



Swedish Financial Benchmark Facility (SFBF)

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The Riksbank's response - Open consultation on the reform of STIBOR

The Riksbank has read the open consultation on the reform of STIBOR published by STIBOR's administrator Swedish Financial Benchmark Facility (SFBF). Despite the STIBOR reference rate now being reformed, the Riksbank considers that it will continue to be based to an excessive extent on judgements rather than actual transactions. It is not possible to determine whether STIBOR is fair with regard to the underlying market when it is to such a large degree based on judgements. This applies in particular to STIBOR at the shortest maturity (T/N), where 90 per cent of the calculation is based on judgements (so-called level 3 contribution). For the same reason, the Riksbank does not consider that the proposed calculation method for STIBOR instils confidence, and there is also a lack of transparency, as the Riksbank points out in its response. STIBOR is used in pricing many different kinds of financial contract, and thus affects the interest costs faced by households and companies, among others. It is therefore not acceptable from a consumer protection perspective that the rate should rely to such a large extent on the banks' judgements.

It is extremely important that the reference rates used on the financial markets are fair and instil a high level of confidence. As they are used so extensively, they have considerable significance for the stability of the financial system. For several years now, there has been international work on reforming reference rates, and there are two clear objectives here. Firstly, what are known as interbank rates (including STIBOR) shall as far as possible use actual transactions as a base for their calculation, instead of the banks' judgements regarding rates. Secondly, new and completely-transaction based reference rates will be produced. Many countries have already produced this type of reference rate for the shortest maturity. This is also the case in Sweden, where the Riksbank will provide the transaction-based reference rate known as SWESTR.

These new reference rates are being increasingly used globally. As the Swedish financial system is so tightly interconnected with those of other countries, there is increased pressure on Swedish actors to follow suit. We thus need to make this transition in Sweden, too - by beginning to use SWESTR. The need to do so becomes even more obvious now that we see that STIBOR will continue to be based to a high degree on judgements, even after the reform.

Reference rates in global transition

For almost 40 years, what are known as Interbank Offered Rates, IBOR, have been used as reference rates. With regard to contracts in Swedish kronor, the interbank rate STIBOR is currently used as the reference rate.¹ In recent years, however, interbank rates in an increasing number of countries have faced competition from new, transaction-based reference rates.

Interbank rates are determined daily by panels of banks², and the aim is that they will reflect the interest rates used by the banks when lending to one another without collateral. The interbank rates are calculated on the basis of the banks' bids. When there are no transactions to base the bids on, they are instead based on the banks' judgements of the rates (which in turn shall be based on pricing of other financial products). During the LIBOR scandal of 2012, it was revealed that several international banks had manipulated the bids used for calculating the LIBOR reference rate for their own gain, or for the gain of individual employees.

After the financial crisis, a global reform of reference rates was initiated, under the leadership of the Financial Stability Board (FSB)³, among others. The reasons for this were the LIBOR scandal, where bids had been manipulated, and the shortage of liquidity on the interbank market as the banks no longer obtain funding in the same way as they did when interbank rates first began to be used, 40 years ago. Interbank loans are no longer a bank's primary source of funding, and thus there have been fewer transactions over time on which to base the calculation of interbank rates.

In 2014, the FSB published a number of recommendations on reference rates, which had a major global impact. The two main recommendations were:

- **To reform interbank rates**, partly by limiting the banks' scope to base the rates on judgements, and partly by requiring transparency with regard to calculating the rate. Within the EU, these types of requirement have been introduced through the EU Benchmark Regulation (BMR), which Swedish market participants are obliged to comply with. The SFBF's proposed reform of STIBOR is made with the aim of complying with the requirements in the Benchmark

¹ According to the SFBF, STIBOR is used in contracts to a value of around eight times Sweden's gross domestic product, see p. 6 in The Evolution of STIBOR SFBF Consultation Paper.

² In Sweden, seven banks take part in the STIBOR panel: Danske Bank, Länsförsäkringar Bank, Nordea, SEB, Svenska Handelsbanken, Swedbank and SBAB.

³ The FSB is an international body that supervises and issues recommendations concerning the global financial system.

Regulation.⁴ Other interbank rates have also been reformed for the same reason, including the euro area's EURIBOR.

- **Developing alternative, fully transaction-based reference rates.** In line with the recommendation, an increasing number of central banks have taken on the responsibility of providing these reference rates at the shortest maturity. The Riksbank, like many other central banks, has undertaken to calculate and publish a fully transaction-based reference rate, which has been named SWESTR.

The advantage of the new reference rates is precisely that they are fully transaction-based, and that there is therefore no need for judgements. For some currencies, it has been established that these new transaction-based reference rates will replace the traditional interbank rate (primarily LIBOR). With regard to other currencies, the new and the traditional reference rates will live side by side for a while, but these countries also have a clear ambition to use transaction-based rates to an increasing extent and to reduce dependence on interbank rates.⁵ When the Riksbank's reference rate SWESTR comes into use at the O/N maturity later this year, there will thus be two Swedish reference rates (as there are in many other countries) to which market participants can refer when entering into new financial contracts in Swedish krona.

These new, transaction-based reference rates are being increasingly used around the world. As the Swedish financial system is so tightly interconnected with those of other countries, there is increased pressure on Swedish actors to follow suit. We thus need to make this transition in Sweden, too - by beginning to use SWESTR.

STIBOR is too rarely calculated using actual transactions

The EU Benchmark Regulation came into force in 2018. According to this regulation, the administrator of a reference rate shall, where possible, use transaction-based data as a basis for calculating the rate. The banks can continue to use their own judgements (which in turn shall be based on pricing of other financial products). However, the Regulation makes special requirements regarding documentation and transparency where these judgements are used as a base for calculation.

In the proposal for a reformed STIBOR, the administrator Swedish Financial Benchmark Facility (SFBF) has extended the permitted transaction base so that more types of transaction than before can be used as a basis for calculating STIBOR. This means there will be more actual transactions to use for calculating STIBOR (and consequently the use of judgement can be reduced). However, like other interbank rates, STIBOR will not solely be based on actual transactions. The SFBF expresses it as follows:

⁴ The Evolution of STIBOR SFBF Consultation Paper, p. 5.

⁵ See, for instance, Financial Stability Board, Reforming Major Interest Rate Benchmarks 2020 Progress report, p. 1.

“A panel bank’s contribution will be based on executed transactions, when available, and on a combination of other sources of information and modelling techniques when transactional evidence is insufficient”⁶.

The Riksbank notes that the proposal for a new calculation of STIBOR means that the rate will nevertheless to a large degree be calculated on the basis of judgements and mathematical methods, rather than on actual transactions. And this applies to all maturities. The SFBF reports in its consultation in Figure 5 (reproduced in the annex) an estimate of how high the percentage of actual transactions will be in the new calculation method for STIBOR.

As described above, the SFBF is increasing the transaction base by adding further counterparties and also including transactions in certain other currencies than the Swedish krona. However, the transaction base will decline again as the SFBF proposes a relatively high value limit on a transaction size for it to be included in the base. The calculation of STIBOR could probably be based on more transactions if a lower limit were chosen. It would be useful if the SFBF could motivate the chosen limit, and also show in how many cases it would be possible to use level 1 instead of levels 2 and 3, if the limit had been set lower.

The Riksbank considers that STIBOR will still have a too small percentage of transactions in its calculation base. This is partly because the Swedish money market is small, which the SFBF also says in its consultation. According to the SFBF, it would not be possible to calculate STIBOR if one could not continue to use judgements. It therefore becomes clear that essentially, there is a lack of a sufficiently large transaction base in STIBOR's maturities. This results in a reference rate that is based to such a low degree on actual transactions that it is not possible to determine whether it is fair.

In particular, STIBOR's shortest maturity is calculated using judgements to an excessive degree.

It is not only at the longer maturities that there is a lack of transactions, and the banks' own judgements therefore gain too much weight in STIBOR. Figure 5 (see annex) shows that STIBOR's shortest maturity, STIBOR T/N, is estimated to be based on so-called level 3 contributions to around 90%. A reference rate that is calculated to such a large degree using the banks' judgements is not a rate that instils confidence. Nor is it possible to judge whether STIBOR T/N is fair with regard to the underlying market, as the calculation is based on so few transactions.

Later this year, there will be a fully transaction-based reference rate for Swedish krona at a similar maturity, namely SWESTR O/N.

The transaction data that the Riksbank has been gathering from the money market since 2019 shows that the overnight market in Swedish krona for the maturity T/N is not particularly active. This fact also explains the low percentage of actual transactions (level 1) in the calculation of STIBOR T/N, which is shown in Figure 5. There is an established international standard for using O/N as the shortest maturity. In the jurisdictions that

⁶ The Evolution of STIBOR SFBF Consultation Paper, p. 11.

still use T/N as the shortest maturity for reference rates, there is a development where one is instead moving over to O/N.

Calculation of STIBOR in two stages lacks transparency

According to the SFBF's proposed definition, STIBOR is a lending rate.⁷ However, it is not calculated on the basis of lending rates. Instead, the SFBF gathers the panel banks' deposit rates - from several actors and in currencies other than those in the STIBOR definition. After that, STIBOR is converted into a lending rate. This requires calculations in two stages. Stage 1 involves calculating the panel banks' financing costs. Stage 2 involves a supplement on the rate, which raises the rate level from cost of funds to a lending rate.

By using a calculation in two stages, the SFBF can extend the transaction base to that more types of transaction than before can be used as a base for calculating STIBOR, in line with the requirements of the Benchmark Regulation. However, the Riksbank sees deficiencies in transparency with regard to the way this two-stage calculation is made.

The SFBF publishes a list of the supplements that are applied to the different maturities in STIBOR in stage 2. This list is based on the historical differences between cost of funds and rate-setting for lending. But there is also a possibility, say the SFBF, for the banks to depart from the list under certain circumstances and use a different supplement, which creates flexibility for the banks.

The Riksbank considers it problematic that the list can be ignored in favour of the banks' judgements. It is not clear from the consultation how these departures from the list will work in practice. And nor is there any description of if the departures will be made public.

Here the Riksbank wishes to emphasise the Benchmark Regulation's requirement for the administrator to use a method that "has clear rules identifying how and when discretion may be exercised in the determination of that benchmark", and that the method "is traceable and verifiable".⁸ The Riksbank considers that the users of STIBOR have the right to know what STIBOR is based on, in both stages.

Important that STIBOR is reported with a high degree of transparency

As mentioned earlier, it is extremely important that the reference rates used on the financial markets are fair and instil a high level of confidence. It is therefore important that it is made clear how the reference rate is calculated. It is particularly important to have good transparency regarding the calculations when there is a lack of transactions and the rate is instead calculated on the basis of the banks' judgements. STIBOR is used in pricing many different kinds of financial contract, and thus affects the interest costs

⁷ Definition of the reformed STIBOR: "STIBOR is a measure of the underlying rate that the panel banks apply to unsecured lending in Swedish krona to leading banks."

⁸ Article 12.1 of the Benchmark Regulation.

faced by households and companies, among others.⁹ It is therefore not acceptable from a consumer protection perspective that the rate should rely to such a large extent on the banks' judgement.

The Riksbank notes that the SFBF proposes that the current publication of individual banks' STIBOR bids should cease.¹⁰ The incentives for the banks to report market rates and hold back the flexibility of their judgements have not been reinforced here, but rather weakened. This is worrying, particularly in light of STIBOR, even after the reform, being to a large extent calculated using judgements (level 3).

The Riksbank takes a positive view of facts such as those reported by SFBF in figure 5 being reported openly and continuously, in line with international standards.¹¹ It is important that not only the public authority exercising supervision over the administrator of the reference rate, but also those using the STIBOR reference rate have continuous access to information on how it has been calculated. The SFBF proposes in the consultation that (among other things) a benchmark indicator should be published quarterly, and it asks the question of whether there are any views regarding this. The Riksbank would like to emphasise the importance of this proposal not being deleted.

A decision in this matter was taken by Head of Department Olof Sandstedt following a report by Advisor Susanna Engdahl.

Olof Sandstedt

Susanna Engdahl

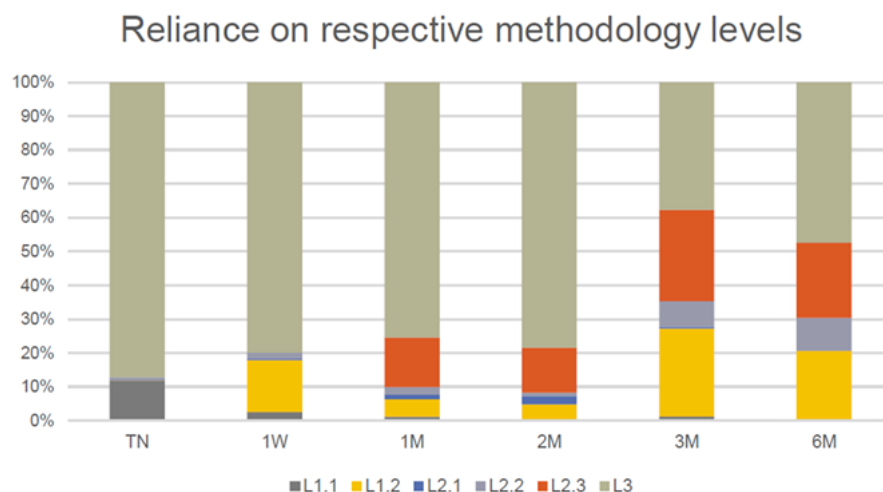
⁹ See, for instance <https://www.riksbank.se/globalassets/media/rapporter/ekonomiska-kommentarer/engelska/2020/the-funding-of-the-major-swedish-banks-and-its-effect-on-household-mortgage-rates.pdf>

¹⁰ The motive put forward by the SFBF is that it is only in the cases where the bank uses judgements (so-called level 3) that the bank presents an individual bid to the SFBF (in other cases the bank reports its actual transactions that are used to calculate contributions from levels 1 and 2). It is argued that it is therefore not in the bank's interests for the individual panel banks' bids to continue to be published.

¹¹ See, for instance, Financial Stability Board, Reforming Major Interest Rate Benchmarks 2020 Progress report, p. 6.

Annex - SFBF's figures

The SFBF's figure 5 (p. 21) is reproduced below:



Source: *The Evolution of STIBOR SFBF Consultation Paper*.

Interpretations: The x-axis states STIBOR's various maturities (T/N stands for tomorrow/next, W stands for week and M for months). The y-axis states the dataset used to calculate the various maturities. L1.1-L3 in the figure refers to the level of the transaction base.

- L1 is the highest level, that is actual transactions (L1.1 is transactions in Swedish krona and L1.2 is transactions in foreign currencies).
- L2 (level 2) is the medium method which refers to modelling, including interpolation and extrapolation from other maturities as well as use of previous days' transactions.
- L3 (level 3) refers to when STIBOR is calculated using the banks' own judgements of what would be an appropriate rate, this assessment is to be based on rates for the bank's issued securities with short maturities (CP/CD¹²).

For a detailed interpretation of the figure and the various categories, we refer to the SFBF's consultation document.

¹² Commercial papers/certificate of deposits