

**SUSTAINABILITY IN  
LENDING: STATUS QUO,  
THE NEEDS OF FINANCIAL  
STAKEHOLDERS  
REGARDING  
SUSTAINABILITY  
CERTIFICATIONS AND THE  
POTENTIAL ACCEPTANCE**

Authors: RWTH BfW, Climate & Company,  
Circular, ISFC  
Date: 15.10.2024

## DOCUMENT INFORMATION

### Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance

SUBMISSION DATE	NAME OF THE DELIVERABLE	WORK PACKAGE
<b>15.10.2024</b>	Working paper on the needs of financial stakeholders regarding sustainability certifications	2
NATURE	AUTHOR(S)	LEAD BENEFICIARY
<b>Public</b>	Alina Quintana Schmidt, Dr. Andreas Knetsch, Univ.-Prof. Dr. Wolfgang Breuer (RWTH BfW) Mario Alessi (Circular) Laura Kaspar, Kai Dombrowski (Climate & Company) Reka Sulyok (ISFC) Prof. Dr. Claudia Breuer	RWTH BfW

### PROJECT DETAILS

PROJECT ACRONYM	PROJECT NUMBER	CALL IDENTIFIER
<b>CONFESS</b>	101077584	LIFE21-CET-MAINSTREAM
PROJECT DURATION	PROJECT COORDINATOR	
<b>11/2022 – 10/2025</b>	RWTH-INaB	
CONSORTIUM PARTNERS	COUNTRIES	
<b>RWTH-BfW</b>	Germany	
<b>Climate &amp; Company</b>	Germany	
<b>Czech Technical University Prague</b>	Czechia	
<b>International Sustainable Finance Centre (ISFC)</b>	Czechia	
<b>Circular s.r.l.</b>	Italy	

#### Executive Summary

The introduction of the CSRD and the EU Taxonomy Regulation (2020/852) led to an increase in the importance of the topic of sustainability. However, as reporting for SMEs is currently and for many of them also in the future still voluntary, but they make up a large part of the firms in the EU and thus have an important significance for the economy, we try to find out how a sustainability (clean energy) certificate for SMEs should be

structured. To do this, we interviewed and surveyed corporate client bank consultants and credit analysts at credit institutions. The interviews helped us to create the questionnaire, which was then revised in terms of content and form with the help of a pre-test. The interviews enabled us to determine which questions our participants were actually able to answer. It turned out that many of them had never worked with the EU taxonomy before and were barely familiar with it. It also emerged that many do not work with companies from the clean energy sector, or only to a limited extent. So, if we had only sent our questionnaire to corporate client bank consultants who work with this sector, the number of participants would have been very low. We therefore decided to address the questionnaire to other participants as well. Our questionnaire was structured in such a way that we first asked about the status quo and then what information the banks needed. We also wanted to determine the potential acceptance of the tool/certificate. The questions about the status quo should help us to determine the needs of the credit institutions. If they were all already incorporating sustainability into the SME lending process, this could mean that they already have certain tools.

Our results serve as part of the basis for creating the sustainability certificate (tool) based on the EU taxonomy. A total of over 100 participants took part in the survey. Most of the participants came from Germany. Only German savings banks and cooperative banks took part in Germany.

Overall, it is noticeable that many participants answered that their credit institutions do not yet take sustainability aspects into account at all in the SME lending process. The introduction of the tool could therefore lead to an increase in the consideration of sustainability aspects. The results also showed that standardized assessment at company level has rarely been used to date.

We also wanted to determine whether the participants see risks for their bank if sustainability is still not included in the SME lending process. Overall, the responses show that the participants consider environmental sustainability to be an important issue.

Our results regarding the certificate/the tool show that, in addition to a company-related assessment (i.e. a past-related assessment), a project-related assessment (i.e. an assessment of potential future projects) could also be important.

It is also clear that SMEs should be subject to less bureaucratic requirements than large companies.

For this reason, the requirements for SMEs should be simplified.

	<p>It is also noticeable that the participants do not agree on the level of detail required in the presentation of the assessment. It would therefore be helpful if there were both a rough overview of the assessment and detailed information.</p> <p>Our survey also shows that the consequences could be different for existing customers and new customers depending on which regulations are in place.</p>
<p><b>KEYWORDS</b></p>	<p>Sustainability survey, credit institutions, Sustainability certifications, Sustainability in lending, SME lending</p>

**DISCLAIMER:**

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.



## Table of contents

DOCUMENT INFORMATION .....	1
List of figures.....	5
Introduction.....	8
Literature review .....	9
Methodology.....	11
Results.....	13
Description of the data set.....	13
Status Quo .....	22
Requirements for the certificate.....	31
Relationship Lending.....	38
Opinion on climate change.....	49
Additional energy specific questions .....	56
Conclusion.....	62
Literature.....	64

## List of figures

Figure 1: Which kind of device was used? .....	14
Figure 2: What type of credit institution do you work for? .....	15
Figure 3: What is your job title? .....	16
Figure 4: Approximately what was the balance sheet total of your credit institution in 2021 in euros? .....	17
Figure 5: Please indicate your age. ....	18
Figure 6: How long have you been working in the corporate lending business? .....	19
Figure 7: What industries do the firms you serve come from? Please indicate the most relevant ones in your opinion. ....	20
Figure 8: How often do you deal with companies from the energy sector/energy efficiency sector (e.g. wind turbine operators) in your lending business? .....	20
Figure 9: How well are you familiar with the EU taxonomy and the delegated act on the valuation of energy activities? .....	21
Figure 10: We would like to know from you which of the following customer groups you personally serve on a regular basis in the lending business. ....	22
Figure 11: Do you already include sustainability information when deciding on SME loan applications? .....	23
Figure 12: Where do you get the information to assess the environmental sustainability of an SME in its lending process? .....	24
Figure 13: How is it decided in your credit institution whether and how aspects of SME environmental sustainability are included in the lending process? .....	25
Figure 14: Who makes the decision on whether and how sustainability is included by SMEs in the lending process if no standardized procedure is applied? .....	25
Figure 15: Loans to unsustainable companies are often considered riskier for two reasons. First, they can pose a risk to the reputation of the credit institution. Second, their default risk is often considered higher. Do you think that these two risks are more pronounced / less pronounced for loans to non-sustainable SMEs than for loans to non-sustainable large companies? – reputation risk .....	26
Figure 16: Default risk .....	27
Figure 17: Various reasons are given why it might be important for the economic success of a credit institution to take environmental sustainability into account when granting loans. Please tick to what extent you agree with the following statements: .....	28
Figure 18: Reputation employees .....	29
Figure 19: Default risk new regulations .....	29
Figure 20: Default risks environmental or personal damage .....	30
Figure 21: Global economic risks .....	30
Figure 22: Possible upcoming legal requirements .....	31
Figure 23: Which information such a certificate could provide would be interesting for the work in your credit institution? .....	32

Figure 24: "In the case of sustainability certificates, SMEs should be subject to less stringent bureaucratic requirements than large companies, even if this may mean that the sustainability certificate is less meaningful for SMEs." ..... 33

Figure 25: This question is about project financing: ..... 34

Figure 26: We now present you with possible scenarios regarding certification. For each scenario, please estimate how likely it would be that your credit institution would consider the sustainability certificate in the SME lending process. – Scenario A..... 36

Figure 27: Scenario B..... 36

Figure 28: Scenario C..... 37

Figure 29: Scenario D ..... 37

Figure 30: Scenario E..... 38

Figure 31: Loan applications from SMEs certified as unsustainable are... - rejected S1 existing customer ..... 42

Figure 32: rejected S1 new customer ..... 43

Figure 33: rejected S2 existing customer ..... 43

Figure 34: rejected S2 new customer ..... 44

Figure 35: credit terms S1 existing customer ..... 45

Figure 36: credit terms S1 new customer ..... 45

Figure 37: credit terms S2 existing customer ..... 46

Figure 38: credit terms S2 new customer ..... 46

Figure 39: closer examination S1 existing customer ..... 47

Figure 40: closer examination S1 new customer ..... 48

Figure 41: : closer examination S2 existing customer ..... 48

Figure 42: closer examination S2 new customer ..... 49

Figure 43. The following is about climate change. Please indicate the extent to which you agree with each of the following statements: - Climate change will have serious negative economic consequences globally. .... 50

Figure 44: Climate change will have serious negative economic consequences for Germany/ Italy/ Czech Republic..... 51

Figure 45: It will be a long time before the economic consequences of climate change are felt. .... 51

Figure 46: Please indicate the extent to which you agree with each of the following statements. - The business practice of credit institutions has the potential to make a significant contribution to climate and environmental protection by taking the topic of "sustainability" into account in the lending process..... 53

Figure 47: I see it as a task of credit institutions to make a significant contribution to climate and environmental protection by taking appropriate account of the issue of "sustainability" in the lending process. .... 54

Figure 48: Please indicate the extent to which you agree with each of the following statements: - " I am confident that a sustainability certificate issued by the EU Commission would actually..... 55

Figure 49: ... make a significant contribution to climate and environmental protection if it were taken into account in the lending process." ..... 56

Figure 50: Which information such a certificate could provide would be interesting for the work in your credit institution? ..... 57

Figure 51: "In the case of sustainability certificates, SMEs should be subject to less stringent bureaucratic requirements than large companies, even if this may mean that the sustainability certificate is less meaningful for SMEs." ..... 58

Figure 52: This question is about project financing: ..... 59

Figure 53: : We now present you with possible scenarios regarding certification. For each scenario, please estimate how likely it would be that your credit institution would consider the sustainability certificate in the SME lending process. - Scenario A ..... 60

Figure 54: Scenario B..... 60

Figure 55: Scenario C..... 61

Figure 56: Scenario D ..... 61

Figure 57: Scenario E ..... 62



## Introduction

In Europe, sustainability is becoming increasingly important. With the introduction of the EU Taxonomy Regulation (2020/852) and the switch to CSRD, more and more firms are obliged to report sustainability indicators. So far, SMEs are not yet obliged to prepare sustainability reporting. However, SMEs in particular play a major role in Europe. For example, they account for over 99% of firms in the EU. Although some SMEs will also be affected by the CSRD's sustainability reporting obligation in the next few years, there are still some that do not have to report. Thus, it is difficult for potential stakeholders to obtain sustainability information from SMEs. While SMEs are free to also voluntarily prepare a sustainability report, they find it difficult to do so due to lack of resources. The implementation of the EU taxonomy is also a major obstacle for them. The topic of energy in particular is of great importance in the area of sustainability.

One way to address this problem would be to introduce a (clean energy) sustainability certificate for SMEs. In order to find out what information such a sustainability certificate should convey and how it should be structured, we are conducting a survey with corporate client bank consultants and credit analysts from credit institutions. The survey was sent to credit institutions in Germany, the Czech Republic and Italy. We want to use this survey to answer the following questions:

- What role does sustainability already play in SME lending?
- What risks do credit institutions see if they do not include sustainability in the SME lending process?
- What information should a sustainability certificate based on the EU taxonomy provide?

- What consequences could such a sustainability certificate trigger in the lending process?

In order to create the best possible questionnaire, we have previously conducted exploratory interviews with corporate client bank consultants and credit analysts.

While the literature has already addressed the role sustainability plays for investors (e.g. FINANCE Think Tank, 2021; Fraunhofer IBP, .msg for banking, 2021; Benchmark ESG, 2021), to our knowledge we are the first to create such a survey regarding a specific certificate.

In the course of this paper, we first provide a literature review. Then, the methodology is presented. Last but not least, the results of the survey are presented. Here, first an overview of the participants is given. Then, the relevant information from the questionnaire is analyzed. We then draw conclusions from our findings as to how a sustainability certificate for SMEs should be structured and what benefits it could have.

## Literature review

In the course of our project, we have already conducted a literature review on the topic of sustainability surveys at credit institutions.

This analysis has shown that there is already research on how investors feel about sustainability. However, to our knowledge, there are no surveys on the topic of energy and no surveys that have queried how a sustainability certificate should be structured. However, the literature reviewed shows that the topic of environmental sustainability is of particular importance (Benchmark ESG, 2021; Deutsche Bank, 2021; Swiss Sustainable Finance, 2021). Since it is our goal that a clean energy certificate should be created with the help of our survey, which belongs to the topic area of environmental sustainability, this result is a good sign for us. Furthermore, the studies examined showed that there are still many customers of credit institutions who have little interest [Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS](#)

in sustainability (Finance THINK TANK, 2021). These customers still need to be motivated. Our certificate could be such a motivation if it is used by credit institutions. Therefore, we also ask in our survey whether credit institutions can imagine using such a certificate, or under what circumstances they would use it. Furthermore, we want to know from the credit institutions what consequences the use of such a certificate would have. If credit institutions would use our certificate, this would also be a motivation for SMEs to deal more with sustainability and to get certified.

In addition to the current status, the literature has already asked what obstacles credit institutions see to incorporating sustainability into their decisions. Major problems are a lack of expertise, or staff, access to relevant data and skepticism of external ESG ratings (Fraunhofer IBP, .msg for banking, 2021, Blomeyer, 2022). Our certificate can at least partially counteract these problems. For example, it should provide access to the relevant data, and the lack of personnel would not be a problem, since the data would be provided by us. However, credit institutions may of course be skeptical of our certificate. Therefore, we use our survey to determine how exactly the information should be presented. The question is whether credit institutions would have enough confidence in such a certificate after all and only the rating of the certificate would be sufficient for them, or whether they need detailed information on how the rating was arrived at. Since other studies have identified the problems and our survey has limited space, we refrain from asking the questions on problems as well.

The study by Blomeyer (2021) is most similar to ours, as he also asked credit institutions how they incorporate the issue of sustainability in the SME lending process, or what problems they see in this regard. However, his dataset is relatively small, as he only conducted interviews. We, too, conducted interviews, but ultimately used them to create a large-scale questionnaire study. Nevertheless, the problems he identified are also relevant for us.

Another problem that has been identified in other research is that the EU taxonomy could lead to credit institutions lending less to SMEs as they are not required to report (Adelphi, ISS ESG, 2020). We can at least partially address this problem with the help of our certification. For example, our certification can at least show whether a Clean Energy company is taxonomy aligned. However, our survey is not only about clean energy but about environmental sustainability in general. Therefore, the results of our survey can also serve as a basis for extended sustainability certifications.

## Methodology

To find answers to our questions, we went through a 3-step process. First, we looked at what kind of surveys on sustainability have already been conducted with corporate account managers of credit institutions, but also with investors in general.

Then, we conducted 20 exploratory interviews with corporate account managers and sustainability experts from credit institutions. These interviews were conducted with employees of German savings banks and Volksbanks from May 2022 till December 2022. Due to the corona pandemic and geographical distance, these interviews were partly conducted online. The interviews were intended to help us determine the status quo at credit institutions. We also wanted to find out which questions our target group would be able to answer at all and which answer options we should provide in a standardized questionnaire. It was noticeable that many corporate account managers do not have to deal much with customers from the energy sector. Since we want to launch a large-scale questionnaire campaign, we can therefore not only address corporate client bank consultants and credit analysts who mainly serve this industry. Therefore, we also had to design the questionnaire for general environmental sustainability.

In addition, many corporate client bank consultants, whose customers are mainly SMEs, indicated that they had hardly dealt with the EU taxonomy so far. For this reason, we did not ask any explicit questions about the EU taxonomy.

Following the interviews, the questionnaire was finally drawn up. Seventeen corporate client bank consultants and credit analysts from German savings banks took part in a pretest. In addition, the questionnaire was checked for linguistic errors, comprehensibility of the questions and meaningfulness of the structure by employees of the Department of Finance at RWTH Aachen University. After improving the questionnaire, it was translated into Czech and Italian and then sent to a total of 1087 banks in Germany. To generate as many participants as possible, we raffled off 50 Amazon vouchers worth 20€ to the participants. The online questionnaire was implemented using SoSci Survey (Leiner, 2019) and made available to participants at [www.soscisurvey.de](http://www.soscisurvey.de)."

On June 26, 2023, the questionnaire was sent to the German credit institutions. Due to delays in translation, the questionnaire was not sent out in the other countries until 07/13/2023. Two weeks after the initial mailing of the questionnaires, the German banks were contacted again to remind them of the questionnaire campaign. In addition, the questionnaire campaign was extended at the end of July until August 11, 2023 in Germany, about which the credit institutions were also informed. We opened it again in November 2023 because of new contacts.

In order to determine whether the participants correspond to our relevant target group, we first ask which customers they serve in the lending business. If a participant does not specify micro, small or medium-sized enterprises here, the survey stops, and he or she is immediately taken to the last page of the questionnaire.

This will be followed by questions on the current status and importance of sustainability in the lending process to SMEs. Hereby, we want to find out how important the topic currently is for credit institutions and whether there is a need for assistance at all. Then we ask more detailed questions about certification. We try to find out how detailed it should be, what it should refer to, and last but not least we try to find out how successful it would be. To do this, we present different scenarios. Since we found out

in our interviews that relationship customers play a special role in the lending business, we ask separate questions about this. In this way, we want to determine whether sustainability certification can cancel out the phenomenon of relationship lending. This could provide an additional incentive for sustainable firms, as they would then have a better standing with credit institutions where they are not yet a customer. Since we want to determine what a specific Clean energy certificate should look like, we also determine whether the participants would have answered differently and give them the opportunity to answer some questions again, but now related to the Clean energy certificate.

## Results

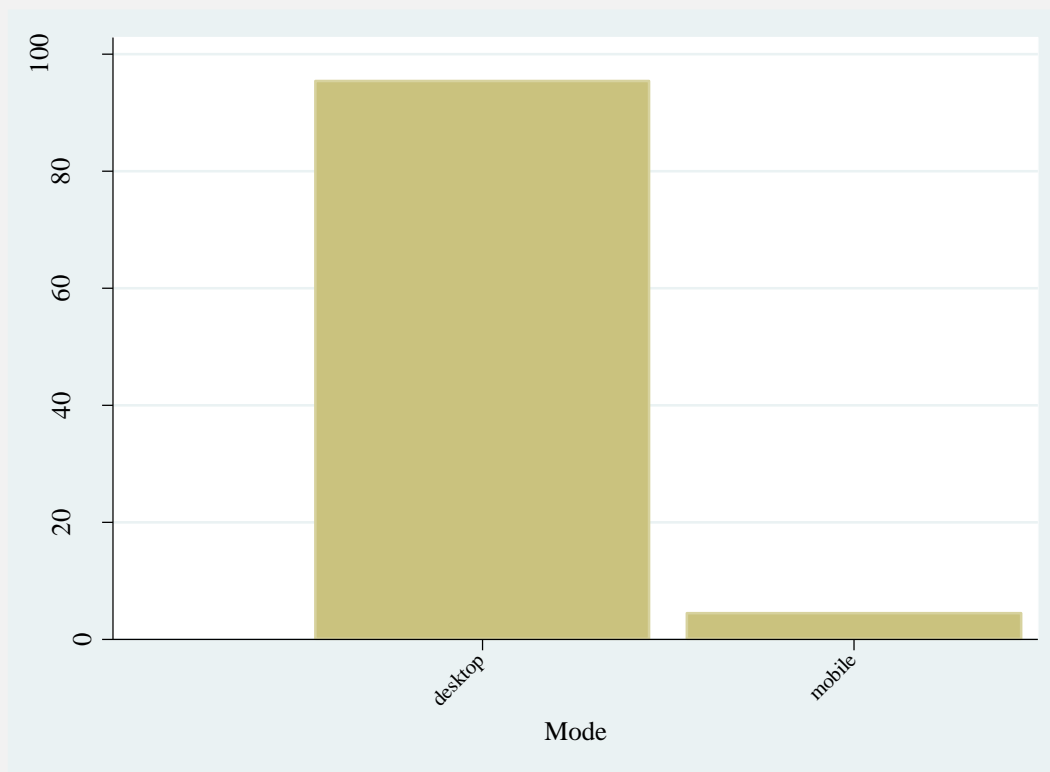
### Description of the data set

Our survey was completed in full by a total of about 100 participants in Germany. There are only two participants in each of the other two countries.

In the following, we only consider the interviews that were received in the actual survey phase and the interviews that were completed at least up to page 26. Since the questionnaire only deals with the questions on the Clean Energy Certificate from page 26 onwards and answering these questions is optional, we can also consider all questionnaires completed up to that point as complete. Thus, we finally obtain 111 data sets. The questionnaire also contains the response options "I do not want to answer this question" and "I cannot judge that" but we have decided not to include these responses in the following analysis. Therefore, this information is missing in the evaluation and the participants who have ticked one of these answer options are excluded in the evaluation of the respective questions.

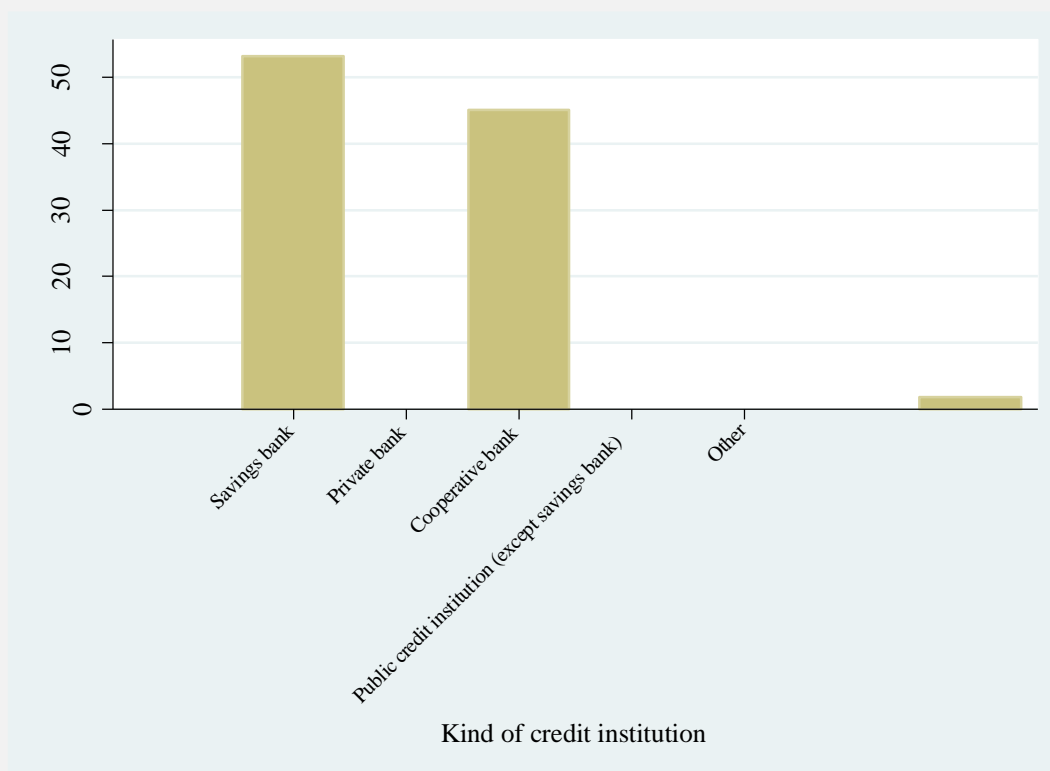
Participants had the option of completing the questionnaire on a desktop PC or via a mobile device. The results (Figure 1) show that only a few participants (only 5) took part via a mobile device. This is not surprising, as most participants received the questionnaire at their workplace.

**Figure 1: Which kind of device was used?**



To get an overview of what kind of participants we surveyed, we also created different demographic queries. We determined what type of credit institution each participant works for. The results (Figure 2) show that we only have participants from savings and cooperative banks in Germany and Italy and two banks with foreign majority shareholdings in czech republic. We did write to the other types of banks, but unfortunately they did not participate in the survey. However, the ratio between the two forms savings and cooperative banks is relatively balanced. Thus, about 53% of the participants work for savings banks and 45% for cooperative banks.

**Figure 2: What type of credit institution do you work for?**



Furthermore, we wanted to determine the profession of the participants. Our survey is aimed at corporate client bank consultants and credit analysts at credit institutions. However, we also included an "other" option with the possibility to write the profession. A review of these answers has shown that these are also appropriate participants. Figure 3 shows the distribution. It was also possible to indicate more than one occupation. Corporate client bank consultant is the most frequently mentioned answer option here.



Figure 3: What is your job title?

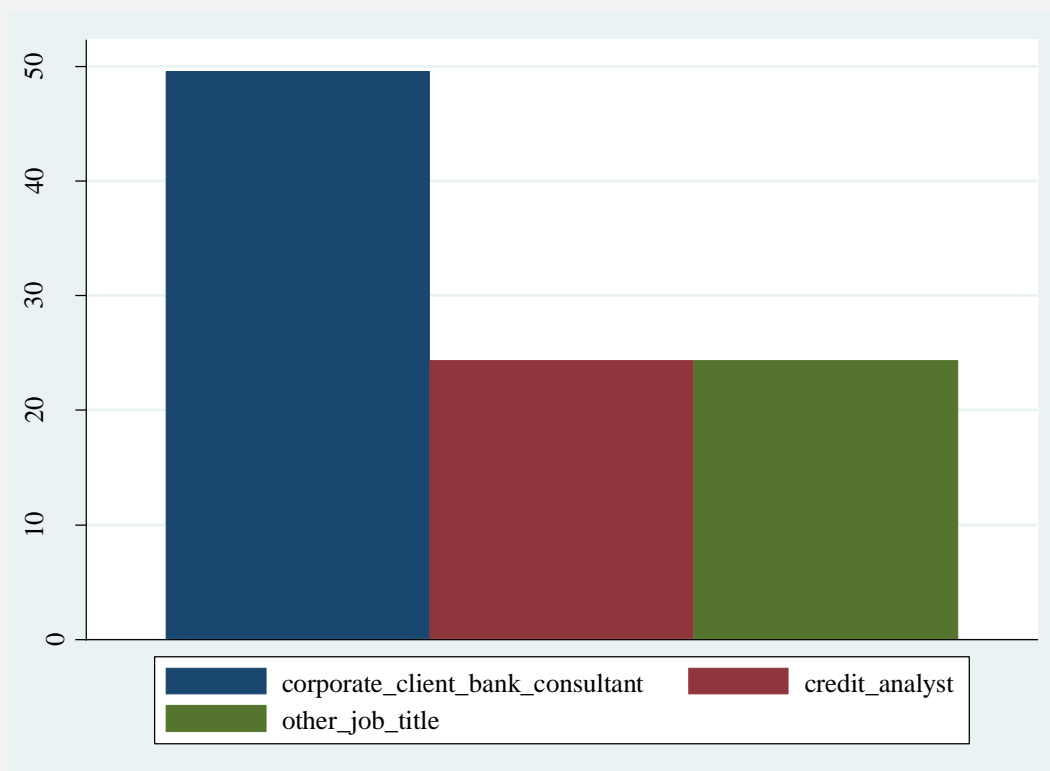


Figure 4 shows the size of the credit institutions for which the respective participants work. The size is shown as total assets in 2021. It can be seen that most credit institutions had a balance sheet total of between €2-5 billion in 2021. A large proportion only had a balance sheet total that was less than €1 billion.

**Figure 4: Approximately what was the balance sheet total of your credit institution in 2021 in euros?**

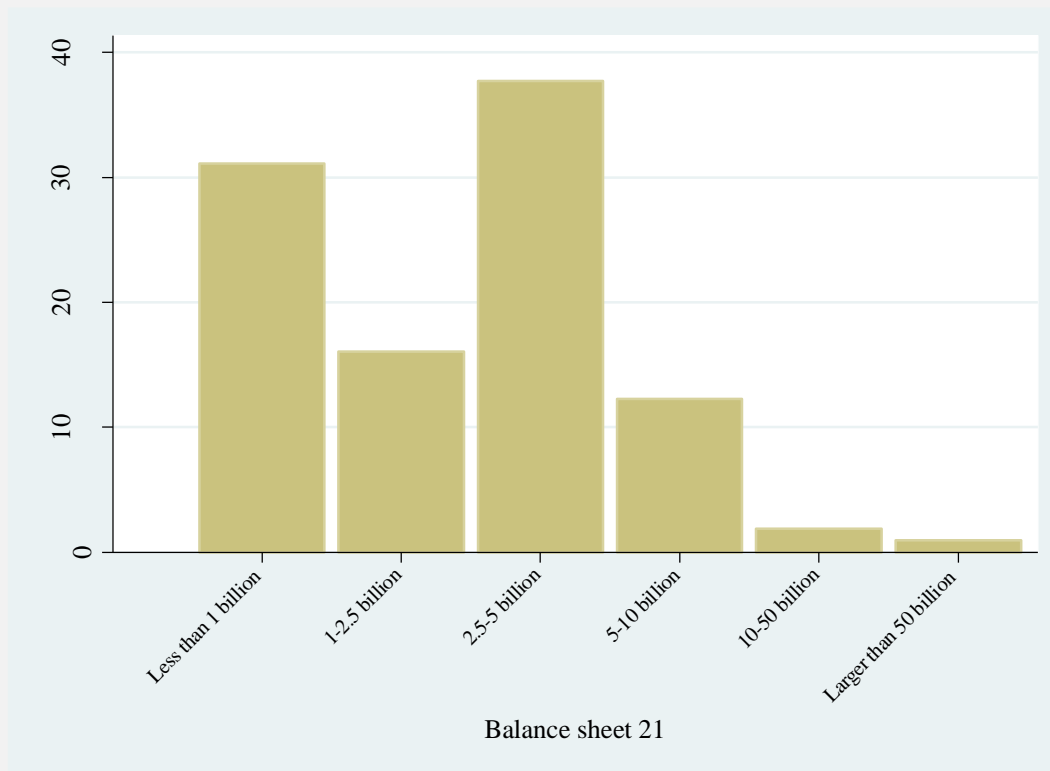
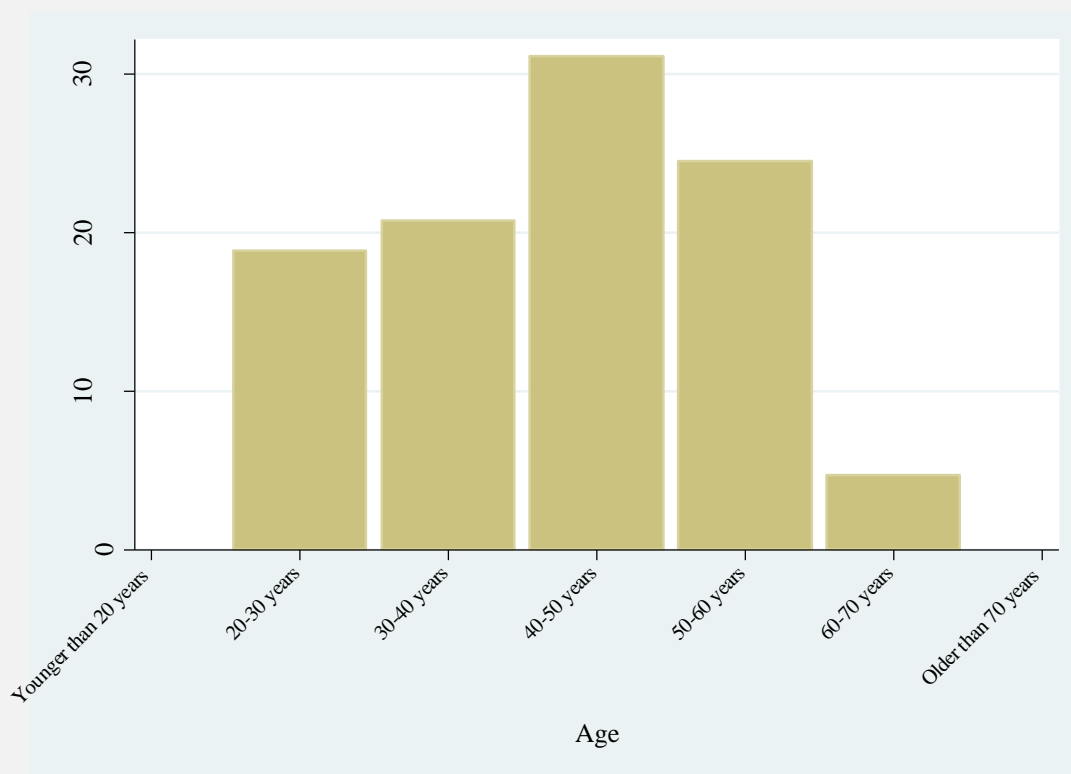


Figure 5 shows that we have neither very young nor very old participants, since the categories "Under 20 years" and "Over 70 years" were never selected. The age group "60- 70 years" is also poorly represented. This is not surprising, since many from this age group are already retired. Furthermore, it was to be expected that the age group "20 - 30 years" would only be represented in small numbers, since many people in this age group are still in education and thus have not yet learned this profession. Most of our participants can be found in the age category "40-50 years". According to a report by Jürgen Weimann, the average age in the corporate customer departments of savings banks is quite high (Weimann, 2018). Therefore, this result is not surprising either.

**Figure 5: Please indicate your age.**



In addition to age, professional experience in corporate banking is also important to us. Our results (Figure 6) show that the duration of work experience is rather long for most participants. These results are consistent with the age distribution results. This result is interesting in that we can assume that the participants have already gained a lot of experience.

**Figure 6: How long have you been working in the corporate lending business?**

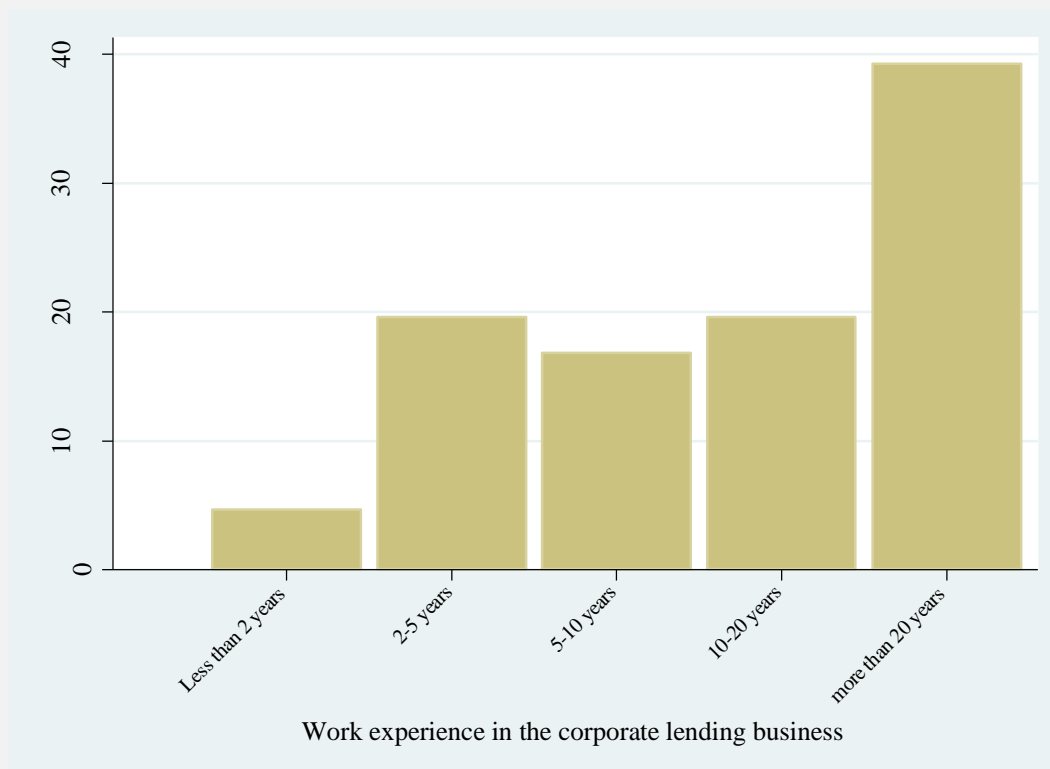
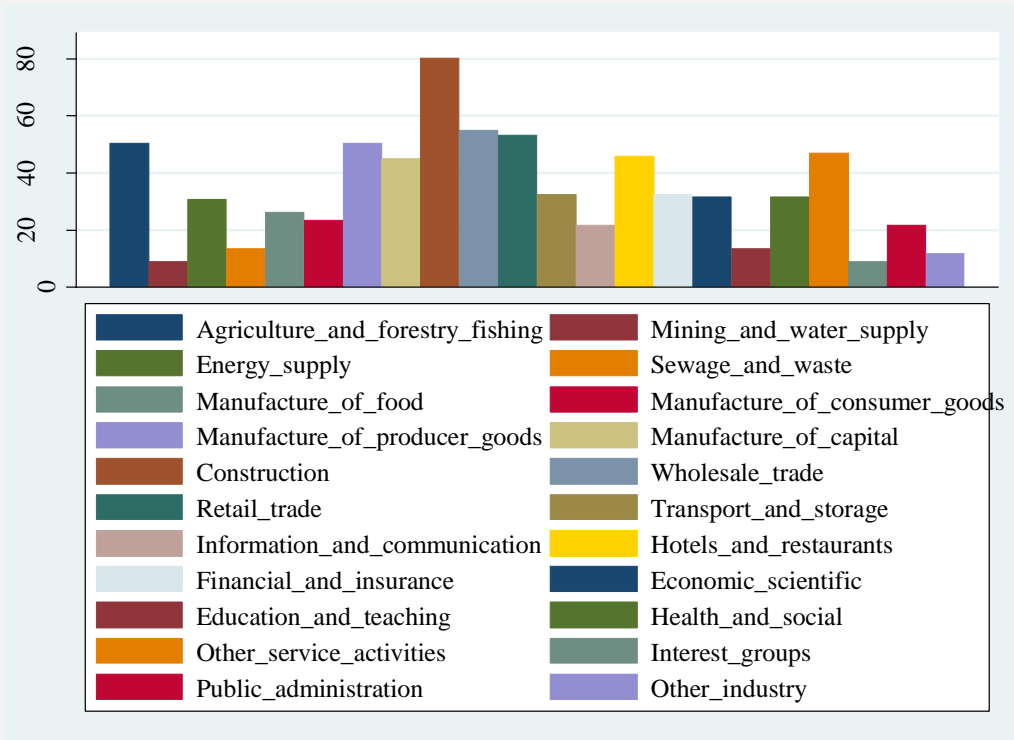
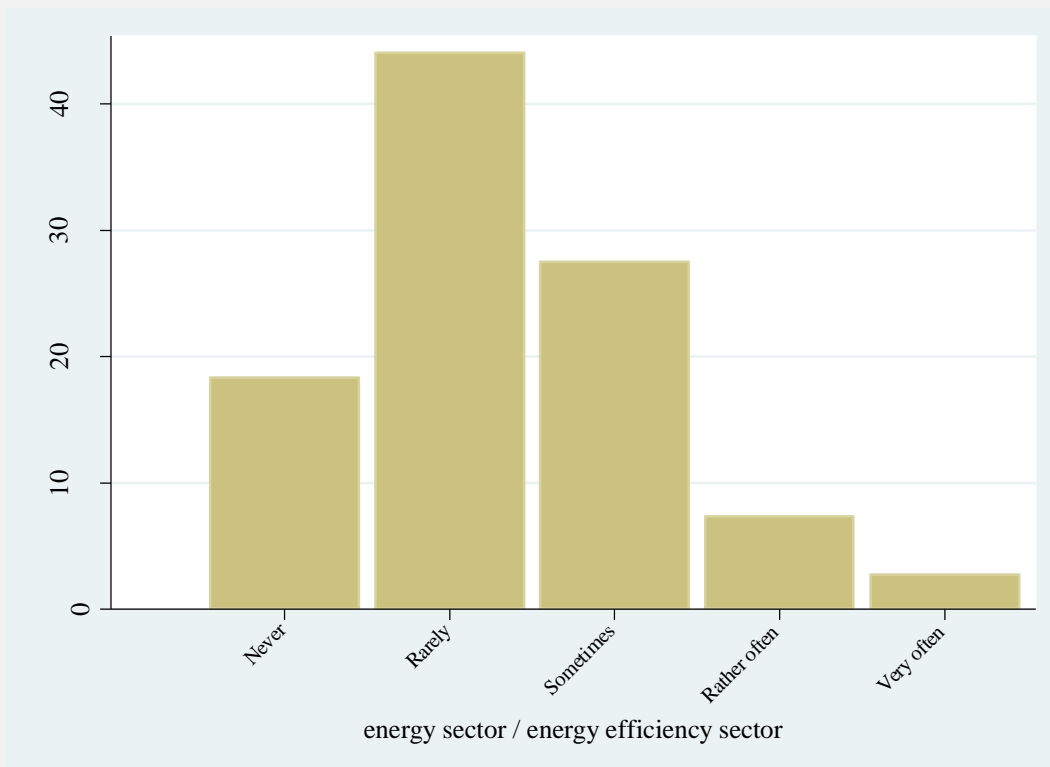


Figure 7 shows the industries with which the participants work most frequently. Overall, it can be seen that the "construction" sector in particular is worked with a lot in the lending business. The industry "energy supply" was only mentioned as important by about 30% of the participants. This shows that our conclusion from the interviews was correct and that we had to build the survey in such a way that it is not only interesting for the corporate client bank consultants and credit analysts who also work with the energy industry. To get an even more detailed overview, we asked the participants how often they collaborate with firms from the energy sector, or energy efficiency sector. Again, the results (Figure 8) show that most participants rarely collaborate with these firms.

**Figure 7: What industries do the firms you serve come from? Please indicate the most relevant ones in your opinion.**

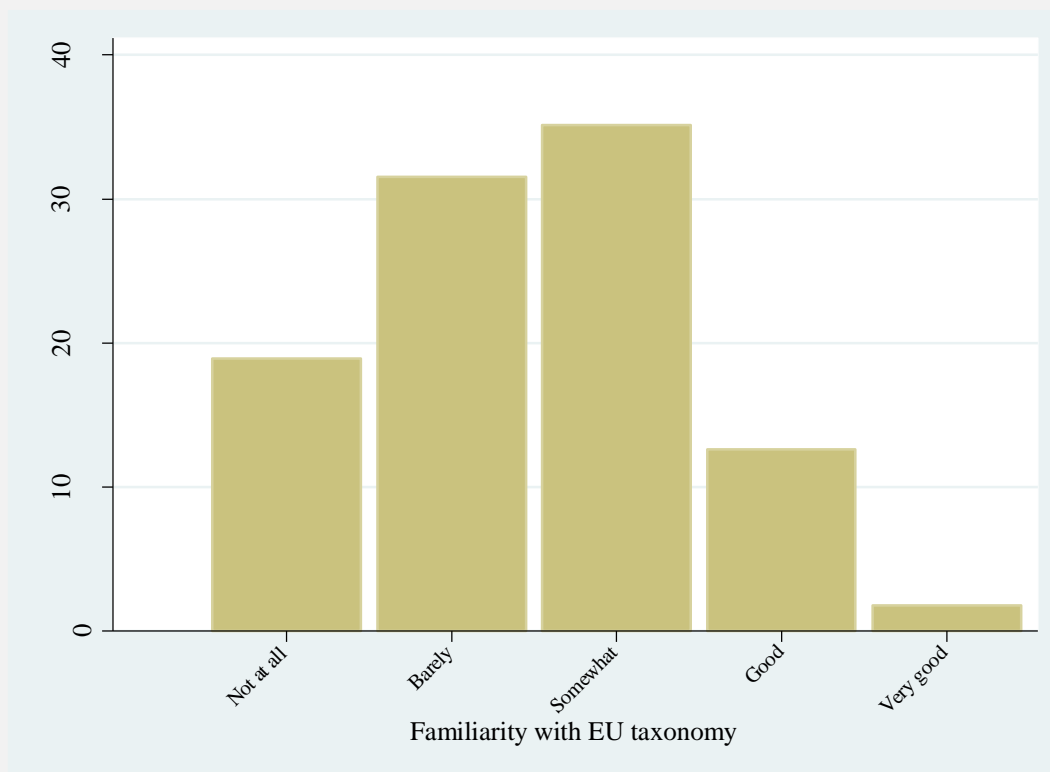


**Figure 8: How often do you deal with companies from the energy sector/energy efficiency sector (e.g. wind turbine operators) in your lending business?**



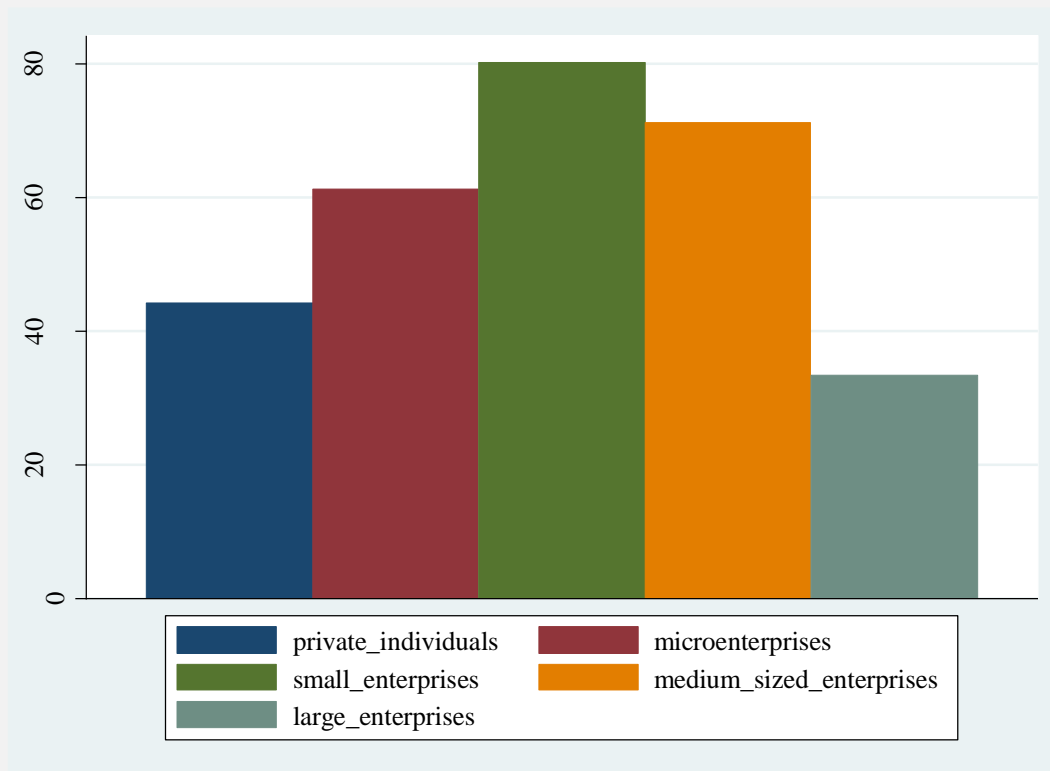
It is equally interesting for us to know whether the participants are familiar with the EU taxonomy, since our certificate is to be based on the EU taxonomy. As was already to be expected from the interviews, only a few participants are well or very well familiar with the EU taxonomy (see Figure 9).

**Figure 9: How well are you familiar with the EU taxonomy and the delegated act on the valuation of energy activities?**



Finally, we had to determine whether the participants actually serve the targeted customer group. Therefore, we asked our participants which sizes of firms they serve in the lending business. If participants indicated only retail customers and/or large companies, the survey was immediately terminated. The distribution of participants who were eligible can be seen in Figure 10.

Figure 10: We would like to know from you which of the following customer groups you personally serve on a regular basis in the lending business.

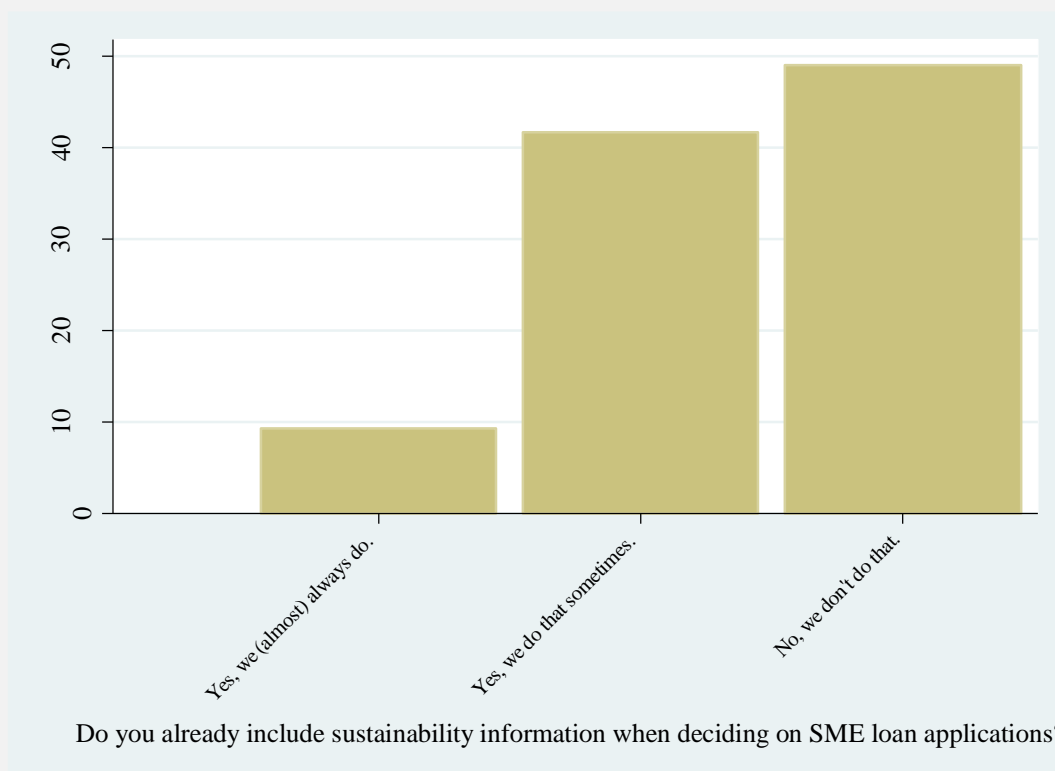


## Status Quo

To determine the level of demand for a sustainability certificate, we first asked participants whether they already consider sustainability in the lending process. The responses can be seen in Figure 11. It can be seen that only a few participants answered that sustainability is always considered. About the half of the participants even stated that sustainability has not yet been taken into account at all. This shows that many credit institutions are not yet far along in this area and would possibly be grateful for help from a certificate. We then asked those that already take sustainability information into account how they obtain it. Here it was again possible to tick several answer options. As can be seen in Figure 12, only a few credit institutions have used sustainability ratings from third-party providers to date. Most credit institutions rely on their own personal interviews or their own sustainability assessments. This shows that similar to what is described in Blomeyer (2022), there might be a skepticism towards Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS

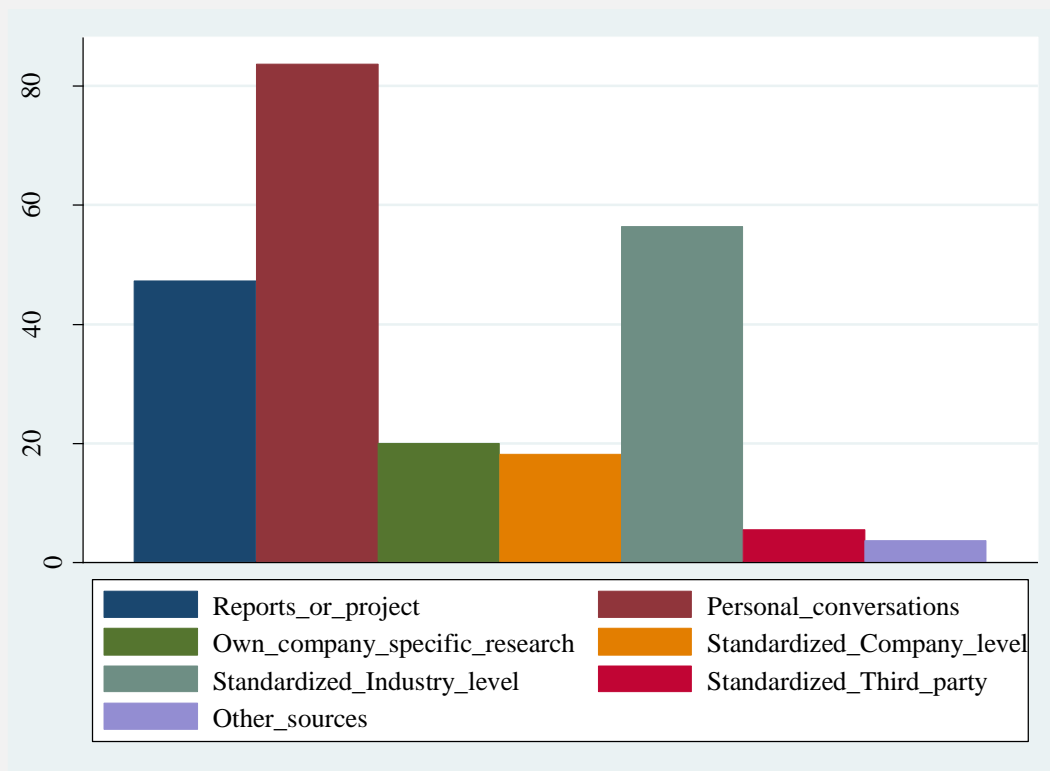
third-party providers. This is a hurdle to overcome with our certificate. One way of overcoming this hurdle is to be transparent with the credit institutions about how the valuations were arrived at.

**Figure 11: Do you already include sustainability information when deciding on SME loan applications?**





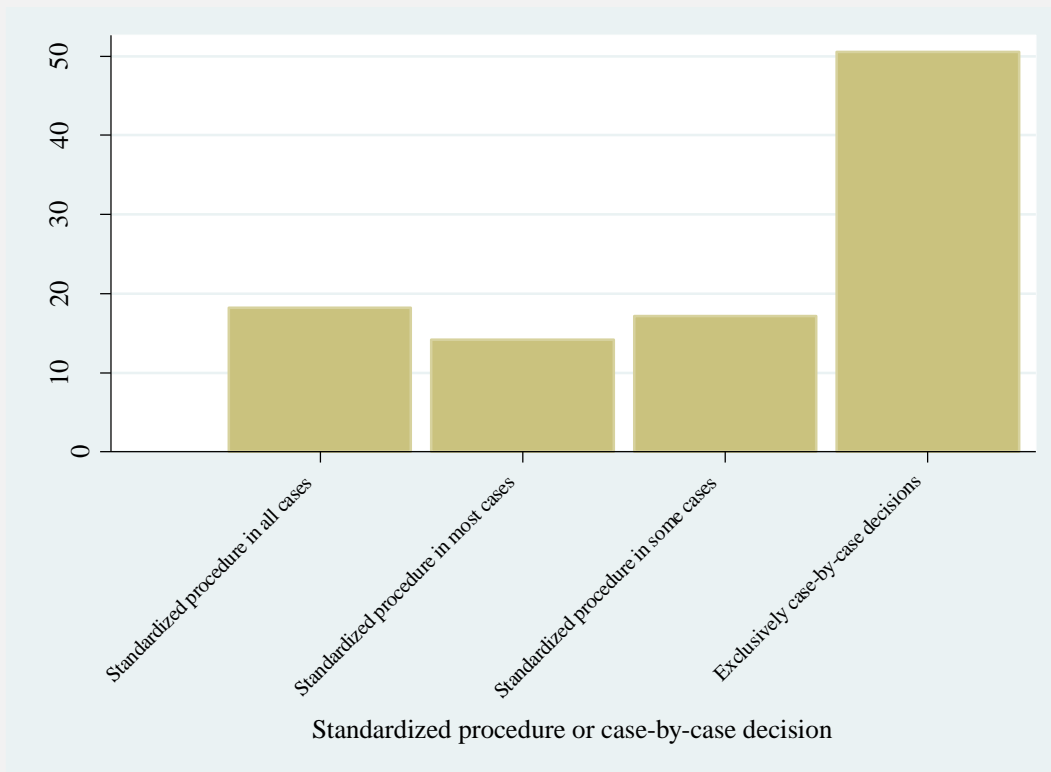
**Figure 12: Where do you get the information to assess the environmental sustainability of an SME in its lending process?**



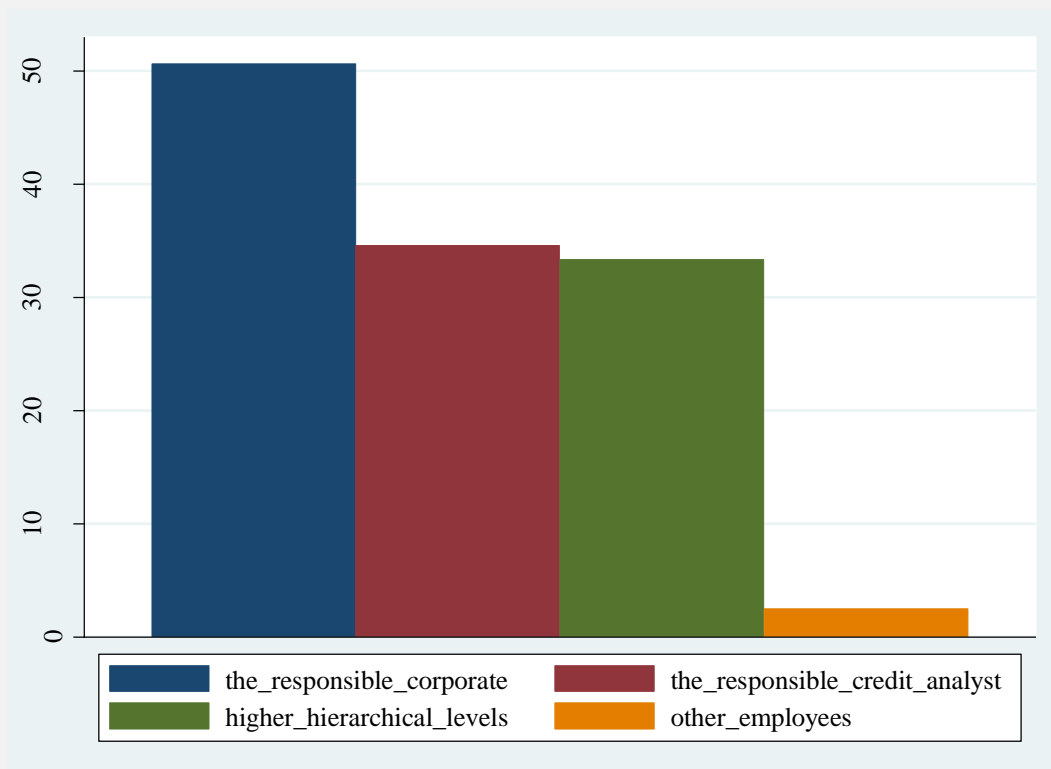
We were also interested in how the decision-making process takes place when it comes to sustainability in lending. Therefore, we asked our participants how this decision is made. Over 50% of participants indicated that it is a case-by-case decision (see Figure 13). However, 18% of participants also indicated that it is always a standardized decision. Nevertheless, this result is an indication that there is still a relatively large amount of room for decision-making among credit institutions. To find out whether our target group has this decision-making power at all, we then asked the participants who makes the decision in a non-standardized process. Again, multiple responses were possible here. The results (Figure 14) show that in over 50% of cases, these decisions are at least made or shared by the responsible corporate client bank consultant. However, higher hierarchical levels and credit analysts also make or share this decision in over 30% of cases. Based on these results, we can assume that our participants are able to assess the consequences of certification.

Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS

**Figure 13: How is it decided in your credit institution whether and how aspects of SME environmental sustainability are included in the lending process?**



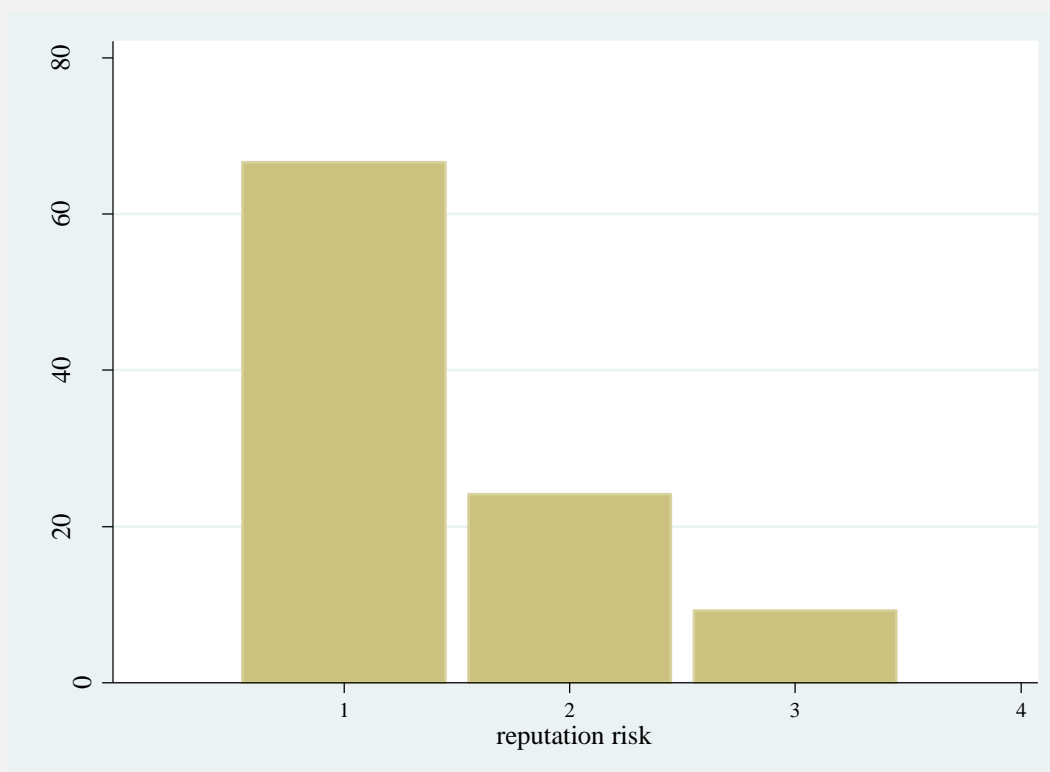
**Figure 14: Who makes the decision on whether and how sustainability is included by SMEs in the lending process if no standardized procedure is applied?**



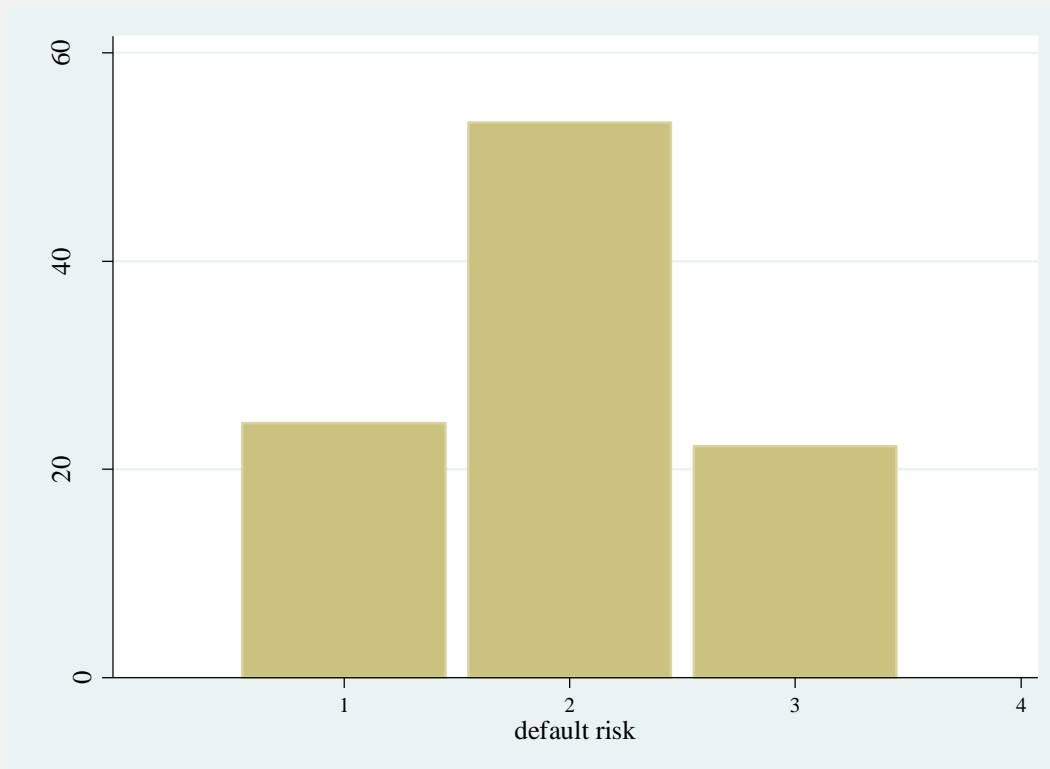
Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS

In order to be able to determine how relevant the credit institutions might find a sustainability assessment of SMEs, we asked them whether they think that certain risks are more pronounced or less pronounced for SMEs than for large companies. Specifically, these risks are reputational risk and the default risk of a firm behaving unsustainably. The majority of our participants believe that reputational risk is less pronounced for an unsustainable SME than for an unsustainable large firm (see Figure 15). However, it is interesting to note that most participants think that the default risk is the same in the case of an SME as in the case of a large firm (see Figure 16). This shows that reputational risk is a low incentive for lending institutions to consider the sustainability of SMEs in the lending process, but default risk is. Participants also had the option to tick that the respective risk is relevant neither for SMEs nor for large firms. However this option was chosen by less than 10% of the participants.

**Figure 15: Loans to unsustainable companies are often considered riskier for two reasons. First, they can pose a risk to the reputation of the credit institution. Second, their default risk is often considered higher. Do you think that these two risks are more pronounced / less pronounced for loans to non-sustainable SMEs than for loans to non-sustainable large companies? – reputation risk**



**Figure 16: Default risk**



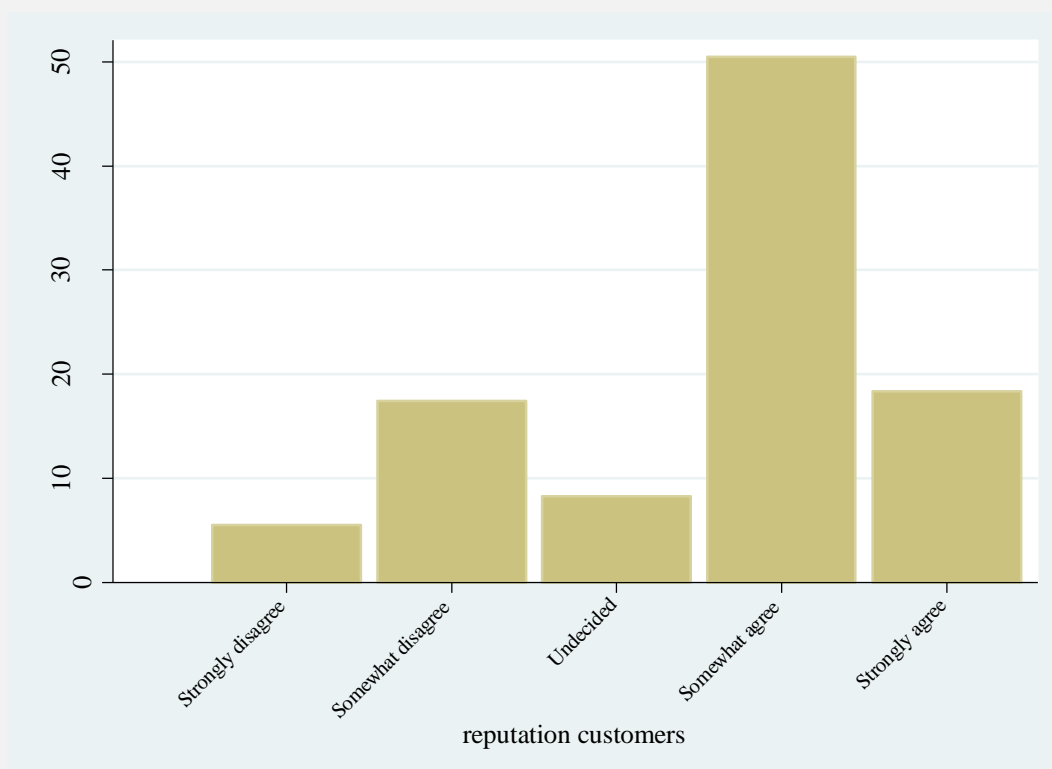
Finally, we wanted to take a closer look at these risks and asked the participants how strongly they agree with the statement that it is important for the economic success of their credit institution that environmental sustainability is taken into account in the lending process for a specific reason. Over 68% think it is important to prevent reputation from suffering with the lending institution's customers (see Figure 17). When it comes to reputation among employees, 54% still agree, while 30% also disagree (see Figure 18). Therefore, we can assume that reputation among customers seems to be more important to credit institutions than reputation among employees, at least when it comes to the topic of environmental sustainability. Fully 81% of the participants stated that considering environmental sustainability in the SME lending process is important in the future to prevent default risks due to new regulations (see Figure 19), 77% of the participants find it important to prevent company-specific default risks due to personal injury or environmental damage (see Figure 20) and about 68% see it as important to prevent global default risks due to climate change or other environmental damage (see Figure 21). Figure 22 shows that 75% consider it important

Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS

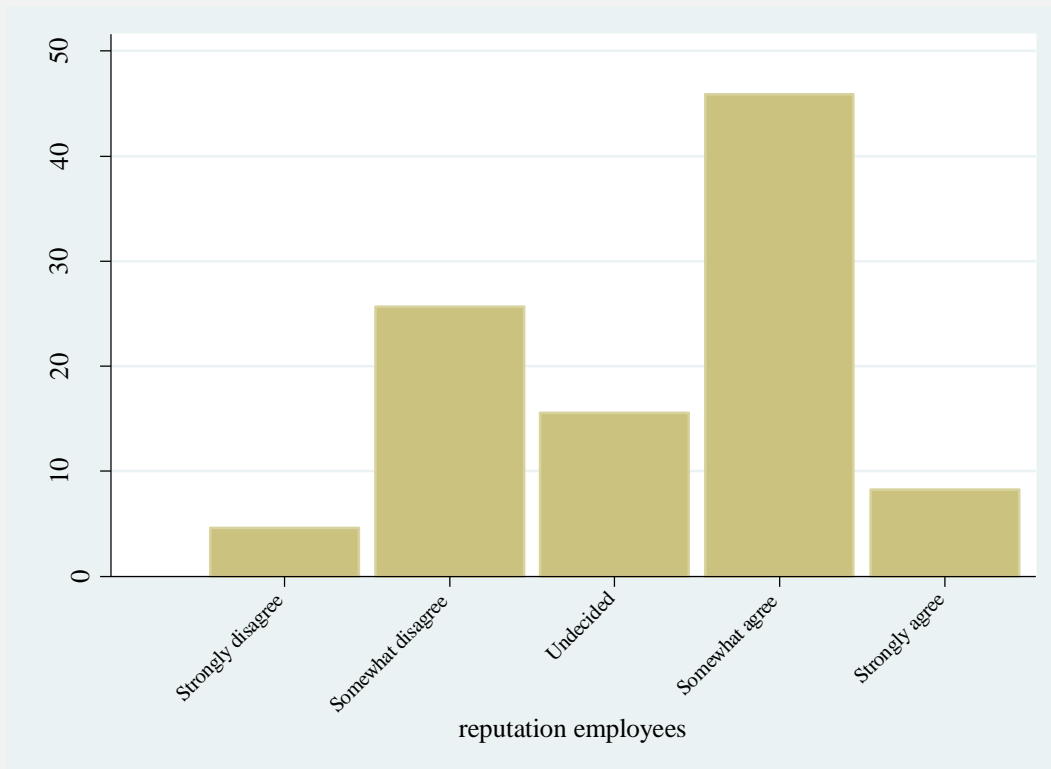
in order to prevent possible upcoming regulations for credit institutions. Overall, this shows that default risks in particular are an important reason why credit institutions will consider environmental sustainability in the lending process to SMEs in the future.

**Figure 17: Various reasons are given why it might be important for the economic success of a credit institution to take environmental sustainability into account when granting loans. Please tick to what extent you agree with the following statements:**

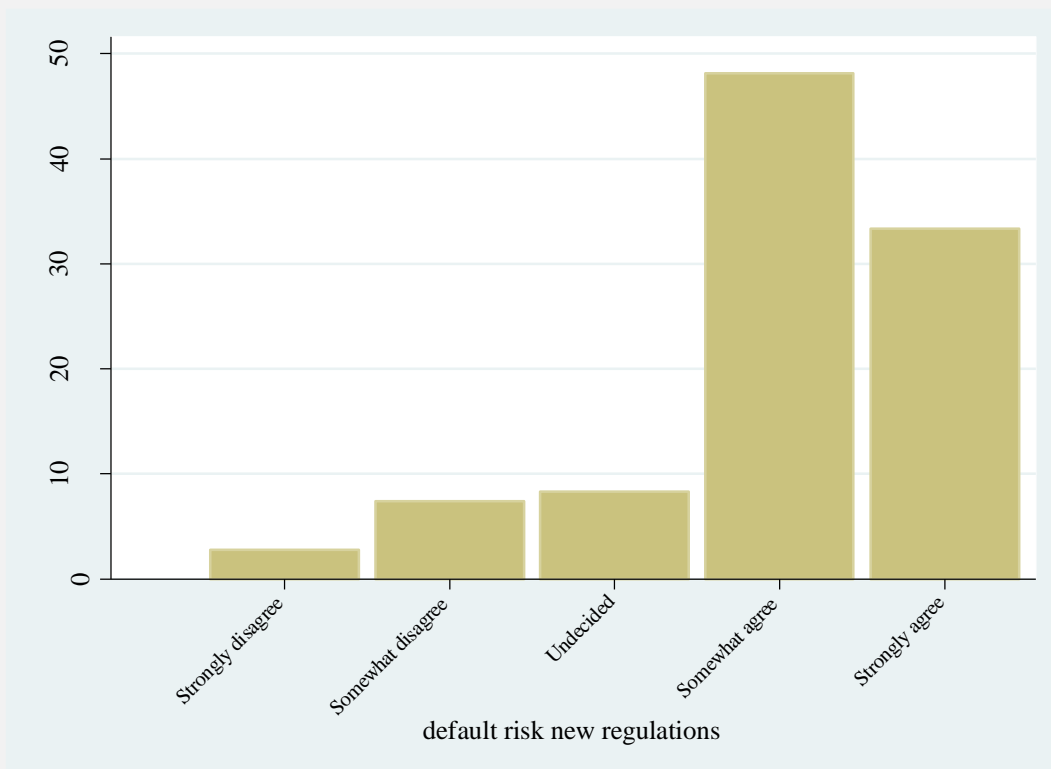
**"It is important for the economic success of our credit institution that we consider environmental sustainability when granting loans to SMEs in the future, ..." – reputation customers**



**Figure 18: Reputation employees**

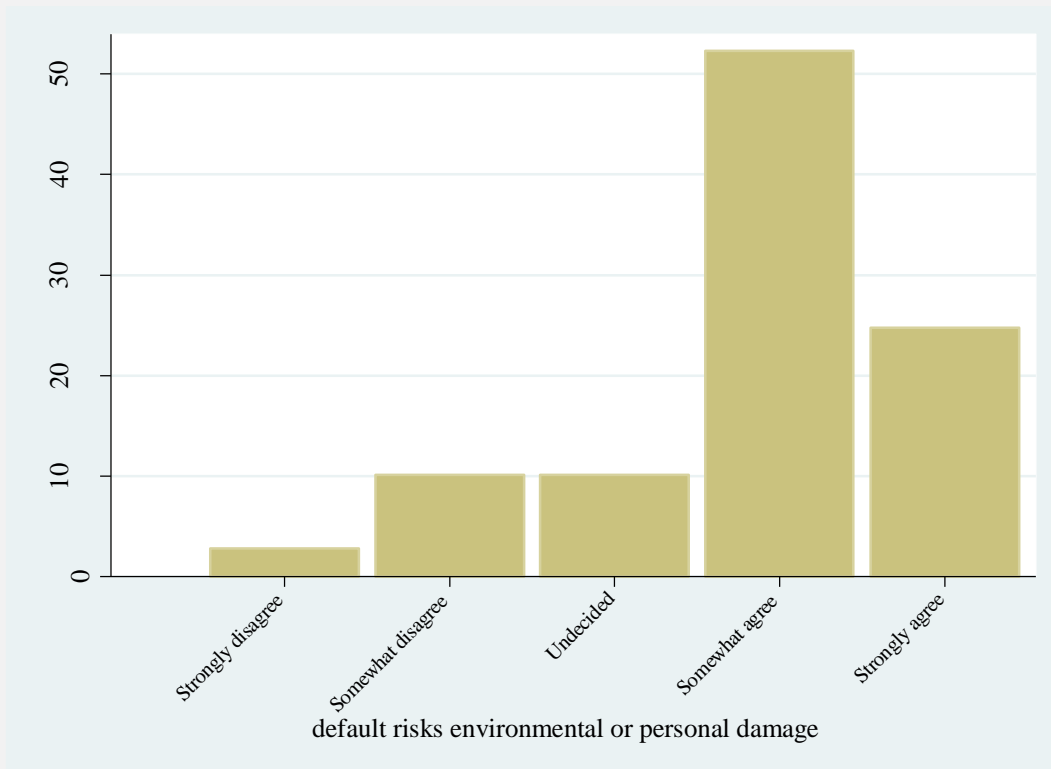


**Figure 19: Default risk new regulations**

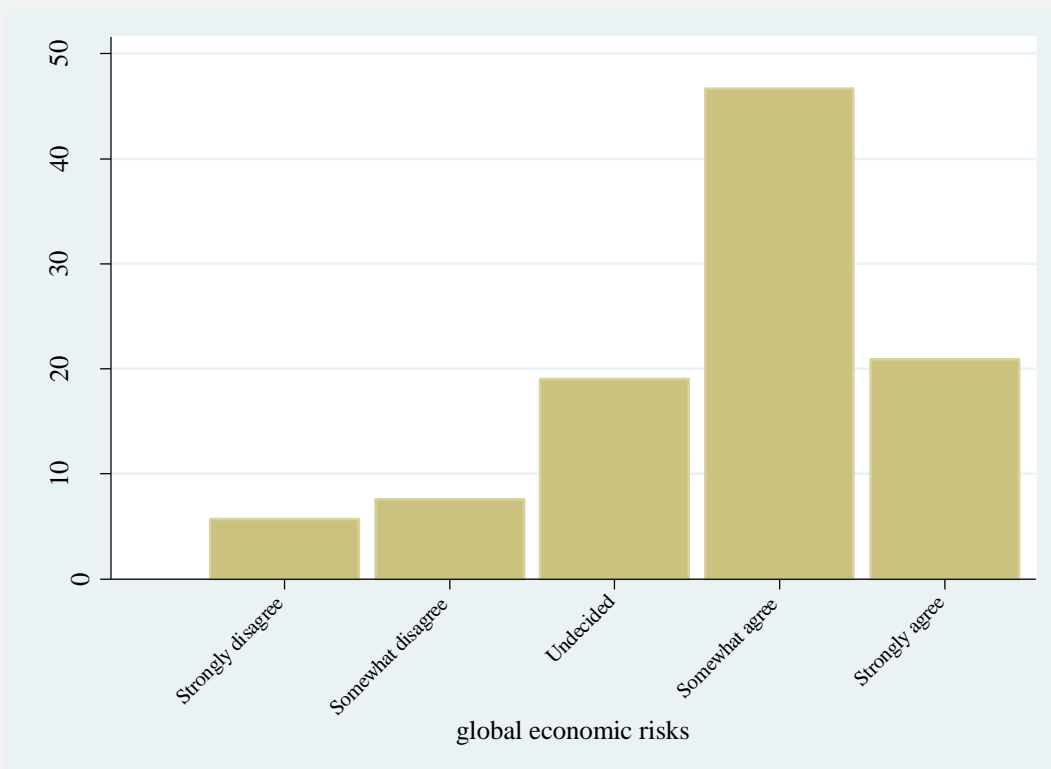


Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS

**Figure 20: Default risks environmental or personal damage**

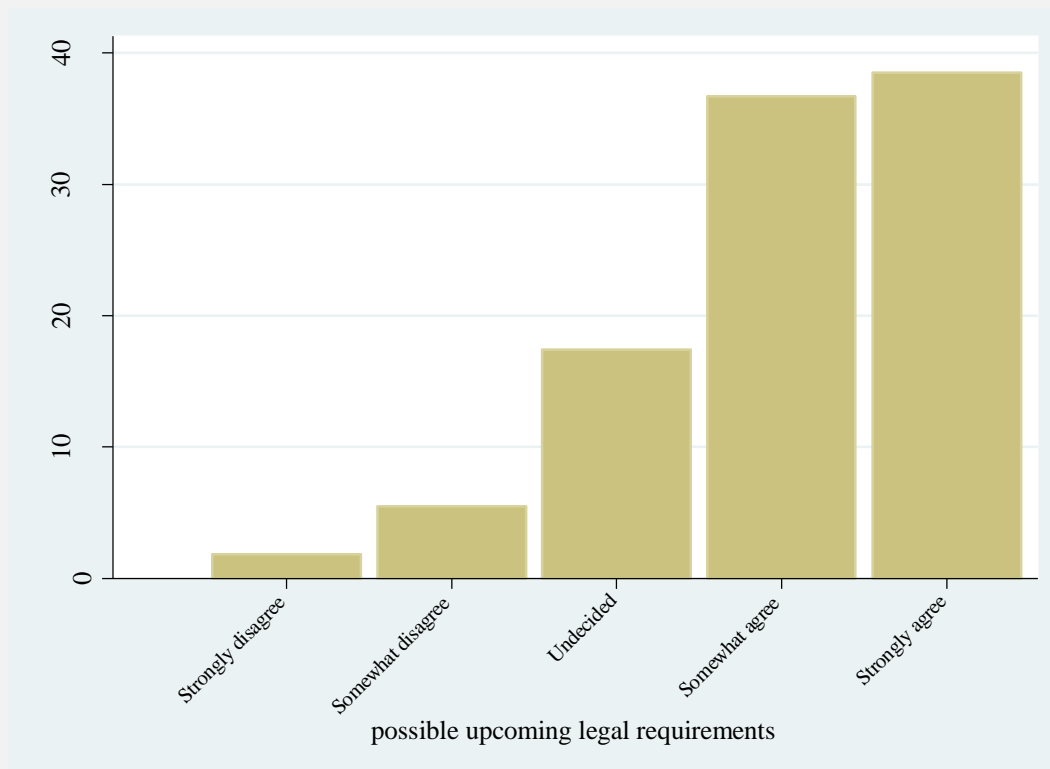


**Figure 21: Global economic risks**



Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS

**Figure 22: Possible upcoming legal requirements**



### Requirements for the certificate

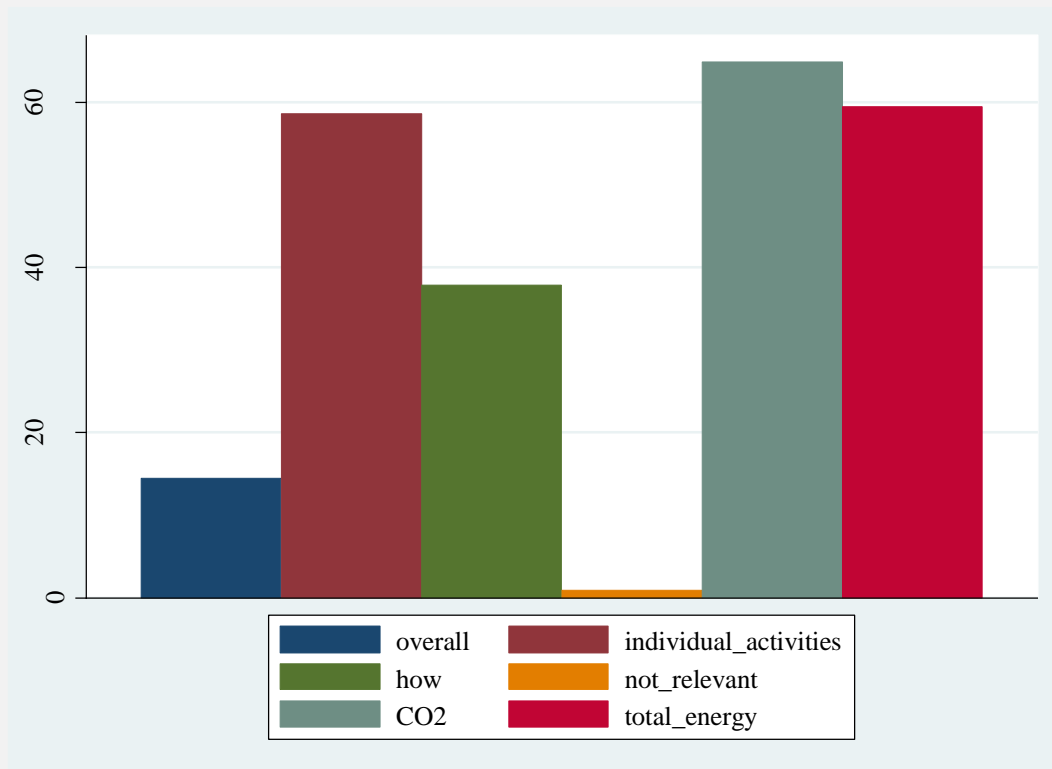
After asking for the status quo, we wanted to obtain information on how such a sustainability certificate should best be structured. Here, the question arose as to how detailed it should be. In the interviews conducted beforehand, the answers varied. Some respondents were of the opinion that a simple certificate would already be sufficient, while others wanted to know more details in order to be able to understand how the evaluation was arrived at. Figure 23 shows that only about 14% of the respondents consider a certificate that only shows the firm's overall evaluation to be sufficient. About 59% think the certificate should also show how a firm's individual activities have been rated, while about 38% would also like to know how the rating was arrived at. Further, we asked participants if they would want to receive information on specific metrics. About 65% would also like to see the CO2 emissions and round about 59% the total energy consumption of the firm displayed in such a certificate. The results show that only a few would be satisfied with a certificate that only makes a statement about whether a company is sustainable or not. Therefore, a sustainability certificate

[Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS](#)



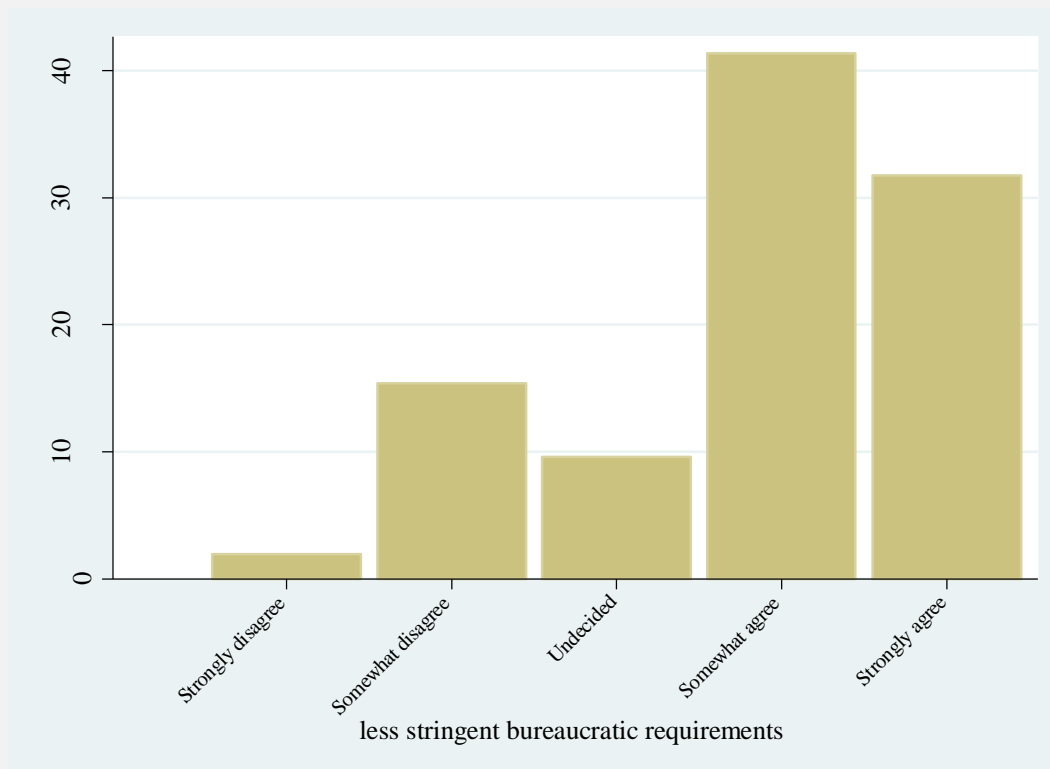
should at least offer the possibility to get more in-depth information as well. In addition, it is important to many participants to also receive information on certain key figures that are independent of individual activities. Therefore, a certificate should also display such key figures beyond the EU taxonomy.

**Figure 23: Which information such a certificate could provide would be interesting for the work in your credit institution?**



Furthermore, around 73% of respondents believe that SMEs should be subject to less stringent bureaucratic requirements, even if this could result in the sustainability certificate being less meaningful (see Figure 24). These responses show that lending institutions believe it is important to make things easier for SMEs. Therefore, we should treat SMEs less strictly in a sustainability certificate than we would with large firms.

**Figure 24: "In the case of sustainability certificates, SMEs should be subject to less stringent bureaucratic requirements than large companies, even if this may mean that the sustainability certificate is less meaningful for SMEs."**

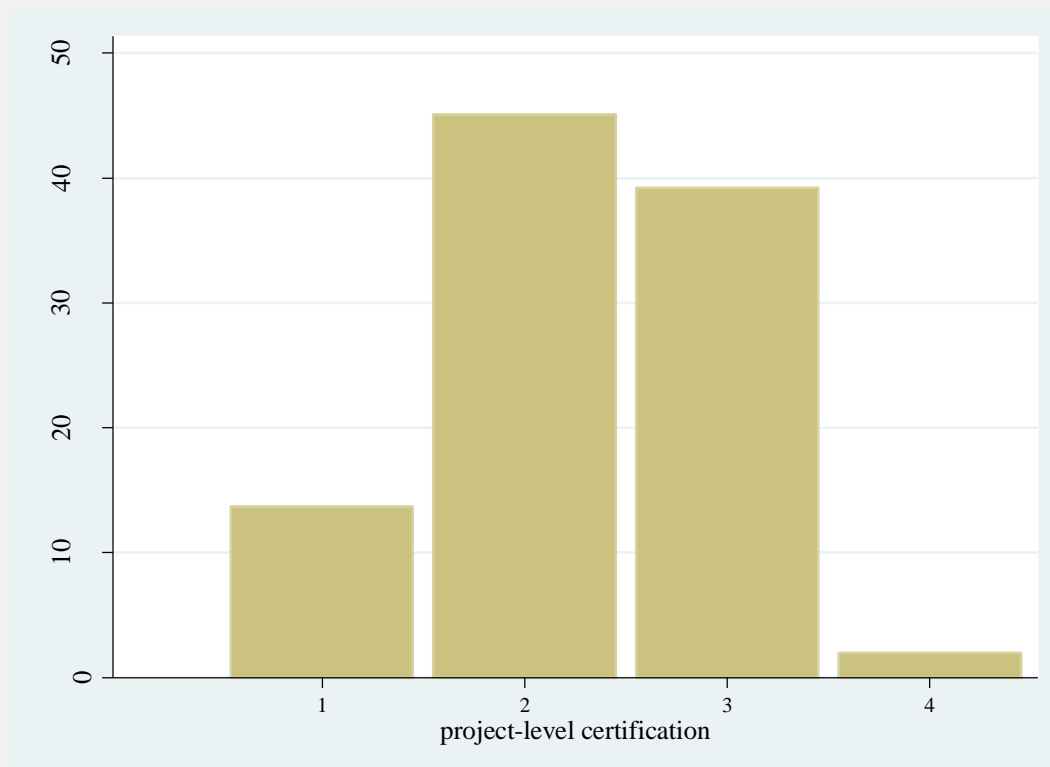


Since there are different types of loans, we have also thought about different forms of certificates. On the one hand, a credit can serve a general business financing, but it can also be granted for a specific project. Likewise, the certificate could certify the entire firm or just a specific project. Therefore, we asked participants which type of certification would be more important to them in a loan application for a specific project. The results can be seen in Figure 25. About 14% of participants also think that a company-based certificate would provide the more relevant information in the case of project financing, but about 45% think that the project-based certificate would be more relevant here. About 39% think that both certificates could provide relevant information. Only 2% think that neither would be relevant. The results show that project-related certification can also be important. Therefore, it would be advantageous to have both the entire firm and individual projects certified. Another

advantage would be that this approach would also give firms that want to change the opportunity to do so.

**Figure 25: This question is about project financing:**

**In case of such a loan application, do you think a company-related certification (sustainability of the entire company) or a project-related certification (sustainability of the project to be financed with the loan) would be more interesting for your credit institution?**



Furthermore, we wanted to know from the participants how likely they thought it was that the sustainability certificate would be used in the SME lending process. To this end, we presented the participants with different scenarios to determine under which circumstances the certificate would be used. In scenario A (Figure 26), there is no legal obligation regarding the certificate for either credit institutions or SMEs. In all other scenarios, SMEs are required to be certified. In scenario B (Figure 27), however, there is still no obligation for credit institutions to take the certificate into account in the lending process. In scenario C (Figure 28), there is a disclosure obligation for credit

institutions on the share of sustainable loans in their total business volume. Loans to certified SMEs can be included in the calculation of this share. In Scenario D (Figure 29), the same conditions apply as in Scenario C, but in addition, the share of sustainable loans must have a minimum value here. In Scenario E (Figure 30), on the other hand, credit institutions are allowed to back loans to sustainably certified firms with less equity. The results show that in scenario A, about 50% of the participants consider it unlikely that the certificate will be taken into account in the lending process, while only about 24% consider it likely. In scenario B, only 17% of the participants consider it unlikely that the certificate will be taken into account, while around 59% consider it likely. The number of those who consider it likely increases to about 89% in scenario C and even to 93% in scenario D and 94% in scenario E. The results show that the stricter the legal guidelines are, the more likely the sustainability certificate is considered in the SME lending process. We can therefore assume that as long as there are no legal regulations, it could be difficult for us to convince the credit institutions of our certificate. However, these results are also of interest to legislators. If a transformation is desired, then regulations should also be introduced. However, the results for scenario B also show that if we were able to convince many SMEs of our tool/certificate, acceptance by credit institutions would probably also increase.

Figure 26: We now present you with possible scenarios regarding certification. For each scenario, please estimate how likely it would be that your credit institution would consider the sustainability certificate in the SME lending process. – Scenario A

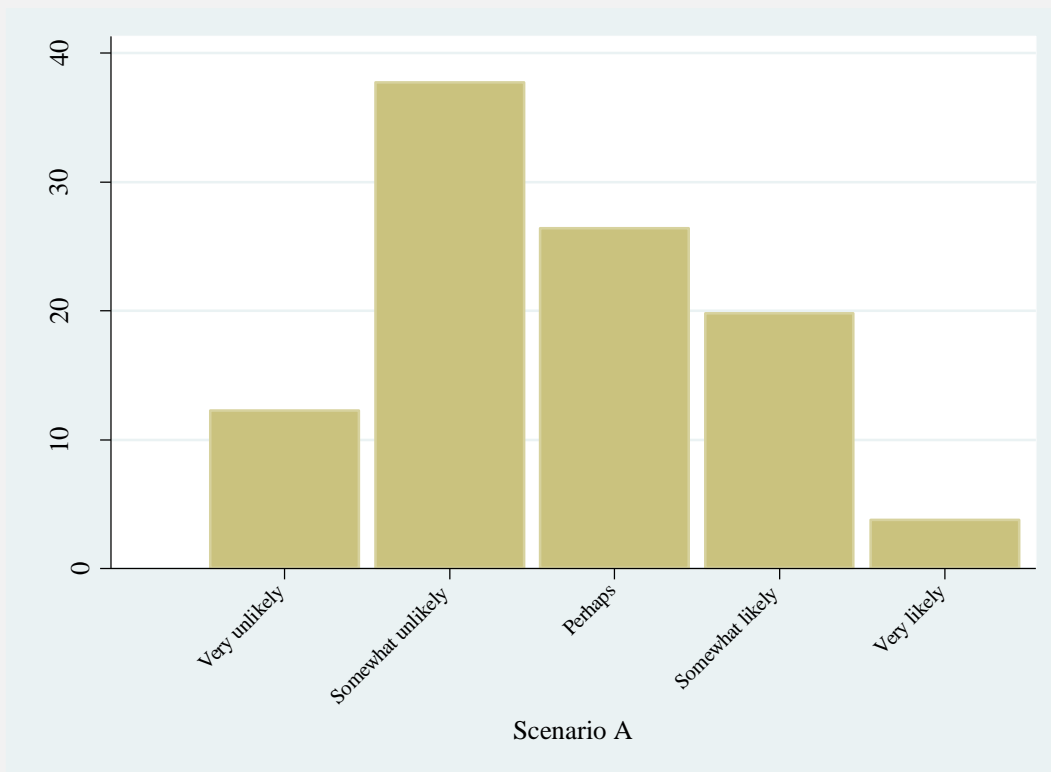
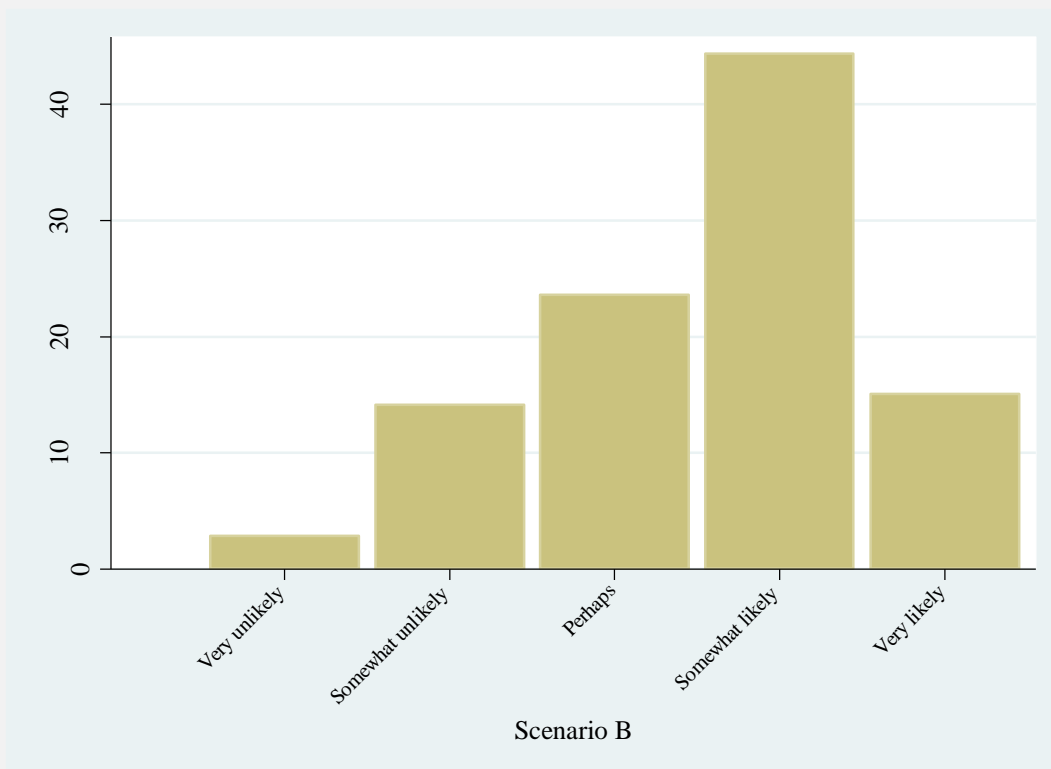
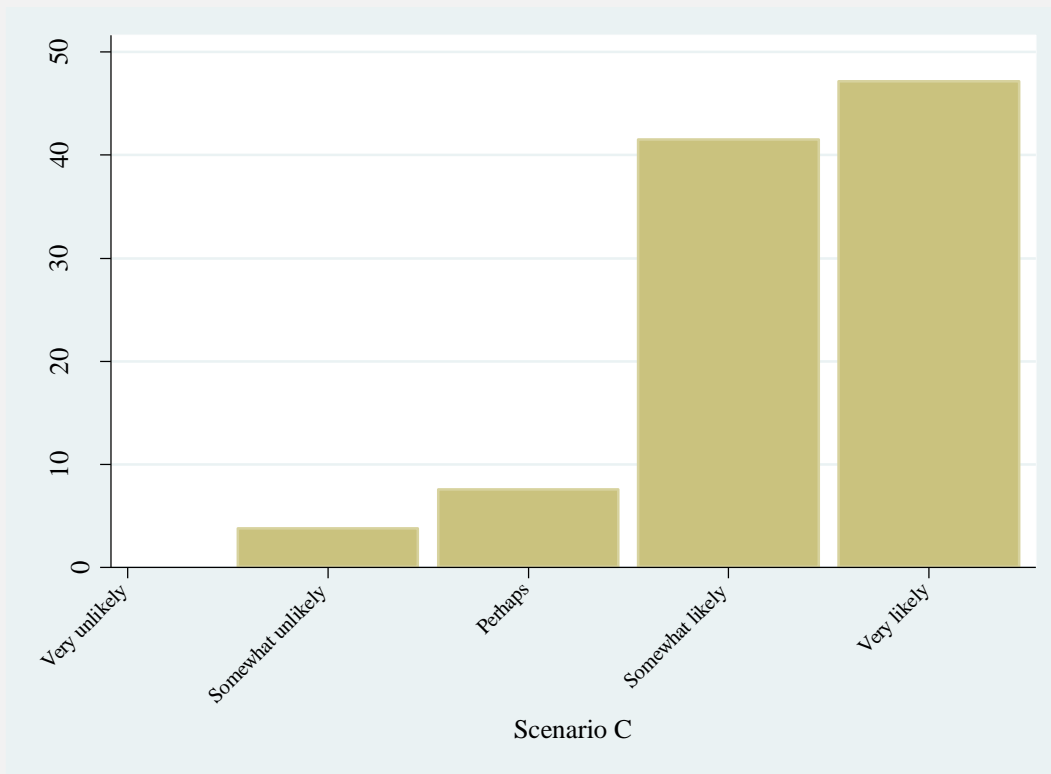


Figure 27: Scenario B

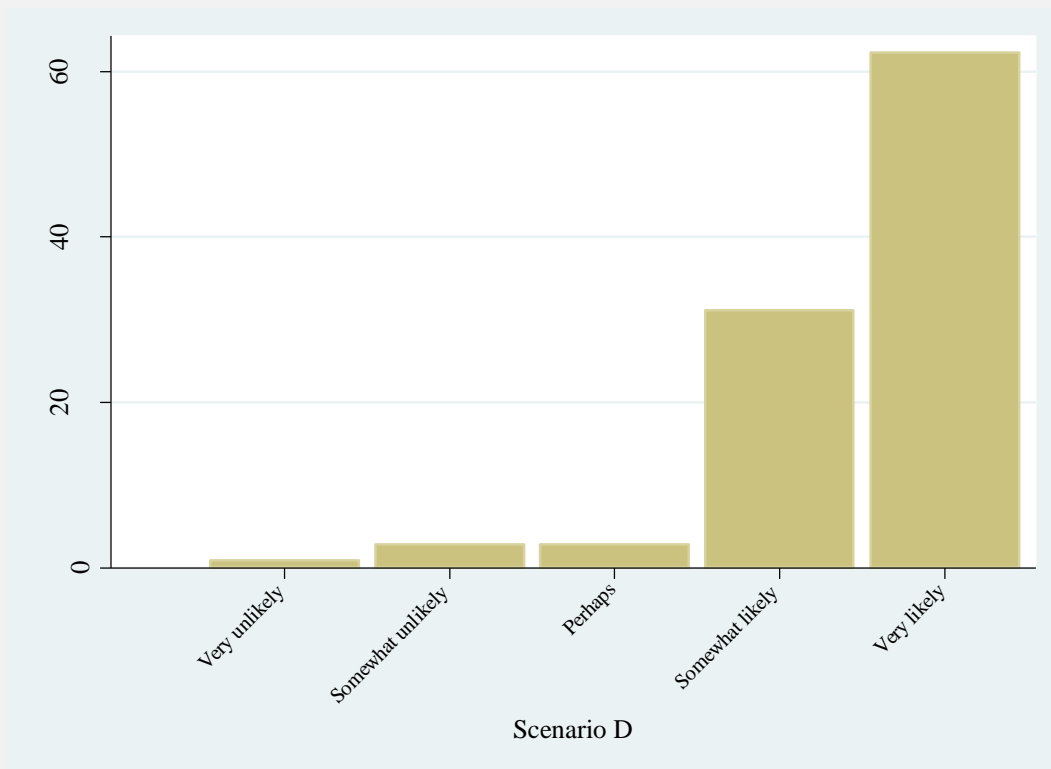


Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS

**Figure 28: Scenario C**

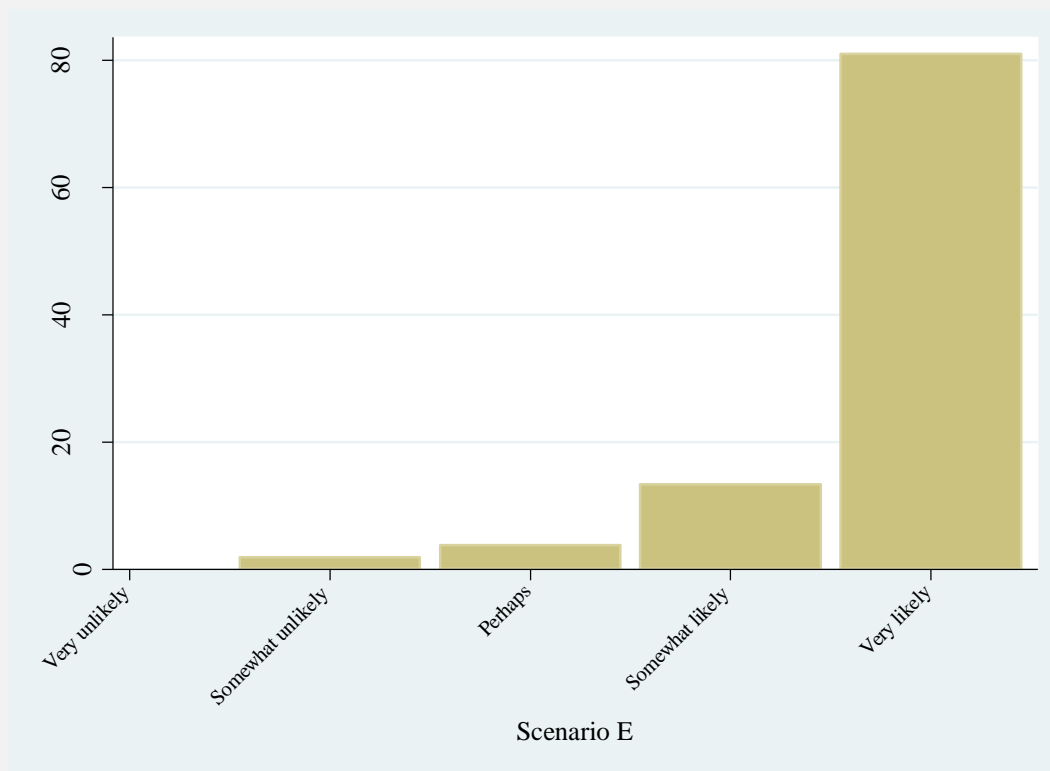


**Figure 29: Scenario D**



Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS

Figure 30: Scenario E



### Relationship Lending

From our interviews, we found that existing customers have a special role in the lending business. This phenomenon is generally known as relationship lending. The topic of relationship lending plays a major role, especially for SMEs. According to theory, smaller companies are often opaque to investors. There is therefore greater information asymmetry than with large and listed companies (Liberti and Petersen, 2019). Small companies find it difficult to obtain credit because the risk involved in lending to them is more difficult to assess. To overcome these difficulties and reduce information asymmetries, firms can establish a close relationship with their lenders (e.g. Berger and Udell, 1995; Harhoff and Körting, 1998; Petersen and Rajan, 1994). This could offer advantages to both the bank and the SME. On the one hand, the bank can determine from past transactions how reliable the SME is, and the SME could benefit

on the basis of better credit terms or better access to credit in general. However, building this relationship also comes at a cost, as lending institutions must allocate resources to establish the relationship in the first place, and there may also be disadvantages for borrowing SMEs, as the lending institution may develop a monopoly on information about that company over time, increasing the cost of credit (Sharpe, 1990).

There is already some empirical research in this area, so it is not surprising that there are already some literature reviews and meta-analyses (e.g. Bongini et al., 2015; Kysucky and Norden, 2015; Ongena and Smith, 1998). Bongini et al. (2015) elaborate that there are different elements of relationship lending. These include, for example, the length of the relationship, the intensity of the relationship, and physical proximity. The results of empirical studies often vary widely. Again, different scenarios (normal and bad times) and different countries are considered (Bongini et al., 2015). For us, the effects on lending are of particular interest, which is why we will focus on them here. For this purpose, we use the findings of the literature analyses and further literature research.

Some studies examined that a greater amount of available credit was found for firms with close relationships with banks. This is true for the U.S. (e.g. Petersen and Rajan, 1994; Bodenhorn, 2007) as well as for European countries (e.g. Angelini et al., 1998; de Bodt et al, 2005; Lehman and Neuberger, 2001; Bartoli et al., 2013).

When it comes to the use of guarantees, the empirics contradict each other, at least in part. For example, studies in the U.S. agree that banks charge less for guarantees when the relationship is closer (e.g. Berger and Udell (1995) and Chakraborty and Hu (2006)), but in European countries these results differ to some extent from those in the U.S. (e.g. Elsas and Kranen, 2000; Lehman and Neuberger, 2001). However, this is not true for all European studies (e.g. Peltonimie and Vieru, 2013.)

The results on borrowing costs, however, vary widely. For example, Bongini et al. (2015) find that it depends on the country considered. In Europe, the duration of the



relationship even had an increasing impact on the cost of credit (e.g. Angelini et al., 1998; Degryse and Van Cayseele, 2000; Cánovas and Martínez-Solano, 2008) with the exception of D'Auria et al., (1999). For the U.S., on the other hand, it can be assumed that a close tie makes the cost of credit decrease (e. g. Petersen and Rajan 1994; Berger and Udell, 1995).

The physical proximity between a firm and the lending institution has also been studied in some papers. The results suggest that while firms have easier access to credit when they are physically close, the costs are higher (e.g., Bonaccorsi di Patti and Gobbi, 2001; Degryse and Ongena, 2005; Agarwald and Hauswald, 2010).

A study by Hernández-Cánovas and Koëter-Kant (2008) examined the impact of relationship lending on loan maturity. They found that the impact of the relationship also depends on bank competition. Thus, when competition is high, they found that there is even a negative effect with only one lender-borrower relationship on maturity.

On the one hand, since credit institutions have costs to invest in building a relationship with their customers and have information on how well the firm has been able to repay loans so far, we assume that access to credit should be easier for SMEs with a longer relationship with the credit institution. These results are already evident in the literature as described earlier. Based on the results of previous empirical analyses, we hypothesize that borrowing costs might increase for customers with a long relationship with the bank, as the credit institution holds a monopoly on information about that firm.

In the context of sustainability, little research has been done on relationship lending. These studies have also tended to be limited to the relationship between a company's sustainability and the sustainability of the lending bank (Newton et al., 2022; Houston and Shan, 2022). In contrast, we wonder whether close relationships established between a firm and a bank affect how information on firms' sustainability is considered in the credit approval process. We argue that if a corporate relationship manager

[Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS](#)

already has a close relationship with an SME, he or she may also have already become blind to its poorer attributes. A study by Kautonen et al. (2010) found that small business owners are less likely to include recent performance in their e-assessment of their advisor's capabilities when a close relationship exists. In some circumstances, close personal relationships may make objective assessment more difficult. This could also be applicable to corporate advisors of credit institutions.

To our knowledge, we are the first to study this phenomenon in relation to sustainability using a questionnaire. To shed more light on this phenomenon in the context of a sustainability certificate, we presented our participants with two different scenarios in which they were asked to indicate how much they agreed with a particular statement.

In both scenarios, all SMEs are required to be certified. When they apply for a loan, they must submit standardized documentation about their certification. Thus, credit institutions can obtain information from all SMEs about their sustainability with the help of the certificate. In scenario 1, however, there is no legal obligation for the credit institution to include this certificate in the decision-making process. In scenario 2, on the other hand, credit institutions must grant a predefined share of their credit volume to sustainably certified companies. In order to fulfill this requirement, the credit institution must limit its lending to non-sustainably classified firms in the future. In their answers, participants were then asked to distinguish between existing and new customers. The only difference between these two types of customers should be the long-standing relationship already established.

We then asked participants to indicate how much they agreed with the statement "Loan applications from SMEs that have been classified as unsustainable are more likely to be rejected." They were asked to distinguish between existing and new customers.

The results show that around 73% reject this statement in scenario 1 for existing customers (see Figure 31). For new customers, this statement is only rejected by around

27% (see Figure 32). In scenario 2, this result changes. Here, about 36% of the participants reject this statement when it comes to existing customers (see Figure 33), while it is about 13% for new customers (see Figure 34). The results show that although there is a difference in the treatment of existing and new customers in both scenarios, this difference becomes smaller with stronger regulation of the credit institutions.

**Figure 31: Loan applications from SMEs certified as unsustainable are... - rejected S1 existing customer**

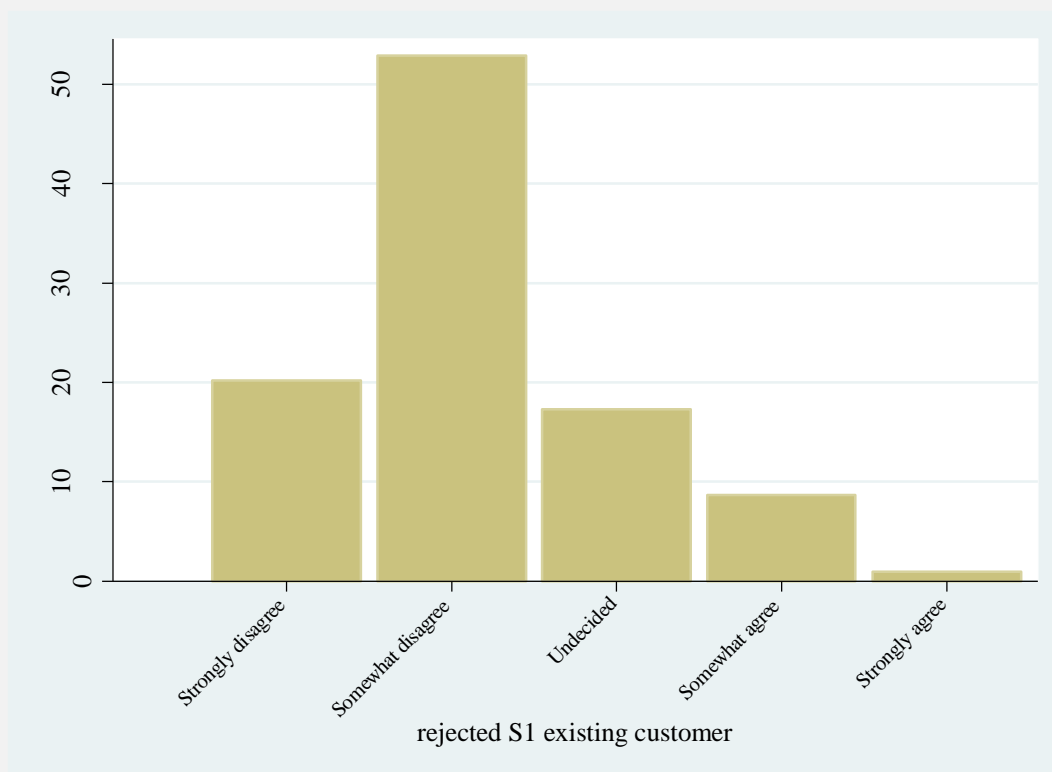


Figure 32: rejected S1 new customer

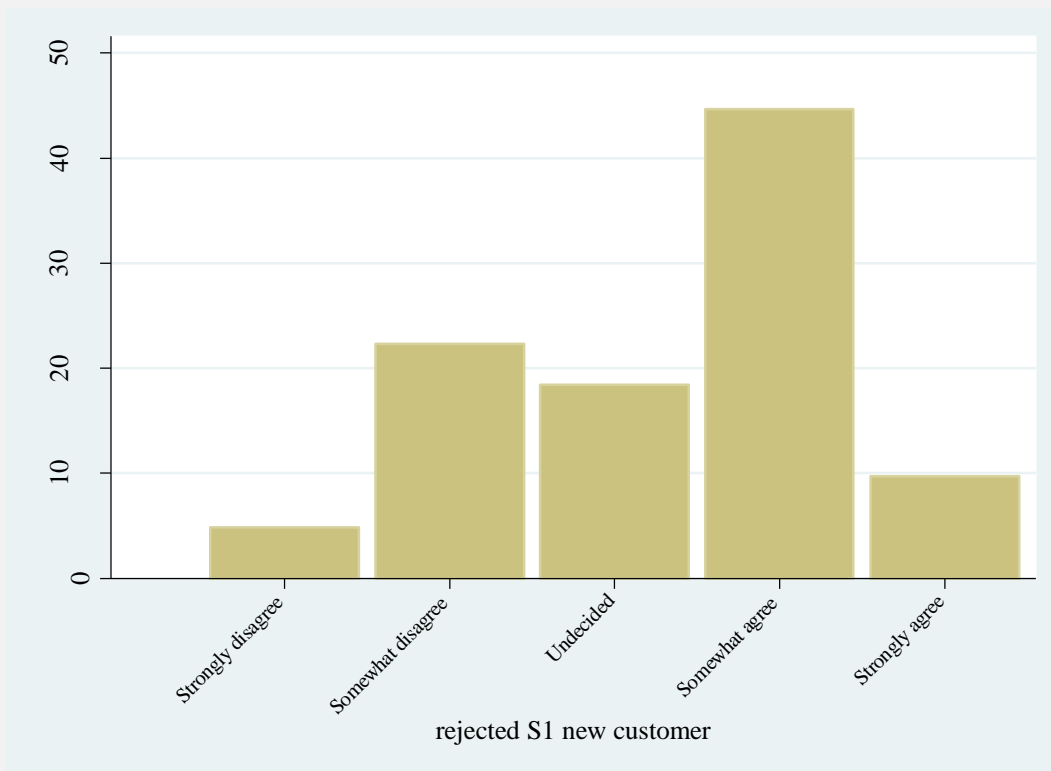
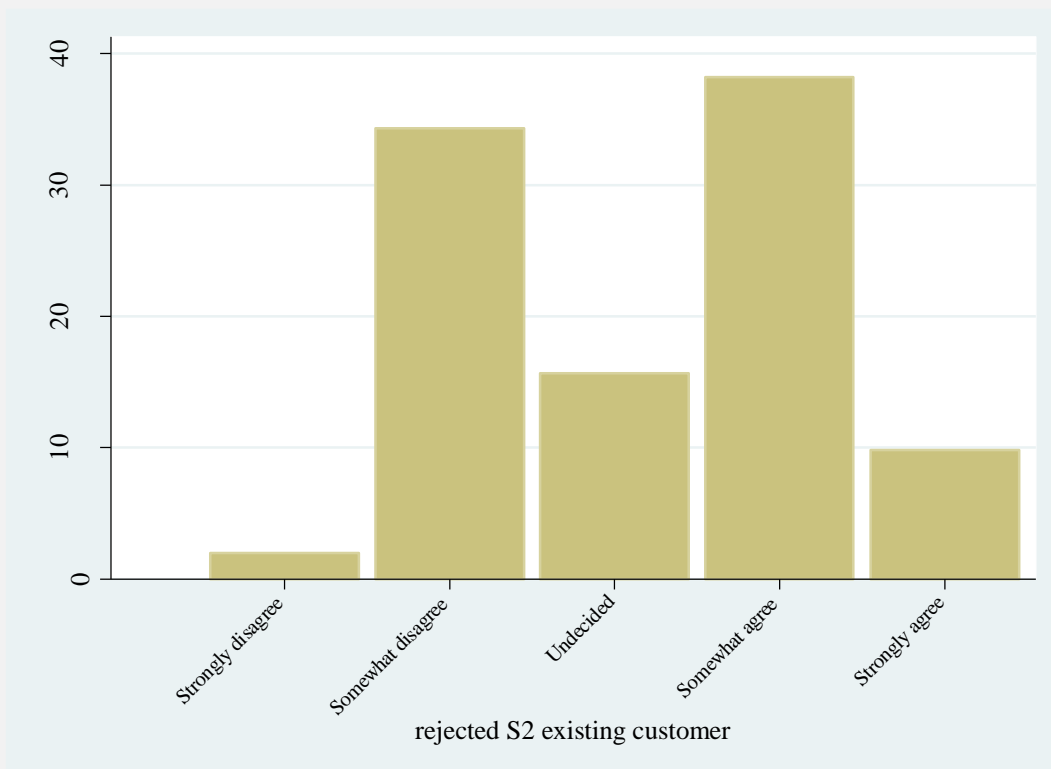
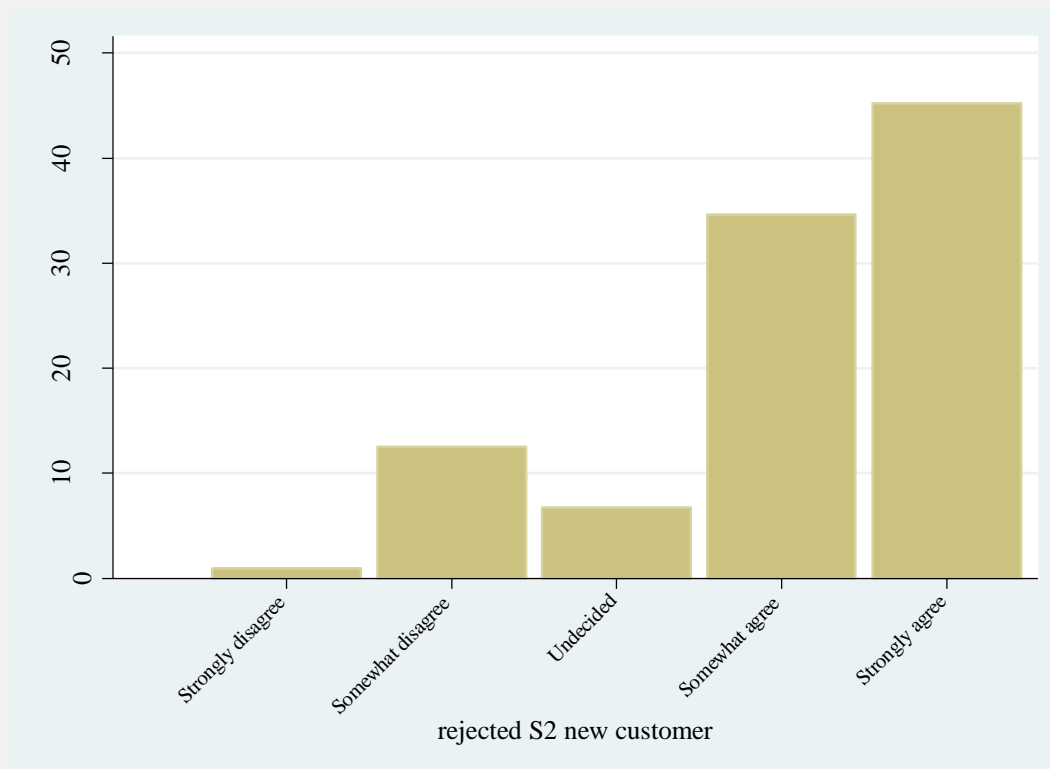


Figure 33: rejected S2 existing customer



Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS

Figure 34: rejected S2 new customer



Participants were further asked to what extent they agreed with the statement, "Loan applications from SMEs that have been classified as unsustainable are likely to receive less favorable loan terms." In scenario 1, this statement is disagreed with by approximately 29% of participants for existing customers (see Figure 35), while it is disagreed with by approximately 14% for new customers (see Figure 36). The difference is thus smaller than for the question of whether credit applications are rejected. In scenario 2, this statement is rejected by about 16% of participants for existing customers (see Figure 37), while it is rejected by about 9% for new customers (see Figure 38).

Figure 35: credit terms S1 existing customer

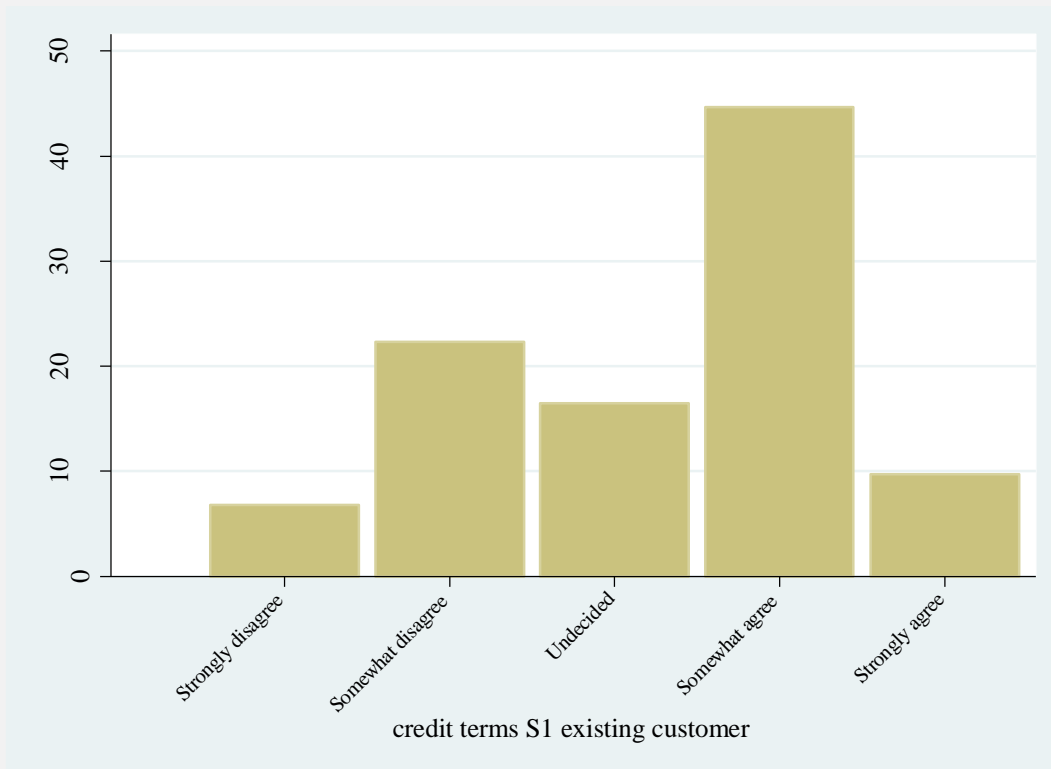
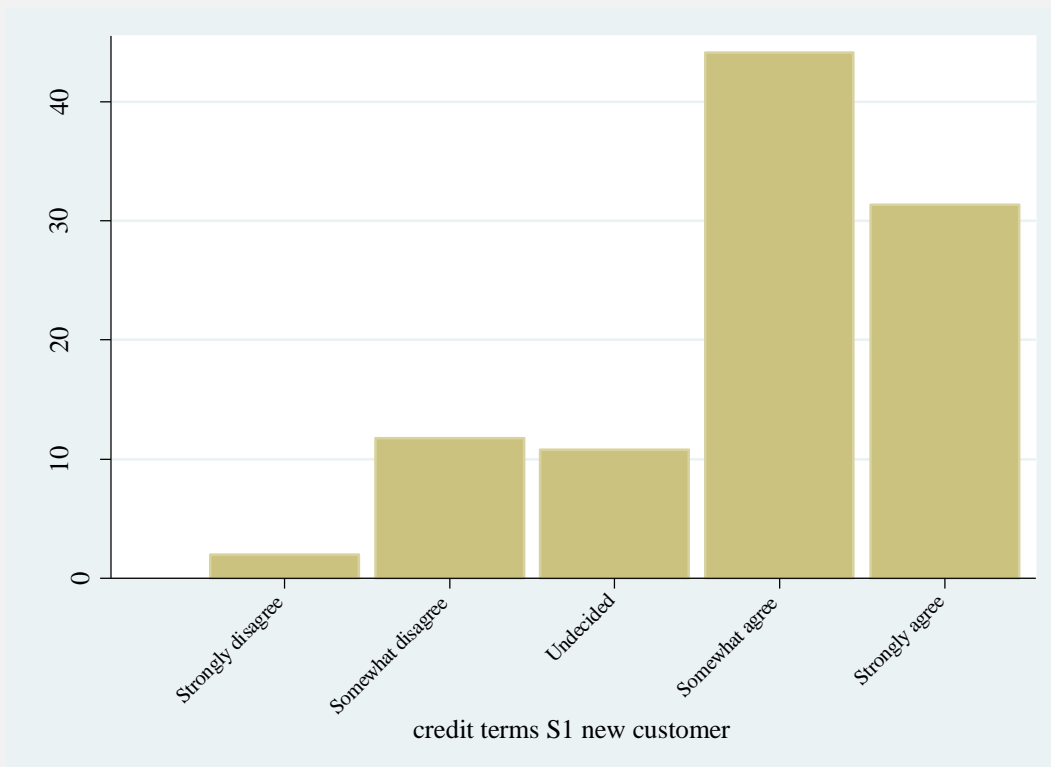
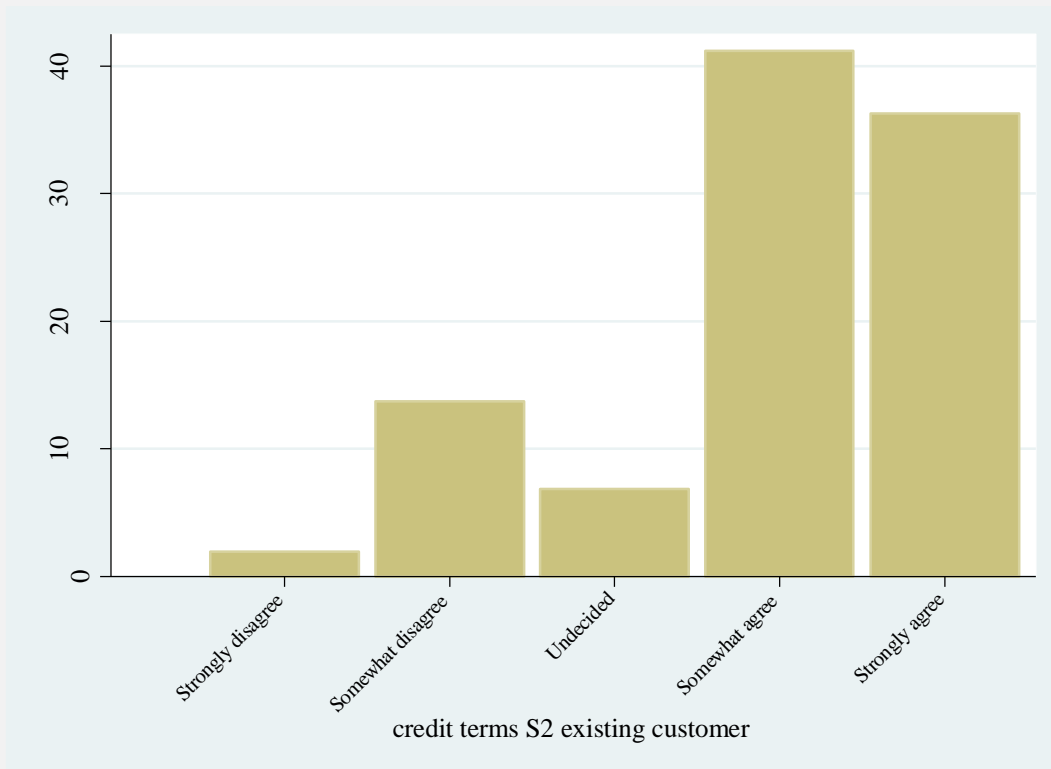


Figure 36: credit terms S1 new customer

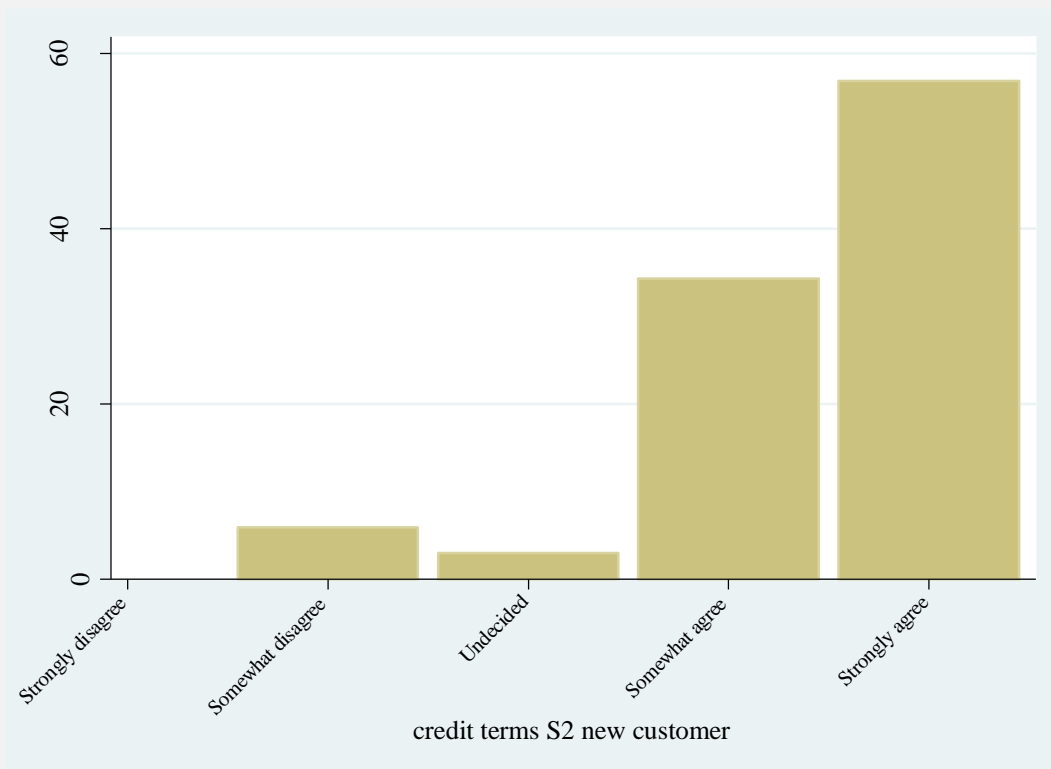


Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS

**Figure 37: credit terms S2 existing customer**



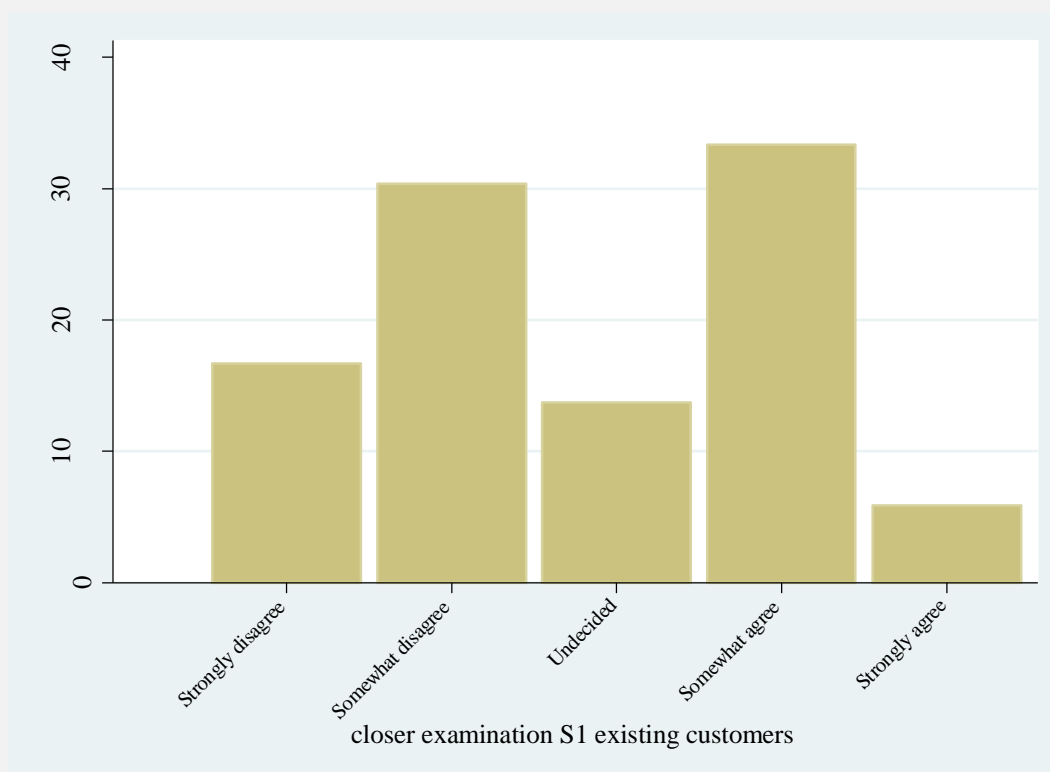
**Figure 38: credit terms S2 new customer**



Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS

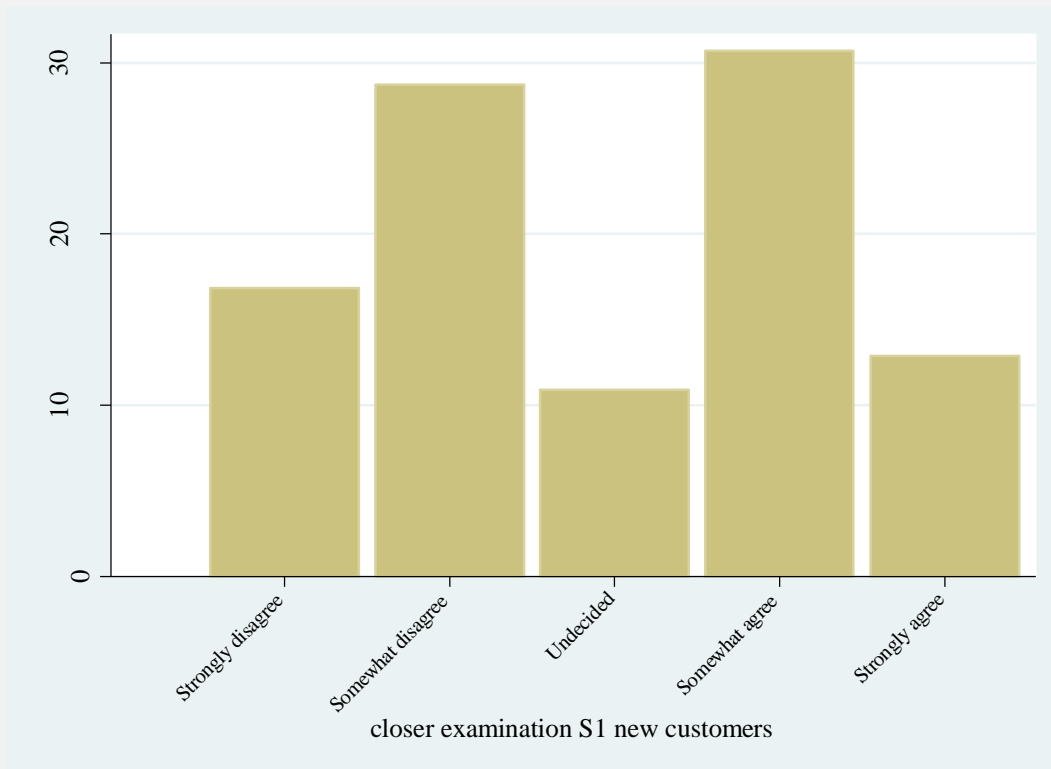
Finally, participants were asked to what extent they agree with the statement "Loan applications from SMEs that have been classified as unsustainable are more likely to trigger a more detailed investigation of the company's environmental sustainability by the credit institution itself". This statement is disagreed with by approximately 47% of participants for existing customers in Scenario1 (see Figure 39), while it is disagreed with by approximately 46% for new customers (see Figure 40). In scenario 2, this statement is rejected by around 26% of participants for existing customers (see Figure 41), while it is rejected by around 30% for new customers (see Figure 42).

**Figure 39: closer examination S1 existing customer**

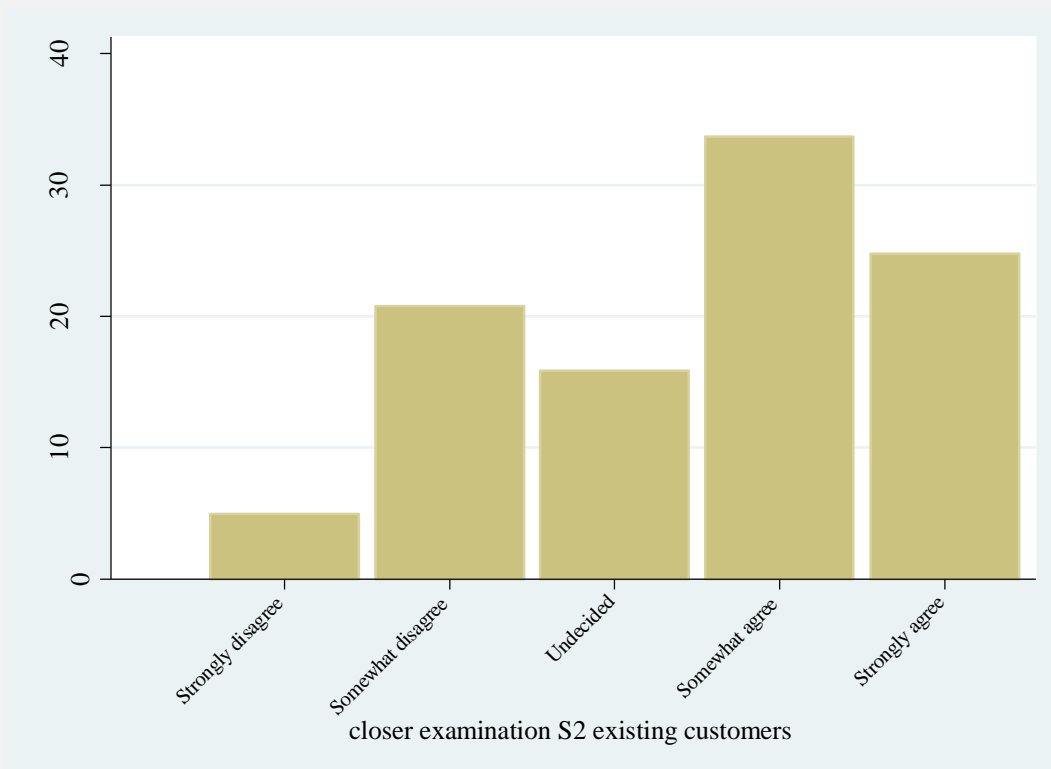




**Figure 40: closer examination S1 new customer**

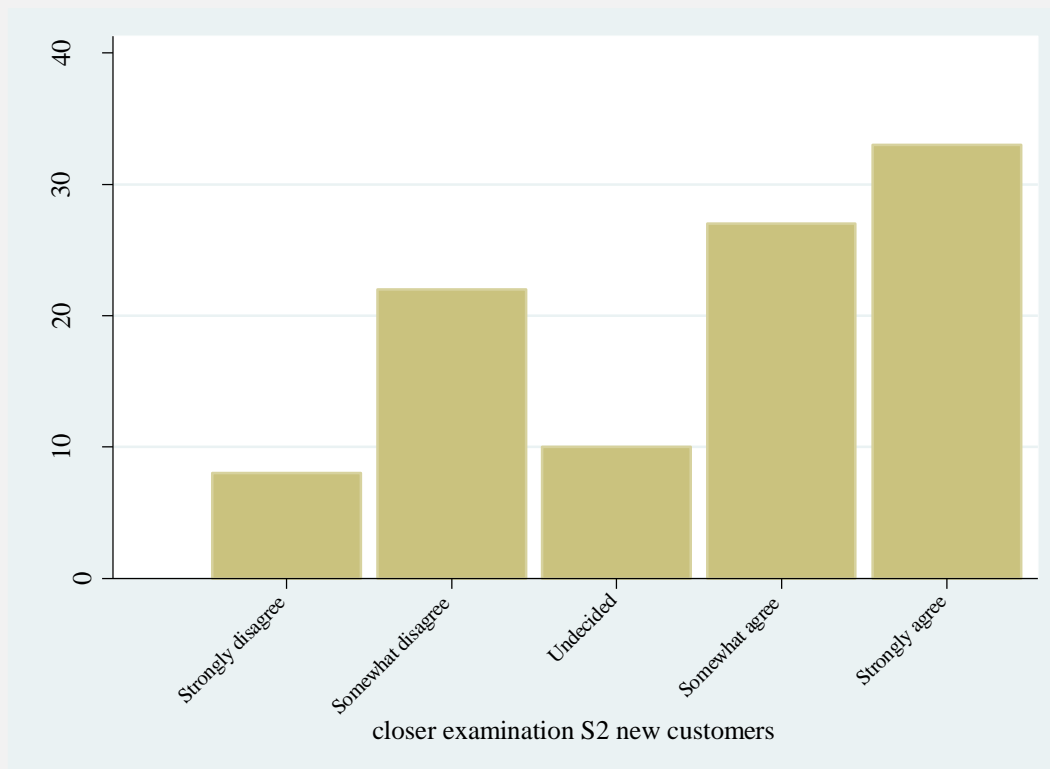


**Figure 41: : closer examination S2 existing customer**



Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS

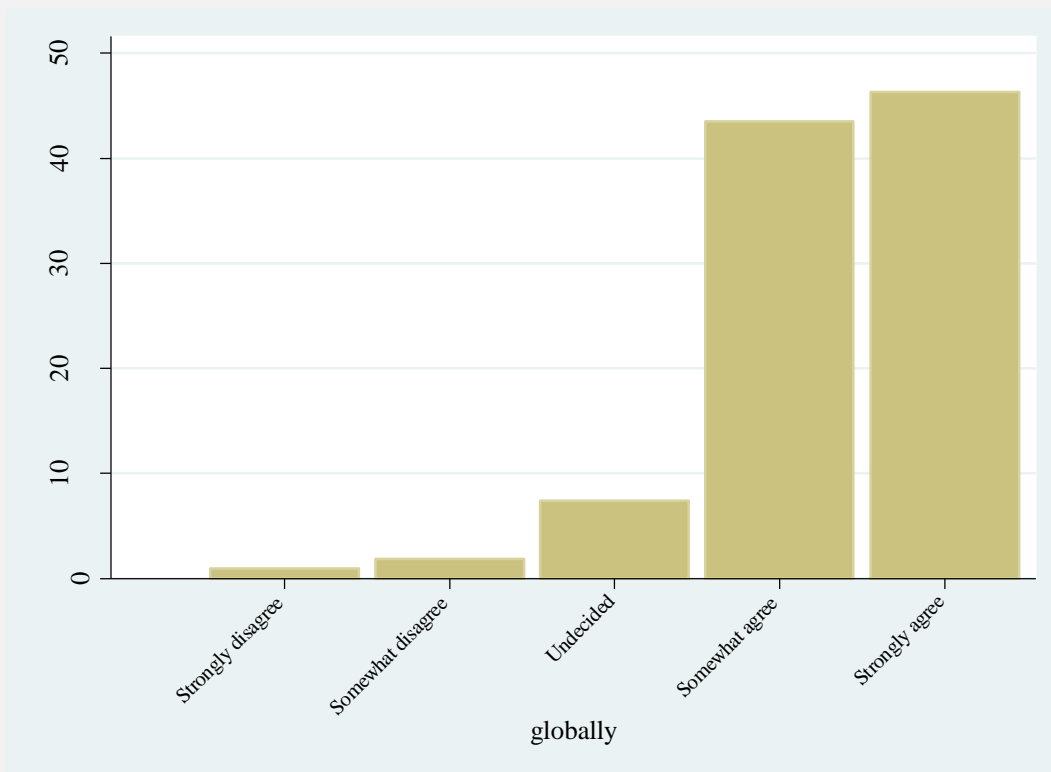
Figure 42: closer examination S2 new customer



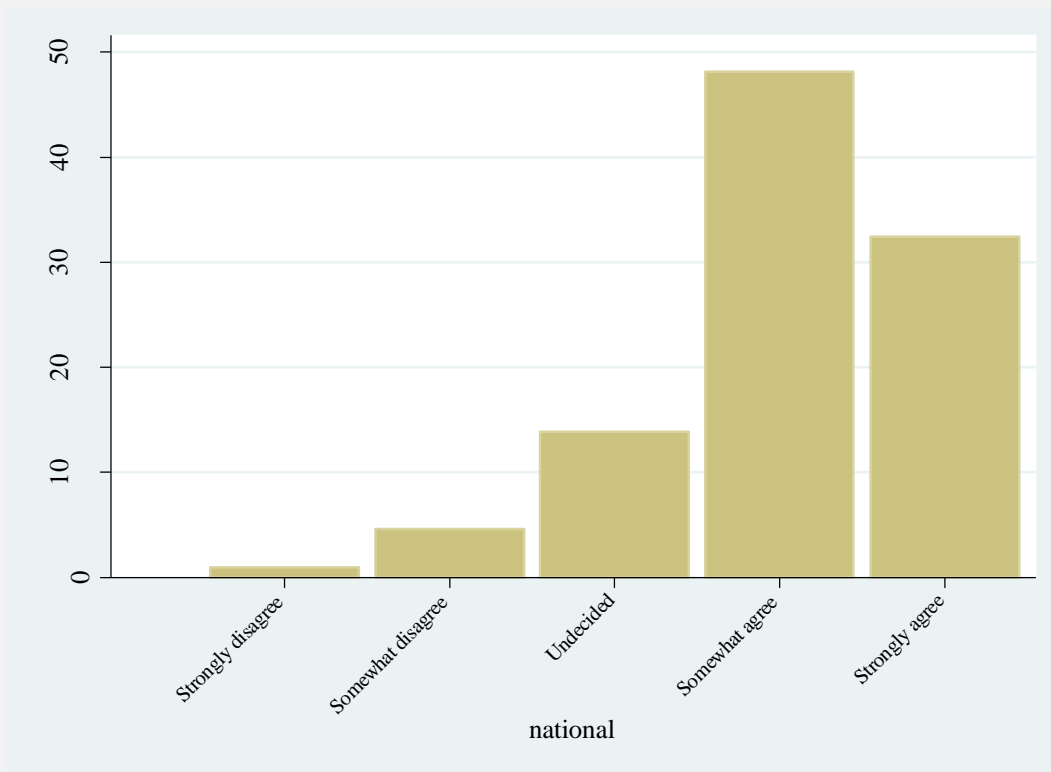
### Opinion on climate change

In order to be able to conduct analyses later on, in which we can analyze the influence of the participants' view on climate change and sustainability certificates on their answers, we also asked the participants questions on these topics. It turns out that the majority of participants think that climate change will have severe economic consequences globally (see Figure 43). Similarly, the majority of participants think that climate change will have serious economic consequences for their home country (see Figure 44). However, the number is smaller. We also asked participants whether they agreed with the statement "It will be a long time before the economic consequences of climate change are felt." Approximately 69% of participants disagree with this statement. However, 11% agree (see Figure 45). These results show that while the majority of participants think that climate change will result in serious economic consequences, a portion of these think it will take a long time to get there.

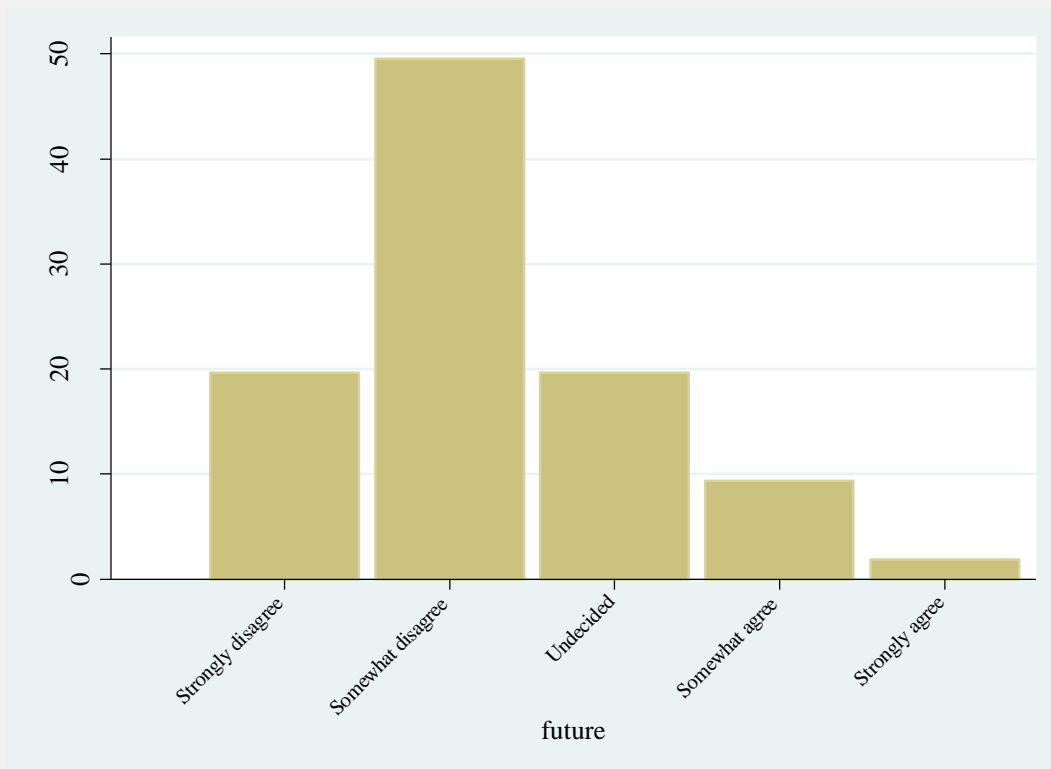
Figure 43. The following is about climate change. Please indicate the extent to which you agree with each of the following statements: - Climate change will have serious negative economic consequences globally.



**Figure 44: Climate change will have serious negative economic consequences for Germany/ Italy/ Czech Republic.**

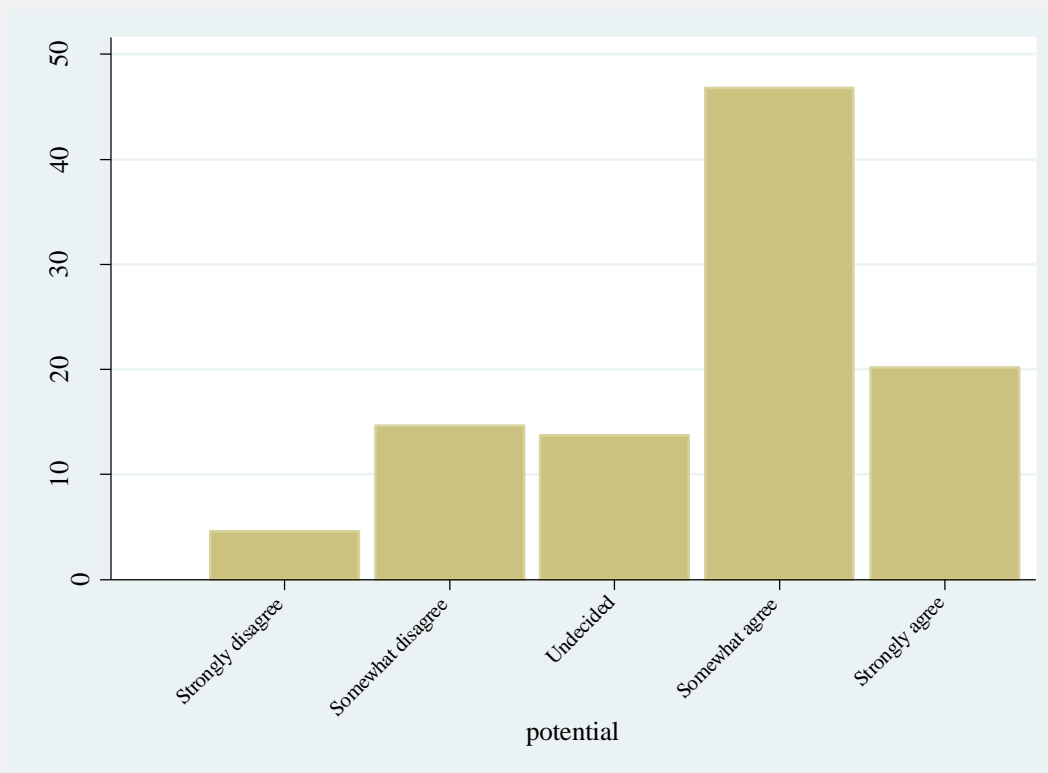


**Figure 45: It will be a long time before the economic consequences of climate change are felt.**

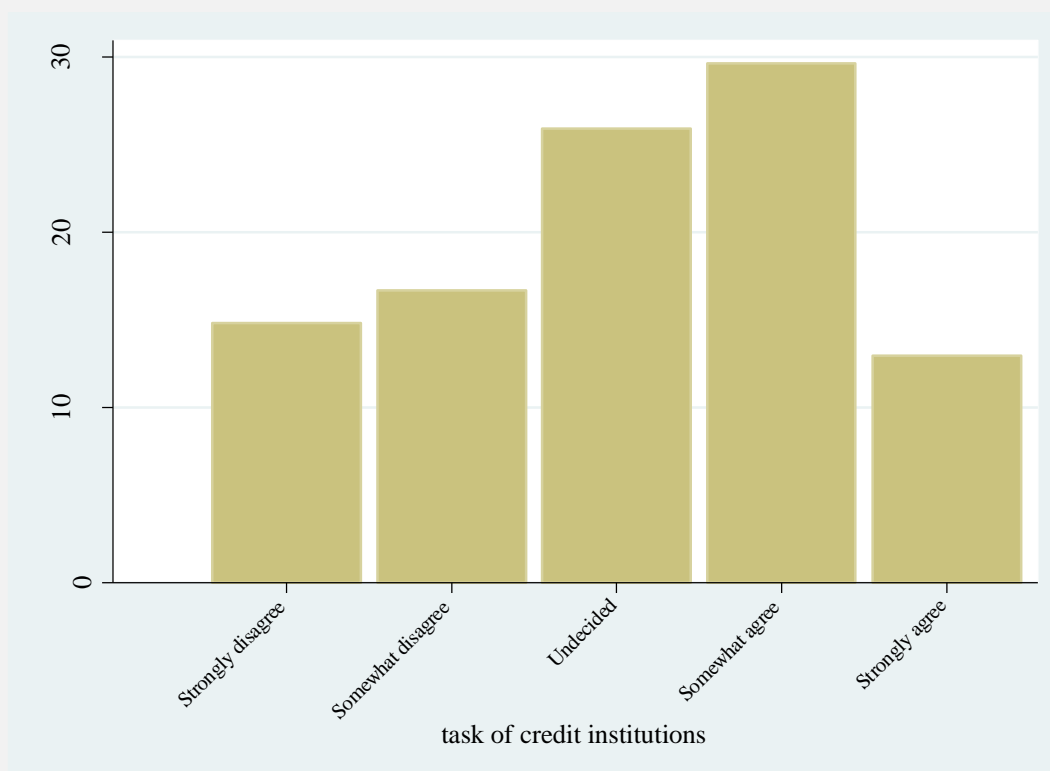


We also wanted to know from the participants how they see the role of credit institutions in the topic of sustainability. To this end, we asked them whether they agreed with the following statement: "The business practice of credit institutions has the potential to make a significant contribution to climate and environmental protection by taking the topic of "sustainability" into account in the lending process." Approximately 67% of the participants agree with this statement. However, 19% also disagree with this statement (see Figure 46). In turn, about 42% of the participants agree with the statement "I see it as a task of credit institutions to make a significant contribution to climate and environmental protection by taking appropriate account of the issue of "sustainability" in the lending process.", while it is rejected by about 31% (see Figure 47). These results show that the participants are relatively divided about whether the consideration of sustainability issues is a task of credit institutions.

Figure 46: Please indicate the extent to which you agree with each of the following statements. - The business practice of credit institutions has the potential to make a significant contribution to climate and environmental protection by taking the topic of "sustainability" into account in the lending process.



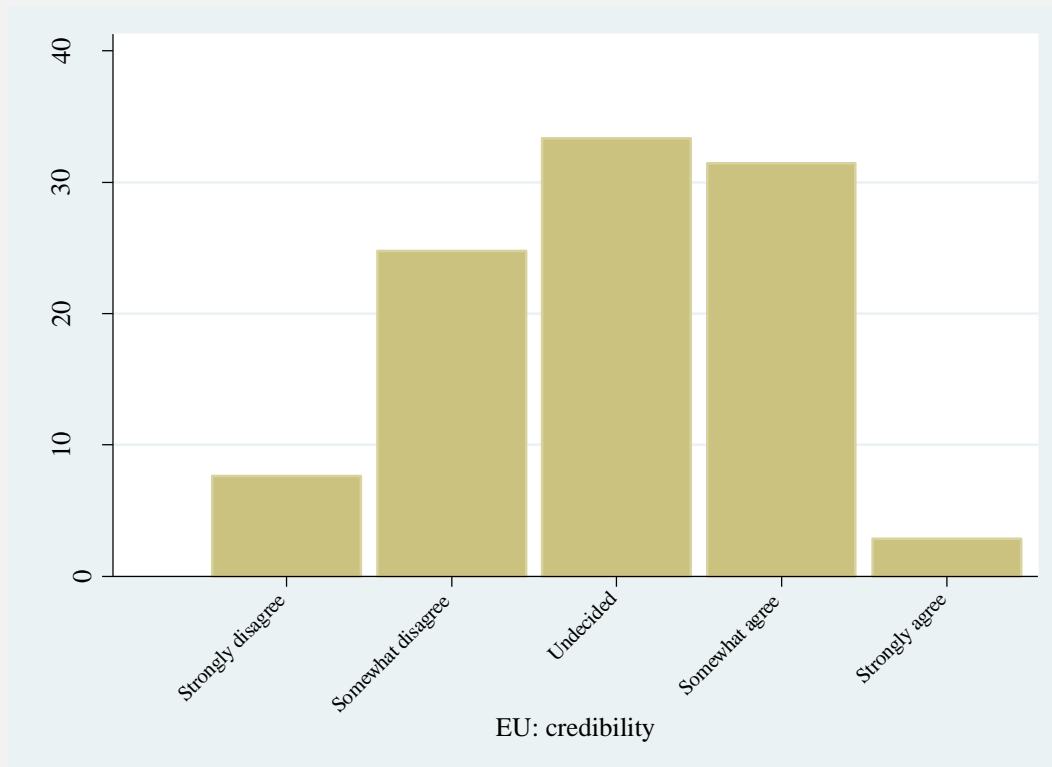
**Figure 47: I see it as a task of credit institutions to make a significant contribution to climate and environmental protection by taking appropriate account of the issue of "sustainability" in the lending process.**



Finally, we asked the participants what their attitude would be towards an EU sustainability certificate, given that the planned sustainability certificate is to be based on the EU taxonomy. About 34% agree with the statement "I am confident that a sustainability certificate issued by the EU Commission would actually adequately assess the sustainability of firms.", while it is, however, also rejected by about 32% (see Figure 48). Approximately 45% agree with the statement "I am confident that a sustainability certificate issued by the EU Commission would actually make a significant contribution to climate and environmental protection if it were taken into account in the lending process.", while it is rejected by approximately 22% (see Figure 49). These results show that the participants have different opinions regarding a certificate issued by the EU. It is therefore questionable whether a certificate based on the EU taxonomy would be accepted by all credit institutions.

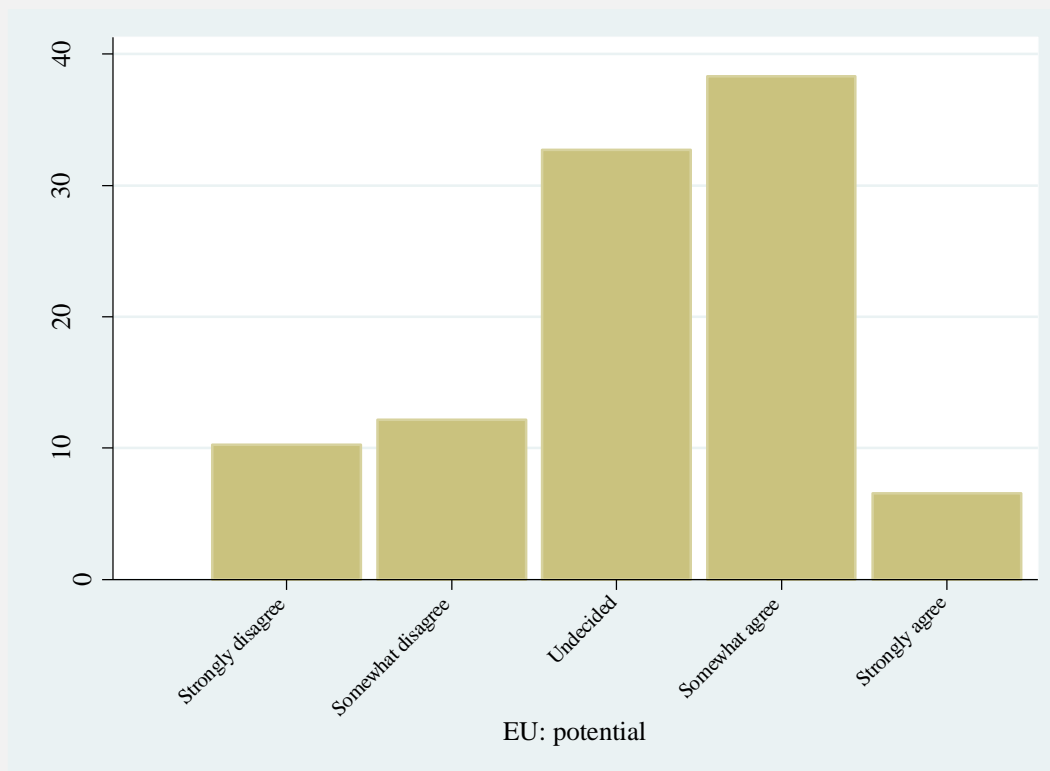
Figure 48: Please indicate the extent to which you agree with each of the following statements: - " I am confident that a sustainability certificate issued by the EU Commission would actually...

... adequately assess the sustainability of companies."





**Figure 49: ... make a significant contribution to climate and environmental protection if it were taken into account in the lending process."**



### Additional energy specific questions

As mentioned above, we finally gave the participants the opportunity to answer a part of the questions again with regard to a clean energy certificate instead of a general environmental sustainability certificate. In doing so, 51 participants indicated that they would have given the same answers as before and 19 participants were willing to answer the questions again. It is therefore hardly surprising that many answers were similar to those described earlier. Figure 50 shows the level of detail in which the participants would like to see a Clean Energy certificate.

**Figure 50: Which information such a certificate could provide would be interesting for the work in your credit institution?**

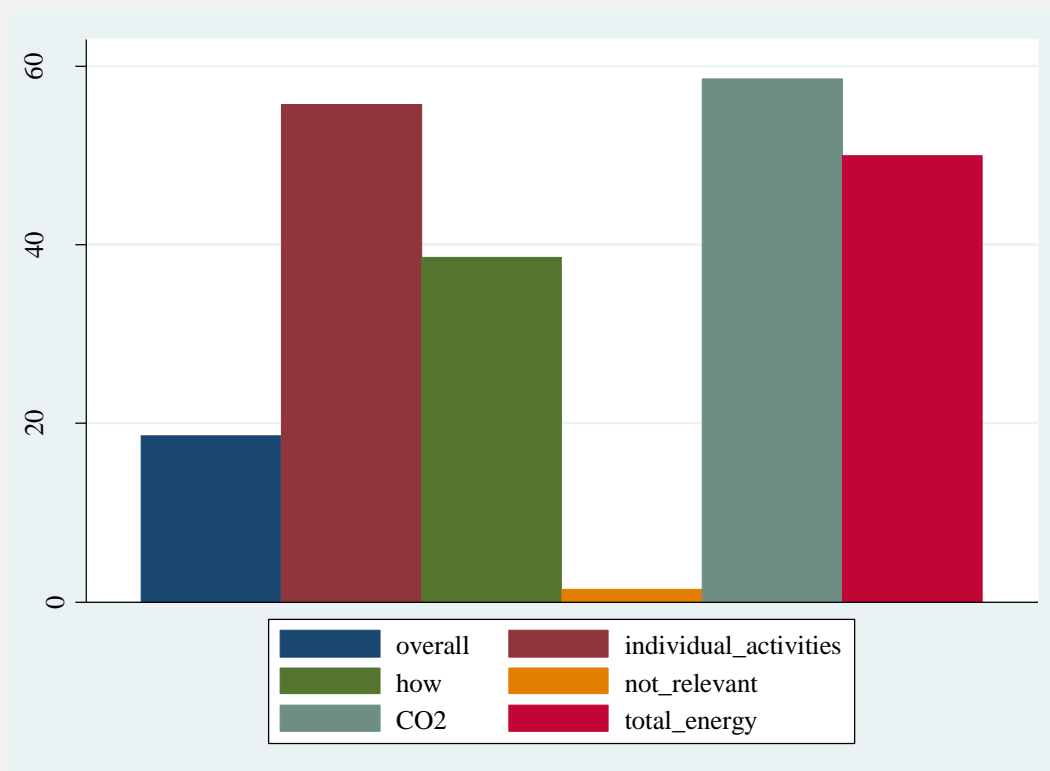


Figure 51 shows that even with a clean energy certificate, around 68% of participants still think that SMEs should be subject to less stringent bureaucratic guidelines than large companies, even if the informative value of the certificate would suffer as a result. And also Figure 52 provides similar results as we have already obtained for a general ecological sustainability certificate. Thus, although the majority finds a project-related certificate more relevant in the case of project financing, there are still voices that even then consider a firm-related certificate more relevant. The results on the different scenarios are also similar. The scenarios can be seen in Figure 53-57. In scenario A, about 46% of the participants think that the certificate would not be used, while about 25% of the participants think that the certificate would be used. This number already rises to about 64% in Scenario B, to about 91% in Scenario C, and to about 96% and 97% in Scenarios D and E. Overall, however, the results of this section should be viewed somewhat more cautiously, as the number of participants is lower here.

Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS

Figure 51: "In the case of sustainability certificates, SMEs should be subject to less stringent bureaucratic requirements than large companies, even if this may mean that the sustainability certificate is less meaningful for SMEs."

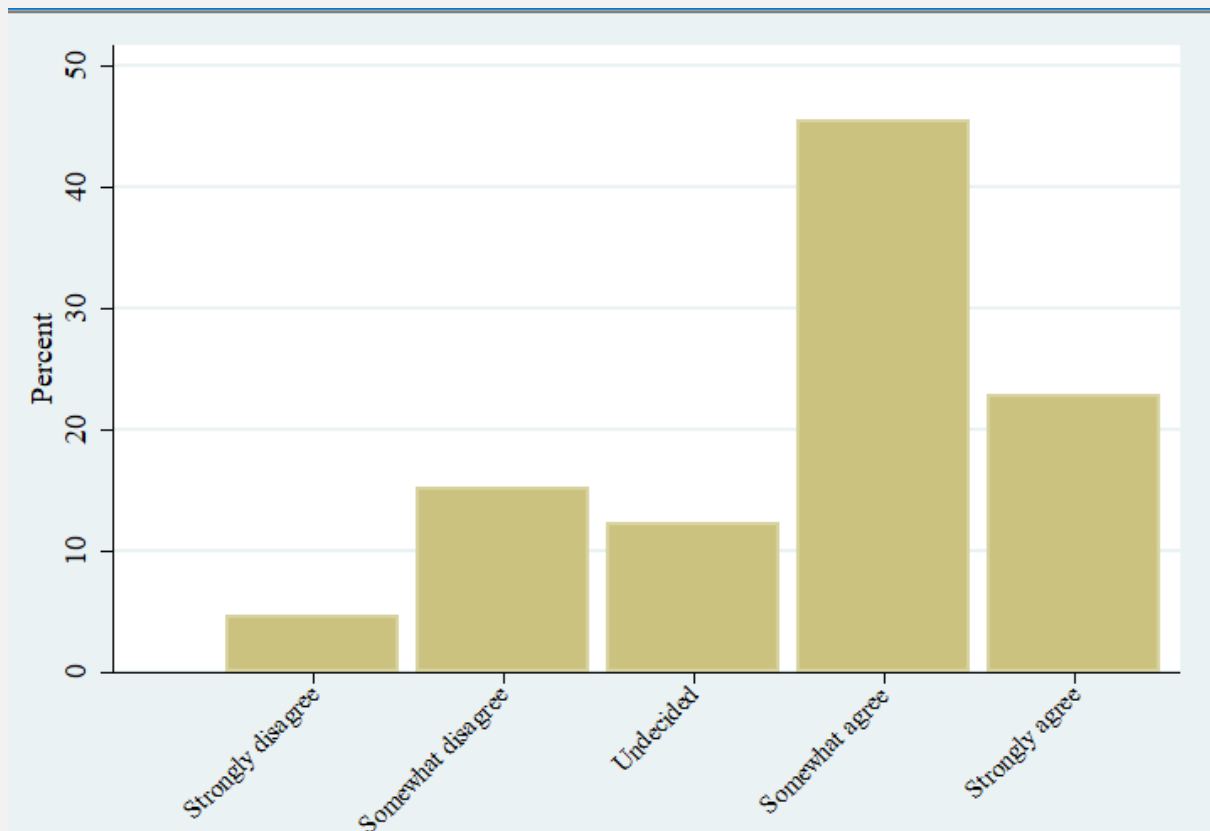


Figure 52: This question is about project financing:

In case of such a loan application, do you think a company-related certification (sustainability of the entire company) or a project-related certification (sustainability of the project to be financed with the loan) would be more interesting for your credit institution?

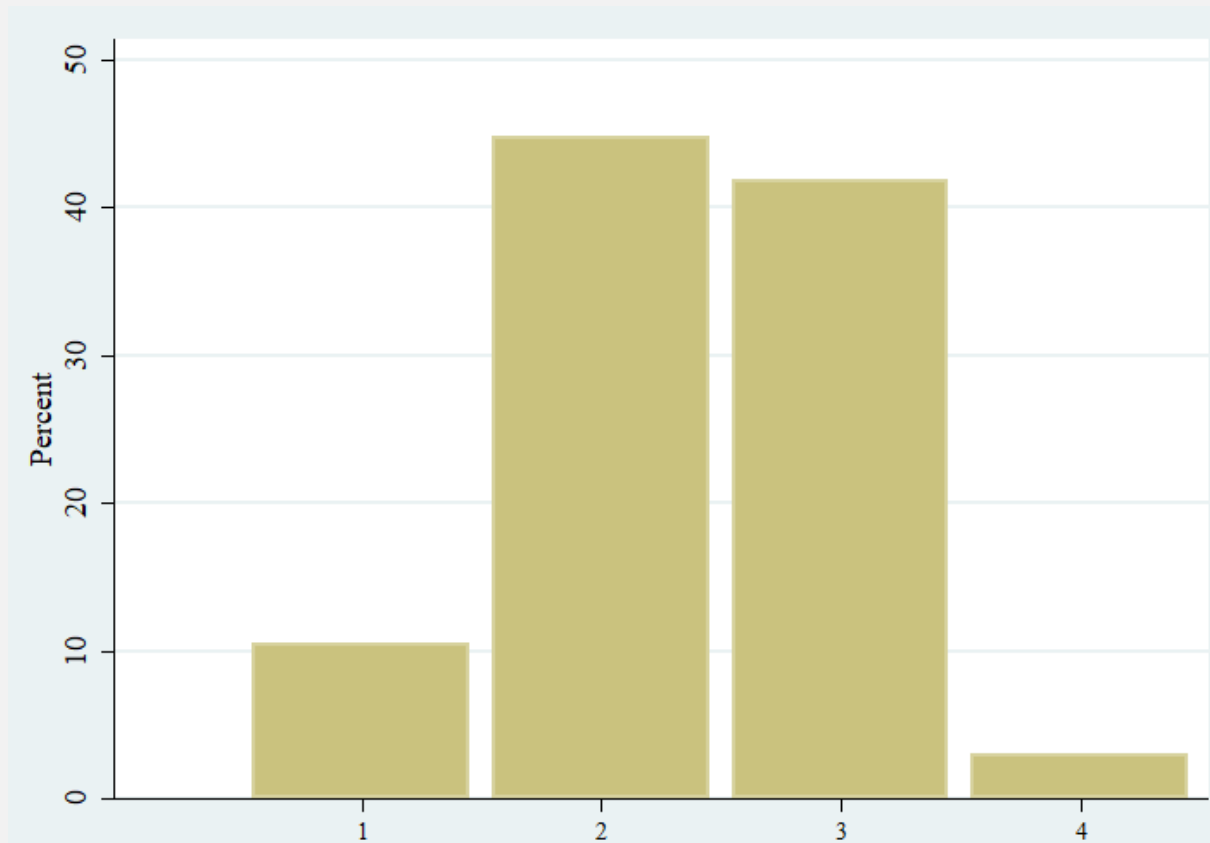


Figure 53: : We now present you with possible scenarios regarding certification. For each scenario, please estimate how likely it would be that your credit institution would consider the sustainability certificate in the SME lending process. - Scenario A

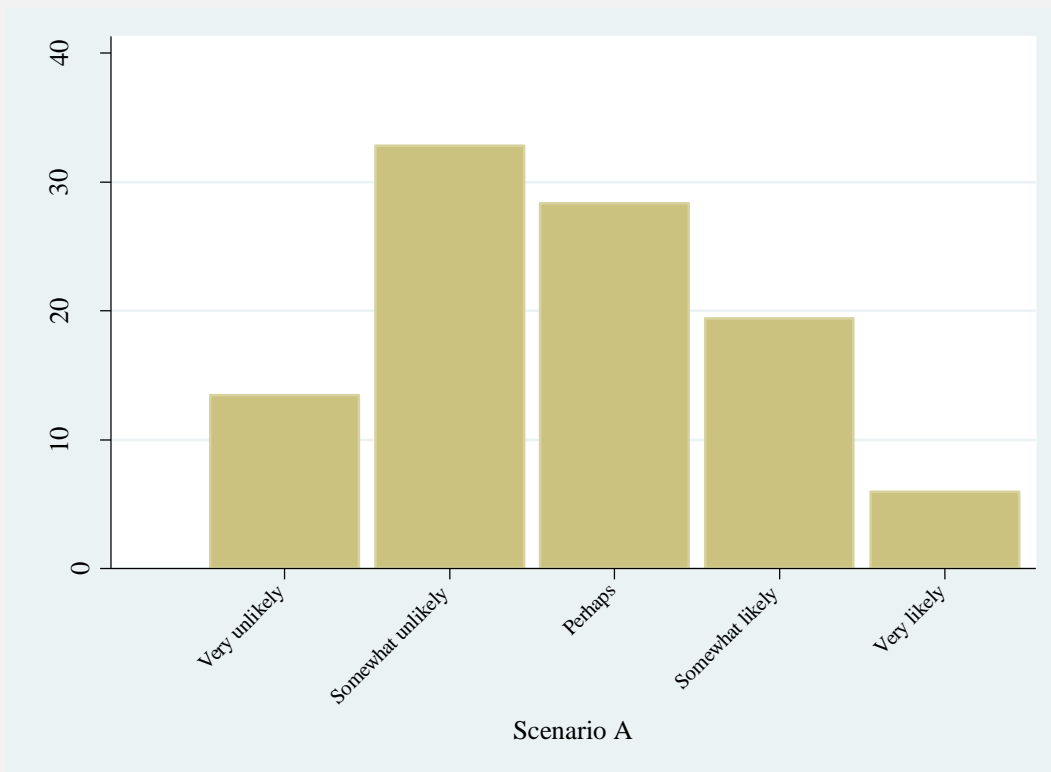
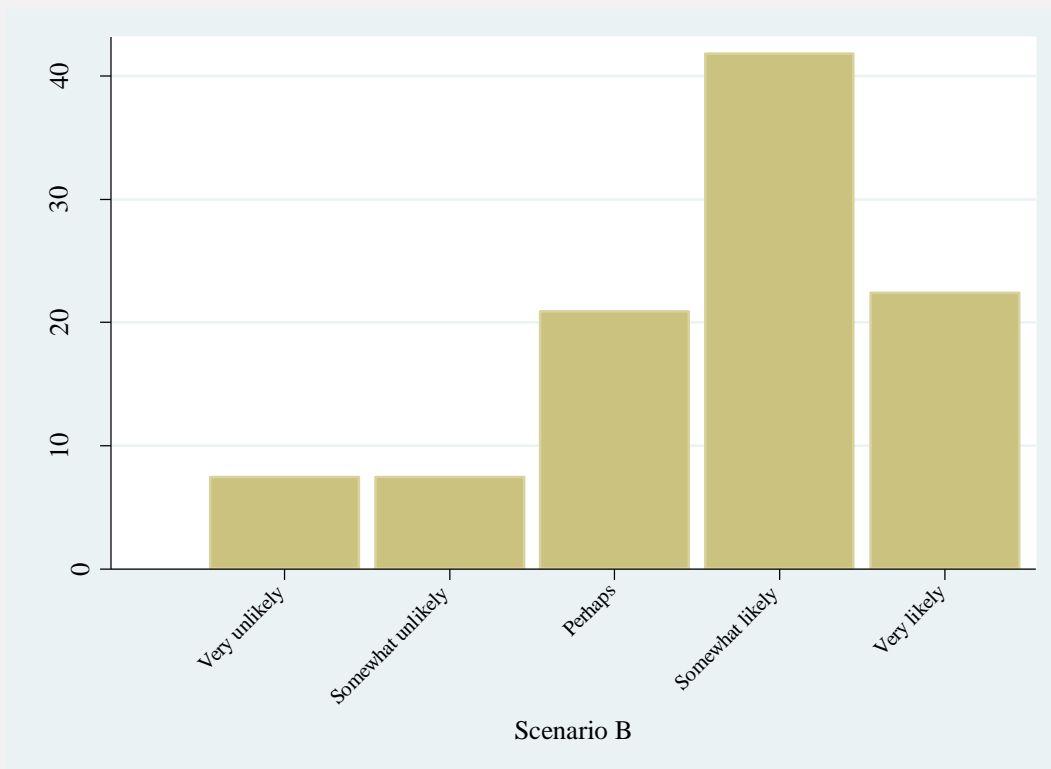


Figure 54: Scenario B



Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS

Figure 55: Scenario C

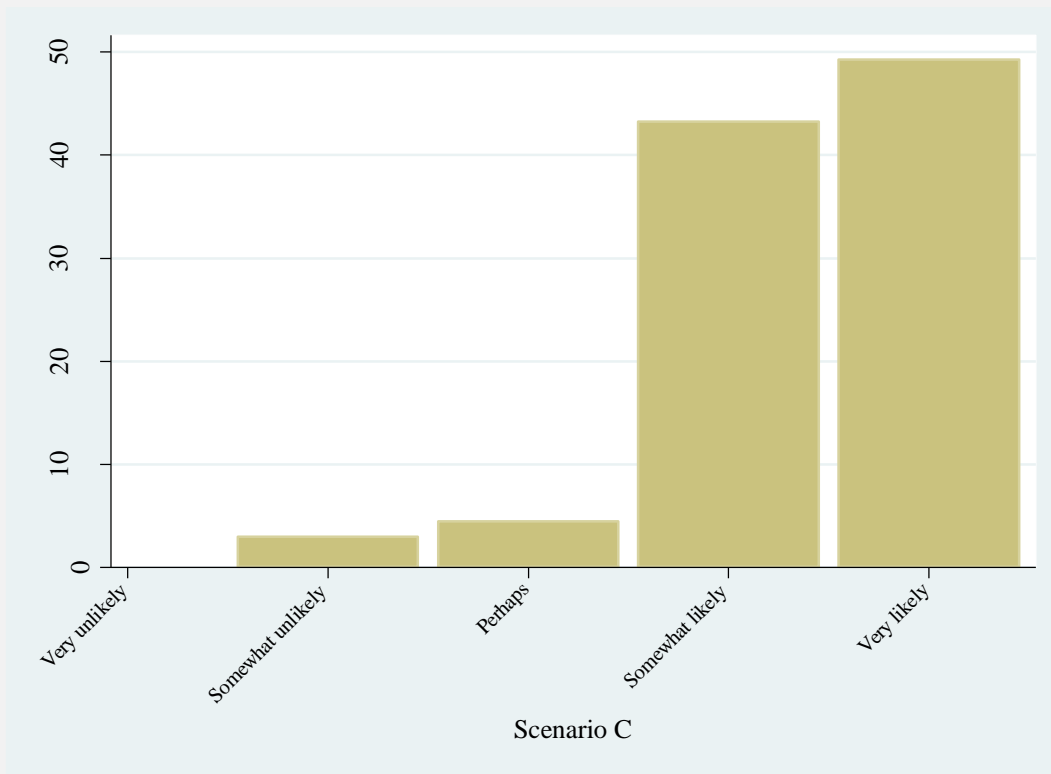
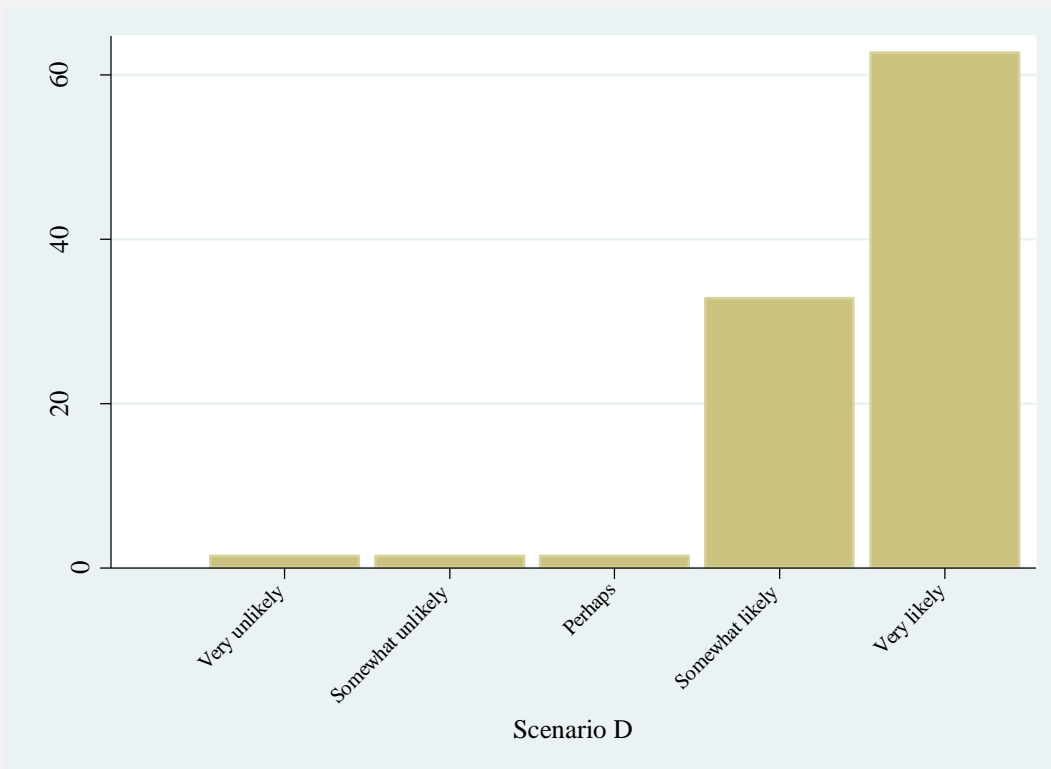
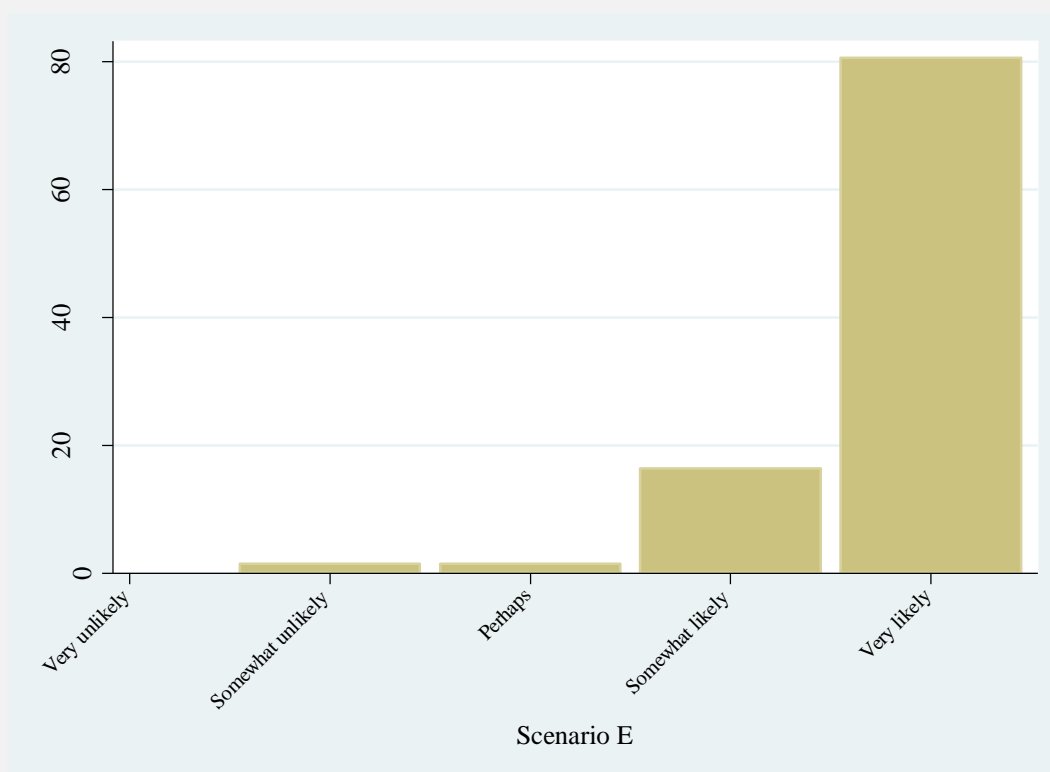


Figure 56: Scenario D



Sustainability in lending: status quo, the needs of financial stakeholders regarding sustainability certifications and the potential acceptance – CONFESS

Figure 57: Scenario E



## Conclusion

Since the application of the EU taxonomy and generally the preparation of sustainability reporting is often more difficult for SMEs than for large firms due to fewer resources, the idea of providing SMEs with a means by which they can achieve this goal more easily is an obvious one. This could take the form of a sustainability certificate. CONFESS has set itself the goal of creating such a sustainability certificate, which is being developed specifically for the clean energy sector. Since loans from credit institutions are an important source of financing for SMEs, we used a questionnaire and previously conducted interviews to determine what requirements such a certificate should fulfill. We also determined the status quo of credit institutions regarding sustainability. The survey was aimed at corporate client bank consultants and credit analysts at credit institutions. It is therefore possible that several participants work for the same credit institution.

The results show that only a few participants indicated that their credit institution takes sustainability into account in every SME lending process. On the contrary, a very large number indicated that sustainability is not yet taken into account at all. This shows that the credit institutions themselves are not yet perfectly positioned in this respect and that a certificate could therefore certainly be of help.

Overall, however, many participants state that an ecological sustainability certificate, if there is no legal obligation to do so, is rather unlikely to be considered in the lending process. This shows that a legal obligation would be beneficial for the dissemination of a sustainability certificate.

It is also advisable to build a sustainability certificate in such a way that it can meet the different needs of different lending institutions. For example, there are participants who believe that a simple certificate stating whether an SME is sustainable or not would be sufficient. Other participants, on the other hand, also want to know how the firm's individual activities have been evaluated and how this evaluation was arrived at. One could create the certificate in such a way that there is an overarching evaluation and then the rated activities are displayed. It would also be advisable to create a project-related (future oriented) certification in addition to a company-related (past oriented) certification, as this can be helpful when applying for project-related credits. Furthermore, such a form of certification could ensure that not only firms that have already been evaluated well receive a loan, but also that currently poorly rated firms can show that they want to become more sustainable and thus also receive a loan.



## Literature

Adelphi and ISS ESG (2020). European Sustainable Finance Survey. Available at [https://sustainablefinancesurvey.de/sites/sustainablefinancesurvey.de/files/document/s/european\\_sustainable\\_finance\\_survey\\_2020\\_final\\_2.pdf](https://sustainablefinancesurvey.de/sites/sustainablefinancesurvey.de/files/document/s/european_sustainable_finance_survey_2020_final_2.pdf)

Agarwald, S. and Hauswald, R. (2010). Distance and private information in lending. *Review of Financial Studies*, 23(7): 2757–2788.

Angelini, P., Di Salvo, R., and Ferri, G. (1998). Availability and cost of credit for small businesses: Customer relationships and credit cooperatives. *Journal of Banking and Finance*, 22: 925–954.

Bartoli, F., Ferri, G., Murro, P. and Rotondi, Z. (2013). SME financing and the choice of lending technology in Italy: complementarity or substitutability? *Journal of Banking and Finance* 37(12): 5476–5485.

Benchmark ESG (2021). Investment-Grade ESG Performance Data: Critical to Sustainable Business. Available at <https://www.benchmarkdigitalesg.com/benchmark-esg-survey/>

Berger A.N. and Udell G.F. (1995). Lines of Credit and Relationship Lending in Small Firm Finance. *The Journal of Business*, 68(3): 351–381.

Blomeyer, F.-B. (2022). ESG-Kriterien in der Mittelstandsfinanzierung, *Zeitschrift für das gesamte Kreditwesen*, 5: 259-263.

Bodenhorn, H. (2007). Usury Ceilings and Bank lending behaviour: evidence from nineteenth century New York. *Explorations in Economic History*, 44: 179-2002.

Bonaccorsi di Patti, E. and Gobbi, G. (2001) The changing structure of local credit markets: are small businesses special? *Journal of Banking and Finance*, 25(12): 2209–2237.

Bongini, P., Di Battista, M. L. and Nieri, L. (2015). Relationship Lending Through the Cycle: What Can We Learn from Three Decades of Research? Available at SSRN: <https://ssrn.com/abstract=2925893> or <http://dx.doi.org/10.2139/ssrn.2925893>

Brick, I.E. and Palia, D. (2007). Evidence of Jointness in the terms of relationship lending. *Journal of Financial Intermediation*, 16: 452-476.

Chakraborty, A. and Hu, C. X. (2006). Lending relationships in line-of-credit and nonlinear-of-credit loans: Evidence from collateral use in small business. *Journal of Financial Intermediation*, 15(1): 86-107.

D'Auria, C., Foglia, A, and Marullo Reedtz, P. (1999). Bank Interest Rates and Credit Relationships in Italy. *Journal of Banking and Finance*, 23: 1067-1093.

De Bodt E., Lobez F. and Statnik J.C. (2005). Credit Rationing, Customer Relationship and the Number of Banks: an Empirical Analysis. *European Financial Management*, 11: 195-228.

Degryse, H. and Ongena, S. (2005). Distance, lending relationships and competition. *Journal of Finance* 60, 1: 231–266.

Degryse, H., & Van Cayseele, P. (2000). Relationship lending within a bank-based system: Evidence from European small business data. *Journal of Financial Intermediation*, 9: 90–109.

Deutsche Bank (2021). ESG Survey – What corporates and investors think. Available at [https://www.dbresearch.com/PROD/RPS\\_EN-PROD/PROD000000000520951/ESG\\_Survey\\_%E2%80%93\\_What\\_corporates\\_and\\_investors\\_think.PDF;REWEBJSESSIONID=30749D11CB8BA9361474F4FA4BB2A24D?undefined&reload=EZ53LLXd56KnLL72QnkDpmPrFCYCPJP83mETniVqyERbZeHJWh2Tc3x5YPmuPmPC](https://www.dbresearch.com/PROD/RPS_EN-PROD/PROD000000000520951/ESG_Survey_%E2%80%93_What_corporates_and_investors_think.PDF;REWEBJSESSIONID=30749D11CB8BA9361474F4FA4BB2A24D?undefined&reload=EZ53LLXd56KnLL72QnkDpmPrFCYCPJP83mETniVqyERbZeHJWh2Tc3x5YPmuPmPC)

Elsas, R. and Krahen, J. P. (2000). Collateral, Default Risk, and Relationship Lending: An Empirical Study on Financial Contracting. CEPR Discussion Paper n. 2540.

Finance THINKTANK (2021). THINKTANKsurvey Firmenkundenbetreuer, 6, Available at <https://finance-thinktank.de/wp-content/uploads/2021/06/FKB-survey-06-2021.pdf>

Fraunhofer IBP, .msg for banking (2021). Sustainable Banking. Available at <https://banking.vision/sustainable-banking-studie-2022/#studie-bestellen-3>

Harhoff D. and Körting T. (1998). Lending relationships in Germany Empirical evidence from survey data. Journal of Banking and Finance, 22: 1317-1353.

Hernández-Cánovas, G. and Martínez-Solano, P. (2010). Relationship lending and SME financing in the continental European bank-based system. Small Bus Econ, 34: 465–482.

Hernández-Cánovas, G., and Koëter-Kant, J. (2008). Debt Maturity and Relationship Lending: An Analysis of European SMEs. International Small Business Journal, 26(5): 595–617.

Houston, J. F., Shan, H. (2022). Corporate ESG Profiles and Banking Relationships. The Review of Financial Studies, 35(7): 3373–3417.

Kautonen, T., Zolin, R., Kuckertz, A. and Viljamaa, A. (2010). Ties that blind? How strong ties affect small business owner-managers' perceived trustworthiness of their advisors. Entrepreneurship & Regional Development, 22(2): 189-209.

Kysucky, V., and Norden, L. (2015). The Benefits of Relationship Lending in a Cross-Country Context, Management Science: 1-39.

Lehman, E. and Neuberger, D. (2001) Do Lending Relationships Matter? Evidence from Bank Survey Data in Germany. Journal of Economic Behaviour and Organization, 45: 339-359.

Leiner, D. J. (2019). SoSci Survey (Version 3.4.19) [Computer software]. Available at <https://www.soscisurvey.de>

Liberti, J. M., Petersen, M. A. (2019). Information: Hard and Soft. *The Review of Corporate Finance Studies*, 8(1): 1–41.

Newton, D., Perotti, P., Xie, R. and Zhao, B. (2022). ESG Risk and Syndicated Lending Relationship. Available at SSRN: <https://ssrn.com/abstract=4165099> or <http://dx.doi.org/10.2139/ssrn.4165099>

Ongena S. and Smith D.C. (1998). Bank Relationships: A Review. in *The Performance of Financial Institutions*, P.Harker and S. A. Zenios, editors, Cambridge University Press.

Peltoniemi, J. and Vieru, M. (2013). Personal guarantees, loan pricing and lending structure in Finnish small business loans. *Journal of Small Business Management*, 51(2): 235–255.

Petersen, M.A. and Rajan R.G. (1994). The benefits of lending relationships. *Journal of Finance*, 49: 3–37.

Sharpe, S. (1990). Asymmetric information, bank lending, and implicit contracts: A stylized model of customer relationships. *Journal of Finance*, 45: 1069–1087.

Swiss sustainable finance (2021). *Nachhaltigkeit in der Kreditfinanzierung*. Available at [https://www.sustainablefinance.ch/upload/cms/user/2022\\_06\\_09\\_SSF\\_Presentation\\_Launch\\_Event\\_Swiss\\_Market\\_Study\\_2022.pdf](https://www.sustainablefinance.ch/upload/cms/user/2022_06_09_SSF_Presentation_Launch_Event_Swiss_Market_Study_2022.pdf)

Weimann, J. (2018). Weimanns Thesenpapiere – Ausgabe 3: Firmenkunden begeistern – Schluss mit digitaler Kunde trifft analoge Sparkasse. Available at <https://juergenweimann.com/wp-content/uploads/sites/3/2022/09/1712-Firmenkunden-begeistern.pdf>.

# CONFESS

*Clean Energy Certification*