ARTICLE – The exchange rate and inflation

Since the Monetary Policy Report in February, the krona exchange rate has depreciated by around 5 per cent. The exchange rate is affected by both more long-term structural factors and factors of a more temporary nature. An example of a more temporary factor is if many market participants begin to look less positively on how the Swedish economy will develop cyclically and therefore expect a more expansionary monetary policy in Sweden than abroad. But the krona can also weaken in times of unease if market participants prefer to choose assets in larger, more secure currencies than the Swedish krona. What lies behind a change in the exchange rate and how long this change is expected to last can have an impact on inflation. It is not the exchange rate's development per se, but rather how it affects inflation and economic activity, which are the focus of the Riksbank's monetary policy.

The exchange rate in the short and long term

Many different factors affect the exchange rate. Some of these are of a structural nature and therefore affect the exchange rate over a long period of time. For example, a faster productivity growth trend in Sweden in relation to the rest of the world or a more permanent improvement in the Swedish terms of trade (the relationship between Swedish export prices and Swedish import prices) should contribute to a stronger exchange rate in the long term. Another structural factor that can affect the exchange rate over a long period of time is a demographically driven change in the current account. With a large percentage of the population at ages with a high level of savings, the surplus on the current account is normally larger. This is compatible with a weak exchange rate. When savings then decline in the future, the exchange rate strengthens. Structural changes normally affect developments in the economy only gradually and therefore rarely give rise to large and rapid changes in the exchange rate.

Other determinants affect the exchange rate over a shorter period of time.[19] If, for instance, participants in the financial markets change their views of the economic outlook and inflation prospects in Sweden in relation to the rest of the world, this may affect their views on monetary policy and the exchange rate over a period of time. Moreover, increased unease and volatility on the financial markets usually mean that the krona weakens against other, larger and more liquid, currencies for a period of time. The Riksbank assesses that most of the weakening of the Swedish krona since February is due to changes in expectations of monetary policy and unease and volatility on the financial markets.

No simple correlation between the exchange rate and inflation

The link between exchange rate movements and changes in inflation depends on what causes the change in the exchange rate.[20] If, for instance, cost pressures in the economy are developing weaker than expected, resulting in lower inflation, this can lead to expectations of a more expansionary monetary policy and thereby a weaker krona. The krona can then weaken at the same time as inflation is lower than before. If, on the other hand, the exchange rate weakens as a result of increased financial unease or other factors that have less to do with the Swedish economy, inflation may instead be higher going forward as a weak krona will not then be counteracted by other effects that push down inflation. In both cases a weaker krona contributes to higher inflation, but in the first example the overall effect is lower inflation.

The way inflation is affected when the krona weakens also depends on how long the weakening is expected to last.[21] A weakening that is expected to continue for a longer period of time means that Swedish companies are expecting higher costs for imported input goods over a fairly long period to come. To avoid a fall in profit margins over a long period of time, companies will probably want to pass on the cost increases to their customers in Sweden. Moreover, demand for Swedish exports increases more if the krona is weak over a longer period of time, which causes resource utilisation and ultimately cost pressures in Sweden to rise. Such a weakening may therefore have a relatively large impact on inflation. A weakening that is expected to be more short-lived can instead get companies to wait before implementing price increases and to allow profit margins to

[19] This reasoning actually concerns the real exchange rate, that is, the relative price level in a joint currency. For the sake of simplicity, it is assumed in this article that all variations in the real exchange rate are caused by changes in the nominal exchange rate. This is probably a good approximation, at least in a short-term perspective.

[20] See the article "The impact of the exchange rate on inflation" in the Monetary Policy Report December 2016.

[21] See Monetary Policy Report July 2013, Chapter 2.

decline for a period of time, to retain their market shares. Then the effect on inflation may be more moderate.

How a weaker exchange rate is linked to inflation should thus depend on a number of different factors. And as these factors may be difficult to observe, there is always a high degree of uncertainty in the assessment of the correlation between the exchange rate and inflation.

Several reasons for a weaker krona since the February MPR

Since the February Monetary Policy Report, the krona has depreciated by around 5 per cent, and this weakening has been against several different currencies (see Figure 4:18). During the same period, market expectations of monetary policy in Sweden have shifted in a more expansionary direction (see Figure 2:1). In certain other economies, expectations have also shifted in a more expansionary direction (for instance, in the euro area), but not as much as in Sweden. And in other countries the changes in market expectations have been minor or have gone in the opposite direction (for instance, the United States).

Monetary policy expectations in Sweden changed, for instance, when inflation in January was lower than the Riksbank had expected, and when the minutes of the monetary policy meeting in February published. Both of these events were interpreted to mean that the Riksbank would conduct a more expansionary monetary policy than that signalled in the February Monetary Policy Report. On both of these occasions the krona weakened (see Figure 4:19).

However, the krona has also weakened in connection with the increase in volatility on the international financial markets. One example is when the US administration announced at the end of March that import tariffs would be introduced on certain Chinese goods, and this led to stock market falls in many countries. It is not unusual for the krona to weaken when unease increases on international financial markets, as market participants will in these situations to a greater extent choose assets in larger, more liquid currencies.

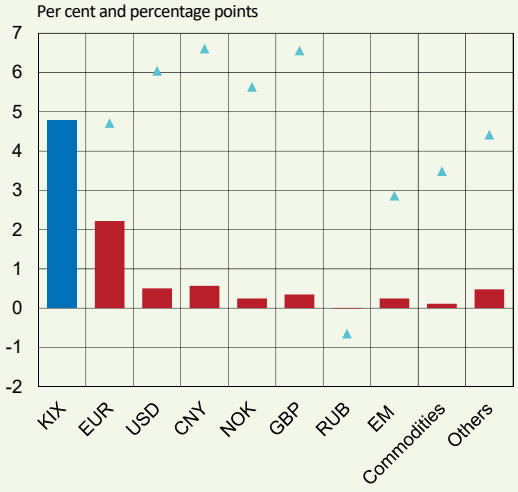
The weakening since the Monetary Policy Report in February is therefore due to several different factors. However, it is difficult to assess how much each respective factor has contributed to the weakening of the krona, and the overall consequences for inflation going forward are uncertain.

Krona expected to be weaker than forecast earlier in the coming years

The Riksbank's forecast means that the krona is expected the recover some of the depreciation in recent months during the spring and then gradually continue to appreciate over the coming years. Compared with the previous forecast, however, the krona is assessed to be weaker throughout the forecast period. This contributes to the assessment that inflation will be somewhat higher than was previously forecast, especially in 2019. But the assessment is very uncertain, and the impact on inflation can be both greater and smaller than in the forecast.

The Riksbank's assessment that the krona should be stronger in the longer run than its current level is shared by

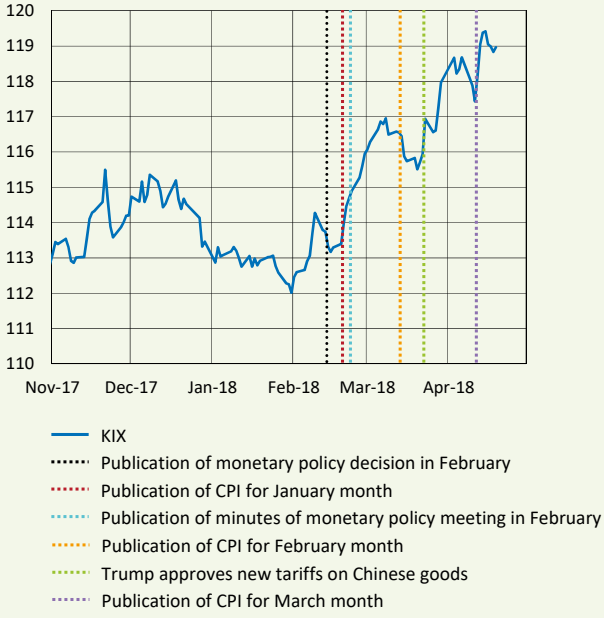
Figure 4:18. Changes to KIX exchange rates
Per cent and percentage points



Note. The figure shows changes in KIX and contributions from different currencies between 14 February 2018 and 24 April 2018. EM refers to Brazil, Hungary, India, Mexico, Poland and Turkey. Commodities refer to Australia, Canada and New Zeeland. Other refers to Czech Republic, Denmark, Iceland, Japan, South Korea and Switzerland.

Sources: Thomson Reuters and the Riksbank

Figure 4:19. Developments of the krona linked to some events
Index, 18 November 1992=100.



Note. The KIX is an aggregate of the countries that are important to Sweden's international transactions.

Sources: National sources and the Riksbank

many other analysts. However, it is also uncertain how quickly the krona will appreciate and what level it is reasonable to expect in the longer run. But it is not the exchange rate's development per se, but rather how it affects inflation and economic activity, that comprises the focus of the Riksbank's monetary policy.