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

July 2019

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A consultation from Sveriges riksbank

July 2019

This document presents the changes in the Riksbank's operational framework for the implementation of monetary policy that are considered necessary to meet the new demands of a changing world.

The purpose of the consultation is to gather the views of the Riksbank's monetary policy counterparties and other relevant stakeholders. Comments should be sent to <u>rest.konsultation@riskbank.se</u>. We would like to receive comments related to changes due to be implemented this year no later than 26 August 2019. We would like to receive comments related to changes due to be implemented at a later date by 30 September 2019.

A summary of responses to the consultation will be compiled and published on <u>www.riksbank.se</u>.

Thank you for your participation!

Please state the name and contact details of the person in your organisation who is responsible for coordinating your responses.¹

Click to add text.

¹ Read about how the Riksbank handles personal data in our integrity policy at https://www.riksbank.se/integrity-policy/

Introduction

The Riksbank influences interest rates in the economy in order to fulfil the inflation target. The operational framework for the implementation of monetary policy is designed so that short-term market rates can be steered towards the level of the policy rate – the repo rate – adopted by the Executive Board of the Riksbank. The Riksbank's policy rate decisions are put into practice via the Riksbank's operational framework for the implementation of monetary policy. The current operational framework was launched in 1994 and has served its purpose well. However, developments in the surrounding world give cause for reform of the Riksbank's operational framework for the implementary policy to make it more robust and flexible.

The most important of these driving changes are: an increased interest in becoming a monetary policy counterparty to the Riksbank; new factors beyond the Riksbank's control that affect the Riksbank's liquidity management; and developments on the payment market with a greater volume of instant payments that may require the Riksbank's payment system, RIX, to have longer opening hours. The operational framework needs to be adapted in order to tackle these changes and similar phenomena which may arise in the future, such as the introduction of an e-krona, in order to continue to be able to effectively influence market rates.

In brief, the proposal involves the Riksbank:

In a first step starting in October

- Ceasing to conduct daily market operations in the form of fine-tuning transactions
- Setting the deposit rate on the standing deposit facility at 0.10 percentage points below the policy rate
- Continuing to offer Riksbank Certificates with a one-week maturity at the policy rate, but limiting the volume of certificates to ensure the overnight rate is close to the policy rate.

In a second step within a maximum of two years

- Setting the lending rate on the standing lending facility at 0.10 percentage points above the policy rate
- Tightening the collateral requirements for the standing lending facility
- Maintaining the current collateral requirements for intraday credit
- Replacing the Riksbank's "repo rate", which is currently the interest rate at which Riksbank Certificates with a one-week maturity are issued and which the Executive Board of the Riksbank adopts, with the more appropriate term "The Riksbank's policy rate".

What are the Riksbank's intentions with the operational framework?

The operational framework for the implementation of monetary policy shall enable the Riksbank to influence Swedish market rates. The primary objective of the operational framework is to ensure that short-term market rates are close to the Riksbank's policy rate, referred to as the repo rate². The Riksbank determines the pricing of deposits and loans at the Riksbank, thereby influencing the pricing of close substitutes to these on the money market. The idea is that changes in money market rates will in turn affect other rates in the economy and financial conditions more generally. Like many other central banks, the Riksbank has in practice focused on trying to steer the overnight rate.

² The Riksbank's repo rate was introduced as the policy rate when then Riksbank's current operational framework for the implementation of monetary policy was launched in 1994. The Riksbank started by carrying out weekly repos with two-week maturities. To supply liquidity, the Riksbank has carried out monetary policy repos at the repo rate. And to drain liquidity, the Riksbank has issued Riksbank Certificates, also at the repo rate. This was in order to signal that the Riksbank was directing its interest rate management towards interest rates with slightly longer maturities. Although the Riksbank is free to determine the maturities of monetary policy repos and Riksbank Certificates from time to time, the maturity has mostly been one week since July 1996.

This is the easiest interest rate for the central bank to influence in that it has the strongest link to the interbank market on which monetary policy counterparties and other banks equalise their liquidity overnight.

Apart from the primary objective, the operational framework shall also fulfil the restrictions and secondary objectives listed in Table 1. Restrictions are set by conditions outside the operational framework and have to do with the Riksbank's other tasks, while secondary objectives are something that the Riksbank strives for to the extent possible without disregarding the primary objective.

It is important that the design and application of the operational framework do not have any negative consequences for payments in Swedish krona. There are important links between the Riksbank's payment system and the operational framework. One such link is that the provisions for eligible collateral are currently (almost) the same for intraday credit and overnight credit.

An important task for the financial markets is to manage and price risk. It is therefore important for the Riksbank's operational framework to be designed so that it maintains the market's incentive to fulfil this task.

Primary objective	Ensure that short-term rates stay close to the Riksbank's policy rate. The objective shall be achieved even in the event of a financial crisis.
Restrictions	The operational framework shall not have a negative impact on payments in Swedish krona. The operational framework shall maintain the market's incentive to manage and price risk.
Secondary objectives	Simple, clear and predictable – All stakeholders shall be able to understand how the operational framework functions. Equal treatment – Monetary policy counterparties shall be treated equally. Cost-efficient implementation. Low operational risks. Limited financial risks.

Table 1. List of objectives and restrictions

The operational framework shall be simple, clear and predictable so that all stakeholders, not least monetary policy counterparties, can understand how the system works. This eliminates uncertainty as to how the Riksbank signals monetary policy. Uncertainty can lead to stakeholders interpreting different actions by the Riksbank in a way that was not intended.

An important principle for the Riksbank is that the monetary policy counterparties shall be treated equally. No group shall receive special treatment. Such special treatment may unintentionally affect price formation on the money market.

The last three secondary objectives in Table 1 not only apply to the Riksbank but should also apply to monetary policy counterparties.

The current operational framework

In recent years, the Riksbank has chosen to both influence the shortest-term rate on loans between banks from one business day and the next, known as the overnight rate, and make monetary policy more expansionary by buying government bonds. To steer the overnight rate, the Riksbank uses standing facilities and carries out market operations with its monetary policy counterparties. The purpose of this is to stabilise the overnight rate close to the level of the policy rate – the Riksbank's repo rate – as adopted by the Executive Board of the Riksbank.

Standing facilities

Only RIX participants who are monetary policy counterparties have access to the Riksbank's standing facilities. By using standing facilities for deposits and loans overnight, the Riksbank sets limits – an "interest rate corridor" – for the *overnight rate*, in which the *deposit rate* forms the floor and the *lending rate* the ceiling in the corridor. The overnight interest rate should lie inside the interest rate corridor because a monetary policy counterparty in need of liquidity can always borrow from the Riksbank against collateral at the lending rate and a monetary policy counterparty with surplus liquidity can deposit the surplus in the Riksbank at the deposit rate. As there is a difference between the deposit and lending rates, counterparties have an incentive with regard to intraday loans to agree on an interest rate that lies between the rates they would pay to or receive from the Riksbank.

The pricing of the standing facilities is such that the deposit rate equals the Riksbank's policy rate minus 0.75 percentage points and the lending rate equals the policy rate plus 0.75 percentage points, see Figure 1. If the balance of a monetary policy counterparty's account in RIX shows a deficit when the payment system closes for the day, the counterparty will have to pay the lending rate on the balance overnight (i.e. until the next business day). If the balance of a monetary policy counterparty's account shows a surplus when the payment system closes, the counterparty will earn the deposit rate on the sum overnight. The sum that can be borrowed in the lending facility is limited by the adjusted value of the collateral provided by the counterparty. There is no limit on how much a counterparty may deposit in the deposit facility.

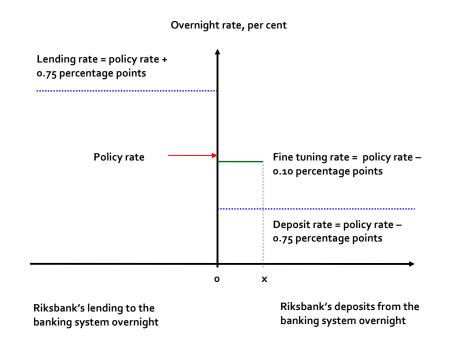


Figure 1. The Riksbank's operational framework for the implementation of monetary policy

Market operations

It is important for the Riksbank's ability to steer the overnight rate within the interest rate corridor that the liquidity of the banking system is in balance at the end of the day. To ensure that this is the case, the Riksbank carries out regular market operations.

Weekly market operations

Since 2008, the banking system has had a liquidity surplus in relation to the Riksbank. Every week, the Riksbank therefore offers Riksbank Certificates with one week's maturity at the policy rate to absorb this liquidity. The Riksbank's monetary policy counterparties are thus given the opportunity to invest in a risk-free security with short maturity. The volume of issues corresponds to the banking system's liquidity surplus in relation to the Riksbank minus an amount deemed appropriate at each issue. If demand for certificates is greater than the offered amount, allocation takes place on a pro rata basis. If the banking system had had a liquidity deficit in relation to the Riksbank would instead have supplied liquidity via weekly monetary policy repos.

Daily market operations

To stabilise the overnight rate close to the policy rate, the Riksbank offers a daily overnight deposit facility at the policy rate minus 0.10 percentage points if there is a surplus and credit against collateral at the policy rate plus 0.10 percentage points if there is a deficit. The Riksbank does not take in/loan out an amount that is larger than the banking system's total surplus/deficit. These *fine-tuning transactions* are carried out every business day between 16.00 and 16.40. Allocation takes place on a "first come, first served" basis, as long as there are funds left to lend or deposit. Figure 1 illustrates a situation where a total amount of x krona is deposited overnight in fine-tuning transactions at the policy rate minus 0.10 percentage points.

The total volume that can be fine-tuned is announced just after 16.00 in RIX, after banknote and coin clearing has taken place at 16.00. However, the last banknote and coin clearing does not occur until 16.20 and can affect the volume that is to be fine-tuned. The clearing at both 16.00 and 16.20 only concerns flows in one direction, "banknotes in", i.e. the monetary policy counterparties' liquidity positions vis-à-vis the Riksbank can only increase and not decrease. In recent years, flows at these two times have virtually never occurred. The window for fine-tuning transactions closes at 16.40 and RIX closes at 17.00.

Why does the operational framework need to be changed?

As the operational framework for monetary policy is applied today, in accordance with the above description, it is important for the Riksbank's ability to steer the overnight rate within the interest corridor that the liquidity of the banking system is in balance at the end of the day. Imbalances may arise as a result of changes in *autonomous factors*, i.e. factors that affect the Riksbank's management of liquidity but which the Riksbank is not able to directly control. At present these comprise

- the general public's demand for banknotes and coins
- allocations to Bankgirot's client funds account BiR in RIX for back-up in central bank money of instant payments during the night (and at weekends) in an external settlement system
- deposits and withdrawals from correspondent accounts with the Riksbank, and
- the deposit facility at the Riksbank for central counterparties.

An increase in demand for banknotes, allocations to the BiR account, deposits in a correspondent account or use of the deposit facility for central counterparties would reduce the liquidity in the banking system and might need to be counteracted with transactions that supply liquidity to the

monetary policy counterparties so that they will not have an aggregate liquidity deficit in their accounts in RIX. If changes in autonomous factors instead lead to increased liquidity in the banking system, the corresponding transactions are made to avoid a liquidity surplus. The Riksbank regularly carries out market operations to ensure that the banking system's liquidity is in balance at the end of every day, at present in the form of weekly issues of Riksbank Certificates and daily fine-turning transactions.

One hour before the Riksbank's RIX payment system closes at 17.00, the Riksbank needs to know what amount shall be borrowed (or lent) in the fine-tuning operations. The Riksbank must therefore ensure that no liquidity is added to or drained from the banking system after 16.00. This has meant that the Riksbank has introduced regulations intended to limit the possibility to make payments in RIX after 16.00. One example is that central counterparties may not change the balance of their deposit facility after 16.00. For each similar service added, the Riksbank needs to introduce some form of limitation concerning the balance of the account in question to be able to continue making the fine-tuning transactions and influencing the overnight rate in the same way as now.

The manual administration of the fine-tuning transactions gives rise to operational risks. However, these risks are manageable as long as the number of counterparties taking part in the fine-tuning transactions is limited. At present, there are between 10 and 13 monetary policy counterparties who fine tune with the Riksbank every day. Recently, however, the Riksbank has noted an increased interest in participating in RIX and also an increased interest in becoming a monetary policy counterparty. It is difficult to assess the future number of applicants, but within five years there could be up to 30 new financial institutions. If a number of these were also to become monetary policy counterparties and take part in fine-tuning, the operational risks would increase.

The explicit principle of carrying out market operations so that the banking system's liquidity with regard to the Riksbank is in balance, i.e. having a net position around zero, means that if one counterparty for instance chooses to invest in the Riksbank by using the standing deposit facility, another counterparty (or several others) will be forced to use the standing lending facility. This then entails a significant cost for the counterparty or counterparties affected. The cost arises from the large mark-up, 75 basis points, above the policy rate.

To ensure that the fine-tuning has the desired effect, the banking system's liquidity position with regard to the Riksbank does not change after the Riksbank has identified the liquidity that needs fine-tuning. This can in practice be said to mean that RIX is in real terms open an hour less than it is actually open, as the fine-tuning begins an hour before RIX closes. With effect from 14 October 2019, RIX will close one hour later than it does now. This would mean that the fine-tuning transactions need to be made an hour later than they are today. As the fine-tuning involves several manual elements, it would mean that both the Riksbank and monetary policy counterparties would need to have staff on site later than today in order to manage the fine-tuning transactions.

The conclusion is that a significant weakness of the current operational framework for monetary policy is that it is not scalable with regard to fine-tuning transactions. An increased number of monetary policy counterparties leads to greater operational risks as more counterparties will fine tune with the Riksbank. Longer opening hours in RIX will lead to increased costs for both the Riksbank and monetary policy counterparties when more people stay at work later to manage the fine-tuning transactions. If, on the other hand, counterparties choose not to take part in the delayed fine-tuning, rate setting overnight will instead be undermined. The Riksbank wishes to promote development towards it being possible to settle instant payments in Riksbank money 24/365. Extending the opening hours of the RIX payment system to 24 hours a day will be made easier if the Riksbank discontinues daily fine-tuning transactions.

A reformed operational framework

The changes to the Riksbank's operational framework for the implementation of monetary policy proposed in this consultation are of a technical nature and are not intended to bring about any monetary policy effects.

Proposal to end daily market operations

The Riksbank is considering ceasing its daily fine-tuning transactions. At the same time, it is proposed that the lending and deposit rates be changed from the current policy rate plus/minus 0.75 percentage points to the policy rate plus/minus 0.10 percentage points, see Figure 2. The interest rate corridor would then be much narrower than it is today. This should mean that the overnight rate is less sensitive to how the liquidity in the banking system is divided between the banks at the end of the day. In this way the Riksbank could ensure that the overnight rate remains close to the policy rate.

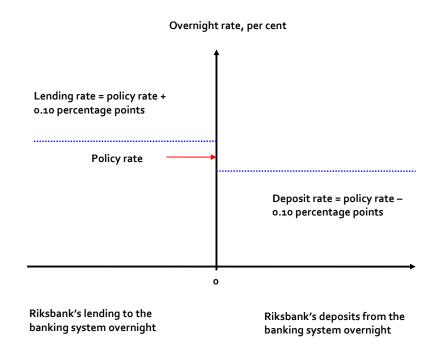


Figure 2. The Riksbank's new operational framework

With this system, lending and depositing at the end of the day would be automatic, without the elements of manual processing currently linked to the fine-tuning transactions. The banks would no longer need to ring the Riksbank and deposit or borrow money in the fine-turning transactions, depending on whether the banking system has a surplus or a deficit of liquidity at the end of the day. The balances that may remain on the monetary policy counterparties' RIX accounts after they have borrowed or lent on the interbank market would automatically enter the Riksbank's lending or deposit facilities – the new narrow interest rate corridor. This would mean that the manual processing linked to the daily fine-tuning transactions would come to an end, which would reduce operational risks and contribute to a cost-efficient implementation of monetary policy.

The Riksbank also proposes that

• The Riksbank's "repo rate", which refers to a one-week maturity, be replaced by the more appropriate term "The Riksbank's policy rate".

Regulations for eligible collateral to be amended

It is proposed that the securities that will be regarded as eligible collateral for credit from the Riksbank be divided into two pools:

- Collateral pool A comprises government securities and claims on central banks in eligible currencies
- Collateral pool B comprises eligible assets apart from government securities and claims on central banks in eligible currencies

For intraday credit, the same collateral as today would be eligible, i.e. the collateral for intraday credit would comprise A + B.

When using the lending facility, a price differentiation is used depending on which type of collateral the counterparty uses. If a monetary policy counterpart has a negative balance on their RIX account when the payment system closes, then overnight credit against A collateral will be debited at the policy rate + 0.10 percentage points, as in Figure 2. But it will also be possible to obtain overnight credit against B collateral. This is intended as a temporary "backstop" when it would otherwise not be possible to settle intraday credit. A loan against B collateral would be debited at the policy rate plus a mark-up that is greater than 0.10 percentage points.

After a period with the new collateral requirements, an evaluation will be performed. It may then be appropriate to revise the design of the collateral pools.

Periodic market operations

Weekly market operations

The Riksbank can carry out weekly market operations with a maturity of one week at the policy rate when needed. If this concerns supplying liquidity, the operations are carried out against A collateral. The purpose of the operations is stabilise the overnight rate close to the policy rate when necessary. When draining liquidity, the operations can be carried out either through issues of Riksbank Certificates as now or through deposits with a one-week duration.

Monthly market operations

The Riksbank is considering introducing monthly market operations where monetary policy counterparties have the opportunity to bid in auctions for credit at medium-term maturities against B collateral. The purpose of these auctions would be to maintain a regular operational crisis preparedness and to detect possible market stress at an early stage. The idea is that bidding in the auctions would be at a variable interest rate linked to the policy rate. This means that counterparties do not need to include expectations of the future policy rate in their bids. Under normal circumstances the idea is that only small volumes will be allocated in the auctions. When there are signs of stress in the market, these operations can be scaled up both with regard to volume and frequency. Signs of stress can be manifested, for instance, through higher bid rates or higher bid sums or both.

Interest rates on other accounts

As is the case today, the balance on the principal accounts with special terms (operator of BiR and lending facility for central counterparties) and the balance on RIX participants' accounts (those that are not monetary policy counterparties) will have a lower interest rate than that on the deposit

facility, in accordance with Table 2. What these actors have in common is that they can utilise a special service supplied by the Riksbank – depositing overnight at the Riksbank without being monetary policy counterparties. So as not to distort the incentive for over-use of this special service and to avoid making the Riksbank's liquidity management unnecessarily difficult a less favourable interest rate is applied for the service. As the Riksbank wishes to promote the settlement of instant payments in Riksbank money, operators of payment platforms where settlement does not occur in Riksbank money should also receive/pay a less favourable rate of interest.

Account	Deposit rate	
Account for operator of BiR	policy rate – 0.75%	
Deposit facility for Central Counterparties	policy rate – 0.75%	
Account for RIX participants that are not monetary policy counterparties	policy rate – 0.75% (if the policy rate is <0.75%)	0 (if the policy rate is >0.75%)
Correspondent accounts	policy rate – 0.75% (if the policy rate is <0.75%)	0 (if the policy rate is >0.75%)

Table 2. Interest rates on other accounts³

Questions (to be answered no later than 30 September 2019)

How do you assess that the Riksbank's new operational framework would affect interest rate setting, on money market instruments, government securities, and related asset types and instruments?

Click to add text.

How would the new operational framework affect the interbank market, in particular unsecured lending between banks and banks' incentives to use the Riksbank for their liquidity management?

Click to add text.

Do you have any views on the division of collateral into two pools, A and B?

Click to add text.

If the Riksbank carries out weekly market operations to withdraw liquidity, should these take the form of deposits or the form of issues of Riksbank Certificates? What advantages/disadvantages would there be with the respective instruments?

Click to add text.

If the Riksbank carries out weekly market operations to supply liquidity, the Riksbank may see operational advantages in using lending against collateral instead of repos. What is your view of such a change?

Click to add text.

How do you view the introduction of a monthly market operation for contingency purposes? What maturity would be the most fit for purpose?

Click to add text.

> Do you have any other views on the new operational framework?

Click to add text.

³ For other terms and conditions see The Riksbank's Terms and Conditions for RIX and Monetary Policy Instruments.

Proposed changes in October 2019

The changes that have been proposed above will take some time to implement, as some of the changes require development work at the respective supplier of the systems used for payments (RIX) and the management of collateral (QCMS). However, this only applies to the adjustment of the upper part of the interest rate corridor, that is, the change in the lending facility. On the other hand, no development work is required to implement the adjustment of the lower part of the interest rate corridor – the deposit facility. It would therefore be fully possible to make this adjustment earlier.

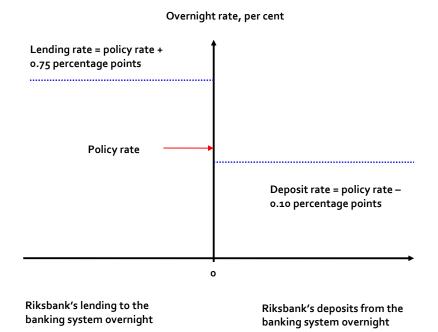
On 14 October 2019 RIX will extend its opening hours by one hour at the end of the day. RIX will thus close at 18.00 instead of 17.00 as now. For the Riksbank and the monetary policy counterparties to avoid temporarily increasing personnel resources to implement the fine-tuning transactions one hour later than today, the Riksbank would consider implementing the changes in the deposits prior to 14 October. The alternative is to continue with the manual fine-tuning transactions but with the new times 17.00 – 17.40 with effect from 14 October until the new operational framework is in place.

The Riksbank is considering, as a result of the above, in a preliminary stage during autumn 2019

- Ceasing its daily fine-tuning transactions,
- Setting the deposit rate on the standing deposit facility at the policy rate minus 0.10%.
- Allowing the lending rate to remain at (or close to) the policy rate plus 0.75%.

By replacing the fine-tuning deposits with the automatic deposits via the standing deposit facility, the problems linked to the daily fine-tuning transactions could be avoided. The balance remaining on the RIX participants' principal accounts at the time of closing of RIX would automatically enter the standing deposit facility. The closing time for RIX would then be unimportant to the operational framework. Figure 3 shows how the operational framework would look after this change.

Figure 3. The Riksbank's operational framework autumn 2019



The Riksbank would continue to offer weekly issues of Riksbank Certificates at the policy rate. These market operations would help to stabilise short-term rates close to the Riksbank's policy rate and serve as an instrument to signal of what level the Riksbank wants short market rates to be traded at. However, the Riksbank would need to ensure that there was sufficient liquidity in the banking system on a daily basis so that a counterparty's deposit of a large amount in the deposit facility would not force out some other counterparty in the lending facility, which could lead to undesirable upward pressure on short market rates. Limits to the issue volumes of Riksbank Certificates could be used to reduce the risk of this occurring too often during the transition period to a system with a narrow interest rate corridor. We therefore propose that

• The Riksbank continues to offer Riksbank Certificates with a one-week maturity at the policy rate but limit the volume of certificates to ensure the overnight rate is close to the policy rate.

The Riksbank's policy rate is used to signal what level the Riksbank wants short market rates to be traded at. It also serves as a reference rate for the Riksbank's other interest rates, which are stated as the policy rate plus (or minus) X basis points. There may also be a point in the Riksbank using a monetary policy instrument traded at the policy rate to further anchor short rates at this level. This is the case with Riksbank Certificates today. The policy rate, the deposit rate and the lending rate are all objects for the Riksbank's monetary policy decisions and can be adapted to the needs that monetary policy has at any point in time. The interest rates stated for the different systems should therefore be regarded as an indication. They may need to be adapted to prevailing circumstances.

Questions (to be answered no later than 26 August 2019)

What advantages and disadvantages respectively do you see in introducing the new operational framework in two stages compared with continuing with the fine-tuning transactions until the new system with a narrow interest rate corridor can be implemented?

Click to add text.

How do you assess that the Riksbank's proposed changes to deposits in autumn 2019 would affect interest rate setting, on money market instruments, government securities, and related asset types and instruments?

Click to add text.

How would the changes in autumn 2019 affect the functioning of the interbank market, in particular unsecured lending between banks and banks' incentives to use the Riksbank for their liquidity management?

Click to add text.

How do the changes affect the incentives to sell Riksbank Certificates?

Click to add text.

> Can abolishing the concept repo rate entail problems for some outstanding contracts?

Click to add text.

> Do you have any other views on the changes proposed for this autumn?

Click to add text.