Chartbook

Overview of macroeconomic, financial and monetary indicators









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 31 January 2023.

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A — Forecasts of key variables

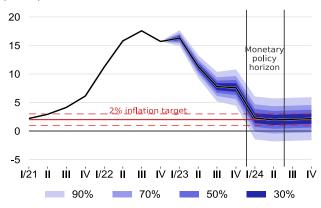
		2022	2023	2024	
Headline inflation	in % pp	15.1 (-0.7)	10.8 (1.7)	2.1 (-0.2)	The upward revision of the inflation forecast this year is due to higher administered price and food price inflation.
Monetary policy -relevant inflation	in % pp	14.6 (-0.7)	10.6 (1.7)	2.1 (-0.2)	The differences in the revision of monetary policy-relevant inflation relative to headline inflation are negligible.
GDP	y-o-y changes % pp	2.5 (0.3)	-0.3 (0.4)	2.2 (-0.3)	The GDP growth outlook for this year is higher due to a smaller- than-expected cooling of external demand; next year, the growth will be slightly slower.
Interest rates	3M PRIBOR in % pp	6.3 (-0.3)	7.0 (0.0)	4.8 (-0.5)	The market rate outlook is unchanged for this year and lower in 2024 compared with the autumn forecast.
Exchange rate	CZK/EUR	24.6 (-0.1)	24.5 (-0.4)	24.6 (-0.1)	The forecast predicts that the koruna will be slightly stronger than in the previous projection.

Note: Changes compared to the previous forecast in brackets (a green label indicates an increase in value or a shift to a weaker koruna, while a red label indicates a decrease in value or a shift to a stronger koruna).

Chart A.1

Headline inflation

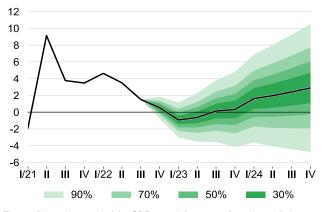
year on year in %; confidence intervals in colour



The confidence intervals of the headline inflation forecast reflect the predictive power of past forecasts and are symmetric. They widen linearly 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

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

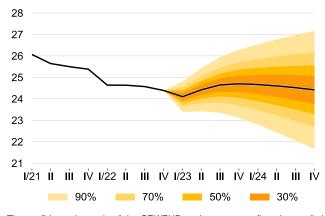


The confidence intervals of the GDP growth forecast reflect the predictive power of past forecasts. They are symmetric and linearly widening.

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. They are symmetric and linearly widening.

Chart A.2

Headline inflation - comp. with previous forecast

year on year in %; differences in pp

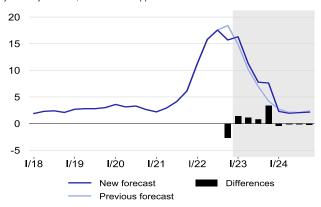


Chart A.4 GDP – comparison with previous forecast

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

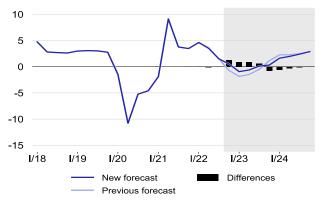


Chart A.6

Exchange rate – comp. with previous forecast

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

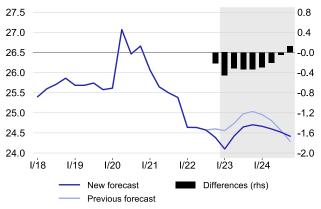
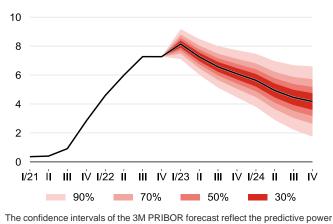


Chart A.7

Interest rate

3M PRIBOR in %; confidence intervals in colour

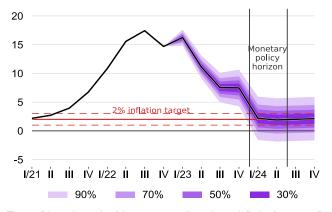


of past forecasts. They are symmetric; linearly widening and limited below by the zero lower bound.

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 linearly 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

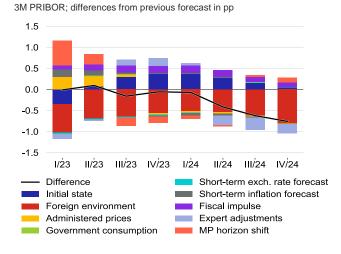


Chart A.8

Interest rate – comparison with previous forecast

3M PRIBOR; differences in pp

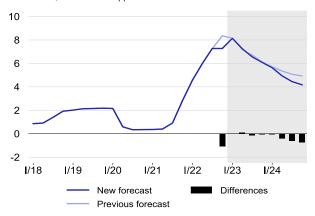


Chart A.10 Monetary policy-relevant inflation – comparison with previous forecast

year on year in %; differences in pp

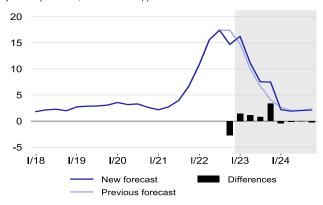


Table A.1

Key macroeconomic indicators – years

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
DEMAND AND SUPPLY												
Gross domestic product												
GDP (CZK bn, constant p. of 2015, seas. adjusted)	4290.8	4387.8	4627.4		4994.2		5307.2	5014.3	5189.6	5320.5	5305.8	542
GDP (CZK bn, current p., seas. adjusted)	4141.9	4344.6	4627.4	4794.9	5116.8	5416.4	5793.9	5710.7	6107.0	6805.4	7446.1	785
GDP (%, y-o-y, real terms, seas. adjusted)	0.0	2.3	5.5	2.5	5.3	3.2	3.0	-5.5	3.5	2.5	-0.3	
GDP (%, q-o-q, real terms, seas. adjusted)	-	-	-	-	-	-	-	-	-	-	-	
Household consumption (%, y-o-y, real terms, seas. adjusted)	0.9	1.4	3.9	3.7	4.0	3.3	2.6	-7.4	4.1	-0.3	-2.2	
Government consumption (%, y-o-y, real terms, seas. adjusted)	2.4	1.0	1.8	2.5	1.8	3.9	2.5	4.2	1.4	0.3	1.4	
Gross capital formation (%, y-o-y, real terms, seas. adjusted)	-4.2	7.1	13.1	-3.9	6.5	7.7	4.5	-9.2	19.1	6.8	-7.8	
Gross fixed capital formation (%, y-o-y, real terms, seas. adjusted)	-2.2	3.3	9.8	-3.1	5.1	10.0	5.9	-6.0	0.8	5.1	0.9	
Exports of goods and services (%, y-o-y, real terms, seas. adjusted)	0.3	8.7	6.2	4.1	7.6	3.7	1.3	-8.1	6.8	5.2	6.2	
Imports of goods and services (%, y-o-y, real terms, seas. adjusted)	0.1	10.0	7.0	2.7	6.5	5.8	1.5	-8.2	13.2	4.7	1.9	
Net exports (CZK bn, constant p. of 2015, seas. adjusted)	295.5	283.3	276.7	337.5	401.7	338.1	338.4	315.6	96.8	124.5	318.9	40
PRICES												
Main price indicators												
Consumer Price Index (%, y-o-y, average)	1.4	0.4	0.3	0.7	2.5	2.1	2.8	3.2	3.8	15.1	10.8	
Administered prices (14.21%)* (%, y-o-y, average)	2.2	-3.0	0.0	0.2	0.0	1.8	4.4	3.1	-0.2	20.9	29.9	
Food prices (incl. alcoholic beverages and tobacco) (26.50%)* (%, y-o-y, average)	3.1	1.8	0.1	0.2	3.6	1.6	2.6	4.2	2.1	12.9	8.3	
Core inflation (56.14%)* (%, y-o-y, average)	-0.5	0.5	1.2	1.2	2.4	2.1	2.7	3.4	4.8	13.2	7.7	
Fuel prices (3.15%)* (%, y-o-y, average)	-2.1	0.2	-13.5	-8.5	6.7	6.3	-0.4	-11.4	16.7	33.6	-15.0	
Monetary policy-relevant inflation (%, y-o-y, average)	0.6	0.2	0.2	0.5	2.5	2.1	2.9	3.2	3.9	14.6	10.6	
Partial price indicators												
Industrial producer prices (%, y-o-y, average)	0.8	-0.8	-3.2	-3.3	1.8	2.0	2.6	0.1	7.1	24.3	3.6	
Agricultural prices (%, y-o-y, average)	-12.1	4.7	-6.2	-6.0	7.4	-0.2	5.7	-3.2	5.9	32.4	-4.7	
LABOUR MARKET												
Average monthly wage (%, y-o-y, nominal terms)	-0.1	2.9	3.2	4.4	6.7	8.2	7.9	4.6	4.7	6.5	8.5	
Average monthly wage (7, 9-0-9, nonlinear entrol) Average monthly wage in market sectors (%, y-o-y, nominal terms)	-0.3	3.0	3.2	4.3	6.7	7.7	7.6	4.1	5.1	7.2	9.1	
	-1.6	2.6	2.8	3.8	4.3	6.0	5.0	1.5	0.9	-9.2	-0.4	
Average monthly wage (%, y-o-y, real terms)												
Unit labour costs (%, y-o-y)	0.9	1.6	-0.4	3.1	3.9	6.2	4.7	5.9	2.2	6.3	7.5	
Aggregate labour productivity (%, y-o-y)	-0.4	1.7	3.9	0.9	3.6	1.9	2.8	-3.8	3.1	0.8	-0.1	
ILO general unemployment rate (%, average, age 15–64, seas. adjusted)	7.0	6.2	5.1	4.0	2.9	2.3	2.0	2.6	2.9	2.4	2.7	
Share of unemployed persons (MLSA) (%, average, seas. adjusted)	7.7	7.7	6.5	5.5	4.2	3.2	2.8	3.6	3.8	3.4	4.4	
Employment (ILO) (%, y-o-y)	0.9	0.7	1.3	1.8	1.5	1.2	-0.1	-1.6	-1.5	1.6	-0.4	-
Full-time employment (%, y-o-y)	-1.0	1.1	2.1	1.8	2.2	1.5	-0.3	-1.7	-0.3	1.0	0.0	
PUBLIC FINANCE												
Government budget balance (ESA2010) (CZK bn, current prices)	-53.2	-90.2	-29.8	34.1	76.7	48.3	16.7	-329.2	-311.5	-268.2	-335.0	
Government budget balance/GDP** (%, nominal terms)	-1.3	-2.1	-0.6	0.7	1.5	0.9	0.3	-5.8	-5.1	-3.9	-4.5	-
Government debt (ESA2010) (CZK bn, current prices)	1840.2		1836.0	1754.7			1740.3		2566.8	2929.5	3283.2	351
Government debt/GDP** (%, nominal terms)	44.4	41.9	39.7	36.6	34.2	32.1	30.0	37.7	42.0	43.0	44.1	4
EXTERNAL RELATIONS												
Current account												
Trade balance (CZK bn, current prices)	167.0	220.0	187.7	258.5	259.3	200.9	239.8	280.3	73.3	-130.2	97.1	20
Trade balance/GDP (%, nominal terms)	4.0	5.1	4.1	5.4	5.1	3.7	4.1	4.9	1.2	-1.9	1.3	
Balance of services (CZK bn, current prices)	70.4	55.7	86.6	106.6	124.6	120.0	106.0	103.5	110.1	103.0	129.1	12
Current account (CZK bn, current prices)	-21.8	7.9	20.7	85.2	79.1	24.1	19.2	113.7	-51.1	-389.6	-34.5	3
Current account/GDP (%, nominal terms)	-0.5	0.2	0.4	1.8	1.5	0.4	0.3	2.0	-0.8	-5.7	-0.5	
Foreign direct investment												
Direct investment (CZK bn, current prices)	7.4	-80.4	49.7	-186.5	-45.9	-51.0	-137.1	-149.1	-4.8	-120.0	-90.0	-9
Exchange rates												
CZK/USD (average)	19.6	20.8	24.6	24.4	23.4	21.7	22.9	23.2	21.7	23.4	23.4	2
CZK/EUR (average)	26.0	27.5	27.3	27.0	26.3	25.6	25.7	26.5	25.6	24.6	24.5	
MONEY AND INTEREST RATES												
M3 (%, y-o-y, average)	5.1	5.1	7.3	9.1	11.7	6.6	6.3	9.0	9.6	6.4	6.5	
2W repo rate (%, average)	0.1	0.1	0.1	0.1	0.2	1.1	1.9	0.8	0.9	5.9	6.7	
3M PRIBOR (%, average)	0.5	0.4	0.3	0.3	0.4	1.3	2.1	0.9	1.1	6.3	7.0	
EXTERNAL ASSUMPTIONS	0.5	0.4	0.3	0.3	0.4	1.3	2.1	0.3	1.1	0.3	7.0	
	0.0	4.0	0.0	0.0	0.0	4.0	4.5	5.0	2.0	0.7		
Foreign GDP (%, y-o-y, seas. adjusted, effective)	0.3	1.9	2.0	2.0	2.8	1.8	1.5	-5.0	3.9	2.7	0.5	
Foreign GDP (%, q-o-q, seas. adjusted, effective)	-	-	-	-	-	-	-	-	-	•	•	
Foreign HICP (%, y-o-y, seas. adjusted, effective)	1.6	0.6	0.4	0.3	1.6	2.0	1.5	0.6	2.9	9.2	6.2	
Foreign PPI (%, y-o-y, seas. adjusted, effective)	-0.1	-1.6	-2.5	-2.3	2.7	3.3	1.1	-1.6	10.8	35.0	-0.8	
Brent crude oil (in USD/barrel) (average)	108.8	99.5	53.6	45.0	54.8	71.5	64.2	43.2	70.8	98.9	80.7	7
3M EURIBOR (%, average)	0.2	0.2	0.0	-0.3	-0.3	-0.3	-0.4	-0.4	-0.5	0.3	3.3	

* 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

		202	22			20	23			20	24	
	QI	QII	QIII	QIV	QI	QII	QIII	QIV	QI	QII	QIII	QIV
DEMAND AND SUPPLY												
Gross domestic product	1000.0											
GDP (CZK bn, constant p. of 2015, seas. adjusted)		1333.3			1316.8		1331.6			1351.1	1363.7	
GDP (CZK bn, current p., seas. adjusted)		1677.3	1739.3		1794.8	1854.0	1885.9	1911.5			1975.3	
GDP (%, y-o-y, real terms, seas. adjusted)	4.6	3.5	1.5	0.5	-0.9	-0.6	0.1	0.3	1.6	2.0	2.4	2
GDP (%, q-o-q, real terms, seas. adjusted)	0.6	0.3	-0.2	-0.1	-0.9	0.6	0.5	0.1	0.4	1.0	0.9	0.
Household consumption (%, y-o-y, real terms, seas. adjusted)	8.2	0.4	-5.7	-3.3	-4.8	-4.2	-0.3	0.6	3.1	3.4	3.3	3.
Government consumption (%, y-o-y, real terms, seas. adjusted)	2.1	1.8	-1.6	-1.0	0.5	1.0	2.7	1.2	1.1	1.2	1.3	1.
Gross capital formation (%, y-o-y, real terms, seas. adjusted)	13.5	10.0	4.5	0.2	-4.9	-7.3	-9.8	-9.2	-6.7	-4.2	-0.4	2.
Gross fixed capital formation (%, y-o-y, real terms, seas. adjusted)	7.0	6.8	4.7	1.9	-0.9	-0.6	1.3	4.0	5.5		4.3	3.
Exports of goods and services (%, y-o-y, real terms, seas. adjusted)	0.4	1.6	10.5	8.6	5.5	7.1	5.3	6.7	8.1	6.9	5.4	5
Imports of goods and services (%, y-o-y, real terms, seas. adjusted)	5.1	1.8	6.2	5.7	1.8	2.2	1.1	2.7	5.1	4.9	4.6	5.
Net exports (CZK bn, constant p. of 2015, seas. adjusted)	17.1	18.5	41.6	47.2	58.6	73.6	91.7	95.1	96.8	100.6	105.4	104
PRICES												
Main price indicators												
Consumer Price Index (%, y-o-y, average)	11.2	15.8	17.6	15.7	16.3	11.3	7.8	7.6	2.3		2.1	2.
Administered prices (14.21%)* (%, y-o-y, average)	15.7	23.4	28.1	16.4	34.6	26.7	21.2	36.7	5.5	4.9	5.3	5.
Food prices (incl. alcoholic beverages and tobacco) (26.50%)* (%, y-o-y, average)	6.2	11.4	15.2	18.8	16.1	10.5	5.6	0.8	-0.7	-1.2	-1.0	-0.
Core inflation (56.14%)* (%, y-o-y, average)	10.5	13.8	14.7	13.9	12.1	8.8	5.9	4.1	3.1	2.9	2.8	2.
Fuel prices (3.15%)* (%, y-o-y, average)	36.9	46.3	36.1	15.1	-5.1	-20.9	-20.3	-13.6	-4.0	-1.6	-0.6	-0
Monetary policy-relevant inflation (%, y-o-y, average)	10.8	15.6	17.4	14.7	16.2	11.2	7.5	7.5	2.2	1.9	2.0	2.
Partial price indicators												
Industrial producer prices (%, y-o-y, average)	21.8	27.7	25.9	21.8	11.5	3.1	0.4	0.1	0.3	0.3	0.4	0.
Agricultural prices (%, y-o-y, average)	23.9	39.1	37.2	28.1	12.5	-8.8	-10.1	-10.3	-10.0	-7.7	-6.9	-6.
LABOUR MARKET												
Average monthly wage (%, y-o-y, nominal terms)	7.3	4.4	6.1	8.3	9.7	8.5	8.3	7.5	7.3	7.1	6.9	6.
Average monthly wage in market sectors (%, y-o-y, nominal terms)	8.1	4.6	7.0	9.3	9.9	9.1	9.1	8.3	8.1	7.9	7.7	7.
Average monthly wage (%, y-o-y, real terms)	-3.6	-9.8	-9.8	-8.5	-4.5	-1.5	1.3	3.1	4.4	4.8	4.6	4.
Unit labour costs (%, y-o-y)	6.6	4.9	6.0	7.7	8.7	7.0	7.7	6.8	5.3	4.9	4.4	3.
Aggregate labour productivity (%, y-o-y)	3.3	1.0	-0.1	-1.0	-1.9	0.0	0.7	0.7	1.8	2.1	2.5	3.
ILO general unemployment rate (%, average, age 15-64, seas. adjusted)	2.4	2.5	2.2	2.4	2.5	2.7	2.8	3.0	3.1	3.2	3.3	3.
Share of unemployed persons (MLSA) (%, average, seas. adjusted)	3.3	3.3	3.4	3.7	3.9	4.2	4.5	4.8	5.0	5.3	5.4	5.
Employment (ILO) (%, y-o-y)	2.3	2.2	1.2	0.6	-0.1	-0.7	-0.6	-0.4	-0.2	-0.1	-0.1	-0.
Full-time employment (%, y-o-y)	0.9	1.2	1.0	1.1	0.6	0.0	-0.3	-0.3	-0.2	0.0	0.1	0.
PUBLIC FINANCE												
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)	7.1	-36.6	-54.2	-46.4	46.9	38.5	4.8	6.8	73.1	66.4	30.4	37.
Trade balance/GDP (%, nominal terms)	0.5	-2.2	-3.1	-2.6	2.8	2.1	0.3	0.3	4.0	3.4	1.5	1.
Balance of services (CZK bn, current prices)	24.8	31.8	28.3	18.0	31.6	36.6	33.4	27.5	36.2	33.6	29.7	28.
Current account (CZK bn, current prices)	-13.5	-74.1	-210.7	-91.3	62.0	-8.7	-56.6	-31.2	91.6	5.6	-52.2	-6.
Current account/GDP (%, nominal terms)	-0.9	-4.4	-12.0	-5.0	3.7	-0.5	-3.0	-1.6	5.0	0.3	-2.6	-0.
Foreign direct investment												
Direct investment (CZK bn, current prices)	-16.0	-38.7	-27.4	-37.9	-22.5	-22.5	-22.5	-22.5	-22.5	-22.5	-22.5	-22.
Exchange rates												
CZK/USD (average)	22.0	23.1	24.4	23.9	23.3	23.5	23.4	23.4	23.3	23.2	23.0	22.
CZK/EUR (average)	24.6	24.6	24.6	24.4	24.1	24.4	24.6	24.7	24.7	24.6	24.5	24.
MONEY AND INTEREST RATES												
M3 (%, y-o-y, average)	6.0	6.2	6.4	7.1	6.6	5.9	6.4	6.9	8.8	9.2	9.4	9.
2W repo rate (%, average)	4.2	5.6	7.0	7.0	7.8	7.0	6.3	5.8	5.3	4.6	4.2	3.
3M PRIBOR (%, average)	4.6	6.0	7.3	7.3	8.1	7.3	6.6	6.1	5.6	4.9	4.5	4.
EXTERNAL ASSUMPTIONS												
Foreign GDP (%, y-o-y, seas. adjusted, effective)	4.6	3.0	1.8	1.6	0.9	0.4	0.3	0.3	0.7	1.1	1.4	1.
Foreign GDP (%, q-o-q, seas. adjusted, effective)	0.7	0.6	0.3	0.1	-0.1	0.1	0.2	0.1	0.3		0.6	
Foreign HICP (%, y-o-y, seas. adjusted, effective)	6.6	8.8	10.2	11.2	9.0	7.1	5.6	3.5	2.8	2.4	2.1	1.
	31.0	36.6	43.2	29.5	11.9	2.2	-8.2	-6.8	-2.7	-1.4	-0.7	-0.
Foreign PPI (%, y-o-y, seas. adjusted, effective)												
	97.9	112.0	97.7	88.6	82.2	81.4	80.2	78.9	77.8	76.8	76.0	75.
Foreign PPI (%, y-o-y, seas. adjusted, effective) Brent crude oil (in USD/barrel) (average) 3M EURIBOR (%, average)	97.9 -0.5	112.0 -0.4	97.7 0.5	88.6 1.8	82.2 2.9	81.4 3.3	80.2 3.4	78.9 3.4	77.8 3.3		76.0 3.0	

* 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

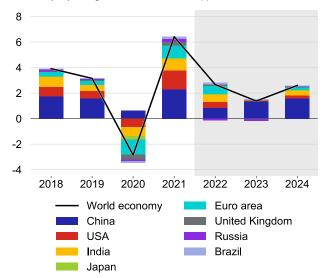
		2022	2023	2024	
GDP (in the effective EA)	y-o-y changes in % pp	2.7 (0.4)	0.5 (0.7)	1.3 (-0.6)	The improvement in the effective euro area growth outlook for this year is due mainly to the European economy's greater-than- expected resilience during the energy crisis.
Consumer prices (in the effective EA)	y-o-y changes in % pp	9.2 (0.2)	6.2 (0.7)	2.3 (0.4)	The higher expected consumer price inflation is due chiefly to the observed outcomes coupled with a higher outlook for core inflation and food prices.
Producer prices (in the effective EA)	y-o-y changes in % pp	35.0 (-2.0)	-0.8 (-15.2)	-1.3 (-0.7)	The lower exp. producer price inflation mainly reflects a sizeable drop in the market outlooks for gas and electricity prices in Europe, due among other factors to this year's mild winter.
Brent crude oil price	USD/barrel	98.9 (-0.2)	80.7 (-0.9)	76.4 (0.9)	The oil price outlook is little changed; there is still a falling trend as a result of weak growth in the global economy and hence also in demand for oil.
3M EURIBOR	% pp	0.3 (-0.1)	3.3 (0.2)	3.1 (0.1)	The market interest rate outlook is slightly higher, reflecting the ECB's hawkish communication in response to a higher outlook for consumer price inflation in the euro area.
Exchange rate	USD/EUR	1.05 (0.00)	1.05 (0.02)	1.07 (0.00)	The expected euro-dollar exchange rate remains broadly stable.

Note: Changes compared to the previous forecast in brackets (a green label indicates an increase in value or a shift to a weaker dollar, while a red label indicates a decrease in value or a shift to a stronger dollar).

Chart B.1 (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 (Eurostat, CNB calculation)

Structure of GDP in euro area

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

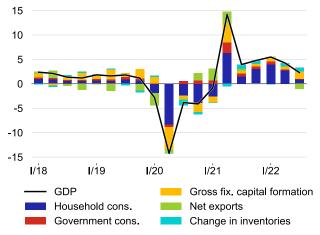


Chart B.5 (Eurostat)

Sentiment indicator for industry

subindex of the Economic sentiment indicator (ESI)

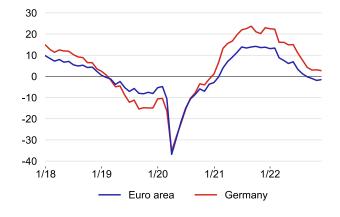
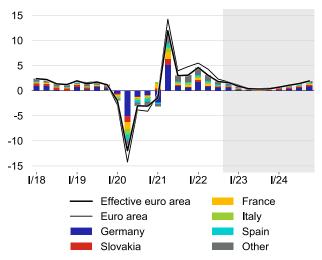


Chart B.2 (Eurostat, CNB forecast)

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 (Eurostat, CNB forecast)

GDP level in effective euro area

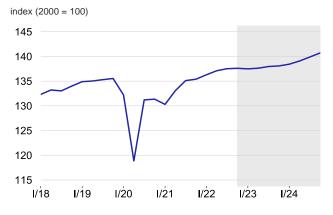


Chart B.6 (Bloomberg, World Bank, CNB calculation) Prices of crude oil and other commodities

oil in USD/barrel; other commodities: index (January 2018 = 100); average price of natural gas in Europe

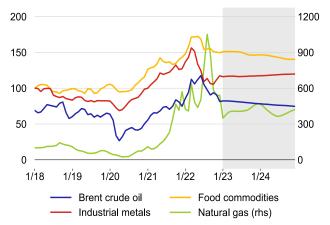
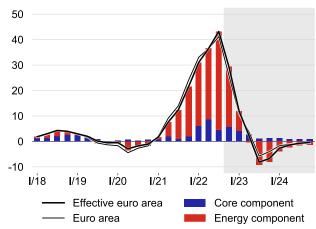


Chart B.7 (Eurostat, CNB forecast)

Industrial producer prices in euro area



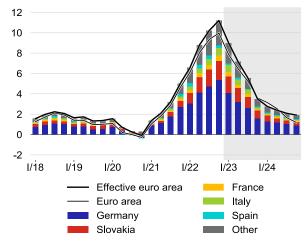


The energy component is determined by developments in industries strongly linked to the oil price and, since mid-2021, also in the electricity and gas industries. The rest of the PPI index in effective terms is the core component.

Chart B.9 (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 (Bloomberg, CNB calculation) 3M EURIBOR and 3M USD LIBOR

%; differences in pp

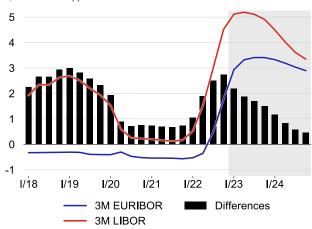


Chart B.8 (Eurostat, CNB forecast)

Industrial producer prices by country

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

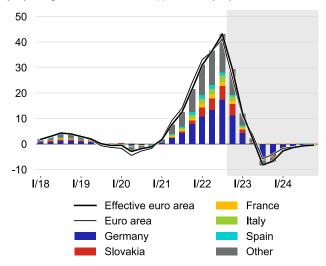


Chart B.10 (Bloomberg, CNB calculation) Euro exchange rate

USD/EUR; NEER of euro against currencies of euro area countries' 18 main partners (January 2018 = 100; right-hand scale)

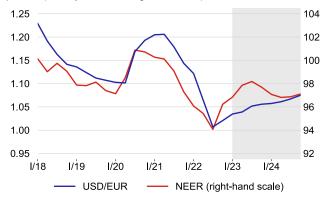
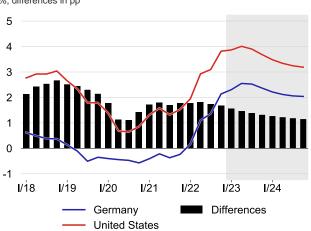


Chart B.12 (Bloomberg, CNB calculation) 10Y government bond yields

%; differences in pp



C — Domestic economic activity

		2022	2023	2024	
GDP	y-o-y changes in % pp	2.5 (0.3)	-0.3 (0.4)	2.2 (-0.3)	The GDP growth outlook for this year is higher due to a smaller- than-expected cooling of external demand; next year, the growth will be slightly slower.
Household consumption	y-o-y changes in % pp	-0.3 (-0.3)	-2.2 (-0.9)	3.2 (-0.3)	The forecast for household consumption is lower due to a sharper expected fall in real wages, especially this year.
Government consumption	y-o-y changes in % pp	0.3 (-0.5)	1.4 (-0.3)	1.3 (-0.1)	The government consumption forecast has been revised downwards slightly this year due to higher inflation; it remains almost the same next year.
Gross fixed capital formation	y-o-y changes in % pp	5.1 (0.2)	0.9 (-0.5)	4.7 (0.3)	Weaker growth in fixed investment this year is replaced by slightly faster growth next year.
Net exports	contr. to GDP growth pp	0.5 (0.8)	3.1 (0.7)	1.2 (-0.2)	The contribution of net exports is distinctly higher this year than previously forecasted, due to stronger external demand amid lower domestic demand; it will be slightly lower in 2024.

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

Chart C.1

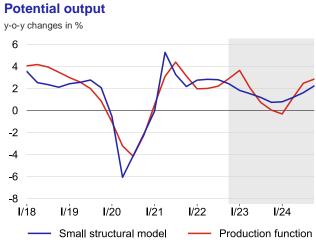
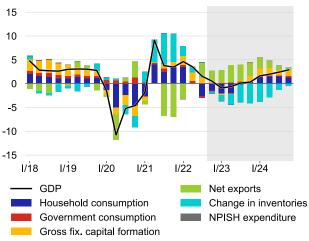


Chart C.3

Gross domestic product



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

Chart C.5 Disposable income and household consumption

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

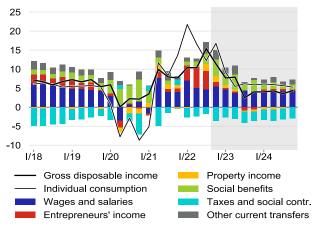


Chart C.2



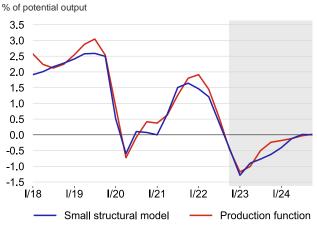
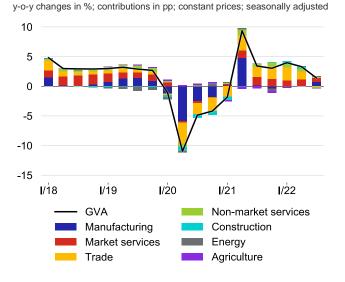


Chart C.4

Gross value added



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

Chart C.6

Household and government consumption

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

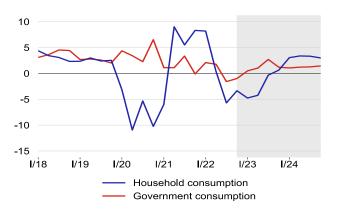


Chart C.7

Gross capital formation

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

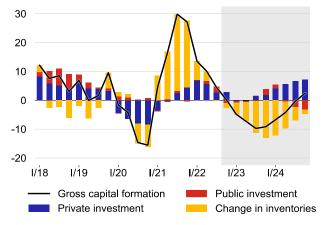


Chart C.9

Gross fixed capital formation by sector

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

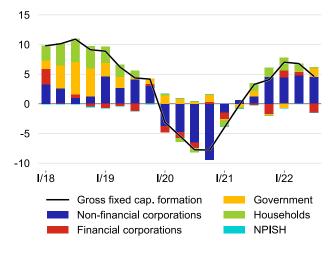


Chart C.11

Industrial production and construction output

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

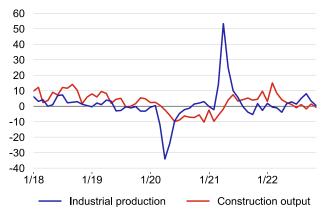


Chart C.8

Gross fixed capital formation by type of capital

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

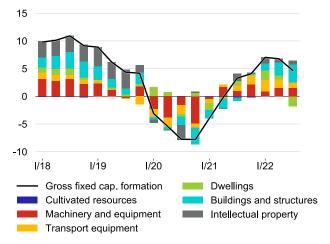


Chart C.10

Exports and imports



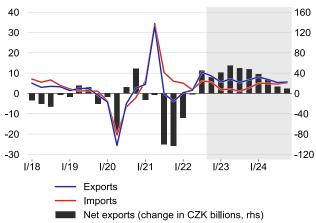


Chart C.12 Barriers to growth in industry

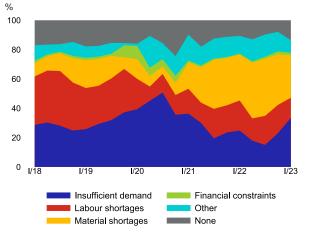


Chart C.13

Key financial indicators

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

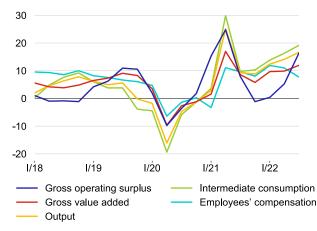


Chart C.15

Consumer confidence balance

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

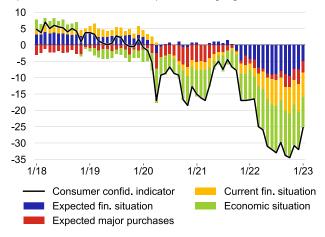


Chart C.17 (CZSO; Stat. survey of CNB and Confederation of Industry of CR) Capacity utilisation

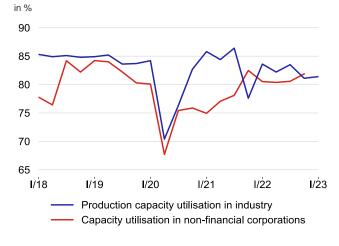


Chart C.14 Retail sales and sales in services

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

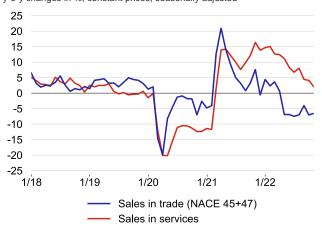


Chart C.16 Business confidence indicator

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

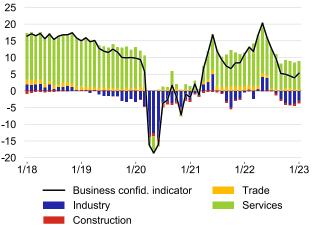


Table C.1

Expected indicators of FMIE, CF and corporations

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

	9/22	10/22	11/22	12/22	1/23
FMIE:					
CPI	6.7	6.2	7.3	7.0	4.8
CPI, 3Y horizon	2.8	2.7	2.5	2.7	2.6
Real GDP in 2022	2.4	2.4	2.4	2.4	
Real GDP in 2023	1.2	0.7	0.0	0.0	0.0
Nominal wages in 2022	6.8	7.0	6.6	6.6	
Nominal wages in 2023	7.7	8.0	7.6	7.4	8.1
CZK/EUR exchange rate (level)	25.0	25.1	24.9	24.7	24.4
2W repo rate (%)	6.0	5.9	6.0	6.0	5.9
1Y PRIBOR (%)	6.0	6.0	6.0	5.7	5.7
Corporations:					
CPI	10.3			10.2	
CPI, 3Y horizon	7.5			7.0	
CF:					
Real GDP in 2022	2.4	2.4	2.4	2.4	
Real GDP in 2023	0.8	0.4	0.1	0.1	0.0
Nominal wages in 2022	7.2	6.7	6.8	6.3	
Nominal wages in 2023	7.6	8.1	7.8	7.6	7.5
CZK/EUR exchange rate (level)	24.9	24.9	24.8	24.8	24.7
3M PRIBOR (%)	5.5	6.1	5.9	5.8	5.4

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D — The labour market

		2022	2023	2024	
Employment	y-o-y changes in % pp	1.6 (-0.3)	-0.4 (-0.4)	-0.1 (0.1)	This year's lower growth in employment mainly reflects the weaker figures observed in the second half of last year.
Unemployment (ILO)	% pp	2.4 (-0.1)	2.7 (-0.4)	3.3 (-0.4)	The outlook for the general unemployment rate is lower due to higher expected economic activity and lower figures observed at the end of last year.
Average monthly nominal wage	y-o-y changes in % pp	6.5 (0.2)	8.5 (0.8)	6.9 (0.0)	The faster wage growth this year mainly reflects stronger wage growth at the end of last year.

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

D — The labour market

Chart D.1

LUCI – Labour Utilisation Composite Index index; standard deviations 2.5 2.0 1.5 1.0 0.5 0.0 -0.5 -1.0 -1.5 1/00 1/02 1/04 1/06 1/08 1/10 1/12 1/14 1/16 1/18 1/20 1/22 1/24 Unemployment LUCI Wages and costs Demand for work Employment Other

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

Chart D.3 Number of employees (full-time equivalent)

sectors

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

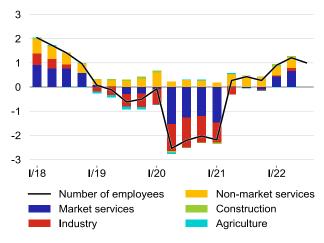


Chart D.5 (MLSA, CZSO, CNB forecast) Unemployment

%; seasonally adjusted

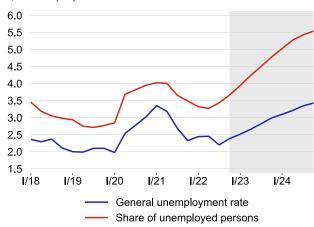


Chart D.2

Employment

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

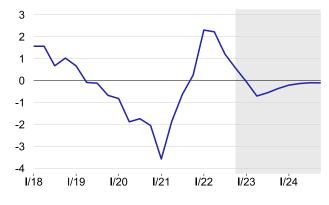


Chart D.4 Number of employees (full-time equivalent) – structure

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

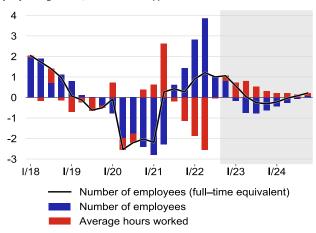
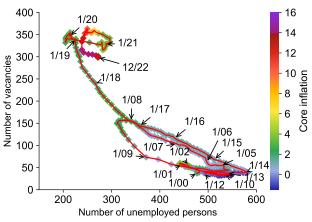


Chart D.6 (MLSA, CZSO)

Beveridge curve

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



D — The labour market

Chart D.7

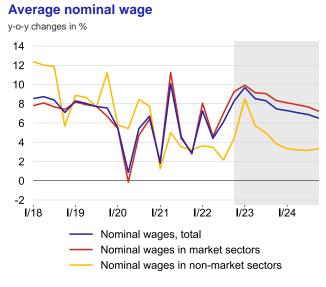


Chart D.9 Wage bill

y-o-y changes in %

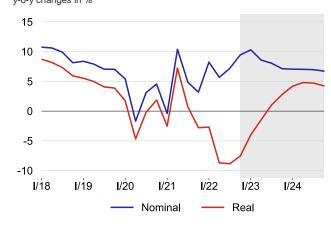


Chart D.11

Nominal unit labour costs

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

15 10 5 0 -5 -10 **I**/21 **I**/18 **I**/19 I/20 I/22 **I**/23 1/24 Nominal unit labour costs GDP Wage bill

Chart D.8

Average wage and whole-economy productivity

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

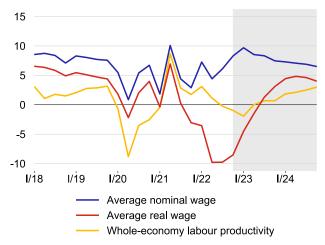


Chart D.10 Labour productivity in sectors

y-o-y changes in %; seasonally adjusted

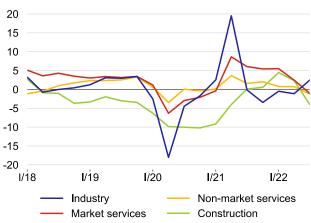
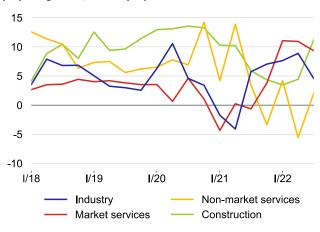


Chart D.12

Nominal unit labour costs in sectors

y-o-y changes in %; seasonally adjusted



Czech National Bank ——— Chartbook for Monetary Policy Report ——— Winter 2023

E —— Inflation and other price areas

		2022	2023	2024	
Consumer prices	y-o-y changes in % pp	15.1 (-0.7)	10.8 (1.7)	2.1 (-0.2)	The upward revision of the inflation forecast this year is due to higher administered price and food price inflation.
Administered prices	y-o-y changes in % pp	20.9 (-5.3)	29.9 (13.0)	5.3 (-0.5)	The administered price outlook for 2023 is higher due to higher electricity prices (including the effect of the energy savings tariff at the end of 2022) and a higher outlook for heat prices and water supply and sewerage charges.
Core inflation	% pp	13.2 (0.0)	7.7 (-0.7)	2.9 (-0.3)	The downward revision of the core inflation forecast is due to a faster declining contribution of imputed rent and lower domestic demand.
Food prices (incl. alc. bev. and tobacco)	y-o-y changes in % pp	12.9 (0.6)	8.3 (2.0)	-0.8 (0.0)	The food price forecast for this year is higher due to higher observations at the end of last year.
Fuel prices	y-o-y changes in % pp	33.6 (-1.5)	-15.0 (-14.0)	-1.6 (1.8)	Fuel price inflation is markedly lower this year due to its more rapid slowdown in 2022 Q4 and a lower outlook for koruna oil prices.

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

Chart E.1

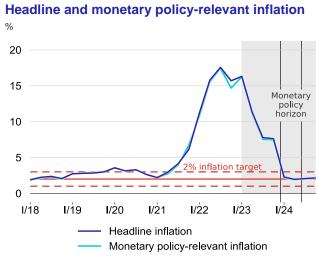


Chart E.3

Components of inflation

y-o-y changes in %

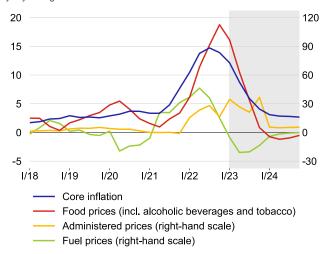


Chart E.5

Costs in consumer sector

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

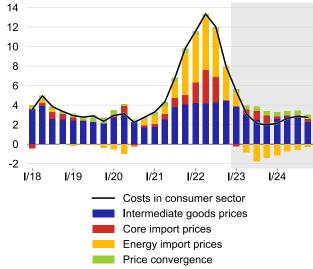


Chart E.2

Structure of inflation

%; contributions in pp

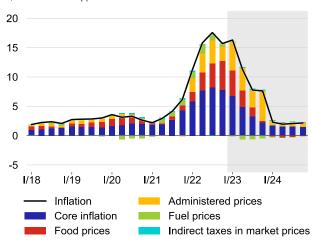


Chart E.4 Components of core inflation

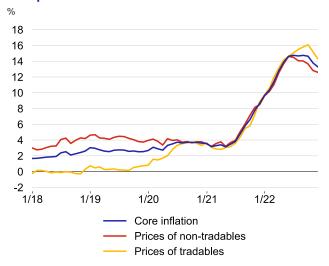


Chart E.6

Costs in intermediate goods sector

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

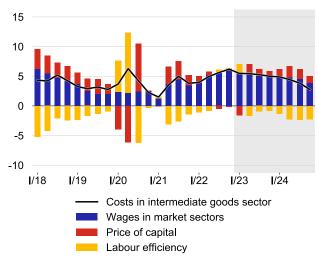


Table E.1

Forecast of administrative effects

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

	20	21	20	22	202	23	202	24
IMPACTS OF CHANGES								
TO INDIRECT TAXES		-0.05		0.44		0.14		0.06
ADMINISTERED PRICES ^{a)}	-0.2	-0.03	20.9	2.98	29.9	4.24	5.3	0.75
of which (main changes):								
electricity	-4.3	-0.16	15.1	0.60	79.5	2.76	10.1	0.54
natural gas	-4.7	-0.10	67.5	1.34	30.8	0.72	3.1	0.08
heat	0.2	0.00	19.7	0.28	18.4	0.23	0.7	0.01
water	4.4	0.03	5.3	0.04	15.0	0.09	3.0	0.02
health care	4.3	0.06	10.7	0.17	5.9	0.09	1.9	0.02
transport	2.4	0.03	9.9	0.11	8.7	0.08	2.0	0.02
a) including offects of indirect to	av aha							

a) including effects of indirect tax changes

Chart E.7

Import prices

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

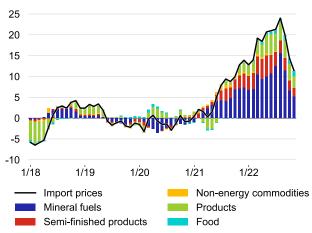


Table E.2

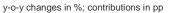
Inflation in the next few months

year on year in %

	1/23	2/23	3/23
Headline inflation	17.6	16.5	14.8
Administered prices		34.7	
First-round impacts of changes to ind. taxes	0.0	0.1	0.1
Core inflation		12.1	
Food prices	17.0	16.2	15.1
Fuel prices		-0.8 16.4	
Monetary policy-relevant inflation	17.6	16.4	14.7

Chart E.8

Industrial producer prices



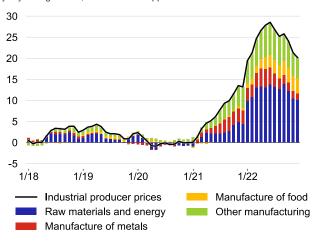


Chart E.9 Agricultural producer prices

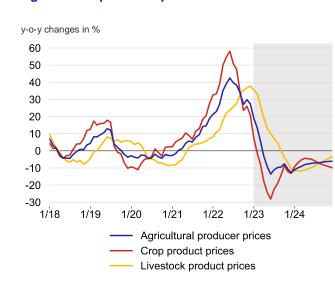


Chart E.10

Market services prices in the business sector and construction

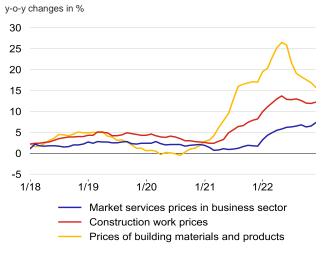


Chart E.11

Inflation expectations at one-year horizon

sample of approximately 18 analysts and 150 corporations; %; 1Y horizon

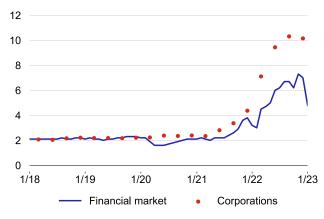


Chart E.12

Inflation expectations at three-year horizon

sample of approximately 18 analysts and 150 corporations; %; 3Y horizon

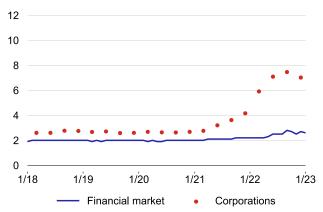


Chart E.13 (European Commission Business and Consumer Survey) Inflation perceived by households

indicator of inflation perceived in last 12 months; sample of approximately 1,000 households; balance of answers; seasonally adjusted; expectations can take values from -100 to 100

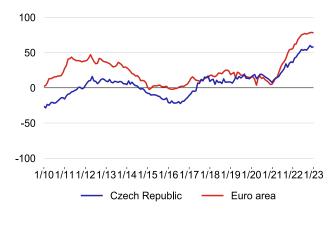


Chart E.14 (European Commission Business and Consumer Survey) Inflation expected by households

indicator of expected inflation in next 12 months; sample of approximately 1,000 households; balance of answers; seasonally adjusted; expectations can take values from -100 to 100

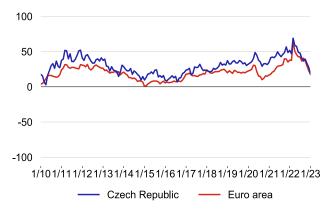
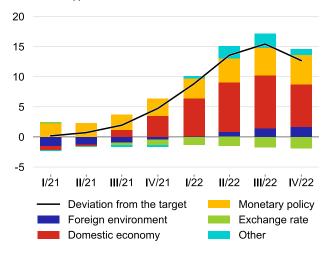


Chart E.15

Deviation of monetary policy-relevant inflation from CNB's 2% target

contributions in pp



F — Financial and monetary indicators

		2022	2023	2024	
Interest rate	3M PRIBOR in % pp	6.3 (-0.3)	7.0 (0.0)	4.8 (-0.5)	The market rate outlook is unchanged for this year and lower in 2024 compared with the autumn forecast.
Exchange rate	CZK/EUR	24.6 (-0.1)	24.5 (-0.4)	24.6 (-0.1)	The forecast predicts that the koruna will be slightly stronger than in the previous projection.

Note: Changes compared to the previous forecast in brackets (a green label indicates an increase in value or a shift to a weaker koruna, while a red label indicates a decrease in value or a shift to a stronger koruna).

F — Financial and monetary indicators

Chart F.1

Interest rate forecast % 9 8 7 6 5 4 3 2 1 0 -1 . I/18 **I**/19 **I**/20 /21 1/22 1/24 1/23 **3M PRIBOR** – 3M EURIBOR

Chart F.2

Exchange rate forecast



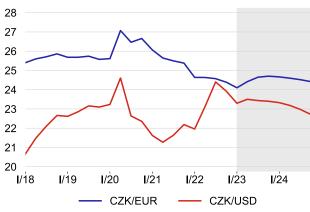


Chart F.3

Interest rates

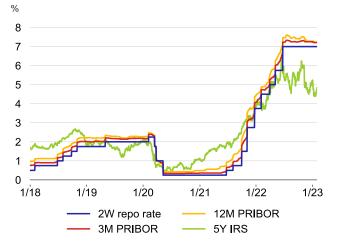


Chart F.5 Interest rate spread in Czech Republic

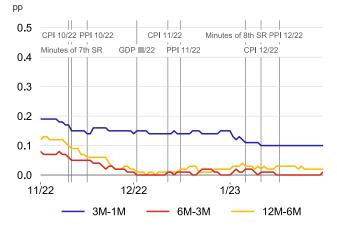


Chart F.4 Interest rate spread in Czech Republic pp

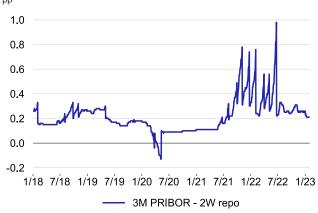


Chart F.6 PRIBOR yield curve

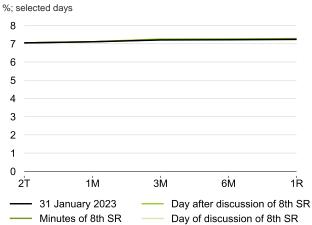


Chart F.7

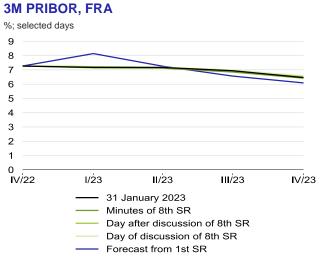


Chart F.8



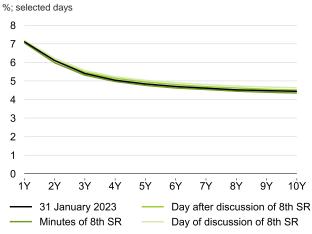


Chart F.9

Government bond yield curve

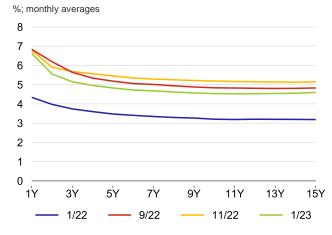


Chart F.10 Government bond yield curve

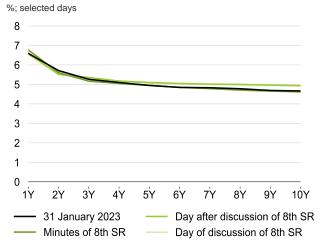


Chart F.11

Exchange rate





Chart F.12

Central European exchange rates



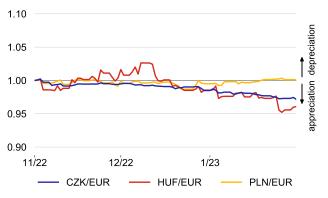


Chart F.13

Current development of koruna exchange rate nominal CZK/EUR exchange rate

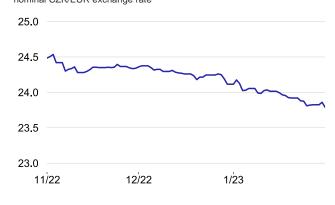


Chart F.14

Expected change in koruna exchange rate

nominal CZK/EUR exchange rate at 1Y horizon; %

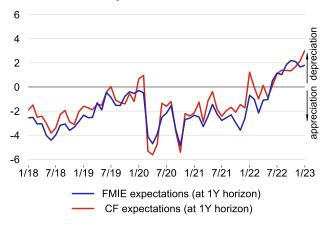


Chart F.15 (MF CR, CNB)

Volume of koruna assets of non-residents CZK billions

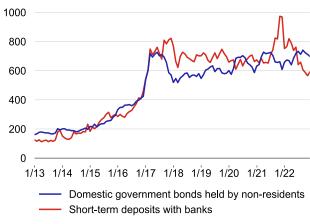
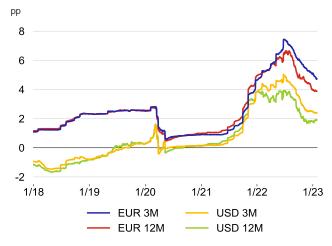


Chart F.17

Interest rate differentials



The differential between interest rates on the Czech money market and rates in EUR and USD.

Chart F.16 (Statistical survey of CNB and Confederation of Industry of CR) Hedging of exports against exchange rate risks weighted mean in %

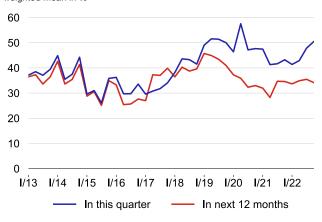
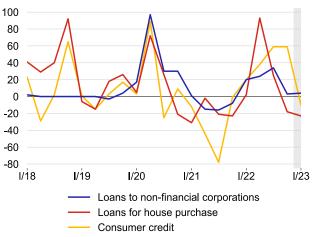


Chart F.18 (Bank Lending Survey, CNB)

Credit standards of banks

q-o-q changes; net market shares of banking market in %



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 since			
	12/22	9/22	6/22	12/21	6/21
HOUSEHOLDS					
Mortgages	4.7	0.0	0.4	1.8	2.6
Mortgages with rate fixation 1–5 years	5.1	0.1	0.7	2.2	2.9
Mortgages with rate fixation 5–10 years	3.8	-0.1	-0.2	1.0	1.7
Genuinely new mortgages	6.1	0.2	1.0	3.1	3.9
Consumer credit	9.7	0.0	0.8	1.8	2.4
Deposits (outstanding amounts, total)	1.8	0.3	0.7	1.4	1.6
Overnight deposits	1.3	0.3	0.6	1.0	1.2
New deposits with agreed maturity	6.0	-0.1	0.7	3.7	5.4
NON-FINANCIAL CORPORATIONS					
Total loans	9.0	0.6	1.1	4.5	7.6
Small loans (up to CZK 30 million)	7.8	0.2	1.1	3.1	5.1
Large loans (over CZK 30 million)	9.2	0.6	1.0	4.8	8.0
Genuinely new loans	9.1	0.6	1.0	4.8	7.9
Total outstanding loans	7.3	0.1	0.4	2.7	4.7
Deposits (outstanding amounts, total)	2.2	-0.6	0.0	1.8	2.1
Overnight deposits	1.1	-0.3	0.0	0.9	1.1
New deposits with agreed maturity	5.8	-0.7	0.0	3.3	5.6

Chart F.20 Interest rates on bank loans

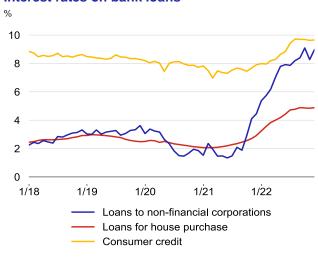


Chart F.22

Loans to private sector

annual rates of growth in %

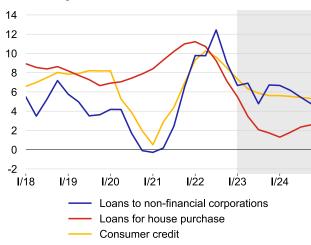
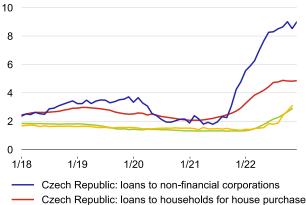


Chart F.19

Client interest rates in CZ and euro area

total credit costs as expressed by cost of borrowing; %



- Czech Republic. Ioans to households for house purc
- Euro area: loans to non-financial corporations
- Euro area: loans to households for house purchase



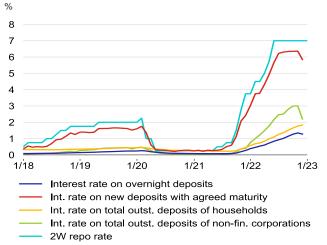


Chart F.23

Share of foreign currency loans in total loans non-financial corporations; %

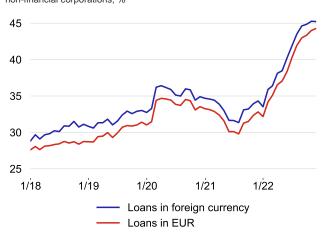


Chart F.24

Loans to non-financial corporations

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

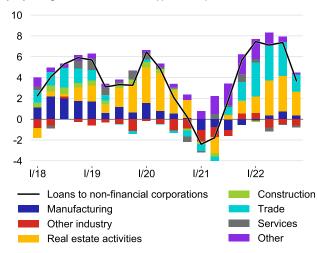
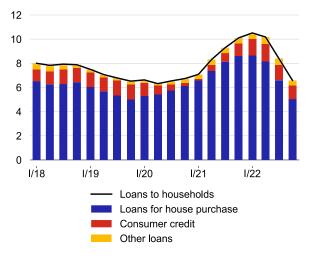


Chart F.25

Loans to households

annual rates of growth in %; contributions in pp; end-of-quarter data



Other comprises agriculture and transport.

Chart F.26 New mortgages to households

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

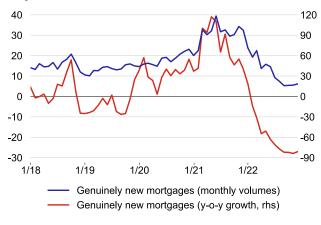
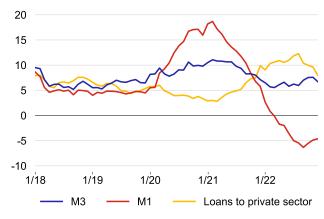


Chart F.28

Loans and monetary aggregates

annual rates of growth in %



65

Debt of NFCs and households ratios to annualised nominal GDP in %

Chart F.27

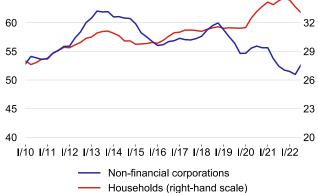
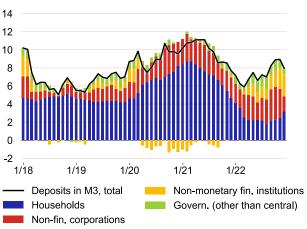


Chart F.29

Deposits included in M3

annual rates of growth in %; contributions in pp



35

G — Fiscal developments

		2022	2023	2024	
Government budget balance	% of GDP pp	-3.9 (-0.3)	-4.5 (-0.7)	-2.8 (-0.6)	The government budget balance is worse due mainly to lower tax revenue as a result of the revised economic outlook and also due to higher capital expenditure.
Government debt	% of GDP pp	43.0 (1.5)	44.1 (2.0)	44.8 (1.5)	The nominal debt as a percentage of GDP is higher as a result of the worse government budget balance and a higher initial debt level in 2022.
Fiscal impulse	contr. to GDP growth pp	-0.2 (-0.2)	0.1 (0.1)	-0.4 (0.1)	The fiscal impulse has been revised slightly, mainly as a result of a refinement of the impacts of selected discretionary measures.

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



Table G.1 **Fiscal forecast**

% of nominal GDP

	2021	2022	2023	2024
Government revenue	41.4	40.6	40.7	39.6
Government expenditure	46.5	44.5	45.1	42.4
GOVERN. BUDGET BALANCE	-5.1	-3.9	-4.5	-2.8
of which: primary balance ^{a)}	-4.3	-2.8	-3.2	-1.5
ADJUSTED BUDGET BALANCE ^{b)}	-5.4	-3.9	-4.5	-3.0
Cyclical component c)	0.3	0.2	-0.2	0.0
Structural balance ^{c)}	-5.7	-4.1	-4.3	-3.0
Fiscal stance in pp ^{d)}	0.4	1.5	-0.2	1.3
GOVERNMENT DEBT	42.0	43.0	44.1	44.8

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.).

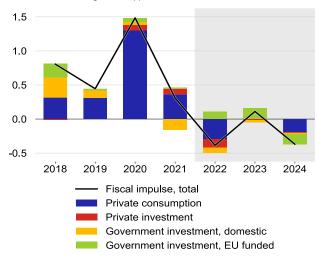
c) CNB estimate based on an aggregate method that defines the position of the cycle based on the output gap

d) year-on-year change in structural balance

Chart G.1

Fiscal impulse

contributions to GDP growth in pp



H — The balance of payments

		2022	2023	2024	
Current account	% of GDP pp	-5.7 (-0.7)	-0.5 (2.0)	0.5 (2.4)	The current account balance is significantly better this year and the next than in the previous forecast, as a result of a larger goods surplus and a smaller primary income deficit.
Capital account	% of GDP pp	0.4 (-0.1)	1.3 (0.1)	0.6 (-0.1)	The changes on the capital account in 2023 and 2024 are negligible, partly due to the revision of GDP.
Goods and services balance	CZK billions	-27 (-45)	226 (64)	335 (101)	The revision of the forecast towards a higher surplus in 2023 and 2024 is due to a decrease in the outlooks for oil and natural gas prices and to a better euro area economic growth outlook.

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

This section presents an update of the main balance of payments variables monitored when creating a forecast. More detailed information can be found once a year in the <u>Balance of Payments Report</u>.

Chart H.1

Ratios of balance of payments accounts to GDP

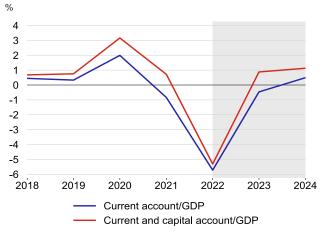


Chart H.2

Direct investment structure

CZK billions

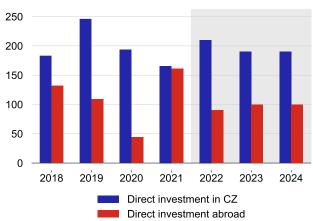


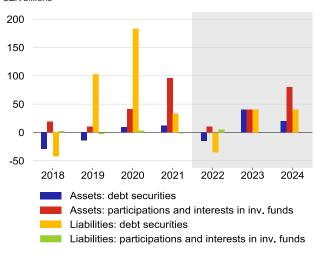
Table H.1 Balance of payments forecast

CZK billions

	2021	2022	2023	2024
A. CURRENT ACCOUNT	-51.1	-389.6	-34.5	38.5
Goods	73.3	-130.2	97.1	206.9
Services	110.1	103.0	129.1	127.8
Primary income	-203.8	-322.7	-220.7	-256.3
Secondary income	-30.6	-39.7	-40.0	-40.0
B. CAPITAL ACCOUNT	95.0	28.0	100.0	50.0
C. FINANCIAL ACCOUNT ^{a)}	10.9	-175.0	-70.0	-50.0
Direct investment	-4.8	-120.0	-90.0	-90.0
Portfolio investment	75.2	25.0	40.0	60.0
Financial derivatives	-58.0			
Other investment	-297.4	-80.0	-20.0	-20.0
Reserve assets	296.1			

a) forecast excluding operations of banking sector, CNB and financial derivatives

Chart H.3 Portfolio investment structure CZK billions



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