EUROPEAN CENTRAL BANK
EUROSYSTEM

Second public consultation by the working group on euro risk-free rates on determining an ESTER-based term structure methodology as a fallback in EURIBOR-linked contracts

Summary of responses

February 2019

1 Executive summary

The second public consultation launched by the working group on euro risk-free rates on determining an ESTER-based term structure methodology as a fallback in EURIBOR-linked contracts closed on Friday, 1 February 2019. The consultation drew considerable interest from the financial sector and other interested parties. 73 market participants – 43 of which were credit institutions – provided responses or comments on the consultation document. The response sample ensures appropriate geographic coverage and adequately reflects relevant sector and sub-sector views. The main messages may be summarised as follows:

1. *For each asset class considered, and in particular for corporate lending, floating rate notes, securitisation structures, and retail loans and mortgages, the majority of respondents viewed a forward-looking term rate methodology as a fallback for EURIBOR to be essential or desirable. Many respondents stressed that consistency across asset classes was required, while others asked for consistency across jurisdictions to the extent possible.*

2. *Respondents broadly agreed with the working group's analysis of the four forward-looking methodologies considered, that is to say, the overnight index swap (OIS) transactions-based methodology, the OIS quotes-based methodology, the OIS composite methodology, and the futures-based methodology.*

3. *With respect to the OIS transactions-based methodology, respondents generally considered data sufficiency to be low and transparency to be high. Most respondents considered the overall feasibility of the OIS transactions-based methodology to be challenging. At the same time, a number of respondents assessed the methodology as unviable, while others assessed it as feasible.*

4. *With regard to the OIS quotes-based methodology, respondents considered both data sufficiency and transparency to be medium or high. The majority of*

respondents considered the OIS quotes-based methodology to be feasible overall, although a number of respondents assessed its feasibility as challenging.

5. *Respondents largely agreed with the working group's conclusions regarding a point-in-time fixing. Many respondents pointed out the advantage of a point-in-time fixing for hedging purposes, which, however, would need to be balanced against the reduced volumes compared to taking into account a full trading day and a potentially higher risk of manipulation.*

6. *With respect to the OIS composite methodology, respondents mostly considered data sufficiency to be high or medium, while transparency was assessed to be medium or low. Most of the respondents considered the overall feasibility of the OIS composite methodology to be challenging.*

7. *With regard to the futures-based methodology, respondents had divided views on data sufficiency, with transparency broadly assessed to be high. While most respondents considered the overall feasibility of the futures-based methodology to be challenging, a number of respondents expected it to be feasible.*

8. *77% of respondents agreed with the working group's assessment that the OIS quotes-based methodology offered the best prospect of producing a viable fallback rate within a reasonable time period following the launch of the daily ESTER publication.*

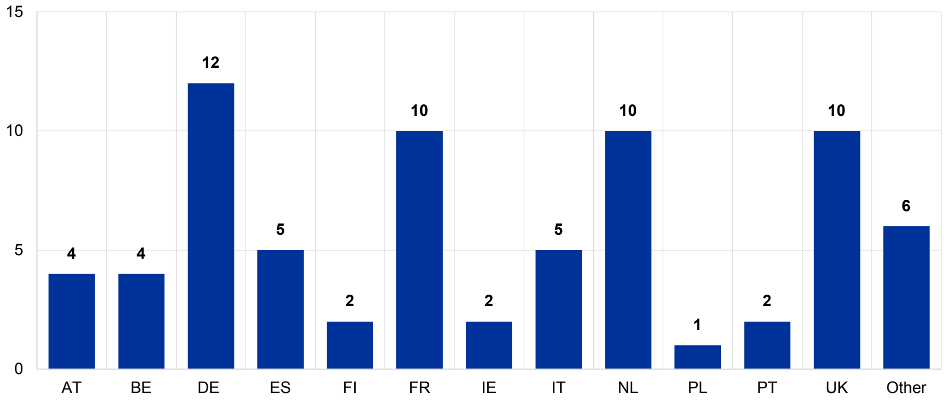
The working group on euro risk-free rates will continue to inform market participants on the progress of its work to support them in their own preparations for the new benchmark environment. The working group may also seek further input from market participants through additional public consultations.

Chart 1

Geographic coverage of the response sample

February 2019

(number of respondents by geographic area)



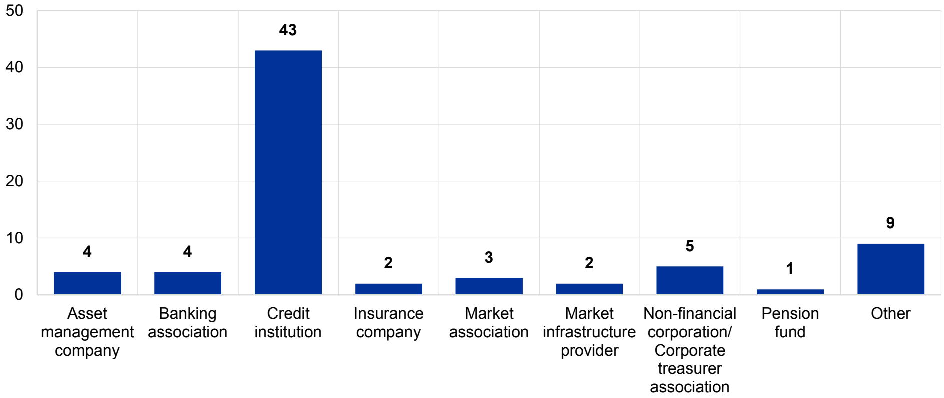
Source: ECB secretariat to the working group on euro risk-free rates.

Chart 2

Representation of stakeholder groups in the response sample

February 2019

(number of respondents by sector)



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

2 Assessing the need for a forward-looking term rate as a fallback for EURIBOR

For your current and future business, for which asset class would a forward-looking term rate methodology as a fallback for EURIBOR be required?

For each asset class considered, and in particular for corporate lending, floating rate notes, securitisation structures, and retail loans and mortgages, the majority of respondents viewed a forward-looking term rate methodology as a fallback for EURIBOR to be essential or desirable. Many respondents stressed that consistency across asset classes was required, while others asked for consistency across jurisdictions to the extent possible.

A large number of respondents stressed the need for consistency in fallback methodologies (i.e. with respect to backward-looking versus forward-looking methodologies), in particular across asset classes. Several respondents asked for consistency across jurisdictions to the extent possible. This would ideally include alignment of triggers and spread calculation methodologies. In addition, several respondents pointed to the need to avoid value transfers in the event that a fallback were activated.

With respect to consistency across products, many respondents saw a forward-looking rate as essential for all asset classes considered. Some of these respondents pointed to the need for a forward-looking rate as a fallback for

EURIBOR, given that EURIBOR itself is forward-looking, voicing concerns that moving from a forward-looking to a backward-looking rate would alter the nature of the contract. Others stressed that a forward-looking rate was required in particular for products for retail and corporate clients, while it could be needed less for sophisticated financial market participants. However, given that such products are hedged with derivatives or serve as assets in securitisation structures, these asset classes would need to include a forward-looking rate as well. Respondents were in particular concerned that hedge relationships could become ineffective if fallbacks for cash products differed from fallbacks for the derivatives used to hedge those products.

A number of respondents, however, pointed to the International Swaps and Derivatives Association (ISDA)'s mandate to work on fallbacks for derivatives at a global level and noted that ISDA's approach focussed on backward-looking methodologies only. A backward-looking rate should hence be used for all asset classes. Other respondents felt that if forward-looking rates were to be used for derivatives, their use should be limited to those derivatives used solely for hedging purposes. A few respondents viewed a potential divergence between asset classes to be less of an issue. In this respect, clear guidance with regard to the methodology to be used for each asset class was seen as helpful.

With respect to consistency across jurisdictions, respondents mentioned several areas in which such consistency would be required, including the cross-currency swap market and multicurrency instruments such as multicurrency syndicated loans. In addition, a few respondents suggested that use cases for forward-looking risk-free rate-based term rates could be aligned across jurisdictions to the extent possible.

Respondents who viewed a forward-looking rate as essential for retail and corporate clients mentioned the following main reasons: (i) the interest rate needs to be known to the client at the beginning of the interest period, for reasons of cash flow management and transparency; (ii) costs and risks associated with changing operational procedures and IT systems, which are not equipped to take backward-looking rates into account, are high; and (iii) accounting issues. A few respondents even saw a risk of an adverse impact on market activity if no forward-looking rate were available. Some respondents, however, felt that more sophisticated corporate clients were likely to be able to handle backward-looking rates. If exposures are fully hedged, cash flow uncertainty would not play a role. However, a long enough time lag between the rate calculation and final settlement would be required. With respect to floating rate notes, some respondents pointed to recent successful issuance based on the Secured Overnight Financing Rate (SOFR) and the Sterling Overnight Index Average (SONIA).

A few respondents noted that the need for a forward-looking rate was dependent on its use either for current or for new business, as well as the available implementation time. Backward-looking methodologies could be more feasible for new business, provided that the lead time were sufficiently long. The choice of forward-looking rates should not be driven by prior practice only. Others, however, saw the availability of a forward-looking term structure as important for pricing and valuation purposes.

Backward-looking methodologies could nonetheless serve as a backup in adverse market conditions.

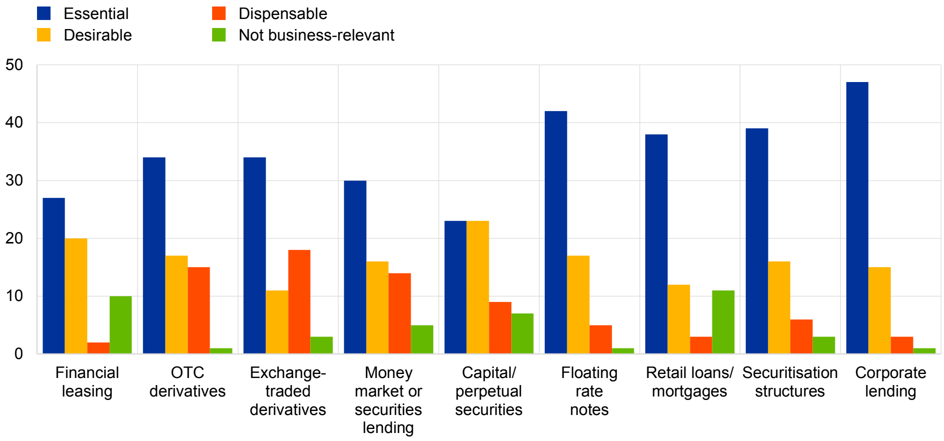
Finally, several respondents highlighted that a forward-looking rate should only be used if it were robust and economically sound, could not be manipulated, and complied with IOSCO principles and the EU Benchmarks Regulation[1].

Chart 3

For each asset class considered, and in particular for corporate lending, floating rate notes, securitisation structures, and retail loans and mortgages, the majority of respondents viewed a forward-looking term rate methodology as a fallback for EURIBOR to be essential or desirable.

February 2019

(number of responses)



Source: ECB secretariat to the working group on euro risk-free rates.
Note: “OTC derivatives” includes both cleared and uncleared.

[1] Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014 (OJ L 171, 29.6.2016, p. 1).

3 Assessing forward-looking methodologies against selection criteria

Do you agree with the working group's analysis of the [OIS transactions-based methodology/ OIS quotes-based methodology/ OIS composite methodology/ futures-based methodology]?

Respondents broadly agreed with the working group's analysis of the four forward-looking methodologies considered, that is to say, the OIS transactions-based methodology, the OIS quotes-based methodology, the OIS composite methodology, and the futures-based methodology.

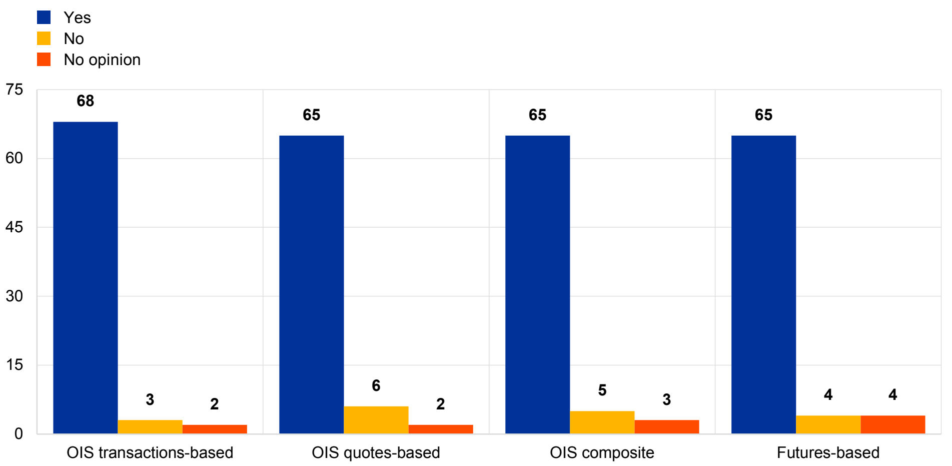
Respondents highlighted that the working group's analysis depended on assumptions about future liquidity conditions for the not-yet-existent ESTER derivatives markets. A few respondents considered it too early to come to a conclusion at the current stage. Some others felt that, overall, a term structure based on ESTER derivatives markets was not required.

Chart 4

Extent of agreement with the working group's analysis of the four forward-looking methodologies considered

February 2019

(number of responses)



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

3.1 Assessing the OIS transactions-based methodology

Please provide your assessment of the OIS transactions-based methodology in terms of (i) data sufficiency, (ii) transparency, as well as (iii) overall feasibility.

Respondents generally considered data sufficiency of the OIS transactions-based methodology to be low and transparency to be high.

With respect to data sufficiency, most respondents felt that the working group's presentation of EONIA OIS data gave a fair representation of the current market. Based on these data, respondents broadly expected future market liquidity in ESTER OIS to be low and concentrated in a few market participants, and hence likely to be insufficient for calculating robust term rates at several tenors that would be compliant with IOSCO principles. A number of respondents, however, pointed out that trading activity could increase in future, as current market conditions were influenced by the ECB's monetary policy. Several respondents felt that fair assumptions with regard to future market liquidity could not be made at this stage and that, consequently, data sufficiency could not be evaluated at the moment.

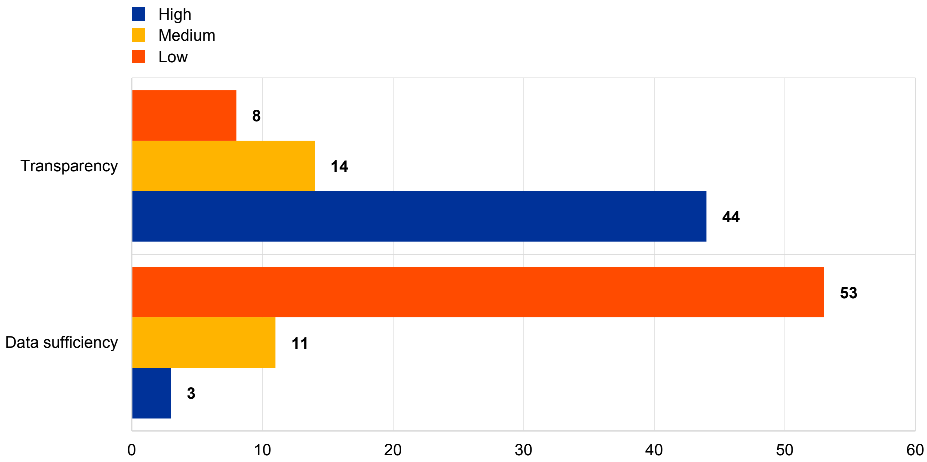
With respect to transparency, many respondents considered it to be high, making reference in particular to the ECB's money market statistical reporting (MMSR) and LCH as underlying data sources. Commenting on spot-starting versus non-spot-starting transactions, some respondents felt that either market practices would need to change to build liquidity in spot-starting transactions, or non-spot transactions would need to be included, which would, however, increase the methodology's complexity.

Chart 5

Assessment of data sufficiency and transparency of the OIS transactions-based methodology

February 2019

(number of responses)



Source: ECB secretariat to the working group on euro risk-free rates.
Notes: The sum of the number of responses does not equal the total number of responses received as some respondents did not reply to this question.

Most respondents considered the overall feasibility of the OIS transactions-based methodology to be challenging. At the same time, a number of respondents assessed the methodology as unviable, while others assessed it as feasible.

Many respondents considered a transactions-based methodology to be, in principle, the preferred option, often citing a lower risk of manipulation. However, respondents broadly expected data sufficiency to be too low, making the actual implementation challenging or even unviable. In addition, several respondents noted that a transactions-based methodology would probably not allow a point-in-time fixing, and would therefore be difficult to hedge.

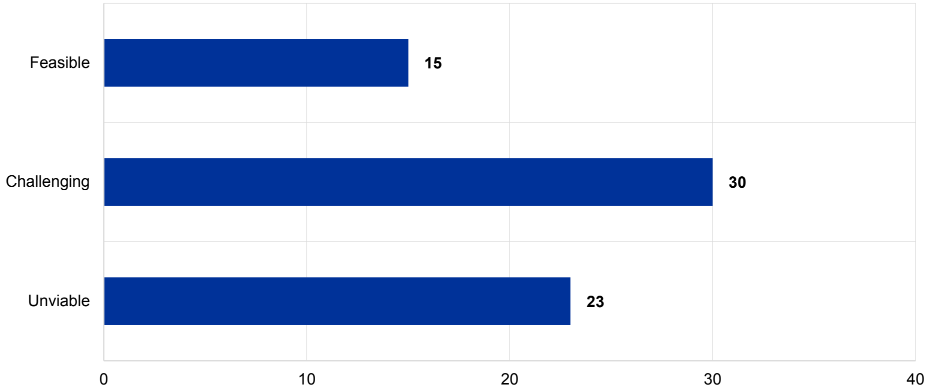
Others expected the methodology to become feasible in future, once market conditions normalised. A few respondents pointed out that the methodology would need to be robust in different market environments, in particular if the methodology were intended to serve as a fallback. Finally, some respondents felt that it was too early to conclude on the feasibility of this methodology, and that an administrator could reconsider its feasibility at a later stage.

Chart 6

Assessment of overall feasibility of the OIS transactions-based methodology

February 2019

(number of responses)



Source: ECB secretariat to the working group on euro risk-free rates.
Notes: The sum of the number of responses does not equal the total number of responses received as some respondents did not reply to this question.

3.2 Assessing the OIS quotes-based methodology

Please provide your assessment of the OIS quotes-based methodology in terms of (i) data sufficiency, (ii) transparency, as well as (iii) overall feasibility.

Respondents considered both the data sufficiency and the transparency of the OIS quotes-based methodology to be medium or high.

Many respondents noted that data sufficiency might be high enough for the OIS quotes-based methodology to be feasible, including when a point-in-time fixing were implemented. However, this would only be possible if a sufficient number of market participants provided quotes at all relevant tenors and, in particular, under all market conditions.

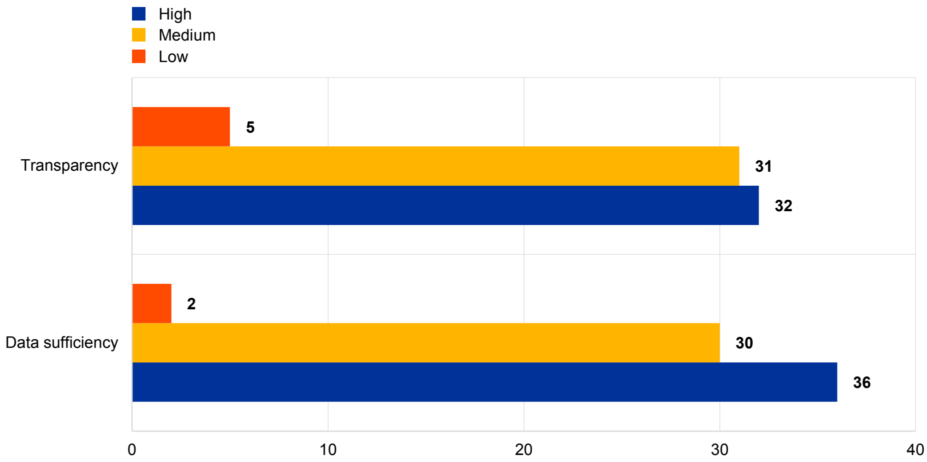
Respondents felt that the visibility of quotes provided on electronic trading platforms would support transparency. However, many respondents highlighted that a future administrator would need to be very transparent about the governance structure and the specific methodological details applied. A few respondents noted that this methodology might be difficult to explain to retail clients.

Chart 7

Assessment of data sufficiency and transparency of the OIS quotes-based methodology

February 2019

(number of responses)



Source: ECB secretariat to the working group on euro risk-free rates.
Notes: The sum of the number of responses does not equal the total number of responses received as some respondents did not reply to this question.

The majority of respondents considered the OIS quotes-based methodology to be feasible overall, although a number of respondents assessed its feasibility as challenging.

Many respondents pointed out that, while a transactions-based methodology would be the preferred option, the OIS quotes-based methodology offered a good compromise solution. Tradeable quotes were generally considered to be slightly weaker than actual transactions, but were seen as a good proxy if certain conditions were met. A few respondents cited the ICE Swap Rate as an example of a robust quotes-based reference rate. However, a number of respondents felt that a purely quotes-based approach would not be in line with IOSCO principles and prone to the same criticism voiced in the past about EURIBOR and LIBOR in relation to manipulation risk.

Respondents highlighted the following issues and challenges that would need to be addressed for the methodology to be feasible:

- Electronic trading would need further development, and a change in market behaviour towards trading on regulated platforms would be required.
- A sufficient number of market participants would need to frequently provide tradeable quotes with significant volumes, including in particular in stressed times with low market liquidity and high market volatility. Some respondents felt that the greater the number of institutions providing quotes and the greater the number of trading platforms involved, the more robust the methodology would

be, even though this would increase aggregation difficulties and decrease transparency. However, several respondents thought it unlikely that a sufficient number of market participants would be willing to make the required contributions on a voluntary basis.

- The risk of manipulation would need to be minimised as much as possible. Respondents pointed to the need for strong regulatory oversight and controls, with the Markets in Financial Instruments Directive (MiFID II)[2] and the Market Abuse Regulation (MAR)[3] being first steps in this direction. Moreover, respondents called for adequate safeguards in the calculation methodology, such as randomised snapshots, a minimum number of quotes and data sources, requirements concerning bid-offer spreads and quote sizes, the trimming of outliers, and a careful selection of the observation window.

- Respondents highlighted the importance of quotes being tradeable, and noted a number of open questions that were important to reflect on regarding the selection of quotes, such as quote size, the groups of counterparties and the length of time for which quotes would need to be available, and how to address the potential spreads that could occur due to different platforms/CCPs being involved. A few respondents noted that there was no guarantee of the quality of quotes, and quality would not be sufficient if actual transaction volumes were low. Finally, respondents wondered about fallback solutions if not enough quotes were available.

- An administrator would need to have access to the data and clarify the methodological details. Strong governance and transparency would be required.

- Some respondents suggested working out a clear road map and timeline for the implementation of such a methodology.

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2 Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments amending Council Directives 85/611/EEC and 93/6/EEC and Directive 2000/12/EC of the European Parliament and of the Council and repealing Council Directive 93/22/EEC (OJ L 145, 30.4.2004, p. 1).

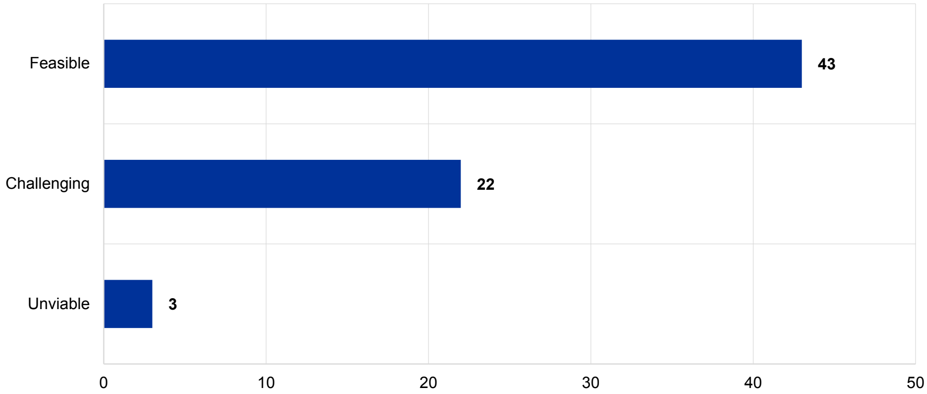
3 Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (market abuse regulation) and repealing Directive 2003/6/EC of the European Parliament and of the Council and Commission Directives 2003/124/EC, 2003/125/EC and 2004/72/EC (OJ L 173, 12.6.2014, p. 1).

Chart 8

Assessment of overall feasibility of the OIS quotes-based methodology

February 2019

(number of responses)



Source: ECB secretariat to the working group on euro risk-free rates.
Notes: The sum of the number of responses does not equal the total number of responses received as some respondents did not reply to this question.

3.2.1 Assessing a point-in-time fixing

Do you agree with the working group's conclusions regarding a point-in-time fixing?

Respondents largely agreed with the working group's conclusions regarding a point-in-time fixing.

Many respondents pointed out the advantage of a point-in-time fixing for hedging purposes, as the impact from intraday data releases and market moving events would be limited. This advantage would need to be balanced against two potential drawbacks: (i) reduced volumes compared to taking into account a full trading day, and (ii) a potentially higher risk of manipulation. A few respondents considered it difficult or premature to assess a point-in-time fixing at the current stage.

With respect to volumes, respondents noted that a point-in-time fixing would only be feasible if market depth were sufficient, which would also need to be the case in periods of stress. Respondents expected that volumes could become concentrated around the observation window, which would support liquidity and ensure that the quotes provided were tradeable. However, this could also lead to volatility and increased spreads, combined with lower liquidity throughout the rest of the trading day. A few respondents felt that the working group's analysis could have provided more information, for example, data on current EONIA OIS quotes or on ways to ensure that, in future, ESTER OIS quotes were tradeable and sufficiently available.

Many respondents stressed that manipulation risks should be minimised. A point-in-time fixing with a narrower observation window tended to be seen as increasing the risk of manipulation. Respondents therefore highlighted the need to ensure that quotes were tradeable and available in significant volumes and that sufficient controls, oversight and measures to ensure transparency were in place.

In general, respondents felt that certain important details would still need to be clarified, such as details on the timing and length of the observation window, the randomisation of snapshots and the treatment of outliers. With regard to the optimal length of the observation window, some respondents considered a time period of one hour as adequately balancing hedging and manipulation risk considerations. Others, however, expressed a preference for a shorter time period (with suggestions ranging from 10 to 30 minutes).

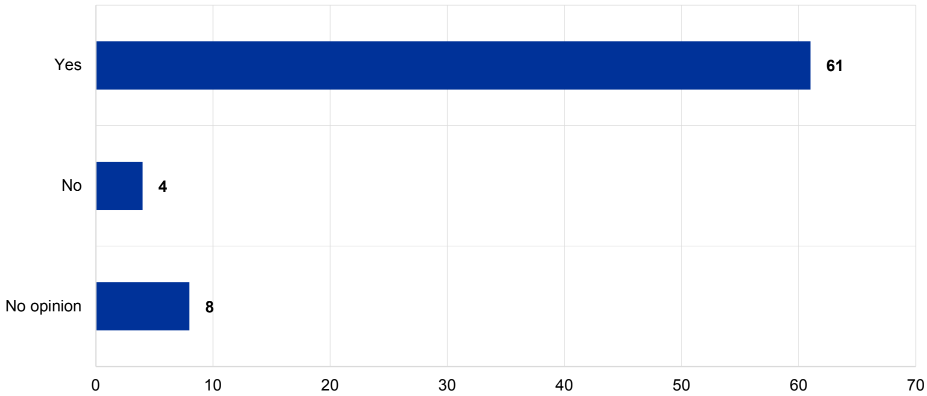
Several respondents suggested aligning the calculation with the hybrid methodology of EURIBOR, e.g. in terms of publication time or by using quotes (or an observation window of quotes) from the previous trading day.

Chart 9

Extent of agreement with the working group's conclusions regarding a point-in-time fixing

February 2019

(number of responses)



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

3.3 Assessing the OIS composite methodology

Please provide your assessment of the OIS composite methodology in terms of (i) data sufficiency, (ii) transparency, as well as (iii) overall feasibility.

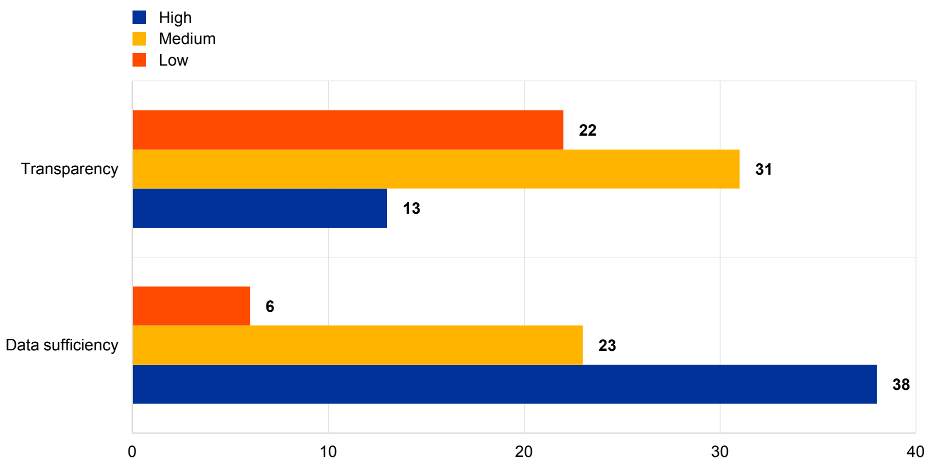
Respondents mostly considered data sufficiency of the OIS composite methodology to be high or medium, while transparency was assessed to be medium or low.

Owing to the combination of data sources, most respondents expected data sufficiency of the OIS composite methodology to be higher than for the OIS quotes-based or transactions-based methodologies alone. It was thus seen as being more robust. However, respondents also considered that such a composite approach would significantly increase the complexity of the methodology. These respondents mentioned several implementation challenges, such as giving appropriate weights to the different data sources, a mismatch of observation periods for transactions and quotes, and difficulties in comparing quotes with transaction prices.

As a result of the added complexity, transparency was in general assessed to be lower than for the OIS quotes-based or transactions-based methodologies. Some respondents noted that this methodology would be difficult to explain to non-financial counterparties, and a few respondents viewed the complexity of the methodology as impairing the credibility of the reference rate.

Chart 10
Assessment of data sufficiency and transparency of the OIS composite methodology

February 2019
(number of responses)



Source: ECB secretariat to the working group on euro risk-free rates.
Notes: The sum of the number of responses does not equal the total number of responses received as some respondents did not reply to this question.

Most of the respondents considered the overall feasibility of the OIS composite methodology to be challenging.

The majority of respondents were of the opinion that the complexity and lack of transparency inherent in this methodology outweighed the potential benefits of incorporating transaction data, in particular if there were only limited numbers of transactions. A few respondents noted that a point-in-time fixing would not be possible with this methodology.

Several other respondents, however, were of the opposite view. These respondents pointed out that, by giving priority to transactions, the composite methodology would be more in line with IOSCO principles than a purely quotes-based approach, that the benefits of including transactions would become greater if market liquidity were to increase in the future, and that manipulation risk would be more limited. Some respondents noted that the composite methodology would be closest to the hybrid methodology of EURIBOR.

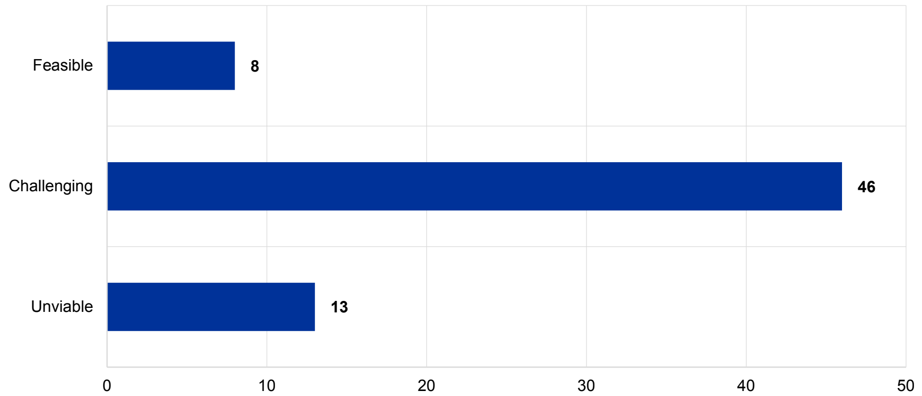
Finally, some respondents noted that the requirements and open questions with respect to making use of quotes would apply to the same extent as for the purely quotes-based methodology.

Chart 11

Assessment of overall feasibility of the OIS composite methodology

February 2019

(number of responses)



Source: ECB secretariat to the working group on euro risk-free rates.
Notes: The sum of the number of responses does not equal the total number of responses received as some respondents did not reply to this question.

3.4 Assessing the futures-based methodology

Assuming sufficient liquidity, what would be your view of the futures-based methodology? Please provide your assessment of the futures-based methodology in terms of (i) data sufficiency, (ii) transparency, as well as (iii) overall feasibility.

Respondents had divided views on the data sufficiency of the futures-based methodology, with transparency broadly assessed to be high.

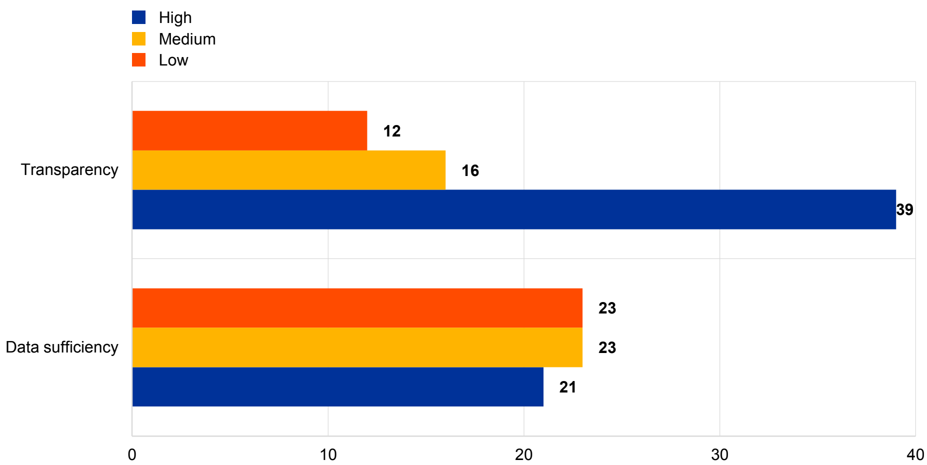
Respondents noted that data sufficiency depended critically on the development of liquidity in the ESTER futures market. Under the assumption of sufficient liquidity, some respondents considered data sufficiency to be high. However, others assessed data sufficiency as medium or low, noting that the development of liquidity was uncertain at the current stage or expected to be unlikely. Some respondents pointed to the lack of liquidity in the current EONIA futures market, while others considered that the development of SOFR and SONIA futures markets would provide better indications. Several respondents highlighted that market developments would rather depend on the future of EURIBOR (and hence on whether liquidity would shift from EURIBOR futures to ESTER futures).

Transparency was generally considered to be high, owing to the availability of input data. However, many respondents felt that the complex modelling required for the methodology, including the number of assumptions, would not support transparency.

Chart 12
Assessment of data sufficiency and transparency of the futures-based methodology

February 2019

(number of responses)



Source: ECB secretariat to the working group on euro risk-free rates.
Notes: The sum of the number of responses does not equal the total number of responses received as some respondents did not reply to this question.

While most respondents considered the overall feasibility of the futures-based methodology to be challenging, a number of respondents expected it to be feasible.

Respondents found liquidity to be a key factor for the futures-based methodology's overall feasibility. Views on the likelihood that market liquidity would develop were divided. In the case of a liquid futures market, some respondents felt that the methodology would be a feasible or even a preferred option, owing to its advantages in terms of data transparency, limited manipulation risk because of the regulated underlying market, and, in principle, broad market participation.

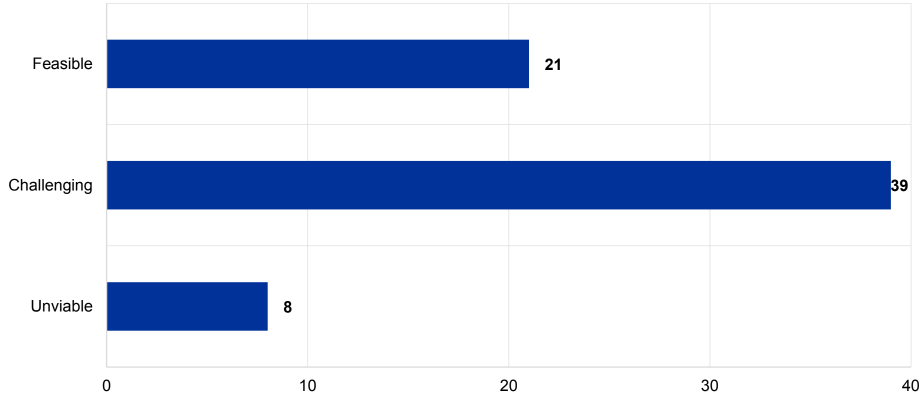
Several other respondents, however, did not support the futures-based methodology even in the case of a sufficiently liquid market. These respondents pointed to the complexity of the methodology and questioned the underlying assumptions, in particular the assumption of constant rates between ECB meeting dates. A number of respondents suggested reviewing the feasibility of the methodology at some point in the future.

Chart 13

Assessment of overall feasibility of the futures-based methodology

February 2019

(number of responses)



Source: ECB secretariat to the working group on euro risk-free rates.
Notes: The sum of the number of responses does not equal the total number of responses received as some respondents did not reply to this question.

4 Assessing the preferred forward-looking methodology

Do you agree with the working group's assessment that the OIS quotes-based methodology offers the best prospect of producing a viable fallback rate within a reasonable time period following the launch of the daily ESTER publication?

77% of respondents agreed with the working group's assessment that the OIS quotes-based methodology offered the best prospect of producing a viable fallback rate within a reasonable time period following the launch of the daily ESTER publication.

The majority of respondents favoured the OIS quotes-based methodology as a preferred or best compromise solution for a forward-looking fallback, citing data sufficiency and robustness, transparency, and simplicity – regarding both understanding and implementation – as key characteristics of the methodology. Several respondents noted that, in terms of timing, this methodology would probably be the one to become available in the shortest amount of time. However, respondents also noted that it could be challenging for market participants to be sufficiently willing to provide quotes, and that manipulation risk would need to be minimised. In general, sufficient time for implementation would need to be ensured.

Those respondents which did not agree with the working group's assessment had divided views about their preferred alternatives. Several respondents favoured the OIS composite methodology, while others supported the futures-based methodology. A few respondents voiced concerns about methodologies based on derivatives markets in general, stating that cash markets should drive derivatives markets and not vice versa. These respondents favoured relying on backward-looking methodologies as fallbacks.

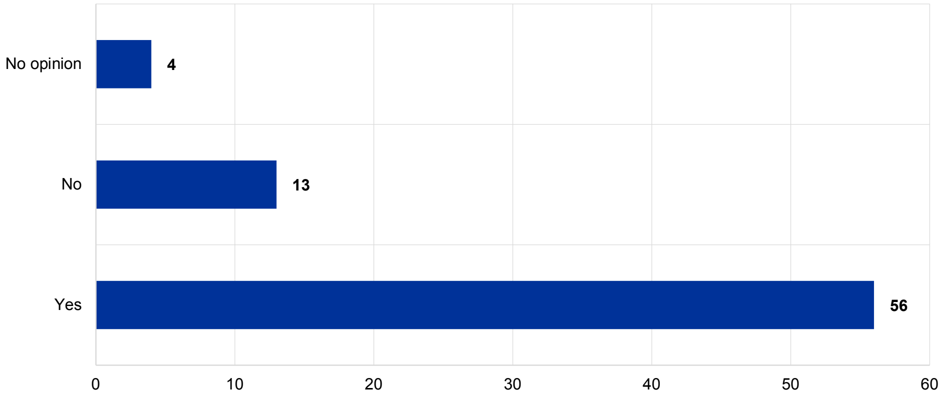
A number of respondents suggested reassessing the methodologies and conclusions at some point in the future once market developments became clearer, taking in particular the futures-based methodology into account. In addition, hybrid methodologies such as a combination of OIS and futures data could be pursued. A few respondents viewed it as premature to make a decision at the current stage.

Chart 14

Extent of agreement with the working group's assessment that the OIS quotes-based methodology offered the best prospect of producing a viable fallback rate within a reasonable time period following the launch of the daily ESTER publication

February 2019

(number of responses)



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