

ARTICLE – Why has the krona weakened this year?

The krona has weakened against several currencies in 2022. The most important explanation for this is Russia's invasion of Ukraine and its consequences of high inflation and uncertainty in international financial markets. A further explanation for the depreciation of the krona is supplied by the rapid rate increases from the Federal Reserve, which have contributed to relatively higher US interest rates and a stronger dollar. As long as uncertainty in financial markets remains, it is likely that the Swedish krona will continue to be volatile. In the long term, however, the krona is expected to strengthen. Changes in the krona exchange rate affect inflation. But the Riksbank's assessment is that the sharp increase in inflation has primarily been driven by factors other than the depreciation of the krona.

In November 1992, the fixed exchange rate was abandoned in Sweden and the inflation target was introduced in January 1993.⁴⁰ The Riksbank thus has no target for the Swedish krona exchange rate. However, changes in the krona exchange rate can affect both inflation and the real economy. For the Riksbank, the effects on inflation are particularly important to analyse and understand.⁴¹ The krona has weakened since the turn of the year and this is helping to push the already high inflation up further. We will now examine some conceivable explanations for the weak krona exchange rate in more detail.

Global financial uncertainty has led to a stronger dollar and weaker krona ...

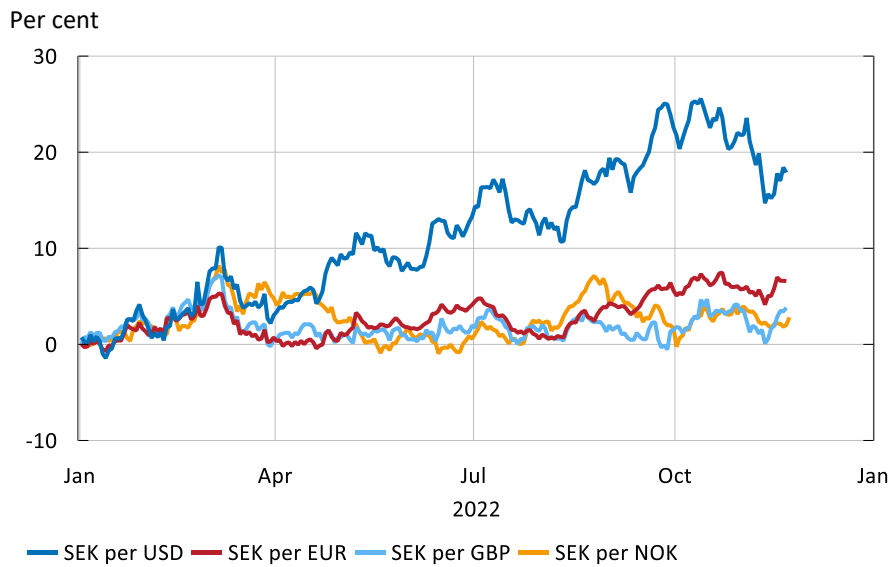
The year has been characterised by the consequences of the COVID-19 pandemic and Russia's invasion of Ukraine. This has led to rapidly rising inflation and unpredictability regarding both growth in the real economy and monetary policy challenges for the world's central banks. Monetary policy has become tighter and uncertainty on the global financial markets has increased. In an environment of elevated financial uncertainty, currencies in small open economies like Sweden have a tendency to depreciate.⁴² In trade-weighted terms, the krona has depreciated by just over six per cent since the turn of the year (see Figure 17 in Chapter 2). Depreciation has been greatest against the US dollar (see Figure 44).

⁴⁰ This started to apply from 1995.

⁴¹ See the article "The significance of the krona for inflation" in *Account of Monetary Policy*, 2018, Sveriges Riksbank, for a review of how a change in the exchange rate affects inflation.

⁴² See, for example, P. Bacchetta and P. Chikhani (2021), "On the weakness of the Swedish krona", *Economic Review* No. 1, Sveriges Riksbank.

Figure 44. The krona has weakened most against the US dollar

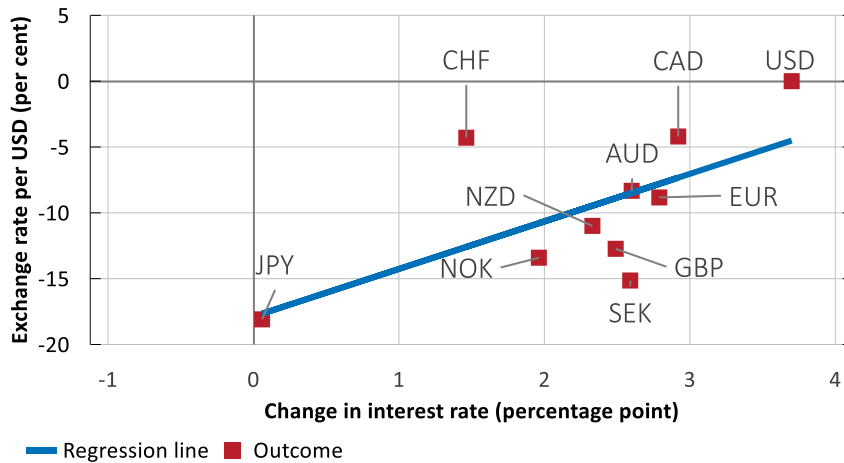


Sources: Bank of England, Macrobond and the Riksbank.

Figure 45 shows that the dollar has strengthened since the turn of the year against a large number of currencies and that yields have risen more in the United States than in other countries. The war in Ukraine has affected the general security situation and energy prices more in Europe than in the United States, which could be one explanation for the dollar's general strength against European currencies over the year.

Figure 45. The US dollar has strengthened against other currencies at the same time as the yield spread between the United States and other countries has increased

Per cent and percentage points



Note. The figure's y-axis shows the change in the countries' currencies against the dollar since the turn of the year. Negative values indicate that the dollar has strengthened against each country's currency respectively. The figure's x-axis shows how the countries yield spread compared to US yield has changed during the same period. German yield has been used for the euro area. The regression line indicates that the exchange rate has weakened more against the dollar for countries with larger negative yield spread compared to US yield. The observation for USD has only been added to the figure and is not included in the estimate.

Source: Macrobond.

The krona has not just weakened against the dollar but also against many other currencies, albeit to a lesser extent (see Figure 44 and Figure 45). One further conceivable explanation for the weak krona that has sometimes been discussed concerns the risks on the Swedish housing market.⁴³ The falling housing prices over the year could have led foreign investors to want to reduce their Swedish exposures, which may have contributed to a weaker krona.

... but higher US interest rates have probably also contributed

As inflation started to rise earlier in the United States than in many other areas, the Federal Reserve started its policy rate increases relatively early. The increased yield spreads in relation to other countries have probably also contributed to the strengthening of the dollar (see Figure 45). Since the start of the year, the Federal Reserve has raised its policy rate by 3.75 percentage points, at the same time as it has indicated that continued raises of just over one percentage point are likely.⁴⁴ The Riksbank has also raised its policy rate significantly since the start of the year, albeit to a lesser extent than the Federal Reserve. This has led to an increased spread between

⁴³ See, for example, "Svenska kronan befinner sig i ett bottenläge" (Swedish krona reaches rock bottom) | SvD, "Danske spår rekordsvag krona mot dollarn" (Danske Bank forecasts record weak krona against dollar) (di.se) and "Svenska kronan – därför är den så svag mot Euro och dollar" (The Swedish krona – why it's so weak against the euro and dollar) | SvD.

⁴⁴ See press release from Federal Reserve, 2 November 2022. [Federal Reserve Board - Federal Reserve issues FOMC statement.](#)

Swedish and US yields, which, in turn, has contributed to the weakening of the krona. However, a statistical model of the krona's exchange rate against the dollar and euro provides empirical evidence that the most important explanation for the krona's depreciation over the year is the impaired risk sentiment in global financial markets. Yield spreads only seem to explain a smaller part.⁴⁵

Several factors indicate that the krona will strengthen in the long run

The Riksbank's assessment of the future development of the krona can be divided into a short-term analysis and an assessment of the long-term equilibrium exchange rate.⁴⁶

The short-term analysis aims to investigate how conditions in financial markets will affect the krona's movements in the next quarters. The Riksbank assesses that the financial uncertainty over the year provides an important explanation for the weakened krona exchange rate. As long as uncertainty remains, it is likely that the Swedish krona will continue to be volatile. But as the picture becomes clearer as regards how much ventral banks in the United States and other countries need to raise the policy rate for inflation to fall back, uncertainty in financial markets is expected to wane and the krona expected to strengthen.

In the longer term, the Riksbank's krona forecast is based on an assessment of the development of the real exchange rate.⁴⁷ The real exchange rate reflects the price level in Sweden compared to the rest of the world, measured in the same currency. A theory in order to determine the long-term real exchange rate seizes on the assertion that the price level measured in the same currency is higher in richer countries. Another theory is based on the real exchange rate moving in a way that leads to balance in foreign trade. A measure of Sweden's wealth in comparison with other countries is GDP per capita compared to the rest of the world. Another measure of this is how export prices develop compared to import prices, also known as the terms of trade. The idea is that a country that exports expensive goods and imports cheap goods gets richer. A current account surplus would indicate that the real exchange rate needs to strengthen to balance the surplus in the longer term, as a stronger real exchange rate tends to increase imports and decrease exports. A statistical estimate using these explanatory factors indicates that the real krona exchange rate is currently weaker than its equilibrium level. In the long run, the real krona exchange rate should therefore strengthen. As the price level in Sweden compared to the rest of the world moves relatively slowly, the forecast for the nominal exchange rate follows a similar path to the real one, implying an appreciation over the next few years (see Figure 40 in Chapter 3).

⁴⁵ The model explains the krona exchange rate in terms of the price of oil, yield spreads and the US stock market index, with the stock market index being used as an indicator of global financial risk sentiment. For a more detailed description, see A.M. Ceh (2020), "Forecasting short-term movements in the Swedish krona", *Staff Memo*, November, Sveriges Riksbank.

⁴⁶ See the article "The Riksbank's exchange rate forecasts", in *Account of Monetary Policy*, 2019, Sveriges Riksbank.

⁴⁷ For an overview, see the articles "Analysing exchange rates – a few key concepts" and "The Riksbank's exchange rate forecasts" in *Account of Monetary Policy*, 2019, Sveriges Riksbank.

The high inflation is explained primarily by factors other than a weak krona

Changes in the krona exchange rate can affect inflation via different channels. The most direct channel is via import prices at the producer level. If the import price is contracted in foreign currency, a weakening of the krona leads immediately to a changed import price in kronor. But several circumstances mean that the exchange rate has a significantly weaker correlation to aggregate consumer prices.⁴⁸

The Riksbank's previous estimates indicate that a 10-percent depreciation in the krona exchange rate leads to higher inflation of approximately 0.5 percentage points.⁴⁹

According to KIX, the krona has depreciated by around 5 per cent this year and CPIF inflation has risen from below 4 to just over 9 per cent, an increase of approximately 5 percentage points. The Riksbank's assessment is therefore that the upturn in inflation has primarily been driven by factors other than the depreciation of the krona.

Similarly, an appreciation of the krona exchange rate is not expected to be a decisive factor in the expected decline in inflation during the forecast period. If the krona does not appreciate in accordance with the forecast, however, it may be somewhat more difficult to bring inflation down to target than it otherwise would have been.

Consequently, it is important for the Riksbank to continue to monitor and analyse the development of the krona.

⁴⁸ See the article "The significance of the krona for inflation" in *Account of Monetary Policy*, 2018, Sveriges Riksbank, for a review of how a change in the exchange rate affects inflation.

⁴⁹ See the article "The impact of the exchange rate on inflation" in *Monetary Policy Report*, December 2016, Sveriges Riksbank.