CHAPTER 5

Has the floating exchange rate contributed to macroeconomic stability?

Martin Flodén

1 Introduction

The conclusions of the EMU Inquiry (1997) played an important role for Sweden's decision not to join the euro at its introduction in 1999. The Inquiry concluded that membership would likely enhance economic efficiency and strengthen Sweden's political influence within the European Union, but that the risks associated with macroeconomic stabilisation policy would increase. Given that the Swedish economy was still recovering from the deep crisis of the early 1990s, the Inquiry therefore recommended that Sweden should wait before joining the monetary union.

The Inquiry identified two main channels through which euro membership would weaken stabilisation policy. First, monetary policy would be delegated to the European Central Bank (ECB) and thus calibrated to conditions in the monetary union as a whole, rather than to developments specific to the Swedish economy. Second, euro membership would eliminate the nominal exchange rate as an adjustment mechanism. Under a floating exchange rate regime, movements in the exchange rate can help dampen the effects of country-specific disturbances, thereby mitigating fluctuations in output and employment.

Three decades after the EMU Inquiry, Sweden remains outside the monetary union. This chapter examines the implications of that choice for macroeconomic stability, with a particular focus on output and inflation volatility. On the one hand, the concerns raised by the Inquiry find some support in the data. In particular, I show that macroeconomic fluctuations have on average been somewhat larger in the euro area than in most other comparable economies, although there is substantial heterogeneity across member states.

On the other hand, several important qualifications are warranted, even abstracting from potential credibility gains and expectations-based mechanisms sometimes emphasised in the theoretical literature.[1] Over the past three decades, the disturbances affecting the Swedish economy have largely been global rather than country-specific. As a result, there has often been limited scope – and limited need – for Swedish monetary policy to deviate systematically from that of the ECB. Indeed, Swedish monetary policy has in practice followed a path broadly similar to that of the euro area, both in terms of policy rates and the use of unconventional measures.

Moreover, the stabilising role of a floating exchange rate is less clear-cut than is sometimes assumed. While the Swedish *krona* has tended to depreciate in economic downturns, thereby stimulating demand through the export sector, such depreciations are not unambiguously beneficial. They may also generate risks to financial stability by making access to safe and liquid assets denominated in major foreign currencies – most notably US dollars – more difficult and costly. More generally, exchange rates are volatile and respond to a wide range of factors unrelated to the business cycle. This volatility may itself contribute to macroeconomic instability.

These issues become particularly salient in response to global shocks. During the global financial crisis of 2008–09, the depreciation

1 Giavazzi and Pagano (1988) discuss potential credibility gains from delegating monetary policy to a common central bank. Such arguments played an important role in the Swedish debate during the 1980s and 1990s, but are less relevant today given the strengthened credibility of the Riksbank's inflation-targeting framework. Cook and Devereux (2016) and Born et al. (2024) show that monetary policy may in some circumstances stabilise inflation more effectively in a monetary union, primarily because expectations of the long-run price level are less affected by country-specific developments.

of the *krona* appears to have provided some support to the Swedish economy, but the effects were limited and came at the expense of other countries. By contrast, during the global inflation episode of 2022–23, *krona* depreciation complicated monetary policy by amplifying inflationary pressures at a time when inflation was already high. Such episodes illustrate that exchange rate movements may support stabilisation policy in some circumstances, but hinder it in others.

Finally, it is important to recognise that to the extent that exchange rate movements in response to global disturbances benefit one country, these benefits typically arise through changes in relative competitiveness and therefore come at the expense of others. In an increasingly integrated global and European economy, this raises broader questions about the desirability of relying on exchange rate adjustment as a stabilisation mechanism.

The remainder of the chapter develops these arguments in more detail. I first compare macroeconomic developments inside and outside the euro area, before analysing Swedish monetary policy, fiscal policy, and exchange rate dynamics during major global shocks. I then assess to what extent Sweden's experience supports – or qualifies – the stabilisation arguments that motivated the decision to remain outside the monetary union.

2 Overall economic developments inside and outside the euro area

Despite more than a quarter of a century of experience with the single currency, aggregate data can at best provide suggestive evidence on how euro membership has affected macroeconomic stability.[2] Countries differ in many respects, and economic outcomes reflect a wide range of factors beyond the currency regime. Nevertheless, a compar-

2 There are studies that nevertheless attempt to estimate such effects. Enders et al. (2013), for example, find no clear evidence that the magnitude of economic fluctuations has been affected by the euro. On the other hand, as expected, they find that the real exchange rate between countries in the monetary union has become more stable.

ative overview of growth, volatility and business cycle comovement is useful as a starting point for the analysis.

Table 1 shows various measures of growth from 1998 to 2024, and Table 2 gives indicators of economic volatility and comovement over the business cycle. The countries included are divided into two groups. The first group includes nine of the eleven countries that adopted the euro in 1999.[3] The second group includes Denmark and Sweden – two EU countries that still have their own currencies – as well as a number of countries that are not EU members but may be of interest to include in a comparison.

2.1 Growth has been relatively strong in Sweden

Based on Table 1, it is difficult to find evidence that the single currency has contributed to a general improvement in efficiency in the member states. All of the euro area countries included have had weaker GDP growth per capita than Sweden. The same applies to GDP per person of working age, consumption per capita and labour productivity.

3 I consistently exclude Ireland and Luxembourg from the tables: Ireland because its national accounts are strongly influenced by intra-firm transactions by American multinational firms, and Luxembourg because it is a small country with a highly specialised economy.

Table 1 Growth, 1998–2024

	GDP			Consumption per capita		Productivity		Employment rate
	Total	Per capita	15–74	Private	Total	(employment)	(hours)	15–74
Euro area countries								
Austria	47	28	28	18	19	14	32	8
Belgium	55	34	37	24	27	21	19	7
Finland	43	32	34	37	35	15	25	9
France	44	26	28	29	30	14	20	7
Germany	35	29	34	21	29	12	27	12
Italy	15	11	16	6	7	–3	6	10
Netherlands	56	36	36	18	29	19	23	10
Portugal	34	27	29	30	28	23	33	3
Spain	60	32	35	21	30	11	18	10
	43	*28*	*31*	*23*	*26*	*14*	*22*	*8*
Other countries								
Sweden	71	42	42	44	28	30	35	6
Canada	71	26	23	44	39	17	28	3
Denmark	52	35	37	25	25	28	31	5
New Zealand	106	49	44	63	61	21	25	12
Norway	52	20	17	54	47	16	20	1
Switzerland	62	29	29	18	18	20	32	6
United Kingdom	53	30	30	33	36	24	27	3
United States	80	47	42	58	49	47	50	–2

Note: Change in per cent from 1998 to 2024, except for the employment rate, which refers to change in percentage points. GDP and consumption refer to volume. "GDP 15–74" refers to GDP per person aged 15–74. The employment rate refers to the same age group. Productivity refers to GDP per person employed and per hour worked, respectively.
Sources: OECD Economic Outlook 2024:2 (forecast for 2024) except for productivity per hour worked, which is from the OECD productivity database and refers to the change from 1998 to 2023, and population data for Switzerland which are from the IMF WEO.

The weak European growth relative to the US has been widely discussed. The discussion has gained momentum after the European Commission tasked Mario Draghi, former head of the European Central Bank, with proposing measures to strengthen the Union's competitiveness (see Draghi 2024).

Table 1 confirms that most European countries have fallen behind the United States in recent decades. But the table also shows that weak growth has mainly affected the euro area rather than Europe as a

whole, and that the United States stands out with very high productivity growth, even compared with countries outside Europe.

2.2 Global shocks have characterised economic developments

The focus of this chapter is, however, not on overall growth, but on how the monetary union has affected the conditions for stabilisation policy and, by extension, cyclical developments. As mentioned in the introduction, the Swedish economy was in a difficult situation after the crisis of the 1990s. There were fears that the Swedish business cycle would deviate from the rest of Europe and that a different monetary policy would therefore be needed.

But this was not a specifically Swedish issue. During the 1990s, economists debated vigorously how the conditions for European stabilisation policy would be affected by the single currency. Early contributions pointed out that Europe was far from an optimal currency area (Bayoumi and Eichengreen 1993) and that deeper market integration and increased trade could encourage greater specialisation and thereby increase exposure to country-specific disturbances (Krugman 1993). Subsequent empirical work, however, suggested the opposite mechanism: increased trade and integrated value chains tend to synchronise business cycles (Frankel and Rose 1998). As shown in Chapter 3 by Hansson, this conclusion has been reinforced since the introduction of the euro.[4]

Increasingly interconnected global value chains may have contributed to the strong correlation, but it is also clear that countries have been affected by major common shocks in recent decades. Figure 1 shows how the period is dominated by the global financial crisis of 2008, when all economies were hit by a deep and prolonged downturn, and by the fluctuations surrounding the pandemic in 2020.[5] Even disregarding these episodes there are strong correlations between countries.

4 Table 2 confirms that comovements over the business cycle are strong among euro area economies. This, however, applies to all countries in the table (except New Zealand).

5 The decline in the second quarter of 2020 was very deep in some countries. In order to maintain a meaningful vertical scale in Figure 1, this quarter has been excluded.

For example, the economy began to weaken rapidly around the turn of the millennium following the slowdown in the IT sector and the terrorist attacks in the United States. There is therefore much to suggest that the major disturbances that have affected the Swedish economy over the past 25 years have been global. These disturbances have also been similar to those affecting other countries. This observation – that global shocks dominate country-specific ones – will play an important role in the analysis that follows.

In principle the strong correlations between economies may be a result of economic policy successfully counteracting the country-specific disturbances that have affected the countries.[6] Another, but similar, explanation could be that exchange rates have moved in such a way that country-specific business cycles have become more synchronised. I will return below to the questions of how Swedish economic policy has deviated from that of the rest of Europe and how the *krona* has developed during the period.

Before doing so, however, it is worth noting that concerns about the constraints on macroeconomic stabilisation associated with membership of a monetary union cannot be dismissed on the basis of European experience. The first columns of Table 2 show that, on average, the economies of the euro area have been slightly more volatile than other economies. This largely reflects developments in a subset of countries – most notably Italy, Portugal and Spain, which were hit hard during the European debt crisis – while several euro area economies display volatility comparable to, or lower than, that observed in Sweden. To assess the significance of Sweden's decision to remain outside the monetary union, a more detailed examination of how the economies have evolved and which shocks they have been exposed to is therefore required.

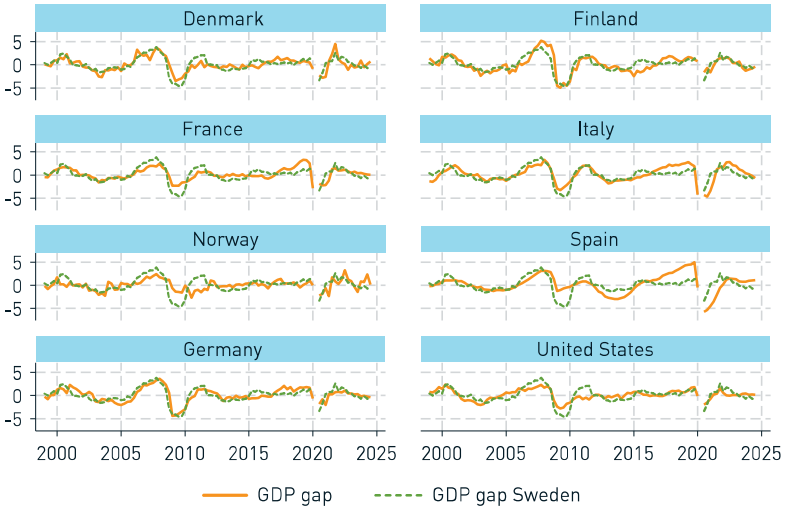
6 To take this into account, one can, as Calmfors does in Chapter 6, estimate how the GDP gaps would have developed without active fiscal policy. In order to isolate country-specific shocks, one would then need to take into account monetary policy and automatic stabilisers, as well as how all this has affected economies over time.

Table 2 Volatility and comovement over the business cycle, 1999:Q1–2024:Q3

	Volatility				Comovement		
	GDP gap	GDP	Consumption	Employment	Sweden	Germany	US
Euro area countries							
Austria	2.1	2.4	2.1	1.3	0.68	0.78	0.64
Belgium	1.7	1.9	2.0	0.7	0.79	0.78	0.76
Finland	1.9	2.7	1.9	1.6	0.79	0.89	0.68
France	2.0	2.2	1.9	1.0	0.69	0.84	0.73
Germany	1.8	2.1	2.0	1.2	0.80	1.00	0.66
Italy	2.4	2.9	2.8	1.5	0.71	0.80	0.58
Netherlands	1.8	2.2	2.4	1.3	0.69	0.80	0.58
Portugal	2.5	3.0	2.9	2.3	0.47	0.59	0.43
Spain	2.8	3.4	3.6	3.4	0.52	0.63	0.51
	2.1	*2.5*	*2.4*	*1.6*	*0.68*	*0.79*	*0.62*
Other countries							
Sweden	1.8	2.2	2.1	1.4	1.00	0.80	0.76
Canada	1.7	2.0	2.0	2.3	0.66	0.73	0.77
Denmark	1.6	2.1	2.2	1.5	0.76	0.76	0.77
New Zealand	1.6	1.8	2.1	1.6	0.27	0.24	0.29
Norway	1.3	1.3	2.6	1.3	0.48	0.52	0.58
Switzerland	1.5	1.7	1.2	1.1	0.71	0.80	0.68
United Kingdom	2.8	3.2	3.8	0.9	0.66	0.71	0.72
United States	1.4	1.7	1.9	2.5	0.76	0.66	1.00

Note: The first columns of the table show standard deviations for GDP gaps (percentage deviation from trend), GDP and private consumption (four-quarter rolling percentage annual growth) and number of people employed (percentage change compared with the corresponding quarter of the previous year). The last three columns show the correlation between GDP gaps in the respective countries. These gaps are calculated as percentage deviation from the HP-filtered trend for 1990Q1–2024Q4 (2020Q2 was excluded from the calculation of the correlation).
Source: Own calculations based on OECD EO 2024:2.

Figure 1 GDP gap, per cent of potential GDP



Note: GDP gap in each country and in Sweden, estimated using an HP filter on quarterly data for the period 1990Q1–2024Q4.
Source: Own calculations based on OECD EO 2024:2.

2.3 Swedish monetary policy has been similar to that of the euro area

Figure 2a shows that the Riksbank's policy rate has developed in roughly the same way as the ECB's during the period 1999–2025. The correlation between the two rates is 0.96, and the average rate was 1.7 per cent in Sweden compared with 1.5 per cent in the euro area. The most noticeable difference can be seen immediately after the global financial crisis, when the Riksbank raised its policy rate earlier and faster than the ECB.

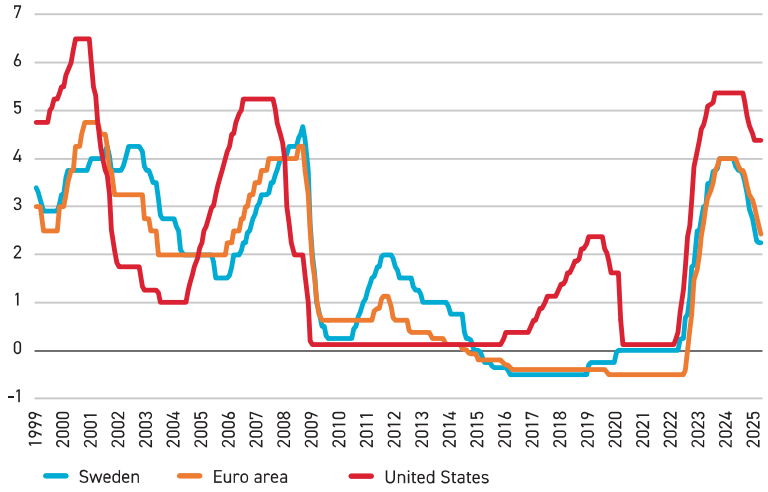
Several central banks have used asset purchases as a complement to the policy rate during and after the financial crisis. The Riksbank's use of such monetary policy has been similar to that of the ECB (see Figure 2b). Both central banks launched asset purchase programmes in the first half of 2015, when their respective policy rates had been cut to

negative levels. And both central banks expanded their asset purchases during the pandemic in 2020.

However, asset purchases in the euro area have been approximately twice as extensive (relative to the size of the economies) as those made by the Riksbank. As a member of the monetary union, the Riksbank would therefore have needed to make more extensive asset purchases. But several factors suggest that larger asset purchases would not have led to a significantly different economic development in Sweden. First, there are many indications that asset purchases in normal times do not have particularly large macroeconomic effects in Sweden.[7]

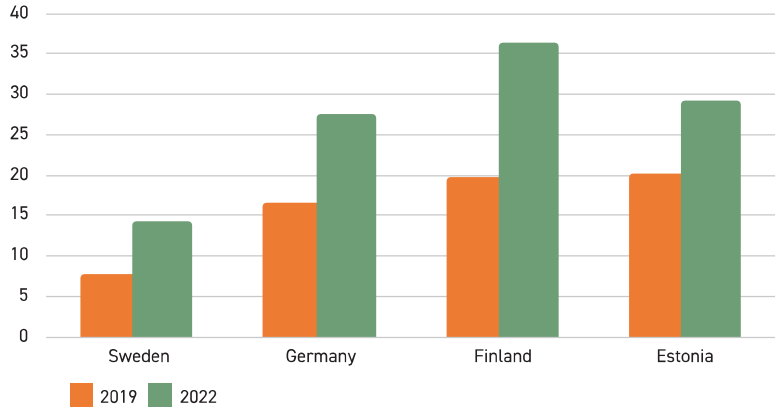
Figure 2 Monetary policy in Sweden and abroad

(a) Policy rates, per cent



7 See Flodén (2022).

(b) Asset holdings, per cent of GDP



Note: The euro area policy rate refers to the ECB's refinancing rate until 2008, the deposit rate from 2015, and an average of the two rates for 2009–2014. The US policy rate refers to the midpoint of the central bank's target range from December 2008. Monetary policy-motivated asset holdings at book value.
Sources: The Riksbank, BIS, FRED and own calculations (panel a). Own calculations based on the respective central banks' annual reports and Eurostat (panel b).

Second, the more limited asset purchases carried out by the Riksbank at the start of the pandemic – when financial markets were functioning poorly – were sufficient to stabilise the markets.

Third, the supply of Swedish government bonds is small due to the relatively low level of government debt. The Riksbank's purchases of government bonds could therefore not have been much larger than the purchases made until the outbreak of the pandemic. The situation could therefore have been similar to that faced by the Estonian central bank. Their asset purchases were, at least at times, dominated by bonds issued by supranational institutions, as the supply of Estonian sovereign bonds is very limited. Such purchases probably have a negligible effect on the economic situation in the home country.

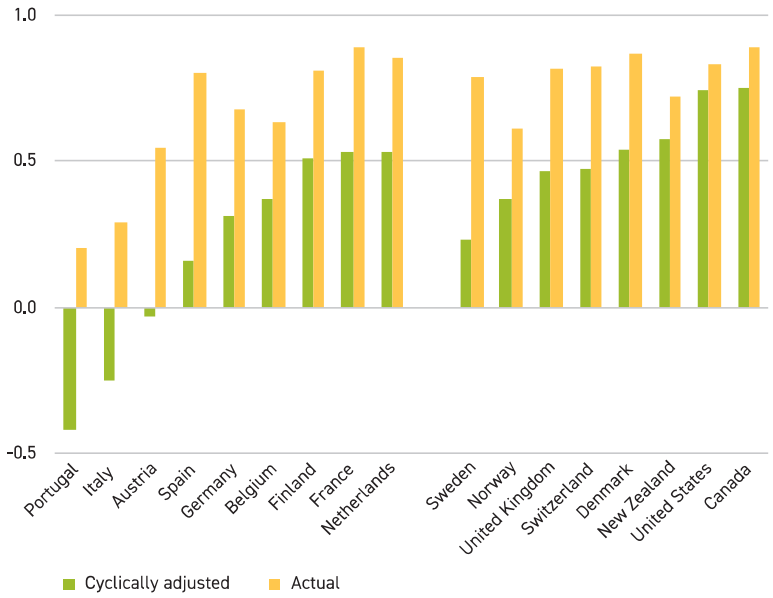
2.4 Clearer differences in fiscal policy

In a monetary union, fiscal policy is expected to play a greater role in stabilising the economy. A prerequisite for stabilisation policy to be

successful is, however, that public finances are sufficiently strong to allow fiscal policy to be made more expansionary during a downturn without the stimulus being offset by rising bond yields. As I pointed out at the outset, the EMU Inquiry (1997) highlighted this as an argument against Sweden joining the euro at its start, as the Swedish economy was then still affected by the economic crisis of the 1990s. The conditions for pursuing a more active countercyclical fiscal policy are better today, as public finances are now strong. On this point, the conditions for Sweden joining the euro have improved (see Chapter 6 by Calmfors for a more detailed discussion).

Figure 3 indicates that the concerns raised in the EMU Inquiry (1997) may have practical relevance. Public sector financial balances have certainly been more volatile (fiscal policy has been more "active") in the euro area countries than in Sweden. But the figure shows that cyclically adjusted fiscal balances have been negatively correlated with the GDP gap in several of the euro area countries where volatility has been high. This indicates that fiscal policy in these countries has been procyclical, i.e., that these countries have needed to tighten fiscal policy during economic downturns. In that case, fiscal policy has contributed to greater economic fluctuations rather than counteracting country-specific shocks that are not addressed by the common monetary policy.

Figure 3 Correlation between general government primary net lending and the GDP gap



Note: A positive correlation means that fiscal policy is tightened during economic upturns and so on. The cyclically adjusted balance consists of the actual balance adjusted for automatic stabilisers. The correlations are based on annual data 1999–2024.
Source: OECD EO 2024:2.

3 Development of the *krona*

When the exchange rate is floating, it can respond to disturbances and help mitigate economic fluctuations or emerging external imbalances.[8] Experience has shown, however, that exchange rates are highly volatile and fluctuate for many reasons. It is therefore not obvious that movements in the exchange rate contribute to stabilising the economy.

8 These arguments date back at least to Milton Friedman's (1953) classic contribution. See Tavlas (2024) for a contemporary summary.

3.1 Like other currencies, the *krona* has been volatile

Figure 4 shows that the nominal value of the *krona* has been volatile and that it has depreciated gradually over the past 15 years. Still, as demonstrated in Table 3, the volatility of the *krona* is not remarkable compared with other freely floating currencies.[9] In fact, the Swedish currency has been less volatile than, for example, the Canadian dollar and the British pound. The *krona* has however depreciated more (in real terms) than any of the other currencies. I return to the trend depreciation of the krona in Section 3.2 below.[10]

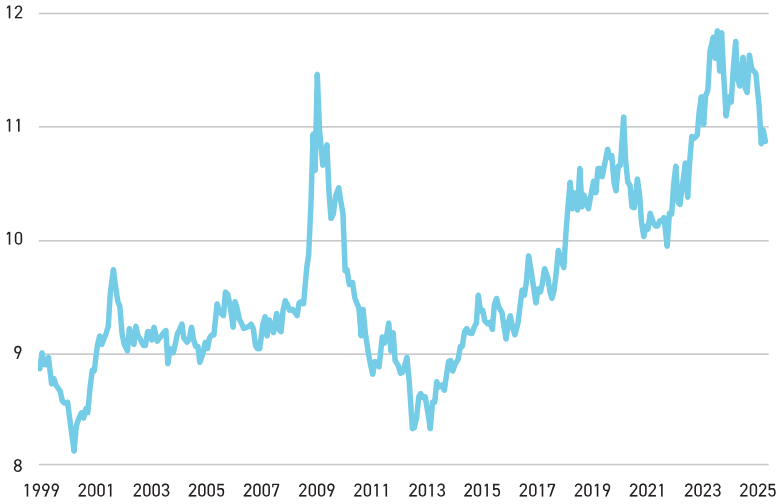
Some periods stand out with particularly large movements in the *krona*, often coinciding with major shifts in global conditions. During the fastest growth phase of the IT bubble, from the beginning of 1999 to its peak in April 2000, the *krona* strengthened against the euro by just over 10 per cent, while the Stockholm Stock Exchange rose by 90 per cent. When the stock market then lost more than half its value, the *krona* fell against the euro and in September 2001 was weaker than at the outset (see Figure 5a). Since the IT sector was large in Sweden, the subsequent decline in that sector can be interpreted as a relatively severe shock to the Swedish economy. Stock markets, however, fell sharply in many countries. A useful comparison is Finland, which had adopted the euro. Both the boom and the bust were more pronounced in Finland, where Nokia dominated the stock market index. Despite the absence of an exchange rate that could act as a shock absorber, economic developments in Finland were no worse than in Sweden (see Figure 5b).

9 It is, of course, not surprising that real exchange rates for Denmark and countries in the euro area show relatively low volatility. These countries have the same currency (or fixed exchange rate) and also trade extensively with each other. The trade-weighted exchange rates are therefore very stable.

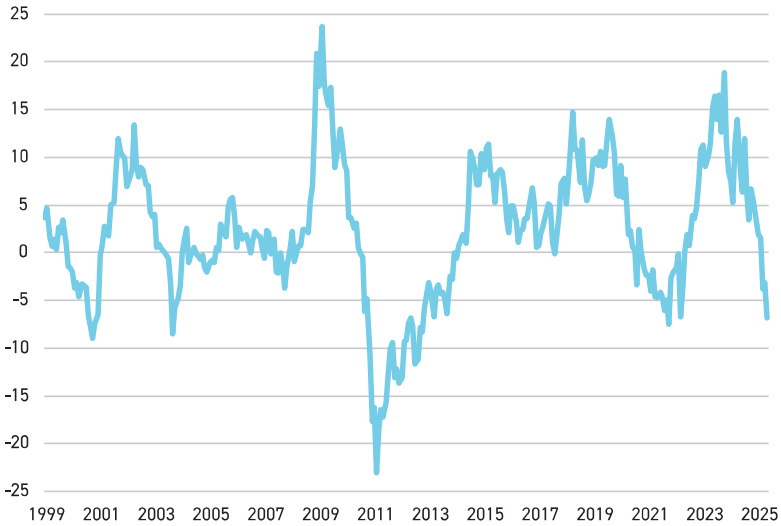
10 In that section, however, I raise questions about whether the measure of the real exchange rate is accurate.

Figure 4 The *krona's* exchange rate against the euro, 1999–2025

(a) *Kronor* per euro



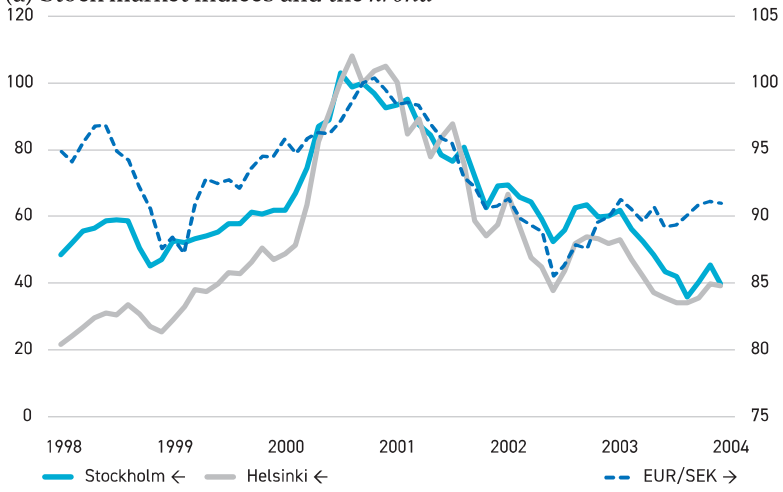
(b) Depreciation of the *krona* against the euro, per cent



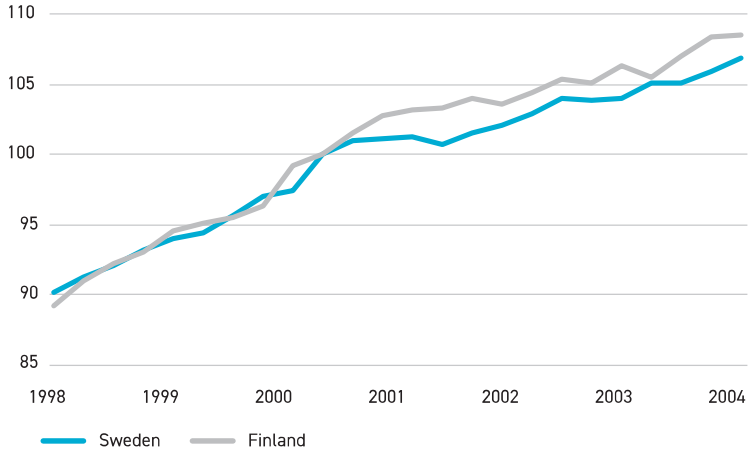
Note: Monthly data, last observation is May 2025. The lower panel shows how the *krona* has depreciated (positive values) or appreciated (negative values) over a two-year period.
Source: The Riksbank.

Figure 5 Finland and Sweden during the IT bubble and subsequent IT crash, 1998–2004

(a) Stock market indices and the *krona*



(b) GDP



Note: Stock market indices (left axis) for Stockholm ("All share") and Helsinki ("OMX"), index April 2000 = 100. The exchange rate (right axis) is displayed as an index for euros per *krona* (higher value means stronger *krona*), index April 2000 = 100. GDP volume, index 2000 Q2 = 100.
Sources: Ekonomifakta, Bank of Finland, The Riksbank and OECD EO 2024:2.

During the global financial crisis, movements of the *krona* became even more pronounced. From August 2008 to February 2009, it weakened by more than 20 per cent against the euro. This depreciation was followed by a rapid recovery: by mid-2010 the *krona* had recovered its pre-crisis level, and it continued to strengthen until mid-2012, when it was just over 10 per cent stronger than before crisis.

Several explanations have been put forward for these large exchange rate movements. First, the Riksbank lowered its policy rate somewhat more than the ECB during the acute phase of the crisis, which may have contributed to the initial depreciation of the *krona*.

Second, like many other small currencies, the *krona* tends to weaken when global uncertainty increases. This explanation is supported by comparisons with other currencies. During the financial crisis, the *krona* depreciated much more against safe-haven currencies such as the US dollar, the Swiss franc and the Japanese yen – by almost 60 per cent – while remaining relatively stable against other small currencies, such as the Norwegian *krone* and the New Zealand dollar.

Table 3 confirms this broader pattern. Most freely floating currencies display a positive correlation between the value of the currency and the country's GDP gap. These exchange rates thus tend to depreciate when economic activity declines. The main exceptions are the United States, the euro area and Switzerland. Notably, the Swedish *krona* exhibits the strongest positive correlation of all currencies in the table. In this sense, the *krona* can be viewed as the opposite of a safe-haven currency.

Table 3 Exchange rates, 1999–2025

	Nominal exchange rate			Trend	
	Volatility 1 month	Volatility 12 months	Correlation with GDP gap	Real exchange rate	Terms of Trade
Euro area countries					
Austria	0.4	1.8	–0.18	–0.2	–0.2
Belgium	0.6	2.4	–0.06	–0.2	–0.2
Finland	0.7	3.0	–0.32	–0.3	–0.5
France	0.6	2.6	–0.02	–0.5	+0.0
Germany	0.7	3.1	–0.16	–0.4	+0.1
Italy	0.6	2.6	–0.07	–0.2	–0.1
Netherlands	0.7	2.9	–0.12	–0.1	–0.1
Portugal	0.3	1.3	–0.13	–0.1	+0.4
Spain	0.5	2.2	–0.09	–0.1	–0.1
	0.6	2.4	–0.13	–0.1	–0.1
Euro area	1.3	5.4	–0.10	–0.2	
Other countries					
Sweden	1.3	5.2	+0.30	–1.2	–0.1
Canada	1.5	6.2	+0.15	–0.0	+0.6
Denmark	0.6	2.7	–0.23	–0.2	+0.4
New Zealand	2.0	7.8	+0.14	–0.9	+1.2
Norway	1.6	5.7	+0.03	–1.0	+1.6
Switzerland	1.3	4.4	–0.25	–0.1	–0.3
United Kingdom	1.4	5.6	+0.09	–1.0	+0.5
United States	1.2	5.5	–0.35	–0.2	+0.4

Note: All exchange rates refer to trade-weighted indices, where a higher value indicates appreciation. Exchange rate volatility is based on monthly data for the nominal exchange rate index (from the BIS) and is calculated as the standard deviation for percentage change per month and per 12-month period. The correlation with the GDP gap is based on quarterly data (from the OECD, 1999 Q1–2024 Q3) and is calculated as the correlation between the percentage change in the exchange rate and the percentage point change in the GDP gap. GDP gap according to the HP filter. Trend refers to the time trend, percentage annual change. Real (inflation-adjusted) exchange rate according to BIS data, terms of trade (ratio between the country's export and import prices) according to OECD data.
Sources: Own calculations based on Bank for International Settlements (BIS) and OECD EO 2024:2.

Third, Swedish banks were hit particularly hard during the financial crisis because of their exposure to the Baltic countries, which investors perceived as an additional source of uncertainty for the Swedish

economy. As uncertainty surrounding the Baltic countries' accession to the euro diminished, pressure on the Swedish *krona* eased, contributing to its rapid appreciation in 2009 and 2010. At the same time, the crisis increasingly spread to the euro area through the sovereign debt problems of Greece, followed by Italy, Spain, Ireland and Portugal. In this environment, the Riksbank began to raise its policy rate earlier and more than other central banks (see Figure 2).

3.2 Gradual weakening of the *krona*

After the large fluctuations between 2008 and 2012, the *krona* began to depreciate gradually in 2013, a process that continued until 2023. The forces behind this prolonged depreciation are difficult to pin down. Bacchetta and Chikhani (2021) argue that it can be partly explained by the Riksbank's monetary policy decisions, in combination with its communication regarding the desired development of the *krona*. They conclude, however, that a substantial share of the depreciation cannot be accounted for by standard explanatory factors, and that the *krona* appeared undervalued at the time of their study.

Sveriges Riksbank (2023) likewise point to differences in monetary policy as a contributing factor, but argues that these are insufficient to explain either the magnitude of the depreciation or its persistent trend. The Riksbank instead highlights a range of additional mechanisms, including large outwards flows of Swedish pension savings and trend-following behaviour in financial markets.

Moreover, questions have been raised as to how much of the nominal depreciation of the *krona* has also been a real depreciation. According to Eurostat's HICP measure, the price level in Sweden rose by 67 per cent from December 1998 to January 2025. Over the same period, prices rose by 68 per cent in Germany according to the same measure, and by a very similar amount in the euro area as a whole (see Table 4). These figures therefore suggest that nominal prices have developed in a broadly similar way in Sweden and the euro area, implying that the real exchange rate of the *krona* has weakened by roughly the same amount as the nominal exchange rate.

Table 4 Accumulated price increase according to different price measures, per cent

	HICP		PPP	
	1998–2025	2012–2023	1998–2025	2012–2023
Denmark	62	18	76	24
Finland	64	21	77	26
France	62	23	69	20
Germany	68	29	68	29
Norway	85	41	138	42
Sweden	67	29	107	44
United States	89	29	127	45
Euro area	72	25	75	23

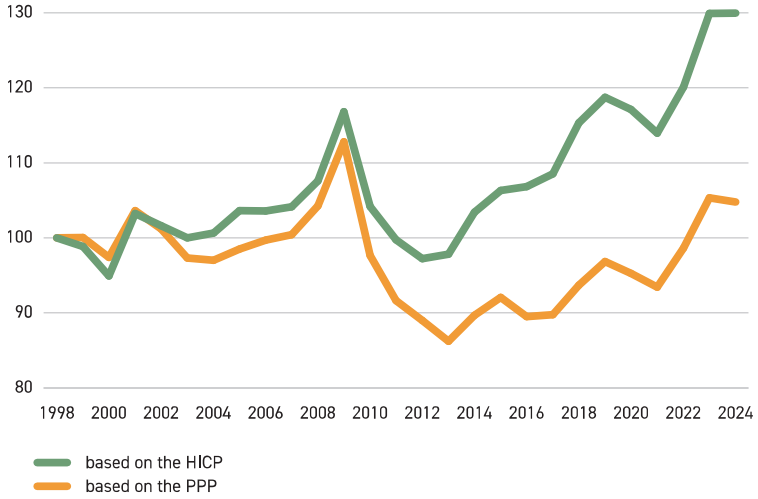
Note: PPP data refer to prices for private consumption and are given in relative terms, but are presented here as a mark-up on German HICP prices. '1998–2025' refers to December 1998 to January 2025. '2012–2023' refers to December to December. The price index for the United States has been supplemented with CPI data for 1998:12–2001:12 and 2024:12–2025:1. The euro area consists of the actual euro area countries in 2025 in the HICP columns but the original 11 countries in the PPP column.
Source: Own calculations based on Eurostat HICP and PPP data. CPI for the United States from St. Louis FRED.

Tysklind (2020), however, shows that inflation statistics based on the CPI and HICP adjust for quality improvements to a greater extent in Sweden than in the rest of Europe. The assessment changes markedly if the real exchange rate is instead calculated using Eurostat's and the OECD's PPP statistics.[11] According to those data, consumer prices rose 23 per cent more in Sweden than in Germany between 1998 and 2023.[12] On this basis, the real exchange rate of the *krona* would have depreciated by only a few per cent against the euro over the period, despite a nominal depreciation of 29 per cent (see Figure 6).

11 The CPI and HICP measures track the price of a representative basket of consumer goods in each country over time. PPP statistics, on the other hand, compare the prices of similar goods and services in different countries at a given point in time. Deaton and Heston (2010) describe how PPP statistics are produced and how they can be used. The final columns in Table 4 show that the picture of inflation developments relative to Germany becomes very different not only for Sweden but also for Norway and the United States if it is based on PPP statistics.

12 Hansson (2023) argues that other data, in particular for wages, also indicate that inflation has been higher in Sweden than in the euro area.

Figure 6 Real exchange rate against Germany, 1998–2023, index



Note: Annual data, index 1998 = 100. The real exchange rate is calculated as the nominal exchange rate (*kronor* per euro) × German price level/Swedish price level. A higher value thus indicates a real *krona* depreciation.
Sources: Own calculations based on Eurostat.

If the PPP statistics are taken at face value, the interpretation of several other statistics would also need to be revised. This applies, for example, to the growth figures reported earlier in this chapter. Understanding the reasons for the large differences between standard consumer price indices and PPP-based measures is therefore important. Analysing these differences in detail, however, is beyond the scope of this chapter. I therefore do not take a position on which measures should be given greater weight.

Short-term fluctuations in the real exchange are dominated by movements in the nominal exchange rate and are therefore not materially affected by the choice of inflation measure. As noted earlier, the *krona* depreciated rapidly at the end of 2008 and the beginning of 2009, before appreciating just as rapidly – and to even stronger levels – until 2012. This episode therefore warrants closer examination. How would the Swedish economy have developed if Sweden had been a member of the euro area when the global financial crisis broke out?

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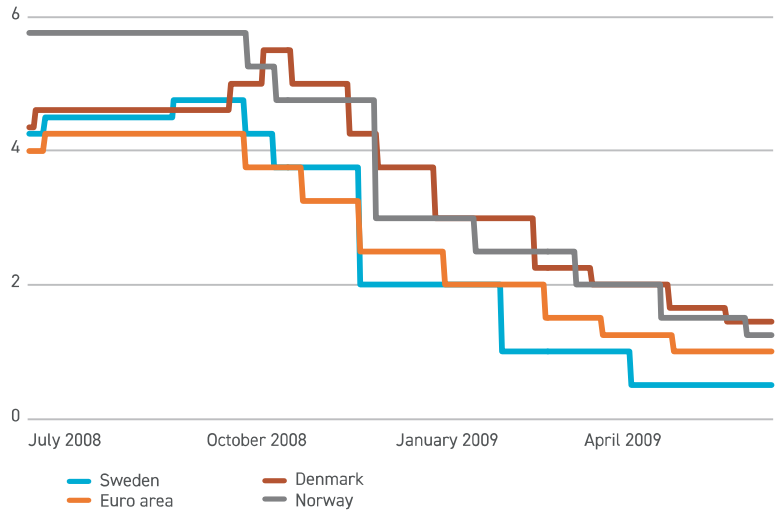
4 The global financial crisis of 2008–09

At the onset of the financial crisis, the Swedish *krona* fell rapidly in value against the euro. The same applies to the Norwegian *krone*. In addition, the Swedish and Norwegian central banks lowered their policy rates more and faster than the ECB, which may partly explain the depreciation (see Figure 7). Both factors likely contributed to mitigating the negative effects of the global financial crisis in Sweden and Norway compared with the euro area countries and Denmark.

Figure 7 Policy rates during the global financial crisis, per cent

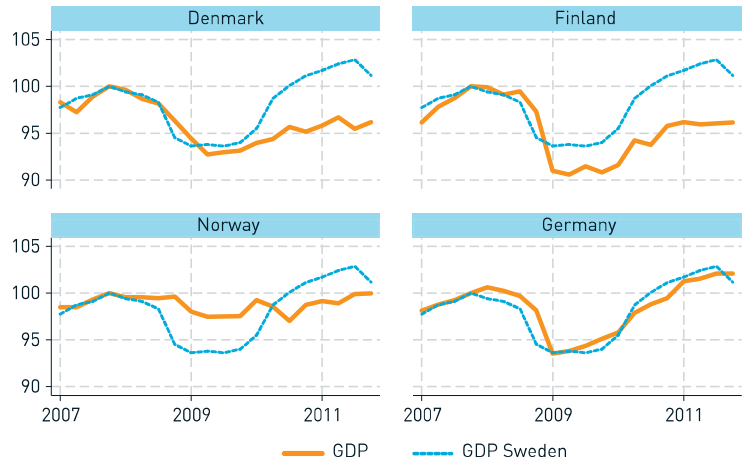


Note: The euro area policy rate refers to the refinancing rate. The Danish policy rate refers to the certificate rate.
Source: BIS.

Figure 8 confirms that the economic downturn was milder, and above all shorter, in Sweden and Norway than in the other Nordic countries. But developments in Sweden were also similar to those in Germany, which suggests that conclusions about the significance of *krona* depre-

ciation and an independent monetary policy should not be drawn too far. Comparisons with Germany may in any case be misleading since euro area monetary policy was probably adjusted more closely to conditions in Germany than to those in smaller member states. To assess how the Swedish economy would have developed during the financial crisis as a member of the euro area, a more informative comparison is therefore provided by Denmark, with a fixed exchange rate against the euro, and Finland, as a euro area member.

Figure 8 GDP during the global financial crisis, index



Note: GDP, volume, index 2007Q4 = 100.
Source: OECD EO 2024:2.

4.1 Problems in Danish banks

The economic downturn in Denmark was probably exacerbated by the fact that the country's financial system came under considerable stress in 2008. Several small and medium-sized banks became insolvent, partly as a result of sharply falling property prices. Although confidence in the Danish exchange rate regime was initially very strong, this led to capital outflows. To defend the Danish *krone's* fixed exchange rate against the euro, Danmarks Nationalbank therefore tightened

monetary policy by raising interest rates in September and October 2008.[13] Both the problems in the banking sector and the relatively tight monetary policy likely contributed to the Danish downturn being more protracted than the Swedish one.

Swedish financial markets were also hit hard in 2008, partly because several major banks had substantial exposures to the Baltic countries. It is likely that the Swedish *krona* would also have come under pressure if Sweden, like Denmark, had maintained a fixed exchange rate against the euro. In that case, the Riksbank would have been forced to raise its policy rate in the middle of the crisis in order to defend the peg. Given Sweden's history of devaluations and depreciations, such interest-rate increases would probably have had to be larger than those implemented in Denmark. Rather than benefitting from a weakening exchange rate, the Swedish economy would then have faced tighter monetary conditions. It is therefore reasonable to assume that economic activity, and possibly even the banking system, would have been more adversely affected.

4.2 Large decline in manufacturing in both Finland and Sweden

The Finnish and Swedish economies share many characteristics, both in terms of labour market institutions and industry structure. In particular, both economies have a large manufacturing sector producing investment goods for export. The sharp fall in global demand during the financial crisis therefore initially hit both economies hard, even though the crisis originated outside these countries.

At the same time, Finland and Sweden operate under different exchange rate regimes. Using data and forecasts available in 2009, Gylfason et al. (2010) examined whether Sweden benefited, at Finland's expense, from the weakening of the *krona* at the onset of the crisis. They concluded that the benefits of the Swedish depreciation appeared to be limited. With the benefit of hindsight, however, the subsequent development of the Swedish economy looks more favourable. The

13 See Danmarks Nationalbank (2008).

GDP decline in Finland in 2009 turned out to be substantially larger than real-time forecasts suggested, while the downturn in Sweden was slightly milder than expected.[14] In addition, the recovery in Sweden in 2010 was much stronger than in Finland.

Even so, it is difficult to attribute these differences directly to the depreciation of the *krona*. For example, the decline in both export and import volumes in 2009 was marginally smaller than real-time forecasts had predicted in both countries. Nor does a sectoral breakdown reveal a clear link to exchange rate developments. Manufacturing is often viewed as particularly exposed to international competition and therefore sensitive to exchange rate movements. This sector accounted for a substantial share of the GDP decline in both countries, and for a larger share in Sweden than in Finland. In Finland, however, construction and domestic trade also contributed significantly to the decline.

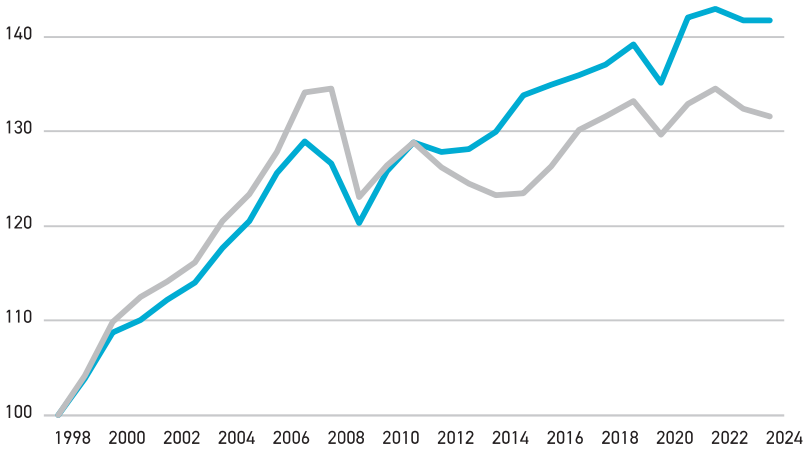
Some signs of a role for exchange rate movements can nevertheless be identified, most notably in the pulp and paper industry. In this sector, the contraction was considerably larger in Finland than in Sweden. Value added in the Finnish pulp and paper industry fell by more than 40 per cent between 2007 and 2009. Although the industry accounted for only around 3 per cent of Finnish GDP, it explains 1.1 percentage points of the total decline in GDP during the financial crisis. Given that similar pulp and paper products are exported from Sweden and Finland, it is plausible that the weak *krona* contributed to this development.

Finland's economy continued to perform poorly in the years following the global financial crisis (see Figure 9a). This weak performance is typically attributed to factors largely unrelated to the cyclical disruptions of the crisis itself, including the downturn in the telecoms industry, reduced demand for printing paper due to digitalisation, declining exports to Russia, an ageing population and structural problems in the labour market. Figure 9b further shows that Finland's terms of trade (the ratio between the country's export and import prices) had also deteriorated markedly during the decade leading up to the financial crisis.

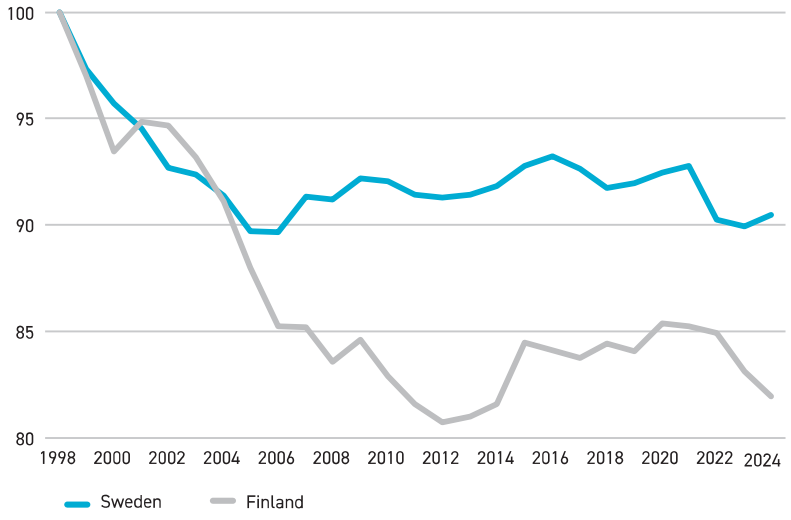
14 In the summer of 2009, the OECD forecast that GDP would fall by 4.7 per cent in Finland and 5.5 per cent in Sweden in 2009. The actual fall was 8.1 per cent in Finland and 4.2 per cent in Sweden.

Figure 9 Finland and Sweden during the global financial crisis, index

(a) GDP per capita



(b) Terms of trade



Note: GDP per capita, volume, index 1998 = 100. Terms of trade (ratio between export and import prices), index 1998 = 100.
Source: OECD EO 2024:2.

This episode is sometimes cited in Finland as an example of a country-specific shock that would have been easier to manage under a floating exchange rate regime.[15] This may be well be the case, but it is difficult to quantify how much difference an alternative exchange rate regime would have made. Monetary policy would not necessarily have been substantially more expansionary, as the ECB was already pursuing a highly accommodative stance. While a weaker currency could have provided some support, the Finnish economy would still have faced a challenging adjustment away from dependence on both Nokia and exports to Russia.

4.3 Sweden benefited from the *krona's* fall in 2008–09

One variable that clearly benefited from the depreciation of the *krona* during the global financial crisis was inflation. In many countries, the sharp decline in economic activity in 2008–09 was followed by a much smaller fall in inflation than standard models would have predicted.[16] Even so, inflation dropped below target in most countries. Sweden was a notable exception: inflation remained close to the target in 2009 (see Figure 10). The relatively high inflation rate in Sweden can plausibly be attributed to the weak *krona* keeping inflation up through rising import prices.

From a conventional perspective, it was not obvious that the *krona* would depreciate in response to a crisis that originated outside Sweden. In practice, however, the the Swedish currency tends to depreciate when global risk aversion increases and investors seek liquid assets denominated in major currencies. In such circumstances, exchange rate depreciation can act as a stabilising mechanism. As argued above, the depreciation of the *krona* probably contributed to the decline in Swedish GDP being slightly smaller than it would otherwise have been during the financial crisis.

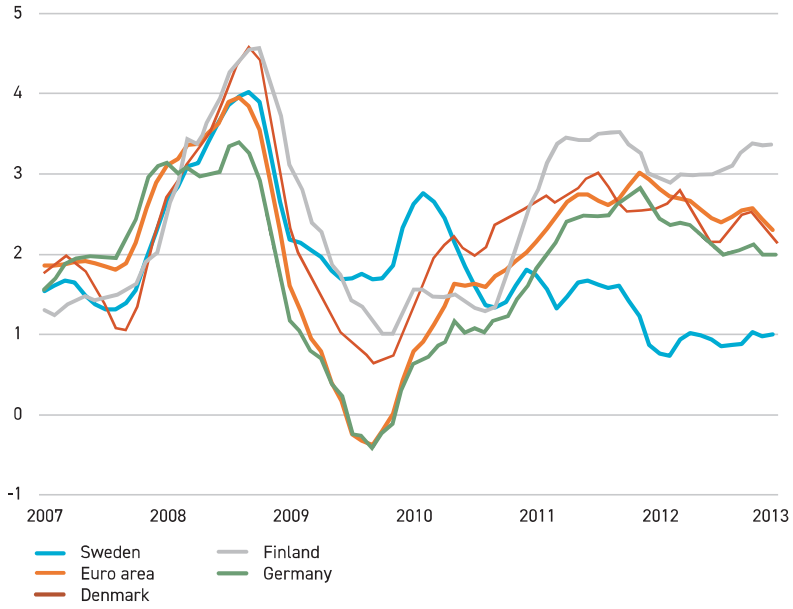
15 It could also be argued that the depreciation of the Swedish *krona* was part of the shock that affected the Finnish economy, and that Finland could have handled the episode better if Sweden had adopted the euro as its currency.

16 See International Monetary Fund (2013) and Coibon and Gorodnichenko (2015).

That said, a weakening exchange rate during a financial crisis can also be a symptom of deeper vulnerabilities, and the depreciation can in itself add to these. Periods of acute stress are characterised by heightened demand for safe and liquid assets, most notably US dollars, but also other reserve currencies. During the global financial crisis, the Riksbank, supported by swap arrangements with other central banks, was able to provide dollar liquidity to Swedish banks. It is far from certain, however, that such cooperation would be available in future crises. Banks within the monetary union benefit both from the euro's role as a more useful currency in times of stress and from the ECB's institutionalised access to dollar liquidity through cooperation with the US Federal Reserve.

In sum, the Swedish economy did benefit from the depreciation of the *krona* during the global financial crisis. The economic downturn was mitigated, and inflation remained closer to the target than in comparable countries. At the same time, these benefits appear to have been limited in magnitude. Moreover, they did not come without costs. The positive effects on economic activity reflected an improvement in Sweden's competitiveness relative to neighbouring countries, such as Finland, which were themselves severely affected by the crisis. Similarly, the inflationary support from a weak *krona* operated through lower import prices in other countries at a time when inflation there was already below target. While Sweden is a small economy, and the impact on others was correspondingly limited, the underlying mechanism nevertheless illustrates that exchange-rate based stabilisation in response to common disturbances tends to redistribute economic conditions across countries rather than generate aggregate gains.

Figure 10 Inflation during the global financial crisis, per cent



Note: Three-month moving average of twelve-month rate of change in HICP.
Source: Eurostat.

5 The *krona* and monetary policy 2009–2024

The limited macroeconomic effects of the weak *krona* during the global financial crisis can largely be attributed to its rapid recovery in 2009 and 2010. It appreciated from around 11.50 *kronor* per euro in February 2009 to 9.50 when the Riksbank began raising its policy rate at the end of June 2010, and then further to 9.00 at the end of the year. The *krona* was then stronger than at the onset of the crisis.

Despite the appreciation of the *krona* and the tightening of monetary policy, economic growth in Sweden remained relatively strong in 2010 and 2011 (see Figure 8). However, the exchange rate once again had an impact on inflation developments. While inflation elsewhere began to rise towards the 2 per cent targets, inflation in Sweden instead fell below target.

5.1 The *krona* gradually took on an increasingly prominent role

The Riksbank's decision to raise its policy rate earlier and more aggressively than other central banks during this period was controversial.[17] The main reasons behind the interest rate hikes were the relatively rapid recovery of economic activity. The aim was to "normalise" monetary policy as resource utilisation recovered after the deep downturn in 2008 and 2009. The *krona* appears to have played a very minor role in the Riksbank's assessments in 2010; the forward-looking inflation forecast closely followed the forecast for inflation in the euro area.[18] It is easy to imagine that the favourable inflation outcomes in 2009 contributed to insufficient attention being paid to the role played by the Swedish currency in sustaining inflation.

As inflation fell below target, the exchange rate gradually assumed greater importance in the monetary policy analysis. Several Monetary Policy Reports in 2011 and 2012 analysed alternative scenarios in which a stronger *krona* resulted in problematically low inflation. An in-depth analysis in the July 2012 Monetary Policy Report concluded that movements in the exchange rate were an important reason why inflation had been lower in Sweden than in the euro area (Sveriges Riksbank 2012).

The exchange rate became even more central to policy discussions when monetary policy shifted in 2014 and 2015 towards bringing inflation back up to target.[19] The risk of *krona* appreciation was repeatedly highlighted as a key challenge for monetary policy, and the Riksbank frequently emphasised the close link between Swedish and European monetary policy.

Despite these concerns, the currency continued to depreciate, contributing to a gradual increase in inflation, which then stayed close to

17 The interest rate increases were also consistently met with reservations from some members of the Riksbank's Executive Board.

18 See, for example, the Monetary Policy Report and the minutes from the Monetary Policy Meeting on 30 June 2010 (Sveriges Riksbank 2010a, 2010b). The report contains the clearest exchange rate analysis in an alternative scenario in which the debt crisis in Europe worsens. In this scenario, however, the *krona* depreciates due to increased international uncertainty. The depreciation then helps to stabilise inflation in Sweden.

19 This is most clearly illustrated by the Riksbank's communication, beginning in January 2016, that it stood ready to intervene in the foreign exchange market (see Sveriges Riksbank 2016).

the target from 2017 until the outbreak of the pandemic.[20] In several euro area countries, which did not benefit from a weaker currency, inflation remained low during this period despite highly expansionary monetary policy (see Figures 11a and 2a).

Did the Swedish economy benefit from having a floating exchange rate during this period? Inflation in Sweden would probably have been lower if Sweden had adopted the euro, but this would not necessarily have been problematic. The Riksbank's concern about low inflation in the mid-2010s stemmed largely from the risk that it could undermine the credibility of the inflation target. In a monetary union, however, there is no commitment to achieving the inflation target at the level of individual member countries. The questions that should be asked about this episode are instead (i) whether the Swedish economy would have suffered from a weaker nominal anchor as a member of the monetary union and (ii) whether the Swedish economy needed support from a weak exchange rate. The answers to these questions are, in my view, far from obvious.

5.2 Problematic *krona* depreciation in 2022–23 when inflation rose

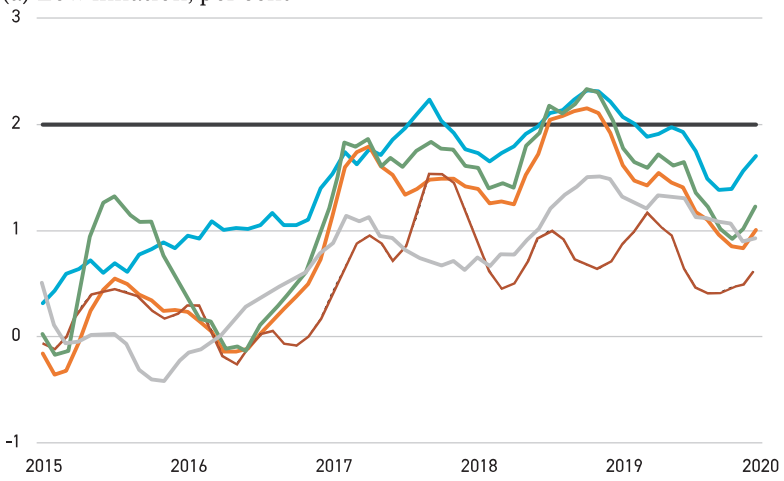
The *krona* has attracted considerable attention in recent years, partly because of its persistent weakness and partly because of the sharp depreciation during 2022 and 2023. The prolonged weakness of the currency has increasingly been portrayed as a broader economic problem. It has been argued, for example, that Swedish households have suffered a loss of purchasing power, that importing firms have been disadvantaged and that exporters have benefited to such an extent that necessary structural adjustments have been delayed.

These concerns intensified during the inflation surge of 2022–23. The *krona* depreciated by 15 per cent against the euro from the end of 2021 to mid-2023, precisely when inflation rose to historically high levels and monetary policy was tightened rapidly in both Sweden and internationally.

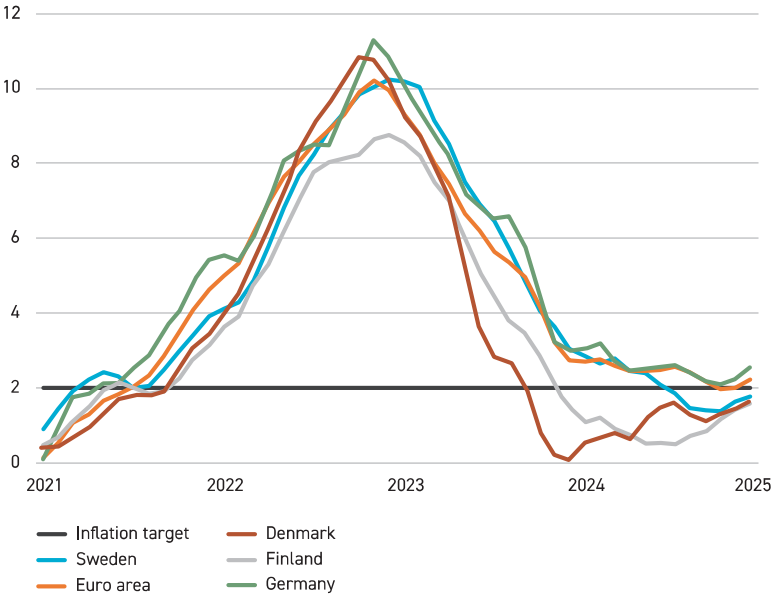
20 Corbo and Di Casola (2022) find that exogenous shocks to the *krona* exchange rate have a substantial effect on inflation. Nevertheless, they conclude that the rise in Swedish inflation during this period was primarily driven by domestic monetary policy. Their analysis, however, only covers data up to the second quarter of 2017.

Figure 11 Episodes of low and high inflation

(a) Low inflation, per cent



(b) High inflation, per cent



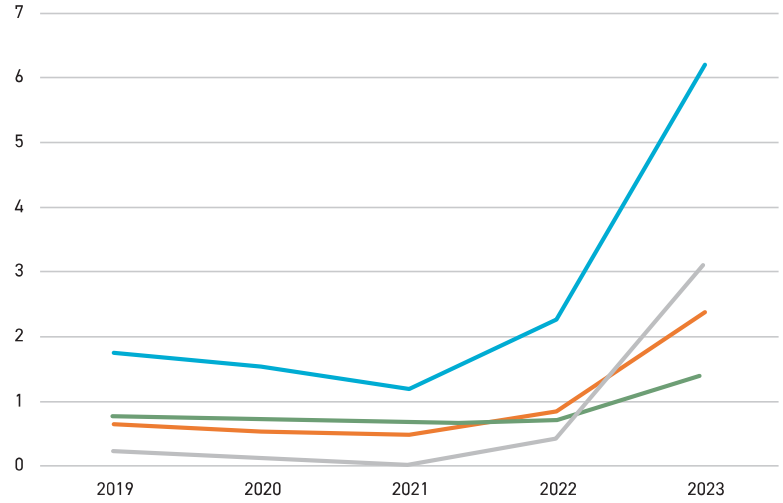
Note: Three-month moving average of twelve-month change in HICP, per cent.
Source: Eurostat.

The rise in inflation during this episode was a global phenomenon (see Figure 11b). Central banks raised policy rates at roughly the same time in 2022, and subsequent interest rate paths have also been similar (see Figure 2). A closer inspection nevertheless reveals important differences. Policy rates were raised more in the United States than in Europe, and somewhat less in Sweden than in the euro area. These differences partly reflect cross-country variation in the intensity of inflationary pressures, but also differences in how a given policy rate change affects the real economy.

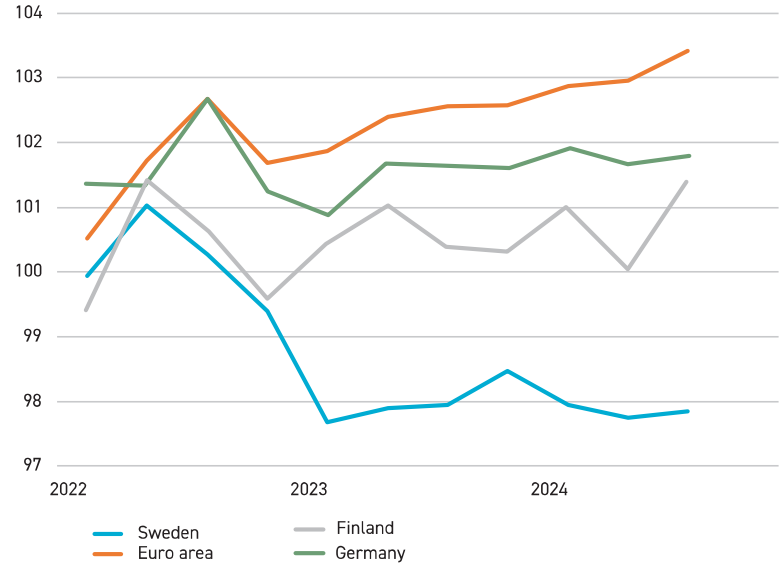
In the United States, both household and corporate borrowing are dominated by long-term fixed-rate contracts. Changes in the policy rate therefore have relatively limited immediate impact on cash flows, while monetary policy instead operates mainly through expectations of future interest rates and long-term yields. The euro area represents an intermediate case. Variable interest rates are common in some countries, such as Finland, while long maturities dominate in others, such as Germany. Swedish households combine variable interest rates with high levels of indebtedness. As shown in Figure 12, this means that the sharp rise in interest rates had a particularly strong and immediate impact on household cash flows. This also appears to have contributed to the pronounced weakness in household consumption in recent years.

Figure 12 Impact of monetary policy, 2019–23

(a) Household interest payments (per cent of disposable income)



(b) Household consumption (index)



Note: Household consumption refers to volume, index 2021Q4 = 100.
Sources: Eurostat (panel a) and OECD EO 2024:2 (panel b).

Interest rate changes thus have a rapid and powerful impact on the Swedish economy. Against this background, it is not surprising that the Riksbank raised its policy rate by less than the ECB and the Federal Reserve. The smaller increase in the Swedish policy rate likely contributed to the depreciation of the *krona* during this period. The exchange rate thus complicated monetary policy by amplifying the trade-off between stabilising inflation and supporting economic activity. Despite the economy's high interest-rate sensitivity, the Riksbank nevertheless had to raise its policy rate almost as much as other central banks, partly out of concern that further currency depreciation would otherwise add to inflationary pressures.

This episode illustrates a well-known macroeconomic challenge: supply shocks – shocks that simultaneously dampen economic activity and push up inflation – are difficult for monetary policy to manage. In such situations, central banks cannot both stimulate the economic activity and stabilise inflation. The rise in inflation following the pandemic highlights that these difficulties are exacerbated when a country is more interest-rate-sensitive than its trading partners.

This episode would have been challenging even if Sweden had been a member of the monetary union. Monetary policy was tightened slightly more in the euro area than in Sweden. The increase in inflation would therefore likely have been somewhat smaller in Sweden under euro membership, owing both to a smaller exchange rate effect and to tighter monetary policy. This would, however, have come at the cost of weaker economic activity.

The broader lesson is that large differences in interest rate sensitivity across countries can generate substantial macroeconomic challenges. As we have seen, these challenges arise even when the exchange rate is floating. In a monetary union, where monetary policy is uniform, they may be even more problematic. If Sweden were to adopt the euro, reducing Swedish households' interest rate sensitivity would therefore be particularly desirable.

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6 Concluding reflections

6.1 Euro area cooperation has improved but still has significant shortcomings

Ahead of the introduction of the euro in 1999, many economists expressed concern about the constraints that a monetary union would impose on countries' ability to respond to country-specific shocks, in the absence of an independent monetary policy and an exchange rate that could help smooth their effects.

The first decade following the introduction of the euro was characterised by a period of what, in retrospect, appears to have been a deceptive calm. Economic growth was relatively strong and macroeconomic volatility limited. Even at the onset of the global financial crisis, the euro initially seemed to contribute to stability. From 2010 onwards, however, severe tensions emerged within the monetary union as financial markets began to demand ever higher risk premia on government bonds, first in Greece and then in several other euro area countries.

The underlying causes of the European debt crisis were largely consistent with the risks that economists had warned about in the 1990s.[21] In an environment of growing optimism and hopes of convergence with the richer core euro area countries, the common monetary policy proved too expansionary for several member states as well as for candidate countries operating under fixed exchange rates. This resulted, among other things, in widening trade and current account deficits vis-à-vis the core countries. In several cases, wages and production costs increased faster than could be justified by productivity developments, leading to a gradual erosion of competitiveness. Countries with high public debt, such as Greece and Italy, initially benefited from the sharp decline in borrowing costs following euro membership, but necessary structural reforms were postponed when fiscal space expanded. In other countries, low interest rates fuelled rapid increases in property prices and private indebtedness rather than productive investments.

21 See Calmfors (2017) and Buti and Corsetti (2024) for more detailed reviews of the crisis and its causes.

Buti and Corsetti (2024) nevertheless argue that the crisis differed in important respects from the scenarios emphasised by early critics. In their interpretation, self-fulfilling expectations played a central role when risk premia surged, and weaknesses in the institutional framework for European economic governance prevented an effective containment of the crisis.

The crisis was ultimately managed without any country having to leave the monetary union.[22] Candidate countries, such as the Baltic states, succeeded in maintaining their fixed exchange rates and subsequently adopting the euro. Over time, the crisis also led to deeper cooperation among euro area countries and to the creation of new institutions, regulations and policy instruments. Nevertheless, important shortcomings remain that could complicate the management of future disturbances. The absence of substantial common fiscal resources means that the ECB has been assigned an unnecessarily prominent role in areas that would be better handled by political institutions, while the scope for addressing country-specific shocks remains limited. The lack of a common nominal risk-free asset, such as Eurobonds, and of a common deposit insurance scheme continues to impede financial integration. As a result, financial markets remain largely segmented along national lines, leading to inefficient capital allocation and excessive home bias in the portfolios of households and banks. Finally, public finances in many euro area countries remain weak, and in several cases weaker than at the onset of the debt crisis (see Chapter 7 by Andersson and Jonung).

6.2 The major shocks have been global

Krugman (1993) argued that deeper cooperation between countries in a monetary union would lead countries to become more specialised in different industries, thereby raising the likelihood of asymmetric shocks. In the absence of a common fiscal policy or other insurance

22 This is not to say that the process was either easy or painless. Crisis management involved substantial fiscal tightening in an already weak economic environment, contributing to high unemployment and to economic activity remaining depressed for many years.

mechanisms, such developments could, in his view, cause the monetary union to function less effectively over time.

Experience to date does not support Krugman's concerns. It is difficult to identify major country-specific disturbances in Europe beyond the debt crisis. Instead, the most significant shocks have been common and predominantly global: first the global financial crisis, followed by the pandemic in 2020, and more recently the sharp increase in energy prices and inflation, especially after Russia's invasion of Ukraine in 2022.

The euro area countries have navigated the recent episodes without obvious country-specific problems emerging. One can only speculate how the European Union would have managed these episodes in a setting with 27 currencies and 27 independent central banks, but it is difficult to see how the outcome would have been any better. Monetary policy in the euro area has not been used in attempts to gain national advantages at the expense of others, and uncertainty on foreign-exchange markets has not added to macroeconomic instability. Instead, the common monetary policy has helped keep risk premia on government bonds low and has encouraged cooperation in policy areas beyond monetary policy.

Compared to an alternative scenario where each country maintains its own currency, whether freely floating or linked through some exchange-rate arrangement, I believe that the euro has contributed to macroeconomic stability. Sweden's policy choice, however, is not between these two alternatives, but between retaining its own currency and joining the currency already adopted by 21 countries. On the basis of the evidence presented in this chapter, it remains unclear which alternative would bring the most macroeconomic stability to Sweden.

6.3 Stabilisation policy can be both helped and complicated by a floating exchange rate

Concerns about constraints on macroeconomic stabilisation are among the arguments most frequently raised by economists against monetary unions. Experience from recent decades, however, suggests that exchange rates do not always move in ways that support stabili-

sation. Depending on the nature of the shocks affecting the economy, exchange rate movements may dampen fluctuations in some circumstances but amplify volatility in others.

As noted repeatedly above, disturbances that are specific to the home country are particularly challenging to navigate for members of a monetary union. But countries in a monetary union are also affected by shocks originating in other member countries, to the extent that the common monetary policy responds to these shocks. From a Swedish perspective, one potential risk concerns the strained public finances in several euro area countries. These conditions could constrain future monetary policy and limit its ability to keep inflation low and stable (see Walentin's Chapter 4).

It may be coincidental that the major disturbances of the past decade have been common rather than country-specific. More likely, however, this reflects that economies have become increasingly interconnected over time. Although globalisation now has stalled, and even reversed, everything indicates that economic cooperation within Europe will continue to deepen and that European financial markets will become more integrated. Such developments may in itself enhance the effectiveness of common monetary policy, and may also imply that even disturbances with an initially national character increasingly require international responses.

From a broader perspective, a prerequisite for macroeconomic stability in Europe is arguably that financial markets continue to integrate, which in turn makes it even more likely that shocks will be best managed jointly. These forces together mean that economic policy cooperation in Europe needs to continue to deepen, for example through the development of common fiscal instruments such as jointly issued bonds at the EU or euro area level as well as expanded common revenue sources.

Recent geopolitical developments have strengthened the case for such cooperation. Following the 2024 US presidential election, uncertainty surrounding the role of the United States in the global economy has increased, amid shifting positions on trade policy and fiscal sustainability. The US dollar could lose some of its safe-haven status if confidence in US financial institutions or public finances were to erode.

These concerns have already been reflected in a marked depreciation of the dollar in 2025. If this process continues, it is conceivable that the euro could assume a more prominent role as a safe-haven currency.

7 Summary and conclusions

This chapter has examined the implications of Sweden's exchange rate regime for macroeconomic stability. Based on established economic theory and the debates preceding the introduction of the euro, there were concerns that stabilisation policies in the euro area would be impaired by a common monetary policy and the absence of a floating exchange rate that could respond to country-specific shocks. The European debt crisis that began around 2010 demonstrates that such concerns were relevant. At the same time, it is difficult to assess how the economies most affected by the crisis would have developed in the absence of the single currency.

In Sweden, there were particular reasons during the 1990s to preserve an independent monetary policy for some time to come, given weak public finances and an economy still recovering from the crisis earlier in the decade. With the benefit of hindsight, there is little evidence that this room for manoeuvre has been important. In fact, the Riksbank's monetary policy has largely mirrored that of the ECB throughout the period. This does not imply that the decision to remain outside the monetary union has been irrelevant for macroeconomic stability. The Swedish *krona* has been volatile and has depreciated substantially against the euro, at least nominally, despite similar monetary policy and despite the difficulty of identifying clear country-specific shocks affecting the Swedish economy. It remains difficult to assess how the economy would have evolved under euro membership. What can be said is that exchange rate movements have contributed to macroeconomic stabilisation in some episodes, while complicating it in others.

The arguments that motivated Sweden to postpone euro adoption have become less relevant over time. Most notably, public finances are now strong, giving fiscal policy ample capacity to dampen economic

fluctuations if needed. Within the euro area, challenges related to high public debt and structural weaknesses persist in several countries. These issues may generate difficult trade-offs for the common monetary policy in the future. The euro area's capacity to manage crisis is, however, stronger today than it was during the debt crisis. Important lessons have been learned, and European economic cooperation has deepened through the development of new institutions and policy instruments.

In addition, European economies are becoming increasingly integrated, for example through financial markets. Swedish banks and other financial institutions are active in euro area countries, and banks from the euro area operate in Sweden. Future crises are therefore unlikely to be confined within national borders, and effective crisis management will almost certainly require international cooperation. Against this background, it is far from certain that the *krona* will move in ways that facilitate Swedish stabilisation policy in future crises, regardless of whether such shocks originate domestically or abroad.

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