# Chartbook

Overview of macroeconomic, financial and monetary indicators

——— Summer 2021







The chartbook is a parallel publication to the Monetary Policy Report. It contains an up-to-date overview of the main macroeconomic, financial and monetary indicators that enter the CNB's monetary policy decisions. Unless stated otherwise, the historical data are sourced from the CZSO or the CNB. The outlook (indicated by the grey area) is the CNB forecast, with a few exceptions. The deadline for this issue was 30 July 2021.

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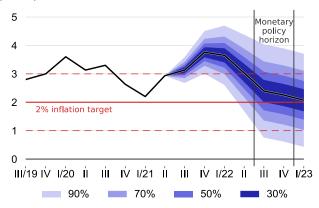
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		2021	2022	2023	
Headline inflation	in % pp	<b>3.0</b> (0.3)	<b>2.8</b> (0.4)	<b>2.1</b> -	The upward revision of the inflation forecast this year is due to all its components except food prices.
Monetary policy -relevant inflation	in % pp	<b>2.9</b> (0.4)	<b>2.7</b> (0.5)	1.9 -	Monetary policy-relevant inflation has been revised slightly more than headline inflation due to this year's slightly smaller pass-through of the increase in excise duty on tobacco to CPI.
GDP	y-o-y changes % pp	3.5 (2.3)	<b>4.1</b> (-0.2)	3.0 -	The GDP forecast for 2021 has been revised significantly upwards due to earlier and more pronounced lifting of shutdowns and higher total investment. The change for 2022 is small.
Interest rate	3M PRIBOR in %	0.9 (0.2)	<b>1.9</b> (0.3)	<b>2.2</b> -	The market rate outlook is slightly higher than in the spring forecast.
Exchange rate	CZK/EUR	<b>25.6</b> (-0.1)	<b>24.5</b> (-0.6)	24.2	The koruna will appreciate faster than in the previous forecast, especially next year.

Chart A 1

# **Headline inflation**

year on year in %; confidence intervals in colour

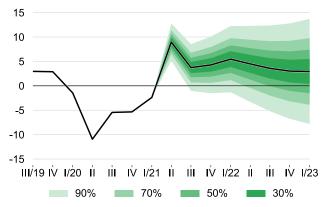


The confidence intervals of the headline inflation forecast reflect the predictive power of past forecasts and are symmetric. They widen only for the first five quarters and then stay constant. This is consistent with both the past predictive power and the stabilising role of monetary policy.

Chart A.3

#### **GDP**

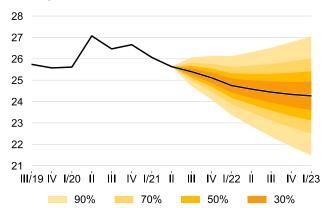
y-o-y changes in %; seasonally adjusted; confidence intervals in colour



The confidence intervals of the GDP growth forecast reflect the predictive power of past forecasts. They are symmetric and linearly widening.

### Chart A.5 **Exchange rate**

CZK/EUR; confidence intervals in colour



The confidence intervals of the CZK/EUR exchange rate reflect the predictive power of past forecasts (with the exception of the exchange rate commitment period). They are symmetric and linearly widening.

Chart A.2

# Headline inflation - comp. with previous forecast

year on year in %; differences in pp

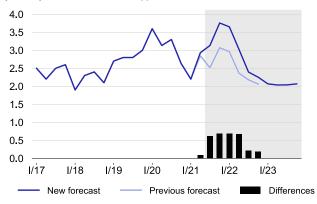
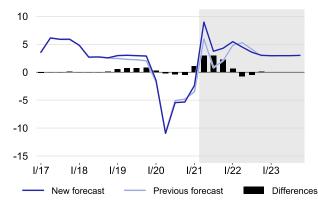


Chart A.4

### **GDP – comparison with previous forecast**

y-o-y changes in %; differences in pp; seasonally adjusted



### Exchange rate - comp. with previous forecast

CZK/EUR; differences in CZK (right-hand scale)

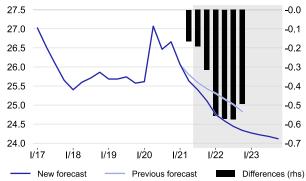
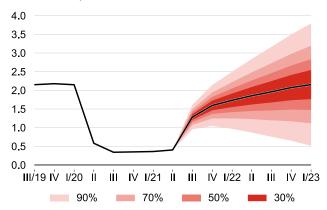


Chart A.7

#### Interest rate

3M PRIBOR in %; confidence intervals in colour

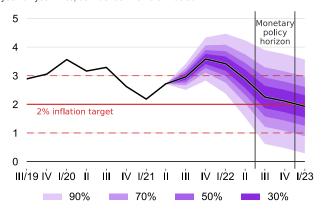


The confidence intervals of the 3M PRIBOR forecast reflect the predictive power of past forecasts (with the exception of the exchange rate commitment period). They are symmetric; linearly widening and limited below by the zero lower bound.

Chart A.9

### Monetary policy-relevant inflation

year on year in %; confidence intervals in colour



The confidence intervals of the monetary policy-relevant inflation forecast reflect the predictive power of past forecasts and are symmetric. They widen only for the first five quarters and then stay constant. This is consistent with both the past predictive power and the stabilising role of monetary policy.

Chart A.11

#### Decomposition of changes in int. rate forecast

3M PRIBOR; differences from previous forecast in pp

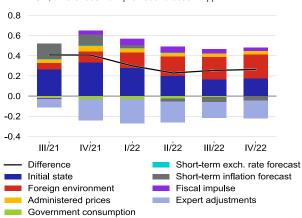
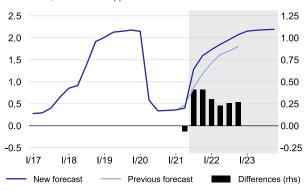


Chart A.8
Interest rate – comparison with previous forecast

3M PRIBOR; differences in pp



#### Chart A.10

# Monetary policy-relevant inflation – comparison with previous forecast

year on year in %; differences in pp

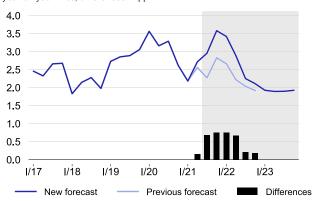


Table A.1 **Key macroeconomic indicators – years** 

	2042	2042	2044	2045	2042	2047	2040	2042	2000	2024	2000	2022
DEMAND AND SUPPLY	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
11												
Gross domestic product  GDP (CZK bn, constant p. of 2015, seas. adjusted)	4292.5	4290.6	4387 6	4627 6	4740.5	4995 2	5154 1	5306.4	4998.3	5174.5	5387.6	5547
GDP (CZK bn, current p., seas. adjusted )	4087.7		4344.5		4794.6				5696.8		6428.2	
GDP (%, y-o-y, real terms, seas. adjusted)	-0.7	0.0	2.3	5.5	2.4	5.4	3.2	3.0	-5.8	3.5	4.1	3.
GDP (%, q-o-q, real terms, seas. adjusted )	-						-	_				
Household consumption (%, y-o-y, real terms, seas. adjusted)	-1.1	0.9	1.4	3.9	3.7	4.1	3.3	2.6	-7.1	1.3	6.4	3.
Government consumption (%, y-o-y, real terms, seas. adjusted)	-1.9	2.4	1.0	1.8	2.5	1.8	3.8	2.5	3.4	3.1	1.4	2
Gross capital formation (%, y-o-y, real terms, seas. adjusted)	-4.1	-4.2	7.2	13.1	-4.0	6.6	7.6	4.4	-10.1	11.8	0.2	3
Gross fixed capital formation (%, y-o-y, real terms, seas. adjusted)	-3.3	-2.2	3.3	9.8	-3.1	5.1	10.0	5.9	-7.2	2.8	5.8	2
Exports of goods and services (%, y-o-y, real terms, seas. adjusted)	4.4	0.3	8.7	6.2	4.1	7.6	3.7	1.4	-7.0	13.0	9.2	5
Imports of goods and services (%, y-o-y, real terms, seas. adjusted)	2.7	0.1	10.0	6.9	2.7	6.5	5.8	1.5	-6.9	15.8	8.6	5
Net exports (CZK bn, constant p. of 2015, seas. adjusted)	289.2	295.8	283.2	276.2	337.3	400.3	336.9	337.8	310.0	244.3	290.5	305
PRICES												
Main price indicators												
Consumer Price Index (%, y-o-y, average)	3.3	1.4	0.4	0.3	0.7	2.5	2.1	2.8	3.2	3.0	2.8	2
Administered prices (14.58%)* (%, y-o-y, average)	8.6	2.2	-3.0	0.0	0.2	0.0	1.8	4.4	3.1	0.4	3.4	2
Food prices (incl. alcoholic beverages and tobacco) (26.41%)* (%, y-o-y, average)	2.9	3.1	1.8	0.1	0.2	3.6	1.6	2.6	4.2	1.8	1.9	1
Core inflation (55.61%)* (%, y-o-y, average)	-0.3	-0.5	0.5	1.2	1.2	2.4	2.1	2.7	3.4	3.4	2.8	2
Fuel prices (3.40%)* (%, y-o-y, average)	6.0	-2.1	0.2	-13.5	-8.5	6.7	6.3	-0.4	-11.4	12.6	2.4	-4
Monetary policy-relevant inflation (%, y-o-y, average)	2.1	0.6	0.2	0.2	0.5	2.5	2.1	2.9	3.2	2.9	2.7	1
Partial price indicators												
Industrial producer prices (%, y-o-y, average)	2.1 3.3	0.8 -12.1	-0.8 4.7	-3.2 -6.2	-3.3 -6.0	1.8 7.4	2.0 -0.2	2.6	0.1 -3.2	5.1 6.0	2.4 0.7	1
Agricultural prices (%, y-o-y, average)  LABOUR MARKET	3.3	-12.1	4.7	-0.2	-0.0	7.4	-0.2	5.7	-3.2	0.0	0.7	-1
Average monthly wage (%, y-o-y, nominal terms)	2.5	-0.1	2.9	3.2	4.4	6.7	8.2	7.9	3.2	5.4	4.2	4
Average monthly wage in market sectors (%, y-o-y, nominal terms)	2.6	-0.1	3.0	3.2	4.3	6.7	7.7	7.6	2.5	6.0	4.4	5
Average monthly wage (%, y-o-y, real terms)	-0.8	-1.6	2.6	2.8	3.8	4.3	6.0	5.0	0.0	2.4	1.4	
Unit labour costs (%, y-o-y)	3.6	0.9	1.6	-0.4	3.1	3.9	6.2	4.7	6.3	1.3	1.5	2
Aggregate labour productivity (%, y-o-y)	-1.2	-0.4	1.7	3.9	0.9	3.6	1.8	2.8	-4.2	3.9	3.1	2
ILO general unemployment rate (%, average, age 15–64, seas. adjusted)	7.0	7.0	6.2	5.1	4.0	2.9	2.3	2.0	2.6	3.3	3.1	3
Share of unemployed persons (MLSA) (%, average, seas. adjusted)	6.8	7.7	7.7	6.5	5.5	4.2	3.2	2.8	3.6	3.9	3.6	3.
Employment (ILO) (%, y-o-y)	0.4	1.0	0.8	1.4	1.9	1.6	1.4	0.2	-1.3	-0.4	0.9	0
Full-time employment (%, y-o-y)	0.0	-1.0	1.1	2.1	1.8	2.2	1.5	-0.3	-2.0	0.4	1.2	0
PUBLIC FINANCE												
Government budget balance (ESA2010) (CZK bn, current prices)	-159.3	-53.2	-90.2	-29.8	34.1	76.7	49.4	17.9	-348.0	-455.7	-339.9	-345
Government budget balance/GDP** (%, nominal terms)	-3.9	-1.3	-2.1	-0.6	0.7	1.5	0.9	0.3	-6.1	-7.5	-5.3	-5
Government debt (ESA2010) (CZK bn, current prices)	1805.3	1840.2	1818.9	1836.0	1754.7	1749.7	1734.6	1739.9	2153.0	2586.8	2917.1	3244
Government debt/GDP** (%, nominal terms)	44.2	44.4	41.9	39.7	36.6	34.2	32.1	30.0	37.8	42.6	45.4	48
EXTERNAL RELATIONS												
Current account												
Trade balance (CZK bn, current prices)	123.8	167.0	220.0	187.7	258.5	259.3	200.9	239.8	285.2	264.5	287.3	296
Trade balance/GDP (%, nominal terms)	3.0	4.0	5.1	4.1	5.4	5.1	3.7	4.1	5.0	4.4	4.5	4
Balance of services (CZK bn, current prices)	77.6	70.4	55.7	86.6	106.6	124.6	120.0	106.0	104.6	95.8	115.0	
Current account (CZK bn, current prices)	-63.3	-21.8	7.9	20.7	85.2	79.1	24.1	19.2	203.5	104.7	33.6	41
Current account/GDP (%, nominal terms)	-1.5	-0.5	0.2	0.4	1.8	1.5	0.4	0.3	3.6	1.7	0.5	0
Foreign direct investment												
Direct investment (CZK bn, current prices)	-121.3	7.4	-80.4	49.7	-186.5	-45.9	-51.0	-137.1	-73.1	-70.0	-70.0	-70
Exchange rates	40.0	40.0	20.0	24.0	24.4	22.4	04.7	22.0	22.0	24.4	20.5	20
CZK/USD (average) CZK/EUR (average)	19.6 25.1	19.6 26.0	20.8	24.6 27.3	24.4	23.4	21.7 25.6	22.9 25.7	23.2 26.5	21.4 25.6	20.5 24.5	20 24
MONEY AND INTEREST RATES	20.1	20.0	21.5	21.5	21.0	20.5	25.0	25.1	20.5	25.0	24.5	
M3 (%, y-o-y, average)	5.1	5.1	5.1	7.3	9.1	11.7	6.6	6.3	9.0	10.4	8.0	8.
2W repo rate (%, average)	0.05	0.05	0.05	0.05	0.05	0.50	1.75	2.00	0.25	0.78	1.74	2.0
3M PRIBOR (%, average)	1.0	0.05	0.03	0.03	0.03	0.30	1.3	2.1	0.23	0.70	1.9	2.0
EXTERNAL ASSUMPTIONS		5.5	3.7	5.5	5.5	3.7			0.0	5.0		
Foreign GDP (%, y-o-y, seas. adjusted, effective)	0.3	0.2	1.9	1.9	2.0	2.8	1.9	1.3	-5.7	4.0	4.4	2
Foreign GDP (%, q-o-q, seas. adjusted, effective)	-	-	-	-	-	-	-	-	-			
Foreign HICP (%, y-o-y, seas. adjusted, effective)	2.6	1.6	0.6	0.4	0.3	1.6	2.0	1.5	0.6	2.2	1.7	1
Foreign PPI (%, y-o-y, seas. adjusted, effective)	2.1	-0.1	-1.6	-2.5	-2.3	2.7	3.3	1.1	-1.6	6.3	2.0	
Brent crude oil (in USD/barrel) (average)	111.7	108.8	99.5	53.6	45.0	54.8	71.5	64.2	43.2	67.9	66.7	63
3M EURIBOR (%, average)	0.6	0.2	0.2		-0.3	-0.3	-0.3	-0.4	-0.4	-0.5	-0.5	

<sup>\*</sup> figures in brackets are constant weights in current consumer basket

\*\* CNB calculation
- data not available/forecasted/released
data in bold = CNB forecast

Table A.2 **Key macroeconomic indicators – quarters** 

		20:	21			20:	22			20:	23	
	QI	QII	QIII	QIV	QI	QII	QIII	QIV	QI	QII	QIII	Q۱۱
DEMAND AND SUPPLY												
Gross domestic product												
GDP (CZK bn, constant p. of 2015, seas. adjusted)	1263.1		1305.3		1332.1					1381.6		1402
GDP (CZK bn, current p., seas. adjusted )	1470.6	1516.8			1580.4		1615.7			1671.2	1694.0	
GDP (%, y-o-y, real terms, seas. adjusted)	-2.4	9.0	3.7	4.3	5.5	4.5	3.6	3.0	2.9	3.0	3.0	
GDP (%, q-o-q, real terms, seas. adjusted)	-0.3	1.7	1.6	1.3	0.8	0.7	0.7	0.7	0.7	0.8	0.7	
Household consumption (%, y-o-y, real terms, seas. adjusted)	-6.4	3.9	0.7	7.5	9.3	7.2	5.4	3.9	3.1	3.0	3.0	
Government consumption (%, y-o-y, real terms, seas. adjusted)	3.8	3.6	4.0	1.0	1.5	1.6	1.2	1.1	1.5	1.8	2.1	
Gross capital formation (%, y-o-y, real terms, seas. adjusted)	1.1	10.8	20.0	16.8	1.5	-0.5	-1.4	1.1	3.2	3.1	3.0	
Gross fixed capital formation (%, y-o-y, real terms, seas. adjusted)	-3.8	1.1	5.8	8.6	9.0	6.4	4.6	3.4	2.8	2.5	2.5	
Exports of goods and services (%, y-o-y, real terms, seas. adjusted)	4.1	35.1	10.3	7.5	11.7	10.3	8.6	6.4	5.3	5.2	5.1	
Imports of goods and services (%, y-o-y, real terms, seas. adjusted)	5.4	31.4	15.4	13.7	12.1	9.5	7.4	6.0	5.3	5.2	5.1	
Net exports (CZK bn, constant p. of 2015, seas. adjusted)	66.7	57.5	55.0	65.2	71.0	71.9	73.1	74.5	74.8	76.0	76.9	7
PRICES												
Main price indicators												
Consumer Price Index (%, y-o-y, average)	2.2	2.9	3.1	3.8	3.7	3.0	2.4	2.3	2.1	2.0	2.0	
Administered prices (14.58%)* (%, y-o-y, average)	0.1	-0.1	-0.2	1.9	3.5	3.5	3.4	3.1	2.3	2.2	2.2	
Food prices (incl. alcoholic beverages and tobacco) (26.41%)* (%, y-o-y, average)	1.6	1.0	1.7	3.1	2.4	2.2	1.8	1.3	1.6	1.9	2.1	
Core inflation (55.61%)* (%, y-o-y, average)	3.3	3.3	3.5	3.6	3.4	3.0	2.4	2.4	2.3	2.2	2.1	
Fuel prices (3.40%)* (%, y-o-y, average)	-5.8	21.0	20.3	15.0	10.6	2.9	-2.7	-1.2	-3.3	-5.0	-4.8	
Monetary policy-relevant inflation (%, y-o-y, average)	2.2	2.7	3.0	3.6	3.4	2.9	2.3	2.1	1.9	1.9	1.9	
Partial price indicators												
Industrial producer prices (%, y-o-y, average)	1.5	5.3	6.9	6.8	5.5	2.4	0.9	0.8	0.9	1.3	1.6	
Agricultural prices (%, y-o-y, average)	-1.3	3.8	10.2	13.2	8.3	1.7	-3.1	-4.7	-4.1	-3.0	-0.2	
LABOUR MARKET												
Average monthly wage (%, y-o-y, nominal terms)	3.2	12.0	4.1	2.7	5.8	1.7	4.5	4.9	4.6	4.6	4.7	
Average monthly wage in market sectors (%, y-o-y, nominal terms)	3.5	13.6	4.4	2.8	5.9	1.3	5.2	5.5	5.1	5.1	5.0	
Average monthly wage (%, y-o-y, real terms)	1.0	9.1	1.0	-1.1	2.2	-1.3	2.1	2.6	2.6	2.6	2.6	
Unit labour costs (%, y-o-y)	0.5	6.1	-0.7	-0.4	2.1	-1.0	2.1	2.9	2.5	2.3	2.2	
Aggregate labour productivity (%, y-o-y)	-1.0	9.3	3.9	3.5	4.6	3.4	2.5	2.1	2.2	2.3	2.4	
ILO general unemployment rate (%, average, age 15–64, seas. adjusted)	3.3	3.4	3.3	3.2	3.1	3.1	3.1	3.0	3.0	3.0	3.0	
	4.0	4.1	3.8	3.7	3.6	3.6	3.6	3.6	3.6	3.6	3.6	
Share of unemployed persons (MLSA) (%, average, seas. adjusted)		-0.3	-0.2	0.5	0.8	1.0	1.0	0.9	0.7	0.6	0.6	
Employment (ILO) (%, y-o-y) Full-time employment (%, y-o-y)	-1.6 -1.4	0.5	1.2	1.4	1.2	1.2	1.2	1.0	0.7	0.6	0.6	
PUBLIC FINANCE	-1.4	0.5	1.2	1.4	1.2	1.2	1.2	1.0	0.0	0.7	0.0	
Government budget balance (ESA2010) (CZK bn, current prices)		-	-	-	_	-	-	-	_	-	-	
Government budget balance/GDP** (%, nominal terms)		-	-	-	-	-	-	-	-	-	-	
Government debt (ESA2010) (CZK bn, current prices)	-	-	-	_		-	-	_		-		
Government debt/GDP** (%, nominal terms)												
EXTERNAL RELATIONS												
Current account												
Trade balance (CZK bn, current prices)	92.7	73.2	48.1	50.4	94.5	86.6	53.8	52.4	97.2	89.3	55.5	5
Trade balance/GDP (%, nominal terms)	6.7	4.8	3.1	3.1	6.4	5.4	3.3	3.1	6.3	5.3	3.2	
Balance of services (CZK bn, current prices)	27.0	20.7	21.0	27.0	30.0	36.0	27.0	22.0	32.0	33.0	30.0	1
Current account (CZK bn, current prices)	80.2	53.8	-29.7	0.5	84.3	25.5	-41.0	-35.1	91.3	18.4	-36.0	-3
Current account/GDP (%, nominal terms)	5.8	3.5	-1.9	0.0	5.7	1.6	-2.5	-2.1	5.9	1.1	-2.1	
Foreign direct investment												
Direct investment (CZK bn, current prices)	26.1	-32.1	-32.0	-32.0	-17.5	-17.5	-17.5	-17.5	-17.5	-17.5	-17.5	-1
Exchange rates												
CZK/USD (average)	21.6	21.3	21.4	21.1	20.8	20.6	20.4	20.3	20.2	20.1	20.0	1
CZK/EUR (average)	26.1	25.6	25.4	25.1	24.7	24.6	24.4	24.3	24.3	24.2	24.2	2
MONEY AND INTEREST RATES												
M3 (%, y-o-y, average)	10.8	10.8	10.2	9.6	8.4	7.9	7.5	7.7	7.8	7.9	8.1	
2W repo rate (%, average)	0.25	0.31	1.12	1.43	1.57	1.69	1.80	1.91	1.99	2.01	2.02	2
3M PRIBOR (%, average)	0.4	0.4	1.3	1.6	1.7	1.9	2.0	2.1	2.2	2.2	2.2	
EXTERNAL ASSUMPTIONS												
Foreign GDP (%, y-o-y, seas. adjusted, effective)	-2.0	11.7	2.9	4.2	6.4	4.7	3.6	2.9	2.5	2.2	2.0	
Foreign GDP (%, q-o-q, seas. adjusted, effective)	-1.1	2.4	1.8	1.2	0.9	0.8	0.6	0.6	0.5	0.5	0.4	
Foreign HICP (%, y-o-y, seas. adjusted, effective)	1.3	2.1	2.5	2.8	1.7	1.7	1.7	1.7	1.7	1.8	1.8	
Foreign PPI (%, y-o-y, seas. adjusted, effective)	1.7	7.5	8.4	7.7	5.0	2.0	0.6	0.6	1.1	1.6	1.9	
C (1.1.) - (1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.			71.7	69.5	68.2	67.1	66.2	65.2	64.4	63.6	62.9	6
Brent crude oil (in USD/barrel) (average)	61.3	09.1										
Brent crude oil (in USD/barrel) (average)  3M EURIBOR (%, average)	61.3 -0.5	69.1 -0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.4	-0.4	-0.4	

<sup>\*</sup> figures in brackets are constant weights in current consumer basket

\*\* CNB calculation
- data not available/forecasted/released
data in bold = CNB forecast

# B — Economic developments abroad

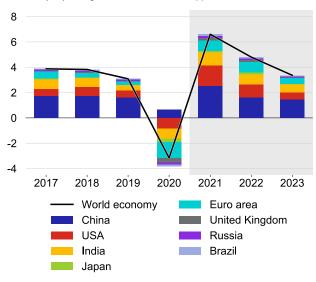
		2021	2022	2023	
GDP (in the effective EA)	y-o-y changes in % pp	<b>4.0</b> (1.0)	<b>4.4</b> (0.6)	<b>2.2</b> -	The upward shift of the GDP forecast is due to earlier and faster reopening of economies in the spring and to investment under approved national recovery and resilience plans.
Consumer prices (in the effective EA)	y-o-y changes in % pp	<b>2.2</b> (0.2)	<b>1.7</b> (0.3)	1.8 -	The consumer price inflation outlook is slightly higher, mainly because of higher expected energy prices.
Producer prices (in the effective EA)	y-o-y changes in % pp	<b>6.3</b> (2.8)	<b>2.0</b> (0.9)	1.7	The appreciably higher PPI in the new forecast reflects more robust demand for miscellaneous manufactured articles and a bigger rise in prices of commodities, especially oil.
Brent crude oil price	USD/barrel	<b>67.9</b> (6.1)	<b>66.7</b> (7.6)	63.3 -	Brent crude oil prices have shifted higher in expectation of a robust recovery after the pandemic.
3M EURIBOR	% pp	<b>-0.5</b> (0.0)	<b>-0.5</b> (0.0)	<b>-0.4</b> -	The 3M EURIBOR outlook is unchanged for this year and the next. The outlook for the shadow interest rate has shifted slightly higher.
Exchange rate	USD/EUR	<b>1.20</b> (-0,01)	<b>1.20</b> (-0.02)	1.21	The euro-dollar exchange rate forecast is little changed and does not stray far from the current level over the next two years.

# B — Economic developments abroad

#### Chart B.1 (source EIU, CF, CNB calculation)

#### **Economic growth abroad**

real GDP; y-o-y changes in %; contributions in pp



The growth of the world economy is proxied by the growth of the eight largest economies, which account for around 75% of global GDP. The weights of the industrial economies are calculated on the basis of nominal GDP at PPP.

#### Chart B.3 (source Eurostat, CNB calculation)

### Structure of GDP in euro area

y-o-y changes in %; contributions in pp; seasonally adjusted

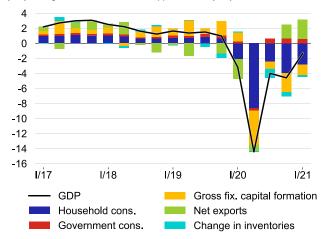
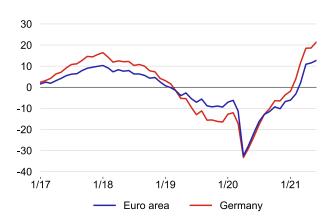


Chart B.5 (source Eurostat)

# Sentiment indicator for industry

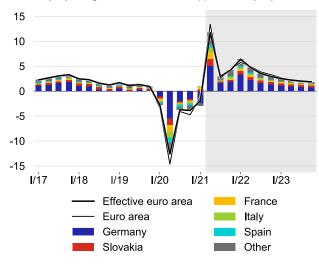
subindex of the Economic sentiment indicator (ESI)



#### Chart B.2 (source Eurostat, CNB forecast)

### Economic growth in euro area

real GDP; y-o-y changes in %; contributions in pp; seasonally adjusted



Other comprises 12 other euro area countries. Its forecasted growth corresponds to the average growth of the five countries shown in the chart.

#### Chart B.4 (source Eurostat, CNB forecast)

#### GDP level in effective euro area

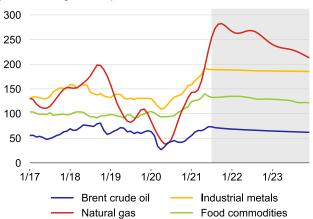
index (2000 = 100)



#### Chart B.6 (source Bloomberg, World Bank, CNB calculation)

# Prices of crude oil and other commodities

oil in USD/barrel; other commodities: index (January 2016 = 100); average price of natural gas in Europe

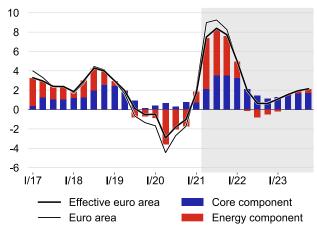


# B — Economic developments abroad

#### Chart B.7 (source Eurostat, CNB forecast)

#### Industrial producer prices in euro area

y-o-y changes in %; contributions in pp; seasonally adjusted

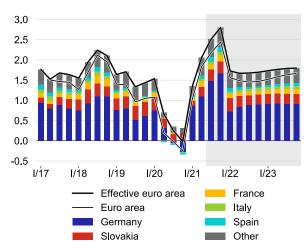


The energy component is determined by developments in industries strongly linked to the oil price. The rest of the PPI index in effective terms is the core component.

#### Chart B.9 (source Eurostat, CNB forecast)

### Consumer price inflation in euro area

HICP; year on year in %; contributions in pp; seasonally adjusted

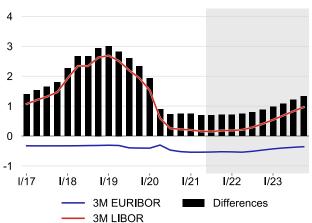


Other comprises 12 other euro area countries. Its forecasted growth corresponds to the average growth of the five countries shown in the chart.

### Chart B.11 (source Bloomberg, CNB calculation)

#### 3M EURIBOR and 3M USD LIBOR

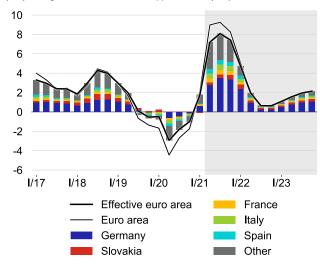
%; differences in pp



#### Chart B.8 (source Eurostat, CNB forecast)

#### Industrial producer prices by country

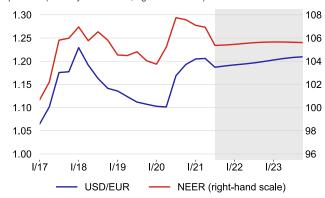
y-o-y changes in %; contributions in pp; seasonally adjusted



#### Chart B.10 (source Bloomberg, CNB calculation)

#### Euro exchange rate

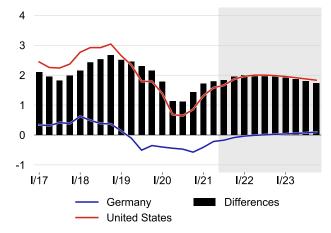
USD/EUR; NEER of euro against currencies of euro area countries' 18 main partners (January 2016 = 100; right-hand scale)



### Chart B.12 (source Bloomberg, CNB calculation)

#### 10Y government bond yields

%; differences in pp



		2021	2022	2023	
GDP	y-o-y changes in % pp	<b>3.5</b> (2.3)	<b>4.1</b> (-0.1)	3.0	The GDP forecast for 2021 has been revised significantly upwards due to earlier and more pronounced lifting of shutdowns and higher total investment. The change for 2022 is small.
Household consumption	y-o-y changes in % pp	1.3 (1.1)	<b>6.4</b> (0.0)	3.0	Growth in household cons. is higher this year than in the spring forecast. This reflects both the earlier reopening of wholesale, retail and services and better labour market developments.
Government consumption	y-o-y changes in % pp	<b>3.1</b> (0.7)	<b>1.4</b> (0.0)	2.0	Compared to the previous forecast, growth in government consumption is slightly higher this year, due mostly to higher observations in Q1.
Gross fixed capital formation	y-o-y changes in % pp	<b>2.8</b> (3.8)	<b>5.8</b> (1.8)	2.6	The forecast for fixed investment has increased due to higher private investment activity as a result of a faster fade-out of the pandemic and better economic sentiment.
Net exports	contr. to GDP growth pp	<b>-0.9</b> (-0.9)	<b>0.9</b> (0.9)	0.3	A stronger recovery in final domestic demand coupled with temporarily subdued exports will turn the contr. of net exports to GDP negative in 2021. The opposite will be true in 2022.

Chart C.1

# **Potential output**

y-o-y changes in %

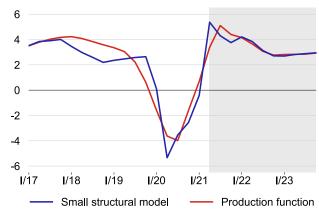


Chart C.2

#### **Output gap**

% of potential output

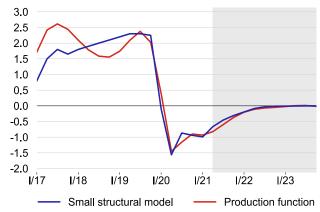


Chart C.3

# **Gross domestic product**

y-o-y changes in %; contributions in pp; constant prices; seasonally adjusted

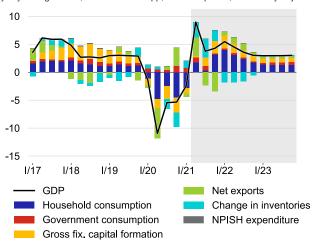
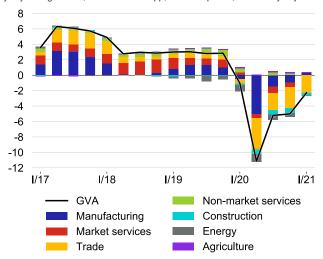


Chart C.4

# **Gross value added**

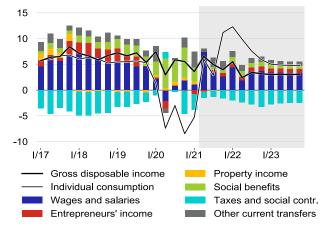
y-o-y changes in %; contributions in pp; constant prices; seasonally adjusted



Trade also includes hotels and restaurants and transport. Energy also includes

Chart C.5 **Disposable income and household consumption** 

y-o-y changes in %; contributions in pp; current prices; seasonally unadjusted



#### Chart C.6

mining and quarrying.

# Household and government consumption

y-o-y changes in %; constant prices; seasonally adjusted

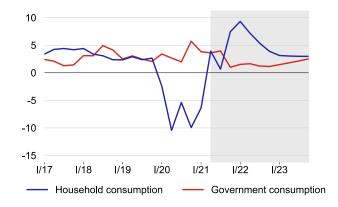


Chart C.7

# **Gross capital formation**

y-o-y changes in %; contributions in pp; constant prices; seasonally adjusted

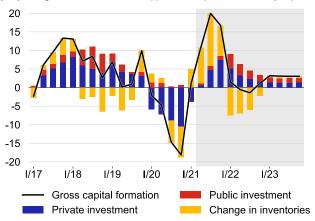


Chart C.8

### **Exports and imports**

y-o-y changes in % and CZK billions; constant prices; seasonally adjusted

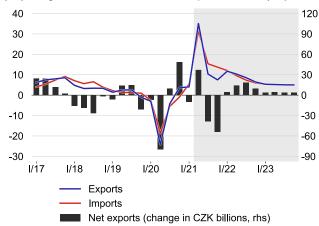


Chart C.9

## Industrial production and construction output

y-o-y changes in %; constant prices; seasonally adjusted

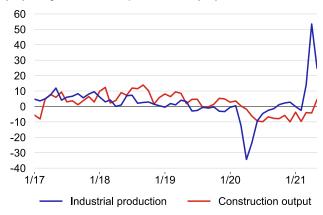


Chart C.10

#### **Barriers to growth in industry**

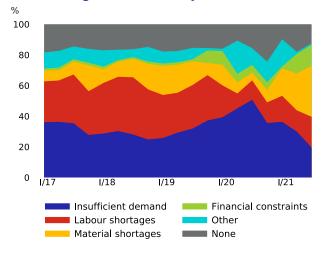


Chart C.11

### **Key financial indicators**

y-o-y changes in %; current prices; seasonally unadjusted

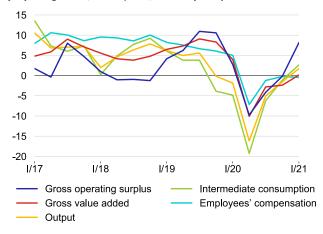


Chart C.12

### Retail sales and sales in services

y-o-y changes in %; constant prices; seasonally adjusted



#### Chart C.13

# Consumer confidence balance

balance is difference in % between answers expressing improvement and deterioration in expected and ongoing tendencies

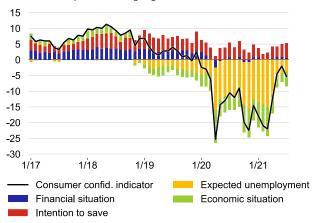


Chart C.14

# **Business confidence indicator**

balance is difference in % between answers expressing improvement and deterioration in expected and ongoing tendencies

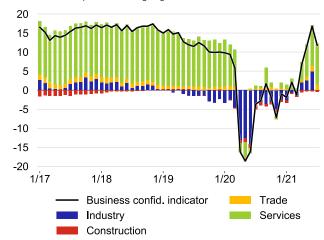


Table C.1 **Expected indicators of FMIE, CF and corporations** 

1Y horizon; y-o-y changes in % unless otherwise indicated

	3/21	4/21	5/21	6/21	7/21
FMIE:					
CPI	2.1	2.0	2.2	2.2	2.2
CPI, 3Y horizon	2.0	2.1	2.1	2.1	2.1
Real GDP in 2021	3.3	3.2	3.5	3.6	3.6
Real GDP in 2022	4.4	4.4	4.5	4.3	4.5
Nominal wages in 2021	3.4	3.5	3.8	3.7	3.7
Nominal wages in 2022	4.4	4.2	4.3	4.4	4.5
CZK/EUR exchange rate (level)	25.3	25.3	25.2	24.9	24.9
2W repo rate (%)	0.6	0.7	0.9	1.2	1.4
1Y PRIBOR (%)	1.0	1.1	1.3	1.7	1.9
Corporations:					
CPI	2.3			2.8	
CPI, 3Y horizon	2.8			3.2	
CF:					
Real GDP in 2021	3.4	3.3	3.4	3.6	3.7
Real GDP in 2022	4.7	4.6	4.7	4.6	4.7
Nominal wages in 2021	3.0	3.5	3.8	3.8	4.0
Nominal wages in 2022	4.0	4.1	4.3	4.5	4.4
CZK/EUR exchange rate (level)	25.4	25.6	25.5	25.0	25.0
3M PRIBOR (%)	0.7	0.8	1.1	1.3	1.6

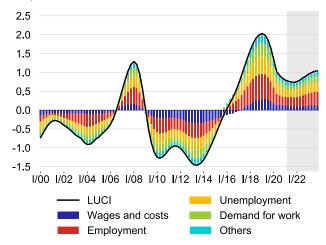
# D — The labour market

		2021	2022	2023	
Employment	y-o-y changes in % pp	<b>-0.4</b> (0.5)	<b>0.9</b> (0.4)	<b>0.6</b>	Demand for labour will resume more quickly owing to an earlier and stronger economic recovery.
Unemployment (ILO)	% pp	<b>3.3</b> (-0.2)	<b>3.1</b> (-0.4)	3.0	A more moderate cooling of the labour market will be reflected in a lower unemployment rate this year and the next compared to the spring forecast.
Average monthly nominal wage	y-o-y changes in % pp	<b>5.4</b> (0.6)	<b>4.2</b> (0.5)	4.6 -	A better labour market situation and an expected increase in the minimum wage at the start of 2022 are reflected in higher wage growth.

### D — The labour market

Chart D.1 **LUCI – Labour Utilisation Composite Index** 

index; standard deviations



Positive values mean that the labour market is above its long-term equilibrium level. Negative values indicate the opposite situation.

Chart D.2 **Employment** 

y-o-y changes in %; Labour Force Survey methodology



Chart D.3

Converted number of employees – sectors

y-o-y changes in %; contributions in pp

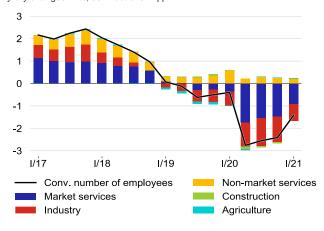


Chart D.4

Converted number of employees – structure

y-o-y changes in %; contributions in pp

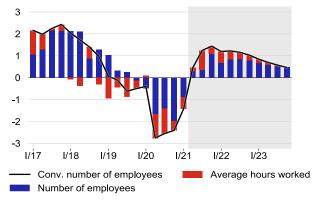


Chart D.5 (source MLSA, CZSO, CNB forecast)

#### Unemployment

%; seasonally adjusted

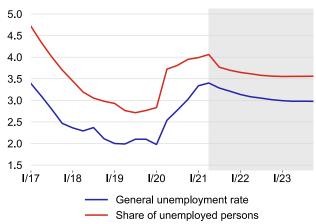
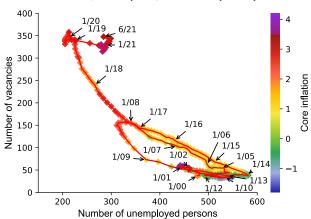


Chart D.6 (source MLSA, CZSO)

### **Beveridge curve**

numbers in thousands; seas. adjusted; core inflation: year on year in %



### D — The labour market

Chart D.7 **Average nominal wage** 

y-o-y changes in %

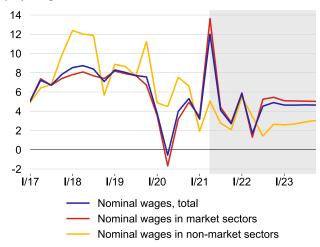


Chart D.8

Average wage and whole-economy productivity

y-o-y changes in %; whole-economy productivity - seasonally adjusted

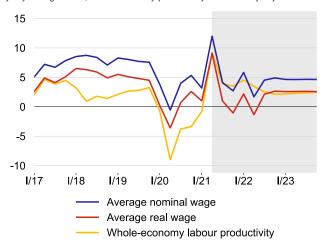


Chart D.9 **Volume of wages and salaries** 

y-o-y changes in %

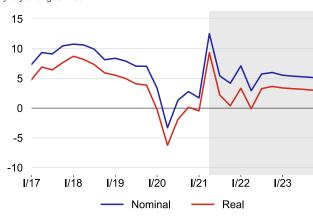


Chart D.10 **Labour productivity in sectors** 

y-o-y changes in %; seasonally adjusted

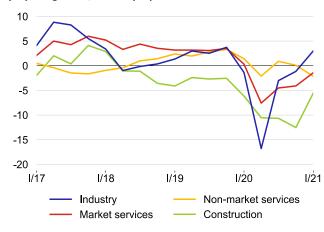


Chart D.11

Nominal unit labour costs

y-o-y changes in %; contributions in pp; seasonally adjusted

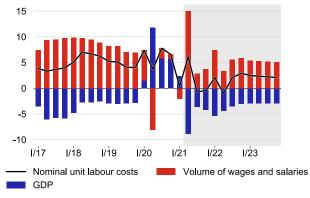
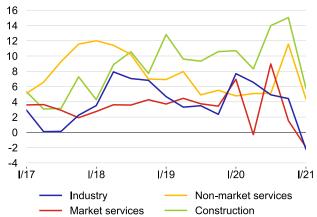


Chart D.12

Nominal unit labour costs in sectors

y-o-y changes in %; seasonally adjusted



# E —— Inflation and other price areas

		2021	2022	2023	
Consumer prices	y-o-y changes in %	<b>3.0</b> (0.3)	<b>2.8</b> (0.4)	<b>2.1</b> -	The upward revision of the inflation forecast this year is due to all its components except food prices.
Administered prices	y-o-y changes in % pp	<b>0.4</b> (0.1)	<b>3.4</b> (0.6)	<b>2.2</b> -	The higher administered price inflation reflects higher growth in energy prices due to surprisingly strong growth in prices of emission allowances.
Core inflation	% pp	<b>3.4</b> (0.6)	<b>2.8</b> (0.8)	<b>2.2</b> -	A more substantial recovery in inflation abroad and stronger domestic demand have moved the core inflation outlook upwards.
Food prices (incl. alc. bev. and tobacco)	y-o-y changes in %	<b>1.8</b> (-0.4)	<b>1.9</b> (-0.6)	1.9   -	The food price outlook has been revised down slightly compared with the spring forecast, as the lower observed data outweigh the increase in the agricultural producer price outlook.

# E — Inflation and other price areas

Chart E.1 **Headline and monetary policy-relevant inflation** 

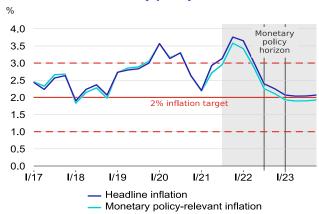


Chart E.3

Components of inflation

y-o-y changes in %

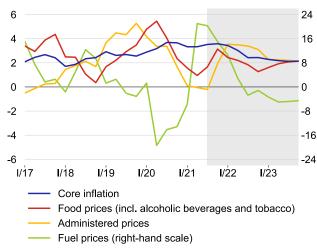


Chart E.4

Costs in consumer sector

nominal q-o-q changes in %; contributions in pp; annualised

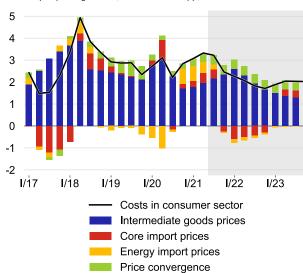


Chart E.2

Structure of inflation

%; contributions in pp

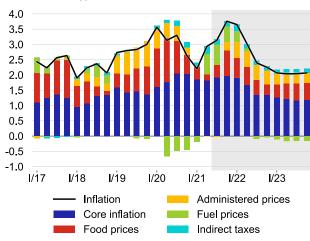


Table E.1

#### Forecast of administrative effects

average y-o-y changes in %; contributions to headline inflation in pp

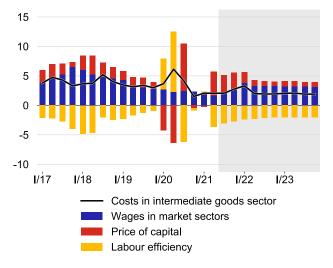
	20	2020		21	202	2022		23
IMPACTS OF CHANGES								
TO INDIRECT TAXES		0.00		0.15		0.16		0.14
ADMINISTERED PRICES <sup>a)</sup>	3.1	0.46	0.4	0.06	3.4	0.49	2.2	0.32
of which (main changes):								
electricity	7.2	0.28	-1.7	-0.07	5.5	0.21	2.7	0.10
natural gas	-0.5	-0.01	-3.5	-0.08	2.9	0.06	1.0	0.02
heat	-1.2	-0.02	0.0	0.00	2.4	0.04	2.5	0.04
water	2.9	0.02	4.4	0.03	3.0	0.02	2.5	0.02
health care	3.1	0.04	4.2	0.06	3.8	0.05	2.7	0.04
transport	1.3	0.02	1.6	0.02	1.8	0.02	1.8	0.02

a) including effects of indirect tax changes

Chart E.5

Costs in intermediate goods sector

nominal q-o-q changes in %; contributions in pp; annualised



# E — Inflation and other price areas

Chart E.6 Components of core inflation

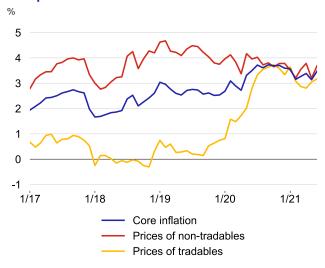


Chart E.8 Import prices

y-o-y changes in %; contributions in pp

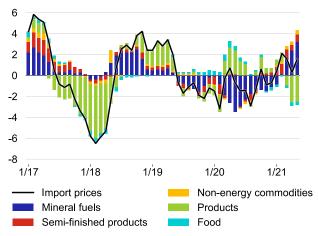
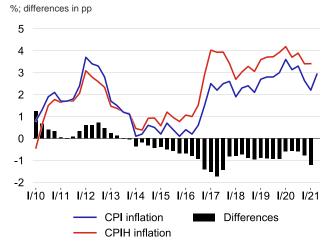


Chart E.10 **Agricultural producer prices** 

y-o-y changes in % 25 20 15 10 5 0 -5 -10 -15 1/18 1/20 1/17 1/21 1/22 1/23 Agricultural producer prices Crop product prices Livestock product prices

Chart E.7
Inflation and experimental CPIH price index



In contrast to CPI inflation, the experimental CPIH index also includes prices of older real estate, including land.

Chart E.9 Industrial producer prices

y-o-y changes in %; contributions in pp

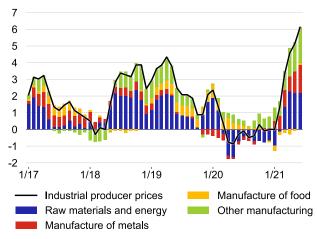
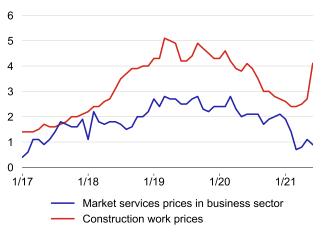


Chart E.11

Market services prices in business sector and construction work prices

y-o-y changes in %



# E — Inflation and other price areas

Chart E.12 Inflation expectations at one-year horizon

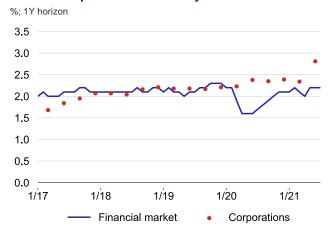
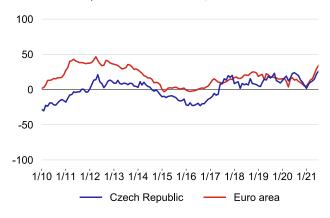


Chart E.14 (European Commission Business and Consumer Survey)

Inflation perceived by households

indicator of inflation perceived in last 12 months; balance of answers



## Chart E.16 (CZSO)

#### Concerns about rises in prices

balance of answers

60

40

20

-20

-40

-60

1/10 1/11 1/12 1/13 1/14 1/15 1/16 1/17 1/18 1/19 1/20 1/21

Chart E.13
Inflation expectations at three-year horizon

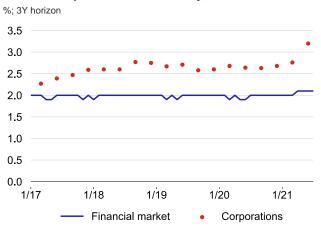
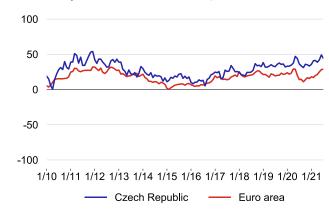


Chart E.15 (European Commission Business and Consumer Survey)

#### Inflation expected by households

indicator of expected inflation in next 12 months; balance of answers



Inflation in the next few months

year on year in %

	//21	0/21	9/21
Headline inflation	3.0	3.1	3.2
Administered prices	-0.1	-0.2	-0.3
First-round impacts of changes to ind. taxes	0.2	0.2	0.2
Core inflation	3.5	3.5	3.5
Food prices	1.3	1.6	2.1
Fuel prices	20.3	20.4	20.2
Monetary policy-relevant inflation	2.9	2.9	3.1

		2021	2022	2023	
Interest rate	3M PRIBOR in %	0.9 (0.2)	<b>1.9</b> (0.3)	2.2 -	The market rate outlook is slightly higher than in the spring forecast.
Exchange rate	CZK/EUR	<b>25.6</b> (-0.1)	<b>24.5</b> (-0.6)	<b>24.2</b> -	The koruna will appreciate faster than in the previous forecast, especially next year.

Chart F.1 Interest rate forecast

2.5 2.0 1.5 1.0 0.5 0.0 -0.5 I/18 **I**/19 **I**/20 I/21 I/23 1/17 1/22 - 3M PRIBOR - 3M EURIBOR

Chart F.2 **Exchange rate forecast** 

nominal exchange rate 28 27 26 25 24 23 22 21 20 19 1/21 1/17 I/18 **I**/19 1/20 1/22 1/23 CZK/EUR CZK/USD

Chart F.3 Interest rates



Chart F.4
Interest rate spread in Czech Republic



Chart F.5 Interest rate spread in Czech Republic

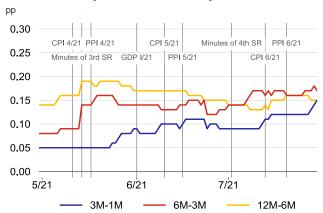


Chart F.6

PRIBOR yield curve
%; selected days

1.0

0.8

0.6

0.4

0.2

0.0

2T

1M

3M

6M

1R

— 30 July 2021
— Day after discussion of 4th SR
Minutes of 4th SR

Day of discussion of 4th SR

Chart F.7

3M PRIBOR, FRA

%; selected days

2.0

1.5

1.0

0.5

0.0

III/21 III/21 IV/21 I/22 II/22

— 30 July 2021 — Day of discussion of 4th SR

Minutes of 4th SR — Forecast from 5th SR

Day after discussion of 4th SR

Chart F.8 IRS yield curve

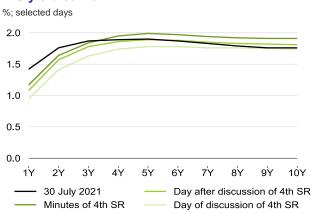


Chart F.9

Government bond yield curve

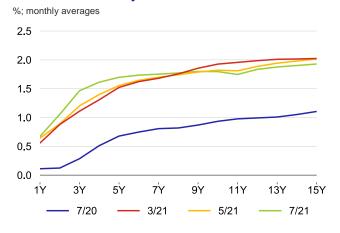


Chart F.10

Government bond yield curve

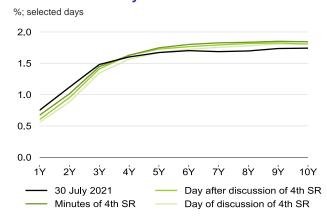


Chart F.11 **Exchange rate** 

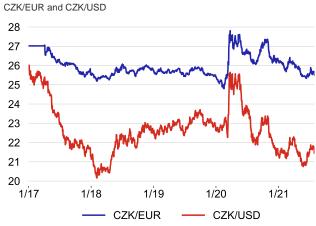


Chart F.12
Central European exchange rates

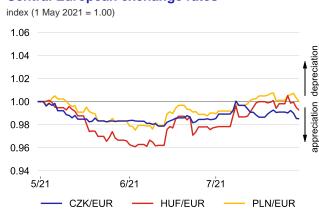


Chart F.13

Current development of koruna exchange rate

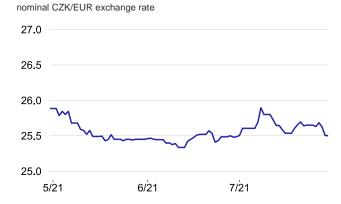


Chart F.14 **Expected change in koruna exchange rate** 

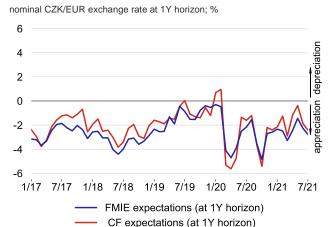


Chart F.15 (MF CR, CNB)

Volume of koruna assets of non-residents

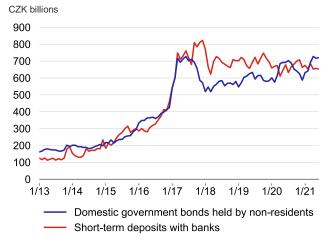


Chart F.16 (Statistical survey of CNB and Confederation of Industry of CR)



weighted mean in % 60 50 40 30 20 10 0 I/16 I/15 I/19 1/20 I/21 I/13 1/14 I/17 I/18 In this quarter In next 12 months

Chart F.17
Interest rate differentials

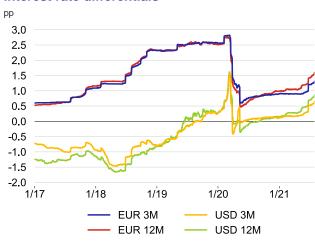


Chart F.18 (Bank Lending Survey, CNB)

#### Credit standards of banks

q-o-q changes; net market shares of banking market in % 100 80 60 40 20 0 -20 -40 -60 1/20 **I**/18 **I**/19 1/21 1/17 Loans to non-financial corporations Loans for house purchase Consumer credit

Positive (negative) values indicate a tightening (relaxing) of credit standards. Banks' expectations for the next quarter are shown in the grey area.

Table F.1

# Client interest rates on loans and deposits

new business unless otherwise indicated; %; changes in pp

	Interest rate	Change sir		ıce	
	6/21	3/21	12/20	2/20	
HOUSEHOLDS					
Mortgages	2.1	0.1	0.1	-0.3	
Mortgages with rate fixation 1–5 years	2.2	0.1	0.1	-0.4	
Mortgages with rate fixation 5-10 years	2.1	0.1	0.1	-0.3	
Genuinely new mortgages	2.1	0.2	0.2	-0.3	
Consumer credit	7.3	0.3	-0.4	-0.7	
Deposits (outstanding amounts, total)	0.2	0.0	0.0	-0.2	
Overnight deposits	0.1	0.0	0.0	-0.2	
New deposits with agreed maturity	0.6	0.1	0.0	-1.2	
NON-FINANCIAL CORPORATIONS					
Total loans	1.3	-0.6	-0.5	-2.0	
Small loans (up to CZK 30 million)	2.7	-0.1	-0.1	-1.4	
Large loans (over CZK 30 million)	1.2	-0.6	-0.5	-2.0	
Genuinely new loans	1.3	-0.6	-0.5	-1.9	
Total outstanding loans	2.6	0.1	0.1	-1.2	
Deposits (outstanding amounts, total)	0.1	0.0	0.0	-0.4	
Overnight deposits	0.0	0.0	0.0	-0.2	
New deposits with agreed maturity	0.2	0.1	0.0	-1.6	

Chart F.19

### Client interest rates in CZ and euro area

total credit costs as expressed by cost of borrowing; %

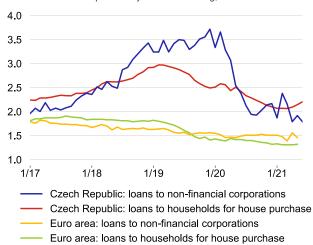


Chart F.20

#### Interest rates on bank loans

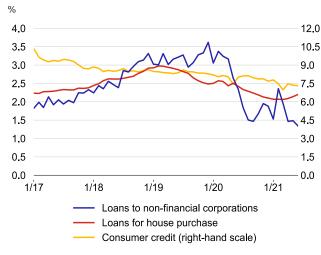


Chart F.21

#### Interest rates on bank deposits

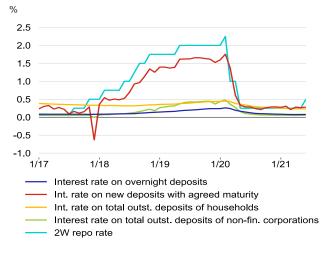


Chart F.22

#### Loans to private sector

annual rates of growth in %

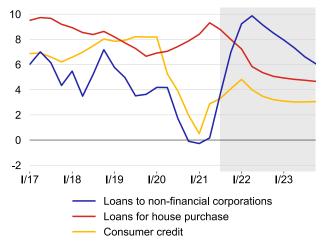


Chart F.23

#### Ratios of loans to private sector to GDP

ratios to annualised nominal GDP in %

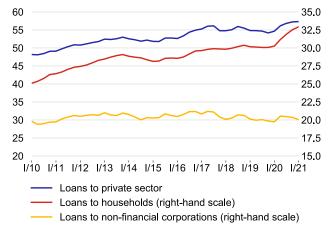
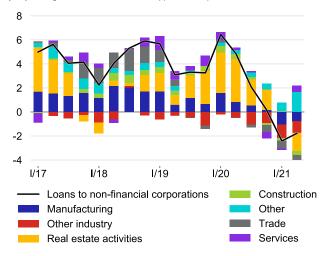


Chart F.24

#### Loans to non-financial corporations

y-o-y changes in %; contributions in pp; end-of-quarter data



Other comprises agriculture and transport.

Chart F.26

#### New loans to households for house purchase

genuinely new mortgages including increases; volumes in CZK billions; y-o-y changes in %

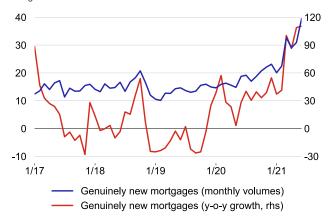


Chart F.28

#### Loans and monetary aggregates

annual rates of growth in %

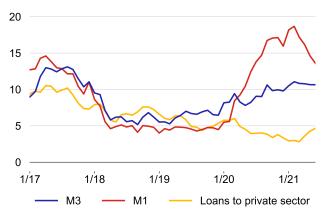


Chart F.25

#### Loans to households

y-o-y changes in %; contributions in pp; end-of-quarter data

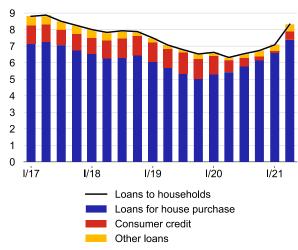


Chart F.27

#### Debt of NFCs and households

ratios to annualised nominal GDP in %

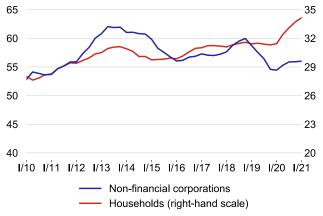
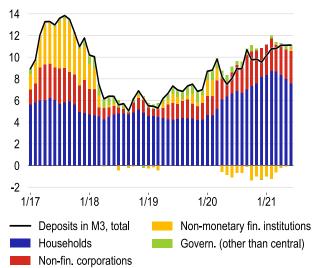


Chart F.29

#### **Deposits included in M3**

annual rates of growth in %; contributions in pp



# G — Fiscal developments

		2021	2022	2023	
Government budget balance	% of GDP pp	<b>-7.5</b> (0.7)	<b>-5.3</b> (0.1)	-5.1 -	The government budget balance for this year has been revised down, mainly due to better tax collection and lower take-up of compensation bonuses for entrepreneurs.
Government debt	% of GDP pp	<b>42.6</b> (-1.9)	<b>45.4</b> (-1.5)	48.2 -	The nominal debt will rise more slowly this year, mainly due to a better government budget balance.
Fiscal impulse	contr. to GDP growth	<b>0.6</b> (0.0)	<b>-0.6</b> (0.2)	<b>0.0</b> -	Compared with the spring forecast, the fiscal impulse is less negative next year, mainly due to the inclusion of an unusually large increase in pensions.

# G — Fiscal developments

Table G.1 Fiscal forecast

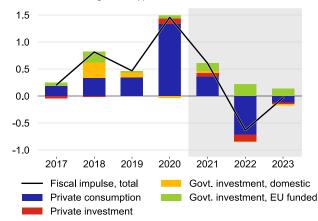
% of nominal GDP

	2020	2021	2022	2023
Government revenue	41.0	39.4	39.6	39.6
Government expenditure	47.1	46.9	44.8	44.7
GOVERN. BUDGET BALANCE	-6.1	-7.5	-5.3	-5.1
of which: primary balance <sup>a)</sup>	-5.3	-6.8	-4.5	-4.3
ADJUSTED BUDGET BALANCE <sup>b)</sup>	-6.3	-7.8	-5.5	-5.3
Cyclical component c)	-0.2	-0.2	0.0	0.0
Structural balance c)	-6.1	-7.6	-5.5	-5.3
Fiscal stance in pp <sup>d)</sup>	-5.5	-1.4	2.1	0.2
GOVERNMENT DEBT	37.8	42.6	45.4	48.2

- a) government budget balance minus interest payments
- b) CNB estimate, balance adjusted for extraordinary one-off operations (revenues from the sale of emission permits, expenditures on the (new) Green Savings Programme, realised guarantees and revenues from the sale of frequency bands to mobile operators, etc.).
- c) CNB estimate based on an aggregate method that defines the position of the cycle based on the output gap  $\,$
- d) year-on-year change in structural balance

Chart G.1 Fiscal impulse

contributions to GDP growth in pp



# H — The balance of payments

		2021	2022	2023	
Current account	% of GDP pp	<b>1.7</b> (-0.6)	<b>0.5</b> (-0.8)	0.6 -	The decrease in the current account surplus compared with the previous forecast is linked primarily with a lower goods and services balance.
Capital account	% of GDP pp	<b>0.8</b> (-0.4)	<b>1.1</b> (0.0)	1.0	The capital account surplus for this year is lower due to payments exceeding income from the sale of emission allowances; the forecast is unchanged for the following two years.
Goods and services balance	CZK billions	<b>360</b> (-33)	<b>402</b> (-4)	410	A lower goods and services surplus (amid growth in turnover) will be fostered primarily by a decrease in the goods trade balance linked with price effects.

Note: Changes compared to the previous forecast are in brackets (green label indicates an increase in value, red label indicates a decrease).

In this section, we update the main balance of payments variables which we monitor when creating a forecast. More detailed information can be found once a year in the <u>Balance of Payments Report</u>.

# H — The balance of payments

Chart H.1

Ratios of balance of payments accounts to GDP

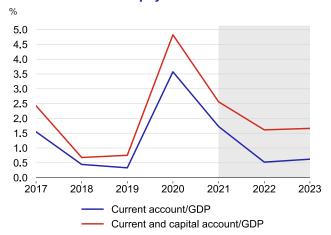


Table H.1 **Balance of payments forecast** 

CZK billions

	2020	2021	2022	2023
A. CURRENT ACCOUNT	203.5	104.7	33.6	41.9
Goods	285.2	264.5	287.3	296.2
Services	104.6	95.8	115.0	114.0
Primary income	-157.8	-220.8	-333.7	-333.3
Secondary income	-28.5	-34.7	-35.0	-35.0
B. CAPITAL ACCOUNT	71.2	50.6	70.0	70.0
C. FINANCIAL ACCOUNT <sup>a)</sup>	243.9	-20.0	-35.0	-10.0
Direct investment	-73.1	-70.0	-70.0	-70.0
Portfolio investment	-135.7	-50.0	-80.0	-60.0
Financial derivatives	12.2			
Other investment	392.7	0.0	0.0	0.0
Reserve assets	47.8	100.0	115.0	120.0

a) forecast excluding operations of banking sector and financial derivatives

Chart H.2 **Direct investment structure** 

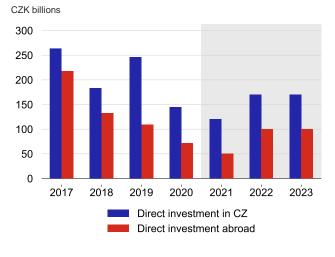
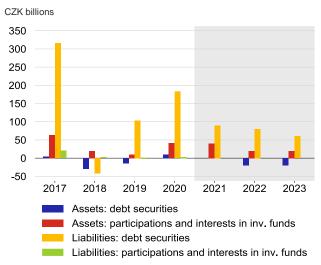


Chart H.3

Portfolio investment structure



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