Ministry of Finance
of the Czech Republic

Macroeconomic Forecast
of the Czech Republic

April 2023

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The Macroeconomic Forecast is prepared by the Economic Policy Department of the Czech Ministry of Finance. It contains forecast for the years 2023 and 2024, and for certain indicators an outlook for the 2 following years (i.e. until 2026). It is published on a quarterly basis (in January, April, August and November) and is also available on the website of the Ministry of Finance at:

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Any comments or suggestions that would help us improve the quality of our publication and closer satisfy the needs of its users are welcome. Please send any comments to the following email address:

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List of Abbreviations

BoP	balance of payments
const. pr.	constant prices
CNB	Czech National Bank
CPI	consumer price index
CR	Czech Republic
curr. pr.	current prices
CZSO	Czech Statistical Office
EA19	euro zone consisting of 19 countries
EC	European Commission
ECB	European Central Bank
EU27	European Union consisting of 27 countries
Fed	Federal Reserve System
GDP	gross domestic product
GFCF	gross fixed capital formation
GVA	gross value added
IMF	International Monetary Fund
LFS	Labour Force Survey
MoF	Ministry of Finance
MoLSA	Ministry of Labour and Social Affairs
NPISHs	non-profit institutions serving households
OECD	Organisation for Economic Co-operation and Development
pp	percentage points
TFP	total factor productivity
VAT	value-added tax

Symbols Used in Tables

-	A dash in place of a number indicates that the phenomenon did not occur.
.	A dot in place of a number indicates that we do not forecast that variable, or the figure is unavailable or unreliable.
x, (space)	A cross or space in place of a number indicates that no entry is possible for logical reasons.

Cut-off Date for Data Sources

The Macroeconomic Forecast is based on data known as of 31 March 2023.

Notes

All data in the Macroeconomic Forecast are unadjusted for seasonal and calendar effects, unless stated otherwise. Published aggregate data may not match sums of individual items to the last decimal place due to rounding.

Data from the previous forecast (January 2023) are indicated by italics. Data relating to the years 2025 and 2026 are an extrapolation scenario that indicates only the direction of possible developments, and as such are not commented upon in the following text.

Introduction and Summary

The pandemic-weakened world economy was hit by several shocks in 2022. The war in Ukraine has reduced global economic growth and intensified inflationary pressures, especially in the case of food and energy prices. In a number of countries, inflation rates in the second half of last year were the highest since the 1980s. Central banks have been responding by gradually raising interest rates. Consumer price growth appears to have already peaked in a number of countries. However, the question remains how quickly will inflation return to close to the inflation targets of individual central banks. In terms of the smooth functioning of global supply chains, further development of the pandemic, particularly in China, is a persistent risk.

In Q4 2022, **real gross domestic product** of the Czech Republic, adjusted for seasonal and calendar effects, fell by 0.4% QoQ. It was 0.1% higher year-on-year.

Household consumption fell by 5.5% YoY in Q4. Consumer spending was negatively affected not only by the fall in real disposable income, caused by very high inflation, but also by a rise in the savings rate. **General government consumption** rose by 1.1% due to an increase in public sector employment.

Growth of **gross fixed capital formation** slowed to 2.7%, with investment in information and communication technology and intellectual property products contributing most to the increase in investment activity. Investment in dwellings fell again, but investment in transport equipment also declined. From the sectoral point of view, privately financed business investment was decisive.

The **change in inventories** and valuables took 0.2 pp off the growth of the economy. Although firms continued to sharply increase inventories of production inputs in order to avoid losses resulting from high inflation and shortfalls in component supplies (stocks of work in progress and finished goods could also have risen), inventory accumulation fell slightly year-on-year.

The **foreign trade** balance supported economic growth to the extent of 1.8 pp. In addition to the recovery abroad and the easing of problems in supply chains, the low comparative base also contributed to the almost 10% year-on-year increase in exports. Due to shortages of some components, production in the manufacturing (mainly automotive) sector was curtailed in Q4 2021, which was negatively reflected in the export dynamics at that time.

For the full year **2022,** economic output **grew by 2.5%**, driven by fixed capital investment and increased inventory accumulation. Despite a number of fiscal stimulus measures, household final consumption expenditure fell due to a sharp increase in the cost of living, especially energy and food prices, and tighter monetary policy.

In **2023,** GDP could increase **by 0.1%** (0.3% after adjusting for calendar effects). Households will continue to face the impact of high inflation this year, and their real consumption should fall further. Government consumption and gross fixed capital formation will be pro-growth, but weaker year-on-year inventory accumulation will slow the economy. The impact of generally weak domestic demand will be offset by the external trade balance. Economic growth could accelerate to **3.0%** in **2024**, mainly driven by renewed growth in household consumption.

High **inflation** slows down economic growth and lowers living standards. Not only food, electricity, natural gas and imputed rents, but also other categories of goods and services are contributing significantly to the exceptionally strong rise in consumer prices. Domestic demand pressures are also boosting inflation, but these should be dampened by higher monetary policy rates. The appreciation of the koruna is also anti-inflationary. Annual inflation should decline at a fast pace in the first half of this year and reach high single-digit levels in the second half of the year. At the end of the year, the energy tariff will have a year-on-year base effect. Throughout 2024, annual consumer price inflation could already remain within the upper half of the tolerance band of the Czech National Bank's inflation target. The average inflation rate could thus reach 10.9% this year and fall to 2.4% in 2024.

Labour market imbalances related to labour shortages continue to manifest themselves. As a result, despite the mild recession and the generally weak growth momentum, the unemployment rate should not increase much in 2023. It could rise from an average of 2.3% in 2022 to 3.0% this year, but it could already fall to an average of 2.8% next year. The persistent tightness in the labour market will push up wage growth, which will continue to lag behind inflation also this year, though. Growth of the average real wage should therefore resume only in 2024.

The current account of the balance of payments ended with a significant deficit of 6.1% of GDP in 2022, mainly reflecting a deterioration in the balance of goods due to high energy commodity prices. The current account was also negatively affected by the highest outflow of dividends in primary income ever and a decline in the services surplus due to higher costs in the transport sector. Given the unwinding of price pressures in industry and the energy sector, we estimate that the current account deficit will narrow to 3.5% of GDP this year and further to 1.9% of GDP next year.

In 2022, the deficit in **public finances** was 1.5 pp lower year-on-year, despite the consequences of the Russian aggression against Ukraine. The deficit of 3.6% of GDP includes not only humanitarian aid and support to economic agents with high prices, but also the effects of measures that significantly and permanently reduced the tax burden during the COVID-19 epidemic. The estimate of the 2023 outturn of −3.5% of GDP reflects exceptional revenues and expenditure related to the energy crisis and rising mandatory social spending. With the unwinding of high and volatile energy prices and a 10% growth in nominal GDP, government debt is likely to fall from 44.1% of GDP in 2022 to 43.5% of GDP at the end of 2023.

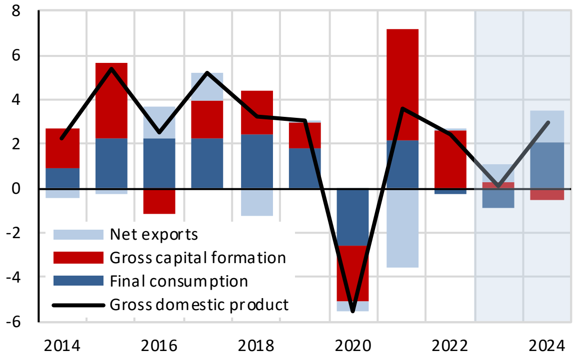
Table: Main Macroeconomic Indicators

		2018	2019	2020	2021	2022	2023	2024	2022	2023
							Current forecast		*Previous forecast*	
Nominal GDP	*bill. CZK*	**5 411**	**5 791**	**5 709**	**6 109**	**6 795**	**7 475**	**7 989**	6 749	7 308
	nominal growth in %	5.9	7.0	-1.4	7.0	11.2	10.0	6.9	10.5	8.3
Gross domestic product	*real growth in %*	**3.2**	**3.0**	**-5.5**	**3.6**	**2.5**	**0.1**	**3.0**	2.3	-0.5
Consumption of households	*real growth in %*	3.5	2.7	-7.2	4.1	-0.9	-2.7	3.9	-0.7	-2.2
Consumption of government	*real growth in %*	3.9	2.5	4.2	1.4	0.6	1.6	1.3	0.8	1.5
Gross fixed capital formation	*real growth in %*	10.0	5.9	-6.0	0.8	6.2	2.8	0.5	5.4	1.8
Contribution of net exports	*pp*	-1.2	0.0	-0.4	-3.6	0.2	0.8	1.4	0.2	0.9
Contrib. of change in inventories	*pp*	-0.5	-0.3	-0.9	4.8	1.0	-0.5	-0.7	0.8	-1.2
GDP deflator	*growth in %*	**2.6**	**3.9**	**4.3**	**3.3**	**8.6**	**9.9**	**3.8**	8.0	8.8
Average inflation rate	*%*	**2.1**	**2.8**	**3.2**	**3.8**	**15.1**	**10.9**	**2.4**	15.1	10.4
Employment *(LFS)*	*growth in %*	**1.4**	**0.2**	**-1.3**	**-0.4**	**-0.8**	**-0.2**	**0.6**	-0.8	-0.4
Unemployment rate *(LFS)*	*average in %*	**2.2**	**2.0**	**2.6**	**2.8**	**2.3**	**3.0**	**2.8**	2.4	3.2
Wage bill *(domestic concept)*	*growth in %*	**9.6**	**7.8**	**0.1**	**5.9**	**9.1**	**7.5**	**5.8**	9.3	6.7
Current account balance	*% of GDP*	**0.4**	**0.3**	**2.0**	**-2.8**	**-6.1**	**-3.5**	**-1.9**	-5.8	-3.6
General government balance	*% of GDP*	**0.9**	**0.3**	**-5.8**	**-5.1**	**-3.6**	**-3.5**	**-2.9**	-3.6	-4.2
Assumptions:										
Exchange rate CZK/EUR		**25.6**	**25.7**	**26.4**	**25.6**	**24.6**	**23.8**	**23.8**	24.6	24.2
Long-term interest rates	*% p.a.*	**2.0**	**1.5**	**1.1**	**1.9**	**4.3**	**4.5**	**4.0**	4.3	4.6
Crude oil Brent	*USD/barrel*	**71**	**64**	**42**	**71**	**101**	**77**	**73**	101	81
GDP in the euro area	*real growth in %*	**1.8**	**1.6**	**-6.3**	**5.3**	**3.5**	**0.7**	**1.3**	3.3	0.4

Source: CNB, CZSO, Eurostat, U. S. Energy Information Administration. Calculations and forecast of the MoF.

The economy should almost stagnate in 2023

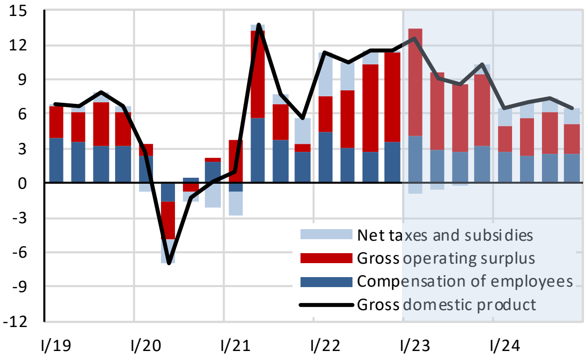
growth rate of real GDP in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

Firms' profits will increase substantially this year

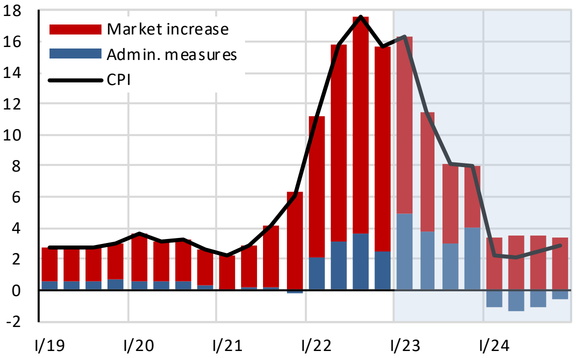
YoY growth of nominal GDP in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

Inflation will return to the vicinity of the CNB's target

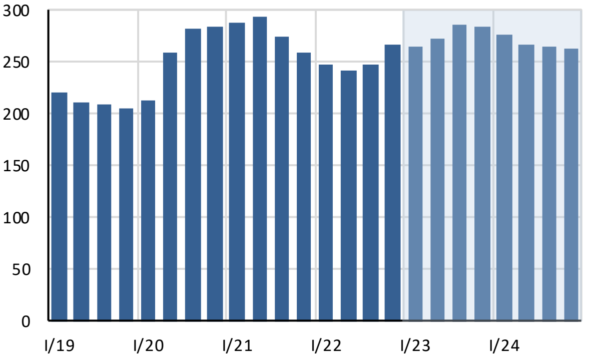
YoY growth rate of CPI in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

Unemployment should increase temporarily

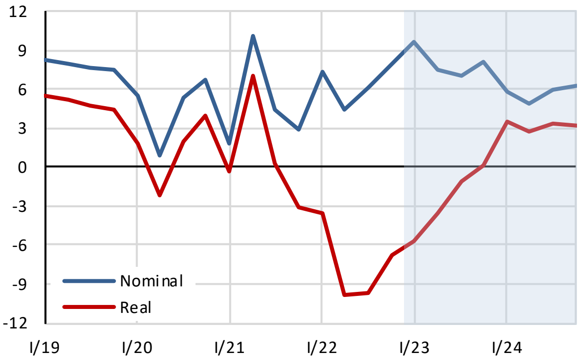
registered unemployment, in thous. of persons, seasonally adjusted



Source: MoLSA. Calc. and forecast of the MoF.

Wage growth should lag behind inflation

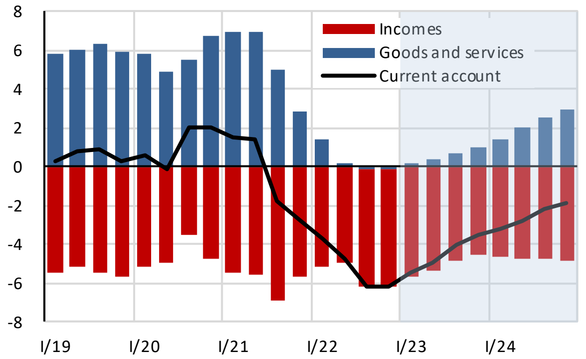
average gross monthly wage, YoY growth rate, in %



Source: CZSO. Calculations and forecast of the MoF.

Current account deficit should narrow gradually

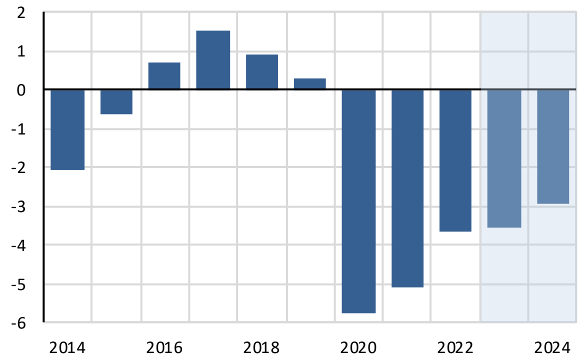
in % of GDP, yearly moving sums



Source: CNB, CZSO. Calculations and forecast of the MoF.

Public finance deficit should decrease

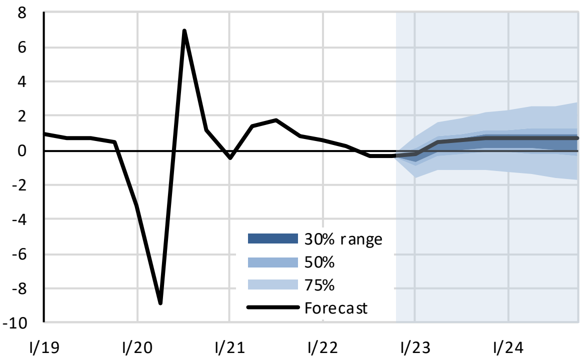
general government net lending/borrowing, in % of GDP



Source: CZSO. Calculations and forecast of the MoF.

Forecast risks are skewed to the downside

QoQ growth of real GDP in %



Source: CZSO. Calculations and forecast of the MoF.

Forecast Risks and Uncertainty

The macroeconomic forecast is subject to a number of risks that, taken together, we consider to be **skewed to the downside**.

Natural gas supplies from Russia to the European Union are severely restricted and we do not expect them to resume. We anticipate that this shortfall will be replaced by increased gas imports from other countries (including liquefied natural gas). At the same time, demand for natural gas is expected to decline as a result of continued high prices, additional energy savings and a shift to alternative technologies. We see the failure to meet these assumptions, especially in the medium term, as the main downside risk to the forecast.

In the forecast, we also work under the assumption that the next likely waves of the **COVID-19** pandemic can be managed without the need to adopt macroeconomically significant restrictions. However, developments in China are a substantial risk, as is the emergence and spread of new variants of the coronavirus against which available vaccines or experienced disease would provide little protection.

The **failure of** several **banks** in the United States and the troubles of Credit Suisse have increased volatility in the financial markets. Although these events pose a risk, especially if confidence in the stability of the banking sector were to erode further, we do not foresee a significant impact on the real economy, either in the US or in Europe.

However, further development of inflation and **inflation expectations** is a significant risk to the Czech economy. It is crucial that inflation expectations return to the vicinity of the Czech National Bank's inflation target. Otherwise, the return of inflation to 2% would require even tighter monetary policy, which would entail additional economic costs. The structure and intensity of **fiscal consolidation**, which is complicated by the impact of the Russian aggression in Ukraine, high inflation and the need to ensure sufficient energy supply, will also be crucial.

Available data suggest that the imbalances that characterised the **labour market** before the pandemic are still present. Staff shortages, evident in almost all sectors of the economy, are a significant barrier to output growth, particularly in the construction sector. However, in addition to the weak economic dynamics, the influx of refugees from Ukraine is also contributing to the easing of the mismatch between demand and supply in the labour market and the associated upward pressure on wages. It turns out that thanks to the still high demand for labour by companies and the nature of most vacancies (jobs with low qualification requirements), Ukrainian refugees do not have any significant problems with finding employment in the Czech labour market, even though their qualification structure may not match demand. Employment of foreigners is also facilitated by legislative changes reducing administrative barriers in this area.

In the medium and long term, taking into account demographic developments, it will be crucial to make the **integration of refugees** from Ukraine as successful as possible and to increase **labour productivity**, for example by investing in automation, robotization and digital technologies. Given the high involvement of Czech firms in global supply chains, a strong impetus for productivity growth would also be their shift to higher value-added positions (either towards the initial R&D phase or towards the phase of selling the final product).

The gross household savings rate, as well as the level of net lending/borrowing, has remained elevated since the pandemic. These "extra savings" could now be used by some households to **cushion the impact of high consumer price increases on real consumption**.

A rise in interest rates and a substantial increase in prices could cause some households and firms to run into repayment problems, leading to a deterioration in the quality of banks' loan portfolios. For the time being, however, the share of non-performing loans in total loans to households and non-financial corporations has continued to decline slowly. **Overvaluation of residential property prices** also remains a risk.

Given the importance of **the automotive industry** for the Czech economy, the strong pro-cyclicality of this sector, its export orientation and dependence on supply chains is a risk. The risks in the automotive industry are further exacerbated by structural changes due to the gradual tightening of emission standards and the transition to electromobility. This will require huge investments in the development of technology, machinery and equipment or infrastructure. An impact on employment or supplier-customer relations can also be expected.

1 Forecast Assumptions

1.1 External Environment

The end of last year was characterised by persistent problems in supply chains, high inflation and tightening monetary policy in the world's major economies. Following the loosening of China's stringent coronavirus measures in December, its economy is expected to recover this year, which will significantly boost global economic growth. However, this will continue to be dampened by the impacts of Russia's aggression against Ukraine, rising geopolitical tensions and continued monetary tightening in a number of countries. Global economic growth is therefore expected to slow to 2.0% in 2023 (*vs. 1.7%*), but could accelerate to 2.8% in 2024, thanks to stronger household consumption (due to a fall in inflation) and the expected unwinding of supply chain frictions.

US GDP grew by 0.6% QoQ (*vs. a 0.3% decline*) in Q4 2022, mainly due to the positive contribution of household consumption and the change in inventories.

The labour market remains tight. It is characterised by strong job growth and low unemployment rate, which rose slightly to 3.6% in February. Year-on-year inflation has been falling since July last year to 6.0% in February. In an effort to return the inflation rate to the 2% target, the Fed decided to raise the federal funds rate further at its March meeting, to a range of 4.75%–5.00%. The Fed also continued to reduce the amount of assets on its balance sheet. We do not expect the failure of several regional banks and the increased stress in financial markets to have a significant macroeconomic impact.

The Manufacturing Purchasing Managers' Index, according to preliminary data, increased in March. This was mainly given by a rebound in production and a more modest decline in new orders. However, the index still indicates poor production conditions and a decline in activity. In contrast, conditions in the service sector improved markedly despite inflationary pressures and higher interest rates, and business activity picked up on stronger domestic and foreign demand. Retail sales fell month-on-month in February and industrial production stagnated. Business confidence has remained low, as has consumer sentiment, which fell again in March as recession fears intensified. High inflation and continued monetary tightening will continue to weigh on investment activity and dampen consumer demand. In the context of these factors, we expect the US economy could grow by 0.6% this year (*vs. 0.5%*) and by 1.1% next year.

Due to strict coronavirus lockdowns, **China's economy** stagnated quarter-on-quarter in Q4 2022. With the abandonment of the zero-COVID policy and improvement in a number of economic indicators, there is likely to be a significant rebound in economic activity this year. Purchasing Managers' Indices in February signalled growth in both manufacturing and services. There was also a slight increase in industrial production and a rise in consumer confidence. Retail sales were virtually flat. However, the Manufacturing Purchasing Managers' Index declined in March amid growing uncertainty about the economic recovery. Despite weaker export performance due to unfavourable external demand, we expect deferred household consumption, government support and infrastructure investment to contribute to economic growth. Next year, private demand dynamics should already be lower, but on the other hand, thanks to stronger economic growth in advanced economies, exports should fare better. However, the country's economic outlook remains weighed down by the property market crisis and there is also a risk of possible worsening of the epidemic situation. Given the above factors, we expect China's economy to grow by 5.1% this year (*vs. 4.3%*) and to slow to 4.4% next year.

Gross domestic product in the **European Union** contracted by 0.1% QoQ (*in line with the estimate*) in Q4 2022, while it stagnated in the euro area (*vs. a decline of 0.2%*). *The* positive contribution of foreign trade and government consumption was dampened by a decline in household consumption and fixed investment.

Annual inflation in the euro area fell to 6.9% in March, according to the preliminary estimate, but core inflation rose again. The decline in energy prices in particular contributed to the decrease in headline inflation. The European Central Bank raised its key interest rate by 50 basis points to 3.50% in March. We expect the ECB to tighten monetary policy further due to persistent inflationary pressures.

Subdued economic activity, rising debt servicing costs or the implementation of large-scale government measures to mitigate the impact of high energy prices in 2023 are likely to shift the focus of fiscal consolidation in most euro area Member States to the next year.

The unemployment rate in the euro area has been slightly above 6.5% since April 2022. According to the Purchasing Managers' Index, conditions in manufacturing deteriorated further in March due to a decline in new orders and high input costs. Sentiment in services continued to expand for the fourth month in a row. Consumer confidence is also gradually recovering on the back of falling inflation and fading concerns about the energy crisis.

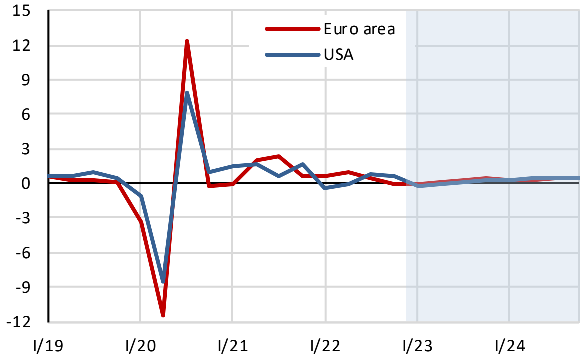
We expect GDP in the European Union to increase by 0.7% (*vs. 0.5%*) this year, the same as in the euro area (*vs. 0.4%*). Next year, economic growth could accelerate to 1.5% in the EU and 1.3% in the euro area. The European economy has shown considerable resilience in the face of the energy crisis, and the successful diversification of gas supplies has largely reduced dependence on Russian imports. Economic growth in both forecast years will be underpinned by rising consumer and business confidence, relatively resilient labour market, improving supply chains and recovering industry and services. By contrast, growth momentum this year and partly next year will be dampened by tightening monetary conditions, weak external demand and persistently high inflation.

Germany's economy contracted by 0.4% QoQ (*in line with the estimate*) in Q4 2022 due to the negative contribution of household consumption and investment. According to the Purchasing Managers' Index, industrial conditions deteriorated in March due to falling business activity. However, a marked improvement in supply chains, a slowing decline in new orders and falling input costs point to positive developments in manufacturing activity in the future. Industrial production rose by 3.5% MoM in January. Strengthening consumer confidence and easing inflationary pressures are contributing positively to recovering activity in the services sector. The unemployment rate has remained close to 3% since March 2022. The positive impact of a resilient labour market, gradually declining energy commodity prices, improving supply chains and rising confidence will be tempered this year by weak external demand, only gradually recovering household consumption and tightening monetary conditions. We therefore estimate that Germany's economic growth could reach 0.2% (*vs. a decline of 0.1%*) in 2023, and accelerate to 1.5% in 2024 as inflationary pressures abate, real incomes rise and demand strengthens.

Slovakia's gross domestic product grew by 0.3% QoQ (*vs. 0.0%*) in Q4 2022, with household consumption and gross capital formation as the dominant drivers of growth. On the contrary, foreign trade and government consumption contributed negatively. The unemployment rate has remained close to 6% since the second half of last year. Annual inflation fell to 14.8% in March, according to a preliminary estimate. Industrial production remains subdued, although the year-on-year decline eased in January. Weak consumer confidence, declining retail sales and persistently high inflation are expected to weigh on household consumption in early 2023. In contrast, a significant increase of EU funds absorption, extensive government measures to support households and firms, and improvements in supply chains will contribute positively to the growth momentum of the Slovak economy. Thus, GDP could grow by 1.0% (*vs. 0.6%*) in 2023 and accelerate to 2.2% in 2024 due to a significant weakening of inflationary pressures and a recovery in export activity.

Graph 1.1.1: Real GDP in the euro area and USA

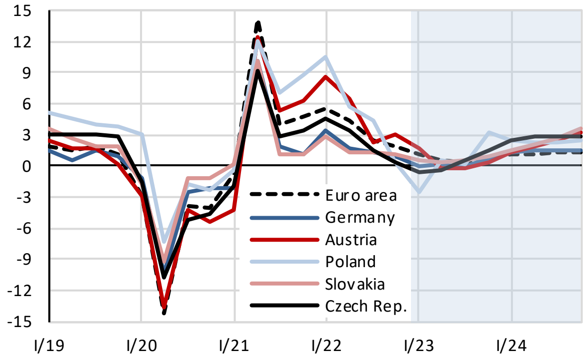
QoQ growth rate in%, seasonally adjusted



Source: Eurostat, OECD. Calculations and forecast of the MoF.

Graph 1.1.2: Real Gross Domestic Product

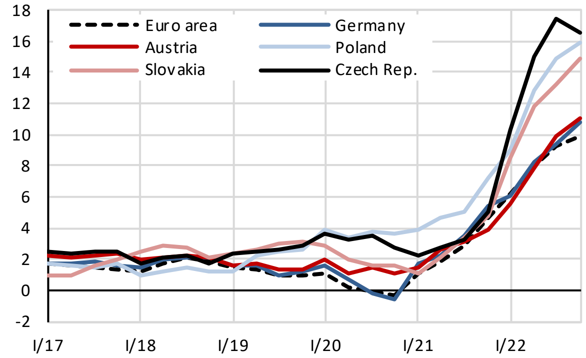
YoY growth in %, seasonally adjusted



Source: CZSO, Eurostat. Calculations and forecast of the MoF.

Graph 1.1.3: HICP

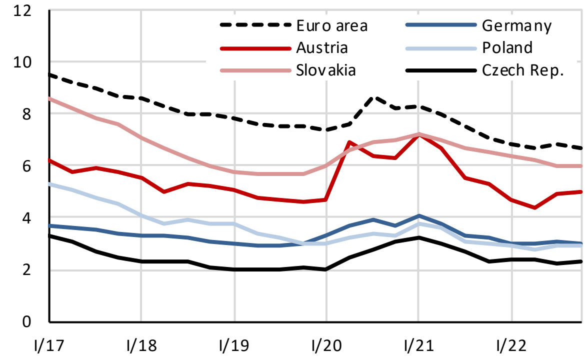
quarterly averages, YoY growth in %



Source: Eurostat. Calculations of the MoF.

Graph 1.1.4: Unemployment Rate

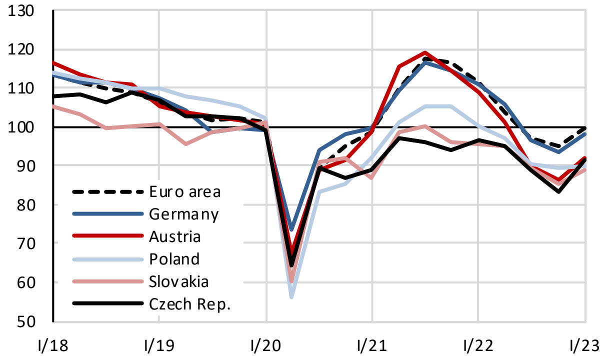
in %, LFS methodology, seasonally adjusted



Source: Eurostat.

Graph 1.1.5: Economic Sentiment Indicator

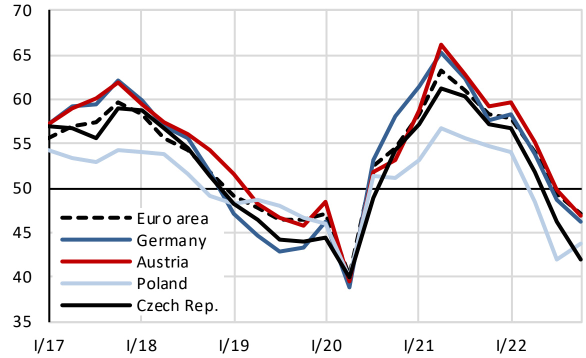
quarterly averages, long-run average = 100



Source: Eurostat. Calculations of the MoF.

Graph 1.1.6: Purchasing Managers' Index

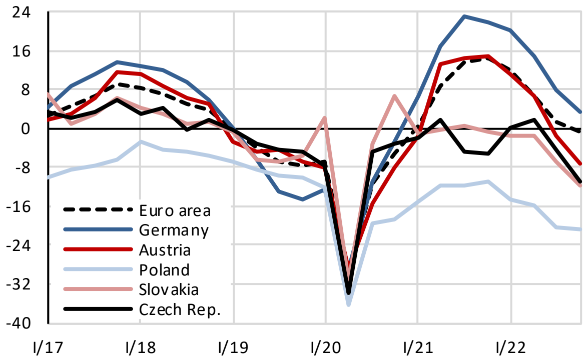
manufacturing, quarterly averages



Source: Markit. Calculations of the MoF.

Graph 1.1.7: Business Tendency

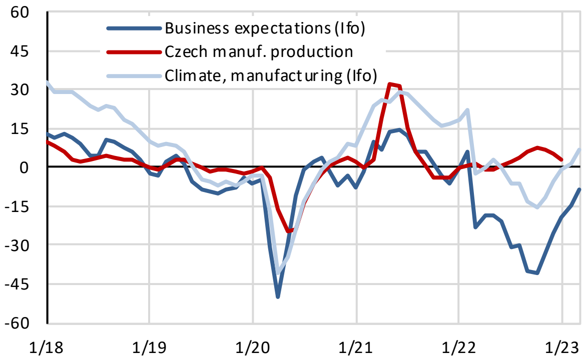
manufacturing, quarterly averages



Source: OECD. Calculations of the MoF.

Graph 1.1.8: Ifo and Czech manufacturing production

balances (Ifo, manufacturing); seas. adjusted industrial production in Czech manufacturing, YoY growth in% (three-month moving avg.)



Source: CESifo, CZSO. Calculations of the MoF.

Table 1.1.1: Gross Domestic Product – yearly

growth rate of real GDP in %

		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
									Estimate	*Forecast*	*Forecast*
World	*seasonally adjusted*	**3.4**	**3.3**	**3.8**	**3.6**	**2.8**	**-3.0**	**6.2**	**3.4**	**2.0**	**2.8**
USA	*seasonally adjusted*	**2.7**	**1.7**	**2.2**	**2.9**	**2.3**	**-2.8**	**5.9**	**2.1**	**0.6**	**1.1**
China	*seasonally adjusted*	**7.3**	**6.8**	**7.0**	**6.8**	**6.0**	**1.8**	**8.6**	**3.0**	**5.1**	**4.4**
United Kingdom	*seasonally adjusted*	**2.4**	**2.2**	**2.4**	**1.7**	**1.6**	**-11.0**	**7.6**	**4.1**	**-0.1**	**0.9**
European Union	*seasonally adjusted*	**2.2**	**1.9**	**3.0**	**2.1**	**1.8**	**-5.8**	**5.4**	**3.6**	**0.7**	**1.5**
Euro area	*seasonally adjusted*	**1.9**	**1.8**	**2.8**	**1.8**	**1.6**	**-6.3**	**5.3**	**3.5**	**0.7**	**1.3**
Germany	*seasonally adjusted*	**1.2**	**2.1**	**3.0**	**1.0**	**1.1**	**-4.1**	**2.6**	**1.9**	**0.2**	**1.5**
	unadjusted	1.5	2.2	2.7	1.0	1.1	-3.7	2.6	1.8	0.1	0.3
France	*seasonally adjusted*	**1.1**	**1.0**	**2.4**	**1.8**	**1.9**	**-7.9**	**6.8**	**2.6**	**0.6**	**1.2**
	unadjusted	1.1	1.1	2.3	1.9	1.8	-7.8	6.8	2.6	0.5	0.3
Italy	*seasonally adjusted*	**0.6**	**1.4**	**1.7**	**0.8**	**0.5**	**-9.0**	**7.0**	**3.8**	**0.7**	**1.1**
	unadjusted	0.8	1.3	1.7	0.9	0.5	-9.0	7.0	3.7	0.8	0.2
Austria	*seasonally adjusted*	**1.0**	**2.0**	**2.3**	**2.4**	**1.5**	**-6.5**	**4.7**	**5.0**	**0.5**	**1.4**
	unadjusted	1.0	2.0	2.3	2.4	1.5	-6.5	4.6	5.0	0.7	0.3
Hungary	*seasonally adjusted*	**3.6**	**2.1**	**4.5**	**5.4**	**4.9**	**-4.8**	**7.1**	**4.6**	**-0.1**	**2.7**
	unadjusted	3.7	2.2	4.3	5.4	4.9	-4.5	7.1	4.6	-0.1	0.5
Poland	*seasonally adjusted*	**4.3**	**3.1**	**5.2**	**5.9**	**4.4**	**-2.0**	**6.7**	**5.2**	**0.4**	**2.4**
	unadjusted	4.4	3.0	5.1	5.9	4.4	-2.0	6.8	4.9	0.4	0.6
Slovakia	*seasonally adjusted*	**5.2**	**1.9**	**2.9**	**4.0**	**2.5**	**-3.4**	**3.0**	**1.7**	**1.0**	**2.2**
Czech Republic	*seasonally adjusted*	**5.5**	**2.5**	**5.3**	**3.2**	**3.0**	**-5.5**	**3.5**	**2.5**	**0.3**	**2.8**
	unadjusted	5.4	2.5	5.2	3.2	3.0	-5.5	3.6	2.5	0.1	3.0

Source: CZSO, Eurostat, IMF, OECD, Office for National Statistics. Calculations of the MoF.

Table 1.1.2: Gross Domestic Product – quarterly

growth rate of real GDP in %, data adjusted for seasonal and calendar effects

		2022				2023			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	*Forecast*	*Forecast*	*Forecast*
USA	*QoQ*	**-0.4**	**-0.1**	**0.8**	**0.6**	**-0.2**	**-0.1**	**0.1**	**0.2**
	YoY	3.7	1.8	1.9	0.9	1.0	1.0	0.3	-0.1
United Kingdom	*QoQ*	**0.5**	**0.1**	**-0.1**	**0.1**	**-0.2**	**-0.2**	**0.1**	**0.3**
	YoY	10.6	3.8	2.0	0.6	-0.1	-0.4	-0.2	0.0
European Union	*QoQ*	**0.7**	**0.7**	**0.4**	**-0.1**	**0.0**	**0.2**	**0.4**	**0.3**
	YoY	5.7	4.4	2.6	1.7	1.0	0.5	0.5	0.9
Euro area	*QoQ*	**0.6**	**0.9**	**0.4**	**0.0**	**0.0**	**0.2**	**0.3**	**0.4**
	YoY	5.5	4.4	2.4	1.8	1.2	0.5	0.4	0.8
Germany	*QoQ*	**0.8**	**0.1**	**0.5**	**-0.4**	**-0.1**	**0.2**	**0.3**	**0.4**
	YoY	3.5	1.7	1.4	0.9	0.0	0.1	0.0	0.8
France	*QoQ*	**-0.2**	**0.5**	**0.2**	**0.1**	**0.0**	**0.2**	**0.3**	**0.3**
	YoY	4.8	4.2	1.0	0.5	0.7	0.4	0.5	0.8
Italy	*QoQ*	**0.1**	**1.0**	**0.4**	**-0.1**	**0.0**	**0.2**	**0.3**	**0.3**
	YoY	6.5	5.1	2.5	1.4	1.3	0.5	0.4	0.8
Austria	*QoQ*	**0.8**	**2.1**	**0.1**	**0.0**	**-0.3**	**0.1**	**0.2**	**0.3**
	YoY	8.6	6.5	2.2	3.0	1.6	-0.2	-0.2	0.4
Hungary	*QoQ*	**1.4**	**0.6**	**-0.7**	**-0.4**	**-0.2**	**0.3**	**0.5**	**0.6**
	YoY	7.9	6.1	3.7	0.8	-0.8	-1.1	0.2	1.2
Poland	*QoQ*	**4.3**	**-2.3**	**1.0**	**-2.4**	**1.3**	**0.7**	**0.7**	**0.6**
	YoY	10.5	5.6	4.5	0.4	-2.4	0.6	0.2	3.3
Slovakia	*QoQ*	**0.3**	**0.3**	**0.3**	**0.3**	**-0.1**	**0.4**	**0.5**	**0.5**
	YoY	2.9	1.3	1.3	1.2	0.5	0.5	0.5	0.9
Czech Republic	*QoQ*	**0.6**	**0.3**	**-0.3**	**-0.4**	**-0.2**	**0.5**	**0.6**	**0.7**
	YoY	4.7	3.5	1.5	0.3	-0.6	-0.4	0.5	1.6

Source: CZSO, Eurostat, OECD, Office for National Statistics. Calculations and forecast of the MoF.

1.2 Commodity Prices

We estimate that the **price of Brent crude oil** averaged USD 81 (*unchanged*) per barrel in Q1 2023, down 20% YoY, or 19% when measured in CZK.

Oil production is expected to exceed demand from 2023. The imbalance is mainly due to the slowdown in the growth rate of the world economy and the associated decline in expected oil demand. However, the easing of Chinese anti-epidemic measures and the subsequent recovery in economic activity should have the opposite effect. During 2024, the supply overhang is expected to decrease further due to the expected faster growth of the global economy. On the other hand, even though Russia has reduced its oil production in the context of the ban on exports of its oil products to the EU, it was to a lesser extent than expected. Over the next two years, therefore, global oil stocks should increase, which should contribute to the price decrease.

In accordance with the above, oil prices on the futures market are lower for later delivery than earlier delivery. The forecasted Brent crude oil price reflects this downward sloping curve. This year, the average price of Brent crude oil is expected to decrease by 24% YoY to USD 77 (*vs. USD 81*), with a 28% decrease when measured in CZK due to the koruna's appreciation against the dollar. For 2024, we assume an average price of USD 73 per barrel of Brent crude oil.

Prices and volatility on **commodity markets** remain elevated, largely due to the severe reduction in the supply of oil, oil products and natural gas from the Russian Federation to the EU. The threat of gas shortages during this heating season has not materialised due to favourable weather, savings and successful securing of alternative supply. This has contributed to a very significant decrease in wholesale spot and forward prices for natural gas and electricity during Q4 2022 and early 2023. However, the securing of energy supply, as well as the front-loading of other raw materials at high prices in previous quarters, may in the short term slow down the decrease in prices of these commodities for consumers and many firms. High commodity prices thus continue to be reflected in firms' costs and consumer prices to a large extent (see Chapter 3.2).

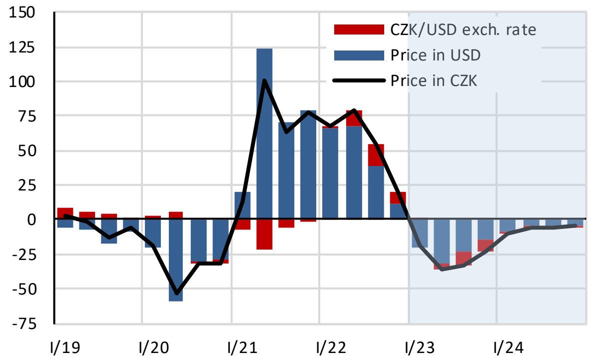
Graph 1.2.1: Dollar Price of Brent Crude Oil

USD/barrel

Source: U. S. EIA. Calculations and forecast of the MoF.

Graph 1.2.2: Koruna Price of Brent Crude Oil

YoY change of the CZK price of Brent crude oil in %, contributions in pp



Source: CNB, U. S. EIA. Calculations and forecast of the MoF.

Table 1.2.1: Prices of Selected Commodities – yearly

spot prices

		2015	2016	2017	2018	2019	2020	2021	2022	2023 *Forecast*	2024 *Forecast*
Crude oil Brent	*USD/barrel*	**52.4**	**43.6**	**54.2**	**71.3**	**64.3**	**41.8**	**70.8**	**101.0**	**77**	**73**
	growth in %	-47.1	-16.9	24.3	31.7	-9.8	-35.0	69.3	42.7	-23.8	-5.3
Crude oil Brent index *(in CZK)*	*2010=100*	**84.9**	**70.1**	**83.1**	**102.1**	**97.1**	**63.6**	**101.1**	**155.3**	**111**	**104**
	growth in %	-36.9	-17.4	18.5	22.9	-4.9	-34.6	59.1	53.5	-28.4	-6.8
Natural gas (Europe)	*USD/MMBtu*	**6.8**	**4.6**	**5.7**	**7.7**	**4.8**	**3.2**	**16.1**	**40.3**	**.**	**.**
	growth in %	-32.1	-33.1	25.3	34.4	-37.5	-32.5	397.1	150.3	.	.
Natural gas (Europe) index *(in CZK)*	*2010=100*	**106.2**	**70.7**	**84.2**	**106.0**	**69.6**	**47.1**	**222.9**	**601.4**	**.**	**.**
	growth in %	-19.4	-33.4	19.2	25.8	-34.3	-32.4	373.7	169.7	.	.

Source: CNB, U. S. Energy Information Administration, World Bank. Calculations and forecast of the MoF.

Table 1.2.2: Prices of Selected Commodities – quarterly
spot prices

		2022				2023			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	*Forecast*	*Forecast*	*Forecast*
Crude oil Brent	*USD/barrel*	**100.9**	**113.8**	**100.7**	**88.7**	**81**	**76**	**76**	**75**
	growth in %	65.3	65.0	37.0	11.4	-19.7	-32.8	-24.9	-15.7
Crude oil Brent index *(in CZK)*	*2010=100*	**146.0**	**173.6**	**161.8**	**139.8**	**118**	**110**	**109**	**107**
	growth in %	67.9	79.7	54.6	20.1	-19.1	-36.4	-32.8	-23.4
Natural gas (Europe)	*USD/MMBtu*	**32.6**	**31.6**	**60.2**	**36.9**	**.**	**.**	**.**	**.**
	growth in %	400.6	260.2	255.4	14.6	.	.	.	.
Natural gas (Europe) index *(in CZK)*	*2010=100*	**454.0**	**463.7**	**928.9**	**559.0**	**.**	**.**	**.**	**.**
	growth in %	408.6	292.2	301.0	23.5	.	.	.	.

Source: CNB, U. S. Energy Information Administration, World Bank. Calculations and forecast of the MoF.

1.3 Fiscal Policy

According to the CZSO data, **the general government sector** ran a deficit of 3.6% of GDP (*unchanged*) in 2022, or 2.8% of GDP (*vs. 2.6% of GDP*) in structural terms. On the one hand, the deficit stemmed from the sustained reduction of the tax burden during the COVID-19 epidemic, and on the other hand reflected the economic and financial consequences of the Russian aggression against Ukraine and the related humanitarian aid and support to households and firms affected by the huge price increases. Although the last year's deficit is mainly attributable to the state budget, social security funds (health insurance companies) also ended up in a slight deficit. On the other hand, local governments reached a surplus of 0.8% of GDP.

Tax revenues, including social security contributions, increased by 7.9%. **Personal income tax** revenue was 6.4% higher year-on-year, as the growth in wages and salaries in the economy was partially offset by an increase in the basic taxpayer credit, with an impact of CZK 12.3 billion. **Social security contributions** also depended on earnings, with growth of 7.0%, reflecting an increase in receipts of public health care system from the state budget for state-insured Ukrainian refugees. The dynamics of taxation and employment taxes were dampened by extraordinary remuneration paid to workers in the health care, social services and armed forces in 2021. The pace of **corporate income tax** (9.8%) was dampened by the end of the effective change in the method of creation and tax deductibility of technical provisions of insurance companies, the extension of the validity of extraordinary depreciation or the tax exemption of proceeds from government bonds with a total impact of CZK 7.4 billion. The opposite effect was caused by the negative impact of the increase in the entry price threshold for depreciation of tangible assets in the amount of CZK 1.6 billion.

The 15.8% YoY increase in **value added tax** revenue was determined by strong nominal household consumption due to high prices. **Excise duties**, as defined by national legislation, recorded a 1.8% YoY decline in revenue. The dynamics was dampened by a CZK 6.7 billion reduction in excise duties on petrol and diesel. In contrast, the increase in the tax on tobacco products by CZK 2.5 billion and the rates of the levy on solar electricity had a positive impact of CZK 3 billion. In response to the increase in fuel prices, road tax rates were significantly reduced, which was associated with a revenue shortfall of CZK 4.2 billion in other taxes on production. The remission of the renewable energy levy on households and companies amounted to CZK 4.6 billion.

Growth in government **final consumption expenditure** slowed to 4.8% YoY and, unlike in the previous few years, was driven mainly by intermediate consumption. Its 10.6% growth reflected high inflation, EU co-financed projects, as well as the migration wave from Ukraine. The increased base from extraordinary remuneration payments in 2021 and the moderate indexation of last year's salary tariffs determined the 2.0% increase in compensation of employees in the general government sector. The 5.3% growth in social transfers in kind reflected higher housing allowances in addition to social services and health spending.

Cash social benefits were mainly affected by multiple indexation of pension benefits due to high inflation. In addition, the system of social benefits was expanded by a one-off allowance of CZK 5,000 per child under the age of 18, amounting to CZK 6.7 billion, and a humanitarian allowance for Ukrainian refugees totalling CZK 8.7 billion. As a result of economic developments and discretionary measures adopted, cash social benefits rose by 9.0%.

Strong investment activity by local governments drove the 9.5% growth in public **fixed investment**. In terms of funding sources, the involvement of the Recovery and Resilience Facility contributed, especially for transport and environmental investments.

The ending of anti-epidemic measures and related support programmes led to a decrease in **subsidies** of almost 23%. On the other hand, their volume was boosted by the CZK 5.5 billion of aid to companies with high energy price costs. The 13.8% increase in **current transfers** was mainly due to assistance to households with energy costs in the form of the “savings tariff”, amounting to CZK 17.4 billion. The year-on-year decline in **capital transfers** by almost 11% was due to the termination of the payment of the compensation bonus, whose positive effect was dampened by payments to the Czech Post on account of the net universal service costs for the period 2018–2022 and the transfer of military equipment to Ukraine free of charge.

The performance of public finances **in 2023** remains strongly dependent on energy market developments. We expect the general government balance to reach −3.5% of GDP (*vs. −4.2% of GDP*). Adjusted for the impact of the business cycle and one-off operations, which are mainly linked to high energy prices this year, the deficit should be 1.6% of GDP (*vs. 2.0% of GDP*). However, newly introduced measures and their functioning significantly increase the risks to the forecast. It is the update of the projected level of expenditure related to the capping of energy prices, as well as of windfall tax revenues and excess revenue levies that was largely behind the 0.7 pp revision of the estimate of the overall balance.

We expect **general government revenues** to grow by 10.5%, while tax revenues, including social security contributions, are expected to increase by 8.4%. High nominal consumption as well as the pace of purchases and investment spending by the general government sector are contributing positively to consumption tax growth. **Value-added tax** is expected to grow by 8.1%, with autonomous growth offset by a revenue shortfall of CZK 8.5 billion due to the shift in the threshold for tax registration purposes to CZK 2 million. **Excise duties** will be boosted by the increase in rates on tobacco products, while the reduced rate on diesel will have a negative impact. Taxes on production and imports will be boosted by an estimated CZK 11.1 billion this year due to the levy on excess revenues of electricity producers. By contrast, the waiving of the renewable energy levy on households and firms, effective until the end of 2023, is likely to represent an additional revenue shortfall of CZK 13.8 billion.

In addition to wage and salary growth in the economy, income taxes will be significantly affected by the introduction of the windfall profits tax. **Personal income tax** is expected to grow by 6.9% in line with the macroeconomic base. **Social security contributions** should grow slightly faster, where on the one hand the impact of the discount for part-time work, estimated at CZK 3.3 billion, will be negative, but on the other hand we expect a higher payment for the state insured persons by around CZK 12 billion. The 25.2% growth in **corporate income tax** is influenced by higher profits, which will be taxed at an extraordinary rate of 60% from the threshold and paid as a windfall profits tax with an estimated revenue of CZK 28 billion.

General government spending is expected to grow by more than 10%. We estimate that **final consumption** will accelerate to 7.8% YoY, driven mainly by persisting high pace of purchases (10.0%). Compensation of employees should show a 7.1% growth rate. The 8.7% growth in social benefits in kind reflects expenditure on health and social services, also financed by higher payments for the state insured persons, as well as higher expenditure related to the payment of the housing allowance and the housing benefit supplement.

In the area of **cash social benefits,** we are counting mainly on an increase in pension benefits (16.8%), which are determined both by the standard January valorisation plus the so-called upbringing allowance and by an extraordinary indexation due to the high inflation rate from June this year. This, together with increases in other benefits (e.g. child benefit), should lead to a 12.5% increase in social benefit expenditure.

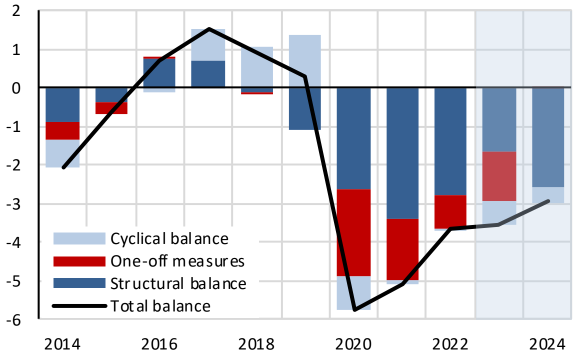
In particular, assistance to households, companies, public and other institutions in the form of energy price caps, estimated at over CZK 40 billion, determines the 31% **subsidy** dynamics. Furthermore, in order to prevent the full impact of high electricity prices on consumers, the government approved subsidies to the transmission system operator of the Czech Republic in the amount of CZK 22.7 billion or compensation to electricity and gas distributors in the total amount of CZK 15.4 billion. The **current transfers**, which were increased last year due to the so-called savings tariff for households, include a programme to support customers in the heating sector in a comparable amount this year. **Capital transfers**, whose 2022 base was increased by extraordinary expenditures, notably the CZK 7.5 billion payment to the Czech Post, are expected to see a significant year-on-year decline. As a result of these factors, total transfers should fall by 3.1%.

Investment in fixed assets with an estimated growth of 15.8% should be significantly supported by the EU budget not only due to the end of the possibility to use funds from the 2014–2020 programming period, but also already by using funds from the current 2021–2027 programming period, as well as funds from the Next Generation EU Instrument.

The general government’s deficit and the loan to CEZ to strengthen its liquidity position translate into a 44.1% debt-to-GDP ratio (*vs. 44.6% of GDP*) in 2022. The relatively low 2.1 pp increase in the debt quota is driven by an 11.2% growth in nominal GDP. Its expected continued double-digit dynamics, together with the assumption of lower issuance needs due to the partial repayment of CEZ borrowings, should lead to a decline in the debt quota to 43.5% of GDP (*vs. 45.8% of GDP*) this year. Higher debt and interest rate developments resulted in a substantial increase in **interest costs** last year, reaching 1.2% of GDP. They should remain at this relative level in 2023.

Graph 1.3.1: General Government Balance

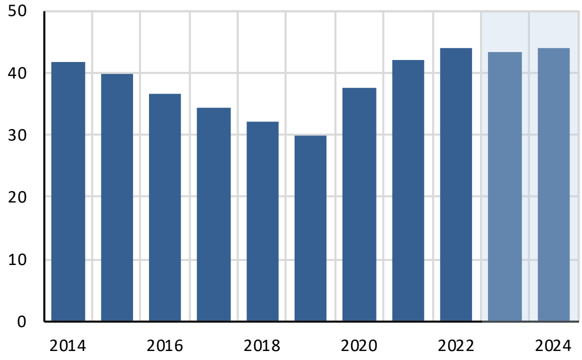
in % of GDP



Source: CZSO. Calculations and forecast of the MoF.

Graph 1.3.2: General Government Debt

in % of GDP



Source: CZSO. Calculations and forecast of the MoF.

Table 1.3.1: Net Lending/Borrowing and Debt

		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
								Forecast	*Forecast*	*Outlook*	*Outlook*
General government balance	*% GDP*	**1.5**	**0.9**	**0.3**	**-5.8**	**-5.1**	**-3.6**	**-3.5**	**-2.9**	**-2.4**	**-2.2**
	bill. CZK	77	48	17	-329	-311	-247	-264	-235	-206	-195
Cyclical balance	*% GDP*	**0.8**	**1.1**	**1.4**	**-0.9**	**-0.1**	**0.0**	**-0.6**	**-0.4**	**-0.1**	**0.0**
Cyclically adjusted balance	*% GDP*	**0.7**	**-0.2**	**-1.1**	**-4.9**	**-5.0**	**-3.6**	**-2.9**	**-2.5**	**-2.3**	**-2.2**
One-off measures [1)]	*% GDP*	**0.0**	**-0.1**	**0.0**	**-2.3**	**-1.6**	**-0.9**	**-1.3**	**0.0**	**0.0**	**0.0**
Structural balance	*% GDP*	**0.7**	**-0.1**	**-1.1**	**-2.6**	**-3.4**	**-2.8**	**-1.6**	**-2.6**	**-2.3**	**-2.2**
Fiscal effort [2)]	*pp*	**-0.1**	**-0.8**	**-1.0**	**-1.5**	**-0.8**	**0.6**	**1.1**	**-0.9**	**0.3**	**0.1**
Interest expenditure	*% GDP*	**0.7**	**0.7**	**0.7**	**0.8**	**0.8**	**1.2**	**1.2**	**1.3**	**1.3**	**1.4**
Primary balance	*% GDP*	**2.2**	**1.6**	**1.0**	**-5.0**	**-4.3**	**-2.5**	**-2.3**	**-1.7**	**-1.2**	**-0.8**
Cyclically adjusted primary balance	*% GDP*	**1.5**	**0.6**	**-0.4**	**-4.1**	**-4.2**	**-2.5**	**-1.7**	**-1.3**	**-1.0**	**-0.8**
General government debt	*% GDP*	**34.2**	**32.1**	**30.0**	**37.7**	**42.0**	**44.1**	**43.5**	**44.0**	**44.4**	**45.0**
	bill. CZK	1 750	1 735	1 740	2 150	2 567	2 997	3 249	3 514	3 756	3 983
Change in debt-to-GDP ratio	*pp*	**-2.3**	**-2.2**	**-2.0**	**7.6**	**4.4**	**2.1**	**-0.6**	**0.5**	**0.5**	**0.5**

1) One-off and temporary measures are such measures that have only a temporary impact on public budgets. Besides their temporary impact on overall balance, these measures are usually of non-recurring nature and very often result from the events that are beyond the direct power of the government.

2) Change in structural balance.

Source: CZSO. Calculations and forecast of the MoF.

1.4 Monetary Policy, Financial Sector and Exchange Rates

In the first half of 2022, the Czech National Bank gradually increased the **two-week repo rate** by 325 basis points in total to 7.00%. Subsequently, however, the Bank Board decided to leave interest rates unchanged. In view of the predicted easing of inflationary pressures (see Section 3.2), we expect the two-week repo rate to remain at its current level throughout 2023. From Q1 2024 onwards, the CNB could gradually lower interest rates.

Given the stability of the CNB's primary interest rates, the **three-month PRIBOR rate** was 7.2% (*vs. 7.1%*) in Q1 2023 and could reach 7.1% (*unchanged*) in 2023 as a whole. It could fall to 5.5% in 2024 under the assumed monetary policy stance.

We estimate that the **yield to maturity on 10-year government bonds** fell to 4.6% (*vs. 4.7%*) on average in Q1 2023, and could reach 4.5% (*vs. 4.*6%) for the full year 2023. Given the assumed monetary policy stance of the CNB and ECB and inflation developments, we believe that long-term interest rates could fall to 4.0% on average in 2024.

Annual growth in total **loans to households** has been slowing since Q2 2022. It reached 3.9% in February 2023, the slowest growth since May 2015. Growth in housing loans slowed by 5 pp year-on-year to 5.8% in Q4 2022. The pace declined further in February 2023 due to the effect of the monetary policy transmission mechanism. The average customer interest rate on total loans to households increased quarter-on-quarter to 3.56% in Q4 2022. For net new mortgage loans, the average client interest rate rose by 2.6 pp year-on-year to 6% in February 2023. The rate of growth in **household deposits** has gradually declined over the past year in the context of the rising cost of living to 2.3% in August. However, annual deposit growth was close to 4% in January and February 2023.

During 2022, the structure of **loans to non-financial corporations** changed significantly. Significant declines in koruna loans were offset by strong increases in foreign currency loans. The positive interest rate spread vis-à-vis the euro area seems to have played a decisive role here. The share of foreign currency loans in total loans increased by 11 pp year-on-year to 45% in December 2022. In February 2023, the growth rate of total loans to non-financial corporations declined noticeably to 0.4% in the context of a further decline in koruna loans and a marked slowdown in foreign currency loans. The average customer interest rate on total loans to non-financial corporations reached 7.3% in February.

The **share of non-performing loans** in total loans to households and non-financial corporations gradually declined during 2022. Although the financial situation of some economic agents has deteriorated as a result of the less favourable economic situation, the impact on the quality of banks' loan portfolios has so far been minimal.

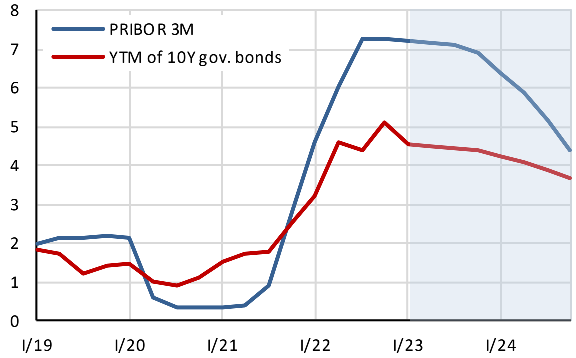
The **exchange rate of the koruna against the euro** averaged CZK 23.8/EUR (*vs. CZK 24.2/EUR*) in Q1 2023, with an annual appreciation of 3.7% (*vs. 1.9%*). The stabilisation of global markets, particularly in relation to the positive development of European natural gas reserves, contributed strongly to the appreciation of the koruna at the end of the year. Thus, from November onwards, the CNB did not need to intervene in the foreign exchange market to support the domestic currency.

We assume that the koruna exchange rate will be almost stable over the forecast horizon, with virtually negligible appreciation against the level of Q1 2023. This development should be supported in the short term by the CNB's stated determination to intervene on the foreign exchange market in the event of stronger depreciation pressures on the domestic currency. By the end of next year, the renewed real convergence of the Czech economy could already be having a positive effect. However, the expected narrowing of the positive interest rate differential may still exert slight depreciation pressures on the koruna. As a result, the koruna could on average appreciate by 3.3% to CZK 23.8/EUR (*vs. CZK 24.2/EUR*) this year, and the exchange rate could remain at this level in 2024.

The forecast for the USD/EUR exchange rate is based on the development of futures contracts before the input data cut-off date. We estimate it at 1.08 this year (*vs. 1.07*) and 1.10 in 2024. The USD/EUR exchange rate implies the expected development of the koruna against the US dollar.

Graph 1.4.1: Interest Rates

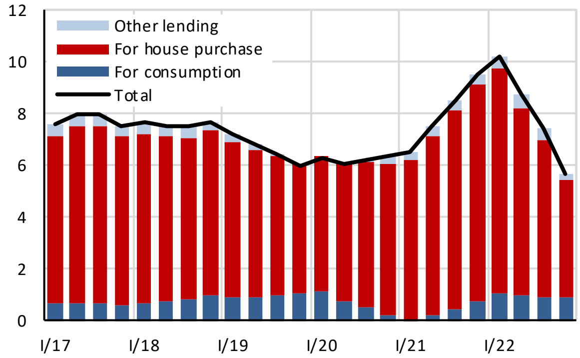
in % p.a.



Source: CNB. Calculations and forecast of the MoF.

Graph 1.4.2: Loans to Households

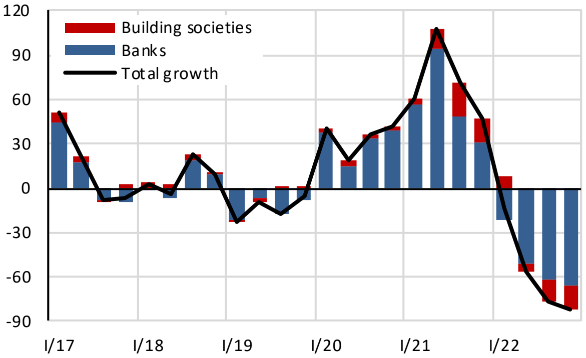
YoY growth rate in%, contributions in percentage points



Source: CNB. Calculations of the MoF.

Graph 1.4.3: New Mortgage Loans

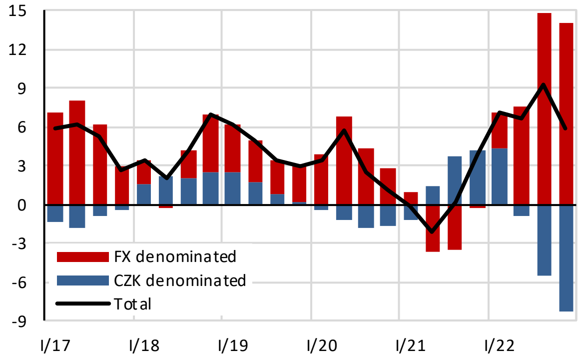
for purchase of residential property, YoY growth in %, contributions in pp



Source: CNB. Calculations of the MoF.

Graph 1.4.4: Loans to Non-financial Corporations

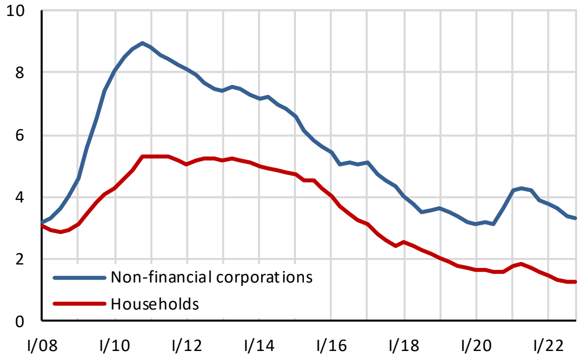
YoY growth rate in%, contributions in percentage points



Source: CNB. Calculations of the MoF.

Graph 1.4.5: Non-performing Loans

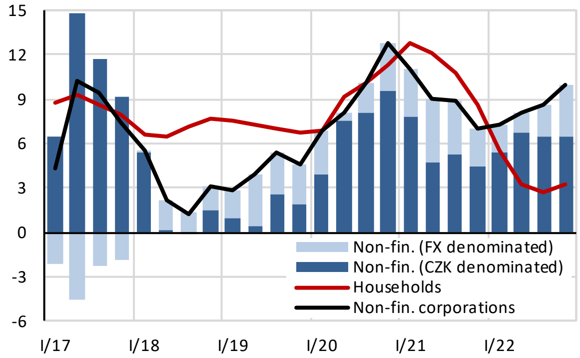
ratio of non-performing to total loans, in%



Source: CNB. Calculations of the MoF.

Graph 1.4.6: Deposits

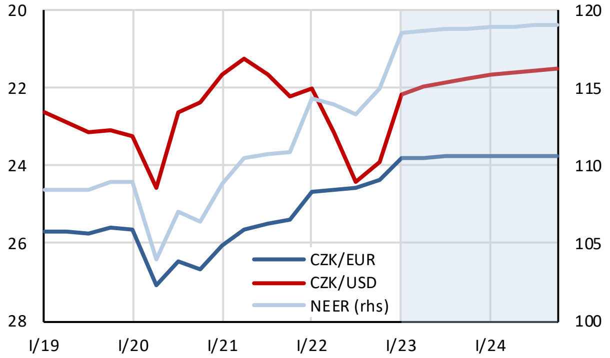
YoY growth rate in%, contributions in percentage points



Source: CNB. Calculations of the MoF.

Graph 1.4.7: Nominal Exchange Rates

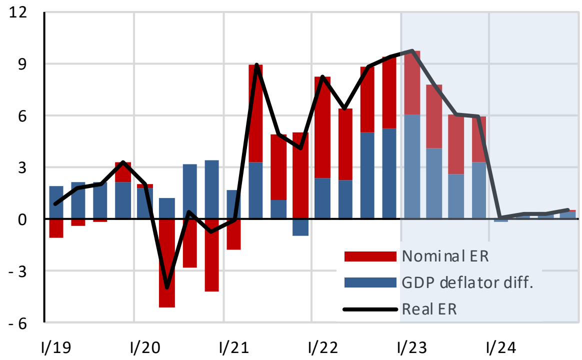
quarterly averages, average 2015=100 (rhs)



Source: CNB. Calculations and forecast of the MoF.

Graph 1.4.8: Real Exchange Rate to the EA19

deflated by GDP deflators, YoY growth rate in %, contributions in pp



Source: CNB, CZSO, Eurostat. Calculations and forecast of the MoF.

Table 1.4.1: Interest Rates – yearly

average of period, unless stated otherwise

		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
										Forecast	*Forecast*
Repo 2W rate CNB (*end of period*)	*in % p.a.*	0.05	0.05	0.50	1.75	2.00	0.25	3.75	7.00	.	.
Main refinancing rate ECB (*end of period*)	*in % p.a.*	0.05	0.00	0.00	0.00	0.00	0.00	0.00	2.50	.	.
Federal funds rate (*end of period*)	*in % p.a.*	0.50	0.75	1.50	2.50	1.75	0.25	0.25	4.50	.	.
PRIBOR 3M	*in % p.a.*	0.31	0.29	0.41	1.23	2.12	0.86	1.13	6.29	7.1	5.5
YTM of 10Y government bonds	*in % p.a.*	0.58	0.43	0.98	1.98	1.55	1.13	1.90	4.33	4.5	4.0
Client interest rates											
Loans to households	*in % p.a.*	5.15	4.65	4.10	3.76	3.66	3.53	3.31	3.42	.	.
Loans to non-financial corporations	*in % p.a.*	2.18	1.95	2.02	2.51	2.71	2.22	2.22	4.95	.	.
Deposits of households	*in % p.a.*	0.65	0.47	0.36	0.33	0.39	0.35	0.26	1.13	.	.
Deposits of non-financial corporations	*in % p.a.*	13.01	11.21	9.62	8.75	8.67	8.27	7.74	9.06	.	.

Source: CNB, ECB, Fed. Calculations and forecast of the MoF.

Table 1.4.2: Interest Rates – quarterly

average of period, unless stated otherwise

		2022				2023			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	*Forecast*	*Forecast*	*Forecast*
Repo 2W rate CNB (*end of period*)	*in % p.a.*	4.50	7.00	7.00	7.00	7.00	.	.	.
Main refinancing rate ECB (*end of period*)	*in % p.a.*	0.00	0.00	1.25	2.50	3.50	.	.	.
Federal funds rate (*end of period*)	*in % p.a.*	0.50	1.75	3.25	4.50	5.00	.	.	.
PRIBOR 3M	*in % p.a.*	4.59	6.03	7.27	7.27	7.20	7.1	7.1	6.9
YTM of 10Y government bonds	*in % p.a.*	3.23	4.58	4.41	5.11	4.6	4.5	4.5	4.4
Client interest rates									
Loans to households	*in % p.a.*	3.29	3.36	3.46	3.56	.	.	.	.
Loans to non-financial corporations	*in % p.a.*	3.62	4.57	5.61	6.01	.	.	.	.
Deposits of households	*in % p.a.*	0.62	0.91	1.31	1.70	.	.	.	.
Deposits of non-financial corporations	*in % p.a.*	8.03	8.56	9.69	9.98	.	.	.	.

Source: CNB, ECB, Fed. Calculations and forecast of the MoF.

Table 1.4.3: Loans and Deposits – yearly averages

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Households											
Loans	*growth in %*	**4.0**	**3.4**	**4.8**	**7.2**	**7.8**	**7.6**	**6.6**	**6.3**	**8.0**	**8.0**
For consumption	*growth in %*	-0.1	-0.9	3.4	6.0	4.3	5.4	6.4	4.4	2.6	7.0
For house purchase	*growth in %*	5.5	4.5	5.6	8.1	9.0	8.5	7.4	7.3	9.5	8.5
Other lending	*growth in %*	1.2	2.9	1.0	3.0	4.2	4.3	1.1	0.9	4.2	4.5
CZK denominated	*growth in %*	4.0	3.4	4.7	7.2	7.7	7.6	6.6	6.3	8.0	7.9
FX denominated	*growth in %*	-1.3	0.0	12.7	8.5	36.3	1.7	9.0	6.1	16.9	43.4
Deposits	*growth in %*	**3.3**	**2.9**	**4.8**	**7.0**	**8.7**	**7.0**	**7.2**	**9.4**	**11.1**	**3.7**
CZK denominated	*growth in %*	3.3	2.7	4.1	6.9	9.7	7.1	6.9	9.2	10.9	3.2
FX denominated	*growth in %*	2.3	8.5	22.5	7.3	-13.9	3.5	15.2	14.5	16.6	16.6
Non-performing loans *(banking statistics)*	*share, in %*	**5.2**	**4.9**	**4.5**	**3.6**	**2.7**	**2.4**	**1.9**	**1.6**	**1.7**	**1.3**
Loans to deposits ratio	*in %*	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**61**	**59**	**62**
Non-financial corporations											
Loans	*growth in %*	**1.3**	**1.9**	**6.5**	**6.6**	**5.0**	**4.2**	**4.3**	**3.2**	**0.5**	**7.2**
CZK denominated	*growth in %*	0.3	-1.0	5.9	2.8	-1.4	3.0	1.9	-1.8	3.2	-4.0
FX denominated	*growth in %*	5.7	13.7	9.0	20.5	24.4	6.9	10.0	14.0	-4.6	29.6
Deposits	*growth in %*	**4.9**	**7.6**	**10.3**	**4.6**	**7.8**	**3.0**	**4.2**	**9.5**	**9.0**	**8.5**
CZK denominated	*growth in %*	4.2	5.6	6.7	4.5	13.9	2.1	1.9	9.4	7.1	8.3
FX denominated	*growth in %*	8.0	15.2	23.2	4.8	-11.1	6.6	13.0	9.9	15.3	9.2
Non-performing loans *(banking statistics)*	*share, in %*	**7.4**	**7.0**	**6.0**	**5.2**	**4.7**	**3.7**	**3.4**	**3.3**	**4.2**	**3.5**
Loans to deposits ratio	*in %*	**116**	**110**	**106**	**108**	**105**	**106**	**106**	**100**	**92**	**91**

Note: All indicators, except for the share of non-performing loans, are from the monetary statistics.
Source: CNB, ECB. Calculations of the MoF.

Table 1.4.4: Loans and Deposits – quarterly averages

		2021				2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Households									
Loans	*growth in %*	**6.5**	**7.5**	**8.5**	**9.5**	**10.2**	**8.7**	**7.4**	**5.6**
For consumption	*growth in %*	0.0	1.7	3.3	5.5	7.8	7.1	6.5	6.6
For house purchase	*growth in %*	8.1	9.0	10.0	10.8	11.2	9.4	7.9	5.8
Other lending	*growth in %*	3.8	4.1	4.5	4.4	5.2	5.5	5.0	2.5
CZK denominated	*growth in %*	6.5	7.5	8.5	9.5	10.2	8.6	7.3	5.5
FX denominated	*growth in %*	15.8	11.7	21.6	18.3	22.8	43.1	50.6	55.1
Deposits	*growth in %*	**12.8**	**12.1**	**10.8**	**8.6**	**5.6**	**3.2**	**2.8**	**3.2**
CZK denominated	*growth in %*	12.9	11.9	10.5	8.4	5.3	2.8	2.2	2.6
FX denominated	*growth in %*	12.6	18.2	20.3	15.2	13.2	15.2	17.6	20.1
Non-performing loans *(banking statistics)*	*share, in %*	**1.8**	**1.8**	**1.7**	**1.6**	**1.5**	**1.4**	**1.3**	**1.2**
Loans to deposits ratio	*in %*	**59**	**58**	**59**	**61**	**62**	**62**	**62**	**62**
Non-financial corporations									
Loans	*growth in %*	**-0.1**	**-2.1**	**0.2**	**3.9**	**7.1**	**6.7**	**9.3**	**5.8**
CZK denominated	*growth in %*	-1.7	2.3	5.7	6.6	6.6	-1.3	-8.1	-12.3
FX denominated	*growth in %*	3.1	-10.0	-9.9	-0.9	8.0	22.8	46.5	41.7
Deposits	*growth in %*	**11.1**	**9.0**	**8.9**	**7.0**	**7.2**	**8.1**	**8.6**	**10.0**
CZK denominated	*growth in %*	10.2	6.0	6.7	5.8	7.1	9.0	8.6	8.6
FX denominated	*growth in %*	14.2	20.1	16.5	10.8	7.6	5.6	8.9	14.7
Non-performing loans *(banking statistics)*	*share, in %*	**4.2**	**4.3**	**4.2**	**3.9**	**3.8**	**3.6**	**3.4**	**3.3**
Loans to deposits ratio	*in %*	**93**	**92**	**92**	**93**	**93**	**91**	**92**	**89**

Note: All indicators, except for the share of non-performing loans, are from the monetary statistics.
Source: CNB, ECB. Calculations of the MoF.

Table 1.4.5: Exchange Rates – yearly

		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
								Forecast	*Forecast*	*Outlook*	*Outlook*
Nominal exchange rates											
CZK / EUR	*average*	**26.33**	**25.65**	**25.67**	**26.44**	**25.65**	**24.57**	**23.8**	**23.8**	**23.7**	**23.7**
	appreciation in %	2.7	2.7	-0.1	-2.9	3.1	4.4	3.3	0.1	0.1	0.1
CZK / USD	*average*	**23.39**	**21.74**	**22.94**	**23.20**	**21.68**	**23.36**	**21.9**	**21.6**	**21.4**	**21.2**
	appreciation in %	4.5	7.6	-5.2	-1.1	7.0	-7.2	6.6	1.6	0.9	0.8
NEER	*average of 2015=100*	**105.2**	**109.1**	**108.7**	**106.7**	**110.4**	**114.8**	**119**	**119**	**119**	**119**
	appreciation in %	2.8	3.7	-0.3	-1.9	3.4	4.0	3.4	0.2	0.2	0.2
Real exchange rate to EA19 [1]	*average of 2015=100*	**104.0**	**107.9**	**110.1**	**109.5**	**114.3**	**123.8**	**133**	**133**	**134**	**134**
	appreciation in %	2.8	3.7	2.0	-0.5	4.4	8.3	7.4	0.3	0.4	0.3
REER [2]	*average of 2015=100*	**106.6**	**111.1**	**111.5**	**112.4**	**116.6**	**126.7**	**.**	**.**	**.**	**.**
	appreciation in %	3.9	4.3	0.3	0.8	3.8	8.6	.	.	.	.

[1] *Deflated by GDP deflators.*
[2] *Eurostat calculations, deflated by CPI, versus 42 countries.*
Source: CNB, Eurostat. Calculations and forecast of the MoF.

Table 1.4.6: Exchange Rates – quarterly

		2022				2023			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	*Forecast*	*Forecast*	*Forecast*
Nominal exchange rates									
CZK / EUR	*average*	**24.65**	**24.64**	**24.57**	**24.39**	**23.79**	**23.8**	**23.8**	**23.8**
	appreciation in %	5.7	4.0	3.8	4.1	3.7	3.6	3.4	2.6
CZK / USD	*average*	**21.99**	**23.16**	**24.40**	**23.92**	**22.17**	**21.9**	**21.8**	**21.7**
	appreciation in %	-1.6	-8.2	-11.4	-7.2	-0.8	5.5	11.8	10.0
NEER	*average of 2015=100*	**114.3**	**113.9**	**113.3**	**115.0**	**119**	**119**	**119**	**119**
	appreciation in %	5.0	3.1	2.3	3.7	3.7	4.2	4.8	3.3
Real exchange rate to EA19 [1]	*average of 2015=100*	**120.9**	**122.4**	**126.3**	**125.5**	**133**	**132**	**134**	**133**
	appreciation in %	8.2	6.4	8.9	9.4	9.8	7.8	6.1	5.9
REER [2]	*average of 2015=100*	**125.8**	**126.3**	**127.3**	**127.3**	**.**	**.**	**.**	**.**
	appreciation in %	9.2	8.2	8.4	8.7	.	.	.	.

[1] *Deflated by GDP deflators.*
[2] *Eurostat calculations, deflated by CPI, versus 42 countries.*
Source: CNB, Eurostat. Calculations and forecast of the MoF.

1.5 Demographic Trends

At the beginning of 2022, the Czech Republic had a total population of 10.517 million, which increased by 16.7 thousand during the year to 10.533 million. The increase was due to a positive balance of foreign migration (37.1 thousand). However, this statistic does not yet include persons granted temporary protection in connection with the war in Ukraine. By the end of last year, there were 432,000 of them, but according to the CZSO's estimates, 306,000 of them were actually residing in the Czech Republic at the end of the year. We assume that the vast majority of them were of working age, 26% were children and young people up to 19 years of age and the remaining 4% were seniors. Meanwhile, the data for 2022 should be revised after assessing the nature of temporary protection holders' residence. Therefore, in the forecast we work with adjusted data on international migration, according to which the population of the Czech Republic at the end of 2022 was 10.838 million.

Last year, 99.8 thousand children were **born** alive, 12 thousand fewer than in 2021 and the fewest since 2004. This is due both to changes in the age composition of women of reproductive age and to lower fertility, which in 2022, according to preliminary results, was 1.66 children per woman. The number of **deaths** (120.2 thousand) decreased significantly by 19.7 thousand year-on-year. However, compared to the 2015–2019 average, it was 8.2% higher, which is to some extent influenced by the aging of the population and the COVID-19 disease.

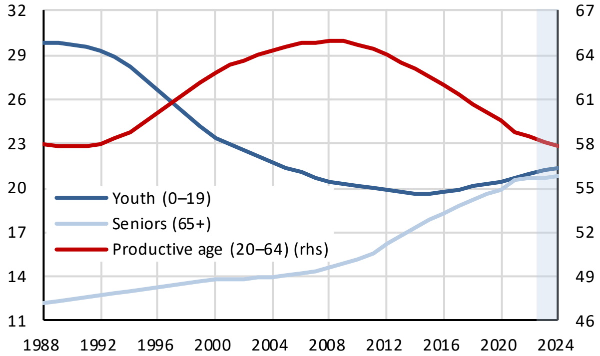
The **balance of foreign migration** decreased by 13 thousand year-on-year to 37.1 thousand. However, if persons with temporary protection granted and residing in the Czech Republic at the end of 2022 were included, the balance would increase by 293 thousand to 343 thousand. The number of emigrants is almost unchanged compared to 2021. The future intensity of migration flows in connection with the war in Ukraine cannot be accurately estimated, but we assume that some refugees will return to Ukraine, while immigration from this country will remain increased (but not nearly as much as it was after the outbreak of the war). Therefore, we keep the migration balance as projected by the CZSO.

Detailed data on the age structure of the Czech population at the beginning of 2023 will be published in June. However, due to the extremely high immigration because of the war in Ukraine, population growth can be expected in all major age categories (0–19, 20–64, 65+).

At the end of 2022, there were a total of 2,367 thousand **old-age pensioners** in the pension system, i.e. 22.5% of the population of the Czech Republic. The extension of the statutory retirement age led to a year-on-year decrease in the number of old-age pensioners by 10.6 thousand, i.e. 0.4%. However, this decline may have been somewhat offset by early retirements due to extraordinary indexation.

Graph 1.5.1: Age Groups

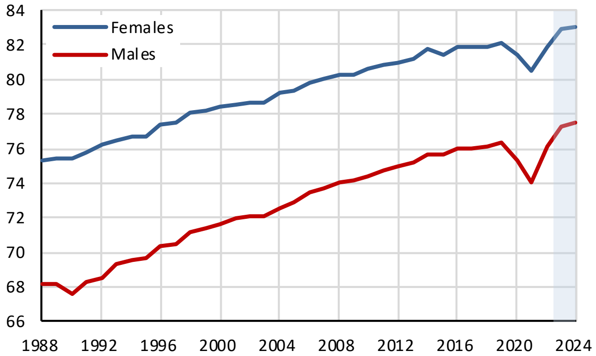
as of 1 January of the given year, shares in total population, in %



Source: CZSO. Calculations of the MoF.

Graph 1.5.2: Life Expectancy at Birth

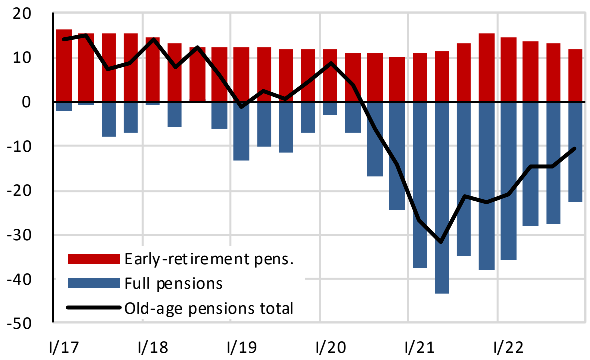
in years



Source: CZSO.

Graph 1.5.3: Old-Age Pensioners

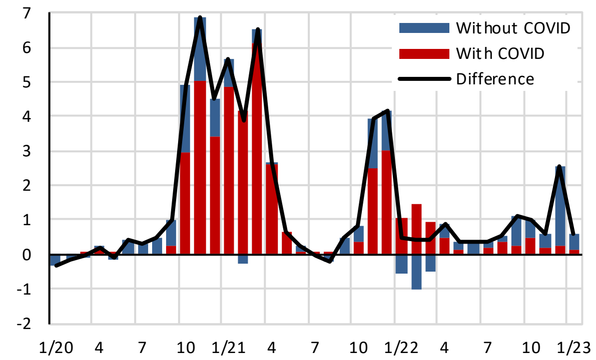
absolute increase over a year in thousands of persons



Source: Czech Social Security Administration. Calculations of the MoF.

Graph 1.5.4: Number of Deaths

difference from the 2015–2019 average, in thousands



Source: CZSO, Ministry of Health. Calculations of the MoF.

Table 1.5.1: Demographics

		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
								Forecast	*Forecast*	*Outlook*	*Outlook*
Population (as of 1 January)	*thous. persons*	**10 579**	**10 610**	**10 650**	**10 694**	**10 495**	**10 517**	**10 838**	**10 853**	**10 865**	**10 875**
	growth in %	0.2	0.3	0.4	0.4	-1.9	0.2	3.1	0.1	0.1	0.1
0–19 years	*thous. persons*	2 106	2 133	2 160	2 188	2 171	2 197	2 306	2 318	2 324	2 324
	growth in %	1.2	1.3	1.3	1.3	-0.8	1.2	5.0	0.5	0.3	0.0
20–64 years	*thous. persons*	6 484	6 437	6 403	6 374	6 172	6 151	6 294	6 272	6 263	6 258
	growth in %	-0.9	-0.7	-0.5	-0.4	-3.2	-0.3	2.3	-0.3	-0.1	-0.1
65 and more years	*thous. persons*	1 989	2 040	2 087	2 132	2 152	2 169	2 238	2 263	2 278	2 293
	growth in %	2.9	2.6	2.3	2.2	0.9	0.8	3.2	1.1	0.6	0.7
Old-age pensioners (as of 1 January) [1]	*thous. persons*	**2 395**	**2 404**	**2 410**	**2 415**	**2 400**	**2 378**	**2 367**	**2 418**	**2 408**	**2 399**
	growth in %	0.8	0.4	0.3	0.2	-0.6	-0.9	-0.4	2.1	-0.4	-0.3
Old-age dependency ratios (as of 1 January)											
Demographic [2]	*%*	30.7	31.7	32.6	33.4	34.9	35.3	35.6	36.1	36.4	36.6
Under current legislation [3]	*%*	40.1	40.4	40.4	40.5	41.2	40.6	39.9	39.6	39.4	39.1
Effective [4]	*%*	46.2	45.7	45.2	45.5	46.0	45.2	45.6	46.7	46.4	46.1
Fertility rate	*children*	**1.687**	**1.708**	**1.709**	**1.707**	**1.827**	**1.660**	**1.70**	**1.70**	**1.71**	**1.71**
Population increase	*thous. persons*	**31**	**40**	**44**	**8**	**22**	**322**	**15**	**12**	**9**	**7**
Natural increase	*thous. persons*	**3**	**1**	**0**	**-19**	**-28**	**-20**	**-11**	**-14**	**-17**	**-19**
Live births	*thous. persons*	114	114	112	110	112	100	103	101	99	98
Deaths	*thous. persons*	111	113	112	129	140	120	114	115	116	117
Net migration	*thous. persons*	**28**	**39**	**44**	**27**	**50**	**343**	**26**	**26**	**26**	**26**
Immigration	*thous. persons*	46	58	66	56	69	363	.	.	.	.
Emigration	*thous. persons*	18	20	21	29	19	20	.	.	.	.
Census difference	*thous. persons*	**x**	**x**	**x**	**x**	**-207**	**x**	**x**	**x**	**x**	**x**

Note: Between 2020 and 2021, there is a break in the population time series resulting from the 2021 Census.
[1] In 2010 disability pensions of pensioners over 64 were transferred into old-age pensions.
[2] Demographic dependency: ratio of people in senior ages (65 and more) to people in productive age (20–64).
[3] Dependency under current legislation: ratio of people above the official retirement age to the people over 19 below the official retirement age.
[4] Effective dependency: ratio of old-age pensioners to working people (LFS methodology).
Source: Czech Social Security Administration, CZSO. Calculations and forecast of the MoF.

1.6 Other Assumptions

In addition to the factors mentioned in the previous chapters, the forecast is based on the following assumptions:

– the ongoing war in Ukraine will not lead to a renewed rise in commodity prices in world markets;
– the cut in gas supplies from Russia to the EU will be replaced by a combination of increased gas imports from other countries (including liquefied natural gas), savings and a switch to alternative technologies;
– problems in supply chains will persist this year, but their intensity – along with upward pressures on the price level – will gradually decrease;
– thanks to the vaccination, high number of people who have contracted COVID-19 and wider treatment options, it will not be necessary to adopt macroeconomically significant restrictions should the epidemic situation worsen in the future;
– a temporary windfall profits tax is introduced in 2023–2025 for exceptionally profitable companies in the energy production and trading, banking, petroleum and fossil fuel mining sectors;
– electricity producers are also subject to the levy on excess revenues this year;
– rates of major taxes and compulsory levies (value added tax, personal and corporate income tax, social and health insurance contributions) will otherwise remain unchanged;
– the minimum wage and the lowest levels of the guaranteed wage will be increased in the coming years in line with the forecast growth of the average nominal wage.

2 Economic Cycle

2.1 Position within the Economic Cycle

As a result of the pandemic and related measures, the Czech economy fell into the deepest negative **output gap** in history. Real gross value added fell short of its potential level by more than 8% in Q2 2020, but the subsequent economic recovery has led to a moderation of the decline. Thus, for the full year 2020, the output gap was −2.4% (*vs.* −2.3%), less negative than both the 2009 and 2013 recessions.

The output gap, which has been in negative territory since the middle of last year, is expected to widen further until Q2 2023. As a result of only moderate economic growth, the economy should remain below the potential output over the entire forecast horizon. However, given the extreme uncertainty and volatility of economic developments, the outlook should be treated with caution.

Potential output, whose growth slowed considerably in 2020 and 2021 due to the economic recession, increased by 2.1% in 2022 (*unchanged*). This year, its growth could accelerate to 2.5% (*vs. 2.2%*) and could be above 2% in the following years.

The trend component of **total factor productivity** has long been the main driver of potential output developments. Its contribution has been around 1 pp in recent years and could increase gradually over the forecast horizon, but it should continue to lag behind its long-term average.

A significant reduction in investment activity in 2020 and only a slight recovery in 2021 resulted in a slower increase in the **capital stock**. The subsequent acceleration in investment spending last year led to a stronger boost to potential output. At the expected pace of gross fixed capital formation, this factor could boost potential growth by 0.7 pp in 2023 (*unchanged*).

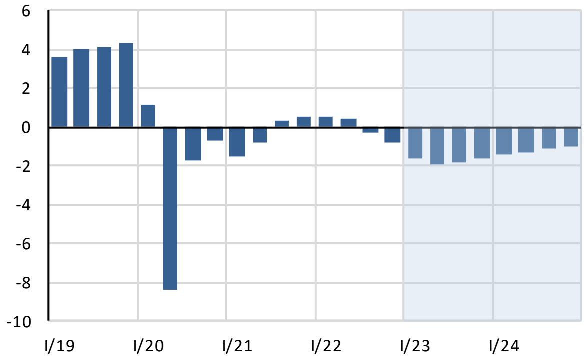
The gradual ageing of the population is reflected in a long-term decline in the number of people in the working age group (20–64), which has a negative impact on **labour supply**. On the other hand, the arrival of refugees from Ukraine could contribute positively over the forecast horizon. The time series of the employed, unemployed and working-age population have been adjusted in line with the results of the 2021 Population and Housing Census. This year, demographic developments could support potential growth by 1.0 pp (*unchanged*).

Economic growth, accompanied by rising labour demand, was reflected in a rapid increase in the **participation rate** until 2018. Due to the lagged negative impact of the recession on the labour market, this factor could subtract 0.5 pp from potential growth this year (*unchanged*).

The average number of **hours usually worked** exhibits a long-term downward trend. While in 2017–2020 this number ranged from 39.9 to 40.2 hours, in 2021 values between 39.3 and 39.5 hours were reported. This has created a sharp break in the time series (see Graph 2.1.4), which has no economic justification and is most likely due to methodological changes in the LFS. Given the disappearance of this factor, the contribution of the number of hours usually worked could be neutral in 2023 (vs. *0.1 pp*).

Graph 2.1.1: Output Gap

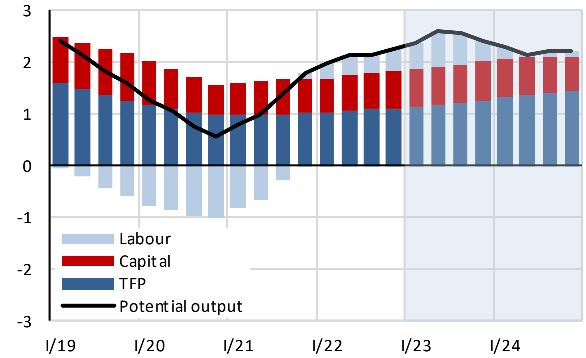
in % of potential product



Source: CZSO. Calculations and forecast of the MoF.

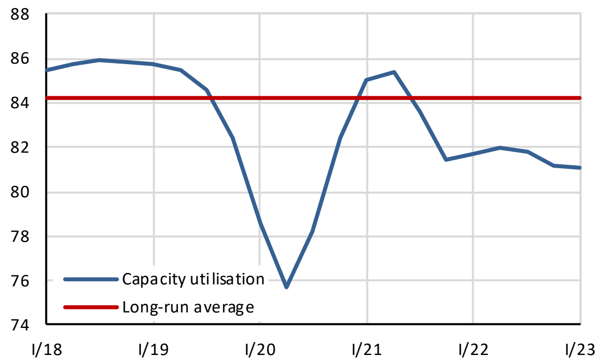
Graph 2.1.2: Potential Output

YoY growth rate in %, contributions in percentage points



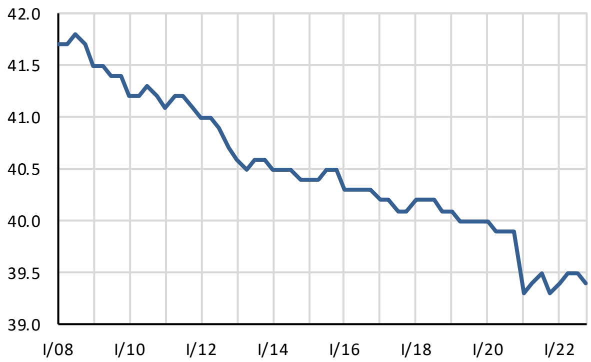
Source: CZSO. Calculations and forecast of the MoF.

Graph 2.1.3: Capacity Utilisation in Industry
smoothed by Hodrick-Prescott filter, in %



Source: CZSO.

Graph 2.1.4: Hours Usually Worked
number of hours usually worked per week



Source: Eurostat.

Table 2.1.1: Output Gap and Potential Product

		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
								Forecast	*Forecast*	*Outlook*	*Outlook*
Output gap	*%*	**2.3**	**3.1**	**4.0**	**-2.4**	**-0.3**	**0.0**	**-1.8**	**-1.2**	**-0.4**	**-0.1**
Potential product	*growth in %*	**2.7**	**2.6**	**2.0**	**0.9**	**1.2**	**2.1**	**2.5**	**2.2**	**2.2**	**2.2**
Contributions											
Trend total factor productivity	*pp*	2.2	1.9	1.4	1.1	1.0	1.1	1.2	1.4	1.5	1.6
Fixed assets	*pp*	0.5	0.6	0.9	0.7	0.6	0.7	0.7	0.7	0.6	0.6
Population 20–64 years	*pp*	-0.6	-0.5	-0.4	-0.4	-0.2	-0.1	1.0	0.0	-0.1	0.0
Participation rate	*pp*	0.7	0.7	0.2	-0.2	0.2	0.6	-0.5	0.2	0.1	0.1
Usually worked hours	*pp*	-0.2	-0.1	-0.1	-0.3	-0.4	-0.1	0.0	0.0	0.0	0.0

Source: CZSO. Calculations and forecast of the MoF.

2.2 Business Cycle Indicators

The development of confidence indicators in Q1 2023 points to moderate quarter-on-quarter growth in gross value added in industry, trade and services. In construction, the confidence indicator signals a continued quarter-on-quarter decline in gross value added. However, the correlation between the evolution of confidence and GVA in the construction sector is very low.

The composite indicator of exports of goods, compiled by the MoF from sub-questions of the CZSO's business cycle survey and business confidence in Germany, indicates an approximate stagnation in the quarter-on-quarter growth rate of exports of goods.

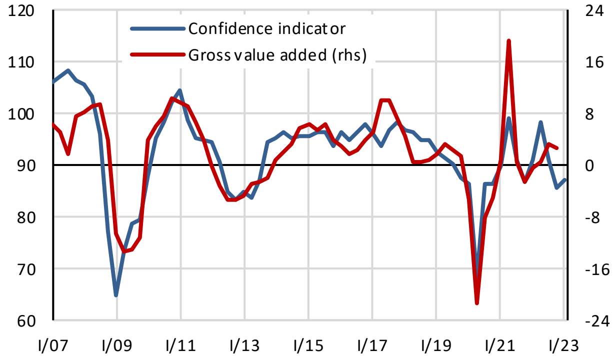
The CZSO's consumer confidence indicator strengthened noticeably quarter-on-quarter in Q1 2023. Its development for the first half of 2023 (the confidence indicator has a lead of 1–2 quarters) signals a reduction in the negative year-on-year dynamics of household final consumption expenditure. The consumer confidence indicator, compiled by the MoF from sub-questions of the European Commission's consumer survey, also rose in Q1 2023, compared with the previous period. The persistent pessimism of consumers stemmed mainly from a significantly negative assessment of the economic situation, and to a lesser extent also from worse financial situation of households and their lower ability to make purchases.

As a result, the composite confidence indicator signals a small year-on-year decline in total GVA in Q1 2023.

According to the composite leading indicator, the negative output gap should widen in early 2023 in response to persistent inflationary pressures. This is in line with our current assessment of the economy's position in the business cycle (see Chapter 2.1).

Graph 2.2.1: Confidence and GVA in Industry

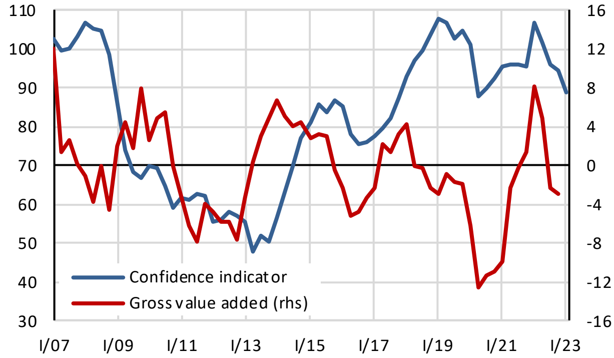
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

Graph 2.2.2: Confidence and GVA in Construction

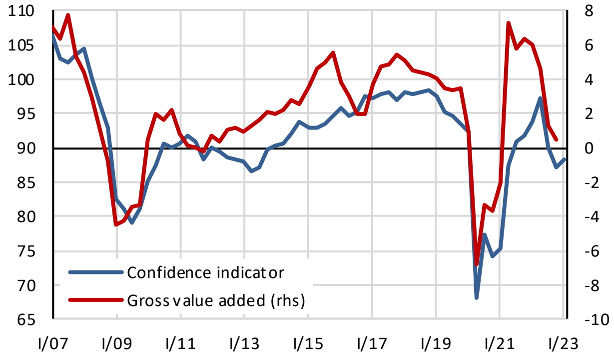
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

Graph 2.2.3: Confidence and GVA in Trade and Services

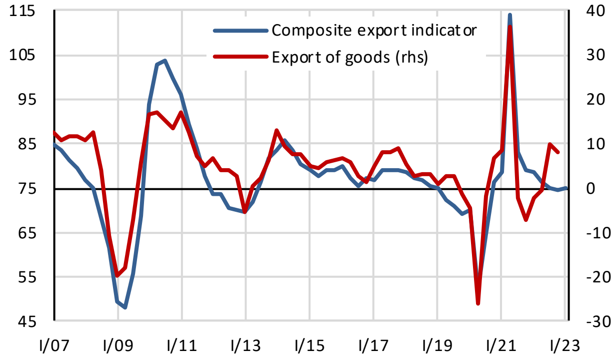
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO. Calculations of the MoF.

Graph 2.2.4: Composite Export Indicator

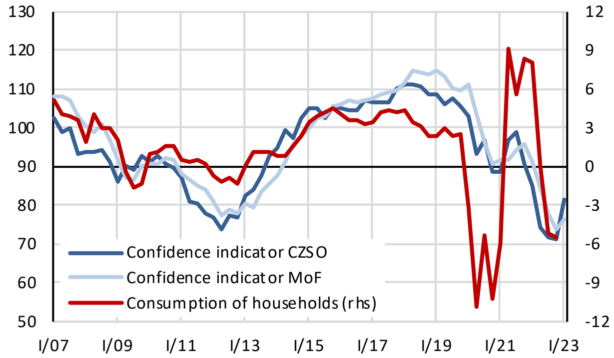
2010=100 (lhs), YoY growth in % (rhs)



Source: CESifo, CZSO. Calculations of the MoF.

Graph 2.2.5: Consumer Confidence and Consumption

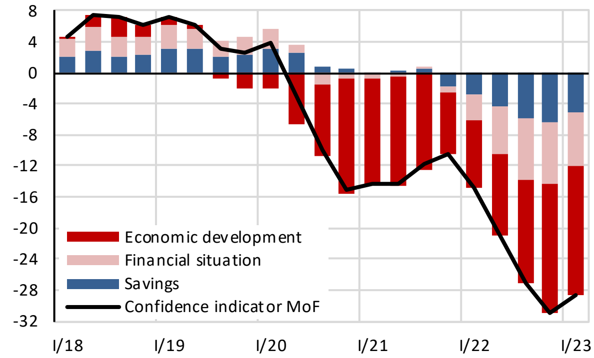
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO, European Commission. Calculations of the MoF.

Graph 2.2.6: Decomposition of Consumer Sentiment

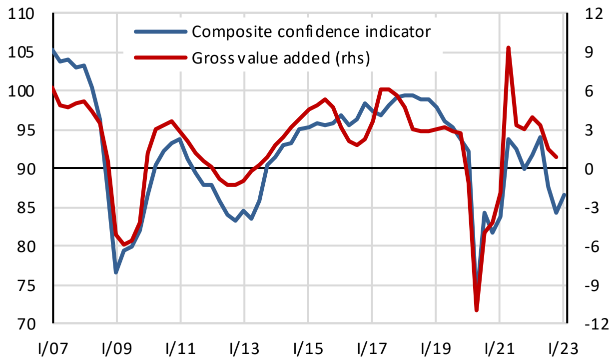
consumer confidence indicator of the MoF, balance, contributions



Source: European Commission. Calculations of the MoF.

Graph 2.2.7: Composite Confidence Indicator and GVA

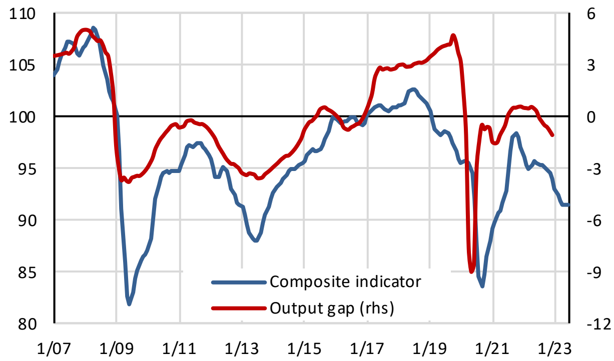
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

Graph 2.2.8: Composite Leading Indicator

2005=100 (lhs), in % of potential output (rhs)



Source: CZSO. Calculations of the MoF.

3 Forecast of Macroeconomic Developments in the CR

3.1 Economic Output

The Czech economy grew by 0.1% YoY (*vs. a decline of 0.3%*) in **Q4 2022**, while the seasonally adjusted **GDP** was 0.4% lower than in the previous quarter (*vs. 0.9%*). Economic activity was boosted most by manufacturing, but was noticeably dampened by a decline in value added in industry other than manufacturing. The CZSO's data revision deepened the quarter-on-quarter decline in real GDP by 0.1 pp in Q3 2022.

Household consumption fell by 5.5% YoY (*vs. 4.7%*), due to both a fall in real disposable income and a rise in the savings rate. Households cut back mostly spending on durable and semi-durable consumer goods, but purchases of non-durable goods also fell. Only expenditure on services increased.

Government consumption increased by 1.1% YoY (*vs. 1.3%*), mainly due to continued growth in public sector employment. By contrast, declines in real transfers in kind and purchases of goods and services dampened the growth rate of consumption.

Gross fixed capital formation increased by 2.7% (*vs. 0.0%*) thanks to higher investment in machinery, equipment and intellectual property products. However, the year-on-year decline in investment in dwellings deepened. From the sectoral perspective, investment activity was driven by business investment, supported by the lagged effect of easy monetary conditions and the recovery in export markets. The decline in general government investment was mitigated by EU-funded projects.

With a slightly negative contribution of **inventory change** to GDP growth of −0.2 pp, gross capital formation rose by 2.0% (*vs. 0.7%*). Firms have probably maintained a significant accumulation of inventories to avoid component supply shortages or losses resulting from high inflation; but unsold production due to weak demand may also have had an impact.

The **foreign trade balance** contributed positively to GDP growth by 1.8 pp. The easing of supply chain problems and economic growth abroad had a positive impact on exports of goods and services, which grew by 9.3% (*vs. 7.0%*) in Q4 2022. Imports of goods and services then strengthened by 6.9% (*vs. 5.2%*) thanks to export growth and higher fixed capital investment.

At the beginning of this year, the economy remained in a mild recession due to the deterioration in the main export markets, supply shortfalls of key components for manufacturing and construction, and energy prices. From Q2 2023 onwards, however, economic activity is expected to be recovering. The baseline scenario of the forecast assumes that gas supplies are secured from storage facilities and gradually also from new LNG terminals. As a result, economic growth in **2023** is expected to be only 0.1% (*vs. a decline of 0.5%*). The economy will be boosted by investment activity and foreign trade, while the decline in household consumption will continue due to high inflation. In 2024, real GDP could increase by 3.0% with a positive contribution from external and domestic demand.

Household final consumption expenditure should be negatively affected this year by the continued decline in real disposable income and the restrictive monetary policy stance. The year-on-year dynamics will be strongly negatively affected by the growth profile of consumption in 2022. On the contrary, consumer spending by refugees from Ukraine, who are already classified mainly as residents from Q4 2022, will have a positive effect. Given the persistently negative household sentiment, the savings rate is likely to remain elevated, with its decline expected to stimulate household consumption more significantly next year. Nevertheless, the savings rate will remain above its long-term average. In view of these strongly negative factors, real household consumption could fall by 2.7% this year (*vs. 2.2%*). In 2024, the aforementioned drawdown in savings should be complemented by a renewed rise in real household incomes in the face of easing inflation, as a result of which we expect consumer spending to recover by 3.9%.

Government consumption could grow by 1.6% (*vs. 1.5%*) in 2023. The migration wave from Ukraine has led to an increase in staff capacity, especially in education, which will be reflected in employment growth. Purchases of goods and services will be supported this year by current subsidies from EU funds as the end of the 2014–2020 financial perspective approaches. In 2024, growth in general government consumption could slow slightly to 1.3%. In addition to lower employment dynamics in the general government sector, the impact of the transition to the new financial perspective 2021–2027 will also be visible, but will be somewhat offset by the ramp-up of current projects from other EU instruments, in particular the Recovery and Resilience Facility.

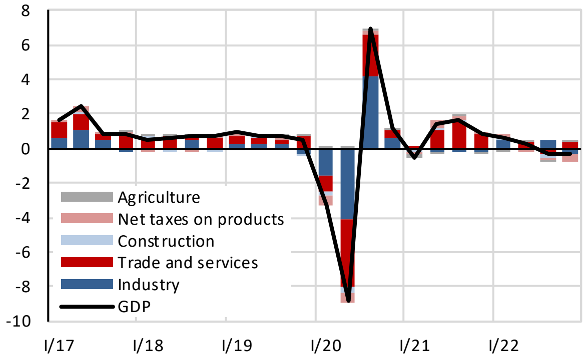
Gross fixed capital formation is expected to slow down in 2023 due to economic problems in euro area countries and rising capital goods prices. Monetary conditions, which will become restrictive towards the end of the year, will also take a toll on its dynamics. In contrast, investment activity will be positively affected by government spending co-financed by EU funds from the previous financial perspective. Thanks to economic growth in the euro area, we expect a recovery in private investment next year, but this will be hampered by the impact of the restrictive monetary policy stance. The transition to the new financial perspective of the European Structural and Investment Funds will see a decline in investment by the general government sector, largely offset by an increase in public investment from national sources. Thus, gross fixed capital formation may increase by 2.8% (*vs. 1.8%*) in 2023, while growth could slow to 0.5% in 2024.

We assume that the **change in inventories** will have a negative effect on GDP growth over the entire forecast horizon. However, inventory accumulation will remain high in magnitude because of firms' efforts to ensure continuity of the production process in the event of recurrent supply disruptions of key components. As a result, gross capital formation may increase by 0.9% (*vs. a decline of 2.1%*) this year and fall by 1.6% next year.

Exports of goods and services are expected to grow by 4.1% (*vs. 2.9%*) this year. The impact of the slowdown in export markets will be largely cushioned this year by a pick-up in export performance driven by the unwinding of supply chain problems and the completion of work-in-progress inventories (see Section 3.4). The projected acceleration of export growth to 4.7% in 2024 reflects the recovery of economic activity in the countries of major trading partners as well as the unwinding of supply-side frictions. The dynamism of exports and import-intensive investment demand is then reflected in the pace of **imports of goods and services**, which could rise by 3.0% (*vs. 1.7%*) in 2023. The slowdown in growth to 2.8% in 2024 mainly reflects the decline in gross capital formation.

Graph 3.1.1: Resources of Gross Domestic Product

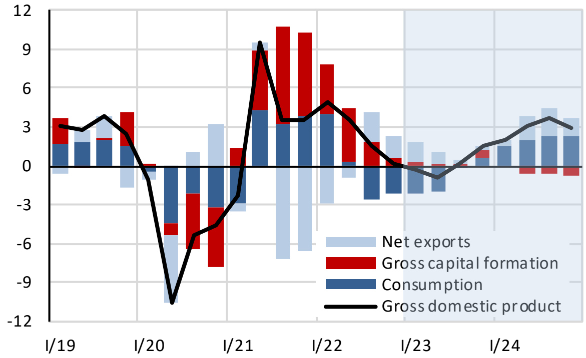
QoQ growth rate of real GDP in %, contrib. in pp, season. adjusted



Source: CZSO. Calculations of the MoF.

Graph 3.1.2: GDP by Type of Expenditure

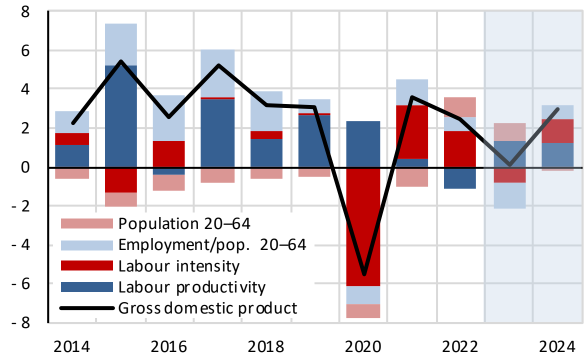
YoY growth rate of real GDP in %, contributions in pp



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.1.3: Real Gross Domestic Product

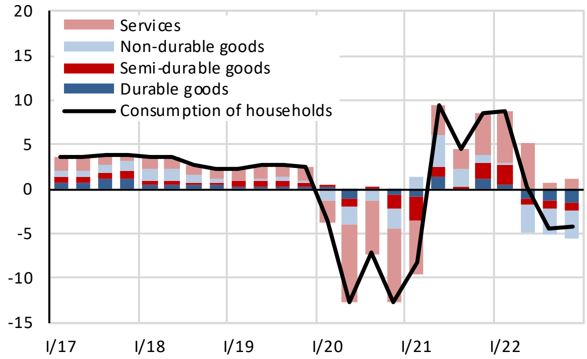
growth in %, contributions in percentage points



Note: Labour intensity gauges the number of hours worked per worker.
Source: CZSO. Calculations and forecast of the MoF.

Graph 3.1.4: Real Consumption of Households

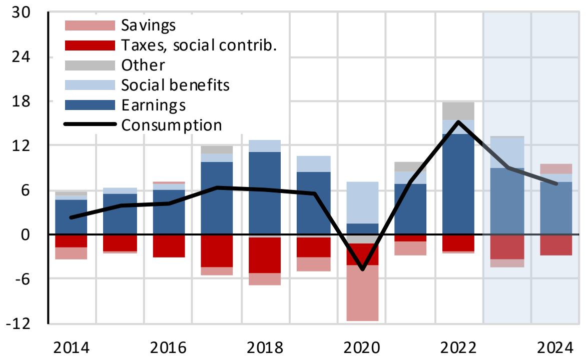
domestic concept, YoY growth rate in %, contributions in pp



Source: CZSO. Calculations of the MoF.

Graph 3.1.5: Nominal Consumption of Households

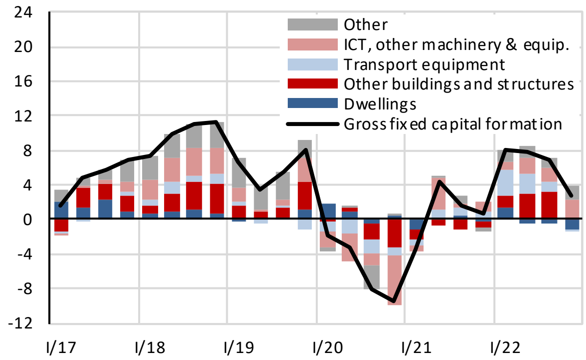
national concept, YoY growth rate in %, contributions in pp



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.1.6: Investment by Type of Expenditure

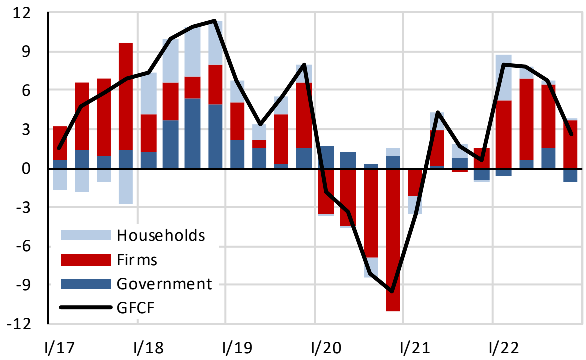
YoY growth rate of real GFCF in %, contributions in pp



Source: CZSO. Calculations of the MoF.

Graph 3.1.7: Investment by Sector

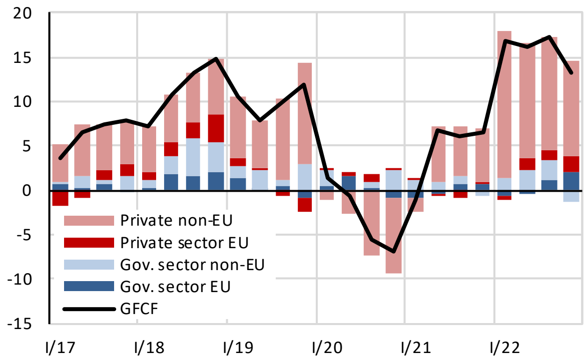
YoY growth rate of real GFCF in %, contributions in percentage points



Source: CZSO. Calculations of the MoF.

Graph 3.1.8: Sources of Investment Financing

YoY growth rate of nominal GFCF in %, contributions in pp



Source: CZSO. Calculations of the MoF.

Table 3.1.1: Real GDP by Type of Expenditure – yearly

chained volumes, reference year 2015

		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
								Forecast	*Forecast*	*Outlook*	*Outlook*
Gross domestic product	*bill. CZK 2015*	**4 988**	**5 148**	**5 304**	**5 013**	**5 191**	**5 318**	**5 326**	**5 483**	**5 644**	**5 785**
	growth in %	5.2	3.2	3.0	-5.5	3.6	2.5	0.1	3.0	2.9	2.5
	growth in % [1]	5.3	3.2	3.0	-5.5	3.5	2.5	0.3	2.8	3.0	2.6
Private consumption expenditure [2]	*bill. CZK 2015*	**2 355**	**2 438**	**2 504**	**2 322**	**2 418**	**2 397**	**2 333**	**2 424**	**2 520**	**2 596**
	growth in %	4.0	3.5	2.7	-7.2	4.1	-0.9	-2.7	3.9	4.0	3.0
Government consumption exp.	*bill. CZK 2015*	**913**	**949**	**973**	**1 014**	**1 027**	**1 034**	**1 051**	**1 064**	**1 081**	**1 101**
	growth in %	1.8	3.9	2.5	4.2	1.4	0.6	1.6	1.3	1.6	1.8
Gross capital formation	*bill. CZK 2015*	**1 323**	**1 425**	**1 489**	**1 351**	**1 609**	**1 746**	**1 761**	**1 733**	**1 718**	**1 716**
	growth in %	6.5	7.7	4.5	-9.3	19.1	8.5	0.9	-1.6	-0.8	-0.1
Gross fixed capital formation	*bill. CZK 2015*	1 248	1 374	1 455	1 368	1 379	1 465	1 506	1 513	1 546	1 584
	growth in %	4.9	10.0	5.9	-6.0	0.8	6.2	2.8	0.5	2.2	2.4
Change in stocks and valuables	*bill. CZK 2015*	75	51	34	-16	230	281	255	219	172	132
Exports of goods and services	*bill. CZK 2015*	**4 168**	**4 322**	**4 386**	**4 034**	**4 312**	**4 556**	**4 741**	**4 964**	**5 121**	**5 267**
	growth in %	7.2	3.7	1.5	-8.0	6.9	5.7	4.1	4.7	3.2	2.9
Imports of goods and services	*bill. CZK 2015*	**3 771**	**3 989**	**4 051**	**3 719**	**4 214**	**4 453**	**4 588**	**4 716**	**4 802**	**4 894**
	growth in %	6.3	5.8	1.5	-8.2	13.3	5.7	3.0	2.8	1.8	1.9
Gross domestic expenditure	*bill. CZK 2015*	**4 592**	**4 811**	**4 964**	**4 693**	**5 053**	**5 173**	**5 141**	**5 221**	**5 322**	**5 418**
	growth in %	4.3	4.8	3.2	-5.5	7.7	2.4	-0.6	1.6	1.9	1.8
Methodological discrepancy [3]	*bill. CZK 2015*	-1	3	3	10	38	39	28	15	7	-1
Real gross domestic income	*bill. CZK 2015*	**4 988**	**5 149**	**5 324**	**5 083**	**5 259**	**5 218**	**5 251**	**5 435**	**5 606**	**5 753**
	growth in %	4.3	3.2	3.4	-4.5	3.4	-0.8	0.6	3.5	3.2	2.6
Contributions to GDP growth [4]											
Gross domestic expenditure	*pp*	**3.9**	**4.4**	**3.0**	**-5.1**	**7.1**	**2.3**	**-0.6**	**1.5**	**1.9**	**1.7**
Consumption	*pp*	**2.3**	**2.4**	**1.8**	**-2.6**	**2.2**	**-0.3**	**-0.9**	**2.1**	**2.1**	**1.8**
Household expenditure	*pp*	1.9	1.7	1.3	-3.4	1.9	-0.4	-1.2	1.8	1.8	1.4
Government expenditure	*pp*	0.3	0.7	0.5	0.8	0.3	0.1	0.3	0.3	0.3	0.3
Gross capital formation	*pp*	**1.7**	**2.0**	**1.2**	**-2.6**	**5.0**	**2.6**	**0.3**	**-0.5**	**-0.3**	**0.0**
Gross fixed capital formation	*pp*	1.2	2.5	1.6	-1.6	0.2	1.6	0.8	0.1	0.6	0.6
Change in stocks	*pp*	0.5	-0.5	-0.3	-0.9	4.8	1.0	-0.5	-0.7	-0.8	-0.7
Foreign balance	*pp*	**1.2**	**-1.2**	**0.0**	**-0.4**	**-3.6**	**0.2**	**0.8**	**1.4**	**1.0**	**0.8**
External balance of goods	*pp*	0.9	-1.0	0.4	-0.3	-3.6	0.8	0.7	1.2	0.9	0.7
External balance of services	*pp*	0.3	-0.2	-0.4	-0.1	0.0	-0.6	0.0	0.2	0.2	0.1
Gross value added	*bill. CZK 2015*	**4 491**	**4 644**	**4 784**	**4 532**	**4 687**	**4 802**	.	.	.	.
	growth in %	5.2	3.4	3.0	-5.3	3.4	2.4	.	.	.	.
Net taxes and subsidies on products	*bill. CZK 2015*	**497**	**504**	**521**	**480**	**504**	**517**	.	.	.	.

[1] *From working day adjusted data.*

[2] *Including consumption of non-profit institutions serving households (NPISH).*

[3] *Deterministic impact of using prices and structure of the previous year for calculation of y-o-y growth.*

[4] *Calculated on the basis of prices and structure of the previous year with perfectly additive contributions.*

Source: CZSO. Calculations and forecast of the MoF.

Table 3.1.2: Real GDP by Type of Expenditure – quarterly

chained volumes, reference year 2015

		2022				2023			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	*Forecast*	*Forecast*	*Forecast*
Gross domestic product	*bill. CZK 2015*	**1 260**	**1 354**	**1 350**	**1 353**	**1 257**	**1 342**	**1 353**	**1 374**
	growth in %	4.9	3.5	1.6	0.1	-0.3	-0.9	0.2	1.5
	growth in % [1]	4.7	3.5	1.5	0.3	-0.6	-0.4	0.5	1.6
	QoQ in % [1]	0.6	0.3	-0.3	-0.4	-0.2	0.5	0.6	0.7
Private consumption expenditure [2]	*bill. CZK 2015*	**590**	**612**	**599**	**597**	**559**	**581**	**586**	**607**
	growth in %	8.3	-0.1	-5.0	-5.5	-5.3	-5.0	-2.0	1.7
Government consumption exp.	*bill. CZK 2015*	**241**	**249**	**250**	**293**	**244**	**254**	**260**	**294**
	growth in %	1.3	1.7	-1.6	1.1	1.1	1.8	3.7	0.1
Gross capital formation	*bill. CZK 2015*	**382**	**456**	**477**	**431**	**386**	**458**	**478**	**439**
	growth in %	14.3	13.7	5.8	2.0	1.0	0.4	0.2	2.0
Gross fixed capital formation	*bill. CZK 2015*	320	372	377	396	329	382	382	413
	growth in %	8.0	7.9	6.8	2.7	3.0	2.7	1.4	4.2
Change in stocks and valuables	*bill. CZK 2015*	62	85	100	35	56	76	96	27
Exports of goods and services	*bill. CZK 2015*	**1 104**	**1 149**	**1 099**	**1 203**	**1 184**	**1 202**	**1 116**	**1 239**
	growth in %	1.2	1.6	11.1	9.3	7.2	4.6	1.6	2.9
Imports of goods and services	*bill. CZK 2015*	**1 064**	**1 120**	**1 083**	**1 186**	**1 117**	**1 159**	**1 098**	**1 214**
	growth in %	5.4	3.0	7.5	6.9	5.1	3.5	1.3	2.4
Gross domestic expenditure	*bill. CZK 2015*	**1 211**	**1 315**	**1 324**	**1 323**	**1 188**	**1 291**	**1 322**	**1 339**
	growth in %	8.4	4.6	-0.7	-1.6	-2.0	-1.8	-0.1	1.3
Methodological discrepancy [3]	*bill. CZK 2015*	**7**	**8**	**9**	**15**	**2**	**6**	**11**	**10**
Real gross domestic income	*bill. CZK 2015*	**1 260**	**1 321**	**1 313**	**1 324**	**1 254**	**1 309**	**1 329**	**1 360**
	growth in %	2.7	-0.8	-2.4	-2.3	-0.5	-0.9	1.3	2.7
Gross value added	*bill. CZK 2015*	**1 144**	**1 222**	**1 215**	**1 220**	**.**	**.**	**.**	**.**
	growth in %	4.3	3.4	1.6	0.7	.	.	.	.
	growth in % [1]	4.0	3.4	1.5	0.8	.	.	.	.
	QoQ in % [1]	0.5	0.5	-0.2	0.1	.	.	.	.
Net taxes and subsidies on products	*bill. CZK 2015*	**116**	**132**	**136**	**134**	**.**	**.**	**.**	**.**

[1] *From seasonally and working day adjusted data*

[2] *Including consumption of non-profit institutions serving households (NPISH).*

[3] *Deterministic impact of using prices and structure of the previous year for calculation of y-o-y growth.*

Source: CZSO. Calculations and forecast of the MoF.

Table 3.1.3: Nominal GDP by Type of Expenditure – yearly

		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
								Forecast	*Forecast*	*Outlook*	*Outlook*
Gross domestic product	*bill. CZK*	**5 111**	**5 411**	**5 791**	**5 709**	**6 109**	**6 795**	**7 475**	**7 989**	**8 451**	**8 856**
	growth in %	6.5	5.9	7.0	-1.4	7.0	11.2	10.0	6.9	5.8	4.8
Private consumption expenditure [1)]	*bill. CZK*	**2 420**	**2 568**	**2 711**	**2 588**	**2 772**	**3 187**	**3 471**	**3 706**	**3 942**	**4 145**
	growth in %	6.5	6.1	5.6	-4.5	7.1	15.0	8.9	6.8	6.4	5.1
Government consumption exp.	*bill. CZK*	**959**	**1 050**	**1 134**	**1 243**	**1 310**	**1 374**	**1 481**	**1 547**	**1 609**	**1 673**
	growth in %	5.4	9.5	8.0	9.5	5.4	4.8	7.8	4.5	4.0	4.0
Gross capital formation	*bill. CZK*	**1 348**	**1 472**	**1 599**	**1 493**	**1 846**	**2 242**	**2 441**	**2 499**	**2 552**	**2 604**
	growth in %	8.0	9.2	8.7	-6.6	23.6	21.5	8.9	2.4	2.1	2.0
Gross fixed capital formation	*bill. CZK*	1 273	1 423	1 568	1 516	1 589	1 838	2 004	2 083	2 186	2 287
	growth in %	6.4	11.7	10.2	-3.3	4.8	15.7	9.1	3.9	5.0	4.6
Change in stocks and valuables	*bill. CZK*	74	49	31	-22	257	404	437	416	365	317
External balance	*bill. CZK*	**384**	**321**	**347**	**385**	**181**	**-7**	**82**	**237**	**348**	**434**
Exports of goods and services	*bill. CZK*	4 039	4 163	4 279	3 993	4 443	5 085	5 468	5 903	6 233	6 528
	growth in %	6.4	3.1	2.8	-6.7	11.3	14.5	7.5	8.0	5.6	4.7
Imports of goods and services	*bill. CZK*	3 654	3 842	3 932	3 608	4 262	5 092	5 386	5 666	5 885	6 094
	growth in %	6.6	5.1	2.3	-8.2	18.1	19.5	5.8	5.2	3.9	3.6
Gross national income	*bill. CZK*	**4 821**	**5 114**	**5 441**	**5 424**	**5 859**	**6 500**	**7 232**	**7 709**	**8 141**	**8 516**
	growth in %	7.8	6.1	6.4	-0.3	8.0	10.9	11.3	6.6	5.6	4.6
Primary income balance	*bill. CZK*	**-289**	**-297**	**-350**	**-285**	**-250**	**-295**	**-243**	**-280**	**-309**	**-340**

[1)] Including consumption of non-profit institutions serving households (NPISH).
Source: CZSO. Calculations and forecast of the MoF.

Table 3.1.4: Nominal GDP by Type of Expenditure – quarterly

		2022				2023			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	*Forecast*	*Forecast*	*Forecast*
Gross domestic product	*bill. CZK*	**1 540**	**1 699**	**1 759**	**1 796**	**1 733**	**1 853**	**1 909**	**1 981**
	growth in %	11.3	10.6	11.5	11.5	12.5	9.0	8.5	10.3
Private consumption expenditure [1]	*bill. CZK*	**741**	**806**	**820**	**819**	**827**	**863**	**876**	**905**
	growth in %	21.2	15.6	12.8	11.3	11.6	7.0	6.8	10.5
Government consumption exp.	*bill. CZK*	**304**	**326**	**330**	**414**	**335**	**356**	**351**	**439**
	growth in %	6.7	3.4	1.5	7.5	10.4	9.3	6.4	5.9
Gross capital formation	*bill. CZK*	**465**	**573**	**631**	**573**	**515**	**625**	**680**	**622**
	growth in %	24.3	26.9	19.7	16.2	10.8	9.0	7.8	8.6
Gross fixed capital formation	*bill. CZK*	388	452	481	517	427	494	517	566
	growth in %	16.7	16.1	17.2	13.2	10.0	9.3	7.5	9.6
Change in stocks and valuables	*bill. CZK*	77	121	150	56	88	131	163	56
External balance	*bill. CZK*	**31**	**-6**	**-22**	**-10**	**56**	**9**	**2**	**15**
Exports of goods and services	*bill. CZK*	1 186	1 293	1 260	1 347	1 334	1 398	1 313	1 422
	growth in %	8.2	12.2	21.7	16.2	12.4	8.1	4.3	5.6
Imports of goods and services	*bill. CZK*	1 155	1 299	1 282	1 357	1 278	1 389	1 311	1 408
	growth in %	17.6	20.3	23.6	16.7	10.6	6.9	2.3	3.8

[1)] Including consumption of non-profit institutions serving households (NPISH).
Source: CZSO. Calculations and forecast of the MoF.

Table 3.1.5: GDP by Type of Income – yearly

		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
								Forecast	*Forecast*	*Outlook*	*Outlook*
GDP	*bill. CZK*	**5 111**	**5 411**	**5 791**	**5 709**	**6 109**	**6 795**	**7 475**	**7 989**	**8 451**	**8 856**
	growth in %	6.5	5.9	7.0	-1.4	7.0	11.2	10.0	6.9	5.8	4.8
Balance of taxes and subsidies	*bill. CZK*	**493**	**504**	**534**	**449**	**477**	**590**	**579**	**684**	**739**	**785**
	% of GDP	9.7	9.3	9.2	7.9	7.8	8.7	7.7	8.6	8.7	8.9
	growth in %	8.6	2.2	6.0	-16.0	6.3	23.8	-1.9	18.1	8.1	6.1
Taxes on production and imports	*bill. CZK*	635	656	696	660	715	783	.	.	.	.
	growth in %	6.6	3.3	6.2	-5.3	8.3	9.6	.	.	.	.
Subsidies on production	*bill. CZK*	142	152	162	211	238	193	.	.	.	.
	growth in %	0.4	7.2	6.7	30.3	12.6	-19.0	.	.	.	.
Compensation of employees	*bill. CZK*	**2 185**	**2 399**	**2 586**	**2 625**	**2 787**	**2 997**	**3 213**	**3 401**	**3 549**	**3 707**
(domestic concept)	*% of GDP*	42.8	44.3	44.6	46.0	45.6	44.1	43.0	42.6	42.0	41.9
	growth in %	9.1	9.8	7.8	1.5	6.1	7.6	7.2	5.8	4.4	4.5
Wages and salaries	*bill. CZK*	1 680	1 842	1 986	1 989	2 106	2 298	2 471	2 615	2 729	2 851
	growth in %	9.2	9.6	7.8	0.1	5.9	9.1	7.5	5.8	4.4	4.5
Social security contributions	*bill. CZK*	505	557	599	636	681	699	742	786	820	857
	growth in %	8.7	10.3	7.6	6.2	7.0	2.7	6.2	5.8	4.4	4.5
Gross operating surplus	*bill. CZK*	**2 432**	**2 507**	**2 671**	**2 635**	**2 845**	**3 207**	**3 682**	**3 905**	**4 162**	**4 364**
	% of GDP	47.6	46.3	46.1	46.2	46.6	47.2	49.3	48.9	49.3	49.3
	growth in %	4.0	3.1	6.5	-1.4	8.0	12.7	14.8	6.0	6.6	4.8
Consumption of capital	*bill. CZK*	1 022	1 074	1 153	1 229	1 302	1 445	1 566	1 667	1 793	1 925
	growth in %	3.5	5.0	7.4	6.5	6.0	10.9	8.4	6.5	7.5	7.3
Net operating surplus	*bill. CZK*	1 410	1 434	1 518	1 406	1 543	1 763	2 117	2 237	2 369	2 439
	growth in %	4.3	1.7	5.9	-7.4	9.7	14.3	20.1	5.7	5.9	2.9

Source: CZSO. Calculations and forecast of the MoF.

Table 3.1.6: GDP by Type of Income – quarterly

		2022				2023			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	*Forecast*	*Forecast*	*Forecast*
GDP	*bill. CZK*	**1 540**	**1 699**	**1 759**	**1 796**	**1 733**	**1 853**	**1 909**	**1 981**
	growth in %	11.3	10.6	11.5	11.5	12.5	9.0	8.5	10.3
Balance of taxes and subsidies	*bill. CZK*	**124**	**155**	**166**	**145**	**109**	**146**	**164**	**160**
	growth in %	73.4	33.2	13.0	2.0	-12.3	-6.2	-1.1	10.5
Compensation of employees	*bill. CZK*	**702**	**745**	**741**	**809**	**764**	**794**	**788**	**867**
(domestic concept)	*growth in %*	9.7	6.6	6.3	7.8	8.8	6.6	6.4	7.1
Wages and salaries	*bill. CZK*	536	571	570	622	588	611	606	666
	growth in %	11.6	8.4	7.5	9.2	9.6	7.0	6.4	7.1
Social security contributions	*bill. CZK*	166	174	172	187	177	183	182	200
	growth in %	4.1	1.2	2.3	3.3	6.4	5.2	6.1	7.1
Gross operating surplus	*bill. CZK*	**714**	**799**	**852**	**843**	**859**	**913**	**956**	**954**
	growth in %	6.2	10.7	16.3	17.2	20.4	14.2	12.2	13.2

Source: CZSO. Calculations and forecast of the MoF.

3.2 Prices

The annual **consumer price** inflation slowed down to 16.7% (*vs. 15.2%*) in February 2023. The forecast error was mainly due to the absence of the expected month-on-month decrease in average natural gas prices in January. Also, food and water supply price increases were higher than expected. In terms of consumer basket divisions, the main driver of February annual inflation was the housing division (6.2 pp. contribution), mainly due to price increases of 32.0% for electricity, 74.3% for natural gas, 45.6% for heat and hot water, and 7.7% for owner-occupied housing. In addition, the food and non-alcoholic beverages division contributed significantly (4.3 pp), across all products. Administrative measures added 4.9 pp to inflation, exclusively through regulated prices. Within the tax changes, an increase in excise duties on tobacco products and a reduction in excise duties on diesel offset each other.

The higher annual inflation rate in February as measured by the **HICP** (18.4%) compared to the national CPI was due to a significant slowdown in growth in imputed rents, which are not included in the HICP. Imputed rents are largely determined by the market prices of new flats and houses. Their very high prices (see Graph 3.2.8), as well as more expensive and regulatory restricted mortgage lending, lead to a significant slowdown in imputed rents dynamics through the lower availability of owner-occupied housing.

This year a period of markedly higher inflation will continue, but annual price growth should decline at a rapid pace over the course of the year.

In addition to the earlier waiver of the renewable energy charge, also a price cap on electricity and gas has been effective from January 2023. As a result, their contributions to annual inflation should gradually decrease. In addition, the successful filling of European gas reservoirs before the start of the heating season, the warm winter, savings by households and businesses and the securing of new gas suppliers have contributed to a significant drop in wholesale energy prices, which should also be gradually reflected in consumer prices.

The contribution of regulated prices to the average inflation rate should be highly positive, mainly due to the January energy prices increase. Changes in indirect taxes will include an increase in excise duties on tobacco products. Overall, administrative measures could contribute 3.9 pp (*unchanged*) to the average inflation rate in 2023.

The price of oil should be anti-inflationary in 2023, as should the exchange rate of the koruna against major world currencies. Supply problems and the associated surge in input prices should gradually subside over the course of the year. Due to the reduction in household consumption as a result of a significant decrease in real income, the impact of the economy's position in the business cycle should be anti-inflationary, especially in early 2023. However, the tight labour market is increasing pressures on nominal wage growth and thus has an inflationary effect. Inflation in 2023 should already be more strongly dampened by the transmission mechanism of higher monetary policy rates.

In 2024, inflationary pressures will be driven by market factors. The contribution of regulated prices to the average inflation rate could be negative due to expected decrease in prices of electricity and gas. The projected increase in the excise duty on diesel should lead to a slightly positive contribution from indirect taxes. Overall, the administrative measures could take 1.0 pp off the average inflation rate in 2024.

The oil price and the strengthening of the koruna against the US dollar should continue to be anti-inflationary next year. Restrictive monetary policy will also continue to moderate inflationary pressures through interest rates. The effect of the koruna's exchange rate against the euro should already be neutral next year. Relatively high nominal wage growth could present an inflationary factor.

In line with the above, we expect the **average inflation rate** to reach 10.9% (*vs. 10.4%*) in 2023 and to fall significantly to 2.4% in 2024. Annual inflation should be close to 8% at the end of this year. Over the course of next year, however, it could already remain within the upper half of the tolerance band around the CNB's inflation target.

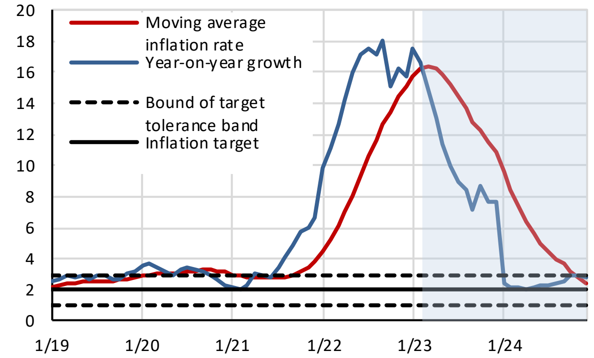
In Q4 2022, the **GDP deflator** increased by 11.3% (*vs. 9.2%*), with a 13.7% (*vs. 11.6%*) increase in the gross domestic expenditure deflator and a 2.7% deterioration in the terms of trade (*in line with the estimate*). The evolution of the gross domestic expenditure deflator mainly reflected consumer price inflation. The worsening of the terms of trade was caused predominantly by high import prices of minerals and other production inputs.

GDP deflator could increase by 9.9% (*vs. 8.8%*) in 2023. The continued strong growth of the gross domestic expenditure deflator, especially of household consumption, could be amplified by a slight improvement in the terms of trade this year (see Graph 3.2.5). In 2024, GDP deflator growth could slow down to 3.8% due to lower price dynamics across all components of domestic demand.

A decline in the prices of many production inputs, especially of oil and gas, could have a positive impact on the terms of trade in 2023. The trend of decreasing energy commodities prices could have a positive impact next year as well. As a result, the terms of trade could improve by 0.7% (*vs. stagnation*) this year and by 0.8% in 2024.

Graph 3.2.1: Consumer Prices

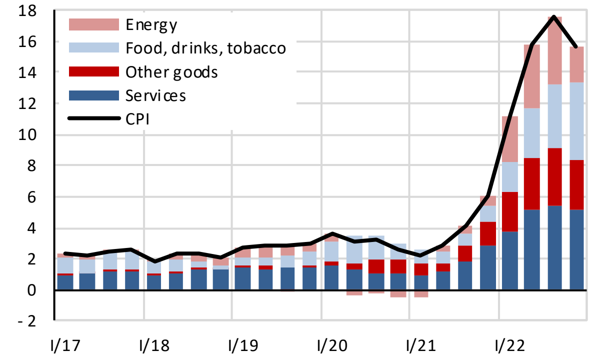
YoY growth rate in %



Source: CNB, CZSO. Calculations and forecast of the MoF.

Graph 3.2.2: Consumer Prices in Main Divisions

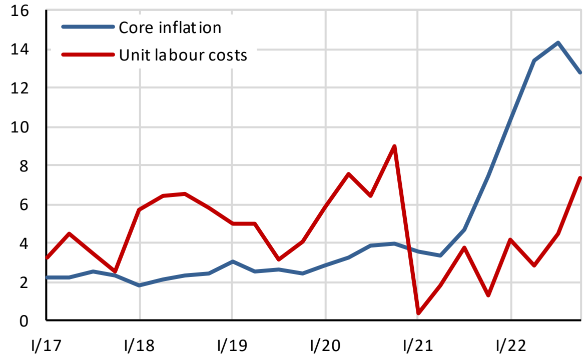
YoY growth of consumer price index in %, contributions in pp



Source: CZSO. Calculations of the MoF.

Graph 3.2.3: Core Inflation and Unit Labour Costs

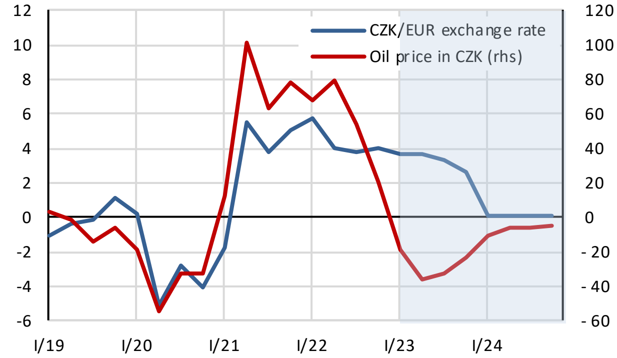
YoY growth rate in %



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.4: CZK/EUR and Koruna Price of Oil

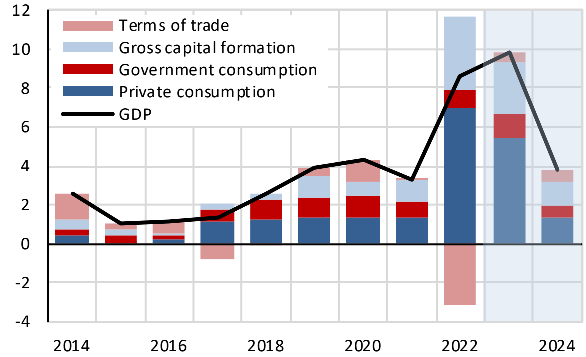
CZK/EUR appreciation, YoY change in CZK price of oil, in %



Source: CNB, U.S. EIA. Calculations and forecast of the MoF.

Graph 3.2.5: Gross Domestic Product Deflator

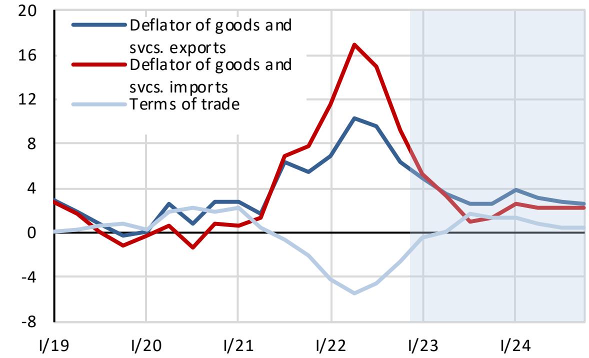
growth rate in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.6: Terms of Trade

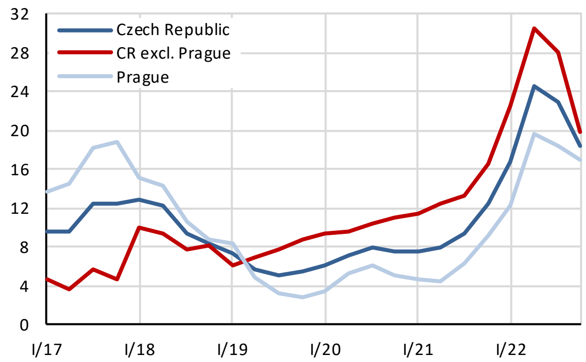
YoY growth rate in %



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.7: Offering Prices of Flats

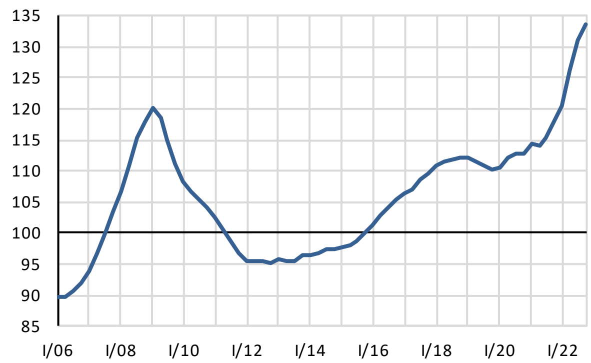
YoY growth rate in %



Source: CZSO.

Graph 3.2.8: Prices of Flats Relative to Average Wage

ratio of index of offering prices of flats to index of average wage, annual moving totals, 2015=100



Source: CZSO. Calculations and forecast of the MoF.

Table 3.2.1: Prices – yearly

		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
								Forecast	*Forecast*	*Outlook*	*Outlook*
Consumer Price Index											
Level	*average 2015=100*	**103.1**	**105.3**	**108.3**	**111.8**	**116.1**	**133.6**	**148.1**	**151.8**	**155.1**	**158.3**
Average inflation rate	*%*	**2.5**	**2.1**	**2.8**	**3.2**	**3.8**	**15.1**	**10.9**	**2.4**	**2.2**	**2.0**
Administrative measures [1]	*percentage points*	-0.1	0.3	0.6	0.5	0.0	2.8	3.9	-1.0	0.1	0.2
Market increase	*percentage points*	2.6	1.8	2.2	2.7	3.8	12.3	7.0	3.5	2.2	1.9
Harmonized index of consumer prices											
Level	*average 2015=100*	**103.1**	**105.1**	**107.8**	**111.4**	**115.1**	**132.1**	**148.2**	**152.2**	**155.6**	**158.7**
Average inflation rate	*growth in %*	**2.4**	**2.0**	**2.6**	**3.3**	**3.3**	**14.8**	**12.2**	**2.6**	**2.2**	**2.0**
Deflators											
GDP	*average 2015=100*	**102.5**	**105.1**	**109.2**	**113.9**	**117.7**	**127.8**	**140.4**	**145.7**	**149.7**	**153.1**
	growth in %	1.3	2.6	3.9	4.3	3.3	8.6	9.9	3.8	2.8	2.2
Gross domestic expenditure	*average 2015=100*	**102.9**	**105.8**	**109.7**	**113.4**	**117.3**	**131.5**	**143.8**	**148.5**	**152.3**	**155.5**
	growth in %	2.3	2.8	3.7	3.4	3.4	12.1	9.4	3.3	2.5	2.1
Consumption of households	*average 2015=100*	**102.7**	**105.3**	**108.3**	**111.4**	**114.6**	**133.0**	**148.8**	**152.9**	**156.5**	**159.7**
	growth in %	2.3	2.5	2.8	2.9	2.9	16.0	11.9	2.8	2.3	2.0
Consumption of government	*average 2015=100*	**105.0**	**110.6**	**116.6**	**122.6**	**127.5**	**132.9**	**141.0**	**145.4**	**148.9**	**152.1**
	growth in %	3.5	5.4	5.4	5.2	4.0	4.2	6.1	3.1	2.4	2.1
Fixed capital formation	*average 2015=100*	**102.0**	**103.6**	**107.7**	**110.8**	**115.2**	**125.5**	**133.1**	**137.6**	**141.4**	**144.4**
	growth in %	1.5	1.6	4.0	2.9	3.9	8.9	6.0	3.4	2.8	2.1
Exports of goods and services	*average 2015=100*	**96.9**	**96.3**	**97.5**	**99.0**	**103.0**	**111.6**	**115.3**	**118.9**	**121.7**	**123.9**
	growth in %	-0.7	-0.6	1.3	1.5	4.1	8.3	3.3	3.1	2.3	1.8
Imports of goods and services	*average 2015=100*	**96.9**	**96.3**	**97.1**	**97.0**	**101.1**	**114.4**	**117.4**	**120.1**	**122.5**	**124.5**
	growth in %	0.3	-0.6	0.8	0.0	4.2	13.1	2.7	2.3	2.0	1.6
Terms of trade	*average 2015=100*	**100.0**	**100.0**	**100.5**	**102.0**	**101.9**	**97.6**	**98.2**	**99.0**	**99.3**	**99.5**
	growth in %	-1.0	0.0	0.5	1.5	-0.1	-4.2	0.7	0.8	0.3	0.2

[1] *The contribution of change in regulated prices and indirect taxes to the average inflation rate.*
Source: CZSO, Eurostat. Calculations and forecast of the MoF.

Table 3.2.2: Prices – quarterly

		2022				2023			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	*Forecast*	*Forecast*	*Forecast*
Consumer Price Index	*average 2015=100*	**126.4**	**132.8**	**137.6**	**137.6**	**147.0**	**148.1**	**148.8**	**148.6**
	growth in %	11.2	15.8	17.6	15.7	16.3	11.5	8.1	8.0
Of which the contribution of:									
Administrative measures [1]	*percentage points*	2.2	3.1	3.6	2.5	4.9	3.7	3.0	4.1
Market increase	*percentage points*	9.0	12.7	14.0	13.2	11.4	7.8	5.2	3.9
Harmonized index of consumer prices	*average 2015=100*	**124.7**	**131.4**	**135.9**	**136.5**	**147.1**	**148.6**	**148.8**	**148.6**
	growth in %	10.2	15.0	17.4	16.5	18.0	13.1	9.5	8.8
Deflators									
GDP	*average 2015=100*	**122.2**	**125.5**	**130.3**	**132.7**	**137.9**	**138.1**	**141.1**	**144.1**
	growth in %	6.1	6.8	9.8	11.3	12.8	10.0	8.3	8.6
Gross domestic expenditure	*average 2015=100*	**124.6**	**129.7**	**134.6**	**136.6**	**141.2**	**142.7**	**144.2**	**146.8**
	growth in %	9.6	11.4	13.6	13.7	13.3	10.1	7.2	7.5
Consumption of households	*average 2015=100*	**125.5**	**131.8**	**137.1**	**137.4**	**147.9**	**148.5**	**149.4**	**149.2**
	growth in %	11.9	15.8	18.7	17.7	17.8	12.7	9.0	8.6
Consumption of government	*average 2015=100*	**126.1**	**130.6**	**132.0**	**141.2**	**137.6**	**140.3**	**135.4**	**149.3**
	growth in %	5.3	1.7	3.2	6.3	9.2	7.4	2.5	5.8
Fixed capital formation	*average 2015=100*	**121.3**	**121.6**	**127.6**	**130.5**	**129.6**	**129.4**	**135.2**	**137.3**
	growth in %	8.1	7.6	9.7	10.2	6.8	6.4	6.0	5.2
Exports of goods and services	*average 2015=100*	**107.4**	**112.5**	**114.6**	**111.9**	**112.7**	**116.4**	**117.7**	**114.8**
	growth in %	6.9	10.4	9.6	6.3	4.9	3.4	2.7	2.6
Imports of goods and services	*average 2015=100*	**108.6**	**116.0**	**118.3**	**114.4**	**114.4**	**119.9**	**119.5**	**116.0**
	growth in %	11.6	16.8	14.9	9.2	5.3	3.3	1.0	1.3
Terms of trade	*average 2015=100*	**98.9**	**97.0**	**96.9**	**97.8**	**98.5**	**97.1**	**98.5**	**99.0**
	growth in %	-4.2	-5.5	-4.7	-2.7	-0.4	0.0	1.7	1.3

[1] *The contribution of change in regulated prices and indirect taxes.*
Source: CZSO, Eurostat. Calculations and forecast of the MoF.

3.3 Labour Market

Despite a partial easing of the mismatch between supply and demand, labour market shortages continue to be evident. Persistent frictions are putting upward pressure on nominal earnings, which lag behind inflation, though.

Following the 2021 Population and Housing Census, new demographic weights were applied in the LFS statistics starting in Q1 2022. The lower population has led to a substantial reduction in the number of employed, unemployed and economically inactive persons. Thus, there is a break in the time series and the relevant data relating to 2022 are therefore not directly comparable. Relative indicators (e.g. unemployment or participation rates) have not been affected by this change.

When converted to the same population structure, **employment** (LFS) increased by 0.9% YoY in Q4 2022 and by 1.7% for the whole of last year. The number of employees was up 0.6% in Q4 last year, while the number of entrepreneurs without employees rose by 4.0%. The number of entrepreneurs with employees fell by 7.4%, and the number of contributing family members increased by 11.6% (but these indicators are historically highly volatile).

According to the data of the MoLSA on job vacancies, the shortage of employees was evident also at the beginning of 2023. The number of vacancies was higher than the number of registered unemployed in 5 regions or 30 districts in February. However, far from all vacancies registered by the labour offices can be considered active. Of the vacancies advertised on the websites of labour offices, around 42% were active at the forecast cut-off date (offers with the last change after 1 October 2022 and start date on or after 1 January 2023). Meanwhile, according to the CZSO's business cycle survey, the shortage of employees remains the main barrier to output growth in the construction sector and is also significant in industry. However, this problem is mitigated by refugees from Ukraine.

Demand for foreign workers remains strong. According to data from the MoLSA, the number of such workers increased by 67,000 year-on-year to 781,000 in February. Workers from Ukraine and Slovakia have long dominated, with the number of Ukrainian employees rising to 266,000 in February.

In terms of the number of economically active persons (whether employed or unemployed), the arrival of refugees from Ukraine will be only partially captured by the LFS. This is due to the fact that the survey is conducted only in dwellings and, in addition, a high non-response rate can be expected. Thus, the LFS employment indicator is likely to underestimate the true state. According to the national accounting methodology, which should capture workers from Ukraine for the most part, employment in Q4 2022 grew by 1.4% YoY.

We expect the economic downturn to have a usual delayed impact on the labour market. As a result, employment will therefore decline slightly quarter-on-quarter in the first half of this year. The subsequent recovery in labour demand could translate into a gradual increase in employment over the forecast horizon. Thus, employment could fall by 0.2% (*vs. 0.5%*) in 2023 and rise by 0.6% next year.

The **unemployment rate** (LFS) stayed at 2.2% (*vs. 2.5%*) in Q4 2022. The seasonally adjusted unemployment rate for the 15–64 age group rose slightly year-on-year in January and was flat in February. Given the above factors, the unemployment rate could rise slightly to 3.0% (*vs. 3.2%*) this year, and we forecast a decline to 2.8% in 2024.

The **share of unemployed persons** (MoLSA) in the labour office registers has been rising slightly year-on-year since October and could rise to 3.8% (*vs. 4.0%*) for the whole of 2023. Next year it could fall slightly to 3.6% thanks to the economic recovery.

The participation rate (20–64 years) increased by 0.9 pp to 83.1% (*vs. 83.0%*) in 2022. Over the forecast horizon, the main supporting factor will be the increase in the statutory retirement age. Increased number of early retirements stemming from extraordinary pension indexations in 2022 could be a negative factor this year. The demographic effect in the form of the changing share of age groups with a naturally high economic activity rate has been positive in previous years, but its impact will be slightly negative from this year onwards. The participation rate could reach 81.9% (*vs. 81.7%*) on average this year and rise to 82.4% in 2024.

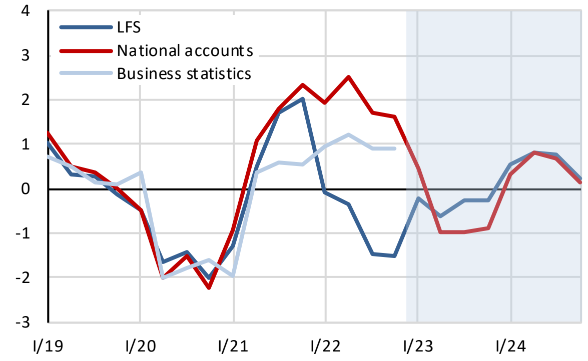
The volume of **wages and salaries** increased by 9.2% (*vs. 9.4%*) in Q4 2022 and by 9.1% (*vs. 9.3%*) in 2022 as a whole. The most significant contribution came from a 9.6% increase in earnings in the most macroeconomically important manufacturing sector (with a 0.6% increase in the number of employees). By contrast, the weakest earnings growth (5.8%) was in public administration, defence, education, health and social care.

This year, in addition to the persistently tight labour market situation, wage and salary growth should reflect increased inflation expectations and, to some extent, incoming employees from Ukraine. In addition, the minimum wage was increased by 6.8% from 1 January 2023. The guaranteed wage increased at the same rate in the highest job group (but this is probably only received by a marginal number of people), while the other grades remained unchanged. In contrast, wage dynamics should be dampened by weaker labour demand this year, but the pace of earnings growth should be driven by the private sector over the entire forecast horizon. In aggregate, wages and salaries could increase by 7.5% (*vs. 6.7%*) in 2023, with growth slowing to 5.8% next year.

The average wage (business statistics, full-time equivalent) increased by 7.9% (*vs. 7.6%*) in Q4 2022, with the largest contribution coming from a 9.3% increase in average wage in manufacturing (a 2.1 pp contribution). The development varied considerably across sectors, but all of them experienced a decrease in average real wages. In education, the number of employees increased by 3.2%, but average nominal wages fell by 0.3%, probably due to relatively lower earnings of new employees. Strong price increases are exacerbating the decline in real wages, but with a certain lag, they are also having an impact on wage bargaining. The average wage could thus increase by 8.0% (*vs. 7.5%*) this year. In 2024, its growth could slow to 5.7%.

Graph 3.3.1: Employees in Different Statistics

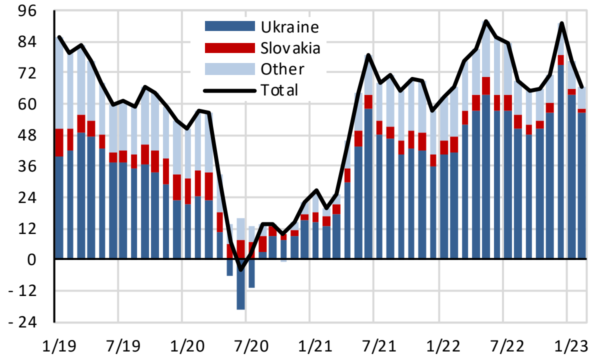
YoY growth rate in%



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.2: Number of Foreign Employees in the CR

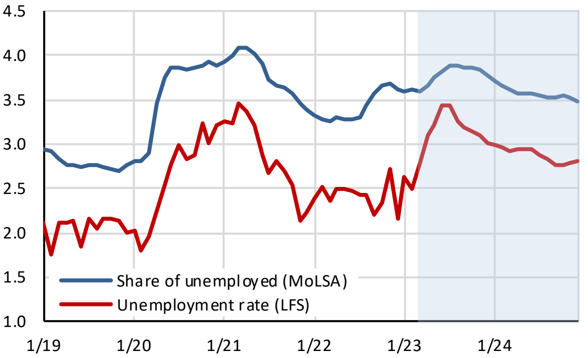
YoY change in thousands of persons



Source: MoLSA. Calculations of the MoF.

Graph 3.3.3: Indicators of Unemployment

seasonally adjusted data, in%



Source: CZSO, MoLSA. Calculations and forecast of the MoF.

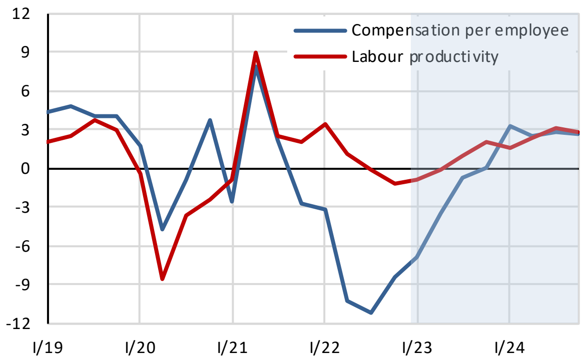
Graph 3.3.4: Social Security Contributions and Earnings

YoY growth rate in%

Source: CZSO, MoF. Calculations and forecast of the MoF.

Graph 3.3.5: Compens. per Employee and Productivity

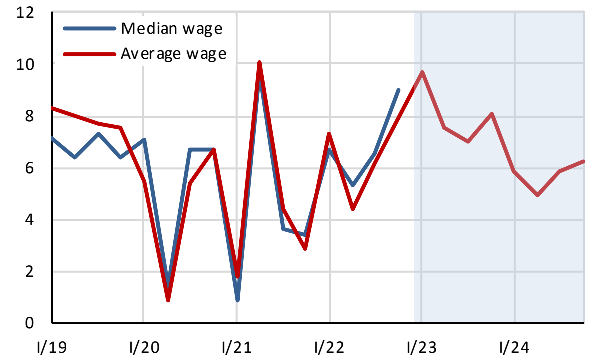
YoY growth rate in %



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.6: Nominal Monthly Wages

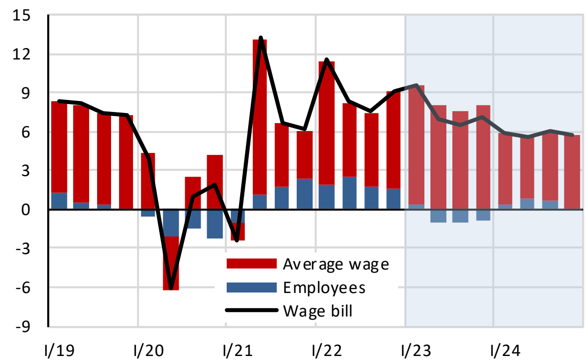
YoY growth rate in%



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.7: Nominal Wage Bill

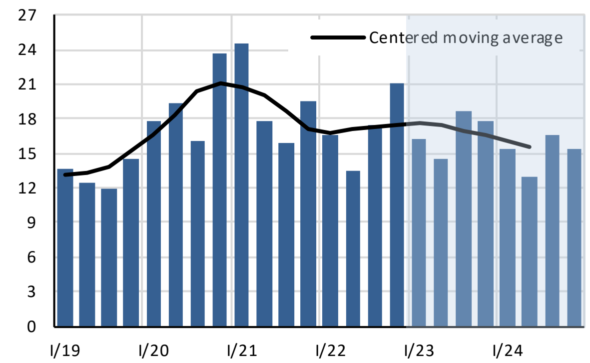
YoY growth rate in %, domestic concept of the wage bill



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.8: Gross Savings Rate of Households

in % of disposable income



Source: CZSO. Calculations and forecast of the MoF.

Table 3.3.1: Labour Market – yearly

		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
								Forecast	*Forecast*	*Outlook*	*Outlook*
Labour Force Survey											
Employment	*av. in thous.persons*	**5 222**	**5 294**	**5 303**	**5 235**	**5 213**	**5 171**	**5 161**	**5 191**	**5 204**	**5 213**
	growth in %	1.6	1.4	0.2	-1.3	-0.4	-0.8	-0.2	0.6	0.2	0.2
Employees	*av. in thous.persons*	4 327	4 396	4 412	4 351	4 383	4 345	4 330	4 355	4 366	4 374
	growth in %	1.7	1.6	0.4	-1.4	0.7	-0.9	-0.3	0.6	0.2	0.2
Entrepreneurs and	*av. in thous.persons*	894	897	891	884	831	826	831	836	838	839
self-employed	*growth in %*	1.4	0.4	-0.8	-0.7	-6.0	-0.6	0.7	0.5	0.2	0.2
Unemployment	*av. in thous.persons*	**156**	**122**	**109**	**137**	**150**	**123**	**160**	**151**	**145**	**142**
Unemployment rate	*average in %*	**2.9**	**2.2**	**2.0**	**2.6**	**2.8**	**2.3**	**3.0**	**2.8**	**2.7**	**2.7**
Long-term unemployment [1]	*av. in thous.persons*	**54**	**37**	**33**	**30**	**41**	**33**	**.**	**.**	**.**	**.**
Labour force	*av. in thous.persons*	**5 377**	**5 415**	**5 412**	**5 372**	**5 364**	**5 293**	**5 321**	**5 343**	**5 349**	**5 356**
	growth in %	0.5	0.7	-0.1	-0.7	-0.2	-1.3	0.5	0.4	0.1	0.1
Population aged 20–64	*av. in thous.persons*	**6 456**	**6 414**	**6 383**	**6 355**	**6 311**	**6 147**	**6 286**	**6 269**	**6 261**	**6 258**
	growth in %	-0.8	-0.7	-0.5	-0.4	-0.7	-2.6	2.2	-0.3	-0.1	-0.1
Employment/Pop. 20–64	*average in %*	**80.9**	**82.5**	**83.1**	**82.4**	**82.6**	**84.1**	**82.1**	**82.8**	**83.1**	**83.3**
Employment rate 20–64 [2]	*average in %*	**78.9**	**80.3**	**80.7**	**80.0**	**80.3**	**81.7**	**79.8**	**80.5**	**80.7**	**80.9**
Labour force/Pop. 20–64	*average in %*	**83.3**	**84.4**	**84.8**	**84.5**	**85.0**	**86.1**	**84.7**	**85.2**	**85.4**	**85.6**
Participation rate 20–64 [3]	*average in %*	**80.8**	**81.7**	**81.9**	**81.8**	**82.2**	**83.1**	**81.9**	**82.4**	**82.6**	**82.8**
Participation rate 15–64 [3]	*average in %*	**75.9**	**76.6**	**76.7**	**76.4**	**76.6**	**77.3**	**75.6**	**75.8**	**75.7**	**75.7**
Registered unemployment											
Unemployment	*av. in thous.persons*	**318**	**242**	**212**	**259**	**280**	**252**	**277**	**269**	**252**	**242**
Share of unemployed [4]	*average in %*	**4.3**	**3.2**	**2.8**	**3.5**	**3.8**	**3.4**	**3.8**	**3.6**	**3.4**	**3.2**
Wages and salaries											
Average monthly wage [5]											
Nominal	*CZK monthly*	29 638	32 051	34 578	36 176	37 903	40 353	43 595	46 095	48 063	50 143
	growth in %	6.7	8.1	7.9	4.6	4.8	6.5	8.0	5.7	4.3	4.3
Real	*CZK 2015*	28 747	30 438	31 928	32 358	32 647	30 204	29 429	30 373	30 981	31 684
	growth in %	4.3	5.9	4.9	1.3	0.9	-7.5	-2.6	3.2	2.0	2.3
Median monthly wage	*CZK monthly*	**25 398**	**27 561**	**29 439**	**31 049**	**32 393**	**34 639**	**.**	**.**	**.**	**.**
	growth in %	7.2	8.5	6.8	5.5	4.3	6.9	.	.	.	.
Wage bill	*growth in %*	**9.2**	**9.6**	**7.8**	**0.1**	**5.9**	**9.1**	**7.5**	**5.8**	**4.4**	**4.5**
Labour productivity	*growth in %*	**3.6**	**1.9**	**2.8**	**-3.9**	**3.2**	**0.7**	**0.5**	**2.4**	**2.8**	**2.4**
Unit labour costs [6]	*growth in %*	**3.5**	**6.1**	**4.3**	**7.3**	**1.8**	**4.8**	**7.3**	**2.8**	**1.5**	**1.9**
Compens. of employees / GDP	*%*	**42.8**	**44.3**	**44.6**	**46.0**	**45.6**	**44.1**	**43.0**	**42.6**	**42.0**	**41.9**

Note: Following the 2021 Census, new demographic weights have been applied in the LFS since Q1 2022. This results in a break in time series.

[1] *Persons in unemployment for longer than 12 months.*

[2] *The indicator does not include employment over 64 years.*

[3] *The indicator does not include labour force over 64 years.*

[4] *Share of available job seekers aged 15 to 64 years in the population of the same age.*

[5] *Derived from full-time-equivalent employers in the entire economy.*

[6] *Ratio of nominal compensation per employee to real productivity of labour.*

Source: CZSO, MoLSA. Calculations and forecast of the MoF.

Table 3.3.2: Labour Market – quarterly

		2022 Q1	2022 Q2	2022 Q3	2022 Q4	2023 Q1 Estimate	2023 Q2 Forecast	2023 Q3 Forecast	2023 Q4 Forecast
Labour Force Survey									
Employment	*av. in thous. persons*	**5 141**	**5 160**	**5 188**	**5 194**	**5 146**	**5 140**	**5 180**	**5 180**
	YoY growth in %	-0.5	-0.2	-1.3	-1.2	0.1	-0.4	-0.1	-0.3
	QoQ growth in %	-1.5	0.3	-0.1	0.7	-0.8	-0.2	0.1	0.6
Employees	*av. in thous. persons*	4 330	4 336	4 357	4 356	4 320	4 309	4 347	4 345
	growth in %	-0.1	-0.4	-1.5	-1.5	-0.2	-0.6	-0.2	-0.3
Entrepreneurs and	*av. in thous. persons*	811	824	830	838	826	831	833	834
self-employed	*growth in %*	-2.6	0.6	-0.6	0.1	1.9	0.9	0.4	-0.4
Unemployment	*av. in thous.persons*	**130**	**126**	**118**	**117**	**141**	**168**	**164**	**167**
Unemployment rate	*average in %*	**2.5**	**2.4**	**2.2**	**2.2**	**2.7**	**3.2**	**3.1**	**3.1**
Long-term unemployment [1]	*av. in thous.persons*	**37**	**32**	**30**	**32**	**.**	**.**	**.**	**.**
Labour force	*av. in thous. persons*	**5 271**	**5 286**	**5 305**	**5 311**	**5 287**	**5 307**	**5 344**	**5 346**
	growth in %	-1.4	-0.8	-1.8	-1.2	0.3	0.4	0.7	0.7
Population aged 20–64	*av. in thous. persons*	**6 151**	**6 139**	**6 139**	**6 160**	**6 294**	**6 288**	**6 283**	**6 277**
	growth in %	-2.9	-2.9	-2.7	-1.9	2.3	2.4	2.3	1.9
Employment/Pop. 20–64	*average in %*	**83.6**	**84.1**	**84.5**	**84.3**	**81.8**	**81.7**	**82.4**	**82.5**
	increase over a year	2.0	2.2	1.2	0.6	0.0	0.0	0.0	0.0
Employment rate 20–64 [2]	*average in %*	**80.8**	**81.2**	**81.7**	**81.8**	**79.5**	**79.5**	**80.2**	**80.2**
	increase over a year	1.7	1.9	1.2	0.8	-1.3	-1.7	-1.5	-1.6
Labour force/Pop. 20–64	*average in %*	**85.7**	**86.1**	**86.4**	**86.2**	**84.0**	**84.4**	**85.1**	**85.2**
	increase over a year	1.3	1.8	0.8	0.6	-1.7	-1.7	-1.4	-1.0
Participation rate 20–64 [3]	*average in %*	**82.8**	**83.1**	**83.4**	**83.2**	**81.2**	**81.6**	**82.3**	**82.4**
	increase over a year	1.0	1.4	0.7	0.4	-1.6	-1.4	-1.2	-0.8
Participation rate 15–64 [3]	*average in %*	**77.0**	**77.1**	**77.6**	**77.4**	**75.2**	**75.5**	**76.0**	**76.0**
	increase over a year	0.7	1.1	0.5	0.3	-1.8	-1.7	-1.6	-1.4
Registered unemployment									
Unemployment	*av. in thous. persons*	**262**	**240**	**245**	**259**	**280**	**271**	**282**	**276**
Share of unemployed [4]	*average in %*	**3.5**	**3.3**	**3.3**	**3.5**	**3.8**	**3.7**	**3.8**	**3.7**
Wages and salaries									
Average monthly wage [5]									
Nominal	*CZK monthly*	37 979	40 093	39 880	43 412	41 671	43 112	42 677	46 920
	growth in %	7.3	4.4	6.2	7.9	9.7	7.5	7.0	8.1
Real	*CZK 2015*	30 047	30 191	28 983	31 549	28 340	29 112	28 680	31 571
	growth in %	-3.6	-9.8	-9.7	-6.7	-5.7	-3.6	-1.0	0.1
Median monthly wage	*CZK monthly*	**31 965**	**34 117**	**35 012**	**37 463**	**.**	**.**	**.**	**.**
	growth in %	6.7	5.3	6.6	9.0	.	.	.	.
Wage bill	*growth in %*	**11.6**	**8.4**	**7.5**	**9.2**	**9.6**	**7.0**	**6.4**	**7.1**

Note: Following the 2021 Census, new demographic weights have been applied in the LFS since Q1 2022. This results in a break in time series.

[1] *Persons in unemployment for longer than 12 months.*

[2] *The indicator does not include employment over 64 years.*

[3] *The indicator does not include labour force over 64 years.*

[4] *Share of available job seekers aged 15 to 64 years in the population of the same age.*

[5] *Derived from full-time-equivalent employers in the entire economy.*

Source: CZSO, MoLSA. Calculations and forecast of the MoF.

Table 3.3.3: Income and Expenditures of Households – yearly

		2015	2016	2017	2018	2019	2020	2021	2022	2023 *Forecast*	2024 *Forecast*
Current income											
Compensation of employees	*bill.CZK*	**1 923**	**2 038**	**2 223**	**2 430**	**2 599**	**2 650**	**2 800**	**3 002**	**3 223**	**3 411**
	growth in %	5.4	6.0	9.1	9.3	7.0	1.9	5.7	7.2	7.4	5.8
Gross operating surplus	*bill.CZK*	**691**	**703**	**740**	**801**	**845**	**833**	**856**	**1 018**	**1 081**	**1 131**
and mixed income	*growth in %*	2.4	1.7	5.2	8.3	5.5	-1.4	2.7	19.0	6.1	4.6
Property income received	*bill.CZK*	**127**	**133**	**162**	**162**	**163**	**129**	**171**	**236**	**247**	**253**
	growth in %	-4.3	4.1	21.9	0.2	0.5	-20.9	32.5	38.1	4.5	2.8
Social benefits not-in-kind	*bill.CZK*	**613**	**630**	**650**	**685**	**738**	**885**	**924**	**979**	**1 101**	**1 138**
	growth in %	2.8	2.8	3.2	5.4	7.7	19.9	4.4	5.9	12.5	3.3
Other current transfers received	*bill.CZK*	**181**	**217**	**244**	**281**	**338**	**363**	**471**	**628**	**661**	**689**
	growth in %	13.3	19.4	12.8	15.1	20.4	7.3	29.8	33.2	5.3	4.2
Current expenditure											
Property income paid	*bill.CZK*	**14**	**14**	**13**	**19**	**28**	**27**	**26**	**50**	**51**	**53**
	growth in %	-10.7	0.2	-7.4	43.2	44.8	-2.7	-2.3	89.4	2.9	3.3
Curr. taxes on income and property	*bill.CZK*	**205**	**227**	**264**	**309**	**316**	**342**	**266**	**285**	**305**	**322**
	growth in %	3.9	10.8	16.3	16.9	2.3	8.3	-22.1	7.0	6.9	5.8
Social contributions	*bill.CZK*	**732**	**775**	**836**	**911**	**976**	**1028**	**1129**	**1174**	**1 260**	**1 339**
	growth in %	5.3	5.8	7.9	9.0	7.1	5.3	9.8	4.0	7.3	6.3
Other current transfers paid	*bill.CZK*	**169**	**207**	**238**	**278**	**335**	**358**	**469**	**599**	**630**	**659**
	growth in %	12.5	22.4	15.3	16.5	20.6	6.7	31.1	27.8	5.2	4.6
Gross disposable income	*bill.CZK*	**2 414**	**2 497**	**2 666**	**2 842**	**3 029**	**3 106**	**3 331**	**3 754**	**4 067**	**4 249**
	growth in %	3.7	3.4	6.8	6.6	6.6	2.5	7.3	12.7	8.3	4.5
Final consumption	*bill.CZK*	**2 152**	**2 241**	**2 383**	**2 524**	**2 663**	**2 536**	**2 716**	**3 130**	**3 409**	**3 640**
	growth in %	3.9	4.1	6.4	5.9	5.5	-4.8	7.1	15.2	8.9	6.8
Change in share in pension funds	*bill.CZK*	**33**	**31**	**32**	**33**	**37**	**38**	**38**	**28**	**35**	**38**
Gross savings	*bill.CZK*	**295**	**286**	**315**	**350**	**404**	**607**	**653**	**653**	**692**	**646**
Capital transfers											
(income (-) / expenditure (+))	*bill.CZK*	**-12**	**-14**	**-11**	**-12**	**-13**	**-41**	**-35**	**-23**	**-25**	**-25**
Gross capital formation	*bill.CZK*	**220**	**237**	**216**	**261**	**297**	**300**	**314**	**359**	**373**	**387**
	growth in %	2.9	7.9	-9.2	21.2	13.7	0.9	4.9	14.3	3.8	3.6
Change in financial assets and liab.	*bill.CZK*	**85**	**61**	**110**	**101**	**116**	**348**	**375**	**317**	**344**	**285**
Real disposable income	*growth in %*	**3.7**	**3.0**	**4.4**	**4.0**	**3.7**	**-0.4**	**4.3**	**-2.9**	**-3.1**	**1.7**
Gross savings rate	*%*	**12.1**	**11.3**	**11.7**	**12.2**	**13.2**	**19.3**	**19.4**	**17.3**	**16.9**	**15.1**

Source: CZSO. Calculations of the MoF.

3.4 External Relations

The annual growth of **export markets** in Q4 2022 reached 3.8% (*vs. 4.2%*). The weaker-than-estimated development was due to slower GDP growth of the Czech Republic's main trading partners and also to the fact that growth in import intensity remained slightly below expectations (by 0.2 pp in both cases). For the whole year 2022, export markets grew by 4.3% (*in line with the estimate*). Taking into account the expected development of economic activity abroad (see Chapter 1.1), we expect export markets to grow by 2.0% (*vs. 1.9%*) this year and by 2.9% in 2024.

Export performance rose by 4.2% (*vs. 2.6%*) in Q4 2022, with higher growth driven by a stronger recovery in automotive production as global supply chain problems eased. For the full year, however, export performance declined by 0.5% (*vs. 1.0%*). For this year, we expect it to grow by 0.9% (*vs. 1.1%*). The pick-up in performance should be supported by the easing of supply-side frictions and reduction of inventories, but will be negatively affected by the projected lower volume of industrial orders from abroad and the year-on-year appreciation of the koruna against the euro (see Chapter 1.4). We estimate export performance to grow by 1.4% in 2024 as price pressures in industry ease further.

The **current account of the balance of payments** reached a deficit of 6.1% of GDP (*vs 5.8% of GDP*) in Q4 2022[1]. The year-on-year deterioration of the balance by 3.4% of GDP was mainly due to a significant decline in the balance of goods.

With the release of data for Q4 2022, the data for 2021 and the first three quarters of 2022 were revised simultaneously. The major change for 2021 was an increase in the primary income deficit by 1.8% of GDP to 5.1% of GDP. The current account deficit widened in a similar proportion, reaching 2.8% of GDP.

The **goods balance** deteriorated by 2.6% of GDP year-on-year to −1.5% of GDP (*vs. −1.8% of GDP*) in Q4 2022, mainly due to elevated prices and higher imports of energy commodities. However, the deficit narrowed from the previous quarter, thanks to improved conditions in the export-oriented automotive industry.

Mineral fuel prices continue to be an important factor influencing the **terms of trade**. The deficit on the fuel side of the balance was 4.7% of GDP (*vs. 4.4% of GDP*) in Q4 2022. Given the evolution of oil prices (see Chapter 1.2) and other energy commodities (notably natural gas), we expect the deficit to ease to 3.5% of GDP (*vs. 3.4% of GDP*) this year. In 2024, the deficit could narrow further to 3.2% of GDP.

We expect the balance of goods to reach a slight deficit of 0.3% of GDP (*vs. 1.0% of GDP*) this year, though for 2024 we already forecast a surplus of 1.4% of GDP. The balance of goods will be positively affected by a slight improvement in the terms of trade, exports of previously accumulated inventories and, in 2024, the economic recovery abroad. In contrast, growth in import-intensive investment activity will dampen the balance.

The **balance of services** showed a surplus of 1.3% of GDP (*vs. 1.6% of GDP*) in Q4 2022. Higher costs in the transport sector and growth in imports in R&D (up CZK 14.8 billion year-on-year) and consulting services (up CZK 13.9 billion year-on-year) contributed to the 0.4% of GDP YoY decline in the surplus. In the opposite direction, the growth of revenues in tourism and telecommunication services partly offset the deterioration of the balance. Taking into account the weaker economic activity in the euro area (see Chapter 1.1) and the base effect from Q4 2022, we expect a positive balance of 1.3% of GDP (*vs. 1.6% of GDP*) this year, which could increase to 1.6% of GDP in 2024 thanks to the projected economic recovery.

The primary income deficit widened by 0.4% of GDP YoY to 5.5% of GDP (*vs. 5.1% of GDP*) in Q4 2022 due to higher outflows of direct investment income in the form of dividends. In absolute terms, this was the highest deficit ever recorded on the primary income balance. The higher deficit was also driven by a record amount of dividends paid in Q3 2022, which may have been partly related to the pay-out by the domestic banking sector of 2019–2020 profits, which was restricted during the COVID-19 pandemic based on the CNB's recommendation. In the absence of this one-off factor, the deficit could narrow to 4.3% of GDP (*vs. 4.0% of GDP*) in 2023, and then widen slightly to 4.5% of GDP in 2024 as the recovery in economic activity will support the growth in profitability of non-resident-owned firms.

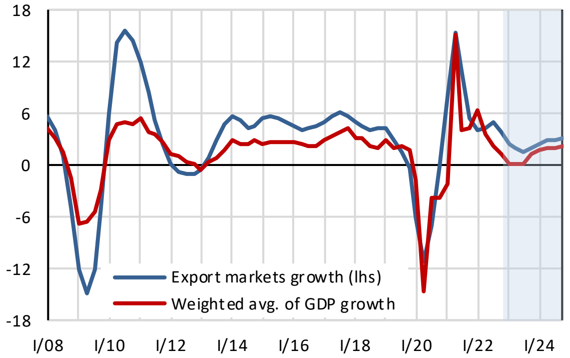
Against this background, we expect the **current account of the balance of payments** to be in deficit over the forecast horizon. The deficit could reach 3.5% of GDP (*vs. 3.6% of GDP*) this year, and ease to 1.9% of GDP in 2024.

The current external balance (in the national accounts methodology) reached a deficit of 5.4% of GDP in Q4 2022 (see Graph 3.4.8). While households' savings were 4.4% of GDP higher than their investment, the relationship between savings and investment of non-financial corporations and the general government was the reverse, with gross capital formation 6.8% and 3.9% of GDP, respectively, higher than gross savings.

[1] All quarterly data relative to GDP are reported in annual moving totals.

Graph 3.4.1: GDP and Goods Imports of Partner Countries

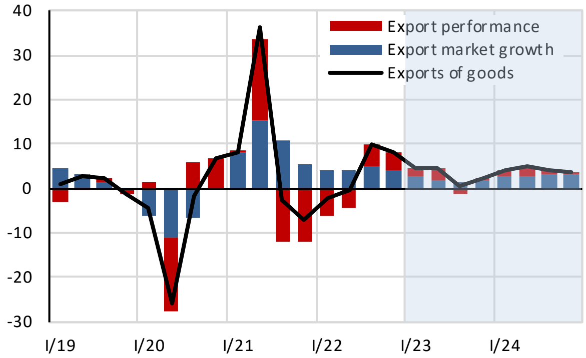
YoY growth rate in %, seasonally adjusted



Source: Eurostat. Calculations and forecast of the MoF.

Graph 3.4.2: Real Exports of Goods

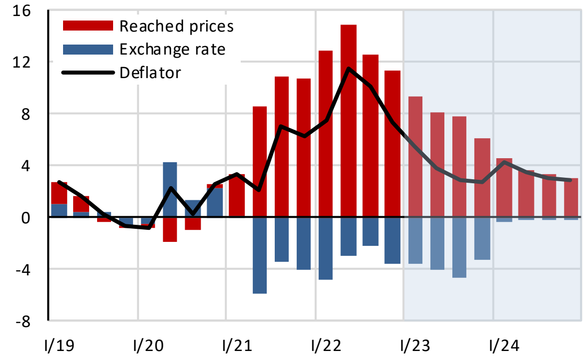
YoY growth in %, contributions in pp, seasonally adjusted



Source: CZSO, Eurostat. Calculations and forecast of the MoF.

Graph 3.4.3: Deflator of Exports of Goods

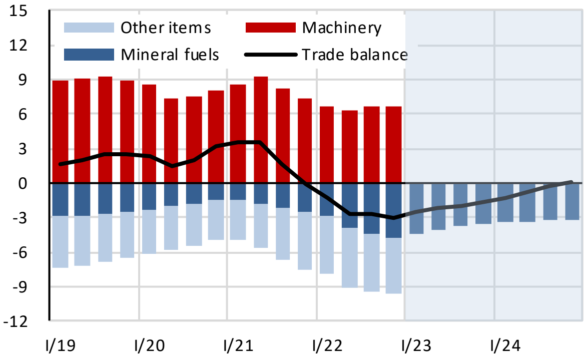
YoY growth in %, contributions in percentage points



Source: CNB, CZSO. Calculations and forecast of the MoF.

Graph 3.4.4: Balance of Trade

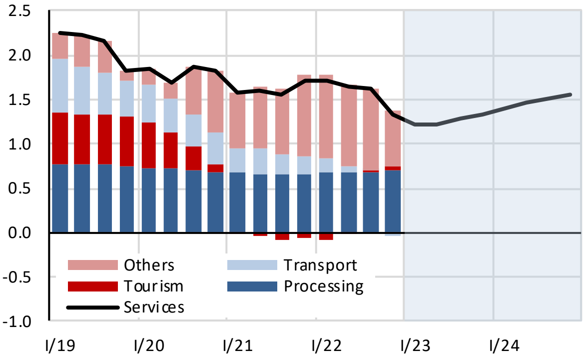
four-quarter moving totals, in % of GDP, change of ownership concept



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.4.5: Balance of Services

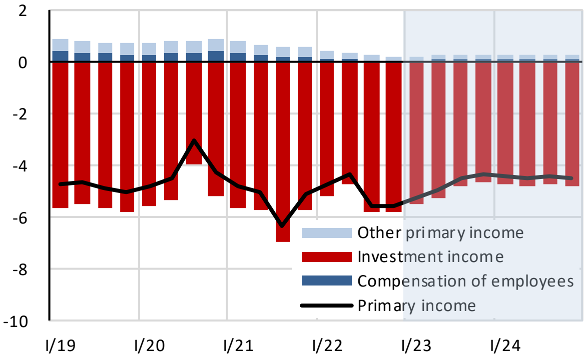
four-quarter moving totals, in % of GDP



Source: CNB, CZSO. Calculations and forecast of the MoF.

Graph 3.4.6: Balance of Primary Income

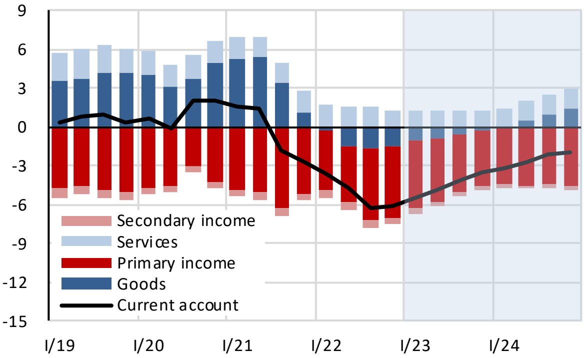
four-quarter moving totals, in % of GDP



Source: CNB, CZSO. Calculations and forecast of the MoF.

Graph 3.4.7: Current Account

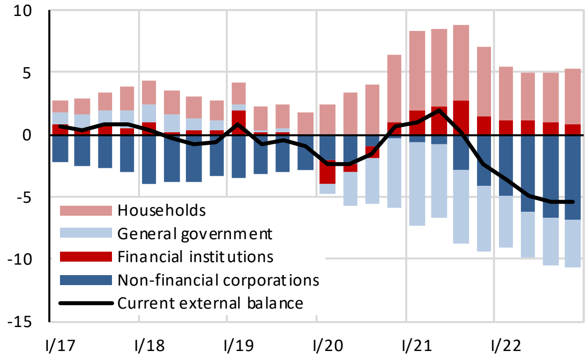
four-quarter moving totals, in % of GDP, BoP methodology



Source: CNB, CZSO. Calculations and forecast of the MoF.

Graph 3.4.8: Current External Balance

four-quarter moving totals, in % of GDP, national accounts



Source: CZSO. Calculations of the MoF.

Table 3.4.1: Decomposition of Exports of Goods (National Accounts Methodology) – yearly
seasonally adjusted

		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
										Forecast	*Forecast*
GDP [1]	*average of 2010=100*	**109.2**	**111.5**	**114.9**	**117.5**	**119.6**	**113.8**	**118.7**	**122.1**	**123**	**125**
	growth in %	2.2	2.1	3.1	2.2	1.9	-4.9	4.4	2.8	0.4	1.7
Import intensity [2]	*average of 2010=100*	**110.0**	**112.4**	**115.3**	**117.8**	**118.1**	**116.8**	**122.9**	**124.7**	**127**	**128**
	growth in %	3.2	2.2	2.5	2.2	0.2	-1.1	5.2	1.4	1.6	1.2
Export markets [3]	*average of 2010=100*	**120.1**	**125.3**	**132.4**	**138.4**	**141.3**	**132.8**	**145.9**	**152.2**	**155**	**160**
	growth in %	5.5	4.4	5.6	4.5	2.1	-6.0	9.8	4.3	2.0	2.9
Export performance	*average of 2010=100*	**111.1**	**110.9**	**113.0**	**111.9**	**110.9**	**110.4**	**107.3**	**106.7**	**108**	**109**
	growth in %	-0.1	-0.2	1.9	-1.0	-0.9	-0.4	-2.8	-0.5	0.9	1.4
Real exports	*average of 2010=100*	**133.4**	**138.9**	**149.6**	**154.8**	**156.7**	**146.7**	**156.5**	**162.4**	**167**	**174**
	growth in %	5.4	4.1	7.6	3.5	1.2	-6.4	6.7	3.8	2.9	4.3
1 / NEER	*average of 2010=100*	**109.1**	**106.8**	**103.9**	**100.2**	**100.5**	**102.4**	**99.0**	**95.6**	**92**	**92**
	growth in %	0.6	-2.1	-2.8	-3.6	0.3	1.9	-3.3	-3.4	-3.9	-0.2
Prices on foreign markets	*average of 2010=100*	**98.9**	**98.2**	**100.3**	**103.2**	**103.9**	**103.1**	**111.6**	**126.1**	**136**	**141**
	growth in %	-2.0	-0.7	2.1	2.9	0.7	-0.8	8.3	13.0	7.8	3.7
Exports deflator	*average of 2010=100*	**108.0**	**104.9**	**104.1**	**103.4**	**104.4**	**105.5**	**110.5**	**120.6**	**125**	**129**
	growth in %	-1.4	-2.8	-0.8	-0.7	1.0	1.1	4.7	9.1	3.7	3.4
Nominal exports	*average of 2010=100*	**144.0**	**145.8**	**155.7**	**160.0**	**163.5**	**154.7**	**172.9**	**195.9**	**209**	**225**
	growth in %	3.9	1.2	6.8	2.8	2.2	-5.4	11.8	13.3	6.6	7.9

[1] *Weighted average of GDP of eight most important partners – Germany, Slovakia, Austria, the United Kingdom, Poland, France, Italy and Hungary.*
[2] *Index of ratio of real imports of goods to real GDP.*
[3] *Weighted average of imports of goods of main partners.*
Source: CNB, CZSO, Eurostat. Calculations and forecast of the MoF.

Table 3.4.2: Decomposition of Exports of Goods (National Accounts Methodology) – quarterly
seasonally adjusted

		2022				2023			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	*Forecast*	*Forecast*	*Forecast*
GDP [1]	*average of 2010=100*	**121.9**	**122.0**	**122.5**	**122.0**	**122**	**122**	**123**	**123**
	growth in %	5.4	3.1	1.9	1.0	0.1	0.2	0.2	1.1
Import intensity [2]	*average of 2010=100*	**123.2**	**124.2**	**125.1**	**126.1**	**126**	**126**	**127**	**127**
	growth in %	-1.1	1.1	3.0	2.8	2.5	1.8	1.3	0.9
Export markets [3]	*average of 2010=100*	**150.1**	**151.6**	**153.2**	**153.8**	**154**	**155**	**156**	**157**
	growth in %	4.2	4.3	5.0	3.8	2.6	2.0	1.6	1.9
Export performance	*average of 2010=100*	**105.1**	**104.7**	**109.2**	**108.0**	**107**	**107**	**108**	**108**
	growth in %	-6.1	-4.5	4.8	4.2	2.0	2.4	-1.2	0.4
Real exports	*average of 2010=100*	**157.7**	**158.7**	**167.3**	**166.0**	**165**	**166**	**168**	**170**
	growth in %	-2.2	-0.5	10.0	8.2	4.6	4.5	0.3	2.3
1 / NEER	*average of 2010=100*	**95.5**	**95.8**	**96.3**	**94.9**	**92**	**92**	**92**	**92**
	growth in %	-4.8	-3.0	-2.2	-3.6	-3.6	-4.0	-4.6	-3.2
Prices on foreign markets	*average of 2010=100*	**121.0**	**127.5**	**127.9**	**127.9**	**132**	**138**	**138**	**136**
	growth in %	12.9	14.9	12.6	11.4	9.4	8.1	7.8	6.2
Exports deflator	*average of 2010=100*	**115.5**	**122.2**	**123.2**	**121.4**	**122**	**127**	**127**	**125**
	growth in %	7.5	11.4	10.1	7.4	5.5	3.8	2.9	2.8
Nominal exports	*average of 2010=100*	**182.2**	**193.8**	**206.1**	**201.6**	**201**	**210**	**213**	**212**
	growth in %	5.1	10.9	21.2	16.2	10.3	8.3	3.2	5.1

[1] *Weighted average of GDP of eight most important partners – Germany, Slovakia, Austria, the United Kingdom, Poland, France, Italy and Hungary.*
[2] *Index of ratio of real imports of goods to real GDP.*
[3] *Weighted average of imports of goods of main partners.*
Source: CNB, CZSO, Eurostat. Calculations and forecast of the MoF.

Table 3.4.3: Balance of Payments – yearly

international investment position and gross external debt – end of period

		2015	2016	2017	2018	2019	2020	2021	2022	2023 Forecast	2024 Forecast
Goods and services	bill.CZK	**274**	**365**	**384**	**321**	**346**	**384**	**174**	**-9**	**79**	**234**
	% GDP	5.9	7.6	7.5	5.9	6.0	6.7	2.8	-0.1	1.1	2.9
Goods	bill.CZK	188	259	259	201	240	280	69	-99	-20	109
	% GDP	4.1	5.4	5.1	3.7	4.1	4.9	1.1	-1.5	-0.3	1.4
Services	bill.CZK	87	107	125	120	106	104	105	90	99	124
	% GDP	1.9	2.2	2.4	2.2	1.8	1.8	1.7	1.3	1.3	1.6
Primary income	bill.CZK	**-255**	**-253**	**-255**	**-260**	**-292**	**-242**	**-312**	**-375**	**-322**	**-360**
	% GDP	-5.5	-5.3	-5.0	-4.8	-5.0	-4.2	-5.1	-5.5	-4.3	-4.5
Secondary income	bill.CZK	**1**	**-27**	**-50**	**-37**	**-34**	**-28**	**-33**	**-31**	**-17**	**-24**
	% GDP	0.0	-0.6	-1.0	-0.7	-0.6	-0.5	-0.5	-0.5	-0.2	-0.3
Current account	bill.CZK	**21**	**85**	**79**	**24**	**19**	**114**	**-168**	**-415**	**-261**	**-150**
	% GDP	0.4	1.8	1.5	0.4	0.3	2.0	-2.8	-6.1	-3.5	-1.9
Capital account	bill.CZK	**99**	**52**	**45**	**13**	**24**	**67**	**104**	**7**	**39**	**47**
	% GDP	2.1	1.1	0.9	0.2	0.4	1.2	1.7	0.1	0.5	0.6
Net lending/borrowing	bill.CZK	**120**	**137**	**124**	**37**	**44**	**180**	**-64**	**-408**	**-221**	**-103**
	% GDP	2.6	2.9	2.4	0.7	0.8	3.2	-1.1	-6.0	-3.0	-1.3
Financial account	bill.CZK	**173**	**122**	**116**	**61**	**8**	**163**	**-40**	**-415**	**.**	**.**
Direct investments	bill.CZK	50	-187	-46	-51	-137	-149	-29	-172	.	.
Portfolio investments	bill.CZK	-164	-170	-268	30	-105	-136	75	331	.	.
Financial derivatives	bill.CZK	-5	11	-14	-15	1	11	-58	-38	.	.
Other investments	bill.CZK	-59	-97	-802	47	139	389	-325	-229	.	.
Reserve assets	bill.CZK	351	564	1 246	50	110	48	296	-307	.	.
International investment position	bill.CZK	**-1 523**	**-1 304**	**-1 273**	**-1 320**	**-1 147**	**-929**	**-883**	**-1 340**	**.**	**.**
	% GDP	-32.9	-27.2	-24.9	-24.4	-19.8	-16.3	-14.5	-19.7	.	.
Gross external debt	bill.CZK	**3 119**	**3 499**	**4 370**	**4 413**	**4 384**	**4 321**	**4 519**	**4 454**	**.**	**.**
	% GDP	67.4	72.9	85.5	81.6	75.7	75.7	74.0	65.5	.	.

Source: CNB, CZSO. Calculations and forecast of the MoF.

Table 3.4.4: Balance of Payments – quarterly

four-quarter moving totals, international investment position and gross external debt – end of period

		2022				2023			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	*Forecast*	*Forecast*	*Forecast*
Goods and services	*bill.CZK*	**92**	**13**	**-6**	**-9**	**15**	**30**	**54**	**79**
	% GDP	1.5	0.2	-0.1	-0.1	0.2	0.4	0.7	1.1
Goods	*bill.CZK*	-15	-93	-112	-99	-71	-57	-40	-20
	% GDP	-0.2	-1.5	-1.7	-1.5	-1.0	-0.8	-0.5	-0.3
Services	*bill.CZK*	106	106	107	90	86	87	94	99
	% GDP	1.7	1.7	1.6	1.3	1.2	1.2	1.3	1.3
Primary income	*bill.CZK*	**-293**	**-280**	**-366**	**-375**	**-366**	**-355**	**-328**	**-322**
	% GDP	-4.7	-4.3	-5.5	-5.5	-5.2	-5.0	-4.5	-4.3
Secondary income	*bill.CZK*	**-32**	**-38**	**-37**	**-31**	**-28**	**-24**	**-20**	**-17**
	% GDP	-0.5	-0.6	-0.6	-0.5	-0.4	-0.3	-0.3	-0.2
Current account	*bill.CZK*	**-230**	**-304**	**-409**	**-415**	**-379**	**-349**	**-294**	**-261**
	% GDP	-3.7	-4.7	-6.2	-6.1	-5.4	-4.9	-4.0	-3.5
Capital account	*bill.CZK*	**96**	**87**	**65**	**7**	**15**	**23**	**31**	**39**
	% GDP	1.5	1.4	1.0	0.1	0.2	0.3	0.4	0.5
Net lending/borrowing	*bill.CZK*	**-134**	**-217**	**-344**	**-408**	**-364**	**-326**	**-263**	**-221**
	% GDP	-2.1	-3.4	-5.2	-6.0	-5.2	-4.6	-3.6	-3.0
Financial account	*bill.CZK*	**-121**	**-267**	**-416**	**-415**	**.**	**.**	**.**	**.**
Direct investments	*bill.CZK*	-72.8	-67.5	-82.6	-172.4	.	.	.	.
Portfolio investments	*bill.CZK*	137	337	265	331	.	.	.	.
Financial derivatives	*bill.CZK*	-65	-75	-68	-38	.	.	.	.
Other investments	*bill.CZK*	-505	-745	-393	-229	.	.	.	.
Reserve assets	*bill.CZK*	386	283	-137	-307	.	.	.	.
International investment position	*stock in bill.CZK*	**-951**	**-1 011**	**-1 333**	**-1 340**	**.**	**.**	**.**	**.**
	% GDP	-15.2	-15.7	-20.2	-19.7	.	.	.	.
Gross external debt	*stock in bill.CZK*	**4 685**	**4 631**	**4 406**	**4 454**	**.**	**.**	**.**	**.**
	% GDP	74.8	72.0	66.7	65.5	.	.	.	.

Source: CNB, CZSO. Calculations and forecast of the MoF.

4 Survey of Other Institutions' Forecasts

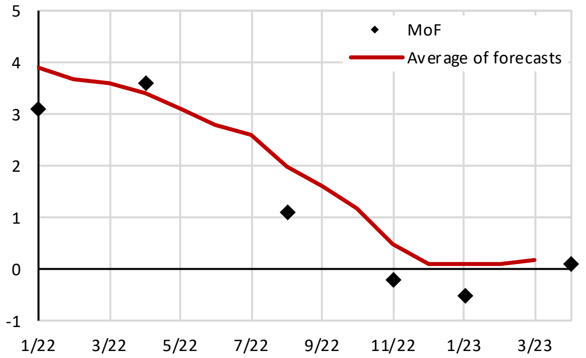
On average, the surveyed institutions expect the Czech economy to grow by 0.2% this year and by 2.8% in 2024. According to their estimates, the average inflation rate should be 10.6% this year and fall to 3.2% next year. Average nominal wage growth could reach 8.3% in 2023 and slow to 6.2% in 2024. The current account of the balance of payments should reach a deficit of 2.1% and 1.2% of GDP in 2023 and 2024, respectively.

When assessing the differences between the current forecast of the MoF and the average of the estimates of individual institutions, it is necessary to take into account the date of preparation of individual forecasts and the information available to their authors.

The growth of the Czech economy will continue to be dampened by the impacts of the Russian aggression against Ukraine and the continuing exceptionally strong growth in the cost of living. The MoF's forecast does not differ much from the institutions monitored – it expects GDP to grow by 0.1% this year and to accelerate to 3.0% next year. While the MoF estimates a higher average inflation rate in 2023 (see Chapter 3.2), the forecast for 2024 is, on the contrary, more favourable than the average of the forecasts of the monitored institutions and assumes that inflation will return to the tolerance band of the CNB's inflation target. The MoF expects a slower rate of growth in average wages in both years compared to the forecasts of the monitored institutions. The forecast of a deeper deficit on the current account of the balance of payments this year is based mainly on the previous and expected evolution of the balance of goods, which is affected by high prices of imported commodities and persistent problems of export-oriented industry.

Graph 4.1: Forecasts for Real GDP Growth in 2023

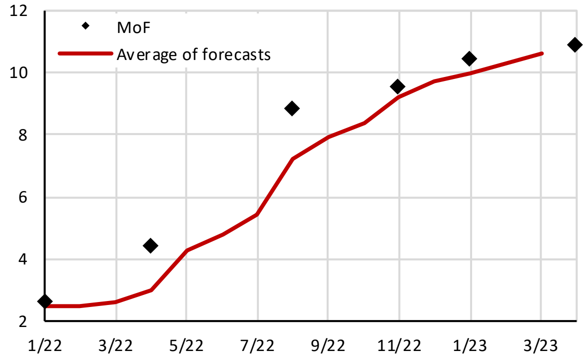
in %; the month, in which the survey was made on the horizontal axis



Source: Forecasts of individual institutions. Calculations of the MoF.

Graph 4.2: Forecasts for Average Inflation Rate in 2023

in %; the month, in which the survey was made on the horizontal axis



Source: Forecasts of individual institutions. Calculations of the MoF.

Table 4.1: Summary of the Surveyed Forecasts

		March 2023			April 2023
		min.	*max.*	*average*	*MoF forecast*
Gross domestic product (2023)	*growth in %, const.pr.*	**-0.6**	**1.5**	**0.2**	**0.1**
Gross domestic product (2024)	*growth in %, const.pr.*	**1.9**	**3.9**	**2.8**	**3.0**
Average inflation rate (2023)	*%*	**8.6**	**12.9**	**10.6**	**10.9**
Average inflation rate (2024)	*%*	**2.1**	**4.6**	**3.2**	**2.4**
Average monthly wage (2023)	*growth in %*	**6.9**	**10.0**	**8.3**	**8.0**
Average monthly wage (2024)	*growth in %*	**5.4**	**7.5**	**6.2**	**5.7**
Current account / GDP (2023)	*%*	**-3.8**	**-0.5**	**-2.1**	**-3.5**
Current account / GDP (2024)	*%*	**-3.1**	**0.5**	**-1.2**	**-1.9**

Note: The survey is based on publicly available forecasts of 11 institutions, of which 7 institutions are domestic (Czech Banking Association, CNB, Ministry of Labour and Social Affairs, domestic banks) and the remaining are foreign entities (European Commission, OECD, IMF, The Economist). In the case of GDP, no difference is being made between working-day adjusted and unadjusted forecasts.

Source: Forecasts of individual institutions. Calculations and forecast of the MoF.

5 Evaluation of the 2022 State Budget Forecast

The macroeconomic framework of the amended 2022 State Budget was prepared on the basis of the Macroeconomic Forecast from January of the same year. Table 5.1 shows a comparison of the main indicators of the framework with the data published by 31 March 2023. However, for most of the indicators these data cannot be considered final as they will be further revised.

The budgetary forecast was based on the scenario that no further significant restrictive measures would be needed in the context of the epidemic situation. Problems in supply chains were still expected to hamper the economy during the first half of 2022, but economic activity was nevertheless expected to recover.

However, the forecast could not have taken into account (and did not, even as a risk) the Russian military aggression against Ukraine. In 2022, this factor had an absolutely crucial impact on economic developments in almost all areas, both in the Czech Republic and abroad.

The war in Ukraine has depressed global economic growth and intensified inflationary pressures, particularly in the case of food and energy prices. However, consumer price inflation was broad-based, underpinned by domestic demand pressures, in addition to cost factors. The average inflation rate rose to 15.1% in 2022, the highest since 1993.

Exceptionally strong consumer price growth dampened real household consumption, which fell by 0.9% instead of a 2.3% increase. Due to persistent problems in supply chains and high inflation, inventory accumulation continued to be strong, contributing 1.0 pp to GDP growth, while the framework assumed a zero contribution. Private investment activity surprised positively, but the external trade balance supported the economy less than expected. As a result, the Czech economy grew by 2.5% in 2022 instead of the predicted 3.1%.

In line with the framework, the unemployment rate fell to 2.3% on average. In the case of employment, the comparison is affected by a break in the time series. This is because, starting in Q1 2022, new demographic weights linked to the 2021 Population and Housing Census were applied in the LFS statistics. When converted to the same population structure, employment increased by 1.7% last year, 0.6 pp higher than in the framework. Growth of wages and salaries also exceeded expectations. This reflected not only a larger increase in the number of employees, but also stronger growth in average nominal wages. However, the fall in real wages was deeper due to higher inflation.

In conclusion, the environment in which the economy was operating in 2022 was radically different from the macroeconomic scenario of the amended state budget. Therefore, drawing conclusions from comparing the actual performance of the economy with the macroeconomic framework would be misleading. While the results of the economic bases for deriving tax revenues (wages and salaries, nominal household consumption) were significantly more favourable from a budgetary perspective compared to the macroeconomic framework, the expenditure side of public finances came under considerable pressure due to high inflation and the refugee crisis.

Table 5.1: Comparison of the 2022 State Budget Macroeconomic Framework with Actual Outcome

		Outcome (April 2023)				State Budget 2022 (January 2022)				Difference (outcome - forecast)			
		2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022
Gross domestic product	*bill. CZK*	5 791	5 709	6 109	6 795	5 790	5 694	6 103	6 617	1	15	5	178
Gross domestic product	*growth in %, curr.pr.*	7.0	-1.4	7.0	11.2	7.0	-1.7	7.2	8.4	0.0	0.2	-0.2	2.8
Gross domestic product	*growth in %, const.pr.*	3.0	-5.5	3.6	2.5	3.0	-5.8	2.9	3.1	0.0	0.3	0.6	-0.6
Consumption of households	*growth in %, const.pr.*	2.7	-7.2	4.1	-0.9	2.7	-6.8	4.8	2.3	0.0	-0.5	-0.7	-3.1
Consumption of government	*growth in %, const.pr.*	2.5	4.2	1.4	0.6	2.5	3.4	1.9	0.4	0.0	0.8	-0.6	0.2
Gross fixed capital formation	*growth in %, const.pr.*	5.9	-6.0	0.8	6.2	5.9	-7.5	0.8	5.4	0.0	1.5	0.1	0.8
Net exports	*contribution, pp*	0.0	-0.4	-3.6	0.2	0.0	-0.5	-3.0	0.6	0.0	0.1	-0.6	-0.4
GDP deflator	*growth in %*	3.9	4.3	3.3	8.6	3.9	4.4	4.1	5.2	0.0	-0.1	-0.8	3.4
Average inflation rate	*%*	2.8	3.2	3.8	15.1	2.8	3.2	3.8	8.5	0.0	0.0	0.0	6.6
Employment (LFS)	*growth in %*	0.2	-1.3	-0.4	-0.8	0.2	-1.3	-0.4	1.1	0.0	0.0	0.0	-1.9
Unemployment rate (LFS)	*average in %*	2.0	2.6	2.8	2.3	2.0	2.6	2.8	2.3	0.0	0.0	0.0	0.0
Wage bill (domestic concept)	*growth in %, curr.pr.*	7.8	0.1	5.9	9.1	7.8	0.2	5.7	5.4	0.0	-0.1	0.2	3.7
Current account balance	*% of GDP*	0.3	2.0	-2.8	-6.1	0.3	3.6	-1.0	-1.3	0.0	-1.6	-1.8	-4.8
Assumptions:													
Exchange rate CZK/EUR		25.7	26.4	25.6	24.6	25.7	26.4	25.6	24.4	0.0	0.0	0.0	0.2
Long-term interest rates	*% p.a.*	1.5	1.1	1.9	4.3	1.5	1.1	1.9	3.3	0.0	0.0	0.0	1.0
Crude oil Brent	*USD/barrel*	64	42	71	101	64	42	71	76	0	0	0	25
GDP of the euro area	*growth in %, const.pr.*	1.6	-6.3	5.3	3.5	1.6	-6.5	5.1	3.9	0.0	0.3	0.2	-0.4

Source: CNB, CZSO, Eurostat, U. S. Energy Information Administration. Calculations and forecast of the MoF.

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