



# Monetary Policy Report April 2020

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

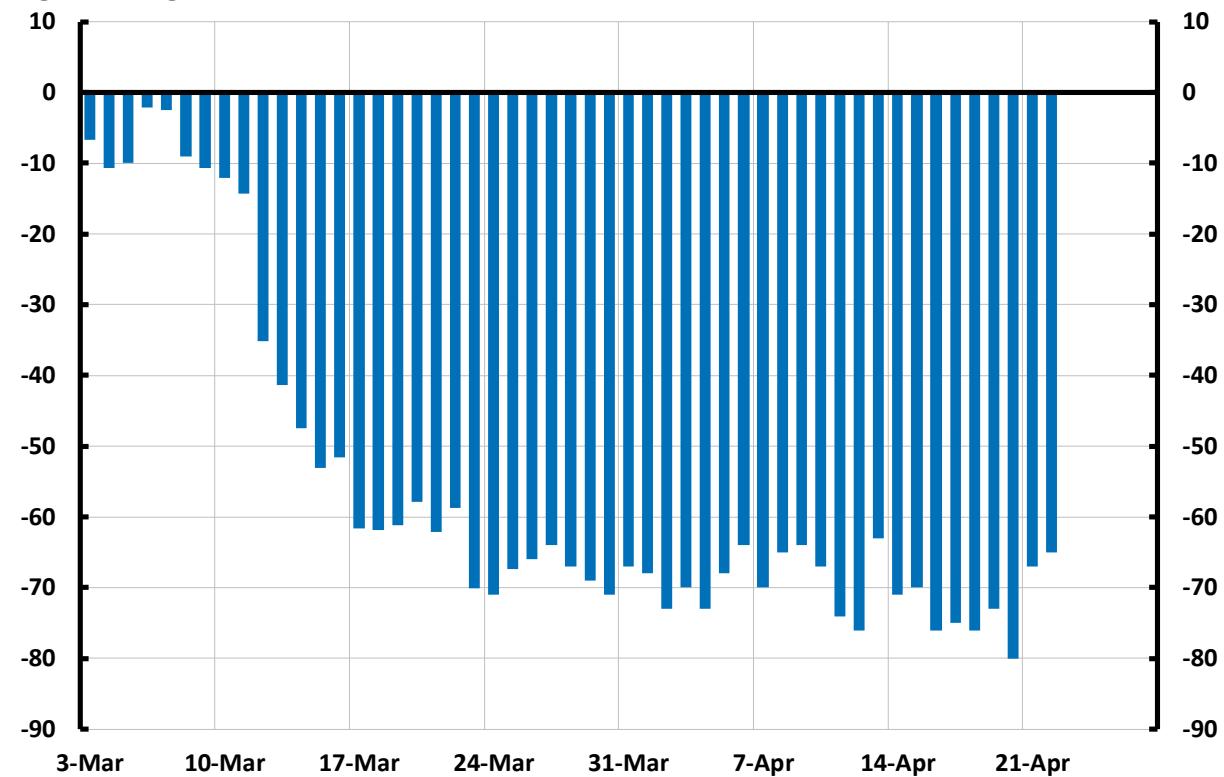


# Chapter 1



# Figure 1.1. Turnover in the restaurant industry

Annual percentage change

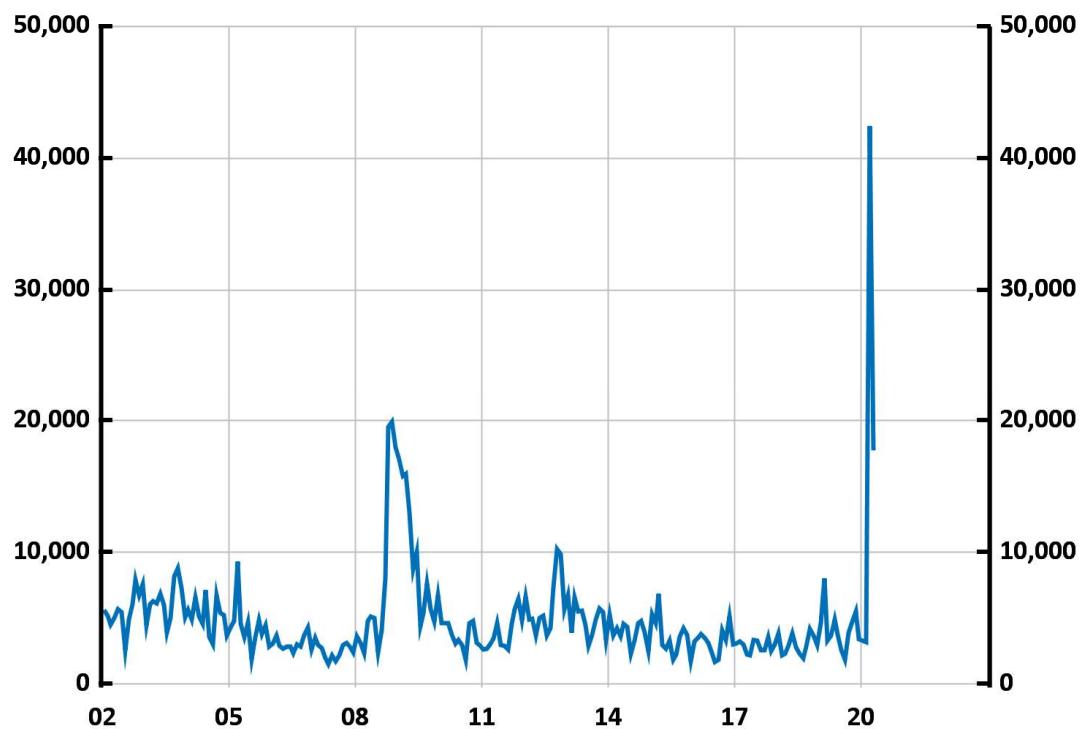


Note. Daily turnover for about 600 restaurants with a total annual turnover of about SEK 11 billion.

Source: Caspeco.se

## Figure 1.2. Redundancy notices

Number per month



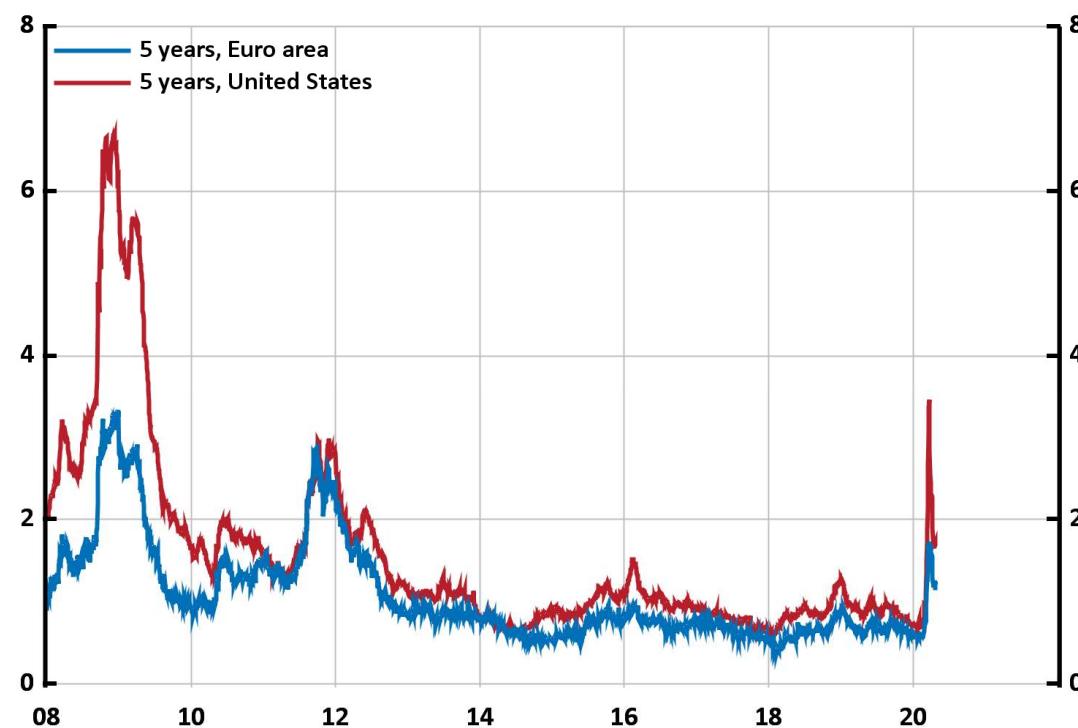
Note. Redundancies for April refer to the period 1-17 April.

Source: The Swedish Public Employment Service



# Figure 1.3. Difference between yields on corporate bonds and government bonds in the United States and euro area

Percentage points

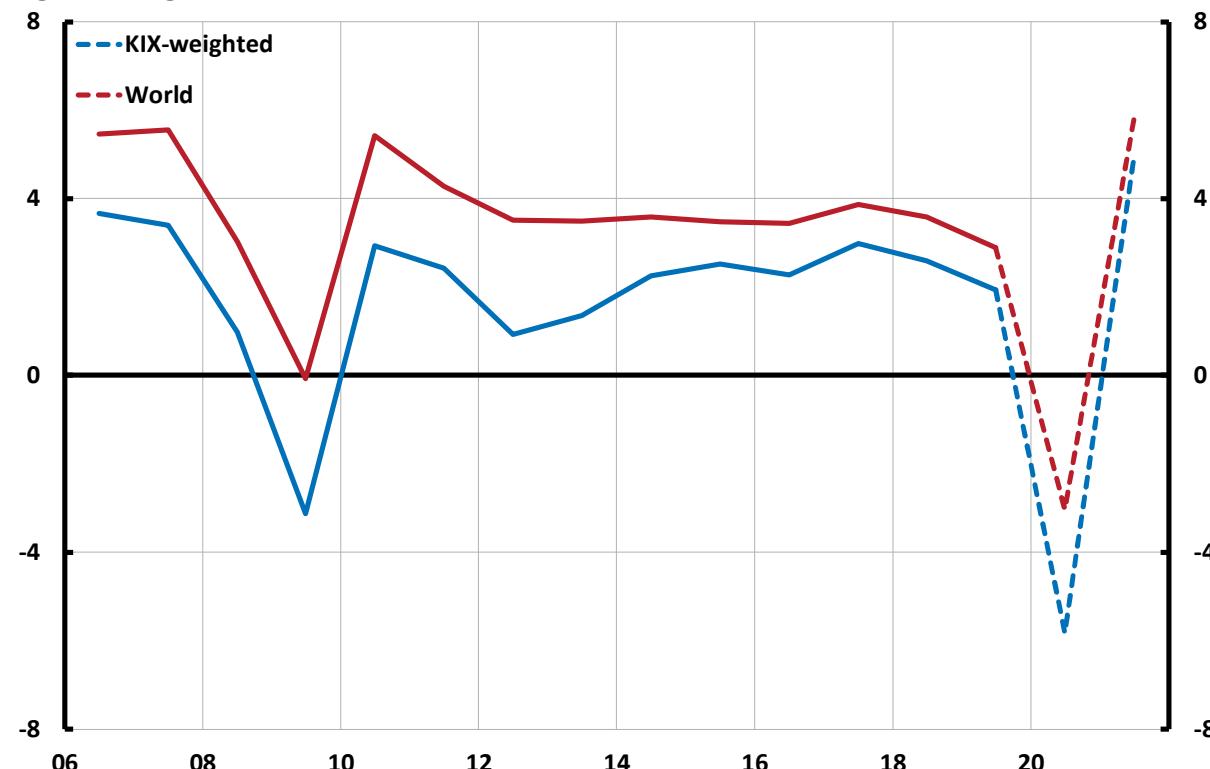


Note. Yield differentials refer to 5-year benchmark bonds issued by companies with good credit ratings and the government, respectively.

Source: Macrobond

## Figure 1.4. The IMF's forecast for GDP abroad

Annual percentage change

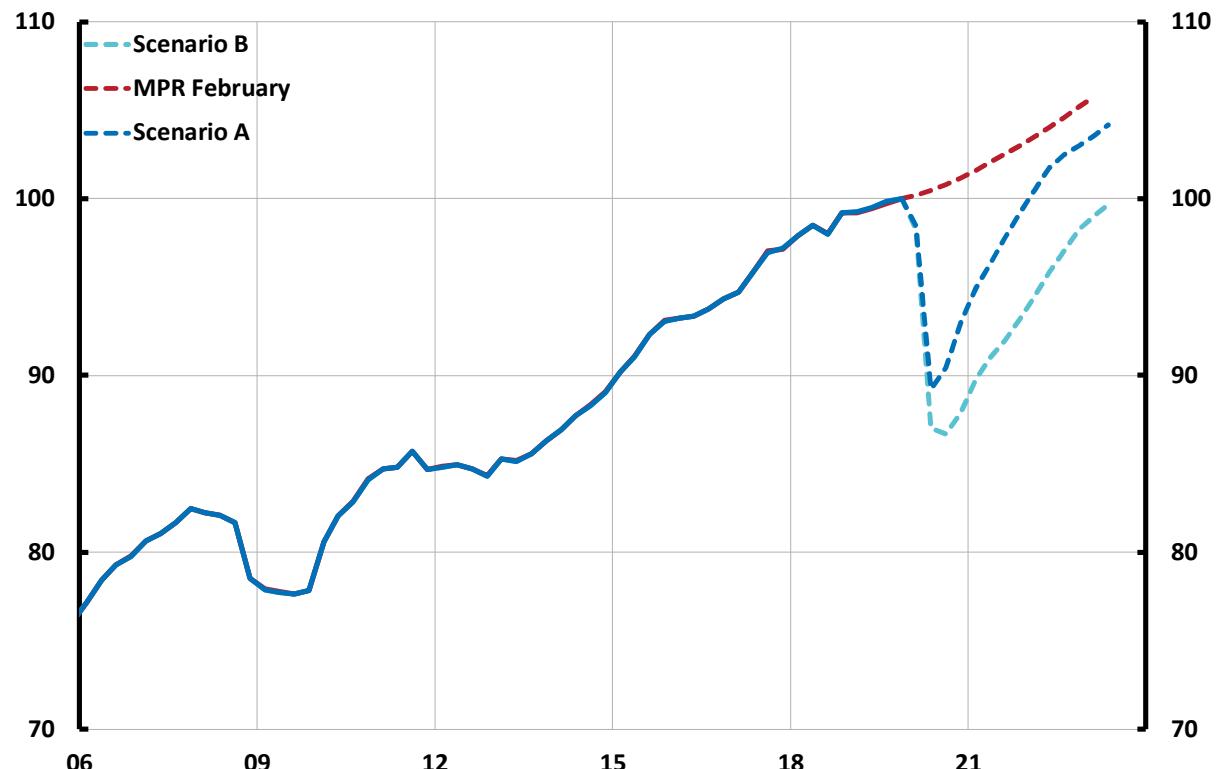


Note. The KIX is an aggregate of countries that are important for Sweden's international trade.

Sources: The IMF World Economic Outlook April 2020 and the Riksbank

# Figure 1.5. GDP in Sweden

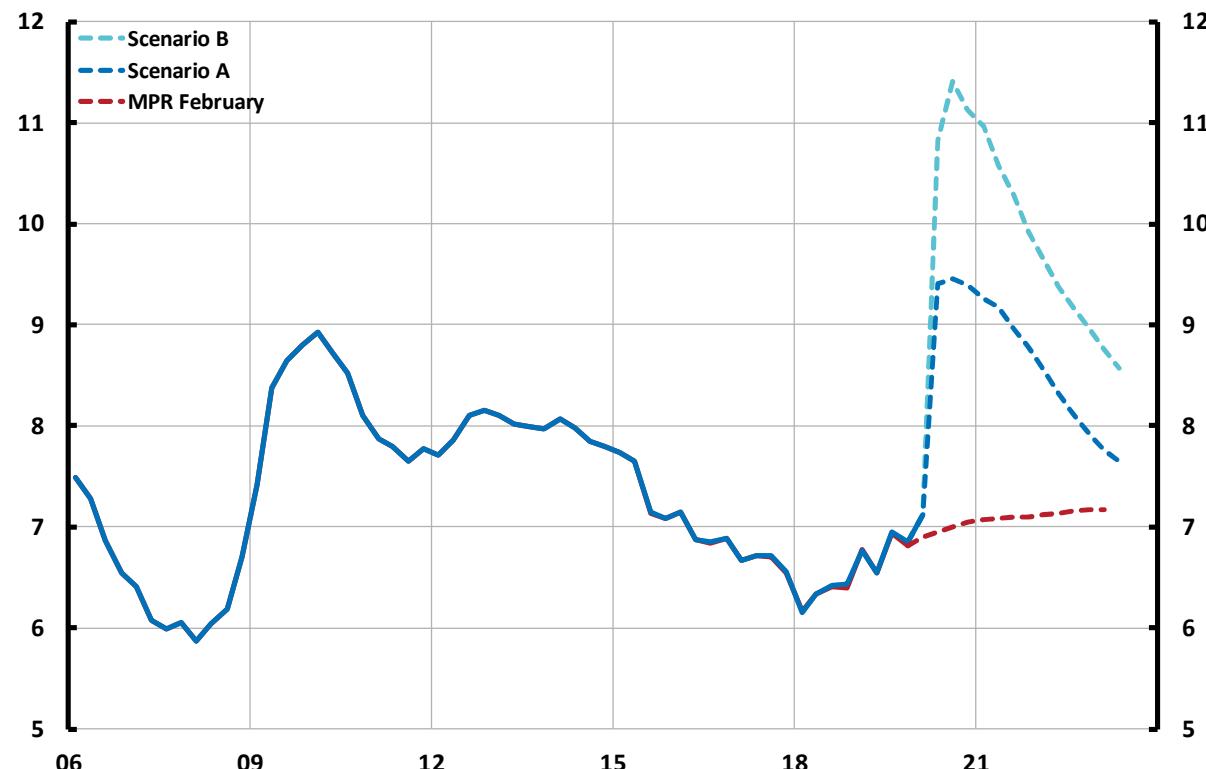
Index, 2019Q4 = 100



Sources: Statistics Sweden and the Riksbank

# Figure 1.6. Unemployment

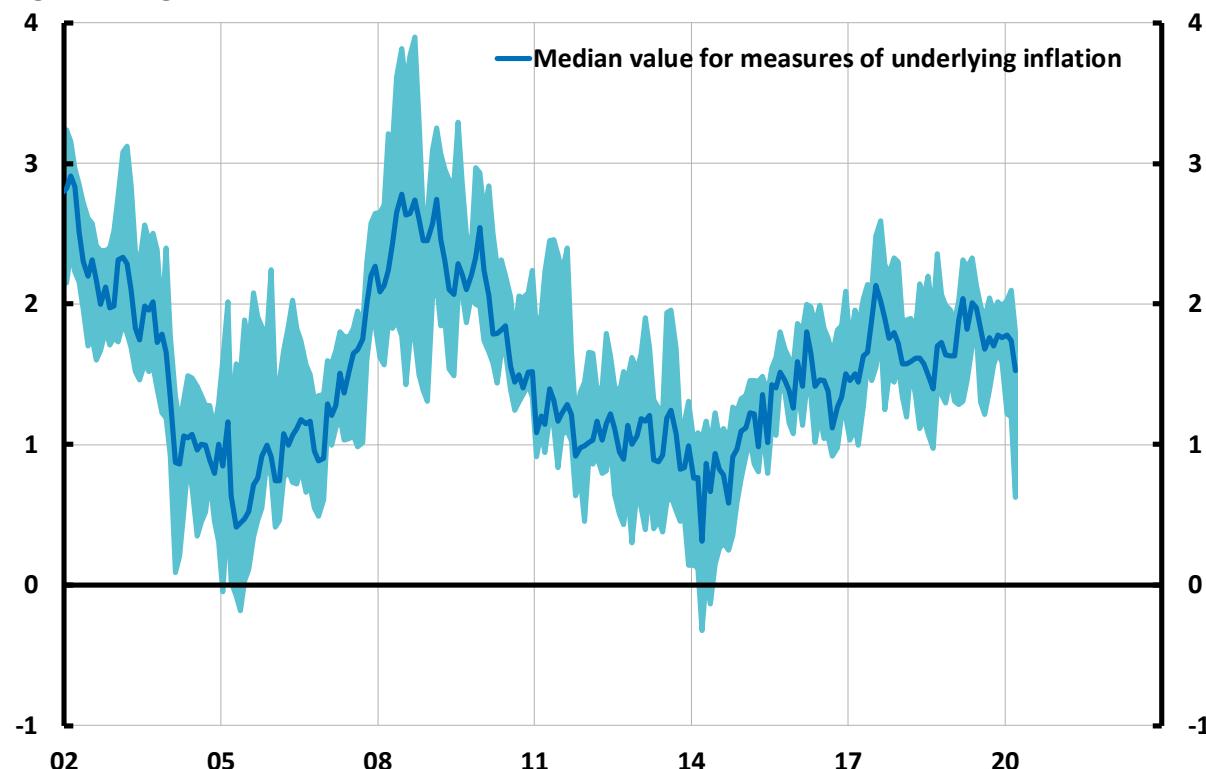
Per cent of the labour force



Sources: Statistics Sweden and the Riksbank

# Figure 1.7. Different measures of underlying inflation

Annual percentage change

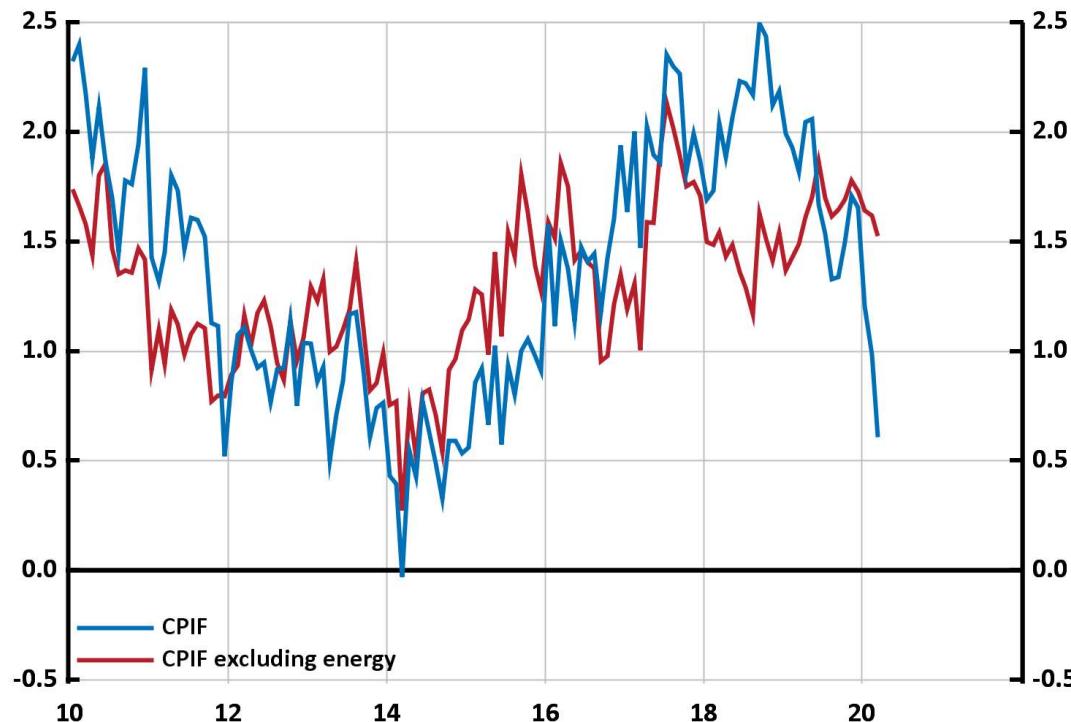


Note. The field shows the highest and lowest outcomes among different measures of underlying inflation. The measures included are the CPIF excluding energy, UND24, Trim85, CPIF excluding energy and perishables, persistence-weighted inflation (CPIFPV), factors from principal component analysis (CPIFPC) and weighted mean inflation (Trim1).

Sources: Statistics Sweden and the Riksbank

## Figure 1.8. CPIF and CPIF excluding energy

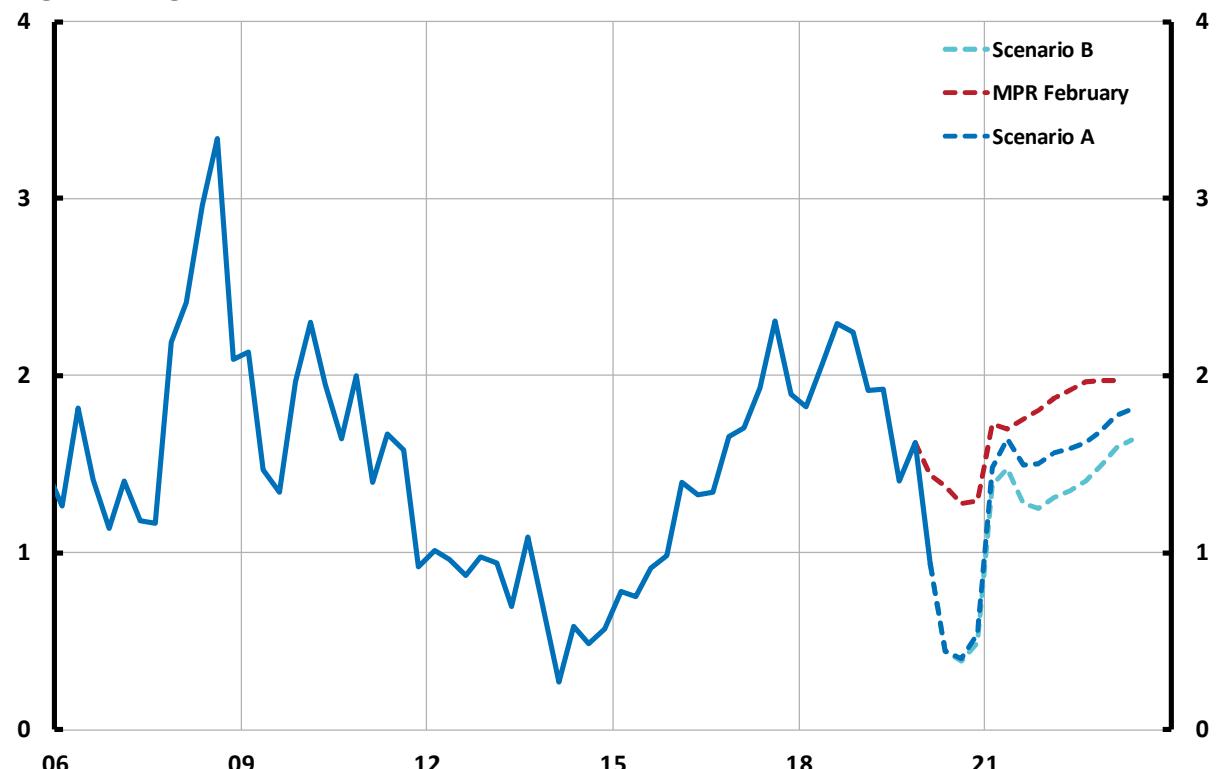
Annual percentage change



Source: Statistics Sweden

## Figure 1.9. CPIF

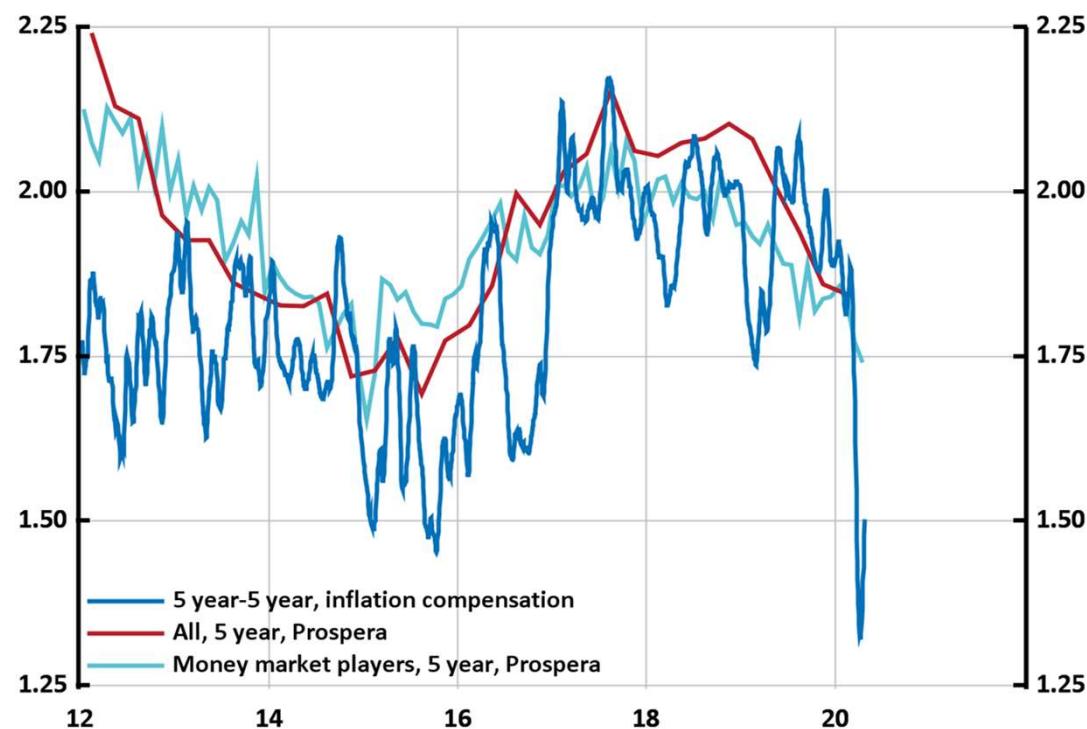
Annual percentage change



Sources: Statistics Sweden and the Riksbank

## Figure 1.10. Long-term inflation expectations

Per cent

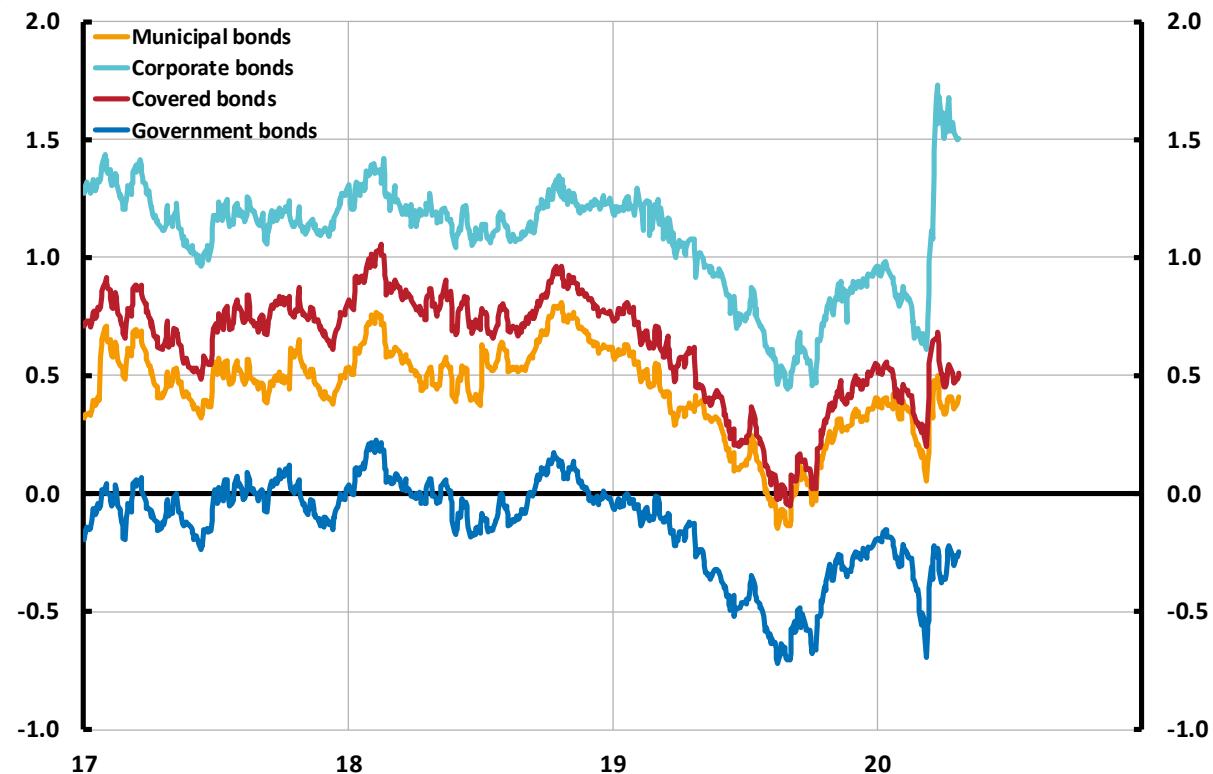


Note. Inflation compensation refers to a 5-year period starting in 5 years' time, calculated on the basis of bond yields, 15 days moving average.

Sources: Kantar Sifo Prospera and the Riksbank

# Figure 1.11. Bond yields

5-year bonds, per cent

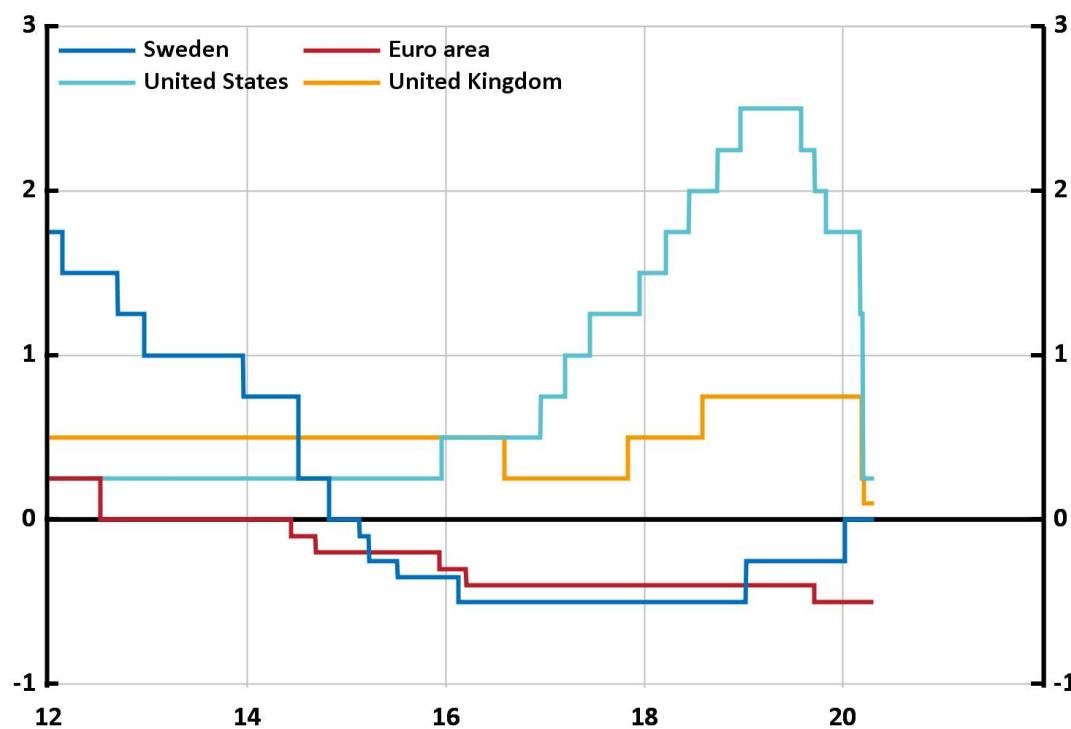


Note. Covered bonds and corporate bonds are zero coupon rates calculated using the Nelson-Siegel method. Corporate bonds for companies with credit ratings of BBB or higher. Municipal bonds are benchmark bonds, issued by Kommuninvest i Sverige AB.

Sources: Macrobond and the Riksbank

## Figure 1.12. Policy rates

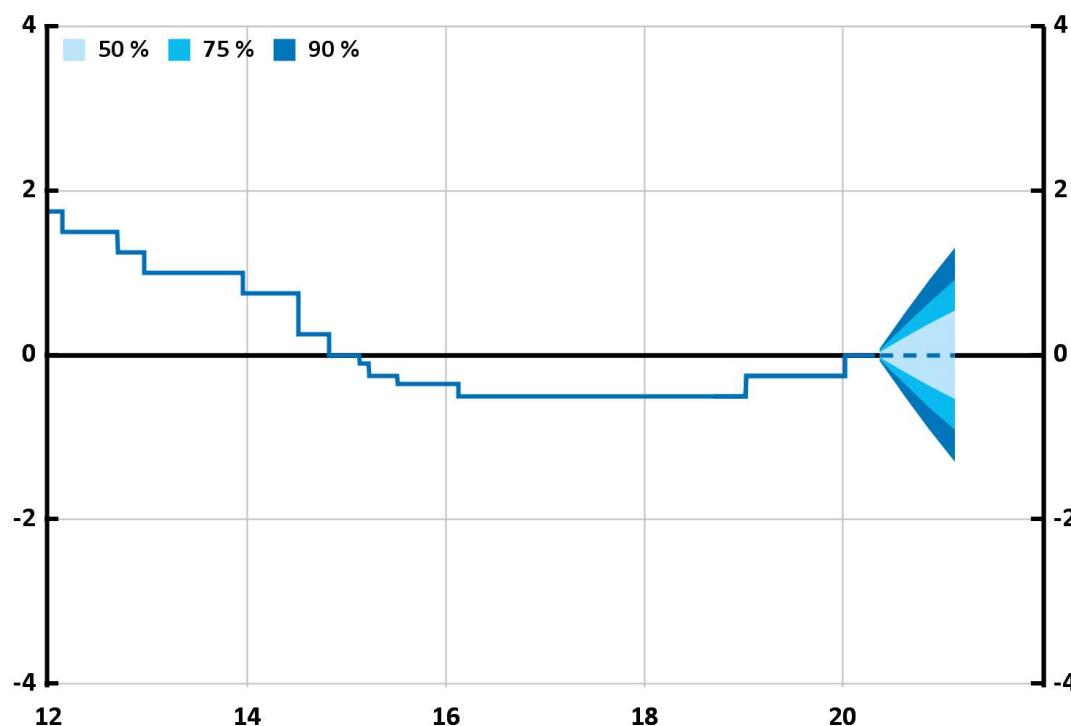
Per cent



Sources: The national central banks, Reuters and the Riksbank

## Figure 1.13. Repo rate with uncertainty bands

Per cent



Note. Since the situation is so uncertain, a scenario for the repo rate is shown only one year ahead. The uncertainty bands for the repo rate are based on the Riksbank's historical forecasting errors and the ability of risk-premium adjusted forward rates to forecast the future repo rate for the period 1999 up to the point when the Riksbank started to publish forecasts for the repo rate during 2007. The uncertainty bands do not take into account the fact that there may be a lower bound for the repo rate. Outcomes are daily rates and forecasts refer to quarterly averages.

Source: The Riksbank



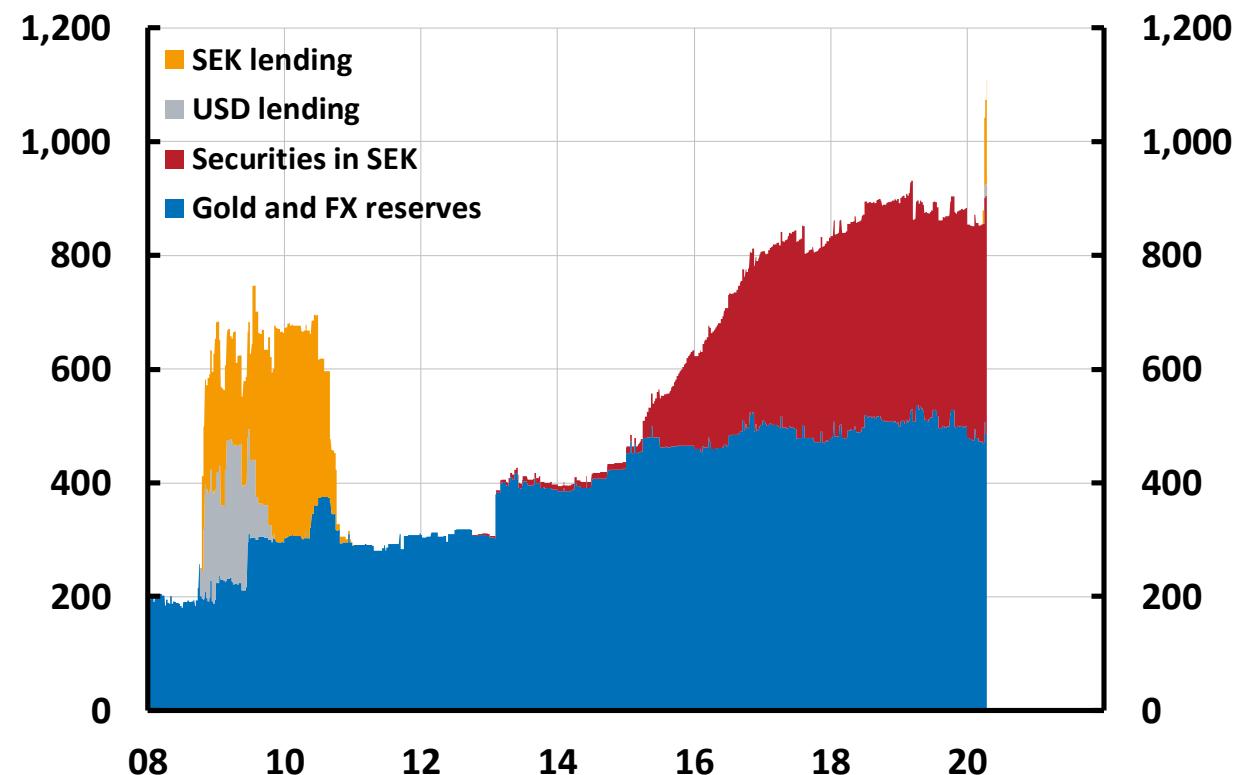
# Article – The Riksbank's balance sheet is growing

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## Figure 1.14. Assets on the Riksbank's balance sheet

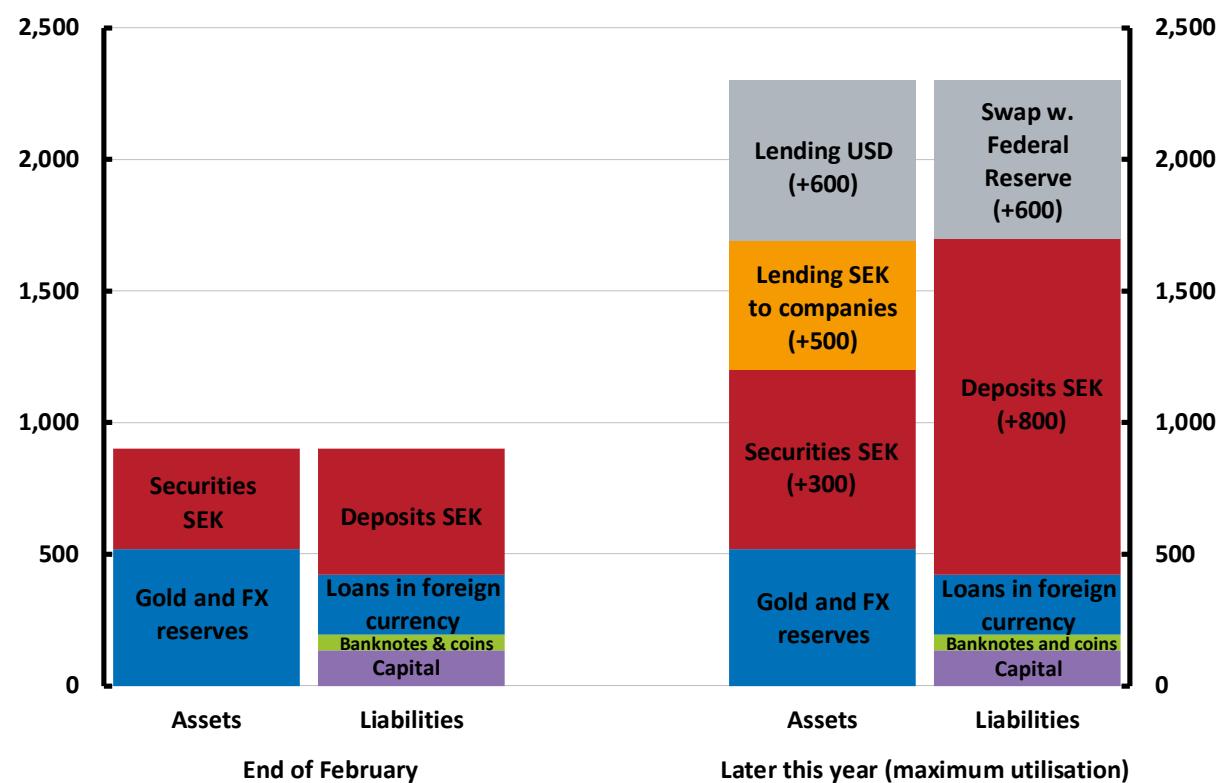
SEK billion



Source: The Riksbank

## Figure 1.15. Potential consequences of the Riksbank's measures for the Riksbank's balance sheet

SEK billion



Source: The Riksbank

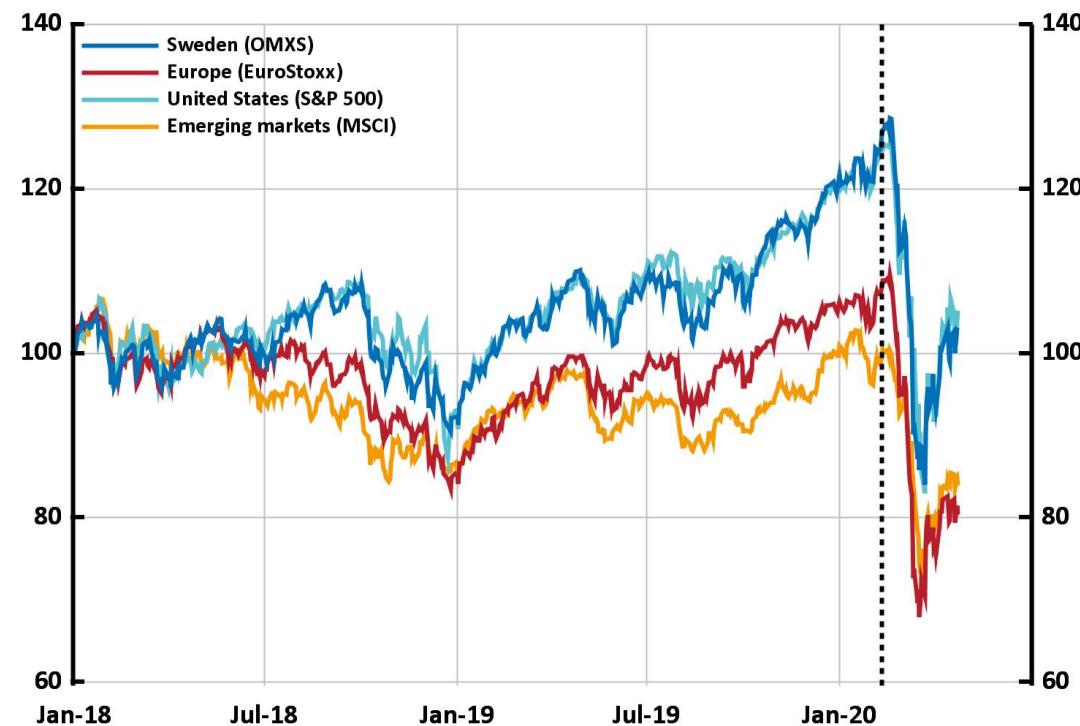


# Chapter 2



# Figure 2.1. Stock market movements in domestic currency

Index, 2 January 2018 = 100

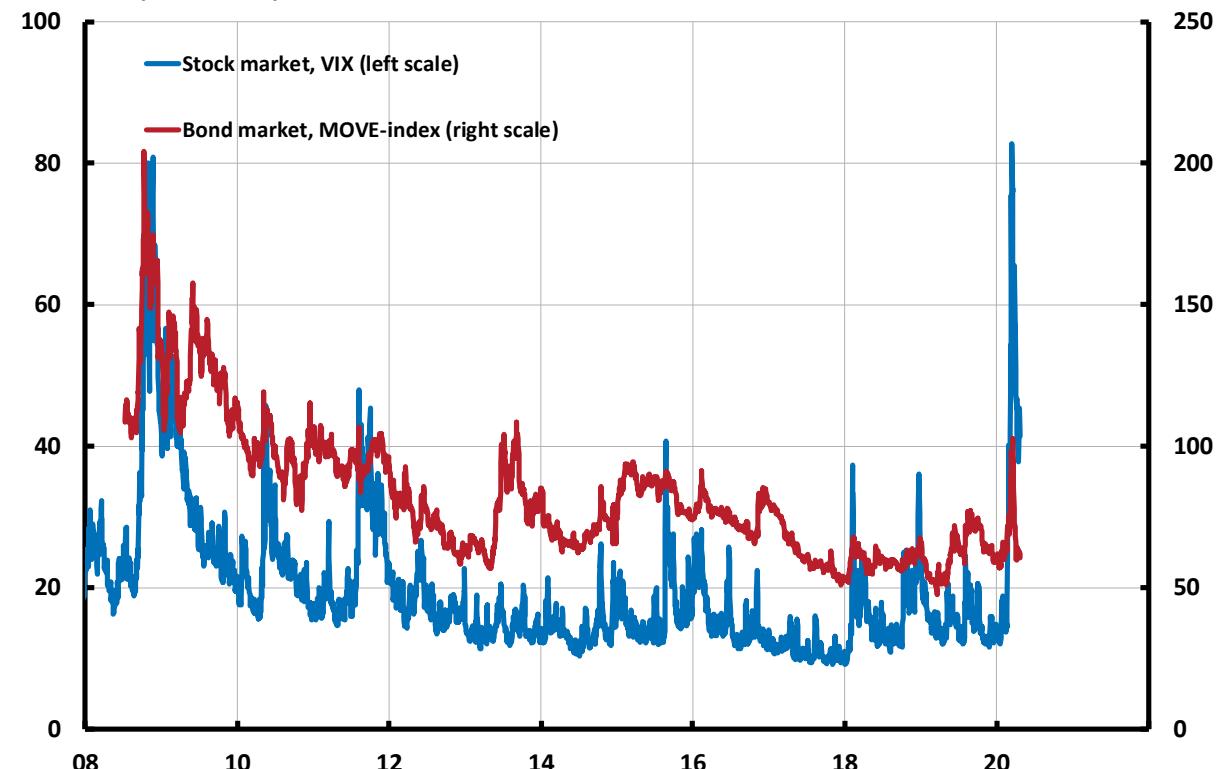


Note. The vertical line indicates the Monetary Policy Meeting in February.

Source: Macrobond

## Figure 2.2. Volatility index for US equity and bond markets

Per cent and index, respectively



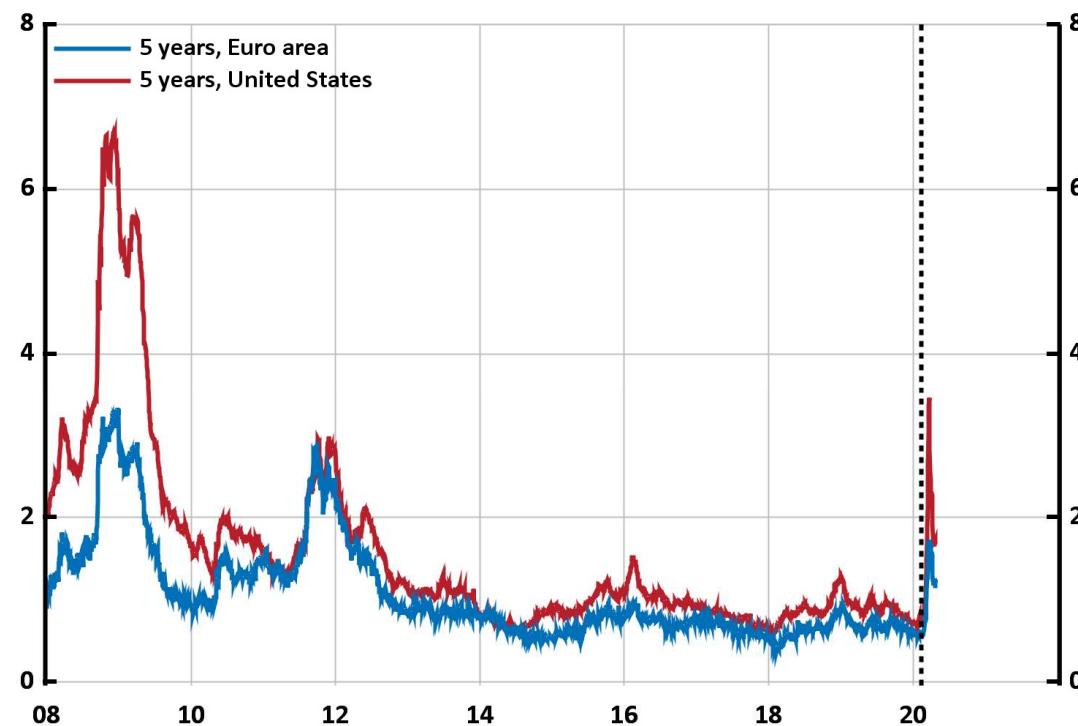
Note. Volatility Index (VIX) shows the expected volatility on the US stock market based on options prices. The Merrill Lynch Option Volatility Estimate (MOVE) Index is a measure of the expected volatility of US government bonds on the bases of options prices.

Sources: Chicago Board Options Exchange and Merrill Lynch



## Figure 2.3. Difference between yields on corporate bonds and government bonds in the United States and euro area

Percentage points

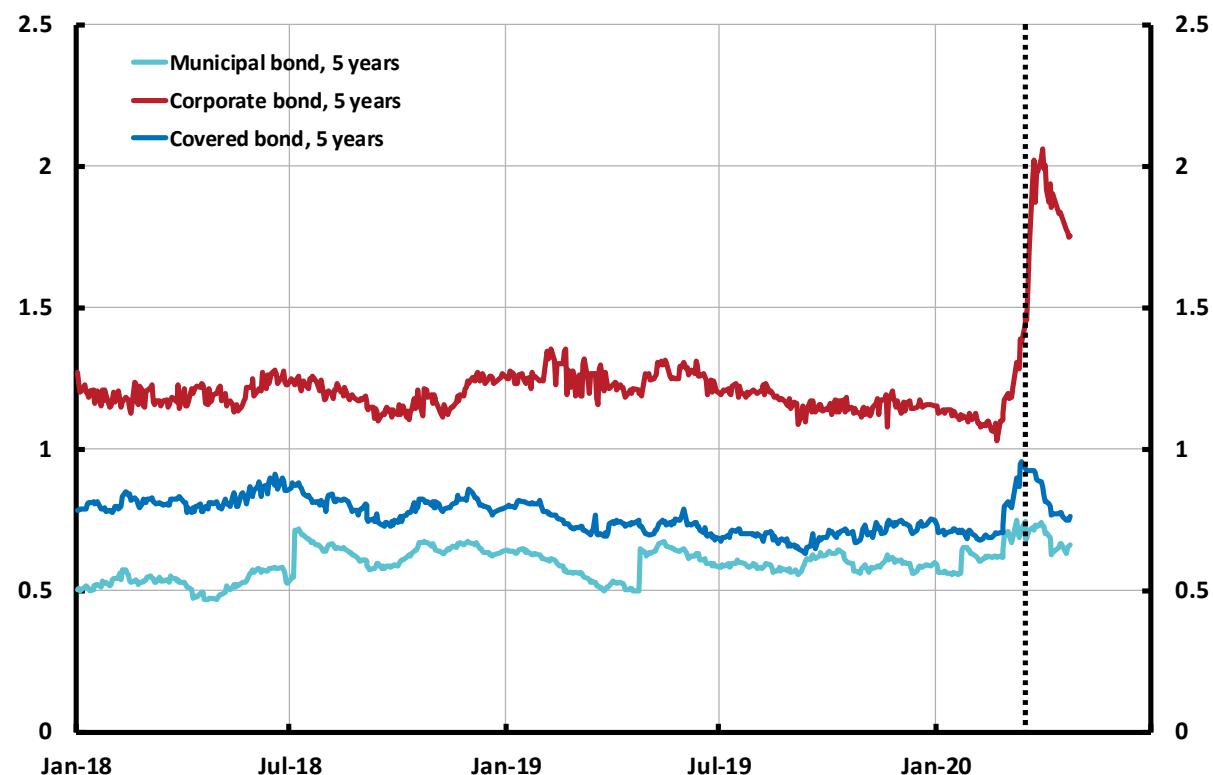


Note. Yield differentials refer to 5-year benchmark bonds issued by companies with good credit ratings and the government, respectively. The vertical line indicates the Monetary Policy Meeting in February.

Source: Macrobond

## Figure 2.4. Yield difference between bonds and government bonds in Sweden

Per cent

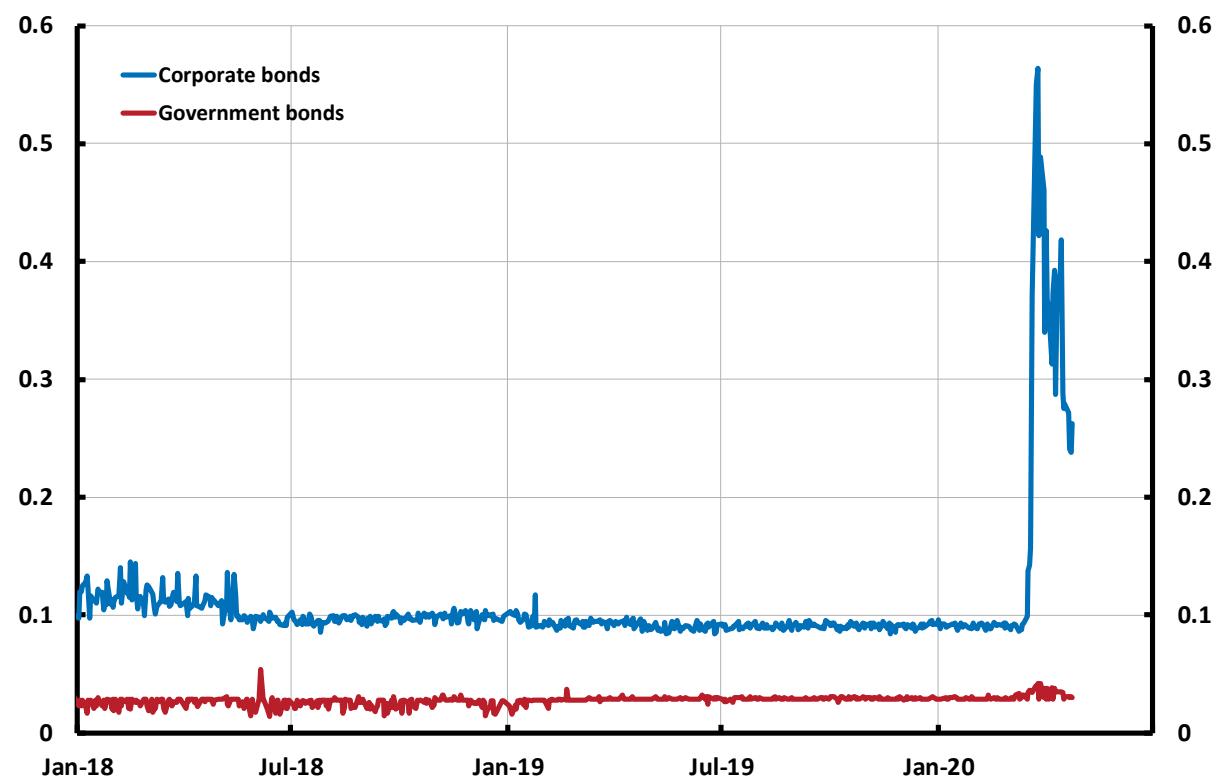


Note. Covered bonds and corporate bonds are zero coupon rates calculated using the Nelson-Siegel method. Corporate bonds for companies with credit ratings of BBB or higher. Municipal bonds are benchmark bonds, issued by Kommuninvest i Sverige AB. Vertical line marks 16 March 2020, when the Executive Board decided to extend the asset purchases to cover municipal bonds and covered bonds.

Sources: Bloomberg, Macrobond, Refinitiv and the Riksbank

## Figure 2.5. Difference between bid and ask prices on bonds in Sweden

Per cent

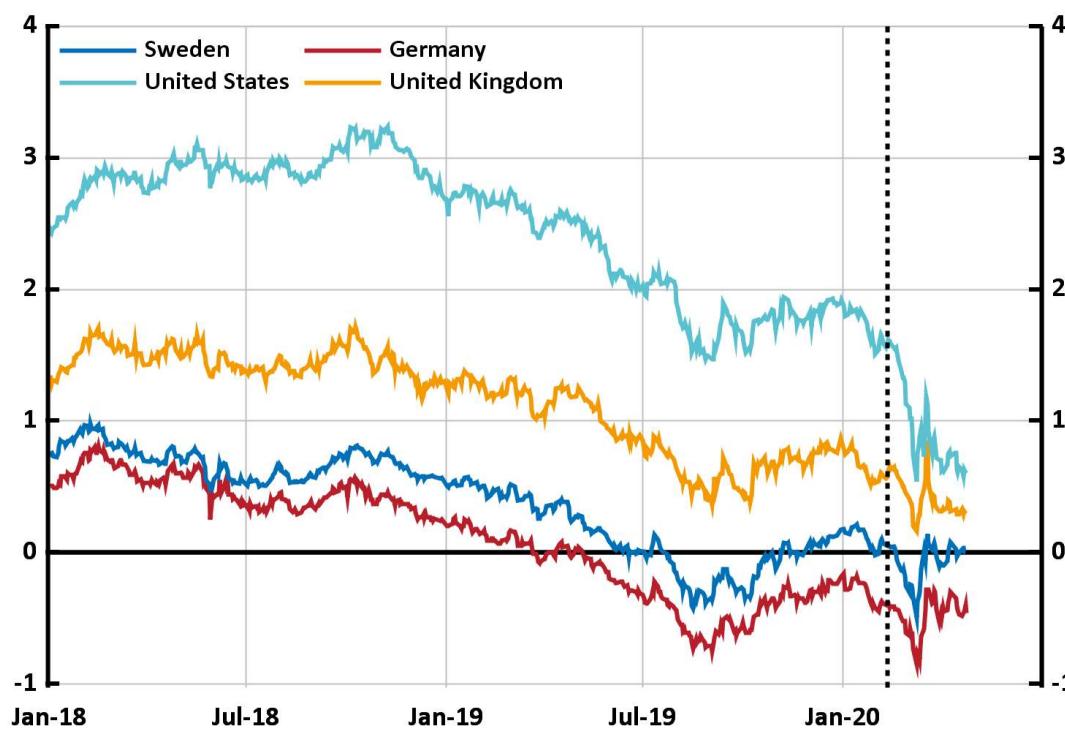


Note. Average listed prices, based on all available nominal government bonds, and just over 50 corporate bonds with varying maturities and with credit ratings equivalent to BBB or higher.

Sources: Refinitiv and the Riksbank

## Figure 2.6. Government bond yields with 10 years to maturity

Per cent

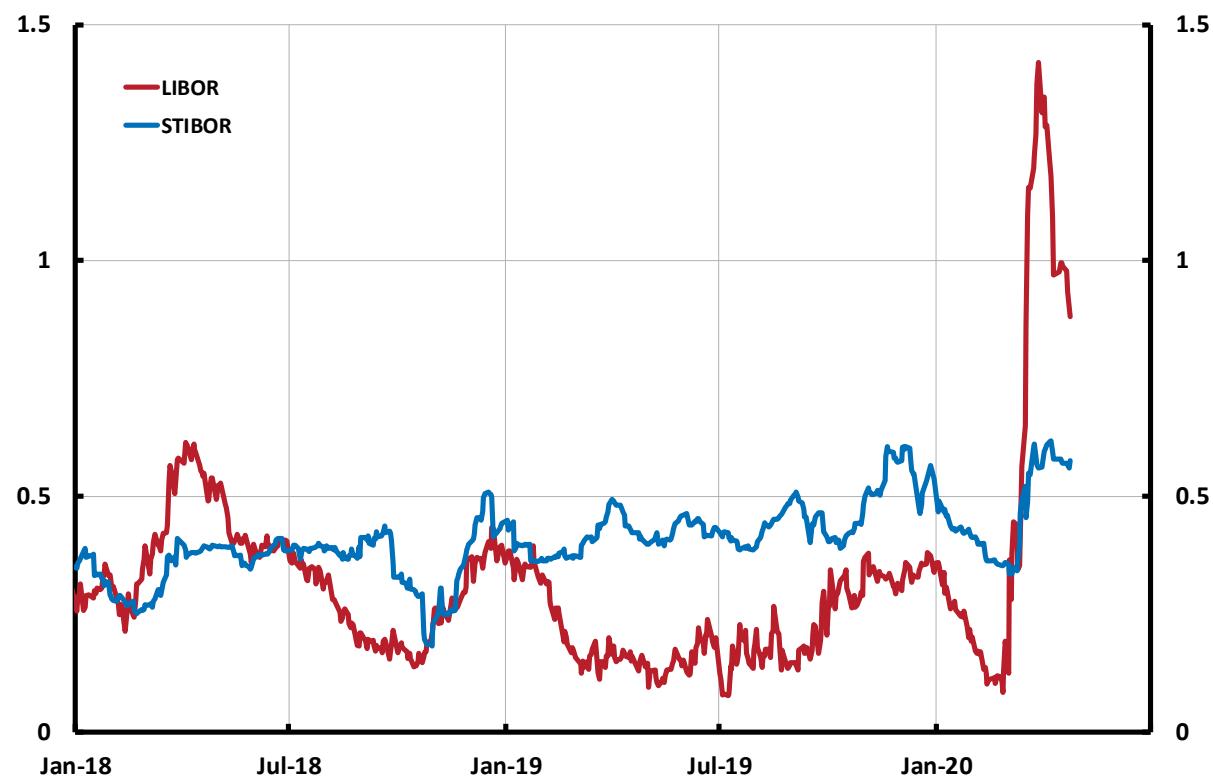


Note. Implied zero-coupon yields from government bonds for Sweden, Germany and United Kingdom. 10-year benchmark bonds for the United States. The vertical line indicates the Monetary Policy Meeting in February.

Sources: The national central banks, US Treasury and the Riksbank

## Figure 2.7. Difference between interbank rates and rates on treasury bills, 3 months

Per cent

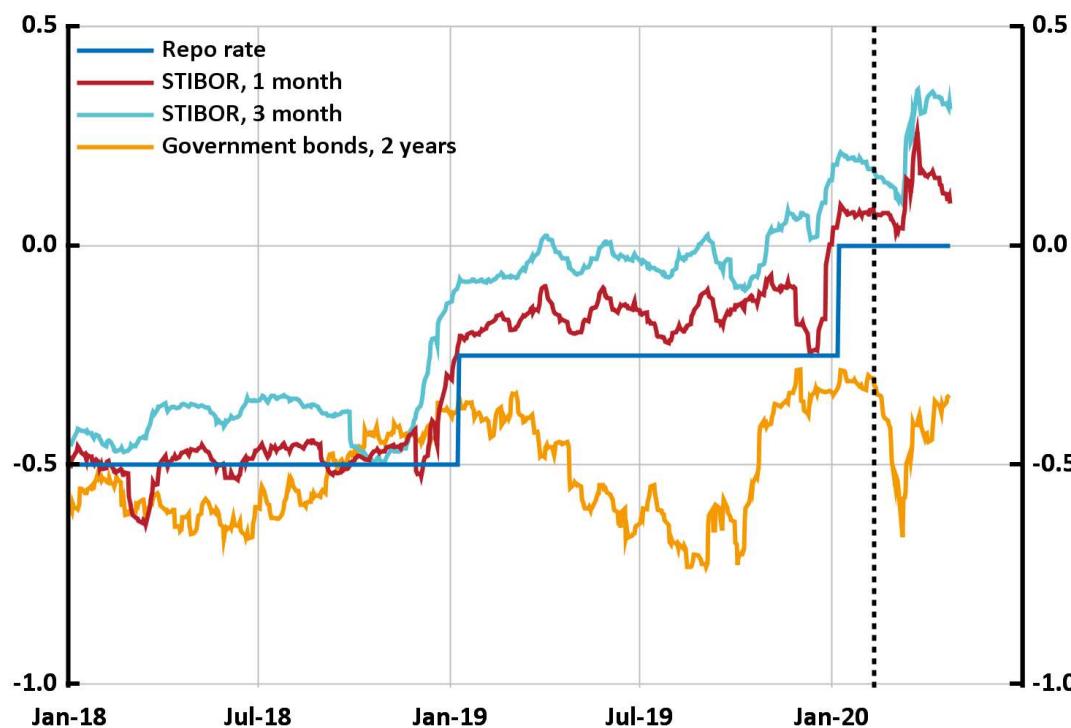


Note. For LIBOR, the difference is taken in relation to a US benchmark treasury bill, and for STIBOR in relation to a Swedish treasury bill with a zero coupon rate calculated using the Nelson-Siegel method.

Sources: Macrobond and the Riksbank

## Figure 2.8. The repo rate and market rates

Per cent



Note. Zero coupon rate with 2-year maturity calculated from government bonds. The vertical line indicates the Monetary Policy Meeting in February.

Sources: Macrobond and the Riksbank

## Figure 2.9. Nominal exchange rate, KIX

Index, 18 November 1992 = 100

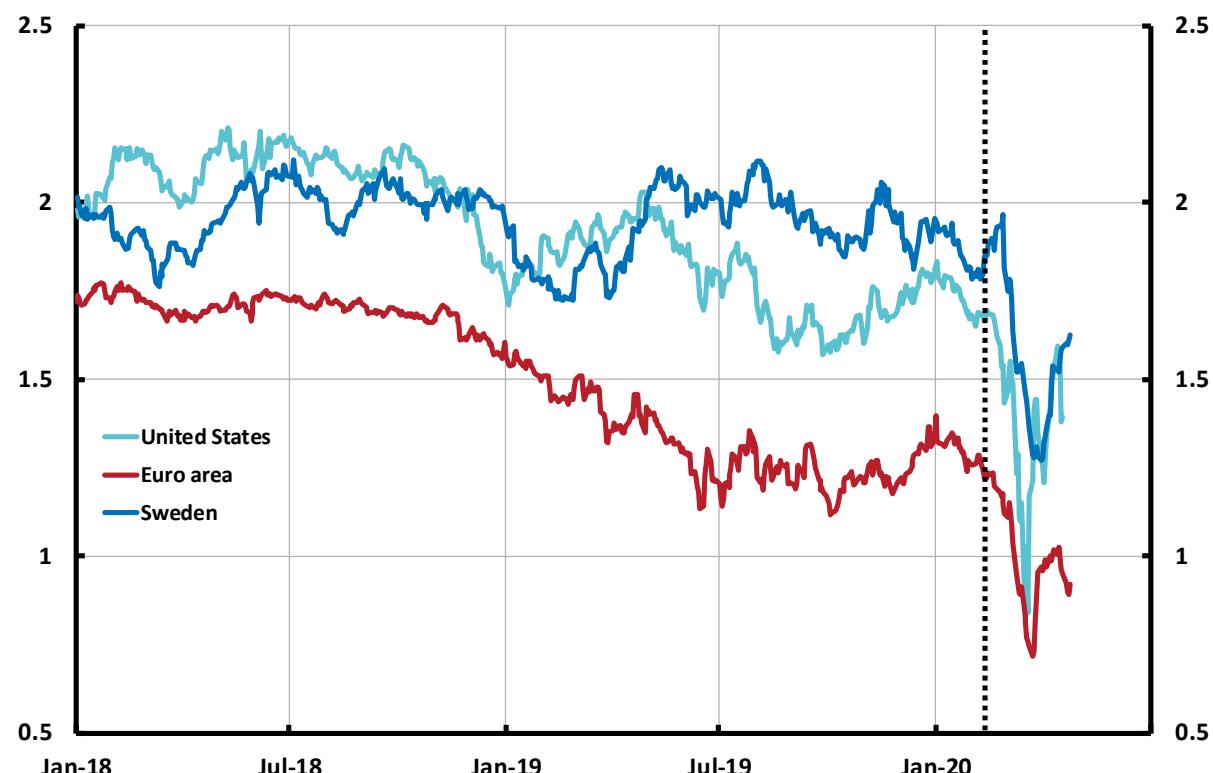


Note. The KIX (krona index) is a weighted average of the currencies in 32 countries that are important for Sweden's international trade. A higher value indicates a weaker exchange rate. The vertical line indicates the Monetary Policy Meeting in February.

Sources: National sources and the Riksbank

## Figure 2.10. Market measure of long-term inflation expectations

Per cent

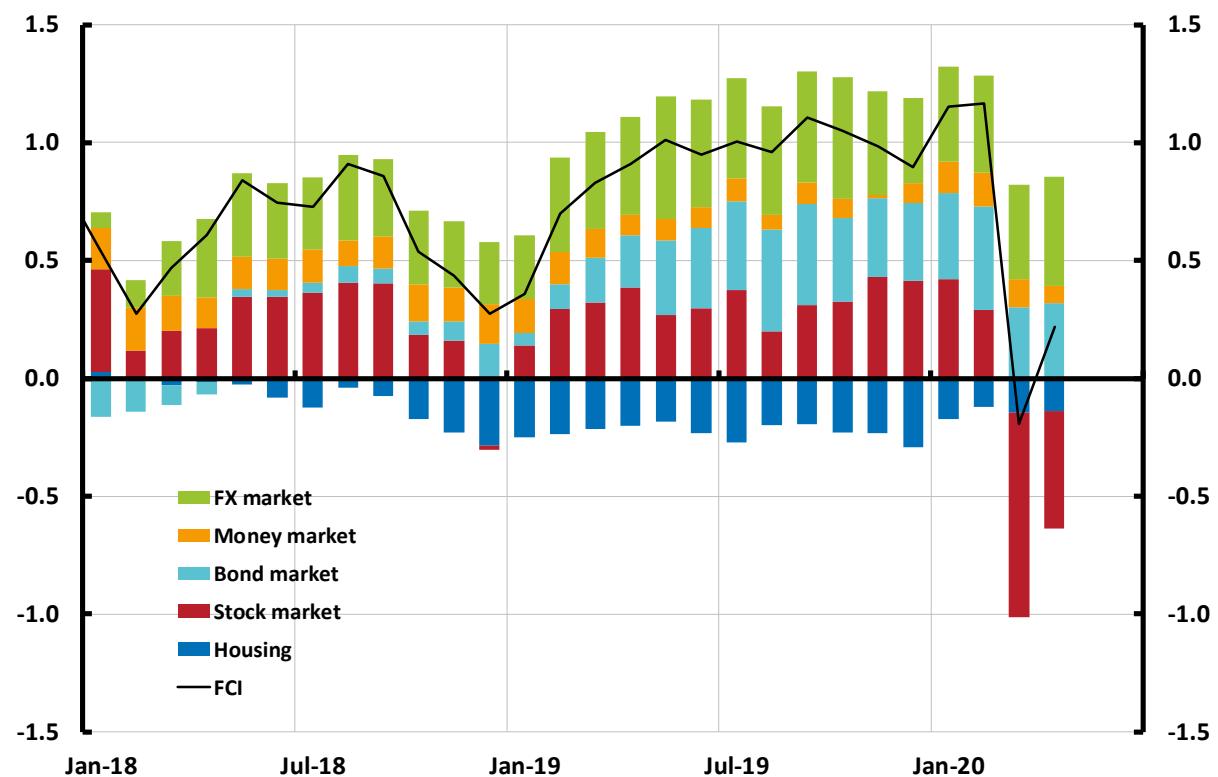


Note. The measures refer to a 5-year period starting in 5 years' time. For the United States and Sweden, they are calculated on the basis of bond yields and refer to the CPI. For the euro area, they are calculated on the basis of inflation swaps and refer to the HICP. The vertical line indicates the monetary policy meeting in February.

Sources: Bloomberg, Macrobond and the Riksbank

## Figure 2.11. Financial conditions index, FCI

Standard deviations



Note. A higher value indicates more expansionary financial conditions.

Source: The Riksbank

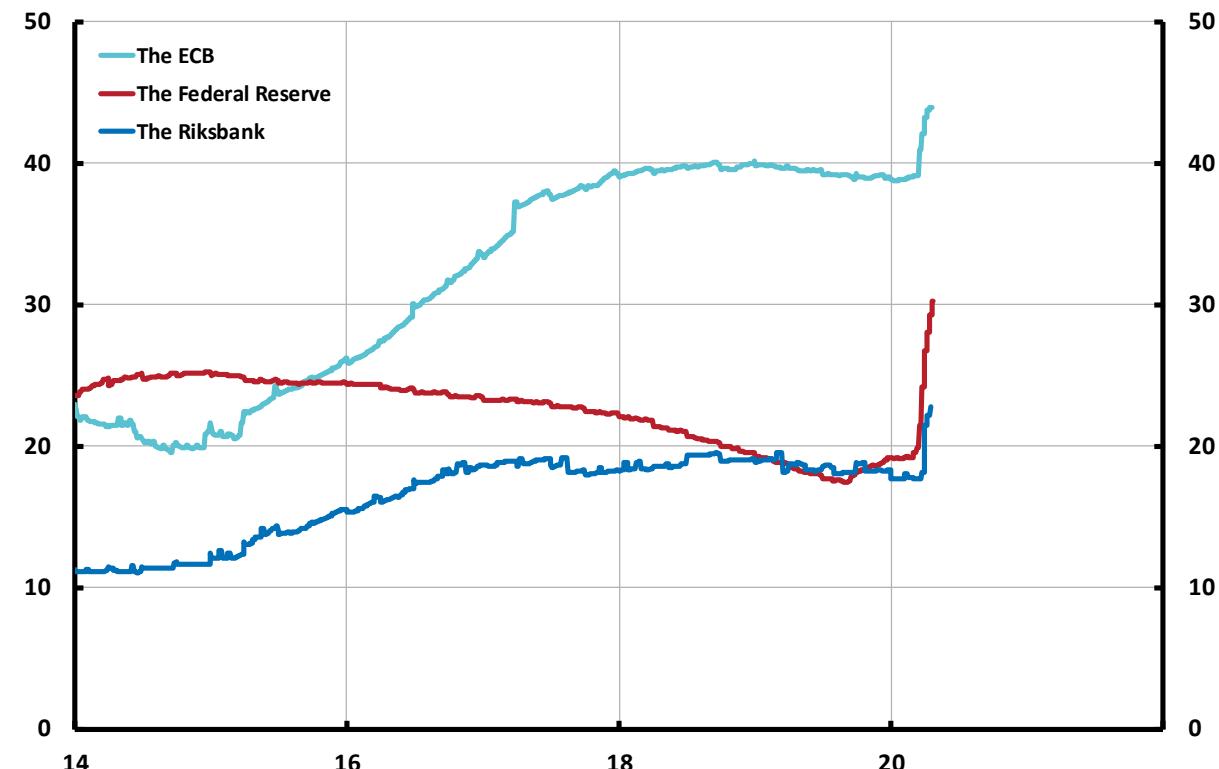


# Article – The central banks' measures

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## Figure 2.12. Central banks' balance sheet totals

Per cent of GDP

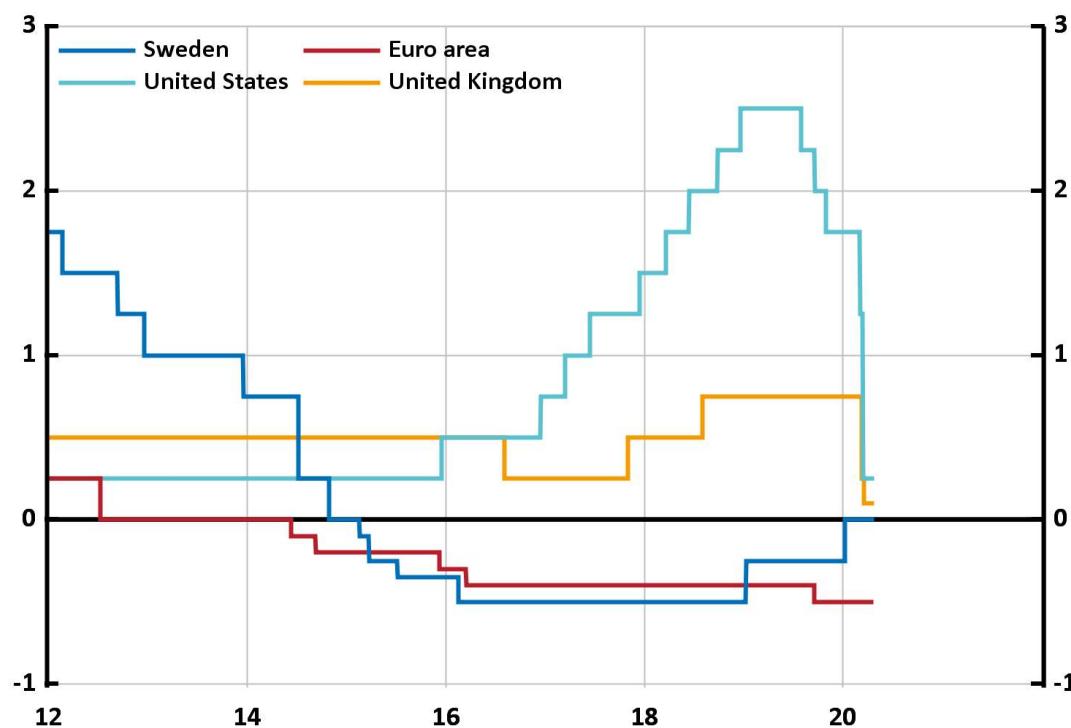


Note. Observations after 31 December 2019 are expressed as a percentage of GDP per 2019 Q4.

Sources: Macrobond and the Riksbank

## Figure 2.13. Policy rates

Per cent



Sources: The national central banks, Reuters and the Riksbank

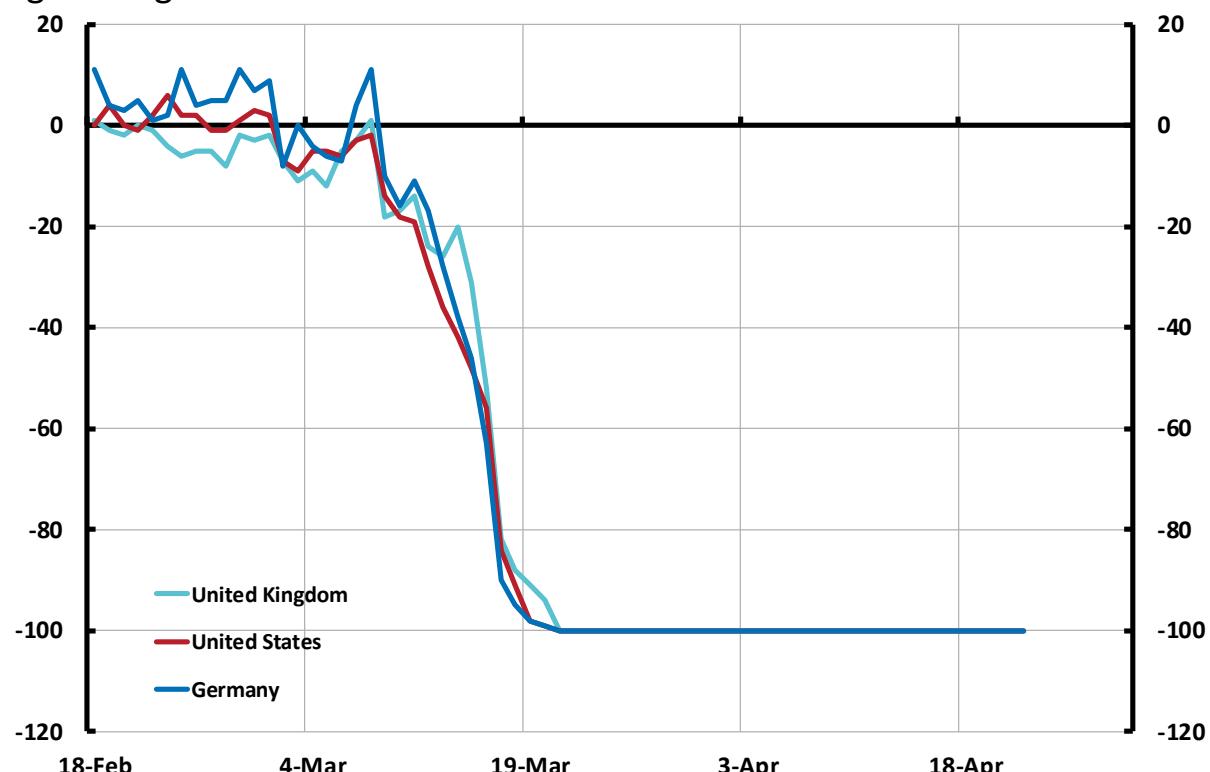


# Chapter 3



## Figure 3.1. Restaurant visits abroad

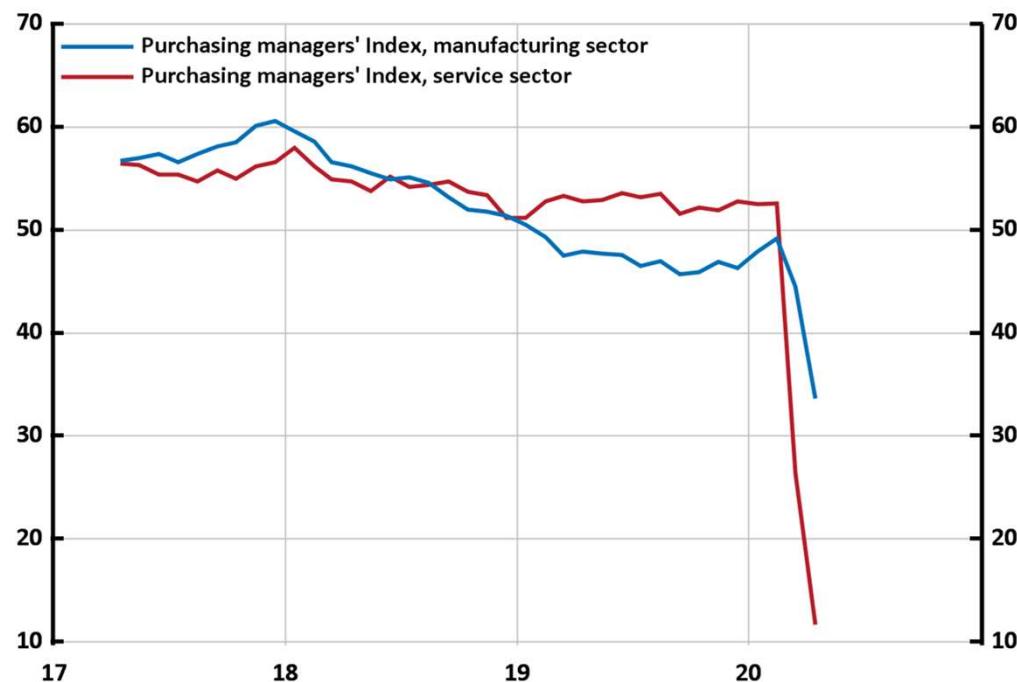
Annual percentage change



Source: Open Table

## Figure 3.2. Confidence indicators in the euro area

Index

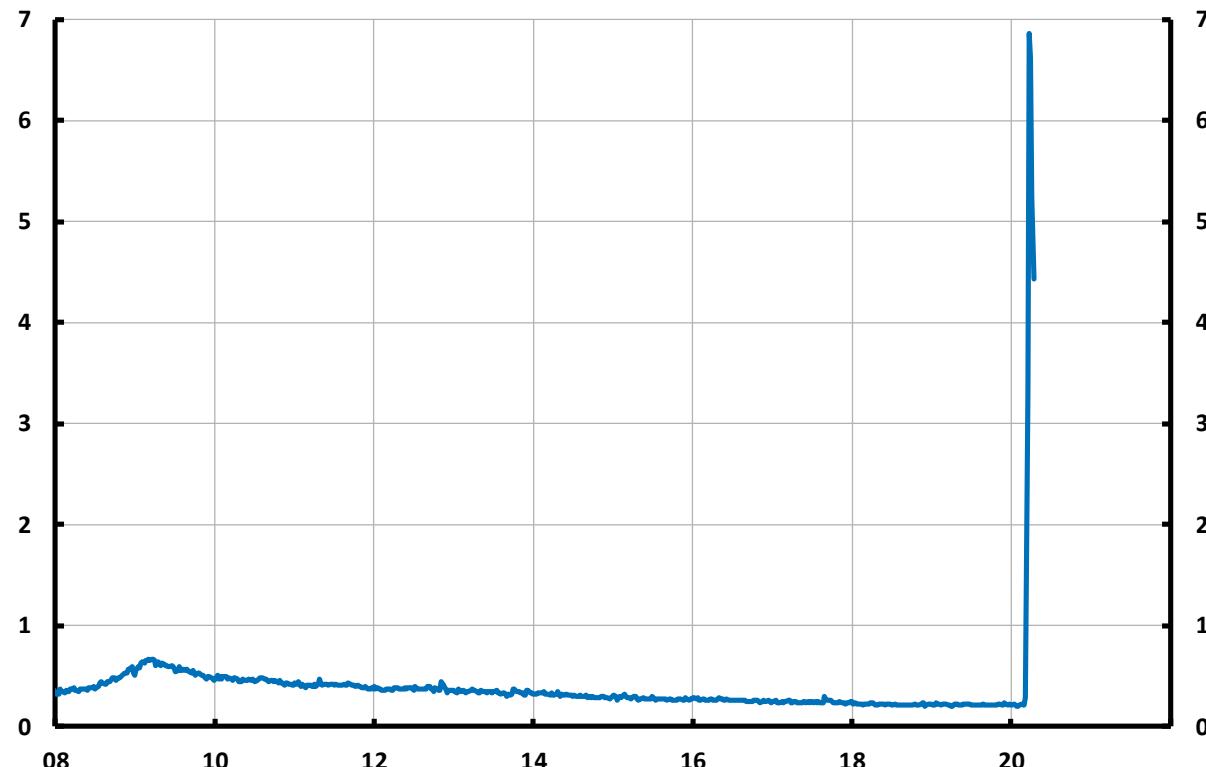


Note. Purchasing Managers' Index for the manufacturing industry and service sector published on 23 April 2020.

Source: Markit Economics

# Figure 3.3. New applications for unemployment support in the USA

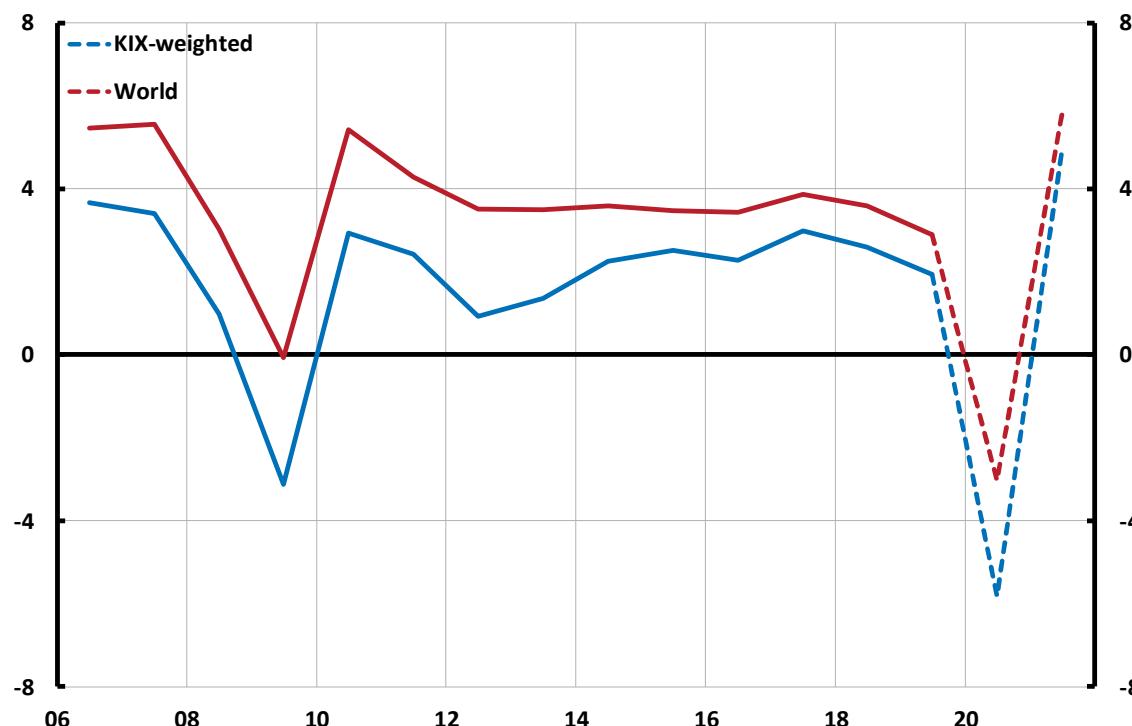
Millions per week



Source: U.S. Department of Labor

## Figure 3.4. The IMF's forecast for GDP abroad

Annual percentage change

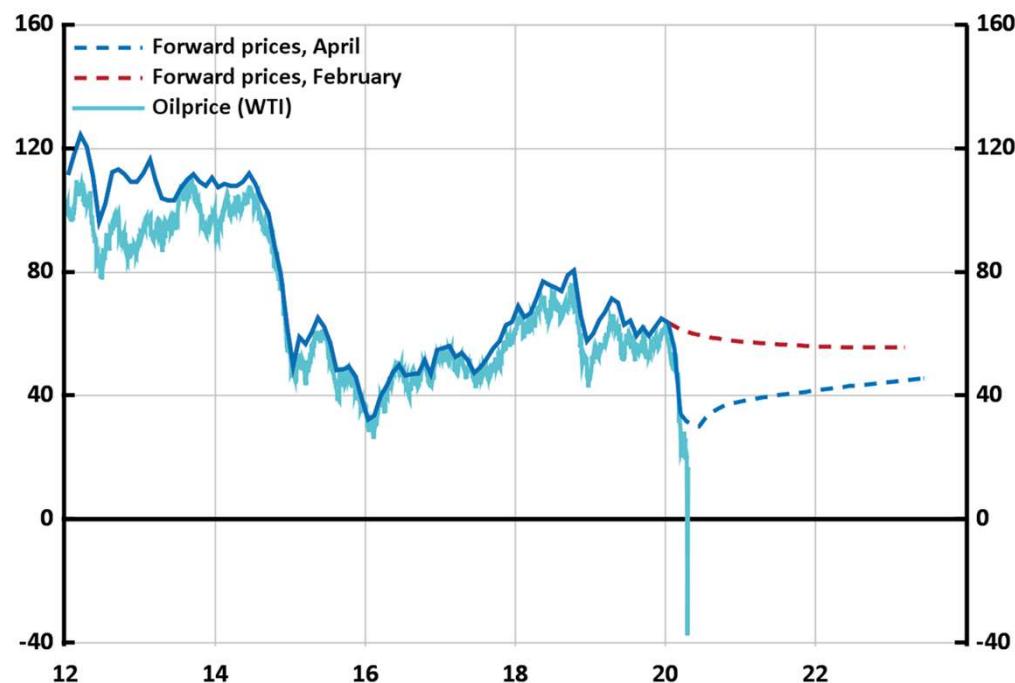


Note. The KIX is an aggregate of countries that are important for Sweden's international trade.

Sources: The IMF World Economic Outlook April 2020 and the Riksbank

## Figure 3.5. Crude oil price

USD per barrel

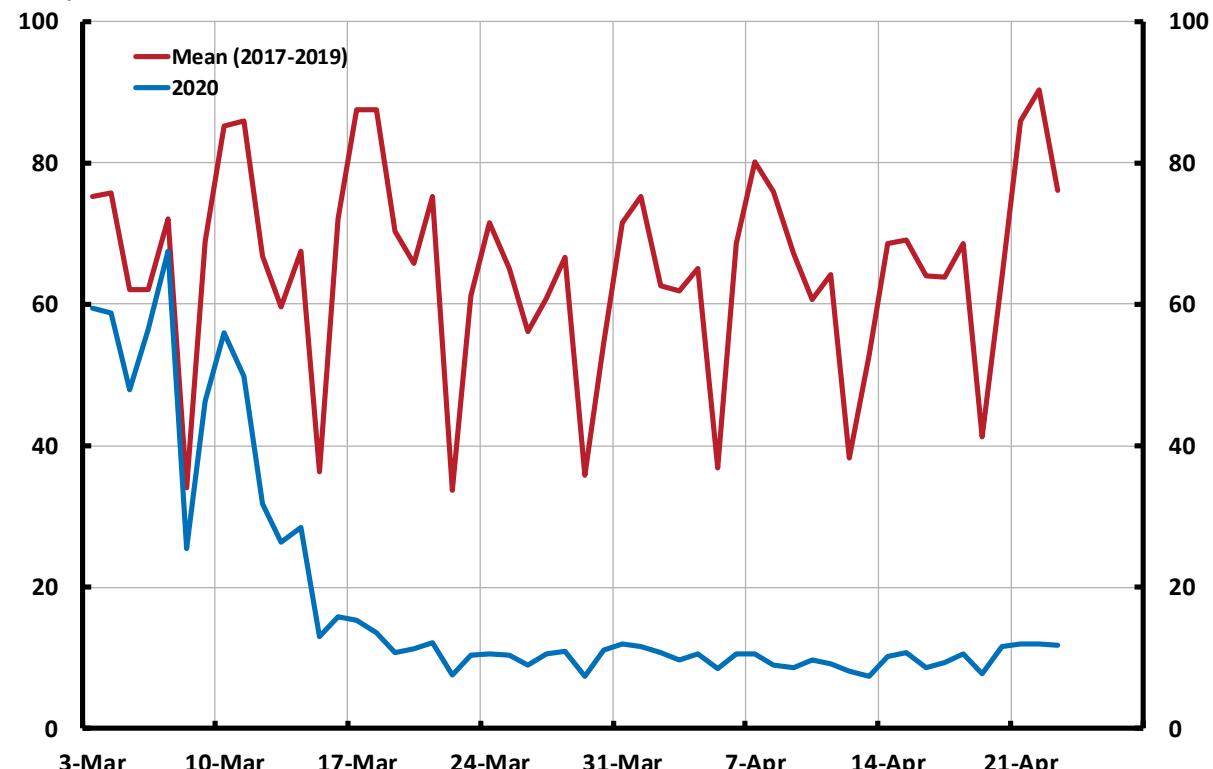


Note. Brent oil, forward prices are calculated as a 15-day average. The outcome refers to daily outcomes for WTI and monthly spot price averages for Brent.

Sources: Macrobond and the Riksbank

## Figure 3.6. Hotel bookings in Stockholm

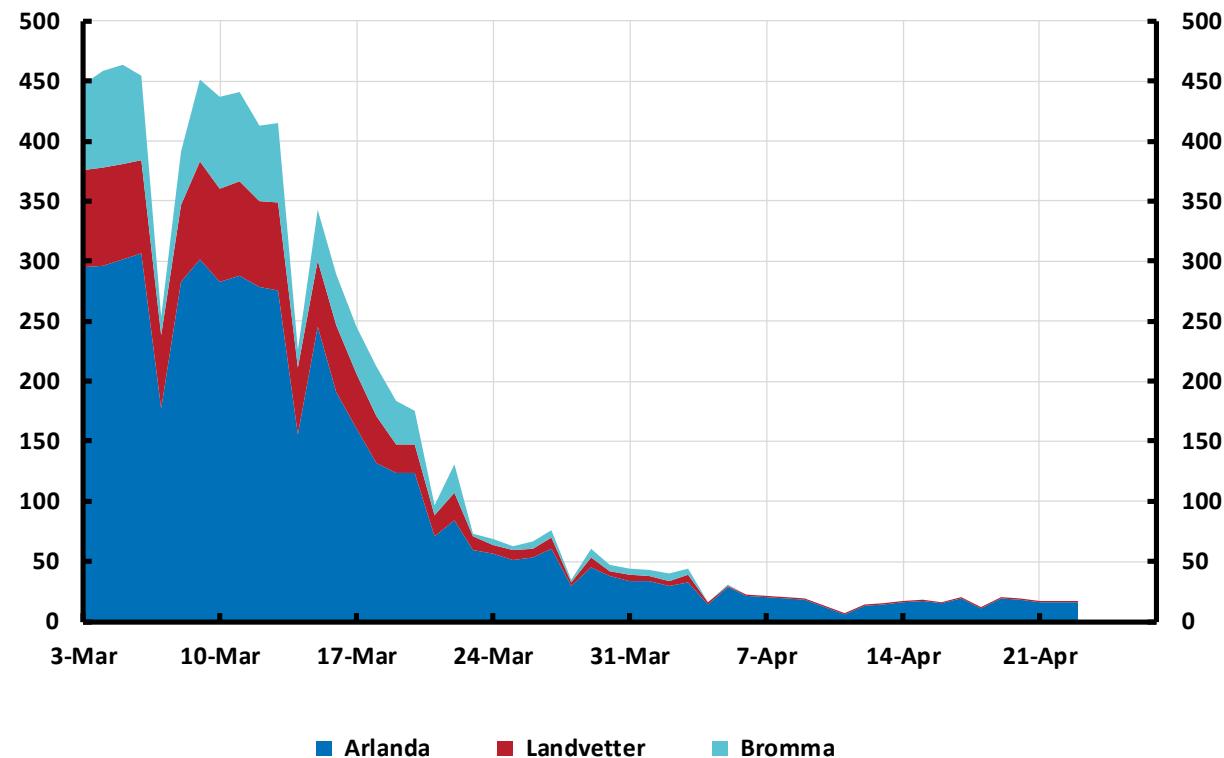
Occupancy rate in per cent



Source: Benchmarking Alliance

## Figure 3.7. Air traffic in Sweden

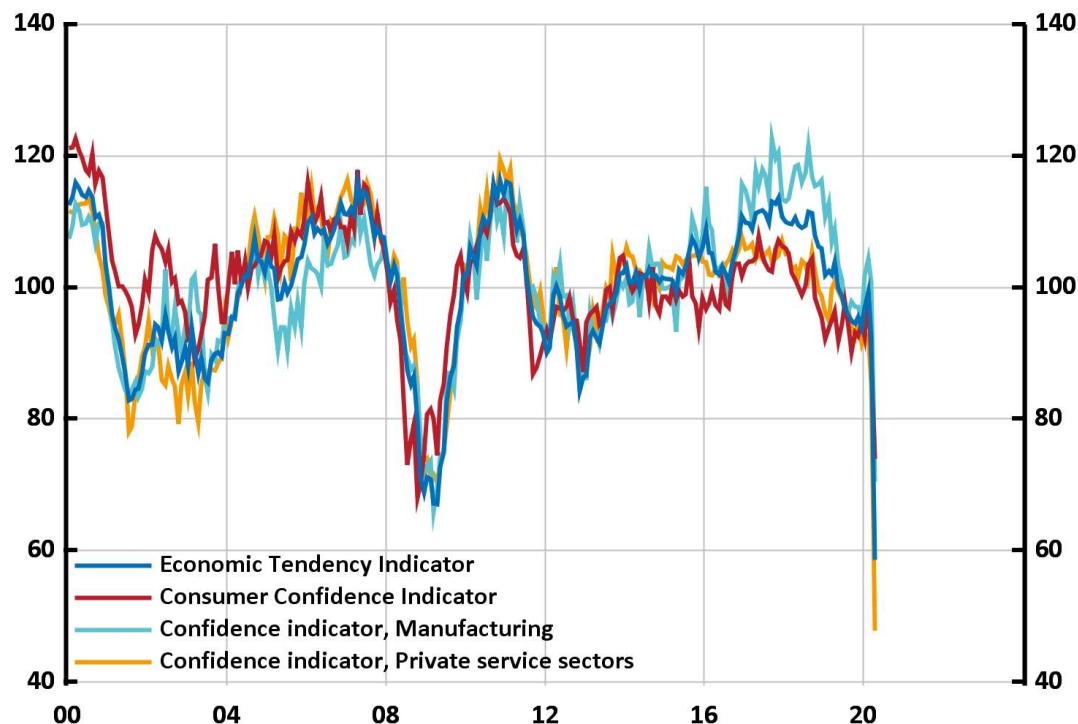
Total number of flights at Arlanda Airport, Landvetter Airport and Bromma Airport



Source: Flightradar 24

## Figure 3.8. Confidence indicators in Sweden

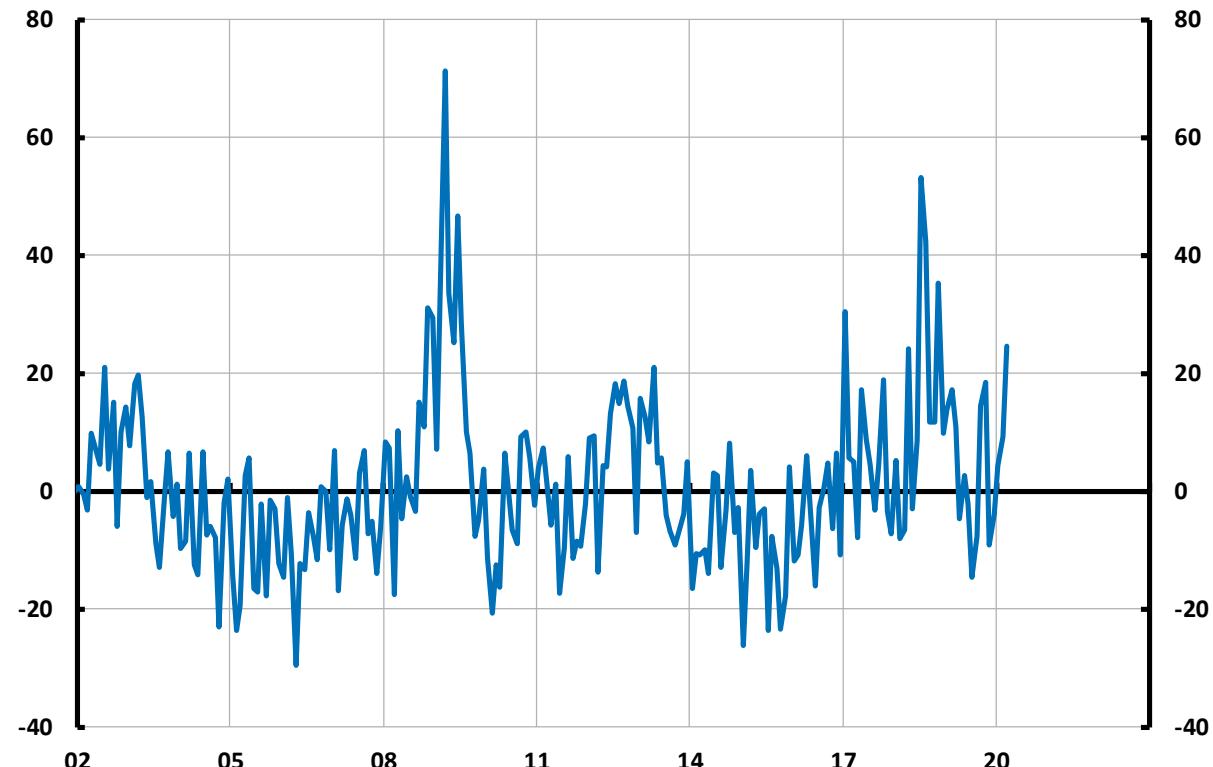
Index, average = 100, standard deviation = 10, seasonally-adjusted data



Source: National Institute of Economic Research

## Figure 3.9. Bankruptcies in Sweden

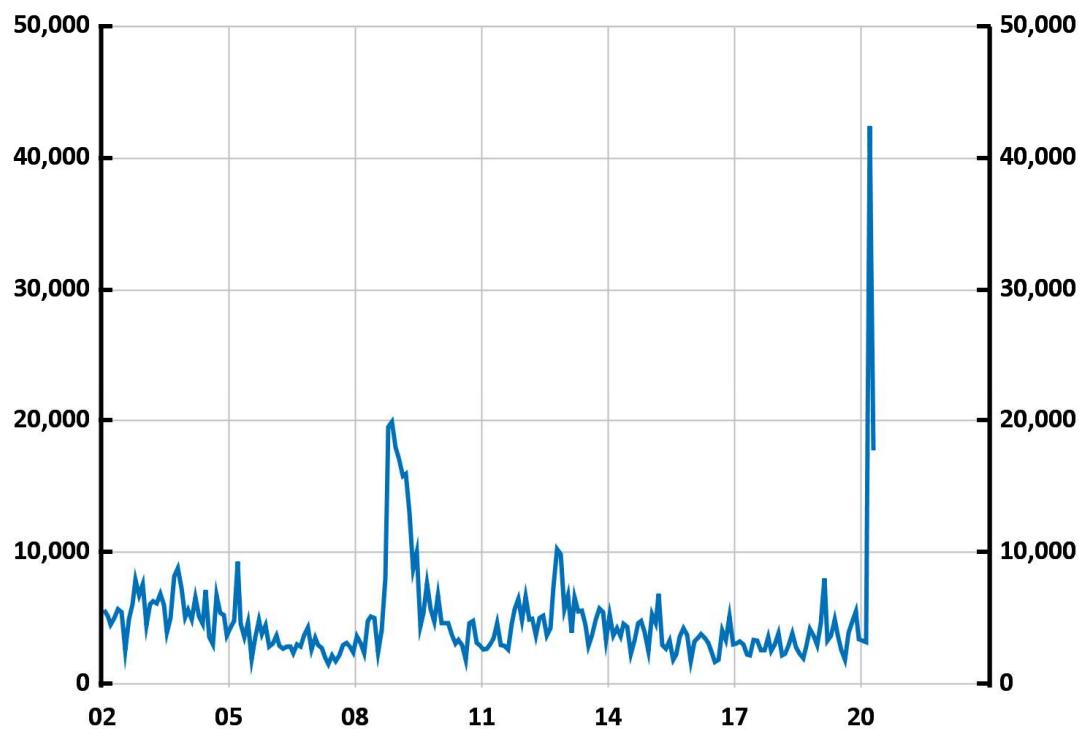
Annual percentage change



Source: Statistics Sweden

## Figure 3.10. Redundancy notices

Number per month

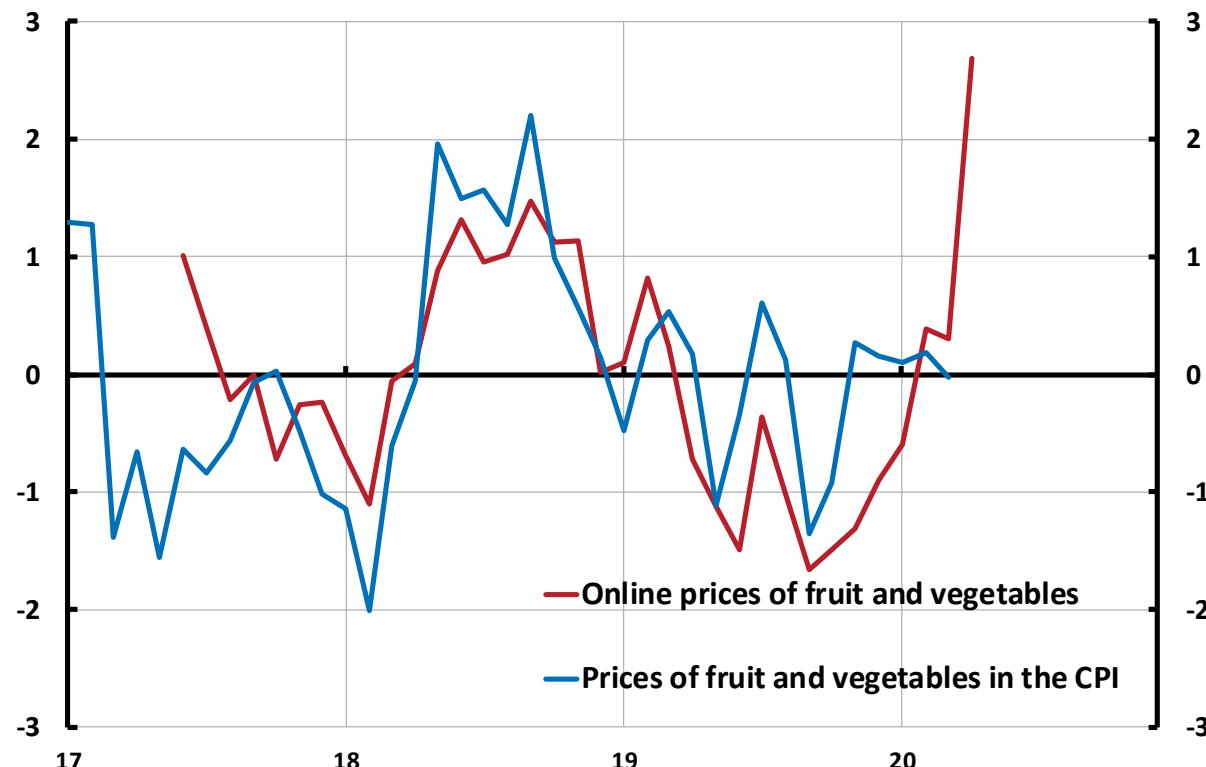


Note. Redundancies for April refer to the period 1-17 April.

Source: The Swedish Public Employment Service

## Figure 3.11. Prices of fruit and vegetables

Annual percentage change

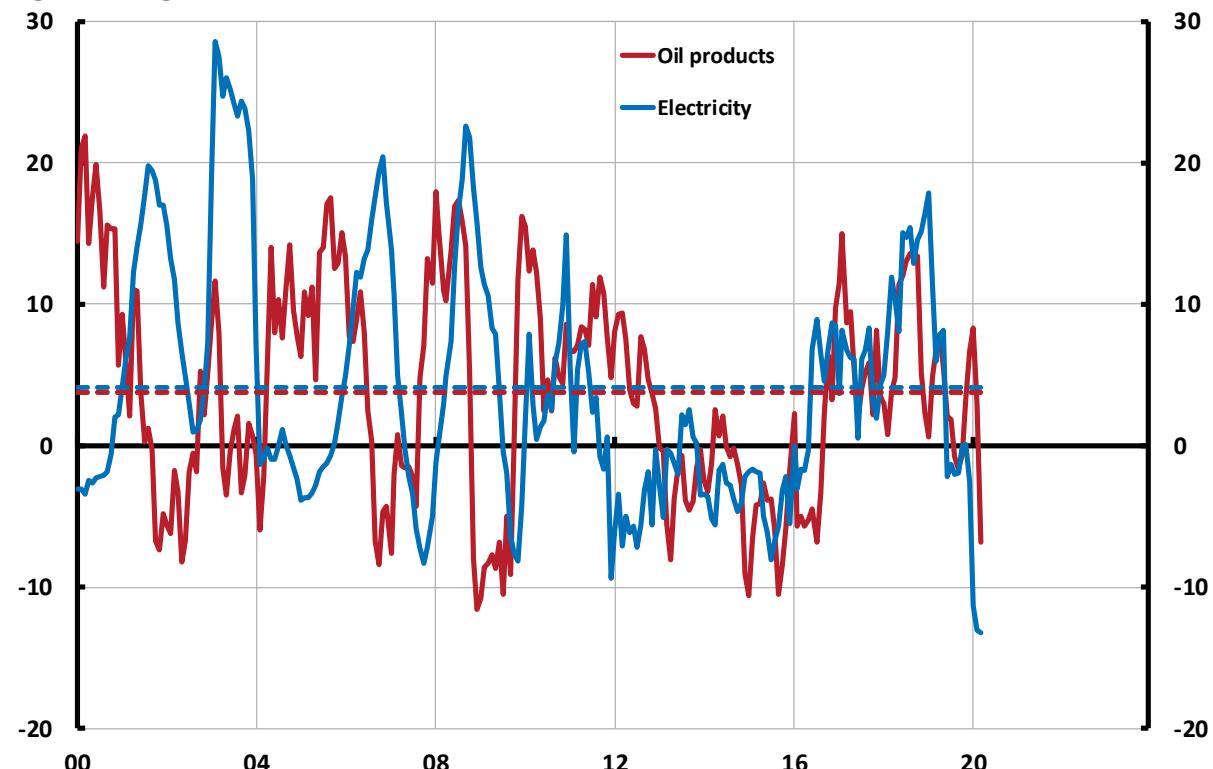


Note. Online data refers to prices of fruit and vegetables that can be bought online. Average of daily price observations up until 21 April.

Sources: Statistics Sweden and the Riksbank

# Figure 3.12. Electricity prices and fuel prices in the CPI

Annual percentage change

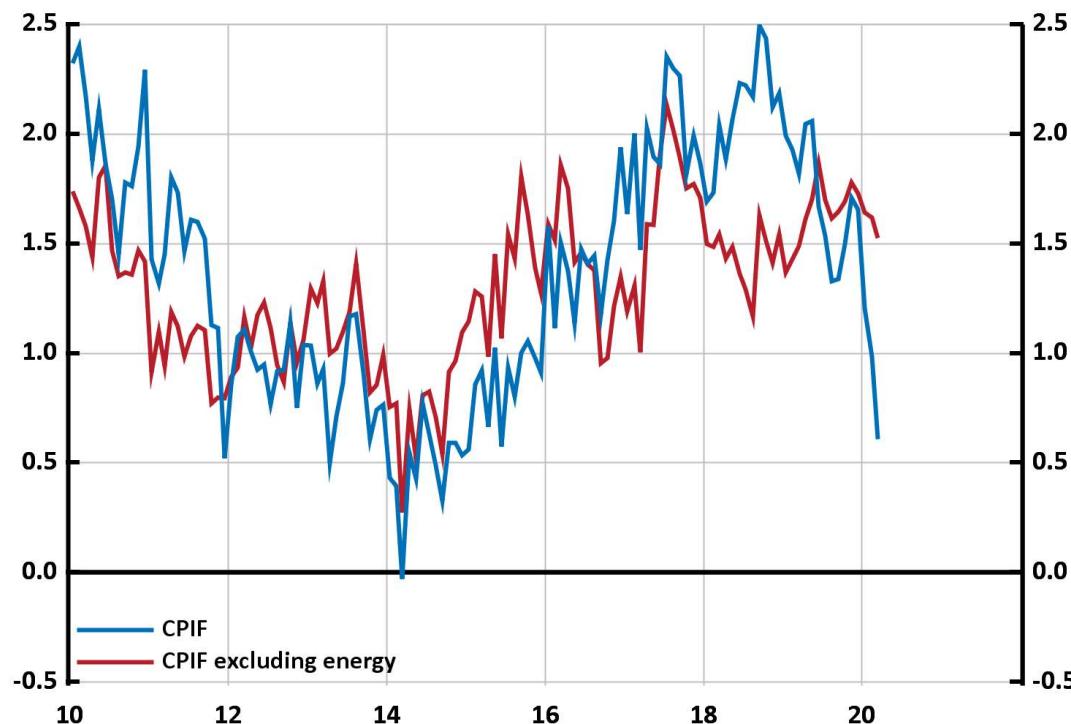


Note. Broken lines show mean values from 2000.

Sources: Statistics Sweden and the Riksbank

## Figure 3.13. CPIF and CPIF excluding energy

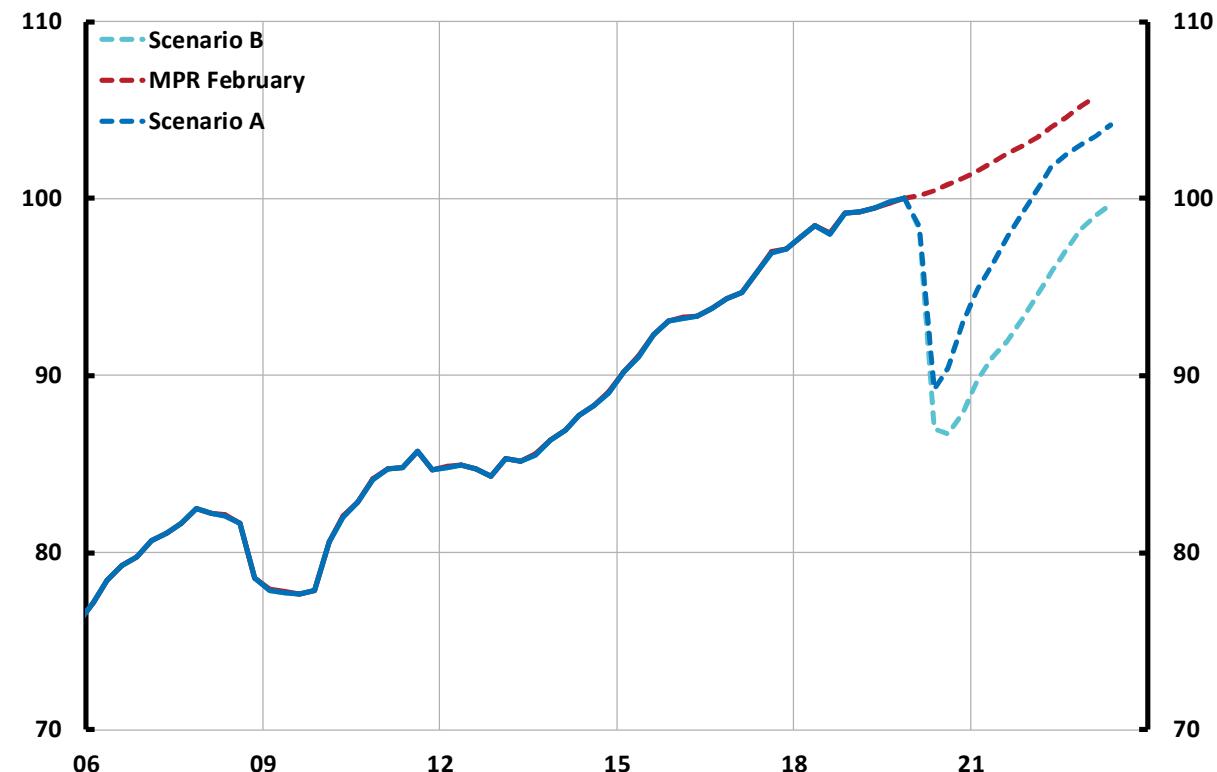
Annual percentage change



Source: Statistics Sweden

## Figure 3.14. GDP abroad (KIX2)

Index, 2019Q4 = 100

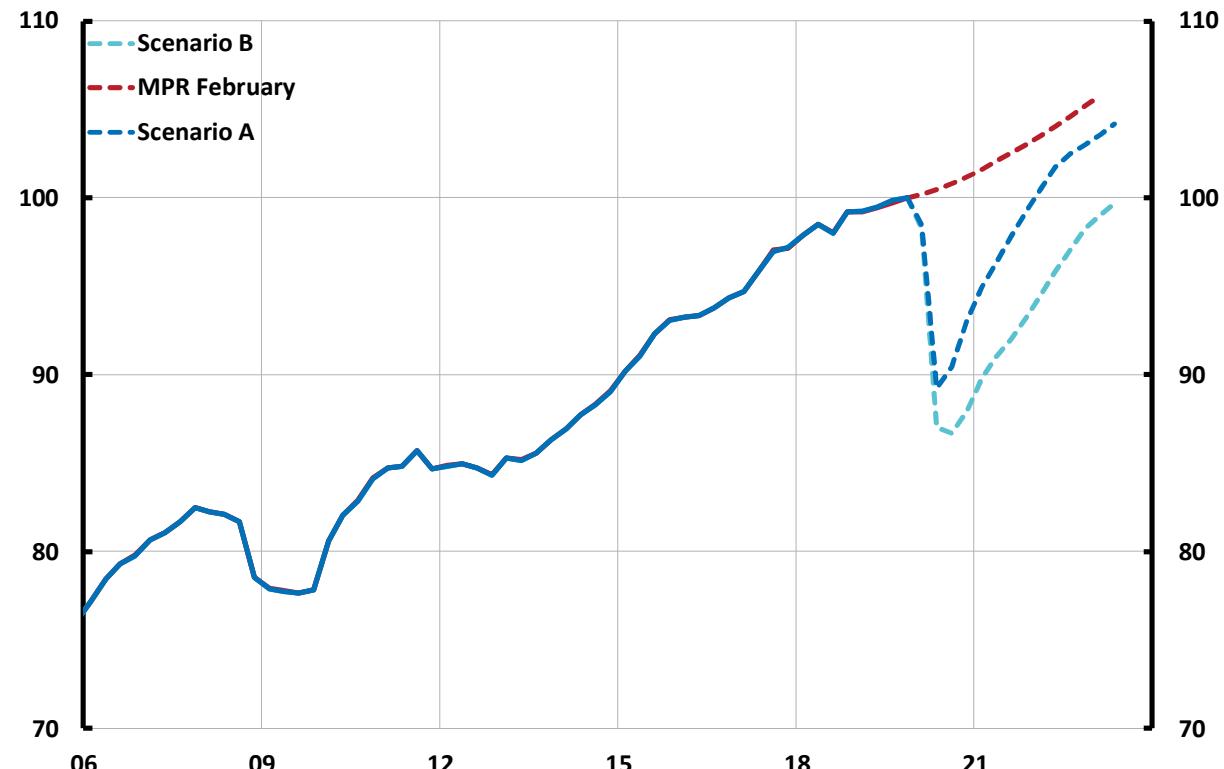


Note. KIX2 is the euro area and the United States combined with their respective relative KIX-weights (about 0.86 and 0.14, respectively)

Sources: Eurostat, Bureau of Economic Analysis and the Riksbank

## Figure 3.15. GDP in Sweden

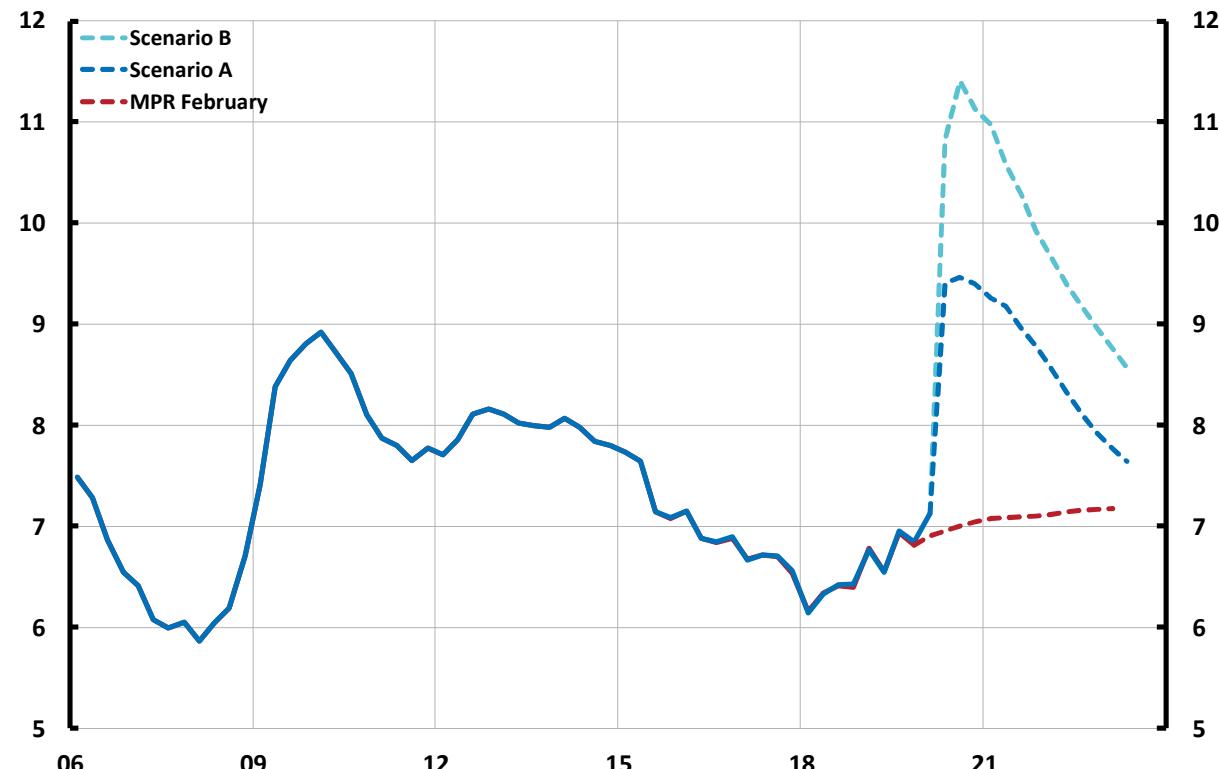
Index, 2019Q4 = 100



Sources: Statistics Sweden and the Riksbank

## Figure 3.16. Unemployment

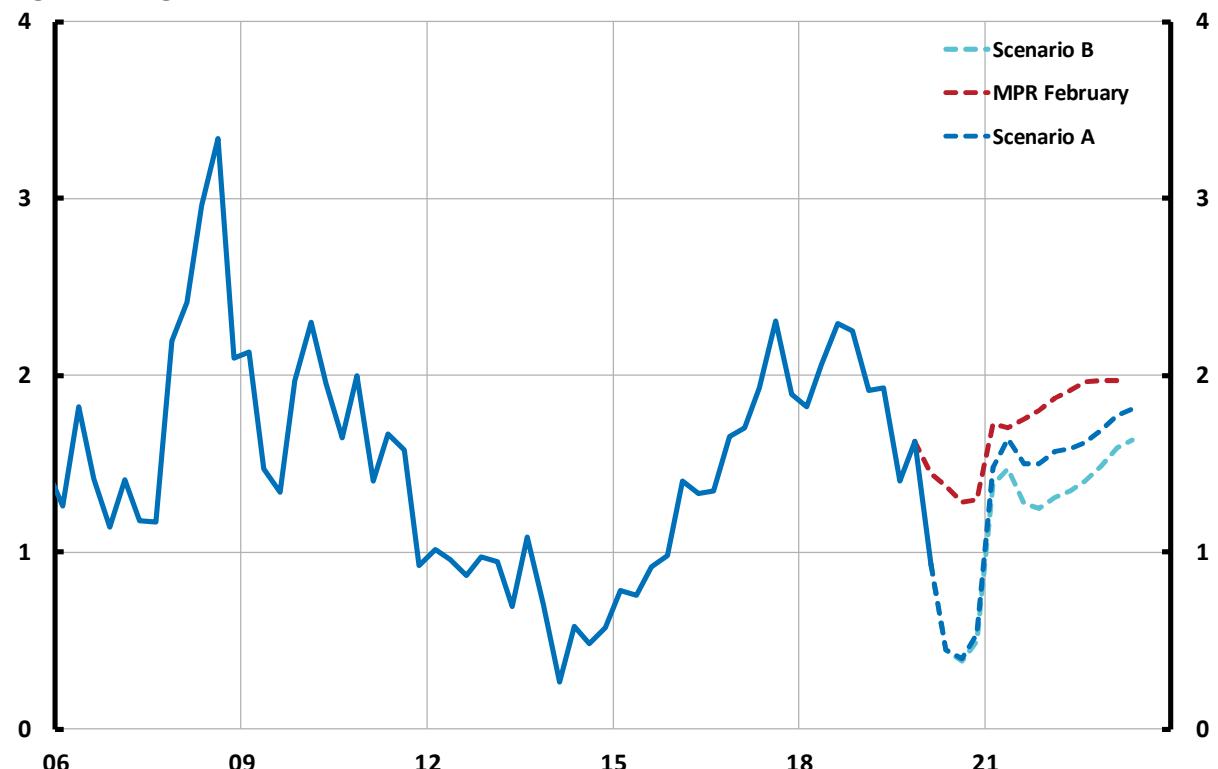
Per cent of the labour force



Sources: Statistics Sweden and the Riksbank

## Figure 3.17. CPIF

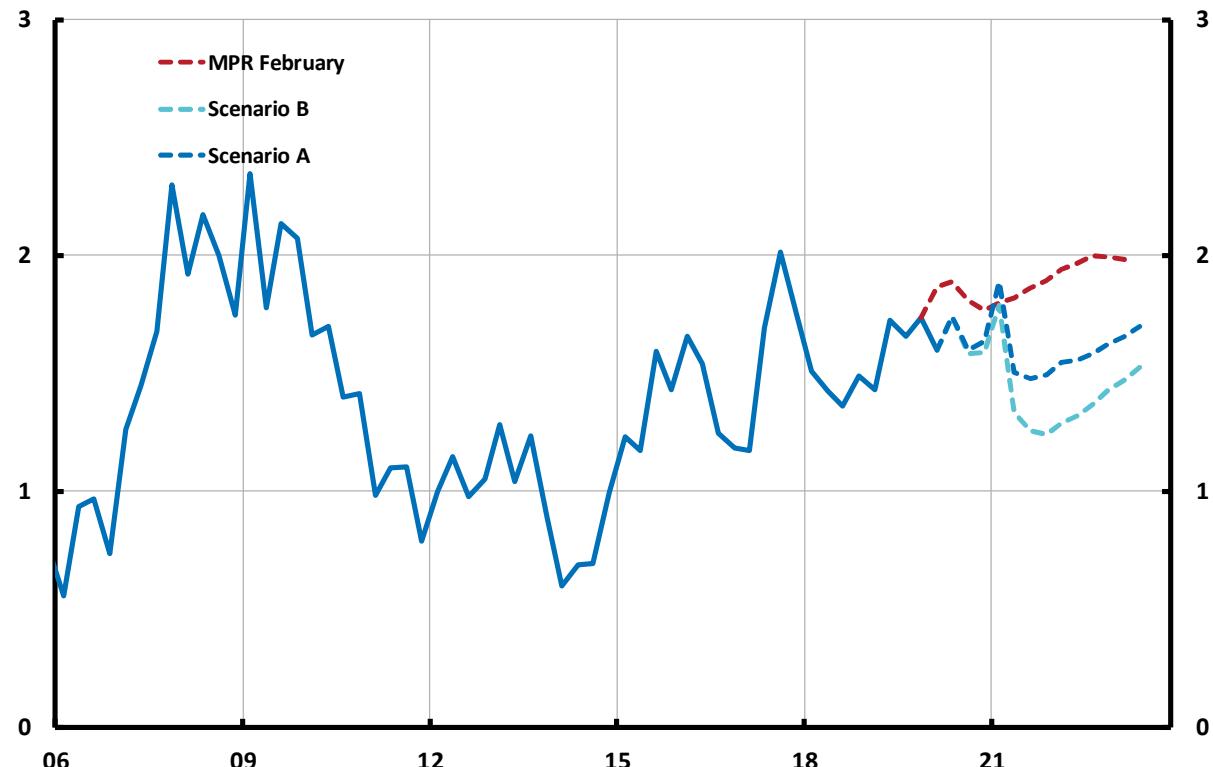
Annual percentage change



Sources: Statistics Sweden and the Riksbank

## Figure 3.18. CPIF excluding energy

Annual percentage change



Sources: Statistics Sweden and the Riksbank

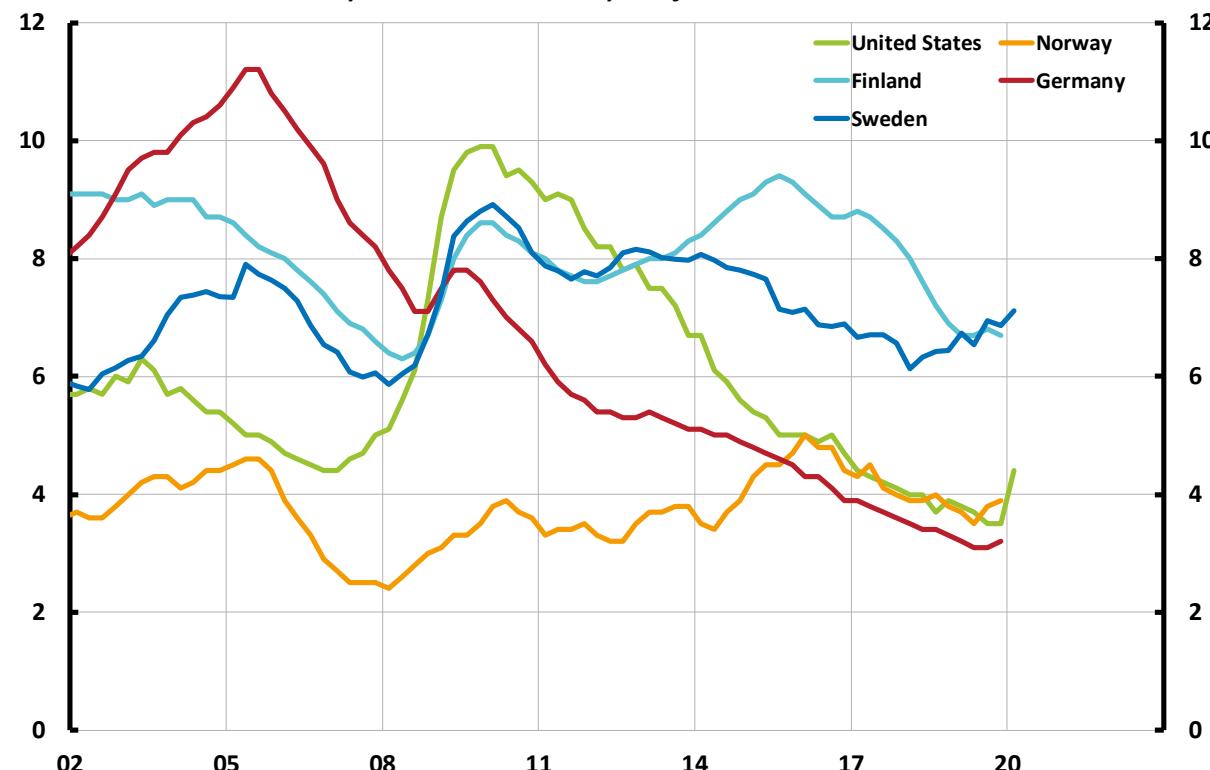


# Article – Are those on short-term work schemes unemployed?



# Figure 3.19. Unemployment in different countries

Per cent of the labour force, 15-74 years, seasonally-adjusted data

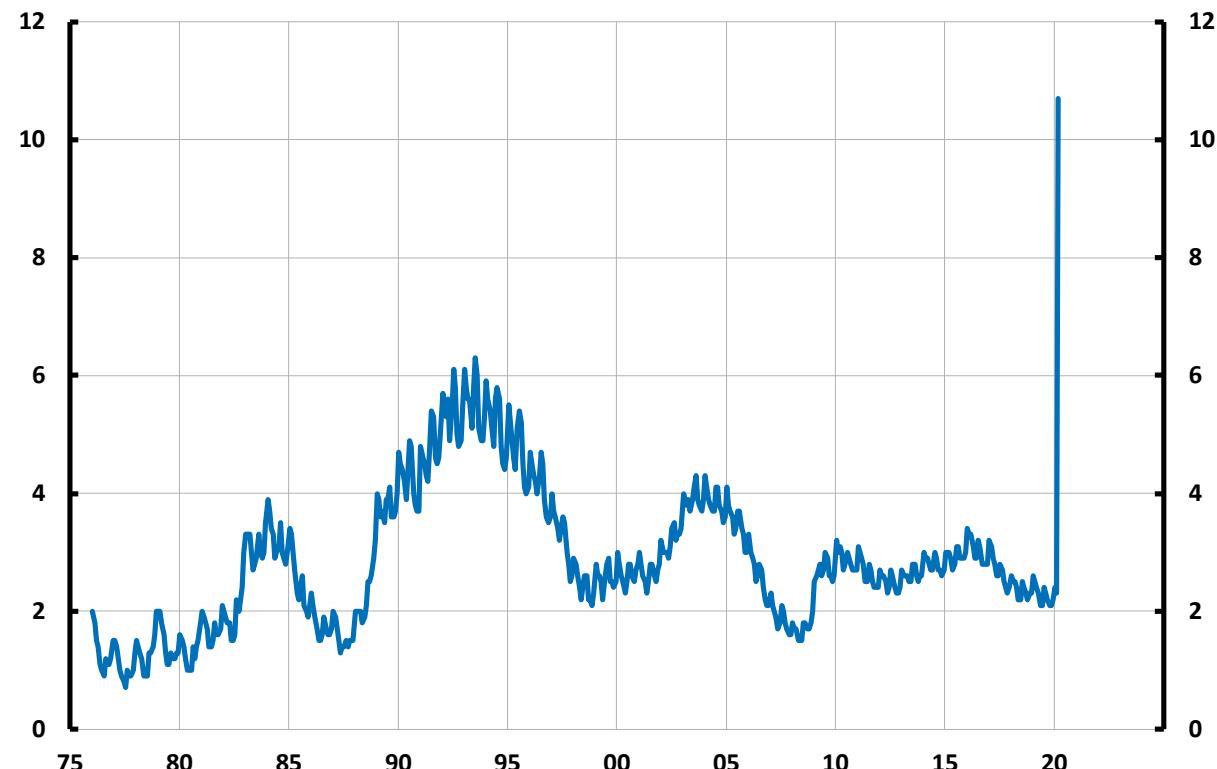


Sources: Bureau of Labor Statistics, Eurostat and Statistics Sweden



# Figure 3.20. Registered unemployment in Norway

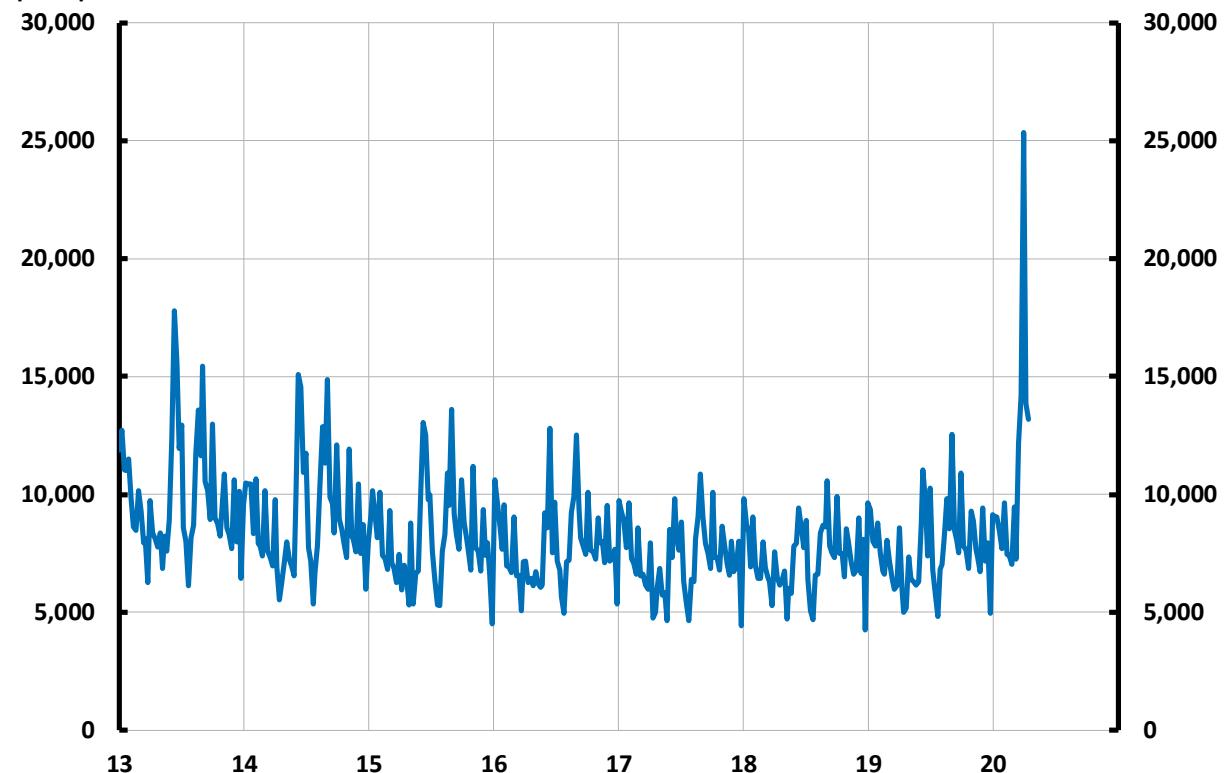
Per cent of the labour force



Source: NAV

## Figure 3.21. Newly registered unemployed at the Swedish Public Employment Service

Number of people per week



Note. The reduction in new registrations in the weeks 15 and 16 (beginning 6 and 13 April) is probably due to the Easter holiday.

Source: The Swedish Public Employment Service

# Tables

**Table 1. Scenario A**

Annual percentage change, annual average

	2019	2020	2021	2022
CPIF	1.7	0.6	1.5	1.6
GDP*	1.3	-6.9	4.6	5.0
Unemployment, aged 15–74**	6.8	8.8	9.0	8.2
Employed, aged 15–74	0.7	-2.2	0.1	1.7
General government net lending***	0.5	-6.9	-3.2	-1.2
GDP abroad (KIX2)*	1.4	-8.0	5.4	5.0
CPI (KIX2)	1.3	0.2	1.2	1.5

\*Calendar-adjusted growth rate \*\*Per cent of the labour force \*\*\*Per cent of GDP. Outcome and forecast for general government net lending are based on EDP statistics published at the end of March by Statistics Sweden.

Note. KIX2 is the euro area and the United States combined with their respective KIX-weights relative to the sum of the two weights (0.86 and 0.14 respectively).

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Eurostat, Statistics Sweden and the Riksbank

**Table 2. Scenario B**

Annual percentage change, annual average

	2019	2020	2021	2022
CPIF	1.7	0.6	1.3	1.4
GDP*	1.3	-9.7	1.7	5.4
Unemployment, aged 15–74**	6.8	10.1	10.4	9.3
Employed, aged 15–74	0.7	-3.8	-0.7	1.6
General government net lending***	0.5	-9.3	-7.9	-4.0
GDP abroad (KIX2)*	1.4	-10.7	3.0	5.2
CPI (KIX2)	1.3	0.2	1.1	1.4

\*Calendar-adjusted growth rate \*\*Per cent of the labour force \*\*\*Per cent of GDP. Outcome and forecast for general government net lending are based on EDP statistics published at the end of March by Statistics Sweden.

Note. KIX2 is the euro area and the United States combined with their respective KIX-weights relative to the sum of the two weights (0.86 and 0.14 respectively).

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Eurostat, Statistics Sweden and the Riksbank