



Annual report on SWESTR

# The development of SWESTR in 2024

Markets Department

March 2025

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# Annual report on SWESTR (Swedish krona Short Term Rate)

## About the report

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Sveriges Riksbank started publishing values for the transaction-based reference rate SWESTR on 2 September 2021. The reference rate is based on transaction data from the banks' overnight deposits and is collected from the Riksbank's monetary policy counterparties. At present, the dataset consists of transactions from nine banks.

*As administrator of SWESTR, the Riksbank is responsible for monitoring, evaluating and ensuring compliance of SWESTR with the IOSCO Principles for Financial Benchmarks. The publication of this report is also part of safeguarding transparency in the calculation of SWESTR. This report refers to the calendar year 2024.*

The report is divided into three parts. The *first part* examines whether SWESTR is reliable in relation to the development of the Riksbank's policy rate and in relation to market rates. It also illustrates and comments on the transaction dataset and its representativeness.

The *second part* highlights the development of the underlying data for SWESTR. For example, it takes into account differences in the interest rates faced by different sectors and whether the current transaction dataset captures the entire relevant overnight market for unsecured loans.

The *third part* evaluates the criteria set to maintain a robust SWESTR at the time of calculation. The criteria are trimming levels and robustness criteria.

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## Summary

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In summary, SWESTR and its associated regulatory framework are considered to be designed to enable a fair overnight rate for unsecured deposits to be published. The transaction dataset on which SWESTR is based is considered to be representative of this type of deposit. The transaction dataset also shows that the reporters accept deposits of kronor at an interest rate close to the Riksbank's deposit rate. Trimming levels and robustness criteria are the parameters set to maintain a reliable SWESTR, and they are still assessed to be adequate.

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# 1 Methodology

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This part of the report focuses on how well the methodology used to derive SWESTR works to produce a reference rate that reflects the overnight rate. If the method works, it means that the reference rate produced has followed the Riksbank's policy rate and deposit rate and is representative in relation to market rates. It is important that SWESTR is representative to maintain confidence in it as a reference rate.

The reliability of SWESTR is considered high and the conditions are right for it to remain so. The volumes in the SWESTR transaction dataset are stable and have grown over time, indicating that market liquidity remains favourable. Deposits mainly come from the financial sector in the broad sense, which means that the level of SWESTR is mainly determined by large transactions.

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## 1.1 Reliability of published data

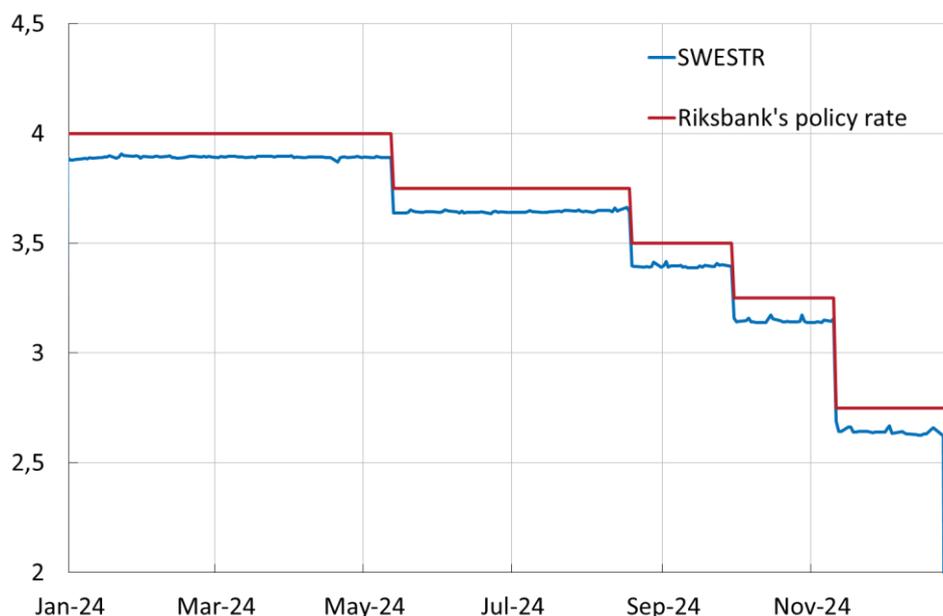
In 2024, the Riksbank cut the policy rate by 25 basis points on three occasions and by 50 basis points on one occasion.<sup>1</sup> SWESTR closely followed the Riksbank's policy rate, averaging 10.6 basis points below the policy rate if the last day of the year is disregarded (Diagram 1). This corresponds to a level just below the Riksbank's deposit rate. Including the last day of the year, the average deviation from the policy rate was -13.4 basis points. As in the past, on the last banking day of 2024, SWESTR recorded a clear, temporary deviation due to the banks' pricing behaviour on that day. This deviation is known as the year-end effect. The reason for the decline is that the banks whose transactions form the basis for SWESTR in many cases choose to offer their customers significantly lower investment rates over the year-end to compensate for the costs of resolution fees and bank taxes.

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<sup>1</sup> In addition to these changes to the policy rate, the Executive Board of the Riksbank also took a decision on 18 December to cut the policy rate by 25 basis points to 2.50 per cent. However, this decision did not become effective until 8 January 2025.

**Diagram 1. SWESTR and the Riksbank's policy rate, 2024**

Per cent.



Note. The value for SWESTR on 30 December 2024 was -4.347 per cent.

Source: The Riksbank

The pass-through to SWESTR from the Riksbank's policy rate changes over the period was significant and was more or less fully realised (see Tabell 1, last column). Moreover, there was no significant or systematic difference in the pass-through when comparing the reporters' different groups of counterparties. Although non-financial companies generally faced lower and more volatile deposit rates, the pass-through from policy rate changes was also stable for this group of counterparties.

**Tabell 1. Changes in policy rate and SWESTR, 2024, and pass-through.<sup>2</sup>**

Per cent and basis points respectively

|                         | Policy rate | Policy rate change | SWESTR level | SWESTR change | Pass-through |
|-------------------------|-------------|--------------------|--------------|---------------|--------------|
| <b>15 May 2024</b>      | 3.75        | -0.25              | 3.639        | -0.252        | 101%         |
| <b>21 August 2024</b>   | 3.5         | -0.25              | 3.397        | -0.247        | 99%          |
| <b>2 October 2024</b>   | 3.25        | -0.25              | 3.159        | -0.235        | 94%          |
| <b>13 November 2024</b> | 2.75        | -0.5               | 2.689        | -0.467        | 93%          |

Source: The Riksbank

However, the pass-through in connection with the October and November rate cuts was smaller than usual in terms of the interest rate received by counterparty banks from reporters on these two occasions.<sup>3</sup>

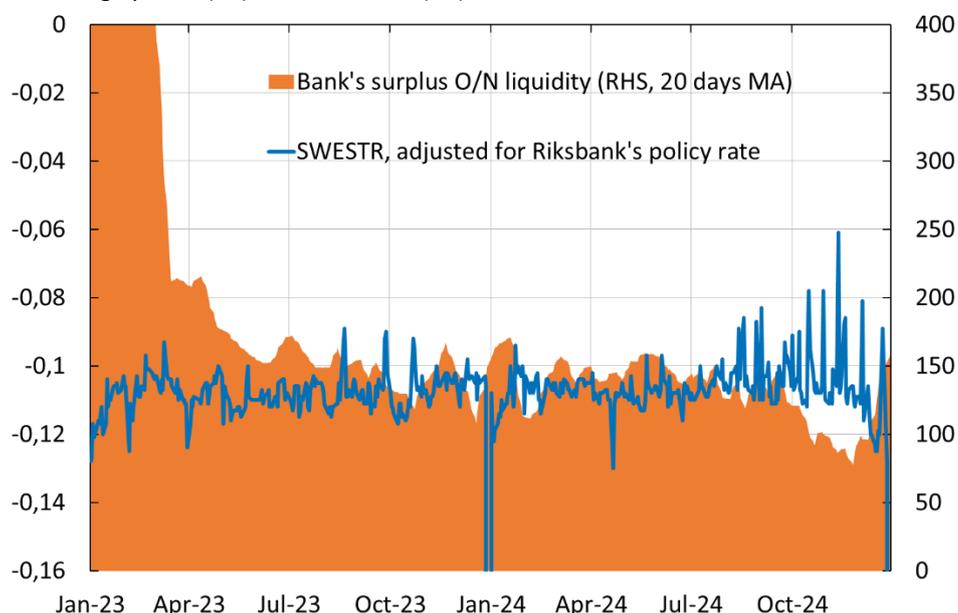
<sup>2</sup> Due to confidentiality rules, the pass-through from policy rate changes to individual counterparty groups is not specified.

<sup>3</sup> However, it should be noted that a partial explanation for the lower pass-through from policy rate changes for the 'Banks' counterparty group is due to misreporting.

The rates offered by reporters to banks were generally more volatile in the latter part of 2024, occasionally reaching higher levels than before, which also affected the published SWESTR (Diagram 2). As with other money market rates, the higher volatility can be observed in the context of the shrinking of daily liquidity in the banking system (also known as central bank reserves). The shrinkage was due to periodically high demand for Riksbank Certificates at the same time as the Riksbank's quantitative tightening continued.<sup>4</sup>

Thus, in a process of adjustment to tighter liquidity conditions, banks have on average had to pay more to receive deposits from other banks (Diagram 10).

**Diagram 2. Liquidity in the banking system and SWESTR adjusted for the policy rate**  
Percentage points (VS) and SEK billion (HS)



In December both non-financial companies and banks faced lower interest rates, which meant that the lower trimming limit and the published SWESTR fell to slightly lower levels. However, for the year as a whole, the difference between the upper and lower trimming limit has remained on average at the same level as in 2023 (8 basis points). To summarise, the published SWESTR was relatively stable in the range of 10-12 basis points lower than the Riksbank's policy rate in 2024.

*Overall, SWESTR is considered to be a stable reference rate with a high degree of reliability, with regard to the rate setting for an overnight unsecured loan.*

## 1.2 Transaction dataset

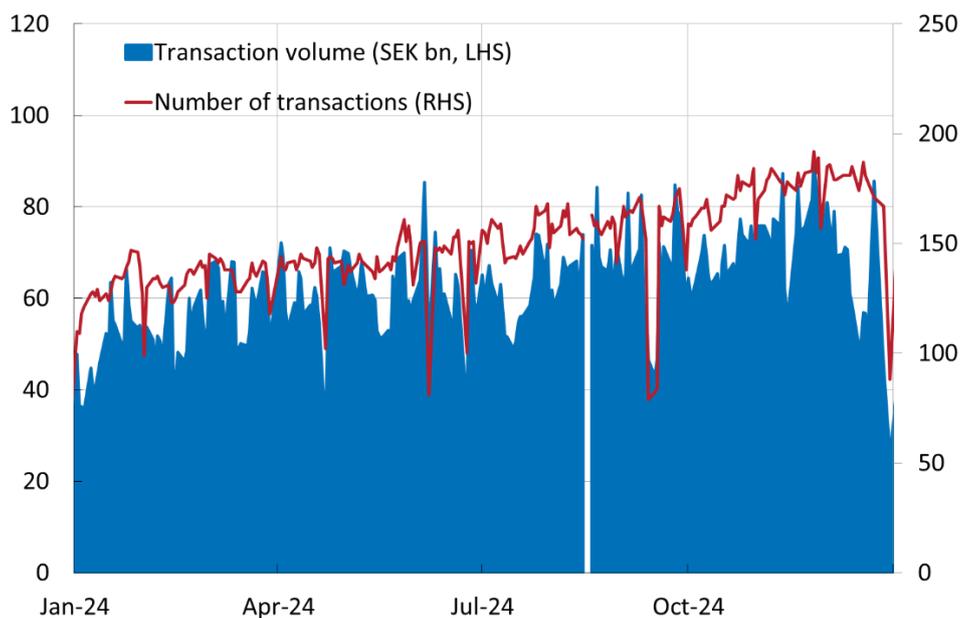
The transaction volumes on which SWESTR is based continued to increase, from SEK 58 billion to SEK 62 billion on average per day between 2023 and 2024. At the same

<sup>4</sup> When SEK-denominated securities on the Riksbank's balance sheet mature or are sold, the monetary policy liability decreases, i.e. the banks' liquidity surplus gradually becomes smaller.

time, the number of transactions has increased more significantly (Diagram 3). It is thus the smaller transactions in terms of amount that have continued to increase. This is mainly due to a greater interest from financial and non-financial companies in depositing funds with banks, compared with the interest in interbank deposits. A partial explanation for the increase in small investments is that, in some cases, new technological solutions are making liquidity management for financial and non-financial companies more automatic.

**Diagram 3. Transaction volume and number of reporters (daily data)**

SEK billion and number, respectively.

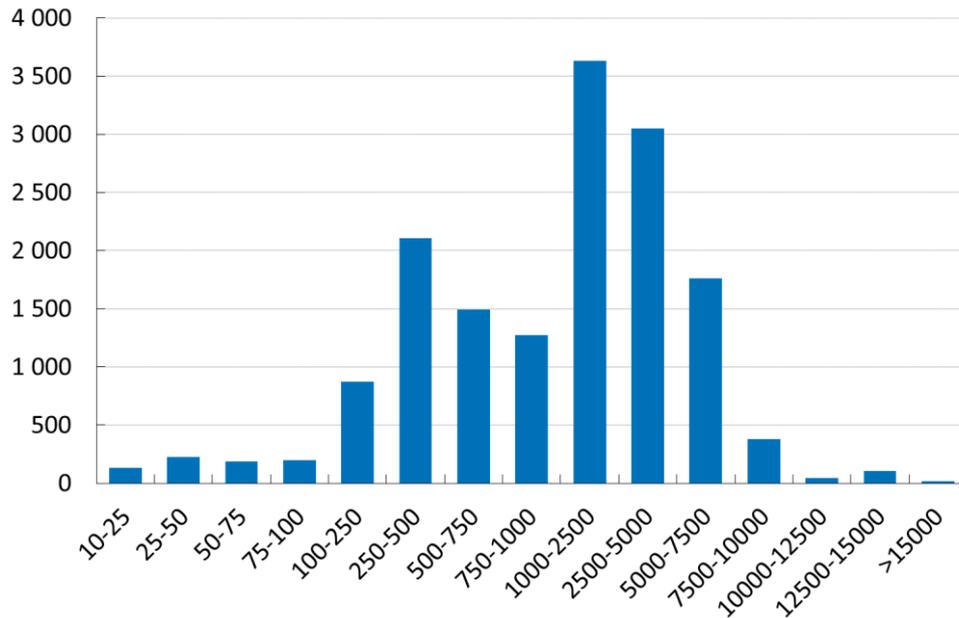


Source: The Riksbank

However, the transaction dataset's overall volume was dominated by a smaller number of transactions involving large amounts, mainly between banks. Transactions of amounts between SEK 1,000 and 7,500 million weigh heavily in the calculation of SWESTR. At the same time, transactions of SEK 100 million or less accounted for an infinitesimal small share of the total transaction volume on an average day (Diagram 4). They therefore have very little impact on the published SWESTR.

**Diagram 4. Transaction dataset broken down by transaction size in intervals**

Million SEK (2024)

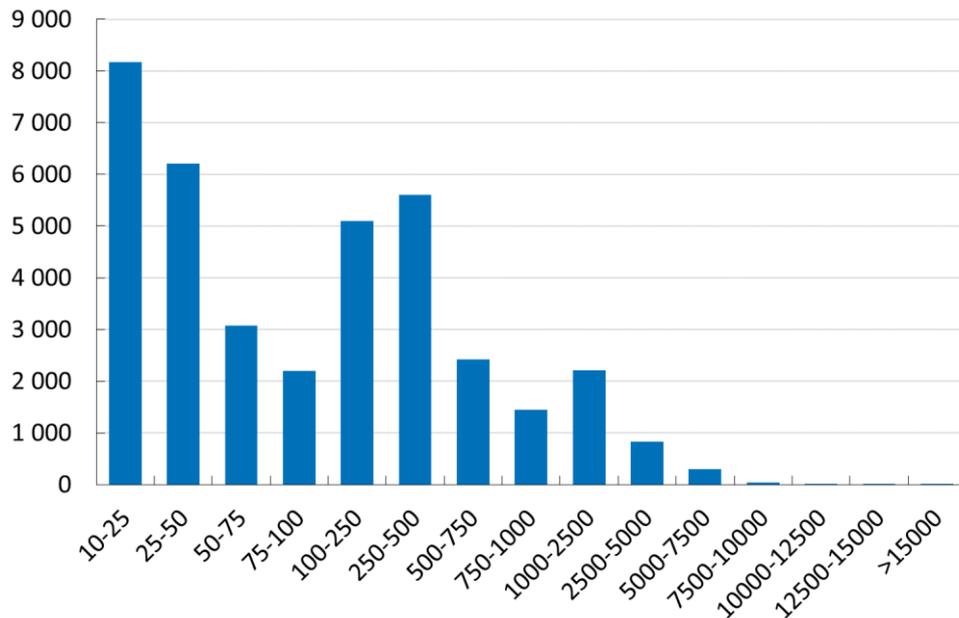


Source: The Riksbank

However, looking at the *number* of transactions gives a different picture. Almost 40 per cent of the *number* of transactions in the dataset were in the interval SEK 10-50 million, (Diagram 5).

**Diagram 5. Transaction dataset broken down by number of transactions in each interval**

Number of transactions. X-axis: intervals in mn SEK (2024)



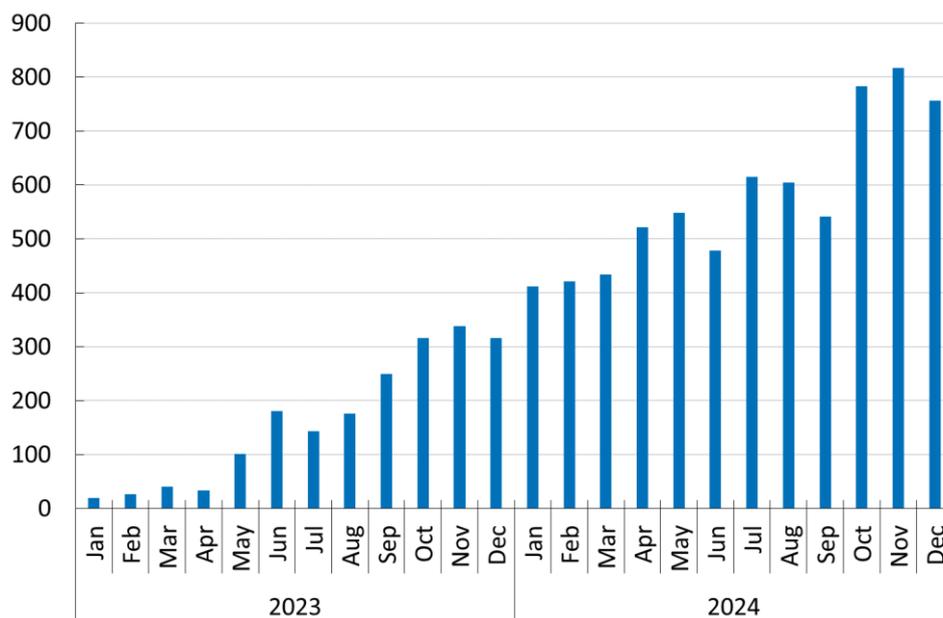
Source: The Riksbank

On the other side of the spectrum, transactions of SEK 1,000 million or more accounted for only 10 per cent of the *number* of transactions during the period. However, as SWESTR is volume-weighted, they still contributed significantly to the level at which SWESTR was valued.

There remained a clear division among reporters in terms of the type of counterparty categories from which reporters receive deposits. The market for deposits from other banks, financial companies and non-financial companies thus remains segmented.

With regard to counterparty categories, it can also be noted that the number of transactions lacking counterparty classification (transactions without a so-called LEI code) continued to increase significantly during the year (Diagram 6). However, these transactions did not have a significant impact on the level of SWESTR, as they still accounted for no more than 1.0 per cent of the volume of the total transaction dataset in 2024.

**Diagram 6. Number of transactions per month with no LEI code**



Note. For confidentiality reasons, this data is pooled per month.

Source: The Riksbank

While transactions without an LEI code are predominantly small, transactions below SEK 100 million increased overall in 2024. Of the total transaction dataset, these smaller transactions accounted for less than 5 per cent of the volume, but at the same time accounted for around half of the number of transactions in 2024 (see Table 2). Non-financial companies continued to invest smaller amounts to the greatest extent, while reporters also received more small investments from other banks to some extent in 2024. The average transaction in the transaction dataset was smaller in 2024 for all counterparty groups, compared with 2023.

**Tabell 2. Transactions with a volume of less than SEK 100 million, 2024**

Per cent and SEK million in 2024 banks, as well as 2023 in brackets

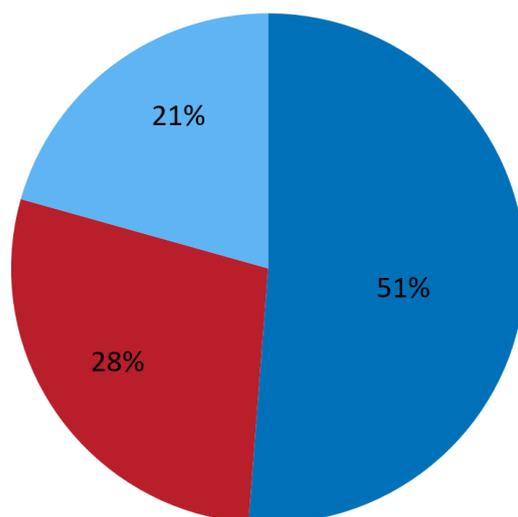
|   | Entire dataset | Banks        | Financial companies and Swedish National Debt Office | Non-financial companies |
|---|----------------|--------------|--|-------------------------|
| Share of transaction volume derived from transactions < SEK 100 million             | 5%<br>(3%)     | 3%<br>(2%)   | 2%<br>(2%)   | 13%<br>(5%)             |
| Share of the number of transactions originating from transactions < SEK 100 million | 51%<br>(38%)   | 29%<br>(28%) | 39%<br>(42%)   | 76%<br>(57%)            |
| Average size of individual transactions   | 412<br>(566)   | 406<br>(522) | 914<br>(1055)  | 219<br>(418)            |
| Median size of individual transactions  | 91<br>(193)    | 210<br>(295) | 170<br>(139)   | 40<br>(62)              |

Source: The Riksbank

*Overall, the transaction dataset is considered stable.*

### 1.3 Representativeness

The transactions that make up SWESTR continue to be dominated by banks and financial corporations, including the Swedish National Debt Office, which, as in the previous year, accounted for 79 per cent of the transaction dataset. Transactions with non-financial corporations thus accounted for 21 per cent of the dataset (Diagram 7).

**Diagram 7. Volume of transaction dataset by type of counterparty (percentage share, 2024)**

- Banks
- Financial corporations and Swedish National Debt Office
- Non-financial corporations

## 2 Underlying data

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This part of the report highlights how representative the transaction dataset is for the overnight market for unsecured deposits.

The overnight market is the most liquid part of the unsecured deposit market. Banks and financial companies deposit kronor at an interest rate that is stable at a level close to the Riksbank's deposit rate. Non-financial companies deposit funds in kronor at a lower interest rate but relatively close to the interest rates faced by banks and financial companies. Non-financial companies continued to account for just over one-fifth of the SWESTR transaction dataset.

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### 2.1 Maturity analysis

Almost all unsecured deposits (97.0 per cent) were placed in the overnight market, while a very small share was placed in the market for deposits from *tomorrow to next business day* (T/N) or up to one week. Furthermore, the transaction dataset on which SWESTR is based had a very good coverage of the overnight market for unsecured loans in Swedish kronor. If SWESTR's transaction dataset is compared with data from the financial market statistics<sup>5</sup>, these statistics indicate that SWESTR was based on overnight transactions, which represented around 98–99 per cent of the underlying market in 2024.

### 2.2 Sectoral analysis

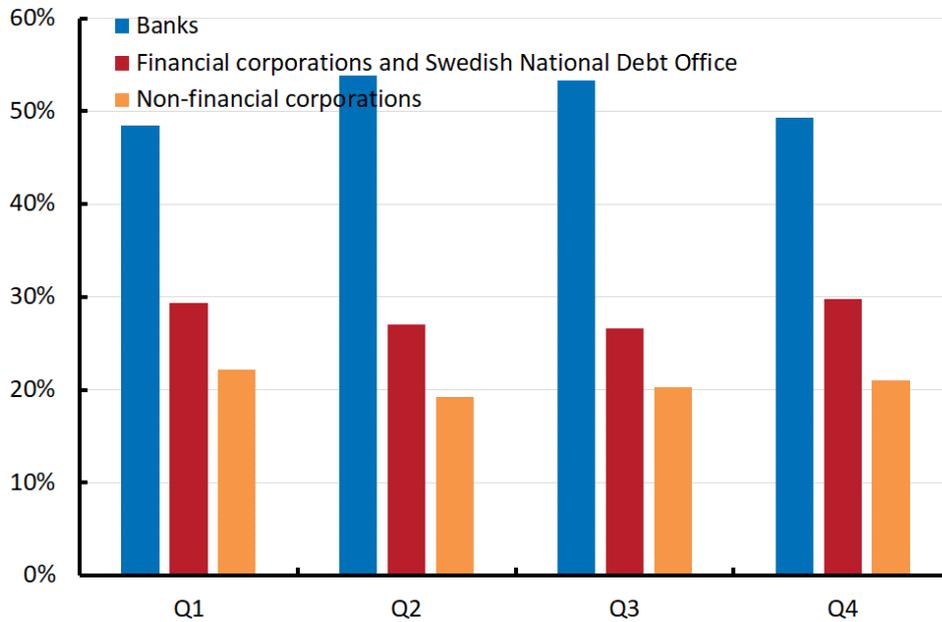
Just over 51 per cent of reporters' unsecured overnight deposits were from other banks in 2024, which is slightly lower than in 2023. Deposits by non-banks have thus received slightly more weight than before.

However, there have been no trend shifts between counterparty groups in the SWESTR transaction dataset. Transaction volumes increased for all counterparty groups. As a result, deposits from non-financial companies, for example, remained at around 20 per cent of the total transaction dataset in each quarter, while deposits from other banks were around 50 per cent of the transaction dataset in all quarters of 2024 (Diagram 8).

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<sup>5</sup> Statistics Sweden collects balance sheet statistics from monetary financial institutions (MFIs) on a monthly, quarterly and annual basis, on behalf of the Riksbank.

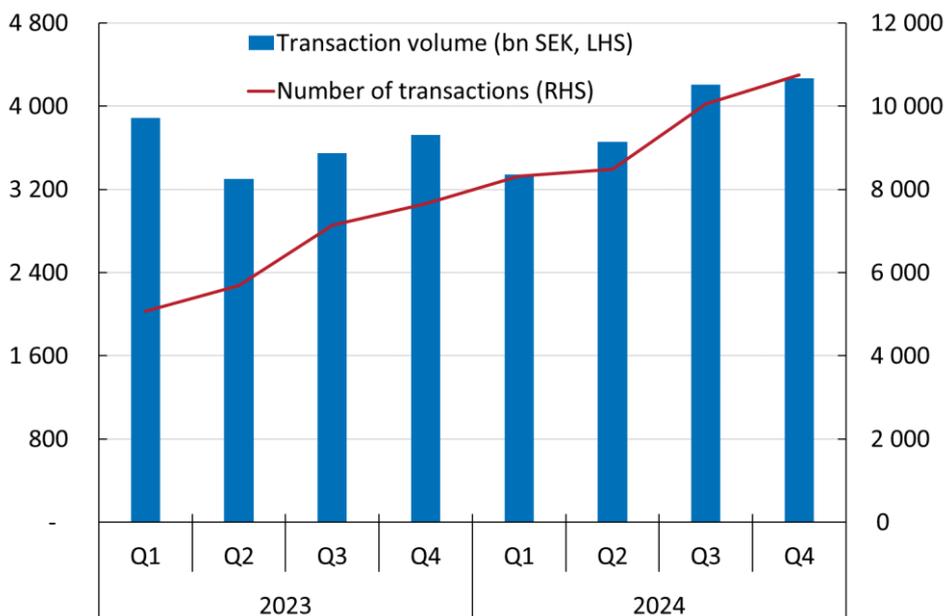
**Diagram 8. Share of total transaction dataset from different counterparty categories (per cent of total deposits). Average per quarter, 2024**



Source: The Riksbank

The overall higher turnover volumes in the SWESTR transaction dataset imply an increase in reporters' deposits from other banks, despite banks accounting for a relatively constant share of the total transaction dataset. Reporters' deposits from banks increased in both volume and number of transactions over the year (Diagram 9).

**Diagram 9. Deposits from the 'Banks' counterparty group, volume and number of transactions**

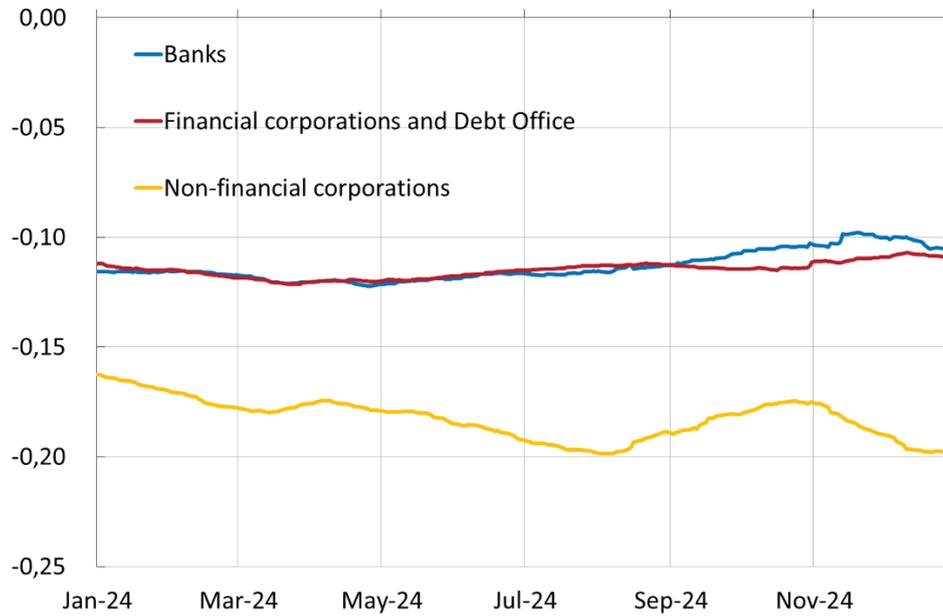


Source: The Riksbank

An increase in deposits from banks occurred as activity in the unsecured interbank market picked up in the third and fourth quarters, when banks' daily liquidity surpluses decreased. A smaller liquidity surplus in the banking system and a more active interbank market are also reflected in pricing, with reporters paying higher interest rates to banks towards the end of the year (Diagram 10). In particular, monetary policy counterparties of the Riksbank received a higher interest rate when reporters deposited liquidity overnight.

**Diagram 10. Interest rate differential against the Riksbank's policy rate for different counterparty categories**

Percentage points. Rolling average 60 banking days.



Source: The Riksbank

Note. Year-end values are excluded from the calculations.

### 3 Parameters for the calculation of SWESTR

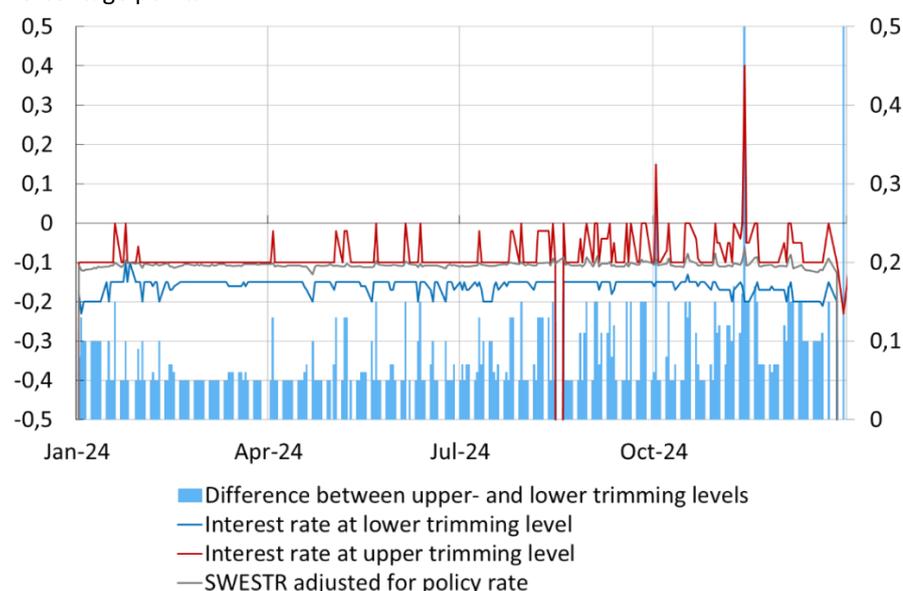
This part of the report evaluates the criteria for calculating SWESTR. This includes evaluating the trimming level and robustness criteria. If the transaction dataset does not fulfil the robustness criteria, an alternative calculation method is used. The parameters set to maintain a robust SWESTR are still deemed to be adequate, while developments in the overnight market have reinforced the conditions for a high level of confidence in SWESTR.

#### 3.1 Trimming level

SWESTR is determined as a volume-weighted average rate after the transaction dataset has been trimmed by 25 per cent of the total volume. Trimming means excluding 12.5 per cent of the transactions with the highest interest rate and 12.5 per cent of the transactions with the lowest interest rate. The purpose of trimming is to obtain a more homogeneous and stable transaction base, which is not affected by possible outliers. Therefore, transactions with unusually high or unusually low interest rates, which may therefore not be determined on a market basis, are excluded. Based on the transaction dataset, it appears that the data is still biased towards *low* extreme values, which can mainly be attributed to transactions with non-financial companies (Diagram 11).

**Diagram 11. Difference between SWESTR and policy rate, plus trimming levels**

Percentage points.

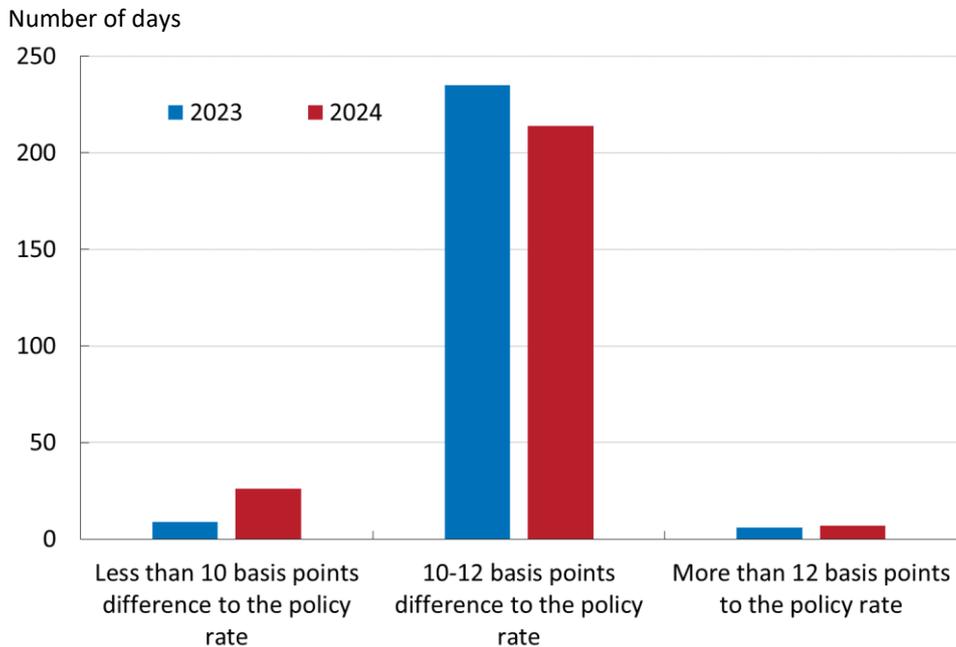


Source: The Riksbank

Of the transaction dataset remaining after trimming, reporters' interest rates have, as in previous years, remained relatively stable at a level 10-12 basis points below the Riksbank's policy rate. However, to a greater extent than previously, deviations with higher interest rates (closer to the policy rate) have been observed in 2024 (Diagram 12), which may be due to an adjustment process in market conditions with less liquidity in the banking system.

In December both non-financial companies and banks faced lower interest rates, which meant that the lower trimming limit and the published SWESTR fell to slightly lower levels. However, for the year as a whole, the difference between the upper and lower trimming limits has remained on average at the same level as in 2023 (8 basis points).

**Diagram 12. Deviation of SWESTR from the policy rate number of days in 2023 and 2024**



Source: The Riksbank

*A trimming level of 25 per cent is still considered adequate.*

## 3.2 Robustness criteria

The Riksbank's regulatory framework for SWESTR includes continuity measures, meaning that a SWESTR listing can be published even if one or more of the so-called robustness requirements for the transaction dataset are violated. In 2024, the robustness criteria meant that the transaction dataset could be considered robust as long as

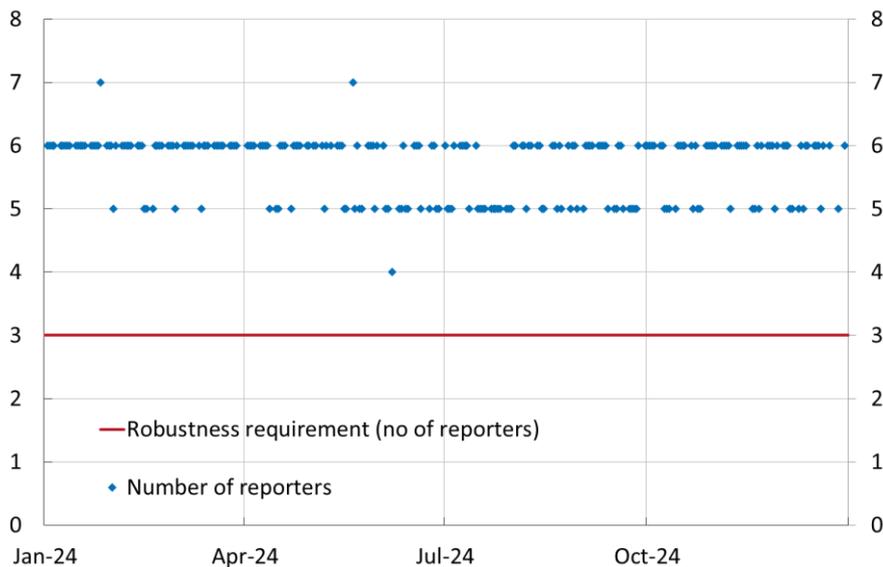
1. at least three banks report transactions
2. the total transaction dataset from all banks amounts to at least SEK 6 billion for the period 1 January–22 September and at least SEK 2 billion for the period 23 September–31 December.<sup>6</sup>
3. a single reporter accounts for no more than 75 per cent of the reported transactions.

An alternative calculation method is used in case of violation of one or more criteria and in case of technical errors. By definition, the robustness criteria were not breached at any point in 2024. However, on 16 August, an alternative calculation method was used following a technical error that prevented reporters from reporting transactions.

### Number of reporters requirement

The number of reporters was typically six out of a possible nine in 2024 (average: 5.7) and never down at the robustness criteria of three reporters on any day. On 1 occasion, only four banks reported transactions (Diagram 13).

**Diagram 13. Robustness requirements for SWESTR. Number of reporters**



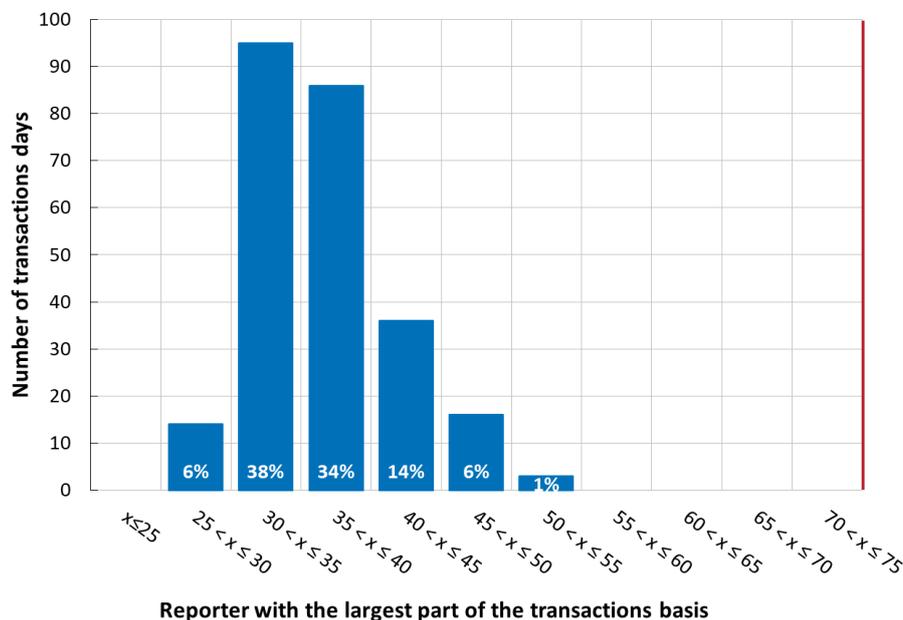
Source: The Riksbank

<sup>6</sup> On 27 May 2024, the Executive Board of the Riksbank decided on changes to the Riksbank's regulatory framework, including a lowering of the limit for an acceptable transaction volume from SEK 6 billion to SEK 2 billion with effect from 23 September 2024.

### Single reporter concentration requirement

Of the nine banks that reported to SWESTR, the four largest still account for just over 99 per cent of transactions, which is deemed satisfactory. The concentration of transactions by the reporter that accounted for the largest share of the transaction volume on any given day fluctuated just below 40 per cent in 2024, i.e. slightly lower than in 2023 and well below the 75 per cent tolerance value (Diagram 14). However, during the technical problem that prevented reporting on 16 August, the concentration was above 75 per cent.<sup>7</sup> The alternative calculation method was used on this occasion.

**Diagram 14. Robustness requirements for SWESTR. Concentration on the counterparty with the highest transaction volume and concentration requirements (> 75 per cent). 2024.**



Note. For confidentiality reasons, this figure is presented with bars representing concentration intervals.

Source: The Riksbank

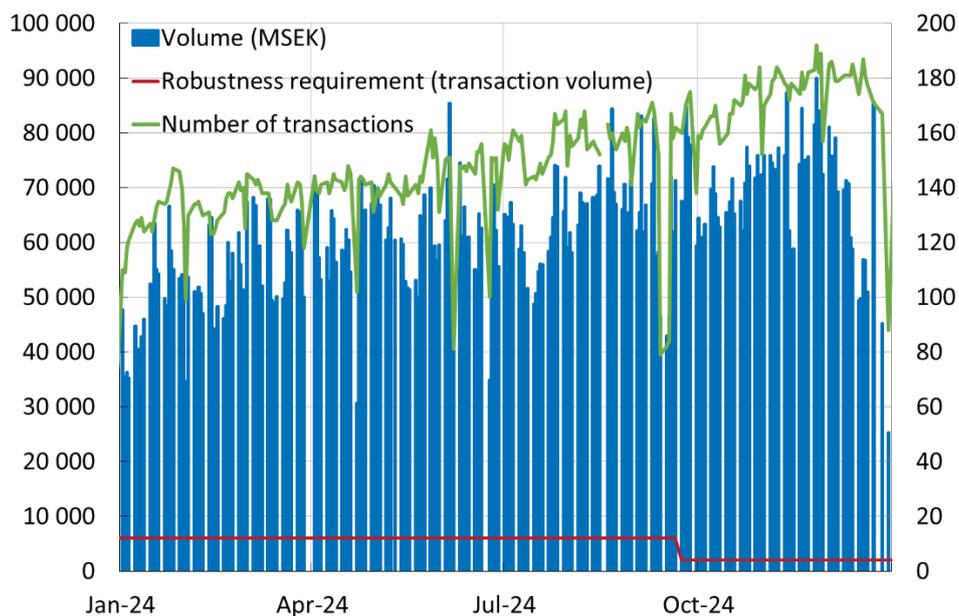
### The transaction volume requirement

The volume of transactions on an average day was SEK 62 billion. On the last day of the year, the transaction volume was around SEK 25 billion, which was the lowest value of the year but still far from the robustness requirement of SEK 2 billion (Diagram 15). The second smallest transaction volume of the year was just below SEK 31

<sup>7</sup> For 16 August 2024, SWESTR was calculated using an alternative calculation method. A disruption in the Riksbank's IT environment during the morning meant that only a subset of the transaction dataset arrived in time for the first calculation. This meant that the robustness requirements for SWESTR were not met. Therefore, under the regulatory framework applicable until 22 September 2024, the alternative calculation method was used on the grounds that the robustness requirements were not met, which was also initially stated as the reason at the time of publication. However, upon manual assessment, the reason was changed to "technical error". As of 23 September, the same alternative calculation method is used in the event of both technical errors and non-compliance with the robustness requirements.

billion on another occasion. The number of transactions trended upwards during the year, averaging 150 per day, which is around 50 per cent more than in 2023.

**Diagram 15. Robustness requirements for SWESTR, total transaction volume (SEK million) and number of transactions.**



Source: The Riksbank

Based on historical data, there is no reason to question any of the current robustness requirements. The data show a robust transaction dataset, which improved in 2024. However, on 27 May 2024, the Executive Board of the Riksbank decided on changes to the Riksbank's regulatory framework, including a lowering of the limit for an acceptable transaction volume from SEK 6 billion to SEK 2 billion with effect from 23 September 2024. The regulatory framework was changed to increase the predictability of SWESTR around year-ends and thereby the possibility of using SWESTR as a reference rate in financial contracts.

# Glossary

**Overnight rate:** The interest earned on overnight investments or deposits.

**Financial company:** This includes insurance companies, asset managers and fund management companies.

**Non-financial company:** Companies whose main activity is not financial, such as companies in the manufacturing industry.

**IOSCO:** International Organization of Securities Commissions, an organisation whose members regulate and supervise securities markets. Among its other activities, the organisation has published a framework of principles for the development and administration of financial benchmarks (Principles for Financial Benchmarks, July 2013). This framework is important for how the Riksbank administers SWESTR.

**LEI code:** LEI stands for *Legal Entity Identifier* and is a 20-digit alphanumeric code used to uniquely identify legal entities that trade in securities.

**Counterparty:** Agent from which the reporter receives deposits at a given interest rate and transaction size. The counterparty in this case may be another bank, the Swedish National Debt Office, a financial company or a non-financial company.

**Transaction dataset:** The sum of transactions between reporters and counterparties that forms the basis for the calculation of SWESTR.

**Reporter:** A bank reporting interest rate, transaction size and counterparty to the Riksbank's TORA system.

**Reference rate:** Interest rate used to price other financial instruments or as interest rate in other forms of contract.

**Robustness criterion:** Requirement for the transaction dataset established at a level that ensures that SWESTR is a stable and representative reference rate. The three robustness criteria are total transaction volume over one day (at least 6 billion), number of reporters (at least 3) and a maximum level for the share of the transaction base that a single reporter may account for (the concentration requirement, maximum 75 per cent).

**Trimming level:** The Riksbank excludes transactions with the highest and lowest interest levels. This exclusion involves 12.5 per cent of the transaction volume with the highest interest rates and 12.5 per cent of the transactions for the lowest interest rates.



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