

Mr Hans Hoogervorst
Chairman International Accounting Standards Board
Columbus Building
7 Westferry Circus
Canary Wharf
London E14 4HD
United Kingdom

IBOR reform euro area - request for relief/guidance IASB

8 July 2020

Dear Mr Hoogervorst,

In February 2018, the European Central Bank (ECB), the Financial Services and Markets Authority (FSMA), the European Securities and Markets Authority (ESMA) and the European Commission launched the industry Working Group on Euro Risk-Free Rates (WG Euro RFR). The working group was tasked with identifying and recommending risk-free rates that could serve as an alternative to EONIA and EURIBOR used in a variety of financial instruments and contracts in the European Union, and developing adoption plans. I am writing to you in my capacity as chair of the WG Euro RFR.

The purpose of this letter is to provide a status update to the International Accounting Standards Board (IASB) on the reform agenda regarding interest rates in the euro area. In addition, the WG Euro RFR would like to express some concerns in relation to potential accounting issues that could be considered as a direct consequence of the IBOR reform, as detailed in appendix 1 (IFRS9/IAS39 - hedge accounting) and appendix 2 (IFRS9 – solely payment of principal and interest (SPPI)). With this letter, the WG Euro RFR kindly asks the IASB for relief on the use of basis swaps in hedge accounting and for guidance on the use and form of regulated rates in the context of SPPI testing.

IBOR reform in the euro area

The WG Euro RFR first focused on the replacement of EONIA by the recommended euro risk-free rate, the €STR, for which the ECB started the publication on 2 October 2019. The rationale for the replacement was that the underlying transaction base of EONIA, in its original form, was thin, and therefore EONIA's compliance with the EU Benchmarks Regulation could not be guaranteed. To support the market-wide transition from EONIA to the €STR, and to ensure an orderly and time efficient process, the WG Euro RFR recently concluded on a series of various recommendations to ensure a smooth transition from EONIA to the €STR, for which the expectation is that these will be widely adopted by the relevant stakeholders.

The next step for the WG Euro RFR is to find suitable and robust fallback measures to EURIBOR. Although EURIBOR is compliant with the EU Benchmarks Regulation, this regulation requires users of EURIBOR to include fallback measures into their contracts in the event EURIBOR ceases to exist. Therefore, the WG Euro RFR is currently investigating the various alternatives per cash and non-ISDA derivatives product, while taking into account consumer needs, consumer protection law, international market standards, risk management and financial accounting standards.

Potential accounting issues as a direct consequence of the IBOR reform

The WG Euro RFR highly appreciates the fact that the IASB put high priority to the standard-setting process in support of the IBOR reform. We welcomed the IBOR reform phase 1 amendments to IFRS9, IAS39 and IFRS7 in September 2019 and the issuance of the IBOR reform phase 2 exposure draft with amendments to specific requirements in IFRS standards relating to (1) modifications of financial instruments and lease liabilities; (2) hedge accounting; and (3) disclosures in April 2020.

In the search for suitable EURIBOR fallbacks, the WG Euro RFR duly takes note of the IBOR reform phase 1 amendments and IBOR reform phase 2 exposure draft. In that context, the WG Euro RFR has identified some potential accounting issues that in its view could be considered as a direct consequence of the IBOR reform and for which further relief, respectively guidance, would be appreciated.

- IFRS9/IAS39 – hedge accounting (appendix 1):
The use of certain EURIBOR fallbacks¹ under consideration by the WG Euro RFR for certain asset classes, that seem most suitable from a consumer need and consumer protection law perspective, could result in hedge ineffectiveness and even discontinuation of hedge relationships under IFRS9/IAS39. Therefore, the WG Euro RFR kindly asks the IASB to consider relief in the IBOR reform phase 2 for allowing entities to include basis swaps in hedge relationships at the moment IBOR fallbacks will be triggered. This would also align with the relief that was recently published by the Financial Accounting Standards Board (FASB) in the [Reference Rate Reform \(Topic 848 – BC52/BC53\)](#).
- IFRS9 – SPPI (appendix 2):
The use of a certain EURIBOR fallback² under consideration by the WG Euro RFR for certain asset classes, may need further consideration of the time value of money in the context IFRS9 – SPPI testing. In the view of the WG Euro RFR a potential solution may be found if a public authority were to become the administrator of this EURIBOR fallback measure. The WG Euro RFR kindly asks the IASB for further guidance on the use and form of regulated rates in the context of SPPI testing.

The WG Euro RFR highly appreciates that the IASB put high priority to the standard-setting process in support of the IBOR reform and will conclude on the IBOR reform phase 2 amendments in August 2020. Therefore, the WG Euro RFR will reach out to the IASB staff to discuss in greater detail a potential further relief on the use of basis swaps in hedge accounting and further guidance on the use and form of regulated rates for SPPI testing. Please do not hesitate to contact us should you have questions.

Yours sincerely,



Tanate Phutrakul
Chair of the Working Group on Euro Risk-Free Rates

¹ EURIBOR fallbacks calculated based on an *in advance* methodology, i.e. the €STR-based *forward-looking* methodology or a €STR-based *backward-looking last reset* methodology

² EURIBOR fallbacks calculated based on a €STR-based *backward-looking last reset* methodology

Appendix 1 - Potential hedge accounting implications of and solutions for different EURIBOR fallback measures

The purpose of this memo is to provide insights into the potential hedge accounting implications of the different EURIBOR fallback measures that are currently under consideration by the Working Group on Euro Risk Free Rates (WG Euro RFR) for the various cash products in comparison to what ISDA is going to implement for derivatives. In addition, this memo provides potential solutions to mitigate these hedge accounting implications.

EURIBOR fallback measures to be included in ISDA-based derivatives

In December 2019, ISDA launched a [public consultation](#) on the €STR-based term structure methodology and spread adjustment that would apply to fallbacks for derivatives referencing EUR LIBOR and EURIBOR. Based on the outcome of that consultation, ISDA published a [statement](#) at the end of February 2020 informing market participants that ISDA expects to proceed with developing fallbacks for inclusion in its standard definitions based on (a) the compounded setting in arrears rate with a backward shift and (b) the five-year historical median approach to the spread adjustment for EUR LIBOR and EURIBOR. This is consistent with the approach being adopted by ISDA with respect to other IBORs.

In addition, in November 2019, ISDA published the [results](#) of the consultation on the final parameters³ of adjustments that will apply to derivatives fallbacks for certain IBORs. Based on these results, ISDA will include fallbacks for those IBORs based on the **compounded setting in arrears rate with a two-day backward shift adjustment** in the 2006 ISDA Definitions which will apply to all new transactions (unless specifically disapplied) and will also publish a protocol to enable market participants to include the same fallbacks within legacy IBOR contracts if they choose to. Further information on the methodology has been published by Bloomberg in a [Rule Book](#).

It is important to note that a 'pre-cessation' trigger based upon a LIBOR rate (including EUR LIBOR) becoming non-representative will also be included in the 2006 ISDA Definitions and related protocol, as were announced in the [interim results](#) of a [public consultation](#) held by ISDA on pre-cessation fallbacks in derivatives. However, **there is no proposal to include such a pre-cessation trigger for any other IBOR, including EURIBOR.**

EURIBOR fallback measures currently under consideration by the WG Euro RFR

Within the WG Euro RFR, Sub-Group 5 (SG5) is currently analysing the most suitable EURIBOR fallback measures to be included in the various cash and non-ISDA derivatives products, taking into account the guidance of the Financial Stability Board (FSB) and ISDA fallbacks for derivative contracts. These EURIBOR fallback measures will include a €STR-based term structure methodology, and for EURIBOR legacy contracts, a spread adjustment component. Based on previous analysis conducted by the WG Euro RFR, the €STR-based term structure methodologies under consideration could be:

- The forward-looking term structure methodology that was [recommended](#) by the WG Euro RFR in March 2019, which will be based on OIS (tradable) quotes referencing €STR; or
- One of the three backward-looking term structure methodologies that the WG Euro RFR [considers](#) as most feasible in the euro area, which will be based on compounding the daily €STR:
 - Payment delay
 - Lookback period, for which ISDA is going to use the convention of compounded setting in arrears with a two-day backward shift.
 - Last reset

³ <http://assets.isda.org/media/3e16cdd2/d1b3283f-pdf/>

Refer to annex 1A and 1B for details of the €STR-based forward-looking and backward-looking term structure methodologies respectively.

How does IFRS hedge accounting work?

Market participants, ranging from professional market players to corporates/SME, use hedging techniques to manage financial risks (e.g. interest rate, FX, credit and funding & liquidity risk) within the boundaries of their risk appetite statement and to avoid P&L volatility. These financial risks result from (portfolios of) mortgages/loans, bonds and issued debt on the balance sheet → hedged items.

In order to hedge/offset these financial risks, market participants use derivatives such as interest rate swaps (IRS), overnight index swaps (OIS) and cross currency swaps (CCS) → hedging instruments.

IFRS hedge accounting standards (IAS 39.88) state that a hedging relationship qualifies for hedge accounting if, and only if, all of the following conditions are met:

- At the inception of the hedge there is **formal designation and documentation** of the hedging relationship between the hedged item and hedging instrument and the entity's risk management objective and strategy for undertaking the hedge;
- The hedge is expected to be **highly effective** in achieving offsetting changes in fair value or cash flows attributable to the hedged risk, consistently with the originally documented risk management strategy for that particular hedging relationship;
- For cash flow hedges, a **forecast transaction** that is the subject of the hedge must be highly probable and must present an exposure to variations in cash flows that could ultimately affect profit or loss;
- The effectiveness of the hedge can be **reliably measured and is separately identifiable**;
- The hedge is **assessed on an ongoing basis**.

To ensure that the hedging relationship is and remains highly effective during the financial reporting periods throughout its life cycle, the market participant need to perform and document effectiveness tests at the start and throughout the life cycle of the hedge relationship. The actual results of the hedge should remain within a range of **80%-125%**. Ideally, market participants strive for a perfect 100% hedge to mitigate financial risks and to avoid P&L volatility. However, hedge ineffectiveness can arise for various reasons, including when hedged item and hedging instrument have different maturities, use different underlying interest indices or have different fixing moments. Even within the range of 80%-125%, **any ineffectiveness should be reported in P&L**. If the effectiveness test falls outside these boundaries, the hedging relationship needs to be de-designated from the last date on which the hedge effectiveness testing was inside the boundaries, where the hedging derivative should be fair valued through P&L and any remaining hedge reserve will have to be amortized to the P&L over the remaining life of the hedged item.

Note that the above is described based on IAS 39 (which is used by the majority of the EU banks given that IAS 39 allows for portfolio hedging). Similar rules apply for IFRS 9. The main difference is that IFRS9 does not include the effectiveness testing (80%-125%), instead in IFRS 9 an entity needs to demonstrate that there is an economic relationship between the hedged item and the hedging instrument. In addition, rebalancing is allowed under IFRS 9 without having to discontinue the hedge relationship. Finally, IFRS9 currently does not include a portfolio hedging model.

Possible impacts on hedge accounting when using different EURIBOR fallback measures in hedge relationship

On 9 April 2020, the IASB issued the [IBOR reform phase 2 exposure draft](#), with the expectation that the final revisions to IAS39 and IFRS9 will be endorsed by the European Commission in Q4 2020. The proposals in this exposure draft address issues affecting financial statements when changes are made to contractual cash flows and hedging relationships as a result of interest rate benchmark reform.

For modifications required by the IBOR reform by including the addition of a fallback provision a company **will not have to derecognise the financial asset or financial liability**. Instead, the reform would be accounted for by updating the Effective Interest Rate to reflect, for example, the change in an interest rate benchmark from an IBOR to an alternative benchmark rate. The above practical expedient can only be applied if:

- a) It is required as a direct consequence of the reform; and
- b) The new basis for determining the contractual cash flows is economically equivalent to the previous basis.

For hedge accounting some additional reliefs are provided. However the IASB did not include a relief for any discrepancies in valuation that may arise throughout the remaining lifetime of the hedge relationship when market participants include different types of EURIBOR fallback measures into their contracts. It specifically states in their communication:

“Hedged items and hedging instruments would continue to be measured in accordance with IFRS 9 and IAS 39. Therefore **any measurement differences arising from amending the formal designation of a hedging relationship required by the reform would be recognised as hedge ineffectiveness in the financial statements**. Doing so would be consistent with accounting for such amendments as the continuation of the hedging relationship and reflects the economic effects of the reform”

If hedged items and hedging instruments shift at different points in time due to inconsistent fallback triggers, this may likely give rise to (temporary) ineffectiveness that will impact the risk appetite of market participants due to increased P&L volatility and may even lead to the discontinuation of hedge relationships. Therefore, within the WG Euro RFR, subgroup 3 is working on a generic set of EURIBOR fallback triggers to be included in all product types, in order to avoid this risk.

In addition to inconsistent fallback triggers within a hedge relationship, **hedged items and hedging instruments could have different €STR-based fallback rates that will likely give rise to ineffectiveness during the remaining lifetime of the hedge relationship**. This will impact the risk appetite of market participants due to increased P&L volatility and may even lead to the discontinuation of hedge relationships. A difference in €STR-based fallback rates could arise if the hedged items and hedging instruments include a different term structure methodology, and/or for legacy contracts, a different spread adjustment component. SG5 currently considers that for the product types that are typically hedged items, the most suitable term structure methodology is:

1. The forward-looking or the last-reset backward-looking term structure methodology → retail loans/mortgages
2. The forward-looking or the lookback backward-looking term structure methodology → bonds, corporate lending/business loans

In addition, for EURIBOR legacy contracts, SG5 is investigating which spread adjustment component to include. For derivatives, typically the hedging instrument, ISDA however recommends the lookback backward-looking term structure methodology and the five-year historical median approach for the spread adjustment.

For market participants to continue their hedge relationships as were originally constructed based on EURIBOR, **the EURIBOR fallback measures to be included in the hedged item and hedging**

instrument should ideally align. This will be established if, for those cash products where this is considered viable, market participants will include the same lookback backward-looking term structure methodology with two-day backward shift adjustment and, for legacy contracts, the same five-year historical median approach for the spread adjustment that ISDA is going to include for derivatives in the 2006 ISDA Definitions for new contracts and in a protocol for legacy contracts.

Based on selection criteria, SG5 is considering the lookback backward-looking term structure methodology for bonds, corporate lending/business loans and unsecured wholesale financing. For SG5 to conclude if this is indeed the most viable option for these cash products, it is recommended to conduct some final research by SG5 on remaining selection criteria and especially on conventions that are considered by other RFR working groups and market associations, given that these products are often offered in multi-currency contracts and in a standardized format set up by e.g. the Loan Market Association (LMA) and International Capital Markets Association (ICMA). In addition, it is recommended to analyse if the spread adjustment component for EURIBOR legacy contracts that are typically in a hedge relationship can be aligned with the spread adjustment component that ISDA is recommending.

There are several valid reasons to include alternatives in certain cash products that may differ from the EURIBOR fallback measure that ISDA is going to use. Reasons for SG5 to consider include the forward-looking or the last-reset backward-looking term structure methodology in e.g. mortgages:

- Less sophisticated retail and SME clients prefer to know at the start of the interest period which rate they need to pay at the end of the interest period, in order to manage their cash position. This is possible with the forward-looking or last-reset backward-looking term structure methodologies (refer to graphs on pages 10 respectively 12), any other backward-looking term structure methodology will not meet this preference.
- Given that interest payments are known in advance with these two approaches, payments can be more easily manageable from an operational standpoint, with less impact on IT systems and operations.
- The payment delay and lookback approaches (refer to graphs on pages 11 respectively 12) use a compounding in arrears methodology that is not applicable for contracts/products that in general show a mismatch between the tenor length of the accrual interest period and the tenor length(s) of the underlying reference rate(s). With payment frequency higher than rate reset frequency (i.e. monthly payment frequency and yearly rate reset frequency) it is more transparent if the rate is calculated in advance and known in advance.
- The rate calculated with the last-reset backward-looking term structure methodology may not represent the proper time value of money. This may have consequent impacts on hedging ease, economic equivalence and accounting (IFRS9 Solely Payment of Principal and Interest (SPPI) testing).

Hedged cash products where a forward-looking or last-reset backward-looking term structure methodology is considered as EURIBOR fallback measure, there will be difference compared to the hedging ISDA derivatives that will include the lookback period backward-looking term structure methodology: both the underlying methodology and the timing of the setting the interest rate payments are different. Especially for longer tenors (e.g. 1yr EURIBOR) this could result in unintended P&L volatility due to hedge ineffectiveness and even discontinuation of hedge relationships under IAS39. In particular for large floating rate EURIBOR-linked mortgage portfolios, that are often included in cash flow hedges, this will have significant financial implications for financial institutions. In addition, there are implications for counterparties like corporates, SME and smaller financial institutions that often have smaller portfolios that are hedged for interest rate risk purposes, where these discrepancies may likely result in P&L impacts that were not foreseen when

they constructed their hedge relationships based on EURIBOR. Please refer to annex 1C for a practical example.

Possible solutions to mitigate hedge accounting implications when using different EURIBOR fallback measures in hedge relationship

- **Use ISDA supplements for hedging derivatives that mimic the EURIBOR fallback measure included in the hedged product:**

One solution pointed out by some SG5 members was to have two different types of ISDA supplements for EURIBOR fallback measures:

1. For trading derivatives, including the payment delay backward-looking term structure methodology.
2. For hedging derivatives, including a term structure methodology that mimics the EURIBOR fallback measure that is included in the hedged item.

At the inception of a hedge relationship, derivatives need to specifically be flagged as becoming a hedging derivative and will be bought as such.

However this solution was discarded for further analysis as it raised serious concerns, for the reasons included below, and was considered as not feasible in practical terms.

ISDA concluded on the EURIBOR fallbacks marking the end of a significant effort that started in 2016, involved industry study groups and benefited from several rounds of public consultations which attracted representative support for its proposals.

ISDA developments have been aligned with the Financial Stability Board (FSB) and Official Sector Steering Group (OSSG) guidance on the fallback rates that should be recommend for IBOR fallbacks across jurisdictions: (OSSG letter 18 April 2018): *“we have already indicated that ISDA should not wait for the 1-, 3-, 6-, and 12-month forward-looking term fixings to be developed by the respective RFR Working Groups. ISDA should develop a methodology for fall backs in the 2006 ISDA Definitions that could be used in the absence of suitable term rates. **We strongly suggest that the ISDA Sub-Group focuses on calculations based on the overnight rates selected by the RFR working groups.**”*

Interested market participants have already had a chance to provide feedback and express preference in the ISDA’s consultation rounds with significant support for ISDA’s current approach. Therefore a solution that requires **ISDA supplements for hedging derivatives that mimic the EURIBOR fallback measure included in the hedged product** entails risks of contradicting FSB guidance, endangering the robustness of the fallbacks in preparation based on backward looking rates, and re-opening a debate on the consistency of fallbacks among derivatives also across jurisdictions.

Finally, there were concerns on whether the inclusion of an alternative EURIBOR fallback measure specifically for hedging purposes in legacy derivatives contracts is going to work in practice, as this requires all market participants to sign the ISDA protocol or to unilaterally agree on the embedding of this alternative EURIBOR fallback measure in derivatives contracts solely for hedging purposes.

- **De-designate existing hedge relationships and include new hedging derivatives that mimic the EURIBOR fallback measure included in the hedged product at the moment EURIBOR fallback measures will be triggered:**

An alternative solution pointed out by a SG5 member was that if the hedged item and hedging derivative will include different EURIBOR fallbacks, an existing hedge relationship could be de-designated as soon as EURIBOR fallbacks will be triggered and the hedge relationship could then be re-installed with a hedging derivative that will include a €STR-based term structure methodology that mimics the triggered EURIBOR fallback measure of the hedged item.

For any new hedge relationships that will be established after EURIBOR has ceased to exist, hedging derivatives will include a €STR-based term structure methodology that is equal to the €STR-based term structure methodology of the hedged item.

However this solution was discarded as it raised serious concerns, for the reasons included below, and was considered as not feasible in practical terms.

With this alternative, market participants will have to deviate from the ISDA standard as described in the previous solution, in which they have to unilaterally agree on the embedding an alternative measure in derivatives contracts solely for hedging purposes.

In addition, de-designating existing hedge relationships and unwinding existing derivatives that will no longer be included in these hedge relationships will result in a significant financial impact for market participants that often have several (tens of) thousands of hedge relationships for retail/SME mortgage and lending portfolios outstanding. Furthermore, the re-installment of new hedge relationships with new derivatives at new bid-ask spreads will come at a cost as well. Lastly, the de-designation and subsequent re-installment of existing hedge relationships will lead to significant operational/system challenges for hedge accounting.

Finally, the existing hedged cash products will fall back to a €STR-based term structure methodology plus a spread adjustment component for EURIBOR legacy contracts, while the newly bought hedging derivative will only include an €STR-based term structure methodology.

- **Including basis swaps in hedge relationships at moment EURIBOR fallback measures will be triggered:**

One solution could be to include a basis swap in the hedge relationship as soon as EURIBOR fallbacks in the hedged item and hedging derivative will be triggered, which will offset the unintended difference that will arise due to the use of different types of EURIBOR fallback measures. E.g. for a mortgage containing a last-reset backward-looking term structure methodology that is hedged by a ISDA derivative containing a lookback period backward-looking term structure methodology, a basis swap offsetting the difference between the last-reset and lookback period will be included in the hedge relationship as soon as these fallbacks will be triggered.

For new hedge relationships going forward, market participants could include an option in the hedge documentation that a basis swap will be added to the hedge relationship as soon as EURIBOR ceases to exist and the fallback measures become effective.

For already existing hedge relationships, further relief would be required in the IASB IBOR reform phase 2 amendments for IFRS 9 and IAS39 to allow market participants to add a basis swap to a currently already existing hedge relationship as soon as EURIBOR ceases to exist and the fallback measures become effective.

The IASB IBOR phase 2 exposure draft allows an entity to make a number of changes related to IBOR reform to current existing hedge relationships. A question that needs consideration is if

additional fallback measures, like a basis swap, could also be included in the hedge documentation of existing hedge relationships in case the fallback measures in the hedged item and hedging derivative differ. This attempt is to ensure the hedge relationship remains highly effective and economically equivalent as was intended from the start. This solution will require re-opening of existing hedge relationships leading to significant operational/system challenges for hedge accounting.

The question was raised if a relatively one-sided basis swap market could be timely established, specifically to mitigate unintended hedge ineffectiveness in case EURIBOR may cease to exist and divergent EURIBOR fallback measures of the hedged items and hedging derivatives will be triggered. Market participants in SG5 and the WG Euro RFR expect that any cessation of the EURIBOR that might happen in the future would not occur in one day but would be managed through a longer period that should allow the basis swap market to take off. In addition to this, the emergence of liquid basis swap markets offsetting the differences between the RFR-based calculations that deviate from ISDA's approach for derivatives and the RFR-based calculation based on ISDA's solution could be supported by the use of risk-free rates as reference rates in some new contracts for cash products⁴.

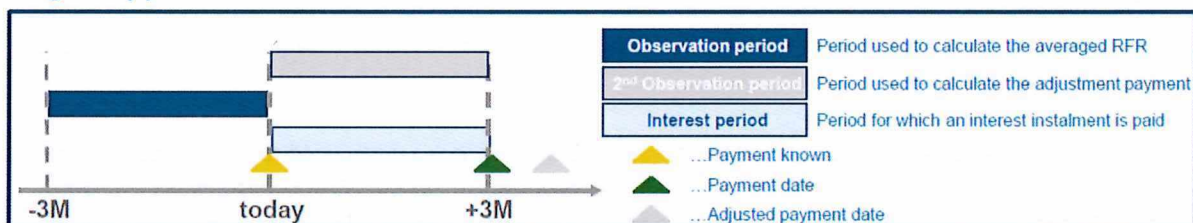
In addition, one could argue whether it is possible for market participants such as corporates, SME and smaller financial institutions banks to execute this solution, as they may not have access to the basis swap market. However taking into account that the basis swaps will be used for hedging purposes, demand from the SME's and small financial institutions to access the basis swaps is expected to be channelled via the banking system.

The advantage of this solution is that it does not require any changes to both new and legacy EURIBOR-linked contracts. While it does requires adjustments in the (existing) internal hedge documentation and relationships that sit within the market participant's own organisation. The WG Euro RFR considers this as the most viable solution and therefore kindly asks the IASB to consider further relief in the IBOR reform phase 2 for allowing entities to include basis swaps in hedge relationships at moment IBOR fallback measures will be triggered. This would also align with the relief that was recently published by the Financial Accounting Standards Board (FASB) in the [Reference Rate Reform \(Topic 848 – BC52/BC53\)](#).

⁴ If, for instance, some newly issued debt securities were linked to a forward-looking or a lookback period backward-looking term structure methodology with five-day backward shift adjustment, and were hedged with an ISDA derivative, demand for a basis swap to offset the differences (between the forward-looking or lookback with five-day backward shift vs. the lookback with a two-day backward shift RFR calculation) would emerge.

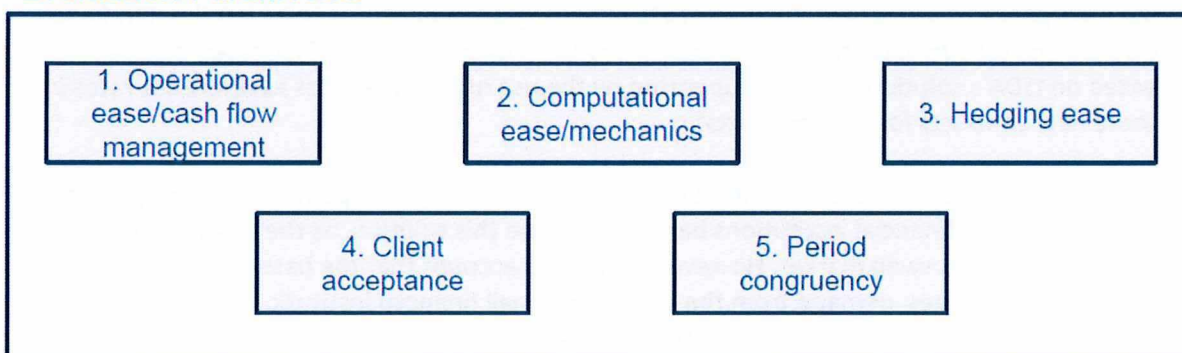
Annex 1A – details €STR-based forward-looking term structure methodology

Legend(*):

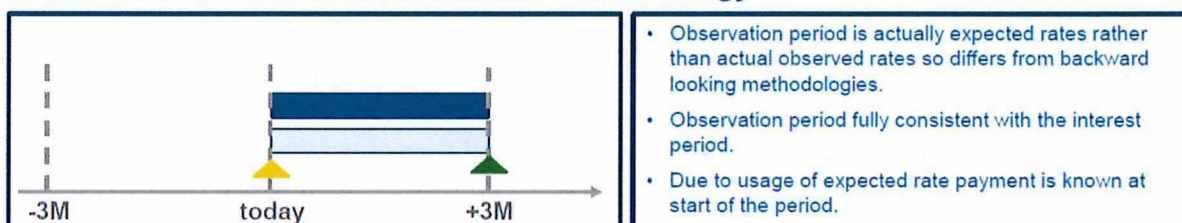


(*) The graphical descriptions of the backward-looking methodologies refer to the user guide to overnight risk-free rates published by the Financial Stability Board (FSB) on 4th June 2019, p. 8.

Evaluation Parameters



1. OIS Quote/Futures based forward methodology

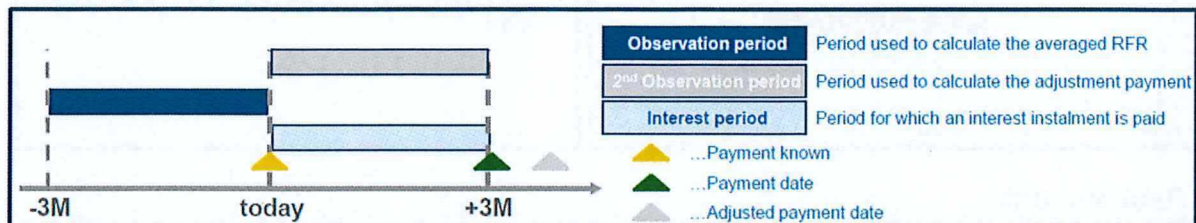


Assessment

Parameter	Description
Operational ease/cash flow management	Limited Operational complexity due to known payment at start of the period
Computational ease/mechanics	Calculation based on market prices, complex for the administrator but straightforward for the end user to implement, rate can be published
Hedging ease	Hedging possible but fixing risk must be managed
Client acceptance	High as similar to current benchmarks
Period congruency	Consistent
Examples of usage	Currently not used in any market
Conclusion	Remains uncertain whether a viable forward looking index will be possible, however clear operational benefits and client acceptance.

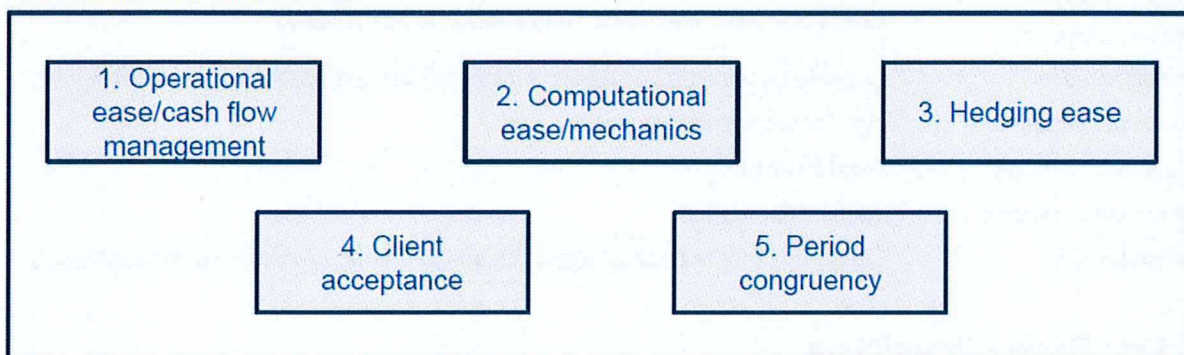
Annex 1B – details €STR-based term structure methodologies

Legend(*):

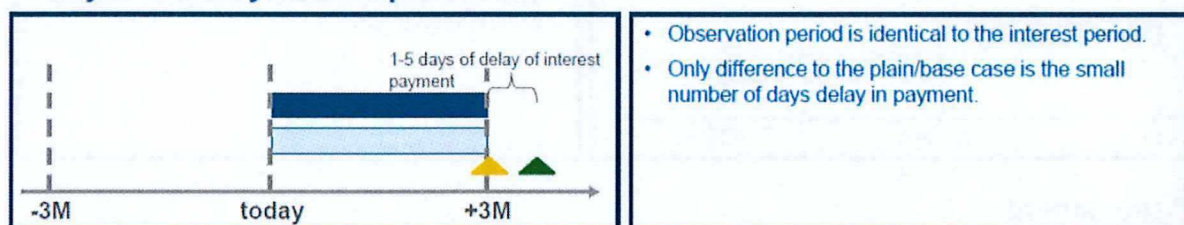


(*) The graphical descriptions of the backward-looking methodologies refer to the user guide to overnight risk-free rates published by the Financial Stability Board (FSB) on 4th June 2019, p. 8.

Evaluation Parameters



2. Payment delay - Description

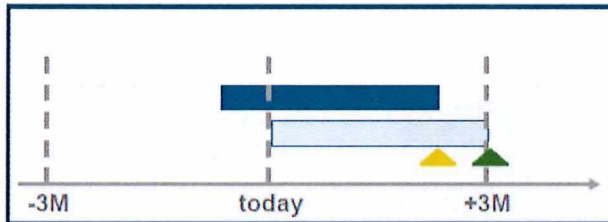


- Observation period is identical to the interest period.
- Only difference to the plain/base case is the small number of days delay in payment.

Assessment

Parameter	Description
Operational ease/cash flow management	Operational complexity due to small interest payment delay
Computational ease/mechanics	Simple and transparent calculation, rate can be published
Hedging ease	Consistent with OIS market, so limited hedging issues
Client acceptance	High for specific asset classes/users
Period congruency	Consistent
Examples of usage	OIS derivative market
Conclusion	Market standard for many derivatives products, challenging for other users

4. Lookback - Description

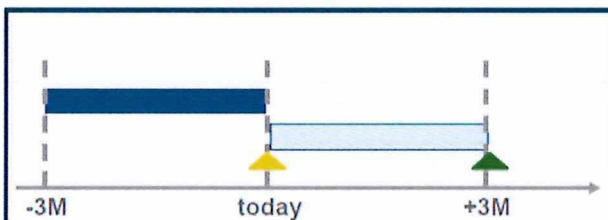


- Start of observation period a few days prior to the start of interest period.
- Both observation and interest period are of the same length.

Assessment

Parameter	Description
Operational ease/cash flow management	Sufficient time lag between fixing and payment for many users
Computational ease/mechanics	Simple and transparent calculation, rate can be published
Hedging ease	Easier to hedge than Lockout, but minor risk remain due to small mismatch
Client acceptance	High for specific asset classes/users
Period congruency	Small mismatch
Examples of usage	SONIA FRN market
Conclusion	Slightly superior to Lockout approach due to greater hedging and transparency

5. Last Reset - Description



- Classic fundamentally backward-looking methodology
- Observation period references the previous 3 months to the interest period.

Assessment

Parameter	Description
Operational ease/cash flow management	Payment rate known in advance, so operationally straightforward
Computational ease/mechanics	Simple and transparent calculation, rate can be published
Hedging ease	Perfect hedge not available but basis risk
Client acceptance	Potentially only workable solution for retail and smaller corporate users
Period congruency	Inconsistent
Examples of usage	Proposed solution by other working groups for Retail Mortgages
Conclusion	Potentially viable option, if rate must be known at the start of the period Potentially very challenging for longer fixing periods, e.g. 12 months

Annex 1C – practical example on how different fallback measures could result in hedge ineffectiveness

Product	Hedge component	Current situation	At fallback trigger date	
			Scenario A	Scenario B
Floating rate Mortgage portfolio	Benchmark rate in mortgage	EURIBOR 12M	€STR-based forward-looking term structure	€STR-based last-reset backward-looking term structure
Receiver swap	Floating leg swap	EURIBOR 12M	€STR-based lookback period backward-looking term structure	€STR-based lookback period backward-looking term structure

Perfect hedge

Misalignment in fallback methods between mortgages and swap likely leads to hedge ineffectiveness

Current situation:

- A financial institution owns a mortgage portfolio of EUR 100 bn, on which it will receive 12M EURIBOR from its clients with expected average maturity date of 7 years.
- Based on its risk profile, the financial institution wants to hedge the P&L volatility of this floating rate mortgage portfolio via cash flow hedging, by buying an interest rate swap (IRS) in which it will receive a fixed rate while it will pay the floating rate of 12M EURIBOR until maturity date of 7 years.
- The floating rate payer leg of the IRS ideally 100% offsets the floating rate receiver leg of the mortgage portfolio, which leaves the financial institution with receiving a fixed rate for 7 years on the fixed rate receiver leg of the IRS.

Future situation in case EURIBOR ceases to exist:

- Given that retail and SME clients prefer to know at the start of the interest period which rate they need to pay at the end of the interest period, subgroup 5 is considering the forward-looking or last-reset backward-looking term structure methodologies for mortgages.
- For the IRS, a lookback period backward-looking term structure methodology is included based on the 2006 ISDA Definitions or ISDA protocol.
- If EURIBOR ceases to exist, the EURIBOR fallback measures in both the mortgage portfolio and the IRS in the cash flow hedge will be triggered and which will take effect at the first upcoming interest rate reset period: let's assume 1 May 2023 in this example.
- For the mortgage portfolio, the floating rate to be received as per 1 May 2024 is no longer EURIBOR, but either:
 - €STR-based forward-looking term structure based on €STR OIS tradable quotes that set a market expectation of the €STR development for the observation period 1 May 2023-30 April 2024; or
 - €STR-based last-reset backward-looking term structure based on €STR compounding in arrears for the historic observation period 1 May 2022-30 April 2023.

In both cases, the rate/payment will be set and known on 1 May 2023 and will not change during the interest rate period that will end on 30 April 2024, upon when settlement of the interest will take place.

- For the IRS, the floating rate to be paid as per 1 May 2024 is no longer EURIBOR. Instead it will be a €STR-based lookback period backward-looking term structure based on €STR compounding in arrears for the observation period that is similar to the interest rate period, taking into

account a two-day backward shift adjustment: 27 April 2023-26 April 2024. For the IRS, the rate/payment will only be set and known after 26 April 2024, with settlement of the interest to take place after the interest rate period ends on 30 April 2024.

- Due to the different underlying methodologies (both forward-looking and last-reset) and observation periods (only last-reset) between the mortgage portfolio and the IRS, interest rate developments will likely result in hedge ineffectiveness. In volatile interest rate markets, where the EURIBOR fallback rate included in the mortgage starts to deviate >20-25% from the EURIBOR fallback rate included in the IRS, it can even result in the situation that the hedge relationship needs to be unwound resulting in P&L volatility which was not intended from a risk appetite perspective when the market participant started to hedge the variability of cash flows of the EURIBOR-based mortgage portfolio.

Appendix 2 - Potential IFRS 9 SPPI testing implications of and solutions for EURIBOR fallback based on €STR-based backward-looking last reset and look-back period term structure methodologies

Purpose of this memo is to provide insight into the potential IFRS 9 Solely Payment of Principal and Interest (SPPI) testing implications of EURIBOR fallback measures based on:

- The €STR-based backward-looking last reset term structure methodology that is currently under consideration for retail loans/mortgages and trade finance; and
- The €STR-based backward-looking look-back period term structure methodology that is currently under consideration for bonds and corporate lending.

In addition, this memo provides the potential solution to mitigate these SPPI testing implications: A public authority to become the administrator of €STR-based backward-looking term structure methodologies.

What is SPPI testing?

IFRS 9, Chapter 4 Classification, requires an entity to first classify financial assets based on the entity's business model for managing those financial assets, either in Hold to collect (HtC)⁵, Hold to collect and sell (HtC&S)⁶ or the Residual⁷ category. A business model is determined at a level that reflects how groups of financial assets are managed together to achieve a particular business objective and in order to generate cash flows, i.e. a business model reflects how the business is run. **Entities typically hold financial assets like mortgages, loans and investment bonds (e.g. for Basel III - High Quality Liquid Assets (HQLA) purposes) in their HtC or HtC&S business models.**

Following the business model assessment, the next step is to perform an SPPI test, in which the entity needs to analyse the contractual cash flow characteristics of all financial assets held in HtC and HtC&S business models. This is to determine the measurement of a financial asset at either amortised cost, fair value through other comprehensive income (FVOCI) or fair value through profit or loss (FVPL), respectively. Contractual cash flows that are solely payments of principal and interest on the principal amount outstanding are consistent with a basic lending arrangement in which the interest rate reflects consideration for the time value of money, credit risk, liquidity risk, profit margin, etc. **If the outcome of the SPPI test indicates that the contractual cash flows are not payments of principal and interest on the principal amount outstanding, the financial asset that was considered for a HtC or HtC&S business model cannot be measured at amortised cost or fair value through other comprehensive income respectively. Hence, the financial asset will have to be classified in a Residual business model and measured at fair value through profit and loss.**

IFRS9 requires that the business model assessment and SPPI test (in case of HtC or HtC&S business model classification) are performed at initial recognition of the financial asset on the basis of the contractual terms over the life of the instrument. In certain circumstances, a more detailed qualitative or even quantitative SPPI testing on the contractual (undiscounted) cash flows for each reporting period and cumulatively over the life of the financial asset would be required if:

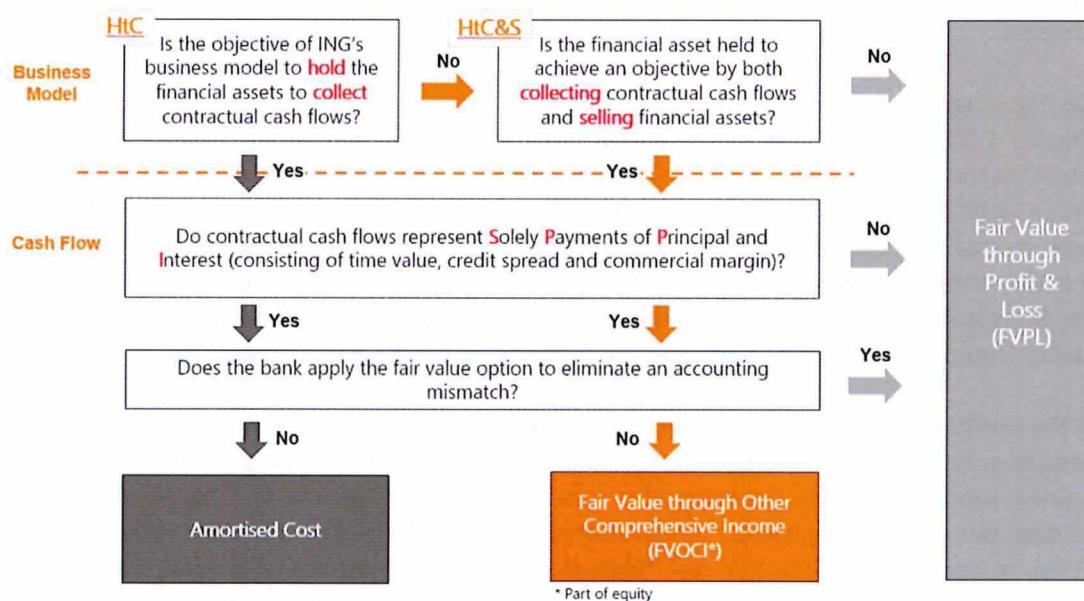
⁵ The **HtC business model** entails financial assets being managed to realise cash flows by collecting the contractual cash flows over the life of the instrument. It means that the overall objective of the HtC business model is to keep financial assets within the portfolio until maturity.

⁶ The **HtC&S business model** involves financial assets being managed to realise the overall return on the portfolio by both holding and selling assets

⁷ If financial assets are not held within an HtC business model or within an HtC&S business model, they are classified in the **Residual category**.

- The financial asset includes a **modified time value of money element** (IFRS9.B4.1.9B)⁸, where the entity needs to assess the modification to determine whether the contractual cash flows represent solely payments of principal and interest on the principal amount outstanding; and/or
- The financial asset includes a **contingent event/trigger could effect a change in timing or amount of contractual cash flows** (IFRS9.B4.1.10), where the entity must determine whether the contractual cash flows that could arise over the life of the instrument due to that contractual term are solely payments of principal and interest on the principal amount outstanding. To make this determination, the entity must assess the contractual cash flows that could arise both before, and after, the change in contractual cash flows.

Classification & Measurement of Financial Assets: Business Model + SPPI Tests



On 9 April 2020 the IASB issued the [IBOR reform phase 2 exposure draft](#), with the expectation that the final revisions to IAS39 and IFRS9 will be endorsed by the European Commission in Q4 2020. The proposals in this exposure draft address issues affecting financial statements when changes are made to contractual cash flows and hedging relationships as a result of interest rate benchmark reform. For modifications required by the IBOR reform by **including the addition of a fallback provision a company will not have to derecognise the financial asset or financial liability**. Instead, the reform would be accounted for by updating the Effective Interest Rate to reflect, for example, the change in an interest rate benchmark from an IBOR to an alternative benchmark rate. The above practical expedient can only be applied if:

- It is required as a direct consequence of the reform; and
- The new basis for determining the contractual cash flows is economically equivalent to the previous basis.

The IBOR reform phase 2 exposure draft provides clarity that the addition of a EURIBOR fallback in an existing contract will not automatically trigger the derecognition of the financial asset or liability in case the envisaged EURIBOR fallback measures results in contractual cash flows that are economically equivalent to EURIBOR in case the EURIBOR fallback measure is triggered. However, if

⁸ **Time value of money** is the element of interest that provides consideration for the passage of time. In order to assess whether the element provides consideration for only the passage of time, an entity applies judgement and considers relevant factors such as the period for which the interest rate is set. Because in some cases, the time value of money element may be modified (i.e. imperfect).

an entity decides to include any additional contractual changes to an existing financial asset or liability that are (1) not related to the EURIBOR reform and (2) accounted for as an extinguishment (i.e. at substantially different terms), the entity does have to derecognise the existing financial asset or liability and has to initially recognise the modified financial asset or liability. The initial recognition of such a modified financial asset or any new financial asset that contains EURIBOR fallback measures, and that are classified as HtC and HtC&S, will have to be tested for SPPI. It is therefore important to consider that the envisaged EURIBOR fallback measures will ensure that financial assets classified as HtC and HtC&S continue to pass the SPPI test. Here, **further analysis on the envisaged EURIBOR fallback measures is required in respect of (1) the time value of money and (2) the timing of interest cash flows as soon as a EURIBOR fallback will be triggered.**

Will the €STR-based backward-looking last reset term structure methodology pass the SPPI test?

Within the WG Euro RFR, subgroup 5 is currently analysing the most suitable EURIBOR fallback measures to be included in the various cash and non-ISDA derivatives products, based on the FSB guidance and ISDA fallbacks for derivatives. These EURIBOR fallback measures will include a €STR-based term structure methodology, and for EURIBOR legacy contracts, a spread adjustment component in order to ensure that EURIBOR fallback measures will be economic equivalent.

Based on previous analysis conducted by the WG Euro RFR, the €STR-based term structure methodologies under consideration could be:

- The forward-looking term structure methodology that was [recommended](#) by the WG Euro RFR in March 2019, which will be based on OIS (tradable) quotes referencing €STR; or
- One of the three backward-looking term structure methodologies that the WG Euro RFR [considers](#) as most feasible in the eurozone, which will be based on compounding the daily €STR:
 - Payment delay
 - Lookback period
 - Last reset

Refer to annex 2A and 2B for details of the €STR-based forward-looking and backward-looking term structure methodologies respectively.

Given that the observation period and the interest period are identical for a EURIBOR fallback measure based on the forward-looking and the backward-looking payment delay term structure methodologies (refer to the graphs on pages 20 and 21), the interest rate in a financial asset referencing EURIBOR remains to reflect consideration for the time value of money, even if this EURIBOR fallback measure is triggered.

For a EURIBOR fallback measure based on the backward-looking lookback period term structure methodology, both observation and interest period are of the same length, however the start/end of the observation period lies a few days prior to the start/end of the interest period (refer to the graph on page 22). This difference allows counterparties to have sufficient time between fixing and settlement of the interest payment at the end of the interest period and in the opinion of the WG Euro RFR could be considered as a non-significant difference in the contractual interest cash flows (IFRS9.B4.1.9C). Therefore, the interest rate in a financial asset referencing EURIBOR remains to reflect consideration for the time value of money, even if this EURIBOR fallback measure is triggered.

For the EURIBOR fallback measure based on the backward-looking last reset term structure methodology, both observation and interest period are of the same length, however the observation period lies in advance of the interest period (refer to the graph on page 22). This difference allows counterparties to know the interest payment rate at the start of the interest period, which seems to be the preference for especially less sophisticated retail and SME clients for their lending/mortgage products. **Given that this EURIBOR fallback measure compounds historic €STR data in arrears to set**

the interest rate to be used for the coming interest period, further consideration should be given to the time value of money of this EURIBOR fallback measure when performing an SPPI test at the initial recognition of a modified/new financial asset that includes such EURIBOR fallback measure⁹. In particular if this EURIBOR fallback measure is going to be used as fallback for longer EURIBOR tenors, such as 6-months or 12-months, where there is a risk that the interest payable in a period could be disconnected significantly from the interest period because of volatility in the market

Possible solution to mitigate SPPI time value of money implications for EURIBOR fallback based on €STR-based backward-looking last reset term structure methodology

- **Would it help if a public authority were to become the administrator of €STR-based backward-looking term structure methodologies?**

IFRS 9.B4.1.9E, complemented with IFRS9.BC4.179–BC4.180, recognises that in some jurisdictions, the government or a regulatory authority sets interest rates – e.g. as part of a broad macro-economic policy, or to encourage entities to invest in a particular sector of the economy. In some of these cases, the objective of the time value of money element is not to provide consideration for only the passage of time. In spite of the general requirements for the modified time value of money, a regulated interest rate is considered to be a proxy for the time value of money if it:

- Provides consideration that is broadly consistent with the passage of time; and
- Does not introduce exposure to risks or volatility in cash flows that are inconsistent with a basic lending arrangement.

Typical examples of generally accepted regulated interest rates are:

- The rate set by the French government and central bank for ‘Livret A’ savings accounts offered by French retail banks, which is based on a formula that reflects protection against inflation and an adequate remuneration that incentivises entities to use these particular savings accounts (IFRS 9.BC4.0180).
- The 12 months EURIBOR Hipotecario set by the Spanish central bank for the Spanish retail mortgage market, which is based on the average of 12 months EURIBOR fixings and used in mortgages with a time lag of 2 months.
- The Interest Rate index for Client Credits (IRCC) set by the regulator of Romania for RON floating rate loans granted to consumers, which is published quarterly as a simple average of daily indices that are computed as weighted average of volumes and interest rates of deposits traded on interbank market on that specific day, with time lag of 2 quarters.

Based on feedback received from consumer groups on EURIBOR fallback measures, it seems that especially less sophisticated retail and SME clients would prefer to know the interest payment rate at the start of the interest period, in order to better manage their cash position for their

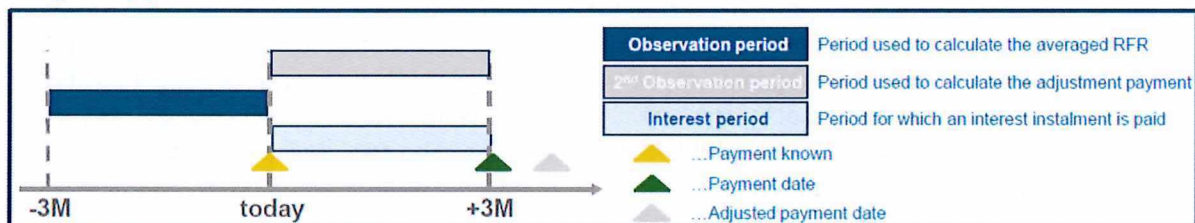
⁹ When assessing a modified time value of money element in a “SPPI benchmark test”, the objective is to determine how different the contractual (undiscounted) cash flows could be from the (undiscounted) cash flows that would arise if the time value of money element was not modified (the benchmark cash flows). To make this determination, the entity must consider the effect of the modified time value of money element in each reporting period and cumulatively over the life of the financial instrument. The reason for the interest rate being set in this way is not relevant to the analysis. If it is clear, with little or no qualitative analysis, whether the contractual (undiscounted) cash flows on the financial asset under the assessment could (or could not) be significantly different from the (undiscounted) benchmark cash flows, an entity need not perform a detailed quantitative assessment. If the modified time value of money element could result in contractual (undiscounted) cash flows that are significantly different from the (undiscounted) benchmark cash flows, the financial asset does not meet the condition the HtC or HtC&S business model. Hence, the financial asset will have to be measured at fair value through profit and loss going forward.

lending/mortgage products in combination with other cash in- and outflows. In this prospect, a EURIBOR fallback measure based on a €STR-based forward-looking or backward-looking last reset term structure methodology seems most suitable for these products referencing EURIBOR. When including and subsequently triggering these EURIBOR fallback measures in these products, the cash flows of these products would remain consistent with a basic lending arrangement. In addition, given the typically long maturity of these lending/mortgage products, even a EURIBOR fallback measure based on a backward-looking last reset term structure methodology that is going to be used as fallback for longer EURIBOR tenors could be considered as broadly consistent with the passage of time.

Therefore, the WG Euro RFR seeks confirmation that if a public authority were to become the administrator of €STR-based backward-looking term structure methodologies, these EURIBOR fallback measures to be used in financial instruments that currently reference to EURIBOR would meet the IFRS 9 SPPI requirements.

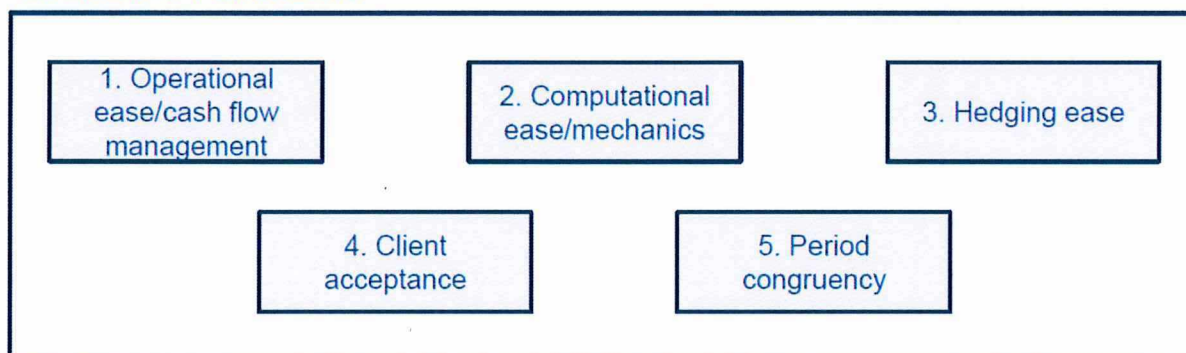
Annex 2A – details €STR-based forward-looking term structure methodology

Legend(*):

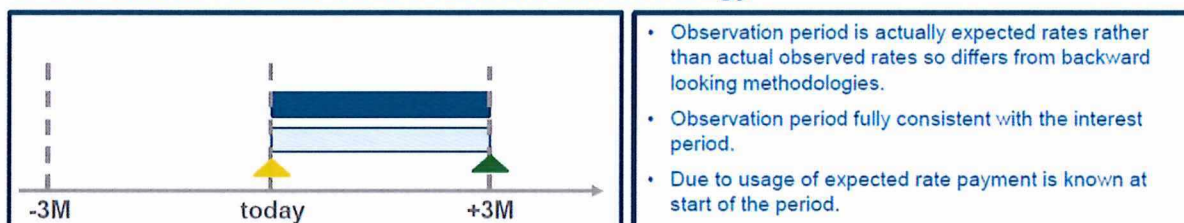


(*) The graphical descriptions of the backward-looking methodologies refer to the user guide to overnight risk-free rates published by the Financial Stability Board (FSB) on 4th June 2019, p. 8.

Evaluation Parameters



1. OIS Quote/Futures based forward methodology

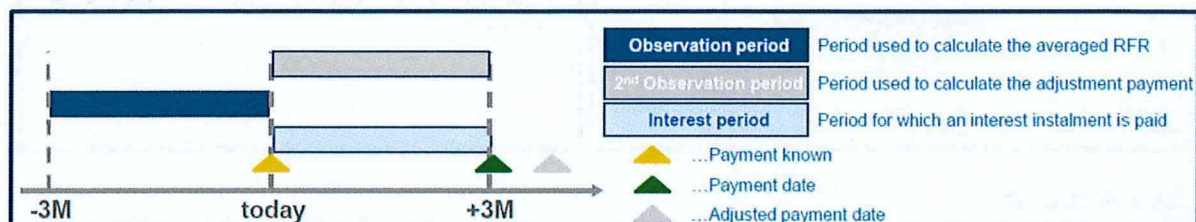


Assessment

Parameter	Description
Operational ease/cash flow management	Limited Operational complexity due to known payment at start of the period
Computational ease/mechanics	Calculation based on market prices, complex for the administrator but straightforward for the end user to implement, rate can be published
Hedging ease	Hedging possible but fixing risk must be managed
Client acceptance	High as similar to current benchmarks
Period congruency	Consistent
Examples of usage	Currently not used in any market
Conclusion	Remains uncertain whether a viable forward looking index will be possible, however clear operational benefits and client acceptance.

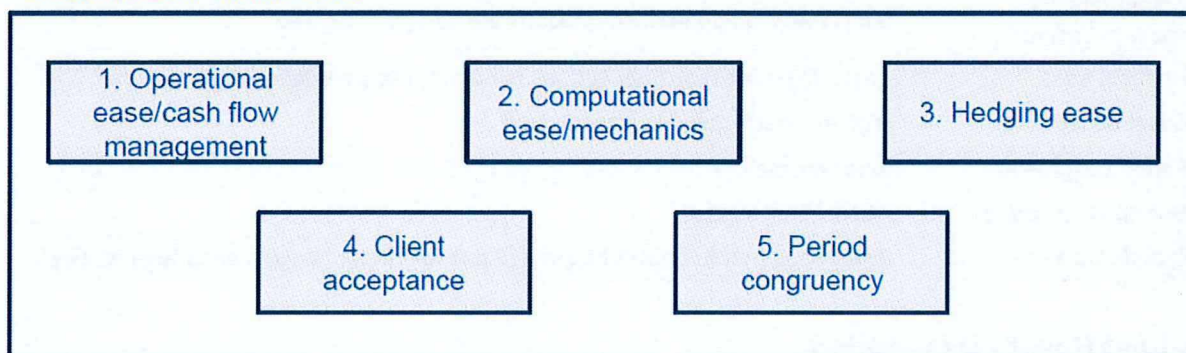
Annex 2B – details €STR-based term structure methodologies

Legend(*):

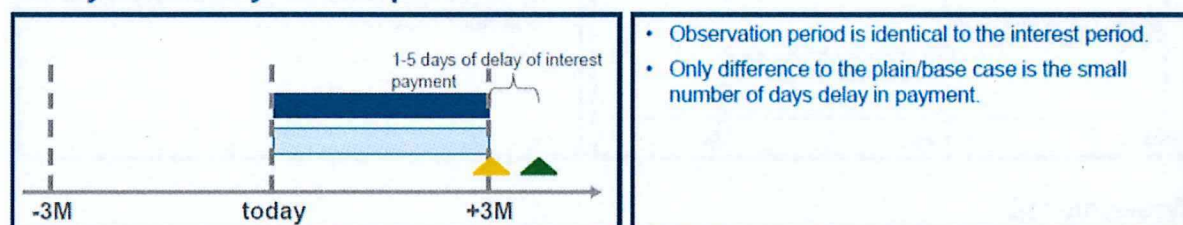


(*) The graphical descriptions of the backward-looking methodologies refer to the user guide to overnight risk-free rates published by the Financial Stability Board (FSB) on 4th June 2019, p. 8.

Evaluation Parameters



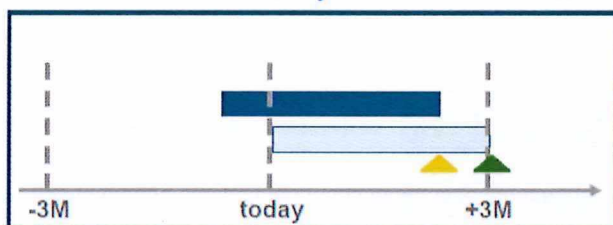
2. Payment delay - Description



Assessment

Parameter	Description
Operational ease/cash flow management	Operational complexity due to small interest payment delay
Computational ease/mechanics	Simple and transparent calculation, rate can be published
Hedging ease	Consistent with OIS market, so limited hedging issues
Client acceptance	High for specific asset classes/users
Period congruency	Consistent
Examples of usage	OIS derivative market
Conclusion	Market standard for many derivatives products, challenging for other users

4. Lookback - Description

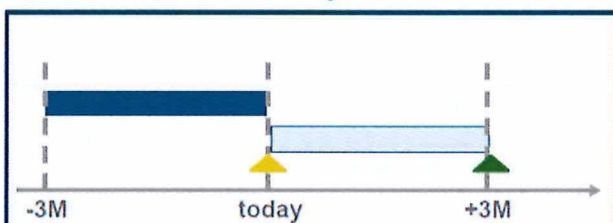


- Start of observation period a few days prior to the start of interest period.
- Both observation and interest period are of the same length.

Assessment

Parameter	Description
Operational ease/cash flow management	Sufficient time lag between fixing and payment for many users
Computational ease/mechanics	Simple and transparent calculation, rate can be published
Hedging ease	Easier to hedge than Lockout, but minor risk remain due to small mismatch
Client acceptance	High for specific asset classes/users
Period congruency	Small mismatch
Examples of usage	SONIA FRN market
Conclusion	Slightly superior to Lockout approach due to greater hedging and transparency

5. Last Reset - Description



- Classic fundamentally backward-looking methodology
- Observation period references the previous 3 months to the interest period.

Assessment

Parameter	Description
Operational ease/cash flow management	Payment rate known in advance, so operationally straightforward
Computational ease/mechanics	Simple and transparent calculation, rate can be published
Hedging ease	Perfect hedge not available but basis risk
Client acceptance	Potentially only workable solution for retail and smaller corporate users
Period congruency	Inconsistent
Examples of usage	Proposed solution by other working groups for Retail Mortgages
Conclusion	Potentially viable option, if rate must be known at the start of the period Potentially very challenging for longer fixing periods, e.g. 12 months