





1. Welcome from the Chair



Agenda

- 1. Welcome
- 2. Introductions
- 3. Developments since the previous meeting
- 4. The framework for SWESTR
- 5. The underlying market for SWESTR
- 6. Consultation on SWESTR
 - a. Earlier publication time for SWESTR
 - b. Increased transparency regarding the transaction dataset
- 7. Year-end and robustness requirements for SWESTR
- 8. Any other business
- 9. Next meeting



2. Introductions



3. Developments since the previous meeting

- Clearing of SWESTR OIS at both Nasdaq and LCH, and first SWESTR bond issued
- The Sveriges Riksbank Act (SFS 2022:1568) in effect since 1 January 2023 very clear mandate to provide SWESTR
- Upcoming changes to the organisation for SWESTR at the Riksbank
 - Statistics Division (Monetary Policy Department) to become internal calculation agent for SWESTR, while the Markets Department remains responsible for operationalising the responsibilities of the Riksbank as administrator
 - Staff responsible for the daily process will move from the Markets Department to the Monetary Policy Department
 - Process of revising the governing documents is in progress organisation change expected to be effective from 31 March, 2023



3. Developments since the previous meeting

- Technical difficulties caused SWESTR for 25 January, 2023 to be determined using alternative calculation method
 - Measures are being taken to prevent similar issues arising again
 - Absolute impact on SWESTR was 0.3 basis points
- The Riksbank intends to publish further analyses regarding SWESTR during the spring
 - Moreover, it is also intended that an annual report on SWESTR be published in the future



4. The framework for SWESTR

- Revised versions of *Policy for transaction-based reference rate SWESTR*, *Rule for the administration of SWESTR* and information document effective since 1 January 2023
 - Annual review of governing documents, including new template
 - The Sveriges Riksbank Act (SFS 2022:1568)
 - Clarifications of formulas
 - Some information from other governing document and/or reporting instructions (e.g. exclusion of intra-group transactions) included in the *Rule* and information document
 - No material changes

Are there any remaining ambiguities and/or is any information missing?



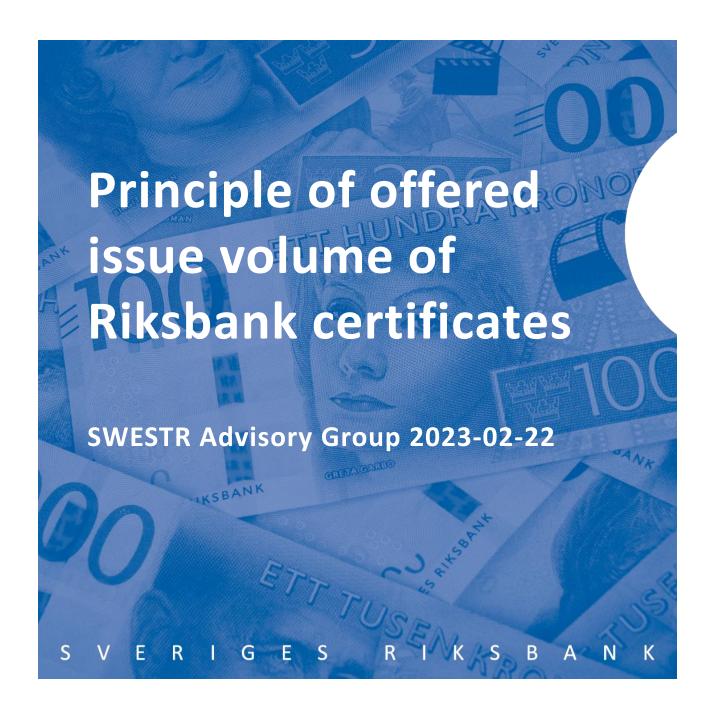
5. The underlying market for SWESTR

The underlying market for SWESTR is defined as the unsecured overnight market in Swedish kronor. The Riksbank invites participants to share information and comments on this market and its functionality.

Since the previous meeting:

- Policy rate raised to 3.0 per cent
- Volume of Riksbank Certificates offered has been increased

The Riksbank is interested in hearing from participants about how this has affected, and can be expected to affect, interest rate formation in the overnight market, as well as the interest rates faced by different types of customers.

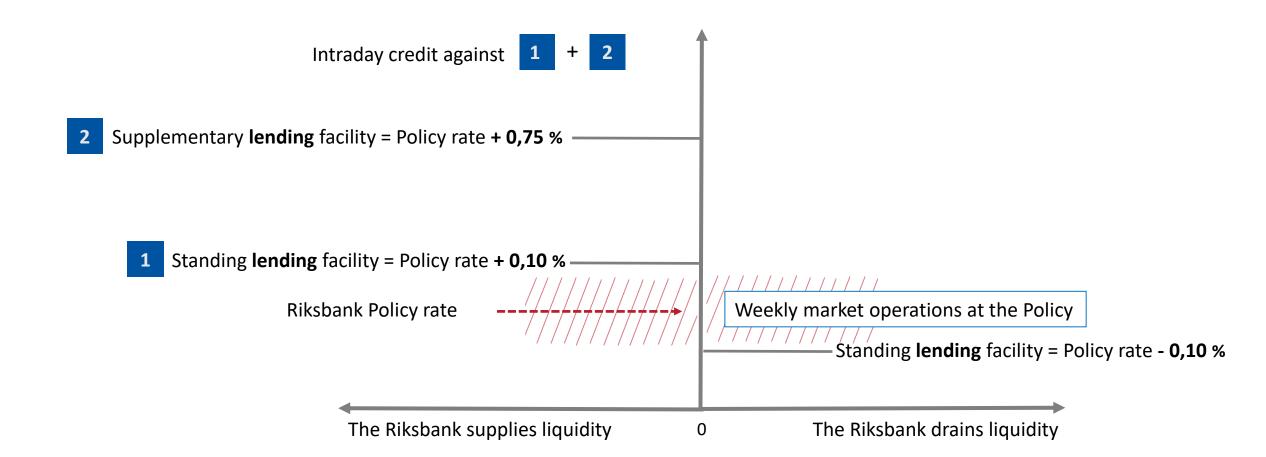




Per Åsberg Sommar AFM/EMS

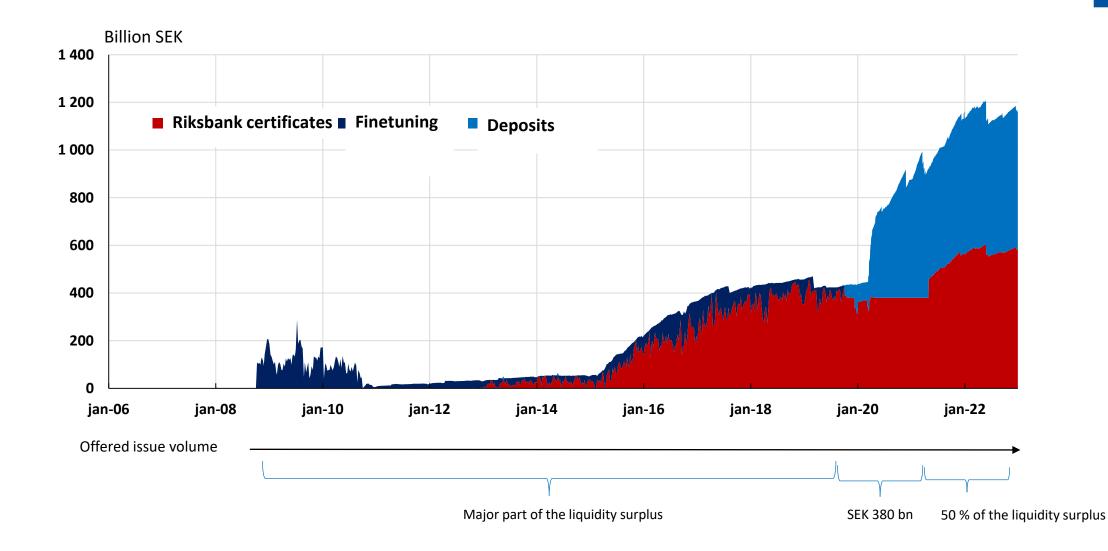
The Riksbank's operational framework for the implementation of monetary policy





The banking system's liquidity surplus









Main rule:

- The Riksbank offers an issue volume that, at each issue, is equal to the banking system's entire liquidity surplus in relation to the Riksbank
 - To facilitate the transition, the Riksbank will limit the offered issue volume by SEK 20 billion for a period of three months (from 14 February to 9 May 2023 inclusive)
 - New principle means new bidding dynamics and places higher demands on counterparties' liquidity forecasts

Purpose:

- Consistent with the intention of the corridor system
- Clearer signaling of monetary policy
- Strengthens incentives for interbank trading





Consequences:

- The average interest rate for the banking system's liquidity position is increased by 0-5 basis points
 - end up at the level of the policy rate if the issues are fully subscribed
- The banking system itself assesses the appropriate amount of frictional liquidity available overnight
- Contributes at the margin to tighter monetary policy



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6. Consultation on SWESTR

- SWESTR: Consultation on early publication and increased information about the transaction dataset
 - Consultation memorandum available in Swedish and translated to English (ref. no. 2023-00261)
 - Seven questions as well as opportunity to give any other feedback
 - Responses and questions can be sent to swestr@riksbank.se
 - Please quote reference number 2023-00261 and the title of the consultation
 - Responses can also be send via ordinary post
 - Responses by 8 March, 2023



Proposed effective dates

| Proposal | Date |
|---|--------------|
| Proposal 2:1 Earlier publication times for SWESTR | 2 May, 2023 |
| Proposal 2:2 Adjusted process for determining and publishing SWESTR | 2 May, 2023 |
| Proposal 3:2 Publication of interest rate levels at the trimming boundaries | 1 June, 2023 |
| Proposal 3:3 Extended information in Report on the transaction dataset for SWESTR | 8 May, 2023 |

Note. The date refers to the publication date of the first SWESTR value to which the proposals will be applied. The numbering of the proposals refers to the sections of the consultation memorandum in which each proposal is presented in detail.

Source: Riksbank





- Facilitates the operational management of contracts and instruments referring to SWESTR
- Harmonises better with international practice regarding publication times
- In line with what AGAR's proposed in their fourth consultation
- Possible to bring the publication forward with continued quality in the determination process

Table 2. Proposed publication times

Calculation and publication times for SWESTR as well as average interest rates and index

| | Ordinary publication | | Possible correction | |
|-------------------------|----------------------|-------------|---------------------|-------------|
| | Calculation | Publication | Calculation | Publication |
| SWESTR | 08:30 | 09:00 | 11:30 | 12:00 |
| Average rates and index | 08:45 | 09:05 | 11:45 | 12:05 |

Note: All times CET.

Source: The Riksbank

- Three hours between ordinary publication and the time of a possible correction
- Average rates and index published five minutes after SWESTR

Requires that the daily process is adjusted

→ Proposal 2:2

- Process is compressed
- Same checks of transaction data as before, but in parallel rather that sequentially

8a. Earlier publication time for SWESTR



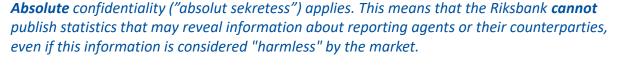
- Questions?
- Comments?

8b. Increased transparency re SWESTR dataset

SVERIGES RIKSBANK

General considerations

- The Riksbank aspires to be transparent regarding SWESTR
- Transparency builds confidence
- IOSCO principles require transparency
- Several central banks publish information on rate dispersion in their datasets
- SWESTR Advisory Group has previously expressed support





A limited market

Also note that the confidentiality regulations apply even if the published statistics in themselves do not reveal anything, if those data in combination with other information can reveal confidential information.

- Confidential pursuant to Chapter 24 Section 8 of the Swedish Public Access to Information and Secrecy Act (2009:400)
- Competition in the unsecured overnight market





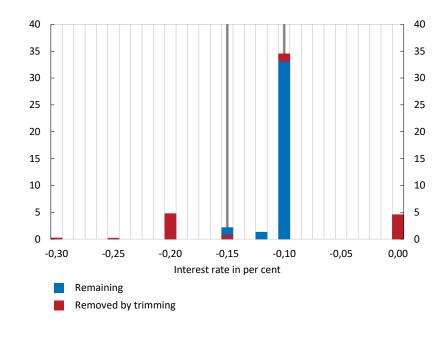
SWESTR and rates at the trimming boundaries

Interest rate levels in per cent

2,50 2,00 1,50 1,00 0,50 0,00 -0,50 Sep-21 Jan-22 May-22 Sep-22 — SWESTR — Rate at lower trimming boundary — Rate at upper trimming boundary

Schematic diagram of rates at the trimming boundaries

Volume in billion SEK and marked trimming boundaries



Source: Riksbank

Note. The grey lines mark the trimming boundaries. The corresponding interest rate levels can be read on the x axis. The chart is based on the actual SWESTR transaction dataset for one day in the first half of 2022.

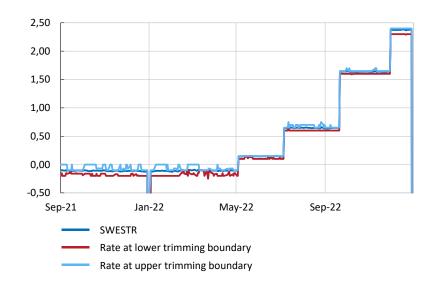




Source: Riksbank

SWESTR and rates at the trimming boundaries

Interest rate levels in per cent



- International practice varies
- Percentiles 12,5 and 87,5 of the transaction volume
- Percentages to two decimal places
- Historical data series to be published

Note. The grey lines mark the trimming boundaries. The corresponding interest rate levels can be read on the x axis. The chart is based on the actual SWESTR transaction dataset for one day in the first half of 2022.





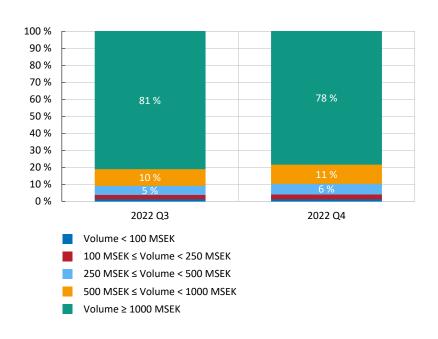
Breakdown of dataset by counterparty category

Percentage breakdown of total volume by counterparty category

100 % 90 % 80 % 35 % 34 % 70 % 60 % 50 % 40 % 30 % 54 % 55 % 20 % 10 % 2022 Q3 2022 Q4 Banks (S122) Financial companies (S123-S129) and National Debt Office Non-financial companies (S11)

Breakdown of the transaction dataset by size category

Percentage breakdown of total volume by size category



Source: Riksbank

Note. Refers to the composition of the aggregate transaction dataset over a period of four calendar quarters ending with the quarter indicated on the x-axis.

8b. Increased transparency re SWESTR dataset Proposal 3:3 Composition of the SWESTR dataset



- Rolling four quarters composition will be shown
- Published in Report on the transaction dataset for SWESTR
 - Published on <u>riksbank.se</u> with just over one month delay
- Charts and tables made public
 - Percentages rounded to nearest percentage point

Table 9. Composition of the transaction dataset - counterparty categories

Percentage breakdown of the total transaction dataset

| First quarter | Last quarter | Banks (S122) | Financial companies (S123-S129) + NDO | Non-financial companies (S11) |
|------------------|-----------------|--------------|--|----------------------------------|
| Q4, 2021 | Q3, 2022 | 54 | 35 | 11 |
| Q1, 2022 | Q4, 2022 | 55 | 34 | 11 |

Note: Refers to the breakdown of the aggregate transaction dataset over the respective four calendar quarter periods.

Source: The Riksbank

Table 10. Composition of the transaction dataset - transaction size

Percentage breakdown of the total transaction dataset

| First quarter | Last quarter | Volume < 100 MSEK | 100 MSEK ≤ Volume < 250 MSEK | 250 MSEK ≤ Volume < 500 MSEK | 500 MSEK ≤ Volume < 1000 MSEK | Volume ≥ 1000 MSEK |
|------------------|-----------------|----------------------|------------------------------------|------------------------------------|-------------------------------------|-----------------------|
| Q4, 2021 | Q3, 2022 | 1 | 3 | 5 | 10 | 81 |
| Q1, 2022 | Q4, 2022 | 1 | 3 | 6 | 11 | 78 |

Note: Refers to the breakdown of the aggregate transaction dataset over the respective four calendar quarter periods.

Source: The Riksbank





- Questions?
- Comments?



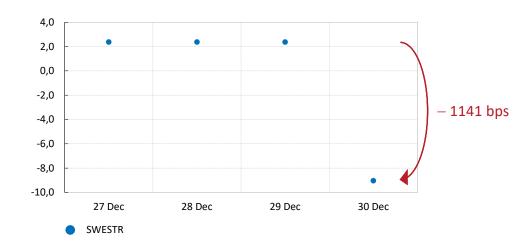
7. Year-end and robustness requirements

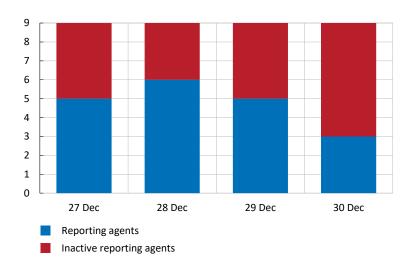
SWESTR fell sharply ahead of year-end

Per cent

Fewer reporting agents had transactions on 30 December

reporting agents





Source: Riksbank



7. Year-end and robustness requirements

- Functioning of the overnight market ahead of year-end 2022/2023
- Interaction of robustness requirements for SWESTR with interest rate formation and activity ahead of year-end.
- What if robustness requirements not met, or technical failure, on the first or second banking day of the New Year?



8. Any other business



9. Next meeting

• Riksbank's proposal: Late September or Early October



Extra



Table 4. Publication times for reference rates provided by central banks Fully transaction-based reference rates administered by central banks

| Country | Reference rate | Publication time | Correction time |
|---------------|-------------------|------------------|-----------------|
| Sweden | SWESTR | 11:00 | 14:00 |
| Denmark | DESTR | 10:00 | 11:00 |
| Euro area | €STR | 08:00 | 09:00 |
| Norway | NOWA | 09:00 | 11:00 |
| Canada | CORRA | 09:00 | 11:00 |
| UK | SONIA | 09:00 | 12:00 |
| United States | SOFR | 08:00 | 14:30 |

Note. All times are local. Please note that the ECB's regulations for €STR state that €STR should be published no later than 09:00 CET (ordinary publication) and that any corrected value should be published no later than 11:00 CET. Normally, however, €STR is published at 08:00 CET, while any correction is published at 09:00 CET.

Source: Respective central banks

Table A1.1. Process for determining and publishing SWESTR (ordinary publication)
Proposal for adjusted process for determining and publishing SWESTR

| | The Riksbank | Reporting agents |
|--------------------------------------|---|--|
| No later than 07:00 | In direct connection with transac- tion reporting, transaction data are also checked to detect anoma- lous transactions in the form of extreme values. The results are communicated directly to the re- spective reporting agents, who must follow up any flagged trans- actions. | Reporting agents must report transaction data for all short-term money market transactions executed on the previous day by 07:00 at the latest. |
| After 07:00 (no later than 07:30) | The Riksbank carries out pair matching checks on transac- tions. ²² The Riksbank will carry out this | If reported data for transactions between reporting agents do not match, the reporting agents should resolve the situation and submit corrections. |
| | check both when all reporting agents have submitted their re- ports and as scheduled at 07:30. | |
| No later than 08:00 | | By 08:00 at the latest, reporting agents shall have reported the sta tus of the extreme value check and the pair matching check, and, where appropriate, shall have made updates to reported transaction data. |
| 08:30 | Calculation of SWESTR is carried out at 08:30. This includes trim- ming the transaction dataset and checking that robustness require- ments have been met. | |
| 08:45 | Calculation of average rates and index based on SWESTR are car- ried out at 08:45. | |
| 09:00 | Publication of SWESTR. | |
| 09:05 | Publication of average rates and index based on SWESTR. | |

Source: The Riksbank



Table A1.2. Process for determining and publishing SWESTR (possible correction)
Proposal for adjusted process for determining and publishing SWESTR

| | The Riksbank | Reporting agents |
|--|---|---|
| Ongoing since the morning | In direct connection with transaction reporting, transaction data are also checked to detect anomalous transactions in the form of extreme values. The results are communicated directly to the respective reporting agents, who must follow up any flagged transactions. | Reporting agents take measures to report delayed transactions and/or provide feedback on de- layed validations. |
| When new transac- tion data has been re- ceived by the Riks- bank | The Riksbank carries out a new pair matching check as soon as new transaction data are received. ²⁶ | If reported data for transactions between reporting agencies do not match, the reporting agent should resolve the situation and submit corrections. |
| 11:30 | Calculation of SWESTR is carried out at 11:30. This includes trim- ming the transaction dataset and checking that robustness require- ments have been met. | |
| | If the new calculation differs by more than 2 basis points (0.02 percentage points) from the de- termined SWESTR value, a new corrected value for SWESTR shall be determined. | |
| 11:45 | Calculation of average rates and index based on SWESTR are carried out at 11:45. | |
| | Corrected values are determined only if a corrected value for SWESTR has been determined and/or in the event of an error in a previous calculation. | |
| 12:00 | Possible publication of corrected SWESTR. | |
| 12:05 | Possible publication of corrected values for average rates and in- dex based on SWESTR. | |

Source: The Riksbank

Table 8. Publication of interest-rate levels at volume weighted percentiles Fully transaction-based reference rates administered by central banks

| Country | Reference rate | Туре | Percentiles at a est-rate level i | | Comments |
|------------------|-------------------|-----------|--|---------------------|---|
| Sweden | SWESTR | Unsecured | 51 | 51 | .5 |
| Den- mark | DESTR | Unsecured | 80 | ÷ | ¥ |
| Euro area | €STR | Unsecured | 25, 75 (two decimal places) | Before trimming | A total of 50 per cent of the transaction dataset is trimmed away in a sym- metrical way. The percen- tiles correspond to the trimming boundaries. |
| United States | SOFR | Secured | 1, 25, 75, 99 (two decimal places) | After trim- ming | Only limited trimming of the transaction dataset. For one segment, some filtering is done to ex- clude so-called specials. Otherwise no trimming is done. Published percen- tiles are based on the trimmed transaction da- taset. |
| uĸ | SONIA | Unsecured | 10, 25, 75, 90 (two decimal places) | Before trimming | A total of 50 per cent of the transaction dataset is trimmed away in a sym- metrical way. The middle percentiles correspond to the trimming boundaries. |
| Norway | NOWA | Unsecured | * | 8 | - |
| Canada | CORRA | Secured | 5, 25, 75, 95 and the inter- est rate at the trimming boundary (four decimal places) | After trim- ming | 25 per cent of the trans- action volume with the lowest interest rates is trimmed away asymmet- rically in order to exclude so-called specials. The percentiles are based on the trimmed transaction dataset. The interest rate at the trimming boundary is also published. |

Source: Respective central banks

