Ministry of Finance
of the Czech Republic

Macroeconomic Forecast
of the Czech Republic

August 2022

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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 2022 and 2023, and for certain indicators an outlook for the 2 following years (i.e. until 2025). 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 10 August 2022.

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 (April 2022) are indicated by italics. Data relating to the years 2024 and 2025 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 has been hit by several shocks this year, most notably by the war in Ukraine. Higher-than-expected inflation, particularly in the United States and major European economies, has led to a tightening of financial conditions. China has seen prolonged lockdowns of important economic centres due to the application of strict anti-epidemic restrictions. As a result, the Chinese economy slowed sharply in the second quarter, which had a negative impact on global demand and supply.

According to the preliminary estimate of the CZSO, **real gross domestic product** of the Czech Republic, adjusted for seasonal and calendar effects, increased by 0.2% QoQ and by 3.6% YoY in Q2 2022. In Q1 2022, for which detailed data on the structure of growth are available, GDP grew by 5.1% YoY (unadjusted).

Household consumption was 7.6% higher year-on-year in Q1 2022. The strong growth rate reflected not only a low comparison base but also a significant decline in the savings rate. A decrease in real household disposable income, driven by accelerating inflation, had a negative impact on consumer spending. **General government consumption** increased by 2.2% due to higher employment and purchases of goods and services.

Gross fixed capital formation rose by 8.1%, the fastest growth since the end of 2018. Investment in transport equipment was the largest contributor, but all important categories showed growth. From a sectoral perspective, it was driven by privately-financed investment of firms and households.

Although the contribution of **the change in inventories** and valuables to GDP growth (1.9 pp) was much lower than in the H2 2021, it still contributed significantly to the increase in economic output. Firms apparently continued to replenish inventories to avoid losses from high inflation and component supply shortfalls, and stocks of work in progress also likely increased.

By contrast, the **external trade** balance dampened economic growth (contr. of −2.5 pp), not only because of weak exports but also due to a recovery in import-intensive investment activity and continued accumulation of inventories, which boosted import growth.

While the economy had grown in the first half of this year despite adverse circumstances, it should experience a mild recession in the second half of the year. Nonetheless, GDP for the full year **2022 could increase** by **2.2%**. Growth should be driven by fixed capital investment and increased inventory accumulation. Household final consumption expenditure will be dampened by a sharp rise in the cost of living, especially energy prices, and by tighter monetary policy. The external trade balance should take 1.0 pp off the growth momentum.

Economic growth could **slow** further **to 1.1%** in **2023**. Households will continue to face the impact of high inflation next year, so the dynamics of their consumption should remain very low. Gross fixed capital formation will continue to be pro-growth, but weaker year-on-year inventory accumulation will slow the economy noticeably. With weak domestic demand, the foreign trade balance should thus be the main driver of growth.

High **inflation** slows economic growth and lowers living standards. Annual inflation is expected to accelerate further in H2 2022 and approach 20%. The average rate of inflation should thus reach 16.2% this year. Not only the prices of food, fuel, electricity, natural gas and imputed rent, 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 the previous increase in monetary policy rates. Over the forecast horizon, this factor should also contribute to the appreciation of the koruna (the exchange rate is currently also supported by the CNB's foreign exchange interventions), which will have an anti-inflationary effect. The average inflation rate could slow to 8.8% in 2023.

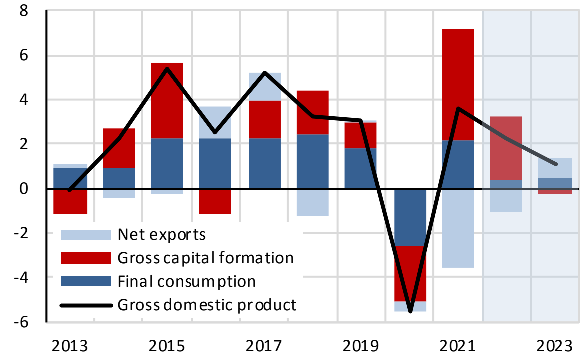
Imbalances related to labour shortages in virtually all sectors of the economy continue to be evident in the **labour market**. Thus, despite the expected shallow recession in H2 2022 and weak economic momentum in 2023, the unemployment rate should virtually stagnate, reaching 2.5% on average in 2022 and rising slightly to 2.6% in 2023. The tight labour market will push wage growth higher, though it will lag behind inflation. Average real wage should therefore fall this year and next.

The **current account of the balance of payments** showed a deficit of 2.0% of GDP in Q1 2022, mainly reflecting a deterioration in the balance of goods due to frictions in the automotive industry and a significantly negative terms of trade driven by mineral fuel prices. Stronger investment activity, slowing economic growth abroad and rising input and energy prices should continue to contribute to the negative balance of goods this year and next. The current account deficit is thus expected to reach 4.6% of GDP in 2022, before declining to 4.0% of GDP in 2023 as price pressures recede.

The **general government sector's performance** in 2022 reflects the economic and financial consequences of the Russian aggression against Ukraine and the related humanitarian crisis, the support to households and firms affected by the huge price increases, and last but not least, the expenditure triggered by the COVID-19 epidemic. We therefore expect a deficit of 3.8% of GDP. The fiscal policy stance is expected to lead to a structural deficit of 3.0% of GDP and an increase in debt to 42.4% of GDP.

Economic growth should slow down

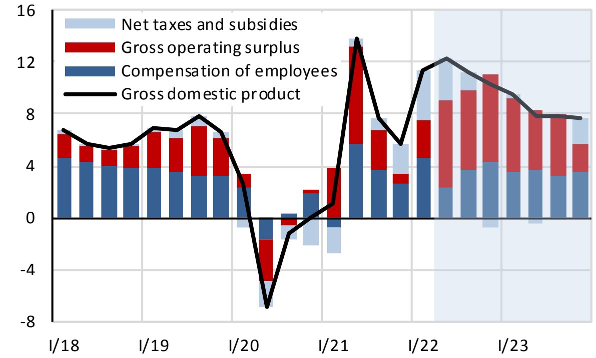
growth rate of real GDP in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

Growth of firms' profits should accelerate this year

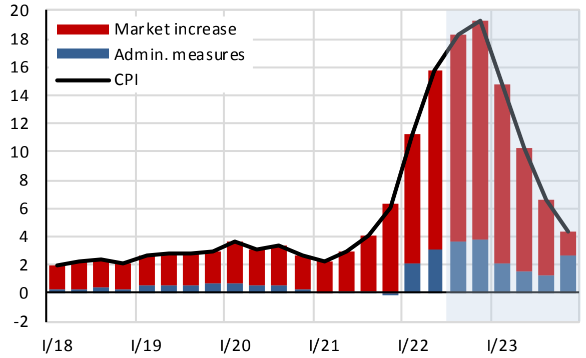
YoY growth of nominal GDP in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

Inflation well above the CNB's 2% target also next year

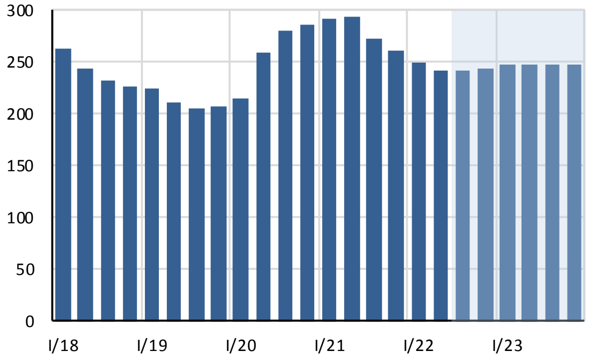
YoY growth rate of CPI in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

Unemployment should virtually stagnate

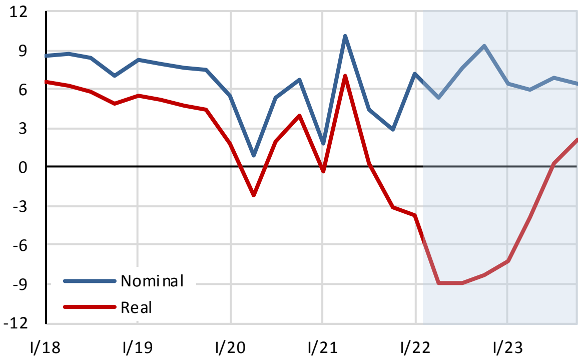
registered unemployment, in thous. of persons, seasonally adjusted



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

Wage growth should temporarily lag behind inflation

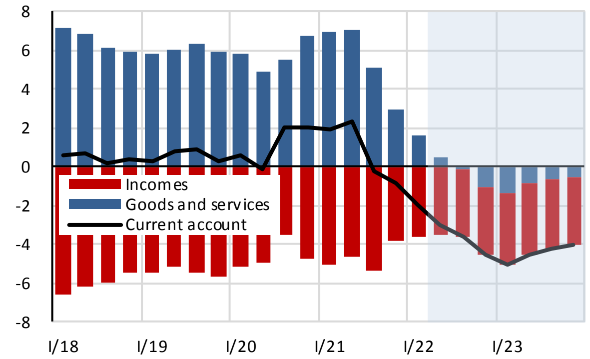
average gross monthly wage, YoY growth rate, in %



Source: CZSO. Calculations and forecast of the MoF.

Current account deficit should widen

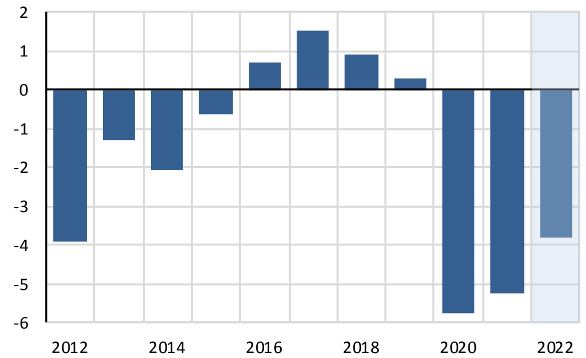
in % of GDP, yearly moving sums



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

Public finance deficit should drop below 4% of GDP

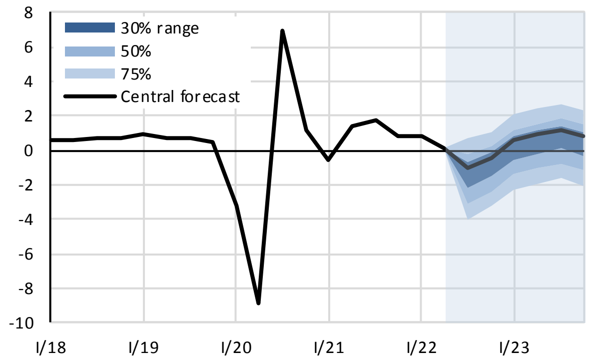
general government net lending/borrowing, in % of GDP



Source: CZSO. Calculations and forecast of the MoF.

Forecast risks are highly skewed to the downside

QoQ growth of real GDP in %



Source: CZSO. Calculations and forecast of the MoF.

Table: Main Macroeconomic Indicators

		2017	2018	2019	2020	2021	2022	2023	2022	2023
							Current forecast		*Previous forecast*	
Nominal GDP	*bill. CZK*	**5 111**	**5 411**	**5 791**	**5 709**	**6 108**	**6 799**	**7 356**	6 618	7 135
	nominal growth in %	6.5	5.9	7.0	-1.4	7.0	11.3	8.2	8.1	7.8
Gross domestic product	*real growth in %*	**5.2**	**3.2**	**3.0**	**-5.5**	**3.5**	**2.2**	**1.1**	1.2	3.6
Consumption of households	*real growth in %*	4.0	3.5	2.7	-7.2	4.1	0.5	0.5	0.5	4.5
Consumption of government	*real growth in %*	1.8	3.9	2.5	4.2	1.5	0.8	1.3	1.0	1.0
Gross fixed capital formation	*real growth in %*	4.9	10.0	5.9	-6.0	0.7	6.1	3.4	2.2	5.9
Contribution of net exports	*pp*	1.2	-1.2	0.0	-0.4	-3.6	-1.0	0.9	0.1	0.2
Contrib. of change in inventories	*pp*	0.5	-0.5	-0.3	-0.9	4.8	1.3	-1.2	0.0	-0.4
GDP deflator	*growth in %*	**1.3**	**2.6**	**3.9**	**4.3**	**3.3**	**8.9**	**7.0**	6.9	4.1
Average inflation rate	*%*	**2.5**	**2.1**	**2.8**	**3.2**	**3.8**	**16.2**	**8.8**	12.3	4.4
Employment *(LFS)*	*growth in %*	**1.6**	**1.4**	**0.2**	**-1.3**	**-0.4**	**-0.7**	**0.2**	1.2	0.2
Unemployment rate *(LFS)*	*average in %*	**2.9**	**2.2**	**2.0**	**2.6**	**2.8**	**2.5**	**2.6**	2.5	2.6
Wage bill *(domestic concept)*	*growth in %*	**9.2**	**9.6**	**7.8**	**0.1**	**5.8**	**9.8**	**7.9**	6.0	6.2
Current account balance	*% of GDP*	**1.5**	**0.4**	**0.3**	**2.0**	**-0.8**	**-4.6**	**-4.0**	-2.2	-1.9
General government balance	*% of GDP*	**1.5**	**0.9**	**0.3**	**-5.8**	**-5.2**	**-3.8**	**.**	-4.5	-3.2
Assumptions:										
Exchange rate CZK/EUR		**26.3**	**25.6**	**25.7**	**26.4**	**25.6**	**24.6**	**24.4**	24.4	24.2
Long-term interest rates	*% p.a.*	**1.0**	**2.0**	**1.5**	**1.1**	**1.9**	**4.1**	**4.2**	3.9	3.6
Crude oil Brent	*USD/barrel*	**54**	**71**	**64**	**42**	**71**	**105**	**88**	105	91
GDP in the euro area	*real growth in %*	**2.8**	**1.8**	**1.6**	**-6.5**	**5.3**	**3.0**	**1.2**	2.6	2.9

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

Forecast Risks and Uncertainty

The macroeconomic forecast is weighed down by a number of risks which, taken together, we consider to be **highly skewed to the downside**.

The main risk is a prolonged fundamental reduction or even a complete **cut of natural gas supplies from Russia to the European Union**. In such scenario, the price of natural gas on commodity markets would likely increase significantly and inflation would rise further. The situation would also most likely lead to a forced interruption of activity in manufacturing and thus to a deeper economic downturn. Box 1 discusses possible implications of this adverse scenario in more detail.

In the forecast, we work with the assumption that further likely waves of the **COVID-19** epidemic can be managed without the need to adopt macroeconomically significant anti-epidemic restrictions. However, a specific problem is the zero-COVID policy in China, where, for example, lockdowns of entire cities are imposed due to only a few new cases. Therefore, in the future, it cannot be ruled out that lockdowns will again affect major economic centres, as was the case in the second quarter of this year. This would then have a negative impact on economic developments in Europe through foreign trade (lower demand from China) and the effect on global supply chains. The emergence and spread of new coronavirus variants against which available vaccines or experienced disease would provide little protection remains a significant risk.

Further developments in inflation and **inflation expectations** also pose a risk to the Czech economy. It is absolutely crucial that inflation expectations return to the vicinity of the Czech National Bank's inflation target as quickly as possible. Otherwise, a return of inflation to 2% would require even tighter monetary policy, which would entail additional economic costs.

The specific form and intensity of **fiscal consolidation** will also be crucial. However, consolidation is complicated by the manifestations of the unresolved pandemic, Russian aggression in Ukraine, heightened price shocks and the need to ensure sufficient energy supplies.

Available data clearly show that imbalances that characterised the **labour market** before the outbreak of the epidemic are still present. Staff shortages are evident in almost all sectors of the economy and represent a significant barrier to output growth, particularly in construction. However, some easing of the mismatch between demand and supply in the labour market, and the associated upward pressure on wages, could be brought about by an influx of refugees from Ukraine. It turns out that due to the 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 finding employment in the Czech labour market. This is also helped by legislative changes reducing administrative barriers to employing foreigners.

But beyond that, other challenges related to increased immigration will need to be tackled, particularly in the areas of housing, education and healthcare. The potentially unsuccessful **integration of refugees** from Ukraine could pose a significant social problem in the future.

In the medium and long term, in view of demographic developments, it will be crucial to increase **labour productivity**, e.g. by investing in automation, robotization and digital technologies. Given the high involvement of Czech firms in global supply chains, their shift to higher value-added positions (either towards the initial R&D phase or towards the sales phase of the final product) would also be a strong impetus for productivity growth.

The deep fall in real GDP in 2020 was largely determined by the decline in household consumption. The unprecedented increase in the savings rate led to a strong accumulation of financial assets, mainly in the form of currency and deposits. At present, some households can use these funds to **cushion the impact** of high consumer price increases.

Although the downturn in economic activity and the associated deterioration in the financial situation of some households and firms has not led to a significant increase in the share of non-performing loans, the rise in interest rates could cause some households whose mortgage loan fixation period is coming to an end to run into repayment problems. **Overvaluation of residential property prices** 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

In Q2 2022, economic growth slowed in a number of major world economies. The impact of the Russian invasion of Ukraine and the implementation of strict anti-epidemic measures in China, which intensified supply chain problems and further strengthened global inflationary pressures, contributed to this development. High inflation in many countries has resulted in tighter monetary conditions. The risk to global economic growth is not only the renewed deterioration of the epidemic situation in China, but also the strained relations between Western economies and Russia, which, among others, raise concerns about gas supplies to the EU. Given the expected slowdown in the growth dynamics of the world's major economies, **global economic growth** could slow to 2.8% (*vs. 4.0%*) in 2022 and further to 1.9% (*vs. 3.3%*) in 2023.

The economic output of the United States contracted by 0.2% QoQ (*vs. growth of 0.7%*) in Q2 2022, mainly due to a decline in inventories. In contrast, household consumption and the foreign trade balance contributed positively.

The labour market situation is tight. The unemployment rate fell to 3.5% in July, returning to the pre-pandemic level of February 2020. The annual inflation rate slowed to 8.5% in July. In response to high inflation, the Fed raised the federal funds rate for the fourth time this year at its July meeting, to a target range of 2.25%–2.50%. The Fed anticipates its further increase. Since June, the Fed has also begun the announced reduction in the size of its balance sheet.

Although the direct effects of the Russian invasion of Ukraine on the US economy are limited, there is additional upward pressure on energy prices. Shortages of other major commodities are also contributing to the rapid increase in prices. Purchasing managers' indices for both services and manufacturing have been declining since the beginning of Q2, but conditions in industry are still improving. In contrast, activity in services fell in July for the first time in more than two years. Given the above factors and the fading effects of pandemic fiscal support, we expect the US economic growth to slow to 1.8% (*vs. 3.3%*) this year and to 1.4% (*vs. 2.3%*) in 2023.

Due to prolonged lockdowns of major industrial and financial centres and the implementation of stringent anti-epidemic measures, **China**'s economy recorded a contraction of 2.6% QoQ (*vs. growth of 1.0%*) in Q2 2022. As the epidemic situation improved and coronavirus restrictions eased in China's largest cities, economic activity recovered in June and a number of economic indicators, such as retail sales and industrial production, improved. Activity in services further increased in July as anti-epidemic restrictions were eased. According to the purchasing managers' index, conditions in manufacturing also improved, although not as markedly as in June. A significant risk to the forecast is a renewed deterioration in the epidemic situation, but also the development of external demand. The country's economic outlook also remains weighed down by the ongoing property market crisis. Given the significant quarter-on-quarter decline in GDP in Q2 2022, we estimate China's economic growth to be only 3.3% (*vs. 4.7%*) this year. We expect it to accelerate to 4.9% (*vs. 5.0%*) next year, mainly due to the positive impact of renewed economic activity and the expected fiscal and monetary expansion in the second half of this year.

While quarter-on-quarter GDP growth in the **European Union** reached 0.6% (*vs. 0.2%*) in Q2 2022 for the third consecutive quarter, according to the flash estimate, the growth rate in the euro area picked up slightly to 0.7% (*vs. 0.2%*).

The inflation rate in the euro area accelerated to 8.9% in July, a new all-time high for the currency union. Significant increases in energy and food prices were the main contributors to the rise in the price level. The difference between the inflation rate in the country with the fastest (Estonia, 22.7%) and slowest (Malta, 6.5%) consumer price inflation is also record high.

In response to consumer price developments, the European Central Bank raised its key interest rates by 0.5 pp in July, bringing the base rate to 0.50%. At the same time, the Transmission Protection Instrument (TPI) was introduced, allowing bond purchases to prevent risk premia from rising too high within the euro area. We then expect further tightening of ECB monetary policy before the end of the year.

Fiscal policy in the euro area is slowly moving into a restrictive phase. Government deficits are likely to continue to decline. However, the planned fiscal consolidation will be constrained by increases in defence spending and costs to mitigate the impact of high energy prices.

The unemployment rate in the euro area stood at a historic low of 6.6% in June for the third month in a row. However, manufacturing conditions deteriorated in July for the first time in more than two years. Subdued demand was to blame, leading to a sharp drop in new orders, a fall in exports and an increase in inventories. Sentiment in services and among consumers also deteriorated in the context of rising living costs.

We expect EU GDP to increase by 3.2% (*vs. 2.5%*) this year, while euro area growth could reach 3.0% (*vs. 2.6%*). Next year, economic growth should slow to 1.4%

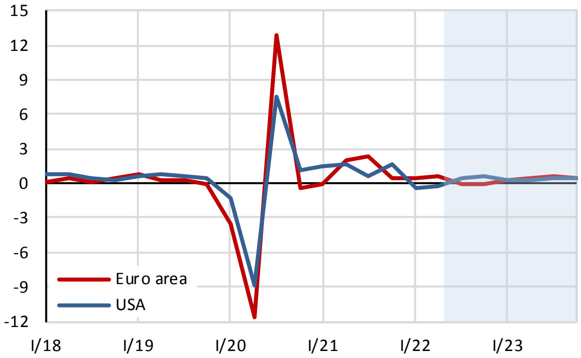
(*vs. 3.1%*) in the EU and 1.2% (*vs. 2.9%*) in the euro area. The improvement in the forecast for this year mainly reflects higher-than-expected growth in the first half of the year, driven by the services sector. However, future economic developments will be weighed down by a number of negative factors, such as subdued demand, unfavourable developments in industry and loss of growth momentum in the services sector, high inflation and the associated decline in business and consumer confidence, concerns about the energy crisis and tightening monetary and fiscal policy.

Germany's GDP stagnated (*vs. growth of 0.3%*) in Q2 according to the flash estimate. Industrial conditions worsened in July, according to the purchasing managers' index. This is due to continuing problems in supply chains, a decline in new orders, accelerating inflation and concerns about disruptions in Russian gas supplies. Activity in the services sector also declined slightly. Declining purchasing power has caused a historic drop in consumer confidence. However, the unemployment rate fell slightly to 2.8% in June. The deteriorating situation in services and industry, declining business and consumer confidence, rising price levels and concerns about the energy crisis have reduced Germany's growth prospects to 1.2% (*vs. 2.1%*) in 2022 and 0.9% (*vs. 3.2%*) in 2023.

The Slovak economy grew by 0.4% QoQ (*vs. 0.2%*) in Q1 2022. Economic activity was driven by household consumption and the foreign trade balance. Gross capital formation and government consumption contributed negatively to growth. Output in manufacturing increased month-on-month in May, the first increase in production this year. The unemployment rate fell further to 6.0% in June, the lowest since the pandemic. Rising price levels, continued problems in supply chains, subdued investment activity and deteriorating business and consumer sentiment will have a significant negative impact on the Slovak economy. We therefore expect that GDP could grow by 1.7% (*vs. 1.9%*) in 2022 and 1.8% (*vs. 4.2%*) in 2023.

Graph 1.1.1: Real GDP in the euro area and USA

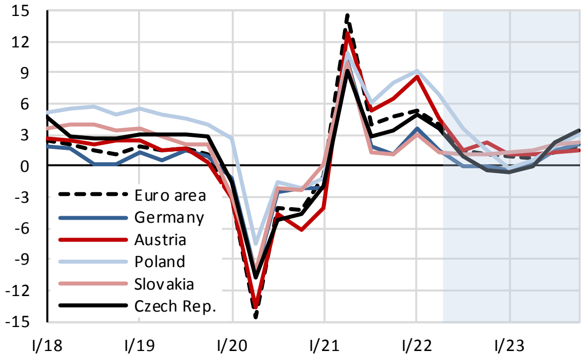
QoQ growth rate in%, seasonally adjusted



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

Graph 1.1.2: Real Gross Domestic Product

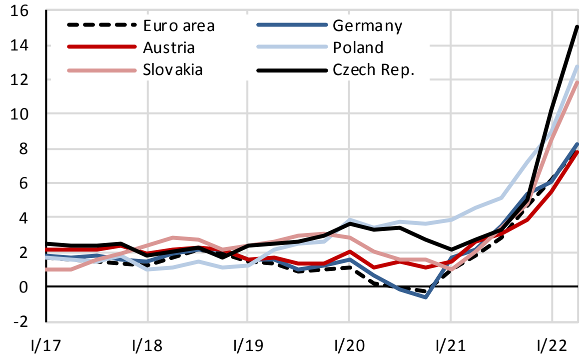
YoY growth in %, seasonally adjusted



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

Graph 1.1.3: HICP

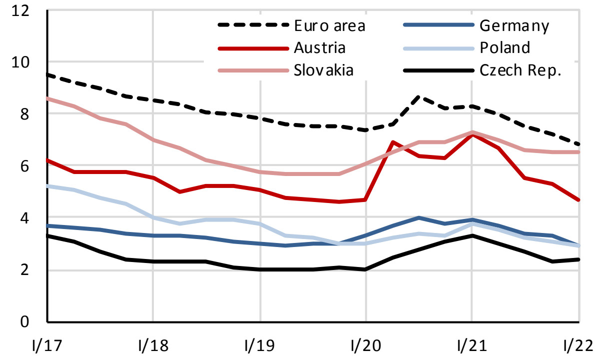
quarterly averages, YoY growth in %



Source: Eurostat. Calculations of the MoF.

Graph 1.1.4: Unemployment Rate

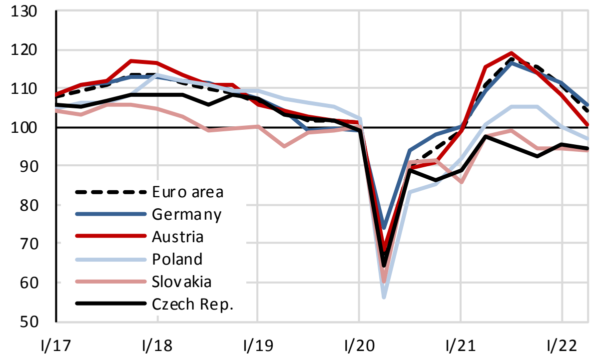
in %, LFS methodology, seasonally adjusted



Source: Eurostat.

Graph 1.1.5: Economic Sentiment Indicator

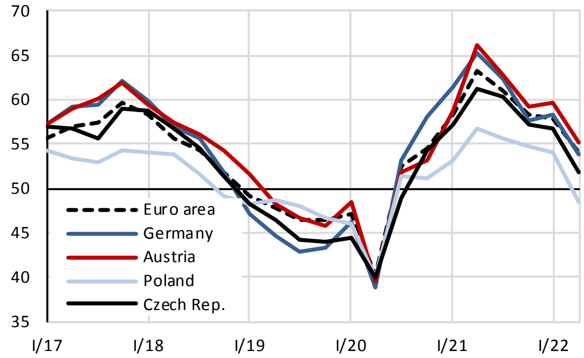
quarterly averages, long-run average = 100



Source: Eurostat. Calculations of the MoF.

Graph 1.1.6: Purchasing Managers' Index

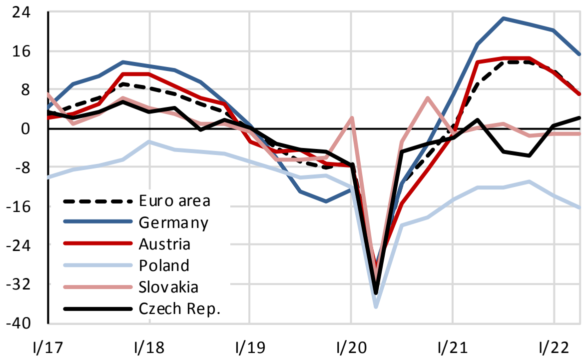
manufacturing, quarterly averages



Source: Markit. Calculations of the MoF.

Graph 1.1.7: Business Tendency

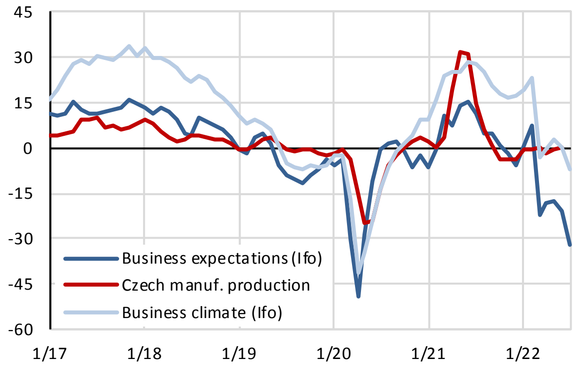
manufacturing, quarterly averages



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 %

		2014	2015	2016	2017	2018	2019	2020	2021	2022 *Forecast*	2023 *Forecast*
World	*seasonally adjusted*	**3.5**	**3.4**	**3.3**	**3.7**	**3.6**	**2.9**	**-3.1**	**6.1**	**2.8**	**1.9**
USA	*seasonally adjusted*	**2.3**	**2.7**	**1.7**	**2.3**	**2.9**	**2.3**	**-3.4**	**5.7**	**1.8**	**1.4**
China	*seasonally adjusted*	**7.4**	**7.3**	**6.8**	**7.0**	**6.7**	**6.1**	**1.8**	**8.6**	**3.3**	**4.9**
United Kingdom	*seasonally adjusted*	**3.0**	**2.6**	**2.3**	**2.1**	**1.7**	**1.7**	**-9.3**	**7.4**	**3.5**	**0.3**
European Union	*seasonally adjusted*	**1.6**	**2.1**	**2.0**	**2.9**	**2.0**	**1.8**	**-6.0**	**5.3**	**3.2**	**1.4**
	unadjusted	1.6	2.3	2.0	2.8	2.1	1.8	-5.9	5.4	.	.
Euro area	*seasonally adjusted*	**1.4**	**1.9**	**1.8**	**2.8**	**1.8**	**1.6**	**-6.5**	**5.3**	**3.0**	**1.2**
	unadjusted	1.4	2.0	1.9	2.6	1.8	1.6	-6.3	5.3	.	.
Germany	*seasonally adjusted*	**2.2**	**1.2**	**2.1**	**3.0**	**1.0**	**1.1**	**-4.1**	**2.6**	**1.2**	**0.9**
	unadjusted	2.2	1.5	2.2	2.7	1.0	1.1	-3.7	2.6	1.0	0.6
France	*seasonally adjusted*	**1.0**	**1.1**	**1.0**	**2.4**	**1.8**	**1.9**	**-7.9**	**6.8**	**2.7**	**1.4**
	unadjusted	1.0	1.1	1.1	2.3	1.9	1.8	-7.8	6.8	2.7	1.2
Italy	*seasonally adjusted*	**0.1**	**0.7**	**1.4**	**1.7**	**0.8**	**0.5**	**-9.1**	**6.6**	**3.6**	**1.0**
	unadjusted	0.0	0.8	1.3	1.7	0.9	0.5	-9.0	6.6	3.5	0.9
Austria	*seasonally adjusted*	**0.8**	**1.0**	**2.0**	**2.4**	**2.5**	**1.5**	**-6.8**	**4.9**	**4.2**	**1.3**
	unadjusted	0.7	1.0	2.0	2.3	2.5	1.5	-6.7	4.8	4.2	1.1
Hungary	*seasonally adjusted*	**4.1**	**3.6**	**2.1**	**4.4**	**5.4**	**4.6**	**-4.7**	**7.1**	**5.1**	**2.2**
	unadjusted	4.2	3.7	2.2	4.3	5.4	4.6	-4.5	7.1	5.1	2.1
Poland	*seasonally adjusted*	**3.4**	**4.2**	**3.2**	**4.9**	**5.4**	**4.8**	**-2.1**	**5.8**	**5.2**	**1.3**
	unadjusted	3.4	4.2	3.1	4.8	5.4	4.7	-2.2	5.9	5.2	1.3
Slovakia	*seasonally adjusted*	**2.7**	**5.2**	**1.9**	**3.0**	**3.8**	**2.6**	**-4.4**	**3.0**	**1.7**	**1.8**
Czech Republic	*seasonally adjusted*	**2.3**	**5.5**	**2.5**	**5.3**	**3.2**	**3.0**	**-5.5**	**3.5**	**2.2**	**1.3**
	unadjusted	2.3	5.4	2.5	5.2	3.2	3.0	-5.5	3.5	2.2	1.1

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

		2021				2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
							Estimate	*Forecast*	*Forecast*
USA	*QoQ*	**1.5**	**1.6**	**0.6**	**1.7**	**-0.4**	**-0.2**	**0.5**	**0.6**
	YoY	0.5	12.2	4.9	5.5	3.5	1.6	1.5	0.5
China	*QoQ*	**0.6**	**1.5**	**0.4**	**1.4**	**1.4**	**-2.6**	**3.2**	**2.5**
	YoY	18.9	8.0	5.0	4.0	4.8	0.5	3.4	4.5
United Kingdom	*QoQ*	**-1.2**	**5.6**	**0.9**	**1.3**	**0.8**	**0.0**	**-0.1**	**-0.2**
	YoY	-5.0	24.5	6.9	6.6	8.7	3.1	2.1	0.6
European Union	*QoQ*	**0.1**	**2.0**	**2.2**	**0.6**	**0.6**	**0.6**	**0.2**	**0.0**
	YoY	-0.9	14.0	4.1	5.0	5.5	4.0	2.0	1.4
Euro area	*QoQ*	**-0.1**	**2.1**	**2.3**	**0.4**	**0.5**	**0.7**	**0.0**	**-0.1**
	YoY	-0.9	14.6	3.9	4.8	5.4	4.0	1.6	1.1
Germany	*QoQ*	**-1.5**	**2.0**	**0.7**	**0.0**	**0.8**	**0.0**	**-0.7**	**0.0**
	YoY	-2.2	10.2	1.8	1.2	3.6	1.5	0.0	0.0
France	*QoQ*	**0.1**	**1.0**	**3.3**	**0.6**	**-0.2**	**0.5**	**0.3**	**0.2**
	YoY	1.5	18.6	3.6	5.1	4.8	4.2	1.1	0.8
Italy	*QoQ*	**0.2**	**2.6**	**2.7**	**0.7**	**0.1**	**1.0**	**0.4**	**0.1**
	YoY	0.0	17.5	4.0	6.4	6.2	4.6	2.2	1.7
Austria	*QoQ*	**-0.5**	**4.3**	**3.4**	**-0.8**	**1.5**	**0.5**	**0.2**	**0.1**
	YoY	-4.1	12.9	5.3	6.5	8.7	4.7	1.4	2.3
Hungary	*QoQ*	**1.3**	**2.4**	**1.1**	**2.2**	**2.1**	**0.2**	**0.1**	**0.1**
	YoY	-1.4	17.6	6.5	7.1	8.0	5.6	4.6	2.5
Poland	*QoQ*	**1.4**	**2.0**	**2.6**	**1.8**	**2.5**	**-0.1**	**-0.4**	**-0.3**
	YoY	-1.1	11.0	6.1	8.0	9.2	6.9	3.7	1.5
Slovakia	*QoQ*	**-1.4**	**1.9**	**0.4**	**0.4**	**0.4**	**0.3**	**0.2**	**0.2**
	YoY	0.2	10.0	1.2	1.2	3.0	1.4	1.2	1.1
Czech Republic	*QoQ*	**-0.5**	**1.4**	**1.7**	**0.8**	**0.9**	**0.2**	**-1.0**	**-0.4**
	YoY	-1.9	9.1	2.8	3.5	4.9	3.6	0.9	-0.4

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

1.2 Commodity Prices

The price of Brent crude oil averaged USD 114 per barrel (*vs. USD 112*) in Q2 2022. Due to the war in Ukraine and the very low price last year, it has increased by 65% YoY, in koruna terms by 80%.

The United States and the Organization of the Petroleum Exporting Countries and other affiliates continued to gradually increase daily oil production in Q2 2022. This trend is expected to continue in 2023.

Oil consumption decreased in H1 2022, but it should resume its growth in the second half of the year following an expected reversal. Even so, the U.S. Energy Information Administration estimates that crude oil inventories should grow in H2 due to high production. By the beginning of 2023, the market should already be in a longer-term equilibrium, with replenished stocks. This should lead to downward pressure on the oil price from late 2022 onwards, but a possible deterioration in the geopolitical situation poses an upside risk.

While the oil futures market is highly volatile, oil with later delivery is still trading cheaper than oil with earlier delivery. The expected Brent crude oil price reflects this downward curve in futures prices, which is only slightly lower than in the April forecast. This year, the average price of Brent crude oil is expected to increase by 48% YoY to USD 105 (*unchanged*) per barrel; in koruna terms, the increase is expected to be notably higher, at 59%, due to the expected depreciation of the koruna against the dollar. For 2023, we assume an average price of USD 88 (*vs. USD 91*), or a 16% YoY decline.

Prices and volatility in **commodity markets** remain elevated, mainly due to the risk of disruptions of natural gas supply from the Russian Federation. The wholesale prices of natural gas (and wholesale power prices) remained at very high levels in Europe in H1 2022. High commodity prices are largely reflected in corporations' costs and consumer prices (see Chapter 3.2).

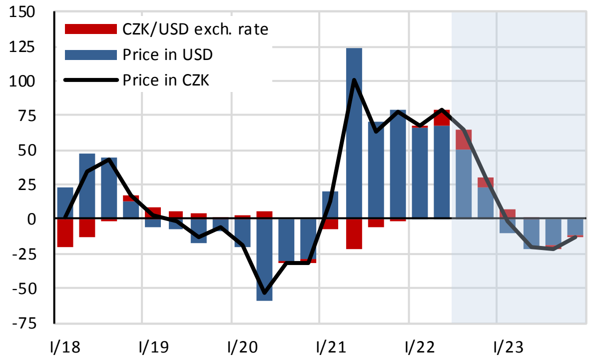
Graph 1.2.1: Dollar Price of Brent Crude Oil

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

		2014	2015	2016	2017	2018	2019	2020	2021	2022 *Forecast*	2023 *Forecast*
Crude oil Brent	*USD/barrel*	**99.0**	**52.4**	**43.6**	**54.2**	**71.4**	**64.3**	**41.8**	**70.8**	**105**	**88**
	growth in %	-8.8	-47.1	-16.9	24.3	31.7	-9.9	-35.0	69.3	48.4	-15.8
Crude oil Brent index *(in CZK)*	*2010=100*	**134.6**	**85.0**	**70.1**	**83.1**	**102.2**	**97.1**	**63.6**	**101.2**	**161**	**137**
	growth in %	-3.8	-36.9	-17.4	18.5	23.0	-5.0	-34.6	59.1	59.0	-14.7
Natural gas (Europe)	*USD/MMBtu*	**10.1**	**6.8**	**4.6**	**5.7**	**7.7**	**4.8**	**3.2**	**16.1**	.	.
	growth in %	-14.7	-32.1	-33.1	25.3	34.4	-37.5	-32.5	397.1	.	.
Natural gas (Europe) index *(in CZK)*	*2010=100*	**131.7**	**106.2**	**70.7**	**84.2**	**106.0**	**69.6**	**47.1**	**223.0**	.	.
	growth in %	-9.8	-19.4	-33.4	19.2	25.8	-34.3	-32.4	373.7	.	.

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

		2021				2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3 *Forecast*	Q4 *Forecast*
Crude oil Brent	*USD/barrel*	**61.0**	**69.0**	**73.5**	**79.6**	**100.9**	**113.8**	**109**	**97**
	growth in %	21.3	132.3	71.3	79.7	65.4	65.0	47.7	21.7
Crude oil Brent index *(in CZK)*	*2010=100*	**86.9**	**96.6**	**104.7**	**116.3**	**146.1**	**173.6**	**172**	**152**
	growth in %	12.9	101.2	63.7	78.3	68.0	79.6	64.3	30.5
Natural gas (Europe)	*USD/MMBtu*	**6.5**	**8.8**	**16.9**	**32.2**	**32.6**	**32.1**	.	.
	growth in %	111.2	383.8	489.4	520.6	400.6	265.8	.	.
Natural gas (Europe) index *(in CZK)*	*2010=100*	**89.3**	**118.2**	**231.7**	**452.7**	**454.0**	**470.9**	.	.
	growth in %	96.5	319.0	463.2	515.9	408.6	298.3	.	.

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

1.3 Fiscal Policy

The **general government sector balance** is expected to end in a deficit of 3.8% of GDP (*vs. 4.5% of GDP*) in 2022, or 3.0% of GDP (*vs. 3.2% of GDP*) in structural terms. The estimate reflects economic and financial consequences of the Russian aggression against Ukraine and the related humanitarian crisis, subsidies to households and firms burdened by huge price increases, as well as the fiscal stimulus measures adopted in previous years and the expenditure triggered by the COVID-19 epidemic. The main burden should be borne by the state budget, whose projected deficit will be deepened by the amendment to the state budget law for this year. In contrast, local government is likely to show a positive balance again, and also social security funds may achieve a slight surplus.

Personal income tax revenue should be 3.4% higher year-on-year, as the estimated growth in compensation of employees in the economy is partially offset by an increase in the basic taxpayer credit with an impact of CZK 12.3 billion. **Social security contributions**, with projected increase of 6.4%, are also linked to expected developments of earnings. The dynamics of taxation and employment taxes are also affected by the extraordinary remuneration paid last year to workers in the health sector, social services and the armed forces. While the legal regulation leaving the average payment for a state insured person at the 2021 level will not in itself change the revenues of the public health insurance system, the increase in the number of state insured persons from among persons with temporary protection granted to citizens of Ukraine will increase social security contributions by an estimated CZK 5 billion.

The **corporate income tax** dynamics should be dampened by the end of the effective change in the method of creating and tax deductibility of technical provisions for insurance companies, the extension of the validity of extraordinary depreciation and the tax exemption of proceeds from government bonds with a total impact of CZK 7.8 billion. Fading out of the negative impact of the increase in the entry price threshold for depreciation of tangible assets has the opposite effect, estimated at CZK 1.6 billion. These effects should result in an increase in this tax of 9.0%.

The 18.3% year-on-year increase in the **value added tax** revenue should be determined mainly by strong nominal household consumption. The negative impact of the previously approved discretionary measures (reclassification of selected services to the second reduced tax rate in H1 2020, reduction of the rate on accommodation, sports and cultural events, ski lifts and other selected services from July 2020) should be outweighed by the positive impact of the end of the temporary tax waiver on electricity and gas supplies in late 2021, the end of the tax waiver on the purchase of filtering facepiece respirators or the year-on-year smaller impact of the tax waiver on the purchase of vaccines and COVID-19 tests.

For **excise duties**, excluding renewable energy subsidies, we estimate a 3.2% increase in revenue. The main influences include the continuing economic recovery, and, among discretionary measures, a CZK 2.5 billion increase in the tax on tobacco products and a CZK 3 billion impact from the solar electricity levy. A reduction in road tax and a temporary drop in the tax rate on diesel and petrol in response to a jump in fuel prices will be associated with a revenue shortfall of around CZK 8.4 billion. The waiving of the renewable energy levy on households and companies represents a revenue shortfall of an estimated CZK 4.6 billion this year.

Government final consumption expenditure growth is expected to slow only slightly to 5.6% YoY and, unlike in the previous few years, to be driven by intermediate consumption (15.1%), reflecting exceptionally high inflation, EU-funded projects, as well as the migration wave from Ukraine. Social transfers in kind should show a lower rate, due to the gradual return of the health sector to normal conditions. The increased base due to exceptional remuneration payments last year and the moderate indexation of salary tariffs will increase the compensation of employees in the general government sector by only 1.2%. From January 2022, the salary tariffs of doctors, non-medical health workers, social service workers and teachers in regional education were adjusted. Moreover, the amount of compensation in the education sector was also boosted due to the education of Ukrainian children. In addition, the tariffs of soldiers and members of the security forces were increased. The forecast also foresees a 10% increase in the salaries of non-teaching staff in the education sector and of civil servants not covered by the Civil Service Act from September this year. The 4.4% increase in social transfers in kind reflects spending on health and social services, also used by Ukrainian refugees. In addition, it reflects higher expenditure in the form of housing allowance and housing supplement.

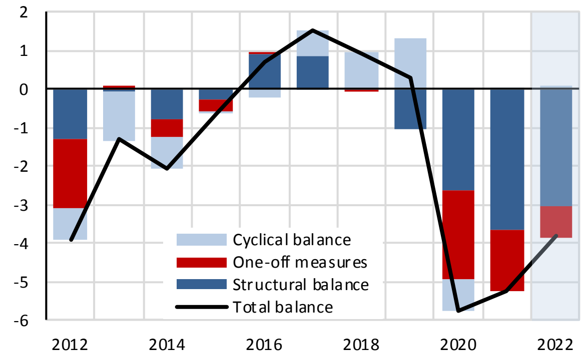
This year, the area of **cash social benefits** is mainly determined by pension benefits. Their normal January indexation, increased by CZK 300 above the standard formula, is reinforced by two extraordinary indexations due to the high inflation rate, by an average of CZK 1,017 since June and by an average of CZK 700 since September. The social benefit system provided a one-off allowance of CZK 5,000 per child under 18 this year, for a total of CZK 7.8 billion. The higher child benefit, linked to the rising minimum subsistence level, will also require additional spending. In connection with the migration wave of refugees from Ukraine, a humanitarian benefit of an estimated CZK 10.4 billion and a higher state budget transfer to the public health insurance system are being paid. As a result of economic developments and the discretionary measures mentioned above, cash social benefits are expected to increase by 10.5%.

We expect an increase of 11.2% in fixed asset **investment** expenditure which is expected to be supported by the EU budget, either due to the approaching end of the 2014–2020 programming period or the involvement of new funds from the Next Generation EU Instrument. Their share of total investment should be more than a quarter. Based on the up-to-date track record of investment spending, local government investment seems to be particularly decisive for the dynamics of total investment.

The forecast foresees measures to help households and firms in a situation of high energy prices. In contrast, anti-epidemic measures and related support programmes have been suspended. As a result, **subsidies** are expected to fall by 16.4%. The positive effect of the termination of the payment of the compensation bonus should be partly cushioned by the payment of refunds of deposits of former clients of Sberbank CZ, a.s. from the Financial Market Guarantee System in the amount of CZK 7.8 billion (the remaining part, for which the assumption of recoverability has been adopted, is considered a financial operation without an impact on the balance on the basis of a consultation with Eurostat), which should lead to a 5.0% year-on-year decline in **capital transfers**.

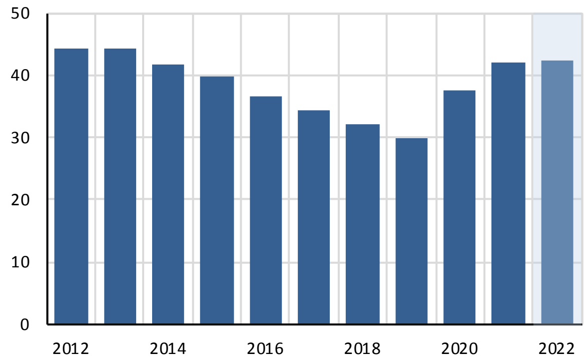
The deficit performance of the general government will be reflected in the level of **debt**, which is expected to reach 42.4% of GDP (*vs. 42.7% of GDP*) at the end of the year. The relatively low increase in the debt quota is due to an expected growth of nominal GDP of 11.3%. As a result of higher debt and projected interest rate developments, interest costs will increase by almost 60% to 1.1% of GDP.

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

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
											Forecast
General government balance	*% GDP*	**-1.3**	**-2.1**	**-0.6**	**0.7**	**1.5**	**0.9**	**0.3**	**-5.8**	**-5.2**	**-3.8**
	bill. CZK	-53	-90	-30	34	77	48	17	-329	-319	-257
Cyclical balance	*% GDP*	**-1.3**	**-0.9**	**-0.1**	**-0.2**	**0.7**	**1.0**	**1.3**	**-0.9**	**0.0**	**0.1**
Cyclically adjusted balance	*% GDP*	**0.0**	**-1.2**	**-0.6**	**0.9**	**0.8**	**-0.1**	**-1.0**	**-4.9**	**-5.3**	**-3.9**
One-off measures [1)]	*% GDP*	**0.1**	**-0.4**	**-0.3**	**0.1**	**0.0**	**-0.1**	**0.0**	**-2.3**	**-1.6**	**-0.9**
Structural balance	*% GDP*	**-0.1**	**-0.8**	**-0.3**	**0.9**	**0.8**	**0.0**	**-1.0**	**-2.6**	**-3.6**	**-3.0**
Fiscal effort [2)]	*pp*	**1.2**	**-0.7**	**0.5**	**1.2**	**0.0**	**-0.8**	**-1.0**	**-1.6**	**-1.0**	**0.6**
Interest expenditure	*% GDP*	**1.3**	**1.3**	**1.1**	**0.9**	**0.7**	**0.7**	**0.7**	**0.8**	**0.7**	**1.1**
Primary balance	*% GDP*	**0.0**	**-0.8**	**0.4**	**1.6**	**2.2**	**1.6**	**1.0**	**-5.0**	**-4.5**	**-2.7**
Cyclically adjusted primary balance	*% GDP*	**1.3**	**0.1**	**0.5**	**1.9**	**1.6**	**0.7**	**-0.3**	**-4.1**	**-4.5**	**-2.8**
General government debt	*% GDP*	**44.4**	**41.9**	**39.7**	**36.6**	**34.2**	**32.1**	**30.0**	**37.6**	**42.0**	**42.4**
	bill. CZK	1 840	1 819	1 836	1 755	1 750	1 735	1 740	2 149	2 567	2 882
Change in debt-to-GDP ratio	*pp*	**0.3**	**-2.6**	**-2.2**	**-3.1**	**-2.3**	**-2.2**	**-2.0**	**7.6**	**4.4**	**0.4**

Note: In comparison with the CZSO's April 2022 notifications, the general government balance for 2021 has been revised up by CZK 40.9 billion, reflecting available data on revenues from personal and corporate income tax.

[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

The Czech National Bank gradually raised the **two-week repo rate** to 7.00% during 2022, most recently by 1.25 pp at the end of June. The reason is the continued sharp rise in current and expected inflation, which is now well above the upper boundary of the tolerance band around the 2% target. Inflationary pressures are being exacerbated not only by cost shocks of a global nature, but also by domestic demand factors, such as the lagged effects of monetary and fiscal expansion and upward pressure on wages caused by staff shortages.

In view of the predicted inflation (see Chapter 3.2), which is expected to reach extremely high levels of around 20% this year, we expect the CNB to raise the primary interest rate slightly in the second half of this year. Subsequently, the two-week repo rate could remain at this level until mid-2023. By then, inflationary pressures should already be weaker and the inflation rate at the monetary policy horizon should be within the tolerance band around the 2% target. The CNB could therefore start to gradually lower monetary policy interest rates.

The **three-month PRIBOR rate** rose to 6.0% (*vs. 5.6%*) on average in Q2 2022 in connection with the CNB's hike of primary interest rates. It could rise to 6.5% (*vs. 5.3%*) for the whole of 2022, and could reach 7.1% (*vs. 4.9%*) in 2023 under the assumed monetary policy settings.

The **yield to maturity on 10-year government bonds** rose to 4.6% (*vs. 4.1%*) on average in the second quarter, and could reach 4.1% (*vs. 3.9%*) for the whole of 2022. Given the assumed monetary policy stance of the CNB and the ECB and the expected inflation path, we believe that long-term interest rates could still rise slightly in 2023, to 4.2% (*vs. 3.6%*) on average.

Year-on-year growth in **loans to households** slowed to 8.7% in Q2 2022, but net new loans continued to rise except in April. Households' efforts to draw down credit ahead of the expected further rise in its price probably played a role. The average customer interest rate on new mortgage loans reached 4.3% in June 2022 (up 2.2 pp year-on-year).

In Q2, growth in **loans to non-financial corporations** also slowed to 6.7%, driven exclusively by foreign currency loans, which can be explained mainly by the high and widening interest rate spread vis-à-vis koruna loans. The average client interest rate on total loans to non-financial corporations rose to 7.0% in June (up 4.4 pp year-on-year).

The **share of non-performing loans** in total loans has continued to decline slowly for both households and non-financial corporations. Although the financial situation of some economic agents has deteriorated as a result of the coronavirus pandemic, the impact on the quality of banks' loan portfolios has been minimal. However, the sharp rise in interest rates now poses a risk.

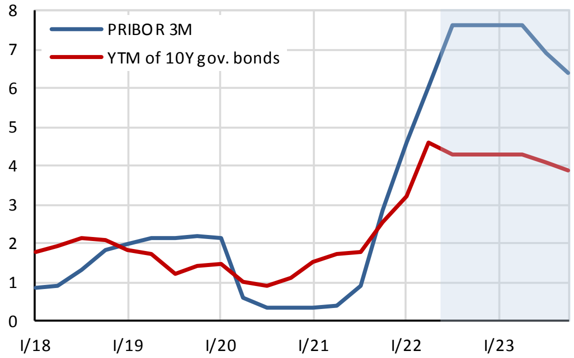
The exchange rate of the koruna against the euro in Q2 2022 averaged CZK 24.6/EUR (*vs. CZK 24.4/EUR*), an appreciation of 4.0% YoY (*vs. 5.3%*). The exchange rate was negatively affected by uncertainties related to the Russian invasion of Ukraine, the impact of which, however, was largely offset by the CNB's foreign exchange interventions supporting the domestic currency.

With the interest rate differential remaining positive and some calming in the international financial markets, the exchange rate should return to a gradual trend appreciation trajectory. On average, the exchange rate should reach CZK 24.6/EUR (*vs. CZK 24.4/EUR*) in 2022, and could strengthen slightly to CZK 24.4/EUR in 2023 (*vs. CZK 24.2/EUR*). Higher appreciation should be hampered mainly by the suspended real convergence of the Czech economy to the euro area.

The forecast for the USD/EUR exchange rate is based on the average of the forward rates over the last 10 days before the cut-off date for forecast data. We thus estimate the USD/EUR exchange rate at 1.06 this year (*vs. USD 1.11/EUR*) and at 1.03 in 2023 (*vs. USD 1.10/EUR*). The USD/EUR exchange rate then implies the expected development of the koruna against the US dollar.

Graph 1.4.1: Interest Rates

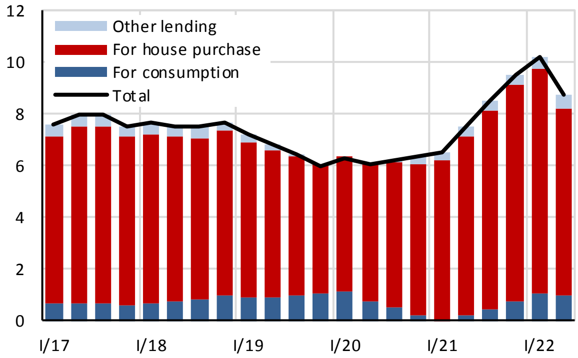
in % p.a.



Source: CNB. Calculations and forecast of the MoF.

Graph 1.4.2: Loans to Households

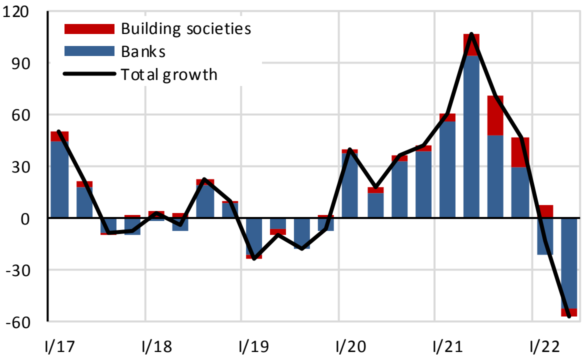
YoY growth rate in%, contributions in percentage points



Source: CNB. Calculations of the MoF.

Graph 1.4.3: New Mortgage Loans

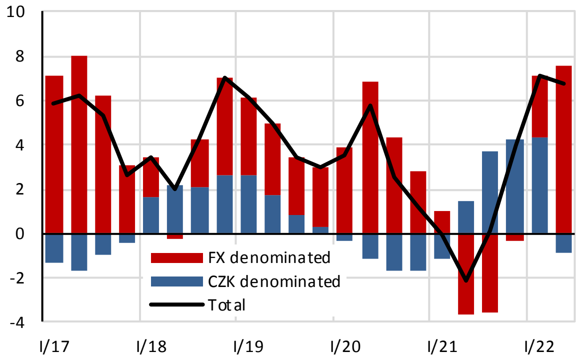
for purchase of residential property, YoY growth in %, contributions in pp



Source: CNB. Calculations of the MoF.

Graph 1.4.4: Loans to Non-financial Corporations

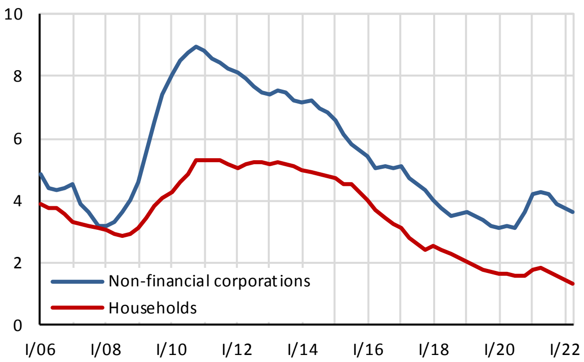
YoY growth rate in%, contributions in percentage points



Source: CNB. Calculations of the MoF.

Graph 1.4.5: Non-performing Loans

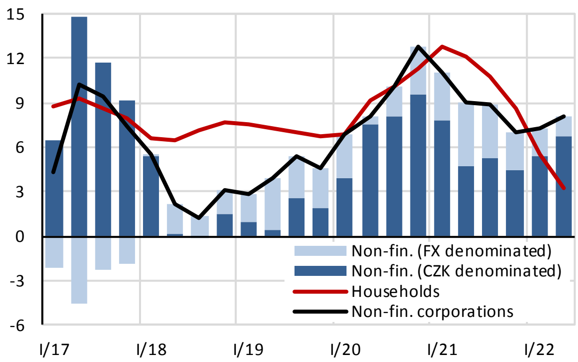
ratio of non-performing to total loans, in%



Source: CNB. Calculations of the MoF.

Graph 1.4.6: Deposits

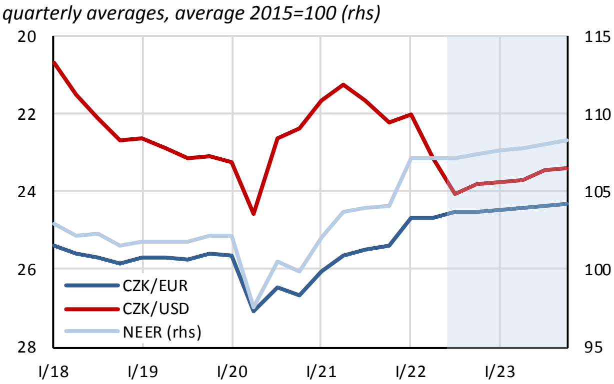
YoY growth rate in%, contributions in percentage points



Source: CNB. Calculations of the MoF.

Graph 1.4.7: Nominal Exchange Rates

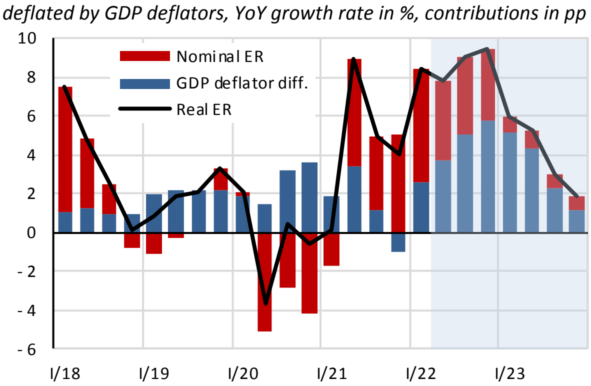
quarterly averages, average 2015=100 (rhs)



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

		2014	2015	2016	2017	2018	2019	2020	2021	2022 *Forecast*	2023 *Forecast*
Repo 2W rate CNB (*end of period*)	*in % p.a.*	0.05	0.05	0.05	0.50	1.75	2.00	0.25	3.75	.	.
Main refinancing rate ECB (*end of period*)	*in % p.a.*	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	.	.
Federal funds rate (*end of period*)	*in % p.a.*	0.25	0.50	0.75	1.50	2.50	1.75	0.25	0.25	.	.
PRIBOR 3M	*in % p.a.*	0.36	0.31	0.29	0.41	1.23	2.12	0.86	1.13	6.5	7.1
YTM of 10Y government bonds	*in % p.a.*	1.58	0.58	0.43	0.98	1.98	1.55	1.13	1.90	4.1	4.2
Client interest rates											
Loans to households	*in % p.a.*	5.59	5.15	4.65	4.10	3.76	3.66	3.53	3.31	.	.
Loans to non-financial corporations	*in % p.a.*	3.01	2.78	2.59	2.57	3.05	3.75	2.96	2.86	.	.
Deposits of households	*in % p.a.*	0.85	0.65	0.47	0.36	0.33	0.39	0.35	0.26	.	.
Deposits of non-financial corporations	*in % p.a.*	0.29	0.19	0.10	0.05	0.11	0.37	0.20	0.11	.	.

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

Table 1.4.2: Interest Rates – quarterly

average of period, unless stated otherwise

		2021				2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3 *Forecast*	Q4 *Forecast*
Repo 2W rate CNB (*end of period*)	*in % p.a.*	0.25	0.50	0.75	3.75	4.50	7.00	.	.
Main refinancing rate ECB (*end of period*)	*in % p.a.*	0.00	0.00	0.00	0.00	0.00	0.00	.	.
Federal funds rate (*end of period*)	*in % p.a.*	0.25	0.25	0.25	0.25	0.50	1.75	.	.
PRIBOR 3M	*in % p.a.*	0.36	0.40	0.91	2.86	4.59	6.03	7.6	7.6
YTM of 10Y government bonds	*in % p.a.*	1.55	1.76	1.79	2.53	3.23	4.58	4.3	4.3
Client interest rates									
Loans to households	*in % p.a.*	3.39	3.32	3.28	3.26	3.29	3.36	.	.
Loans to non-financial corporations	*in % p.a.*	2.55	2.54	2.74	3.62	5.12	6.07	.	.
Deposits of households	*in % p.a.*	0.25	0.23	0.23	0.32	0.62	0.92	.	.
Deposits of non-financial corporations	*in % p.a.*	0.06	0.05	0.07	0.27	0.86	1.65	.	.

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

Table 1.4.3: Loans and Deposits – yearly averages

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Households											
Loans	*growth in %*	**5.0**	**4.0**	**3.4**	**4.8**	**7.2**	**7.8**	**7.6**	**6.6**	**6.3**	**8.0**
For consumption	*growth in %*	-1.0	-0.1	-0.9	3.4	6.0	4.3	5.4	6.4	4.4	2.6
For house purchase	*growth in %*	6.4	5.5	4.5	5.6	8.1	9.0	8.5	7.4	7.3	9.5
Other lending	*growth in %*	6.0	1.2	2.9	1.0	3.0	4.2	4.3	1.1	0.9	4.2
CZK denominated	*growth in %*	4.9	4.0	3.4	4.7	7.2	7.7	7.6	6.6	6.3	8.0
FX denominated	*growth in %*	30.8	-1.3	0.0	12.7	8.5	36.3	1.7	9.0	6.1	16.9
Deposits	*growth in %*	**4.5**	**3.3**	**2.9**	**4.8**	**7.0**	**8.7**	**7.0**	**7.2**	**9.4**	**11.1**
CZK denominated	*growth in %*	4.7	3.3	2.7	4.1	6.9	9.7	7.1	6.9	9.2	10.9
FX denominated	*growth in %*	-2.1	2.3	8.5	22.5	7.3	-13.9	3.5	15.2	14.5	16.6
Non-performing loans *(banking statistics)*	*share, in %*	**5.2**	**5.2**	**4.9**	**4.5**	**3.6**	**2.7**	**2.4**	**1.9**	**1.6**	**1.7**
Loans to deposits ratio	*in %*	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**61**	**59**
Non-financial corporations											
Loans	*growth in %*	**3.5**	**1.3**	**1.9**	**6.5**	**6.6**	**5.0**	**4.2**	**4.3**	**3.2**	**0.5**
CZK denominated	*growth in %*	2.6	0.3	-1.0	5.9	2.8	-1.4	3.0	1.9	-1.8	3.2
FX denominated	*growth in %*	7.8	5.7	13.7	9.0	20.5	24.4	6.9	10.0	14.0	-4.6
Deposits	*growth in %*	**8.9**	**4.9**	**7.6**	**10.3**	**4.6**	**7.8**	**3.0**	**4.2**	**9.5**	**9.0**
CZK denominated	*growth in %*	8.2	4.2	5.6	6.7	4.5	13.9	2.1	1.9	9.4	7.1
FX denominated	*growth in %*	11.8	8.0	15.2	23.2	4.8	-11.1	6.6	13.0	9.9	15.3
Non-performing loans *(banking statistics)*	*share, in %*	**7.8**	**7.4**	**7.0**	**6.0**	**5.2**	**4.7**	**3.7**	**3.4**	**3.3**	**4.2**
Loans to deposits ratio	*in %*	**120**	**116**	**110**	**106**	**108**	**105**	**106**	**106**	**100**	**92**

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

		2020		2021				2022	
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Households									
Loans	*growth in %*	**6.2**	**6.4**	**6.5**	**7.5**	**8.5**	**9.5**	**10.2**	**8.7**
For consumption	*growth in %*	3.6	1.6	0.0	1.7	3.3	5.5	7.8	7.1
For house purchase	*growth in %*	7.3	7.7	8.1	9.0	10.0	10.8	11.2	9.4
Other lending	*growth in %*	1.1	3.7	3.8	4.1	4.5	4.4	5.2	5.5
CZK denominated	*growth in %*	6.2	6.4	6.5	7.5	8.5	9.5	10.2	8.6
FX denominated	*growth in %*	7.4	15.5	15.8	11.7	21.6	18.3	22.8	43.1
Deposits	*growth in %*	**10.1**	**11.3**	**12.8**	**12.1**	**10.8**	**8.6**	**5.6**	**3.2**
CZK denominated	*growth in %*	10.1	11.2	12.9	11.9	10.5	8.4	5.3	2.8
FX denominated	*growth in %*	9.0	14.1	12.6	18.2	20.3	15.2	13.2	15.2
Non-performing loans *(banking statistics)*	*share, in %*	**1.6**	**1.6**	**1.8**	**1.8**	**1.7**	**1.6**	**1.5**	**1.3**
Loans to deposits ratio	*in %*	**61**	**60**	**59**	**58**	**59**	**61**	**62**	**62**
Non-financial corporations									
Loans	*growth in %*	**2.6**	**1.2**	**-0.1**	**-2.1**	**0.2**	**3.9**	**7.1**	**6.7**
CZK denominated	*growth in %*	-2.5	-2.5	-1.7	2.3	5.7	6.6	6.6	-1.3
FX denominated	*growth in %*	13.4	8.7	3.1	-10.0	-9.9	-0.9	8.0	22.8
Deposits	*growth in %*	**10.0**	**12.9**	**11.1**	**9.0**	**8.9**	**7.0**	**7.2**	**8.1**
CZK denominated	*growth in %*	10.4	12.4	10.2	6.0	6.7	5.8	7.1	9.0
FX denominated	*growth in %*	8.7	14.5	14.2	20.1	16.5	10.8	7.6	5.6
Non-performing loans *(banking statistics)*	*share, in %*	**3.2**	**3.7**	**4.2**	**4.3**	**4.2**	**3.9**	**3.8**	**3.6**
Loans to deposits ratio	*in %*	**100**	**96**	**93**	**92**	**92**	**93**	**93**	**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 1.4.5: Exchange Rates – yearly

		2016	2017	2018	2019	2020	2021	2022 *Forecast*	2023 *Forecast*	2024 *Outlook*	2025 *Outlook*
Nominal exchange rates											
CZK / EUR	*average*	**27.03**	**26.33**	**25.65**	**25.67**	**26.44**	**25.65**	**24.6**	**24.4**	**24.2**	**24.1**
	appreciation in %	0.9	2.7	2.7	-0.1	-2.9	3.1	4.3	0.8	0.7	0.7
CZK / USD	*average*	**24.43**	**23.39**	**21.74**	**22.94**	**23.19**	**21.68**	**23.2**	**23.6**	**23.0**	**22.3**
	appreciation in %	0.7	4.5	7.6	-5.2	-1.1	7.0	-6.6	-1.3	2.6	2.6
NEER	*average of 2015=100*	**102.3**	**105.2**	**109.1**	**108.7**	**106.7**	**110.4**	**107**	**108**	**109**	**110**
	appreciation in %	2.3	2.8	3.7	-0.3	-1.9	3.4	-2.8	0.7	0.9	0.9
Real exchange rate to EA19 [1)]	*average of 2015=100*	**101.2**	**104.0**	**107.9**	**110.1**	**109.6**	**114.5**	**125**	**129**	**131**	**133**
	appreciation in %	1.2	2.8	3.8	2.0	-0.4	4.4	8.7	4.0	1.4	1.1
REER [2)]	*average of 2015=100*	**102.6**	**106.6**	**111.1**	**111.5**	**112.4**	**116.6**	**.**	**.**	**.**	**.**
	appreciation in %	2.6	3.9	4.3	0.3	0.8	3.8	.	.	.	.

[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

		2021				2022			
		Q1	Q2	Q3	Q4	Q1	Q2 *Estimate*	Q3 *Forecast*	Q4 *Forecast*
Nominal exchange rates									
CZK / EUR	*average*	**26.07**	**25.64**	**25.50**	**25.38**	**24.65**	**24.65**	**24.5**	**24.5**
	appreciation in %	-1.7	5.5	3.8	5.1	5.7	4.0	3.9	3.6
CZK / USD	*average*	**21.64**	**21.27**	**21.63**	**22.19**	**21.99**	**23.16**	**24.1**	**23.8**
	appreciation in %	7.4	15.5	4.6	0.8	-1.6	-8.2	-10.1	-6.7
NEER	*average of 2015=100*	**102.1**	**103.7**	**104.0**	**104.0**	**107.2**	**107.1**	**107**	**107**
	appreciation in %	-0.1	6.3	3.5	4.2	5.0	3.4	3.1	3.3
Real exchange rate to EA19 [1)]	*average of 2015=100*	**112.0**	**115.4**	**116.0**	**114.7**	**121.4**	**124**	**127**	**126**
	appreciation in %	0.1	9.0	5.0	4.1	8.4	7.8	9.0	9.5
REER [2)]	*average of 2015=100*	**115.3**	**116.7**	**117.4**	**117.2**	**123.2**	**.**	**.**	**.**
	appreciation in %	1.1	6.9	3.4	4.0	6.9	.	.	.

[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

The population of the Czech Republic rose by 3.2 thousand to 10.520 million during Q1 2022. The growth was driven by a positive foreign migration balance (10.8 thousand), while the balance of natural change was negative (−7.6 thousand).

During the first quarter, 24.2k children were **born live**, which was a decrease of 3.5 thousand compared to the same period of the previous year. The last time a lower number of live births was recorded in the first quarter was in 2004.

The number of **deaths** from January to March this year reached 31.9 thousand. Compared to Q1 2021, it was a decrease of 15.0 thousand, or 32%. According to the data of the Ministry of Health, the number of deaths related to COVID-19 has fallen sharply (3.4k vs. 15.1k in Q1 2021). Nevertheless, the number of deaths was moderately higher than the 2015–2019 average.

The positive **balance of foreign migration** decreased by 1.7 thousand YoY in the first quarter. The number of immigrants increased only slightly to 19.2 thousand (up by 0.8 thousand or 5%), but the number of emigrants rose by 45% to 8.3 thousand. The data on international migration in the first quarter do not include persons granted temporary protection in connection with the war in Ukraine.

The intensity of migration flows this year will be fundamentally affected by the war in Ukraine. We assume that the positive migration balance will be higher by 325k people compared to the medium variant of the CZSO's demographic projection, i.e. it will reach 351 thousand people. Approximately 61% of the refugees from Ukraine are expected to be in the working age group 20–64 years (of which about 70% will be women), 35% will be children and young people up to 19 years and the remaining 4% will be seniors. While some refugees may return to

Ukraine in the coming years, at the same time increased immigration from Ukraine can be expected. We therefore keep the migration balance according to the CZSO's projection.

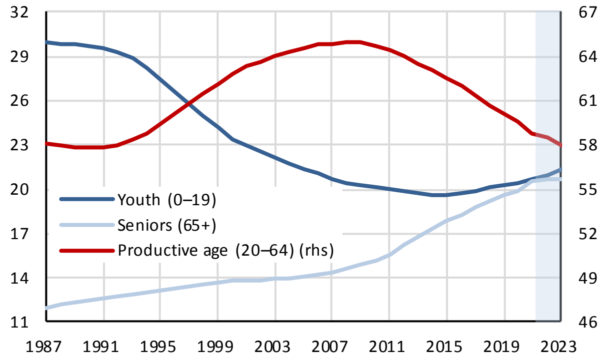
The CZSO also published a detailed **age structure** of the population at the beginning of 2022. The population of the Czech Republic increased by 21.9 thousand people during 2021. The population ageing was reflected by an increase of 17.3 thousand people in the senior category of 65 years and over. However, due to the COVID-19 epidemic in particular, this increase was significantly lower than was usual in the years before the pandemic. The high number of women born in the late 1970s and 1980s and the relatively high birth rate led to an increase of 25.8 thousand children and young people under 19 years of age. On the other hand, the population aged 20–64 years decreased by 21.2 thousand.

However, due to fluctuating birth rates in the past, the development in this category is not homogeneous. The decline was concentrated in the 20–44 age group, which shrank by 58.4 thousand people. In contrast, there was a significant increase in the population between 45 and 59 years of age, by 59.8k. People in this age group have high employment and participation rates, which contributes to eliminating the impact of population ageing on the supply side of the economy. The fall in the number of people aged 60–64 by 22.5k entails a temporary slowdown in the burden on the pension system.

At the end of June 2022, the Czech Social Security Administration registered 2.363 million **old-age pensioners**, which corresponded to 22.5% of the Czech population. The extension of the statutory retirement age combined with increased mortality led to a year-on-year decline in the number of old-age pensioners by 14.7 thousand, i.e. by 0.6%.

Graph 1.5.1: Age Groups

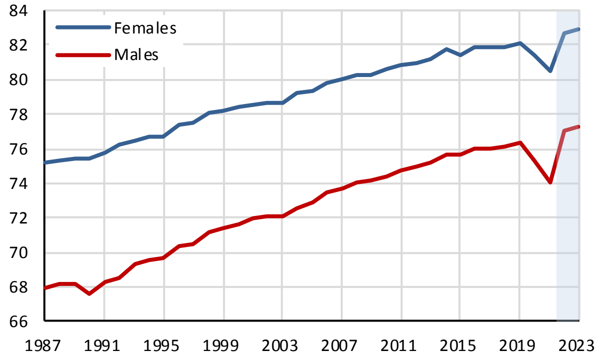
as of 1 January of the given year, shares in total population, in %



Source: CZSO. Calculations of the MoF.

Graph 1.5.2: Life Expectancy at Birth

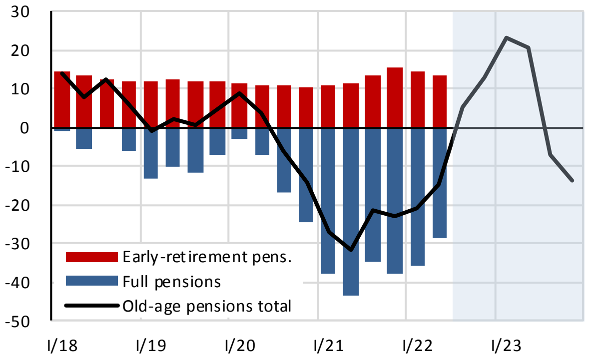
in years



Source: CZSO.

Graph 1.5.3: Old-Age Pensioners

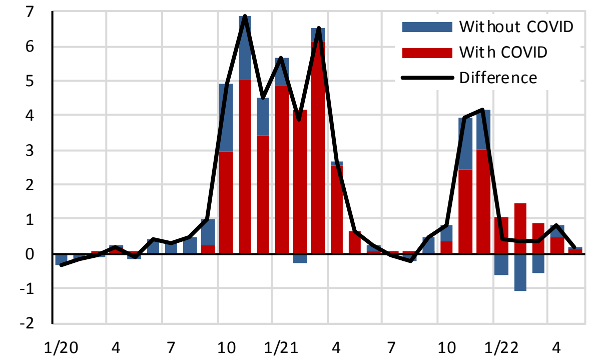
absolute increase over a year in thousands of persons



Source: Czech Social Security Administration. Calculations and forecast 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

		2016	2017	2018	2019	2020	2021	2022 Forecast	2023 Forecast	2024 Outlook	2025 Outlook
Population (as of 1 January)	*thous. persons*	**10 554**	**10 579**	**10 610**	**10 650**	**10 694**	**10 495**	**10 517**	**10 857**	**10 872**	**10 884**
	growth in %	0.1	0.2	0.3	0.4	0.4	-1.9	0.2	3.2	0.1	0.1
0–19 years	*thous. persons*	2 082	2 106	2 133	2 160	2 188	2 171	2 197	2 319	2 331	2 337
	growth in %	0.9	1.2	1.3	1.3	1.3	-0.8	1.2	5.5	0.5	0.3
20–64 years	*thous. persons*	6 540	6 484	6 437	6 403	6 374	6 172	6 151	6 300	6 278	6 269
	growth in %	-0.8	-0.9	-0.7	-0.5	-0.4	-3.2	-0.3	2.4	-0.3	-0.1
65 and more years	*thous. persons*	1 932	1 989	2 040	2 087	2 132	2 152	2 169	2 239	2 264	2 278
	growth in %	2.8	2.9	2.6	2.3	2.2	0.9	0.8	3.2	1.1	0.6
Old-age pensioners (as of 1 January) [1]	*thous. persons*	**2 377**	**2 395**	**2 404**	**2 410**	**2 415**	**2 400**	**2 378**	**2 391**	**2 377**	**2 365**
	growth in %	0.9	0.8	0.4	0.3	0.2	-0.6	-0.9	0.5	-0.6	-0.5
Old-age dependency ratios (as of 1 January)											
Demographic [2]	*%*	29.5	30.7	31.7	32.6	33.4	34.9	35.3	35.5	36.1	36.3
Under current legislation [3]	*%*	39.8	40.1	40.4	40.4	40.5	41.2	40.6	39.9	39.6	39.3
Effective [4]	*%*	46.8	46.2	45.7	45.2	45.5	46.0	45.2	46.0	45.6	45.4
Fertility rate	*children*	**1.630**	**1.687**	**1.708**	**1.709**	**1.707**	**1.827**	**1.70**	**1.70**	**1.70**	**1.71**
Population increase	*thous. persons*	**25**	**31**	**40**	**44**	**8**	**22**	**341**	**15**	**12**	**9**
Natural increase	*thous. persons*	**5**	**3**	**1**	**0**	**-19**	**-28**	**-9**	**-11**	**-14**	**-17**
Live births	*thous. persons*	113	114	114	112	110	112	105	103	101	99
Deaths	*thous. persons*	108	111	113	112	129	140	114	114	115	116
Net migration	*thous. persons*	**20**	**28**	**39**	**44**	**27**	**50**	**351**	**26**	**26**	**26**
Immigration	*thous. persons*	38	46	58	66	56	69	.	.	.	.
Emigration	*thous. persons*	17	18	20	21	29	19	.	.	.	.
Census difference	*thous. persons*	**x**	**x**	**x**	**x**	**x**	**-207**	**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 previous chapters, the forecast is based on the following assumptions:

- the ongoing war in Ukraine will not have a lasting impact on commodity prices in world markets;
- households and businesses will reduce their natural gas consumption in response to the higher price;
- the constraints on natural gas supplies from Russia to the EU will not be so significant that they could not be replaced from other sources (e.g. imports of liquefied natural gas or the use of gas from storages); thus, in the scenario of the Macroeconomic Forecast, industrial production will not need to be interrupted due to gas shortages;
- problems in supply chains will hamper global economic growth also next year, but their intensity will gradually diminish – along with that, upward pressures on the price level will weaken;
- thanks to vaccination, high number of people who have had COVID-19 and wider treatment options, macroeconomically significant restrictions won't be necessary in the future should the epidemic situation worsen;
- as part of the support for part-time work, social security contributions on the employer's side will be reduced when specific groups of employees are employed;
- the rates of major types of 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

The coronavirus epidemic and related measures brought the biggest-ever slump of the economy below the potential, with the **output gap** falling to −8.4% in Q2 2020. However, thanks to the economic recovery in the following quarters, the output gap for the whole of 2020 was −2.3% (*vs. −2.7%*). It was thus smaller in annual terms compared with the recessions of 2009 and 2013. Due to the improvement in economic performance, the negative output gap closed last year, reaching 0.1% (*vs. −0.7%*) of potential output.

In connection with the expected decline in economic activity in the second half of this year, the output gap should temporarily return to the negative territory and then close in Q3 2023. However, given the persistent period of enormous uncertainty and the volatility of economic developments, the results should be treated with caution.

Potential output, whose growth slowed noticeably in 2019 and 2020 due to the economic slowdown and the subsequent recession, is currently estimated to have increased by 0.8% (*vs. 1.0%*) in 2021. Its growth could accelerate to 1.8% (*vs. 2.2%*) this year and hover around 2% in the following years.

The trend component of **total factor productivity** is the long-term driver of potential growth. However, its contribution fell to only 0.6 pp (*vs. 1.4 pp*) in 2021 and should remain at this level this year. It should then increase gradually in the following years.

A significant reduction in investment activity in 2020 and only a slight recovery in 2021 resulted in a slower increase in the **capital stock**. Given the expected stronger growth in gross fixed capital formation, this factor could boost potential growth by 0.7 pp (*vs. 0.6 pp*) this year.

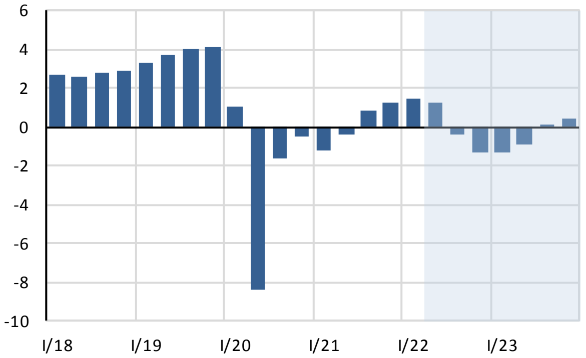
The time series of the employed, unemployed and working-age population in the current forecast incorporate the results of the 2021 Census. However, the total contribution of the **production factor of labour** to potential output growth in 2022 has increased only slightly to 0.5 pp (*vs. 0.3 pp*) compared with the previous forecast.

Population ageing, which is manifested by a long-term decline in the number of people of working age (20–64 years) with a negative impact on **labour supply**, should be compensated by a wave of immigration from Ukraine over the forecast horizon (see Chapter 1.5). While demographic developments took 0.2 pp (*vs. 0.3 pp*) off potential output growth last year, they should be neutral in 2022 (*vs. 0.8 pp*). In 2023, they should support potential growth to the extent of 0.9 pp. (*vs. 0.2 pp*).

Until 2018, the period of economic boom, accompanied by an increasing demand for work, led to a rapid increase in the **participation rate**, which more than offset the unfavourable development of the working-age population. Following a temporary halt in this trend during the coronavirus epidemic, the participation rate could increase this year, given the renewed labour shortage, and its contribution could reach 0.6 pp (*vs. −0.2 pp*) this year.

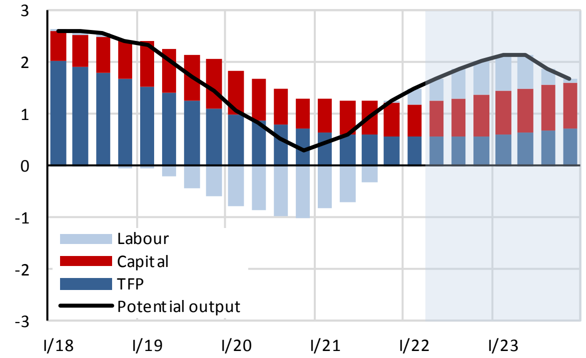
The average number of **hours usually worked**, which has been on a long-term downward trend, was in a narrow range of 39.9–40.2 hours between 2017 and 2020. However, in subsequent quarters, values around 39.4 hours have been published. This has created a significant break in the time series (Graph 2.1.4), which has no economic justification and is most likely due to methodological changes in the LFS. Whereas last year the contribution of the number of hours usually worked was −0.4 pp (*vs. −0.5 pp*), it could ease to −0.1 pp (*vs. −0.2 pp*) in 2022.

Graph 2.1.1: Output Gap
in % of potential product



Source: CZSO. Calculations and forecast of the MoF.

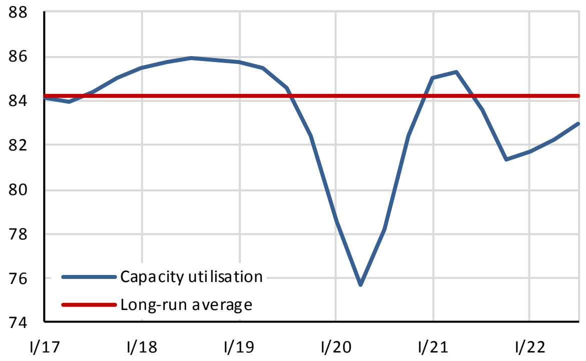
Graph 2.1.2: Potential Output
YoY growth rate in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

Graph 2.1.3: Capacity Utilisation in Industry

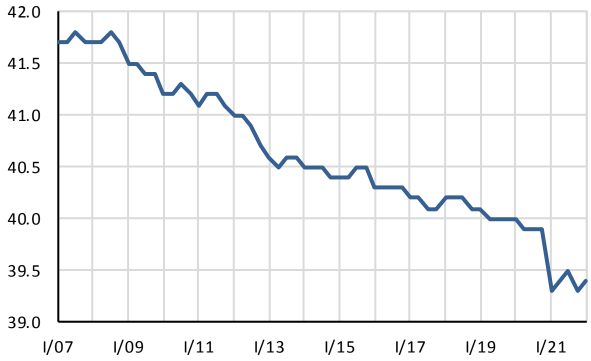
smoothed by Hodrick-Prescott filter, in %



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

		2016	2017	2018	2019	2020	2021	2022 *Forecast*	2023 *Forecast*	2024 *Outlook*	2025 *Outlook*
Output gap	*%*	**-0.7**	**1.9**	**2.8**	**3.8**	**-2.3**	**0.1**	**0.3**	**-0.4**	**0.7**	**1.5**
Potential product	*growth in %*	**2.9**	**2.7**	**2.6**	**1.9**	**0.7**	**0.8**	**1.8**	**2.0**	**1.7**	**1.7**
Contributions											
Trend total factor productivity	*pp*	2.2	2.2	1.9	1.3	0.8	0.6	0.6	0.7	0.8	0.9
Fixed assets	*pp*	0.6	0.5	0.6	0.9	0.7	0.6	0.7	0.9	0.8	0.7
Population 20–64 years	*pp*	-0.6	-0.6	-0.5	-0.4	-0.4	-0.2	0.0	0.9	-0.1	-0.1
Participation rate	*pp*	0.7	0.7	0.7	0.2	-0.2	0.2	0.6	-0.5	0.1	0.1
Usually worked hours	*pp*	-0.1	-0.2	-0.1	-0.1	-0.3	-0.4	-0.1	0.0	0.0	0.0

Source: CZSO. Calculations and forecast of the MoF.

2.2 Business Cycle Indicators

The evolution of confidence indicators in Q2 2022 points to a significant quarter-on-quarter recovery in gross value added in industry, trade and services. In construction, the confidence indicator signals a slight slowdown in year-on-year growth in gross value added. However, the correlation between the development of confidence and gross value added in the construction sector is very low.

The composite indicator of exports of goods, compiled by the Ministry of Finance from sub-questions of the CZSO's business cycle survey and business confidence in Germany, continues to indicate a year-on-year decline in exports of goods.

The CZSO's consumer confidence indicator continued to decline in Q2 2022. Its development signals negative year-on-year growth in household final consumption expenditure in H2 2022 (the confidence indicator shows a lead of 1–2 quarters). The consumer confidence indicator, compiled by the MoF from sub-questions of the European Commission's consumer survey, also declined in Q2 compared to the previous period. Consumers' pessimism stemmed mainly from a significantly negative assessment of the economic situation, but the financial situation of households also deteriorated significantly.

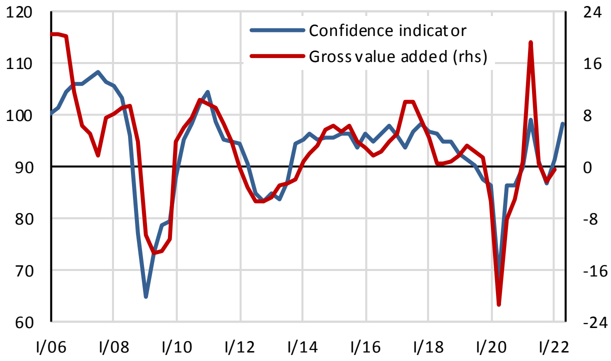
As a result, the composite confidence indicator signals an acceleration in the year-on-year growth of total gross value added in Q2 2022, but according to the preliminary estimate of the CZSO, its dynamics has probably slowed down.

In July 2022, the composite indicator has fallen significantly from the Q2 average level. The main contributors to this were a decline in confidence in industry, services and among consumers. However, sentiment also deteriorated in trade and construction.

According to the composite leading indicator, the Czech economy should remain below potential output in Q2 and Q3 2022 in response to the war in Ukraine, problems in supply chains and rising inflationary pressures. Although the MoF estimates that economic output was above potential in the first half of this year, the output gap should already be negative in the second half of the year (see Chapter 2.1).

Graph 2.2.1: Confidence and GVA in Industry

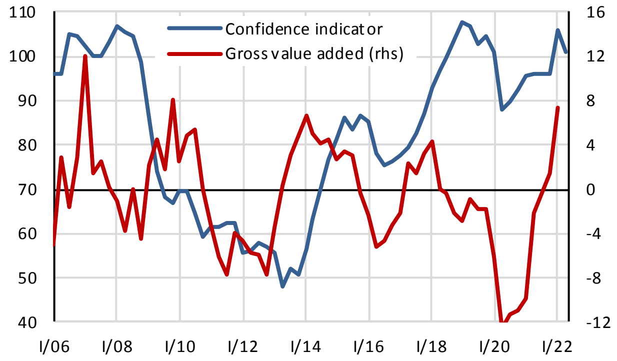
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

Graph 2.2.2: Confidence and GVA in Construction

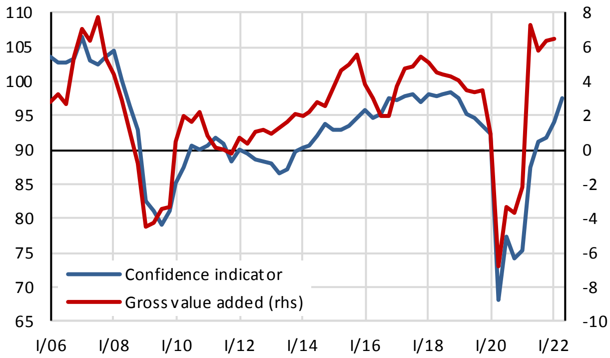
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

Graph 2.2.3: Confidence and GVA in Trade and Services

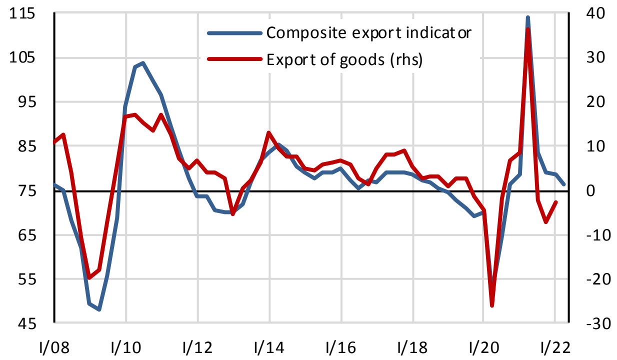
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO. Calculations of the MoF.

Graph 2.2.4: Composite Export Indicator

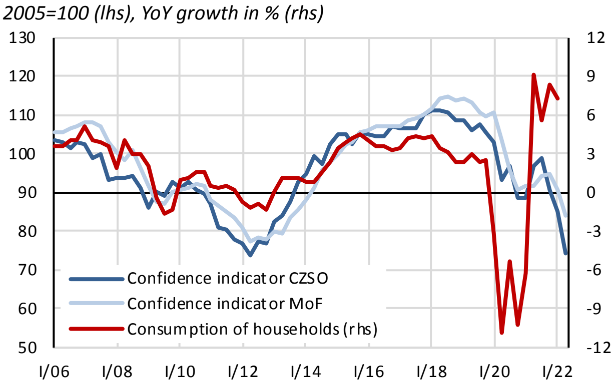
2010=100 (lhs), YoY growth in % (rhs)



Source: CESifo, CZSO. Calculations of the MoF.

Graph 2.2.5: Consumer Confidence and Consumption

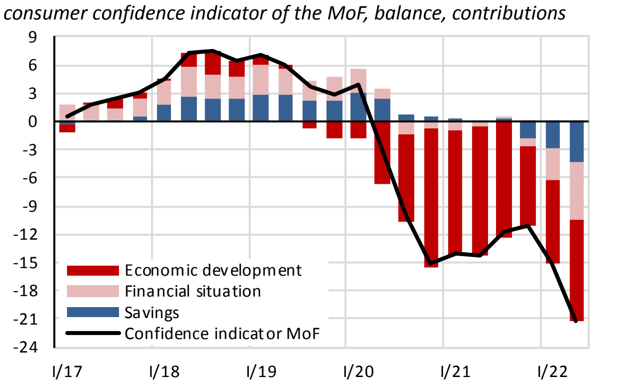
2005=100 (lhs), YoY growth in % (rhs)



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

Graph 2.2.6: Decomposition of Consumer Sentiment

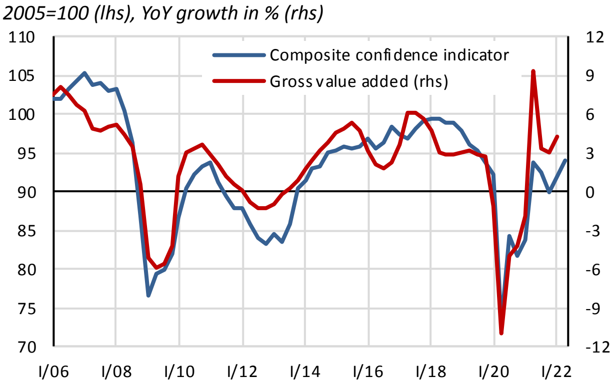
consumer confidence indicator of the MoF, balance, contributions



Source: European Commission. Calculations of the MoF.

Graph 2.2.7: Composite Confidence Indicator and GVA

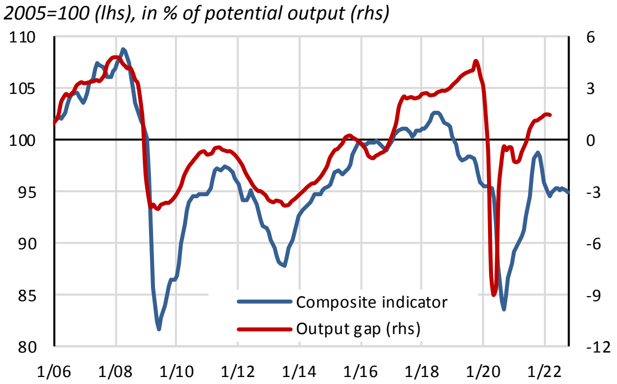
2005=100 (lhs), YoY growth in % (rhs)



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 5.1% YoY **in Q1 2022** (*vs. 4.3%*). Quarter-on-quarter growth of seasonally adjusted **GDP** accelerated slightly to 0.9% (*vs. 0.1%*). Economic activity was strongly supported by manufacturing as well as by trade, transportation, accommodation and food services. The CZSO revised up real GDP growth in 2021 by 0.2 pp.

Household consumption had increased by 7.6% YoY (*vs. 8.2%*), significantly boosted by the low comparative base and a decline in the savings rate, while the decrease in real disposable income had had a negative effect. Spending on semi-durable goods grew fastest (due to anti-epidemic restrictions, it was exceptionally low in Q1 2021), but spending on services had the biggest impact on consumption growth. Spending on non-durable goods (e.g. food) fell slightly year-on-year. The seasonally adjusted data then show that households are already cutting back due to tighter budgets, as spending on both non-durable and durable goods fell again quarter-on-quarter (the increase in spending on services may have been supported by spending by non-residents[1], or middle- and upper-income households).

Consumption by the general government sector increased by 2.2% (*vs. 2.6%*) on the back of positive employment growth and purchases of goods and services, with purchases driven by local governments and their contributory organisations, as well as public universities and research institutions.

Gross fixed capital formation rose by 8.1% (*vs. 3.8%*), mainly due to investment in transport equipment, dwellings and non-residential buildings. The important component of machinery and equipment virtually stagnated due to the disruption of supplies to industry. Investment activity was driven exclusively by the private sector. Corporate investment was supported by the lagged effect of easy monetary conditions and the recovery of export markets. Investment by the general government sector declined year-on-year in real terms, mainly due to delays in projects co-financed by EU funds.

A significantly positive contribution of 1.9 pp from the **change in inventories** was behind the 14.3% (*vs. 12.0%*) increase in gross capital formation. Firms were apparently accumulating inventories to avoid both component supply shortages and losses resulting from high inflation. Inventories of work in progress probably also increased.

The **foreign trade balance** contributed strongly negatively to GDP growth by 2.5 pp. Supply chain disruptions adversely affected exports of goods and services, which grew by only 0.5% in Q1 2022 (*vs. a decline of 1.5%*). Imports of goods and services, on the other hand, strengthened by 4.1% (*vs. 2.7%*) thanks to exceptional inventory accumulation and higher fixed capital investment.

According to the preliminary estimate, seasonally adjusted GDP increased by 0.2% QoQ (*vs. a decline of 1.3%*) in Q2 2022, driven solely by domestic demand. Thus, the Czech economy grew in the first half of this year despite unfavourable circumstances. However, in H2 2022, economic activity is expected to decline more sharply due to the reduction in foreign trade with Russia and Ukraine, supply shortages of key components for manufacturing and construction, and a jump in energy and fuel prices. The baseline scenario does not assume a complete stop of gas supplies from Russia (see Box 1 for an alternative scenario). As a result, real GDP growth could slow to 2.2% (*vs. 1.2%*) **in 2022** and further to 1.1% (*vs. 3.6%*) in 2023. In both years, domestic demand should drive the economy, but the external trade balance should dampen it this year.

Household final consumption expenditure should be negatively affected this year by a decline in real disposable income and tighter monetary policy. The increase in the cost of living will mainly impact low-income households, while the effect of the rising price level on middle- and especially high-income households could be dampened by savings, including the drawdown of exceptional savings accumulated during the epidemic. The decline in labour taxation and government measures limiting the impact of rising energy prices should have a positive effect on the whole-year dynamics. Concerns about further price increases may have motivated households to undertake some spending earlier in the year, but the drop in consumer confidence should become fully apparent in H2. In view of these strongly negative factors, real household consumption could grow by only 0.5% (*unchanged*) this year. Given the persisting decline in real disposable income due to elevated inflationary pressures, consumption should remain subdued in 2023. However, household spending should be supported next year by continued decline in the savings rate and spending of Ukrainian refugees. As a result, household consumption could also rise by 0.5% (*vs. 4.5%*) in 2023.

We expect **general government consumption** to grow by 0.8% (*vs. 1.0%*) in 2022. The pace of employment is ex-

[1] Data on the structure of household expenditure are available in the quarterly national accounts only for consumption in the domestic concept, which includes expenditure by resident and non-resident households made in the Czech Republic. The fact that consumption in domestic concept fell by only 0.1% QoQ in Q1 2022, while consumption in the national concept (expenditure by residents in the Czech Republic and abroad) fell by 1.2% suggests that non-residents' expenditure had a positive effect on consumption in the domestic concept.

pected to be weaker overall than in 2021, but there will be pressure to increase staff capacity, especially in education, due to the migration wave from Ukraine. Purchasing and spending in the health sector should weaken due to the waning of the epidemic, but this will be offset by humanitarian needs. In 2023, government consumption should be boosted by spending on purchases of goods and services, supported by current subsidies from EU funds as the end of the 2014–2020 financial perspective approaches. This could accelerate growth to 1.3% (*vs. 1.0%*).

Gross fixed capital formation is expected to recover significantly in 2022 thanks to economic growth abroad and utilised production capacity. Government spending, supported by the implementation of projects cofinanced by EU funds, should have a moderately positive effect on investment activity. Monetary conditions were strongly accommodative in the previous year, and given the length of the transmission mechanism, they will have a major stimulative effect in 2022. However, private investment in the second half of the year may be weighed down by problems in supply chains, a rise in capital goods prices and a substantial increase in uncertainty related to a possible disruption in Russian gas supplies. The anticipated easing of these difficulties, together with military equipment purchases and the use of expiring EU funds from the previous financial perspective, should cushion the impact of the marked slowdown in the euro area economy and the restrictive monetary policy in the coming year. Thus, gross fixed capital formation could increase by 6.1% (*vs. 2.2%*) in 2022 and slow to 3.4% (*vs. 5.9%*) in 2023.

In 2022, we expect companies to accumulate **inventories** at an increased rate to avoid losses from high inflation and component supply disruptions. Thus, the change in inventories should have a positive impact on GDP growth of 1.3 pp (*vs. 0.0 pp*), with a negative contribution in subsequent years. Nevertheless, the magnitude of inventory accumulation will remain exceptionally high. As a result, gross capital formation could rise by 9.4% (*vs. 1.9%*) this year and fall by 0.7% (*vs. growth of 3.6%*) in 2023.

Exports of goods and services could increase by 1.0% (*vs. 1.5%*) this year, thanks to the recovery in export markets (see Chapter 3.4) and consumer spending by immigrants from Ukraine (see Box 1 in the April 2022 Macroeconomic Forecast). However, a decline in export performance due to problems in supply chains will dampen the momentum. The acceleration in export growth to 3.2% (*vs. 4.2%*) in 2023 reflects the fading supply-side frictions and the completion of work-in-progress inventories, but the projected slowdown in major trading partners' economic activity will have a negative effect. The growth momentum of exports and import-intensive investment demand is then reflected in the pace of **imports of goods and services**, which could rise by 2.5% (*vs. 1.3%*) in 2022. The slowdown to 2.0% (*vs. 4.0%*) in 2023 reflects a decline in gross capital formation outweighing the recovery in exports.

Box 1: Scenario of a Halt in Natural Gas Supplies from Russia

In the context of the ongoing Russian military invasion of Ukraine, it cannot be ruled out that the Russian side, in retaliation for material and military assistance to Ukraine, will proceed to cut off gas supplies to the whole of Europe. Russia is the main supplier of energy (natural gas) to the EU.

According to the statistics on foreign trade in goods, energy commodities accounted for 72.3% of imports from Russia to the Czech Republic in 2021. Natural gas alone accounted for 47.7% of Russian imports. Natural gas supplies from Russia constitute 96.6% of imports of this commodity in the Czech Republic, while in the EU this share reached 39.6% last year. Natural gas is an important energy commodity, used in industry as well as by households. According to Eurostat, approximately 21.7% of energy demand in the Czech Republic in 2020 was in the form of natural gas, compared to 23.7% in the euro area[2]. A possible cut-off of gas supplies would therefore have serious economic consequences.

Fearing a possible disruption of natural gas supplies, EU countries have taken a number of measures to mitigate a possible energy crisis in the coming months. These included accelerating the filling of natural gas storage tanks (according to Gas Infrastructure Europe, storage in the Czech Republic was 79.3% full at the end of July, compared to an EU average of 70.5%) or leasing capacity at the liquefied natural gas terminal in the Netherlands[3] .

According to the input-output tables, the most exposed sectors in the Czech Republic are the production and distribution of electricity, gas, steam and air conditioning (46.7% of its production depends on imports of energy commodities from Russia), chemicals and chemical products (63.3%), coke and refined petroleum products (47.7%) and rubber and plastic products (56.9%). These sectors then produce key components for other sectors of the economy, e.g. motor vehicles, trailers and semi-trailers consume (use) 41.0% of rubber and plastic products.

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[2] Eurostat (2022): Complete energy balances. Eurostat, [accessed on 1 August 2022], <https://ec.europa.eu/eurostat/web/main/data/database>.

[3] MIT (2022): Po podílu v LNG terminálu získalo Česko i potřebnou přepravní kapacitu. Pokryje tím až třetinu spotřeby. Ministry of Industry and Trade, [accessed on 1 August 2022], <https://www.mpo.cz/cz/rozcestnik/pro-media/tiskove-zpravy/po-podilu-v-lng-terminalu-ziskalo-cesko-i-potrebnou-prepravni-kapacitu--pokryje-tim-az-tretinu-spotreby--268713/>.

Taking into account the important position of natural gas in the Czech economy and the significant macroeconomic consequences that can be expected with a possible supply disruption, we proceeded to assess the potential economic effects. The calculations are based on the OECD's 2018 international input-output tables[4]. In addition to this approach, we also used the European Commission's existing QUEST model[5], which also has an international scope in the form of simulated economies of the Czech Republic, the euro area and the rest of the world. In calculating the economic impacts, we made the following assumptions:

- The calculations are applied to the current average temperatures for 2022. The average temperature this year is 1.3 °C higher than the long-term average (data for January to May) based on data from the Czech Hydrometeorological Institute;
- using historical data between gas consumption and average temperatures, a regression method estimated that a 1°C rise in temperature leads to a 9.8% decrease in gas consumption;
- the calculation of gas consumption by households also takes into account the adjustment of households that will reduce their consumption for heating in dwellings by 15% due to higher energy prices (in line with the European Commission's requirement to reduce gas consumption);
- in the Czech Republic, storage would currently cover 37.8% of annual consumption (equivalent to 34.5 TWh); in the EU, storage would cover 18.5% of annual consumption[6];
- the priority group for heating will be households; the storage capacity is able to cover the upcoming heating season for households (September 2022–May 2023), both in case of mild and severe winter; in case of mild winter, 19.0 TWh would be allocated for household consumption;
- 15.5 TWh should thus be allocated from storage for industry, which corresponds approximately to four months of business consumption (average monthly gas consumption is 4.5 TWh);
- If the leased LNG terminal in the Netherlands is used, whose capacity should cover one third of Russian gas consumption (32.9 TWh), according to the Ministry of Industry and Trade, the industry should also be able to cope with the upcoming heating season without having to accept major operational restrictions;
- using the terminal, the industry would last 11 months, i.e. until August 2023; in the event of a colder winter (long-term average winter temperature 2.4 °C lower than in the scenario considered), the gas supply to the industry would last until May 2023 inclusive.

It can therefore be assumed that, with the contribution of the leased terminal in the Netherlands, this year's heating season (September 2022–May 2023) should be fully covered by domestic stocks. The problem may arise only with the arrival of the 2023–2024 heating season, when it would not be possible to replenish storage in any other way in the event of continued Russian restrictions. In such a scenario, production would have to be curtailed with the following estimated macroeconomic impacts:

- in 2023, production would fall by 4.5% in the Czech Republic and by 5.6% in the euro area (production limitation from September to December 2023);
- 6.4% decline in production in the Czech Republic in 2024, 8.0% in the euro area (impact from January to May, i.e. during the heating season);
- a deterioration in euro area GDP growth relative to the baseline scenario of 1.9 pp in 2023 and 2.6 pp in 2024 (based on a decline in output).

Table 1: Natural Gas Outage – Impact on GDP

		2023		2024	
		QUEST	I-O	QUEST	I-O
Impact on GDP	*pp*	**-2.9**	**-4.0**	**-3.4**	**-4.6**
Limited prod. in the CR	*pp*	-2.6	-3.4	-3.1	-3.9
Lower growth in the EA	*pp*	-0.3	-0.6	-0.3	-0.7
GDP growth - alt. scenario	*%*	**-1.8**	**-2.9**	**-0.4**	**-1.6**

Source: Calculations of the MoF.

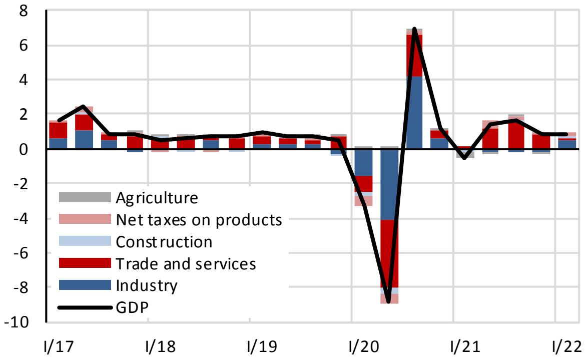
Under these circumstances, economic problems could be expected in the autumn of 2023, assuming no filling of gas storages. In view of the above, we estimate that GDP growth would slow next year by between 2.9 pp and 4.0 pp. For 2024, we expect an eventual deterioration of 3.4–4.6 pp. The Czech economy would thus contract by 1.8–2.9% next year and in 2024 GDP could fall by between 0.4% and 1.6%. The data are summarised in Table 1.

It should be noted that the analysis is highly indicative and the actual impact on GDP will depend on the government or the EU-wide strategy. The input-output model assumes perfect complementarity of inputs, but in practice there would be some degree of substitution of gas by e.g. electricity, coal or wood for heating. The analysis also does not assume a change in the economic model of individual firms, where, for example, some energy-intensive intermediate inputs can be imported from Asia. The estimate is therefore rather a maximum impact. The temporary change in climate plans in EU countries in the form of extending the lifetime of coal-fired power plants to diversify energy sources, the speed of establishing new supply partners (Qatar, Algeria, USA, Kuwait, Azerbaijan, etc.) may also come into play. However, the full substitution of Russian gas is a question of the medium term horizon.

[4] OECD (2021): OECD Inter-Country Input-Output (ICIO) Tables. Organisation for Economic Co-operation and Development, [accessed on 1 August 2022], <https://www.oecd.org/sti/ind/inter-country-input-output-tables.htm>.
[5] Ratto, M., Roeger, W., & In 't Veld, J. (2009): QUEST III: An Estimated DSGE Model of the Euro Area with Fiscal and Monetary Policy. Economic Modelling, Vol. 26(1), pp. 222-233.
[6] GIE (2022): Aggregated Gas Storage Inventory. Gas Infrastructure Europe, [accessed on 1 August 2022], < https://agsi.gie.eu/>.

Graph 3.1.1: Resources of Gross Domestic Product

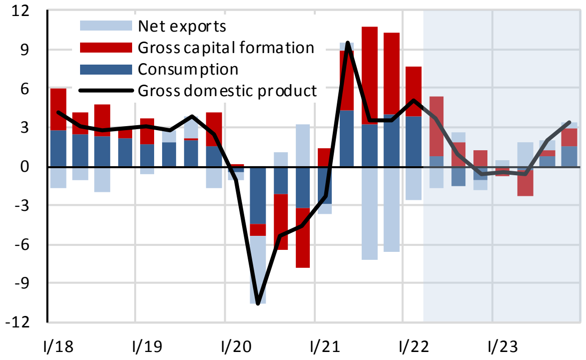
QoQ growth rate of real GDP in %, contrib. in pp, season. adjusted



Source: CZSO. Calculations of the MoF.

Graph 3.1.2: GDP by Type of Expenditure

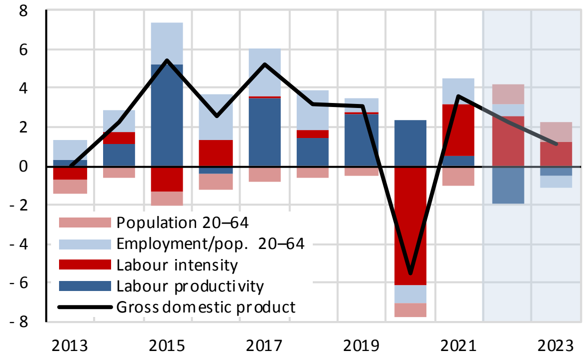
YoY growth rate of real GDP in %, contributions in pp



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.1.3: Real Gross Domestic Product

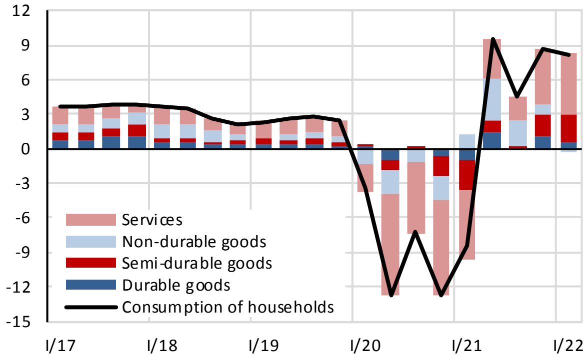
growth in %, contributions in percentage points



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

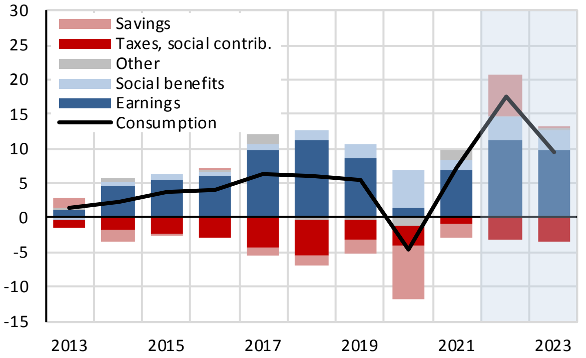
domestic concept, YoY growth rate in %, contributions in pp



Source: CZSO. Calculations of the MoF.

Graph 3.1.5: Nominal Consumption of Households

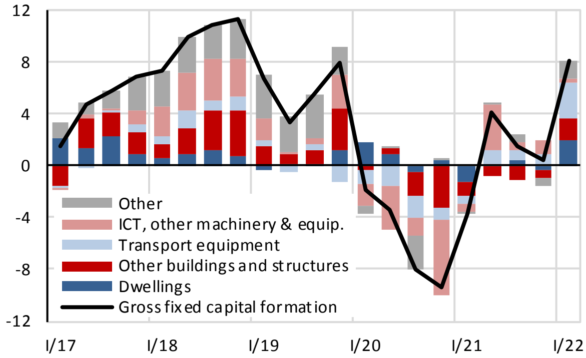
national concept, YoY growth rate in %, contributions in pp



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.1.6: Investment by Type of Expenditure

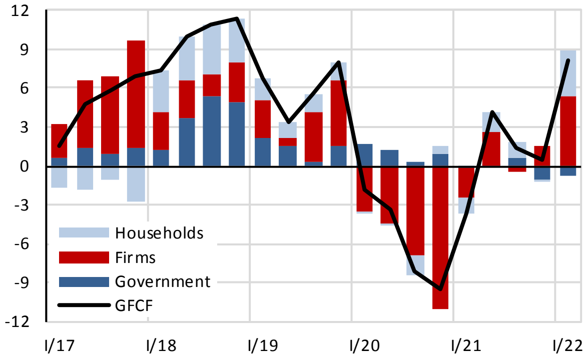
YoY growth rate of real GFCF in %, contributions in pp



Source: CZSO. Calculations of the MoF.

Graph 3.1.7: Investment by Sector

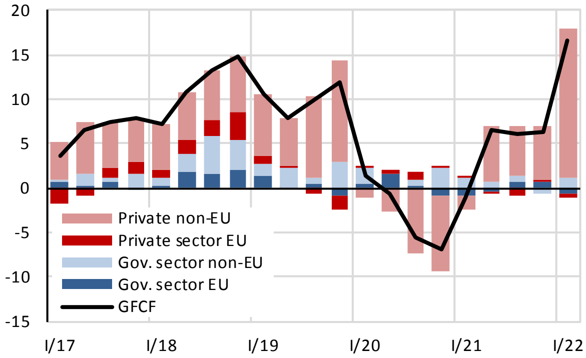
YoY growth rate of real GFCF in %, contributions in percentage points



Source: CZSO. Calculations of the MoF.

Graph 3.1.8: Investment Co-financing from EU Funds

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

		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
								Forecast	*Forecast*	*Outlook*	*Outlook*
Gross domestic product	*bill. CZK 2015*	**4 743**	**4 988**	**5 148**	**5 304**	**5 013**	**5 190**	**5 306**	**5 365**	**5 524**	**5 658**
	growth in %	2.5	5.2	3.2	3.0	-5.5	3.5	2.2	1.1	3.0	2.4
	growth in % [1]	2.5	5.3	3.2	3.0	-5.5	3.5	2.2	1.3	2.8	2.5
Private consumption expenditure [2]	*bill. CZK 2015*	**2 264**	**2 355**	**2 438**	**2 504**	**2 322**	**2 417**	**2 429**	**2 440**	**2 532**	**2 612**
	growth in %	3.8	4.0	3.5	2.7	-7.2	4.1	0.5	0.5	3.8	3.2
Government consumption exp.	*bill. CZK 2015*	**897**	**913**	**949**	**973**	**1 014**	**1 029**	**1 038**	**1 051**	**1 066**	**1 084**
	growth in %	2.5	1.8	3.9	2.5	4.2	1.5	0.8	1.3	1.4	1.7
Gross capital formation	*bill. CZK 2015*	**1 243**	**1 323**	**1 425**	**1 489**	**1 351**	**1 607**	**1 759**	**1 747**	**1 716**	**1 720**
	growth in %	-4.0	6.5	7.7	4.5	-9.3	19.0	9.4	-0.7	-1.8	0.3
Gross fixed capital formation	*bill. CZK 2015*	1 190	1 248	1 374	1 455	1 368	1 377	1 461	1 511	1 516	1 548
	growth in %	-3.0	4.9	10.0	5.9	-6.0	0.7	6.1	3.4	0.3	2.1
Change in stocks and valuables	*bill. CZK 2015*	53	75	51	34	-16	230	298	236	200	172
Exports of goods and services	*bill. CZK 2015*	**3 888**	**4 168**	**4 322**	**4 386**	**4 034**	**4 312**	**4 357**	**4 495**	**4 701**	**4 832**
	growth in %	4.3	7.2	3.7	1.5	-8.0	6.9	1.0	3.2	4.6	2.8
Imports of goods and services	*bill. CZK 2015*	**3 549**	**3 771**	**3 989**	**4 051**	**3 719**	**4 214**	**4 321**	**4 406**	**4 520**	**4 619**
	growth in %	2.8	6.3	5.8	1.5	-8.2	13.3	2.5	2.0	2.6	2.2
Gross domestic expenditure	*bill. CZK 2015*	**4 404**	**4 592**	**4 811**	**4 964**	**4 693**	**5 053**	**5 222**	**5 236**	**5 315**	**5 421**
	growth in %	1.2	4.3	4.8	3.2	-5.5	7.7	3.4	0.3	1.5	2.0
Methodological discrepancy [3]	*bill. CZK 2015*	0	-1	3	3	10	39	45	38	29	28
Real gross domestic income	*bill. CZK 2015*	**4 780**	**4 988**	**5 149**	**5 324**	**5 083**	**5 258**	**5 221**	**5 253**	**5 417**	**5 558**
	growth in %	3.4	4.3	3.2	3.4	-4.5	3.4	-0.7	0.6	3.1	2.6
Contributions to GDP growth [4]											
Gross domestic expenditure	*pp*	**1.2**	**3.9**	**4.4**	**3.0**	**-5.1**	**7.1**	**3.3**	**0.3**	**1.5**	**2.0**
Consumption	*pp*	**2.3**	**2.3**	**2.4**	**1.8**	**-2.6**	**2.2**	**0.4**	**0.5**	**2.1**	**1.9**
Household expenditure	*pp*	1.8	1.9	1.7	1.3	-3.4	1.8	0.2	0.2	1.8	1.5
Government expenditure	*pp*	0.5	0.3	0.7	0.5	0.8	0.3	0.2	0.3	0.3	0.3
Gross capital formation	*pp*	**-1.1**	**1.7**	**2.0**	**1.2**	**-2.6**	**5.0**	**2.9**	**-0.2**	**-0.6**	**0.1**
Gross fixed capital formation	*pp*	-0.8	1.2	2.5	1.6	-1.6	0.2	1.6	0.9	0.1	0.6
Change in stocks	*pp*	-0.3	0.5	-0.5	-0.3	-0.9	4.8	1.3	-1.2	-0.7	-0.5
Foreign balance	*pp*	**1.4**	**1.2**	**-1.2**	**0.0**	**-0.4**	**-3.6**	**-1.0**	**0.9**	**1.4**	**0.5**
External balance of goods	*pp*	1.0	0.9	-1.0	0.4	-0.3	-3.6	-0.9	0.7	1.3	0.4
External balance of services	*pp*	0.4	0.3	-0.2	-0.4	-0.1	0.0	-0.1	0.1	0.1	0.1
Gross value added	*bill. CZK 2015*	**4 269**	**4 491**	**4 644**	**4 784**	**4 532**	**4 687**	.	.	.	.
	growth in %	2.5	5.2	3.4	3.0	-5.3	3.4	.	.	.	.
Net taxes and subsidies on products	*bill. CZK 2015*	**474**	**497**	**504**	**521**	**480**	**504**	.	.	.	.

[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

		2021				2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
							Estimate	*Forecast*	*Forecast*
Gross domestic product	*bill. CZK 2015*	**1 201**	**1 308**	**1 329**	**1 351**	**1 263**	**1 357**	**1 342**	**1 344**
	growth in %	-2.3	9.5	3.5	3.6	5.1	3.7	1.0	-0.5
	growth in % [1]	-1.9	9.1	3.8	3.5	4.9	3.6	0.9	-0.4
	QoQ in % [1]	-0.5	1.4	1.7	0.8	0.9	0.2	-1.0	-0.4
Private consumption expenditure [2]	*bill. CZK 2015*	**544**	**612**	**630**	**631**	**585**	**620**	**608**	**616**
	growth in %	-6.2	9.3	4.8	8.5	7.6	1.3	-3.5	-2.4
Government consumption exp.	*bill. CZK 2015*	**238**	**245**	**255**	**291**	**243**	**248**	**256**	**291**
	growth in %	-0.3	0.4	5.4	0.8	2.2	0.9	0.2	0.2
Gross capital formation	*bill. CZK 2015*	**334**	**401**	**450**	**422**	**382**	**464**	**475**	**438**
	growth in %	5.4	16.0	28.0	25.3	14.3	15.6	5.4	4.0
Gross fixed capital formation	*bill. CZK 2015*	296	344	352	385	319	367	372	402
	growth in %	-3.7	4.2	1.5	0.5	8.1	6.7	5.7	4.5
Change in stocks and valuables	*bill. CZK 2015*	39	57	98	36	63	97	102	36
Exports of goods and services	*bill. CZK 2015*	**1 091**	**1 130**	**989**	**1 101**	**1 097**	**1 114**	**1 026**	**1 120**
	growth in %	4.0	34.8	-1.7	-3.4	0.5	-1.5	3.7	1.7
Imports of goods and services	*bill. CZK 2015*	**1 009**	**1 088**	**1 008**	**1 109**	**1 051**	**1 097**	**1 033**	**1 140**
	growth in %	5.6	36.0	9.8	6.1	4.1	0.8	2.5	2.8
Gross domestic expenditure	*bill. CZK 2015*	**1 117**	**1 257**	**1 333**	**1 345**	**1 210**	**1 329**	**1 336**	**1 348**
	growth in %	-1.7	9.2	11.5	11.1	8.3	5.7	0.2	0.2
Methodological discrepancy [3]	*bill. CZK 2015*	**3**	**7**	**12**	**16**	**7**	**9**	**11**	**18**
Real gross domestic income	*bill. CZK 2015*	**1 226**	**1 332**	**1 345**	**1 355**	**1 249**	**1 341**	**1 317**	**1 314**
	growth in %	-1.0	9.9	3.1	2.0	1.8	0.7	-2.0	-3.1
Gross value added	*bill. CZK 2015*	**1 097**	**1 182**	**1 196**	**1 212**	**1 146**	**.**	**.**	**.**
	growth in %	-2.2	9.8	3.2	3.2	4.5	.	.	.
	growth in % [1]	-1.8	9.4	3.4	3.0	4.3	.	.	.
	QoQ in % [1]	-0.5	1.1	1.6	0.8	0.7	.	.	.
Net taxes and subsidies on products	*bill. CZK 2015*	**104**	**126**	**134**	**140**	**116**	**.**	**.**	**.**

[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

		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
								Forecast	*Forecast*	*Outlook*	*Outlook*
Gross domestic product	*bill. CZK*	**4 797**	**5 111**	**5 411**	**5 791**	**5 709**	**6 108**	**6 799**	**7 356**	**7 816**	**8 201**
	growth in %	3.7	6.5	5.9	7.0	-1.4	7.0	11.3	8.2	6.3	4.9
Private consumption expenditure [1)]	*bill. CZK*	**2 273**	**2 420**	**2 568**	**2 711**	**2 588**	**2 771**	**3 254**	**3 563**	**3 812**	**4 023**
	growth in %	4.2	6.5	6.1	5.6	-4.5	7.1	17.4	9.5	7.0	5.5
Government consumption exp.	*bill. CZK*	**910**	**959**	**1 050**	**1 134**	**1 243**	**1 313**	**1 386**	**1 483**	**1 541**	**1 596**
	growth in %	4.0	5.4	9.5	8.0	9.5	5.7	5.6	6.9	4.0	3.5
Gross capital formation	*bill. CZK*	**1 248**	**1 348**	**1 472**	**1 599**	**1 493**	**1 844**	**2 228**	**2 356**	**2 386**	**2 450**
	growth in %	-3.6	8.0	9.2	8.7	-6.6	23.5	20.9	5.7	1.3	2.6
Gross fixed capital formation	*bill. CZK*	1 196	1 273	1 423	1 568	1 516	1 586	1 852	2 034	2 103	2 199
	growth in %	-2.5	6.4	11.7	10.2	-3.3	4.7	16.7	9.8	3.4	4.5
Change in stocks and valuables	*bill. CZK*	52	74	49	31	-22	257	377	322	283	251
External balance	*bill. CZK*	**366**	**384**	**321**	**347**	**385**	**181**	**-70**	**-45**	**76**	**132**
Exports of goods and services	*bill. CZK*	3 795	4 039	4 163	4 279	3 993	4 443	4 897	5 340	5 755	6 051
	growth in %	1.8	6.4	3.1	2.8	-6.7	11.3	10.2	9.1	7.8	5.2
Imports of goods and services	*bill. CZK*	3 429	3 654	3 842	3 932	3 608	4 262	4 967	5 385	5 678	5 919
	growth in %	-0.7	6.6	5.1	2.3	-8.2	18.1	16.5	8.4	5.4	4.2
Gross national income	*bill. CZK*	**4 473**	**4 821**	**5 114**	**5 441**	**5 424**	**5 835**	**6 508**	**7 046**	**7 502**	**7 873**
	growth in %	3.8	7.8	6.1	6.4	-0.3	7.6	11.5	8.3	6.5	4.9
Primary income balance	*bill. CZK*	**-324**	**-289**	**-297**	**-350**	**-285**	**-273**	**-291**	**-310**	**-314**	**-328**

[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

		2021				2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
							Estimate	*Forecast*	*Forecast*
Gross domestic product	*bill. CZK*	**1 384**	**1 537**	**1 577**	**1 611**	**1 541**	**1 727**	**1 754**	**1 777**
	growth in %	1.0	13.8	7.7	5.7	11.3	12.3	11.3	10.3
Private consumption expenditure [1]	*bill. CZK*	**610**	**697**	**727**	**737**	**736**	**823**	**834**	**861**
	growth in %	-5.2	11.7	8.3	13.4	20.7	18.1	14.7	16.9
Government consumption exp.	*bill. CZK*	**286**	**316**	**326**	**386**	**305**	**322**	**347**	**412**
	growth in %	2.0	8.8	10.5	2.2	6.9	2.0	6.5	6.8
Gross capital formation	*bill. CZK*	**374**	**451**	**526**	**492**	**465**	**581**	**615**	**567**
	growth in %	8.3	18.8	34.8	30.4	24.2	28.6	17.0	15.3
Gross fixed capital formation	*bill. CZK*	332	389	410	456	387	459	479	527
	growth in %	-1.1	6.6	6.0	6.3	16.7	18.1	16.9	15.5
Change in stocks and valuables	*bill. CZK*	43	62	116	36	78	121	136	41
External balance	*bill. CZK*	**114**	**73**	**-2**	**-4**	**34**	**1**	**-42**	**-63**
Exports of goods and services	*bill. CZK*	1 096	1 153	1 035	1 159	1 178	1 258	1 176	1 284
	growth in %	6.9	37.2	4.5	2.0	7.4	9.2	13.7	10.8
Imports of goods and services	*bill. CZK*	982	1 080	1 037	1 163	1 143	1 258	1 219	1 347
	growth in %	6.2	37.7	17.5	14.4	16.4	16.4	17.5	15.8

[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

		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
								Forecast	*Forecast*	*Outlook*	*Outlook*
GDP	*bill. CZK*	**4 797**	**5 111**	**5 411**	**5 791**	**5 709**	**6 108**	**6 799**	**7 356**	**7 816**	**8 201**
	growth in %	3.7	6.5	5.9	7.0	-1.4	7.0	11.3	8.2	6.3	4.9
Balance of taxes and subsidies	*bill. CZK*	**454**	**493**	**504**	**534**	**449**	**477**	**590**	**620**	**718**	**747**
	% of GDP	9.5	9.7	9.3	9.2	7.9	7.8	8.7	8.4	9.2	9.1
	growth in %	4.8	8.6	2.2	6.0	-16.0	6.2	23.8	5.0	15.9	4.1
Taxes on production and imports	*bill. CZK*	595	635	656	696	660	713	.	.	.	.
	growth in %	4.4	6.6	3.3	6.2	-5.3	8.1	.	.	.	.
Subsidies on production	*bill. CZK*	141	142	152	162	211	236	.	.	.	.
	growth in %	3.2	0.4	7.2	6.7	30.3	12.0	.	.	.	.
Compensation of employees	*bill. CZK*	**2 003**	**2 185**	**2 399**	**2 586**	**2 625**	**2 786**	**3 014**	**3 249**	**3 433**	**3 577**
(domestic concept)	*% of GDP*	41.7	42.8	44.3	44.6	46.0	45.6	44.3	44.2	43.9	43.6
	growth in %	5.9	9.1	9.8	7.8	1.5	6.1	8.2	7.8	5.7	4.2
Wages and salaries	*bill. CZK*	1 538	1 680	1 842	1 986	1 989	2 105	2 312	2 495	2 637	2 747
	growth in %	5.7	9.2	9.6	7.8	0.1	5.8	9.8	7.9	5.7	4.2
Social security contributions	*bill. CZK*	464	505	557	599	636	681	702	754	797	830
	growth in %	6.4	8.7	10.3	7.6	6.2	7.0	3.2	7.3	5.7	4.2
Gross operating surplus	*bill. CZK*	**2 340**	**2 432**	**2 507**	**2 671**	**2 635**	**2 846**	**3 195**	**3 487**	**3 665**	**3 877**
	% of GDP	48.8	47.6	46.3	46.1	46.2	46.6	47.0	47.4	46.9	47.3
	growth in %	1.7	4.0	3.1	6.5	-1.4	8.0	12.2	9.2	5.1	5.8
Consumption of capital	*bill. CZK*	988	1 022	1 074	1 153	1 229	1 303	1 414	1 510	1 617	1 747
	growth in %	3.2	3.5	5.0	7.4	6.5	6.0	8.5	6.8	7.1	8.0
Net operating surplus	*bill. CZK*	1 352	1 410	1 434	1 518	1 406	1 543	1 781	1 977	2 047	2 130
	growth in %	0.6	4.3	1.7	5.9	-7.4	9.8	15.4	11.0	3.5	4.0

Source: CZSO. Calculations and forecast of the MoF.

Table 3.1.6: GDP by Type of Income – quarterly

		2021				2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
							Estimate	*Forecast*	*Forecast*
GDP	*bill. CZK*	**1 384**	**1 537**	**1 577**	**1 611**	**1 541**	**1 727**	**1 754**	**1 777**
	growth in %	1.0	13.8	7.7	5.7	11.3	12.3	11.3	10.3
Balance of taxes and subsidies	*bill. CZK*	**72**	**117**	**147**	**141**	**125**	**166**	**170**	**129**
	growth in %	-28.6	6.8	10.2	33.7	73.6	42.8	15.6	-8.7
Compensation of employees	*bill. CZK*	**640**	**699**	**697**	**750**	**703**	**735**	**757**	**820**
(domestic concept)	*growth in %*	-1.4	12.2	8.3	5.6	9.9	5.2	8.5	9.3
Wages and salaries	*bill. CZK*	480	526	530	569	537	565	581	630
	growth in %	-2.3	13.2	6.7	6.1	11.9	7.3	9.7	10.6
Social security contributions	*bill. CZK*	160	172	168	181	166	171	176	190
	growth in %	1.4	9.3	13.8	4.2	4.0	-1.1	4.6	5.1
Gross operating surplus	*bill. CZK*	**672**	**722**	**732**	**719**	**713**	**825**	**828**	**829**
	growth in %	8.4	16.7	6.6	1.5	6.0	14.3	13.0	15.2

Source: CZSO. Calculations and forecast of the MoF.

3.2 Prices

The **consumer price index** increased by 17.5% YoY (*vs. 13.0%*) in July 2022. The unexpectedly steep rise in all market components of inflation, mainly food and non-alcoholic beverages but also fuels, contributed to the forecast error. In terms of the consumer basket divisions, the main driver of the July annual inflation was the housing division (6.0 pp contribution), mainly because the price of electricity increased by 33.6%, natural gas by 59.8%, heat and hot water by 19.2% and imputed rent (owner-occupied housing costs) by 19.3%. The food and non-alcoholic beverages division (3.4 pp), especially bakery and dairy products, meat and oils and fats, and the transport division (2.4 pp), where fuel prices rose rapidly, also contributed significantly. Administrative measures added 3.3 pp to inflation, of which administered prices accounted for 3.2 pp and changes in indirect taxes for 0.1 pp. The increase in administered prices was driven mainly by energy prices, but also by higher prices in healthcare, transportation or food services. The contribution of tax changes was positive due to the January increase in excise duty on tobacco products; however, the temporary reduction in excise duty on fuel effective from June 2022 slightly reduced annual inflation.

The deviation between actual and forecasted inflation is one of the reasons for the increase in the forecast for the average inflation rate not only this year but also next year. Heightened and persistent uncertainty about gas supplies from Russia has further increased energy prices in this year and the next. The slump in Ukrainian food commodity exports, combined with high energy prices, has led to a larger-than-expected increase in food prices. Initially predominantly supply-side inflationary pressures have fully permeated all areas of the economy, leading to higher inflation expectations.

Monetary restriction implemented through interest rate hikes will have a real effect with at least a one-year lag. It should therefore take full effect during the next year. Since March 2022, the CNB has also been active on the foreign exchange market, intervening to dampen excessive exchange rate fluctuations and depreciation pressures on the koruna, which would otherwise be inflationary.

The expected anti-inflationary fiscal restriction is severely constrained by the support of a wide range of households and firms, as well as the costs of coping with the immigration wave and securing energy resources. Some of the measures are highly inflationary, such as extraordinary automatic pension indexations (see Chapter 1.3).

Some uncertainty in the forecast is caused by the approved framework of support with energy prices (energy tariff, renewable energy fee waiver and others), which is to be effective from October 2022. However, the lack of precise parameters (mechanism and specific amount of support per household) as well as methodological treatment within consumer price statistics complicates the analysis. In line with the planned support horizon, the primary impact on consumer energy prices should last 12 months. Thus, they should increase again in October 2023. Based on our calculations, the support framework aiming for direct price decreases for households should reduce the contribution of administrative measures to the average inflation rate by 0.3 pp in 2022 and by 0.6 pp in 2023.

Inflation will increase significantly **in 2022** compared to the previous year. Administrative measures are likely to contribute to the average inflation rate by 3.1 pp (*unchanged*). Within this framework, administered prices, especially energy prices, remain the dominant factor. Electricity and gas prices have been rising since the beginning of the year and are expected to continue to do so for the rest of the year. The large increase in energy futures prices for both the H2 2022 and especially for 2023 will be reflected in consumer prices gradually and with a delay. According to our estimates, without the energy prices support package, consumer electricity prices this year would increase by 40% (*vs. 41%*) compared to last year and gas prices by 62% (*vs. 57%*). With the inclusion of the support package, we expect the increase in electricity prices to be 12 pp lower.

The slightly positive contribution of the change in indirect taxes reflects a further increase in excise duty on tobacco products. From June to September 2022, excise duty on petrol and diesel was reduced by CZK 1.5 per litre, a measure that had a small impact in the direction of lower inflation.

Inflation this year is predominantly determined by market factors. On the supply side, they reflect high prices of energy, food, oil and some materials (lithium, zinc, titanium) resulting from supply frictions and considerable global uncertainty. Costs for firms are rising, largely due to high import prices for energy and industrial inputs, but rapidly rising unit labour costs are also playing a role, with significantly higher inflation expectations already being priced in.

The expected anti-inflationary appreciation of the koruna against the euro is occurring to a lesser extent. Conversely, the sharp depreciation of the currency against the dollar presents an additional inflationary factor through an increase in import prices, especially of oil and electronics.

The effect of the economy's position in the business cycle on inflation should be slightly anti-inflationary from the second half of the year onwards, mainly due to a reduction in household consumption as a result of a significant decline in real incomes. The tight labour market is increasing upward pressures on nominal wages and is thus inflationary.

Annual inflation should be close to 20% at the end of the year. We expect the **average inflation rate** to reach 16.2% (*vs. 12.3%*) **in 2022**.

The lower forecast for the average inflation rate in 2022 as measured by the HICP compared with the national CPI (see Tables 3.2.1 and 3.2.2) is due to the rapid growth in imputed rents, which are not included in the HICP.

About 77% of imputed rents is made up of the cost of increasing the owners' housing stock, which includes the market price of new apartments and houses, the cost of individual construction, as well as renovations and rebuilding. Prices of new flats in the Czech Republic increased by 24.7% YoY in Q2 2022, with 19.7% in Prague and 30.6% outside Prague. Realised prices of older flats rose by 27.3% YoY in Q1 2022, with 19.0% in Prague and 29.7% in the rest of the country. In contrast to apartment prices, rents grew by only 4.6% YoY, but a steeper rise can be expected in the coming quarters due to the decreasing affordability of owner-occupied housing (see Graph 3.2.8) and increased demand from Ukrainian refugees.

A period of elevated inflation will continue in **2023**. Inflationary pressures will be driven mainly by market factors, but continued energy price increases will also make a significant contribution.

The contribution of administered prices to the average inflation rate should be highly positive, mainly due to energy price increases. In 2023, without the energy prices support package, electricity prices would rise by 32% on average (24 pp less with the inclusion of the package) and gas prices by 43%. The gradual pass-through of high wholesale electricity and gas prices and the current high forward prices for 2023 should be fully reflected mainly in the first half of the year, but we expect continued price increases throughout the rest of the year, largely due to the fixed prices contracts ending for some consumers. As part of the changes to indirect taxes, we expect an increase in excise duties on tobacco products. Overall, the contribution of administrative measures to the average inflation rate in 2023 should be 1.9 pp (*vs. 1.1 pp*).

Problems in the supply of production inputs should persist to some extent for a large part of the year, which may hamper the decline in input prices. Growth in unit labour costs should continue, but real wages should fall further. Given the decline in living standards due to high inflation, upward pressures on wages can be expected to increase gradually (see Section 3.3).

The oil price should be anti-inflationary in 2023. However, given the sanctions on imports of Russian oil products and reduced global refinery capacity due to the coronavirus pandemic, lower oil prices will not necessarily lead to a more significant decline in gasoline and diesel prices. The effect of the exchange rate of the koruna against major world currencies should be rather neutral.

Inflation in 2023 should already be partly dampened by the transmission mechanism of higher monetary policy rates. The risk to the CNB's monetary policy is mainly the threat of inflation expectations becoming unanchored from the inflation target and a loss of credibility, the implications of which for inflation in the coming years would be highly inflationary.

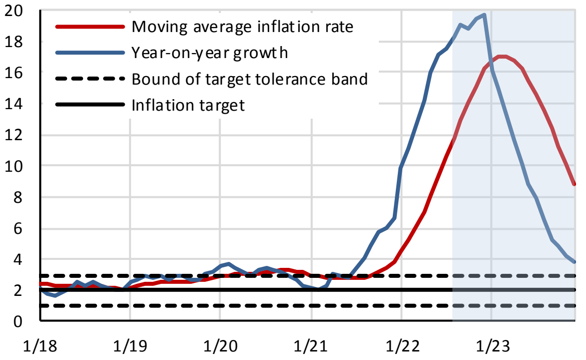
In line with the above, we expect the **average inflation rate** to reach 8.8% (*vs. 4.4%*) **in 2023**. We consider the risks to the inflation forecast to be skewed to the upside, mainly due to the threat of a halt in Russian gas imports to the EU, which would have a significant impact on energy prices.

GDP deflator increased by 5.9% (*vs. 6.2%*) in Q1 2022, amid a 9.5% (*vs. 8.1%*) increase in the gross domestic expenditure deflator and a 4.4% (*vs. 2.3%*) deterioration in terms of trade. The evolution of the gross domestic expenditure deflator mainly reflected consumer price inflation, but also prices of investment products and growth in the general government consumption deflator. The weaker terms of trade performance was mainly due to high import prices of minerals and production inputs.

In 2022, GDP deflator could increase by 8.9% (*vs. 6.9%*). The strong growth in dynamics against 2021 will be due to the acceleration of the gross domestic expenditure deflator, but the deterioration in terms of trade will work in the opposite direction. Within domestic demand, the main factor will be the growth of the household consumption deflator. GDP deflator growth could slow to 7.0% (*vs. 4.1%*) in 2023, mainly due to lower dynamics of the household consumption deflator (see Graph 3.2.5).

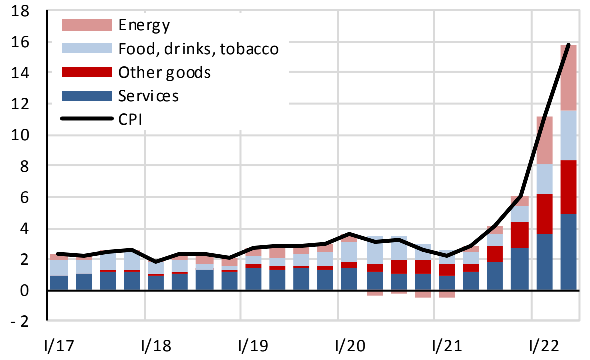
Export and import prices will be strongly affected in 2022 not only by the increase in the prices of energy and other production inputs, but also by the depreciation of the effective exchange rate. As a result, the terms of trade could deteriorate by 4.0% (vs. *1.9%*). In 2023, the trend should continue, leading to a 0.6% decline (*vs. a 0.1% improvement*). This should be mainly due to the rise in the oil price in koruna terms at the end of 2022 and the increase in the prices of other production inputs.

Graph 3.2.1: Consumer Prices
YoY growth rate in %



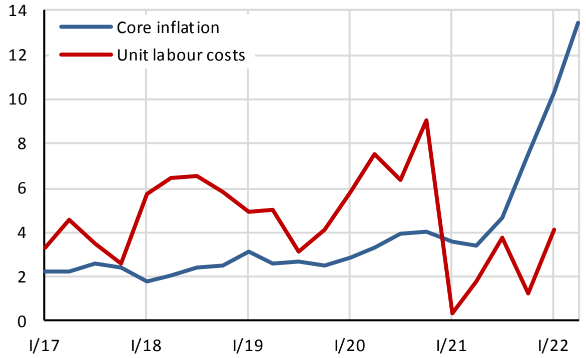
Source: CNB, CZSO. Calculations and forecast of the MoF.

Graph 3.2.2: Consumer Prices in Main Divisions
YoY growth of consumer price index in %, contributions in pp



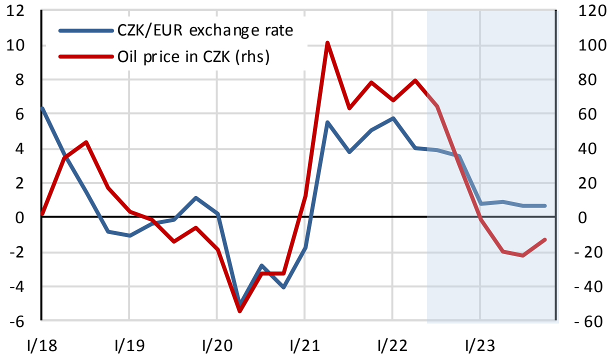
Source: CZSO. Calculations of the MoF.

Graph 3.2.3: Core Inflation and Unit Labour Costs
YoY growth rate in %



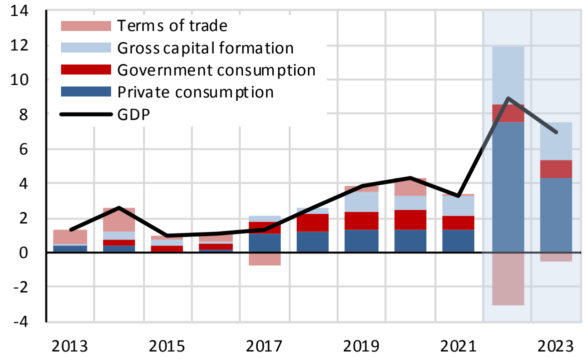
Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.4: CZK/EUR and Koruna Price of Oil
CZK/EUR appreciation, YoY change in CZK price of oil, in %



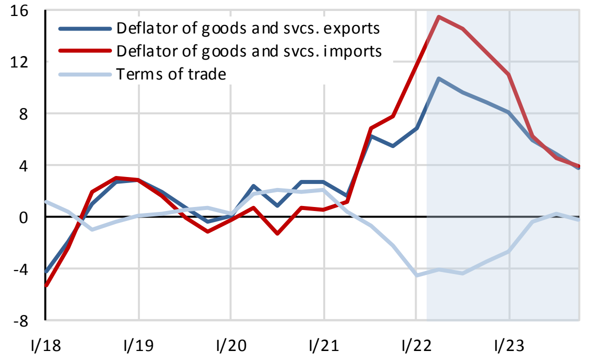
Source: CNB, U.S. EIA. Calculations and forecast of the MoF.

Graph 3.2.5: Gross Domestic Product Deflator
growth rate in %, contributions in percentage points



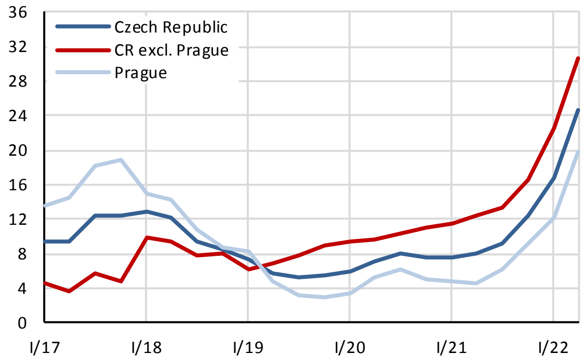
Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.6: Terms of Trade
YoY growth rate in %



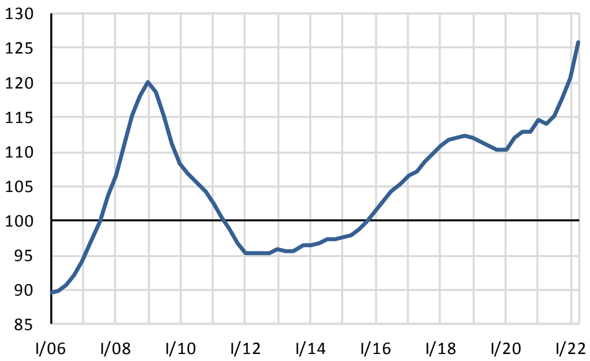
Source: CZSO. Calculations and forecast of the MoF.

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

		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
								Forecast	*Forecast*	*Outlook*	*Outlook*
Consumer Price Index											
Level	*average 2015=100*	**100.7**	**103.1**	**105.3**	**108.3**	**111.8**	**116.1**	**134.9**	**146.7**	**151.2**	**154.7**
Average inflation rate	*%*	**0.7**	**2.5**	**2.1**	**2.8**	**3.2**	**3.8**	**16.2**	**8.8**	**3.1**	**2.3**
Administrative measures [1)]	*percentage points*	0.2	-0.1	0.3	0.6	0.5	0.0	3.1	1.9	1.3	0.2
Market increase	*percentage points*	0.5	2.6	1.8	2.2	2.7	3.8	13.1	6.9	1.8	2.1
Harmonized index of consumer prices											
Level	*average 2015=100*	**100.7**	**103.1**	**105.1**	**107.8**	**111.4**	**115.1**	**132.9**	**144.6**	**149.0**	**152.4**
Average inflation rate	*growth in %*	**0.6**	**2.4**	**2.0**	**2.6**	**3.3**	**3.3**	**15.5**	**8.8**	**3.1**	**2.3**
Deflators											
GDP	*average 2015=100*	**101.1**	**102.5**	**105.1**	**109.2**	**113.9**	**117.7**	**128.1**	**137.1**	**141.5**	**144.9**
	growth in %	1.1	1.3	2.6	3.9	4.3	3.3	8.9	7.0	3.2	2.4
Gross domestic expenditure	*average 2015=100*	**100.6**	**102.9**	**105.8**	**109.7**	**113.4**	**117.3**	**131.5**	**141.4**	**145.6**	**148.8**
	growth in %	0.6	2.3	2.8	3.7	3.4	3.4	12.1	7.5	3.0	2.2
Consumption of households	*average 2015=100*	**100.4**	**102.7**	**105.3**	**108.3**	**111.4**	**114.6**	**134.0**	**146.0**	**150.5**	**154.0**
	growth in %	0.4	2.3	2.5	2.8	2.9	2.9	16.9	9.0	3.1	2.3
Consumption of government	*average 2015=100*	**101.4**	**105.0**	**110.6**	**116.6**	**122.6**	**127.6**	**133.6**	**141.0**	**144.6**	**147.2**
	growth in %	1.4	3.5	5.4	5.4	5.2	4.1	4.7	5.6	2.6	1.8
Fixed capital formation	*average 2015=100*	**100.5**	**102.0**	**103.6**	**107.7**	**110.8**	**115.2**	**126.7**	**134.6**	**138.8**	**142.0**
	growth in %	0.5	1.5	1.6	4.0	2.9	3.9	10.0	6.2	3.1	2.4
Exports of goods and services	*average 2015=100*	**97.6**	**96.9**	**96.3**	**97.5**	**99.0**	**103.0**	**112.4**	**118.8**	**122.4**	**125.2**
	growth in %	-2.4	-0.7	-0.6	1.3	1.5	4.1	9.1	5.7	3.0	2.3
Imports of goods and services	*average 2015=100*	**96.6**	**96.9**	**96.3**	**97.1**	**97.0**	**101.1**	**114.9**	**122.2**	**125.6**	**128.1**
	growth in %	-3.4	0.3	-0.6	0.8	0.0	4.2	13.7	6.3	2.8	2.0
Terms of trade	*average 2015=100*	**101.0**	**100.0**	**100.0**	**100.5**	**102.0**	**101.9**	**97.8**	**97.2**	**97.4**	**97.7**
	growth in %	1.0	-1.0	0.0	0.5	1.5	-0.1	-4.0	-0.6	0.3	0.3

[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

		2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2 *Estimate*	2022 Q3 *Forecast*	2022 Q4 *Forecast*
Consumer Price Index	*average 2015=100*	**113.6**	**114.7**	**117.0**	**118.9**	**126.4**	**132.8**	**138.4**	**141.9**
	growth in %	2.2	2.9	4.1	6.1	11.2	15.8	18.3	19.3
Of which the contribution of:									
Administrative measures [1)]	*percentage points*	0.0	0.1	0.1	-0.2	2.2	3.1	3.6	3.8
Market increase	*percentage points*	2.2	2.8	4.0	6.3	9.0	12.7	14.7	15.6
Harmonized index of consumer prices	*average 2015=100*	**113.1**	**114.2**	**115.7**	**117.2**	**124.7**	**131.4**	**136.3**	**139.4**
	growth in %	2.2	2.8	3.3	5.0	10.2	15.0	17.8	19.0
Deflators									
GDP	*average 2015=100*	**115.2**	**117.5**	**118.6**	**119.2**	**122.0**	**127.3**	**130.7**	**132.2**
	growth in %	3.4	3.9	4.1	2.0	5.9	8.3	10.2	10.9
Gross domestic expenditure	*average 2015=100*	**113.7**	**116.5**	**118.4**	**120.0**	**124.5**	**129.9**	**134.5**	**136.5**
	growth in %	1.8	3.6	4.3	3.5	9.5	11.5	13.5	13.8
Consumption of households	*average 2015=100*	**112.2**	**113.9**	**115.5**	**116.7**	**125.9**	**132.7**	**137.2**	**139.7**
	growth in %	1.0	2.2	3.4	4.6	12.2	16.5	18.9	19.8
Consumption of government	*average 2015=100*	**119.9**	**128.7**	**127.8**	**132.7**	**125.4**	**130.1**	**135.8**	**141.4**
	growth in %	2.4	8.4	4.8	1.4	4.6	1.1	6.3	6.5
Fixed capital formation	*average 2015=100*	**112.3**	**113.0**	**116.3**	**118.4**	**121.2**	**125.1**	**128.6**	**130.8**
	growth in %	2.7	2.3	4.5	5.8	8.0	10.7	10.6	10.5
Exports of goods and services	*average 2015=100*	**100.4**	**102.0**	**104.6**	**105.3**	**107.4**	**113.0**	**114.7**	**114.6**
	growth in %	2.8	1.7	6.3	5.5	6.9	10.8	9.6	8.9
Imports of goods and services	*average 2015=100*	**97.3**	**99.3**	**102.9**	**104.8**	**108.8**	**114.6**	**118.0**	**118.1**
	growth in %	0.6	1.3	7.0	7.8	11.8	15.5	14.6	12.7
Terms of trade	*average 2015=100*	**103.2**	**102.7**	**101.6**	**100.4**	**98.7**	**98.6**	**97.2**	**97.1**
	growth in %	2.1	0.4	-0.6	-2.1	-4.4	-4.0	-4.4	-3.4

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

3.3 Labour Market

Following the 2021 Census, new demographic weights were applied in the LFS statistics starting in Q1 2022. As a result, the numbers of employed, unemployed and economically inactive persons have decreased significantly year-on-year. Thus, there is a break in the time series and the data are therefore not comparable. However, relative indicators (e.g. unemployment rate) were not affected by this change.

When converted to the same population structure, employment according to the LFS increased by 2.4% YoY in Q2 2022 (*vs. 1.7%*). The number of employees increased by 2.3% (*vs 1.8%*) and the total number of entrepreneurs rose by 3.1% (*vs. 1.5%*). The number of self-employed persons was higher by 4.1% YoY. The number of employers fell by 4.3%, while the number of contributing family members rose by 22.8% (these indicators are highly volatile, though).

According to the Ministry of Labour and Social Affairs' data on job vacancies, a shortage of employees was evident in most sectors and regions even in the middle of this year. In June, more vacancies than registered unemployed were reported in 43 districts and 9 regions, respectively. However, far from all vacancies registered by the labour offices can be considered active. Of the job vacancies offered on the websites of labour offices, around 41% were active at the forecast cut-off date (job offers with last changed after 1 February 2022 and start date on or after 1 May 2022). According to the experimental statistics of the CZSO, the number of vacancies in Q1 2022 increased by 18.8% YoY to almost 94,000, which was only 26% of the total number of vacancies according to the statistics of the MoLSA. According to the CZSO's business cycle survey, the lack of employees remains the main barrier to the growth of production in the construction sector and is not negligible in other sectors as well.

Demand for foreign workers remains very strong. According to data from the MoLSA, the number of such workers increased by 86,000 year-on-year to 768,000 in June. Workers from Slovakia and Ukraine have long been predominant, with the increase in the number of Ukrainian workers accelerating significantly.

For methodological reasons, the arrival of refugees from Ukraine will be captured in the number of economically active persons (either employed or unemployed) within the LFS only marginally. 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 be significantly underestimated compared to reality.

Employment should still increase slightly quarter-on-quarter this year, but for the whole of 2022 it should fall by 0.7% (*vs. growth of 1.2%*) due to the application of the new demographic weights (see above). In 2023, employment could rise by 0.2% (*unchanged*).

The unemployment rate (LFS) averaged 2.4% in the first half of 2021 (*vs. 2.5%*). The high number of job vacancies and employed foreigners limit the scope for a possible significant increase in unemployment. The unemployment rate could average 2.5% (*unchanged*) in 2022, and we forecast a slight increase to 2.6% (*unchanged*) next year. In addition to the lagged effects of the recession in the second half of this year, the arrival of refugees from Ukraine could also have a marginal impact on unemployment.

The share of unemployed persons (MoLSA) in the labour office registers has been slightly decreasing year-on-year since the middle of last year. In 2022, it could fall to 3.4% (*vs. 3.3%*) on average and rise slightly to 3.5% (*vs. 3.3%*) next year as economic growth slows down. Here too, the change in the population after the 2021 Census is partly visible (the share of unemployed persons has statistically increased due to the lower denominator). The still unclear legislative capture of new jobseekers from Ukraine may also have a difficult-to-predict effect on the number of unemployed in this methodology.

The participation rate (20–64 years), which rose to 82.8% (*vs. 82.2%*) in Q1 2022, could reach 82.9% (*vs. 81.4%*) on average for the whole of 2022. It could then fall to 81.4% (*vs. 81.2%*) next year. Over the forecast horizon, the increase in the statutory retirement age and demographic aspects in the form of a growing share of age groups with a naturally high economic activity rate (especially 45–54 years) will play a dominant role. An influx of refugees from Ukraine, whose labour market participation rate could, at least initially, lag behind the current level of participation, could have a negative impact.

The **volume of wages and salaries** increased by 11.9% (*vs. 6.4%*) in Q1 2022, mainly driven by a more than one-quarter increase in earnings in trade, transportation, accommodation and food services (with a contribution of 4.7 pp), which is likely to have reflected more moderate restrictive measures (in the year-on-year comparison). Public administration, defence, education, health and social care recorded the lowest growth (4.8%). In the most macroeconomically important sector – manufacturing – wages and salaries increased by 8.4%, with 0.8% increase in the number of employees.

We estimate that wages and salaries grew by 7.3% (*vs. 3.6%*) in Q2 2022. The dynamism was likely supported by persistent labour market frictions, but the high base effect (particularly in health and social care, high bonuses were paid in Q2 2021) worked in the opposite direction. Over the forecast horizon, the arrival of refugees from Ukraine is an important factor, which should be reflected through an increase in the number of employees (in the national accounts methodology), thus supporting the dynamics of wage and salary volume. In the same direction, the minimum and guaranteed wage were increased by 6.6% from January 2022. In the public sector, pay scales of some employees should be increased from 1 September 2022, while earnings of the members of security forces should be raised from 1 January 2023. These adjustments will thus be reflected in the annual rate especially next year. Increased inflation expectations, together with renewed staff shortages, are likely to translate into strong wage increases. Earnings dynamics should thus be driven by the private sector. On the other hand, the scope for wage increases is very limited in the case of companies most exposed to rising input prices (especially energy). In aggregate, wages and salaries could increase by 9.8% (*vs. 6.0%*) this year, while in 2023 the pace could slow to 7.9% (*vs. 6.2%*).

The average wage (business statistics, full-time equivalent) increased by 7.2% (*vs. 5.4%*) in Q1 2022. The persistently high number of job vacancies should support average wage growth, but the immigration wave should slightly dampen the overall momentum. In 2021, the average wage of employees from Ukraine was about a quarter lower than the overall average, which can be partly explained by relatively higher employment in lower-paid sectors (according to our calculations, the sectoral structure explains about a third of the difference). In the case of new entrants, an even lower average wage can be expected given the need for adaptation and the possible mismatch between their qualification and the position taken. Thus, average wage could increase by 7.4% (*vs. 4.6%*) in 2022, while next year the growth rate could slow down to 6.5% (*vs. 4.4%*).

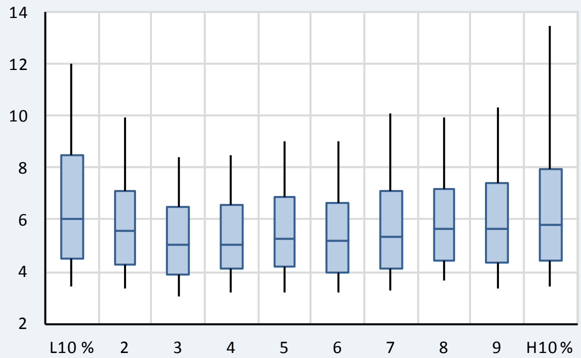
Box 2: Household Expenditure on Housing and Energy

Expenditure on housing and energy is by far the most significant part of household consumption[7] – over 28% in 2021. Almost 55% of expenditure in this section is accounted for by imputed rent, though. Even after its exclusion, however, housing and energy represent a significant item (13%) of total household consumption expenditure. The sharp price increases in this section, mainly due to higher electricity and gas prices (see Chapter 3.2 for more details), are likely to lead many households to reduce spending on other goods and services. Even so, some of them may still face serious financial problems.

The financial situation of individual households and their vulnerability to exceptionally strong increases in energy prices, or housing costs, will of course vary. Information on the economic situation of different types of households, their incomes, housing costs, etc. is collected by the CZSO in the *Living Conditions* survey. The latest available data presented in this box come from the survey[8] conducted in H1 2021, which mapped the situation of households at that time and their income in 2020.

Graph 1: Monthly Housing Costs

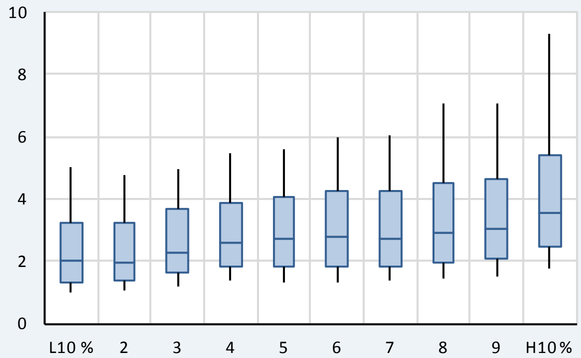
CZK thousand



Source: CZSO. Calculations of the MoF.

Graph 2: Monthly Housing Costs

CZK thousand per person



Source: CZSO. Calculations of the MoF.

In 2021, the average household paid CZK 6,176 per month for housing[9], which represented 14.4% of its net money income. Within these expenditures, the most significant items were electricity (27.3%) and rent (26.0%). Meanwhile, across the income distribution bands (according to the decile distribution of net money income per person), average monthly housing costs ranged from CZK 5,435 (third 10%) to CZK 7,178 (top 10%). However, these figures mask considerable variability[10] in expenditures within individual income bands (see Graph 1). At the same time, one should take into account that the average number of household members decreases with income, and economies of scale are also apparent (marginal costs associated with additional house-

[7] Household final consumption expenditure, national concept, current prices, national accounts methodology.

[8] CZSO (2022): Household Income and Living Conditions – 2021. Prague, Czech Statistical Office, 20 January 2022 [accessed on 9 August 2022], <https://www.czso.cz/csu/czso/household-income-and-living-conditions-6yp06pfzwa>.

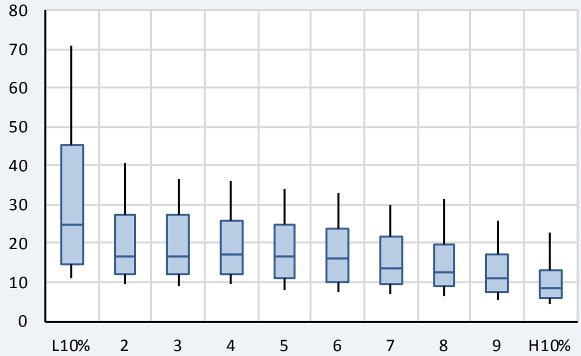
[9] Rent (imputed rent not included), electricity, gas, hot water and heat energy, water supply and sanitation, other utilities, solid and liquid fuels.

[10] Graphs 1–6 describe the distribution of the variable in each decile band of the income distribution. The middle "box" part of the diagram is bounded by the 1st quartile at the bottom and the 3rd quartile at the top, with the median line between them. The ends of the vertical black lines, called whiskers, then correspond to the 1st and 9th deciles. Graph 1 shows, for example, that one tenth of households in the bottom 10% of the income distribution (column L10%) have monthly housing costs exceeding CZK 12,000 (9th decile), but half of the poorest households pay less than CZK 6,000 for housing per month (median).

hold members are decreasing). Thus, per capita housing costs clearly increase with income (see Graph 2). However, in relation to the level of net money income of the household, the relationship is reversed, with relative housing costs falling as income rises (see Graph 3).

Graph 3: Monthly Housing Costs

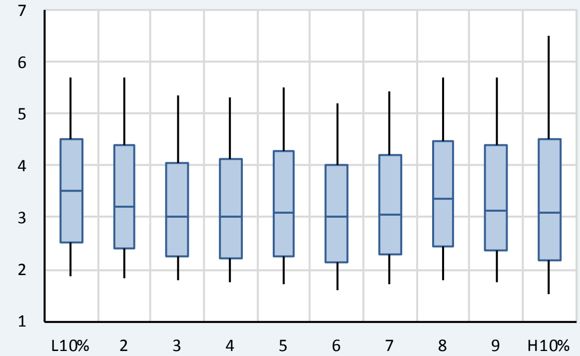
in % of net money income



Source: CZSO. Calculations of the MoF.

Graph 4: Monthly Energy Costs

CZK thousand

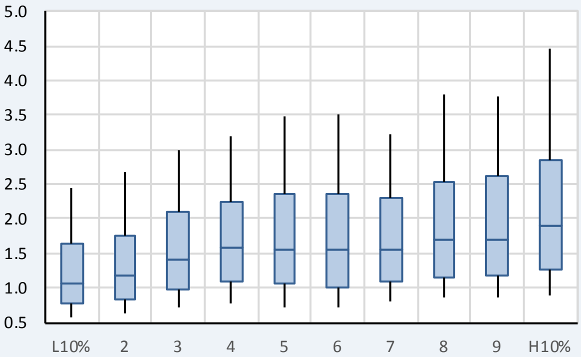


Source: CZSO. Calculations of the MoF.

The situation is similar for energy expenditure[11] (see Graphs 4–6). The average monthly household energy cost in 2021 was CZK 3,474, equivalent to 8.1% of net money income. The average energy costs did not differ much across income decile bands (the difference from the overall average was less than CZK 240), although even in this case the costs of individual households show a relatively high variability.

Graph 5: Monthly Energy Costs

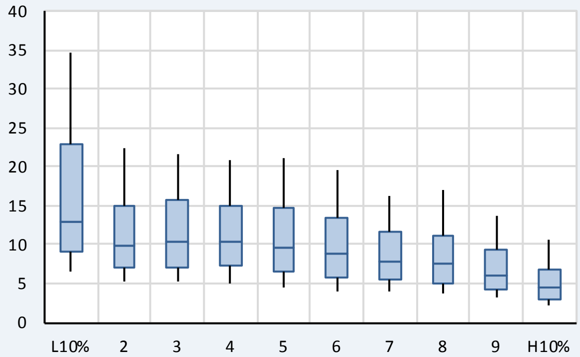
CZK thousand per person



Source: CZSO. Calculations of the MoF.

Graph 6: Monthly Energy Costs

in % of net money income



Source: CZSO. Calculations of the MoF.

In 2021, housing expenditures of 579 thousand households (12.9% of the total 4.496 million households) exceeded one third of their net money income. In almost 42% of cases, these were households of pensioners[12], and less than a third were employee households. The share of households with high relative housing costs declines with income (see Graph 7). While in the bottom tenth of the income distribution it was 38%, in the top fifth it was only around 5%. Unemployed households were also significantly represented among the poorest households (classified under *Other* in the graphs).

From a regional perspective (see Graph 8), the share of households with high relative housing costs was lowest in the Zlín (7.2%) and Vysočina (7.5%) regions, and highest in the structurally affected regions – i.e. in the Karlovy Vary (14.6%), Moravian-Silesian (16.4%) and Ústí nad Labem (16.6%) regions – and in Prague (22.9%), which can be explained by higher share of rental housing.

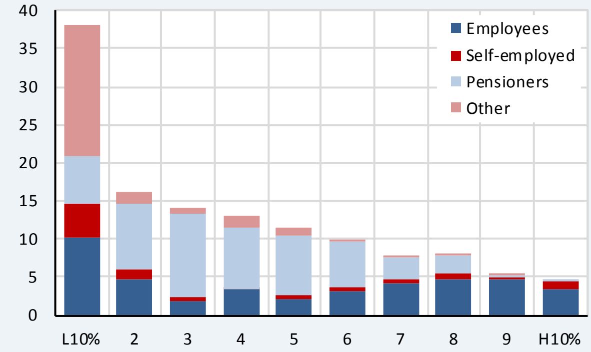
Energy costs exceeded 20% of net money income for 458 thousand households, i.e. 10.2% of all households. Half of them were pensioner households, while 24% were employee households. Similarly to housing costs, relative energy expenditures decrease with household income (see Graph 9).

The lowest share of households with high energy costs (see Graph 10) was recorded in the Plzeň (6.0%) and Zlín (7.6%) regions, while the highest share was recorded in Prague and the Moravian-Silesian region (both 12.3%). Especially in Prague, non-energy-related expenditure constitutes a significant part of the housing costs.

[11] Housing costs excluding rent, water supply, sanitation and other utilities.
[12] This is determined by the status of the head of household.

Graph 7: Households with High Relative Housing Costs

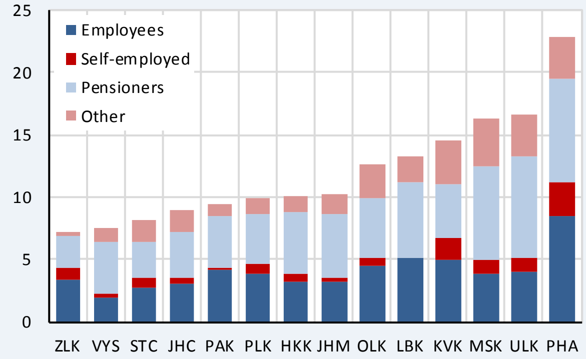
share of households in %



Source: CZSO. Calculations of the MoF.

Graph 8: Households with High Relative Housing Costs

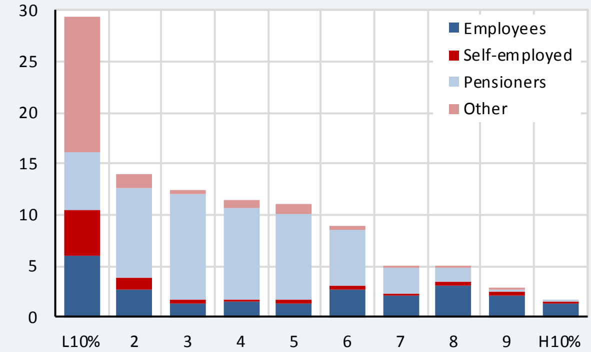
share of households in %



Source: CZSO. Calculations of the MoF.

Graph 9: Households with High Relative Energy Costs

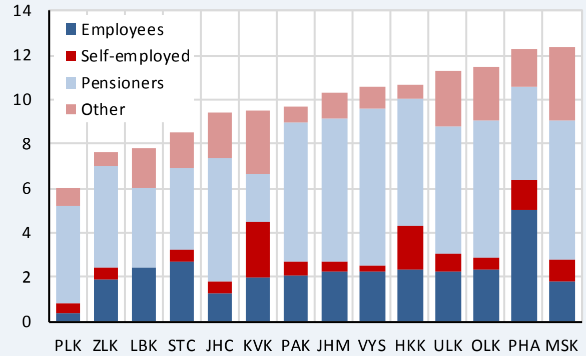
share of households in %



Source: CZSO. Calculations of the MoF.

Graph 10: Households with High Relative Energy Costs

share of households in %



Source: CZSO. Calculations of the MoF.

Households where (economically inactive) children live with only one parent are a specific group, very vulnerable to higher energy prices and housing costs. These households numbered almost 194 thousand in 2021, i.e. 4.3% of the total number of households. For 33% of them, housing expenses exceeded one third of their net money income, while 22% of lone parent households spent more than one fifth of their income on energy. Compared to the figures for all households (see above), these are both significantly higher. This is mainly due to the low level of income of lone parent households, with nearly 40% of them falling into the lowest tenth of the income distribution and 70% having incomes below the 3rd decile of the income distribution.

The strained financial situation of households whose housing costs exceed one-third of their net money income is also illustrated by the survey questions relating to the subjective perception of their own economic situation (the corresponding proportions for households whose housing costs do not exceed one-third of their net money income are given in parentheses below). Almost 38% (11%) of these households considered housing costs to be a heavy burden, while 6% (15%) of households did not consider them to be a burden at all. Almost 70% (34%) of households stated they found it difficult to make ends meet[13], while 30% (66%) said they were easily[14] able to make ends meet.

Thus, households with low to medium incomes or pensioner households are most at risk from rising housing/energy costs. However, pension increases should significantly help pensioner households with rising energy prices. Pensions have already been raised twice this year, from January and then in June. The next extraordinary indexation due to high inflation will take place from September. From 1 January 2023, the pensions will be increased again (regular indexation), but an extraordinary indexation is also likely. Pensions will also be increased by CZK 500 per month for each child raised (so-called “výchovné”).

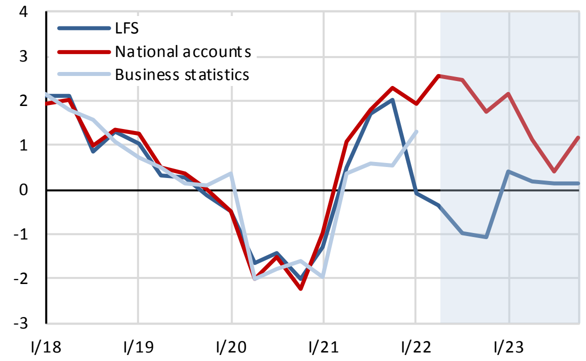
At the same time, however, it should be borne in mind that the above data from the *Living Conditions* survey refer to the first half of the previous year, so the share of households with high energy or housing costs is likely to increase significantly. However, the impact of the sharp rise in energy prices on households will not be fully captured until the 2023 income and living conditions survey.

[13] Answers *with great difficulty*, *with difficulty* and *with some difficulty*.

[14] Answers *fairly easily*, *easily*, and *very easily*.

Graph 3.3.1: Employees in Different Statistics

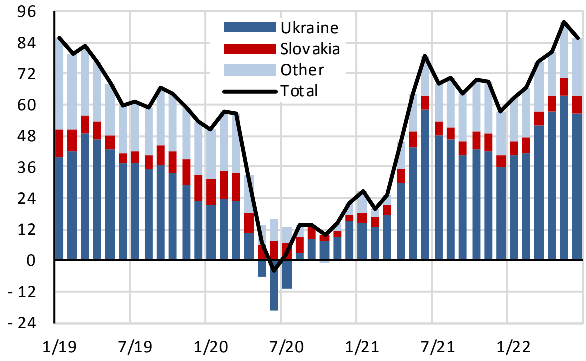
YoY growth rate in%



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.2: Number of Foreign Employees in the CR

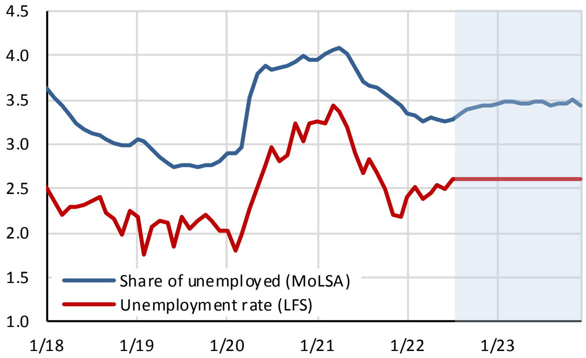
YoY change in thousands of persons



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.

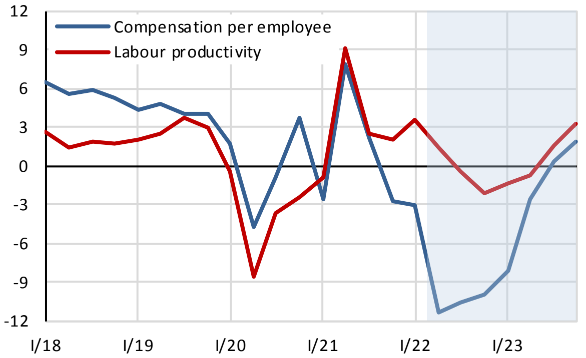
Graph 3.3.4: Social Security Contributions and Earnings

YoY growth rate in%

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

Graph 3.3.5: Compens. per Employee and Productivity

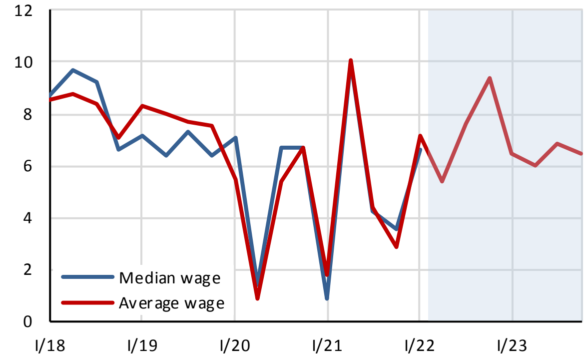
YoY growth rate in %



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.6: Nominal Monthly Wages

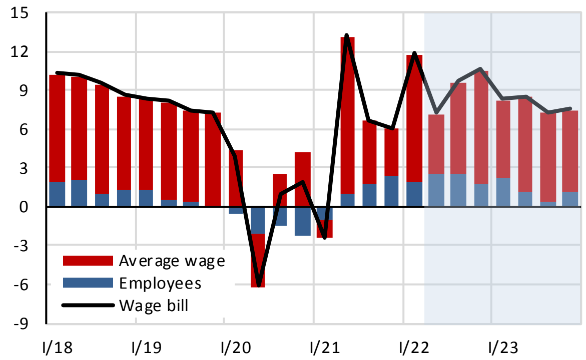
YoY growth rate in%



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.7: Nominal Wage Bill

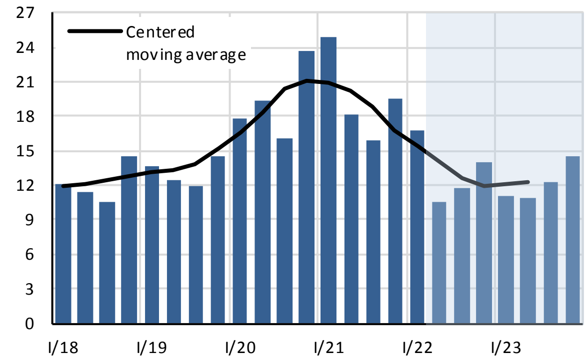
YoY growth rate in %, domestic concept of the wage bill



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

		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
								Forecast	*Forecast*	*Outlook*	*Outlook*
Labour Force Survey											
Employment	*av. in thous.persons*	**5 139**	**5 222**	**5 294**	**5 303**	**5 235**	**5 213**	**5 176**	**5 186**	**5 192**	**5 198**
	growth in %	1.9	1.6	1.4	0.2	-1.3	-0.4	-0.7	0.2	0.1	0.1
Employees	*av. in thous.persons*	4 257	4 327	4 396	4 412	4 351	4 383	4 355	4 365	4 370	4 375
	growth in %	2.1	1.7	1.6	0.4	-1.4	0.7	-0.6	0.2	0.1	0.1
Entrepreneurs and	*av. in thous.persons*	882	894	897	891	884	831	821	821	822	823
self-employed	*growth in %*	1.0	1.4	0.4	-0.8	-0.7	-6.0	-1.2	0.0	0.1	0.1
Unemployment	*av. in thous.persons*	**211**	**156**	**122**	**109**	**137**	**150**	**134**	**139**	**139**	**134**
Unemployment rate	*average in %*	**4.0**	**2.9**	**2.2**	**2.0**	**2.6**	**2.8**	**2.5**	**2.6**	**2.6**	**2.5**
Long-term unemployment [1)]	*av. in thous.persons*	**89**	**54**	**37**	**33**	**30**	**41**	**.**	**.**	**.**	**.**
Labour force	*av. in thous.persons*	**5 350**	**5 377**	**5 415**	**5 412**	**5 372**	**5 364**	**5 310**	**5 325**	**5 331**	**5 332**
	growth in %	0.8	0.5	0.7	-0.1	-0.7	-0.2	-1.0	0.3	0.1	0.0
Population aged 20–64	*av. in thous.persons*	**6 496**	**6 445**	**6 407**	**6 376**	**6 345**	**6 266**	**6 170**	**6 292**	**6 275**	**6 267**
	growth in %	-0.9	-0.8	-0.6	-0.5	-0.5	-1.2	-1.5	2.0	-0.3	-0.1
Employment/Pop. 20–64	*average in %*	**79.1**	**81.0**	**82.6**	**83.2**	**82.5**	**83.2**	**83.9**	**82.4**	**82.7**	**82.9**
Employment rate 20–64 [2)]	*average in %*	**76.9**	**78.7**	**80.0**	**80.4**	**79.8**	**80.6**	**81.0**	**79.7**	**80.0**	**80.1**
Labour force/Pop. 20–64	*average in %*	**82.4**	**83.4**	**84.5**	**84.9**	**84.7**	**85.6**	**86.1**	**84.6**	**85.0**	**85.1**
Participation rate 20–64 [3)]	*average in %*	**79.9**	**80.9**	**81.7**	**82.0**	**81.8**	**82.3**	**82.9**	**81.4**	**81.8**	**81.8**
Participation rate 15–64 [3)]	*average in %*	**75.0**	**75.9**	**76.6**	**76.7**	**76.4**	**76.6**	**77.1**	**75.2**	**75.1**	**74.9**
Registered unemployment											
Unemployment	*av. in thous.persons*	**406**	**318**	**242**	**212**	**259**	**280**	**244**	**248**	**234**	**227**
Share of unemployed [4)]	*average in %*	**5.6**	**4.3**	**3.2**	**2.8**	**3.5**	**3.8**	**3.4**	**3.5**	**3.3**	**3.2**
Wages and salaries											
Average monthly wage [5)]											
Nominal	*CZK monthly*	27 764	29 638	32 051	34 578	36 176	37 903	40 706	43 337	45 896	47 732
	growth in %	4.4	6.7	8.1	7.9	4.6	4.8	7.4	6.5	5.9	4.0
Real	*CZK 2015*	27 571	28 747	30 438	31 928	32 358	32 647	30 181	29 533	30 347	30 859
	growth in %	3.7	4.3	5.9	4.9	1.3	0.9	-7.6	-2.1	2.8	1.7
Median monthly wage	*CZK monthly*	**23 692**	**25 398**	**27 561**	**29 439**	**31 049**	**32 481**	**.**	**.**	**.**	**.**
	growth in %	5.7	7.2	8.5	6.8	5.5	4.6	.	.	.	.
Wage bill	*growth in %*	**5.7**	**9.2**	**9.6**	**7.8**	**0.1**	**5.8**	**9.8**	**7.9**	**5.7**	**4.2**
Labour productivity	*growth in %*	**0.9**	**3.6**	**1.9**	**2.8**	**-3.9**	**3.2**	**0.6**	**0.7**	**2.8**	**2.3**
Unit labour costs [6)]	*growth in %*	**3.0**	**3.5**	**6.1**	**4.3**	**7.3**	**1.8**	**5.3**	**5.8**	**2.8**	**1.8**
Compens. of employees / GDP	*%*	**41.7**	**42.8**	**44.3**	**44.6**	**46.0**	**45.6**	**44.3**	**44.2**	**43.9**	**43.6**

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

		2021				2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
							Estimate	*Forecast*	*Forecast*
Labour Force Survey									
Employment	*av. in thous. persons*	**5 166**	**5 171**	**5 257**	**5 259**	**5 141**	**5 160**	**5 202**	**5 202**
	YoY growth in %	-2.1	-0.8	0.5	0.8	-0.5	-0.2	-1.1	-1.1
	QoQ growth in %	-0.6	0.2	1.1	0.1	-1.5	0.3	0.0	0.0
Employees	*av. in thous. persons*	4 333	4 352	4 422	4 423	4 330	4 336	4 377	4 377
	growth in %	-1.3	0.5	1.7	2.0	-0.1	-0.4	-1.0	-1.0
Entrepreneurs and	*av. in thous. persons*	833	819	836	836	811	824	825	825
self-employed	*growth in %*	-6.2	-7.2	-5.7	-5.0	-2.6	0.6	-1.3	-1.4
Unemployment	*av. in thous.persons*	**179**	**159**	**146**	**118**	**130**	**126**	**143**	**135**
Unemployment rate	*average in %*	**3.4**	**3.0**	**2.7**	**2.2**	**2.5**	**2.4**	**2.7**	**2.5**
Long-term unemployment [1)]	*av. in thous.persons*	**40**	**45**	**42**	**38**	**37**	**.**	**.**	**.**
Labour force	*av. in thous. persons*	**5 345**	**5 330**	**5 403**	**5 378**	**5 271**	**5 286**	**5 345**	**5 337**
	growth in %	-0.7	-0.2	0.3	0.0	-1.4	-0.8	-1.1	-0.8
Population aged 20–64	*av. in thous. persons*	**6 321**	**6 310**	**6 281**	**6 151**	**6 153**	**6 153**	**6 148**	**6 224**
	growth in %	-0.5	-0.7	-0.8	-2.9	-2.7	-2.5	-2.1	1.2
Employment/Pop. 20–64	*average in %*	**81.7**	**81.9**	**83.7**	**85.5**	**83.6**	**83.9**	**84.6**	**83.6**
	increase over a year	-1.3	0.0	1.1	3.1	1.8	1.9	0.9	-1.9
Employment rate 20–64 [2)]	*average in %*	**79.2**	**79.4**	**80.9**	**82.7**	**80.8**	**80.8**	**81.4**	**80.8**
	increase over a year	-1.1	0.0	0.9	3.0	1.6	1.5	0.5	-1.9
Labour force/Pop. 20–64	*average in %*	**84.6**	**84.5**	**86.0**	**87.4**	**85.7**	**85.9**	**86.9**	**85.7**
	increase over a year	-0.1	0.5	1.0	2.5	1.1	1.4	0.9	-1.7
Participation rate 20–64 [3)]	*average in %*	**81.8**	**81.7**	**82.7**	**82.8**	**82.8**	**82.8**	**83.6**	**82.4**
	increase over a year	0.1	0.4	0.7	0.7	1.0	1.1	0.9	-0.4
Participation rate 15–64 [3)]	*average in %*	**76.2**	**76.0**	**77.1**	**77.1**	**77.0**	**77.1**	**77.7**	**76.5**
	increase over a year	-0.1	0.1	0.5	0.4	0.7	1.1	0.6	-0.6
Registered unemployment									
Unemployment	*av. in thous. persons*	**307**	**291**	**269**	**252**	**262**	**240**	**238**	**236**
Share of unemployed [4)]	*average in %*	**4.2**	**4.0**	**3.7**	**3.4**	**3.5**	**3.3**	**3.3**	**3.3**
Wages and salaries									
Average monthly wage [5)]									
Nominal	*CZK monthly*	35 396	38 390	37 563	40 224	37 929	40 470	40 439	43 986
	growth in %	1.8	10.1	4.4	2.9	7.2	5.4	7.7	9.4
Real	*CZK 2015*	31 158	33 470	32 105	33 830	30 007	30 474	29 218	31 001
	growth in %	-0.3	7.0	0.3	-3.1	-3.7	-8.9	-9.0	-8.4
Median monthly wage	*CZK monthly*	**29 949**	**32 505**	**33 035**	**34 436**	**31 923**	**.**	**.**	**.**
	growth in %	0.8	10.0	4.2	3.6	6.6	.	.	.
Wage bill	*growth in %*	**-2.3**	**13.2**	**6.7**	**6.1**	**11.9**	**7.3**	**9.7**	**10.6**

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

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
										Forecast	*Forecast*
Current income											
Compensation of employees	*bill.CZK*	**1 825**	**1 923**	**2 038**	**2 223**	**2 430**	**2 599**	**2 650**	**2 799**	**3 013**	**3 254**
	growth in %	4.2	5.4	6.0	9.1	9.3	7.0	1.9	5.6	7.6	8.0
Gross operating surplus	*bill.CZK*	**674**	**691**	**703**	**740**	**801**	**845**	**833**	**855**	**942**	**1 016**
and mixed income	*growth in %*	3.0	2.4	1.7	5.2	8.3	5.5	-1.4	2.6	10.2	7.8
Property income received	*bill.CZK*	**133**	**127**	**133**	**162**	**162**	**163**	**129**	**171**	**171**	**177**
	growth in %	0.0	-4.3	4.1	21.9	0.2	0.5	-20.9	32.5	0.3	3.3
Social benefits not-in-kind	*bill.CZK*	**596**	**613**	**630**	**650**	**685**	**738**	**885**	**924**	**1 023**	**1 113**
	growth in %	2.2	2.8	2.8	3.2	5.4	7.7	19.9	4.4	10.7	8.8
Other current transfers received	*bill.CZK*	**160**	**181**	**217**	**244**	**281**	**338**	**363**	**472**	**551**	**581**
	growth in %	9.2	13.3	19.4	12.8	15.1	20.4	7.3	29.8	16.9	5.3
Current expenditure											
Property income paid	*bill.CZK*	**16**	**14**	**14**	**13**	**19**	**28**	**27**	**26**	**29**	**30**
	growth in %	-24.3	-10.7	0.2	-7.4	43.2	44.8	-2.7	-2.3	8.8	2.9
Curr. taxes on income and property	*bill.CZK*	**197**	**205**	**227**	**264**	**309**	**316**	**342**	**260**	**274**	**297**
	growth in %	6.5	3.9	10.8	16.3	16.9	2.3	8.3	-23.9	5.3	8.4
Social contributions	*bill.CZK*	**696**	**732**	**775**	**836**	**911**	**976**	**1028**	**1129**	**1 201**	**1 291**
	growth in %	3.8	5.3	5.8	7.9	9.0	7.1	5.3	9.9	6.4	7.5
Other current transfers paid	*bill.CZK*	**150**	**169**	**207**	**238**	**278**	**335**	**358**	**468**	**546**	**574**
	growth in %	7.3	12.5	22.4	15.3	16.5	20.6	6.7	30.8	16.6	5.2
Gross disposable income	*bill.CZK*	**2 328**	**2 414**	**2 497**	**2 666**	**2 842**	**3 029**	**3 106**	**3 337**	**3 651**	**3 949**
	growth in %	3.4	3.7	3.4	6.8	6.6	6.6	2.5	7.4	9.4	8.2
Final consumption	*bill.CZK*	**2 072**	**2 152**	**2 241**	**2 383**	**2 524**	**2 663**	**2 536**	**2 715**	**3 191**	**3 493**
	growth in %	2.2	3.9	4.1	6.4	5.9	5.5	-4.8	7.0	17.5	9.5
Change in share in pension funds	*bill.CZK*	**35**	**33**	**31**	**32**	**33**	**37**	**38**	**38**	**28**	**31**
Gross savings	*bill.CZK*	**292**	**295**	**286**	**315**	**350**	**404**	**607**	**660**	**488**	**487**
Capital transfers											
(income (-) / expenditure (+))	*bill.CZK*	**-32**	**-12**	**-14**	**-11**	**-12**	**-13**	**-41**	**-35**	**-34**	**-28**
Gross capital formation	*bill.CZK*	**214**	**220**	**237**	**216**	**261**	**297**	**300**	**316**	**342**	**356**
	growth in %	5.2	2.9	7.9	-9.2	21.2	13.7	0.9	5.4	8.3	4.3
Change in financial assets and liab.	*bill.CZK*	**108**	**85**	**61**	**110**	**101**	**116**	**348**	**380**	**182**	**160**
Real disposable income	*growth in %*	**2.6**	**3.7**	**3.0**	**4.4**	**4.0**	**3.7**	**-0.4**	**4.5**	**-6.4**	**-0.8**
Gross savings rate	*%*	**12.4**	**12.1**	**11.3**	**11.7**	**12.2**	**13.2**	**19.3**	**19.5**	**13.3**	**12.2**

Source: CZSO. Calculations of the MoF.

3.4 External Relations

The **current account of the balance of payments** reached a deficit of 2.0% of GDP (*vs. 1.8% of GDP*) in Q1 2022. The year-on-year deterioration of the balance by 3.9% of GDP was entirely due to a significant decline in the balance of goods.

Export markets growth reached 4.4% YoY (*vs. 3.0%*) in Q1 2022. The higher-than-expected growth was driven by stronger GDP growth (by 0.5pp) of the CR's main trading partners and a lower decline in import intensity (strong QoQ growth in imports to the UK). Thus, given the better-than-estimated development of economic activity abroad in H1 2022, we expect export markets to grow by 3.4% (*vs. 2.9%*) this year. Their dynamics could slow to 2.2% (*vs. 3.8%*) in 2023 due to the projected slowdown in economic growth of trading partners.

Export performance fell by 6.9% (*vs. 7.6%*) in Q1 2022, and thus remains in significant negative territory. Persistent constraints on production in the manufacturing (mainly automotive) sector, caused by shortages of some components, contributed to it. For this year, we expect performance to decline by 3.8% (*vs. 2.2%*). The deterioration in the forecast reflects a decline in industrial production and lower export order volumes as a result of sharply rising raw material and energy prices. In 2023, export performance could rise by 1.1% (*vs. 1.0%*) as price pressures and supply chain difficulties subside.

The balance of goods (balance of payments methodology) deteriorated by 5.5% of GDP YoY to −0.2% of GDP (*vs. 0.0% of GDP*) in Q1 2022[15], ending in deficit for the first time since late 2008. The deterioration in the balance reflects not only strong import dynamics driven by high prices of energy commodities and raw materials, but also a year-on-year decline in exports in the machinery and transport equipment group, which accounts for more than half of total merchandise exports. Within this group, exports of motor vehicles fell by almost a tenth due to production cutbacks in the 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 2.8% of GDP (*vs. 2.7% of GDP*) in Q1 2022. Given the projected oil price (see Chapter 1.2) and the evolution of prices of other energy commodities (natural gas), we expect the deficit to widen to 3.4% of GDP (*vs. 3.3% of GDP*) this year. In 2023, the deficit could narrow to 2.8% of GDP (*vs. 2.6% of GDP*).

We expect the balance of goods to end this year with a deficit of 2.6% of GDP (*vs. a surplus of 0.1% of GDP*). The deterioration in the forecast reflects a significant decline in the terms of trade due to high energy and other input prices. Stronger investment activity, which is characterised by high import intensity, will also have a negative impact on the overall balance. For 2023, we project a narrowing of the deficit to 2.2% of GDP (*vs. a surplus of 0.2% of GDP*), due to weaker investment activity and stagnating household consumption. The year-on-year improvement in the trade balance will also be supported by exports of previously accumulated inventories. On the other hand, the overall balance will be negatively affected by persisting negative terms of trade (koruna oil price, base effect of H2 2022).

The balance of services showed a surplus of 1.8% of GDP (*vs. 1.9% of GDP*) in Q1 2022. The 0.2% of GDP year-on-year increase in the surplus was driven by higher revenues from telecommunication services and an improvement in the repair work balance. This was partially offset by higher costs in the transport sector. This year and next, the services surplus is expected to be 1.6% of GDP (*vs. 1.7% and 1.8% of GDP, respectively*), which in relative terms would be a slight deterioration compared to previous years. The deterioration in the forecast is based on rising costs in the transport sector due to higher fuel prices, and weaker economic activity in the euro area (see Chapter 1.1).

The primary income deficit narrowed by 0.2% of GDP quarter-on-quarter to 3.1% of GDP (*vs. 3.2% of GDP*) in Q1 2022 due to lower outflows of income from direct investment (in the form of dividends). Given rising corporate energy costs, higher input prices and a decline in manufacturing activity, we estimate that the primary income deficit will reach 3.2% of GDP (*vs. 3.5% of GDP*) this year. The decline in firms' profitability will be partly offset by a deterioration in the balance of compensation of employees due to the labour market participation of refugees from Ukraine, as immigrants will initially be classified as non-residents. For 2023, we forecast the deficit to remain at 3.2% of GDP (*vs. 3.6% of GDP*). The widening of the deficit will be limited by a slowdown in the growth of profitability of foreign-owned firms in the context of lower economic dynamics.

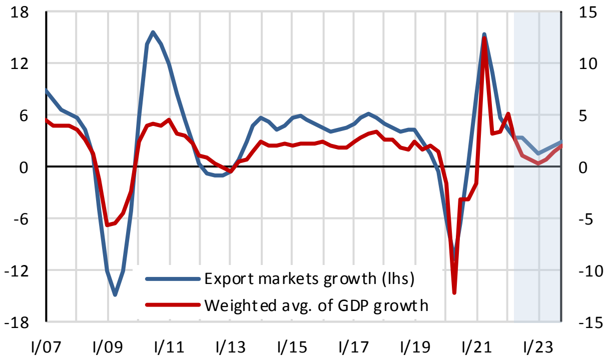
Against this background, we expect the **current account of the balance of payments** to be in significant deficit over the forecast horizon. This year, the deficit could reach 4.6% of GDP (*vs. 2.2% of GDP*), which would be the largest deficit relative to GDP since 2003 and the highest deficit ever in absolute terms. In 2023, the deficit could fall to 4.0% of GDP (*vs. 1.9% of GDP*).

The current external balance (national accounts methodology) reached a deficit of 3.8% of GDP in Q1 2022 (see Graph 3.4.8). While household savings exceeded their investment by 4.4% of GDP, the relationship between savings and investment was reversed in the general government sector, with gross capital formation exceeding gross savings by 4.8% of GDP. The excess of investment over savings (by 4.6% of GDP) was also recorded for non-financial corporations.

[15] 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.

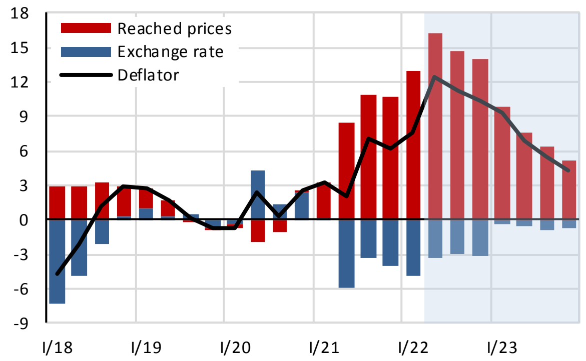
Graph 3.4.2: Real Exports of Goods

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

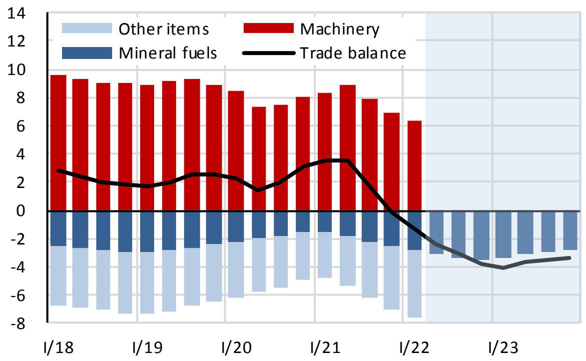
YoY growth in %, contributions in percentage points



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

Graph 3.4.4: Balance of Trade

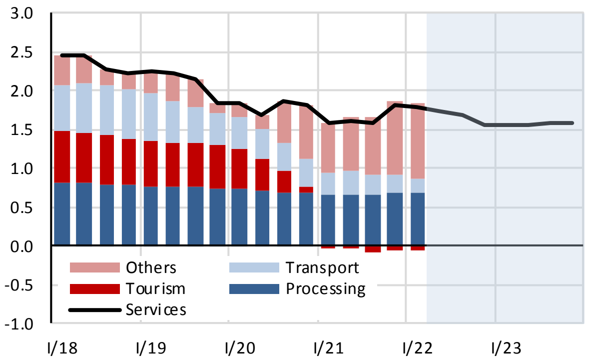
four-quarter moving totals, in % of GDP, change of ownership concept



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.4.5: Balance of Services

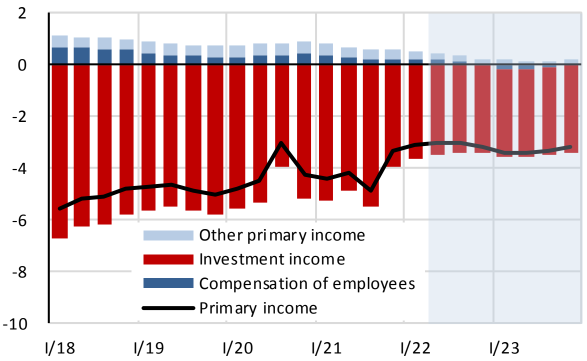
four-quarter moving totals, in % of GDP



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

Graph 3.4.6: Balance of Primary Income

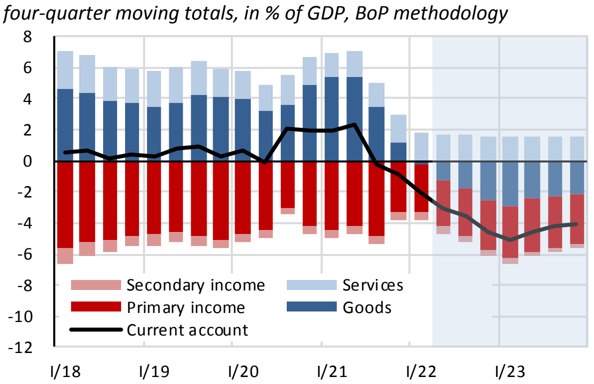
four-quarter moving totals, in % of GDP



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

Graph 3.4.7: Current Account

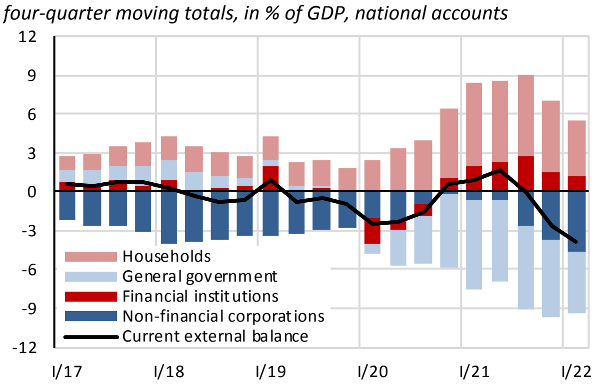
four-quarter moving totals, in % of GDP, BoP methodology



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

		2014	2015	2016	2017	2018	2019	2020	2021	2022 Forecast	2023 Forecast
GDP [1)]	*average of 2010=100*	**106.8**	**109.2**	**111.5**	**114.8**	**117.3**	**119.5**	**113.6**	**118.4**	**121**	**123**
	growth in %	2.2	2.2	2.1	3.0	2.2	1.9	-4.9	4.2	2.5	1.2
Import intensity [2)]	*average of 2010=100*	**106.8**	**110.3**	**112.8**	**115.7**	**118.4**	**118.6**	**117.6**	**124.1**	**125**	**127**
	growth in %	2.8	3.3	2.3	2.6	2.3	0.2	-0.8	5.5	1.0	1.1
Export markets [3)]	*average of 2010=100*	**114.0**	**120.4**	**125.7**	**132.9**	**138.8**	**141.7**	**133.6**	**146.9**	**152**	**155**
	growth in %	5.0	5.6	4.4	5.7	4.5	2.1	-5.7	10.0	3.4	2.2
Export performance	*average of 2010=100*	**111.0**	**110.8**	**110.5**	**112.6**	**111.5**	**110.6**	**109.8**	**106.6**	**103**	**104**
	growth in %	4.1	-0.2	-0.3	1.9	-0.9	-0.9	-0.7	-3.0	-3.8	1.1
Real exports	*average of 2010=100*	**126.6**	**133.4**	**138.9**	**149.6**	**154.8**	**156.7**	**146.7**	**156.5**	**156**	**161**
	growth in %	9.3	5.4	4.1	7.6	3.5	1.2	-6.4	6.7	-0.5	3.4
1 / NEER	*average of 2010=100*	**108.4**	**109.1**	**106.8**	**103.9**	**100.2**	**100.5**	**102.4**	**99.0**	**95**	**95**
	growth in %	5.4	0.6	-2.1	-2.8	-3.6	0.3	1.9	-3.3	-3.6	-0.7
Prices on foreign markets	*average of 2010=100*	**101.0**	**98.9**	**98.2**	**100.3**	**103.2**	**103.9**	**103.1**	**111.6**	**128**	**137**
	growth in %	-1.6	-2.0	-0.7	2.1	2.9	0.7	-0.8	8.3	14.4	7.1
Exports deflator	*average of 2010=100*	**109.5**	**108.0**	**104.9**	**104.1**	**103.4**	**104.4**	**105.5**	**110.5**	**122**	**130**
	growth in %	3.7	-1.4	-2.8	-0.8	-0.7	1.0	1.1	4.7	10.4	6.4
Nominal exports	*average of 2010=100*	**138.6**	**144.0**	**145.8**	**155.7**	**160.0**	**163.5**	**154.7**	**172.9**	**190**	**209**
	growth in %	13.4	3.9	1.2	6.8	2.8	2.2	-5.4	11.8	9.9	10.1

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

		2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2 Estimate	2022 Q3 Forecast	2022 Q4 Forecast
GDP [1)]	*average of 2010=100*	**115.4**	**118.1**	**119.8**	**120.3**	**121.4**	**122**	**121**	**121**
	growth in %	-1.5	12.6	3.2	3.4	5.1	2.9	1.2	0.8
Import intensity [2)]	*average of 2010=100*	**125.5**	**123.9**	**122.8**	**124.1**	**124.6**	**125**	**126**	**126**
	growth in %	9.9	2.5	7.6	2.3	-0.7	0.6	2.3	1.7
Export markets [3)]	*average of 2010=100*	**144.9**	**146.4**	**147.1**	**149.3**	**151.2**	**152**	**152**	**153**
	growth in %	8.3	15.4	11.0	5.8	4.4	3.5	3.4	2.4
Export performance	*average of 2010=100*	**111.3**	**108.9**	**103.4**	**102.8**	**103.6**	**102**	**102**	**102**
	growth in %	0.0	18.2	-12.1	-12.1	-6.9	-6.7	-0.9	-0.4
Real exports	*average of 2010=100*	**161.2**	**159.4**	**152.0**	**153.5**	**156.7**	**154**	**156**	**157**
	growth in %	8.3	36.4	-2.5	-7.0	-2.8	-3.4	2.5	2.0
1 / NEER	*average of 2010=100*	**100.3**	**98.8**	**98.5**	**98.4**	**95.5**	**96**	**96**	**95**
	growth in %	0.1	-5.9	-3.4	-4.0	-4.8	-3.2	-3.0	-3.2
Prices on foreign markets	*average of 2010=100*	**107.2**	**111.0**	**113.5**	**114.8**	**121.0**	**129**	**130**	**131**
	growth in %	3.2	8.5	10.8	10.7	12.9	16.2	14.6	13.9
Exports deflator	*average of 2010=100*	**107.5**	**109.6**	**111.8**	**113.0**	**115.6**	**123**	**124**	**125**
	growth in %	3.3	2.1	7.1	6.3	7.5	12.4	11.2	10.3
Nominal exports	*average of 2010=100*	**173.3**	**174.8**	**170.0**	**173.5**	**181.1**	**190**	**194**	**195**
	growth in %	11.9	39.3	4.5	-1.2	4.5	8.5	14.0	12.5

[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

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
										Forecast	*Forecast*
Goods and services	*bill.CZK*	**276**	**274**	**365**	**384**	**321**	**346**	**384**	**183**	**-67**	**-42**
	% GDP	6.3	5.9	7.6	7.5	5.9	6.0	6.7	3.0	-1.0	-0.6
Goods	*bill.CZK*	220	188	259	259	201	240	280	73	-173	-159
	% GDP	5.1	4.1	5.4	5.1	3.7	4.1	4.9	1.2	-2.6	-2.2
Services	*bill.CZK*	56	87	107	125	120	106	104	110	106	116
	% GDP	1.3	1.9	2.2	2.4	2.2	1.8	1.8	1.8	1.6	1.6
Primary income	*bill.CZK*	**-261**	**-255**	**-253**	**-255**	**-260**	**-292**	**-242**	**-204**	**-216**	**-235**
	% GDP	-6.0	-5.5	-5.3	-5.0	-4.8	-5.0	-4.2	-3.3	-3.2	-3.2
Secondary income	*bill.CZK*	**-7**	**1**	**-27**	**-50**	**-37**	**-34**	**-28**	**-31**	**-26**	**-18**
	% GDP	-0.2	0.0	-0.6	-1.0	-0.7	-0.6	-0.5	-0.5	-0.4	-0.3
Current account	*bill.CZK*	**8**	**21**	**85**	**79**	**24**	**19**	**114**	**-51**	**-310**	**-296**
	% GDP	0.2	0.4	1.8	1.5	0.4	0.3	2.0	-0.8	-4.6	-4.0
Capital account	*bill.CZK*	**32**	**99**	**52**	**45**	**13**	**24**	**67**	**95**	**96**	**120**
	% GDP	0.7	2.1	1.1	0.9	0.2	0.4	1.2	1.6	1.4	1.6
Net lending/borrowing	*bill.CZK*	**40**	**120**	**137**	**124**	**37**	**44**	**180**	**44**	**-213**	**-175**
	% GDP	0.9	2.6	2.9	2.4	0.7	0.8	3.2	0.7	-3.1	-2.4
Financial account	*bill.CZK*	**64**	**173**	**122**	**116**	**61**	**8**	**163**	**11**	**.**	**.**
Direct investments	*bill.CZK*	-80	50	-187	-46	-51	-137	-149	-5	.	.
Portfolio investments	*bill.CZK*	90	-164	-170	-268	30	-105	-136	75	.	.
Financial derivatives	*bill.CZK*	-6	-5	11	-14	-15	1	11	-58	.	.
Other investments	*bill.CZK*	-13	-59	-97	-802	47	139	389	-297	.	.
Reserve assets	*bill.CZK*	73	351	564	1 246	50	110	48	296	.	.
International investment position	*bill.CZK*	**-1 577**	**-1 523**	**-1 304**	**-1 273**	**-1 320**	**-1 147**	**-929**	**-952**	**.**	**.**
	% GDP	-36.3	-32.9	-27.2	-24.9	-24.4	-19.8	-16.3	-15.6	.	.
Gross external debt	*bill.CZK*	**2 947**	**3 119**	**3 499**	**4 370**	**4 413**	**4 384**	**4 321**	**4 471**	**.**	**.**
	% GDP	67.8	67.4	72.9	85.5	81.6	75.7	75.7	73.2	.	.

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

		2021				2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
							Estimate	*Forecast*	*Forecast*
Goods and services	*bill.CZK*	**398**	**415**	**306**	**183**	**101**	**31**	**-9**	**-67**
	% GDP	7.0	7.0	5.1	3.0	1.6	0.5	-0.1	-1.0
Goods	*bill.CZK*	307	319	210	73	-10	-82	-120	-173
	% GDP	5.4	5.4	3.5	1.2	-0.2	-1.3	-1.8	-2.6
Services	*bill.CZK*	90	95	96	110	112	112	112	106
	% GDP	1.6	1.6	1.6	1.8	1.8	1.7	1.7	1.6
Primary income	*bill.CZK*	**-253**	**-245**	**-292**	**-204**	**-196**	**-193**	**-200**	**-216**
	% GDP	-4.4	-4.1	-4.9	-3.3	-3.1	-3.0	-3.0	-3.2
Secondary income	*bill.CZK*	**-35**	**-30**	**-28**	**-31**	**-31**	**-30**	**-28**	**-26**
	% GDP	-0.6	-0.5	-0.5	-0.5	-0.5	-0.5	-0.4	-0.4
Current account	*bill.CZK*	**110**	**140**	**-14**	**-51**	**-125**	**-193**	**-237**	**-310**
	% GDP	1.9	2.4	-0.2	-0.8	-2.0	-3.0	-3.6	-4.6
Capital account	*bill.CZK*	**46**	**51**	**72**	**95**	**91**	**86**	**91**	**96**
	% GDP	0.8	0.9	1.2	1.6	1.5	1.3	1.4	1.4
Net lending/borrowing	*bill.CZK*	**157**	**191**	**58**	**44**	**-34**	**-106**	**-145**	**-213**
	% GDP	2.7	3.2	1.0	0.7	-0.5	-1.6	-2.2	-3.1
Financial account	*bill.CZK*	**142**	**177**	**1**	**11**	**-93**	**.**	**.**	**.**
Direct investments	*bill.CZK*	-103	-81	-95	-4.8	-62.0	.	.	.
Portfolio investments	*bill.CZK*	-33	58	112	75	137	.	.	.
Financial derivatives	*bill.CZK*	-14	-33	-40	-58	-65	.	.	.
Other investments	*bill.CZK*	205	157	-150	-297	-489	.	.	.
Reserve assets	*bill.CZK*	86	76	173	296	386	.	.	.
International investment position	*stock in bill.CZK*	**-733**	**-849**	**-956**	**-952**	**-1 132**	**.**	**.**	**.**
	% GDP	-12.8	-14.4	-15.9	-15.6	-18.1	.	.	.
Gross external debt	*stock in bill.CZK*	**4 314**	**4 229**	**4 366**	**4 471**	**4 665**	**.**	**.**	**.**
	% GDP	75.4	71.6	72.5	73.2	74.5	.	.	.

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

4 Survey of Other Institutions' Forecasts

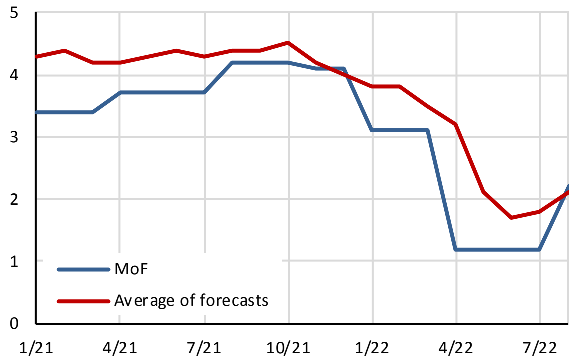
On average, the institutions surveyed expect the Czech economy to grow by 2.1% this year and next. The average inflation rate is expected to accelerate to 14.0% this year and slow to 6.8% in 2023. Average wage growth could be 6.4% this year and 8.2% next year. The current account of the balance of payments is expected to reach a deficit of 3.6% of GDP this year, which could fall to 2.8% of GDP in 2023.

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

Despite the ongoing economic impact of the war in Ukraine and the exceptionally strong growth in the cost of living, the MoF estimates that the Czech economy will grow by 2.2% in 2022. While the forecast for 2022 does not differ much from the average of the institutions surveyed, the MoF expects GDP growth in 2023 to be significantly lower than the average of the institutions surveyed. The inflation rate forecast for both 2022 and 2023 is somewhat higher than the average of the monitored forecasts. This is mainly due to the extreme acceleration in price growth in recent months and the consideration of new information on the possible development of inflationary factors within the Czech economy, including an increase in administered prices, a significant rise in commodity prices and prolonged supply-side frictions. In 2023, consumer price inflation could slow, but the average inflation rate should still be well above the upper boundary of the tolerance band around the CNB's target. Average wage growth should be stronger this year than the average of the monitored institutions' forecasts, but should slow next year (see Chapter 3.3). The forecast of a significant deficit on the current account of the balance of payments is based mainly on the current and expected evolution of the balance of goods, which is affected by the problems of export-oriented industry and high prices of imported commodities.

Graph 4.1: Forecasts for Real GDP Growth in 2022

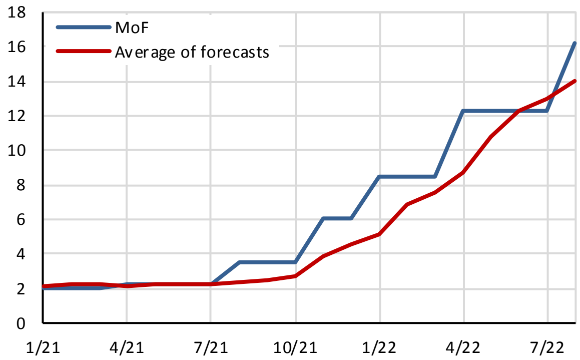
in %; the month, in which the survey was made on the horizontal axis



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

Graph 4.2: Forecasts for Average Inflation Rate in 2022

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

		August 2022			August 2022
		min.	*max.*	*average*	*MoF forecast*
Gross domestic product (2022)	*growth in %, const.pr.*	1.1	2.5	2.1	2.2
Gross domestic product (2023)	*growth in %, const.pr.*	0.9	4.2	2.1	1.1
Average inflation rate (2022)	*%*	9.0	16.8	14.0	16.2
Average inflation rate (2023)	*%*	2.3	11.2	6.8	8.8
Average monthly wage (2022)	*growth in %*	4.5	8.1	6.4	7.4
Average monthly wage (2023)	*growth in %*	4.0	13.0	8.2	6.5
Current account / GDP (2022)	*%*	-5.6	-0.7	-3.6	-4.6
Current account / GDP (2023)	*%*	-4.9	-1.2	-2.8	-4.0

Note: The survey is based on publicly available forecasts of 11 institutions, of which 7 institutions are domestic (CNB, Ministry of Labour and Social Affairs, domestic banks and investment companies) and the remaining are foreign entities (European Commission, OECD, IMF etc.). 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 Comparison of Economic Performance of the CR with Selected Countries

In early 2020, the COVID-19 pandemic broke out, disrupting the normal functioning of economies around the world, including the Czech Republic, in a significant and unprecedented way. Governments across continents have ordered nationwide quarantines restricting the free movement of people to limit the spread of the virus. Mass events were cancelled, schools, shops, hotels and restaurants were closed. Industry almost stopped production. This was a global crisis unprecedented in its scale, origin and impact in the contemporary world. As a result, the global economy fell by 3.1% YoY in 2020, and the domestic economy fell by 5.5%.

Prior to the pandemic, the Czech economy grew by an average of 3.9% annually between 2015 and 2019. The Czech economy experienced a successful period characterised by high growth, low inflation and, since 2016, the lowest unemployment rate in the EU. During these years, all components of GDP grew, especially household consumption and investment. However, a massive shock in the form of a pandemic caused a major negative reversal in economic development and subsequent recurrent waves of the epidemic delayed economic recovery. The economies in the region coped differently with the aftermath of the massive shock, which was largely in the form of a decline in aggregate supply. In 2021, the Czech Republic's GDP averaged 97.8% of its 2019 volume, while Poland and Hungary had already surpassed their pre-crisis levels. The situation in Germany, Austria and Slovakia was similar to that in the Czech Republic.

However, in February 2022, despite the positive growth prospects, another unexpected supply shock came in the form of the Russian invasion of Ukraine, which complicated the prospects for recovery of the Czech economy.

By analysing the expenditure components of GDP, this chapter aims to show to what extent and how intensely was the Czech economy affected by the COVID-19 pandemic compared to other countries. It also explores the course and state of recovery of individual national economies.

5.1 Household Final Consumption Expenditure

Since 2015, the average share of household consumption in GDP in the Czech Republic was around 47%, the lowest among Central European countries. In Poland, Slovakia and Hungary, household consumption accounted for 58%, 56% and 49% of GDP respectively. Overall, over the last five years, the Czech Republic, Slovakia, Hungary and Poland have had higher annual growth rates in household consumption than Germany and Austria.

During 2019, household consumption in the Czech Republic recorded significant year-on-year growth, driven by rising disposable income and high consumer confidence, as well as record low unemployment. This period was characterised by an overheating labour market and dynamic wage growth.

In 2020, household consumption was adversely affected by the coronavirus pandemic and the associated anti-epidemic restrictions, which prevented the purchase of goods and especially services. The pandemic affected most the spending of European households on accommodation and food services, as well as in the transportation and culture sectors. Consumption patterns of European households changed during the lockdowns, with households spending most of their income on food and non-alcoholic beverages, mail and telecommunications, and housing, water, energy and fuel (Broom, 2021).

Restricted consumption possibilities, pessimistic household expectations and a decline in real disposable income caused the most significant year-on-year decline in private consumption among the observed countries in the Czech Republic and Austria in 2020 (see Graph 5.4), which is probably related to the more unfavourable course of the pandemic from autumn 2020 onwards. In contrast, countries with lower long-term savings rate, stronger real gross disposable income dynamics and a relatively higher share of consumption in GDP (Poland, Hungary and Slovakia) have seen noticeably smaller declines in this aggregate. Thus, household consumption in these countries returned to pre-crisis levels in Q2 2021, while household consumption in the Czech Republic, Austria and Germany was below pre-crisis levels throughout 2021.

In Q1 2022, there was a quarter-on-quarter decline in household consumption in the Czech Republic, the EU and Germany, driven by accelerating inflation, pessimistic consumer sentiment and a deterioration in the overall economic situation (first effects of the war in Ukraine), see Graph 5.2. According to the Harmonised Index of Consumer Prices, average inflation in the Czech Republic was around 10% in Q1 2022 (the highest in the region, see Graph 5.3), leading to a record 3.6% fall in average real wages.

June inflation according to the HICP reached 16.6% in the Czech Republic, the fourth highest inflation rate in the EU (Eurostat, 2022). Consumer confidence in the Czech Republic is now at its historical low (CZSO, 2022). The quarter-on-quarter decline in the savings rate in

Q1 2022 may also indicate a worsening financial situation of Czech households, which have to compensate for the decline in purchasing power with accumulated savings. High inflation, the decline in real disposable income and the resulting record low household confidence have significantly dampened household purchasing activity. As a result, GDP growth and the overall post-pandemic recovery of the Czech economy have been negatively affected compared to other countries in the region.

5.2 Final Consumption Expenditure of the General Government Sector

In reaction to the downturn in economic activity in 2020, governments across the EU have responded with counter-cyclical measures. Government programmes have thus saved at least 54 million jobs across the EU (IMF, 2020). On the other hand, fiscal stimulus has been a significant inflationary factor and has also worsened public finances. Austria (by 8.6 pp), Poland (6.2 pp), the Czech Republic (6.1 pp) and Germany (5.8 pp) showed the highest year-on-year deterioration in the general government balance in 2020.

In 2020–2021, government final consumption expenditure was significantly affected by the course of the epidemic and the measures taken to contain it. Nevertheless, they were similar in structure and scope, as they were mainly associated with health sector expenditures, used, for example, for the purchase of medical supplies, protective equipment, COVID–19 tests or vaccines, or the remuneration of health and other public sector personnel directly exposed to the risk of contagion.

Thus, government final consumption expenditure under expansionary fiscal policy and support measures (see Graph 5.6) has increased significantly in all countries during 2020–2021 compared to 2019. This is most pronounced in Poland (by 12.6%), Germany (by 10.1%) and the Czech Republic (by 10%). In addition to the above-mentioned spending on mitigating the impact of the epidemic, the Czech Republic and Poland also saw significant growth in government employment (especially in health and education) during 2020–2021. In Germany and Austria, employment also increased in the public administration and defence sectors. This explains, among other things, the significant increase in government consumption in these countries (see Graph 5.6). In contrast, Hungary and Slovakia have seen only modest employment growth in the general government sector between 2020 and 2021. This, combined with less pronounced spending to combat the epidemic, has led to relatively weaker growth in government final consumption expenditure (IMF, 2021).

5.3 Investment

Investment activity in 2019 was driven by both the private sector and government institutions. Private investment growth was driven by higher capacity utilisation, rising labour costs and easy monetary conditions. Government sector investment was mainly supported by nationally funded projects.

The share of gross capital formation in GDP in the Czech Republic is one of the highest among the surveyed countries, reaching 27.3% on average since 2015 (of which 26 pp is gross fixed capital formation). Germany (21.2%) and Poland (19.8%) have long had the lowest share of gross capital formation in GDP. The largest share of gross fixed capital formation in the Czech Republic, as in Slovakia, is accounted for by investment in machinery and equipment and in other buildings and structures. In Germany, the largest share is accounted for by investment in dwellings, and machinery and equipment. In Poland, Hungary and Austria it is investment in other buildings and structures (mainly infrastructure) and machinery and equipment (see Graph 5.12).

In 2020, gross capital formation was negatively affected by the adoption of restrictive measures to curb the spread of coronavirus, the global recession and a strong increase in uncertainty. Compared to other countries, the largest decline in gross capital formation in 2020 was observed in the Czech Republic and Slovakia. This was related to a fall in private investment, particularly firms' investment in machinery and equipment and transport equipment. The decline in private investment in the Czech Republic and Slovakia could be due, among other things, to production limitations and shutdowns in the automotive industry during 2020. Government investment in the Czech Republic, again primarily supported by the implementation of nationally funded projects, increased the most among the observed countries compared to 2019. In Q4 2020, gross capital formation in the Czech Republic fell by 18% YoY due to the negative contribution of inventory change (the effect of inventory drawdowns offsetting supply shortfalls) and a decline in private investment (see Graph 5.10).

In 2021, gross capital formation in the Czech Republic outpaced its pre-crisis level by 8%. This was due to extremely high inventory accumulation, which was related to the rising amount of unfinished products in warehouses (especially in the case of road vehicles) as well as to the build-up of inventories for prudential reasons. Firms were clearly replenishing inventories to avoid component supply shortages or losses resulting from high inflation (Graph 5.9). In contrast, private investment activity in the Czech Republic remained subdued throughout the year, while it recovered more strongly in other countries (especially in Hungary and Slovakia). Problems in supply chains and the associated fall in capacity utilisation at the end of 2021 (by 11% compared with 2019) had a negative impact on private investment dynamics. Growth in total fixed investment was held back by lower growth in investment in machinery and equipment (increased risk and uncertainty), other buildings (limited civil engineering projects) and transport equipment (supply disruptions).

Global problems in supply chains have caused shortages of production inputs, particularly for the automotive industry, resulting in production curtailments and shutdowns during 2021. Another negative factor was rising prices and increased uncertainty about future developments. The recovery in gross capital formation was positively influenced by renewed economic growth, the easing of anti-epidemic restrictions, easy monetary conditions and public investment.

In Q1 2022, gross fixed capital formation in the Czech Republic rebounded markedly, reaching 98.8% of its 2019 value (see Graph 5.8). Investment growth was driven exclusively by the private sector, especially firms' investment in housing, other buildings and structures, and transport equipment. The transformation of some of the stock previously accumulated for investment purposes may have contributed to a large extent. When the change in inventories is included, the comparison of the Czech Republic's investment activity with neighbouring countries is much more positive. The level of gross capital formation has surpassed the 2019 values by more than 10%, making it the second highest among the countries surveyed after Poland.

5.4 Foreign Trade

In 2019, both domestic and foreign economies showed the first signs of slowing growth. The dynamics of foreign trade turnover was significantly lower year-on-year due to a slowdown in export performance. This was mainly due to a decline in imports by the Czech Republic's trading partners.

In H1 2020, all countries experienced a significant drop in exports and imports due to the anti-epidemic measures taken (production shutdowns, general lockdown of the economies). However, in H2 2020, the development of foreign trade was marked by a relatively rapid recovery of production and supply chains. The significant and, by then, historically highest trade surplus was mainly due to the export side of capital goods (motor vehicles, electrical equipment), while on the import side, the mineral fuels deficit fell due to lower mineral prices.

The Czech Republic's foreign trade maintained its strong growth dynamics in both exports and imports in Q1 2021, despite the persistent restrictive measures and emerging constraints in supply chains, which affected the development of foreign trade (especially on the export side) in H2 2021 in connection with forced production shutdowns in the automotive industry. Supply chain problems peaked in Q3 2021, when motor vehicles production fell by 49.1% QoQ (Graph 5.16). Motor vehicle production in the Czech Republic largely determines the growth rate of merchandise exports (see Graph 5.20). This has caused a slump in foreign trade in H2 2021. Motor vehicle exports have played a crucial role here, with their share in total exports exceeding 20% over the long term. Only Slovakia (34%) has a higher share within the countries under review. By contrast, exports in Poland and Austria are more diversified, with the share of road vehicles in exports above 10% (see Graph 5.17).

The slower recovery of foreign trade in the Czech Republic in international comparison may be due to the structure of Czech exports, and hence of industry. Czech industry is primarily export-oriented, so the deterioration in industrial conditions has a negative impact on exports themselves (see Graph 5.19). The automotive sector, as already mentioned, plays a crucial role. According to the Automotive Industry Association (2021), up to 90% of domestically produced cars are exported. In Germany, which also faced forced production stoppages and therefore a slower export recovery, the share of cars in exports was 76.7% according to VDA (2021).

The strong position of the automotive industry in the Czech Republic is also reflected in its share of gross value added, which in 2019 was over 6% in the Czech Republic and Slovakia, and 5% in Germany, while the EU average is 2.4% (see Graph 5.15). Countries with a higher share of the automotive industry, or industry in general, then showed a slower recovery due to their greater dependence on imported raw materials. The Czech Republic is extremely vulnerable to external shocks. According to international input-output tables published by the OECD (2021), 42.0% of the value added of Czech exports is generated abroad. Czech Republic together with Slovakia (48.0%) and Hungary (46.3%) thus belongs among the countries with high import intensity (see Graph 5.18).

Moreover, due to missing components, work in progress was piling up in warehouses, increasing inventories (see Graph 5.9). This, combined with the growth in imports for intermediate consumption (which was probably related to the increase in inventories for prudential reasons) and high prices of energy commodities and raw materials, led to a significant decline in the trade balance, even compared to other countries, which contributed significantly to the negative contributions of foreign trade to GDP formation and a slower post-crisis recovery.

The above suggests that economies more involved in global supply and demand chains have been characterised by slower export recovery. In the case of the Czech

Republic, the openness rate (measured as exports to GDP) reached 76.0% in 2015–2021. Only Hungary (83.7%) and Slovakia (92.0%) achieved higher openness rates. On the other hand, Poland (55.0%) and Austria (54.0%) have the lowest openness. The EU average is 48.0% of GDP.

5.5 Conclusion

The coronavirus pandemic that hit the world in spring 2020 significantly disrupted the existing economic ties and relationships of the globalised world. Economies dealt with this external shock, which was unprecedented in the globalised world, in different ways. The first wave of the coronavirus in Europe was characterised by severe restrictions on economic activity, with production shutting down and financial support promised to compensate for the economic damage caused.

Nevertheless, most EU economies did not avoid a strong economic downturn in Q1 and especially Q2 2020. The subsequent recovery in economic performance has occurred with varying degrees of intensity and has largely depended on the structure of economies, the confidence of economic entities, other restrictive measures or the resilience of individual countries to supply shocks.

Hungary and Poland were the fastest to return to 2019 levels (at the beginning of 2021). By contrast, the Czech Republic, Germany and Austria reached their pre-crisis levels a year later. Germany, the Czech Republic and Slovakia are heavily industrial and export-oriented, so their recovery has been negatively affected mainly by supply chain disruptions.

More extensive austerity measures and high household caution, which translated into a strong increase in the savings rate, significantly dampened household consumption in the Czech Republic, Austria and Germany. In contrast, in Hungary and Poland, household consumption was the main driver of the rapid economic recovery. Government final consumption expenditure acted as a stabilising component and strongly supported the subsequent recovery in all economies.

In the case of gross fixed capital formation, the largest declines were recorded in the Czech Republic, Germany and Slovakia, due to production shutdowns in the automotive industry and a sharp reduction in capacity utilisation. Firms' investment in fixed assets was virtually stagnant in these countries throughout 2021. However, in addition to the stagnation in private investment, Poland and Austria were characterised by higher investment activity by governments, especially in infrastructure. The aforementioned dependence of the Czech, German and Slovak economies on the automotive industry and foreign supplies, in addition to the limited investment activity, has also been reflected in a decline in export performance.

The recovery of the Czech economy after the pandemic was thus negatively affected primarily by the difficult situation in industry, which was reflected in weak exports and reduced investment by firms in fixed capital. Czech households, which are characterised by a high savings rate and relative prudence, did not help much either. This significantly limited the recovery of household consumption, which is noticeably lagging behind most countries. The dominant driver of growth was thus inventory accumulation, which was the most pronounced among the economies under review, both because of a strong industrial orientation and exposure to risks of supply shortages of key components, and because of efforts to frontload ahead of the expected rise in the price level, which is relatively stronger in the Czech Republic.

At present, future prospects are burdened with unprecedented uncertainty. The ongoing war in Ukraine, rising price level, continuing problems in supply chains and weakening foreign demand threaten the already fragile recovery of the Czech economy. Both fiscal policy – in the need of bringing about consolidation of public budgets while finding social reconciliation – and monetary policy – on the way to bring inflation back to the target – will be challenged.

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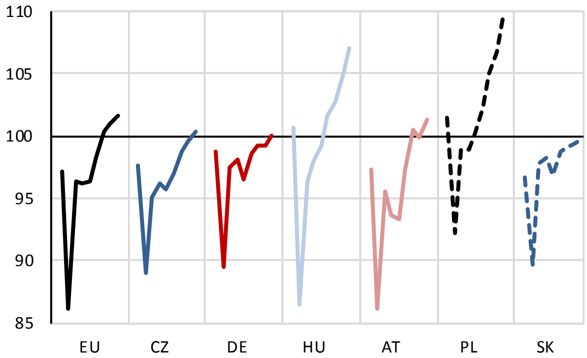
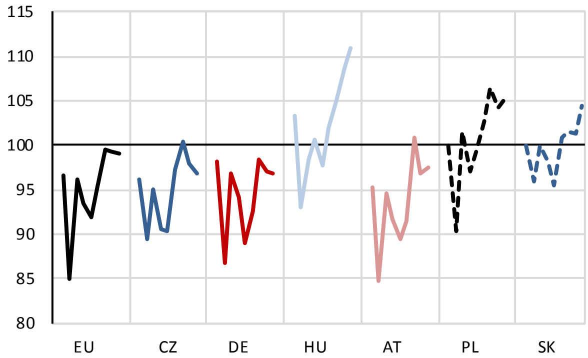
Graph 5.1: Gross Domestic Product
2019=100, quarterly data from Q1 2020 to Q1 2022



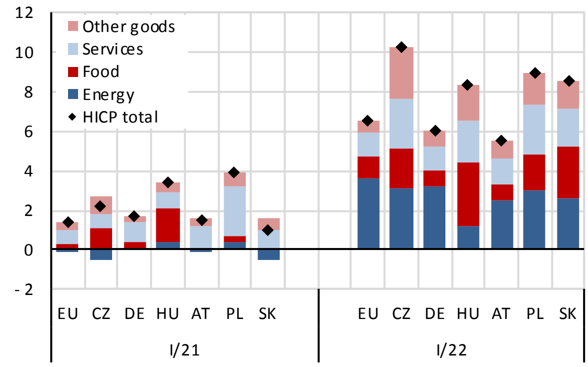
Source: Eurostat. Calculations of the MoF.

Graph 5.2: Consumption of Households
2019=100, quarterly data from Q1 2020 to Q1 2022



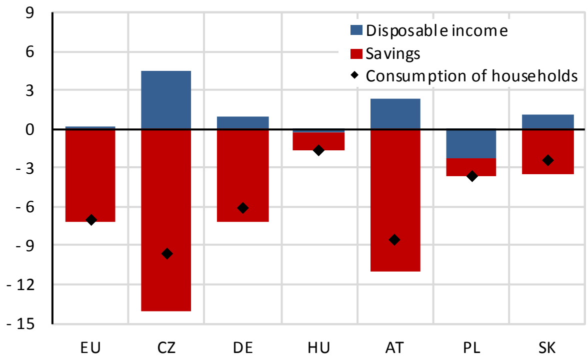
Source: Eurostat. Calculations of the MoF.

Graph 5.3: Harmonized Index of Consumer Prices
YoY growth in %, contributions in percentage points



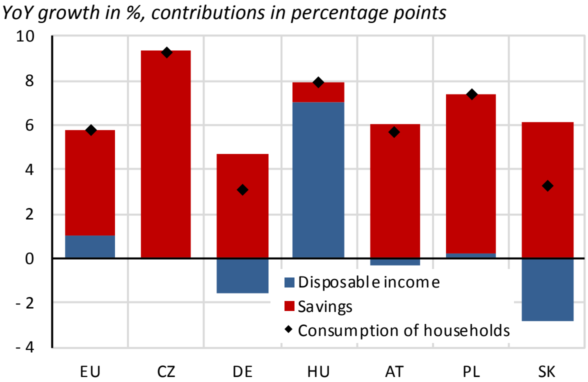
Source: Eurostat. Calculations of the MoF.

Graph 5.4: Consumption of Households – Q4 2020
YoY growth in %, contributions in percentage points



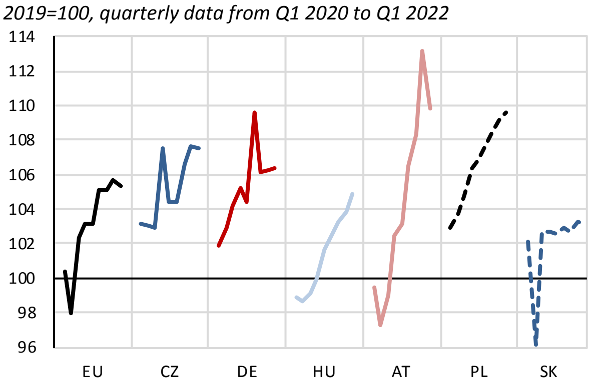
Source: Eurostat. Calculations of the MoF.

Graph 5.5: Consumption of Households – Q4 2021
YoY growth in %, contributions in percentage points



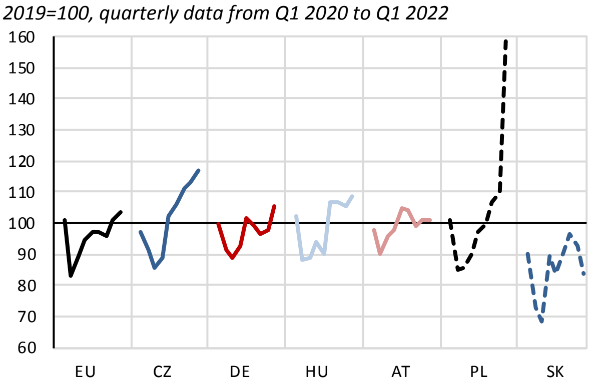
Source: Eurostat. Calculations of the MoF.

Graph 5.6: General Government Consumption
2019=100, quarterly data from Q1 2020 to Q1 2022



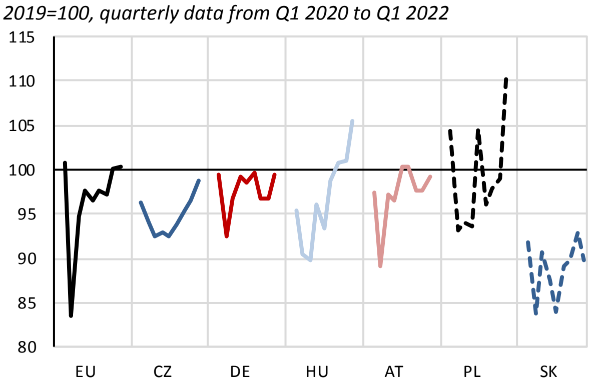
Source: Eurostat. Calculations of the MoF.

Graph 5.7: Gross Capital Formation
2019=100, quarterly data from Q1 2020 to Q1 2022



Source: Eurostat. Calculations of the MoF.

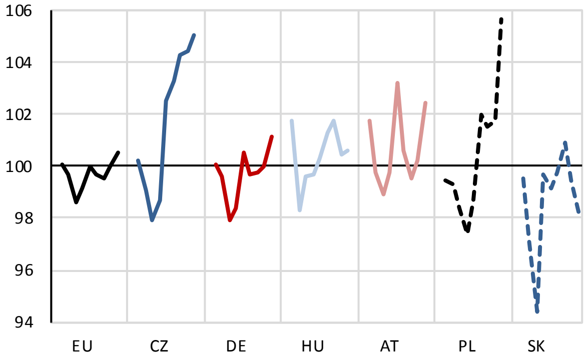
Graph 5.8: Gross Fixed Capital Formation
2019=100, quarterly data from Q1 2020 to Q1 2022



Source: Eurostat. Calculations of the MoF.

Graph 5.9: Change in Inventories – Contr. to GDP Growth

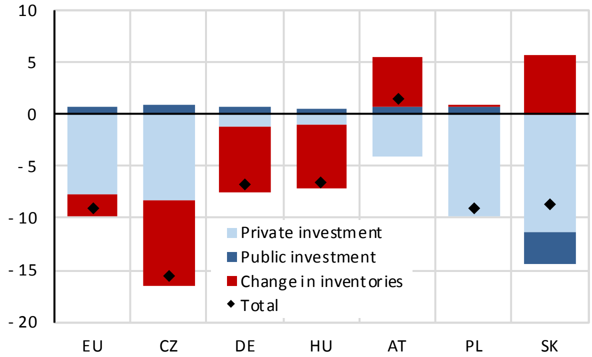
2019=100, quarterly data from Q1 2020 to Q1 2022



Source: Eurostat. Calculations of the MoF.

Graph 5.10: Gross Capital Formation – Q4 2020

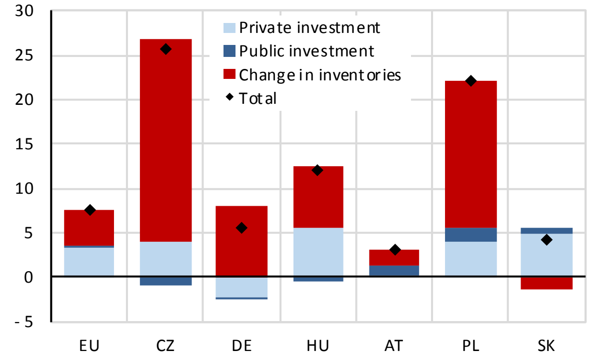
YoY growth in %, contributions in percentage points



Source: Eurostat. Calculations of the MoF.

Graph 5.11: Gross Capital Formation – Q4 2021

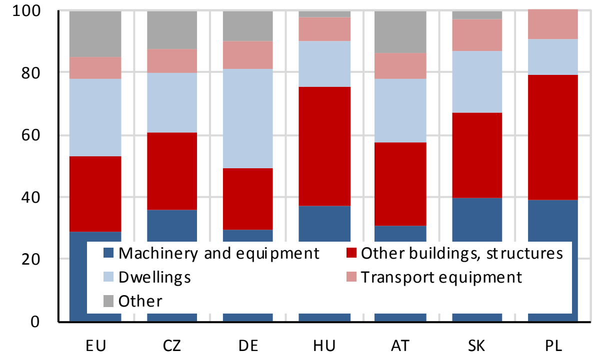
YoY growth in %, contributions in percentage points



Source: Eurostat. Calculations of the MoF.

Graph 5.12: GFCF by Type of Expenditure

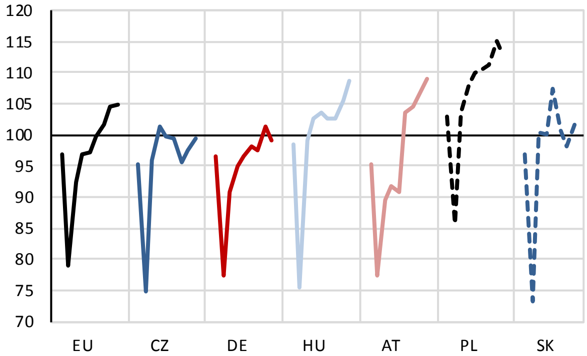
share in gross fixed capital formation in %, 2019–2022 average



Source: Eurostat. Calculations of the MoF.

Graph 5.13: Exports of Goods and Services

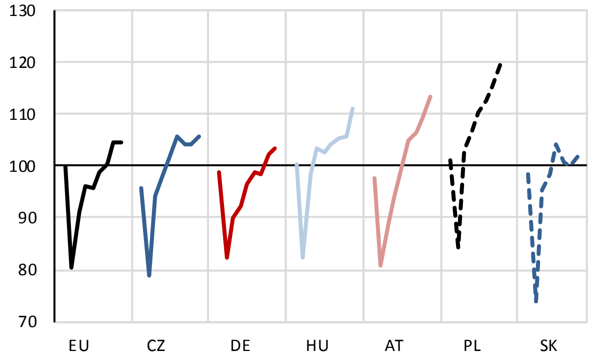
2019=100, quarterly data from Q1 2020 to Q1 2022



Source: Eurostat. Calculations of the MoF.

Graph 5.14: Imports of Goods and Services

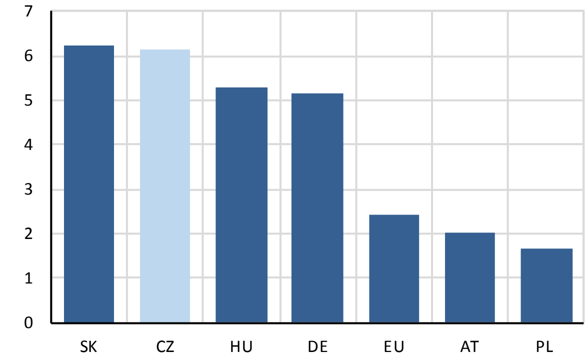
2019=100, quarterly data from Q1 2020 to Q1 2022



Source: Eurostat. Calculations of the MoF.

Graph 5.15: Share of Automotive Industry in GVA

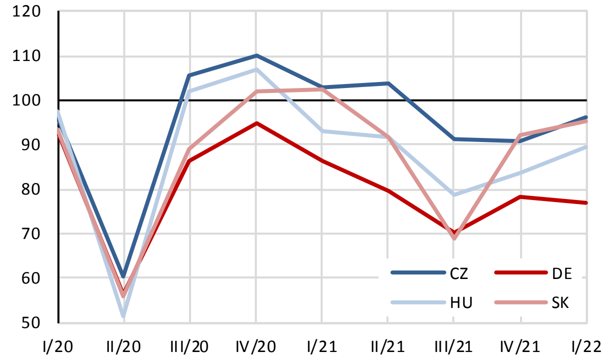
in %, 2015 constant prices, data for 2019



Source: Eurostat. Calculations of the MoF.

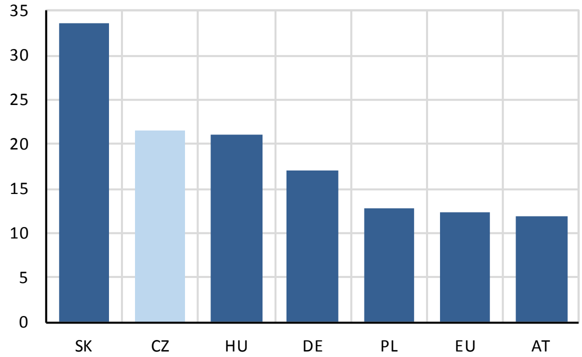
Graph 5.16: Manufacture of Motor Vehicles

2019=100, industrial production index



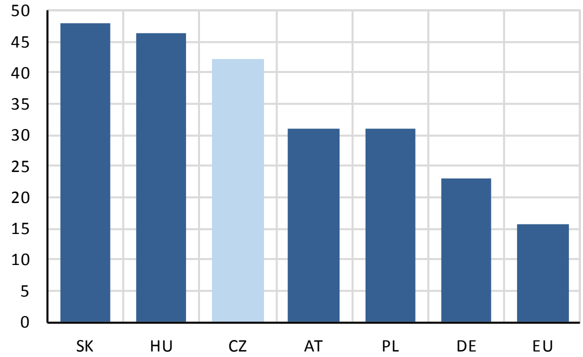
Source: Eurostat. Calculations of the MoF.

Graph 5.17: Exports of Motor Vehicles
in % of total exports of goods, current prices, data for 2019



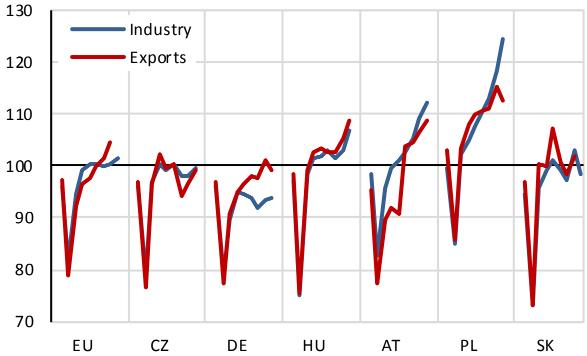
Source: Eurostat. Calculations of the MoF.

Graph 5.18: Import Content of Goods Exports
in %, data for 2018



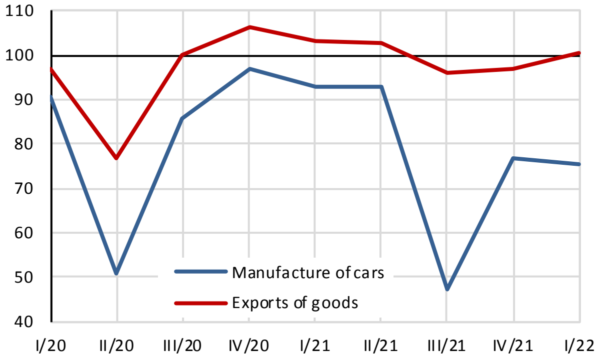
Source: OECD. Calculations of the MoF.

Graph 5.19: Exports and Industrial Production
2019=100, exports of goods and services



Source: Eurostat. Calculations of the MoF.

Graph 5.20: Car Manufacture and Goods Exports – CR
2019=100



Source: Eurostat. Calculations of the MoF.

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