Summary of responses to the public consultation by the working group on euro risk-free rates

on €STR-based EURIBOR fallback rates

15 February 2021

Contents

1 Executive summary

The public consultation by the working group on euro risk-free rates (hereinafter called the "working group") on €STR-based EURIBOR fallback rates closed on Friday, 15 January 2021. The consultation drew considerable interest from various actors in the financial sector. 65 market participants – 50 of which were from the banking sector – provided responses. In addition to this sectoral coverage, the response sample also ensures appropriate geographic coverage. The main messages from the respondents may be summarised as follows:

1) *The vast majority of respondents (78%) agreed with the list of fallback selection criteria identified by the working group – considering it appropriate, exhaustive, comprehensive and robust – while one-fifth of the respondents pointed to some additional criteria.*

2) *The vast majority of respondents (86%) agreed with the analysis and conclusions of the working group with regard to the evaluation of the €STR-based term structure methodologies on the basis of the selection criteria. One-tenth of the respondents disagreed.*

3) *The majority of respondents (58%) agreed with the working group's conclusion that the backward-looking lookback period methodology would be the most appropriate methodology for building a €STR-based term structure that could function as a fallback for most (in terms of value), of corporate lending linked to EURIBOR. However, as an alternative to the use of a backward-looking lookback period methodology, 40% of the respondents proposed instead that a forward-looking methodology be introduced with a waterfall structure, using the backward-looking lookback period methodology for the second level of the waterfall structure.*

4) *The vast majority of respondents (81%) agreed with the working group's conclusion that a forward-looking methodology would be the most appropriate methodology for retail mortgages, consumer loans and SME loans linked to EURIBOR. The majority of respondents agreed with the proposed waterfall structure, using a forward-looking methodology for the first level and a backward-looking last reset (for up to three-month tenors) methodology for the second level (61%), while several respondents (32%) instead preferred the backward-looking lookback period methodology for the second level. A significant majority of respondents (lenders only) expected their institutions to encounter some impediments to using a rate calculated either using the backward-looking lookback period (72%) or the last reset (69%) methodologies for these types of assets.*

5) *Most respondents (57%) agreed that a backward-looking payment delay would be the most appropriate fallback methodology for current accounts linked to EURIBOR.*

6) *The vast majority of respondents (84%) agreed that a forward-looking methodology would be the most appropriate fallback methodology for trade finance products. A significant majority (75%) of respondents agreed with the proposed waterfall structure, using a forward-looking methodology for the first level and a backward-looking last reset methodology for the second level.*

7) *A significant majority of respondents (69%) agreed that a forward-looking methodology would be the most appropriate fallback methodology for most export and emerging market finance products. Most respondents (58%) agreed that a backward-looking lookback period methodology would be the most*

appropriate fallback methodology for sophisticated export and emerging market finance products. However, a minority (25%) felt that a forward-looking methodology would be most appropriate. If the forward-looking methodology were used, most respondents (53%) agreed with the proposed waterfall structure, using a forward-looking methodology for the first level and a backward-looking last reset methodology for the second level.

8) *The vast majority of respondents (77%) agreed that a backward-looking lookback period would be the most appropriate fallback methodology for EURIBOR-linked debt securities.*

9) *The vast majority of respondents (around 79%) agreed that the preferred fallback methodology for securitisations would be that which was identified* as the most appropriate fallback *for the corresponding underlying assets.*

10) *Most respondents agreed that a forward-looking methodology would be the most appropriate fallback methodology for transfer pricing models for non-financial companies (55%), while considering that the backward-looking lookback period methodology would be the most appropriate fallback methodology for transfer pricing models for financial companies (47%). About half of the respondents (46%) agreed with the proposed waterfall structure for non-financial corporate transfer pricing (using a forward-looking methodology for the first level and a backward-looking last reset methodology for the second level).*

11) *Respondents were relatively evenly split between the forward-looking (50%) and the backward-looking lookback period (42%) methodologies as the most appropriate EURIBOR fallback for investment fund benchmarks. If using a forward-looking methodology, half of the respondents (50%) agreed with the proposed waterfall structure where a backward-looking lookback period methodology would be included on its second level.*

12) *The vast majority of respondents (75%) agreed that the consultation paper had covered the required asset classes where EURIBOR rates were used. Islamic finance and regular savings products were possible use cases to consider.*

13) *In terms of the spread adjustment:*

    a) *Almost all respondents (97%) agreed that the historical mean/median spread adjustment methodology would be the preferred approach for cash products.*

    b) *Most respondents considered the alignment of spread adjustment methodologies across currencies and products essential (53%) or highly desirable (42%).*

    c) *The vast majority of respondents (80%) agreed with the working group's proposal that the spread adjustment value for each tenor should be the same irrespective of whether the products fall back on forward-looking or backward-looking rates, noting that a consistent and standardised approach is preferred in order to reduce complexity and increase acceptance.*

    d) *Almost all respondents (97%) agreed with the proposal to use historical EONIA fixings if the €STR data were not sufficient.*

    e) *About half of the respondents (46%) disagreed with the proposed transition period of one year for some cash products. 30% of respondents remained neutral, acknowledging both the advantages and disadvantages of such an approach.*

14) *In terms of calculation methodologies and conventions:*

a) *The vast majority of respondents (95%) agreed that it would be useful to have a published spread adjustment and/or an all-in rate as described in the consultation paper.*

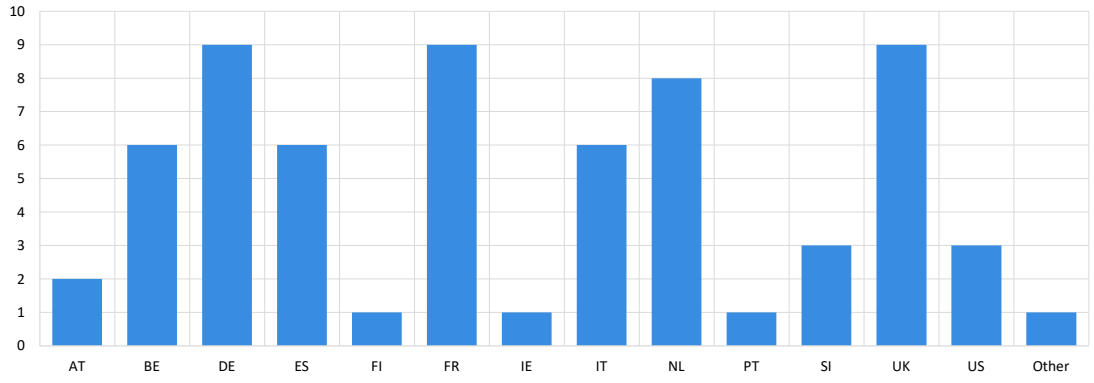
b) *The vast majority of respondents (87%) agreed that if a floor on a rate were to exist, it would apply to the €STR compounded rate plus the spread adjustment.*

c) *The vast majority of respondents (90%) agreed that compounding the rate was the best calculation methodology to use.*

d) *A significant majority of respondents agreed that, in terms of the backward-looking lookback period methodology, an observational shift was the preferred calculation methodology (68%) and agreed that the lag approach was a robust alternative to the observational shift approach (75%).*

Chart 1: Geographic coverage of the response sample

(January 2021; number of respondents by geographic area)



Source: ECB Secretariat to the working group on euro risk-free rates.

Chart 2: Representation of stakeholder groups in the response sample

(January 2021; number of respondents by sector)

Source: ECB Secretariat to the working group on euro risk-free rates.

2 Criteria used in the analysis of EURIBOR fallback rates

Question 1 of the public consultation asked:

Can you identify any additional criteria that should be taken into account? (Yes/No/No opinion)

Please elaborate on the reasons for your answer.

Criteria identified by the working group:

- *Robustness/availability*
- *Operational ease*
- *Client acceptance*
- *Hedging ease and hedge accounting impacts*
- *Other accounting impacts*
- *Risk management impacts*
- *Consistency with other jurisdictions across asset classes.*

The vast majority of respondents (78%) agreed with the list of fallback selection criteria identified by the working group – considering it appropriate, exhaustive, comprehensive and robust – while one-fifth of respondents pointed to some additional criteria.

A large majority of respondents (78%) agreed with the list of criteria identified by the working group for conducting its analysis on the most appropriate €STR-based term structure methodology to be used as a EURIBOR fallback, considering the list appropriate, exhaustive, comprehensive and robust.

Those respondents highlighted that the identified criteria encompass the core considerations to be taken into account regarding the choice of a fallback and cover the fundamental concerns related to the adoption of fallback rates, i.e. both issues related to financial markets and customer-related issues. It was also mentioned that the criteria are aligned with those used in the analyses performed in other jurisdictions but that other suitable criteria may emerge as the transition progresses.

Some specific feedback referred to the “robustness” criterion, considering it highly prominent given that one of the key reasons for conducting the benchmark rates reform is directly linked to it, while in the view of one other respondent the “client acceptance” criterion is one of the most relevant ones as it would be important to ensure that the alternative rates proposed are accepted by clients and end users.

One-fifth of respondents pointed to some additional criteria that could be considered, in particular those included in the following list.

1) *Minimising the value transfer in the transition*, i.e. the guiding principle should be that there should be no transfer of value without explicit contract renegotiation accompanied by compensation.

2) *Methodological transparency*, i.e. any methodology for determining rates should be transparent and accountable at every step, ensuring that it is not possible to influence the outcome of the transition.

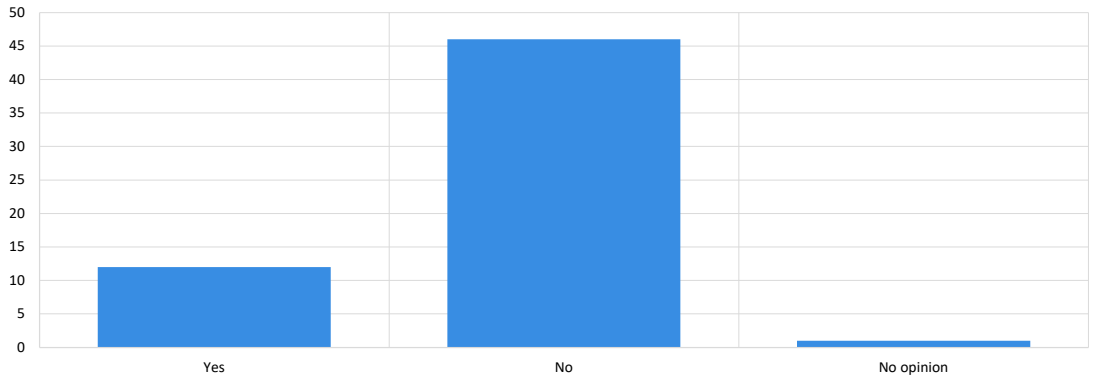
3) *Information content*, i.e. while EURIBOR contains market information on cash lending rates for the upcoming months, the backward-looking methodologies do not provide new information and the information contained by the forward-looking methodology, based on overnight indexed swaps (OIS), is not based on cash market, but on derivatives.

4) *Market innovation opportunities*.

5) *Ability of competent authorities to adjust regulation to overcome potential impediments that are identified.*

Chart 3: Is there a need for additional criteria beyond those identified by the working group?

(January 2021; 59 responses)



Source: ECB Secretariat to the working group on euro risk-free rates.

Question 2 of the public consultation asked:

Do you agree with the analysis conducted in Section 5.2.1 and the conclusions of the working group presented in Section 5.2.2 with regard to the evaluation of the €STR-based term structure methodologies on the basis of the selection criteria? (Yes/No/No opinion)

Please elaborate on the reasons for your answer.

The vast majority of respondents (86%) agreed with the working group's analysis and conclusions on the evaluation of the €STR-based term structure methodologies based on the selection criteria. One-tenth of respondents disagreed.

Those respondents who agreed considered the analysis deep, accurate, rigorous, fair and well balanced. They concurred with the approach followed by the working group that aims to identify the most suitable methodology for the main products, sectors or models, considering both backward-looking and forward-looking methodologies. They also agreed with the introduction of a waterfall structure for those *use cases* in which a forward-looking methodology is preferred.

However, some respondents highlighted concerns about calculating forward-looking rates. Some respondents considered it necessary to include a unique calculation agent ("golden source") to

ensure more transparency. Some respondents expressed doubts about the complexity of the waterfall approach, which would force less sophisticated market participants to set up a process including forward-looking and backward-looking methodologies – a number of these respondents noted that the impact of the work required to ensure infrastructure is operationally ready should not be underestimated.[1]

One-tenth of respondents did not agree with the working group's analysis on the evaluation of several of the criteria for the different types of methodologies. The main arguments provided are presented below.

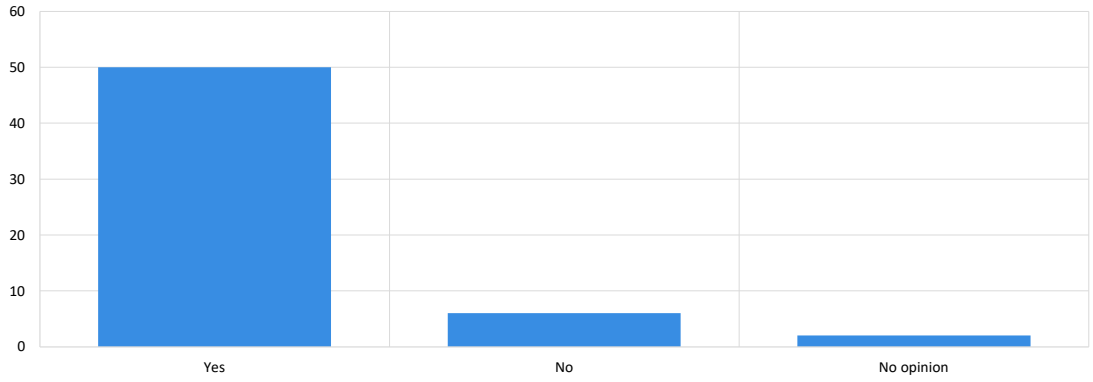
1) The evaluation of the robustness/availability criteria for the forward-looking rates has omitted the "availability" factor, i.e. forward-looking rates could be appropriate if sufficient liquidity levels are attained. This would mean they meet the "robustness" factor of the criteria. However, if forward-looking rates are not available, they are not appropriate as fallback rates. Therefore, the addition of a backward-looking *lookback period* methodology as a default on the second level of the waterfall structure was also proposed to address the issue of rates being unavailable.

2) The acceptance of the last reset by professional market players and corporates should be evaluated as 'feasible with some minor changes/drawbacks' rather than 'feasible' due to the mismatch of the observation and interest periods and the difficulty of hedging this risk.

3) The disadvantage of introducing different types of rates for the different type of products is that it would lead to a more complex transition and would create risks.

Chart 4: Do you agree with the working group's analysis on evaluating the €STR-based term structure methodologies based on the selection criteria?

(January 2021; 58 responses)



Source: ECB Secretariat to the working group on euro risk-free rates.

[1] Based on the LIBOR transition experience so far, one respondent pointed out that the time for the development of the compounded *in-arrears* methodology for off-the-shelf systems like Loan IQ ranges from two to three years. Systems for mortgages, consumers and SME lending, or for business lending/leasing/factoring, are mostly built in-house and will require multi-year projects.

3 Uses cases analysis

3.1 Corporate lending

Question 3 of the public consultation asked:

Do you agree with the working group's conclusion that the backward-looking *lookback period* methodology would be the most appropriate methodology for building a €STR-based term structure that could function as a fallback for most, by value, of the corporate lending linked to EURIBOR? (Yes/No/No opinion)

If not, what alternative methodology would you propose? (Forward-looking/Backward-looking *payment delay*/Backward-looking last reset/Another alternative)

Please elaborate on the reasons for your answer, also taking into account the possible interactions between asset classes and related instruments.

The majority of respondents (58%) agreed with the working group's conclusion that the backward-looking *lookback period* methodology would be the most appropriate methodology for building a €STR-based term structure that could function as a fallback for most (in terms of value) of the corporate lending linked to EURIBOR. However, as an alternative to using a backward-looking *lookback period* methodology, 40% of respondents proposed introducing a *forward-looking* methodology via a waterfall structure and using the backward-looking *lookback period* methodology for the second level of the waterfall structure.

This majority of respondents acknowledged the robustness of the backward-looking *lookback period* methodology, the fact that it is consistent with the approach followed in other jurisdictions[2] and that it guarantees enough time to regulate payments and solve any operational issues. Respondents also mentioned that this methodology has the clear advantage of consistency between the cash and the derivative products[3], avoiding hedging discrepancies and simplifying risk management despite its impact on accounting and operational systems, especially for less sophisticated market participants.

Respondents emphasised that the switch from a forward-looking approach to a backward-looking approach has material impacts for all involved counterparties and should be planned well in advance. Particularly, considering that it is very demanding in terms of IT implementation and resources involved. But the fact that the backward-looking *lookback period* methodology is consistent with the approach followed in other jurisdictions would lighten the operational burden of adopting it. As an example, loan system providers have already started working with this method for

---

[2] This recommendation would be in line with the recommendations of the Sterling RFR WG, the Swiss Working Group and the ARRC for loans (albeit the ARRC approach to fallbacks differs from the proposal for new loans). The ARRC supports for both compounded and simple *in-arrears* interest for business loans/corporate lending, and there is significant demand for the use of simple *in-arrears* interest for those borrowers who do not need to align across products, e.g. derivatives and that would like to avoid the complexity of the compounding in arrears methodology.

[3] Derivatives have the same fallback, although there is a slight difference in the *lookback period* (two days for derivatives and five days for loans).

LIBOR currencies; this is something that all market players could benefit from and not only market players with multi-currencies exposures.

One respondent welcomed further working group recommendations on conventions for use in EUR lending markets (on, for example, the number of days to use for the lookback methodology, rounding, margin treatment, etc.) consistent with recommendations from other RFR working groups.

Conversely, around 40% of respondents, did not agree with the working group's proposal and considered the *forward-looking* methodology, complemented by a waterfall structure, to be the most appropriate methodology for building a €STR-based term structure that could function as a fallback for most (in terms of value) of the corporate lending linked to EURIBOR. The main arguments provided are presented below.

1) Given that the *forward-looking* methodology is operationally and conceptually similar to the EURIBOR methodology, the transition would be easier to implement as it requires fewer changes to processes and systems and it is expected to be well accepted by financial institutions and clients.

2) One respondent considered that it is not necessary for loans to have the same fallbacks as derivatives because it can be expected that a forward-looking versus backward-looking basis swap market would emerge.

3) The ARRC has proposed, as part of the Hardwired Approach for cash products with LIBOR USD, a forward-looking of the Secured Overnight Financing Rate (SOFR) as the first layer of a waterfall structure and a backward-looking fallback as a second level alternative.

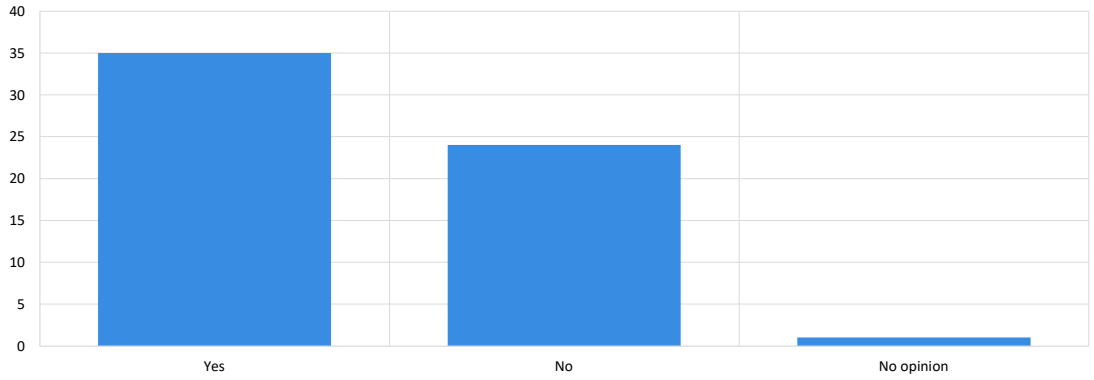
4) The forward-looking methodology would be more suitable for a series of products (overdrafts, revolving loans, early repayments, etc.).

Most respondents in this group highlighted the dependency of these considerations on the existence of a liquid and robust forward-looking rate, and some respondents categorised the hedge loans as a sub-class asset that are expected to follow the conventions for derivatives.

Finally, several respondents pointed out that it is not possible to use the backward-looking *lookback period* methodology as a backstop in the second level of the waterfall (in case a forward-looking term structure methodology).

Chart 5: Do you agree with the working group's conclusion that the backward-looking *lookback period* methodology would be the most appropriate methodology for building a €STR-based term structure that could function as a fallback for most (in terms of value) of the corporate lending linked to EURIBOR?

(January 2021; 60 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

Chart 6: Alternative methodologies proposed

(January 2021; 21 responses)

Source: ECB Secretariat to the working group on euro risk-free rates.

3.2 Mortgages, consumer loans and SME loans

Question 4 of the public consultation asked:

4.1. Do you agree with the working group's conclusion that a forward-looking methodology would be the most appropriate methodology for building a €STR-based term structure that could function as a fallback for retail mortgages, consumer loans and SME loans linked to EURIBOR? (Yes/No/No opinion)

If not, what alternative methodology would you propose? (Backward-looking *payment delay*/ Backward-looking *lookback period*/Backward-looking *last reset*/Another alternative)

Please elaborate on the reasons for your answer, also taking into account possible interactions between asset classes and related instruments.

The vast majority of respondents (81%) agreed with the working group's conclusions that a *forward-looking* methodology would be the most appropriate methodology for building a €STR-based term structure that could function as a fallback for retail mortgages, consumer loans and SME loans linked to EURIBOR.

The main reasons provided referred to the similarity between the forward-looking methodology and EURIBOR's methodology, which would facilitate acceptance and transition from an operational point of view. This was seen as especially important in this market segment[4] as it would provide more certainty for retail and SME clients with cash flows known at the beginning of the interest period and it would reflect the forward-looking economic reality.

Other respondents emphasised that the introduction of different methodologies for different products would lead to basis risks, other difficulties within banks and other difficulties in the banking sector. Also, given the potential limitations from consumer protection laws, the introduction of an *in-arrears* interest would not always be seen as feasible, as the client needs to be informed about the interest rate applied before the start of the respective interest period.

To achieve greater flexibility one respondent proposed the inclusion of conventions that function via backward-looking *lookback period*s to be included in the documentation via a bilateral opt-in.

One respondent suggested that, in the final recommendations, the working group could further clarify what constitutes small and medium-sized enterprises, medium-size corporates and large corporates[5] for which a forward-looking term €STR rate is considered appropriate.

A couple of respondents considered using the same simple, transparent and hedgeable calculation methodology for all asset classes to be a better approach, advocating the use of uniform international standards as much as possible. It was also noted that many clients use corporate lending and mortgages at the same time, hence a difference in interest rate calculations would make it difficult for them to hedge their interest rate risks.

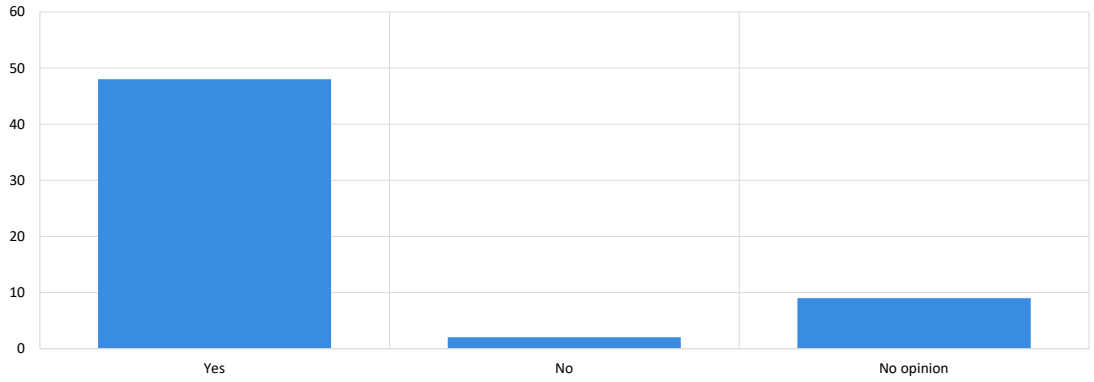
---

[4] One respondent mentioned that the experience in the United Kingdom, where most GBP borrowing (by volume) is on base rate (simple average overnight rates) rather than forward looking GBP LIBOR, showed that these transactions and clients need simple solutions. Another alternative would, therefore, either be to use base rates or to use simple rates in arrears (as also done for SONIA and SOFR). Nonetheless, this respondent acknowledged that compounded rates are being used for some mortgages in Switzerland.

[5] As an example, the Sterling RFR WG did this in its use cases paper dated January 2020.

Chart 7: Do you agree with the working group's conclusion that the *forward-looking* methodology would be the most appropriate methodology for building a €STR-based term structure that could function as a fallback for retail mortgages, consumer loans and SME loans linked to EURIBOR?

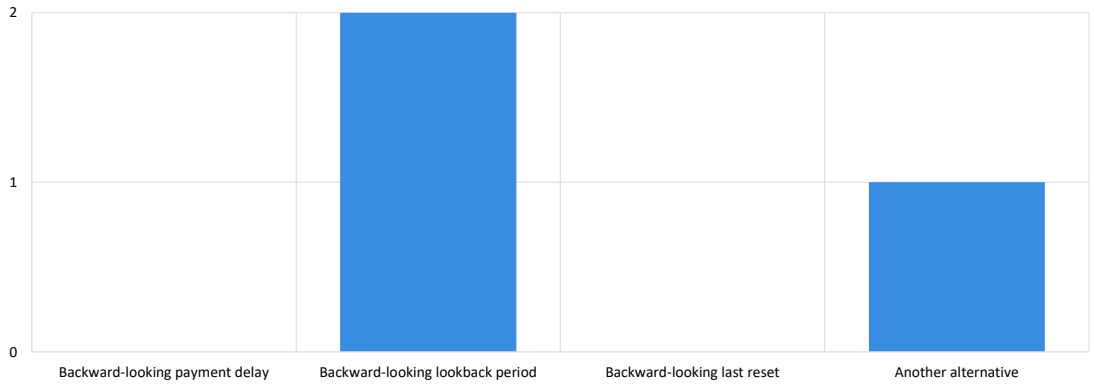
(January 2021; 59 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

Chart 8: Alternative methodologies proposed

(January 2021; 2 responses)



Source: ECB Secretariat to the working group on euro risk-free rates.

4.2. If your reply to **Question 4.1** was affirmative, would you agree with the proposal to include a term structure built using a forward-looking methodology on the first level of the waterfall structure and, on the second level of the waterfall structure, to include as a backstop, in case a forward-looking term structure methodology is not available, either: a) a term structure built using the backward-looking *last reset* methodology (up to three-month tenors) or, alternatively; b) a term structure built using the backward-looking *lookback period* methodology?

(a/b/Neither)

If neither, what alternative would you propose for the second level of the waterfall? (Backward-looking *payment delay*/Another alternative)

Please elaborate on the reasons for your answer, also taking into account possible interactions between asset classes and related instruments.

The majority of respondents (61%) supported the proposal to include a backward-looking *last reset* methodology (up to three-month tenors) on the second level of the waterfall structure that could

act as a backstop in case a *forward-looking* term structure methodology is not available, while several respondents preferred the backward-looking *lookback period* methodology (32%).

The majority of the respondents opted for the backward-looking *last reset* methodology (up to three-month tenors) as it would ensure that the client will be able to know the interest rate in advance and might require less systems development.

However, the following points were raised for attention:

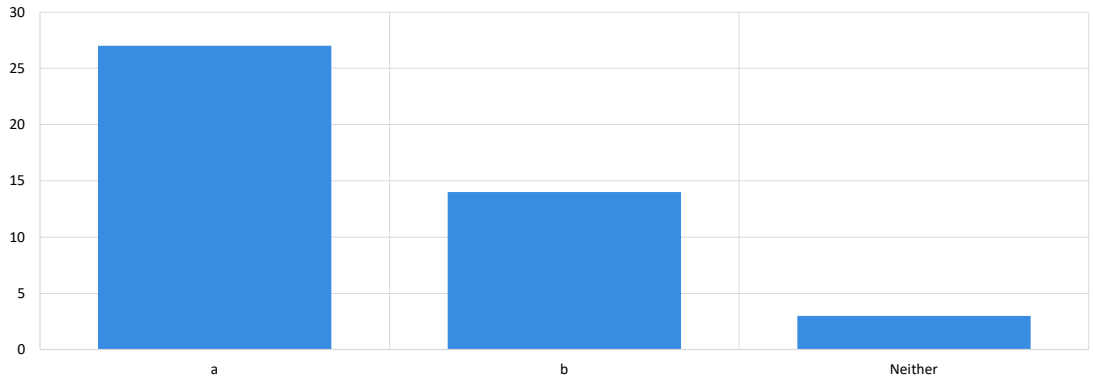
- one respondent suggested that, if this option is to be considered, the reset period should be shorter than the interest period, proposing the use of the one-month tenor as a standard;
- it was also suggested that taking into account this methodology will carry some additional risks for banks and these additional risks might be transferred to the final customer;
- one respondent suggested that legacy contracts can be seen as problematic where EURIBOR is used for maturities beyond the three-month tenors.

Several respondents preferred the backward-looking *lookback period* methodology to be included on the second level of the waterfall structure, as this option ensures consistency with the approach taken for corporate clients and since it provides sufficient time to process payments. In addition to this, because it is consistent with standard derivatives market conventions, it would be the easiest to convert to a *forward-looking* structure with an interest rate swap.

Finally, some respondents suggested using a central bank rate or a backward-looking *lookback period* using simple rather than compounded rates, which might be more straightforward for the consumer segment.

Chart 9: Proposed methodologies to build a term structure to include as a backstop on the second level of the waterfall structure, if a *forward-looking* methodology is not available

(January 2021; 44 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

4.3. Would you expect your institution to have to cope with any impediments in the case of a rate calculated using the backward-looking *lookback period* methodology for retail mortgages, consumer loans and SME loans? (Yes/No/No opinion)

Please indicate whether you are (representing) a lender or a borrower. (Lender/borrower)

Please elaborate on the reasons for your answer and, if your reply was affirmative, please specify what those impediments could be, and whether/how these impediments could be addressed.

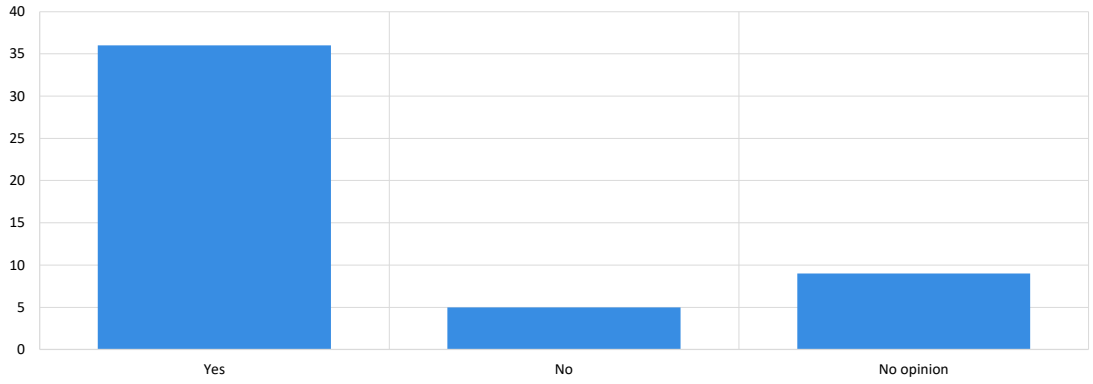
A significant majority of respondents (lenders only) expected some impediments for their institutions in coping with a rate calculated using the backward-looking *lookback period* methodology for retail mortgages, consumer loans and SME loans.

The respondents mentioned legal impediments related to customer protection laws[6], client acceptance and potential litigations that would create reputational risks. In addition, some respondents referred to a potential increase in delayed interest payments due to short notification periods between fixing the interest rate and the due date of the interest payments by less sophisticated users that do not have professional cash management systems.

Several respondents stated that, at the moment, banks are not technically ready to use backward-looking rates in their systems and the IT implementation, both in front and downstream systems, is considered quite demanding in terms of coping with the proposed multiple rate scenario.

Chart 10: Do you expect impediments to cope with a rate calculated using the backward-looking *lookback period* methodology for retail mortgages, consumer loans and SME loans?

(January 2021; 50 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

4.4. Would you expect your institution to have to cope with any impediments in the case of a rate calculated using the backward-looking *last reset* methodology for retail mortgages, consumer loans and SME loans? (Yes/No/No opinion)

Please indicate whether you are (representing) a lender or a borrower. (Lender/borrower)

Please elaborate on the reasons for your answer and, if your reply was affirmative, please specify what those impediments could be, and whether/how these impediments could be addressed.

A significant majority of respondents (lenders only) expected some impediments for their institutions to cope with a rate calculated using the backward-looking *last reset* methodology for retail mortgages, consumer loans and SME loans.

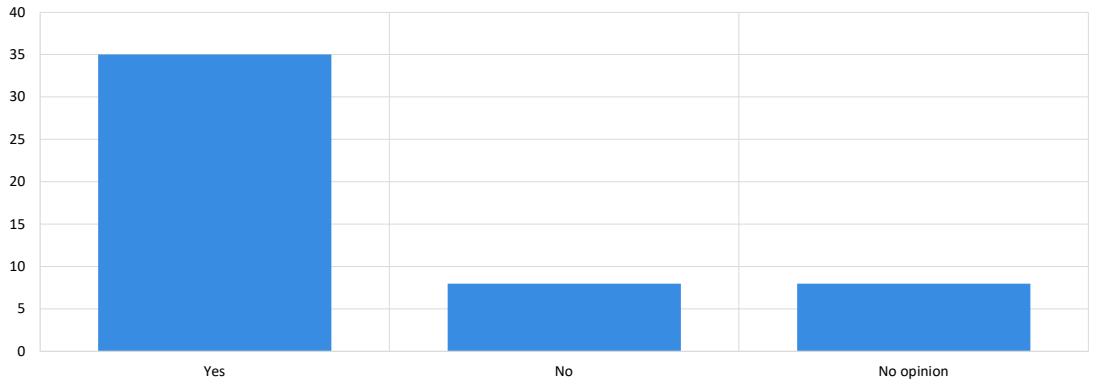
[6] At this stage, it is uncertain whether this major impediment could be addressed or not without local legal amendments.

Respondents alluded to problems related to the Solely Payments of Principal and Interest (SPPI) testing, client acceptance and some potential legal issues, but the main impediment would be related to the interest rate risk that this methodology introduces, which might not be possible to hedge. In addition to this, if clients consider the mismatch introduced detrimental to them, this methodology might also introduce litigation and reputational risks. Furthermore, the introduction of conduct risks was also mentioned due to the complexity introduced.

Finally, it was pointed out that front office and downstream systems will require enhancements, however these would be lower compared to the ones required by the backward-looking *lookback period* methodology.

Chart 11: Do you expect impediments to cope with a rate calculated using the backward-looking *last reset* methodology for retail mortgages, consumer loans and SME loans?

(January 2021; 51 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

3.3 Current accounts

Question 5 of the public consultation asked:

Do you agree that the backward-looking *payment delay* methodology would be the most appropriate methodology for building a €STR-based term structure that could function as a fallback for current accounts linked to EURIBOR? (Yes/No/No opinion)

If not, what alternative methodology would you propose? (Forward-looking/Backward-looking *lookback period*/Backward-looking *last reset*/Another alternative)

Please elaborate on the reasons for your answer and, if your reply was affirmative, please specify what those impediments could be, and whether/how these impediments could be addressed.

Most respondents (57%) agreed that a backward-looking *payment delay* would be the most appropriate fallback methodology for current accounts linked to EURIBOR.

Respondents who favoured a backward-looking *payment delay* methodology noted that this method fully represented the time value of money and therefore reflects the economic reality of current account remuneration. The transparency of the *payment delay* method also spoke in its favour. Current accounts were highlighted as products that do not require a rate to be known in advance,

which favours the backward-looking *payment delay* methodology. This method was also expected to be relatively simple to implement for firms.

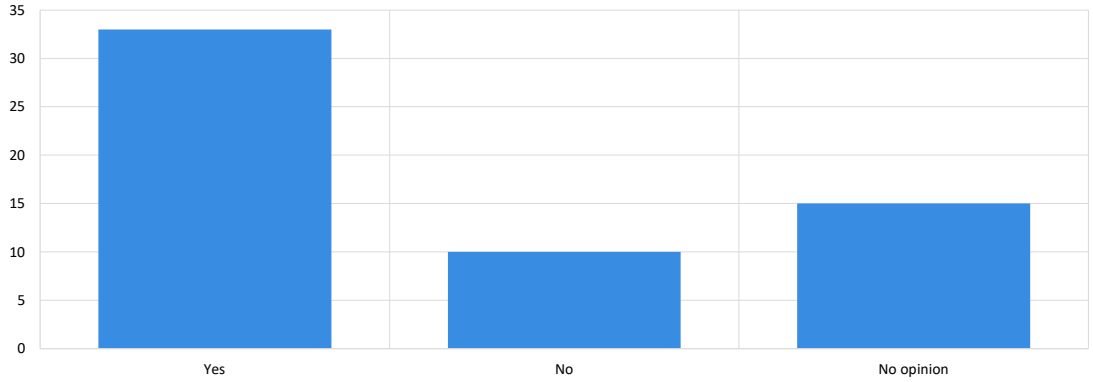
A minority of respondents preferred a different fallback methodology, although respondents were divided on the most appropriate alternative.

Several respondents felt that a forward-looking rate would be the most appropriate fallback, possibly forming the first level of a waterfall structure. These respondents focused on the conceptual familiarity between EURIBOR and a forward-looking rate and the operational ease in replacing one with the other. Other respondents preferred a backward-looking *lookback period* methodology, noting that this was consistent with fallback recommendations in other jurisdictions. One respondent preferred a backward-looking *last reset* methodology, noting that it had the benefit of being known before payment.

A notable number of respondents (26%) registered no opinion on which fallback methodology would be most appropriate for current accounts. Several of these respondents noted that many current accounts were already remunerated using overnight rates (and that these would be an appropriate fallback), so the scope of fallback is more limited than in other use cases.

Chart 12: Do you agree with the working group's conclusion that the backward-looking *payment delay* methodology would be the most appropriate methodology for building a €STR-based term structure that could function as a fallback for current accounts linked to EURIBOR?

(January 2021; 58 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

3.4 Trade finance

Question 6 of the public consultation asked:

6.1. Do you agree with the working group's conclusion that a *forward-looking* methodology would be the most appropriate methodology for building a €STR-based term structure that could function as a EURIBOR fallback for trade finance? (Yes/No/No opinion)

If not, what alternative methodology would you propose? (Backward-looking *payment delay*/ Backward-looking *lookback period*/Backward-looking *last reset*/ Please specify another alternative)

Please elaborate on the reasons for your answer, also taking into account possible interactions between asset classes and related instruments.

The vast majority of the respondents (84%) agreed that a *forward-looking* methodology would be the most appropriate fallback methodology for trade finance products.

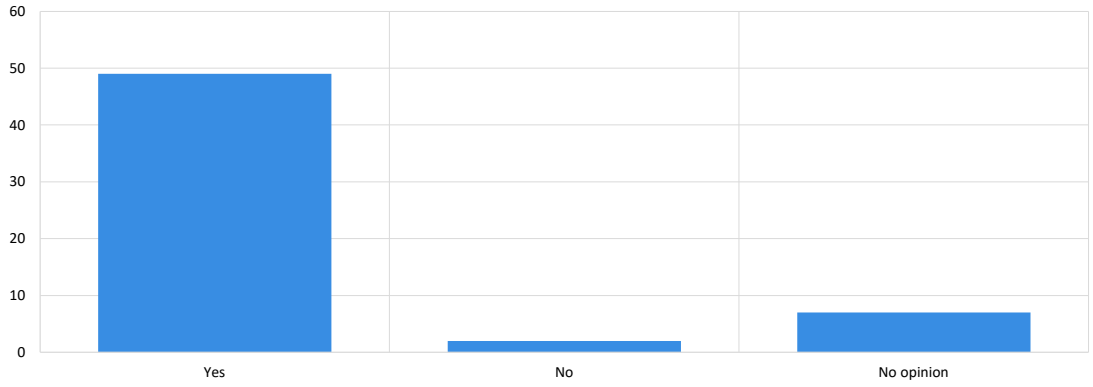
Respondents who favoured a forward-looking methodology noted that this had the benefit of being known in advance, as is the case with the current EURIBOR rate. Others noted that a forward-looking rate also had the conceptual benefit of being closest to the existing EURIBOR rate. Finally, respondents noted that a forward-looking rate had been favoured by other international working groups, increasing consistency across jurisdictions.

Only very few respondents (3%) preferred a different fallback methodology, with the backward-looking *lookback period* being the most preferred.

These respondents noted that a backward-looking *lookback period* methodology would better match the fallbacks used in derivatives markets, thus reducing basis risk. One respondent suggested that a compounded €STR would be a preferable backward-looking rate, avoiding the need to introduce new (forward-looking) benchmarks to the market.

Chart 13: Do you agree with the working group's conclusion that a *forward-looking* methodology would be the most appropriate methodology for building a €STR-based term structure that could function as a EURIBOR fallback for trade finance?

(January 2021; 58 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

6.2. If your reply to **Question 6.1** was affirmative, would you agree with the proposal to include: (i) a term structure built using a forward-looking methodology on the first level of the waterfall structure and (ii) a term structure built using the backward-looking *last reset* methodology on the second level of the waterfall structure as a backstop, in case a forward-looking term structure methodology is not available? (Yes/No/No opinion)

If not, what alternative methodology would you propose for the second level of the waterfall? (Backward-looking *payment delay*/Backward-looking *lookback period*/Another alternative)

Please elaborate on the reasons for your answers, also taking into account possible interactions between asset classes and related instruments.

A significant majority (75%) of respondents agreed with the proposed waterfall structure, using a *forward-looking* methodology for the first level and a backward-looking *last reset* methodology for the second level.

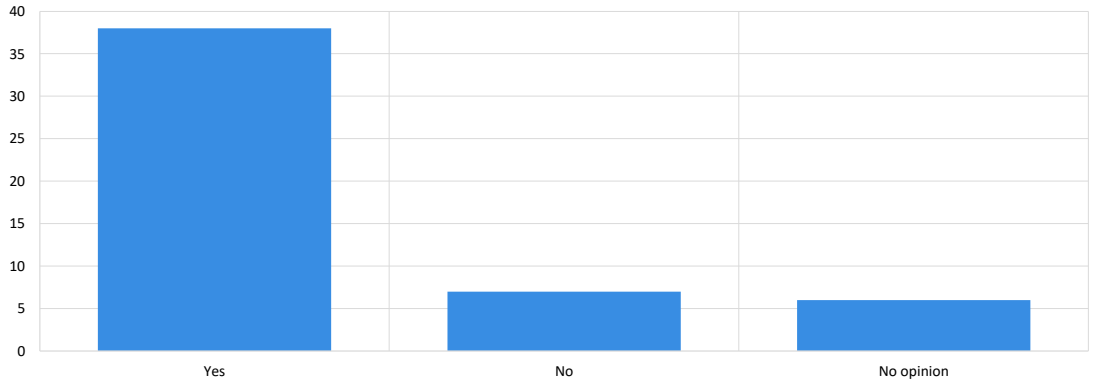
Respondents noted that the waterfall structure was appropriate given the current lack of a forward-looking rate and considering the broad consensus that such a rate would be the best option for trade finance. Several respondents stressed that a rate known in advance was crucially important for trade finance transactions and therefore the second level of the waterfall (the backward-looking *last reset* methodology) was also suitable. Many respondents noted that a forward-looking rate had been favoured by other international working groups, increasing consistency across jurisdictions.

A small minority of respondents agreed with the forward-looking rate as the first level of the waterfall but preferred a backward-looking *lookback period* methodology for the second level of the waterfall (6%).

These respondents noted that a backward-looking *lookback period* methodology would be better suited to derivatives used to hedge trade finance transactions and therefore would reduce basis risk. Others noted that the backward-looking *last reset* methodology had a few flaws, most notably for longer tenors of EURIBOR.

Chart 14: Do you agree with the working group's proposal to include a term structure built using the backward-looking *last reset* methodology on the second level of the waterfall structure as a backstop in case a *forward-looking* methodology is not available?

(January 2021; 51 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

3.5 Export and emerging markets finance products

Question 7 of the public consultation asked:

7.1. Do you agree with the working group's conclusion that a *forward-looking* methodology would be the most appropriate methodology for building a €STR-based term structure that could function as a fallback for the majority of EURIBOR-linked products used for export and emerging markets finance products? (Yes/No/No opinion)

If not, what alternative methodology would you propose? (Backward-looking *lookback period*/ Backward-looking *payment delay*/Backward-looking *last reset*/Another alternative)

Please elaborate on the reasons for your answer, also taking into account possible interactions between asset classes and related instruments.

A significant majority of respondents (69%) agreed that a *forward-looking* methodology would be the most appropriate fallback methodology for most export and emerging market finance products.

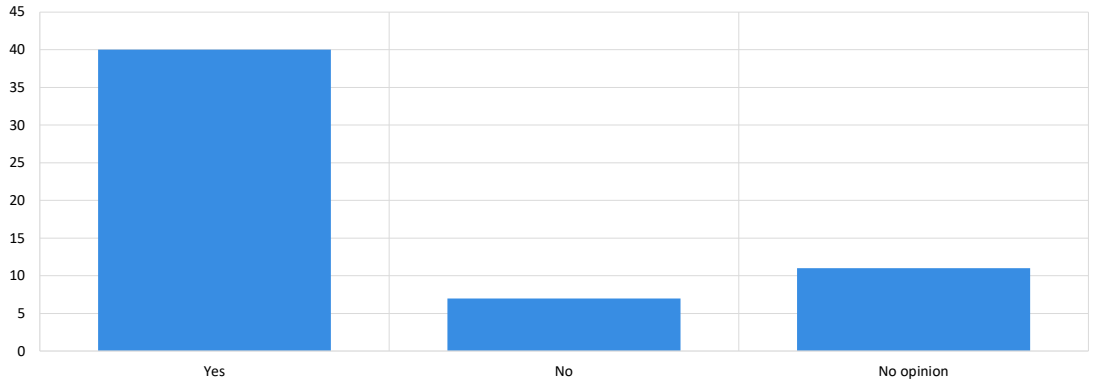
Respondents who favoured a forward-looking methodology noted that this had the benefit of being known in advance, as is the case with the current EURIBOR rate. Others noted that a forward-looking rate also had the conceptual benefit of being closest to the existing EURIBOR rate. Finally, respondents noted that a forward-looking rate had been favoured by other international working groups, increasing consistency across jurisdictions.

A minority of respondents (12%) preferred a different fallback methodology, with the backward-looking *lookback period* being the most preferred.

These respondents noted that a backward-looking *lookback period* methodology would better match the hedging structures of the underlying loans, thus reducing basis risk. Others noted that a forward-looking methodology should only be recommended for those export and emerging market finance products that require a rate to be known well in advance of payment.

Chart 15: Do you agree with the working group's conclusion that a *forward-looking* methodology would be the most appropriate methodology for building a €STR-based term structure that could function as a EURIBOR fallback for the majority of EURIBOR-linked products used for export and emerging markets finance products?

(January 2021; 58 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

7.2. Do you agree with the working group's conclusion that for some export and emerging markets finance products – those involving sophisticated counterparties and developed markets – an *in-arrears* methodology might be preferable and, in that case, a backward-looking *lookback period* methodology would be the most appropriate methodology for building a €STR-based term structure that could function as a EURIBOR fallback for such export and emerging markets finance products? (Yes/No/No opinion)

If not, what alternative methodology would you propose? (Forward-looking/Backward-looking *payment delay*/Backward-looking *last reset*/Another alternative)

Please elaborate on the reasons for your answer, also taking into account possible interactions between asset classes and related instruments.

Most respondents (58%) agreed that a backward-looking *lookback period* methodology would be the most appropriate fallback methodology for sophisticated export and emerging market finance products. However, a minority (25%) felt a *forward-looking* methodology would be most appropriate.

Those who agreed with a backward-looking *lookback period* methodology noted that sophisticated export and emerging market finance products were more likely to be hedged. These respondents put weight on aligning the hedging and fallback methodologies for these products. Respondents also highlighted that sophisticated clients can handle a shorter period between the rate calculation and the payment. Therefore, the need to know payment amounts well in advance was less acute for this group of clients.

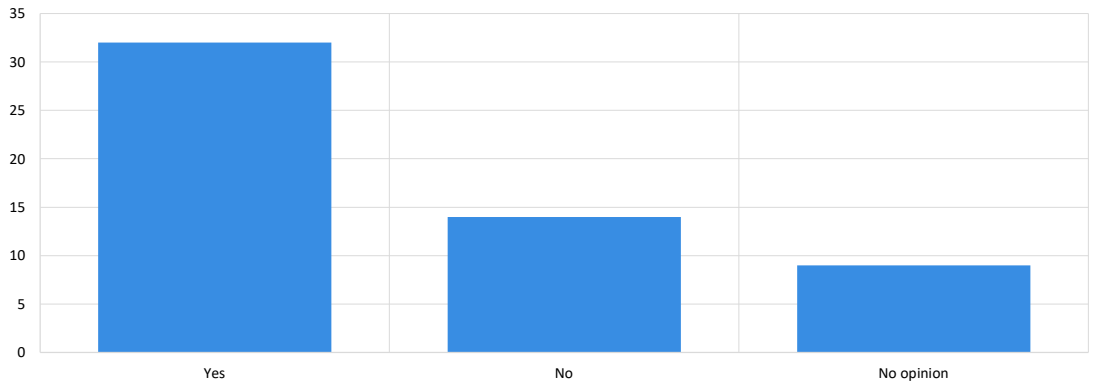
Most respondents, who disagreed with a backward-looking *lookback period* methodology, preferred a forward-looking rate instead.

These respondents noted that a forward-looking rate also had the conceptual benefit of being closest to the existing EURIBOR rate. It was also likely to be operationally easier to adapt and consistent with the majority of asset classes considered in the consultation.

In terms of export and emerging market finance, some respondents noted the difficulty in having different fallback methodologies for different counterparty types. These respondents felt that consistency across the asset class was important, noting the subjective nature of firms defining their clients as either sophisticated or not.

Chart 16: Do you agree with the working group's conclusion that for some export and emerging markets finance products – those involving sophisticated counterparties and developed markets – an *in-arrears* methodology might be preferable and, in that case, a backward-looking *lookback period* methodology would be the most appropriate methodology for building a €STR-based term structure that could function as a EURIBOR fallback for such export and emerging markets finance products?

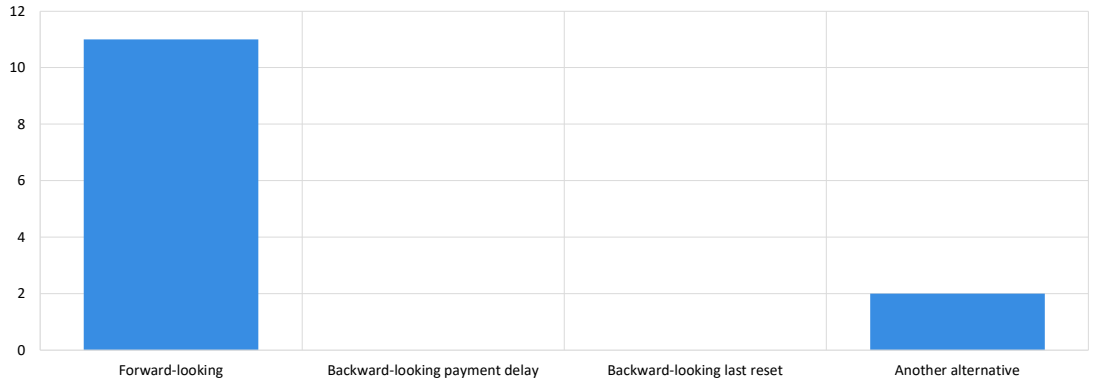
(January 2021; 55 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

Chart 17: Alternative methodologies proposed

(January 2021; 13 responses)



Source: ECB Secretariat to the working group on euro risk-free rates.

7.3. If your reply to **Question 7.1** was affirmative (and/or your response to **Question 7.2** was negative), would you agree with the proposal to include (i) a term structure built using a *forward-looking* methodology on the first level of the waterfall structure and (ii) a term structure built using the backward-looking *last reset* methodology (up to three-month tenors) on the second level of the waterfall structure as a backstop, in case a forward-looking term structure methodology is not available? (Yes/No/No opinion)

If not, what alternative methodology would you propose for the second level of the waterfall? (Backward-looking *payment delay*/Backward-looking *lookback period*/Another alternative)

Please elaborate on the reasons for your answers, also taking into account possible interactions between asset classes and related instruments.

Most respondents (53%) agreed with the proposed waterfall structure, using a *forward-looking* methodology for the first level and a backward-looking *last reset* methodology for the second level.

Most respondents felt that the backward-looking *last reset* methodology would be the most appropriate second level of the waterfall since, like the forward-looking methodology, the rate could be calculated in advance, an important factor for export and emerging market finance.

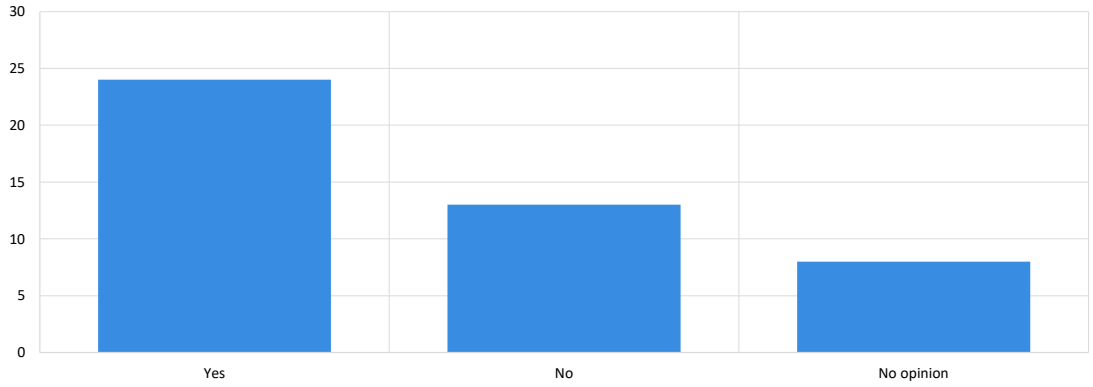
But respondents noted that the backward-looking *last reset* methodology is not without its drawbacks. The methodology may create small financial mismatches and introduce some hedging difficulties. Several respondents raised concerns about replacing six-month or 12-month EURIBOR rates with a fallback based on the backward-looking *last reset* structure. For longer tenors, this would introduce a large discrepancy between the observation and interest period, possibly rendering the rate unrepresentative.

A significant minority of respondents (16%) preferred a backward-looking *lookback period* (over a backward-looking *last reset* methodology) as the second level of the waterfall structure. This would overcome some of the issues with the backward-looking *last reset* methodology, especially where longer EURIBOR tenors are used. Others felt that many export finance participants would have the ability to manage a rate that was not known in advance, favouring a backward-looking *lookback period* methodology.

Some respondents noted the difficulties associated with both backward-looking methodology choices for the second level of the waterfall. These respondents stressed the importance of finding a viable forward-looking methodology.

Chart 18: Do you agree with the working group's proposal to include a term structure built using the backward-looking *last reset* methodology on the second level of the waterfall structure as a backstop in case a *forward-looking* methodology is not available?

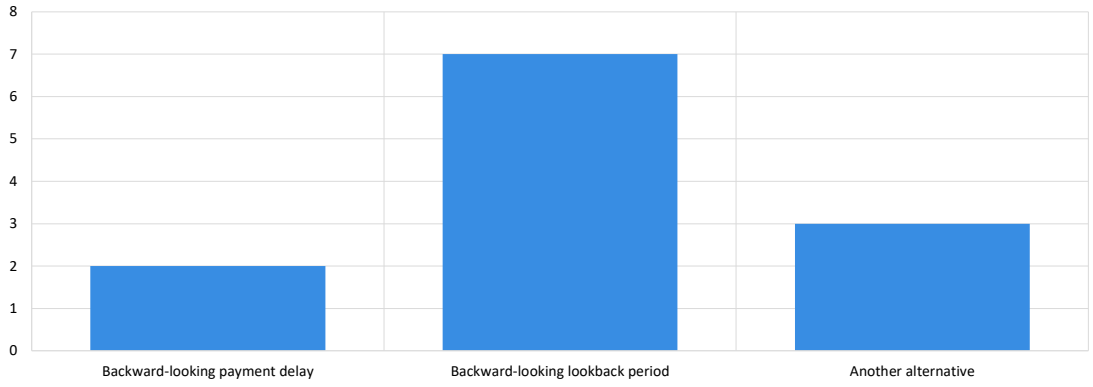
(January 2021; 45 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

Chart 19: Alternative methodologies proposed for the second level of the waterfall

(January 2021; 12 responses)



Source: ECB Secretariat to the working group on euro risk-free rates.

3.6 Debt securities

Question 8 of the public consultation asked:

Do you agree that the backward-looking *lookback period* would be the most appropriate methodology for building a €STR-based term structure that could function as a fallback for EURIBOR-linked debt securities? (Yes/No/No opinion)

If not, what alternative methodology would you propose? (Forward-looking/Backward-looking *payment delay*/Backward-looking *last reset*/Another alternative)

Please elaborate on the reasons for your answer, also taking into account possible interactions between asset classes and related instruments.

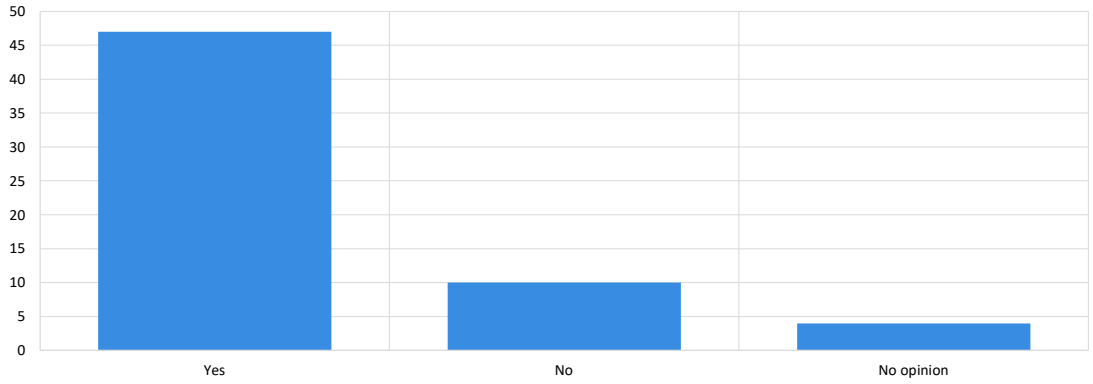
The vast majority of respondents (77%) agreed that a backward-looking *lookback period* would be the most appropriate fallback methodology for EURIBOR-linked debt securities.

Respondents felt that the backward-looking *lookback period* had several advantages. This methodology would best match the International Swaps and Derivatives Association (ISDA) fallbacks for derivatives, which were frequently used in hedging securities. A few respondents stressed the need for consistency between derivatives and securities to ensure that hedge accounting could still be applied. Finally, respondents noted that a backward-looking rate had been favoured by other international working groups, increasing consistency across jurisdictions.

However, a minority felt a different methodology would be more appropriate for debt securities. All these respondents preferred a forward-looking methodology, with several suggesting that this could form the first level of the waterfall structure (with a backward-looking *lookback period* forming the second level). A forward-looking rate would better align with fallback for other financial products and would have the benefit of being known in advance.

Chart 20: Do you agree with the working group's conclusion that the backward-looking *lookback period* methodology would be the most appropriate methodology for building a €STR-based term structure that could function as a fallback for EURIBOR-linked debt securities?

(January 2021; 61 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

3.7 Securitisations

Question 9 of the public consultation asked:

9.1. Do you agree that for those securitisations that will include underlying assets for which the working group has identified the backward-looking *lookback period* as the most appropriate methodology for building a €STR-based term structure that could function as a EURIBOR fallback (e.g. syndicated loans, business loans and debt securities), it would be advisable to include the same EURIBOR fallback measure?

If not, what alternative methodology would you propose? (Backward-looking *payment delay* /Backward-looking *last reset*/forward-looking /Another alternative)

Please elaborate on the reasons underlying your answer, also taking into account possible interactions among asset classes and related instruments.

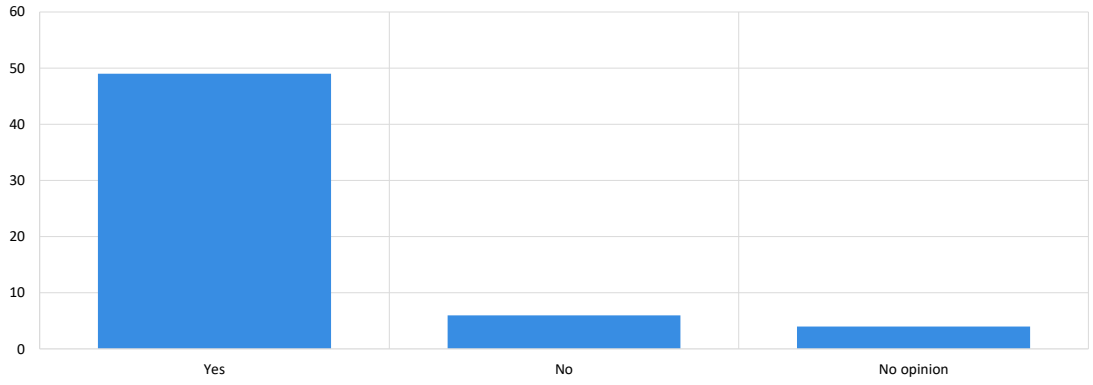
The vast majority of respondents (83%) agreed that a backward-looking *lookback period* would be the preferred fallback methodology (for securitisations of assets where this methodology has already been identified as the most appropriate fallback).

Almost all respondents agreed with the need for consistency between the methodologies used for the underlying assets in the securitisation and the securitisation itself. This would avoid any basis risk arising from different fallback arrangements between the securitisation and its underlying assets.

However, a small minority felt a forward-looking methodology would be the most appropriate methodology. These respondents placed greater weight on the desire for payments to be known in advance and they noted that forward-looking rates may be more applicable for some of the underlying securitised assets considered in this question (e.g. debt securities).

Chart 21: Extent of agreement with the working group's conclusion

(January 2021; 59 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

9.2. Do you agree that for those securitisations that will include underlying assets for which the working group has identified the forward-looking methodology as the most appropriate methodology for building a €STR-based term structure that could function as a EURIBOR fallback (e.g. mortgages and SME loans), it would be advisable to include the same waterfall structure as a EURIBOR fallback measure?

If not, what alternative methodology would you propose? (Backward-looking *payment delay*/Backward-looking *lookback period*/Backward-looking *last reset*/Another alternative)

Please elaborate on the reasons for your answer, also taking into account possible interactions between asset classes and related instruments.

The vast majority of respondents (75%) agreed that a *forward-looking* methodology would be the preferred fallback methodology (for securitisations of assets where this methodology has already been identified as the most appropriate fallback).

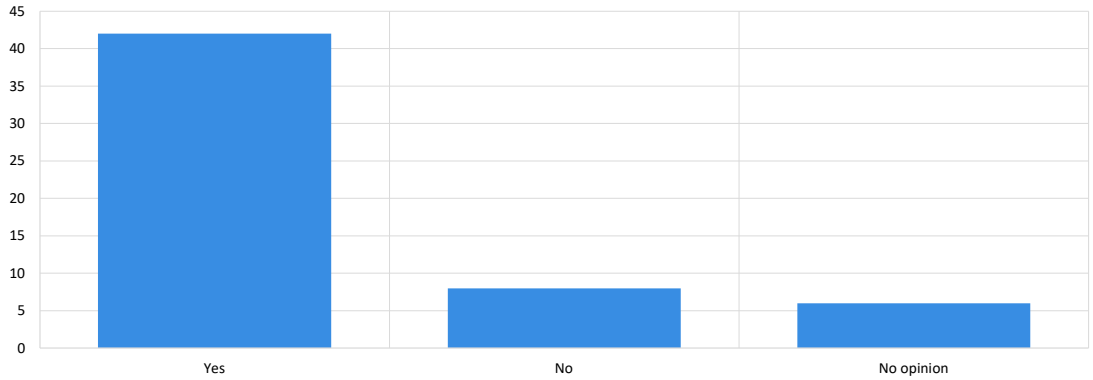
In line with the previous question, almost all respondents agreed with the need for consistency between the methodologies chased for the underlying assets in the securitisation and the securitisation itself. This would avoid any basis risk arising from different fallback arrangements between the securitisation and its underlying assets.

However, a small minority felt a backward-looking *lookback period* would be the most appropriate methodology. These respondents felt that there was value in having consistency between securitised

assets and other debt securities (where the consultation recommended a backward-looking *lookback period* methodology). These respondents also felt that a backward-looking *lookback period* would facilitate hedging of the underlying securitised assets.

Chart 22: Extent of agreement with the working group's conclusion

(January 2021; 56 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

3.8 Transfer pricing models

Question 10 of the public consultation asked:

10.1. Do you agree with the working group's conclusions that a forward-looking methodology would be the most appropriate methodology for building a €STR-based term structure that could function as a EURIBOR fallback for transfer pricing models for non-financial companies? (Yes/No/No opinion)

If not, what alternative methodology would you propose? (Backward-looking *payment delay*/Backward-looking lookback/Backward-looking *last reset*/Another alternative)

Please elaborate on the reasons for your answer, also taking into account possible interactions between asset classes and related instruments.

Most respondents (55%) agreed that a *forward-looking* methodology would be the most appropriate fallback methodology for transfer pricing models for non-financial corporates.

A noticeable number of respondents (38%) registered no opinion on which fallback methodology would be most appropriate for non-financial companies. Most of these firms were credit institutions, who noted that they were less well placed to comment on the best fallback arrangements for non-financial firms.

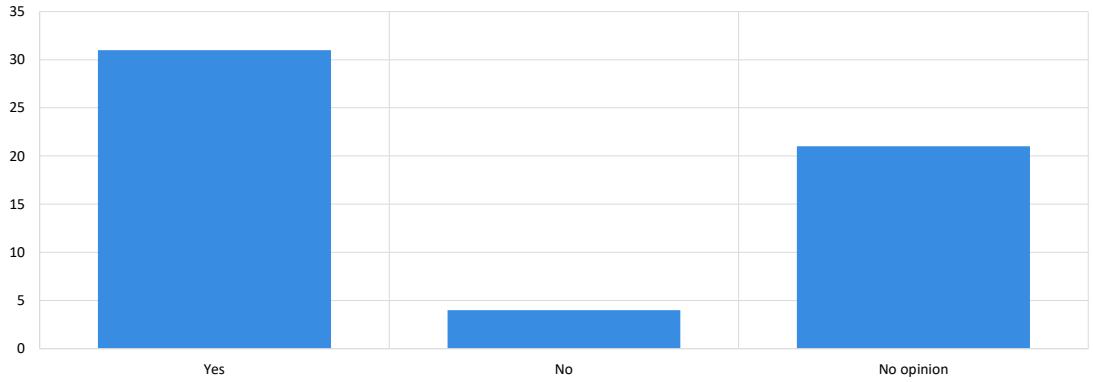
The respondents that supported the working group's proposal agreed that the simplicity of a forward-looking methodology would facilitate a straightforward transition in the event of a EURIBOR fallback. Respondents felt that a forward-looking methodology would be operationally easiest to implement and conceptually closer to the existing EURIBOR methodology.

A minority of respondents preferred a different fallback methodology, with the backward-looking *lookback period* methodology being the most preferred. The main reason cited by these respondents

was to have a fallback methodology (backward-looking *lookback period*) that was compatible with derivative market fallbacks, given the importance of hedging in treasury transfer pricing.

Chart 23: Extent of agreement with the working group's conclusion

(January 2021; 56 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

10.2. Do you think that the backward-looking *lookback period* would be the most appropriate methodology for building a €STR-based term structure that could function as a EURIBOR fallback for transfer pricing models for financial companies? (Yes/No/No opinion)

If not, what alternative methodology would you propose? (Backward-looking *payment delay*/Backward-looking *last reset*/Another alternative)

Please elaborate on the reasons for your answer, also taking into account possible interactions between asset classes and related instruments.

Nearly half of the respondents (46%) agreed that a backward-looking *lookback period* methodology would be the most appropriate fallback methodology for transfer pricing models for financial corporates.

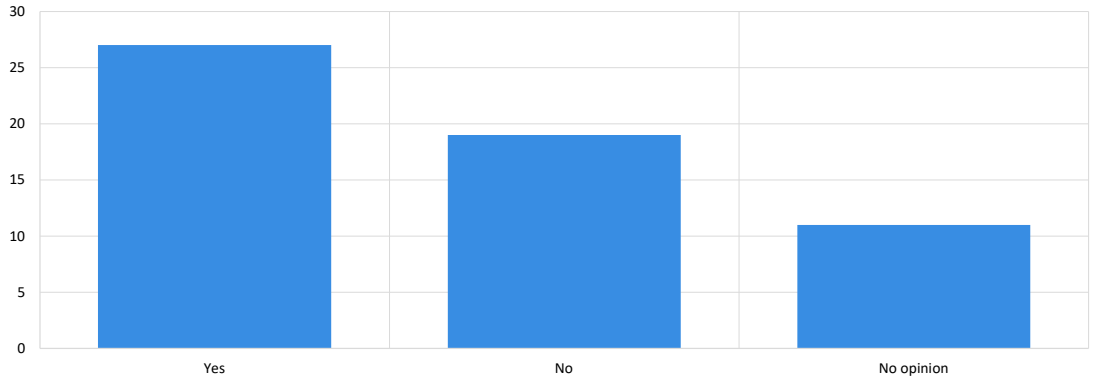
These respondents felt that financial firms preferred to align their fallback arrangements for transfer pricing with those for other capital market securities (e.g. debt securities) and derivatives. This would reduce any basis risks that could arise between transfer pricing and corporate lending, hedging and securities issuance. It was felt that financial firms were more sophisticated than their non-financial counterparts and would be able to operationalise a fallback to a backward-looking *lookback period* methodology.

However, a significant minority of respondents (33%) preferred a different fallback methodology, with the forward-looking methodology being the most preferred. Those respondents preferring a forward-looking rate valued the consistency in fallback arrangements for transfer pricing across financial and non-financial corporations. Some suggested that a forward-looking methodology could form the first level of a waterfall structure, followed by the backward-looking *lookback period* methodology. Forward-looking rates also avoid operational complexity and complied with the need to use a rate set independently from the firm.

Finally, a few respondents noted the need for flexibility in addressing EURIBOR fallbacks in transfer pricing. These respondents suggested that the working group did not need to give detailed recommendations in this area, deferring to firms to make the appropriate choice.

Chart 24: Do you agree with the working group's conclusion?

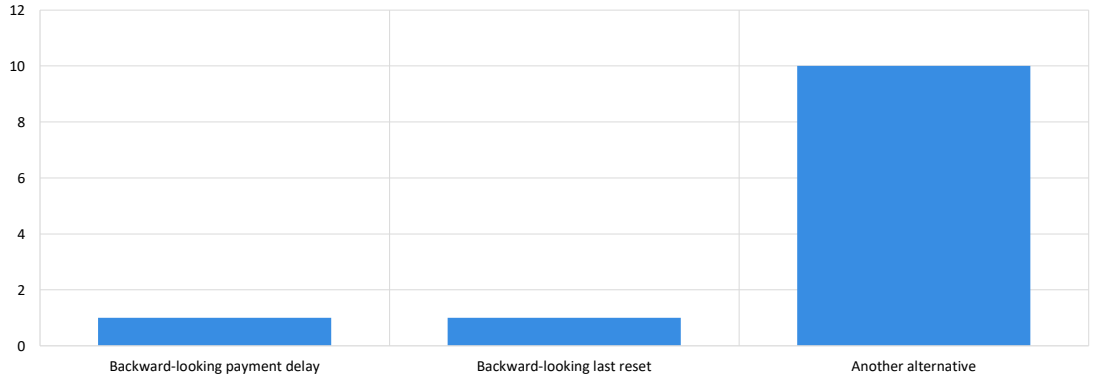
(January 2021; 57 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

Chart 25: Alternative methodologies proposed

(January 2021; 12 responses)



Source: ECB Secretariat to the working group on euro risk-free rates.

10.3. If your reply to **Question 10.1** was affirmative (and/or your response to **Question 10.2** was negative), would you agree with the proposal to include (i) a forward-looking term structure methodology on the first level of the waterfall structure and (ii) the backward-looking *last reset* term structure methodology on the second level of the waterfall structure as a backstop, in case a forward-looking term structure methodology is not available? (Yes/No/No opinion)

If not, what alternative methodology would you propose for the second level of the waterfall? (Backward-looking *payment delay*/Backward-looking *lookback*/Another alternative)

Please elaborate on the reasons for your answers, also taking into account possible interactions between asset classes and related instruments.

Nearly half of the respondents (46%) agreed with the proposed waterfall structure for non-financial corporate transfer pricing (using a *forward-looking* methodology for the first level and a backward-looking *last reset* methodology for the second level).

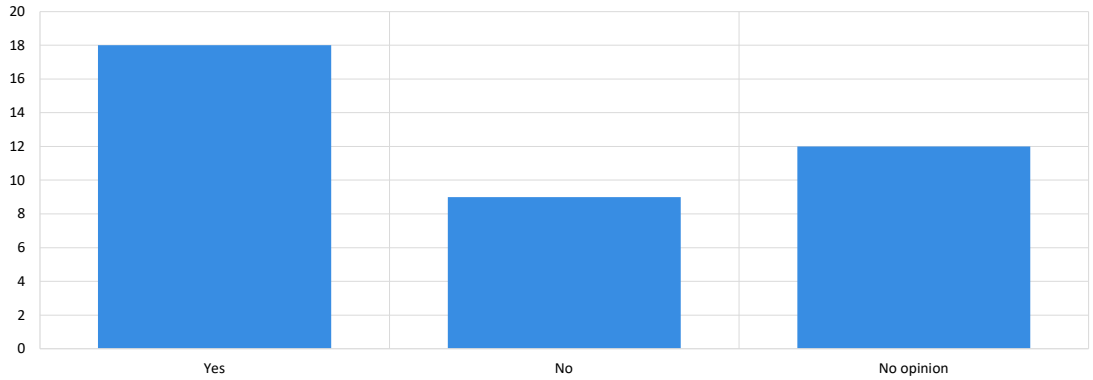
Nearly half of the respondents noted that while other backward-looking methodologies may be used, the backward-looking *last reset* methodology would be the most appropriate. It has the advantage of being known in advance, which would facilitate its use in the event of a fallback.

However, a minority of respondents preferred a backward-looking *lookback period* as the second level of the waterfall structure. These respondents highlighted the disconnection between the observation and interest period inherent in the backward-looking *last reset* methodology. There was a broad but not unanimous preference for a backward-looking *lookback period* methodology, however other alternatives including an *in-arrears* approach or compounded €STR rates were also mentioned.

A notable number of respondents (31%) registered no opinion on the proposed waterfall structure for transfer pricing in non-financial companies.

Chart 26: Extent of agreement with the working group's proposal

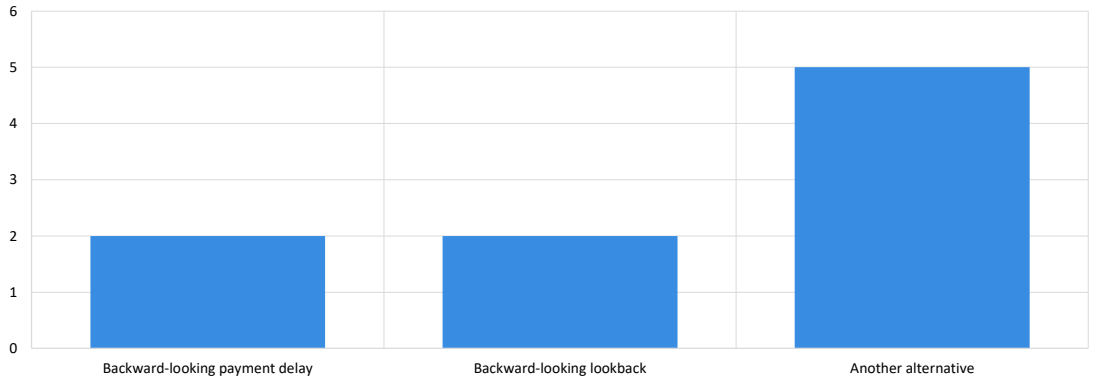
(January 2021; 39 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

Chart 27: Alternative methodologies proposed for the second level of the waterfall structure

(January 2021; 9 responses)



Source: ECB Secretariat to the working group on euro risk-free rates.

3.9 Investment funds

Question 11 of the public consultation asked:

11.1. Which methodology – forward-looking or backward-looking *lookback period* – would be most appropriate for building a €STR-based term structure that could function as a EURIBOR fallback provision for benchmarking purposes for investment funds? (Forward-looking/Backward-looking *lookback period*/Another alternative).

Please elaborate on the reasons for your answers, also taking into account possible interactions between asset classes and related instruments.

Respondents were relatively evenly split between the *forward-looking* and the backward-looking *lookback period* methodologies as the most appropriate EURIBOR fallback for investment fund benchmarks.

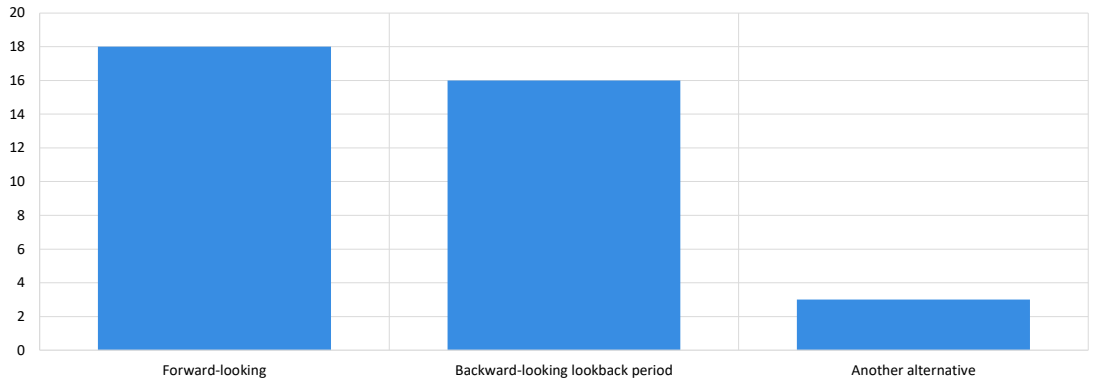
Half of the respondents preferred a forward-looking methodology (50%) and cited the ease with which this could replace EURIBOR, especially in the event of an expected fallback event. Fewer changes to systems, conceptual simplicity and consistency with investment fund assets were also highlighted.

However, almost as many respondents (42%) preferred a backward-looking *lookback period* methodology. These respondents felt this methodology was more consistent with debt and derivatives securities, which were also expected to use backward-looking *lookback period* in their fallbacks. Some respondents noted that this methodology was more consistent with those recommended in other jurisdictions.

A few respondents noted that investment firms may need flexibility to have different fallback arrangements for different investment funds types. The exact fallback methodology for each fund would be determined based on its appropriateness in relation to the funds' assets.

Chart 28: Levels of support for the methodologies for building a €STR-based term structure that could function as a EURIBOR fallback provision for benchmarking purposes for investment funds

(January 2021; 36 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

11.2. If you indicated the forward-looking methodology in Question 11.1, would you agree with the proposal to include (i) a forward-looking term structure methodology on the first level of the waterfall structure and (ii) the backward-looking *lookback period* term structure methodology on the second level of the waterfall structure as a backstop, in case a forward-looking term structure methodology is not available? (Yes/No/No opinion)

If not, what alternative methodology would you propose for the second level of the waterfall? (Backward-looking *payment delay*/Backward-looking *last reset*/Another alternative)

Please elaborate on the reasons for your answers, also taking into account possible interactions between asset classes and related instruments.

Half of the respondents (50%) agreed with the proposed waterfall structure (using a *forward-looking* methodology for the first level and a backward-looking *lookback period* methodology for the second level).

These respondents felt that a waterfall structure was important given the current lack of a forward-looking rate. They all felt that the backward-looking *lookback period* methodology would be appropriate as the second level of the waterfall structure.

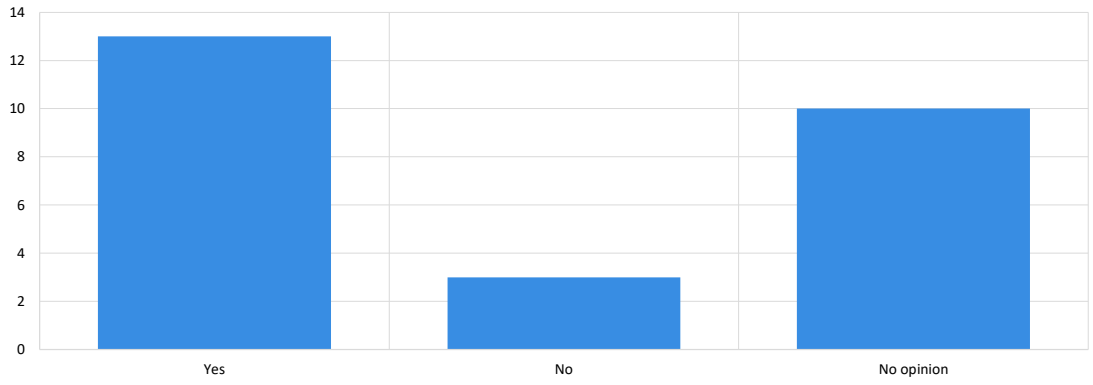
However, a minority of respondents preferred different methodologies for the second level of the waterfall structure, with the backward-looking *last reset* methodology being the most preferred.

For respondents who preferred a backward-looking *last reset* methodology, the fact that a rate would be known in advance was cited as the biggest benefit. One respondent also noted that a backward-looking compounded €STR could be another alternative rate for the second level of the waterfall.

A noticeable number of respondents (38%) registered no opinion on the proposed waterfall structure for investment fund benchmarks.

Chart 29: Extent of agreement with the working group's proposal

(January 2021; 26 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

3.10 Asset classes and use cases

Question 12 of the public consultation asked:

Are there any other asset classes or use cases that have not been covered by this consultation paper that you think should be considered by the working group? (Yes/No/No opinion)

If the answer is "yes", please elaborate on the reasons for your answer and what €STR-based term structure methodology you would recommend as a potential EURIBOR fallback measure.

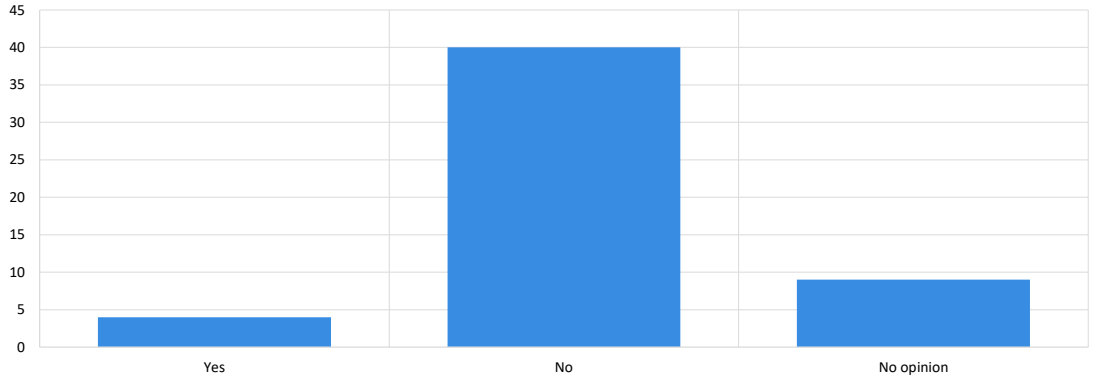
The vast majority respondents (75%) agreed that the consultation paper had covered the required asset classes where EURIBOR rates were used. Islamic finance and regular savings products were possible use cases to consider.

A minority of respondents noted that Islamic finance could be considered by the working group. It was noted that Islamic finance products could use a forward-looking rate methodology, should it be available.

One respondent noted that products that referenced a moving average EURIBOR rate had not been considered in the consultation. These products include certain savings agreements such as regular savings plans (Ratensparverträge).

Chart 30: Should additional asset classes be covered beyond those identified as use cases in this public consultation?

(January 2021; 53 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

4 Spread adjustment

Question 13 of the public consultation asked:

Please indicate whether you agree with the conclusion of the working group that the historical mean/median spread adjustment methodology should be the preferred approach for cash products. (Yes/No/No opinion)

If not, please rank the approaches discussed in Section 6.2 (dynamic spread adjustment methodology/forward spread adjustment methodology/spot spread adjustment methodology).

Please explain why you prefer one methodology to another and what you think the main drawbacks are for the less preferred methodologies.

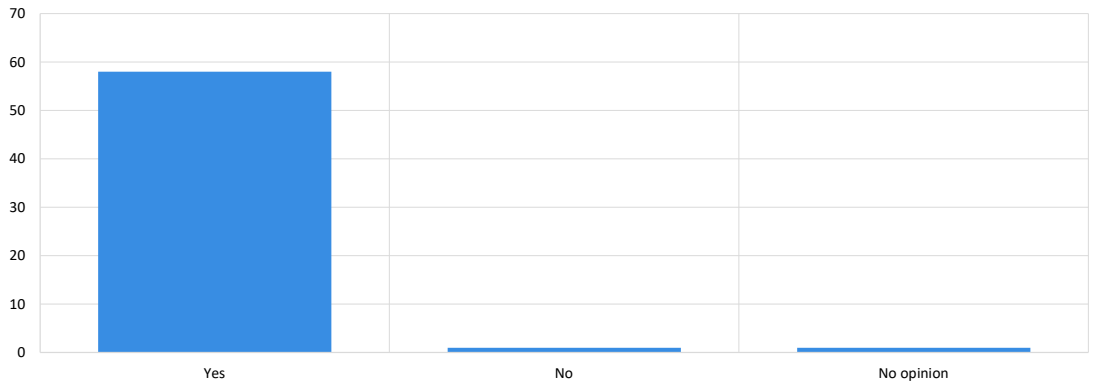
Almost all respondents (97%) agreed that the historical mean/median spread adjustment methodology would be the preferred approach for cash products.

A large number of respondents highlighted the importance of aligning the spread adjustment methodology with other currencies and products. The proposed method would be in line with the recommendations provided by working groups in other jurisdictions and with fallback provisions for derivatives by ISDA. Respondents were particularly interested in matching the fallback provisions for cash and derivative products to ensure accurate hedge relationships and to facilitate risk management activities. Additionally, several respondents noted that the proposed approach is transparent as it is based on data widely available and the calculation is also considered straightforward. Respondents believe that this methodology would be broadly accepted by market participants and clients. Furthermore, several respondents referred to the drawbacks of the alternative approaches outlined in the consultation paper. The historical mean/median methodology was the only acceptable solution for many respondents because the other solutions were considered to be too complex.

A couple of respondents mentioned that a dynamic spread adjustment should be the preferred solution as this would better reflect market conditions.

Chart 31: Do you agree with the working group's conclusion on the spread adjustment methodology?

(January 2021; 60 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

Question 14 of the public consultation asked:

Do you believe that having the same spread adjustment methodology for EURIBOR-linked cash products and other IBOR-linked cash products (the ISDA five-year historical median recommended by the ARRC and by the working group on sterling risk-free reference rates) is:

a) essential;

b) highly desirable;

c) useful;

d) unimportant.

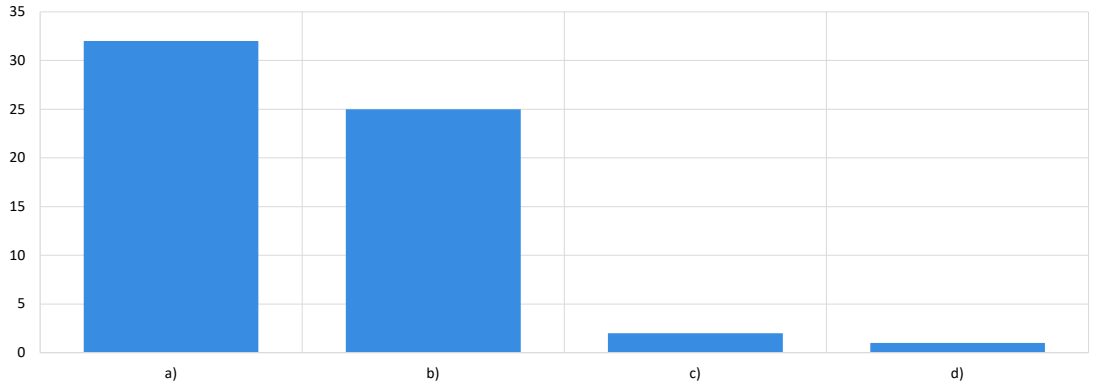
Please elaborate on the reasons for your answer.

Most respondents considered the alignment of spread adjustment methodologies across currencies and products to be essential (53%) or highly desirable (42%).

Almost all respondents acknowledged the importance of international consistency across the main currencies and products which would facilitate the use of multi-currency products and derivatives. Such an approach would reduce complexity and, therefore, avoid confusion and broaden market acceptance. Respondents mentioned that a different treatment would be difficult to justify and pose an unnecessary obstacle for client acceptance. A reduction in risk management cost was another benefit mentioned by respondents.

Chart 32: Assessment of the use of the same spread adjustment methodology for EURIBOR-linked cash products and other IBOR-linked products

(January 2021; 60 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

Question 15 of the public consultation asked:

Some cash products may fall back on backward-looking term rates fixing *in-arrears*, while others may fall back on a forward-looking term rate or a backward-looking term rate fixing *in advance*.

Therefore, do you agree that the spread adjustment value for each tenor should be the same, irrespective of whether the products fall back on a forward-looking or a backward-looking rate? (Yes/ No/No opinion)

Please elaborate on the reasons for your answer.

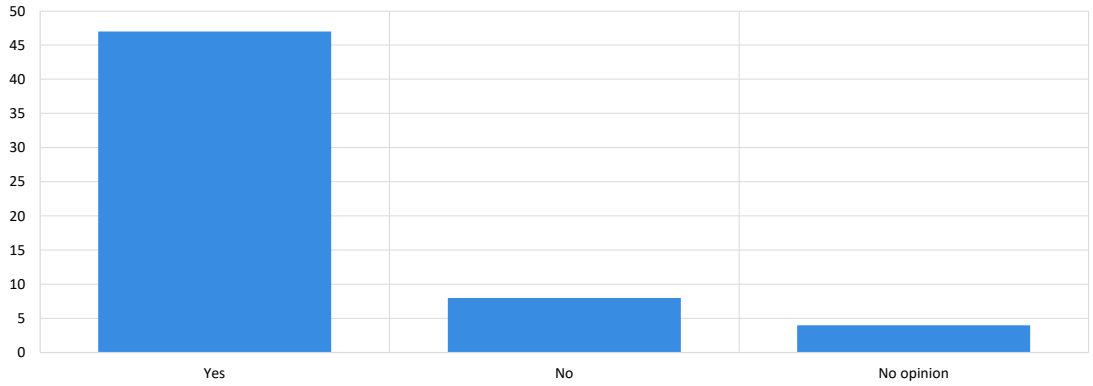
The vast majority of respondents (80%) agreed with the proposal noting that a consistent and standardised approach is preferred to reduce complexity and increase acceptance.

The vast majority of respondents agreed with the proposal to use the same spread adjustment per tenor irrespective of the calculation methodology of the fallback rate. As with previous questions, numerous respondents preferred a consistent and standardised approach across products and currencies to the largest extent possible to reduce complexity, increase transparency and, as a result, facilitate acceptance among market participants. Most respondents expressed their preference for a simple solution even though different approaches for backward-looking and forward-looking fallback methodologies would be more accurate.

Those who responded negatively expressed their concerns regarding a value transfer introduced by using the same concept for different rate methodologies. The spread adjustment should be economically neutral which would be achieved by using carefully calibrated methodologies that match the respective fallback rate.

Chart 33: Extent of agreement with the working group's proposal

(January 2021; 59 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

Question 16 of the public consultation asked:

With regard to whether the historical €STR market data are sufficient to compute any adjustment spread, do you agree that, even though there might not be sufficient €STR historical market data, data can be obtained by using historical EONIA market data with a fixed spread of 8.5 bps between the two indices, given that EONIA has been recalibrated to €STR + 8.5 bps? (Yes/No/No opinion)

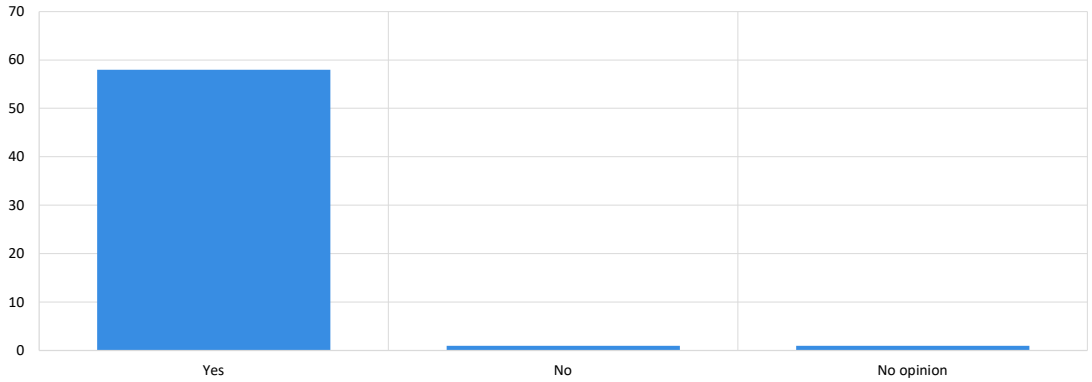
Please elaborate on the reasons for your answer.

Almost all respondents (97%) agreed with the proposal to use historical EONIA fixings if €STR data were to prove insufficient.

Respondents noted that the approach is transparent, easy to understand and already widely accepted. It was acknowledged that a possible issue of insufficient €STR data becomes less relevant over time as the history of €STR fixings increases. Respondents considered it unlikely that a fallback would be triggered in the near future where data issues would still need to be addressed. One respondent disagreed with the proposal, stating that the spread of 8.5 bps was only fully accurate for the EONIA calibration period and thus may not perfectly reflect any earlier periods.

Chart 34: Do you agree with the working group's proposal?

(January 2021; 60 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

Question 17 of the public consultation asked:

Do you think it is useful that for some cash products a one-year period would be applied for transition to the historic mean/median spread adjustment methodology? (Yes/No/No opinion)

Please give the reasons for your answer, and explain for which cash products the above might, or might not be, useful.

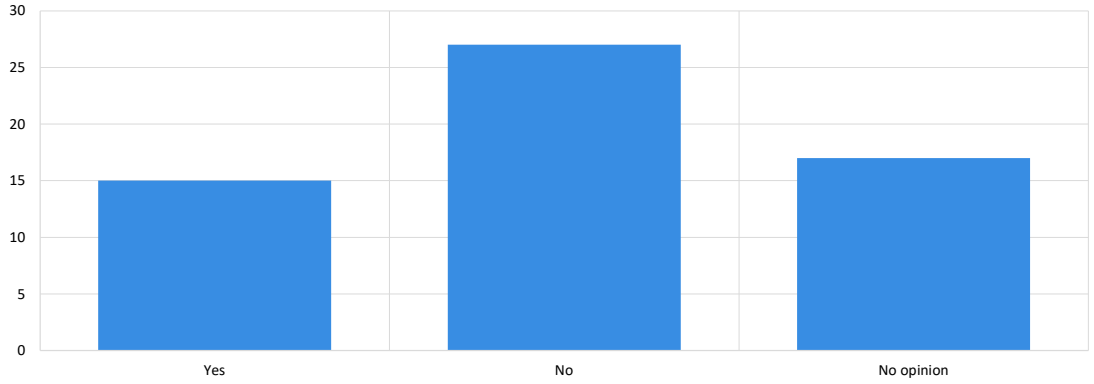
Nearly half of respondents (46%) disagreed with the proposed transition period of one year for some cash products, while a sizeable number of respondents (29%) remained neutral acknowledging both advantages and disadvantages of such an approach.

Most respondents were not in favour of a one-year transition period for some cash products. According to their feedback, such an approach would add additional complexity which would outweigh potential benefits. It was noted that a transition period would be inconsistent with the approach followed by ISDA for derivatives. In this regard, several respondents preferred the alignment of cash and derivative products to facilitate hedging and risk management activities. In addition, a cliff effect that would be eased by a transition period was not expected.

On the other hand, some respondents preferred alignment with the ARRC's recommendation where a one-year transition period is anticipated for some cash products. It was mentioned that such a transition period should, however, only be implemented for certain retail products to allow for a smooth transition to increase acceptance among retail clients. Some respondents considered it important to mitigate a possible cliff effect.

Chart 35: Do you agree with the inclusion of a one-year period to transition to the historic mean/median spread adjustment methodology?

(January 2021; 59 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

5 Calculation methodologies and conventions

Question 18 of the public consultation asked:

Do you agree with the working group's conclusion that it would be useful for market participants to have access to a publication of the spread adjustment and/or an all-in rate that consists of (i) compounded €STR rates with an observation shift as proposed in Chapter 5, and (ii) a spread adjustment as proposed in Chapter 6? (Yes/No/No opinion)

Please elaborate on the reasons for your answer.

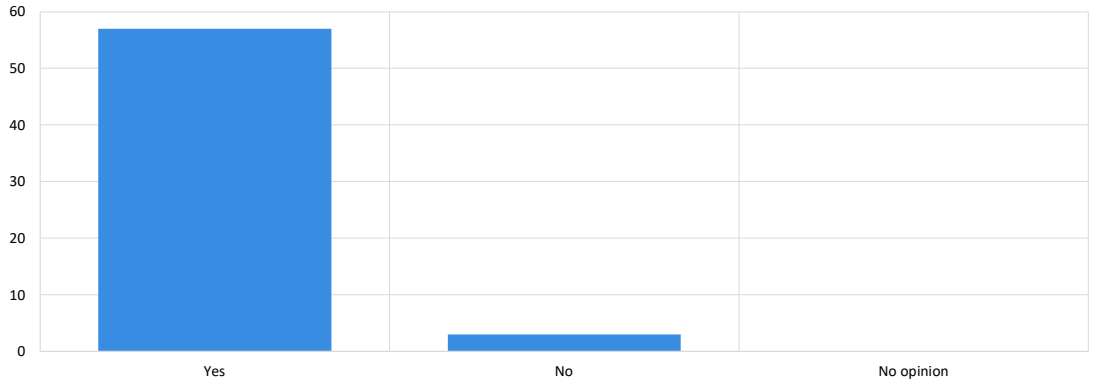
Almost all respondents (95%) agreed that it would be useful to have a published spread adjustment and/or an all-in rate as described in the consultation paper.

These respondents agreed that a published rate would be the most transparent solution for all market participants, with some noting that the constituent parts of the all-in rate should be published separate, further aiding transparency. Respondents also noted the benefit that a spread adjustment and/or all-in rate would mirror the conclusions reached in other jurisdictions. Some participants noted that an ECB published rate would give additional assurance to the market, given it was produced by a public sector institution.

A minority of respondents disagreed with the suggested publication of the spread adjustment and/or all-in rate. However, these firms primarily disagreed with the observation shift element of the compounded €STR rate. They noted that the proposed observation shift could cause some operational complexities for certain financial products.

Chart 36: Do you agree with the working group's conclusion?

(January 2021; 60 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

Question 19 of the public consultation asked:

Do you agree with the working group's view that if a floor were included, it should be on the sum of the €STR compounded rate plus the spread adjustment? (Yes/No/No opinion)

Please elaborate on the reasons for your answer.

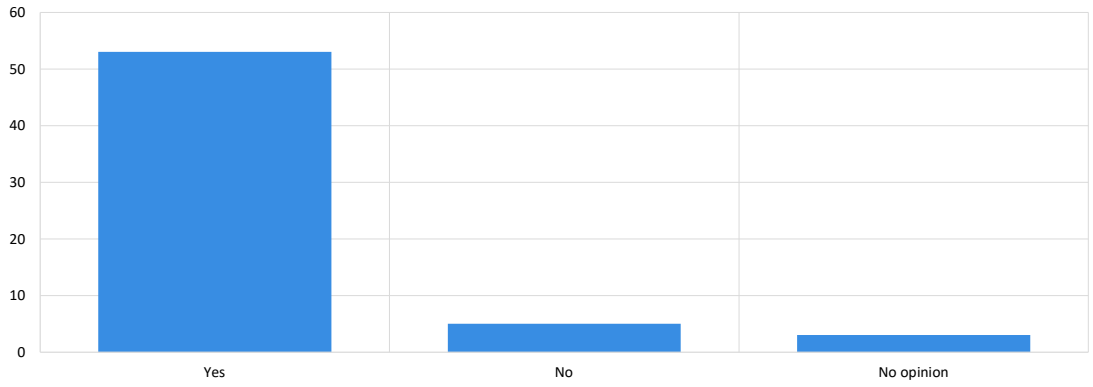
The vast majority of respondents (90%) agreed that if a floor on a rate were to exist, it would apply to the €STR compounded rate plus the spread adjustment.

These respondents noted that the proposed floor avoided operational complexity and would be easy for a range of market participants to understand. The floor would also align with the methodology applied to ISDA derivatives and minimise any value transfers. Finally, respondents noted that this recommendation was consistent with the recommendation of the risk-free working groups in other jurisdictions.

A small minority of respondents disagreed with the proposed flooring approach. Most of these respondents preferred to floor the compounded rate before adding the spread adjustment, as was the case in some EURIBOR based markets. Others noted that the floor should apply to the daily compounded rate for financial products used by sophisticated borrowers (e.g. large syndicated loans).

Chart 37: Do you agree with the working group's view?

(January 2021; 61 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

Question 20 of the public consultation asked:

Do you agree that, in general, compounding the rate is the best calculation methodology? (Yes/No/No opinion)

Please elaborate on the reasons for your answer.

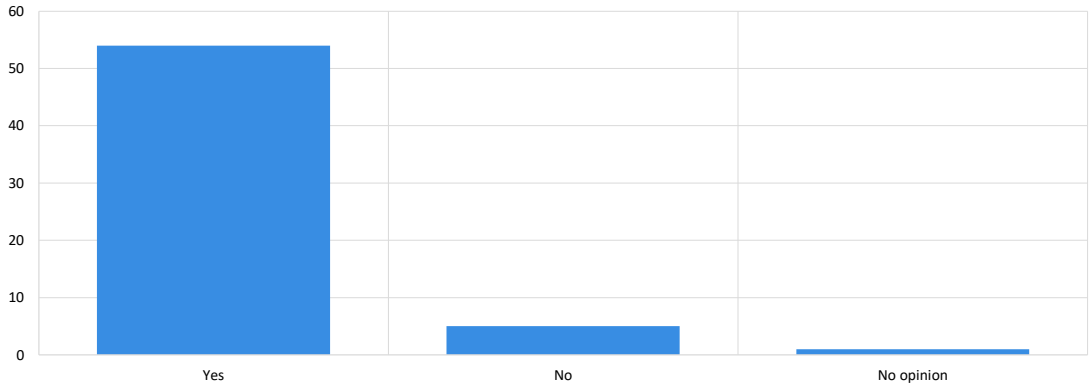
The vast majority of respondents (90%) agreed compounding the rate was the best calculation methodology to use.

These respondents felt that compounding the rate was both easy to understand and consistent with existing practices in numerous financial markets. Compounding the rate also reflected the time value of money and was in line with recommendations and practices in other jurisdictions.

A small minority of respondents felt that compounding the rate was not the best calculation methodology. One respondent noted that compounding the balance may be more appropriate, especially for sophisticated clients and for instances where the balance is not constant. Other respondents favoured a simple interest rate methodology instead of a compounded rate.

Chart 38: Do you agree with the working group's view?

(January 2021; 60 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

Question 21 of the public consultation asked:

Do you agree that the backward-looking *lookback period* term structure methodology with an observational shift is the preferable calculation methodology? (Yes/No/No opinion)

Do you agree that the lag approach is a viable and robust alternative to the observation shift? (Yes/No/No opinion)

Please elaborate on the reasons for your answer.

A significant majority of respondents (68%) agreed that, in terms of the backward-looking *lookback period*

methodology, an observational shift was the preferred calculation methodology. The vast majority of respondents (75%) agreed that the lag approach was a robust alternative to the observational shift approach.

Responses to these two questions fell into three broad categories.

The first and largest group agreed that the observational shift was the most preferable approach and that the observational lag approach would be a robust alternative. This group felt an observational shift better reflected the interest rate developments over the period, compared to the observation lag approach. They noted that the observation shift approach better matched other asset classes, notably derivatives (important for hedging activity).

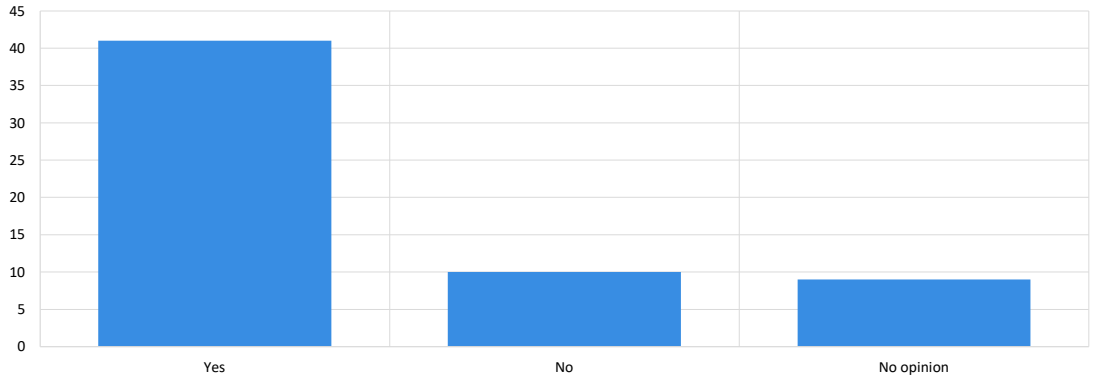
The second group agreed with the observational shift approach but disagreed with the idea of the observational lag approach as a viable alternative. In general, these respondents cited similar reasons as the first group, but placed less weight on the need for consistency across jurisdictions. Others mentioned that the observational lag approach would be inconsistent with the plans for a compounded €STR.

The final group disagreed with the operational shift approach and consequently felt that the observational lag approach was a robust and viable alternative. These respondents noted that, when rates were not volatile, the economic impact of the two approaches was small. A lag approach was also chosen in other jurisdictions and therefore an acceptable alternative.

Only one respondent felt that neither approach was preferable, instead expressing a preference for a forward-looking rate methodology.

Chart 39: Do you agree with the working group's view that the backward-looking *lookback period* term structure methodology with an observational shift is the preferable calculation methodology?

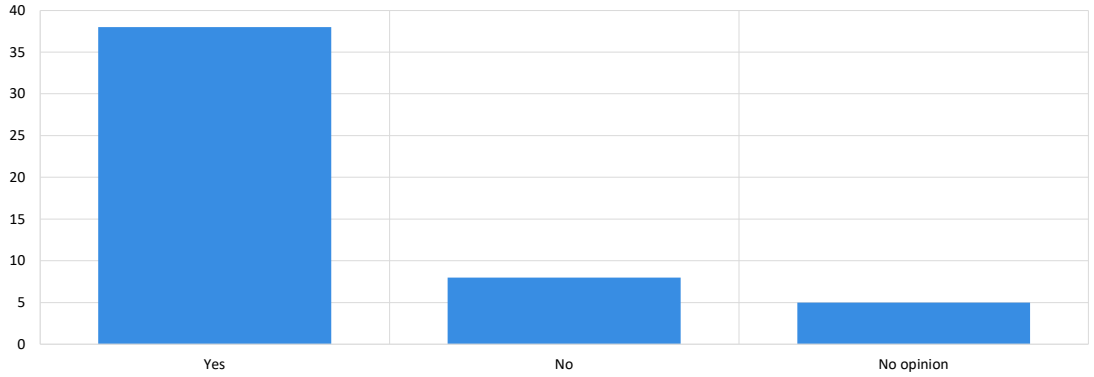
(January 2021; 60 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

Chart 40: Do you agree with the working group's view that the lag approach is a viable and robust alternative to the observation shift?

(January 2021; 51 responses)



Source: ECB Secretariat to the working group on euro risk-free rates

Postal address 60640 Frankfurt am Main, Germany
Telephone +49 69 1344 0
Website www.ecb.europa.eu

For most of the specific terminology, please refer to the ECB glossary.