ECB Survey of Monetary Analysts (SMA)

May 2023

Thank you for participating in this survey – your time and input are greatly appreciated.

Please return the completed questionnaire to the ECB's email address ecb-sma@ecb.europa.eu **by 18:00 CET on Thursday, 20 April 2023.**

Disclaimer: This survey has been formulated by ECB staff; members of the ECB's decision-making bodies are not involved in the formulation of the survey. The survey's purpose is to gather analysts' expectations of the evolution of monetary policy instruments and initiatives that the ECB has already announced, as well as their expectations for the economy and financial markets. The questions never presume or signal an intention to undertake any particular policy action in the future.

Legal statement: Your individual answers to this voluntary survey will be treated confidentially by ECB staff, in accordance with applicable Union law, and used for the purpose of the survey only. The results of the survey will be published in aggregate form on the ECB website. If public disclosure of your individual answers were required, the ECB would seek to obtain your prior consent.

Completing the questionnaire

The questionnaire is organised in four sections:

1. Key ECB Interest Rates, Market Rates and Market Conditions;

2. Asset Purchases and Reinvestment;

3. Refinancing Operations;

4. Macroeconomic Outlook.

You are invited to respond to all questions, although if you are unable to respond to a question you may leave it blank.

An additional section is included at the end of the questionnaire should you wish to provide any further information or feedback.

Entering your responses

For your ease of reference, in certain sections of the questionnaire recent values of the data have been included. Details about the recent values and their cut-off dates can be found in the Reference Data Annex to this questionnaire.

Data format

If a percentage rate is required as input, always omit the "%" sign. Similarly, if the question asks you to express the answer in basis points, always omit "bps".
If a date is required as input, always provide it in the format MMM YYYY (e.g. Apr 2019).

Unless otherwise stated, the questionnaire asks for future realisations of monetary policy instruments, financial and macroeconomic variables that you consider *most likely* to prevail over specific forecast horizons. In other words, your forecasts should reflect your modal projections over the forecast horizons and, if possible, should be mutually consistent for all surveyed variables.

Market rates

Please note that this survey asks for the level of the euro short-term rate (€STR). The €STR reflects the wholesale euro unsecured overnight borrowing costs of euro area banks and complements existing benchmark rates.

For the sake of brevity, the questionnaire focuses on the €STR. However, the ECB considers the entire set of available interest rates when assessing prevailing market conditions.

Macroeconomic variables

For real GDP growth you are asked to provide your expectations of the change in the variable in quarter-on-quarter (q-o-q) terms (not annualised) that are calendar and seasonally adjusted.

For HICP inflation and HICP inflation excluding energy and food, you are asked to provide your expectations of the change in the variable in year-on-year (y-o-y) or annual average terms. If your institution constructs projections at a monthly frequency for these variables, then a quarterly value of the y-o-y rates may be calculated by taking the average of the y-o-y changes in the three months in the quarter. An annual average can be calculated by taking the average of y-o-y changes in the 12 months, or four quarters of the year.

For the unemployment rate, you are asked to provide period averages in seasonally adjusted terms.

Administration and contacts

If you have any questions, please contact us at ecb-sma@ecb.europa.eu.

If your contact details or the contact person (i.e. the person who should receive the survey questionnaire) has changed, please inform us of the new details by sending an email to ecb-sma@ecb.europa.eu.

Privacy statement for the Survey of Monetary Analysts (SMA)

Participation in the Survey of Monetary Analysts (SMA) is voluntary.

All personal data are processed in accordance with EU Data Protection Law.[1] The European Central Bank (ECB) is the controller and the Monetary Policy Strategy Division in the ECB's Directorate General Monetary Policy is the unit responsible for processing your data.

Your personal data are processed based on your consent. The purpose of the processing is to maintain a list of contact persons in the participating organisations to whom any questions related to the survey may be addressed. There will be no further processing of your personal information if you withdraw your consent, although earlier processing will remain lawful.

Personal data will be accessed by the ECB staff members directly involved in the SMA.

Your personal data are stored for as long as your organisation participates in the survey and will be deleted after that. Your personal data will also be deleted as soon as the ECB receives notification that you no longer act as the contact person for your organisation, or if a new contact person has been nominated.

You have the right to access, rectify or (with some limitations) request deletion of your personal data or restriction of the processing of your data in line with Regulation (EU) 2018/1725. You can exercise these rights by sending an email to ecb-sma@ecb.europa.eu. If you have any further questions, please contact the ECB's Data Protection Officer (dpo@ecb.europa.eu).

Furthermore, you have the right to contact the European Data Protection Supervisor at any time regarding the processing of your personal data.

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[1]   Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC. For more details see: https://eur-lex.europa.eu/eli/reg/2018/1725/oj

1 Key ECB Interest Rates, Market Rates and Market Conditions

1.1 Please indicate the percentage chance you attach to the next rate *change* being an increase or a decrease, the most likely timing of such a change and the size of the change you expect.[2]

DFR				
Direction	**Probability** (percentage)	**Month**	**Year**	**Size**
Increase				
Decrease				

MRO				
Direction	**Probability** (percentage)	**Month**	**Year**	**Size**
Increase				
Decrease				

MLF				
Direction	**Probability** (percentage)	**Month**	**Year**	**Size**
Increase				
Decrease				

1.2 Please indicate the percentage chance you attach to changes on the dates surrounding the timing of the next rate *change* (*increase* or *decrease*) that you specified in your response to Question 1.1.[3]

DFR	Dates are centred on your answer to Question 1.1; step size is at the Governing Council frequency						
Increase							
Probability (percentage)							Check sum is 100%

DFR	Dates are centred on your answer to Question 1.1; step size is at Governing Council frequency						
Decrease							
Probability (percentage)							Check sum is 100%

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[2] The probabilities of an increase or decrease must add up to 100%. DFR refers to the rate on the deposit facility, MRO refers to the rate on main refinancing operations and MLF refers to the rate on the marginal lending facility. Please include the sign of the rate change (+ for an increase, - for a decrease).

[3] Responses must add up to 100%.

MRO	Dates are centred on your answer to Question 1.1; step size is at the Governing Council frequency							
Increase								
Probability (percentage)								Check sum is 100%

MRO	Dates are centred on your answer to Question 1.1; step size is at the Governing Council frequency							
Decrease								
Probability (percentage)								Check sum is 100%

1.3   Please indicate the percentage chance you attach to larger and smaller sizes of the next *change* (*increase* or *decrease*) in the DFR and MRO that you specified in your response to Question 1.1.[4]

	Size of change for a rate decrease (bps)																
	< -75	-75	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	Check
DFR																	
MRO																	

	Size of change for a rate increase (bps)																
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	>75	Check
DFR																	
MRO																	

If applicable, please state the factors behind any change in your answers since the previous survey and explain your answer in more detail.

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4   Responses must add up to 100%. Please omit the "%" sign when entering the data.

1.4 Please indicate the level (in percentage per annum)[5] of the following interest rates that you consider most likely (i.e. the mode) to prevail over the reserve maintenance period[6] after the Governing Council monetary policy meetings listed below. Also, indicate the level that you consider most likely (i.e. the mode) to prevail at the end of each of the months and quarters listed below, and in the long run.

Date	DFR	MRO	MLF	€STR	3-month EURIBOR
Feb-23	2.50	3.00	3.25	2.40	2.76
Mar-23	3.00	3.50	3.75		
May-23					
Jun-23					
Jul-23					
Sep-23					
Oct-23					
Dec-23					
Feb-24					
Mar-24					
Quarters					
2024 Q2					
2024 Q3					
2024 Q4					
2025 Q1					
2025 Q2					
2025 Q3					
2025 Q4					
2026 Q1					
2026 Q2					
2026 Q3					
2026 Q4					
Long run[7]					

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[5] Please omit the "%" sign when entering the data.

[6] The reserve maintenance period usually starts on the Wednesday of the week following each Governing Council monetary policy meeting, which is also the date from which any changes to the key ECB interest rates that the Governing Council has decided at that meeting are applied to the respective Eurosystem monetary policy operations.

[7] The long run should be interpreted as the horizon over which the effects of all shocks will vanish. For the purposes of this survey and for the sake of simplicity, this can be interpreted as around ten years.

1.5   Please indicate the level of the swap rate or bond yield (in percentage per annum) of the following financial instruments that you consider most likely (i.e. the mode) to prevail at the end of the time horizon listed below.

Date	10-year OIS (based on €STR)	German 10-year government bond	French 10-year government bond	Italian 10-year government bond	Spanish 10-year government bond
1 year ahead (Apr 2024)					
2 years ahead (Apr 2025)					

2   Asset Purchases and Reinvestment

2.1   Please provide your expectations of the most likely (i.e. the mode) Eurosystem stock of bonds under the APP and the PEPP (cumulative net purchases and redemptions) at the end of each of the periods listed below (book value, EUR billions).

Date	Eurosystem APP stock of bonds (cumulative net purchases and redemptions)	Eurosystem PEPP stock of bonds (cumulative net purchases and redemptions)
Recent value (end of 2023 Q1)	3417.2	1713.5
2023 Q2		
2023 Q3		
2023 Q4		
2024 Q1		
2024 Q2		
2024 Q3		
2024 Q4		
2025 Q1		
2025 Q2		
2025 Q3		
2025 Q4		
2026 Q1		
2026 Q2		
2026 Q3		
2026 Q4		

2.2 Please indicate whether you expect any changes to the forward guidance on the PEPP reinvestments.[8]

No	Yes

If you answered "yes", please provide details in the table below.

Change in forward guidance on PEPP reinvestments (please describe below)	Timing of announcement	
	Month (Format: MMM)	Year (Format: YYYY)

2.3 Please indicate the percentage chance you attach to the Transmission Protection Instrument (TPI) being activated within the horizon specified below.

	Probability (percentage)
Within the next 6 months	
Within the next 12 months	
Within the next 24 months	

3 Refinancing Operations

3.1 Please provide your estimate of the total repayments (EUR billions) of the operations under TLTRO III for the dates listed below.[9]

	Amount
2021 Q3	79.24
2021 Q4	60.21
2022 Q1	1.80
2022 Q2	74.04
2022 Q3	8.35
2022 November	296.29
2022 December	499.39
2023 January	62.75
2023 February	36.60
2023 March	119.90
2023 Q2	

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8   Please indicate your response with an "X".

9   For the settlement date of the first voluntary early repayment per operation, see the Indicative calendar for TLTRO III voluntary early repayments.

2023 Q3	
2023 Q4	
2024 Q1	
2024 Q2	
2024 Q3	
2024 Q4	

3.2   If applicable, please state the factors behind any change in your expectations about TLTROs since the previous survey and explain your answer in more detail.

4   Macroeconomic Outlook

4.1   For the euro area, please provide your estimates of the most likely outcome[10] (i.e. the mode) for real GDP growth,[11] the unemployment rate[12] and inflation[13].

Projection				
	Real GDP growth	**Unemployment rate**	**HICP inflation**	**HICP excluding energy and food**
Quarter	**(q-o-q)[18]**	**(qtly avg)[19]**	**(y-o-y)[20]**	**(y-o-y)[20]**
2022 Q4	-0.03	6.67	9.97	5.07
2023 Q1			7.98	5.53
2023 Q2				
2023 Q3				
2023 Q4				
2024 Q1				
2024 Q2				
2024 Q3				
2024 Q4				
2025 Q1				
2025 Q2				
2025 Q3				
2025 Q4				
2026 Q1				

[10]   Please omit the "%" sign when entering the data.

[11]   Quarter-on-quarter calendar and seasonally adjusted but not annualised.

[12]   Seasonally adjusted.

[13]   If inflation projections are only available at a monthly frequency, the quarterly rate may be obtained by calculating the average of the y-o-y changes for the three months in the quarter.

Projection				
	Real GDP growth	**Unemployment rate**	**HICP inflation**	**HICP excluding energy and food**
2026 Q2				
2026 Q3				
2026 Q4				
	(y-o-y)	**(rate)**	**(y-o-y)**	**(y-o-y)**
Long run[14]				

If applicable, please state the factors behind any change since the previous survey and explain your answer in more detail.

4.2   Please indicate the percentage chance you attach to average annual HICP inflation being below or above 2% in the following years.[15]

	Probability of HICP inflation	
	below 2% (percentage)	**above 2%** (percentage)
2023		
2024		
2025		

4.3   Please indicate the percentage chance you attach to the following levels of long-run HICP inflation.

Long-run HICP inflation	**Probability** (percentage)
<0.1%	
0.1-0.3%	
0.4-0.6%	
0.7-0.9%	
1.0-1.2%	
1.3-1.5%	

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[14]   The long run should be interpreted as the horizon over which the effects of all shocks will vanish. For the purposes of this survey and for the sake of simplicity, this can be interpreted as around ten years.

[15]   For each year, the probabilities must add up to 100% under the assumption of a continuous probability distribution around the forecast. The likelihood of observing any exact value in that case is zero, given a continuous set of possible values. For instance, if annual inflation is expected to be 2% and the distribution around it is symmetric, then the probabilities of all cells above 2% will total 50% and those of all cells below 2% will also total 50%.

1.6-1.8%	
1.9-2.1%	
2.2-2.4%	
2.5-2.7%	
2.8-3.0%	
3.1-3.3%	
3.4-3.6%	
3.7-3.9%	
≥4.0%	
Check sum is 100%	

4.4   How do you assess the balance of risks surrounding your projections for euro area growth and inflation?[16]
In the second table below, please specify any particular risks that you consider important, including beyond this horizon.

	Risks surrounding the euro area growth outlook			Risks surrounding the euro area inflation outlook		
	downside	balanced	upside	downside	balanced	upside
2023						
2024						
2025						

Risks surrounding the euro area growth outlook in detail	Risks surrounding the euro area inflation outlook in detail

5   Please provide any additional information or feedback.

6   Reference Data Annex[17]

All data in percentages, unless otherwise stated.

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[16]   Please indicate your response with an "X".

[17]   Cut-off date for the data provided in this annex: 13 April 2023 (unless otherwise stated).
Sources: Bloomberg, ECB, Eurostat and Thomson Reuters.

ECB policy rates	
Deposit facility rate	3.00
Main refinancing operations rate	3.50
Marginal lending facility rate	3.75

Market interest rates	
€STR	2.90
3-month EURIBOR	3.18

Macroeconomic data	
Annual HICP inflation, flash estimate (March 2023)	6.90
Annual HICP inflation, flash estimate (quarterly average rate, 2023 Q1)	7.98
Annual HICP inflation excluding energy and food, flash estimate (March 2023)	5.70
Annual HICP inflation excluding energy and food, flash estimate (quarterly average rate, 2023 Q1)	5.53
Real GDP growth for 2022 Q4 (q-o-q; calendar and seasonally adjusted) (according to ESA 2010)	-0.03
Real GDP growth for 2022 (annual average rate; y-o-y)	3.55
Unemployment rate for February 2023 (monthly rate; seasonally adjusted)	6.58
Unemployment rate for 2022 Q4 (quarterly average rate; seasonally adjusted)	6.67

APP redemption amounts

Expected monthly redemption amounts for the APP over a rolling 12-month horizon (EUR billions)[18]

Month	APP
Mar-23	41.6
Apr-23	30.0
May-23	36.2
Jun-23	22.9
Jul-23	30.9
Aug-23	17.9
Sep-23	21.2
Oct-23	52.4
Nov-23	17.5
Dec-23	8.5

[18] Actual redemptions for March 2023, based on month-end data. Remaining values are ECB estimates. Figures may not add up due to rounding. Figures are preliminary and may be subject to revision.
Note: Realised redemptions may differ from estimated redemptions.
For more details on asset purchase programmes, see the ECB's website.

Jan-24	33.5
Feb-24	25.9
Mar-24	31.0

TLTRO III

All TLTRO III operations have a maturity of three years from their settlement date; counterparties are able to repay voluntarily the amounts borrowed under TLTRO III early. For further information on TLTROs, see the ECB's website.

TLTRO III outstanding amounts and maturity dates

TLTRO III	Maturity date	Amount (EUR billions)
1	28/09/2022	0.00
2	21/12/2022	0.00
3	29/03/2023	0.00
4	28/06/2023	476.80
5	27/09/2023	83.81
6	20/12/2023	45.52
7	27/03/2024	284.25
8	26/06/2024	73.28
9	25/09/2024	90.87
10	18/12/2024	43.89
TOTAL		**1,098.42**