

ARTICLE – Perspectives on the negative repo rate

The repo rate has been negative since February 2015. As negative nominal interest rates are a new phenomenon, it is not surprising that this situation has given rise to considerable discussion. Real interest rates – which are more relevant for consumption and investment decisions – have been falling for a long time and have been negative on several occasions throughout history. But negative nominal rates are a much more unusual phenomenon. In recent years, several central banks have introduced negative policy rates in the wake of the prolonged recession. The experiences of this situation are thus limited, but after almost one and a half years of having a negative policy rate in Sweden, monetary policy has had a clear impact on the economy and no major problems have arisen.

A negative repo rate – previously uncharted waters

Monetary policy in Sweden and several other countries is currently very unusual in a historical perspective, with a negative policy rate and extensive purchases of securities. The fact that the Riksbank has chosen to allow the repo rate to become negative in particular has sparked a debate, in which arguments against a negative repo rate have been presented. One argument is that the negative rate counteracts its purpose, as it creates uncertainty that leads to a drop in demand in the economy when economic agents defer consumption and investment. There is also concern that the negative repo rate, which leads to lower rates in general, increases the risks in the economy via rising housing prices and debt.

The emergence of a discussion is not surprising, bearing in mind the uncharted nature of the negative repo rate situation. The Riksbank is aware that a negative repo rate can give rise to undesirable effects, but considers that it is currently necessary in order to maintain confidence in the inflation target. Precisely because this is unexplored territory, the Riksbank has cut the repo rate under zero in smaller steps than normal. The Riksbank is constantly following developments to assess whether the monetary policy is having the intended effect and ensure that financial stability is not threatened.

Why is a negative repo rate required in Sweden?

In recent years, several central banks in addition to the Riksbank have introduced negative policy rates: the Danish, Swiss and Japanese central banks and the ECB. There are several reasons why the Riksbank has seen the need to introduce a negative repo rate. One is the fact that the underlying trend in the real interest rate has been falling for a long time, due to structural factors such as a high saving rate. This has contributed to a fall in the level of the repo rate that is compatible with a balance in the

general economy.³ The repo rate then needs to be very low to stimulate the economy. For an open economy like Sweden's, the repo rate level in relation to other countries is also very important. Policy rates abroad have reached historically very low levels around zero per cent, for the same reasons as Sweden's (see Figure 2:1). If the Swedish policy rate were to deviate too much from those of other countries, the Swedish krona would, all else being equal, appreciate significantly, which in turn would subdue both economic activity and inflation.

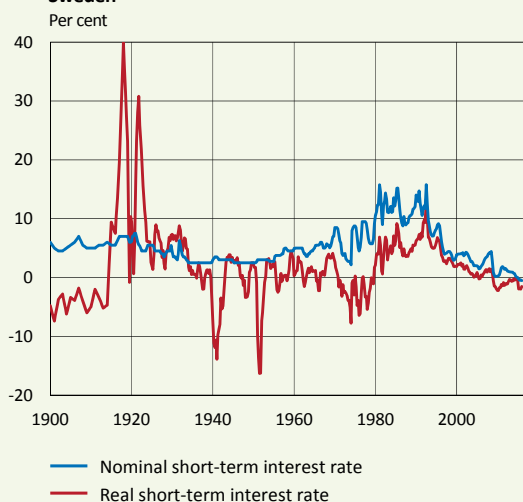
Because inflation has been below target for a long time and long-term inflation expectations have been under 2 per cent, there has been a need for very expansionary monetary policy in Sweden. The Riksbank has therefore considered it necessary to cut the repo rate below zero to safeguard the role of the inflation target as nominal anchor for price-setting and wage formation.

Negative nominal interest rates are rare

Monetary policy has an impact on the various nominal interest rates in the economy by means of the policy rate. But real interest rates, which reflect the difference between nominal rates and expected inflation, are actually more relevant for consumption and investment decisions. The short-term real interest rate has been more or less constantly negative since 2009. Negative real rates have also occurred in Sweden further back in history, most recently during the 1970s, when inflation was high and volatile (see Figure 1:16). Negative nominal interest rates have been rarer: the nominal short-term rate in Sweden had never been negative prior to 2015.

³ See Armelius, H., P. Bonomolo, M. Lindskog, J. Rådahl, I. Strid and K. Walentin "Lower neutral interest rate in Sweden?", Economic Commentaries no. 8 2014, Sveriges Riksbank, and the article "Low global interest rates" in the Monetary Policy Report, October 2014.

Figure 1:16. Nominal and real short-term interest rates in Sweden



Note. The real interest rate is calculated using series for the nominal interest rate and inflation/inflation expectations. For the nominal interest rate and inflation, annual data from “historical monetary statistics” is used for the period 1900–1918. For the nominal interest rate, the Riksbank’s discount rate is used for the period 1918–1983 and after that the rate on a three-month treasury bill is used. For inflation, the cost-of-living index or CPI from Statistics Sweden is used for 1918–1979 and after that inflation expectations in the household sector for one year ahead, as calculated by the National Institute of Economic Research.

Sources: The National Institute of Economic Research, Statistics Sweden and the Riksbank

For a long time, the prevalent opinion was that the policy rate could not be cut below zero, even if there was a need to do so.⁴ This reasoning is based on the fact that households and companies, as an alternative to interest-bearing assets, can invest their money in cash, which by definition generates zero nominal interest. If banks were to introduce negative deposit rates, there is a risk that depositors, including households, would withdraw their money from their deposit accounts and “stuff it under the mattresses” to avoid the negative interest rate.

Which agents in the Swedish economy meet negative rates?

The fact that the repo rate is negative does not mean that general interest rates in Sweden are negative. The repo rate is a very special short-term interest rate that has only direct significance for the Riksbank’s monetary policy counterparties, primarily the commercial banks. When the repo rate is negative, the banks pay an interest rate to “store” their money at the Riksbank, as the banking system has an aggregate liquidity surplus in relation to the Riksbank. The liquidity surplus has increased recently, largely due to the Riksbank’s purchases of government bonds. This can contribute to increasing the effects of the negative interest rate on the economy, as the

banks then have greater reason to seek a higher return on their investments.

Now that the repo rate has been cut to –0.5 per cent, the short-term interbank rates and government bond yields have also turned negative and are now on approximately the same level as the repo rate. The fact that interbank rates are negative means that the interest rate is negative for loans between the banks. Negative short and medium-term government rates in turn mean that the government can also borrow at a negative interest rate for maturities up to around eight years. Banks and some larger corporations and municipalities can also borrow over the short term at negative interest rates.

Deposit rates for households and most companies not yet in negative territory

So far, banks have refrained from introducing negative deposit rates for households and most companies. In Sweden, only a few actors have been subject to negative deposit rates. These are primarily larger companies and municipalities, who can obtain funding at negative rates, which means that there is scope for banks to charge them negative deposit rates. The average deposit rate for households and companies has been around zero per cent for some time (see Figure 2:8). But information from banks suggests that some non-financial corporations meet negative deposit rates in the form of fees, which therefore do not show up in the statistics. However, this only applies to a small proportion of non-financial corporations’ total deposits. In the Riksbank’s Business Survey, companies with large amounts of cash say that they are trying to reinvest their liquidity to avoid these new deposit costs.

Table 1:4.

Interest rates that are negative
The repo rate
Interbank rates
Government bonds at maturities up to 8 years
Mortgage bonds at maturities up to 3 years
Deposit rates for certain large companies and municipalities
Short-term market funding for certain companies and municipalities
Interest rates around zero
Deposit rates for households and most companies
Interest rates that are positive
Lending rates for households and companies
Government bonds at maturities over 8 years
Mortgage bonds at maturities over 3 years
Corporate bonds

Profitable banks and minor practical problems

Another argument against negative interest rates is that they reduce the banks’ profitability, which could lead to higher lending rates and a lower supply of credit. However, Swedish banks’ profitability has

⁴ See, for instance, U. Söderström and A. Westermark, “Monetary Policy with a Zero Interest Rate”, Economic Review no. 2 2009, Sveriges Riksbank.

remained high and stable during the rate cuts in recent years. The repo rate cuts below are also deemed to have contributed to lower lending rates for households and companies, insofar as banks' market funding has become cheaper. The Riksbank's assessment is that the overall effect of negative rates on banks' profitability is limited and may even be positive, and that monetary policy has functioned well despite the negative policy rate level.⁵

For certain actors, there may be costs specifically linked to negative interest rates. These are related to IT systems that may have a limited capacity to manage negative rates and costs linked to the management of legal and contractual problems that crop up when interest rates are negative. The need to adapt financial systems and practice among actors has so far been limited and manageable.⁶

Low risk of large-scale cash withdrawals

The Riksbank assesses that there is little risk that banks, companies or households will begin to withdraw large volumes of cash. Households are not facing negative interest rates, and changing from using cards for payments to holding large volumes of cash is quite costly, for instance, safe storage of banknotes and coins.⁷ The banks and some companies are facing negative interest rates, but for them, too, the cost of increasing cash holdings is considerable. The use of cash in Sweden has shown a declining trend for many years, and so far there are no signs of a break in the trend.

Negative repo rate not an expression of "crisis"

A concern sometimes mentioned in the debate is that the negative repo rate increases uncertainty among economic agents, as it would be perceived as a "crisis tool". As yet, there is no sign of falling demand in the economy as a result of increased uncertainty among households, companies or financial market participants. Economic agents don't seem to be reluctant to consume and invest. For example, the National Accounts show that growth in both housing and business investment has been much stronger than normal in recent years. And domestic demand has on the whole been an important driving force behind the improved economic activity in Sweden. Household consumption of durable goods has increased at a good rate, for instance. The labour market has been steadily improving, employment is rising, redundancy

notices are at low levels and companies are still planning to recruit, which suggests optimism about the future.

The National Institute of Economic Research's Economic Sentiment Indicator is signalling on the whole that confidence has risen after the repo rate was cut below zero (see Figure 3:7).

The expansionary monetary policy has contributed to high growth and rising inflation, but also entails risks

The Riksbank's assessment is thus that the monetary policy has worked approximately as expected even when the repo rate was cut below zero. The negative repo rate – in combination with the Riksbank's purchase of government bonds – has had an expansionary effect on the Swedish economy. Growth is good, while unemployment has reached its lowest level since 2009 and there are no clear signs that the negative repo rate has led to greater uncertainty that will hold back economic activity. Even though inflation is still below the target, it has been on an upward trend since 2014 and the inflation target is perceived as credible.

But the general low interest rate situation also entails risks, which in Sweden are primarily associated with high and growing indebtedness among households. Measures are therefore needed within other political restraints to reduce these risks in different ways, something the Riksbank has been highlighting for a long time. Monetary policy needs to be expansionary to provide continued support to the Swedish economy and the upturn in inflation. A heavily-increased repo rate would certainly slow down the build-up of debts, but at the cost of a rapid appreciation of the krona, lower inflation and higher unemployment. Compared with the interest rate increases, other measures could be largely designed to manage precisely the risks linked to household debt and the negative effects on the economy in general can therefore be expected to be smaller.

⁵ See the article "How do low and negative interest rates affect banks' profitability?" in Monetary Policy Report April 2016.

⁶ One issue has been bonds with variable coupons. When reference rates are negative, the coupon can also be negative. The investor will then pay the coupon to the issuer, rather than the other way around. Market participants have so far coped with this by not making investors pay when coupons are negative.

⁷ See Alsterlind J., Armelius H., Forsman D., Jönsson B., and Wretman A.-L., "How far can the repo rate be cut?", *Economic Commentaries*, No. 11, 2015, Sveriges Riksbank.