## Documentation of the Bundesbank Online Panel Firms (BOP-F)

Waves 12-14

Deutsche Bundesbank Research Centre (RC)

Version: 1.0 (3 January 2022)
Contact: unternehmensbefragung@bundesbank.de

#### **Notes**

## a General coding

For all questions, the following codes apply.

-9999	Dropout: The respondent did not answer the question due to dropout.			
-9998	No answer: The respondent clicked "No answer" instead of answering the question.			
-9997	Don't know: The respondent clicked "Don't know" instead of answering the question.			
-9996	Does not apply: The respondent clicked "Does not apply to my enterprise" instead of answering the			
-9996	question.			
-6666	Does not apply: The question or response option was not shown to the respondent due to filters or			
-0000	prior item non-response.			
-5555	Recoded by BBk: A coding or data error that was recorded by the Bundesbank			

### **b** Legend for question header

Each question header includes information on the name of the question, whether it was part of the core questionnaire ("Core"), included for a specific project ("Pro"), or part of descriptive statistics ("Descript"), the broad topic and the variable name(s).

Legend	Question name	Question source	Topic	Variable name
Example 1	003	Core	Perceived problems	percprob_[a-j]
Example 2	103	Pro	Supply chains qualitative	suppchains_[a-b]

#### c Question filtering and coding

Coding details, filters and conditional redirects are highlighted using Courier. If questions are posed to all respondents, this is not explicitly stated. For filtered questions, the filter is listed at the top and refers to the question name, e.g.:

103	Pro	Supply chain problems domestic or foreign	suppchain_[a-b]
Input fil	ter: 001_0	1 = 6   7   8   9   10	

#### d Variable names

Variable names are indicated in the top right corner. If the question has multiple items, the items are indicated by underscores and a letter. Enumeration letters correspond to variable names. The coding of the variables is numeric and indicates the scale.

A001 Core Perceptions qualitative percmacroquali\_[a-i]

QUESTION: How did the following metrics develop in your enterprise in April 2021 compared with the previous month, i.e. March 2021?

- 1 = Decreased significantly
- 2 = Decreased slightly
- 3 = Stayed roughly the same
- 4 = Increased slightly
- 5 = Increased significantly
- -9996 = Does not apply to my enterprise
- a Turnover
- b Employment (measured in hours worked)
- c Access to intermediate inputs
- d Current trade receivables
- e Current trade payables
- f Short-term liquidity
- g Need for credit financing
- h Access to financing sources
- i Inventories (stock of intermediate products and finished goods)

## List of questions

Variable name	Торіс	Number of question	Origin
percmacro_[a-g]	Perceptions qualitative	X01	Core
expmacro_[a-g]	Expectations qualitative	X02	Core
percprob_[a-h]	Perceived problems	X03	BiQ-Core
	813, 814, 815 were only asked in wave 14		
prod_red_[a-f]	Production reduction due supply difficulties	813	Pro Vo
prod_recov	Chance for production recovery	814	Pro Vo
recov_[a, b]	Extent and space of time production recovery	815	Pro Vo
keyrateprob_[a-j]	Development key rate probabilistic	X04A	Core
inflexpoint	Inflation expectations quantitative	X04B	Core
inflexpoint_3y	Inflation expectations quantitative 3 years	811A	Pro 6
inflexpoint_5y	Inflation expectations quantitative 5 years	811B	Pro 6
salespast	Sales past quarter quantitative	X05A	Core
salesfuture_[a-e]	Sales comparable quarter prediction	X05B	Core
salesprob_[a-e]	Sales comparable quarter probabilistic	X05C	Core
pricepast	Price change past year quantitative	X06A	Core
pricefuture	Price change next year quantitative	X06B	Core
priceunc	Price change uncertainty	X06C	Core
change_qual	Change quality without price adjustment	810	Pro 6
creduse1	Microfinance credit negotiations	X07A	Core
creduse2_[a-f]	Microfinance negotiations result	X07B	Core
covidmeas4_[a-i]	Demand state aid since beginning of COVID-19	804	Pro F
covidmeas2_[a-i]	Importance state aid	805	Pro F
state aid_[a,b,c,e,g,h,i]	Volume state aid since beginning of COVID-19	806	Pro F
financingpast_[a-g]	Financing sources past	X08A	Core
financingfuture_[a-g]	Financing sources future	X08B	Core
remainliqui	Liquidity buffer	812	Pro410
fin_invest_[a, b]	Investment requirements future	801	Pro B
fin_clim_digi_[a, b]	Investments for climate and digitalisation	802	Pro B
fin_trans_mix_[a-g]	Transformation financing mix	803	Pro B
energy_[a-d]	Monitoring energy and greenhouse gases	807	Pro F
clim_scen_prob	Probability climate change scenarios	808	Pro F
energy_prod	Energy cost as share of costs of production	809	Pro F
consent	Firm characteristics implicit	D01	Descript
firmemploy_[a-b]	Firm characteristics explicit employment	D02	Descript
firmturnover_[a-b]	Firm characteristics explicit turnover	D03	Descript
firmsector	Firm characteristics explicit economic sector	D04	Descript
firmtype	Firm characteristics explicit ownership	D05	Descript
firmregion	Firm characteristics explicit region	D06	Descript
respondenttype_[a-k]	Characteristics of respondent	D07	Descript
feedback_[a-b]	Feedback questions	F01	Core
feedbackopen	Open feedback question	F02	Core
panel	Panel participation	P01	Core
contact	Contact	P02	Core

000 Core Opening	000	Core	Opening 1
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Welcome to the survey of firms conducted on behalf of the Deutsche Bundesbank.

### Important information concerning the survey:

- To navigate through the survey, please only use the "Continue" button at the bottom of the screen. Please do <u>not</u> use the buttons in your browser or the back button on your phone or tablet.
- To ensure that the individual questions are displayed correctly, use an up-to-date browser such as Google Chrome, Mozilla Firefox (version 12 or later), Apple Safari (version 6 or later), Opera (version 20 or later) or Microsoft Edge. Using older browsers, particularly Internet Explorer 8 or earlier, can result in limited functionality in terms of design and ease of use.
- During the survey, there is no option to go back to questions previously answered. If you would like an overview of the full questionnaire, please send a request to unternehmensbefragung@bundesbank.de.
- If you have any questions, problems or comments about navigating this questionnaire, you can contact the forsa support team from Monday to Friday between 09:00 and 18:00 on the free telephone number 0800 3677202 or by email at <a href="mailto:bundesbank-unternehmensbefragung@forsa.de">bundesbank-unternehmensbefragung@forsa.de</a>. If you have any questions or comments on the content of the survey, please contact the Bundesbank's project team by telephone at +49 (0)69 9566 2080 or by email at <a href="mailto:unternehmensbefragung@bundesbank.de">unternehmensbefragung@bundesbank.de</a>.

## 000 Core Opening 2

Thank you for taking the time to complete this survey. The Deutsche Bundesbank would like to know how the economic situation in your firm has changed over time and what you are currently expecting for the future.

The survey will take roughly 15 to 20 minutes to complete. Your answers will be treated confidentially. It would be a great help to us if you answer the questions as carefully as possible.

The Deutsche Bundesbank attaches particular importance to protecting your data. All information you provide will be treated confidentially in accordance with legal provisions. Only a few employees at a Bundesbank data trustee will see your survey data after pseudonymisation. When Bundesbank employees receive your data, they will have been anonymised further. Published results are completely anonymous and therefore cannot be traced back to your enterprise. Your answers will help the Deutsche Bundesbank to fulfil its statutory tasks (to learn more about the Bundesbank's tasks, please click <a href="here">here</a>).

Only effectively anonymised data can be passed on to research institutions for such research purposes that are related to the Bundesbank's tasks. You will find more information, details of how to contact the project team, and selected results of the survey on the Bundesbank's website: <a href="https://www.bundesbank.de/en/bundesbank/research/pilot-survey-on-the-expectations-of-firms">https://www.bundesbank.de/en/bundesbank/research/pilot-survey-on-the-expectations-of-firms</a>.

Your participation in our survey is of course voluntary. By participating in this survey, you give your consent for your data to be stored, processed and shared for the purposes of the Deutsche Bundesbank fulfilling its tasks. You may withdraw your consent at any time. However, withdrawing your consent shall not affect the lawfulness of any processing that has taken place on the basis of this declaration of consent before it was withdrawn.

## Input filter: if newcomer =

During the survey, there will be two further requests for consent to link the survey data to business statistics and for another survey (if you would like to know more about this, please click <a href="here">here</a>). Of course, you can choose not to consent to the above, though we would ask you to take part in the survey and fill in the other information. Your data will help the Deutsche Bundesbank fulfil its statutory tasks.

X01	Cor	e	1	Percep	tions qu	alitative		per	cmacro_[a-	g]	
"Don't kn	ow" and '	"No ans	swer" s	hown a	s soft	prompts	if r	no response	selected	and t	he
participa	nt clicke	ed "Con	ntinue"								

After the term "Access to intermediate inputs" an info box <i> with the following text is shown:

"If access to intermediate inputs has deteriorated, please state "decreased" or "decreased significantly"."

After the term "Access to financing sources", an info box <i> with the following text is shown:

"Access to financing sources describes the possibility of using various forms of external financing to finance your business activities, e.g. bank loans, trade credits, equity, debt securities or other financing instruments. If the possibilities of using these financing sources have deteriorated, please state "decreased" or "decreased significantly"."

**QUESTION:** Please consider the period from **end-December 2020** to **end-December 2021**. How did the following metrics develop in your enterprise during this period?

Note: Please select one answer for each row.

- 1 = Decreased significantly
- 2 = Decreased
- 3 = Stayed roughly the same
- 4 = Increased
- 5 = Increased significantly

-9996 = Does not apply to my enterprise

- a = Access to intermediate inputs <i>:
- b = Current trade receivables:
- c = Current trade payables:
- d = Short-term liquidity:
- e = Need for credit financing:
- f = Access to financing sources <i>:
- g = Inventories (stock of intermediate products and finished goods):

X02	Core	Expectations qualitative	expmacro_[a-g]				
"Don't kn	"Don't know" and "No answer" shown as soft prompts if no response selected and the						
participa	nt clicked on "	Continue".					
After the	term "Access t	o intermediate inputs" an info l	box <i> with the following</i>				
text is s	hown:						
-	-	intermediate inputs to deterior	rate, please state				
"decrease	" or "decrease	significantly"."					
After the term "Access to financing sources", an info box <i> with the following text is shown:</i>							
"Access to financing sources describes the possibility of using various forms of external financing to finance your business activities, e.g. bank loans, trade credits, equity, debt securities or other financing instruments. If you expect the							
possibilities of using these financing sources to deteriorate, please state							
"decrease	" or "decrease	significantly"."					

**QUESTION:** How do you expect the following metrics to develop in your enterprise from **end-December 2021** to **end-December 2022**?

Note: Please select one answer for each row.

- 1 = Decrease significantly
- 2 = Decrease
- 3 = Stay roughly the same
- 4 = Increase
- 5 = Increase significantly
- -9996 = Does not apply to my enterprise
- a = Access to intermediate inputs <i>:
- b = Current trade receivables:
- c = Current trade payables:
- d = Short-term liquidity:
- e = Need for credit financing:
- f = Access to financing sources <i>:
- g = Inventories (stock of intermediate products and finished goods):

X03	BiQ-Core	Perceived problems	percprob_[a-h]			
Order of	the eight categor	ies is generated randomly for	each respondent.			
	"Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue".					
text is s "Access t external	After the term "Access to financing sources", an info box <i> with the following text is shown:  "Access to financing sources describes the possibility of using various forms of external financing to finance your business activities, e.g. bank loans, trade credits, equity, debt securities or other financing instruments".</i>					

**QUESTION:** How problematic do you expect the following aspects will be for your enterprise over the next **six months**?

Note: Please select one answer for each row.

- 1 = No problem at all
- 2->4 [no label]
- 5 = An extremely pressing problem
- -9996 = Does not apply to my enterprise
- a = Lack of customer demand:
- b = High competitive pressure:
- c = Access to financing sources <i>:
- d = Access to intermediate inputs:
- e = High production/labour costs:
- **f** = Availability of skilled workers and experienced managers:
- g = High level of regulation/government rules (excluding coronavirus-related restrictions/closures):
- **h** = Closures or work restrictions due to the coronavirus pandemic:

Questions 813, 814 and 815 were only asked in March 2022.

```
Pro Vo Production reduction due to supply difficulties prod_red_[a-f]

Input filter: if percmacro a = 1 + 2 OR expmacro a = 1 + 2

"Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue".

Only values from 0 to 100 permitted. No symbols allowed.
```

**QUESTION**: By what percentage do you think the manufacture of goods or provision of services in your enterprise declined as a result of <u>supply bottlenecks</u> for intermediate inputs in the **fourth quarter of 2021** (October to December 2021)? And what decline in your business activity do you think is likely in the **future** as a result of supply bottlenecks?

Note: Please enter a value between 0 and 100 in each field. A value of 0 corresponds to  $\underline{no}$  decline in your business activity through supply bottlenecks for intermediate inputs in the respective period.

```
a = Fourth quarter of 2021: [Input field]%
b = First quarter of 2022: [Input field]%
c = Second quarter of 2022: [Input field]%
d = Second half of 2022: [Input field]%
e = 2023 as a whole: [Input field]%
f = 2024 as a whole: [Input field]%
```

6 = By the end of 2023

814	Pro Vo	Chance of recovery in production	prod_recov
Input f	ilter: if p	prod_red_[a-f]	
		"No answer" shown as soft prompts if no read on "Continue".	esponse selected and the
-	<b>DN</b> : Do you thecouped?	nink part of your enterprise's <u>production losses as a</u>	a result of supply bottlenecks
1 = Yes 2 = No			

```
Pro Vo | Production recovery – extent and timeframe
                                                                    recov [a, b]
Input filter: if prod recov = 1
"Don't know" and "No answer" shown as soft prompts if no response selected and the
participant clicked on "Continue".
Options 1 to 11 and 1 to 8 should be shown as a drop-down menu.
QUESTION: To roughly what extent will your enterprise be able to recoup the production losses
stemming from the supply bottlenecks? And what do you expect the timeframe to be?
a = Extent:
1 = Up to 10%
2 = 10% to 19 %
3 = 20% to 29 %
4 = 30% to 39%
5 = 40% to 49%
6 = 50% to 59%
7 = 60% to 69%
8 = 70% to 79%
9 = 80% to 89%
10 = 90% to 99%
11 = 100%
b = timeframe:
1 = Already recouped
2 = By the end of June 2022
3 = By the end of September 2022
4 = By the end of 2022
5 = By the end of June 2023
```

```
Randomisation dummy: draterandom1

The dummy draterandom1 splits the sample into three groups of roughly equal size (1, 2, 3). This split is linked to the randomisation in waves 9-11. Firms that were assigned to one of the three randomisation groups in waves 9-11 (irrespective of whether they responded or not in the end) should be assigned to the same group in waves 12-14.

draterandom1 = (firms that were in group in waves 9-11 + 1/3 of newcomers + 1/3 of remaining repeaters)
draterandom1 = (firms that were in group in waves 9-11 + 1/3 of newcomers + 1/3 of remaining repeaters)
draterandom1 = (firms that were in group in waves 9-11 + 1/3 of newcomers + 1/3 of remaining repeaters)
draterandom1 = (firms that were in group in waves 9-11 + 1/3 of newcomers + 1/3 of remaining repeaters)
```

X04A	Core	Development key rate probabilistic	keyrateprob_[a-j]			
Supported	values are be	etween 0 and 100. No decimal place	es are permitted.			
"Don't kn	ow" and "No ar	nswer" shown as soft prompts if n	o response selected and the			
	nt clicked "Co					
The progr	amming of the	question requires the sum of the	10 variables to be 100. The			
current s	um of all ente	ered points is shown to the respon	ndent when answering the			
-	-	are asked to correct their respon				
-		were left empty should be assigned	ed 0 after moving to the			
next ques						
		rate of the European Central Ban	k (ECB)" an info box <i></i>			
	following text					
	-	pank sets three different policy	±			
	about the deposit facility rate at which commercial banks can deposit their money					
with the ECB in the short term."						
	If the sum is not equal to 100 the following error message will be displayed:					
"Please note that your answers to the scenarios have to add up to 100."						
The manufacture and automode the fellowing agreement will be disclosed.						
If no values are entered the following error message will be displayed:						
"Please enter a value in the fields or select one of the possible responses below."						
<pre>Input filter: if draterandom1 =</pre>						
<b>QUESTION:</b> We would now like to ask you some questions about macroeconomic developments. In						

**QUESTION:** We would now like to ask you some questions about macroeconomic developments. In your opinion, how likely is it that the <u>policy rate</u> of the European Central Bank (ECB) <i> will fluctuate within the following bands at the **end of December 2022**?

```
Input filter: if draterandom1 =
```

QUESTION: We would now like to ask you some questions about macroeconomic developments. In your opinion, how likely is it that the <u>policy rate</u> of the European Central Bank (ECB) will fluctuate within the following bands at the **end of December 2022**? The ECB's policy rate currently stands at -0.5%.

```
Input filter: if draterandom1 =
```

QUESTION: We would now like to ask you some questions about macroeconomic developments. In your opinion, how likely is it that the <u>policy rate</u> of the European Central Bank (ECB) will fluctuate within the following bands at the **end of December 2022**? The ECB's policy rate currently stands at -0.5% and the financial markets are expecting a policy rate of -0.5% at the end of December 2022.

Note: The aim of this question is to determine how likely you think it is that something specific will happen in the future. You can rate the likelihood on a scale from 0 to 100, with 0 meaning that an event is completely unlikely and 100 meaning that you are absolutely certain it will happen. Use values between the two extremes to moderate the strength of your opinion. Please note that your answers to the categories have to add up to 100. You can also leave fields empty; these will be saved as a 0.

```
Below -2.00%:
                                       Input field]
   Between -2.00% and -1.51%:
                                      [Input field]
   Between -1,50% and -1.01%:
                                      [Input field]
d Between -1.00% and -0.51%:
                                      [Input field]
   Between -0.50% and -0.01%:
                                      [Input field]
   Between 0.00% and 0.50%:
                                      [Input field]
   Between 0.51% and 1.00%:
                                      [Input field]
                                      [Input field]
   Between 1.01% and 1.50%:
                                      [Input field]
   Between 1.51% and 2.00%:
                                      [Input field]
   Above 2.00 %:
```

SAMPLE SPLIT 1 – END	
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X04B	Core	Core Inflation expectations quantitative inflexpoint							
Values be	Values between -100.0 and 999.0 are supported.								
	"Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked "Continue".								
shown: "Inflatio measured	n is the perce	E inflation", an info box (i) wit entage increase in the general pr sumer price index. A decrease in ."	ice level. It is mostly						
	nter a value k	s entered the following error mes between -100.0 and 999.0. Only on							

**QUESTION:** What do you expect the <u>rate of inflation</u> <i> to be over the next **twelve months**?

Note: If you expect the price level to increase, please enter a positive percentage value. If you expect the price level to decrease, please enter a negative percentage value. Only one decimal place is permitted.

[Input field]%

SPLIT SAMPLE 2 –	OVERVIEW	R/	ANDOMISATION 2					
Randomisation dummy: dsalesrandom1								
The dummy dsalesrandom1 splits the sample into two groups of roughly equal size. This split is linked to the randomisation in waves 6-8 (July 21 to September 21). Firms that were assigned to one of the two randomisation groups in those waves (irrespective of whether they responded or not in the end) should be assigned to the same group again this time.								
newcomers)	_		6 to 8, or 9 to 11 + 1/2 of 6 to 8, or 9 to 11 + 1/2 of					
	dsalesran	ndom1 =	dsalesrandom1 =					
inflexpoint_3y	X							
inflexpoint 5y			X					
Sales	X							
pricepast	X	<u> </u>	X					
covidmeas2			X					
state aid			X					

811A Pro 6 Inflation exp. quant. long term inflexpoint\_3y

Input filter: if dsalesrandom1 =

Values between -100.0 and 999.0 are supported.

"Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue".

After the term "rate of inflation", an info box (i) with the following text is shown:

"Inflation is the percentage increase in the general price level. It is mostly measured using the consumer price index. A decrease in the price level is generally described as deflation.

If an invalid number is entered the following error message is shown: "Please enter a value between -100.0 and 999.0. Only one decimal place is permitted."

QUESTION: What do you expect the rate of inflation <i> to be on average over the next three years?

Note: If you expect the price level to increase on average, please enter a positive percentage value. If you expect the price level to decrease on average, please enter a negative percentage value. Only one decimal place is permitted.

[Input field]%

811B Pro 6 Inflation exp. quant. long term inflexpoint\_5y

Input filter: if dsalesrandom1 =

Values between -100.0 and 999.0 are supported.

"Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue".

After the term "rate of inflation", an info box (i) with the following text is shown:

"Inflation is the percentage increase in the general price level. It is mostly measured using the consumer price index. A decrease in the price level is generally described as deflation.

If an invalid number is entered the following error message is shown: "Please enter a value between -100.0 and 999.0. Only one decimal place is permitted."

**QUESTION:** What do you expect the <u>rate of inflation</u> <i> to be on average over the next **five years**?

Note: If you expect the price level to increase on average, please enter a positive percentage value. If you expect the price level to decrease on average, please enter a negative percentage value. Only one decimal place is permitted.

[Input field] %

X05A Core Sales past quarter quantitative salespast

Input filter: if dsalesrandom1 =

"Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue".

Info box <i> after the term "sales":

"In place of sales, banks/credit institutions should state their gross interest and commission income and their net trading income, while insurers should enter their gross premiums written."

If an invalid number (negative or including a comma or period) is entered the following error message is shown:

"Please enter a positive value, without a comma or period (possible input values are 0 to 999999999)."

**QUESTION:** We would now like to ask you some more questions about your enterprise. What were your enterprise's sales <i> in the **fourth quarter of 2021** (October to December 2021)?

Note: Please enter an amount in full thousands of euro.

Sales (excluding VAT): [Input field],000 euro

X05B Core Sales comparable quarter prediction salesfuture [a-e] Input filter: if dsalesrandom1 = "Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue" Values between -100.0 and 999.9 are supported. Firms are expected to provide at least one number. Firms must not be forced to provide all five values. Supported values should be monotonically non-decreasing, e.g.  $a \le b \le c \le d \le e$  when all five values are non-missing. When programming the questionnaire, please be mindful of scenarios in which firms provide, for instance, only three values (e.g. 1, 2, 4, NA, NA; or 1, NA, 2, NA, 3) or only two values (e.g. 1, NA, NA, NA, 2; or NA, 1, 2, NA, NA) Info box <i> after the term "sales": "In place of sales, banks/credit institutions should state their gross interest and commission income and their net trading income, while insurers should enter their gross premiums written." When values are NOT monotonically non-decreasing, then the following message should be shown: "Please make sure your answers are ordered from the lowest value to the highest." If invalid number is entered the following error message is shown: "Please enter a value between -100.0 and 999.9."

QUESTION: What changes in your sales <i> do you consider possible from the fourth quarter of 2021 (October to December 2021) to the fourth quarter of 2022 (October to December 2022)? Please indicate what percentage change in your sales you would expect in the following scenarios.

Note: If you expect sales to increase, please enter a positive percentage value. If you expect sales to decrease, please enter a negative percentage value. Please make sure your answers are ordered from the lowest percentage value to the highest.

The lowest potential percentage change would be: [Input field]% A **low** potential percentage change would be: [Input field]% A medium potential percentage change would be: [Input field]% A **high** potential percentage change would be: [Input field]% The **highest** potential percentage change would be: [Input field]%

X05C	Core	Sales com	parable quarter probabilistic	salesprob_[a-e]				
Input fil	<pre>Input filter: if dsalesrandom1 =</pre>							
Supported	values are be	etween 0 an	d 100. No decimals are allow	wed.				
	"Don't know" and "No answer" shown as soft prompts if no response selected and the							
	nt clicked on							
The curre question. equal 100	The programming of the question requires the sum of the five variables to be 100. The current sum of all entered points is shown to the respondent when answering the question. Respondents are asked to correct their responses if the sum does not equal 100. If possible, only those fields should be active for which a value has been provided in the previous question.							
-	<i> after the</i>							
"In place of sales, banks/credit institutions should state their gross interest and commission income and their net trading income, while insurers should enter their gross premiums written."								
			ne following error message w all scenarios have to add u	± ±				

QUESTION: How likely do you think it is that the individual scenarios for the change in your sales <i> from the fourth quarter of 2021 (October to December 2021) to the fourth quarter of 2022 (October to December 2022) will materialise?

Note: The aim of this question is to determine how likely you think it is that something specific will happen in the future. You can rate the likelihood on a scale from 0 to 100, with 0 meaning that an event is completely unlikely and 100 meaning that you are absolutely certain it will happen. Use values between the two extremes to moderate the strength of your opinion. Please note that your answers to the scenarios have to add up to 100.

The likelihood of a change of around {salesfuture[a]}% is: [Input field]

b	The likelihood of a change of around {salesfuture[b]}% is:	[Input field]
С	The likelihood of a change of around {salesfuture[c]}% is:	[Input field]
d	The likelihood of a change of around {salesfuture[d]}% is:	[Input field]
е	The likelihood of a change of around {salesfuture[e]}% is:	[Input field]

X06A	Core	Price change past yea	quantitative	pricepast
Supported	values are bet	ween -100.0 and 999.9	Only one de	cimal place is permitted.
	ow" and "No ans nt clicked on "	-	compts if no r	esponse selected and the
If invali	d number is ent	ered the following e	ror message i	s shown:
"Please e	nter a value be	tween -100.0 and 999	0. Only one d	ecimal place is
permitted	• "			
Input fil	ter: if <i>dsalesr</i>	andom1 = <mark>2</mark>		

**QUESTION:** We would now like to ask you some more questions about your enterprise. Please consider the period from **end-December 2020** to **end-December 2021**. Please enter the average percentage change in the <u>prices charged</u> for your products and services in this period.

Input filter: if dsalesrandom1 =

**QUESTION:** Please consider the period from **end-December 2020** to **end-December 2021**. Please enter the average percentage change in the <u>prices charged</u> for your products and services in this period.

Note: If prices increased, please enter a positive percentage value. If prices decreased, please enter a negative percentage value. Please enter a value with a maximum of one decimal place.

[Input field]%

Х06В	Core	Price change next year quantitative	pricefuture
Supported	values are	between -100.0 and 999.9. Only one	decimal place is permitted.
"Don't kn	ow" and "No	answer" shown as soft prompts if no	response selected and the
participa	nt clicked o	n "Continue".	
If an inv	alid number	is entered the following error mess	sage is shown:
"Please e		between -100.0 and 999.9. Only one	e decimal place is

**QUESTION:** Please consider the period from **end-December 2021** to **end-December 2022**. What average percentage change in the <u>prices charged</u> for your products and services do you expect in this period?

Note: If you expect prices to increase, please enter a positive percentage value. If you expect prices to decrease, please enter a negative percentage value. Please enter a value with a maximum of one decimal place.

[Input field]%

X06C	Core	Price change uncertainty	priceunc
Input filt	ter: a number pro	vided in pricefuture (Question	n X06B)
"Don't kno	ow" and "No answe	r" shown as soft prompts if no	response selected and the
participa	nt clicked on "Co	ntinue".	
Input filt	ter: if pricefutu	re > <mark>0</mark>	

**QUESTION:** How certain are you that the <u>prices charged</u> for your products and services will increase by around {pricefuture}% on average in the period from end-December 2021 to end-December 2022?

- 1 = Very uncertain
- 2 = Rather uncertain
- 3 = Neither certain nor uncertain
- 4 = Rather certain
- 5 = Very certain

Input filter: if pricefuture < 0</pre>

**QUESTION:** How certain are you that the <u>prices charged</u> for your products and services will decrease by around {pricefuture}% on average in the period from end-December 2021 to end-December 2022?

- 1 = Very uncertain
- 2 = Rather uncertain
- 3 = Neither certain nor uncertain
- 4 = Rather certain
- 5 = Very certain

Input filter: if pricefuture = 0

**QUESTION:** How certain are you that the <u>prices charged</u> for your products and services will remain roughly the same on average in the period from **end-December 2021** to **end-December 2022**?

- 1 = Very uncertain
- 2 = Rather uncertain
- 3 = Neither certain nor uncertain
- 4 = Rather certain
- 5 = Very certain

810	Pro 6	Ch	ange qu	uality w	thout pric	e adjust	ment ch	ange_qual		
"Don't kr	now" and "No	answer"	shown	as soft	prompts	if no	response	selected	and	the
participa	ant clicked	on "Contin	nue".							

**QUESTION:** We would now like to ask you about the impact of the coronavirus pandemic on the quality of your enterprise's products and services. How has the average <u>quality</u> of your products and services changed **as a result of the pandemic**? Please consider only changes in quality that are **not** reflected in your prices.

Note: Please select one option for your products and services.

- 1 = Increased significantly (increase of 10% or more)
- 2 = Increased slightly (increase of less than 10%)
- 3 = Stayed roughly the same
- 4 = Decreased slightly (decrease of less than 10%)
- 5 = Decreased significantly (decrease of 10% or more)
- -9996 = Does not apply to my enterprise

X07A	Core		N	Aicro fi	nan	ce cre	dit negoti	atic	ns		credı	ıse1	
"Don't kr	now" and	"No	answer"	shown	as	soft	prompts	if	no	response	selected	and	the
narticina	ant click	red .	on "Cont	inue"									

Info box <i> after the term "government-sponsored loans":

"Government-sponsored loans include, for example, public sector support in the form of guarantees, reduced interest rates or funding grants."

**QUESTION:** In the **fourth quarter of 2021** (October to December 2021), did your enterprise negotiate with one or more banks with a view to taking out a <u>loan</u> or establishing a <u>credit line</u>?

Note: This does not include any government-sponsored loans <i>.

- 3 = Yes
- 4 = No

X07B	Core		Microfin	ance neg	gotiations	result		creduse	2_[a-	f]
Input fil	ter: credus	se1 = <mark>1</mark>								
"Don't kn	ow" and "No	answer'	' shown	as soft	prompts	if no	response	selected	and	the
participa	nt clicked	on "Cont	inue".							

### QUESTION: What was the outcome of these negotiations?

Note: Please select all answers that apply.

- 0 = Category not selected
- 1 = Category selected
- a Loan/credit line was approved for the desired amount at the desired conditions (interest, collateral, etc.).
- b Loan/credit line was approved for the desired amount but at less favourable conditions (interest, collateral, etc.).
- c Loan/credit line was approved for a smaller amount, but at the desired conditions (interest, collateral, etc.).
- d Loan/credit line was approved for a smaller amount and at less favourable conditions (interest, collateral, etc.).
- e No decision has yet been made regarding the loan application.
- f Loan negotiations were concluded without a deal.

804	Pro F	Demand state aid since beginning of	covidmosc4 [s i]
804	PIUF	COVID-19	covidmeas4_[a-i]

"Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue".

Info box  $\langle i \rangle$  after the term "Emergency aid": One-off grant for small enterprises and sole traders - up to  $\mathfrak{S}9,000$  for enterprises with up to five employees and up to  $\mathfrak{S}15,000$  for enterprises with up to ten employees.

Info box <i> after the term "Bridging aid I to IV": Grants for fixed costs due to drops in revenue. Applications for bridging aid I or II could be made up until October 2020 or March 2021 respectively. A monthly maximum of  $\ensuremath{\mathfrak{C}}50,000$  in grants was paid out for both programmes. From bridging aid III, the maximum grant was increased to  $\ensuremath{\mathfrak{C}}100,000$ .

Info box <i> after the term "Extraordinary economic assistance November/December": Grants for enterprises that were ordered to close temporarily on account of the coronavirus response measures in November/December 2020, up to 80% of revenue for the same month of the previous year.

Info box <i> after the term "KfW express loans": KfW-sponsored loans, for example KfW Instant Loans or KfW Entrepreneur Loans.

Info box <i> after the term "Guarantee programmes": Guarantee programmes via guarantee banks or state government promotional institutions, for example.

Info box <i> after the term "Equity interests": Equity interests through the Federal Government's Economic Stabilisation Fund or state governments' equity funds, for example.

Info box <i> after the term "New Start Assistance and New Start Assistance Plus": Advance payment up to  $\[mathcal{e}\]$ 7,500 for sole traders and up to  $\[mathcal{e}\]$ 30,000 for small corporations and cooperatives from January to October 2021. If they experienced a drop in revenue

of 60% or more, sole traders were no longer required to repay the advance payments.

## **QUESTION:** Has your enterprise used the following government <u>assistance measures</u> **since the onset** of the coronavirus pandemic?

Note: Please select one answer for each row. If the measure was limited in duration, provide the application period for the measure in question in brackets.

- 1 = Yes, payment already received
- 2 = Yes, approved, payment still pending
- 3 = No, approval still pending
- 4 = No, there is no need
- 5 = No, not approved
- 6 = No, did not know about the offer
- a = Emergency aid <i> (March to May 2020):
- b = Bridging aid I to IV <i> (since June 2020):
- c = Extraordinary economic assistance November/December <i> (November 2020 to April 2021):
- d = Short-time working (since March 2020):
- e = KfW special loan programmes and/or KfW express loans <i> (since March 2020):
- f = Deferral of tax payments (including increased scope to carry back losses) or social security contributions (since 2020):
- g = Federal Government or state government guarantee programmes <i>:
- h = Federal Government or state government equity interests <i>:
- i = New Start Assistance and New Start Assistance Plus <i> (since January 2021):

# 805 | Pro F | Importance state aid | covidmeas2\_[a-i] | Input filter: dsalesrandom2 = AND only show items with covidmeas4 [a-i] = 1 | 2 "Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue".

Info box  $\langle i \rangle$  after the term "Emergency aid": One-off grant for small enterprises and sole traders - up to  $\mathfrak{S}9,000$  for enterprises with up to five employees and up to  $\mathfrak{S}15,000$  for enterprises with up to ten employees.

Info box <i> after the term "Bridging aid I to IV": Grants for fixed costs due to drops in revenue. Applications for bridging aid I or II could be made up until October 2020 or March 2021 respectively. A monthly maximum of  $\epsilon$ 50,000 in grants was paid out for both programmes. From bridging aid III, the maximum grant was increased to  $\epsilon$ 100,000.

Info box <i> after the term "Extraordinary economic assistance November/December": Grants for enterprises that were ordered to close temporarily on account of the coronavirus response measures in November/December 2020, up to 80% of revenue for the same month of the previous year.

Info box <i> after the term "KfW express loans": KfW-sponsored loans, for example KfW Instant Loans or KfW Entrepreneur Loans.

Info box <i> after the term "Guarantee programmes": Guarantee programmes via guarantee banks or state government promotional institutions, for example.

Info box <i> after the term "Equity interests": Equity interests through the Federal Government's Economic Stabilisation Fund or state governments' equity funds, for example.

Info box <i> after the term "New Start Assistance and New Start Assistance Plus": Advance payment up to  $\[mathcal{e}\]$ 7,500 for sole traders and up to  $\[mathcal{e}\]$ 30,000 for small corporations and cooperatives from January to October 2021. If they experienced a drop in revenue of 60% or more, sole traders were no longer required to repay the advance payments.

**QUESTION:** How important have the government assistance measures you mentioned in the previous question been so far, or how important were they, for the continuation of your business activities?

Note: Please select one answer for each row. If the measure was limited in duration, provide the application period for the measure in question in brackets.

- 1 = Not at all important
- 2 = Not important
- 3 = Neither unimportant nor important
- 4 = Important
- 5 = Very important
- a = Emergency aid <i> (March to May 2020):
- b = Bridging aid I to IV <i> (since June 2020):
- c = Extraordinary economic assistance November/December <i> (November 2020 to April 2021):
- d = Short-time working (since March 2020):
- e = KfW special loan programmes and/or KfW express loans <i> (since March 2020):
- f = Deferral of tax payments (including increased scope to carry back losses) or social security contributions (since 2020):
- g = Federal Government or state government guarantee programmes <i>:
- h = Federal Government or state government equity interests <i>:
- i = New Start Assistance and New Start Assistance Plus <i> (since January 2021):

806	Pro F		lume state aid since beginning of state_aid_[a,b,c,e,g,h,ronavirus pandemic i]
_	ter: <i>dsalesrandom</i> ] = <mark>1</mark>	2 = 2	AND only show items with <code>covidmeas4_[a   b   c   e  </code>

"Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue".

Info box  $\langle i \rangle$  after the term "Emergency aid": One-off grant for small enterprises and sole traders - up to  $\mathfrak{S}9,000$  for enterprises with up to five employees and up to  $\mathfrak{S}15,000$  for enterprises with up to ten employees.

Info box <i> after the term "Bridging aid I to IV": Grants for fixed costs due to drops in revenue. Applications for bridging aid I or II could be made up until October 2020 or March 2021 respectively. A monthly maximum of  $\mathfrak{C}50,000$  in grants was paid out for both programmes. From bridging aid III, the maximum grant was increased to  $\mathfrak{C}100,000$ .

Info box <i> after the term "Extraordinary economic assistance November/December": Grants for enterprises that were ordered to close temporarily on account of the coronavirus response measures in November/December 2020, up to 80% of revenue for the same month of the previous year.

Info box <i> after the term "KfW express loans": KfW-sponsored loans, for example KfW Instant Loans or KfW Entrepreneur Loans.

Info box <i> after the term "Guarantee programmes": Guarantee programmes via guarantee banks or state government promotional institutions, for example.

Info box <i> after the term "Equity interests": Equity interests through the Federal Government's Economic Stabilisation Fund or state governments' equity funds, for example.

Info box <i> after the term "New Start Assistance and New Start Assistance Plus": Advance payment up to  $\[mathcal{e}\]$ 7,500 for sole traders and up to  $\[mathcal{e}\]$ 30,000 for small corporations and cooperatives from January to October 2021. If they experienced a drop in revenue of 60% or more, sole traders were no longer required to repay the advance payments.

**QUESTION:** How much has your enterprises received from the following assistance programmes since the start of the pandemic?

Note: Please select one answer for each row. Please consider only amounts you have actually received.

- 1 = Up to €10,000
- 2 = €10,001 to €50,000
- 3 = €50,001 to €100,000
- 4 = €100,001 to €500,000

```
5 = €500,001 to €1,000,000
```

- 6 = €1,000,001 to €5,000,000
- 7 = More than €5,000,000
- a = Emergency aid <i> (March to May 2020):
- b = Bridging aid I to IV <i> (since June 2020):
- c = Extraordinary economic assistance November/December <i> (November 2020 to April 2021):
- e = KfW special loan programmes and/or KfW express loans <i> (since March 2020):
- g = Federal Government or state government guarantee programmes <i>:
- h = Federal Government or state government equity interests <i>::
- i = New Start Assistance and New Start Assistance Plus <i> (since January 2021):

 SAMPLE SPLIT 2 – END	<b></b>

# X08ACoreFinancing sources pastfinancingpast\_[a-g]"Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue".Info box <i> after the term "government-sponsored loans":"Government-sponsored loans include, for example, public sector support in the form

## **QUESTION:** Has your enterprise used the following <u>financing sources</u> over the past **three months**?

of guarantees, reduced interest rates or funding grants."

Note: Please select one answer for each row. Please consider the last three full calendar months when answering this question.

- 1 = Yes
- 2 = No, but used prior to this period
- 3 = No, never used to date
- a = Retained earnings:
- b = Bank loans (excluding overdrafts):
- c = Overdrafts:
- d = Government-sponsored loans <i>:
- e = Trade credits (including advances and trade payables):
- f = Fauity
- g = Other instruments (debt securities, other loans (including to affiliated enterprises), leases/hire purchase and factoring):

X08B	Core	Financing sources future	financingfuture_[a-g]			
Input filter: only show items with financingpast $[a-g] = 2   3$						
"Don't kn	"Don't know" and "No answer" shown as soft prompts if no response selected and the					
participa	participant clicked on "Continue".					
Info box <i> after the term "government-sponsored loans":</i>						
"Government-sponsored loans include, for example, public sector support in the form						
of guaran	tees, reduced int	erest rates or funding grants."				

## **QUESTION:** Is your enterprise planning to use the following <u>financing sources</u> over the next **three months**?

Note: Please select one answer for each row. Please consider the next three calendar months when answering this question.

- 1 = Yes
- 2 = No, however, there are plans to use them at a later point in time
- 3 = No, no use at all planned
- a Retained earnings:
- b Bank loans (excluding overdrafts):
- c Overdrafts:
- d Government-sponsored loans <i>:
- e Trade credits (including advances and trade payables):
- f Equity:
- g Other instruments (debt securities, other loans (including to affiliated enterprises), leases/hire purchase and factoring):

## 812 Pro Liquidity buffer remainliqui

After the question, an info box <i> with the following definition is shown: "Liquid funds comprise funds - such as cash, bank balances, cheques etc. - that are used in particular to settle day-to-day business payments. If an enterprise no longer has enough liquid funds to cover its running costs, it may experience payment difficulties or even insolvency."

**QUESTION:** Based on the situation today and the most plausible scenario, for how long a period will your enterprise continue to have sufficient <u>liquidity</u> <i> before having to discontinue or abandon its business activities?

Note: Please select the answer that is most applicable.

- 1 = Up to one month
- 2 = Up to two months
- 3 = Up to six months
- 4 = Up to twelve months
- 5 = We generally have sufficient liquidity.
- -9996 = Does not apply to my enterprise

## 801 Pro B Investment requirements future fin\_invest\_[a, b] "Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue".

**QUESTION:** We would like to ask you about your enterprise's investments. How great do you expect your <u>need for investment</u> to be over the **coming years** compared with investment expenditure over the past five years (2017-2021)?

Note: Please consider investment to be tangible fixed assets (e.g. equipment such as vehicles, machines and devices; buildings; cultivated biological resources) as well as intellectual property (e.g. research and development; software and databases; copyrights). Please compare both periods with the past five years (2017-2021). If your enterprise was established after 2017, please consider the period from when it was established to 2021.

- a = Short to medium term, from 2022-2026:
- b = Medium to long term, from 2027-2031:
- 1 = No need for investment
- 2 = Between 70% and 99% lower
- 3 = Between 40% and 69% lower
- 4 = Between 10% and 39% lower
- 5 = Roughly the same (same or difference of less than 10%)
- 6 = Between 10% and 39% higher
- 7 = Between 40% and 69% higher
- 8 = Between 70% and 99% higher
- 9 = 100% higher or more

802 Pro B Investments for climate and digitalisation fin\_clim\_digi\_[a, b] Input filter: fin\_invest\_[a] # 1 OR fin\_invest\_[b] # 1 "Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue".
Info box <i>> after the term "Climate protection": Investment in climate protection here only refers to investments your enterprise makes that contribute to addressing climate change. Measures your enterprise takes to adjust to changes triggered by climate change should not be included here. QUESTION: How great do you expect the share of investment in climate protection <i> and digitalisation to be in the total volume of future investment needed over the coming years? Input filter: if fin\_invest\_[a] # 1 AND fin\_invest\_[b] # 1 Note: Please select one answer for each period. a = Short to medium term, from 2022-2026: b = Medium to long term, from 2027-2031: Input filter: if fin invest [a]  $\neq \frac{1}{1}$  AND fin invest [b] =  $\frac{1}{1}$ Note: Please select one answer. a = Short to medium term, from 2022-2026: Input filter: if fin\_invest\_[a] = 1 AND fin\_invest\_[b] # 1 Note: Please select one answer. b = Medium to long term, from 2027-2031: 1 = No investment in climate protection and digitalisation planned 2 = Up to 25% 3 = 25% to less than 50% 4 = 50% to less than 75% 5 = 75% to less than 100% 6 = 100%

803 Pro B Transformation financing mix fin_trans_mix_[a-g]					
Input filter: <i>fin clim digi</i> [a] ≠ <mark>1   -9997</mark>   <mark>-9998</mark>   <mark>-6666</mark>					
Supported values are between 0 and 100. No decimals are allowed.					
The programming of the question requires the sum of the six variables to be 100.					
The current sum of all entered points is shown to the respondent when answering the					
question. Respondents are asked to correct their responses if the sum does not					
equal 100. Fields that were left empty should be assigned 0 after moving to the					
next question.					
If the sum is not equal to 100, the following error message will be displayed:					
"Please note that your entries for all financing sources have to add up to 100."					
Info box <i> after the term "climate protection": Investment in climate protection</i>					
here only refers to investments your enterprise makes that contribute to addressing					
climate change. Measures your enterprise takes to adjust to changes triggered by					
climate change should not be counted here.					
"Don't know" and "No answer" shown as soft prompts if no response selected and the					
participant clicked on "Continue".					
Info box after the term "external financing via equity capital": External financing					
via equity capital includes, for example, deposits or long-term equity investments					
by partners.					
Info box after the term "government-sponsored loans": Government-sponsored loans					
include, for example, public sector support in the form of guarantees, reduced					
interest rates or funding grants.					
Info box after the term "external capital from other sources via an organised					

market": External capital from other sources via an organised market includes, for example, securitised debt securities.

Info box after the term "external capital from other sources (not via an organised market)": External capital from other sources (not via an organised market) includes, for example, suppliers credit, leasing, factoring.

**QUESTION:** What proportion of your investments in <u>climate protection</u> <i> and <u>digitalisation</u> will likely be financed via the following financing sources over the next **five years** (2022-2026)?

Note: Please enter a percentage value between 0 and 100 for each financing source. Please note that your entries for all financing sources have to add up to 100. You can also leave fields empty; these will be saved as a 0.

- a = Retained earnings: [Input field]
- b = External financing via equity capital <i>: [Input field]
- c = Bank loans: [Input field]
- d = Government-sponsored loans <i>: [Input field]
- e = External capital from other sources via an organised market <i>: [Input field]
- f = External capital from other sources (not via an organised market) <i>: [Input field]
- g = Other financing sources: [Input field]

## 807 Pro F Monitoring energy and greenhouse gases energy\_[a-d] "Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue".

**QUESTION:** Due to their potential impact on the economy and the stability of prices and the financial system, the topics of global warming and climate policy have taken on increasing importance, including for the Bundesbank. Which of the following statements about <u>energy consumption</u> and <u>greenhouse gas emissions **currently** apply to your enterprise?</u>

Note: Please select one answer for each row.

- 1 = Yes
- 2 = No
- -9996 = Does not apply to my enterprise
- a = We monitor our enterprise's energy consumption:
- b = We set targets for our enterprise's energy consumption:
- c = We monitor our enterprise's greenhouse gas emissions:
- d = We set targets for our enterprise's greenhouse gas emissions:

	SPLIT SAMPLE 3			RANDOMISATION 3								
Randomisa	Randomisation dummy: dclimaterandom1											
The dummy and .	dclimaterandom1	splits	the	sample	into	two	rou	ighly	equally	large	groups	(1
			dcl	imatera	andom1	. = 1			dclimat	erando	n1 = <mark>2</mark>	
C	lim scen prob			V	7					Y		

808	Pro F	Probability climate change scenarios	clim_scen_prob			
"Don't kn	ow" and "No answe	r" shown as soft prompts if no respo	nse selected and the			
participa	nt clicked on "Co	ntinue".				
The progr	The programming of the question requires the sum of the five scenarios to be 100.					
The curre	The current sum of all entered points is shown to the respondent when answering the					
question. Respondents are asked to correct their responses if the sum does not equal						
100. Fiel	ds that were lef	t empty should be assigned 0 after	moving to the next			
question.						

Info box <i> after the term "warmer by around  $1.1^{\circ}$ C": This statistic can be found in the current report of the Intergovernmental Panel on Climate Change from August 2021. The Intergovernmental Panel on Climate Change (IPCC) was founded in 1988. Its task is to summarise the current state of academic research on climate change. It creates regular status reports that provide a foundation for scientifically-based decision-making without, however, making any concrete recommendations for action.

Info box <i> after the term "climate science indicates further long-term global warming":

"Long term" in climate science refers to the period up to the years 2081-2100. In this context, global warming is always understood in relation to the *global average* temperature during the period between 1850-1900.

Info box <i> after the term "seen as unlikely":

One large segment of climate research views an increase in global temperatures of  $3.6^{\circ}\text{C}$  as less likely and an increase of  $4.4^{\circ}\text{C}$  as very unlikely, as technological advances in the energy sector are already being made and climate action measures are already being taken.

Info box <i> after the term "of around 1.4°C over the long term": This scenario assumes very low levels of emissions (very strong climate protection measures) and represents the highest possible climate protection target found in the

measures) and represents the highest possible climate protection target found in the worldwide Paris Climate Agreement adopted at the 2015 COP. It assumes that global warming will be limited to around  $1.4\,^{\circ}\text{C}$  in 2100 in comparison to 1850-1900 and that no additional  $\text{CO}_2$  will be emitted from the middle of the century onwards. Scenario 1 is based on scenario SSP1-1.9 in the current IPCC report.

Info box <i> after the term "of around 1.8°C over the long term":

This scenario assumes low levels of emissions (strong climate protection measures) and represents the minimum climate protection target found in the worldwide Paris Climate Agreement adopted at the 2015 COP. It assumes that global warming will be limited to around  $1.8\,^{\circ}\text{C}$  in 2100 in comparison to 1850-1900 and that no additional  $CO_2$  will be emitted starting from the middle of the century. Scenario 2 is based on scenario SSP1-2.6 in the current IPCC report.

Info box <i> after the term "of around 2.7°C over the long term":

This scenario assumes medium levels of emissions (medium-strength climate protection measures) and falls short of the climate protection targets found in the worldwide Paris Climate Agreement adopted at the 2015 COP. The assumed climate protection measures are consistent with the current agreed-upon national reduction plans, which only slightly improve upon the measures that have already been adopted. In this scenario, warming increases to around  $2.7\,^{\circ}\text{C}$  in 2100 in comparison to 1850-1900. Scenario 3 is based on scenario SSP2-4.5 in the IPCC report.

Info box <i> after the term "of around 3.6°C over the long term": This scenario assumes high levels of emissions (weak climate protection measures) and clearly falls short of the climate protection targets found in the worldwide Paris Climate Agreement adopted at the 2015 COP apparent. The assumed climate protection measures represent only the measures that have already been adopted. In this scenario, warming increases to around 3.6°C in 2100 in comparison to 1850-1900.

Scenario 4 is based on scenario SSP3-7.0 in the IPCC report.

Info box <i> after the term "of around  $4.4^{\circ}$ C over the long term": This scenario assumes very high levels of emissions (very weak climate protection measures) and clearly falls very short of the climate protection targets found in the worldwide Paris Climate Agreement adopted at the 2015 COP apparent. Climate protection is at an even lower level than in scenario 4 (around  $3.6^{\circ}$ C). In this scenario, warming increases to around  $4.4^{\circ}$ C in 2100 in comparison to 1850-1900. Scenario 5 is based on scenario SSP5-8.5 in the IPCC report.

Input filter: dclimaterandom1 = \_\_\_\_

**QUESTION:** According to the latest research, as of the 2010s, the Earth has warmed by around 1.1°C <i> in comparison to the pre-industrial period (1850-1900). Climate science expects that there will be further long-term global warming <i>. There are currently five climate change scenarios under discussion, each consisting of a combination of a level of implemented climate protection measures and the resulting limitation of further global warming. How <u>likely</u> do you consider the following scenarios?

Input filter: dclimaterandom1 =

**QUESTION:** According to the latest research, as of the 2010s, the Earth has warmed by around 1.1°C <i> in comparison to the pre-industrial period (1850-1900). Climate science expects that there will be

further long-term global warming <i>. There are currently five climate change scenarios under discussion, each consisting of a combination of a level of implemented climate protection measures and the resulting limitation of further global warming. An increase of 3.6°C or more over the long term is seen as unlikely <i> by climate researchers. How likely do you consider the following scenarios?

Note: The aim of this question is to determine how likely you think it is that something specific will happen in the future. You can rate the likelihood on a scale from 0 to 100, with 0 meaning that an event is completely unlikely and 100 meaning that you are absolutely certain it will happen. Use values between the two extremes to moderate the strength of your opinion. Please note that your answers to the categories have to add up to 100. You can also leave fields empty; these will be saved as a 0.

**Scenario 1:** Very strong climate protection measures and a resulting level of global warming of around 1.4°C over the long term <i>: [Input field]

**Scenario 2:** Strong climate protection measures and a resulting level of global warming of around 1.8°C over the long term <i>: [Input field]

**Scenario 3:** Medium-strength climate protection measures and a resulting level of global warming of around 2.7°C over the long term <i>: [Input field]

**Scenario 4:** Weak climate protection measures and a resulting level of global warming of around 3.6°C over the long term <i>: [Input field]

**Scenario 5:** Very weak climate protection measures and a resulting level of global warming of around 4.4°C over the long term <i>: [Input field]

SAMPLE SPLIT 3 – END	
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"Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue".

Info box <i> after the term "average production costs": In this context, average production costs comprise all unit costs related to the production of goods or services destined for sale (in other words, the cost of sales). This includes, in particular, material costs (energy e.g. heating and lighting, process energy) and labour costs as well as the costs of debt that can be attributed to production.

**QUESTION:** What proportion of your total <u>production costs</u> <i> is **currently** accounted for by energy costs?

Note: Please select one answer.

- 11 = 0%
- 12 = Up to 10%
- 13 = 10% to less than 20%
- 14 = 20% to less than 30%
- 15 = 30% to less than 40%
- 16 = 40% to less than 50%
- 17 = 50% to less than 60%
- 18 = 60% to less than 70%
- 19 = 70% to less than 80%
- 20 = 80% to less than 90%
- 21 = 90% to less than 100%
- 22 = 100%

D01	Descript	Firm characteristics implicit	firmid
Input filter	newcomer =		

**QUESTION:** The information collected needs to be categorised in order to complete it. When evaluating the survey data, the Bundesbank would therefore like to merge this information with data it has on record to fulfil its tasks and which are kept in a separate database of enterprises at its premises in Frankfurt am Main, Germany. If you do not consent to this, the Bundesbank will rely on you to categorise this information yourself by means of additional questions. As you can see there, these data relate to the size, balance sheet, legal form, economic sector and other structural details of your enterprise. Your consent is required to merge these data with the survey data.

The data records will be merged at a data trustee – the Deutsche Bundesbank's Research Data and Service Centre (RDSC). The security of your data is ensured when this information is subsequently processed at the RDSC. Your consent is of course voluntary. You may withdraw it at any time. However, withdrawal of your consent shall not affect the lawfulness of any processing that took place on the basis of this declaration of consent before it was withdrawn.

- 1 = Yes, consent granted.
- 2 = No, consent not granted.
- 3 = I am not authorised to grant consent.

D02	Descript	Firm characteristics explicit employment	firmemploy				
Supported value	ues are $>= 0$ .						
"Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue".							
If an invalid number (negative or including a comma or period) is entered the following error message is shown: "Please enter a valid value, without a comma or period (possible input values are 0 to 999999)."							
QUESTION: How	QUESTION: How many employees did your enterprise have on 31 December 2021?						

[Input field]

D03	Descript	Firm characteristics explicit turnover	firmturnover		
Supported values are >= 0.					
"Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue".					
Info box <i> after the term "turnover": "In place of turnover, banks/credit institutions should state their gross interest and commission income and their net trading income, whilst insurers should enter their gross premiums written."</i>					
If an invalid number (negative or including a comma or period) is entered the following error message is shown: "Please enter a valid value, without a comma or period (possible input values are 0 to 999999999)."					

**QUESTION:** What was the <u>turnover</u> < i> of your enterprise in **2021**?

Note: Please enter an amount in full <u>thousands</u> of euro.

Turnover (excluding VAT) in 2021: [Input field],000 euro

Input filter newcomer =

Info box <i> after the term "economic sector":

Info box <i> after the term "Agriculture, hunting and forestry, fishing": "Crop and animal production, hunting and related services; forestry and logging; fishing and aquaculture."

Info box <i> after the term "Mining and quarrying, electricity and water supply": "Mining of coal and lignite; petroleum and natural gas extraction; mining of metal ores; other mining and quarrying; mining support service activities; electricity, gas, steam and air conditioning supply; water supply."

Info box <i> after the term "Manufacture of non-durable consumer products": "Manufacture of textiles; apparel; leather, leather goods and shoes; wood and of products of wood and cork, except furniture; paper and paper products; printing; reproduction of recorded media."

Info box <i> after the term "Manufacture of industrial goods":
"Coke and refined petroleum products, manufacture of: chemical products;
pharmaceutical products; rubber and plastic products; other non-metallic mineral
products; metal production and processing."

Info box <i> after the term "Manufacture of capital and durable consumer goods": "Machinery and equipment; manufacture of motor vehicles and motor vehicle parts, other transport equipment, other manufacturing, repair and installation of machinery and equipment; fabricated metal products; computers and electronic and optical products; electrical equipment; furniture."

Info box <i> after the term "Information and communication":
"Publishing activities; film, video and television programme production; cinemas; sound recording and music publishing activities; programming and broadcasting activities; telecommunication; computer programming, consultancy and related activities; information service activities."

Info box <i> after the term "Financial and insurance activities":
"Provision of financial services; insurance, reinsurance and pension funding
(excluding compulsory social security); activities auxiliary to financial and
insurance services."

Info box <i> after the term "Business support, scientific and other professional services":

"Real estate activities; legal and accounting activities; activities of head offices, management consultancy; architectural and engineering activities; technical testing and analysis; research and development; advertising and market research; other professional, scientific and technical activities; veterinary activities; rental and leasing activities; employment activities; travel agency, tour operator reservation service and related activities; security and investigation activities; services to buildings and landscape activities; office administrative, office support and other business support activities."

Info box <i> after the term "Other service activities":

"Creative, arts and entertainment activities; libraries, archives, museums and other cultural activities; gambling and betting activities; sports activities and amusement and recreation activities; repair of computers and personal and household goods; other personal service activities."

"Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue".

## **QUESTION:** To which economic sector <i> does your enterprise best belong?

Note: Please select one answer.

- 1 = Agriculture, hunting and forestry, fishing <i>
- 2 = Mining and quarrying, electricity and water supply <i>
- 3 = Sewerage and waste management
- 4= Food products, beverages and tobacco

- 5 = Manufacture of non-durable consumer products <i>
- 6 = Manufacture of industrial goods <i>
- 7 = Manufacture of capital and durable consumer goods <i>
- 8 = Construction
- 9 = Wholesale, sale and repair of motor vehicles
- 10= Retail (except of motor vehicles and motorcycles)
- 11 = Transportation and warehousing
- 12 = Information and communication <i>
- 13 = Accommodation and food service activities
- 14 = Financial and insurance activities <i>
- 15 = Business support, scientific and other professional services <i>
- 16 = Education
- 17 = Health and social services
- 18 = Other service activities <i>
- 19 = Activities of membership, religious and other organisations (excluding social work activities and sport)
- 20 = Public administration, defence, social security

D05 Descript		Firm characteristics explicit ownership	firmtype			
Input fil	ter <i>newcomer</i> =					
QUESTION: How would you describe your enterprise?						
Note: Place colort all anguers that anni-						

Note: Please select all answers that apply.

- [a] Independent profit-driven enterprise that makes its own financial decisions
- [b] Branch of another enterprise
- [c] Subsidiary of another enterprise
- [d] Non-profit institution
- [e] Family business

D06	Descript	Firm characteristics explicit region	firmregion		
Input filter newcomer =					
<b>QUESTION:</b> In w	hich federal sta	te is your enterprise's head office in Germa	ny based?		
1 = Baden-Württem	berg				
2 = Bavaria					
3 = Berlin	3 = Berlin				
4 = Brandenburg					
5 = Bremen					
6 = Hamburg					

- 7 = Hesse 8 = Mecklenburg-\
- 8 = Mecklenburg-West Pomerania
- 9 = Lower Saxony
- 10 = North Rhine-Westphalia
- 11 = Rhineland-Palatinate
- 12 = Saarland
- 13 = Saxony
- 14 = Saxony-Anhalt
- 15 = Schleswig-Holstein
- 16 = Thuringia

D07	Descript	Characteristics of respondent	Respondenttype_[a-k]
no input filter			

**QUESTION:** We would now like to learn more about your role in your enterprise. In which area of your enterprise do you work?

Note: Please select all answers that apply.

- [a] Management board
- [b] Finance/control/accounting
- [c] Sales/marketing/communication
- [d] Another area (please specify): [Input field] respondenttype e

**Question:** Which job title best describes your role?

Note: Please select all answers that apply.

- [f] Owner/Managing director/Executive board member/Holder of general commercial power of attorney
- [g] Head of division
- [h] Team leader
- [i] Administrator
- [j] Other (please specify): [Input field] respondenttype\_k

## F01 Core Feedback questions feedback\_[a-b]

No input filter

"Don't know" and "No answer" shown as soft prompts if no response selected and the participant clicked on "Continue".

**QUESTION:** How difficult did you find the survey overall?

- 1 = Very difficult
- 2 = Somewhat difficult
- 3 = Neither easy nor difficult
- 4 = Somewhat easy
- 5 = Very easy

**QUESTION:** How did you find the length of the survey?

- 1 = Far too long
- 2 = Somewhat too long
- 3 = Just right
- 4 = Somewhat too short
- 5 = Far too short

F02	Core	Open feedback question	feedbackopen
No input	filter		

**QUESTION:** If you have any suggestions or criticism about the survey, please let us know here.

- 1 = [Input field]
- 2 = No, nothing/no answer

P01	Core		Panel participation	panel
Input filter newcomer =		r =		

**QUESTION:** In order to find out how you continue to manage the crisis and how your enterprise develops over the next few years, we would, going forward, like to invite you to complete a survey at intervals of three months. We will need to keep your contact details on file so that we can get in touch with you about the new surveys. To do this, we require your consent under the German Data Protection Act (*Datenschutzgesetz*).

Your contact details will be kept separately from the questionnaire and solely for the purpose of this further survey. They will never be traced back to the answers you have provided. Your information will remain anonymous as described above and your data will never be passed on to third parties. Once the last survey has been completed, your contact details will be permanently deleted. The data protection statement on the processing of personal contact details, as well as contact details for the data protection officer and information about the rights of data subjects can be found in the general data protection notice at <a href="https://www.bundesbank.de/en/bundesbank/research/survey-on-firms/survey-on-the-expectations-of-firms-855892">https://www.bundesbank.de/en/bundesbank/research/survey-on-firms-855892</a>.

We would be very grateful if you decided to continue participating in our research project. Of course, this is also voluntary and you can withdraw your consent at any time.

I agree that my address may be kept on file for further surveys (please select):

- 1 = Yes
- 2 = No

P02CoreContactcontactInput filter newcomer =

**QUESTION:** To make it easier for us to contact you about a new survey, please give us an email address that we can use to contact your enterprise. This email address will not be used for any other purpose and will be treated with the same level of confidentiality as your other contact details.

Note: Please type your email address in the text field.

[Input field]