



Statement of Compliance

# SWESTR including average rates and index

The Riksbank's compliance with the IOSCO  
Principles for Financial Benchmarks

14 September 2023

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# 1 Background

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This section contains background information on the benchmarks provided by the Riksbank. It also provides information on the IOSCO Principles for Financial Benchmarks, which is the international best practice for how work on reference rates should be conducted.

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In this report, the term Benchmarks is used to refer jointly to SWESTR and the average rates and index based on SWESTR. The term SWESTR refers only to the reference rate SWESTR. Note that in other Riksbank documents, SWESTR is used as a general term for the Benchmarks provided by the Riksbank.

## 1.1 SWESTR, average rates and index

The Riksbank is the administrator of the transaction-based reference rate SWESTR (Swedish krona Short Term Rate). The Riksbank is also administrator of average rates and index based on SWESTR.

SWESTR has a maturity of one day (*overnight*) and reflects the interest rate level for transactions carried out in the overnight market in Swedish kronor. SWESTR is published on the business day following the date on which the underlying transactions were executed and settled (value day). SWESTR is thus published on a  $t+1$  basis. SWESTR is published as a percentage to three decimal places.

Average rates and index reflect the return on an investment that regularly accrues interest at the current SWESTR rate. Average rates reflect the average return over a certain period of time. The index reflects the total return since 1 September 2021. The average rates and index have a value day equal to publication date ( $t+0$ ) and take into account the SWESTR value published on the same business day. Average rates are provided for the time periods 1 week and 1, 2, 3 and 6 months and are published as a percentage to five decimal places. SWESTR Index is published in decimal format to eight decimal places. On 1 September 2021 the index value is 100.

SWESTR has been available for use in financial contracts since 1 September 2021. Prior to that, a test period was carried out for SWESTR. Average interest rates and index gradually started to be provided from 1 October 2021.

The Riksbank provides the Benchmarks free of charge to users. The Riksbank's website provides information on the conditions under which the Benchmarks may be used and re-published.

## 1.2 The IOSCO Principles

In 2013, the International Organization of Securities Commissions (IOSCO) adopted the *Principles for Financial Benchmarks – Final Report* (“the IOSCO Principles”). The

IOSCO Principles were created to increase the reliability of reference rates and to contribute to good governance, transparency and quality in the determination of reference rates and other financial benchmarks. The principles specify the arrangements that an administrator should have in place and represent the international best practice for how an administrator should conduct the work regarding reference rates.

The IOSCO Principles include provisions covering four areas:

- Governance
- Quality of the Benchmark
- Quality of the Methodology
- Accountability

The IOSCO Principles apply primarily to administrators of financial benchmarks in the private sector and thus do not cover central banks. Similarly, central banks have been excluded from the Benchmark Regulation<sup>1</sup>, which aims to implement the IOSCO Principles in the EU. Nevertheless, like other central banks providing reference rates, the Riksbank has chosen to follow the IOSCO Principles where applicable and relevant.

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<sup>1</sup> Regulation (EU) no. 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 mutual funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014.

## 2 The Riksbank as administrator

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The Riksbank is the administrator for SWESTR and for average rates and index based on SWESTR. This means that the Riksbank is responsible for designing, determining and publishing the Benchmarks and for ensuring good governance.

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As set out in Section 1, the IOSCO Principles constitute the international best practice for how administrators shall ensure the good governance, reliability and quality of financial benchmarks. The Riksbank has undertaken to comply, where applicable and relevant, with the IOSCO Principles and will certify its compliance on an annual basis.

### 2.1 Applicability of the IOSCO Principles

The provisions of the IOSCO Principles governing the use of expert judgement are not applicable to the Riksbank's administration of the Benchmarks as the methodology does not allow for the use of discretion in determining the Benchmarks.<sup>2,3</sup> SWESTR is determined on the basis of information about actual, completed transactions, while average rates and index are only based on the SWESTR values.

The provisions on submissions are not applicable either.<sup>4</sup> Transaction data that form the basis of SWESTR, and ultimately of average rates and index, are also used for the Riksbank's broader analysis purposes. Moreover, mandatory reporting of money market transactions by monetary policy counterparties can be equated with mandatory *post trade* reporting on a regulated market/exchange. This means that transaction data that form the basis of SWESTR do not count as *submissions* according to IOSCO's definition.

### 2.2 Governance

The Riksbank provides good internal governance of the Benchmarks via:

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<sup>2</sup> The IOSCO Principles define expert judgement as the administrator or submitters exercising discretion regarding the use of data in determining a benchmark.

<sup>3</sup> A reasonability assessment is included late in the determination process, which aims to prevent clearly unreasonable values being determined. Whether a value is clearly unreasonable is assessed against the background of the transaction dataset on the day in question. This step in the process has been introduced as a safety valve that may, in extraordinary circumstances, stop the determination process if disturbances, such as technical problems, have led to clearly unreasonable values being calculated. If the value is considered clearly unreasonable, SWESTR shall be determined according to the alternative calculation method used in the event of a technical failure. The reasonability assessment is documented through the non-intervention in the automatic process.

<sup>4</sup> The IOSCO Principles define *submissions* as prices, estimates, values, rates or other information provided by a submitter to an administrator for the purpose of determining a benchmark. The definition explicitly excludes data from regulated markets or exchanges with mandatory *post-trade* transparency requirements.

- a robust internal regulatory framework, including the appropriate policy documents for the Benchmarks, with clear roles and responsibilities;
- well-documented internal routine descriptions regarding the process of determining and publishing the Benchmarks;
- established processes for identifying and managing conflicts of interest related to the Benchmarks; and
- conducting active and systematic risk prevention work, including continuity planning.

### 2.2.1 Organisation

The Riksbank's organisation for work with the Benchmarks has been established within the framework of the Riksbank's existing organisation. Within the Riksbank, work is organised in a way that ensures the quality and integrity of the Benchmarks, including by reducing and managing the risk of conflicts of interest.

#### **The Executive Board**

The Executive Board of the Riksbank takes fundamentally important decisions on the Benchmarks, such as overall organisation, and on fundamental provisions for the process of determining and publishing the Benchmarks. The Executive Board also decides on the design of the Benchmarks.

#### **The Markets Department**

The Markets Department (AFM) is responsible for operationalising the Riksbank's role as administrator of the Benchmarks. AFM is responsible for designing the process that is applied each business day to determine and publish the Benchmarks. AFM regularly reviews and monitors the Benchmarks, and prepares the Executive Board's decisions on issues relating to the Benchmarks.

#### **The Monetary Policy Department**

The Monetary Policy Department (APP) is responsible for implementing the daily process that forms the basis of the Benchmarks. This includes collection and calculation of the Benchmarks. APP is also responsible for related tasks closely linked to the daily process.

#### **The Financial Stability Department**

The Financial Stability Department (AFS) is responsible for the Riksbank's internal oversight of the Benchmarks. Oversight is conducted in a committee that, in addition to AFS staff, consists of members from various parts of the Riksbank's organisation.

#### **The Internal Control and Operational Support Department**

The Internal Control and Operational Support Department (AIS) is responsible for whistleblowing cases related to the Benchmarks.

## The IT and Digitalisation Department

The Information Technology and Digitalisation Department (AID) is responsible for developing, maintaining and operating the systems connected to the Benchmarks.

### 2.2.2 Governance arrangements

#### Policy documents

In addition to the Riksbank's overarching policy documents, such as *Instructions for Sveriges Riksbank* and the Riksbank's Code of Ethics, and *Terms and Conditions for RIX and Monetary Policy Instruments*, the policy documents below is central to the Riksbank's work on the Benchmarks. These policy documents are supplemented by detailed routine descriptions and job descriptions at departmental and divisional level.

- *Policy for transaction-based reference rate SWESTR* (decided by the Executive Board)
- *Regulation for the administration of SWESTR* (decided by the Executive Board)
- *Regulation for implementation of the administration of SWESTR (AFM)* (decided by the Head of AFM)
- *Regulation for the SWESTR Oversight Committee* (decided by the Head of AFS)

In addition, the Riksbank provides an information document, *SWESTR: Comprehensive information on Sveriges Riksbank's framework for SWESTR*, which collects relevant information for the general public on the Benchmarks irrespective of the policy document in which the information is contained.

*Reporting instructions — Daily reporting on money market data* contains the instructions to the Riksbank's monetary policy counterparties regarding the reporting of the money market data. These data, among other purposes, form the basis of SWESTR. The document contains information about the daily process for determining and publishing SWESTR, including intermediate deadlines.

#### Internal oversight function

The Riksbank's internal oversight function takes the form of an oversight committee, the aim of which is to check that the Riksbank complies with all SWESTR applicable IOSCO Principles. In its oversight, the committee monitors, among other things, SWESTR's governance and its design, and ensures that the Riksbank is transparent and complies with its responsibilities. The Committee also keeps itself informed of any problems and risks with SWESTR and follows up on what AFM and APP are doing to reduce or prevent these. All decisions regarding oversight are taken by AFS, apart from fundamentally important decisions taken by the Executive Board of the Riksbank.

The Committee consists of representatives from AFS, AFM, APP, AID and the Risk Division at the AIS (AIS/RIE). The members from AFM and APP shall not be someone involved in the day-to-day administration of SWESTR, but shall be independent from

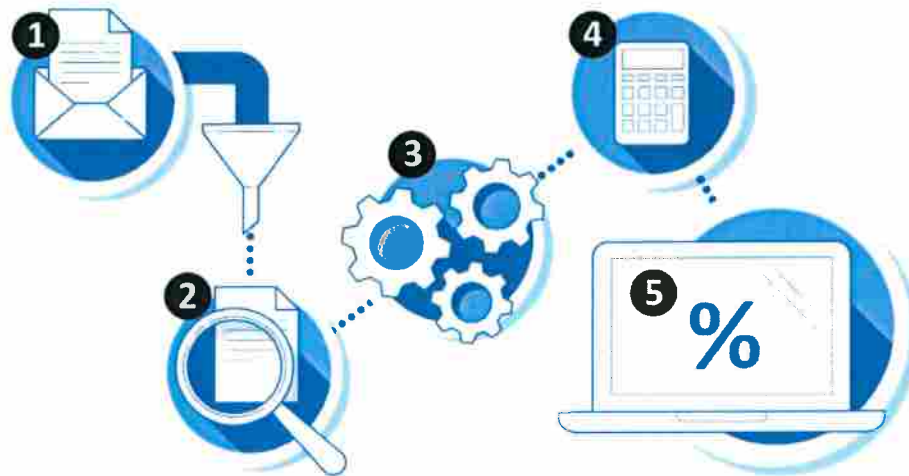
this function. The Head of AFS chairs the Committee. In addition to the chairmanship, AFS has two other participants in the Committee. AFS provides the secretariat for the Committee. The Committee meets three times a year and more frequently if necessary.

### **SWESTR Advisory Group**

Benchmarks should be well anchored among the market participants using them. The Riksbank has therefore set up the SWESTR Advisory Group. This group provides advice and technical comments to the Riksbank and helps to facilitate the Riksbank's information gathering for monitoring the Benchmarks. Invited market participants relevant to the Benchmarks, including industry groups, as well as agents providing key infrastructures (in a broad sense) for relevant financial markets participate in the group. Material from meetings with the SWESTR Advisory Group is published on the Riksbank's website.

## **2.3 Determination and publication process**

The statistic division in APP is responsible for independently and objectively determining and publishing the Benchmarks each Swedish business day. All times in the process description below refer to Swedish time.



### **From data reporting to publication of Benchmarks**

The process for determining and publishing the Benchmarks takes place according to an automated flow in the system used by the Riksbank to collect, store and analyse transaction data from the short-term money market. For traceability, all steps of the process are logged in the system, including any manual interventions.



## 1. Reporting

No later than 07.00, the Riksbank's monetary policy counterparties that are significant participants in the money market shall submit their transactions completed on the immediately preceding business day. A subset of these transactions forms the dataset for SWESTR.

Reporting is done on a standardised form in accordance with the ISO 20022 standard. For continuity reasons, transaction reporting can be done through two different channels.

## 2. Internal data and robustness checks

To ensure the quality of the reported data forming the basis for the calculation of SWESTR, the Riksbank applies automatic checks aimed at identifying transactions suspected of being unintentionally and/or intentionally incorrectly reported. Where the automated checks identify a transaction as potentially incorrectly reported, it is used in the SWESTR calculation if and only if the submitter confirms in good order that it has been correctly reported.

The Riksbank also checks that the transaction dataset fulfils the robustness requirements for SWESTR.

## 3. Data processing

The transaction dataset is then processed by trimming. A total of 25 per cent of the transaction volume is excluded from the calculation of SWESTR.

## 4. Calculation

At 08.30, SWESTR is calculated using the normal or alternative calculation method. The normal method is when SWESTR is calculated as a volume-weighted mean rate based on the trimmed transaction dataset. This calculation method is applied if all robustness requirements are met. A plausibility assessment is made of the calculated value.

An alternative calculation method can be applied in two cases, first if the transaction dataset does not fulfil the robustness requirements, and second if the transaction dataset is not available, for example due to technical problems.

At 08.45, average rates and index based on SWESTR are calculated.<sup>5</sup>

## 5. Publication

SWESTR is published at 09:00. The Riksbank also publishes summary information on the transaction dataset. Average rates and index based on SWESTR are published at 09:05.

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<sup>5</sup> The values are deemed to be provisional until SWESTR has been published at 09:00.

The official publication of the Benchmarks consists of the publication in the *application programming interface* (API) provided by the Riksbank. The information is also published on the Riksbank's website, which is also the alternative publication channel if the API does not work for some reason.

## 2.4 Transparency

The Riksbank strives for a high degree of transparency with regard to the Benchmarks. The information provided by the Riksbank for this purpose is described below. In addition to this, the Riksbank will publish other information if necessary, for example in the event that the Riksbank deems that the methodology for Benchmarks should be adjusted.

### **Methodology and control documents**

The Riksbank publishes information on methodology and current processes on the Riksbank's website and publishes relevant policy documents and the information document *SWESTR: Comprehensive information on Sveriges Riksbank's framework for SWESTR*.

### **SWESTR, average rates and index**

The Riksbank publishes values for the Benchmarks in the API and on the Riksbank's website every Swedish business day. Information is also published on the calculation method used and summary information on the current transaction dataset for SWESTR in these channels.

### **Report on the transaction dataset for SWESTR**

The Riksbank publishes quarterly, and with a time lag, a report containing information about the transaction dataset. The report includes:

- information on how any changes in the transaction dataset, which have subsequently come to the Riksbank's attention, had affected the SWESTR values if the changes had been known when the respective SWESTR value was determined, and
- summary information on the composition of the transaction dataset in the form of its breakdown by reporting agents' different counterparty category, and by size of each individual transaction.

## 2.5 Design of the Benchmarks

For more details on the design of the Benchmarks, see the *Regulation for the administration of SWESTR* or the information document *SWESTR: Comprehensive information on Sveriges Riksbank's framework for SWESTR*.

## SWESTR

The underlying market for SWESTR is the overnight market in Swedish kronor. Data source for SWESTR is the transaction reporting that the monetary policy counterparties are required to make according to Section B 3.2.3.c of *Terms and Conditions for RIX and Monetary Policy Instruments*.

The transactions that form the basis of SWESTR are those that:

- have a maturity of one day (*overnight, O/N*),
- lead to an unsecured deposit at the reporting agent,
- are made with a counterparty from one of the following categories:
  - banks and financial institutions
  - non-financial corporations
  - Swedish National Debt Office
- has a transaction volume of at least SEK 10 million

The normal calculation method is used if the transaction dataset is considered sufficiently robust.<sup>6</sup> The normal calculation method is a volume-weighted mean of the interest rates in the transaction dataset, after it has been trimmed by a total of 25 per cent of the total transaction volume.

### Average rates and index

Average rates and index based on SWESTR are based on the determined values for SWESTR. Average rates and index are cumulative and reflect a continuous accrual of SWESTR. The formulas for calculation follow established market practice.

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<sup>6</sup> If any of the robustness requirements are not fulfilled or if the transaction dataset is not available, for example due to technical error, SWESTR is calculated using an alternative calculation method. Depending on the situation, there are two alternative calculation methods. These alternative calculation methods are based on historical SWESTR levels that are adjusted, where appropriate, for changes in the Riksbank's policy rate.

### 3 Statement of Compliance

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The Executive Board has tasked the Head of the Markets Department (AFM) to certify annually that the Riksbank complies with the applicable and relevant parts of the IOSCO Principles. The Monetary Policy Department (APP) shall assist the Markets Department in the evaluation of the implementation of the daily process and the Head of APP will certify that the evaluation is accurate in this regard. In addition, the Head of the Financial Stability Department (AFS) shall certify compliance with the principle of an internal oversight function. These reports can be found in this section.

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The previous section in this report summarises the Riksbank's work on the Benchmarks. Section 2 outlines both the organisation and governance arrangements for the Benchmarks and the daily process for determining and publishing the Benchmarks. The section also summarises the design of the Benchmarks. This section also summarises the Riksbank's standpoints on how the IOSCO Principles should be interpreted with regard to the Benchmarks.

The Riksbank considers that it complies with the applicable and relevant parts of the IOSCO Principles. In some cases, the Riksbank has chosen an alternative way of achieving the aim of the principles. Section 4 describes how each principle has been implemented in the Riksbank's work on the Benchmarks.

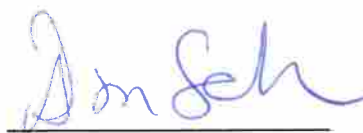
In light of the above, the Head of AFM and the Head of APP certify that the content of the report is accurate as of 14 September 2023, and that the Riksbank complies with the applicable and relevant parts of the IOSCO Principles. Similarly, the Head of AFS certifies that the content of this report with regard to the internal oversight function is accurate as of 14 September 2023, and that the Riksbank complies with the applicable and relevant parts of the fifth IOSCO Principle on an internal oversight function.

Stockholm, 14 September 2023



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Anders Gänge  
Acting Head of AFM



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Åsa Olli Segendorf  
Head of APP



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Olof Sandstedt  
Head of AFS & Chair of the Riksbank's SWESTR Internal Oversight Committee

## 4 Compliance with the IOSCO Principles

This section provides detailed information on how the Riksbank has implemented the respective IOSCO Principle in its work on the Benchmarks.

### 4.1 Governance

The Riksbank considers that the applicable and relevant parts of the principles regarding governance are complied with.

The Riksbank assesses that parts of Principle 2 are not applicable.

**Table 1. Compliance with the principles relating to governance**

The Riksbank's comments on how Principles 1-5 have been implemented

<b>Principle 1: Overall Responsibility of the Administrator</b>	
<p>The Administrator should retain primary responsibility for all aspects of the Benchmark determination process. For example, this includes:</p> <ul style="list-style-type: none"> <li>a) Development: The definition of the Benchmark and Benchmark Methodology;</li> <li>b) Determination and Dissemination: Accurate and timely compilation and publication and distribution of the Benchmark;</li> <li>c) Operation: Ensuring appropriate transparency over significant decisions affecting the compilation of the Benchmark and any related determination process, including contingency measures in the event of absence of or insufficient inputs, market stress or disruption, failure of critical infrastructure, or other relevant factors; and</li> <li>d) Governance: Establishing credible and transparent governance, oversight and accountability procedures for the Benchmark determination process, including an identifiable oversight function accountable for the development, issuance and operation of the Benchmark.</li> </ul>	<p>The Riksbank is the administrator of the Benchmarks. The Riksbank is responsible for designing, determining and publishing the Benchmarks. This means that the Riksbank via APP is responsible for the daily process for determining the Benchmarks and for otherwise ensuring good operational management. The Riksbank via AFM is also responsible for developing and monitoring the Benchmarks and their methodology, and for ensuring appropriate governance.</p> <ul style="list-style-type: none"> <li>a) SWESTR is designed to reflect the level of interest rate on actual transactions in the overnight market in Swedish kronor (SEK). Average rates and index based on SWESTR reflect the return on an investment that regularly accrues interest at the SWESTR rate. See Principle 6 for further information on the respective benchmark. SWESTR is based only on actual transaction data from the money market in SEK, while the historical SWESTR values form the basis for average rates and index (Principles 7 and 8).</li> <li>b) The Benchmarks are determined for each Swedish business day. See Principle 9 for details of how the Benchmarks are published and which information is provided on the transaction dataset.</li> <li>c) The Riksbank ensures good operational management with regard to the Benchmarks through clear processes with defined areas of responsibility and mandates, a system support with traceability and continuity routines (Principles 4 and 16). An internal oversight committee follows up any deviations from established procedures (Principle 5). In addition, there</li> </ul>

are established alternative calculation methods for SWESTR that are applied in the event of an inadequate or unavailable transaction dataset (Principles 7 and 8).

- d) The Riksbank has established an internal structure for governance with regard to the Benchmarks based on the Riksbank's existing organisational structure (Principle 4). Roles and responsibilities for different parts of the organisation are defined. The governance arrangements for the Benchmarks consist of policy documents, an internal oversight committee (Principle 5) and a separate complaints function for the Benchmarks (Principle 16). See Principle 3 for more information on how the Riksbank manages and prevents conflicts of interest.

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### Principle 2: Oversight of Third Parties

Where activities relating to the Benchmark determination process are undertaken by third parties - for example collection of inputs, publication or where a third party acts as Calculation Agent - the Administrator should maintain appropriate oversight of such third parties. The Administrator (and its oversight function) should consider adopting policies and procedures that:

- a) Clearly define and substantiate through appropriate written arrangements the roles and obligations of third parties who participate in the Benchmark determination process, as well as the standards the Administrator expects these third parties to comply with;
- b) Monitor third parties' compliance with the standards set out by the Administrator;
- c) Make Available to Stakeholders and any relevant Regulatory Authority the identity and roles of third parties who participate in the Benchmark determination process; and
- d) Take reasonable steps, including contingency plans, to avoid undue operational risk related to the participation of third parties in the Benchmark determination process.

This Principle does not apply in relation to a third party from whom an Administrator sources data if that third party is a Regulated Market or Exchange.

All parts of the process for determining and publishing the Benchmarks are carried out by the Riksbank via APP. Transaction data that forms the basis of SWESTR is reported directly to the Riksbank from the Riksbank's monetary policy counterparties ("reporting agents") (Principles 7 and 8).

In this process, the Riksbank uses certain static information sourced from a data base provided by the European Central Bank (ECB), as part of the cooperation within the European System of Central Banks (ESCB). The information used is to classify transactions and is retrieved when first needed. Thereafter, the information is stored in the Riksbank's system. Thereafter, the stored information is updated once a month.

- a) Assessed not applicable.
- b) Assessed not applicable.
- c) Assessed not applicable.
- d) The Riksbank has alternative sources to access if the database is unavailable or lack the relevant information.

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### Principle 3: Conflicts of Interest for Administrators

To protect the integrity and independence of Benchmark determinations, Administrators should document, implement and enforce policies and procedures for the identification, disclosure, management, mitigation or avoidance

The Riksbank is Sweden's central bank and an authority under the Riksdag (Swedish parliament) pursuant to Chapter 9, Article 13 of the Instrument of Government (1974:152). The Riksbank is covered and applies the *principle of*

of conflicts of interest. Administrators should review and update their policies and procedures as appropriate.

Administrators should disclose any material conflicts of interest to their users and any relevant Regulatory Authority, if any.

The framework should be appropriately tailored to the level of existing or potential conflicts of interest identified and the risks that the Benchmark poses and should seek to ensure:

- a) Existing or potential conflicts of interest do not inappropriately influence Benchmark determinations;
- b) Personal interests and connections or business connections do not compromise the Administrator's performance of its functions;
- c) Segregation of reporting lines within the Administrator, where appropriate, to clearly define responsibilities and prevent unnecessary or undisclosed conflicts of interest or the perception of such conflicts;
- d) Adequate supervision and sign-off by authorised or qualified employees prior to releasing Benchmark determinations;
- e) The confidentiality of data, information and other inputs submitted to, received by or produced by the Administrator, subject to the disclosure obligations of the Administrator;
- f) Effective procedures to control the exchange of information between staff engaged in activities involving a risk of conflicts of interest or between staff and third parties, where that information may reasonably affect any Benchmark determinations; and
- g) Adequate remuneration policies that ensure all staff who participate in the Benchmark determination are not directly or indirectly rewarded or incentivised by the levels of the Benchmark.

An Administrator's conflict of interest framework should seek to mitigate existing or potential conflicts created by its ownership structure or control, or due to other interests the Administrator's staff or wider group may have in relation to Benchmark determinations. To this end, the framework should:

- a) Include measures to avoid, mitigate or disclose conflicts of interest that may exist between its Benchmark determination business (including all staff who perform or otherwise participate in Benchmark production responsibilities), and any other business of the Administrator or any of its affiliates; and

*public access to official records, the principle of objectivity and equal treatment* (Section 5, second paragraph of the Administrative Procedure Act (2017:900, FL), the *legality principle* (section 5, first paragraph of the FL) and the *principle of proportionality* (Section 5, third paragraph, of the FL) in its operations.

The *principle of public access to official records* is central to the Swedish legal system. It means that the public has the right to insight into and access to information on the activities of the state and municipalities, for example through public access to official documents in accordance with the Public Access to Information and Secrecy Act (2009:400, OSL). The *principle of objectivity* implies that the authorities must be objective and impartial in their activities. The principle also includes a prohibition on treating equal cases differently (*principle of equal treatment*). This means that public authorities may not act arbitrarily and may not discriminate against anyone unless it is pursuant to Swedish law.

- a) The Riksbank has taken measures to prevent conflicts of interest between the work on the Benchmarks and other operations at the Riksbank in connection with the establishment of the organisation and governance arrangements for the Benchmarks (Principle 4). Staff who carry out transactions on behalf of the Riksbank do not participate in the work on the Benchmarks. The responsible managers review all the risks of conflicts of interest in relation to the Benchmarks at least once a year. This review is documented.
- b) In addition to legislation against, for example, the use of insider information, the Riksbank's Code of Ethics establishes what applies in situations in which employees may have access to insider information, be disqualified or otherwise have conflicts of interest. Staff members shall not participate in decisions in which they are not impartial and may not derive personal benefits from their work at the Riksbank. Compliance with the Code of Ethics is monitored by the Regulatory Compliance Team at the Risk Division (RIE) in AIS. How the Code of Ethics is to be interpreted in relation to the daily process for determining the Benchmarks has also been clarified in the internal regulatory framework for the Benchmarks..

- c) See above under a).
- d) The process for determining the Benchmarks is highly standardised and does not allow for so-called expert judgement. All steps in the process of determining the Benchmarks are logged in the system. For all manual deviations from the automated flow, identification information is also stored on the person who carried out the



- b) Provide that an Administrator discloses conflicts of interest arising from the ownership structure or the control of the Administrator to its Stakeholders and any relevant Regulatory Authority in a timely manner.
- e) Data that forms the basis of the Benchmarks is covered by confidentiality pursuant to Chapter 31, Section 1 of the OSL.
- f) The Riksbank manages access rights to the system used for the Benchmarks restrictively. Staff who carry out transactions on behalf of the Riksbank do not have access to the system. See also above under a).
- g) The Riksbank does not apply performance-based wage-setting. Neither do staff working with the Benchmarks have any other benefits linked to the levels of the Reference rates.

The Riksbank is not in a group with any agent who may have their own interests linked to developments in the Benchmarks. Thus, there is considered to be no conflict of interest in relation to the Benchmarks as a result of ownership circumstances or similar.

The Oversight Committee follows the governance of SWESTR and checks that there are robust governance arrangements with defined roles and responsibilities and that this is documented. It also monitors the control framework developed by AFM, which includes conflicts of interest and how these are identified and managed. AFM and APP reports on an ongoing basis on any identified conflicts of interest and how these are managed.

#### Principle 4: Control Framework for Administrators

An Administrator should implement an appropriate control framework for the process of determining and distributing the Benchmark. The control framework should be appropriately tailored to the materiality of the potential or existing conflicts of interest identified, the extent of the use of discretion in the Benchmark setting process and to the nature of Benchmark inputs and outputs. The control framework should be documented and available to relevant Regulatory Authorities, if any. A summary of its main features should be Published or Made Available to Stakeholders.

This control framework should be reviewed periodically and updated as appropriate. The framework should address the following areas:

- a) Conflicts of interest in line with Principle 3 on conflicts of interests;
- b) Integrity and quality of Benchmark determination:
  - i. Arrangements to ensure that the quality and integrity of Benchmarks is maintained, in line with principles 6 to 15 on the quality of the Benchmark and Methodology;

The Riksbank has a documented organisational structure for the work on the Benchmarks with detailed policy documents and clear distribution of tasks. All fundamentally important decisions on the design of and work on Benchmarks are taken by the Executive Board of the Riksbank. A description of the organisational structure and overarching information on the control framework can be found on the Riksbank's website and in published documents.

AFM operationalises the Riksbank's role as administrator via the Market Strategy Division (EMS). EMS is responsible for long-term, investigatory issues concerning the Benchmarks and for their follow-up. EMS is also responsible for the Riksbank's analysis of the money market, among its other tasks. The Statistics Division (STE) at APP is responsible for coordinating and supporting the Riksbank's management of statistics and data, including the Riksbank's own data collections. This also includes the responsibility for implementing the daily process for Benchmarks.

- a) The Riksbank has a regulatory framework for preventing and managing conflicts of



<ul style="list-style-type: none"> <li>ii. Arrangements to promote the integrity of Benchmark inputs, including adequate due diligence on input sources;</li> <li>iii. Arrangements to ensure accountability and complaints mechanisms are effective, in line with principles 16 to 19; and</li> <li>iv. Providing robust infrastructure, policies and procedures for the management of risk, including operational risk.</li> </ul> <p>c) Whistleblowing mechanism: Administrators should establish an effective whistleblowing mechanism to facilitate early awareness of any potential misconduct or irregularities that may arise. This mechanism should allow for external reporting of such cases where appropriate.</p> <p>d) Expertise:</p> <ul style="list-style-type: none"> <li>i. Ensuring Benchmark determinations are made by personnel who possess the relevant levels of expertise, with a process for periodic review of their competence; and</li> <li>ii. Staff training, including ethics and conflicts of interest training, and continuity and succession planning for personnel.</li> </ul>	<p>interest and constantly works to prevent them (Principle 3).</p> <p>b)</p> <ul style="list-style-type: none"> <li>i. The Benchmarks have been designed to reflect the activity of the underlying market and are otherwise of high quality (Principles 6 to 9). The Riksbank has a documented and published methodology for the Benchmarks, which ensures their integrity (Principles 10-15).</li> <li>ii. The data source for SWESTR is reported data on completed money market transactions (Principles 7 and 8). Data source for average rates and index are the determined SWESTR rates. The reported transaction data is stored and handled in an internal system with high security and availability requirements. Prior to calculation of SWESTR, the Riksbank carries out checks on the transaction data (Principle 15). The calculation is then carried out according to an automated flow in the system. The Riksbank's staff cannot change transaction details.</li> <li>iii. The Riksbank has processes to ensure good monitoring of accountability with regard to the Benchmarks. The Riksbank has established a complaints function with regard to the Reference rates (Principle 16). The Riksbank's Internal Audit Department has a mandate to audit the Riksbank's operations, including the work on the Benchmarks (Principle 17). The Riksbank stores all transaction data and other information relevant to the Benchmarks for at least five years (Principle 18). The Riksbank is not formally under the supervision of another authority (principle 19).</li> <li>iv. The Riksbank works actively to prevent risks in its operations. For the work on the Benchmarks, the focus is on preventing operational risks in the process of determining and publishing the Benchmarks. This is ensured by, among other things, a high degree of automation of flows, duality routines and traceability in the system. The Riksbank has well-developed continuity routines to manage disruptions in its IT environment. Incidents are reported to the Riksbank's Risk Division. The Riksbank also monitors incidents reported by reporting agent with regard to transaction reporting and other participation in the daily process.</li> </ul>
<p><i>Where a Benchmark is based on Submissions:</i> Administrators should promote the integrity of inputs by:</p> <ul style="list-style-type: none"> <li>a) Ensuring as far as possible that the Submitters comprise an appropriately representative group of participants taking into consideration the underlying Interest measured by the Benchmark;</li> <li>b) Employing a system of appropriate measures so that, to the extent possible, Submitters comply with the Submission guidelines, as defined in the Submitter Code of Conduct and the Administrators' applicable quality and integrity standards for Submission;</li> <li>c) Specifying how frequently Submissions should be made and specifying that inputs or Submissions should be made for every Benchmark determination; and</li> <li>d) Establishing and employing measures to effectively monitor and scrutinise inputs or Submissions. This should include pre-compilation or pre-publication monitoring to identify and avoid errors in inputs or Submissions, as well as ex-post analysis of trends and outliers.</li> </ul>	

- c) The Riksbank has a whistle blowing channel through which employees and consultants at the Riksbank can report any wrongdoings anonymously. In accordance with the Act (2021:890) on the protection of persons reporting wrongdoings (the Whistle Blowing Act) wrongdoings on financial markets can be reported by external persons to the whistle blowing function provided by Finansinspektionen (FI).
- d) The Riksbank works actively to ensure that employees working on the Benchmarks have appropriate knowledge and to prevent overdependence on key personnel. However, the requirements of the IOSCO Principles for formal succession planning are considered disproportionate in view of the automated process, the non-complex calculation method and the absence of expert judgement in the determination process.

The Benchmarks are not based on submissions or expert judgements and the provisions of the principle with regard to this are therefore not applicable.

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#### Principle 5: Internal Oversight

Administrators should establish an oversight function to review and provide challenge on all aspects of the Benchmark determination process. This should include consideration of the features and intended, expected or known usage of the Benchmark and the materiality of existing or potential conflicts of interest identified.

The oversight function should be carried out either by a separate committee, or other appropriate governance arrangements. The oversight function and its composition should be appropriate to provide effective scrutiny of the Administrator. Such oversight function could consider groups of Benchmarks by type or asset class, provided that it otherwise complies with this Principle.

An Administrator should develop and maintain robust procedures regarding its oversight function, which should be documented and available to relevant Regulatory Authorities, if any. The main features of the procedures should be Made Available to Stakeholders. These procedures should include:

- a) The terms of reference of the oversight function;
- b) Criteria to select members of the oversight function;
- c) The summary details of membership of any committee or arrangement charged with the oversight function, along with any declarations of conflicts of interest and processes for election, nomination or

The Riksbank has an internal oversight committee that fulfils the requirements set by the principle. The oversight function is common to the Benchmarks. As average rates and index are exclusively based on the determined SWESTR values, the work is in practice focused on SWESTR. AFS takes all decisions regarding the oversight function, with the exception of fundamentally important decisions taken by the Executive Board.

Overall information on the Oversight Committee is available on the Riksbank's website and in published documents.

- a) The oversight function consists of an oversight committee with participants from several departments. AFS is responsible for the oversight function, performs analysis and acts as secretariat for the committee. The design and working structure of the Oversight Committee are governed by the internal policy document *Regulation for the SWESTR Oversight Committee*.
- b) In order to ensure a broad skills base in the oversight and processes leading to well-informed decisions, the Benchmarks are monitored by an interdepartmental committee. The members are appointed on the basis of their skills regarding reference rates or oversight or other relevant skills, for example, knowledge of how reference rates are used in financial contracts.

removal and replacement of committee members.

The responsibilities of the oversight function include:

- a. Oversight of the Benchmark design:
  - i. Periodic review of the definition of the Benchmark and its Methodology;
  - ii. Taking measures to remain informed about issues and risks to the Benchmark, as well as commissioning external reviews of the Benchmark (as appropriate);
  - iii. Overseeing any changes to the Benchmark Methodology, including assessing whether the Methodology continues to appropriately measure the underlying Interest, reviewing proposed and implemented changes to the Methodology, and authorising or requesting the Administrator to undertake a consultation with Stakeholders where known or its Subscribers on such changes as per Principle 12; and
  - iv. Reviewing and approving procedures for termination of the Benchmark, including guidelines that set out how the Administrator should consult with Stakeholders about such cessation.
- b. Oversight of the integrity of Benchmark determination and control framework:
  - i. Overseeing the management and operation of the Benchmark, including activities related to Benchmark determination undertaken by a third party;
  - ii. Considering the results of internal and external audits, and following up on the implementation of remedial actions highlighted in the results of these audits; and
  - iii. Overseeing any exercise of Expert Judgment by the Administrator and ensuring Published Methodologies have been followed.

Where conflicts of interests may arise in the Administrator due to its ownership structures or controlling interests, or due to other activities conducted by any entity owning or controlling the Administrator or by the Administrator or any of its affiliates: the Administrator should establish an independent oversight function which includes a balanced representation of a range of Stakeholders where known, Subscribers and Submitters, which is chosen to counterbalance the relevant conflict of interest.

*Where a Benchmark is based on Submissions: the oversight function should provide suitable oversight and challenge of the Submissions by:*

- c) The Committee is chaired by the head of AFS. AFS has two members of the committee, excluding the chairperson. One member of staff each from APP, AID, the Risk Division (in the AIS) and AFM make up the remainder of the Oversight Committee. The members from AFM and APP shall not be someone involved in the daily administration of SWESTR, but shall be independent from this function.

The Oversight Committee responsibilities include:

- a) The Oversight Committee checks that the Riksbank complies with all SWESTR-applicable IOSCO Principles.
  - i. The Oversight Committee performs a regular review of SWESTR's design and assess whether the reference rate remains representative of the rate on the underlying market, and whether AFM has conducted a review of conditions on the underlying market with a view to ensuring that the reference rate still represents the rate on the underlying market (see Principle 10). A representative from the Oversight Committee takes part in SWESTR Advisory Group meetings to hear the Group's views on the representativeness of the reference rate. The Oversight Committee also monitors average rates and index to the extent that the relevant issues have not already been assessed in the monitoring of SWESTR.
  - ii. The Oversight Committee requests AFM and APP's documentation on risk identification and problem management, including what AFM and APP does to reduce or prevent problems and risks associated with the Benchmarks. The Oversight Committee specifies the data to be used as a basis for analysing potential risks and problems and monitoring the use of Benchmarks in financial markets.
  - iii. In the event that AFM proposes amendments to the Benchmarks requiring a consultation procedure, the Oversight Committee is informed of this in a timely manner, presented with relevant information and gives its opinion. Before a consultation procedure, the proposed amendments are discussed in the SWESTR Advisory Group in order to receive input at an early stage before any consultation procedure is conducted (see Principle 12). The Oversight Committee checks that this is done, unless this is clearly unnecessary.
  - iv. See Principle 13.

<p>a) Overseeing and challenging the scrutiny and monitoring of inputs or Submissions by the Administrator. This could include regular discussions of inputs or Submission patterns, defining parameters against which inputs or Submissions can be analysed, or querying the role of the Administrator in challenging or sampling unusual inputs or Submissions;</p> <p>b) Overseeing the Code of Conduct for Submitters;</p> <p>c) Establishing effective arrangements to address breaches of the Code of Conduct for Submitters; and</p> <p>d) Establishing measures to detect potential anomalous or suspicious Submissions and in case of suspicious activities, to report them, as well as any misconduct by Submitters of which it becomes aware to the relevant Regulatory Authorities, if any.</p>	<p>b)</p> <p>i. The Oversight Committee monitors the governance of SWESTR and ascertains that there are robust governance arrangements with defined roles and responsibilities and that this is documented. The Committee also monitors the control framework to be developed by the Riksbank, which, in addition to conflicts of interest (see Principle 3 above), includes 1) Arrangements to ensure that the quality and integrity of SWESTR are maintained, 2) complaint handling and whistle blowing mechanisms, 3) Risk management processes and procedures, including for operational risk.</p> <p>ii. The Oversight Committee takes note of all audits carried out by internal or external auditors and follows up on them. If deficiencies are detected in connection with the audits, AFM presents a plan of measures to address these deficiencies and regularly reports to the Oversight Committee on the implementation status of the measures</p> <p>iii. The Benchmarks are not based on expert judgement.</p> <p>The Benchmarks are not based on submissions or expert judgement and the provisions of the principle are therefore not applicable.</p>
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Source: The Riksbank

## 4.2 Quality of the Benchmark

The Riksbank considers that the applicable and relevant parts of the principles regarding the quality of the Benchmarks are complied with.

**Table 2. Compliance with the principles relating to the quality of the Benchmarks**

The Riksbank's comments on how Principles 6-10 have been implemented

<b>Principle 6: Benchmark Design</b>	
<p>The design of the Benchmark should seek to achieve, and result in an accurate and reliable representation of the economic realities of the Interest it seeks to measure, and eliminate factors that might result in a distortion of the price, rate, index or value of the Benchmark.</p> <p>Benchmark design should take into account the following generic non-exclusive features, and other factors should be considered, as appropriate to the particular Interest:</p>	<p>SWESTR shall reflect developments on the overnight market in SEK. Overnight funds refer to short-term loan transactions where the borrower does not provide collateral for the loan.</p> <p>SWESTR has been designed to reflect developments in the overnight market in a reliable and accurate manner. SWESTR is defined as the trimmed, volume-weighted mean of rates for transactions with one-day maturity (<i>overnight</i>), where the reporting agents borrow funds from a broad group of counterparties, consisting of banks, financial corporations, non-financial</p>

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| <ul style="list-style-type: none"> <li>a) Adequacy of the sample used to represent the Interest;</li> <li>b) Size and liquidity of the relevant market (for example whether there is sufficient trading to provide observable, transparent pricing);</li> <li>c) Relative size of the underlying market in relation to the volume of trading in the market that references the Benchmark;</li> <li>d) The distribution of trading among Market Participants (market concentration);</li> <li>e) Market dynamics (e.g., to ensure that the Benchmark reflects changes to the assets underpinning a Benchmark).</li> </ul> | <p>corporations and the Swedish National Debt Office (Principle 7). The design largely follows the design proposed by the Working Group for Alternative Interest Rates (AGAR)<sup>7</sup>.</p> <ul style="list-style-type: none"> <li>a) The Riksbank finds that the information on overnight transactions that is collected and forms the basis of SWESTR constitutes a representative sample of the total overnight market in SEK.</li> <li>b) Based on reported money market data and other available data, the Riksbank assesses that unsecured deposit transactions with a maturity of one day (<i>overnight</i>) are the most robust segment of the money market in Swedish kronor and thus the most suitable for forming the basis of a transaction-based reference rate in Swedish kronor. The assessment has been made on the basis of factors such as market size, liquidity and distribution among participants, including the stability of these parameters. The possibilities for collecting a representative transaction dataset from the market on a daily basis have also been taken into account.</li> </ul> |
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Furthermore, the Riksbank assesses that a volume-weighted mean based on a trimmed transaction dataset is the most appropriate calculation method for a transaction-based reference rate in Swedish kronor. The calculation method gives an accurate picture of the total actual activity in the overnight market on the day in question, while it reduces the impact of any extreme values.

AGAR also advocated that a transaction-based reference rate in Swedish kronor be based on unsecured deposit transactions and that a volume-weighted mean should be used as a calculation method. The Riksbank is also keen to see the design follow relevant international practice for corresponding reference rates, where, for example, €STR, SONIA and DESTB are based on overnight deposits calculated as volume-weighted means based on a trimmed dataset.<sup>8</sup>

<sup>7</sup> AGAR was created as a working group under the Swedish Bankers' Association in 2018 and worked on developing a complement and/or alternative to the STIBOR reference rate. The working group consisted of the STIBOR banks, i.e. Danske Bank, Handelsbanken, Länsförsäkringar Bank, Nordea, SBAB Bank, SEB and Swedbank. The group also included Finansinspektionen, the Riksbank, the Swedish National Debt Office and the Swedish Bankers' Association as observers.

<sup>8</sup> The ECB provides the €STR (Euro Short Term Rate). The Bank of England provides SONIA (Sterling Overnight Index Average). Danmarks Nationalbank provides DESTB (Denmark Short Term Rate). All are transaction-based reference rates at the shortest maturity.



c) See above under b)

d) See above under b)

e) See above under b)

Average rates and index are only calculated based on the determined SWESTR values. The calculation formulae used reflect market practice for continuous accrual. They are therefore also deemed to comply with the principle.

For more information on the data sources for the Benchmarks, see Principles 7 and 8.

### Principle 7: Data Sufficiency

The data used to construct a Benchmark determination should be sufficient to accurately and reliably represent the Interest measured by the Benchmark and should:

- a) Be based on prices, rates, indices or values that have been formed by the competitive forces of supply and demand in order to provide confidence that the price discovery system is reliable; and
- b) Be anchored by observable transactions entered into at arm's length between buyers and sellers in the market for the Interest the Benchmark measures in order for it to function as a credible indicator of prices, rates, indices or values.

This Principle requires that a Benchmark be based upon (i.e., anchored in) an active market having observable Bona Fide, Arms-Length Transactions. This does not mean that every individual Benchmark determination must be constructed solely of transaction data. Provided that an active market exists, conditions in the market on any given day might require the Administrator to rely on different forms of data tied to observable market data as an adjunct or supplement to transactions. Depending upon the Administrator's Methodology, this could result in an individual Benchmark determination being based predominantly, or exclusively, on bids and offers or extrapolations from prior transactions. This is further clarified in Principle 8.

Provided that subparagraphs (a) and (b) above are met, Principle 7 does not preclude Benchmark Administrators from using executable bids or offers as a means to construct Benchmarks where anchored in an observable market consisting of Bona Fide, Arms-Length transactions.

This Principle also recognizes that various indices may be designed to measure or reflect the performance of a rule-based investment strategy, the volatility or behaviour of an index or market or other aspects of an active market. Principle 7 does not preclude the use of non-transactional data for such indices that are not designed to represent transactions and where

SWESTR is exclusively based on data on actual overnight transactions carried out by the Riksbank's monetary policy counterparties and reported to the Riksbank. The data source is the money market data reported by the Riksbank's monetary policy counterparties on a daily basis in accordance with Section B 3.2.3.c in Terms and Conditions for RIX and Monetary Policy Instruments. Further instructions can be found in the instructions for transaction reporting (*User Guide — daily reporting of money market data*).

- a) The overnight market is deemed to be a competitive market with standardised contracts in which supply and demand characterise the rate-setting.
- b) Intra-group transactions shall not be reported and transactions with types of counterparties other than the explicitly specified categories are excluded from the calculation of SWESTR.

The Riksbank considers the transaction dataset for SWESTR to be sufficiently robust and representative if (i) the total transaction volume is at least SEK 6 billion, (ii) at least three reporting agents contribute transactions and (iii) the maximum volume share for a single reporting agent does not exceed 75 per cent. The robustness requirements refer to the transaction dataset prior to trimming. The normal calculation method for SWESTR is only used if all robustness requirements are met. Otherwise an alternative calculation method is used (Principle 8).

During the period from 1 September 2022 to 31 August 2023, the underlying volume for SWESTR has on average been SEK 58 billion per value day. Typically, six reporting agents have contributed transactions to the transaction dataset, while the median number of transactions has been 83.

The data source for average rates and index are the determined SWESTR values. These benchmarks are therefore also *anchored in* a competitive market.

the nature of the index is such that non-transactional data is used to reflect what the index is designed to measure. For example, certain volatility indices, which are designed to measure the expected volatility of an index of securities transactions, rely on non-transactional data, but the data is derived from and thus “anchored” in an actual functioning securities or options market.

See also Principle 8 which contains provisions on the data on which the Benchmarks are based.

#### Principle 8: Hierarchy of Data Inputs

An Administrator should establish and Publish or Make Available clear guidelines regarding the hierarchy of data inputs and exercise of Expert Judgment used for the determination of Benchmarks. In general, the hierarchy of data inputs should include:

- a) Where a Benchmark is dependent upon Submissions, the Submitters’ own concluded arms-length transactions in the underlying interest or related markets;
- b) Reported or observed concluded Arm’s-length Transactions in the underlying interest;
- c) Reported or observed concluded Arm’s-length Transactions in related markets;
- d) Firm (executable) bids and offers; and
- e) Other market information or Expert Judgments.

Provided that the Data Sufficiency Principle is met (i.e., an active market exists), this Principle is not intended to restrict an Administrator’s flexibility to use inputs consistent with the Administrator’s approach to ensuring the quality, integrity, continuity and reliability of its Benchmark determinations, as set out in the Administrator’s Methodology. The Administrator should retain flexibility to use the inputs it believes are appropriate under its Methodology to ensure the quality and integrity of its Benchmark. For example, certain Administrators may decide to rely upon Expert Judgment in an active albeit low liquidity market, when transactions may not be consistently available each day. IOSCO also recognizes that there might be circumstances (e.g., a low liquidity market) when a confirmed bid or offer might carry more meaning than an outlier transaction. Under these circumstances, non-transactional data such as bids and offers and extrapolations from prior transactions might predominate in a given Benchmark determination.

SWESTR is based on data on the actual transactions that fulfil the requirements in the methodology and that have been implemented and reported by the Riksbank’s monetary policy counterparties. In other words, only data of category b) in the list of possible categories in the principle are used for SWESTR. When calculating SWESTR according to an alternative calculation method, the Riksbank’s policy rate is also used.

Bids/submissions (a), transactions from related markets (c), indicative prices (d) or expert judgement (e) are therefore not used.

The normal calculation method for SWESTR (Principle 6) is only used if all robustness requirements are fulfilled (Principle 7). If the transaction dataset does not meet the requirements, SWESTR is determined using an alternative calculation method:

- If the transaction dataset is available, but is not robust enough, a combination of transaction data and historical SWESTR values adjusted for any changes in the Riksbank’s policy rate is used.
- If the transaction data is unavailable, for example due to technical problems, only historical SWESTR values adjusted for any policy rate changes are used.

These alternative calculation methods are applied automatically by the system if necessary. The Riksbank publishes whether an alternative method has been applied and the reason.

The alternative calculation methods are intended to be used for short periods when the normal calculation method cannot be applied. If SWESTR cannot be provided for a longer period, the Riksbank will evaluate appropriate alternative courses of action, taking into account Principle 12.

Average rates and index based on SWESTR are designed to only be based on historical SWESTR values. Whether the historical SWESTR listings were determined using the normal or alternative calculation method has no impact. There is therefore no separate alternative calculation method for these.

See also Principle 7 which contains provisions on the data on which Benchmarks are based

and Principle 15 on data checks before calculation of SWESTR.

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**Principle 9: Transparency**

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The Administrator should describe and publish with each Benchmark determination, to the extent reasonable without delaying an Administrator publication deadline:

- a) A concise explanation, sufficient to facilitate a Stakeholder's or Market Authority's ability to understand how the determination was developed, including, at a minimum, the size and liquidity of the market being assessed (meaning the number and volume of transactions submitted), the range and average volume and range and average of price, and indicative percentages of each type of market data that have been considered in a Benchmark determination; terms referring to the pricing Methodology should be included (i.e., transaction-based, spread-based or interpolated/extrapolated);
- b) A concise explanation of the extent to which and the basis upon which Expert Judgment if any, was used in establishing a Benchmark determination.

The methodology for the Benchmarks is available on the Riksbank's website. The calculation methods are not complex and are used in a consistent manner. For SWESTR, information is available on the normal and alternative calculation methods. The alternative methods are only used in a few pre-determined situations.

The Riksbank publishes summary information on the transaction dataset, and the applied calculation method, in conjunction with each SWESTR value:

- Total transaction volume in SEK millions,
- Total number of transactions;
- The number of reporting agents that have contributed transactions,
- The interest rates at the trimming boundaries, as well as at the 12.5 and 87.5 percentiles of the transaction volume, and
- Calculation method (normal or alternative).
  - If an alternative calculation method has been used, the reason for this is also given.

As average rates and index based on SWESTR are based on the historical SWESTR values, it is considered that the data published on these values also fulfil the purpose of this principle for average rates and index.

The Riksbank determines a corrected SWESTR value if data has been received between the first and second calculations that affect the previously established value by more than 0.02 percentage points (2 basis points). The corrected SWESTR value is published at 12.00 Swedish time on the publication day. Corrected values for average rates and index are determined and published at 12:05 Swedish time, if a corrected SWESTR value has been determined or if errors in the earlier calculation have been detected. After these times, the Benchmarks are not corrected despite any change in the data received.

The Riksbank publishes quarterly, and with a time lag, a report containing information about the transaction dataset. The report includes:

- information on how any changes in the transaction dataset, which have subsequently come to the Riksbank's attention, had affected the SWESTR values if the changes had been known when the respective SWESTR value was determined, and



- summary information on the composition of the transaction dataset in the form of its breakdown by reporting agents' different counterparty category, and by size of each individual transactions.

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#### Principle 10: Periodic Review

The Administrator should periodically review the conditions in the underlying Interest that the Benchmark measures to determine whether the Interest has undergone structural changes that might require changes to the design of the Methodology. The Administrator also should periodically review whether the Interest has diminished or is non-functioning such that it can no longer function as the basis for a credible Benchmark. The Administrator should Publish or Make Available a summary of such reviews where material revisions have been made to a Benchmark, including the rationale for the revisions.

The Riksbank regularly monitors activity in the money market as part of its operations and the execution of its policy tasks.

The Riksbank also regularly evaluates the design of SWESTR in light of how the money market in Swedish krona (SEK) develops. This also applies to the design of average rates and index.

The Riksbank will consult stakeholders prior to any change in Benchmark design, see Principle 12. If an amendment is proposed, the Riksbank will present the reason for this, including a summary of the underlying analysis.

Source: The Riksbank

### 4.3 Quality of the Methodology

The Riksbank considers that the applicable and relevant parts of the principles on the quality of the methodology are complied with.

Principle 14 is not applicable as the Benchmarks are not based on submissions.

**Table 3. Compliance with the principles relating to the quality of the methodology**

The Riksbank's comments on how Principles 11-15 have been implemented

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#### Principle 11: Content of the Methodology

The Administrator should document and Publish or Make Available the Methodology used to make Benchmark determinations. The Administrator should provide the rationale for adopting a particular Methodology. The Published Methodology should provide sufficient detail to allow Stakeholders to understand how the Benchmark is derived and to assess its representativeness, its relevance to particular Stakeholders, and its appropriateness as a reference for financial instruments.

At a minimum, the Methodology should contain:

- Definitions of key terms;
- All criteria and procedures used to develop the Benchmark, including input selection, the mix of inputs used to derive the Benchmark, the guidelines that control the exercise of Expert Judgment by

The Riksbank has policy documents for the Benchmarks and provides a clearly documented methodology for these. The methodology and the Riksbank's other governance arrangements are summarised in the information document *SWESTR: comprehensive information on Sveriges Riksbank's framework for SWESTR*. Certain parts of what Principle 11 is aimed at are made available primarily via the Riksbank's published policy documents.

- The documents define important terms.
- SWESTR is defined as the trimmed, volume-weighted mean of the rates for transactions with a one-day maturity (*overnight*) where reporting agents borrow funds from a broad group of counterparties (banks, financial corporations, non-financial corporations and the Swedish National Debt Office) (Principle 6).

<p>the Administrator, priority given to certain data types, minimum data needed to determine a Benchmark, and any models or extrapolation methods;</p> <p>c) Procedures and practices designed to promote consistency in the exercise of Expert Judgment between Benchmark determinations;</p> <p>d) The procedures which govern Benchmark determination in periods of market stress or disruption, or periods where data sources may be absent (e.g., theoretical estimation models);</p> <p>e) The procedures for dealing with error reports, including when a revision of a Benchmark would be applicable;</p> <p>f) Information regarding the frequency for internal reviews and approvals of the Methodology. Where applicable, the Published Methodologies should also include information regarding the procedures and frequency for external review of the Methodology;</p> <p>g) The circumstances and procedures under which the Administrator will consult with Stakeholders, as appropriate; and</p> <p>h) The identification of potential limitations of a Benchmark, including its operation in illiquid or fragmented markets and the possible concentration of inputs.</p>	<p>The methodology describes how average rates and the index based on SWESTR are determined based on historical SWESTR values (Principle 6).</p> <p>Principles 7 and 8 present information on the data that forms the basis of SWESTR and Principle 15 presents information on the checks carried out by the Riksbank prior to the calculation of SWESTR. This information is available in relevant policy documents and in the information document on the Riksbank's website.</p> <p>c) Expert judgement is not used to determine the Benchmarks. The provisions of the principle on expert judgement are therefore not applicable.</p> <p>d) The methodology describes in detail the alternative calculation methods for SWESTR and the criteria used to assess whether the transaction dataset should be considered sufficiently robust (Principles 7 and 8). There are no special alternative calculation methods for average rates and index.</p> <p>e) The methodology describes how the Riksbank manages any corrections to the Benchmarks and how the Riksbank manages such situations in which the transaction dataset for SWESTR is managed ex post (Principle 9).</p> <p>f) The methodology and other policy documents deal with the Riksbank's approach to any changes in the design or framework for the Benchmarks (Principle 12). It is also set out that the Riksbank shall perform regular follow-ups of the Benchmarks (Principle 10).</p>
<p><i>Where a Benchmark is based on Submissions, the additional Principle also applies:</i></p> <p>The Administrator should clearly establish criteria for including and excluding Submitters. The criteria should consider any issues arising from the location of the Submitter, if in a different jurisdiction to the Administrator. These criteria should be available to any relevant Regulatory Authorities, if any, and Published or Made Available to Stakeholders. Any provisions related to changes in composition, including notice periods should be made clear.</p>	<p>The methodology also shows how the user of the Benchmarks shall act if the Riksbank fails to publish the Benchmarks no later than at the time of publication of corrected values.</p> <p>Submissions are not used to determine the Benchmarks. Therefore, the provisions of the principles relating to such Benchmarks are not applicable.</p>

**Principle 12: Changes to the Methodology**

An Administrator should Publish or Make Available the rationale of any proposed material change in its Methodology, and procedures for making such changes.

These procedures should clearly define what constitutes a material change, and the method and timing for consulting or notifying Subscribers (and other Stakeholders where appropriate, taking into account the breadth and depth of the Benchmark's use) of changes.

Those procedures should be consistent with the overriding objective that an Administrator

The Riksbank shall, where applicable, consult the SWESTR Advisory Group on proposed changes in the design of the Benchmarks or their framework. Material provided to the group is published on the Riksbank's website. Comprehensive minutes of the group's meetings are also published on the website.

When proposing major changes in Benchmark design or framework, or if appropriate for other reasons, the Riksbank will circulate the proposal for changes broadly. In that case, the

must ensure the continued integrity of its Benchmark determinations. When changes are proposed, the Administrator should specify exactly what these changes entail and when they are intended to apply.

The Administrator should specify how changes to the Methodology will be scrutinised, by the oversight function.

The Administrator should develop Stakeholder consultation procedures in relation to changes to the Methodology that are deemed material by the oversight function, and that are appropriate and proportionate to the breadth and depth of the Benchmark's use and the nature of the Stakeholders. Procedures should:

- a) Provide advance notice and a clear timeframe that gives Stakeholders sufficient opportunity to analyse and comment on the impact of such proposed material changes, having regard to the Administrator's assessment of the overall circumstances; and
- b) Provide for Stakeholders' summary comments, and the Administrator's summary response to those comments, to be made accessible to all Stakeholders after any given consultation period, except where the commenter has requested confidentiality.

Riksbank will also publish summary information on why the change is proposed. Such a process will follow the practice of public authorities for consultation procedures and will take place in accordance with the Administrative Procedure Act (2017:900). This means, among other things, that consultation responses constitute an official document and that the Riksbank, in conjunction with decisions, is publishing a summary of the consultation responses received.

Any decisions on changes in the methodology for the Benchmarks are prepared by AFM and adopted by the Executive Board. The Oversight Committee will be involved in the preparation of such decisions. The decision guidance will explain why the changes are being made and will be published.

All changes of importance in the methodology for the Benchmarks will be communicated to the general public and will be reflected in published policy documents and in the information document on the Riksbank's website.

### Principle 13: Transition

Administrators should have clear written policies and procedures, to address the need for possible cessation of a Benchmark, due to market structure change, product definition change, or any other condition which makes the Benchmark no longer representative of its intended Interest. These policies and procedures should be proportionate to the estimated breadth and depth of contracts and financial instruments that reference a Benchmark and the economic and financial stability impact that might result from the cessation of the Benchmark. The Administrator should take into account the views of Stakeholders and any relevant Regulatory and National Authorities in determining what policies and procedures are appropriate for a particular Benchmark.

These written policies and procedures should be Published or Made Available to all Stakeholders.

Administrators should encourage Subscribers and other Stakeholders who have financial instruments that reference a Benchmark to take steps to make sure that:

- a) Contracts or other financial instruments that reference a Benchmark, have robust fall-back provisions in the event of material changes to, or cessation of, the referenced Benchmark; and

To foster financial stability through promoting the use of transaction-based reference rates and through providing such a reference rate in the form of SWESTR are pronounced long-term policy goals for the Riksbank. The Riksbank intends to continue providing SWESTR.

In the event of a review, in accordance with Principle 10, resulting in SWESTR being considered unrepresentative or otherwise inappropriate, the Riksbank would primarily make changes to SWESTR's design, possibly with reference to other segments of the money market (Principle 12).

If, contrary to expectations, SWESTR were to cease to be provided, the Riksbank nevertheless intends to manage such a situation responsibly in dialogue with relevant stakeholders with a view to reducing the risk of disruptions in the financial markets.

The Riksbank also intends to continue providing average rates and the index. The Riksbank intends to manage any changes in the time periods for which average rates are provided in line with Principle 12.

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- b) Stakeholders are aware of the possibility that various factors, including external factors beyond the control of the Administrator, might necessitate material changes to a Benchmark.

Administrators' written policies and procedures to address the possibility of Benchmark cessation could include the following factors, if determined to be reasonable and appropriate by the Administrator:

- a) Criteria to guide the selection of a credible, alternative Benchmark such as, but not limited to, criteria that seek to match to the extent practicable the existing Benchmark's characteristics (e.g., credit quality, maturities and liquidity of the alternative market), differentials between Benchmarks, the extent to which an alternative Benchmark meets the asset/liability needs of Stakeholders, whether the revised Benchmark is investable, the availability of transparent transaction data, the impact on Stakeholders and impact of existing legislation;
- b) The practicality of maintaining parallel Benchmarks (e.g., where feasible, maintain the existing Benchmark for a defined period of time to permit existing contracts and financial instruments to mature and publish a new Benchmark) in order to accommodate an orderly transition to a new Benchmark;
- c) The procedures that the Administrator would follow in the event that a suitable alternative cannot be identified;
- d) In the case of a Benchmark or a tenor of a Benchmark that will be discontinued completely, the policy defining the period of time in which the Benchmark will continue to be produced in order to permit existing contracts to migrate to an alternative Benchmark if necessary; and
- e) The process by which the Administrator will engage Stakeholders and relevant Market and National Authorities, as appropriate, in the process for selecting and moving towards an alternative Benchmark, including the timeframe for any such action commensurate with the tenors of the financial instruments referencing the Benchmarks and the adequacy of notice that will be provided to Stakeholders.

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**Principle 14: Submitter Code of Conduct**

*Where a Benchmark is based on Submissions, the following additional Principle also applies:*

The Administrator should develop guidelines for Submitters ("Submitter Code of Conduct"),

The Benchmarks are not based on submissions. Therefore, this principle does not apply to the Benchmarks.

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which should be available to any relevant Regulatory Authorities, if any and Published or Made Available to Stakeholders.

The Administrator should only use inputs or Submissions from entities which adhere to the Submitter Code of Conduct and the Administrator should appropriately monitor and record adherence from Submitters. The Administrator should require Submitters to confirm adherence to the Submitter Code of Conduct annually and whenever a change to the Submitter Code of Conduct has occurred.

The Administrator's oversight function should be responsible for the continuing review and oversight of the Submitter Code of Conduct.

The Submitter Code of Conduct should address:

- a) The selection of inputs;
  - b) Who may submit data and information to the Administrator;
  - c) Quality control procedures to verify the identity of a Submitter and any employee(s) of a Submitter who report(s) data or information and the authorization of such person(s) to report market data on behalf of a Submitter;
  - d) Criteria applied to employees of a Submitter who are permitted to submit data or information to an Administrator on behalf of a Submitter;
  - e) Policies to discourage the interim withdrawal of Submitters from surveys or Panels;
  - f) Policies to encourage Submitters to submit all relevant data; and
  - g) The Submitters' internal systems and controls, which should include:
    - i. Procedures for submitting inputs, including Methodologies to determine the type of eligible inputs, in line with the Administrator's Methodologies;
    - ii. Procedures to detect and evaluate suspicious inputs or transactions, including inter-group transactions, and to ensure the Bona Fide nature of such inputs, where appropriate;
    - iii. Policies guiding and detailing the use of Expert Judgment, including documentation requirements;
    - iv. Record keeping policies;
    - v. Pre-Submission validation of inputs, and procedures for multiple reviews by senior staff to check inputs;
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- vi. Training, including training with respect to any relevant regulation (covering Benchmark regulation or any market abuse regime);
  - vii. Suspicious Submission reporting;
  - viii. Roles and responsibilities of key personnel and accountability lines;
  - ix. Internal sign off procedures by management for submitting inputs;
  - x. Whistle blowing policies (in line with Principle 4); and
  - xi. Conflicts of interest procedures and policies, including prohibitions on the Submission of data from Front Office Functions unless the Administrator is satisfied that there are adequate internal oversight and verification procedures for Front Office Function Submissions of data to an Administrator (including safeguards and supervision to address possible conflicts of interests as per paragraphs (v) and (ix) above), the physical separation of employees and reporting lines where appropriate, the consideration of how to identify, disclose, manage, mitigate and avoid existing or potential incentives to manipulate or otherwise influence data inputs (whether or not in order to influence the Benchmark levels), including, without limitation, through appropriate remuneration policies and by effectively addressing conflicts of interest which may exist between the Submitter's Submission activities (including all staff who perform or otherwise participate in Benchmark Submission responsibilities), and any other business of the Submitter or of any of its affiliates or any of their respective clients or customers.

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**Principle 15: Internal Controls over Data Collection**

When an Administrator collects data from any external source the Administrator should ensure that there are appropriate internal controls over its data collection and transmission processes. These controls should address the process for selecting the source, collecting the data and protecting the integrity and confidentiality of the data. Where Administrators receive data from employees of the Front Office Function, the Administrator should seek corroborating data from other sources.

Information on the system, in which transaction data is stored and the Benchmarks are calculated and determined, can be found in more detail under Principle 4. The Riksbank has taken measures to ensure the secure transfer of data from the monetary policy counterparties that report its transaction data to the system. It is only possible for approved submitters to report data.

Prior to calculation of SWESTR, the Riksbank carries out automatic checks of the data that is to form the basis of SWESTR in order to detect any misreporting of data. In addition to purely technical checks — for example, whether transaction data has been reported in the correct format and whether a transaction fulfils the criteria for forming a basis for SWESTR —



the Riksbank carries out checks aimed at detecting both intentional and unintentional misreporting. These checks are based on historical transaction patterns. If the automated checks flag a transaction that is potentially incorrect, it is taken into account only if the reporting agent confirms in good order that the transaction is correct. This procedure involves the reporting agent sending a confirmation code to the Riksbank. The code is unique for each transaction and is only available to the reporting agent.

Average rates and an index are only based on the historical values for SWESTR. Therefore, it has not been considered necessary to have additional data checks prior to determination of these.

Source: The Riksbank

## 4.4 Accountability

The Riksbank considers that the applicable and relevant parts of the principles regarding accountability are complied with.

Principle 19 is not applicable as the Riksbank is not under the supervision of any another authority.

**Table 4. Compliance with the principles of accountability**

The Riksbank's comments on how Principles 16-19 have been implemented

<b>Principle 16: Complaints Procedures</b>	
<p>The Administrator should establish and Publish or Make Available a written complaints procedures policy, by which Stakeholders may submit complaints including concerning whether a specific Benchmark determination is representative of the underlying Interest it seeks to measure, applications of the Methodology in relation to a specific Benchmark determination(s) and other Administrator decisions in relation to a Benchmark determination.</p> <p>The complaints procedures policy should:</p> <ul style="list-style-type: none"> <li>a) Permit complaints to be submitted through a user-friendly complaints process such as an electronic Submission process;</li> <li>b) Contain procedures for receiving and investigating a complaint made about the Administrator's Benchmark determination process on a timely and fair basis by personnel who are independent of any personnel who may be or may have been involved in the subject of the complaint, advising the complainant and other relevant parties of the outcome of its investigation</li> </ul>	<p>The Riksbank has established a complaints function for the Benchmarks that fulfils the requirements of the IOSCO Principles, see <i>SWESTR: Comprehensive information on Sveriges Riksbank's framework for SWESTR</i>.</p> <ul style="list-style-type: none"> <li>a) Complaints can be submitted by anyone, by e-mail or by ordinary letter.</li> <li>b) Any complaints are handled fairly and promptly by members of staff at the Riksbank who are not the subject of the complaint. The Riksbank shall both confirm receipt of the complaint and provide the complainant with a reply, independently of the outcome of the investigation.</li> <li>c) The Oversight Committee is kept informed of any complaints.</li> <li>d) The documentation of complaints is handled in accordance with the Riksbank's general provisions on documentation of matters, including regulatory frameworks for public documents and registration.</li> </ul> <p>Comments, which are not actual complaints, are dealt with within the framework of the Riksbank's monitoring and evaluation of the</p>

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| <p>within a reasonable period and retaining all records concerning complaints;</p> <p>c) Contain a process for escalating complaints, as appropriate, to the Administrator's governance body; and</p> <p>d) Require all documents relating to a complaint, including those submitted by the complainant as well as the Administrator's own record, to be retained for a minimum of five years, subject to applicable national legal or regulatory requirements.</p> | <p>Benchmarks (Principle 10). For information on any corrections to the Benchmarks, see Principle 9.</p> |
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Disputes about a Benchmarking determination, which are not formal complaints, should be resolved by the Administrator by reference to its standard appropriate procedures. If a complaint results in a change in a Benchmark determination, that should be Published or Made Available to Subscribers and Published or Made Available to Stakeholders as soon as possible as set out in the Methodology

**Principle 17: Audits**

The Administrator should appoint an independent internal or external auditor with appropriate experience and capability to periodically review and report on the Administrator's adherence to its stated criteria and with the Principles. The frequency of audits should be proportionate to the size and complexity of the Administrator's operations.

Where appropriate to the level of existing or potential conflicts of interest identified by the Administrator (except for Benchmarks that are otherwise regulated or supervised by a National Authority other than a relevant Regulatory Authority), an Administrator should appoint an independent external auditor with appropriate experience and capability to periodically review and report on the Administrator's adherence to its stated Methodology. The frequency of audits should be proportionate to the size and complexity of the Administrator's Benchmark operations and the breadth and depth of Benchmark use by Stakeholders.

As part of the Riksbank's operations, the Riksbank's Internal Audit Department has a mandate to review the Riksbank's administrator of Benchmarks. Internal Audit is independent of the Riksbank's day-to-day operations. Internal Audit determines which parts of the Riksbank's operations they shall review, but may also be tasked directly from the Executive Board to review specific activities.

In addition, the Executive Board may decide to order an external audit if necessary.

All audit reports, both internal and external, are shared with and followed up by the Oversight Committee.

**Principle 18: Audit Trail**

Written records should be retained by the Administrator for five years, subject to applicable national legal or regulatory requirements on:

- a) All market data, Submissions and any other data and information sources relied upon for Benchmark determination;
- b) The exercise of Expert Judgment made by the Administrator in reaching a Benchmark determination;
- c) Other changes in or deviations from standard procedures and Methodologies,

The Riksbank's policy document for determining and publishing SWESTR, including average rates and an index, states that all documentation of the process that determines a Benchmark value shall be documented for at least five years. All steps of the daily process for determining and publishing the Benchmarks are logged and documented in the IT system.

- a) The system stores the underlying data for SWESTR for at least five years.
- b) Expert judgement is not used to determine the Benchmarks. The provisions of



<p>including those made during periods of market stress or disruption;</p> <p>d) The identity of each person involved in producing a Benchmark determination; and</p> <p>e) Any queries and responses relating to data inputs.</p> <p>f) If these records are held by a Regulated Market or Exchange the Administrator may rely on these records for compliance with this Principle, subject to appropriate written record sharing agreements.</p>	<p>the principle on the documentation of expert judgement are therefore not applicable.</p> <p>c) For all manual interventions, the system also logs the identifying information of the person implementing the intervention.</p> <p>d) The identity of the employees who have worked on a given day with the Benchmarks is kept for at least five years.</p> <p>e) All correspondence with reporting agents is kept for at least five years.</p>
<p><i>When a Benchmark is based on Submissions, the following additional Principle also applies:</i></p>	
<p>Submitters should retain records for five years subject to applicable national legal or regulatory requirements on:</p>	
<p>a) The procedures and Methodologies governing the Submission of inputs;</p> <p>b) The identity of any other person who submitted or otherwise generated any of the data or information provided to the Administrator;</p> <p>c) Names and roles of individuals responsible for Submission and Submission oversight;</p> <p>d) Relevant communications between submitting parties;</p> <p>e) Any interaction with the Administrator;</p> <p>f) Any queries received regarding data or information provided to the Administrator;</p> <p>g) Declaration of any conflicts of interests and aggregate exposures to Benchmark related instruments;</p> <p>h) Exposures of individual traders/desks to Benchmark related instruments in order to facilitate audits and investigations; and</p> <p>i) Findings of external/internal audits, when available, related to Benchmark Submission remedial actions and progress in implementing them.</p>	<p>The provisions of the principle on expert judgement and submissions do not apply.</p>

**Principle 19: Cooperation with Regulatory Authorities**

Relevant documents, Audit Trails and other documents subject to these Principles shall be made readily available by the relevant parties to the relevant Regulatory Authorities in carrying out their regulatory or supervisory duties and handed over promptly upon request.

The Riksbank is an authority under the Riksdag and is not under the supervision of any other authority. The EU Benchmark Regulation, which implements the IOSCO Principles into European law, does not apply to central banks either.

Source: The Riksbank



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