17/05/2021

Consultation on a fallback rate for Stibor

Introduction

This is a consultation on a possible recommendation from the Swedish Bankers' Association for the design of a fallback solution for Stibor. The intention is to establish a market standard for basing contract provisions on common solutions for what should apply in the event that any Stibor maturity or the entire Stibor is discontinued.

A fallback here refers to a process defined in financial contracts that stipulates what happens if the reference rate, Stibor, were to be discontinued. Such defined processes are already contained in contracts today. The Benchmarks Regulation regulates the design of fallbacks and in which cases the legislator requires them to be in place. The type of fallback described in this consultation is part of an ongoing global effort to strengthen financial contracts and it standardises what happens should the reference rate in contracts be discontinued.

Internationally, the ambition has been that in contracts containing reference rates in the form of interbank rates (Libor, Euribor, Nibor, etc.) these can be replaced by an interest rate that is nearly risk-free (RFR). The new RFR will be based on completed transactions and it has been developed so that it has a maturity of only 24 hours (overnight, O/N). Work to develop such an interest rate has also been under way in Sweden and has resulted in a reference rate called Swestr, which comes under the responsibility of the Riksbank. Swestr is an overnight rate that is based on transactions executed in the Swedish banking system in Swedish kronor.

The planned recommendation will be based on the principles presented here and on the principles that emerge in the Riksbank's work with an adjusted Swestr. The recommendation must be in line with international standards for fallback rates for interbank rates (Ibors). To avoid harming the significant international dependence that Sweden has, there are considerable advantages to keeping deviations from international standards as small as possible.

The consultation begins with some brief background to the work and a short presentation of the general solution. Definitions are then provided of the terms that will be used. The triggers that are intended to result in Stibor being replaced by a

different interest rate are then presented. The subsequent section examines how the spread adjustment is to be calculated. One element of the solution is the adjusted Swestr, which the Riksbank has already held a consultation on, and the definition of this will therefore not be addressed in this consultation. As Stibor's shortest maturity does not really have a different maturity to Swestr but refers to a different time period, a couple of proposals are suggested for how Stibor T/N can be handled. The consultation concludes with a summary of the questions posed at the end of each section.

Background

Since 2014, work has been under way to improve the way interest rates are referenced in contracts. This work has primarily taken place in countries that have used Libor as their main reference rate. However, some of the problems that have been discussed in relation to Libor have also been found in other countries and with the interbank rates they have used as reference rates. It can therefore be said that this is about making a global effort to improve the use of reference rates.

Internationally, the work has focused on replacing interbank rates (ibors) with nearly risk-free rates (RFR). It has also looked at establishing methods for how this transition should be made. One of the ways this has been expressed is in regulations that require certain types of contract to contain descriptions of what happens when a reference rate is discontinued.[1]

Over the years, methods have been developed for replacing reference rates and these have mostly been accepted by the market. There are different solutions in different countries, however, as well as for different products and maturities. It therefore cannot be said that there is *one* solution for the design of a fallback rate for an interbank rate.

There is clear opinion in Sweden that it would be good for the Swedish solution to be as similar as possible to international standards. The working hypothesis has therefore been to try and develop a general solution that will apply to as many contracts as possible and that can be used when international standard contracts are to include Swedish kronor. The way in which this general solution is to be implemented in individual contracts must be determined by the market participants or their professional associations.

Question 1: Does the respondent agree with this background description or does the respondent believe that there are other aspects which should be highlighted?

[1] For Sweden, this is regulated in Article 28 (2) of the Benchmarks Regulation.

General solution

The proposed general solution is based on the solution developed by ISDA. The solution is based on establishing a number of triggers, which are specific events that should prompt a change of the reference rate in a contract from an interbank rate (in our case Stibor) to a fallback rate that is based on a nearly risk-free rate (in our case Swestr).

A change will be triggered by a statement from the supervisory authority, administrator or its official receiver that Stibor has ceased to be published or will cease to be published. A trigger can also be the supervisory authority declaring that Stibor does not comply with the applicable regulations. Other triggers may also be agreed upon.

The fallback rate will be calculated using the adjusted (compounded) Swestr for the same maturity as Stibor plus a spread adjustment. The adjusted Swestr will be calculated in the conventional manner described by the Riksbank. In Sweden, this calculation will be made according to the principles established by ISDA. The spread adjustment will also be calculated in the same way as specified by ISDA. This means calculating the median daily difference between Stibor and the adjusted Swestr over the previous five years. The purpose of the spread adjustment is to try and even out the differences between Stibor and the adjusted Swestr in a standardised way. This is to reduce the risk of value transfers between the parties resulting from the change of reference rate.

The aim is to make the general recommendation as similar to international standards as possible. It may be the case, however, that the Swedish market differs in some ways from the larger markets, which have set the current standards, and that some product areas may require certain deviations in their contracts.

The various elements will be described in more detail below.

Question 2: Is the general solution comprehensible and in line with international standards or could there be a different solution?

Definitions

Replacement time: The point in time when Stibor is replaced by a new interest rate in the contract.

Cash products: Refers to financial products with an underlying balance such as a loan, lease, bond or similar, which cannot be considered a derivative product.

Fallback solution: A general structure for what should happen if the reference rate in the contract in the form of a Stibor rate is discontinued. The three components of the general fallback solution are triggers, adjusted RFR and spread adjustment.

Fallback clause: The clause in the contract that describes the fallback solution.

Trigger event: The event that prompts the contracting parties to replace the reference rate.

Adjusted Swestr rate: An interest rate based on Swestr but with a compounded rate adjustment for a maturity equivalent to 1w, 1m, 2m, 3m or 6m.

Corresponding period: The spread adjustment must be calculated in order to identify the difference in credit risk. Stibor and the adjusted Swestr must relate to the same time period for each calculation. Stibor has a two-day lag from the publication date to the date on which the interest rate is to apply[2]. The relevant period for Stibor will therefore be a maturity from and including two days after the publication date. Its corresponding period for an adjusted Swestr is the published adjusted Swestr on the final day of Stibor's maturity.[3]

Reference rate: Refers to an interest rate that is used in a contract between at least two parties. In a contract where a fallback clause is used, the reference rate is at least one Stibor rate. The rate need not be used to calculate the cash flows to be paid between the parties. The reference rate may be an element of future cash flows, conditional cash flows, etc.

Spread adjustment: The supplement that is to be added to the adjusted Swestr to

[2] This applies to maturities of 1w, 1m, 2m, 3m and 6m. T/N is O/N but with a lag of one day.
[3] If Swestr also has any kind of lag, then this must be taken into account. As must the fact that Swestr is published one day after the day to which the interest rate relates. This must also be taken into account when establishing the Corresponding period.

achieve a fallback rate that is as close as possible to Stibor. A spread adjustment will be developed for each maturity of Stibor, except for T/N. Internationally, it has been suggested that the difference between Ibors and RFR comprises a difference in time and a difference in credit risk. It has been accepted internationally that the difference in time is handled by calculating RFR for a corresponding maturity using a compounded rate calculation. The spread adjustment will correspond to the difference in credit risk in the rate.

Stibor: refers to the whole family of interest rates that follow the same basis for production and are administered by the same administrator.

Stibor banks: The panel banks that report data for the calculation of Stibor (SHB, SEB, Nordea, Swedbank, Danske Bank, SBAB, LF Bank).

Stibor rate: An interest rate that is referred to in contracts as Stibor and which has a maturity defined as 1w, 1m, 2m, 3m or 6m. If a contract contains multiple references to several maturities, the contractual clause must be worded such that a situation where only one of the maturities is discontinued is taken into account. The term *Stibor rate* will therefore be used for an individual maturity.

Trigger event: a statement that something has happened or will happen in the future; it is therefore important for the contract to be able to define the actual execution of the event. For example, the trigger event may be an authority announcing that Stibor will be discontinued. It is only when Stibor is actually discontinued, however, that the event is executed. The reference rate should ideally have been replaced by then.

Time of trigger event: The point in time when the trigger event occurs.

Execution of event: The point in time when an event is executed.

Question 3: Does any concept require further explanation? Feel free to suggest how this can be improved.

Question 4: Is there any concept missing from this definitions section?

Triggers

The following trigger events may result in the reference rate being replaced. Not all trigger events are relevant for all products or on all markets. The parties may also agree on other trigger events. However, it is the trigger events below that will automatically result in the fallback rate being used instead of the Stibor rate. A trigger event must therefore not lead to a negotiation about what should apply. The first five triggers are those that it will be recommended to include in a financial

contract that follows the recommendations of the Swedish Bankers' Association. The final two can be used where deemed necessary.

A statement from the supervisory authority shall take precedence over a statement from the administrator or its official receiver/resolution administrator.

Trigger events:

1. *A public statement or the publication of information by the supervisory authority responsible for Stibor's administrator that the administrator is no longer providing or will no longer provide one or more Stibor rates.*

   This event requires the publication of a statement/information that one or more Stibor rates will be discontinued *permanently*. The statement may announce that publication has ceased or that publication will cease immediately or at a later date. The event also requires that no other administrator has been appointed or may be expected to be appointed for the Stibor rate.

   A statement by an authority other than the administrator's supervisory authority (except as set out in number 3 below) that the Stibor rate will be discontinued will not have any impact and will therefore not constitute a trigger event.

2. *A public statement or publication of information by the administrator of the Stibor rate that one or more Stibor rates will no longer be provided.*

   This event requires the publication of a statement/information that one or more Stibor rates will be discontinued *permanently*. The statement may announce that publication has ceased or that publication will cease immediately or at a later date. The event also requires that no other administrator has been appointed or may be expected to be appointed for the Stibor rate.

3. *A public statement from the official receiver or resolution administrator of the Stibor rate administrator that the administrator will no longer provide Stibor.*

   This event requires the publication of a statement/information that the Stibor rate will be discontinued *permanently*. The statement may announce that publication has ceased or that publication will cease immediately or at a later date. The event also requires that no other administrator has been appointed or may be expected to be appointed for the Stibor rate.

4. *A public statement or publication of information by the administrator of the Stibor rate or the administrator's supervisory authority that the Stibor rate is no longer or will no longer be representative of the underlying market that the Stibor rate is*

intended to represent.

This event requires the publication of a statement/information that one or more Stibor rates will be discontinued *permanently*. The statement may announce that publication has ceased or that publication will cease immediately or at a later date. A change in the underlying market, or an adjustment to the method that makes the Stibor rate representative, is not considered possible.

5. *A public statement or publication of information by the administrator of the Stibor rate or the administrator's supervisory authority that it is or that it will be illegal to use one or more Stibor rates, or that for other reasons it has become illegal to use one or more Stibor rates.*

6. *A public statement or publication of information by the administrator of the Stibor rate or the administrator's supervisory authority that one or more Stibor rates [should/may] no longer be used*.

   The statement may be followed by clarification of the reason for the statement. This event requires the publication of a statement/information that one or more Stibor rates will be discontinued permanently or may no longer be used. The statement may announce that one or more Stibor rates may no longer be used with immediate effect or that this will apply from a later date.

7. *One or more Stibor rates are no longer published, without the prior information or statement described in numbers 1–3 above.*

   This event requires the Stibor rate to be discontinued *permanently* (this should not be confused therefore with situations where Stibor will not be published temporarily).

<u>General comments on the above trigger events</u>
Parties wishing to include these as trigger events must agree on the conditions under which it can be concluded that the publication of Stibor has ceased permanently. This clarification must not be confused with clauses on fallback rates for when Stibor is not published temporarily.

The statement or information that Stibor has been discontinued or will be discontinued must be a public statement or publicly published information. The statement must be announced on the website of the relevant organisation but may

also be reproduced by the media and by those who publish Stibor for the market (Vendors).

If the message is that Stibor will be discontinued in the future, the wording of the fallback clause must be such that the reference rate is replaced no later than on the execution of the event. The replacement time should be somewhere between the trigger event and the execution of the event.

If the message is that Stibor has been discontinued, the wording of the fallback clause must be such that the reference rate is replaced immediately. The replacement time will be the same as the time of trigger event.

Question 5: Is there any trigger missing or are any of the triggers unnecessary in the general solution? Please note that the general solution is intended for all types of contracts and all parties. This is not a question about having more precise triggers in individual contractual clauses.

Question 6: Are these triggers ones that will be accepted by market participants? If not, what would be necessary in order for the market to accept these triggers?

Question 7: Are these triggers ones that will be accepted by supervisory authorities? If not, what would be necessary in order for these authorities, and by extension the law, to accept these triggers?

Spread adjustment

A spread adjustment will be used to reduce the risk of value transfer when a reference rate is replaced. There has been discussion on the design of this at international level for many years because there is no simple solution that reduces all risks of value transfer. The method currently used internationally involves calculating the median spread of relevant maturities for the previous five years. A period of five years was chosen in order to include a theoretical business cycle. The original intention was to use ten years, but many countries lacked data for such time series.

A spread adjustment will be calculated for each maturity for Stibor. The spread adjustment will, in accordance with international standards, be the median difference during the previous five years between the relevant Stibor rate and an adjusted Swestr rate.. The calculation period for the median ends on that date and begins exactly five calendar years earlier.

This means that for any given date, the difference between Stibor and Swestr is calculated for the corresponding period. For example, if the difference is to be

calculated on 3 July for Stibor two months, the corresponding period is two months from and including 5 July (two-day lag), i.e. to 5 September. The corresponding Swestr is the one recorded on 5 September and is calculated as a compounded rate for the period 5 July to 5 September.

Provided that Stibor and an adjusted Swestr are published, a new spread adjustment is calculated each trading day. The spread adjustment is calculated every day, for each maturity, as the median difference between the Stibor rate and the adjusted Swestr for the corresponding period. If Stibor is discontinued, the spread adjustment will be locked at the last published value on the date considered to be the trigger event (cf. 5 March this year for Libor).

Given that Swestr was not published before 2021, there is no historical outcome data for Swestr. In order to still be able to calculate a median using outcomes going back five years, a reconstruction of Swestr's outcome over the previous five years will be developed. The method that will be used to reconstruct historical Swestr is the same method that the Riksbank currently uses to collect transaction data from the banks and calculate Swestr. It will not be possible to calculate this estimated historical Swestr until the Riksbank has decided which definition will apply for the Swestr that is actually published. So far, only a test Swestr has been published. The estimated historical Swestr will be developed using the same definition and method as the established and published Swestr.

The difference between Stibor and adjusted Swestr is calculated every day for each maturity. The difference is calculated for the interest rates so as to highlight corresponding time periods. As the spread adjustment is intended to highlight the financial difference between the two rates, this is the difference that is relevant.

The spread adjustment for an individual maturity is the median difference between the Stibor rate and the adjusted Swestr for the corresponding period for the maturity in question.

The median is calculated on the basis of observations for the previous five years, up to and including the last published rate pair (Swestr and Stibor) possible for a difference for the corresponding time period. This means the adjusted Swestr for the same day that the spread adjustment is to be published and the Stibor rate with a maturity in the past, plus two days.

Differences are only calculated for days when there are historical observations for both rates.

The spread adjustment is calculated every day until the day when a trigger event occurs for one or more Stibor rates. The spread adjustment is then fixed at the value last published.

Question 8: Are there any other ideas about how a spread adjustment could be calculated without deviating from international standards?

Question 9: Are there any other ways in which corresponded observation times could be handled?

Question 10: Is it possible to calculate the spread adjustment using something other than the definition of Swestr established by the Riksbank once publication takes place?

Handling Stibor T/N

Stibor T/N is currently the shortest reference rate. This rate is used for certain types of transactions and as the variable leg of Stina swaps. The Stina rate (the fixed leg) is in turn used as a discount rate for calculating how much collateral the CCP needs for counterparty risk in derivatives in SEK. This makes T/N of relatively large importance to the Swedish market.

In the general fallback solution, the fallback rate for Stibor is considered to be adjusted Swestr plus a spread adjustment. The basic idea behind this is that the adjustment is used to include the difference in maturity while the spread should handle the difference in credit risk. As the compounded rate technique (for the maturity) does not include factors such as anticipated changes in bank rates, etc., this breakdown is not entirely consistent.

Given that there is actually no difference in the maturity between O/N and T/N, but rather in when the rate calculation begins, a spread adjustment is all that is needed in order to obtain a fallback rate for Stibor T/N. There are three ways in which a spread adjustment between Stibor T/N and Swestr could be developed. These are described here as proposals 1, 2 and 3:

Proposal 1

As a time series must be recreated for Swestr in order to establish the spread adjustment for the longer maturities, this database can also be used to develop a spread adjustment between Stibor T/N and Swestr. A similar method to the one used to establish the spread adjustment for the longer maturities could be used to do the same for T/N. The spread between Stibor T/N and Swestr is calculated for corresponding times over five years and the median for this is calculated.

Stibor T/N day t refers to the rate on day t+1. Swestr that is published on day t refers to the rate on day t-1. If these rates were to refer to corresponding times, the spread (S^o) for day t would be

$$S_t^o = Stibor_{t-1} - Swestr_{t+1}$$

To calculate a five-year median of this spread, the calculation begins from the day before the current day and goes back five years. The fallback rate for Stibor T/N would therefore be Swestr plus the median spread (S_t^o) of the previous five years' observations. Swestr therefore replaces adjusted Swestr in the general solution. This solution would be consistent with the general solution except that no adjustment is needed.

Proposal 2
Same as proposal 1 but calculated solely on the basis of a one-year observation period. Such a proposal would be easier to realise, but it would not be in line with the international standards set by ISDA.

Proposal 3
An alternative method would be for this to be done more pragmatically, adopting only a generally accepted spread. This would be similar to what happened in the adjustment of how Eonia was established to be 8.5 points above €str. The 50 spreads that can be calculated so far between Stibor T/N and Swestr give an average spread of 3.7 points. This varies, however, between 0 and 7 points. A similar method could be used to determine what would be an appropriate "spread adjustment". Alternatively, an approximation could be used from international spreads between RFR and Ibor T/N. This is difficult, however, as there are no Ibor T/N that have published spread adjustments. For Libor USD and GBP, there are spread adjustments for Libor O/N and these are now locked at -0.002% for GBP and 0.006% for USD. This proposal is, like proposal 2, not in line with ISDA.

Question 11: Which method of establishing a fallback rate for Stibor T/N seems most appropriate?

Question 12: Do you think there could be other proposals?

Summary of questions

Question 1: Does the respondent agree with this background description or does the respondent believe that there are other aspects which should be highlighted?

Question 2: Is the general solution comprehensible and in line with international standards or could there be a different solution?

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