



EUROPEAN CENTRAL BANK
EUROSYSTEM

The ECB Survey of Monetary Analysts

Aggregate results

December 2021



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Summary Report¹

This report summarises the aggregated results of the Survey of Monetary Analysts (SMA) of **December 2021**. The survey period was from 29 November 2021 to 2 December 2021 and 27 respondents participated.

For questions that received responses from fewer than six respondents no aggregate statistics are reported.

Throughout the document, the cross-sectional distribution is defined as the distribution of the modal answers, and the average probability distribution is defined as the average of the probabilities assigned by respondents to different ranges of the measure in question.

The notes to each table provide the relevant series keys for the corresponding data in the csv-file accompanying this publication (see Annex).

This report uses abbreviations for key monetary policy parameters. For additional specific terminology please refer to the [ECB glossary](#).

The survey questionnaire is available at:

https://www.ecb.europa.eu/stats/ecb_surveys/sma/shared/pdf/ecb.sma202112_questionnaire.en.pdf

More information on the SMA is available at:

https://www.ecb.europa.eu/stats/ecb_surveys/sma/html/index.en.html

¹ Version from 13 June 2022

1 Key ECB Interest Rates, Market Rates and Market Conditions

Question 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.

Percentage chance of next rate change being an increase

(percentages)

Interest rate	25th percentile	Median	75th percentile
DFR	90.0	99.0	100.0
MRO	95.0	99.5	100.0
MLF	95.0	99.5	100.0

Note: Cross-sectional distribution.

Series key: SMA.DEC21.MEDIAN_Z_Z.U2.INCREASE.DFR_PR_DIRECTION, SMA.DEC21.MEDIAN_Z_Z.U2.INCREASE.MRO_PR_DIRECTION, SMA.DEC21.MEDIAN_Z_Z.U2.INCREASE.MLF_PR_DIRECTION. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.

Number of respondents: DFR: 25; MRO: 22; MLF: 22.

Percentage chance of next rate change being a decrease

(percentages)

Variable	25th percentile	Median	75th percentile
DFR	0.0	1.0	10.0
MRO	0.0	0.5	5.0
MLF	0.0	0.5	5.0

Note: Cross-sectional distribution.

Series key: SMA.DEC21.MEDIAN_Z_Z.U2.DECREASE.DFR_PR_DIRECTION, SMA.DEC21.MEDIAN_Z_Z.U2.DECREASE.MRO_PR_DIRECTION, SMA.DEC21.MEDIAN_Z_Z.U2.DECREASE.MLF_PR_DIRECTION. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.

Number of respondents: DFR: 25; MRO: 22; MLF: 22.

Expected size of the next rate increase

(basis points)

Interest rate	25th percentile	Median	75th percentile
DFR	10	10	25
MRO	10	25	25
MLF	10	25	25

Note: Cross-sectional distribution.

Series key: SMA.DEC21.MEDIAN_Z_BP.U2_Z.DFR_CHANGE_SIZE_INCREASE, SMA.DEC21.MEDIAN_Z_BP.U2_Z.MRO_CHANGE_SIZE_INCREASE, SMA.DEC21.MEDIAN_Z_BP.U2_Z.MLF_CHANGE_SIZE_INCREASE. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.

Number of respondents: DFR: 26; MRO: 23; MLF: 22.

Expected size of the next rate decrease

(basis points)

Interest rate	25th percentile	Median	75th percentile
DFR	-10	-10	-10
MRO	-10	-10	-9
MLF	-10	-10	-9

Note: Cross-sectional distribution.

Series key: SMA.DEC21.MEDIAN_Z.BP.U2_Z.DFR_CHANGE_SIZE_DECREASE,
SMA.DEC21.MEDIAN_Z.BP.U2_Z.MRO_CHANGE_SIZE_DECREASE,

SMA.DEC21.MEDIAN_Z.BP.U2_Z.MLF_CHANGE_SIZE_DECREASE. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.

Number of respondents: DFR: 14; MRO: 9; MLF:9.

Expected timing of the next rate increase

(date)

Interest rate	25th percentile	Median	75th percentile
DFR	Sep-23	Dec-23	Sep-24
MRO	Jan-24	Dec-24	Jun-25
MLF	Mar-24	Dec-24	Jun-25

Note: Cross-sectional distribution.

Series key: SMA.DEC21.MEDIAN_GC_Z.U2_Z.DFR_CHANGE_DATE_INCREASE,
SMA.DEC21.MEDIAN_GC_Z.U2_Z.MRO_CHANGE_DATE_INCREASE,

SMA.DEC21.MEDIAN_GC_Z.U2_Z.MLF_CHANGE_DATE_INCREASE. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.

Number of respondents: DFR: 26; MRO: 23; MLF: 22.

Expected timing of the next rate decrease

(date)

Interest rate	25th percentile	Median	75th percentile
DFR	Mar-22	Jun-22	Jun-22
MRO	Mar-22	Jun-22	Aug-22
MLF	Mar-22	Jun-22	Aug-22

Note: Cross-sectional distribution.

Series key: SMA.DEC21.MEDIAN_GC_Z.U2_Z.DFR_CHANGE_DATE_DECREASE,
SMA.DEC21.MEDIAN_GC_Z.U2_Z.MRO_CHANGE_DATE_DECREASE,

SMA.DEC21.MEDIAN_GC_Z.U2_Z.MLF_CHANGE_DATE_DECREASE. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.

Number of respondents: DFR: 11; MRO: 9; MLF: 9.

Question 1.2

Please indicate the percentage chance you attach to a change at the dates surrounding the timing of the next rate change (increase or decrease) that you specified in your response to Question 1.1.

Expected timing of the next change for the DFR, conditional on it being an increase

(date)

	25th percentile	Median	75th percentile
Date of next interest rate change	Sep-23	Jan-24	Oct-24

Note: Dates are computed as quantiles of the average probability distribution.
Series key: SMA.DEC21.MEDIAN.GC._Z.U2._Z.DFR_CHANGE_DATE_INCREASE_UNWEIGHTED. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.
Number of respondents: 25.

Expected timing of the next change for the DFR, conditional on it being a decrease

(date)

	25th percentile	Median	75th percentile
Date of next interest rate change	Mar-22	Jun-22	Sep-22

Note: Dates are computed as quantiles of the average probability distribution.
Series key: SMA.DEC21.MEDIAN.GC._Z.U2._Z.DFR_CHANGE_DATE_DECREASE_UNWEIGHTED. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.
Number of respondents: 11.

Expected timing of the next interest rate change for the MRO, conditional on it being an increase

(date)

	25th percentile	Median	75th percentile
Date of next interest rate change	Dec-23	Oct-24	Sep-25

Note: Dates are computed as quantiles of the average probability distribution.
Series key: SMA.DEC21.MEDIAN.GC._Z.U2._Z.MRO_CHANGE_DATE_INCREASE_UNWEIGHTED. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.
Number of respondents: 22.

Expected timing of the next interest rate change for the MRO, conditional on it being a decrease

(date)

	25th percentile	Median	75th percentile
Date of next interest rate change	Mar-22	Jun-22	Oct-22

Note: Dates are computed as quantiles of the average probability distribution.
Series key: SMA.DEC21.MEDIAN.GC._Z.U2._Z.MRO_CHANGE_DATE_DECREASE_UNWEIGHTED. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.
Number of respondents: 9.

Question 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.

Expected size of the next change for the DFR

(percentages)

	< -50	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5
Average probability	0.0	0.4	0.4	0.4	0.4	1.3	10.0	12.5	5.0	62.5	7.1
	5	10	15	20	25	30	35	40	45	50	>50
Average probability	2.3	51.0	4.0	11.0	29.4	0.8	0.2	0.0	0.0	1.3	0.0

Note: Average probability distribution. Percentages may not add up to 100 due to rounding.

Series key: SMA.DEC21.MEAN.M.PR.U2.BIN.DFR_CHANGE_SIZE_DECREASE_UNWEIGHTED,

SMA.DEC21.MEAN.M.PR.U2.BIN.DFR_CHANGE_SIZE_INCREASE_UNWEIGHTED. "BIN" is a placeholder to be replaced with the centre of each bin [-55, -50, -45, -40, -35, -30, -25, -20, -15, -10, -5] for "DECREASE" and [5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55] for "INCREASE".

Number of respondents: decrease: 12; increase 24.

Expected size of the next change for the MRO

(percentages)

	< -50	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5
Average probability	0.0	0.6	0.6	0.8	0.8	0.9	4.2	10.0	7.8	60.6	13.9
	5	10	15	20	25	30	35	40	45	50	>50
Average probability	10.8	25.0	8.1	8.1	44.4	1.7	0.6	0.0	0.0	1.4	0.0

Note: Average probability distribution. Percentages may not add up to 100 due to rounding.

Series key: SMA.DEC21.MEAN.M.PR.U2.BIN.MRO_CHANGE_SIZE_DECREASE_UNWEIGHTED,

SMA.DEC21.MEAN.M.PR.U2.BIN.MRO_CHANGE_SIZE_INCREASE_UNWEIGHTED. "BIN" is a placeholder to be replaced with the centre of each bin [-55, -50, -45, -40, -35, -30, -25, -20, -15, -10, -5] for "DECREASE" and [5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55] for "INCREASE".

Number of respondents: decrease: 9; increase 18.

Question 1.4

Please indicate the level (in percentage per annum) of the following interest rates that you consider most likely (i.e. the mode) to prevail over the reserve maintenance period after the Governing Council 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 quarters and years listed below, and in the long run.²

Expectations for the DFR

(percentages per annum)

Date	25th percentile	Median	75th percentile
Dec-21	-0.50	-0.50	-0.50
Feb-22	-0.50	-0.50	-0.50
Mar-22	-0.50	-0.50	-0.50
Apr-22	-0.50	-0.50	-0.50
Jun-22	-0.50	-0.50	-0.50
Jul-22	-0.50	-0.50	-0.50
Sep-22	-0.50	-0.50	-0.50
Oct-22	-0.50	-0.50	-0.50
Dec-22	-0.50	-0.50	-0.50
Jan-23	-0.50	-0.50	-0.50
Mar-23	-0.50	-0.50	-0.50
Apr-23	-0.50	-0.50	-0.50
Jun-23	-0.50	-0.50	-0.50
Jul-23	-0.50	-0.50	-0.50
Sep-23	-0.50	-0.50	-0.40
Oct-23	-0.50	-0.50	-0.40
2023Q4	-0.50	-0.40	-0.30
2024Q1	-0.50	-0.40	-0.25
2024Q2	-0.50	-0.25	-0.13
2024Q3	-0.48	-0.25	-0.03
2024Q4	-0.30	-0.20	0.00
2025Q1	-0.25	0.00	0.00
2025Q2	-0.19	0.00	0.25
2025Q3	-0.08	0.00	0.25
2025Q4	-0.08	0.25	0.44
2026	0.00	0.50	0.75
2027	0.25	0.75	1.00
2028	0.21	0.75	1.06
2029	0.25	0.75	1.06
Long run	0.75	1.00	1.25

Note: Cross-sectional distribution. The number of respondents is the maximum number of respondents for a given date, which is not necessarily the same for each date.
 Series key: SMA.DEC21.MEDIAN.GC.I.U2._Z.DFR. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively. Choose "GC", "Q" or "A" for Governing Council, quarterly or annual frequency, respectively. For the long-run value, select the frequency "A" and select in the date_desc column the value "long run".
 Number of respondents: 27.

Expectations for the MRO rate

(percentages per annum)

Date	25th percentile	Median	75th percentile
Dec-21	0.00	0.00	0.00
Jan-22	0.00	0.00	0.00
Mar-22	0.00	0.00	0.00
Apr-22	0.00	0.00	0.00
Jun-22	0.00	0.00	0.00
Jul-22	0.00	0.00	0.00
Sep-22	0.00	0.00	0.00
Oct-22	0.00	0.00	0.00
Dec-22	0.00	0.00	0.00
Jan-23	0.00	0.00	0.00
Mar-23	0.00	0.00	0.00
Apr-23	0.00	0.00	0.00
Jun-23	0.00	0.00	0.00
Jul-23	0.00	0.00	0.00
Sep-23	0.00	0.00	0.00
Oct-23	0.00	0.00	0.00
2023Q4	0.00	0.00	0.05
2024Q1	0.00	0.00	0.18
2024Q2	0.00	0.00	0.25
2024Q3	0.00	0.00	0.25
2024Q4	0.00	0.25	0.50
2025Q1	0.00	0.25	0.50
2025Q2	0.25	0.28	0.75
2025Q3	0.25	0.40	0.75
2025Q4	0.25	0.50	1.00
2026	0.29	0.75	1.25
2027	0.50	1.00	1.31
2028	0.55	1.00	1.38
2029	0.73	1.00	1.50
Long run	0.94	1.50	1.81

Note: Cross-sectional distribution. The number of respondents is the maximum number of respondents for a given date, which is not necessarily the same for each date.
 Series key: SMA.DEC21.MEDIAN.GC.I.U2._Z.MRO. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively. Choose "GC", "Q" or "A" for Governing Council, quarterly or annual frequency, respectively. For the long-run value, select the frequency "A" and select in the date_desc column the value "long run".
 Number of respondents: 26.

Expectations for the MLF rate

(percentages per annum)

Date	25th percentile	Median	75th percentile
Dec-21	0.25	0.25	0.25
Jan-22	0.25	0.25	0.25
Mar-22	0.25	0.25	0.25
Apr-22	0.25	0.25	0.25
Jun-22	0.25	0.25	0.25
Jul-22	0.25	0.25	0.25
Sep-22	0.25	0.25	0.25
Oct-22	0.25	0.25	0.25
Dec-22	0.25	0.25	0.25
Jan-23	0.25	0.25	0.25
Mar-23	0.25	0.25	0.25
Apr-23	0.25	0.25	0.25
Jun-23	0.25	0.25	0.25
Jul-23	0.25	0.25	0.25
Sep-23	0.25	0.25	0.25
Oct-23	0.25	0.25	0.25
2023Q4	0.25	0.25	0.25
2024Q1	0.25	0.25	0.35
2024Q2	0.25	0.25	0.50
2024Q3	0.25	0.25	0.50
2024Q4	0.25	0.50	0.56
2025Q1	0.25	0.50	0.81
2025Q2	0.44	0.50	1.00
2025Q3	0.44	0.50	1.06
2025Q4	0.44	0.75	1.50
2026	0.53	1.00	1.50
2027	0.74	1.25	1.75
2028	0.90	1.38	1.75
2029	0.95	1.38	1.88
Long run	1.19	1.75	2.06

Note: Cross-sectional distribution. The number of respondents is the maximum number of respondents for a given date, which is not necessarily the same for each row.
 Series key: SMA.DEC21.MEDIAN.GC.I.U2._Z.MLF. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively. Choose "GC", "Q" or "A" for Governing Council, quarterly or annual frequency, respectively. For the long-run value, select the frequency "A" and select in the date_desc column the value "long run".
 Number of respondents: 24.

Expectations for the €STR

(percentages per annum)

Date	25th percentile	Median	75th percentile
Oct-21	-0.57	-0.57	-0.57
Dec-21	-0.57	-0.57	-0.56
Jan-22	-0.57	-0.57	-0.56
Mar-22	-0.57	-0.57	-0.56
Apr-22	-0.57	-0.57	-0.56
Jun-22	-0.57	-0.57	-0.56
Jul-22	-0.57	-0.57	-0.55
Sep-22	-0.57	-0.57	-0.55
Oct-22	-0.57	-0.57	-0.55
Dec-22	-0.57	-0.56	-0.55
Jan-23	-0.57	-0.56	-0.55
Mar-23	-0.57	-0.56	-0.55
Apr-23	-0.57	-0.56	-0.55
Jun-23	-0.57	-0.55	-0.51
Jul-23	-0.57	-0.55	-0.51
Sep-23	-0.56	-0.54	-0.47
Oct-23	-0.56	-0.54	-0.47
2023Q4	-0.56	-0.47	-0.43
2024Q1	-0.55	-0.47	-0.35
2024Q2	-0.54	-0.34	-0.25
2024Q3	-0.54	-0.32	-0.25
2024Q4	-0.35	-0.24	-0.05
2025Q1	-0.30	-0.08	-0.04
2025Q2	-0.25	-0.05	0.20
2025Q3	-0.20	-0.04	0.26
2025Q4	-0.20	0.20	0.46
2026	-0.06	0.48	1.01
2027	0.05	0.52	1.20
2028	0.10	0.61	1.20
2029	0.2	0.61	1.45
Long run	0.70	1.20	1.48

Note: Cross-sectional distribution. The number of respondents is the maximum number of respondents for a given date, which is not necessarily the same for each row.
 Series key: SMA.DEC21.MEDIAN.GC.I.U2._Z.ESTR. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively. Choose "GC", "Q" or "A" for Governing Council, quarterly or annual frequency, respectively. For the long-run value, select the frequency "A" and select in the date_descr column the value "long run".
 Number of respondents: 21.

Expectations for the 3-month Euribor

(percentages per annum)

Date	25th percentile	Median	75th percentile
Oct-21	-0.55	-0.55	-0.55
Dec-21	-0.56	-0.55	-0.54
Jan-22	-0.55	-0.55	-0.54
Mar-22	-0.55	-0.54	-0.52
Apr-22	-0.54	-0.54	-0.52
Jun-22	-0.54	-0.52	-0.52
Jul-22	-0.54	-0.52	-0.50
Sep-22	-0.54	-0.52	-0.50
Oct-22	-0.54	-0.52	-0.48
Dec-22	-0.54	-0.51	-0.47
Jan-23	-0.54	-0.51	-0.46
Mar-23	-0.54	-0.49	-0.46
Apr-23	-0.54	-0.49	-0.46
Jun-23	-0.49	-0.45	-0.44
Jul-23	-0.49	-0.44	-0.42
Sep-23	-0.49	-0.44	-0.39
Oct-23	-0.49	-0.43	-0.38
2023Q4	-0.47	-0.40	-0.30
2024Q1	-0.45	-0.37	-0.27
2024Q2	-0.45	-0.24	-0.10
2024Q3	-0.45	-0.24	-0.10
2024Q4	-0.32	-0.07	0.10
2025Q1	-0.20	-0.04	0.14
2025Q2	-0.15	0.09	0.35
2025Q3	-0.05	0.10	0.40
2025Q4	-0.05	0.33	0.60
2026	0.04	0.58	1.25
2027	0.23	0.62	1.37
2028	0.30	0.74	1.38
2029	0.40	0.74	1.58
Long run	0.84	1.35	1.61

Note: Cross-sectional distribution. The number of respondents is the maximum number of respondents for a given date, which is not necessarily the same for each date.

Series key: SMA.DEC21.MEDIAN.GC.I.U2._Z.EURIBOR_3M. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively. Choose "GC", "Q" or "A" for Governing Council, quarterly or annual frequency, respectively. For the long-run value, select the frequency "A" and select in the date_desc column the value "long run".
Number of respondents: 20.

Question 1.5

What is your estimate of the level that the Governing Council would consider as a lower bound for each of the key interest rates?

Estimated lower bound for each of the key interest rates

(percentages per annum)

Interest rate	25th percentile	Median	75th percentile
DFR	-1.00	-0.90	-0.70
MRO	-0.10	0.00	0.00
MLF	0.00	0.23	0.25

Note: Cross-sectional distribution.

Series key: SMA.DEC21.MEDIAN_Z.I.U2.DFR.RATES_MIN,

SMA.DEC21.MEDIAN_Z.I.U2.MRO.RATES_MIN,

SMA.DEC21.MEDIAN_Z.I.U2.MLF.RATES_MIN. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.

Number of respondents: DFR: 24; MRO: 21; MLF: 20.

Question 1.6

Please indicate whether you expect any changes to the two-tier system for reserve remuneration.

(percentages)

	Yes	No
Share of respondents	50.0	50.0

Note: Percentage of respondents.

Series key: SMA.DEC21.PC_Z_Z.U2.NO.CHANGES_TIERING,

SMA.DEC21.PC_Z_Z.U2.YES.CHANGES_TIERING.

Number of respondents: 24.

Question 1.7

In the October 2021 Monetary Policy Decisions, the Governing Council stated that it expects the key ECB interest rates "to remain at their present or lower levels until it sees inflation reaching two per cent well ahead of the end of its projection horizon and durably for the rest of the projection horizon, and it judges that realised progress in underlying inflation is sufficiently advanced to be consistent with inflation stabilising at two per cent over the medium term. This may also imply a transitory period in which inflation is moderately above target".

Question 1.7.1

Please provide your expectation of the most likely length (i.e. the mode) referred to by "well ahead of the end of its projection horizon".

(number of quarters)

	25th percentile	Median	75th percentile
Length of "well ahead of the end of its projection horizon"	4	6	6

Note: Cross-sectional distribution.

Series key: SMA.DEC21.MEDIAN.Q_Z.U2_Z.AHEAD_OF_PROJECTION_HORIZON. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.

Number of respondents: 22.

Question 1.7.2

Please provide your expectation of the most likely value of underlying inflation (i.e. the mode) referred to by “realised progress in underlying inflation is sufficiently advanced”.

(percentage changes)

	25th percentile	Median	75th percentile
Value of underlying inflation referred to by “realised progress in underlying inflation is sufficiently advanced”	1.7	1.8	1.9

Note: Cross-sectional distribution.

Series key: SMA.DEC21.MEDIAN.Q.Y.U2._Z.HICP_REALISED_PROGRESS. Replace “MEDIAN” with “P25” or “P75” to obtain the 25th and 75th percentile, respectively.

Number of respondents: 22.

Question 1.7.3

Please indicate whether you expect any change in the forward guidance on policy rates.

(percentages)

	Yes	No
Share of respondents	30.4	69.6

Note: Percentage of respondents.

Series key: SMA.DEC21.PC._Z._Z.U2.NO.CHANGES_FORWARD_GUIDANCE_RATES, SMA.DEC21.PC._Z._Z.U2.YES.CHANGES_FORWARD_GUIDANCE_RATES.

Number of respondents: 23.

If you have indicated “yes”, please provide the date when this change would occur.

(date)

	25th percentile	Median	75th percentile
Date of change in rate forward guidance	Feb-23	Sep-23	Mar-25

Note: Cross-sectional distribution.

Series key: SMA.DEC21.MEDIAN.M._Z.U2._Z.CHANGES_FORWARD_GUIDANCE_RATES_DATE. Replace “MEDIAN” with “P25” or “P75” to obtain the 25th and 75th percentile, respectively.

Number of respondents: 7.

2 Asset Purchases and Reinvestment

Question 2.1

In the October 2021 Monetary Policy Decisions, the Governing Council stated that it expects net asset purchases under the asset purchase programme (APP) “to run for as long as necessary to reinforce the accommodative impact of its policy rates, and to end shortly before it starts raising the key ECB interest rates”. Please provide your expectations of the most likely date (i.e. the mode) of the end of APP net purchases.

(date)

	25th percentile	Median	75th percentile
End date of APP net purchases	Mar-23	Jun-23	Mar-24

Note: Cross-sectional distribution.

Series key: SMA.DEC21.MEDIAN.M._Z.U2._Z.APP_END. Replace “MEDIAN” with “P25” or “P75” to obtain the 25th and 75th percentile, respectively.

Number of respondents: 26.

Question 2.2

In the October 2021 Monetary Policy Decisions, the Governing Council stated that it intends “to continue reinvesting, in full, the principal payments from maturing securities purchased under the APP for an extended period of time past the date when it starts raising the key ECB interest rates, and in any case for as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation”. Please provide your expectations of the most likely date (i.e. the mode) of the end of the reinvestment of the principal payments from maturing securities purchased under the APP.

(date)

	25th percentile	Median	75th percentile
End date of APP full reinvestments	Dec-24	Feb-26	Mar-27

Note: Cross-sectional distribution.

Series key: SMA.DEC21.MEDIAN.M._Z.U2._Z.APP_REINVESTMENTS_END. Replace “MEDIAN” with “P25” or “P75” to obtain the 25th and 75th percentile, respectively.

Number of respondents: 24.

Question 2.3

Please provide your expectations of the most likely (i.e. the mode) Eurosystem stock of bonds under the APP and the pandemic emergency purchase programme (PEPP) (cumulative net purchases) at the end of each of the periods listed below (in book value, EUR billion).

Expectations for the Eurosystem stock of bonds under the APP

(EUR billion)

Date	25th percentile	Median	75th percentile
2021Q4	3287	3290	3290
2022Q1	3347	3350	3350
2022Q2	3466	3470	3496
2022Q3	3565	3587	3590
2022Q4	3641	3677	3710
2023Q1	3676	3737	3784
2023Q2	3689	3770	3830
2023Q3	3703	3810	3857
2023Q4	3703	3810	3893
2024Q1	3699	3810	3939
2024Q2	3699	3810	3939
2024Q3	3694	3810	3943
2024Q4	3694	3810	3943
2025Q1	3703	3780	3967
2025Q2	3698	3770	3967
2025Q3	3686	3770	3967
2025Q4	3680	3770	3967
2026Q1	3655	3824	3964
2026H1	3608	3770	3958
2026H2	3497	3759	3932
2031	2040	2800	3197

Note: Cross-sectional distribution. The number of respondents is the maximum number of respondents for a given date, which is not necessarily the same for each date.

Series key: SMA.DEC21.MEDIAN.Q.EUR.U2._Z.EUROSYSTEM_APP_HOLDINGS. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively. Choose "Q", "H" or "A" for quarterly, semi-annual or annual frequency, respectively. Number of respondents: 25.

Expectations for the Eurosystem stock of bonds under the PEPP

(EUR billion)

Date	25th percentile	Median	75th percentile
2021Q4	1610	1620	1622
2022Q1	1774	1805	1831
2022Q2	1774	1805	1837
2022Q3	1774	1805	1837
2022Q4	1774	1805	1837
2023Q1	1774	1805	1837
2023Q2	1774	1805	1837
2023Q3	1774	1805	1837
2023Q4	1774	1805	1837
2024Q1	1771	1809	1831
2024Q2	1746	1790	1830
2024Q3	1741	1786	1830
2024Q4	1731	1786	1830
2025Q1	1684	1772	1835
2025Q2	1653	1770	1835
2025Q3	1622	1770	1835
2025Q4	1591	1766	1835
2026Q1	1553	1750	1824
2026H1	1492	1738	1833
2026H2	1412	1678	1833
2031	746	1066	1420

Note: Cross-sectional distribution. The number of respondents is the maximum number of respondents for a given date, which is not necessarily the same for each date.

Series key: SMA.DEC21.MEDIAN.Q.EUR.U2.Z.EUROSYSTEM_PEPP_HOLDINGS. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively. Choose "Q", "H" or "A" for quarterly, semi-annual or annual frequency, respectively. Number of respondents: 25.

Question 2.4

Please indicate whether you expect any changes to the forward guidance on the APP and reinvestments.

(percentages)

	Yes	No
Share of respondents	92.3	7.7

Note: Percentage of respondents.

Series Key: SMA.DEC21.PC.Z.U2.NO.CHANGES_FORWARD_GUIDANCE_REINVESTMENTS, SMA.DEC21.PC.Z.U2.YES.CHANGES_FORWARD_GUIDANCE_REINVESTMENTS
Number of respondents: 26.

Question 2.5

In the October 2021 Monetary Policy Decisions, the Governing Council stated that “if favourable financing conditions can be maintained with asset purchase flows that do not exhaust the envelope over the net purchase horizon of the PEPP, the envelope need not be used in full. Equally, the envelope can be recalibrated if required to maintain favourable financing conditions to help counter the negative pandemic shock to the path of inflation”.

Question 2.5.1

What amount of the PEPP envelope of €1,850 billion do you expect to be used by March 2022?

(EUR billion)

	25th percentile	Median	75th percentile
Amount of PEPP envelope to be used by March 2022	1775	1803	1830

Note: Cross-sectional distribution.

Series key: SMA.DEC21.MEDIAN_Z.EUR.U2_Z.PEPP_USED. Replace “MEDIAN” with “P25” or “P75” to obtain the 25th and 75th percentile, respectively.

Number of respondents: 26.

Question 2.5.2

If you expect a further recalibration of the PEPP envelope, please provide your expectations of the most likely announcement date and size (i.e. the modes) of the additional envelope. In case you do not expect an increase in the size of the total envelope, please enter “0” for the size of the additional envelope.

Expected announcement date of additional PEPP envelope

(date)

	25th percentile	Median	75th percentile
Announcement date of PEPP recalibration	Dec-21	Dec-21	Dec-21

Note: Cross-sectional distribution.

Series key: SMA.DEC21.MEDIAN.M_Z.U2_Z.PEPP_RECALIBRATION_DATE. Replace “MEDIAN” with “P25” or “P75” to obtain the 25th and 75th percentile, respectively.

Number of respondents: 2.

Expected size of additional PEPP envelope

(EUR billion)

	25th percentile	Median	75th percentile
Size of additional PEPP envelope	0	0	0

Note: Cross-sectional distribution.

Series key: SMA.DEC21.MEDIAN_Z.EUR.U2_Z.PEPP_RECALIBRATION_AMOUNT. Replace “MEDIAN” with “P25” or “P75” to obtain the 25th and 75th percentile, respectively.

Number of respondents: 21.

Question 2.6

In the October 2021 Monetary Policy Decisions, the Governing Council stated that it will conduct net asset purchases under the PEPP “until at least the end of March 2022 and, in any case, until it judges that the coronavirus crisis phase is over.” Please provide your expectations of the most likely date (i.e. the mode) of the end of PEPP net asset purchases.

(date)

	25th percentile	Median	75th percentile
End of PEPP net purchases	Mar-22	Mar-22	Mar-22

Note: Cross-sectional distribution.
Series key: SMA.DEC21.MEDIAN.M._Z.U2._Z.PEPP_END. Replace “MEDIAN” with “P25” or “P75” to obtain the 25th and 75th percentile, respectively.
Number of respondents: 26.

Question 2.7

In the October 2021 Monetary Policy Decisions, the Governing Council stated that it “will continue to reinvest the principal payments from maturing securities purchased under the PEPP until at least the end of 2023.” Please provide your expectations of the most likely date (i.e. the mode) of the end of PEPP reinvestments of principal payments.

(date)

	25th percentile	Median	75th percentile
End date of PEPP full reinvestments	Dec-23	Dec-24	Jul-26

Note: Cross-sectional distribution.
Series key: SMA.DEC21.MEDIAN.M._Z.U2._Z.PEPP_REINVESTMENTS_END. Replace “MEDIAN” with “P25” or “P75” to obtain the 25th and 75th percentile, respectively.
Number of respondents: 24.

Question 2.8

Please indicate whether you expect any changes to the forward guidance on the PEPP and reinvestments.

(percentages)

	Yes	No
Share of respondents	44.0	56.0

Note: Percentage of respondents.
Series Key: SMA.DEC21.PC._Z._Z.U2.NO.CHANGES_FORWARD_GUIDANCE_PEPP, SMA.DEC21.PC._Z._Z.U2.YES.CHANGES_FORWARD_GUIDANCE_PEPP
Number of respondents: 25.

Expected timing of announcement of changes to the forward guidance on the PEPP and reinvestments.

(date)

* Insufficient number of respondents.

3 Refinancing Operations

Question 3.1

What do you expect to be the take-up under TLTRO III of each operation, and in total (in EUR billion)?

Expected take-up under TLTRO III

(EUR billion)

Date	25th percentile	Median	75th percentile
Dec-21	50	56	100
Total take-up (including previous operations)	2337	2344	2387

Note: Cross-sectional distribution. The number of respondents is the maximum number of respondents for a given date, which is not necessarily the same for each date.

Series Key: SMA.DEC21.MEDIAN.Q.EUR.U2._Z.TLTRO-III_INDIVIDUAL_OPERATION,
SMA.DEC21.MEDIAN._Z.EUR.U2._Z.TLTRO-III_TOTAL. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.

Number of respondents: 22.

Question 3.2

Please provide your estimate of the total repayments (in EUR billion) of the targeted longer-term refinancing operations under TLTRO III for the dates listed below.

Expected repayments under TLTRO III

(EUR billion)

Date	25th percentile	Median	75th percentile
Dec-21	50	78	200
Mar-22	10	38	75
Jun-22	270	529	775
Sep-22	56	175	202
Dec-22	97	199	242
Mar-23	87	155	205
Jun-23	162	400	718
Sep-23	101	140	187
Dec-23	50	72	120
Mar-24	115	142	206
Jun-24	50	68	110
Sep-24	24	50	81
Dec-24	13	25	45
Total repaid amount (including all operations)	2337	2338	2362

Note: Cross-sectional distribution. The number of respondents is the maximum number of respondents for a given date, which is not necessarily the same for each date.

Series Key: SMA.DEC21.MEDIAN.Q.EUR.U2._Z.REPAYMENTS_INDIVIDUAL_OPERATION, SMA.DEC21.MEDIAN._Z.EUR.U2._Z.REPAYMENTS_TOTAL. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.

Number of respondents: 20.

Question 3.3

What do you expect to be the take-up under PELTRO of each operation, and in total (in EUR billion)?

Expected take-up under PELTRO

(EUR billion)

Date	25th percentile	Median	75th percentile
Dec-21	1	1	1
Total take-up (including previous operations)	29	30	30

Note: Cross-sectional distribution. The number of respondents is the maximum number of respondents for a given date, which is not necessarily the same for each date.

Series Key: SMA.DEC21.MEDIAN.Q.EUR.U2._Z.PELTRO_INDIVIDUAL_OPERATION, SMA.DEC21.MEDIAN._Z.EUR.U2._Z.PELTRO_TOTAL. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.

Number of respondents: 20.

4 Macroeconomic Outlook

Question 4.1

For the euro area, please provide your estimates of the most likely outcome (i.e. the mode) for real GDP growth, the unemployment rate and inflation.

Expectations for real GDP growth

(percentage change)

Date	25th percentile	Median	75th percentile
2021Q4	0.4	0.6	0.8
2022Q1	0.5	0.8	0.8
2022Q2	0.8	1.0	1.2
2022Q3	0.7	0.8	1.1
2022Q4	0.6	0.6	0.8
2023Q1	0.5	0.5	0.6
2023Q2	0.4	0.5	0.5
2023Q3	0.4	0.4	0.5
2023Q4	0.4	0.4	0.5
2024Q1	0.3	0.4	0.4
2024Q2	0.3	0.4	0.4
2024Q3	0.3	0.4	0.4
2024Q4	0.3	0.3	0.4
2025Q1	0.3	0.3	0.4
2025Q2	0.3	0.3	0.4
2025Q3	0.3	0.3	0.4
2025Q4	0.3	0.3	0.4
2026Q1	0.3	0.3	0.3
2026Q2	0.3	0.3	0.4
2026Q3	0.3	0.3	0.3
2026Q4	0.3	0.3	0.4
2027Q1	0.3	0.3	0.3
2027Q2	0.3	0.3	0.3
2027Q3	0.3	0.3	0.3
2027Q4	0.3	0.3	0.3
2028Q1	0.3	0.3	0.3
2028Q2	0.3	0.3	0.3
2028Q3	0.3	0.3	0.3
2028Q4	0.3	0.3	0.3
Long run	1.1	1.3	1.5

Note: Cross-sectional distribution. Quarter-on-quarter change, calendar and seasonally adjusted but not annualised for quarterly values; and year-on-year for long run values. The number of respondents is the maximum number of respondents for a given date, which is not necessarily the same for each date.

Series Key: SMA.DEC21.MEDIAN.Q.Q.U2_Z.YER (quarterly data) and SMA.DEC21.MEDIAN.A.Y.U2_Z.YER (long run). In addition, select in the date_desc column the value "long run". Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.

Number of respondents: 26.

Expectations for the unemployment rate

(percentage rate)

Date	25th percentile	Median	75th percentile
2021Q4	7.4	7.5	7.7
2022Q1	7.3	7.5	7.7
2022Q2	7.3	7.4	7.6
2022Q3	7.1	7.3	7.5
2022Q4	7.0	7.3	7.5
2023Q1	7.0	7.2	7.3
2023Q2	6.9	7.1	7.3
2023Q3	6.8	7.0	7.2
2023Q4	6.7	7.0	7.2
2024Q1	6.9	7.1	7.1
2024Q2	6.8	7.1	7.2
2024Q3	6.8	7.1	7.2
2024Q4	6.7	7.0	7.2
2025Q1	6.7	6.9	7.2
2025Q2	6.6	7.0	7.2
2025Q3	6.5	6.9	7.3
2025Q4	6.5	6.9	7.3
2026Q1	6.4	6.9	7.5
2026Q2	6.4	6.9	7.3
2026Q3	6.4	6.9	7.3
2026Q4	6.4	6.9	7.3
2027Q1	6.4	7.0	7.3
2027Q2	6.3	6.8	7.2
2027Q3	6.3	7.0	7.2
2027Q4	6.3	7.0	7.2
2028Q1	6.4	7.0	7.2
2028Q2	6.4	7.0	7.2
2028Q3	6.4	7.0	7.1
2028Q4	6.4	7.0	7.3
Long run	6.8	7.2	7.5

Note: Cross-sectional distribution. Quarterly average and seasonally adjusted. The number of respondents is the maximum number of respondents for a given date, which is not necessarily the same for each date.

Series Key: SMA.DEC21.MEDIAN.Q.PC.U2._Z.URX (quarterly data) and SMA.DEC21.MEDIAN.A.PC.U2._Z.URX (long run). In addition, select in the date_descr column the value "long run". Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.

Number of respondents: 23.

Expectations for HICP inflation

(percentage change)

Date	25th percentile	Median	75th percentile
2021Q4	4.3	4.4	4.6
2022Q1	3.2	3.4	3.8
2022Q2	2.8	3.1	3.4
2022Q3	2.1	2.4	2.7
2022Q4	1.3	1.4	1.8
2023Q1	1.2	1.5	1.7
2023Q2	1.4	1.6	1.7
2023Q3	1.5	1.6	1.8
2023Q4	1.5	1.7	1.8
2024Q1	1.6	1.8	1.8
2024Q2	1.7	1.8	1.8
2024Q3	1.7	1.8	1.9
2024Q4	1.6	1.8	1.9
2025Q1	1.7	1.8	2.0
2025Q2	1.7	1.8	1.9
2025Q3	1.6	1.8	2.0
2025Q4	1.7	1.8	2.0
2026Q1	1.7	1.8	2.0
2026Q2	1.6	1.9	2.0
2026Q3	1.6	1.8	2.0
2026Q4	1.7	1.8	2.0
2027Q1	1.7	1.9	2.0
2027Q2	1.7	1.9	2.0
2027Q3	1.7	1.9	2.0
2027Q4	1.7	1.9	2.0
2028Q1	1.8	1.9	2.0
2028Q2	1.8	1.9	2.0
2028Q3	1.8	1.9	2.0
2028Q4	1.8	1.9	2.0
Long run	1.7	1.8	2.0

Note: Cross-sectional distribution. Year-on-year change. The number of respondents is the maximum number of respondents for a given date, which is not necessarily the same for each date.

Series Key: SMA.DEC21.MEDIAN.Q.Y.U2._Z.HIC (quarterly data) and SMA.DEC21.MEDIAN.A.Y.U2._Z.HIC (long run). In addition, select in the date_descr column the value "long run". Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.

Number of respondents: 25.

Expectations for HICP inflation excluding food and energy

(percentage change)

Date	25th percentile	Median	75th percentile
2021Q4	2.2	2.3	2.4
2022Q1	1.7	1.8	2.0
2022Q2	1.9	2.0	2.2
2022Q3	1.6	1.7	2.0
2022Q4	1.3	1.5	1.6
2023Q1	1.4	1.6	1.8
2023Q2	1.5	1.6	1.8
2023Q3	1.5	1.7	1.8
2023Q4	1.5	1.7	1.9
2024Q1	1.5	1.7	1.9
2024Q2	1.6	1.7	1.9
2024Q3	1.5	1.7	1.9
2024Q4	1.5	1.7	1.8
2025Q1	1.6	1.7	1.9
2025Q2	1.6	1.7	1.8
2025Q3	1.6	1.7	1.9
2025Q4	1.6	1.8	1.9
2026Q1	1.6	1.7	1.9
2026Q2	1.6	1.7	1.9
2026Q3	1.6	1.7	1.8
2026Q4	1.6	1.8	1.9
2027Q1	1.5	1.8	1.9
2027Q2	1.6	1.8	1.8
2027Q3	1.6	1.8	1.9
2027Q4	1.6	1.8	1.9
2028Q1	1.6	1.8	1.8
2028Q2	1.6	1.8	1.9
2028Q3	1.6	1.8	1.9
2028Q4	1.6	1.8	1.9
Long run	1.6	1.8	1.9

Note: Cross-sectional distribution. Year-on-year change. The number of respondents is the maximum number of respondents for a given date, which is not necessarily the same for each date.

Series Key: SMA.DEC21.MEDIAN.Q.Y.U2._Z.HEF (quarterly data) and SMA.DEC21.MEDIAN.A.Y.U2._Z.HEF (long run). In addition, select in the date_descr column the value "long run". Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively.

Number of respondents: 25.

Question 4.2

Please indicate your estimate of the most likely value (i.e. the mode) for the following indicators during the quarter of the next increase in key interest rates.

Expected value during the quarter of the next increase in key interest rates

(percentage change, percentage rate for unemployment)

Variable	25th percentile	Median	75th percentile
Real GDP growth	1.5	1.9	2.3
Unemployment rate	6.8	7.0	7.1
Headline inflation	1.7	1.9	1.9
Inflation excluding food and energy	1.7	1.7	1.9

Note: Cross-sectional distribution. Real GDP is denoted in year-on-year growth, the unemployment rate is the seasonally adjusted quarterly average, HICP inflation and HICP inflation excluding food and energy are denoted in quarterly average year-on-year change. Series key: SMA.DEC21.MEDIAN.Q.Y.U2._Z.YER_MACRO_RATES_INCREASE, SMA.DEC21.MEDIAN.Q.PC.U2._Z.URX_MACRO_RATES_INCREASE, SMA.DEC21.MEDIAN.Q.Y.U2._Z.HIC_MACRO_RATES_INCREASE, SMA.DEC21.MEDIAN.Q.Y.U2._Z.HEF_MACRO_RATES_INCREASE. Replace "MEDIAN" with "P25" or "P75" to obtain the 25th and 75th percentile, respectively. Number of respondents: real GDP growth: 22, unemployment rate: 19, HICP inflation: 21, HICP inflation excluding food and energy: 21.

Question 4.3

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

(percentages)

	< 0	0 to 0.2	0.3 to 0.5	0.6 to 0.8	0.9 to 1.1	1.2 to 1.4	1.5 to 1.7	1.8 to 2	2.1 to 2.3	2.4 to 2.6	2.7 to 2.9	3 to 3.2	3.3 to 3.5	3.6 to 3.8	> 3.9
Average probability	0.1	0.3	0.9	2.6	5.9	12.3	22.5	28.5	16.3	5.1	2.9	1.3	0.7	0.5	0.1

Note: Average probability distribution. Percentages may not add up to 100 due to rounding. Series key: SMA.DEC21.MEAN.M.PR.U2.BIN.HIC_LR_DISTRIBUTION. "BIN" is a placeholder to be replaced with the centre of each bin [-0.2, 0.1, 0.4, 0.7, 1, 1.3, 1.6, 1.9, 2.2, 2.5, 2.8, 3.1, 3.4, 3.7, 4]. Number of respondents: 21.

Question 4.4

How do you assess the balance of risks surrounding your projections for euro area growth and inflation?

Risks surrounding the euro area growth outlook

(percentages)

Date	Downside	Balanced	Upside
2021	43.5	52.2	4.3
2022	50.0	50.0	0.0
2023	12.5	66.7	20.8
2024	6.7	86.7	6.7

Note: Percentage of respondents. Percentages may not add up to 100 due to rounding. The number of respondents is the maximum number of respondents for a given date, which is not necessarily the same for each date. Series key: SMA.DEC21.PC.A._Z.U2.DOWNSIDE.YER_RISKS.

SMA.DEC21.PC.A._Z.U2.BALANCED.YER_RISKS,
SMA.DEC21.PC.A._Z.U2.UPSIDE.YER_RISKS.
Number of respondents: 23.

Risks surrounding the euro area inflation outlook

(percentages)

Date	Downside	Balanced	Upside
2021	0.0	37.5	62.5
2022	0.0	4.2	95.8
2023	8.3	50.0	41.7
2024	0.0	75.0	25.0

Note: Percentage of respondents. Percentages may not add up to 100 due to rounding. The number of respondents is the maximum number of respondents for a given date, which is not necessarily the same for each date.

Series key: SMA.DEC21.PC.A._Z.U2.DOWNSIDE.HIC_RISKS,
SMA.DEC21.PC.A._Z.U2.BALANCED.HIC_RISKS,
SMA.DEC21.PC.A._Z.U2.UPSIDE.HIC_RISKS.
Number of respondents: 24.

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