

SPEECH

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SPEAKER: Deputy Governor Anna Seim

VENUE: The Riksbank

Driving forces behind the development of the krona*

The Swedish krona has just turned 150 years old. It replaced the riksdaler as a unit of payment in 1873 and in 1874 the first Swedish krona banknote was printed. Since then, the value of the krona has been managed in a variety of exchange rate regimes: the Scandinavian Monetary Union, the Bretton Woods system and pegs to various trade-weighted currency baskets. As of November 1992, the krona has been allowed to float freely, which, together with the inflation target set in 1993 but formally introduced in 1995, constitutes Sweden's monetary policy regime.

The exchange rate plays a central role in macroeconomic developments in a small, open economy like ours. Its evolution is important for a central bank with an inflation target, even if the exchange rate is allowed to float freely, as it affects various measures of inflation and the business cycle.

The aim of this speech is to describe, in a structured manner, what affects the Swedish krona over different time horizons and to comment on developments in recent years. In preparing the speech, I have discussed with my colleagues whether we should paraphrase the writers Carver and Murakami and name the speech "what I talk about when I talk about the krona", because that is exactly what this is: what I would answer if someone asked me to try to explain the nominal exchange rate. One of the main messages of the speech is that *it is possible to understand the evolution of the krona*. It varies over time and is very

S V E R I G E S R I K S B A N K

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difficult to predict, but a backward-looking analysis can provide convincing arguments as to why it has strengthened or weakened.

I will focus on the nominal exchange rate, i.e. how many kronor we have to pay to receive a unit of foreign currency. Many analyses, including the Riksbank's, deal with various measures of the real exchange rate that measure aggregate relative prices between different countries expressed in the same currency. As the real exchange rate has proved somewhat easier to model and is therefore often used in forecasting work, I will briefly comment on this as well. But the purpose of this speech is to discuss the nominal exchange rate and what affects it over different time horizons.¹

The exchange rate is a relative price determined by supply and demand for different currencies. These in turn reflect the supply and demand for goods, services and financial assets, which are priced in different currencies. In the past, conditions in goods markets and trade flows determined the demand for kronor to a greater extent, but as financial flows have grown in size and now dominate the value of trade in goods and services, financial markets have become increasingly central to exchange rate developments.² As someone who wants to buy financial assets in Sweden will need Swedish kronor to do so, the krona exchange rate is affected by changes in supply and demand for them.

According to economic theory, the goods market and international trade flows are more important for the exchange rate in the long term, while cross-border capital flows dominate in the short term.³ In reality, of course, there is no clear distinction between the short and long term, but there are educational gains to this division. In my view, it is generally wise to discuss long-term developments before considering the short term. One can then form a view of where the economy is heading and allow adjustments to this long-term equilibrium to become part of the short-term assessment.

¹ Throughout, I will define the nominal exchange rate in terms of domestic currency per unit of foreign currency. For example, the Swedish exchange rate relative to the US dollar using this definition is currently SEK 9.49 per USD. Using this method of calculation, a higher exchange rate means a weakening of the Swedish krona against the dollar, i.e. a depreciation, while a lower exchange rate means a strengthening, i.e. an appreciation.

 $^{^2}$ See the article in the Monetary Policy Report September 2023, "The krona will strengthen in the medium term".

³ See, for example, Krugman, Obstfeld and Melitz (2023) and Itskhoki and Mukhin (2021).

Conditions in goods markets important in the longer term

Theories on the exchange rate being determined by conditions in the goods market are often based on what is known as the law of one price. According to this theory, in the absence of trade barriers and transport costs, a good traded in two different economies should be sold for the same price in the two countries when the price is expressed in the same currency.⁴ According to the law of one price, the nominal exchange rate should reflect the relationship between the price of the same good in domestic currency and in foreign currency.

A well-known application of the law of one price is the Economist's Big Mac index. This uses the price of a Big Mac in the United States in dollars and the price of the same product in other countries to calculate what the exchange rate should be according to this theory. This hypothetical exchange rate is compared with the actual one and can indicate whether a currency is overvalued or undervalued. At the time of writing, this exercise suggests that the krona would be overvalued by about 20 per cent against the dollar. Such an analysis is interesting, but at the same time very simplistic and can therefore be misleading.

To begin with, the exchange rate should not be linked to the price developments of any individual product. Assuming that the law of one price applies not only to individual products but also at the aggregate level, we obtain the theory of exchange rates known as absolute purchasing power parity (PPP). This involves studying aggregate price levels and examining whether it is true that the nominal exchange rate between, for example, the krona and the dollar reflects the relationship between price levels in Sweden and the United States. According to relative PPP, which has stronger empirical support than absolute PPP, changes in the exchange rate reflect differences in inflation rates across countries. According to the theory of relative PPP, the fact that Swedish CPI inflation has been lower than the US rate for several years indicates that the krona has been undervalued against the dollar in the years prior to the latest krona appreciation.

However, there are good reasons to question how much these theories tell us about reality. Tariffs and transport costs imply that goods are not sold at the same price in different countries and many products, especially services, are not traded

⁴ For a certain good i it is thus the case that, at time t, $P_{i,t} = E_t P_{i,t}^*$, where $P_{i,t}$ is the price of that good in Sweden, $P_{i,t}^{**}$ is the price of the corresponding good in foreign currency abroad, and E is the nominal exchange rate.

⁵ https://www.economist.com/interactive/big-mac-index.

⁶ According to PPP, it is the case that $P_t = E_t P_t^*$, where P_t is the aggregate price level (for example, the CPI) in Sweden, and P_t^* is the aggregate price level abroad. This can be written as $E_t = P_t/P_t^*$.

internationally. This means that the exchange rate may very well deviate from the level implied by the theory of purchasing power parity.

If PPP holds, the real exchange rate is constant. However, as PPP is generally not fulfilled, the real exchange rate may fluctuate over time. Among other things, it has been found to be correlated with productivity in different countries. If one assumes that the real exchange rate is driven by real factors in the long term, while price levels in inflation-targeting countries are driven by monetary policy in the long term, then these factors together could explain the behaviour of the nominal exchange rate. Forecasters therefore often use estimates of the long-term level of the real exchange rate to make predictions about the nominal exchange rate. This has also been the approach used by the Riksbank for a long time and is one reason for the conclusion that the Swedish krona has been expected to appreciate. However, as shown in Figure 1, the Riksbank's forecasts for the exchange rate have often been wrong. This brings me to the question of what forces, beyond those in the goods market, might influence the exchange rate.

⁷ The real exchange rate is defined as $Q_t = E_t P_t^*/P_t$.

⁸ For example, higher productivity often leads to higher price levels in rich countries, which means that the real exchange rate is stronger there than in poor economies. For analyses of Sweden's real exchange rate and more references to the literature, see, for example, Lane (2007), Lagerwall and Nessén (2009), Bacchetta and Chikhani (2021) and Belfrage et al. (2025).

⁹ The fact that a central bank with an inflation target controls long-term inflation does not mean that it also controls the price level. This requires that it has, and manages to maintain, a price level target. In many countries, including Sweden, temporary deviations from the inflation target can have permanent effects on the price level and on the nominal exchange rate; see Benigno and Benigno (2008) and Engel and Wu (2023).

 $^{^{10}}$ The Riksbank's approach coincides with what is proposed in international research by Ca' Zorzi et al. (2017). See Belfrage et al. (2025) for more recent studies.

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Figure 1. The Riksbank's forecasts for the development of the Swedish krona Index. 1992-11-18 = 100

Note. The KIX (krona index) is a weighted average of the currencies in 32 countries that are important for Sweden's international trade. Since 28 March 2022, the index has been calculated against 31 countries following the exclusion of the Russian rouble. The solid line represents outcomes and the dashed line represents the Riksbank's forecast from the September Monetary Policy Report. The grey lines are from previous rounds of forecasts.

2022

2025

2028

2031

Source: The Riksbank.

== September — KIX

2013

2016

2019

Financial drivers have come to dominate over time

As I described in the introduction, cross-border capital flows have over time become crucial for supply and demand in the foreign exchange market and thus for exchange rates.¹¹

To understand what drives these flows, it is helpful to think of an international investor considering two possible investments, for example one in Sweden and one in the United States. In general, we say that what investors consider in their choices are expected returns, liquidity and risk. If we consider the government bond market for simplicity's sake, the return is the government bond yield over a given maturity. Liquidity captures how quickly the asset could be turned over in the market, and since it is roughly the same in developed countries, we ignore it here. In a stylised approach, an investor is indifferent between two investments with the same maturity if uncovered interest rate parity (UIP) applies.¹² If we

 $^{^{11}}$ The foreign exchange market is not really a single market but several, see Nordström (2022) for a description.

¹² The condition for uncovered interest rate parity can be written $i_{SVE,t} = i_{US,t} + \frac{E_{t+1}^e - E_t}{E_t} + \rho_t$, where i_{SVE} and i_{US} are the nominal returns (interest rate) on an investment in Sweden and the United States, respectively, E as before is the nominal exchange rate expressed in Swedish kronor per dollar and E^e is the expected future exchange rate. ρ is a risk premium that is zero if the interest rate parity condition holds

consider two investments that are deemed equally liquid and equally risky, the theory of interest rate parity states that if interest rates are lower in Sweden than in the United States, an investor must expect an appreciation of the krona to be indifferent to the choice of investing in a Swedish or in a US asset. The reason is that when the investor cashes out his invested money at the end of the period, the appreciation of the krona has compensated for the lower return on the Swedish asset. In addition, if the Swedish investment is perceived as riskier, the investor will demand a higher expected return, i.e. a risk premium, for holding the Swedish asset.

The interest rate parity condition is not entirely intuitive as it states that a higher interest rate in Sweden is consistent with an expected depreciation of the krona. This goes against the widely held view that if interest rates rise more in Sweden than in the United States, for example, demand for kronor increases and leads to an appreciation against the dollar. But the key to understanding interest rate parity is to recognise that it is an equilibrium condition. A higher interest rate typically causes the krona to appreciate, but it then becomes stronger than the equilibrium exchange rate that is consistent with the interest parity condition. In the long run, the krona will therefore have to weaken if parity is to be restored.

The arguments above are very simplified. The relationship between interest rates and the exchange rate is in fact complex. In reality, expectations about the future exchange rate have a large impact on the current exchange rate, making relationships difficult to model and estimate empirically. But even in richer and more realistic models, risk perception and preferences for risk will affect the demand for financial assets in Sweden and thus the krona exchange rate.

Thus, if we want to understand in depth what drives the development of the krona, we need to try to understand what drives returns and risk, and also liquidity, in financial markets.

Financial flows are driven by expected returns, risk and liquidity

Thus, based on international experiences and research, there are good reasons to believe that the exchange rate is largely driven by cross-border capital flows that affect the supply and demand for different currencies. Capital flows reflect investors' preferences for different assets and thus expected returns, risk and

exactly, but positive if it is perceived as riskier to invest in Sweden than in the United States. If the reverse is true, the risk premium is negative.

liquidity. Therefore, it is essentially the economic conditions behind these factors that determine to a large degree how the krona develops.

For example, strong productivity growth in Sweden implies higher future profits and a strong stock market, long-term stable government finances make government bonds an attractive asset and a healthy housing market can increase demand for covered bonds. All of this can increase the demand for Swedish kronor. Many institutional investors endeavour to hold certain proportions of domestic and foreign securities in their portfolios, as well as certain proportions of low and high-risk securities.

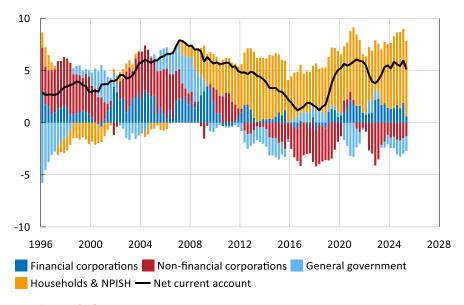
As I mentioned earlier, cross-border financial flows have increased significantly in recent decades. This also applies to financial flows from Sweden. Since the crisis of the 1990s, Sweden has had a financial savings surplus in relation to the rest of the world, which has been reflected in our current account surpluses averaging around 5 per cent of GDP over the past twenty years, see Figure 2.

The current account surplus is mainly due to high savings in the household sector. Collective pension savings constitute a large part of this. Household saving results in substantial investment abroad, although this is mainly channelled through investment funds and insurance and pension companies, rather than through direct investment by households themselves. Inflows to these sectors (including social security funds) have averaged just over SEK 200 billion per year over the past twenty years, equivalent to around 5 per cent of GDP, see Figure 3. Figure 4 shows total financial flows abroad from investment funds, insurance corporations, pension funds and social security funds over time. These have averaged around 3 per cent of GDP over the past twenty years. In 2024, they averaged around 6 per cent of GDP. This year, they were approximately equal to Sweden's net financial savings abroad, i.e. the current account surplus. The high level of saving in Sweden has thus led to a Swedish demand for foreign assets, a continuous capital outflow and thus a high supply of kronor. This has probably contributed to the depreciation of the krona, both in the short and long term. ¹³

¹³ High saving and current account surpluses can also lead to a depreciation of the real exchange rate. This so-called transfer effect was discussed by Bertil Ohlin and John Maynard Keynes after the First World War. See Lane (2007) for a more recent application.

Figure 2. Current account and financial savings by sector

Per cent of GDP

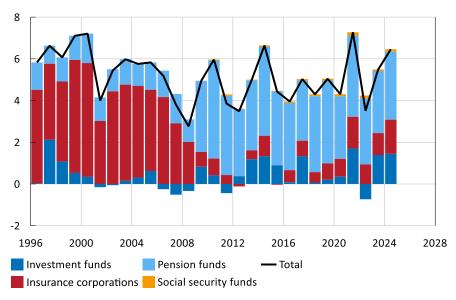


Note. Quarterly data.

Sources: Statistics Sweden and the Riksbank.

Figure 3. Household financial investment in selected sectors

Per cent of GDP

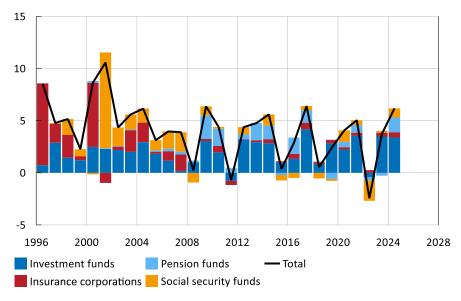


Note. Annual average. The figure shows households' net investments in financial instruments (fund shares, pension entitlements and private insurance savings) in each sector by year. Note that some companies were reclassified from insurance corporations to pension funds in 2009.

Sources: Statistics Sweden and the Riksbank.

Figure 4. Investments abroad from different sectors

Per cent of GDP



Note. Annual average. Transactions from Sweden to abroad show social security funds, Swedish investment funds, insurance companies and pension funds' net purchases (purchases minus sales) of foreign i) debt securities, ii) shares (both listed and unlisted), and iii) fund shares during the current year as a percentage of GDP (quarterly net purchases in relation to quarterly GDP).

Sources: Statistics Sweden and the Riksbank.

The development of the krona in recent years

The value of the Swedish krona has fluctuated widely since the transition to a floating exchange rate in 1992. Figure 5 shows the development of the krona relative to the euro and the US dollar, but also in terms of the KIX index which we often use for comparison. One advantage of the KIX index is that it is tradeweighted and thus recognises that our dependence on other countries can change over time. The Figure shows that when the fixed exchange rate was abandoned in the autumn of 1992, the krona immediately depreciated by around 12 per cent relative to the KIX, but also that the average value of the krona at the beginning of 1993 was about the same as today. In this respect, therefore, it is not possible to speak of either a long-term weakening or long-term strengthening of the krona during the floating exchange rate regime.

At the same time, we see a long-term weakening of the krona against the euro, while the value of the krona against the US dollar shows no clear trend over the period as a whole. In other words, it is difficult to summarise succinctly how the krona has developed in a world of floating exchange rates and occasionally large movements between the major currencies.

In times of great uncertainty, the krona has sometimes depreciated, as financial capital then tends to seek out what are known as "safe havens". 14 One such currency is the Swiss franc, which, in addition to a trend appreciation over time, has often appreciated particularly sharply in times of crisis. 15 However, the best-known safe haven is the US dollar, which normally strengthens in times of crisis. One important reason for this is the unique role of the dollar in terms of liquidity. The US dollar is widely used as the unit of account and means of payment in international transactions, even in transactions where US actors are not counterparties. US government securities are also used as collateral in many transactions. The US dollar thus has a special status as the world's reserve currency. 16

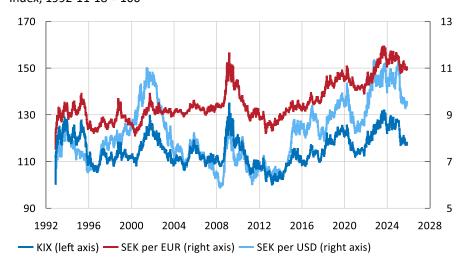
Figure 5 shows that the krona has been markedly volatile over the past 30 years. In line with the safe haven argument, we see that the krona was at its weakest in early 2009 and in 2023, i.e. during the global financial crisis and after the global inflation upswing. The krona peaked in 2012 at the beginning of the euro area crisis and then weakened on trend until autumn 2023. This year, the krona has appreciated by around 14 per cent against the dollar and around 5 per cent against the euro.

¹⁴ However, it is not generally the case that the krona always depreciates in times of increased global uncertainty, see Flam and Persson (2024).

¹⁵ The Swiss National Bank has intervened several times to prevent the franc from appreciating too rapidly, see Martin and Moser (2024) and Rathke and Straumann (2024). There are several theories as to why the franc is perceived as risk-free. Well-managed public finances and a strong and competitive economy are one explanation; a large banking sector that repatriates capital in turbulent times is another. There is also likely to be some persistence in expectations: the fact that Switzerland has been established as a safe harbour creates a belief that it will remain so in the future.

¹⁶ See, for example, Nelson and Weiss (2022), Bertaut et al. (2025) and ECB (2025).

Figure 5. Nominal exchange rate against KIX, as well as the EUR and USD Index. 1992-11-18 = 100



Note. The KIX (krona index) is a weighted average of the currencies in 32 countries that are important for Sweden's international trade. Since 28 March 2022, the index has been calculated against 31 countries following the exclusion of the Russian rouble.

Sources: Macrobond Financial AB and the Riksbank.

Focusing only on the last ten years up to 2024, Figure 5 shows that the krona has weakened against the euro, the US dollar and in terms of the KIX. I believe this trend is understandable and depends on a number of interacting factors. Here are a few that I think have had an impact.

As we have already noted, the extensive saving in the household sector, as illustrated in Figure 3, has resulted in a capital outflow that has probably been behind part of the trend depreciation of the krona against, for example, the dollar over the past ten years. In connection with the euro crisis, the Riksbank also changed monetary policy in a more expansionary direction. The policy rate was then cut and a period of asset purchases was initiated to push down longer-term interest rates. This probably also contributed to a weaker krona. In addition, the Riksbank communicated in 2016-2019 that it was prepared to intervene if the krona became too strong, which may have contributed to a higher premium for holding krona assets and thus a slightly weaker exchange rate. The Riksbank's bond purchases may also have affected the krona by impacting the functioning of the financial markets. When a large agent buys up sufficiently large volumes of government securities and the outstanding volumes become smaller, this can lead

 $^{^{17}}$ For a detailed review of the development of Swedish monetary policy 1973-2022, see Bylund et al. (2024).

to poorer liquidity and make Swedish government bonds less attractive for institutional investors, for example. 18

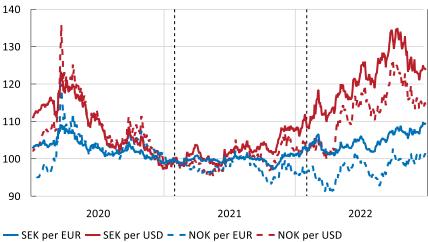
Two other factors that may have affected the development of the krona in the short term are related to the Riksbank's management of the foreign exchange reserves. In January 2021, the Riksbank decided to transition to self-financed foreign exchange reserves instead of relying on borrowing via the Swedish National Debt Office, as previously. The Riksbank therefore purchased foreign currency in 2021 and 2022. The Riksbank then announced in June 2023 that it would investigate the possibility of hedging part of the foreign exchange reserve, which it also implemented later in September. At that time, the Riksbank conducted a series of transactions in which it sold dollars and euros forward. Figures 6 and 7, taken from a preliminary research report by Artta et al. (2025), show the development of the Swedish krona against the USD and EUR compared with the development of the Norwegian krone against the same currencies. The figures suggest that following these changes, the two currencies, which had previously followed similar trends, moved in markedly different directions.

¹⁸ In the Riksbank's Financial Market Surveys, which are published twice a year, criticism of this nature was levelled at the Riksbank's purchases of government bonds. See also Åkerman (2023).

¹⁹ The scope of the Riksbank's foreign exchange market operations totalled around 3.5 per cent of GDP in 2021-22 and 1.7 per cent of GDP in 2023-24. It can be added that from 2015 (and with a break in 2020-2022) the Swedish National Debt Office sold Swedish kronor against foreign currency in the same order of magnitude as the Riksbank's operations in 2021-2022.

Figure 6. Development of SEK and NOK against EUR and USD during the period of the Riksbank's transition to self-financed foreign exchange reserves

Index, 2021-02-01 = 100



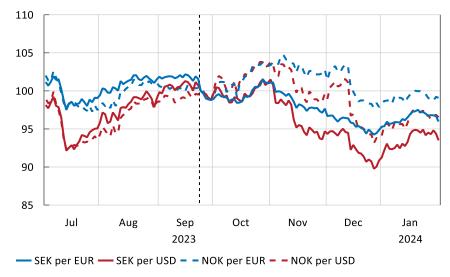
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Note. The vertical dashed line at 1 February 2021 refers to when the Riksbank started buying foreign currency. The vertical dashed line at 3 February 2022 refers to when the Riksbank increased the pace of foreign exchange purchases.

Sources: Macrobond Financial AB and the Riksbank.

Figure 7. Development of SEK and NOK against EUR and USD during the period of the Riksbank's transition to self-financed foreign exchange reserves

Index, 2023-09-25 = 100



Note. The vertical dashed line at 25 September 2023 refers to when the Riksbank started selling foreign currency.

Sources: Macrobond Financial AB and the Riksbank.

The research report analyses the foreign exchange transactions using modern econometric methods. The results are preliminary and should be interpreted with caution, but they suggest that the Riksbank's operations have had effects on the

krona exchange rate in some cases. The magnitude of the effects is uncertain but broadly in line with previous research literature in this area.²⁰

That these reserve-related changes may have had some impact on the exchange rate is not surprising and in line with international research. At the same time, I would like to point out that the Riksbank maintains a gold and foreign exchange reserve primarily for the sake of preparedness and to be able to safeguard financial stability, not to influence the exchange rate. We review our strategic allocation annually. In the spring of 2025, we decided to maintain the current hedging ratio, which means that around a quarter of the foreign exchange reserves will continue to be hedged. My assessment is that this is well balanced.

Very difficult to forecast the development of the krona

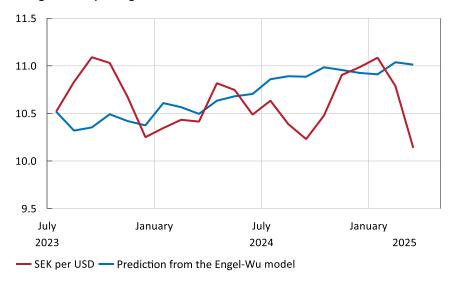
The nominal exchange rate is linked to developments in the real exchange rate and aggregate price levels, while cross-border capital movements driven by preferences for financial investments are crucial in the short term. All this contributes to movements in nominal exchange rates being very difficult to predict. While it may be possible to explain why the nominal exchange rate has developed the way it has in retrospect, it is very difficult to explain its future development. As I noted earlier, this is evident in Figure 1 of the Riksbank's forecasts of the krona.

In terms of backward-looking explanations, Engel and Wu (2024) use both macro and financial data to understand the evolution of the US dollar over the years 1999-2023 against a number of currencies, including the Swedish krona. Rosén and Vredin (2025) investigate what the Engel-Wu model says about the development of the dollar since August 2023 and also apply the model to some bilateral exchange rates against the Swedish krona. The results show that inflation, interest rates and the trade balance, among other factors, affect the recent behaviour of exchange rates, in line with Engel and Wu (2024) and the arguments I have reviewed today.

²⁰ See, for example, Itskhoki and Mukhin (2021), Sizova et al. (2025) and Artta et al. (2025), who also provide several references to research literature in this area.

Figure 8. Nominal exchange rate of SEK per USD and the calculated rate according to the Engel-Wu model

Average monthly change



Sources: Macrobond Financial AB and the Riksbank's own calculations.

However, the Engel-Wu model does not capture the krona's appreciation against the dollar at the end of 2023 and the beginning of 2025, see Figure 8. In both late 2023 and early 2025, the dollar also weakened against other currencies, implying that the appreciation of the krona against the dollar is not only due to Swedish conditions. But, as discussed above, the Riksbank's currency hedging of part of the foreign exchange reserve in 2023 may have played a role. In 2025, the dollar depreciation is likely to be related to financial flows out of dollar exposures due to uncertainty about US economic policy. This breaks the historical pattern of the dollar as a safe harbour. However, the krona has also strengthened against other currencies. What both episodes have in common is that there have been changes in demand and supply in the foreign exchange market that are not captured by macro variables traditionally used to explain nominal exchange rate developments.

As I mentioned above, the real exchange rate is somewhat easier to model and forecast than the nominal exchange rate. The Riksbank's long-term forecasts have therefore been largely based on the assumption that the deviation of the real exchange rate from an assessment of its long-term trend provides guidance on where the nominal exchange rate is heading in the long term. Once the real exchange rate has been estimated, the nominal exchange rate can be estimated by considering the current relative price level. However, it should be recognised that as the relative price level changes over time, so does the nominal exchange rate. Moreover, real and nominal exchange rates interact in a complex way.

In the short term, it is difficult to find a better forecasting model for the nominal exchange rate than a so-called random walk - a stochastic, or random, process in

which today's value depends on yesterday's value and a random term with an expected value of zero. The best prediction for tomorrow's exchange rate is then that it will be the same as today's. The classic reference in this area is a paper by Meese and Rogoff (1983), but Askestad et al. (2019), for example, draw the same conclusion with regard to the krona. This does not mean that changes in exchange rates are completely random. As shown in Figure 5, the krona has strengthened and weakened in waves. But while such waves can be explained to some extent in hindsight, as Engel and Wu (2024) show, financial markets are so complex, and the shocks to them and to the macroeconomy so large and frequent, that predictions about the future rarely materialise.

One conclusion is thus that the real exchange rate provides some information on how the nominal exchange rate is likely to develop in the future. But to understand the development of the krona, traditional macro data need to be complemented by careful analyses of financial flows.

The development of the krona is understandable

The Swedish krona engages and concerns. When it weakens, it usually leads to discontent about foreign goods becoming more expensive. This affects manufacturers who rely on imported inputs in their production, and a weaker krona penalises consumers who get less value for money in other countries. However, a weak krona favours Swedish exporters, whose goods become cheaper abroad and thus more competitive. So, at least in the short term, there are both winners and losers from a weak or strong exchange rate.

A weak krona is usually seen as a problem because it makes us poorer. Compared with other countries, this is true there and then, but as Figure 5 shows, the krona has fluctuated widely over time, both weakening and strengthening. The research literature clearly shows that what matters for a country's long-term prosperity are strong institutions and an environment that creates incentives for education, innovation and development. Persistent differences in real income between countries are determined by such structural conditions, not by nominal exchange rate developments.

As I mentioned at the outset, the development of the krona is important for our prospects of achieving the inflation target, as it has direct and indirect effects on inflation and economic activity. The Riksbank monitors the development of the krona very closely and constantly conducts analytical work to better understand its driving forces. In this speech, I have highlighted how the exchange rate is affected by macroeconomic conditions as well as preferences and changes in financial markets. I have argued that the krona is very difficult to forecast but that it is certainly understandable.

References

Artta, Katja, Marianne Nessén, Ettore Savoia and Anders Vredin (2025), "Financial Flows and Exchange Rate Dynamics: Evidence from Sweden", Working paper no. 456, Sveriges Riksbank.

Askestad, Emil, Ana Maria Ceh, Paola di Casola and Annukka Ristiniemi (2019). "Forecasting the krona", Economic Commentary, no. 12, Sveriges Riksbank.

Bacchetta, Phillippe and Pauline Chikhani (2021), "On the Weakness of the Swedish Krona", *Economic Review*, no. 1, Sveriges Riksbank.

Belfrage, Carl-Johan, Peter Gustafsson and Rachatar Nilavongse (2025), "The trend development of the real exchange rate", Staff memo, Sveriges Riksbank.

Benigno, Gianluca and Pierpaolo Benigno (2008), "Exchange rate determination under interest rate rules", *Journal of International Money and Finance* 27, 971-993.

Bertaut, Carol, Bastian von Beschwitz and Stephanie Curcuru (2025), "The International Role of the Dollar - 2025 Edition", FEDS Notes, July 18.

Bylund, Emma, Jens Iversen and Anders Vredin (2024), "Monetary Policy in Sweden After the End of Bretton Woods", *Comparative Economic Studies*, Volume 66, 535–590.

Ca' Zorzi, Michele, Marcin Kolasa and Michał Rubaszeka (2017), "Exchange rate forecasting with DSGE models", *Journal of International Economics*, 107, pp.127-146.

ECB (2025), The international role of the euro, June 2025.

Engel, Charles and Steve Pak Yeung Wu (2023), "Liquidity and Exchange Rates: An Empirical Investigation", *Review of Economic Studies* 90 (5), 2395-2438.

Engel, Charles and Steve Pak Yeung Wu, (2024), "Exchange Rate Models are Better than You Think, and Why They Didn't Work in the Old Days", NBER Working Paper No. 32808, National Bureau of Economic Research.

Flam, Harry and Mats Persson (2024), *Krona on the right track? An ESO report on the development of the Swedish currency 1993-2024*, Report to the Expert Group for Studies in Public Economics 2024:4. Ministry of Finance. In Swedish only.

Itskhoki, Oleg and Dmitry Mukhin (2021), "Exchange Rate Disconnect in General Equilibrium", *Journal of Political Economy* Vol. 129, No. 8, 2183–2232.

Krugman, Paul, Maurice Obstfeld and Marc J. Melitz (2023), *International Economics: Theory and Policy*, 12th Global Edition, Pearson.

Lagerwall, Björn and Marianne Nessén (2009), "The long-term development of the krona", Economic Commentary No. 6, Sveriges Riksbank.

Lane, Philip R. (2007), "The Swedish external position and the krona", *International Economics and Economic Policy*, 4(3), 263–279.

Martin, Antoine and Thomas Moser (2024), "The implementation and transmission of the SNB's monetary policy during the recent tightening cycle", 18 April 2024, Swiss National Bank.

Meese, Richard A. and Kenneth Rogoff (1983), "Empirical Exchange Rate Models of the Seventies: Do They Fit Out of Sample?", *Journal of International Economics* 14.1-2, 3-24.

Nelson, Rebecca M. and Martin A. Weiss (2022), "The U.S. Dollar as the World's Dominant Reserve Currency", <u>IF11707.4.pdf</u>.

Nordström, Amanda (2022), "Understanding the foreign exchange market", *Economic Review*, no. 1, Sveriges Riksbank.

Rathke, Alexander and Tobias Straumann (2024), "Made in Frankfurt? The Monetary Policy of the Swiss National Bank Since 1973", *Comparative Economic Studies*, Volume 66, 591-619.

Rosén, Gustav and Anders Vredin (2025), "Is it possible to understand exchange rate developments with a new model?", Staff memo, Sveriges Riksbank.

Sizova, Elizaveta, Olav Syrstad and Ingebjørg Hansen Sævareid (2025), "Rebalancing of Currency Hedging and the Impact on Exchange Rates". Available at SSRN: https://ssrn.com/abstract=5143899.

Sveriges Riksbank (2023), "The krona will strengthen in the medium term", article in Monetary Policy Report, September 2023.

Åkerman, Anders (2023), "<u>Strong government finances may have created our weak krona</u>", DN debatt, 28 September 2023. Only in Swedish.