

## **Kerstin af Jochnick: Does the Riksbank have to make a profit? Challenges for the funding of the Riksbank**

Speech by Ms Kerstin af Jochnick, First Deputy Governor of the Sveriges Riksbank, at the Swedish House of Finance (SHoF), Stockholm, 23 January 2015.

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The Riksbank is in good form! Last year the foreign currency reserves brought in more than SEK 30 billion. This in turn meant that the Riksbank's equity increased by almost the same amount. (We will reveal the size of the reported profit at the beginning of February.) In the long run, the largest part of the Riksbank's profits are paid back to the government in the form of dividends, and over the past 25 years the Riksbank has paid in more than SEK 210 billion to the Treasury.

Although the amounts involved here are very large, we rarely discuss the Riksbank's profits or equity. This is because the Riksbank's assignment does not concern making a profit; it involves maintaining price stability and promoting a safe and efficient payment system.

However, it is important to remember that if we are to perform our tasks and ensure the Riksbank's independence, we must have adequate financial resources. Carrying out our monetary policy assignment and the task of promoting a safe and efficient payment system includes measures that are made in various ways through the balance sheet. All of these measures affect the size of the balance sheet, the profits and equity. It is therefore important that the Riksbank's equity is of an adequate size to retain the confidence of the financial sector.

Does the Riksbank have to make a profit? Well, a profit only becomes important when it affects the balance sheet and thereby the Riksbank's ability to carry out its tasks. The Riksbank does not need to make a profit every year, but in the long run it is important that the Riksbank does make a profit. We need to be able to build up buffers to cover our costs so that we can carry out our task regardless of the government and the Riksdag, the Swedish parliament. It is therefore important that the Riksbank is not financially dependent on them. Moreover, EU legislation requires that a central bank should have adequate financial resources to carry out its tasks independently.

The main reason why I have chosen to talk about the Riksbank's possibilities to make a profit is that it is not self-evident that the Riksbank will always report large profits year after year. The coming five-year period actually looks rather gloomy from this perspective.

The low interest rates and expectations of rising interest rates further ahead mean that we share this situation with many other central banks. It is linked to the way the Riksbank has prepared itself to be able to manage its tasks in the future. The Riksbank has deliberately altered its balance sheet in recent years, but there are also changes in our environment that have affected the balance sheet, leading to its current composition. The way the balance sheet looks, combined with the developments in interest rates and yields on the Riksbank's assets and liabilities also have decisive significance for the Riksbank's capacity to make a profit.

We need to understand the Riksbank's balance sheet to be able to understand the connections. How has the balance sheet developed over time? And what do we think will happen to it in the future? How does our current balance sheet affect the Riksbank's possibilities to make a profit?

In conclusion, I intend to comment on the current situation with very low international interest rates, and what will happen if (or rather when) interest rates begin to rise. What will this entail for the Riksbank's possibilities of making a profit?

## **The Riksbank's measures are reflected in the balance sheet**

The Riksbank thus does not have the aim to make a profit, but the bank's possibilities to make profits are nevertheless very important. They are connected to the Riksbank being able to conduct its monetary policy independent of the government and parliament. The Riksbank needs to be financially independent to do this in a credible manner. In plain language, this means that the bank needs to have sufficient resources at its disposal to be able to carry out its tasks without being governed by subventions from the government.

When the Riksbank carries out its tasks, this usually has consequences for the Riksbank's balance sheet. Most of the instruments the Riksbank uses to steer the interest rate are also items on the balance sheet. The Riksbank currently steers the interest rate through its monopoly on supplying a payment system for transferring money between the banks (including the Riksbank) and above all by determining the conditions for this. It is mainly the conditions for the banks' deposits and loans with the Riksbank that are used as an instrument to steer interest rates in the economy. Prior to the financial crisis, the transactions in the Riksbank's different instruments were relatively small, but this changed during the financial crisis. Then we used our balance sheet to supply the banks with liquidity.

Up to autumn 2008, the Riksbank's balance sheet was around SEK 200 billion, but it increased dramatically during the crisis to at most SEK 763 billion in July 2009. The reason the balance sheet more than tripled was that the Riksbank began lending large amounts in US dollars and Swedish krona to the Swedish banks from October 2008. The dollar loans were largely funded by the Riksbank in its turn borrowing dollars from the Federal Reserve. The lending in krona resulted in the banks' holdings of Swedish krona increasing, funds which were ultimately deposited with the Riksbank. This was reflected in the balance sheet in the form of larger monetary policy liabilities.<sup>1</sup>

The Riksbank and the banking system comprise a closed system, which means that the money the Riksbank lends out must automatically return to the Riksbank. During the financial crisis, the Riksbank thus functioned as intermediary and replaced the market funding the financial agents were no longer willing to provide. Instead of one bank lending to another bank, the central bank steps in and lends money to the bank needing market funding and at the same time the central bank offers a risk-free investment to the bank that no longer wishes to provide market funding.

Unlike the larger central banks, the Riksbank did not buy any securities during the financial crisis, considering the loans against collateral to be sufficient. This meant that the Riksbank could relatively quickly cease its extraordinary measures when the situation improved and the loans matured.

Many central banks' balance sheets are still much larger than they were prior to the financial crisis, which reflects the central role played by the central banks, not merely during the actual crisis but also during the recovery phase. Monetary policy has been very expansionary to support economic developments, with very low interest rates and continued comprehensive central bank loans in various forms.

Although the Riksbank was able to phase out its extraordinary measures relatively quickly, compared with other countries, the Riksbank's balance sheet has for various reasons changed since before the crisis. So let us go through why the balance sheet looks the way it does.

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<sup>1</sup> The concept "monetary policy liabilities" is used as a generic term for the items 'liabilities to credit institutions in Sweden related to monetary policy operations denominated in Swedish kronor' and "debt certificates issued".

## How has the Riksbank's balance sheet developed over the past decade?

Let us examine (a simplified version of) the Riksbank's balance sheet from the year-end 2004. Ten years ago, the balance sheet total was SEK 183 billion. The asset side was dominated by the gold and foreign currency reserves, which amounted to SEK 166 billion. In addition, we had a monetary policy claim on the Swedish banks of SEK 17 billion.<sup>2</sup> At that time the Riksbank lent money to the banking system and this was done through the monetary policy repo transaction (therefore the name repo rate).

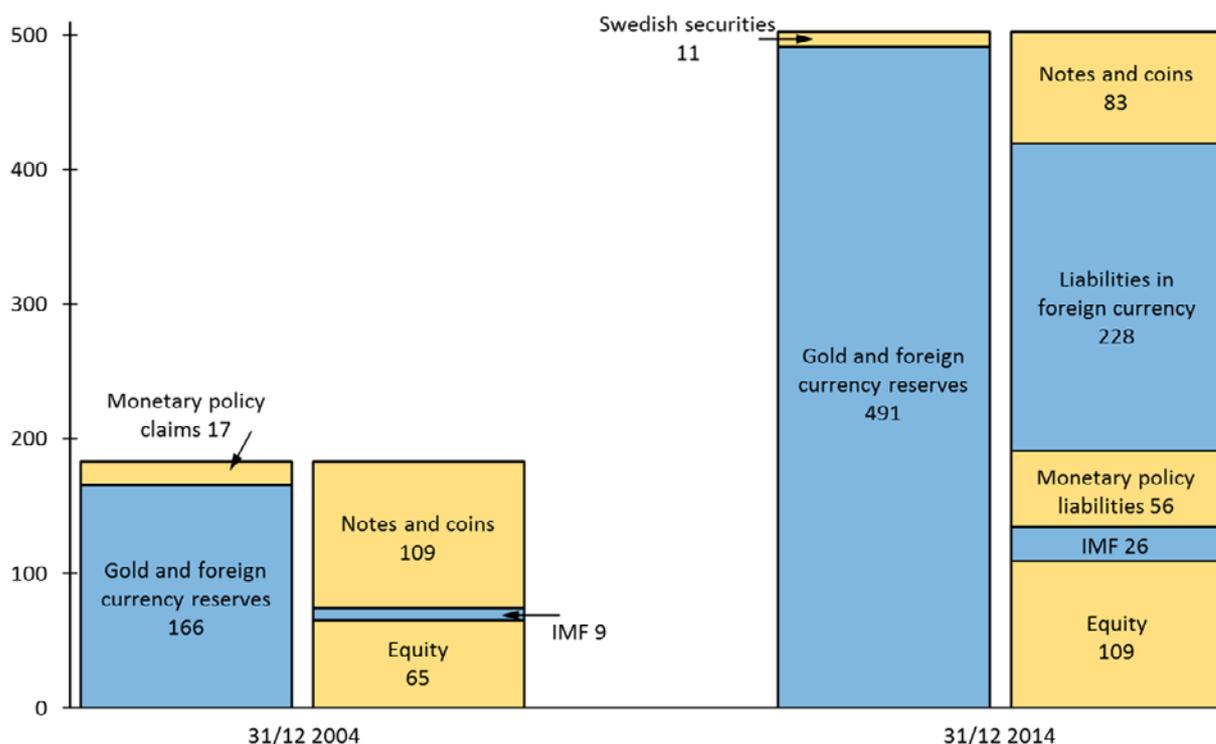
The assets are largely funded through the Riksbank over the year issuing banknotes and coins to a value of SEK 109 billion. The bank's equity amounted to SEK 65 billion. The small liability to the IMF is a result of Sweden's membership of the International Monetary Fund. I do not intend so say so much about this item now.

Let us now compare this with how the balance sheet looks today. As you can all see, a lot has happened over the past ten years. For instance, we can observe that:

- The foreign currency reserve is SEK 325 billion larger. This increase is mainly because we have borrowed the equivalent of SEK 200 billion in foreign currency through the Swedish National Debt Office to strengthen the foreign currency reserve.

### The Riksbank's balance sheet 2004 and 2014

SEK billion



Source: The Riksbanken

<sup>2</sup> The formal term in the balance sheet is "lending to credit institutions in Sweden related to monetary policy operations denominated in Swedish kronor".

- We have once again acquired a securities portfolio in Swedish krona. The Riksbank previously had a portfolio of Swedish securities but then this was phased out more than ten years ago.
- The stock of notes and coins has declined, partly due to card payments and electronic payments becoming more common.

As a consequence of this, we now have monetary policy liabilities instead of a monetary policy claim. This means that we are now borrowing excess liquidity from the banking system instead of lending money to cover a liquidity deficit. I will return to this issue later on.

One thing that is immediately apparent when comparing today's balance sheet with the one from ten years' ago is that the debt items the Riksbank does not pay interest on, that is, notes and coins and equity, have gone from comprising almost 100 per cent to hardly 40 per cent of the Riksbank's total funding today. This means that the probability of the Riksbank making losses in certain years has increased. I will return to this, but let us first look a little closer at the changes in the Riksbank's balance sheet.

### ***The foreign currency reserve has strengthened***

The largest change in the Riksbank's balance sheet is the ***strengthening of the foreign currency reserve***. One can say that a central bank has three reasons for holding a foreign currency reserve. The first is to make interventions in the foreign exchange market, the second is to maintain a readiness to supply the financial system with liquidity in foreign currencies and the third is to meet obligations to international organisations.

The Riksbank's foreign currency reserve was strengthened partly because Sweden's commitments to the International Monetary Fund (IMF) have increased, but mainly because the Riksbank is to manage the task of ensuring that the payment system in Sweden functions safely and efficiently. The serious situation abroad and the Swedish banks' extensive funding in foreign currencies mean that the risks of disruptions to the financial system are higher than before. The role of the Riksbank in this situation is, when necessary, to be able to provide liquidity assistance at short notice. With today's Swedish banking system, it may also be necessary to provide such assistance in foreign currencies. We therefore asked the National Debt Office on two occasions to borrow foreign currency on our behalf to strengthen the currency reserve. All in all, we borrowed foreign currency to a value equivalent to SEK 200 billion.

However, the foreign currency reserve has grown by SEK 325 billion, while the strengthening by means of the National Debt Office loans amounted to SEK 200 billion. The difference is partly due to the krona being weak during 2014 and the value of the foreign currency reserve, measured in krona, therefore having increased. The krona depreciation is also visible in the fact that the value of the foreign currency loans, which a year ago was SEK 193 billion, now amounts to SEK 228 billion. But the foreign currency reserve has also grown as a result of the return on the bonds in the foreign currency reserve being reinvested in new bonds instead of used to pay dividends to the government. As a result of this, the Riksbank has instead had to borrow from the banks that are its monetary policy counterparties to pay the dividends. This has contributed to the banks' net claims on the Riksbank having increased by almost SEK 50 billion over the past ten years, which has means that we have gone from having a monetary policy claim to a monetary policy liability.

### ***The Riksbank has reintroduced a portfolio in Swedish krona***

On the asset side, we now also have a portfolio of Swedish government bonds in *Swedish krona*. Let me just comment here on why we have once again acquired ***a securities portfolio in Swedish krona***. Most central banks have a securities portfolio in their own currency. The Riksbank also had such a portfolio during the 1990s and this consisted mainly of government bonds, as well as a minor holding in treasury bills and mortgage bonds. In

2001, the portfolio was transferred to the Swedish National Debt Office. In autumn 1999, The Riksbank's market commitment repo facility was transferred to the Swedish National Debt Office and the assessment was made that a domestic securities portfolio at the Riksbank would not fulfil any important monetary policy function.

However, the experiences of the financial crisis 2008–2009 show how important it is to be able to quickly implement measures beyond the ordinary measures used by a central bank to implement monetary policy. During the crisis the Riksbank took several extraordinary measures to improve the functioning of the financial markets and the monetary policy transmission mechanism. Other central banks implemented similar measures. Unlike many other central banks, the Riksbank did not buy any government bonds or covered bonds, but these possibilities were discussed.

One important lesson from the crisis is that new measures require considerable preparation. After the crisis, we therefore decided that it is a good idea to make practical preparations for a crisis even during normal circumstances by supplementing the Riksbank's toolbox with a limited securities portfolio in Swedish krona. This ensures that necessary systems, agreements, routines and knowledge are already in place if it becomes necessary to quickly implement extraordinary measures. Given that we now have a repo rate close to zero and we are discussing which unconventional measures might be appropriate if inflation does not rise towards two per cent, it is good that the Riksbank has created the possibility and knowledge to manage a bond portfolio. This means that we now can quickly and simply purchase and sell bonds, something that would previously have taken us much longer. So, in technical terms we are prepared to increase the size of the portfolio if and when it should prove necessary.

### ***The general public's use of cash is declining***

One important item on the liabilities side of the balance sheet is outstanding **banknotes and coins**. The Riksbank has the monopoly on issuing banknotes and coins in Sweden and is responsible for supplying the country with cash. The size of this item depends on the demand from the general public for cash. Previously, the stock of notes and coins used to grow over time in line with growth in the economy, but this has not been the case in recent years. Since 2007, the demand for notes and coins has instead declined, both in relation to GDP and in absolute figures. As far as I know, we are alone in the world with regard to the latter development. It is not entirely clear why this is so, but the fact that Sweden is in the forefront with regard to the use of card payments and electronic payments has probably contributed.

The value of outstanding banknotes and counts amounted to SEK 109 billion ten years ago and comprised 60 per cent of the Riksbank's balance sheet total. At the end of 2014, the item had declined to just over SEK 83 billion and now comprises only 17 per cent of the balance sheet total. The Riksbank assesses that cash will remain a means of payment for the foreseeable future, although it will probably decline in significance.<sup>3</sup> The replacement of the Swedish banknotes and coins that will take place between autumn 2015 and summer 2017 increases uncertainty over how much cash will be in circulation during the coming years.

What does it mean for the Riksbank when the amount of cash in circulation declines? Well, when this happens the banks do not need to hold such large stocks of cash as before. Instead, they deposit the money in their accounts with the Riksbank. What this means for the Riksbank's balance sheet is that when the liabilities item banknotes and coins declines, the item monetary policy liabilities increases by the same amount. Over the past ten years, the item banknotes and coins has declined by SEK 25 billion, and the monetary policy liabilities

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<sup>3</sup> The Swedish retail payment market, Riksbank Study, June 2013 (page 8).

item has thus increased by the same amount. In this way, the Riksbank misses out on interest-free funding, as the Riksbank pays interest on the monetary policy liabilities. Although this is not so relevant at present when the repo rate is at zero, in the long run the Riksbank's profits will shrink in line with the decline in the use of cash.

I should perhaps take the opportunity to say here that the Riksbank is in general positive towards developments on the payments market that in many cases lead to both safer and more efficient payments. But one cannot disregard the fact that a decline in the use of cash will also reduce the Riksbank's opportunities for interest-free funding.

### ***The Riksbank borrows instead of lending***

The changes in the Riksbank's balance sheet that I have mentioned here have led to a major change in the liquidity position of the banking system towards the Riksbank. Ten years ago, the banking system had a structural deficit of liquid funds with regard to the Riksbank. This means that the Riksbank had to regularly lend money to the banking system. Since 2010, the banking system has instead had a structural surplus of liquid funds and the Riksbank now borrows these funds from the banking system. The most important explanations for the banking system moving from deficit to surplus are that the dividend payments to the government have not been taken from the assets; the Riksbank has instead borrowed money to pay the dividends, and that the general public's demand for cash has declined.

This change is reflected in the Riksbank's balance sheet in that we now carry out our ***monetary policy operations*** on the liabilities side of the balance sheet. But it makes no difference to our ability to implement monetary policy.<sup>4</sup> Regardless of whether the banking system has a deficit or a surplus of liquidity in relation to the Riksbank, our monetary policy system works by means of our determining the conditions for the banks' deposits and loans with the Riksbank, which determines the shortest interest rate – the overnight rate – so that it comes closer to our policy rate, what is known as the repo rate. The repo rate thus states which level the Riksbank wants for the overnight rate, which is currently zero per cent. The overnight rate in turn affects interest rates charged to the general public and thereby activity and prices in the economy.

### ***The Riksbank's need for funding is increasing***

The most important fundamental consequence in the changes to the balance sheet between 2004 and 2014 is that the Riksbank now has a larger ***funding need*** than before. I shall explain why. The reason is that the foreign currency reserve needs to be much larger than before, as the banks' funding in foreign currency has expanded so much over the past ten years. And this means that the traditional funding sources, equity and banknotes and coins, are not enough.

How should the Riksbank fund its assets? As I have already described, the Riksbank chose to borrow foreign currency on the international capital market through the Swedish National Debt Office when the foreign currency reserve was strengthened. We assessed that this was the most suitable procedure at the time and it functioned well and is still doing so.

Although the Riksbank is able to borrow euros and dollars at a low cost on the capital market through the National Debt Office, the interest expenditure for the currency loans is higher than the return the Riksbank receives on the money when it is invested in safe assets with very low risk. The difference is around 0.2 per cent. This means that the strengthening of the foreign currency reserve of SEK 200 billion costs the Riksbank around SEK 400 million a year. One can regard this cost as a form of insurance premium that the Riksbank considers is worth paying to ensure a good level of preparedness for a crisis. As the Swedish banking

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<sup>4</sup> See Peter Sellin and Virginia Queijo von Heideken: "The banking system's liquidity surplus and interest rate formation" in Sveriges Riksbank Economic Review 2014:3.

system is so large and important to the Swedish economy, this cost can be considered small in relation to the costs that might arise if the banking system ceased functioning.

The reinforcement of the foreign currency reserve thus reduces the Riksbank's profits by around SEK 400 million a year. This is one of the reasons why it has been discussed in various contexts whether the banks should contribute to the costs of the reinforcement. The Riksbank has previously argued that it would be reasonable if the banks stood for the cost of the part of the foreign currency reserve needed to manage emergency liquidity assistance<sup>5</sup>, and we will probably have reason to return to this question in the future.

### **How can the Riksbank obtain funding in the future?**

By going through the balance sheet in this way, we can clearly see that the Riksbank has little opportunity to influence how it obtains funding. We have already observed that the banknotes and coins item is declining and that there is nothing the Riksbank can do about this – it is part of the technological developments taking place. With regard to foreign currency loans, I mentioned that the interest expenditure for them exceeds the income on the assets the loans fund.

The Riksbank's equity exceeds SEK 100 billion. This means that the Riksbank has a good capacity to manage potential losses. And it is important for our credibility. EU legislation prescribes that it is the highest decision-making body in the central bank that shall decide on the size of the bank's equity. It is of course important that the decision is made after a preparatory process that is transparent and predictable, with a healthy balance between promoting on the one side the need of the Riksbank to have sufficient equity on each occasion and on the other side the interest of the Swedish government to minimise the Riksbank's costs for tying up capital.

To summarise, we can note that the Riksbank currently only has one source of funding that it determines itself, namely monetary policy liabilities. In other words, the Riksbank can always make payments by increasing liquidity in the banking system. But all other forms of funding are affected in one way or another by things beyond the bank's control. At present, the repo rate is at zero and this means that the Riksbank does not have any interest expenditure for the monetary policy liabilities. But this is temporary, and as the repo rate is raised, the bank's interest expenditure will increase. This will also mean that profits decline.

### **The coming years – profits declining, no dividends**

I have now spent some time on describing the Riksbank's balance sheet and discussing some of the challenges the bank is facing. But I have not yet said anything about the largest challenge for the bank in the short term. By this I mean the extremely low interest rates, both here in Sweden and abroad.

As I have already mentioned, the foreign currency reserve shall be managed so that the Riksbank can provide emergency liquidity assistance in foreign currency at short notice. The assets therefore need to be easy to sell. They must also retain their value. Therefore, the foreign currency reserve largely consists of very safe government bonds, mainly from the United States and Germany.

The yields on US and German government bonds are currently very low. As the Riksbank's income largely consists of the return on the foreign currency reserve, one must realise that the Riksbank currently has fairly limited opportunities to earn money. Let us look at a simple calculation, based on how things looked ten years ago, and compare this with the current situation.

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<sup>5</sup> See, for instance, the speech by Lars Nyberg on 17 May 2011: "Is it dangerous to borrow dollars?"

### ***Net interest income has declined***

At the end of 2004, the Riksbank had assets worth SEK 183 billion. The interest rate then was around four per cent (measured as an average over the currencies included in the reserve). A rough estimate of the Riksbank's net interest income is then SEK 7.3 billion (183 x 4%). As the assets were financed almost completely by the banknote and coin stock and the bank's equity, interest rate expenditure was low. The cost of the small IMF liability was just under SEK 300 million, so net interest income was around SEK 7 billion. This should be set against the Riksbank's costs for conducting its operations, which amounted to around SEK 750 million a year. Net interest income was thus almost ten times higher than expenditure.

If we make the same calculation for 2014, the picture is rather different. Based on the interest rates that applied at the turn of the year, net interest income is around SEK 3.5 billion. Now the bank also has sizeable interest expenditure amounting to SEK 2.4 billion (and this despite the repo rate being zero, so the bank does not pay interest on liabilities in Swedish krona). Net interest income is thus SEK 1.1 billion, which still covers the costs of conducting the bank's operations – but now with a much smaller margin than before.

As you can all see, this is a very rough and simplified calculation. The return on a bond portfolio is not just determined by the interest rate at a particular point in time, but also by the yield curve and how it moves over time. We have calculated this, too, and when we estimated the expected return on the foreign currency reserve, we have used data from interest rate forecasts by the National Institute of Economic Research.<sup>6</sup>

From 1988 onwards, the Riksbank's results have on average exceeded SEK 8 billion a year. I have chosen 1988 as starting year as this was when we began to apply the principles for how to calculate the size of the dividend, which still apply today. In brief, the principles entail the dividend level remaining stable, the majority of the profit shall be paid as a dividend, and that the calculation shall not take into account developments in the government budget. In concrete terms, this means that 80 per cent of the average results in the past five years (adjusted for exchange rate effects) shall be paid as dividend to the government. The majority of the profit has been paid to the Treasury. The fact is that if we include the two extra dividends of SEK 20 billion each paid at the beginning of the 2000s, the Riksbank has paid somewhat more than its profits in dividends during this period. The smallest dividend paid during the period is that paid in spring 2014, SEK 3.3 billion.

### ***Losses await***

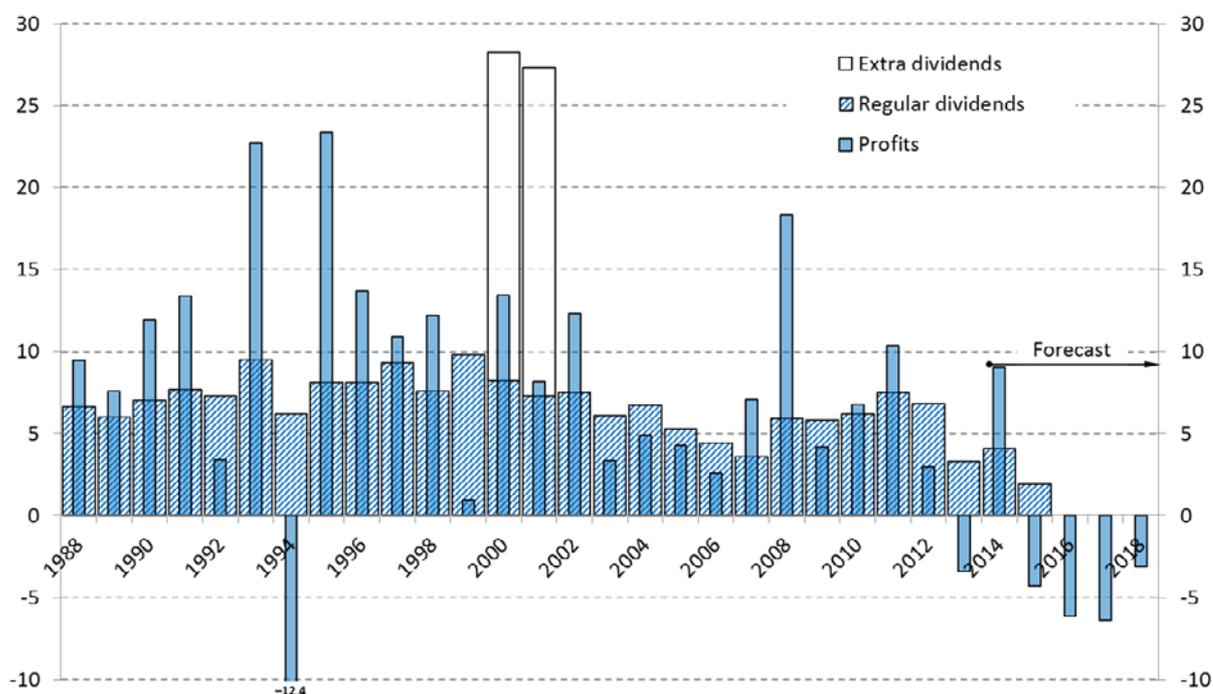
If we instead look ahead, we see that the Riksbank will probably make losses over a couple of years. The results for 2014 (which have not yet been established) were still positive, but if interest rates rise in the way that the National Institute of Economic Research forecasts, it will be some time before the Riksbank can show a profit again. It looks as though the bank will have losses in the years 2015–2018 amounting to around SEK 5 billion a year.

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<sup>6</sup> The Riksbank regularly makes forecasts for the bank's dividends to the state as part of the National Financial Management Authority's work on planning the state finances. In this work, all of the public authorities use the National Institute of Economic Research's forecasts for economic developments.

## The Riksbank's profits and dividends 1988–2018

SEK billion



Sources: The National Institute of Economic Research and the Riksbank

This development is not unique to the Riksbank. Many of those who have invested in bonds will face losses when interest rates rise. Those that are hit the hardest will be the central banks that have applied what is known as quantitative easing in recent years, that is, they have bought large volumes of bonds with long maturities to stimulate the economy.

The fact that the Riksbank makes losses in turn means that the bank will not be able to pay dividends to the government for some years. As the dividend payment is based on the results from the past five years, it will decline with a time lag, and the forecast at the moment is that we will pay two further dividends before the losses take over and the dividend payments become zero.

This is of course a setback for the government's income. And as the dividends cannot be negative when the Riksbank makes a loss, the bank must bear the losses, which will reduce our equity. As we have equity of a good SEK 100 billion, we can manage this without any infringement of our financial independence.

### The Riksbank is financially strong

I have now described how the Riksbank's balance sheet has changed over the past ten years. I have also tried to show how this affects the bank's capacity to make a profit.

Some changes are the result of active decisions by the Riksbank. Decisions the Riksbank has made as a preventive measure to be sufficiently prepared to manage a changed situation. I am of course mainly thinking of the reinforcement of the foreign currency reserve here, but also the decision to acquire a portfolio of Swedish securities again. Other changes, such as the decline in the use of cash and international interest rates, are beyond the Riksbank's control.

Changes in the Riksbank's balance sheet will lead to the bank's profits slowly shrinking. We must therefore consider more carefully than before how we can best fund our assets. The expected rise in interest rates has a much greater effect on the bank's profits in the short term, but on the other hand the effect is temporary.

Although there is no lack of challenges, the Riksbank is financially strong. This is important to be able to perform our task in the best possible way. The bank has substantial equity, which may well be needed if the Riksbank is forced to adopt unconventional methods to bring up inflation.

Finally: Does the Riksbank have to make a profit? Yes, it does actually. We must be able to cover our costs. And we must be able to build up buffers. But if our finances are stable, then our capacity to perform our tasks will not be jeopardised because we lose money during a few years.