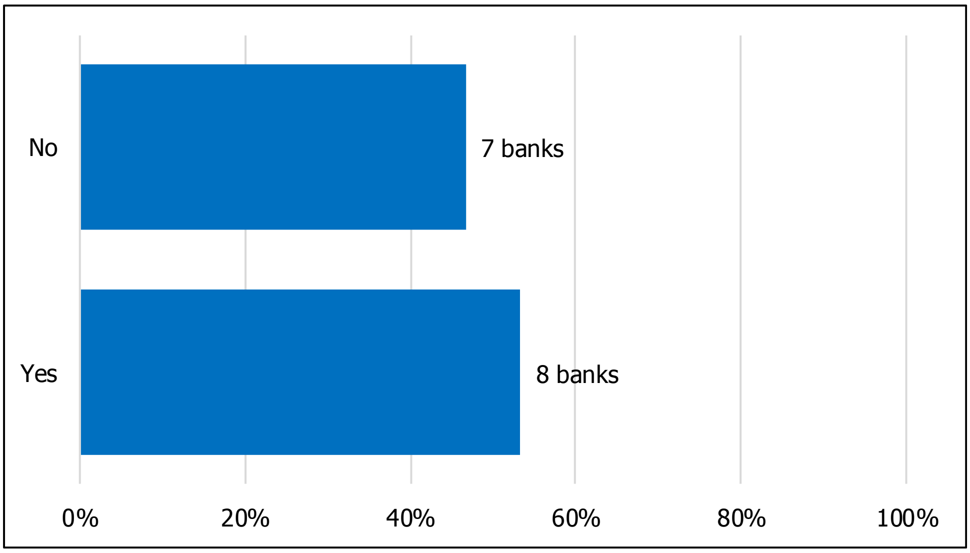
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

3. Is the bank ready to conduct a so-called bottom-up stress testing?



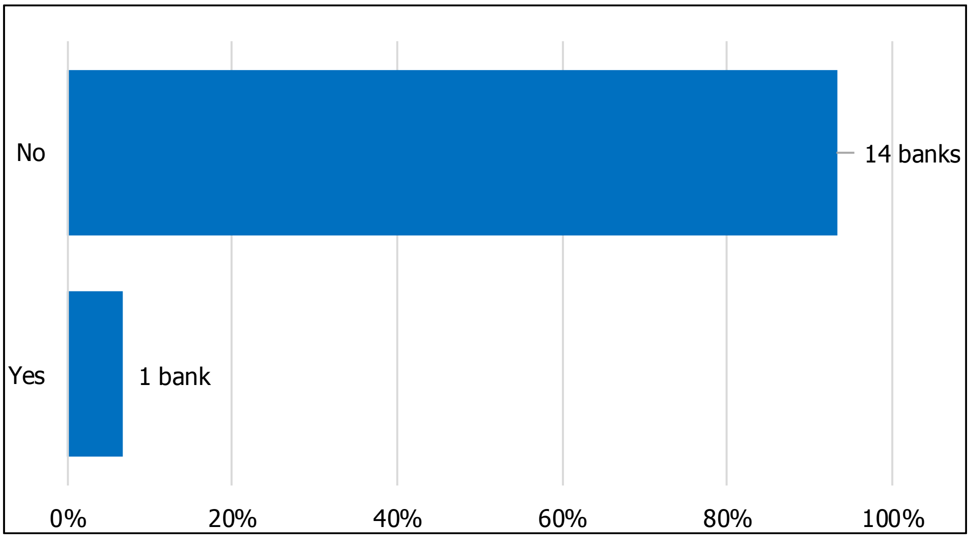
*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

4. Does the bank use assumed shocks of macroeconomic variables in the conduct of the stress tests?



*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

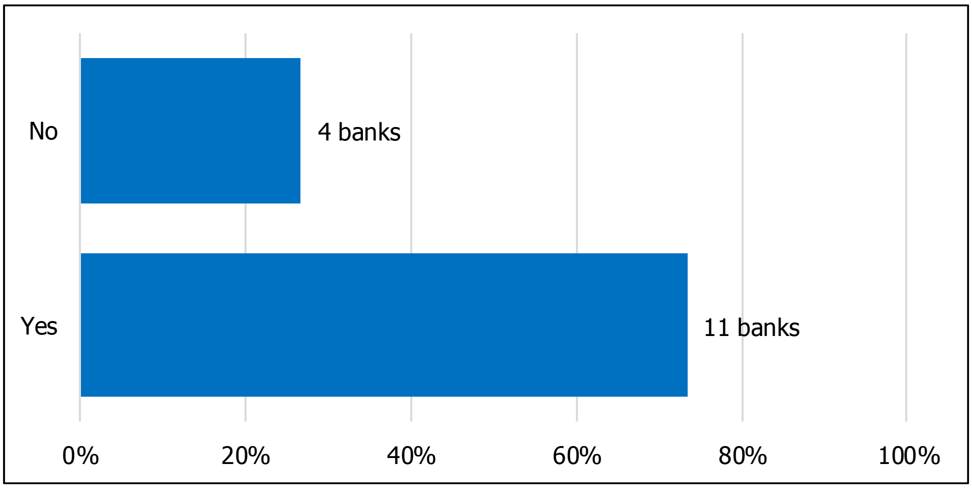
5. Has the bank assessed the scope of activities and necessary investments (legal basis, information system and other infrastructure) in order to harmonize with the principles and rules of the so-called "open banking"[7], as a new trend in the regulation in the field of payment services at European level?



*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

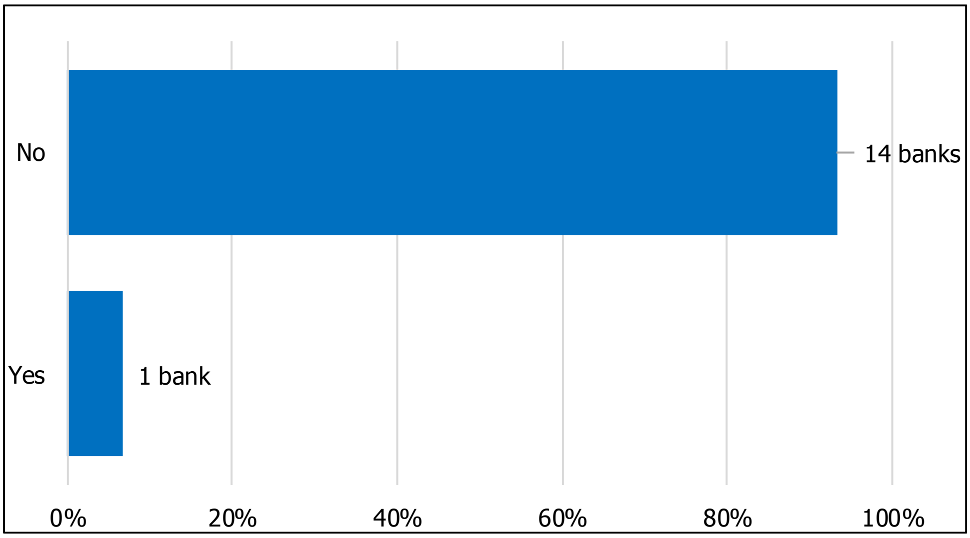
[7] "Open banking" denotes the concept of providing banking and financial services, which means sharing information owned by banks with third authorized persons who would gain access to the banks' systems through a so-called application programming interface (API).

6. Do you plan to improve your information system during 2019?



*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

7. Does your bank consider the risks of climate changes as relevant to its operations, and has it assessed the direct and indirect effects of the materialization of such risks?



*Percentages refer to the percentage share of the banks that gave a specific response, in the total number of banks in the system (fifteen).

Annex 1. Questionnaire submitted to the banks to assess the risks coming from the environment and the planned business activities

1. Aim of the Survey

The Survey aims to comprehend the bank's perceptions for the main factors of the risks arising from its environment, as well as the risks that it expects to face with during 2019. The responses of the Survey will be published only in aggregate form.

2. Name of the bank:

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3. Assessment of the main risks coming from the environment that the bank faces with

The risk assessment for 2019 should be made according to the following five groups of risks:

- A - Risks arising from the macroeconomic environment;
- B - Risks arising from the financial markets;
- C - Risks arising from the banking sector;
- D - Risks arising from the strategy or the operations of the bank/banking group/owners;
- E - Risks arising from the current setup and changes in the regulatory framework.

The first section (Section I.) requires ranking of the groups of risks in the interval from 1 to 5 according to the expected impact that they would have on the bank's operations during 2019. The grade 1 denotes that the risk factors from the specific group are expected to have the smallest impact for the bank, while the grade 5 means that the bank expects the greatest impact of that group of risk factors. The expectation for the direction of change in the specific group of risks should also be checked, i.e. whether their importance is expected to increase, to remain the same or to decline during 2019 compared with the previous year. Then, you should arrange all five groups of risks in the matrix according to the expected probability of their materialization in 2019 and according to the expected effect on the bank of their materialization.

The second section (Section II) requires grading of the risk factors of each group of risks in the interval from 1 to 5 according to the importance that they are expected to have in the corresponding group of risks.

The third section (Section III) requires responding to a group of questions about the banks' expectations for profitability, capital position and activities.

The fourth section (Section IV) includes several more relevant questions, to which please give a brief response.

Section I. Summary table, which is completed based on the completed Survey and the determined grades for each group:

Group of risks	**Ranking of the impact of each group of risks on the bank's operations for 2019** (from 1 the smallest impact to 5 the greatest impact)	**Expectations for the direction of change in each group of risks in 2019** will decline (-1) will remain the same (0) will grow (+1)
Group A Risks arising from the macroeconomic environment		
Group B Risks arising from the financial markets		
Group C Risks arising from the banking sector		
Group D Risks arising from the strategy or the operations of the bank/banking group/owners		
Group E Risks arising from the current setup and changes in the regulatory framework		

In the next table, please fill in with A, B, C, D or E according to your view on the probability of materialization of the groups of risks and the corresponding effect.

<table>
<tr><th colspan="2" rowspan="2">Matrix for arrangement of the groups of risks</th><th colspan="5">Effects of materialization on the bank</th></tr>
<tr><th>very large</th><th>large</th><th>medium</th><th>small</th><th>very small</th></tr>
<tr><td rowspan="5">Probability of materialization</td><td>very high</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>High</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Moderate</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Low</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>very low</td><td></td><td></td><td></td><td></td><td></td></tr>
</table>

Comment on the ranking in the two previous tables (filled out if you have a need to further clarify your response)

Section II. It is necessary to evaluate the risk factors of each group according to their importance in the corresponding group of risks, in an interval from 1 (smallest importance) to 5 (greatest importance).

Group A: Risks arising from the macroeconomic environment

The assessment of the risks arising from the macroeconomic environment should take into account at least the stated factors. Please check with **X** in the row under the selected grade.

- expected movement of the economic activity in the country (real GDP growth);

1	2	3	4	5

- expected effect of the business tendencies in the domestic industry;

1	2	3	4	5

- expected effect of the business tendencies in the domestic wholesale and retail trade;

1	2	3	4	5

- expected effect of the business tendencies in the domestic construction;

1	2	3	4	5

- expected effect of the business tendencies in other domestic services;

1	2	3	4	5

- expected movements of the consumer prices in the domestic economy (expected inflation);

1	2	3	4	5

- expected movement of the trade balance (foreign trade);

1		2	3	4	5

- expected movements of private transfers;

1	2	3	4	5

- expected movements of foreign direct investments;

1	2	3	4	5

- expected movements of the domestic private investments;

1	2	3	4	5

- expected effect of the state and movement of external debt;

1	2	3	4	5

- expected effect of the state and movement of public debt;

1	2	3	4	5

- expected effect of the state and movement of the budget balance;

1	2	3	4	5

- expected movement in the domestic labor market;

1	2	3	4	5

- expected effect of the state and movement of the disposable income of households;

1	2	3	4	5

- expected effect of the state and movement of household indebtedness;

1	2	3	4	5

- expected effect of the liquidity of the domestic legal entities;

1	2	3	4	5

- expected effect of the indebtedness of the domestic legal entities;

1	2	3	4	5

- expected movement of the economic activity in the euro area (real GDP growth);

1	2	3	4	5

- expected movements of the consumer prices in the euro area (expected inflation in the euro area);

1	2	3	4	5

- other (please state what)____

1	2	3	4	5

Group B: Risks arising from the financial markets

The assessment of the risks arising from the financial markets should take into account at least the stated factors. Please check with **X** in the row under the selected grade.

- expected movements of interbank denar interest rates in the domestic financial markets;

1	2	3	4	5

- expected movements of the interbank interest rates in euros on the international financial markets;

1	2	3	4	5

- expected movements of the interbank interest rates in US dollars on the international financial markets;

1	2	3	4	5

- expected movements of the interest rates on government securities issued by the Republic of Macedonia;

1	2	3	4	5

- expected movements of the interest rates on government securities in the euro area;

1	2	3	4	5

- expected movements of the interest rates on government securities in the USA;

1	2	3	4	5

- expected movements of the interest rates on government securities in other currencies;

1	2	3	4	5

- expected movement of the exchange rate of the euro against the dollar;

1	2	3	4	5

- expected prices of domestic shares;

1	2	3	4	5

- expected prices of the shares on the stock exchanges in the euro area;

1	2	3	4	5

- expected prices of the shares in the USA;

1	2	3	4	5

- risk premium necessary to allow the bank to provide market financing on the domestic or on the international financial market;

1	2	3	4	5

- expected movements of the prices on the world markets of oil and other fuels;

1	2	3	4	5

- expected movements of the prices on the world markets of industrial metals;

1	2	3	4	5

- expected movements of the prices on the world markets of agricultural products;

1	2	3	4	5

- other (please state what)____

1	2	3	4	5

Group C: Risks arising from the domestic financial system

The assessment of this group of risks should take into account at least the stated factors. Please check with **X** in the row under the selected grade.

- competition from the other banks;

1	2	3	4	5

- competition from non-banking financial institutions in terms of credit products;

1	2	3	4	5

- competition from non-banking financial institutions in terms of the sources of funding for the bank;

1	2	3	4	5

- competition from non-banking financial institutions in terms of other banking services;

1	2	3	4	5

- potential status or structural changes in the financial system;

1	2	3	4	5

- level of confidence of the public in the banking sector;

1	2	3	4	5

- demand for loans by households;

1	2	3	4	5

- demand for loans by the domestic legal entities;

1	2	3	4	5

- demand for deposit and savings products by households;

1	2	3	4	5

- demand for deposit products by the domestic legal entities;

1	2	3	4	5

- the demand for other banking services;

1	2	3	4	5

- the demand for non-banking financial products and services;

1	2	3	4	5

- other (please state what)____________________________

1	2	3	4	5

Group D: Risks arising from the strategy or the operations of the bank/banking group/owners

The assessment of this group of risks should be based on the stated factors. Please check with **X** in the row under the selected grade.

- possibility for status or structural changes in the bank and/or the banking group;

1	2	3	4	5

- maintaining and/or achieving the target market position of the bank and/or the banking group;

1	2	3	4	5

- potential changes in the lending conditions for lending to households - consumer loans and other loans unsecured by mortgage on real estate;

1	2	3	4	5

- potential changes in the lending conditions for lending to households - housing loans and other loans secured by mortgage on real estate;

1	2	3	4	5

- potential changes in the lending conditions for lending to the domestic legal entities;

1	2	3	4	5

- launching new banking products and services;

1	2	3	4	5

- lawsuits in which the bank is a party;

1	2	3	4	5

- complaints from clients;

1	2	3	4	5

- changes in the readiness for taking risks of the bank and/or the banking group;

1	2	3	4	5

- capital position of the bank and/or of the banking group;

1	2	3	4	5

- volume and the structure of the liquid assets of the bank and/or of the banking group;

1	2	3	4	5

- movement of the prices of the offered banking services;

1	2	3	4	5

- other (please state what)____

1	2	3	4	5

Group D: Risks arising from the current setup and changes in the regulatory framework

The assessment of this group of risks should take into account at least the stated factors. Please check with **X** in the row under the selected grade.

- amendments to the regulations in the field of finance or the economy in the EU;

1	2	3	4	5

- change in the domestic regulatory framework that refers to the risks in the banking operations;

1	2	3	4	5

- possible non-compliance between individual domestic laws or bylaws;

1	2	3	4	5

- change in the regulatory framework for the manner in which banks perform their business activities/offer their products or services;

1	2	3	4	5

- absence of regulation on certain activities, products or scope of operations. Please explain which ____;

1	2	3	4	5

- other (please state what)____________________________________

1	2	3	4	5

Section III. Questions about the banks' expectations for profitability, capital position and activities.

1. According to your assessment, the level of return on equity and reserves (ROAE) that will ensure sustainable operations of your bank in the long term is:

please check with **X** one of the offered options:

below 10%	
from 10% to 12%	
from 12% to 14%	
above 14%	

2. Do you expect the profitability of your bank to increase in the next 6 to 12 months?

please check with **X** one of the offered options:

I agree	
I partially agree	
I partially disagree	
I disagree	

3. You estimate your cost of equity for the period of one year at a level of:

please check with **X** one of the offered options:

below 8%	
from 8% to 10%	
from 10% to 12%	
above 12%	

4. The impact of the categories of the income statement on the profitability of your bank in 2019 would be of:

		please check with **X**:		
		will affect the increase in profitability	will not affect profitability	will affect the reduction of profitability
1a	Growth in interest income (gross)			
1b	Reduction of interest expense (gross)			
2a	Growth in the income from commissions (gross)			
2b	Reduction of commission expenses (gross)			
3	Growth in other operating income			
4	Reduction of operating costs			

5	Reduction of the costs for impairment of financial assets			
6	Reduction of the costs for impairment of non-financial assets			
7	other (please state what) ___________			

5. The contribution of individual types of commissions within the income from commissions of your bank in 2019 would be from (please check with **X** up to three options):

payment services, including card operations	
commissions based on trade finance	
commissions related to lending, and that are not part of the effective interest rate	
from securities services, including custodial services	
from products related to the sale of insurance policies	
from other services (please state which)__________	

6. If you plan to reduce operating costs, you would do that through (please check with **X** up to three of the offered options):

reduction of the general administrative costs	
reduction of staff costs	

utilization of outsourcing services	
cessation of inefficient activities and/or removal of the inefficient organizational units	
increase in automation and digitalization	
other (please state what)________________________ ________________________	

7. Does the current profit from regular operations, without the effect of the sale of foreclosed property or similar so-called non-recurring activities, reduced annually (annualized), exceed the bank's cost of equity?

please check with **X** one of the offered options:

Yes	
No	

8. Do you expect the changes in the slope of the yield curves of the interest rates in the domestic currency or in the international markets to cause a significant effect on y bank's profit in the next 6 to 12 months?

please check with **X** one of the offered options:

Yes	
No	

9. Do you plan to issue a capital instrument that meets the requirements for inclusion in the bank's Tier I capital in the next 12 months?

please check with **X** one of the offered options:

Yes	
No	

10. Do you plan to increase the financing of the bank through:

please check with **X** up to two of the offered options:

Borrowings and/or issued securities without collateral given by the bank	
Subordinated debt and other instruments that meet the requirements for inclusion in the bank's own funds	
Borrowings and/or issued securities with collateral given by the bank	
Securitization of credit claims	
Definitive sale of a loan portfolio or claims	
Deposits from legal entities	
Household deposits	
Borrowing from the National Bank	
Short-term interbank borrowings	

11. What are the major limitations on issuing subordinated instruments that meet the requirements for inclusion in the bank's own funds, that your bank has faced with? (please check with **X** up to two of the offered answers):

The price for issuing the instruments is too high	
Insufficient demand by potential investors (due to unattractive ratio of the expected yield and risk of the instrument)	
Insufficient demand by potential investors (due to their regulatory framework or the requirements of the competent supervisory authorities)	
Uncertainty in terms of the fulfillment of the requirements for inclusion of the instrument in the bank's own funds	
We have not had experience with issuing such instruments	

12. Do you plan deleverage of your bank?
please check with **X** one of the offered options:

Yes, please state the reason for the deleverage: ______________________________	
No	

If the previous question is responded with "yes", whether the deleverage, i.e. the reduction in the assets, will mainly be carried out through:
please check with **X** one of the offered options:

reduction of the credit activity	
disposing of assets or business units	
changes in the use of the sources of funding (repayment of borrowings, inability to borrow again, etc.)	
deterioration of the expectations for the level of risk in credit exposures	

13. What change do you plan in each of the stated portfolios in the next 12 months

please check with **X** one of the offered options:	increase	decrease
Commercial property loans		
Residential property loans		

Consumer loans		
Loans to medium and small non-financial companies		
Loans to large non-financial companies		
State and public sector		
Foreign countries and financial institutions		
Project financing		
Other (please state which)		
Trading book (financial assets at fair value through the Profit and Loss Account)		

14. Of the portfolios for which you plan an increase in the next 12 months, please check with **X** up to three portfolios in which you expect the highest growth:

Commercial property loans	
Residential property loans	
Consumer loans	
Loans to medium and small non-financial companies	
Loans to large non-financial companies	
State and public sector	
Foreign countries and financial institutions	
Project financing	
Other (please state which)	
Trading book (financial assets at fair value through the Profit and Loss Account)	

15. Of the portfolios for which you plan a reduction in the next 12 months, please check with **X** up to three portfolios for which you expect the reduction to be the greatest:

Commercial property loans	
Residential property loans	
Consumer loans	
Loans to medium and small non-financial companies	
Loans to large non-financial companies	
State and public sector	
Foreign countries and financial institutions	
Project financing	
Other (please state which)	
Trading book (financial assets at fair value through the Profit and Loss Account)	

16. In which portfolio you expect a possible improvement in the quality in the next 12 months?

please check with **X** the appropriate options:

Commercial property loans	
Residential property loans	
Consumer loans	
Loans to medium and small non-financial companies	
Loans to large non-financial companies	
State and public sector	
Foreign countries and financial institutions	
Project financing	
Other (please state which)	
Trading book (financial assets at fair value through the Profit and Loss Account)	

17. In which portfolio you expect a possible deterioration of the quality in the next 12 months?

please check with **X** the appropriate options:

Commercial property loans	
Residential property loans	
Consumer loans	
Loans to non-financial companies	
State and public sector	
Foreign countries and financial institutions	
Project financing	
Other (please state which)	
Trading book (financial assets at fair value through the Profit and Loss Account)	

18. According to your expectations for the future trend of the credit activity by portfolio and level of coverage with provisions of the assumed credit risk in your bank, do you expect the impairment cost (excluding the initial effect of the application of IFRS 9 and the Decision on the methodology for credit risk management) in the next 12 months:

please check with **X** one of the offered options:

to increase	
to remain at a similar level	
to reduce	

19. What are your expectations for 2019 in terms of the operational risk that your bank is exposed to:

please check with **X** one of the offered options:

to increase	
to remain at a similar level	
to reduce	

If you expect an increase in the operational risk in the response to the previous question, wha are the main factors that cause that increase?

(please check with **X** up to three options)

cyber risk and data security	
IT infrastructure problems	
the utilization of outsourcing services	
changes in regulation	
legal risk	
geopolitical risk	
organizational changes	
risk of money laundering, financing of terrorism or sanctions due to omissions in that domain	
other frauds	

20. Does your bank cooperate with FinTech[8] companies (domestic or foreign)?
please check with **X** one of the offered options in each of the given rows:

	Yes	No
partnership on a commercial basis with an existing FinTech company for developing new products or services		
proprietary partnership with an existing FinTech company		
investment in a newly established FinTech company		
partnership on a non-commercial basis with a FinTech company (e.g. research activities)		
establishing or supporting FinTech incubators/accelerators		

[8] FinTech are defined as technological-financial innovation that can lead to new business models, applications, processes or products with an appropriate material effect on the financial markets and institutions as well as on the provision of financial services. Source: Financial Stability Board, Standing Committee on Assessment of Vulnerabilities, "FinTech: Describing the Landscape and Framework for Analysis", 16 March 2016.

developing your own products/services independently, without cooperation with an existing or new FinTech company		
there is no current cooperation with a FinTech company		
planning cooperation with a FinTech company		

If you agree with one of the first five options of the previous question, please check with **X** the factors that are the most significant for the cooperation with FinTech companies?

attracting new clients	
retaining existing clients	
increasing revenues	
reducing costs	
reducing future competitive pressure	
monitoring market trends	

21. What is the level of involvement of your bank in the following FinTech activities?
(for each row, please check **X** for one of the given options)

	It is applied	In a testing stage (before use)	In a development stage	In a planning stage	We have no experienc e
Use of biometric properties for the purposes of identifying users as an alternative to conventional authentication					
Using so-called roboadvisers in order to advise clients on investments					
Using algorithms for automatic execution of trade transactions in the financial markets					
Using algorithms for analyzing texts during investment decision-making (so-called text analytics)					
Using the methods of so-called "big data analysis"					

and credit scoring algorithms					
Using algorithms to confirm the quality of the input data for the models					
Using distributed ledger technology (DLT) in order to conclude so-called smart contracts when financing trade					
Using distributed ledger technology (DLT) in order to digitally identify users					
Using distributed ledger technology (DLT) in order to monitor transactions almost in real time and ensure compliance with the regulations					
Using so-called NFC (near field communication) technology for digital wallets for mobile payments					
Using so-called cloud services					

If you have experience with the stated FinTech activities of the previous table, have you identified any obstacles of a legal or regulatory nature for their smooth implementation and what are those obstacles?

Section IV. Other questions

1. What is the approach of your bank when abandoning the application of adjustable interest rates on household loans, i.e. will the bank apply fixed interest rates (thus avoiding the indirect credit risk of a possible increase in the selected reference market interest rates in the future) or your policy is more directed towards application of variable interest rates (thus taking the indirect credit risk of a possible increase in the selected reference market interest rates in the future)?

2. What forecasting methods are used by your bank in the planning process [9]

	Qualitative (intuitive) forecasting methods[10]	Analysis of time series[11]	Quantitative methods[12]	Another method not covered by the previous three
Do you apply the stated method? (please check with X in each of the methods that you apply)				

[9] Refers to the methods that apply when forecasting the size of individual items of the financial statements and/or the amount of certain indicators of the bank's operations and/or the future movements of some other economic variables that are significant for your bank and are subject to regular formal planning.

[10] They are based on the subjective judgement, knowledge, experience, intuition and reasoning of the individual and/or of the group of experts, who can also use market research and/or decide on the basis of historical analogy when forecasting the future movements of certain variables.

[11] They are based on statistical analysis. They are used to forecast the future movement of the studied variable on the basis of its past movements, i.e. the underlying assumption in these methods is that the future is a logical continuation of the past and the present.

[12] Methods where the forecasting is based on mathematical formulation of the problem and theoretical representation of the phenomenon that is subject to analysis. These are methods where the forecasting of the future movements of a certain variable (dependent variable) is made on the basis of analysis of the relations and interdependence between the variable and some other variables/factors (independent, explanatory variables). These include the models of regression (simple and complex), econometric models, etc.

Please state for which items of the financial statements and/or indicators of banks' operations and/or other economic variables you use the stated methods?				
Please give a brief explanation of the specific method (model) that you apply (in the section concerning the quantitative methods, please state the independent variables that you use as explanatory of the dependent variable, whose future movement is subject to your forecasting)				

3. Is the bank ready to conduct a so-called bottom-up stress testing? (please check with X one of the offered answers)
   Yes
   No
   If the bank is not ready, please state the reasons.

4. Does the bank use assumed shocks of macroeconomic variables in the conduct of the stress tests? (please check with X one of the offered answers)
   Yes
   No
   If the response is yes, please explain the approach that you apply to assess the effect on the financial variables related to the bank's operations (income, profit, default rate), deliquency rate in credit portfolios, non-performing loans, own funds, capital adequacy, etc.)?

5. Has the bank assessed the scope of activities and necessary investments (legal basis, information system and other infrastructure) in order to harmonize with the principles and rules of the so-called "open banking"[13], as a new trend in the regulation in the field of payment services at European level?
   (please check with X one of the offered answers and please explain your assessment)
   Yes
   No

6. Do you plan to improve your information system during 2019? (Please check with X one of the offered answers. If your response is yes, please explain briefly what kind of improvements you plan)
   Yes
   No

7. Does your bank consider the risks of climate changes as relevant to its operations, and has it assessed the direct and indirect effects of the materialization of such risks? (Please circle one of the offered answers. If your response is yes, please explain in short your assessment)
   Yes
   No

The Survey was completed by: Date:

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[13] "Open banking" denotes the concept of providing banking and financial services, which means sharing information owned by banks with third authorized persons who would gain access to the banks' systems through a so-called application programming interface (API).