

Decision



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DEPARTMENT: The Markets and Financial Stability Departments
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SVERIGES RIKSBANK
SE-103 37 Stockholm
(Brunkebergstorg 11)

Tel +46 8 787 00 00
Fax +46 8 21 05 31
registratorn@riksbank.se
www.riksbank.se

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Decision regarding SWESTR

Executive Board decision

The Executive Board makes the following decisions regarding (1) Swedish krona short term rate (SWESTR), (2) compounded average rates and index based on SWESTR and (3) the governing documents for SWESTR.

The Executive Board decides that:

- a) the transaction-based reference rate SWESTR will be defined in accordance with *the decision Annex 1*,
- b) this definition shall be applied to SWESTR from the value date of 1 July 2021 and that the Riksbank shall publish recalculated values for SWESTR for value dates from 26 January 2021 to 30 June 2021,
- c) SWESTR may be used as the reference rate in financial contracts from the value date 1 September 2021, i.e. from the date of the value published on 2 September 2021.

The Executive Board decides with regard to compounded average rates and index based on SWESTR:

- d) that the Riksbank shall provide average rates and an index based on SWESTR and that these shall be designed in accordance with *the decision-making Annex 2*,
- e) to publish compounded average rates and an index based on SWESTR as of 1 October 2021, and that publication on this first occasion will also be retroactive for the period back to 1 September 2021.

The Executive Board decides with regard to the governing documents for SWESTR to:

- f) establish the *Policy for transaction-based reference rate SWESTR* in accordance with *Decision Annex 3*,

- g) establish *the Rule for the administration of SWESTR* in accordance with *Decision Annex 4*,
- h) to publish the SWESTR information document *SWESTR: Comprehensive information on the Sveriges Riksbank's framework for SWESTR*, annexed as *Decision Annex 5*, on the Riksbank's website and to task the Head of the Markets Department (AFM) with managing and, if necessary, updating this document in accordance with any changes to the governing documents for SWESTR.

This decision will enter into force on 1 July 2021 and will replace the Executive Board's decision on 17 November 2020 on the *Design of the Riksbank's new reference rate* (ref.no. 2020-00988).

Background

Reference rates in transition

Reference rates fulfil an important function in the financial system, in both Sweden and other countries. Reference rates enable the pricing of financial products to be standardised and are used by a number of different financial market participants. Traditionally, so-called interbank rates (Interbank Offered Rates, IBOR) are used as reference rates. During the global financial crisis of 2008-09, liquidity in the interbank market deteriorated significantly. This contributed to uncertainty over whether these reference rates really reflected prevailing market conditions. When reference rates are based on reported offers and leave scope for expert judgement, there exists a risk of manipulation. During the LIBOR scandal in 2012, it was revealed that several international banks had manipulated the LIBOR (London Interbank Offered Rate) for their own benefit or for the benefit of individual employees. As a result of this development, reliability and confidence in traditional reference rates were reduced. International reform work was therefore initiated with the aim of strengthening the reliability of and confidence in reference rates. Part of this work has focused on strengthening the framework for reference rates. Another aspect of the reform work has been the development of new reference rates based on actual transactions.

The international reform process resulted, among other things, in a report by the International Organization of Securities Commissions (IOSCO), which was published in 2013 with a comprehensive framework consisting of nineteen principles for financial benchmarks (the IOSCO principles). In a report the following year, in 2014, the Financial Stability Board (FSB) wrote that there was a need for reference rates that better reflect the underlying market and are more difficult to manipulate. In 2016, the EU regulation on reference values, the benchmark regulation (BMR) was produced, whose rules codify the IOSCO principles for the EU. The BMR began to apply in 2018. However, central banks are excluded from the scope of the BMR, while the IOSCO principles constitute international practice for the design of reference rates and clarify the governance and control arrangements that should be made by reference rate administrators.

Another result of the international reform work is that central banks in several countries have developed and publish transaction-based reference rates, or are planning to do so

shortly.¹ The idea of producing transaction-based reference rates has been that over time these may be able to wholly or partly replace existing IBORs (e.g. LIBOR).

The Riksbank' work on providing a reference rate

On 12 December 2019, in the light of the international reform work on producing transaction-based reference rates, and in common with a number of other central banks, the Riksbank decided it should supply a transaction-based reference rate at the shortest maturity (*over-night*) in Swedish kronor (ref.no. 2019-00912). The design of the reference rate was decided on 17 November 2020 (ref.no. 2020-00988). Both decisions were preceded by consultation procedures. In addition, in January 2021, it was decided that the reference rate should be called Swedish krona Short Term Rate – SWESTR (ref.no. 2021-00086).

On 27 January 2021, the Riksbank began a test period for SWESTR with the daily publication of preliminary values for SWESTR. The test period has given both reporting agencies and the Riksbank the opportunity to test their routines for reporting, data control and calculation. During the test period, SWESTR has also been evaluated in accordance with the decision Annex to the decision *Design of the Riksbank's new reference rate* (ref.no. 2020-00988).

Considerations

The aim is for reference rates in Swedish kronor on the financial markets to enjoy a high level of confidence. Both actors on the financial markets and the general public should be able to rely on the financial contracts being priced in a fair and transparent way. This is of great importance for the financial markets to function well and for interest rate formation to be effective.

SWESTR design – change in trimming method

As stated above, the design of SWESTR was decided on 17 November 2020 (ref.no. 2020-00988). This decision was preceded by a consultation procedure initiated on 7 October 2020. The proposed method of calculation consulted on was based on the average rates in four different categories of counterparties being weighted together using moving average values for the proportion of the counterparty categories in the volume of transactions. This proposed calculation method was seen as relatively complex and, following the views of the consultation bodies, the proposal was revised. The Executive Board decided on a design of SWESTR where the reference rate was instead calculated as a volume weighted average of the total trimmed calculation base, but where the trimming has previously taken place *within* the respective counterpart category.

As part of the assessment of the calculation method carried out by the Riksbank during the test period for SWESTR, the trimming method has been reviewed. The arguments in

¹ For more information see, for instance, Table 1: Transaction-based reference rates published by central banks in the "calculation of average interest rates and an index of the reference rate SWESTR", Sveriges Riksbank, 16 April 2021

the comments received during the 2020 consultation procedure have been re-examined in the light of a thorough review of the transaction dataset.

Trimming method

The trimming for SWESTR shall be carried out on the entire transaction dataset instead of, as in the existing design, taking place within the respective counterpart category. There are several reasons for this.

Trimming the whole can promote the use of SWESTR

The consultation bodies and relevant market players have expressed the view that the use of counterparty groups entails a complex and less predictable process for determining SWESTR. Market participants have also argued that any departure from international practice is undesirable as it risks weakening confidence in SWESTR.

Instead, trimming the whole dataset and thus eliminating the use of counterparty groups in the calculation makes the method simpler, giving greater clarity and predictability with regard to the design of the reference rate. The method would also be more in line with international practice, which could have a positive effect on confidence in SWESTR. If these factors are taken into account, this is likely to contribute to promoting the use of SWESTR.

Trimming on the whole avoids boundary drawing problems

There are also boundary drawing problems that contribute to making the use of counterparty categories less appropriate. Today, so-called sector codes are used to classify reporting counterparties. But these sector codes are a relatively blunt tool. For example, there are problems with the boundary drawing for the classification of subsidiaries of non-financial corporations for treasury operations. These companies are classified as financial companies even though the rest of the Group is non-financial. If, on the other hand, the treasury operations are carried out in the parent company (or in another company with non-financial operations), it is classified as non-financial.

This means that trimming within the counterparty categories is not appropriate, since the demarcation may be affected by things that are not necessarily relevant, either for SWESTR or for how the reporting agents price transactions.

No systematic impact on the level of SWESTR

The adjustment of the trimming method is not expected to have any systematic effect on the SWESTR level, see Table 1 below.² Some days SWESTR, as defined by the existing definition, are higher than by the new definition, while the relationship is reversed on other days. Time series for SWESTR using both methods are shown in Figure 1 below. The volatility of SWESTR is marginally higher when trimming is carried out on the entire transaction dataset than when it is done in the counterparty categories, see Table 1.

² Please note that a different assessment was made in connection with the decision Annex to the decision of November 2020 (ref.no. 2020-00988). However, errors have been detected in the calculations for the decision-making Annex to that Decision.

Summary assessment

In the decision *Design of the Riksbank's new reference rate* in November 2020, the primary reason for trimming at counterparty group level was that the trimmed calculation dataset would remain representative of the untrimmed dataset. This was considered to take better account of the fact that different counterparty groups face different rates when they invest liquidity overnight. In the light of the above-mentioned reasons, the argument for trimming at counterparty group level is no longer considered as strong. Even with the trimming of the overall transaction dataset, SWESTR will be representative of a market where the average rate depends on which actors make transactions and at which volumes.

SWESTR is considered to continue to comply with the IOSCO principles of reference rate design if the trimming is instead done for the entire transaction dataset.

Tabell 1. Small differences between existing and new definition for SWESTR

Comparison of existing and new definition, deviation in percentage points from the repo rate

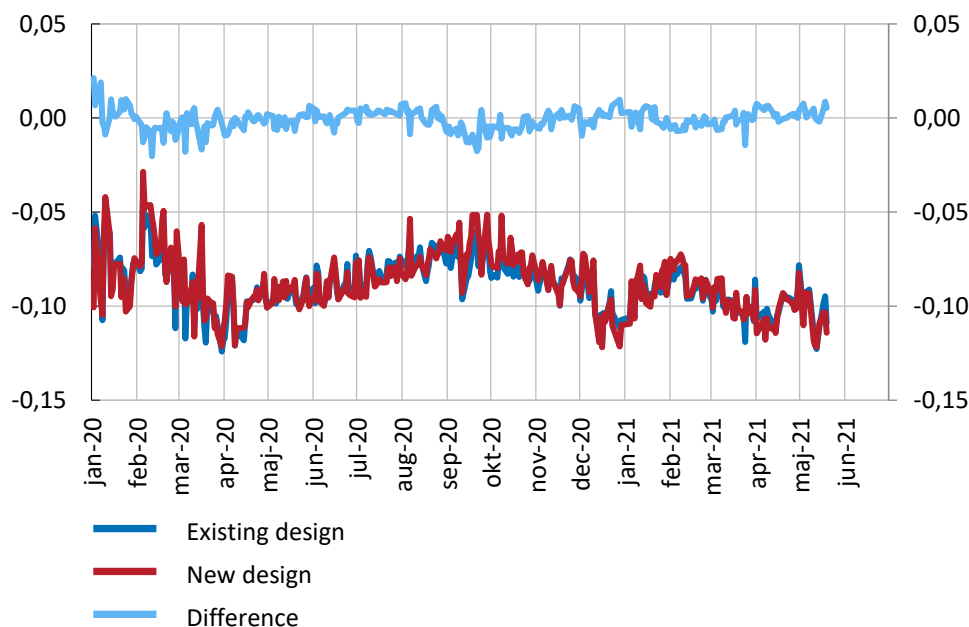
| | Existing definition | New definition |
|---------------------------|---------------------|----------------|
| Mean value | -0.0883 | -0.0872 |
| Standard deviation | 0.0137 | 0.0156 |

Note: Mean and standard deviation of SWESTR according to existing and new definition for SWESTR. The deviation from the repo rate is expressed in percentage points. The comparison is for the period 1 May 2020 – 19 May 2021. The turn of the year value is removed from the analysis.

Source: Sveriges Riksbank

Diagram 1. No systematic differences between existing and new definition for SWESTR

Deviation of percentage points from the repo rate



Note: SWESTR calculated according to the existing and new calculation methods and the difference between the two calculation methods. Data is displayed for the period 1 May 2020 – 19 May 2021. The turn of the year value is removed from the analysis.

Source: Sveriges Riksbank

Average rates and index based on SWESTR

Background

Swedish market participants are bound to comply with the BMR. A requirement set by the BMR is that there must be a plan in the event of a reference rate no longer being provided and thus ceasing to exist (temporary or final). If possible, this plan shall also specify one or more alternative reference rates that can be used to replace the reference rate that is no longer provided (known as a fallback rate).³ As far as Sweden is concerned, this means that alternatives to the STIBOR reference rate are needed that can be used in financial contracts.⁴

An international practice has emerged, according to which central banks that provide transaction-based reference rates also calculate and publish *compounded average rates* and/or an index based on their respective reference rate. For example, the European Central Bank (ECB) and the central banks in the United States and the United Kingdom

³ Article 28.2 in 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, 8 June 2016.

⁴ The actual fallback rate consists of an adjusted rate (average rate for a specific time period) plus a so-called spread adjustment (an adjustment to take into account the difference between the new rate and the traditional interbank rate).

have already started to publish compounded average rates and an index respectively.⁵ Several other central banks have announced that they intend to do the same shortly.⁶

At the beginning of January 2021, the Riksbank also announced that work would begin on producing average rates for SWESTR. As part of this work, on 16 April 2021 the Riksbank published a consultation with proposals for calculation methods for compounded average rates and an index based on SWESTR, among other things.⁷ In the consultation, there were also proposals as to how these should be published.

The Riksbank should provide compounded average rates and an index based on SWESTR

There are several reasons why central banks around the world have started to publish average rates based on their respective reference rates. These reasons also apply to Swedish circumstances.

By publishing compounded average rates and an index, central banks are also promoting the use of the new transaction-based reference rates. This is in line with the international recommendations issued by the FSB.⁸ According to these recommendations, relevant authorities shall, as and when appropriate, encourage market participants to switch new contracts over to a suitable transaction-based reference rate.

In several jurisdictions, such as the EU, the United Kingdom and the United States, use of the new transaction-based reference rates is also increasing as the main rate in new contracts. Financial markets are closely intertwined and it is therefore important that it is also possible in Sweden to use this type of reference rate, at the same maturities, and for the same time periods, as are used internationally.

The average rates are also an important part of the fallback solution for the traditional reference rates. However, there are different ways of making the actual calculation of average rates and the results can vary depending on rounding-off or different ways of dealing with weekends and public holidays. This risks leading to ambiguities as to which rate level actually applies. This may in turn lead to the provision of information to one of the parties to a financial contract. The fact that the average rates are calculated and published by a public agent increases transparency, which in turn reduces the risk of ambiguities and differences with regard to the rate level used.

The purpose of calculating and publishing average rates is to enable them to be used in new contracts with longer maturities as an alternative to the existing reference rates, and also to be used as a fallback solution to the reference rates used today. Average rates for SWESTR can thus be used both in new contracts and as part of a fallback solution to STIBOR.

⁵ SOFR Averages and SOFR Index, Federal Reserve Bank of New York. SONIA Compounded Index, Bank of England. Compounded €STR average rates and index, European Central Bank.

⁶ See ISDA 2020 IBOR Fallbacks Protocol, ISDA's name for the average rates is "Adjusted RFR".

⁷ See consultation: "Calculation of average rates and an index for the SWESTR reference rate", Sveriges Riksbank, 16 April 2021

⁸ See, for example, "Reforming major interest rate benchmarks", Financial Stability Board, 22 July 2014

Format of average interest rates and index

The consultation responses received were overwhelmingly positive to the proposals put forward in the consultation. However, one actor had views on, among other things, the proposed management of non-banking days – both in terms of terminology and methodology. A number of proposals were also made regarding the communication around SWESTR, the average rates and the index. Decision Annex 6 summarizes the responses and the Riksbank's handling of these.

After considering the comments received, the Riksbank is choosing not to make any changes to the method compared with the proposal in the consultation. However, a change is made to the terminology for the management of non-banking days (see Decision Annex 6).⁹

Launch date considerations

At the end of the testing period, SWESTR may be used as reference rate in financial contracts.¹⁰ SWESTR will launch for actual use as reference rate for the value date 1 September 2021 with the first publication on 2 September 2021. Publication of compounded average rates begins on 1 October 2021, but in connection with this, values are also published retroactively for the month of September.

The timetable has been prepared in cooperation with the relevant departments of the Riksbank. The need to be able to use SWESTR as a reference rate in the near future has also been taken into account, since BMR has a statutory requirement for users of reference values for fallback solutions for STIBOR.

The Riksbank has previously announced that the test period for SWESTR would be approximately six months. Due to the holiday period and the Riksbank's IT change-over stop during the summer, SWESTR will be launched at the end of the summer. In FSR 2021:1, it was externally communicated that SWESTR will begin to be provided for actual use as a reference rate during late summer 2021.

The Riksbank has also announced that compounded average interest rates and an index based on SWESTR would begin to be provided during the third quarter of 2021.

Governance of SWESTR

The Riksbank, as the administrator of SWESTR and of compounded average interest rates and index, shall comply with the principles of IOSCO in applicable and relevant parts. This means, among other things, that the Riksbank shall ensure the governance of SWESTR and identify and manage any conflicts of interest relating to the reference rate. It also means that the Riksbank shall have internal oversight of SWESTR. The Riksbank has therefore produced an internal organisation and control documents that implement the relevant governance of SWESTR.

⁹ In the case of holidays, the word *previous* will be replaced by the word *preceding* in the terminology of conventions referred to in the referral as *modified previous business day* and (default) *previous business day* respectively.

¹⁰ During the test period, SWESTR is published for information purposes only. This is communicated, for example, in the SWESTR disclaimer on the Riksbank's website.

Organisation

The Riksbank's organisation for SWESTR has been established within the framework of the Riksbank's existing organisation.

The Markets Department (AFM) is responsible for the Riksbank's operational role as administrator. The AFM shall be responsible for the process that shall be applied each banking day to determine and publish SWESTR, as well as for ongoing reviews and analyses linked to SWESTR.

The Financial Stability Department (AFS) is responsible for the Riksbank's internal oversight of SWESTR.

Governing documents

In order to ensure good governance of SWESTR, several governing documents at different levels within the Riksbank have been prepared as shown in Figure 1 below.¹¹ The control documents shall ensure the integrity and confidence of SWESTR. The starting point is that everything that is relevant to external actors is decided by the Executive Board.

Comprehensive information document about SWESTR

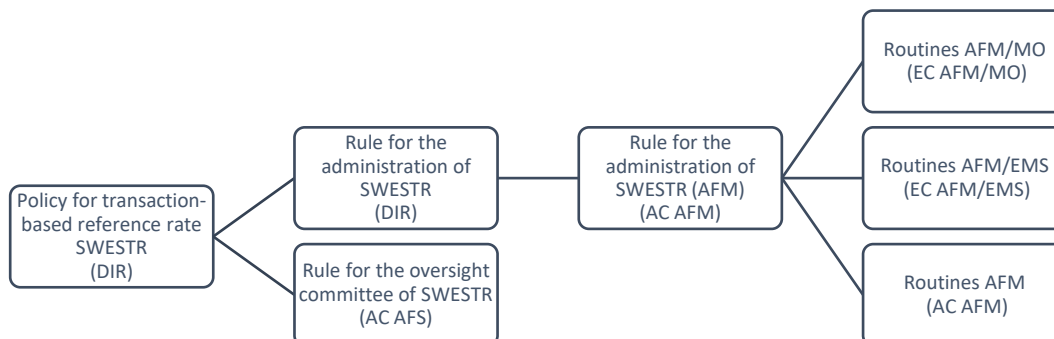
Private financial reference value administrators shall provide a *benchmark statement*, which provides relevant information on a financial reference value. In contacts with the Riksbank, market participants have called for a similar document for SWESTR and have particularly emphasized that they want to see one comprehensive document.

It is therefore appropriate for the Riksbank to provide a document containing all of the information about SWESTR that is relevant to market participants and other stakeholders. The Riksbank's information document on SWESTR can be found in Decision Annex 5. AFM is responsible for ensuring that this document is kept up to date in accordance with SWESTR's governing documents and that it is published on the Riksbank's website.

¹¹ This structure of control documents is supplemented by additional control documents such as *the Instructions for Sveriges Riksbank* and the AFM's delegation order, both of which are updated to meet the needs of SWESTR. In addition, for example, there are instructions (user guidelines) concerning transaction reporting for monetary policy counterparties.

Figure 1. Structure for controlling documents for SWESTR

Schematic diagram of the control documents for SWESTR



Note: The decision-makers for each document are listed in brackets. DIR refers to the Executive Board, while AC and EC refer to the Head of Department and Head of Division respectively. EMS and MO are two of the divisions in the Markets Department (AFM).

Source: Sveriges Riksbank