

Macroeconomic Forecast of the Czech Republic

January 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 year 2022 and for certain indicators an outlook for the 2 following years (i.e. until 2024). 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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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
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 forecast is based on the data known as of 13 January 2022; the cut-off date for selected forecast assumptions was 6 January 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 (November 2021) are indicated by italics. Data relating to the years 2023 and 2024 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

Economic output in most advanced economies has already exceeded or is approaching the end-2019 level. However, the recovery is fragile and highly uneven both across countries and sectors. Close contact services, such as travel, tourism and various leisure activities, remain the hardest hit. In contrast, global demand for consumer goods is high, thanks also to the largely very loose fiscal and monetary policies so far. However, the supply side is constrained by persisting problems in supply chains and shortages of some specific production inputs. As a result, inflation has accelerated across all price categories, including consumer prices.

The very open Czech economy with a high share of car production in value added is highly vulnerable in this respect. Problems on the supply side of the economy are reinforcing adverse inflationary developments, slowing economic growth and contributing to a decrease in the current account surplus.

In Q3 2021, **real gross domestic product** of the Czech Republic, adjusted for seasonal and calendar effects, increased by 1.6% QoQ. The year-on-year growth (unadjusted) reached 3.0%.

Household consumption increased by 5.9%, driven by the growth in real disposable income and relaxed anti-epidemic measures, which, together with improved consumer confidence, led to a decline in the savings rate. **General government consumption** grew by 3.0% on the back of higher health spending and employment growth.

Gross fixed capital formation was only 0.4% higher. Increases in investment in dwellings, transport equipment and intellectual property products were accompanied by declines in other categories. From a sectoral perspective, the growth was supported by investment spending by households and general government.

The contribution of the **change in inventories** and valuables to economic growth was 6.8 pp, the highest since the beginning of the time series in 1997. Firms replenished inventories, apparently to avoid shortfalls in component supplies and losses resulting from high inflation, and stocks of work in progress also increased.

However, the contribution of the **foreign trade** balance was deeply negative (−7.2 pp), not just because of shortfalls in export production but also due to the high import rate resulting from the strong accumulation of inventories.

We estimate that the Czech Republic's economic output rose by **2.9%** in **2021** as a whole, with all components of domestic demand contributing positively, most notably the change in inventories and household consumption. By contrast, the foreign trade balance slowed down economic growth strongly.

For the year **2022**, we work with a **scenario** in which the worsening epidemic situation can be managed without the need to adopt macroeconomically significant anti-epidemic restrictions. At the same time, we expect the adverse effects of rising input prices and disruptions in production chains to persist in the first half of this year.

Economic growth of **3.1%** should then be driven by investment spending by the private sector and public institutions. Household consumption should continue to be

an important growth driver. However, it will be dampened by a sharp increase in the cost of living, especially energy prices. The external trade balance should also make a positive contribution.

High inflation is becoming a macroeconomic and social problem. The average rate of inflation was 3.8% in 2021 and is expected to reach 8.5% this year. Annual inflation should be close to 10% in Q1 2022 and remain elevated for the rest of the year. Increases in electricity and gas prices should contribute significantly to inflation this year. The price of oil and unit labour costs will also be pro-inflationary, but the strength of these factors should be lower than in 2021. Supply frictions are likely to persist in the first half of the year. On the contrary, the appreciation of the Czech koruna against the euro, triggered by the increase in monetary policy rates, should be anti-inflationary.

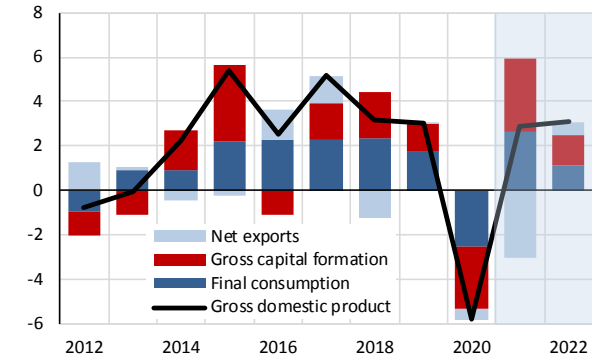
After a short pause, the imbalances that characterised the labour market before the outbreak of the epidemic are reappearing. Labour shortages persist in virtually all sectors of the economy. **Unemployment** is decreasing thanks to the continued economic growth. The seasonally adjusted unemployment rate fell to 2.3% in November 2021, the lowest level since April 2020. We estimate that the unemployment rate averaged 2.8% in 2021 and will fall further to 2.3% in 2022.

Supply chain disruptions and forced production shutdowns in industry led to a significant decline in the surplus on the **current account of the balance of payments**. The deterioration in the positive balance was also influenced by strong momentum of goods imports. Component shortages, together with rising input and energy prices, are expected to weigh on the trade balance also this year. We therefore estimate that the current account reached a deficit of 1.0% of GDP in 2021, which could widen to 1.3% of GDP in 2022.

In 2021, **the public finances** were heavily burdened by the situation caused by the coronavirus epidemic, its economic consequences and the measures implemented in the health care sector, as well as the impact of fiscal stimulus. We estimate that expansionary fiscal policy led to a deficit of 6.1% of GDP and a rise in debt to 42.0% of GDP in 2021.

The recovery driven by domestic demand

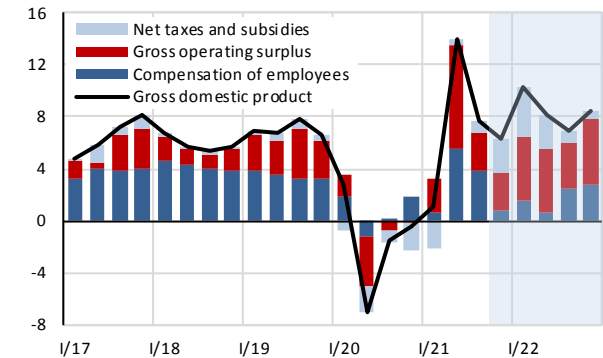
growth rate of real GDP in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

Firms' profits growing faster than nominal GDP

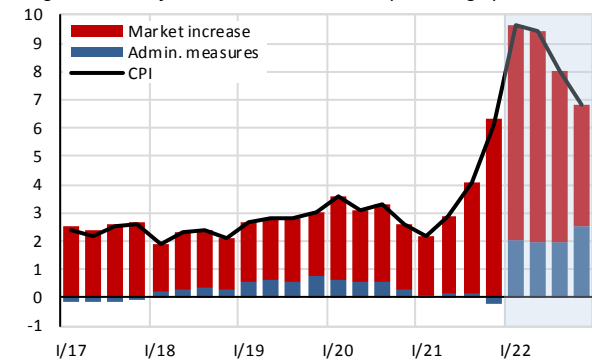
YoY growth of nominal GDP in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

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

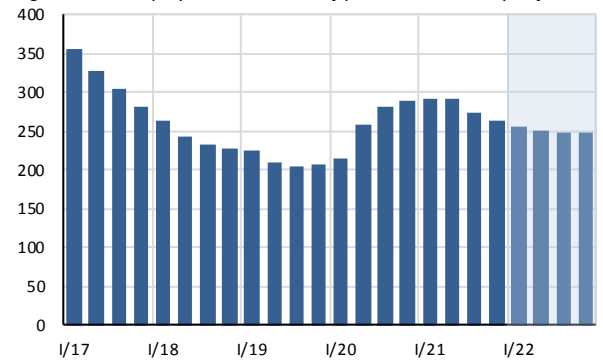
YoY growth rate of CPI in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

Unemployment should gradually decline

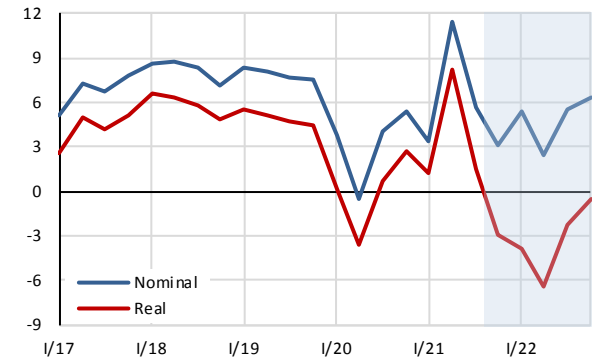
registered unemployment, in thous. of persons, seasonally adjusted



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

Wage growth should temporarily lag behind inflation

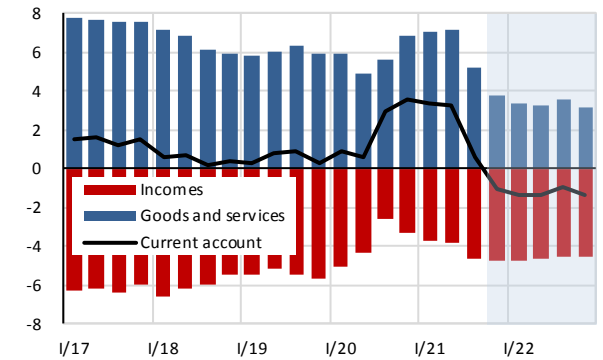
average gross monthly wage, YoY growth rate, in %



Source: CZSO. Calculations and forecast of the MoF.

Current account should be in deficit

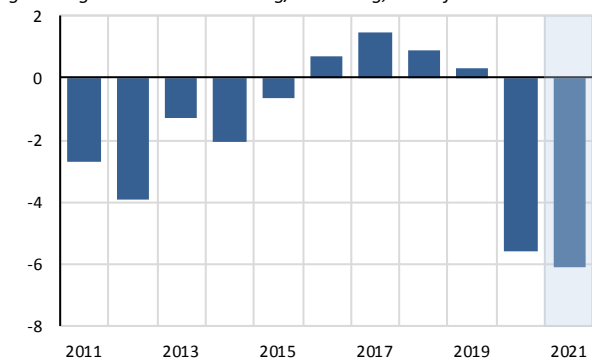
in % of GDP, yearly moving sums



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

Public finances burdened by fiscal expansion

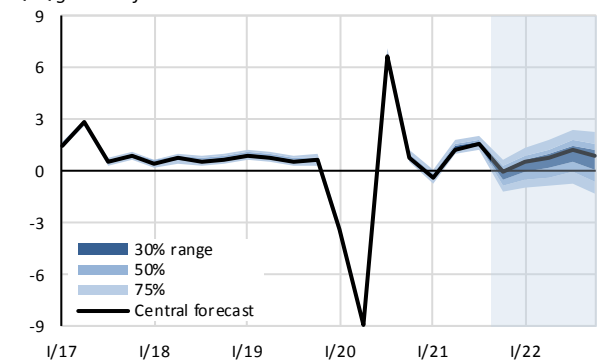
general government net lending/borrowing, in % of GDP



Source: CZSO. Calculations and forecast of the MoF.

Forecast risks are skewed to the downside

QoQ growth of real GDP in %



Note: Past probability distribution determined by data revisions.

Source: CZSO. Calculations and forecast of the MoF.

Table: Main Macroeconomic Indicators

		2016	2017	2018	2019	2020	2021	2022	2021	2022
							Current forecast		Previous forecast	
Nominal GDP	<i>bill. CZK</i>	4 797	5 111	5 410	5 790	5 694	6 103	6 617	6 038	6 498
	<i>nominal growth in %</i>	3.7	6.5	5.8	7.0	-1.7	7.2	8.4	6.0	7.6
Gross domestic product	<i>real growth in %</i>	2.5	5.2	3.2	3.0	-5.8	2.9	3.1	2.5	4.1
Consumption of households	<i>real growth in %</i>	3.8	4.0	3.5	2.7	-6.8	4.8	2.3	3.7	4.7
Consumption of government	<i>real growth in %</i>	2.5	1.8	3.8	2.5	3.4	1.9	0.4	2.3	0.4
Gross fixed capital formation	<i>real growth in %</i>	-3.0	4.9	10.0	5.9	-7.5	0.8	5.4	4.6	5.4
Contribution of net exports	<i>pp</i>	1.4	1.2	-1.2	0.0	-0.5	-3.0	0.6	-2.5	0.4
Contrib. of change in inventories	<i>pp</i>	-0.3	0.5	-0.5	-0.3	-0.8	3.2	0.0	1.6	0.0
GDP deflator	<i>growth in %</i>	1.1	1.3	2.6	3.9	4.4	4.1	5.2	3.4	3.4
Average inflation rate	<i>%</i>	0.7	2.5	2.1	2.8	3.2	3.8	8.5	3.5	6.1
Employment (LFS)	<i>growth in %</i>	1.9	1.6	1.4	0.2	-1.3	-0.4	1.1	-0.5	0.8
Unemployment rate (LFS)	<i>average in %</i>	4.0	2.9	2.2	2.0	2.6	2.8	2.3	3.0	2.7
Wage bill (domestic concept)	<i>growth in %</i>	5.7	9.2	9.6	7.8	0.2	5.7	5.4	5.3	5.1
Current account balance	<i>% of GDP</i>	1.8	1.5	0.4	0.3	3.6	-1.0	-1.3	-0.1	-0.3
General government balance	<i>% of GDP</i>	0.7	1.5	0.9	0.3	-5.6	-6.1	.	-7.2	-4.4
Assumptions:										
Exchange rate CZK/EUR		27.0	26.3	25.6	25.7	26.4	25.6	24.4	25.6	25.0
Long-term interest rates	<i>% p.a.</i>	0.4	1.0	2.0	1.5	1.1	1.9	3.3	1.9	2.7
Crude oil Brent	<i>USD/barrel</i>	44	54	71	64	42	71	76	70	72
GDP in the euro area	<i>real growth in %</i>	1.8	2.8	1.8	1.6	-6.5	5.1	3.9	5.0	3.9

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 that we consider to be **skewed to the downside** in aggregate.

Persistent problems in **global supply chains** are contributing to inflationary pressures and, particularly in industry, represent a significant barrier to output growth. We expect the situation to improve gradually over the course of this year, after which the shortage of production inputs should no longer dampen economic growth to any significant extent. However, the risk that problems in supply chains will last longer is far from negligible.

Once the disruptions in supply chains subside, upward pressures on the price level should ease. Even then, however, the risk of higher **inflation expectations** well above the CNB's target and hence of tighter monetary policy setting may persist.

The forecast is based on the assumption that the current deterioration of **the epidemic situation** in the Czech Republic and abroad, caused by the spread of the more infectious omicron variant, will be managed without the need to adopt macroeconomically significant anti-epidemic restrictions. The emergence and spread of new variants of the coronavirus, against which available vaccines would be less effective, continues to pose a significant risk.

It will also be crucial whether and how quickly **structural changes** will take place in the economy. The available data clearly show that the imbalances that characterised the labour market before the epidemic are reappearing after a short pause. Staff shortages are evident in almost all sectors of the economy and represent a significant barrier to output growth, particularly in the construction sector. However, labour market tensions could support **the dynamics of wages**, which could thus grow faster than forecast. This is particularly relevant at the outlook horizon, when the strong increase in the prices of many production inputs should already have subsided.

In the medium and long term, in view of demographic developments, it will remain crucial to increase **labour productivity**. At the same time, labour market problems could spur **investment** in automation, robotics and digital technologies. Gross fixed capital formation could therefore grow faster than forecast. 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 an important 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 the same time, households could use these funds, at least in part, to finance **deferred consumption** or to **reduce the impact** of dynamic consumer price inflation on disposable incomes.

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 latter factor is a current problem for the automotive industry. The risks are also exacerbated by the structural changes that will take place in the automotive industry 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 H1 2021, the epidemic situation in most countries gradually improved and anti-epidemic restrictions were eased. Together with supportive government measures and the realization of deferred consumption, this led to a strong economic recovery in Q2 in many economies. At the same time, however, the number of infections has been rising again in many emerging and developing countries and global supply chains have been disrupted. Shortages of inputs and high consumer demand, which resulted in sharp price increases, led to a slowdown in economic growth in many countries in Q3. The end of 2021 was characterised by worsening pandemic situation due to the spread of the omicron variant, and the reintroduction of restrictive measures in some countries. The effectiveness of existing vaccines against new strains of the virus poses considerable uncertainty for the future evolution of the pandemic. It is also a significant forecast risk, together with persistent problems in global supply chains and strong inflationary pressures. We estimate that the **world economy** grew by 5.9% in 2021 (vs. 5.8%). We expect growth to decelerate to 4.9% (vs. 4.5%) in 2022 due to slowing economic growth in the world's major economies.

The quarter-on-quarter GDP growth in the **United States** slowed to 0.6% in Q3 2021. The change in inventories and household consumer spending contributed positively to economic momentum. The foreign trade balance and investment activity acted in the opposite direction.

Purchasing managers' indices in manufacturing indicated a slowdown in production, but remained in the expansionary territory in December. However, economic activity continues to be accompanied by significant increases in the cost of materials and transportation of goods. Consumer confidence remains at low levels despite a slight improvement.

The labour market situation improved significantly in the second half of last year. The unemployment rate declined to 3.9% in December, the lowest level since February 2020. The recovery in economic activity is reflected in a significant shortage of workers in a number of sectors, particularly in services. Annual retail sales growth accelerated to 18.2% in November. Strong demand, together with problems in global supply chains, is contributing to the acceleration in annual inflation, which reached 7.0% in December. The Fed has not yet raised the federal funds rate at its December meeting, which remains within the target range of 0.00–0.25%. The monthly volume of assets purchases has been cut by a third since January 2022 due to strong inflationary pressures.

Favourable developments in consumer demand, together with the investment plan for economic recovery, should be among the main factors behind the economic dynamics this year. Economic growth in the US could thus reach 3.1% (vs. 3.0%). The main risk for the upcoming developments is the pandemic situation. The number of new cases is reaching historic highs and, although no decision has yet been taken to introduce significant restrictions, a strongly negative, albeit temporary, impact on labour supply can be expected. Frictions in supply chains and tensions in US-China trade relations also remain unresolved issues.

China's GDP increased by 0.2% QoQ in Q3 2021. December's manufacturing purchasing managers' index signals increases in production, new orders and employment. Sentiment among service businesses continues to be in expansionary territory despite concerns about rising input costs. On the other hand, the outlook for this year has deteriorated due to uncertainty associated with the pandemic. Retail sales increased 3.9% YoY in November. We estimate China's economic growth reached 7.8% (*unchanged*) in 2021; this year, GDP growth could slow to 4.7% (*unchanged*). The most significant risks include a potential worsening of the epidemic, financial health of major property developers, and a recurrence of widespread power outages.

The quarter-on-quarter GDP growth in both the **EU** and the euro area maintained its strong momentum at just above 2% in Q3 2021. Household consumption was the dominant factor, with external trade balance also making a positive contribution. In contrast, gross fixed capital formation dampened the growth. The impact of general government consumption was almost neutral following a gradual moderation of epidemic-induced spending.

Consumer price inflation continued to accelerate in the euro area towards the end of 2021, reaching 5.0% in December according to the preliminary estimate. The most important contributor to the increase in the price level was the rise in energy prices. The European Central Bank's monetary policy did not undergo any major changes, with the key interest rate remaining at zero. Asset purchases are to be gradually tapered off during 2022.

The unemployment rate in the euro area continued to show a progressive downward trend, reaching 7.2% in November. Purchasing managers' indices in manufacturing and services fell in December to their lowest levels since February and April 2021 respectively, but expectations for future developments in industry improved. Industrial production posted a 2.3% month-on-month in-

crease in November after a three-month decline. The recovery in retail sales in the euro area continued, with month-on-month growth of 1.0% in November. However, consumers' economic outlook deteriorated.

We estimate that GDP in the European Union grew by 5.1% (vs. 4.9%) last year, the same as in the euro area (vs. 5.0%). This year, economic growth could slow to 4.0% (vs. 3.9%) in the EU27 and 3.9% (*unchanged*) in the euro area. The forecast takes into account both supply-side problems and the projected slower recovery in household consumption due to rapid price increases. However, it is still burdened by high uncertainty related to the evolution of the pandemic, especially as regards the effectiveness of vaccines against new coronavirus variants. Another downside risk is the situation in supply chains and the shortage of semiconductors, which has a significant impact on the automotive industry in particular.

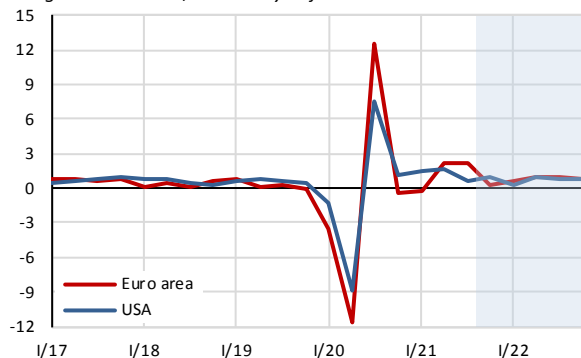
Germany's economy grew by 1.7% QoQ in Q3 2021, with household consumption driving the strong recovery. In contrast, general government final consumption expenditure, gross fixed capital formation and foreign trade dampened the growth momentum. The situation in industry remained tense, with industrial production de facto stagnating month-on-month in November following the growth in October. The manufacturing purchasing managers' index stayed at November's level in December after previous declines and continues to remain in expansionary territory. The rebound in manufacturing is held back by shortages of input materials and components. Firms took advantage of improved availability of inputs to build up their stocks in December. This could help satisfy a large number of pending orders in the course of this year. Business confidence continued to decline in December. A new wave of contagions and measures being introduced worsened the situation especially in services, where the purchasing managers' in-

dex also fell into contractionary territory. Consumer confidence also decreased – to its lowest level in the second half of 2021. The unemployment rate fell to 3.2% in November. Given the intensity of the problems in supply chains, high inflation and the reintroduction of anti-epidemic measures, we estimate that Germany's GDP grew by 2.7% (vs. 2.8%) last year. In 2022, economic growth could accelerate to 4.1% (vs. 3.9%), as the projected improvement in the epidemic situation in the spring months and the partial use of accumulated savings should lead to a stronger recovery in private consumption, complemented by an increase in exports and investment activity as supply chain problems recede.

In **Slovakia**, GDP increased by 0.4% QoQ (vs. 1.5%) in Q3 2021. The growth was driven by household consumption and changes in inventories and valuables. Foreign trade had a negative impact on the growth due to a decline in exports of goods. General government final consumption and gross fixed investment had a neutral effect. Following the growth in October, industrial production further increased in November by 3.5% month-on-month. The unemployment rate continued to decrease slowly, reaching 6.3% in November. In addition to the supply chains disruptions, the development of the epidemic is also a major risk in Slovakia given the low vaccination coverage and the spread of a new coronavirus strain. The shortage of input components in the automotive industry and the reinstatement of anti-epidemic measures had a negative impact on economic developments in late 2021. We estimate that GDP growth reached 3.1% (vs. 3.8%) last year. In 2022, we expect economic activity to increase by 4.5% (vs. 4.0%). The strong growth should be supported not only by an improvement in the industrial sector due to increased supply of inputs, but also by strong household consumption dynamics, assuming the retreat of the epidemic and a moderation of inflation in the course of the year.

Graph 1.1.1: Real GDP in the euro area and USA

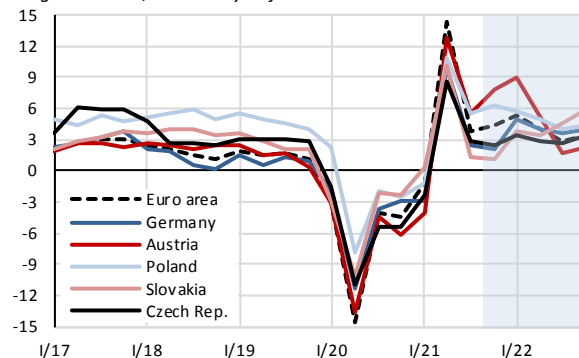
QoQ growth rate in%, seasonally adjusted



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

Graph 1.1.2: Real Gross Domestic Product

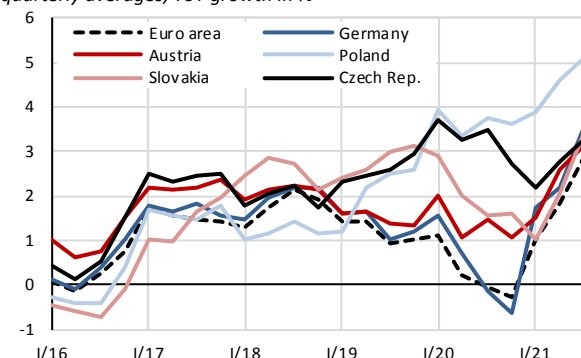
YoY growth in %, seasonally adjusted



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

Graph 1.1.3: HICP

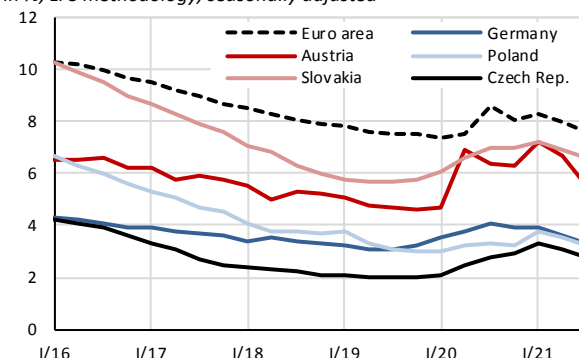
quarterly averages, YoY growth in %



Source: Eurostat. Calculations of the MoF.

Graph 1.1.4: Unemployment Rate

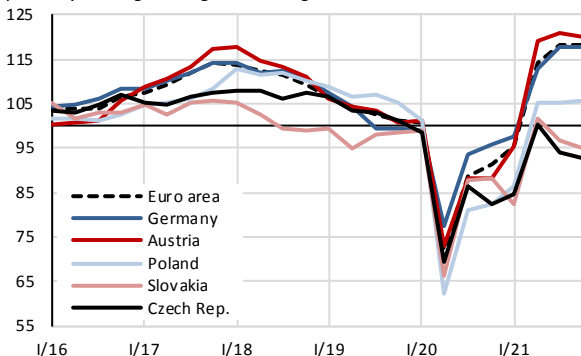
in %, LFS methodology, seasonally adjusted



Source: Eurostat.

Graph 1.1.5: Economic Sentiment Indicator

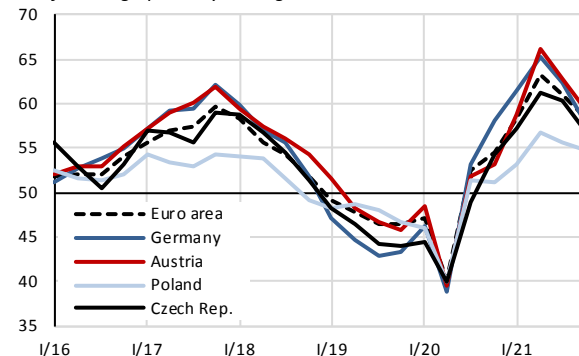
quarterly averages, long-run average = 100



Source: Eurostat. Calculations of the MoF.

Graph 1.1.6: Purchasing Managers' Index

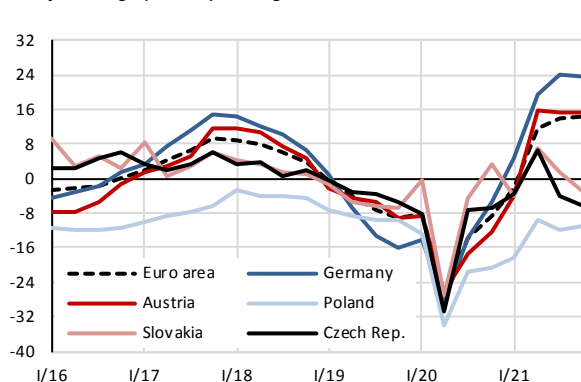
manufacturing, quarterly averages



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); seasonally adjusted index of 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 %*

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
											<i>Estimate Forecast</i>
World	<i>seasonally adjusted</i>	3.5	3.6	3.5	3.3	3.8	3.6	2.8	-3.1	5.9	4.9
USA	<i>seasonally adjusted</i>	1.8	2.3	2.7	1.7	2.3	2.9	2.3	-3.4	5.5	3.1
China	<i>seasonally adjusted</i>	7.8	7.4	7.3	6.9	7.0	6.7	5.9	2.2	7.8	4.7
United Kingdom	<i>seasonally adjusted</i>	1.9	3.0	2.6	2.3	2.1	1.7	1.7	-9.4	7.1	4.3
European Union	<i>seasonally adjusted</i>	0.0	1.6	2.2	2.0	2.9	2.1	1.8	-6.1	5.1	4.0
	<i>unadjusted</i>	0.0	1.6	2.3	2.0	2.8	2.1	1.8	-5.9	.	.
Euro area	<i>seasonally adjusted</i>	-0.2	1.4	1.9	1.8	2.8	1.8	1.6	-6.5	5.1	3.9
	<i>unadjusted</i>	-0.2	1.4	2.0	1.9	2.6	1.8	1.6	-6.4	.	.
Germany	<i>seasonally adjusted</i>	0.6	2.2	1.2	2.1	3.0	1.1	1.1	-4.9	2.7	4.1
	<i>unadjusted</i>	0.4	2.2	1.5	2.2	2.7	1.1	1.1	-4.6	2.8	4.3
France	<i>seasonally adjusted</i>	0.6	1.0	1.0	1.0	2.4	1.8	1.8	-8.0	6.6	3.7
	<i>unadjusted</i>	0.6	1.0	1.1	1.1	2.3	1.9	1.8	-7.9	6.7	3.7
Italy	<i>seasonally adjusted</i>	-1.9	0.1	0.7	1.4	1.7	0.8	0.4	-9.0	6.2	4.1
	<i>unadjusted</i>	-1.8	0.0	0.8	1.3	1.7	0.9	0.4	-8.9	6.2	4.0
Austria	<i>seasonally adjusted</i>	0.0	0.8	1.0	1.9	2.4	2.5	1.5	-6.8	5.3	4.4
	<i>unadjusted</i>	0.0	0.7	1.0	2.0	2.3	2.5	1.5	-6.7	5.2	4.4
Hungary	<i>seasonally adjusted</i>	1.8	4.1	3.7	2.1	4.4	5.4	4.6	-4.9	6.3	4.8
	<i>unadjusted</i>	1.8	4.2	3.7	2.2	4.3	5.4	4.6	-4.7	6.3	4.8
Poland	<i>seasonally adjusted</i>	1.1	3.4	4.2	3.2	4.9	5.4	4.8	-2.5	5.3	4.8
	<i>unadjusted</i>	1.1	3.4	4.2	3.1	4.8	5.4	4.7	-2.5	5.3	4.8
Slovakia	<i>seasonally adjusted</i>	0.7	2.7	5.2	1.9	3.0	3.8	2.6	-4.4	3.1	4.5
Czech Republic	<i>seasonally adjusted</i>	0.0	2.3	5.5	2.4	5.4	3.2	3.0	-5.8	2.8	3.1
	<i>unadjusted</i>	0.0	2.3	5.4	2.5	5.2	3.2	3.0	-5.8	2.9	3.1

Source: CZSO, Eurostat, IMF, NBS China, 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	Forecast	Forecast
USA	QoQ	1.5	1.6	0.6	1.0	0.3	1.0	0.7	0.8
	YoY	0.5	12.2	4.9	4.8	3.6	3.0	3.1	2.9
China	QoQ	0.2	1.2	0.2	0.5	1.6	1.5	1.5	1.4
	YoY	17.8	7.7	4.9	2.1	3.5	3.8	5.2	6.1
United Kingdom	QoQ	-1.3	5.4	1.1	0.6	0.9	0.8	0.7	0.6
	YoY	-5.1	24.2	6.8	5.8	8.2	3.4	3.0	3.0
European Union	QoQ	0.0	2.1	2.1	0.3	0.8	0.9	0.9	0.7
	YoY	-1.1	13.8	4.1	4.5	5.4	4.3	3.1	3.5
Euro area	QoQ	-0.2	2.2	2.2	0.2	0.7	0.9	0.9	0.7
	YoY	-1.1	14.4	3.9	4.4	5.4	4.1	2.8	3.3
Germany	QoQ	-1.9	2.0	1.7	0.2	0.8	1.2	1.1	0.7
	YoY	-3.0	10.0	2.6	2.1	4.9	4.1	3.5	4.1
France	QoQ	0.1	1.3	3.0	0.2	0.7	0.8	0.7	0.7
	YoY	1.5	18.8	3.3	4.6	5.2	4.7	2.3	2.8
Italy	QoQ	0.3	2.7	2.6	0.3	0.8	0.8	0.7	0.6
	YoY	-0.6	17.1	3.9	5.9	6.5	4.5	2.6	3.0
Austria	QoQ	-0.4	4.2	3.8	0.1	0.6	0.6	0.5	0.5
	YoY	-4.1	12.8	5.6	7.9	8.9	5.1	1.8	2.2
Hungary	QoQ	1.5	2.0	0.7	0.5	1.4	1.5	1.4	1.2
	YoY	-1.5	17.3	6.1	4.7	4.6	4.1	4.9	5.7
Poland	QoQ	1.6	1.8	2.3	0.6	0.9	1.1	1.3	1.0
	YoY	-1.1	10.9	5.5	6.4	5.7	5.0	4.0	4.4
Slovakia	QoQ	-1.4	1.9	0.4	0.1	1.3	1.5	1.5	1.3
	YoY	0.3	10.1	1.3	1.0	3.8	3.5	4.7	5.9
Czech Republic	QoQ	-0.4	1.3	1.6	0.0	0.5	0.8	1.3	0.9
	YoY	-2.4	8.5	2.8	2.5	3.4	2.9	2.6	3.5

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

1.2 Commodity Prices

The price of Brent crude oil averaged USD 80/bbl in Q4 2021 (vs. USD 76/bbl). In both dollar and koruna terms, this represents a year-on-year increase of almost 80%.

The Organization of Petroleum Exporting Countries and other affiliates continued to gradually ease production limits in Q4 2021. Their negotiations have always resulted in confirmation of further increases in daily oil production, by 0.4 million barrels each month.

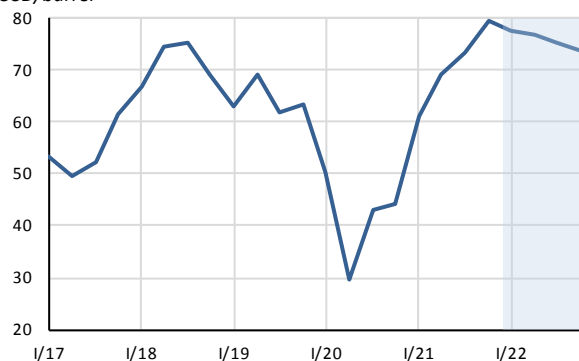
In addition to rising global oil production, oil consumption has continued to increase as the world economy has recovered. According to estimates by the United States Energy Information Administration, crude oil production stocks declined between Q3 2020 and Q4 2021 but starting in Q1 2022, world crude oil production should be roughly in line with consumption. This should create the conditions for a stable price.

However, on the futures market, oil with later delivery is trading cheaper than oil with closer delivery. The forecast Brent crude oil price reflects this downward sloping curve of futures prices, but is set slightly higher than in the November forecast. This year, the average price of a barrel of oil is expected to be 7% higher than in 2021, at USD 76 (vs. USD 72). In 2022, growth of the price of oil in CZK terms should be almost the same as in USD terms.

According to World Bank data, the strong upward trend in **commodity markets** was mainly evident from Q4 2020 to Q2 2021. From Q3 2021 onwards, prices have mostly remained at high levels. However, the upward trend continued for energy commodities, in particular natural gas. In Q4 2021 the price of natural gas in Europe reached more than six times the price in the same period of the previous year. High commodity prices are gradually being reflected in consumer prices.

Graph 1.2.1: Dollar Price of Brent Crude Oil

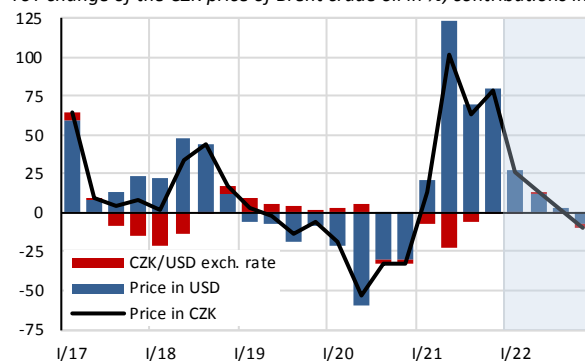
USD/barrel



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

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
											Forecast
Crude oil Brent	USD/barrel	108.6	99.0	52.4	43.6	54.2	71.4	64.3	41.8	70.8	76
	growth in %	-2.6	-8.8	-47.1	-16.9	24.3	31.7	-9.9	-35.0	69.3	7.3
Crude oil Brent index (in CZK)	2010=100	139.9	134.6	85.0	70.1	83.1	102.2	97.1	63.6	101.2	108
	growth in %	-2.7	-3.8	-36.9	-17.4	18.5	23.0	-5.0	-34.6	59.1	6.6
Natural gas (Europe)	USD/MMBtu	11.8	10.1	6.8	4.6	5.7	7.7	4.8	3.2	16.1	.
	growth in %	2.7	-14.7	-32.1	-33.1	25.3	34.4	-37.5	-32.5	397.1	.
Natural gas (Europe) index (in CZK)	2010=100	145.9	131.7	106.2	70.7	84.2	106.0	69.6	47.1	223.0	.
	growth in %	2.6	-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	Q4
						Forecast	Forecast	Forecast	Forecast
Crude oil Brent	USD/barrel	61.0	69.0	73.5	79.6	77	77	75	74
	growth in %	21.3	132.3	71.3	79.7	27.0	11.5	2.6	-7.1
Crude oil Brent index (in CZK)	2010=100	86.9	96.6	104.7	116.3	110	109	107	105
	growth in %	12.9	101.2	63.7	78.3	26.7	13.1	2.2	-9.9
Natural gas (Europe)	USD/MMBtu	6.5	8.8	16.9	32.2	.	.	.	.
	growth in %	111.2	383.8	489.4	520.6	.	.	.	.
Natural gas (Europe) index (in CZK)	2010=100	89.3	118.2	231.7	452.7	.	.	.	.
	growth in %	96.5	319.0	463.2	515.9	.	.	.	.

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

1.3 Fiscal Policy

We estimate that **the general government sector** ran a deficit of 6.1% of GDP (vs. 7.2% of GDP) in **2021**, mainly due to the state budget deficit, which bore the brunt of the stabilisation function of public finances. In spite of the boosted revenues of health insurance companies by a higher payment for the state insured persons, the social security funds are also likely to remain in deficit. By contrast, local governments are expected to post a surplus again, according to available data. In terms of **the structural balance**, expansionary fiscal policy has led to an estimated deficit of 3.9% of GDP (vs. 5.3% of GDP). Data on the general government sector performance on an accrual basis are available so far only for the first three quarters of the year, for which a deficit of CZK 246.0 billion was reported. However, the last quarter has a large weight in the full-year balance, the usual volatility of which, in the case of last year, is amplified by the ongoing epidemic. The estimate of last year's outturn is also based on the cash performance of the state budget, state funds, local government budgets and health insurance companies.

The state budget in the national cash methodology ended up with a deficit of CZK 419.7 billion at the end of 2021, i.e. a deterioration of CZK 52.2 billion compared to 2020. The planned deficit, increased by the amendment to the State Budget Act to CZK 500 billion, was not met by CZK 80.3 billion. For the second year in a row, the consequences of the COVID-19 epidemic have had an impact on the result in the form of lower economic performance and support or stimulus measures to the affected sectors of the economy, the health care system and households. Adjusted for the impact of EU and financial mechanisms on the revenue and expenditure side, the economy ended with a deficit of CZK 408.4 billion.

The dominant item on **the revenue side of the state budget** is tax revenue, including social security contributions, whose collection grew by 2.8% YoY and by 4.3% at the level of public budgets. This growth was mainly driven by social security contributions (10.2%), positively influenced by the effects of employment maintenance programmes. However, tax revenue at the state budget level itself fell by 2.7% YoY, also due to the adjustment of the tax budget in favour of municipalities and regions. The personal income tax (–29.2%) was negatively affected by the reduction of the tax base and the increase in the taxpayer credit with an estimated impact of CZK 56.7 billion for 2021 at the level of the state budget (or CZK 90.2 billion at the level of public budgets), as well as the payment of the compensation bonus (in the ESA 2010 methodology it does not reduce tax revenue but is recorded as an expenditure capital transfer). Excise duties (–3.0%), mainly mineral oil tax and tobacco tax, were also lower year-on-year. On the other hand, corporate income tax collections increased significantly

(+19.1%), where a significant factor was the repayment of part of the cancelled and unpaid June 2020 advance in settlement of the tax in 2021 (accruing to 2020 revenue). Value added tax also developed positively (+3.7%, or +8.7% at the level of public budgets).

On the **expenditure side of the state budget**, current expenditure was the main factor (+3.5%), with the most important social benefits growing by 0.8%. Transfers to health insurers, due to a two-thirds increase in payments for the state insured persons compared to the situation as at 1 January 2020, showed a growth of almost 30%. Current transfers to business entities (+17.6%) reflected a number of support programmes in the context of the epidemic and the related restrictions, in particular the Antivirus A, A Plus and B programmes and the COVID 2021 and Uncovered Costs programmes. Non-investment transfers to local government budgets grew by 5.9% and were driven by funds for salaries of teaching and non-teaching staff in regional education. The year-on-year growth in capital expenditure (+2.8%) was driven by the state budget's own capital purchases (+33.1%) as well as transfers to the State Transport Infrastructure Fund (+5.5%) or to allowance and similar organisations (+20.4%).

In addition to the state budget, **health insurance companies** also ran a deficit. At the end of November 2021, they reported a cash deficit of CZK 10.9 billion, which was a year-on-year deterioration of CZK 16.3 billion.

By contrast, **local government budgets** on a cash basis ended up with a surplus of CZK 58.6 billion at the end of November 2021, almost doubling the positive balance year-on-year. This was mainly due to the high dynamics of revenues, both from taxes and transfers, which were mainly provided by the state budget (see above). The long-term positive performance of local government budgets contributes positively to the overall general government sector result.

The estimated improvement of the **general government balance** in the ESA 2010 by 1.1 pp compared with the previous Macroeconomic Forecast is due to higher expected tax revenues, including social security contributions, on the one hand, and lower expected government final consumption expenditure, social cash benefits and lower estimated gross fixed capital formation, on the other.

The current forecast assumes a 9.8% increase in **value added tax**. The autonomous development, due to the recovery in household consumption and the continued growth of the relevant part of government consumption, was corrected by a number of discretionary measures with a negative impact totalling CZK 10.1 billion. **Excise** revenue (excluding subsidies for renewable energy) grew by an estimated 4.4%. A higher yield than the previous estimate was achieved for income taxes. As already men-

tioned above, **personal income tax** was negatively affected by the measures of the “2021 tax package”, which was reflected in an expected 26.0% year-on-year decline in growth. For **corporate income tax**, we expect growth of 3.8%, also due to several measures of the “2021 tax package”. **Social security contributions** grew by 11.5% according to the current estimate. Their pace reflected the growth of wages and salaries in the economy, reinforced by the gradual unwinding of measures to mitigate the socio-economic impact of the anti-epidemic restrictions and the exceptional bonuses paid to selected groups of public employees in the context of the epidemic. The double-digit dynamics was also contributed to by an increase in the payment for the state insured persons to the public health insurance system by about CZK 30 billion.

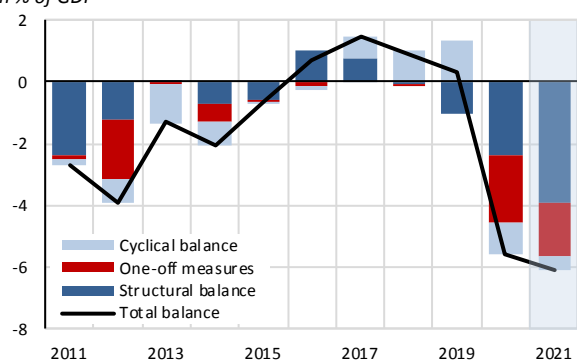
On the basis of the national accounts data for the first three quarters, although we expect higher dynamics in compensation of employees and intermediate consumption than in the autumn forecast, these should be offset by significantly higher general government output. The latter grew by a record 12.8% in the first 9 months of the year. The volume of **public sector wages and salaries** is expected to rise by 6.2% and, in addition to the increase in wages and salaries of education, health and social services workers, it also reflects exceptional remuneration for health and social services staff and the armed forces in connection with the epidemic. The rate of increase in **intermediate consumption** is expected to reach 6.1%, driven both by higher real consumption (especially in the health care sector) and by higher inflation. The high dynamism of **social transfers in kind** is indicated by the

quarterly national accounts, which show that these transfers have gradually accelerated, reaching a growth rate of 11.3% at the end of September. Over the same period, investment grew by 5.5%, and while central government investment posted 11% year-on-year growth, local government investment recorded a slight decline. The involvement of the Recovery and Resilience Facility also contributed to the estimated growth of **gross fixed capital formation** of more than 7%, especially for transport investment. The 4.7% increase in **cash social benefits** reflects both the statutory indexation of pension benefits and the adjustment of some benefits supporting families with children, nursing allowances in case of school closure or child quarantine, as well as an increase in transfers to public health insurance system. The support programs related to COVID-19 are behind the 15.4% increase in **subsidies**, compared to the fall forecast, increased by the additional calls announced under the COVID-2021 and COVID-Uncovered Costs programs. Other forms of support - the compensatory bonus or the tax loss carryback institute - are classified as **capital transfers**, which are expected to grow only at a moderate pace given the already high 2020 comparison base.

The deficit performance of the general government, and in particular the state budget, is a determinant of **general government debt**, which is currently estimated to have reached 42.0% of GDP at the end of 2021 (vs. 43.3% of GDP). State debt itself increased by CZK 416.0 billion, bringing its total amount to CZK 2 465.7 billion (40.4% of GDP). The deficit of the health insurance companies was financed by buffers accumulated from surpluses over previous years.

Graph 1.3.1: General Government Balance

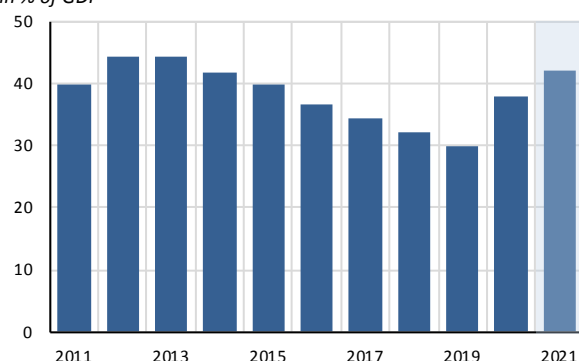
in % of GDP



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

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
											<i>Estimate</i>
General government balance	% GDP	-3.9	-1.3	-2.1	-0.6	0.7	1.5	0.9	0.3	-5.6	-6.1
	bill. CZK	-159	-53	-90	-30	34	77	49	18	-318	-371
Cyclical balance	% GDP	-0.8	-1.2	-0.8	0.0	-0.2	0.8	1.0	1.4	-1.0	-0.4
Cyclically adjusted balance	% GDP	-3.1	0.0	-1.3	-0.6	0.9	0.7	-0.1	-1.1	-4.5	-5.6
One-off measures ¹⁾	% GDP	-1.9	-0.1	-0.5	-0.1	-0.1	0.0	-0.1	0.0	-2.2	-1.7
Structural balance	% GDP	-1.2	0.1	-0.7	-0.6	1.0	0.7	-0.1	-1.1	-2.4	-3.9
Fiscal effort ²⁾	pp	1.2	1.3	-0.8	0.2	1.6	-0.3	-0.8	-1.0	-1.3	-1.5
Interest expenditure	% GDP	1.4	1.3	1.3	1.1	0.9	0.7	0.7	0.7	0.8	0.8
Primary balance	% GDP	-2.5	0.0	-0.8	0.4	1.6	2.2	1.7	1.0	-4.8	-5.3
Cyclically adjusted primary balance	% GDP	-1.7	1.3	0.0	0.4	1.8	1.5	0.6	-0.4	-3.8	-4.9
General government debt	% GDP	44.2	44.4	41.9	39.7	36.6	34.2	32.1	30.0	37.7	42.0
	bill. CZK	1 805	1 840	1 819	1 836	1 755	1 750	1 735	1 740	2 149	2 564
Change in debt-to-GDP ratio	pp	4.4	0.3	-2.6	-2.2	-3.1	-2.3	-2.2	-2.0	7.7	4.3

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

At the end of last year, the CNB raised the **two-week repo rate** to 3.75%. This was mainly due to the sharp rise in inflation, which is now well above the upper bound of the tolerance band, caused primarily by cost factors of global nature. In addition to the high prices of some commodities and energy, the situation is exacerbated by global problems in production chains. However, some domestic factors are also having an impact.

In view of inflation and the monetary policy response so far, we expect the CNB to raise the primary interest rate further at the beginning of this year to bring inflation back to the 2% target in the medium term. The appreciation of the exchange rate in response to the positive interest rate differential vis-à-vis the euro area will also contribute to the slowdown in inflation.

The **three-month PRIBOR rate** rose to an average of 2.9% (vs. 2.3%) in Q4 2021 on the back of the CNB's increase in primary interest rates. For the full year 2021, it was 1.1% (vs. 1.0%). With the assumed monetary policy setup, it could average 4.6% this year (vs. 2.8%).

Yields to maturity on 10-year government bonds rose to 2.5% in Q4 2021 (vs. 2.4%) and reached 1.9% for the full year 2021 (*in line with the forecast*). Taking into account the assumed monetary policy setup of the CNB and the ECB and inflation developments, we believe that long-term interest rates could rise to 3.3% on average in 2022 (vs. 2.7%), with a relatively flat yield curve.

During Q4 2021, **lending to households** continued to grow strongly, with the volume of loans to households increasing by 9.7% YoY in November. In addition to households' concerns about rising interest rates, this was also due to the CNB's previous relaxation of its recommendations on managing the risks associated with retail lending secured by residential property. The average customer interest rate on total household loans was virtually unchanged in Q4 2021. Interest rates on new mortgage loans are already rising gradually.

Annual growth of **loans to non-financial corporations** accelerated to 3.4% and 4.7% in October and November 2021, respectively. Growth was driven by korona loans and, in terms of maturity, by short- and medium-term loans with maturities of less than 5 years. The average customer interest rate on total loans to non-financial corporations increased to 3.8% in November.

The share of non-performing loans in total loans remained virtually flat in Q4. Although financial situation of some households and firms deteriorated as a result of the coronavirus pandemic, the impact on the quality of banks' loan portfolios was minimal.

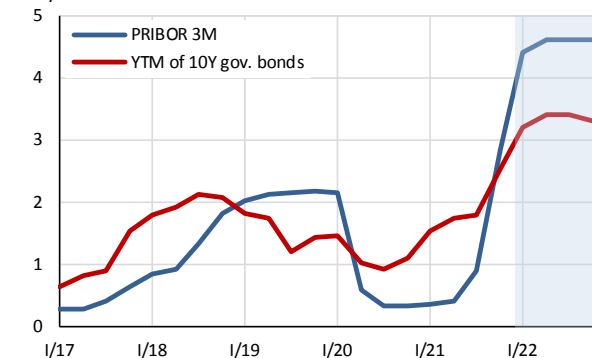
In Q4 2021, the **koruna's exchange rate against the euro** averaged CZK 25.4/EUR (vs. CZK 25.2/EUR), a year-on-year appreciation of 5.1% (vs. 5.8%). For the full year 2021, an exchange rate of 25.6 CZK/EUR was achieved (*in line with the forecast*). However, at the end of the year, the koruna started to appreciate significantly due to the rising positive interest rate differential between the Czech Republic and the euro area.

With the widening of the positive interest rate differential, we expect the koruna to appreciate to CZK 24.4/EUR in Q1, after which the exchange rate should return to a trajectory of gradual trend appreciation. On average, it should reach CZK 24.4/EUR in 2022 (vs. CZK 25.0/EUR). Faster appreciation should be hindered by the interest rate differential, which should not widen further from Q2 2022, and by the suspended real convergence of the Czech economy towards the euro area.

The expected **exchange rate of the koruna against the US dollar** is implied by the USD/EUR exchange rate, for which an assumption was adopted of stability at the average of the last 10 days preceding the cut-off date for selected forecast assumptions, i.e. USD 1.13/EUR (vs. USD 1.17/EUR).

Graph 1.4.1: Interest Rates

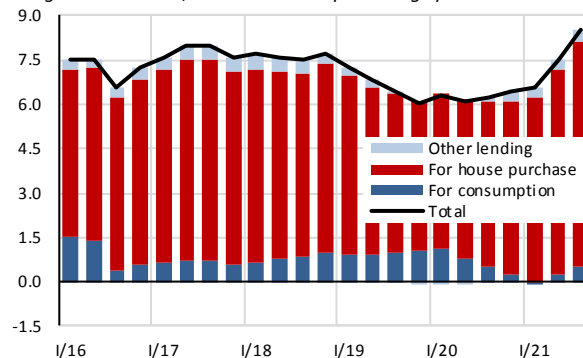
in % p.a.



Source: CNB. Calculations and forecast of the MoF.

Graph 1.4.2: Loans to Households

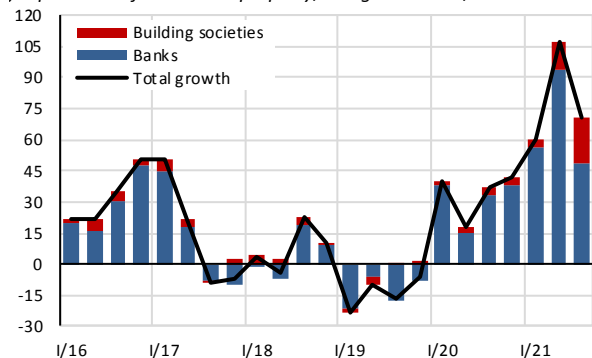
YoY growth rate in%, contributions in percentage points



Source: CNB. Calculations of the MoF.

Graph 1.4.3: New Mortgage Loans

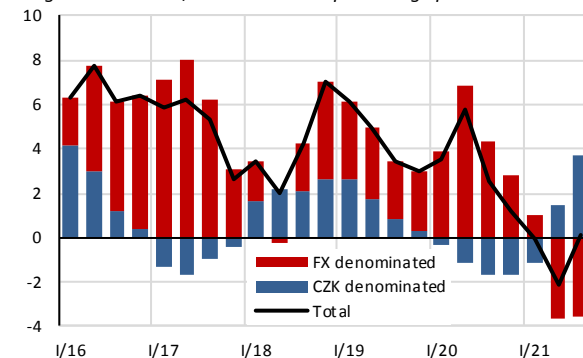
for purchase of residential property, YoY growth in %, contributions in pp



Source: CNB. Calculations of the MoF.

Graph 1.4.4: Loans to Non-financial Corporations

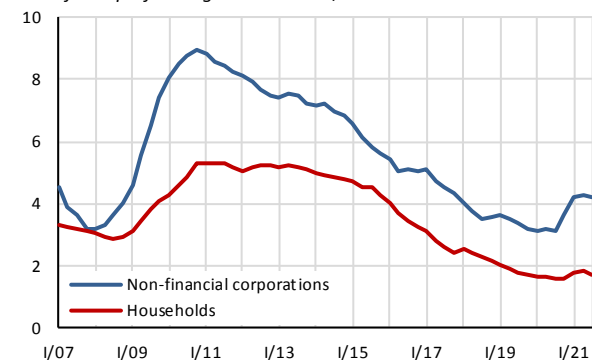
YoY growth rate in%, contributions in percentage points



Source: CNB. Calculations of the MoF.

Graph 1.4.5: Non-performing Loans

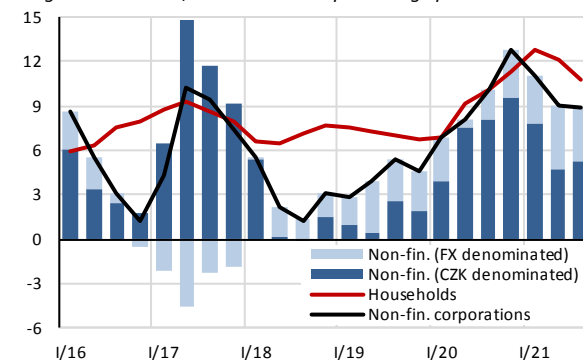
ratio of non-performing to total loans, in%



Source: CNB. Calculations of the MoF.

Graph 1.4.6: Deposits

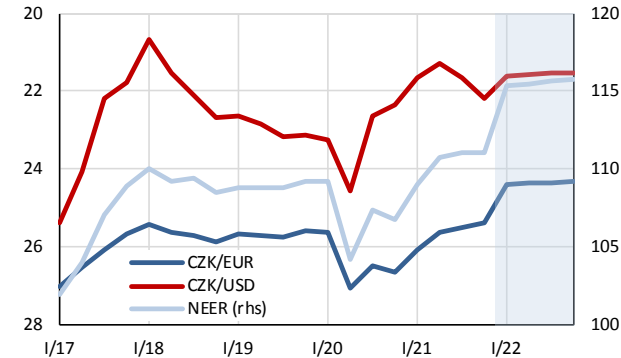
YoY growth rate in%, contributions in percentage points



Source: CNB. Calculations of the MoF.

Graph 1.4.7: Nominal Exchange Rates

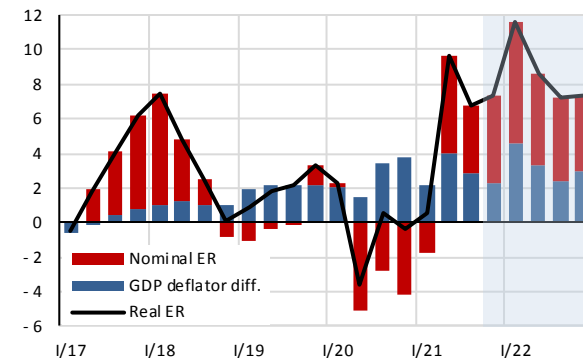
quarterly averages, average 2015=100 (rhs)



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*

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
											<i>Forecast</i>
Repo 2W rate CNB (<i>end of period</i>)	<i>in % p.a.</i>	0.05	0.05	0.05	0.05	0.50	1.75	2.00	0.25	3.75	.
Main refinancing rate ECB (<i>end of period</i>)	<i>in % p.a.</i>	0.25	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	.
Federal funds rate (<i>end of period</i>)	<i>in % p.a.</i>	0.25	0.25	0.50	0.75	1.50	2.50	1.75	0.25	0.25	.
PRIBOR 3M	<i>in % p.a.</i>	0.46	0.36	0.31	0.29	0.41	1.23	2.12	0.86	1.13	4.6
YTM of 10Y government bonds	<i>in % p.a.</i>	2.11	1.58	0.58	0.43	0.98	1.98	1.55	1.13	1.90	3.3
Client interest rates											
Loans to households	<i>in % p.a.</i>	6.05	5.59	5.15	4.65	4.10	3.76	3.66	3.53	.	.
Loans to non-financial corporations	<i>in % p.a.</i>	3.20	3.01	2.78	2.59	2.57	3.05	3.75	2.96	.	.
Deposits of households	<i>in % p.a.</i>	1.02	0.85	0.65	0.47	0.36	0.33	0.39	0.35	.	.
Deposits of non-financial corporations	<i>in % p.a.</i>	0.41	0.29	0.19	0.10	0.05	0.11	0.37	0.20	.	.

*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	Q4
						<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>
Repo 2W rate CNB (<i>end of period</i>)	<i>in % p.a.</i>	0.25	0.50	0.75	3.75	.	.	.	.
Main refinancing rate ECB (<i>end of period</i>)	<i>in % p.a.</i>	0.00	0.00	0.00	0.00	.	.	.	.
Federal funds rate (<i>end of period</i>)	<i>in % p.a.</i>	0.25	0.25	0.25	0.25	.	.	.	.
PRIBOR 3M	<i>in % p.a.</i>	0.36	0.40	0.91	2.86	4.4	4.6	4.6	4.6
YTM of 10Y government bonds	<i>in % p.a.</i>	1.55	1.76	1.79	2.53	3.2	3.4	3.4	3.3
Client interest rates									
Loans to households	<i>in % p.a.</i>	3.39	3.32	3.28	.	.	.	.	.
Loans to non-financial corporations	<i>in % p.a.</i>	2.55	2.54	2.74	.	.	.	.	.
Deposits of households	<i>in % p.a.</i>	0.25	0.23	0.23	.	.	.	.	.
Deposits of non-financial corporations	<i>in % p.a.</i>	0.06	0.05	0.07	.	.	.	.	.

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

Table 1.4.3: Loans and Deposits – yearly averages

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Households											
Loans	<i>growth in %</i>	6.6	5.0	4.0	3.4	4.8	7.2	7.8	7.6	6.6	6.3
For consumption	<i>growth in %</i>	4.2	-1.0	-0.1	-0.9	3.4	6.0	4.3	5.4	6.4	4.4
For house purchase	<i>growth in %</i>	6.5	6.4	5.5	4.5	5.6	8.1	9.0	8.5	7.4	7.3
Other lending	<i>growth in %</i>	11.1	6.0	1.2	2.9	1.0	3.0	4.2	4.3	1.1	0.9
CZK denominated	<i>growth in %</i>	6.6	4.9	4.0	3.4	4.7	7.2	7.7	7.6	6.6	6.3
FX denominated	<i>growth in %</i>	2.4	30.8	-1.3	0.0	12.7	8.5	36.3	1.7	9.0	6.1
Deposits	<i>growth in %</i>	5.0	4.5	3.3	2.9	4.8	7.0	8.7	7.0	7.2	9.4
CZK denominated	<i>growth in %</i>	5.4	4.7	3.3	2.7	4.1	6.9	9.7	7.1	6.9	9.2
FX denominated	<i>growth in %</i>	-4.0	-2.1	2.3	8.5	22.5	7.3	-13.9	3.5	15.2	14.5
Non-performing loans (banking statistics)	<i>share, in %</i>	5.3	5.2	5.2	4.9	4.5	3.6	2.7	2.4	1.9	1.6
Loans to deposits ratio	<i>in %</i>	62	63	63	63	63	63	63	63	63	61
Non-financial corporations											
Loans	<i>growth in %</i>	4.7	3.5	1.3	1.9	6.5	6.6	5.0	4.2	4.3	3.2
CZK denominated	<i>growth in %</i>	4.9	2.6	0.3	-1.0	5.9	2.8	-1.4	3.0	1.9	-1.8
FX denominated	<i>growth in %</i>	3.7	7.8	5.7	13.7	9.0	20.5	24.4	6.9	10.0	14.0
Deposits	<i>growth in %</i>	0.4	8.9	4.9	7.6	10.3	4.6	7.8	3.0	4.2	9.5
CZK denominated	<i>growth in %</i>	2.0	8.2	4.2	5.6	6.7	4.5	13.9	2.1	1.9	9.4
FX denominated	<i>growth in %</i>	-6.1	11.8	8.0	15.2	23.2	4.8	-11.1	6.6	13.0	9.9
Non-performing loans (banking statistics)	<i>share, in %</i>	8.5	7.8	7.4	7.0	6.0	5.2	4.7	3.7	3.4	3.3
Loans to deposits ratio	<i>in %</i>	126	120	116	110	106	108	105	106	106	100

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

		2019	2020					2021		
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
Households										
Loans	<i>growth in %</i>	6.0	6.3	6.1	6.2	6.4	6.5	7.5	8.5	
For consumption	<i>growth in %</i>	7.0	7.6	5.2	3.6	1.6	0.0	1.7	3.3	
For house purchase	<i>growth in %</i>	6.7	6.9	7.1	7.3	7.7	8.1	9.0	10.0	
Other lending	<i>growth in %</i>	-0.7	-0.4	-0.7	1.1	3.7	3.8	4.1	4.5	
CZK denominated	<i>growth in %</i>	6.0	6.3	6.1	6.2	6.4	6.5	7.5	8.5	
FX denominated	<i>growth in %</i>	0.9	-2.7	4.9	7.4	15.5	15.8	11.7	21.6	
Deposits	<i>growth in %</i>	6.7	6.9	9.1	10.1	11.3	12.8	12.1	10.8	
CZK denominated	<i>growth in %</i>	6.3	6.4	8.9	10.1	11.2	12.9	11.9	10.5	
FX denominated	<i>growth in %</i>	17.4	21.0	14.7	9.0	14.1	12.6	18.2	20.3	
Non-performing loans (banking statistics)	<i>share, in %</i>	1.7	1.7	1.7	1.6	1.6	1.8	1.8	1.7	
Loans to deposits ratio	<i>in %</i>	63	63	61	61	60	59	58	59	
Non-financial corporations										
Loans	<i>growth in %</i>	3.0	3.5	5.7	2.6	1.2	-0.1	-2.1	0.2	
CZK denominated	<i>growth in %</i>	0.4	-0.5	-1.6	-2.5	-2.5	-1.7	2.3	5.7	
FX denominated	<i>growth in %</i>	8.7	12.5	21.8	13.4	8.7	3.1	-10.0	-9.9	
Deposits	<i>growth in %</i>	4.5	6.9	8.2	10.0	12.9	11.1	9.0	8.9	
CZK denominated	<i>growth in %</i>	2.5	5.0	9.7	10.4	12.4	10.2	6.0	6.7	
FX denominated	<i>growth in %</i>	12.2	13.9	2.8	8.7	14.5	14.2	20.1	16.5	
Non-performing loans (banking statistics)	<i>share, in %</i>	3.2	3.1	3.2	3.2	3.7	4.2	4.3	4.2	
Loans to deposits ratio	<i>in %</i>	107	103	103	100	96	93	92	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 1.4.5: Exchange Rates – yearly

		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
								Estimate	Forecast	Outlook	Outlook
Nominal exchange rates											
CZK / EUR	average	27.28	27.03	26.33	25.65	25.67	26.44	25.65	24.4	24.3	24.1
	appreciation in %	0.9	0.9	2.7	2.7	-0.1	-2.9	3.1	5.3	0.4	0.4
CZK / USD	average	24.60	24.43	23.39	21.74	22.94	23.19	21.68	21.6	21.5	21.4
	appreciation in %	-15.7	0.7	4.5	7.6	-5.2	-1.1	7.0	0.6	0.4	0.4
NEER	average of 2015=100	99.6	102.4	105.5	109.3	108.9	106.9	110.5	116	116	117
	appreciation in %	-1.2	2.8	3.0	3.6	-0.4	-1.9	3.3	4.6	0.4	0.4
Real exchange rate to EA19 ¹⁾	average of 2015=100	100.0	101.2	104.0	107.9	110.1	109.8	116	127	129	131
	appreciation in %	0.5	1.2	2.8	3.8	2.0	-0.3	6.0	8.7	1.8	1.3
REER ²⁾	average of 2015=100	100.0	102.6	106.6	111.1	111.5	112.4	.	.	.	.
	appreciation in %	-0.9	2.6	3.9	4.3	0.3	0.8	.	.	.	.

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	Q3	Q4
						Forecast	Forecast	Forecast	Forecast
Nominal exchange rates									
CZK / EUR	average	26.07	25.64	25.50	25.38	24.4	24.4	24.3	24.3
	appreciation in %	-1.7	5.5	3.8	5.1	6.8	5.2	4.7	4.3
CZK / USD	average	21.64	21.27	21.63	22.19	21.6	21.6	21.5	21.5
	appreciation in %	7.4	15.5	4.6	0.8	0.2	-1.4	0.4	3.1
NEER	average of 2015=100	109.1	110.7	111.0	111.1	115	115	116	116
	appreciation in %	-0.2	6.2	3.4	4.0	5.8	4.3	4.1	4.2
Real exchange rate to EA19 ¹⁾	average of 2015=100	112.5	116.2	118.3	119	126	126	127	127
	appreciation in %	0.5	9.7	6.8	7.4	11.6	8.6	7.2	7.3
REER ²⁾	average of 2015=100	115.2	116.7	117.4	.	.	.	.	.
	appreciation in %	1.0	6.9	3.4	.	.	.	.	.

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 Structural Policies

The new government of the Czech Republic, formed on the basis of the results of elections to the Chamber of Deputies of the Parliament of the Czech Republic in October 2021, approved its **programme statement** on 5 January 2022. This sets out fiscal and structural policy priorities for the next four-year period, including:

- **stabilising public finances** through responsible fiscal policy;
- **pension reform** that ensures security in old age, takes into account merit and promotes intergenerational solidarity;
- **education** that creates space for the development of pupils' and students' knowledge, skills and competences in a modern content and environment;
- **supporting the free market**, small and medium-sized enterprises and targeting subsidies and support more effectively;
- **helping owner-occupied and rented housing** (including social housing) and substantially speeding up the construction process;
- **digitisation** of state processes as a way to a more friendly, efficient and cheaper public administration;
- **science and research** as an opportunity to move the Czech Republic closer to the most successful countries.

Like the rest of the world, the Czech society and economy have been struggling with the **COVID-19** epidemic for almost two years now. Since the beginning of 2022, the new **omicron variant** has become predominant among those testing positive, although the numbers of cases

relative to population size were still at a much lower level than in the USA or some Western European countries at the time of the data cut-off. The prevailing view is that the new variant should be significantly more infectious, though it should have a lower risk of severe disease.

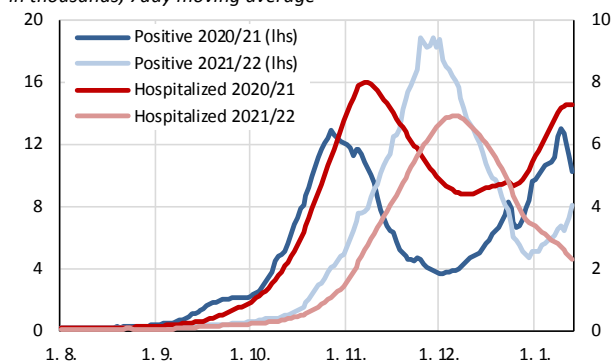
A significant part of the Czech population is **vaccinated**. Vaccination with a third booster dose is continuing. As of the forecast cut-off date, 3.2 million people (30% of the population) had been vaccinated. In addition, 3.6 million people (33% of the population) have completed vaccination without the booster dose (see Graph 1.5.2). A certain proportion of the population also has increased immunity after having contracted the disease. However, the efficacy of the vaccines against the new omicron variant remains an open question.

Nevertheless, we believe the risk of exhausted capacity of health care facilities and increased mortality is lower than in previous waves. We assume that there will be no further macroeconomically significant constraints on economic activity in the coming period. However, there is a risk that in the event of a high number of cases, some economic activities could be disrupted due to the high number of isolations and quarantines, despite the reduction of their duration to 5 days.

On 1 January 2022, the **government regulation on the minimum wage** came into force. The minimum wage thus increased by CZK 1,000 (6.6%) year-on-year to CZK 16,200 per month, and the lowest levels of the guaranteed wage were increased to a relatively similar extent.

Graph 1.5.1: The Positive and Hospitalized

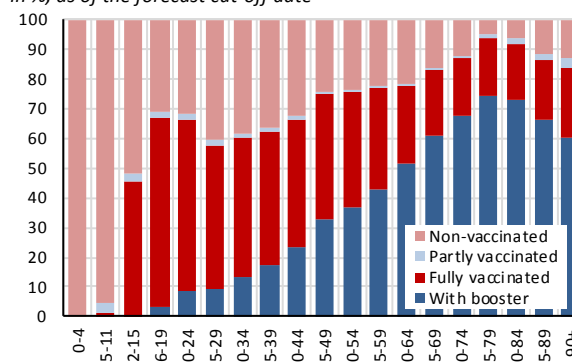
in thousands, 7day moving average



Source: Ministry of Health. Calculations of the MoF

Graph 1.5.2: Vaccination in Age Groups

in %, as of the forecast cut-off date



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

1.6 Demographic Trends

The population of the Czech Republic decreased by 19.8 thousand in the first three quarters of 2021. At the end of this period it reached 10.682 million.

In the first three quarters of 2021, the difference between the number of births and deaths resulted in a natural population decline of 18.2 thousand persons, while in the same period of 2020 it was almost zero. The **number of live births** (84.7 thousand) increased only slightly compared to 2020; the highly negative natural change balance is therefore the result of an extremely high mortality rate.

The number of deaths from January to September last year reached 102.9 thousand. Compared to the same period in 2020, it was an increase of 17.7 thousand or 21%. This was largely due to the coronavirus epidemic; in Q1 2021 the quarterly death toll was the highest since the beginning of the available time series in 1992.

Between March 2020 and November 2021 (according to weekly data), 42,000 more people died compared to the 2015–2019 average. The Institute of Health Information and Statistics reported 33k deaths with COVID-19 over

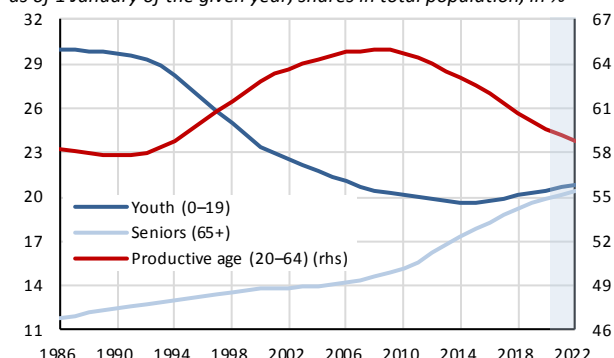
this period (just under 90% of these were people aged 65+). Thanks to the vaccination of a significant proportion of at-risk segments of the population, the mortality rate in Q4 2021 was significantly lower than in previous waves of the epidemic.

The balance of foreign migration reached a more or less balanced value in the period from January to September 2021. This result is largely due to administrative change. In August 2021, the balance of foreign migration included updates to the data following the 2019 amendment to the Act on the Residence of Foreigners in the Czech Republic. This increased the statistics on the number of emigrants by about 30 thousand persons.

At the beginning of October 2021, there were a total of 2.382 million **old-age pensioners** in the pension system, i.e. 22.2% of the population of the Czech Republic. The extension of the statutory retirement age, combined with increased mortality due to the COVID-19, led to the number of old-age pensioners decreasing by 21.3 thousand, i.e. by 0.9% YoY.

Graph 1.6.1: Age Groups

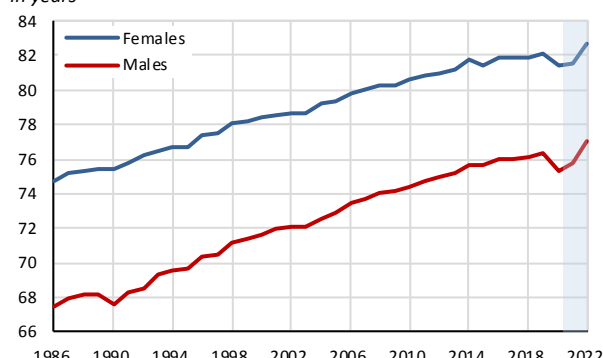
as of 1 January of the given year, shares in total population, in %



Source: CZSO. Calculations of the MoF.

Graph 1.6.2: Life Expectancy at Birth

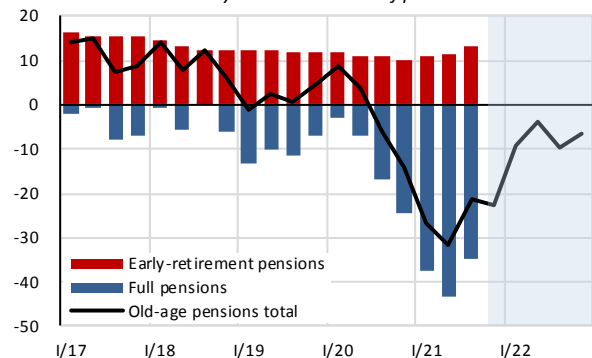
in years



Source: CZSO.

Graph 1.6.3: Old-Age Pensioners

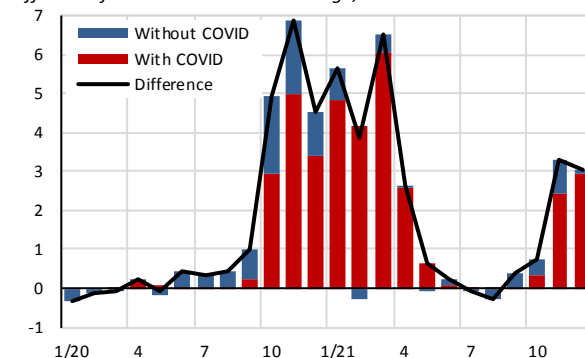
absolute increase over a year in thousands of persons



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

Graph 1.6.4: Number of Deaths in 2020 and 2021

difference from the 2015–2019 average, in thousands



Note: June and July 2021 – estimate of the MoF.

Source: CZSO, Institute of Health Information and Statistics. Calculations of the MoF.

Table 1.6.1: Demographics

		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
								Estimate	Forecast	Outlook	Outlook
Population (as of 1 January)	<i>thous. persons</i>	10 538	10 554	10 579	10 610	10 650	10 694	10 702	10 702	10 719	10 734
	<i>growth in %</i>	0.2	0.1	0.2	0.3	0.4	0.4	0.1	0.0	0.2	0.1
0–19 years	<i>thous. persons</i>	2 064	2 082	2 106	2 133	2 160	2 188	2 210	2 228	2 244	2 256
	<i>growth in %</i>	0.3	0.9	1.2	1.3	1.3	1.3	1.0	0.8	0.7	0.5
20–64 years	<i>thous. persons</i>	6 594	6 540	6 484	6 437	6 403	6 374	6 333	6 289	6 257	6 235
	<i>growth in %</i>	-0.5	-0.8	-0.9	-0.7	-0.5	-0.4	-0.6	-0.7	-0.5	-0.4
65 and more years	<i>thous. persons</i>	1 880	1 932	1 989	2 040	2 087	2 132	2 158	2 184	2 219	2 243
	<i>growth in %</i>	3.0	2.8	2.9	2.6	2.3	2.2	1.3	1.2	1.6	1.1
Old-age pensioners (as of 1 January) ¹⁾	<i>thous. persons</i>	2 355	2 377	2 395	2 404	2 410	2 415	2 400	2 378	2 371	2 361
	<i>growth in %</i>	0.6	0.9	0.8	0.4	0.3	0.2	-0.6	-0.9	-0.3	-0.4
Old-age dependency ratios (as of 1 January)											
Demographic ²⁾	%	28.5	29.5	30.7	31.7	32.6	33.4	34.1	34.7	35.5	36.0
Under current legislation ³⁾	%	39.3	39.8	40.1	40.4	40.4	40.5	40.2	40.0	39.8	39.6
Effective ⁴⁾	%	46.9	46.8	46.2	45.7	45.2	45.5	46.0	45.1	44.9	44.6
Fertility rate	<i>children</i>	1.570	1.630	1.687	1.708	1.709	1.707	1.70	1.70	1.70	1.70
Population increase	<i>thous. persons</i>	16	25	31	40	44	8	0	17	15	12
Natural increase	<i>thous. persons</i>	0	5	3	1	0	-19	-26	-9	-11	-14
Live births	<i>thous. persons</i>	111	113	114	114	112	110	107	105	103	101
Deaths	<i>thous. persons</i>	111	108	111	113	112	129	133	114	114	115
Net migration	<i>thous. persons</i>	16	20	28	39	44	27	26	26	26	26
Immigration	<i>thous. persons</i>	35	38	46	58	66	56	.	.	.	.
Emigration	<i>thous. persons</i>	19	17	18	20	21	29	.	.	.	.

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.

2 Economic Cycle

2.1 Position within the Economic Cycle

After several years of boom, the Czech economy fell into a **deeply negative output gap** in 2020 due to the coronavirus epidemic and related measures. Gross value added was almost 9% below its potential level in Q2 2020, by far the highest gap in modern history. The strong rebound in economic activity in the following quarter and the subsequent weak economic performance resulted in the output gap remaining below -1% of potential output until Q2 last year. For the full year 2020, the output gap was -2.8% (vs. -2.6%), and thus less negative in annual terms compared to the recessions of 2009 and 2013. Last year, the output gap may have reached -1.3% of potential output (vs. -1.1%).

The expected weaker pace of economic growth this year compared with the previous forecast should bring a later closure of the output gap, which should occur only in H2 2022. However, given the considerable volatility and uncertainty of economic developments, these results should be treated with caution.

Potential output, whose growth slowed noticeably in 2019 and 2020, is currently estimated to increase by only 1.1% in 2021 (vs. 0.8%). Over the course of this year, potential output growth could gradually accelerate to around 2% thanks to continued economic growth.

In terms of components (see Graph 2.1.2), the trend component of **total factor productivity** is the main driver of potential growth in the long run. Its contribution was estimated at 1.0 pp last year (vs. 0.7 pp) and should increase slightly over the forecast horizon.

The decline in gross fixed capital formation in 2020 and the lacklustre growth in investment last year resulted in a slower increase in the **capital stock**. Its contribution to

potential output growth could reach 0.5 pp in 2021 (vs. 0.6 pp), but could increase slightly in subsequent periods due to stronger investment activity.

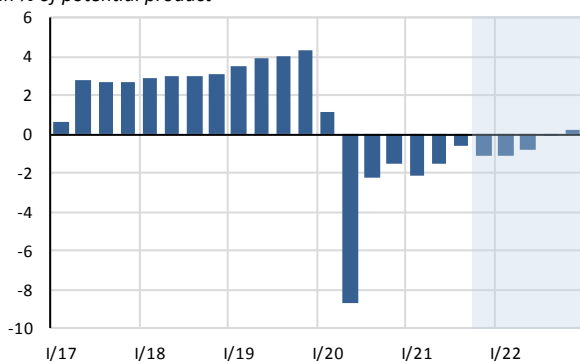
The labour supply is affected by the gradual ageing of the population (see Section 1.6), which is reflected in a long-term decline in the working-age population aged 20–64. This has taken an estimated 0.3 pp. off potential output growth in 2021 (*unchanged*), and we expect a similar figure for this year.

Until 2018, the economic upturn was reflected in a marked increase in the **participation rate**, which more than offset the negative effects of demographic developments on the size of the labour force. In 2020, this trend has temporarily stopped and there has been a decline in the participation rate. Following a relatively rapid return of the labour market to the pre-epidemic situation, the participation rate should gradually increase. Its contribution to potential growth may have risen to 0.3 pp (*unchanged*) last year and should reach 0.6 pp in 2022 (vs. 0.5 pp).

The long-term trend of a slight decrease in the average number of **hours usually worked** has slowed down considerably since 2017, with a range of 39.9–40.2 hours between 2017 and 2020. For the first three quarters of 2021, the published values were in the range 39.3–39.5 hours. This creates a significant break in the time series (see Graph 2.1.4), which has no economic justification and, in our view, results from methodological changes in the LFS. As a result, the estimated negative contribution of the number of hours usually worked to potential growth last year is -0.4 pp (vs. -0.5 pp), while this factor should be approximately neutral this year.

Graph 2.1.1: Output Gap

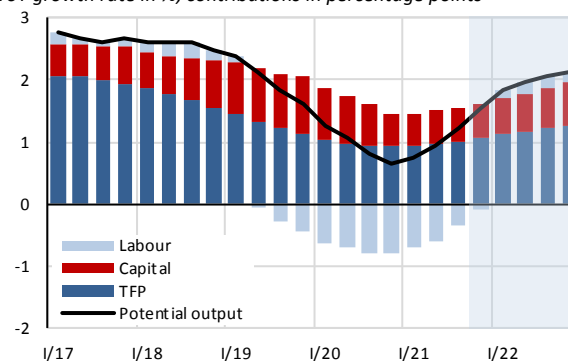
in % of potential product



Source: CZSO. Calculations and forecast of the MoF.

Graph 2.1.2: Potential Output

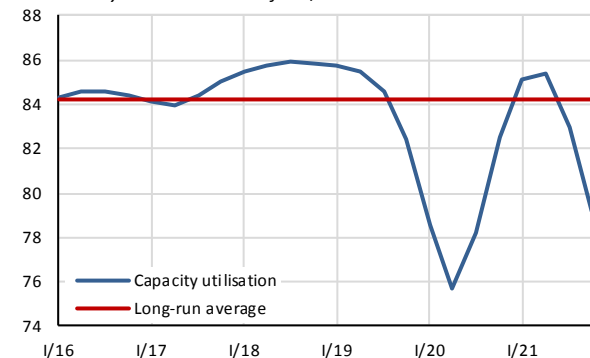
YoY growth rate in %, contributions in percentage points



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

		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
		Estimate Forecast Outlook Outlook									
Output gap	%	0.0	-0.4	2.2	3.0	4.0	-2.8	-1.3	-0.4	0.7	0.6
Potential product ¹⁾	growth in %	2.5	2.8	2.7	2.6	2.0	1.0	1.1	2.0	2.2	2.1
Contributions											
Trend total factor productivity	pp	1.8	2.0	2.0	1.7	1.3	1.0	1.0	1.2	1.3	1.4
Fixed assets	pp	0.7	0.6	0.5	0.7	0.9	0.7	0.5	0.6	0.8	0.8
Population 20–64 years	pp	-0.3	-0.5	-0.5	-0.4	-0.3	-0.3	-0.3	-0.3	-0.2	-0.1
Participation rate	pp	0.5	0.8	0.7	0.7	0.2	-0.1	0.3	0.6	0.3	0.1
Usually worked hours	pp	-0.1	-0.1	-0.2	-0.1	-0.1	-0.3	-0.4	-0.1	0.0	0.0

¹⁾ Based on gross value added.

Source: CZSO. Calculations and forecast of the MoF.

2.2 Business Cycle Indicators

The development of confidence indicators in Q4 2021 points to a year-on-year decline in gross value added in industry. In contrast, confidence in trade and services rose slightly, outlining a fragile recovery in gross value added in this sector. In construction, the confidence indicator signals roughly unchanged year-on-year growth in gross value added. However, the correlation between the evolution of confidence and GVA is very low in the construction sector.

A 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, indicated a slight deepening of the year-on-year decline in exports of goods.

The CZSO's consumer confidence indicator deteriorated significantly in Q4 2021. For the first half of 2022 (the

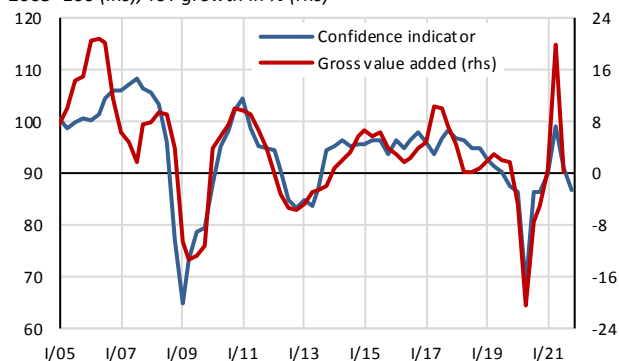
confidence indicator shows a 1–2 quarter lead), this signals a noticeable slowdown in the year-on-year growth of household final consumption expenditure. The consumer confidence indicator, compiled by the Ministry of Finance from sub-questions of the European Commission's consumer survey, improved in Q4 2021 compared with the previous period, but a significantly negative assessment of the economic situation persists among consumers.

The composite confidence indicator for Q4 2021 signals a slowdown in the year-on-year growth of total gross value added.

In response to problems in supply chains, the composite leading indicator points to a widening of the negative output gap at the turn of 2021 and 2022.

Graph 2.2.1: Confidence and GVA in Industry

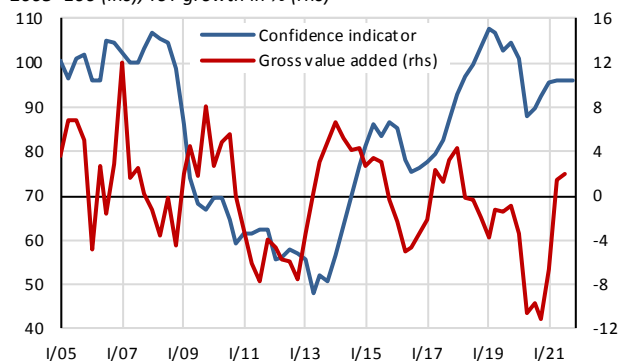
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

Graph 2.2.2: Confidence and GVA in Construction

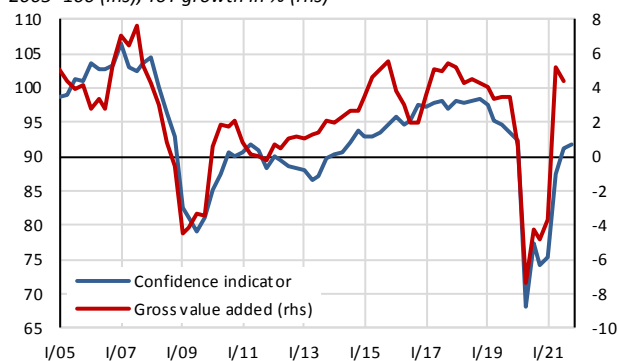
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

Graph 2.2.3: Confidence and GVA in Trade and Services

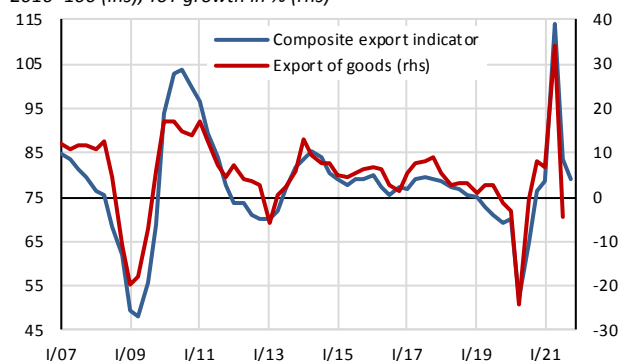
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO. Calculations of the MoF.

Graph 2.2.4: Composite Export Indicator

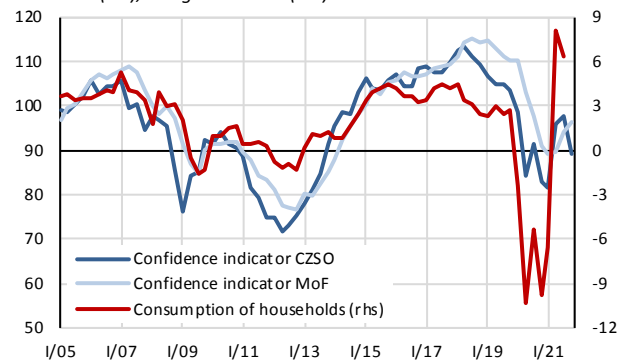
2010=100 (lhs), YoY growth in % (rhs)



Source: CESifo, CZSO. Calculations of the MoF.

Graph 2.2.5: Consumer Confidence and Consumption

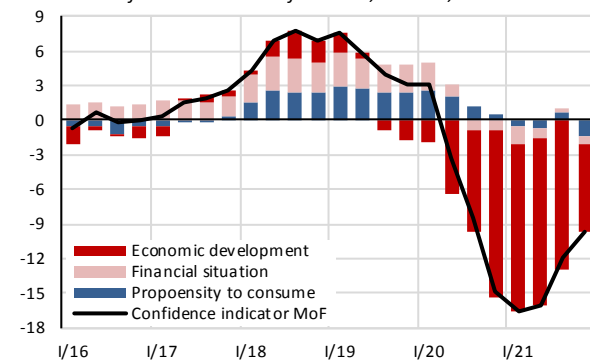
2005=100 (lhs), YoY growth in % (rhs)



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

Graph 2.2.6: Decomposition of Consumer Sentiment

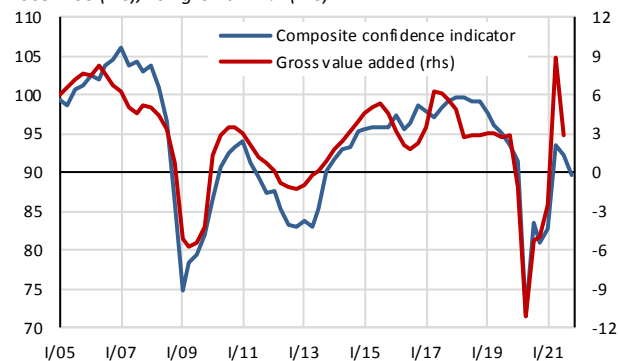
consumer confidence indicator of the MoF, balance, contributions



Source: European Commission. Calculations of the MoF.

Graph 2.2.7: Composite Confidence Indicator and GVA

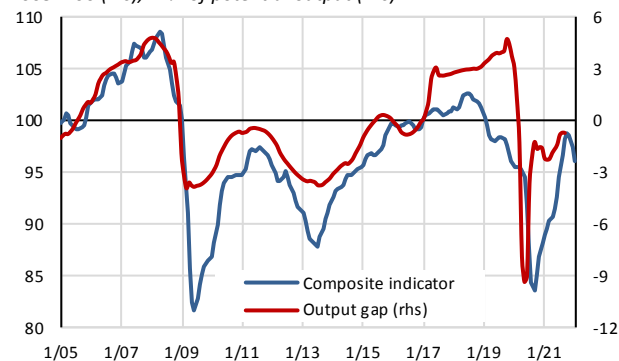
2005=100 (lhs), YoY growth in % (rhs)



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 3.0% YoY in **Q3 2021**. The quarter-on-quarter growth in seasonally adjusted **GDP** accelerated slightly to 1.6%, driven mainly by a recovery in the trade, transport, accommodation and hospitality sectors, which were most affected by the anti-epidemic restrictions in spring 2021. By contrast, the dynamics was noticeably dampened by manufacturing, which was hit by a shortage of production components. The CZSO revised up the quarter-on-quarter growth by 0.3 pp in Q2 2021 and by 0.2 pp in Q3 (compared to the flash estimate).

Annual real GDP growth in Q3 2021 was driven entirely by domestic demand, mainly by strong inventory accumulation and growth in household consumption. In contrast, the balance of foreign trade in goods and services dampened the economy significantly.

Household consumption continued to recover appreciably and has already slightly surpassed the pre-crisis peak reached in Q4 2019. In addition to the base effect, the year-on-year growth was also supported by an increase in real disposable income and an improvement in consumer sentiment. Renewed spending opportunities on selected goods and services, thanks to the loosening of anti-epidemic measures, were also reflected in a sharp decline in the savings rate. Spending on services and durables grew fastest. Expenditure on non-durable and medium-term goods was also higher. In real terms, household consumption rose by 5.9% (vs. 3.5%). **General government consumption** increased by 3.0% (vs. 5.2%).

Gross fixed capital formation increased by 0.4% (vs. 7.5%), mainly due to investment in dwellings and intellectual property products. By contrast, investment in machinery and equipment and non-residential buildings and structures dampened it. From a sectoral perspective, investment activity was driven by households and the government sector. Business investment was negatively affected by production constraints or shutdowns due to input shortages. A significantly positive contribution of 6.8 pp from the change in inventories was behind the 26.1% increase in gross capital formation (vs. 19.7%). Firms were clearly replenishing inventories to avoid shortfalls in the supply of components as well as losses resulting from high inflation. Inventories of work in progress probably also increased.

The foreign trade balance made a strong negative contribution to GDP growth of 7.2 pp. Disruptions in supply chains adversely affected exports of goods and services, which fell by 3.2% in Q3 2021 (vs. 0.3% growth). Imports of goods and services, on the other hand, strengthened

by 8.0% (vs. 9.5%) thanks to the exceptional accumulation of inventories.

Given the enforced production cutbacks in manufacturing due to supply chain problems, we estimate that GDP stagnated (*unchanged*) quarter-on-quarter in **Q4 2021** and grew by 2.3% YoY (vs. 2.0%). The estimate is based on data on economic developments at the end of 2021 that were available at the forecast cut-off date (confidence indicators, industrial and construction output, retail and services sales, and foreign trade).

We estimate that real GDP grew by 2.9% (vs. 2.5%) in **2021**. Growth was driven entirely by domestic demand, while the foreign trade balance dampened it substantially. For **2022**, we expect economic growth of 3.1% (vs. 4.1%). The forecast is based on the assumption that the current deterioration in the epidemic situation can be managed without the need to adopt macroeconomically significant anti-epidemic restrictions. We also assume that global supply chains will remain disrupted in H1 2022, although not as severely as in H2 last year. Thereafter, these issues should no longer dampen economic growth significantly.

In 2021, **household final consumption expenditure** was positively influenced by growth in real disposable income, the dynamics of which benefited from the reduction in effective taxation of wages, salaries and self-employment income, as well as from a number of supportive fiscal programmes. The saving rate declined gradually, but on average over the year as a whole it is likely to have remained well above the long-term average, owing to the anti-epidemic restrictions during Q1 and Q2, which severely constrained households' ability to make some expenditures. The recovery in consumption is estimated to have continued in Q4 2021, but the quarter-on-quarter dynamics slowed down. For the whole of last year, real household consumption may have risen by 4.8% (vs. 3.7%). In 2022, household consumption should be supported by a continued reduction in the savings rate, which should, however, remain above the long-term average. The rebound in consumer spending in the second half of last year should also have a positive effect on the annual growth rate. On the other hand, however, consumption, especially of low-income households, will be significantly dampened by the increase in the cost of living (see Section 3.2 for price developments). Household consumption could thus increase by 2.3% (vs. 4.7%).

Government consumption could have grown by 1.9% in 2021 (vs. 2.3%). The main drivers of growth in 2021 included an increase in purchases due to the epidemic, as

well as higher public sector employment. Despite savings within central government departments, there were staffing increases in education and the armed forces. Growth in expenditure on purchases of goods and services, supported by current subsidies from EU funds, also contributed to the dynamism. The expected deceleration to 0.4% in 2022 (*unchanged*) is related to the unwinding of transitional factors related to the epidemic and the start of the consolidation of public finances.

The estimated modest increase in **gross fixed capital formation** in 2021 was almost entirely driven by investment activity of the general government, supported by the implementation of projects co-financed by EU funds. Private investment was likely to be almost stagnant despite renewed economic growth abroad, loosening of anti-epidemic restrictions and easy monetary conditions. Their dynamics were adversely affected by problems in supply chains and a related fall in capacity utilisation in Q4. The expected development of investment is subject to significant risks (see Section Forecast Risks and Uncertainty). Gross fixed capital formation could have increased by 0.8% in 2021 (vs. 4.6%), and is forecast to grow by 5.4% in 2022 (*unchanged*).

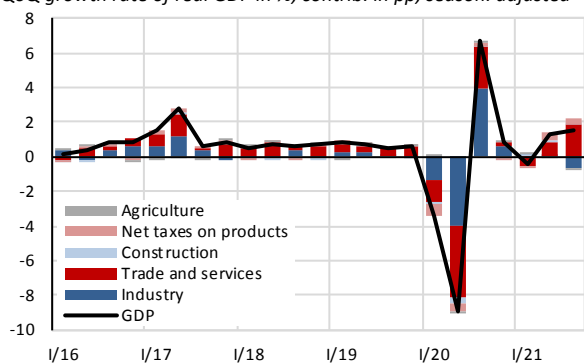
We estimate there was a substantial increase in **inventories** in 2021 after the previous decline. The increase consisted of work in progress in warehouses due to interrup-

tions in the supply of some components and an increase in inventories for precautionary reasons. On the other hand, according to information available from the automotive industry, activity in Q4 2021 was expected to focus on the completion of work-in-progress, which was likely reflected in a decline in inventories. Strong inventory accumulation is expected to continue in 2022, given the ongoing problems in global supply chains. Thus, gross capital formation could increase by 13.0% in 2021 (vs. 11.0%), and we expect a 4.9% increase this year (vs. 5.2%).

We estimate that **exports of goods and services** grew by 5.3% last year (vs. 6.4%) and could strengthen by 4.4% in 2022 (vs. 5.7%). Export growth in 2021 reflected exclusively the growth of export markets (see Section 3.4), while export performance was noticeably dampened by supply disruptions. This year, continued economic recovery in the countries of the main trading partners is expected to be the dominant driver of export growth. Export dynamism and strong inventory accumulation are then reflected in the pace of **imports of goods and services**, which could have risen by 10.6% (vs. 11.0%) in 2021. The slowdown in 2022 to 3.8% (vs. 5.5%) should mainly reflect a much lower rate of gross capital formation.

Graph 3.1.1: Resources of Gross Domestic Product

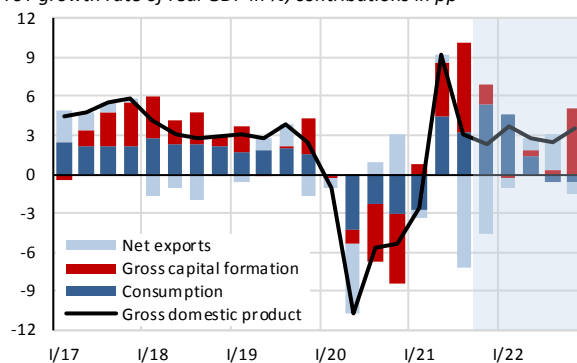
QoQ growth rate of real GDP in %, contrib. in pp, season. adjusted



Source: CZSO. Calculations of the MoF.

Graph 3.1.2: GDP by Type of Expenditure

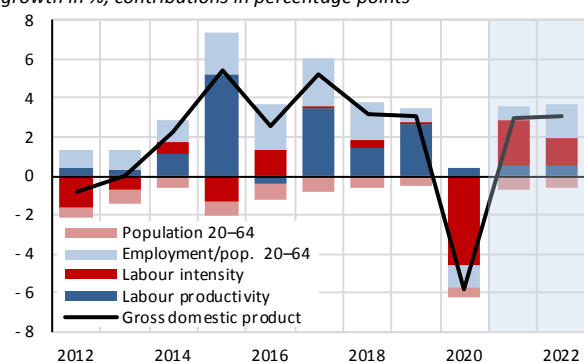
YoY growth rate of real GDP in %, contributions in pp



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.1.3: Real Gross Domestic Product

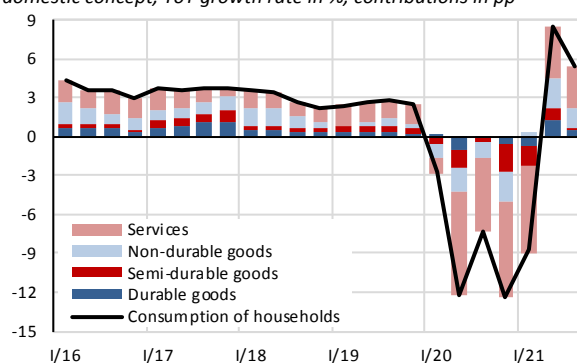
growth in %, contributions in percentage points



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

Graph 3.1.4: Real Consumption of Households

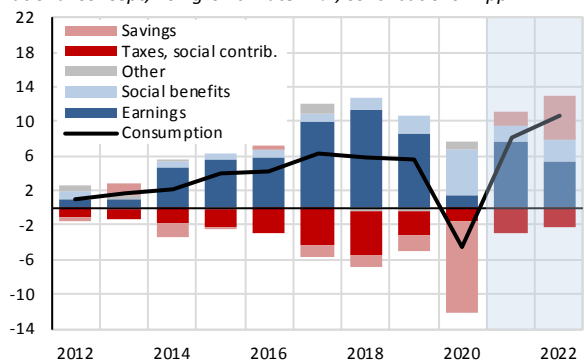
domestic concept, YoY growth rate in %, contributions in pp



Source: CZSO. Calculations of the MoF.

Graph 3.1.5: Nominal Consumption of Households

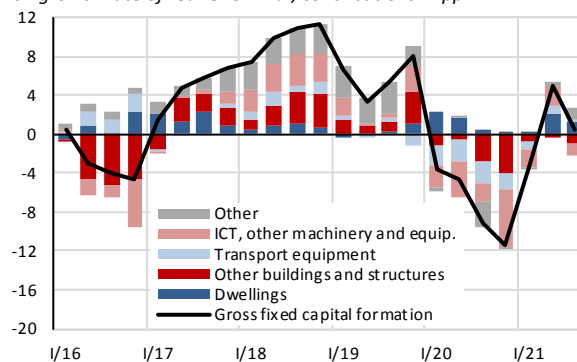
national concept, YoY growth rate in %, contributions in pp



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.1.6: Investment by Type of Expenditure

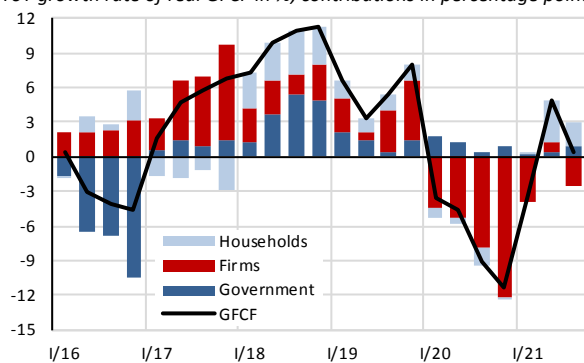
YoY growth rate of real GFCF in %, contributions in pp



Source: CZSO. Calculations of the MoF.

Graph 3.1.7: Investment by Sector

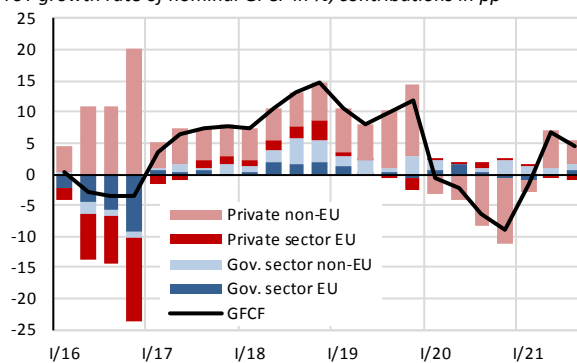
YoY growth rate of real GFCF in %, contributions in percentage points



Source: CZSO. Calculations of the MoF.

Graph 3.1.8: 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*

		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
								<i>Estimate</i>	<i>Forecast</i>	<i>Outlook</i>	<i>Outlook</i>
Gross domestic product	<i>bill. CZK 2015</i>	4 625	4 743	4 988	5 147	5 303	4 996	5 142	5 301	5 467	5 591
	<i>growth in %</i>	5.4	2.5	5.2	3.2	3.0	-5.8	2.9	3.1	3.1	2.3
	<i>growth in % ¹⁾</i>	5.5	2.4	5.4	3.2	3.0	-5.8	2.8	3.1	3.3	2.1
Private consumption expenditure ²⁾	<i>bill. CZK 2015</i>	2 181	2 264	2 355	2 438	2 504	2 334	2 446	2 502	2 581	2 660
	<i>growth in %</i>	3.9	3.8	4.0	3.5	2.7	-6.8	4.8	2.3	3.2	3.1
Government consumption exp.	<i>bill. CZK 2015</i>	875	897	913	948	972	1 005	1 024	1 028	1 040	1 052
	<i>growth in %</i>	1.8	2.5	1.8	3.8	2.5	3.4	1.9	0.4	1.2	1.1
Gross capital formation	<i>bill. CZK 2015</i>	1 294	1 243	1 323	1 425	1 489	1 336	1 509	1 583	1 652	1 621
	<i>growth in %</i>	13.1	-4.0	6.5	7.7	4.5	-10.3	13.0	4.9	4.4	-1.9
Gross fixed capital formation	<i>bill. CZK 2015</i>	1 227	1 190	1 248	1 374	1 455	1 346	1 357	1 430	1 511	1 513
	<i>growth in %</i>	9.7	-3.0	4.9	10.0	5.9	-7.5	0.8	5.4	5.7	0.1
Change in stocks and valuables	<i>bill. CZK 2015</i>	67	53	75	51	34	-10	153	153	140	108
Exports of goods and services	<i>bill. CZK 2015</i>	3 726	3 888	4 168	4 322	4 386	4 083	4 299	4 488	4 657	4 799
	<i>growth in %</i>	6.0	4.3	7.2	3.7	1.5	-6.9	5.3	4.4	3.8	3.1
Imports of goods and services	<i>bill. CZK 2015</i>	3 451	3 549	3 771	3 989	4 051	3 773	4 173	4 332	4 496	4 566
	<i>growth in %</i>	6.8	2.8	6.3	5.8	1.5	-6.9	10.6	3.8	3.8	1.6
Gross domestic expenditure	<i>bill. CZK 2015</i>	4 351	4 404	4 592	4 810	4 963	4 681	4 981	5 112	5 271	5 331
	<i>growth in %</i>	6.0	1.2	4.3	4.8	3.2	-5.7	6.4	2.6	3.1	1.1
Methodological discrepancy ³⁾	<i>bill. CZK 2015</i>	0	0	-1	3	3	11	36	33	33	24
Real gross domestic income	<i>bill. CZK 2015</i>	4 625	4 780	4 988	5 148	5 323	5 075	5 230	5 339	5 516	5 660
	<i>growth in %</i>	5.7	3.4	4.3	3.2	3.4	-4.7	3.0	2.1	3.3	2.6
Contributions to GDP growth ⁴⁾											
Gross domestic expenditure	<i>pp</i>	5.6	1.2	3.9	4.4	3.0	-5.3	6.0	2.5	3.0	1.1
Consumption	<i>pp</i>	2.2	2.3	2.3	2.4	1.8	-2.5	2.6	1.1	1.7	1.7
Household expenditure	<i>pp</i>	1.9	1.8	1.9	1.7	1.3	-3.2	2.2	1.0	1.5	1.4
Government expenditure	<i>pp</i>	0.3	0.5	0.3	0.7	0.5	0.7	0.4	0.1	0.2	0.2
Gross capital formation	<i>pp</i>	3.4	-1.1	1.7	2.0	1.2	-2.8	3.4	1.4	1.3	-0.6
Gross fixed capital formation	<i>pp</i>	2.5	-0.8	1.2	2.5	1.6	-2.0	0.2	1.4	1.5	0.0
Change in stocks	<i>pp</i>	0.9	-0.3	0.5	-0.5	-0.3	-0.8	3.2	0.0	-0.2	-0.6
Foreign balance	<i>pp</i>	-0.2	1.4	1.2	-1.2	0.0	-0.5	-3.0	0.6	0.1	1.2
External balance of goods	<i>pp</i>	-1.0	1.0	0.9	-1.0	0.4	-0.4	-3.0	0.2	0.1	1.2
External balance of services	<i>pp</i>	0.8	0.4	0.3	-0.2	-0.4	-0.1	0.0	0.4	0.0	0.0
Gross value added	<i>bill. CZK 2015</i>	4 165	4 269	4 491	4 643	4 783	4 515	.	.	.	.
	<i>growth in %</i>	4.8	2.5	5.2	3.4	3.0	-5.6	.	.	.	.
Net taxes and subsidies on products	<i>bill. CZK 2015</i>	460	474	497	504	521	481	.	.	.	.

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	Forecast	Forecast
Gross domestic product	bill. CZK 2015	1 197	1 302	1 318	1 325	1 240	1 338	1 351	1 372
	growth in %	-2.6	9.2	3.0	2.3	3.6	2.8	2.5	3.5
	growth in % ¹⁾	-2.4	8.5	3.3	2.5	3.4	2.9	2.6	3.5
	QoQ in % ¹⁾	-0.4	1.3	1.6	0.0	0.5	0.8	1.3	0.9
Private consumption expenditure ²⁾	bill. CZK 2015	546	611	637	653	601	626	629	645
	growth in %	-6.4	8.3	5.9	11.6	10.0	2.5	-1.2	-1.1
Government consumption exp.	bill. CZK 2015	239	250	247	288	242	252	247	288
	growth in %	1.0	3.0	3.0	0.9	1.2	0.9	-0.1	-0.2
Gross capital formation	bill. CZK 2015	325	394	441	349	321	400	444	418
	growth in %	3.0	14.9	26.1	6.5	-1.3	1.5	0.6	19.7
Gross fixed capital formation	bill. CZK 2015	291	342	345	379	307	349	367	407
	growth in %	-3.5	4.9	0.4	0.9	5.5	2.1	6.2	7.5
Change in stocks and valuables	bill. CZK 2015	34	53	96	-30	14	51	78	11
Exports of goods and services	bill. CZK 2015	1 088	1 124	986	1 101	1 094	1 145	1 077	1 171
	growth in %	2.5	32.2	-3.2	-4.5	0.6	1.8	9.3	6.4
Imports of goods and services	bill. CZK 2015	1 005	1 085	1 004	1 079	1 021	1 091	1 054	1 165
	growth in %	3.8	33.3	8.0	1.7	1.7	0.5	5.0	8.0
Gross domestic expenditure	bill. CZK 2015	1 112	1 254	1 322	1 293	1 164	1 277	1 318	1 352
	growth in %	-2.2	9.0	11.0	7.5	4.7	1.9	-0.3	4.6
Methodological discrepancy ³⁾	bill. CZK 2015	3	8	12	13	4	6	8	15
Real gross domestic income	bill. CZK 2015	1 227	1 331	1 336	1 335	1 256	1 354	1 352	1 378
	growth in %	-1.1	9.9	2.7	1.0	2.4	1.7	1.1	3.2
Gross value added	bill. CZK 2015	1 093	1 177	1 185	.	.	.	.	.
	growth in %	-2.6	9.6	2.6	.	.	.	.	.
	growth in % ¹⁾	-2.4	8.8	2.9	.	.	.	.	.
	QoQ in % ¹⁾	-0.4	1.0	1.4	.	.	.	.	.
Net taxes and subsidies on products	bill. CZK 2015	103	125	134	.	.	.	.	.

¹⁾ From seasonally and working day adjusted data²⁾ 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

		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
								Estimate	Forecast	Outlook	Outlook
Gross domestic product	bill. CZK	4 625	4 797	5 111	5 410	5 790	5 694	6 103	6 617	7 019	7 356
	growth in %	6.4	3.7	6.5	5.8	7.0	-1.7	7.2	8.4	6.1	4.8
Private consumption expenditure ¹⁾	bill. CZK	2 181	2 273	2 420	2 568	2 711	2 598	2 814	3 112	3 293	3 467
	growth in %	3.9	4.2	6.5	6.1	5.6	-4.2	8.3	10.6	5.8	5.3
Government consumption exp.	bill. CZK	875	910	959	1 049	1 133	1 232	1 302	1 335	1 379	1 421
	growth in %	4.1	4.0	5.4	9.4	8.1	8.7	5.7	2.6	3.3	3.0
Gross capital formation	bill. CZK	1 294	1 248	1 348	1 472	1 599	1 476	1 758	1 956	2 107	2 117
	growth in %	14.5	-3.6	8.0	9.2	8.7	-7.7	19.1	11.3	7.7	0.5
Gross fixed capital formation	bill. CZK	1 227	1 196	1 273	1 423	1 568	1 490	1 554	1 719	1 871	1 916
	growth in %	11.2	-2.5	6.4	11.7	10.2	-4.9	4.2	10.7	8.8	2.4
Change in stocks and valuables	bill. CZK	67	52	74	49	31	-15	204	237	237	201
External balance	bill. CZK	275	366	384	321	347	389	230	213	240	352
Exports of goods and services	bill. CZK	3 726	3 795	4 039	4 163	4 279	4 043	4 473	4 874	5 227	5 478
	growth in %	4.6	1.8	6.4	3.1	2.8	-5.5	10.6	9.0	7.2	4.8
Imports of goods and services	bill. CZK	3 451	3 429	3 654	3 842	3 932	3 654	4 242	4 661	4 987	5 126
	growth in %	5.0	-0.7	6.6	5.1	2.3	-7.1	16.1	9.9	7.0	2.8
Gross national income	bill. CZK	4 308	4 473	4 821	5 113	5 440	5 510	5 887	6 380	6 764	7 083
	growth in %	6.4	3.8	7.8	6.0	6.4	1.3	6.8	8.4	6.0	4.7
Primary income balance	bill. CZK	-317	-324	-289	-297	-350	-184	-216	-237	-255	-273

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	Forecast	Forecast
Gross domestic product	bill. CZK	1 385	1 537	1 571	1 610	1 528	1 662	1 680	1 748
	growth in %	1.0	13.9	7.6	6.3	10.3	8.1	6.9	8.5
Private consumption expenditure ¹⁾	bill. CZK	613	695	736	769	738	779	785	811
	growth in %	-5.3	10.8	9.7	18.0	20.3	12.0	6.6	5.5
Government consumption exp.	bill. CZK	287	319	313	383	302	322	318	393
	growth in %	3.4	10.9	7.0	2.4	5.3	0.9	1.7	2.7
Gross capital formation	bill. CZK	366	448	521	422	391	484	553	528
	growth in %	6.8	18.8	34.6	14.5	6.7	8.1	6.1	25.2
Gross fixed capital formation	bill. CZK	324	383	399	447	364	413	443	499
	growth in %	-1.5	6.7	4.4	6.4	12.4	7.6	11.0	11.7
Change in stocks and valuables	bill. CZK	42	64	122	-25	26	71	110	29
External balance	bill. CZK	118	74	1	37	97	77	24	15
Exports of goods and services	bill. CZK	1 096	1 151	1 035	1 191	1 173	1 238	1 170	1 293
	growth in %	5.6	35.0	3.3	3.5	7.1	7.5	13.0	8.6
Imports of goods and services	bill. CZK	977	1 077	1 034	1 154	1 076	1 161	1 145	1 278
	growth in %	4.6	35.2	15.8	12.1	10.1	7.8	10.8	10.8

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

		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
								Estimate	Forecast	Outlook	Outlook
GDP	<i>bill. CZK</i>	4 625	4 797	5 111	5 410	5 790	5 694	6 103	6 617	7 019	7 356
	<i>growth in %</i>	6.4	3.7	6.5	5.8	7.0	-1.7	7.2	8.4	6.1	4.8
Balance of taxes and subsidies	<i>bill. CZK</i>	434	454	493	504	534	449	479	597	645	666
	<i>% of GDP</i>	9.4	9.5	9.7	9.3	9.2	7.9	7.9	9.0	9.2	9.1
	<i>growth in %</i>	13.0	4.8	8.6	2.2	6.0	-16.0	6.8	24.5	8.0	3.3
Taxes on production and imports	<i>bill. CZK</i>	570	595	635	656	696	660	.	.	.	.
	<i>growth in %</i>	9.6	4.4	6.6	3.3	6.2	-5.2	.	.	.	.
Subsidies on production	<i>bill. CZK</i>	137	141	142	152	162	211	.	.	.	.
	<i>growth in %</i>	-0.1	3.2	0.4	7.2	6.7	30.3	.	.	.	.
Compensation of employees	<i>bill. CZK</i>	1 891	2 003	2 185	2 399	2 586	2 622	2 774	2 888	3 006	3 136
(domestic concept)	<i>% of GDP</i>	40.9	41.7	42.8	44.3	44.7	46.1	45.4	43.6	42.8	42.6
	<i>growth in %</i>	5.1	5.9	9.1	9.8	7.8	1.4	5.8	4.1	4.1	4.3
Wages and salaries	<i>bill. CZK</i>	1 455	1 538	1 680	1 842	1 986	1 991	2 105	2 219	2 309	2 409
	<i>growth in %</i>	5.0	5.7	9.2	9.6	7.8	0.2	5.7	5.4	4.1	4.3
Social security contributions	<i>bill. CZK</i>	437	464	505	557	599	631	669	669	696	727
	<i>growth in %</i>	5.5	6.4	8.7	10.3	7.6	5.4	5.9	0.0	4.1	4.3
Gross operating surplus	<i>bill. CZK</i>	2 300	2 340	2 432	2 506	2 670	2 623	2 850	3 132	3 369	3 554
	<i>% of GDP</i>	49.7	48.8	47.6	46.3	46.1	46.1	46.7	47.3	48.0	48.3
	<i>growth in %</i>	6.4	1.7	4.0	3.0	6.5	-1.8	8.7	9.9	7.6	5.5
Consumption of capital	<i>bill. CZK</i>	957	988	1 022	1 074	1 153	1 225	1 282	1 354	1 421	1 491
	<i>growth in %</i>	3.8	3.2	3.5	5.0	7.4	6.2	4.6	5.7	4.9	4.9
Net operating surplus	<i>bill. CZK</i>	1 343	1 352	1 410	1 433	1 517	1 398	1 569	1 777	1 948	2 063
	<i>growth in %</i>	8.3	0.6	4.3	1.6	5.9	-7.8	12.2	13.3	9.6	5.9

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	Forecast	Forecast
GDP	<i>bill. CZK</i>	1 385	1 537	1 571	1 610	1 528	1 662	1 680	1 748
	<i>growth in %</i>	1.0	13.9	7.6	6.3	10.3	8.1	6.9	8.5
Balance of taxes and subsidies	<i>bill. CZK</i>	71	115	147	146	124	155	162	156
	<i>growth in %</i>	-28.9	5.6	10.2	37.9	74.0	34.3	10.4	6.7
Compensation of employees	<i>bill. CZK</i>	651	704	697	722	672	715	736	766
(domestic concept)	<i>growth in %</i>	1.2	11.9	8.9	1.6	3.3	1.5	5.5	6.1
Wages and salaries	<i>bill. CZK</i>	484	531	535	554	516	549	565	588
	<i>growth in %</i>	-1.8	14.4	7.6	3.3	6.6	3.4	5.6	6.1
Social security contributions	<i>bill. CZK</i>	166	173	162	168	156	166	170	177
	<i>growth in %</i>	11.2	4.8	13.5	-3.7	-6.5	-4.2	5.3	5.9
Gross operating surplus	<i>bill. CZK</i>	663	717	727	743	731	792	782	826
	<i>growth in %</i>	5.7	17.5	6.0	6.2	10.3	10.4	7.5	11.2

Source: CZSO. Calculations and forecast of the MoF.

3.2 Prices

In the initial phase of the coronavirus pandemic, both aggregate supply and demand were constrained, with ambiguous implications for inflation. The global economy recovered relatively quickly from the downturn in H1 2020, helped by massive fiscal and monetary policy stimuli. However, the supply side is still affected by the pandemic and is unable to respond adequately to rising demand. There are transport disruptions, supply frictions and production shutdowns. These developments have resulted in price rises, which were first evident in commodity markets but are gradually being reflected in other price categories.

In the Czech Republic, the **average inflation rate** measured by **the consumer price index** reached 3.8% in 2021 (vs. 3.5%). Among the inflationary factors in 2021, particular mention should be made of supply-side frictions, a significant rise in the price of oil and other commodities and, to a lesser extent, a rise in unit labour costs. The appreciation of the Czech koruna against the two major world currencies and, to some extent, the negative output gap worked in the direction of lower inflation. In terms of divisions of the consumer basket, the transport (0.9 pp), alcoholic beverages, tobacco and housing (0.7 pp each) contributed significantly to the average inflation rate. Administrative measures did not affect last year's average inflation rate in aggregate.

Annual inflation was consistently above the CNB's 2% target in 2021 and well above the upper 3% boundary of the tolerance band in H2. In December 2021, consumer prices were 6.6% higher year-on-year (vs. 4.9%). Market factors, especially core inflation, contributed to the deviation of the observed developments from the forecast. The transport (1.6 pp) and housing (1.2 pp) divisions contributed the most to December's annual inflation, with imputed rents (the cost of owning a home) rising by 14.7%. In December, the year-on-year inflation was almost entirely driven by market factors. The contribution of administrative measures was even negative (-0.6 pp), mainly due to the waiver of value added tax on electricity and natural gas.

Although annual inflation had accelerated sharply in H2 2021, it had probably not yet peaked. It could be close to 10% in Q1 2022. We are raising our inflation forecast substantially not only because of the aforementioned deviation of annual inflation from the previous forecast, but also because of ongoing supply-side frictions, which we see as a significant inflationary factor. Moreover, the labour market is getting increasingly tight.

In 2022, the average inflation rate is expected to reflect administrative measures, especially the rise in regulated prices. Among these, the most significant will be increases in the price of electricity and natural gas. As part of the changes in indirect taxes, we foresee a further, albeit more modest than in 2021, increase in excise duty on tobacco products. Administrative measures should contribute 2.1 pp to the average inflation rate (vs. 2.3 pp).

In 2022, several supply factors will be acting in an inflationary direction, but their strength should be less than last year. Oil price growth should slow considerably and unit labour costs should also rise more slowly. However, supply frictions are likely to persist in the first half of the year. Conversely, the appreciation of the Czech koruna against the euro should have an anti-inflationary effect. Annual inflation should slow down in H2 2022, helped, among other things, by tighter monetary policy. In line with the above, we expect the **average inflation rate** to reach 8.5% in 2022 (vs. 6.1%).

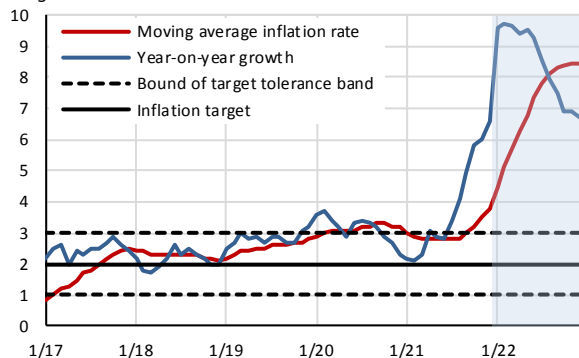
The lower forecast for the average inflation rate as measured by the HICP compared with the national CPI (see Tables 3.2.1 and 3.2.2) is mainly due to rapid growth in imputed rents, which are not included in the HICP.

In Q3 2021, **GDP deflator** increased by 4.5% (vs. 2.9%), with gross domestic expenditure deflator rising by 4.7% (vs. 3.2%) and terms of trade deteriorating by 0.5% (vs. 0.7%). In 2021, GDP deflator could increase by 4.1% (vs. 3.4%). The slight decline in dynamics compared to 2020 could be solely due to a lower contribution of terms of trade, while the growth of gross domestic expenditure deflator is likely to have accelerated. This year, GDP deflator growth could accelerate to 5.2% (vs. 3.4%), but the structure should undergo substantial changes. The slightly positive contribution of terms of trade should disappear. The pace of gross domestic expenditure deflator should accelerate, despite the slowdown in the growth of government consumption deflator, due to the marked acceleration in consumer and investment product prices.

Both export and import prices were strongly influenced by the rise in oil prices and the renewed appreciation of the koruna in 2021. Significant appreciation of the exchange rate is expected to continue this year. As a result, terms of trade may have shown a much smaller improvement last year than in 2020, only 0.1% (vs. 0.3%). In 2022, they could deteriorate by 1.4% (vs. 0.6%).

Graph 3.2.1: Consumer Prices

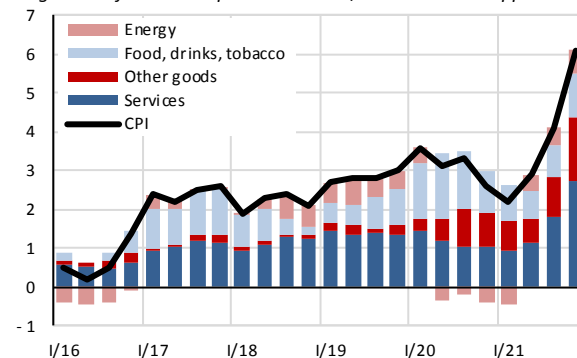
YoY growth rate in %



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

Graph 3.2.2: Consumer Prices in Main Divisions

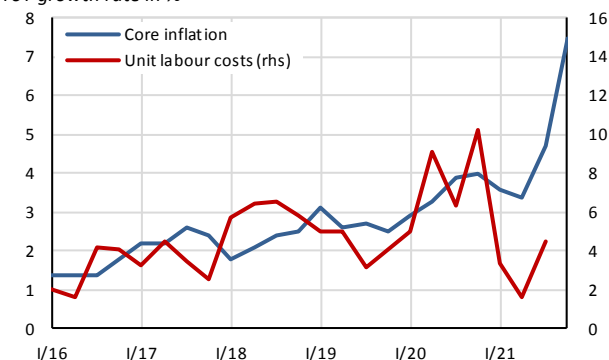
YoY growth of consumer price index in %, contributions in pp



Source: CZSO. Calculations of the MoF.

Graph 3.2.3: Core Inflation and Unit Labour Costs

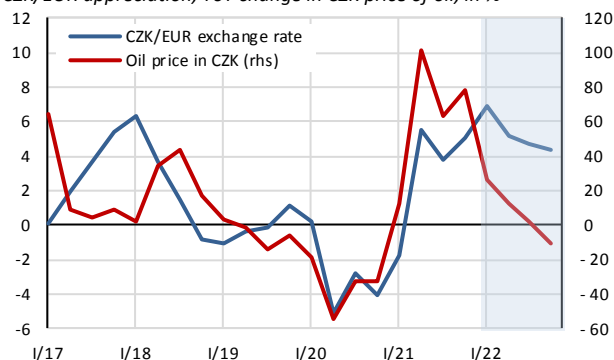
YoY growth rate in %



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.4: CZK/EUR and Koruna Price of Oil

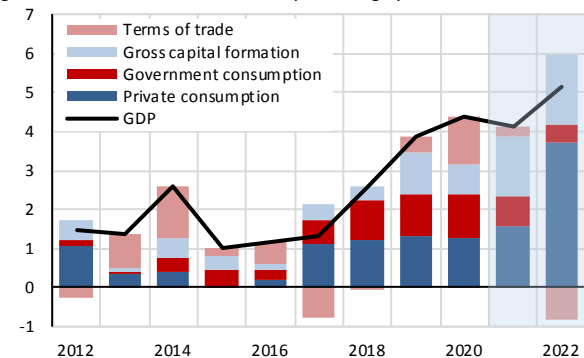
CZK/EUR appreciation, YoY change in CZK price of oil, in %



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

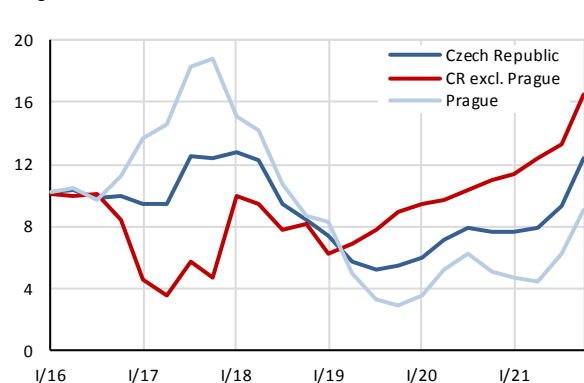
YoY growth rate in %



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.7: Offering Prices of Flats

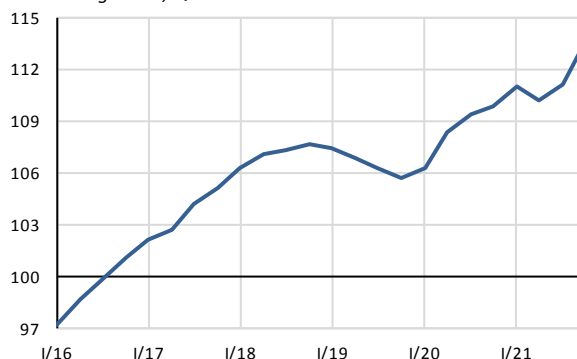
YoY growth rate in %



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, Q4 2010=100



Source: CZSO. Calculations and forecast of the MoF.

Table 3.2.1: Prices – yearly

		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
								Estimate	Forecast	Outlook	Outlook
Consumer Price Index											
Level	<i>average 2015=100</i>	100.0	100.7	103.1	105.3	108.3	111.8	116.1	125.9	129.2	132.0
Average inflation rate	%	0.3	0.7	2.5	2.1	2.8	3.2	3.8	8.5	2.6	2.2
Administrative measures ¹⁾	<i>percentage points</i>	0.2	0.2	-0.1	0.3	0.6	0.5	0.0	2.1	0.1	0.2
Market increase	<i>percentage points</i>	0.1	0.5	2.6	1.8	2.2	2.7	3.8	6.3	2.5	2.0
Harmonized index of consumer prices											
Level	<i>average 2015=100</i>	100.0	100.7	103.1	105.1	107.8	111.4	115.1	123.8	126.7	129.3
Average inflation rate	<i>growth in %</i>	0.3	0.6	2.4	2.0	2.6	3.3	3.3	7.6	2.3	2.1
Deflators											
GDP	<i>average 2015=100</i>	100.0	101.1	102.5	105.1	109.2	114.0	118.7	124.8	128.4	131.6
	<i>growth in %</i>	1.0	1.1	1.3	2.6	3.9	4.4	4.1	5.2	2.9	2.5
Gross domestic expenditure	<i>average 2015=100</i>	100.0	100.6	102.9	105.8	109.7	113.3	117.9	125.3	128.6	131.4
	<i>growth in %</i>	0.8	0.6	2.3	2.8	3.7	3.3	4.0	6.2	2.7	2.2
Consumption of households	<i>average 2015=100</i>	100.0	100.4	102.7	105.3	108.3	111.3	115.0	124.4	127.6	130.3
	<i>growth in %</i>	0.0	0.4	2.3	2.5	2.8	2.8	3.3	8.2	2.6	2.1
Consumption of government	<i>average 2015=100</i>	100.0	101.4	105.0	110.6	116.6	122.6	127.1	129.9	132.6	135.1
	<i>growth in %</i>	2.3	1.4	3.5	5.4	5.4	5.1	3.7	2.1	2.1	1.9
Fixed capital formation	<i>average 2015=100</i>	100.0	100.5	102.0	103.6	107.7	110.7	114.5	120.2	123.8	126.6
	<i>growth in %</i>	1.3	0.5	1.5	1.6	4.0	2.8	3.4	5.0	3.0	2.3
Exports of goods and services	<i>average 2015=100</i>	100.0	97.6	96.9	96.3	97.5	99.0	104.0	108.6	112.2	114.1
	<i>growth in %</i>	-1.3	-2.4	-0.7	-0.6	1.3	1.5	5.1	4.4	3.4	1.7
Imports of goods and services	<i>average 2015=100</i>	100.0	96.6	96.9	96.3	97.1	96.8	101.7	107.6	110.9	112.3
	<i>growth in %</i>	-1.7	-3.4	0.3	-0.6	0.8	-0.2	5.0	5.8	3.1	1.2
Terms of trade	<i>average 2015=100</i>	100.0	101.0	100.0	100.0	100.5	102.2	102.3	100.9	101.2	101.7
	<i>growth in %</i>	0.4	1.0	-1.0	0.0	0.5	1.7	0.1	-1.4	0.2	0.5

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				2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
					Estimate	Forecast	Forecast	Forecast	Forecast
Consumer Price Index	<i>average 2015=100</i>	113.6	114.7	117.0	118.9	124.6	125.5	126.4	127.0
	<i>growth in %</i>	2.2	2.9	4.1	6.1	9.6	9.4	8.0	6.9
Of which the contribution of:									
Administrative measures ¹⁾	<i>percentage points</i>	0.0	0.1	0.1	-0.2	2.1	2.0	1.9	2.5
Market increase	<i>percentage points</i>	2.2	2.8	4.0	6.3	7.6	7.4	6.1	4.3
Harmonized index of consumer prices	<i>average 2015=100</i>	113.1	114.2	115.7	117.2	122.7	123.9	124.1	124.4
	<i>growth in %</i>	2.2	2.8	3.3	5.0	8.5	8.5	7.2	6.2
Deflators									
GDP	<i>average 2015=100</i>	115.7	118.0	119.2	121.6	123.1	124.2	124.4	127.4
	<i>growth in %</i>	3.8	4.3	4.5	3.8	6.4	5.2	4.3	4.8
Gross domestic expenditure	<i>average 2015=100</i>	113.9	116.6	118.8	121.7	122.9	124.0	125.6	128.2
	<i>growth in %</i>	2.2	3.8	4.7	5.0	7.9	6.4	5.8	5.3
Consumption of households	<i>average 2015=100</i>	112.2	113.9	115.6	117.8	122.7	124.4	124.7	125.7
	<i>growth in %</i>	1.2	2.3	3.6	5.7	9.4	9.2	7.8	6.7
Consumption of government	<i>average 2015=100</i>	120.0	127.9	126.7	132.7	124.8	127.9	129.0	136.6
	<i>growth in %</i>	2.4	7.7	3.9	1.6	4.0	0.0	1.7	2.9
Fixed capital formation	<i>average 2015=100</i>	111.4	112.2	115.6	118.1	118.6	118.2	120.8	122.7
	<i>growth in %</i>	2.1	1.7	4.0	5.5	6.5	5.4	4.5	3.9
Exports of goods and services	<i>average 2015=100</i>	100.7	102.4	104.9	108.2	107.2	108.2	108.6	110.4
	<i>growth in %</i>	3.0	2.1	6.7	8.4	6.4	5.6	3.5	2.0
Imports of goods and services	<i>average 2015=100</i>	97.3	99.3	102.9	107.0	105.3	106.5	108.6	109.7
	<i>growth in %</i>	0.8	1.4	7.2	10.2	8.3	7.3	5.5	2.5
Terms of trade	<i>average 2015=100</i>	103.5	103.2	101.9	101.1	101.8	101.6	99.9	100.6
	<i>growth in %</i>	2.2	0.7	-0.5	-1.7	-1.7	-1.5	-2.0	-0.5

¹⁾ The contribution of change in regulated prices and indirect taxes.

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

3.3 Labour Market

After a significant part of support programmes ended, the labour market has returned to a situation of labour shortages with low unemployment rate that has continued to decline slowly in recent months.

Employment grew by 0.5% YoY (vs. 0.1%) in Q3 2021, according to the LFS. The number of employees increased by 1.7%. In contrast, the total number of entrepreneurs decreased by 5.7%, with the largest declines in administrative and support activities (19.9%) and education (16.3%). The number of entrepreneurs without employees was down by 4.2% YoY, while the number of entrepreneurs with employees fell by 8.8% (this indicator is, however, highly volatile). The number of contributing family members decreased slightly (0.4%).

According to official data on job vacancies, a shortage of employees was evident in most sectors and regions in Q4 2021. In December 2021, more vacancies than registered unemployed were reported in 43 districts and 9 regions, respectively. However, by no means all vacancies registered by labour offices can be considered active. Of the vacancies advertised on the labour office's website, approximately 51% were active at the forecast cut-off date (vacancies for which the last change occurred after 1 July 2021 and the start date was 1 October 2021 or later). Staff shortages continue to be a major barrier to output growth in the construction sector.

Demand for foreign workers continues to increase. According to data from the Ministry of Labour and Social Affairs, the number of such workers rose by 58,000 YoY to 702,000 in December. In the long term, workers from Slovakia and Ukraine prevail.

Employment should increase slightly quarter-on-quarter thanks to the economic recovery. However, it is estimated to have fallen by 0.4% (vs. 0.5%) over the whole of last year due to developments in the first half of the year. In 2022, employment could rise by 1.1% (vs. 0.8%).

Unemployment rate (LFS) declined to 2.7% in Q3 2021 (vs. 2.9%). Although lagged effects of the recession were partially felt last year, the high number of job openings and employed foreigners limit the scope for a potential rise in unemployment. In the context of economic growth and a recovery in labour demand, the unemployment rate should gradually decline. In 2021, it could have reached 2.8% on average (vs. 3.0%); for this year we forecast a fall to 2.3% (vs. 2.7%).

The share of unemployed persons (MoLSA) in the labour office registers has been declining year-on-year since the middle of last year and reached 3.4% in Q4 (vs. 3.5%). For the whole of 2021, it was 3.8% (*in line*

with the forecast) and could fall further to 3.4% in 2022 (vs. 3.6%).

The participation rate (20–64 years) rose to 82.7% in Q3 2021 (vs. 82.3%) and could have averaged 82.2% (*unchanged*) for the full year 2021. 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. However, a decline in the participation of pre-retirement age individuals, who could retire early at an increased rate, could have the opposite effect. The participation rate could thus increase to 82.6% in 2022 (*unchanged*).

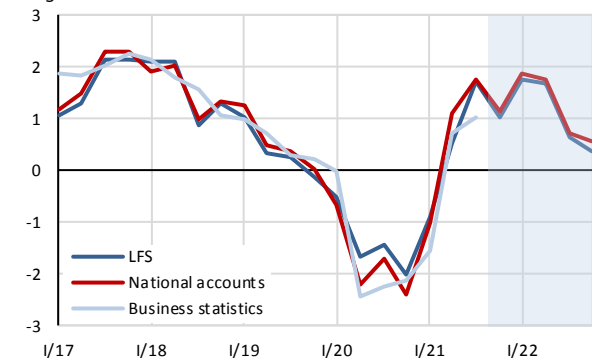
Wages and salaries rose by 7.6% in Q3 2021 (vs. 7.1%), with the number of employees growing by 1.8%. The strongest increases were in real estate activities (16.8%) and information and communication activities (9.1%). In public administration, defence, education and health and social work, wages and salaries increased by 7.6%. In the most economically important sector, manufacturing, wages and salaries increased by 7.3% with a 1.3% increase in the number of employees.

According to the monthly data for October and November, average industrial wage growth could have exceeded 3% in Q4 2021. On the other hand, earnings growth was likely held back by the base effect of the epidemic-related bonuses paid in Q4 2020. Thus, we estimate that wages and salaries rose by 3.3% in Q4 last year (vs. 3.2%) and by 5.7% in the full year 2021 (vs. 5.3%). For this year, we expect the volume of earnings in non-market sectors to stagnate due to unchanged pay rates for a substantial portion of employees and bonus payments in 2021 that increase the comparative base. Wage and salary dynamics should thus be driven exclusively by market entities this year. A significant shortage of workers amid falling unemployment rates and a 6.6% increase in minimum and guaranteed wages should lead to an acceleration in the pace of earnings in the market sector. As a result, total wages and salaries could rise by 5.4% this year (vs. 5.1%).

The average wage (business statistics, full-time equivalent) increased by 5.7% (vs. 5.8%) in Q3 2021. The median wage also increased at a similar rate over the same period. The renewed demand for labour, together with labour shortages and the easing of restrictive measures, has translated into an increase in average earnings in all sectors. Average wage may have increased by 5.8% last year (*unchanged*). In 2022, its growth could slow to 4.9% (vs. 4.6%) due to the aforementioned factors.

Graph 3.3.1: Employees in Different Statistics

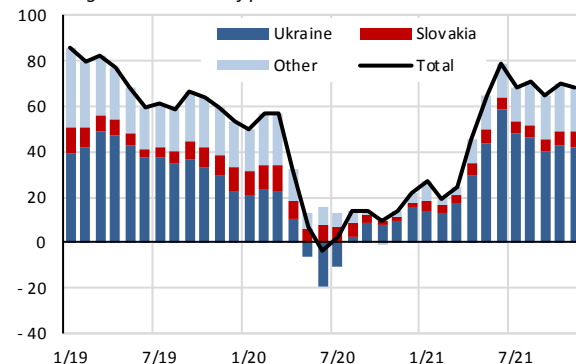
YoY growth rate in %



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

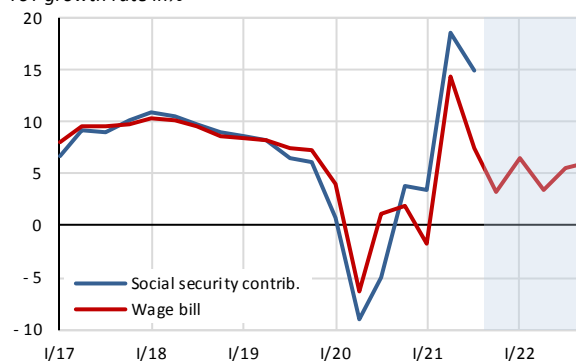
seasonally adjusted data, in %



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

Graph 3.3.4: Social Security Contributions and Earnings

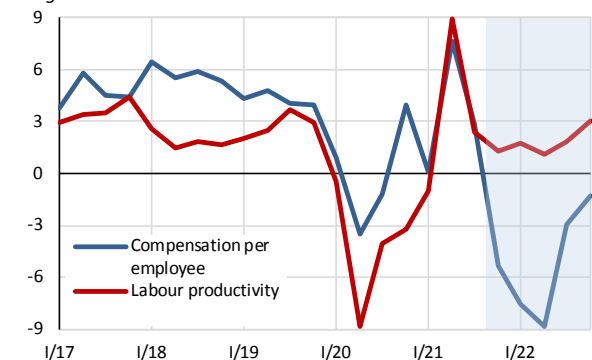
YoY growth rate in %



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

Graph 3.3.5: Compens. per Employee and Productivity

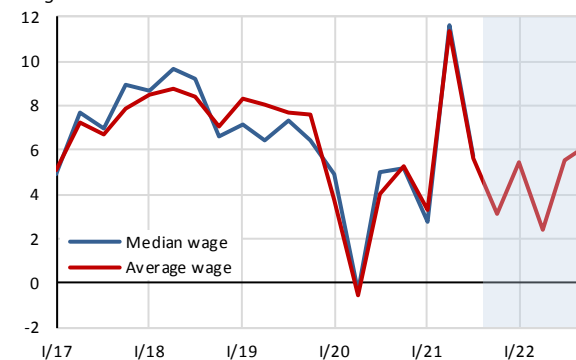
YoY growth rate in %



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.6: Nominal Monthly Wages

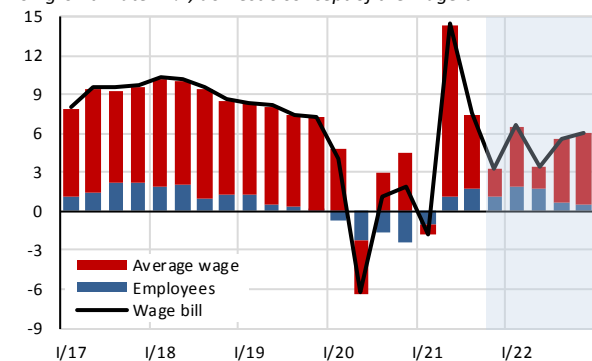
YoY growth rate in %



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.7: Nominal Wage Bill

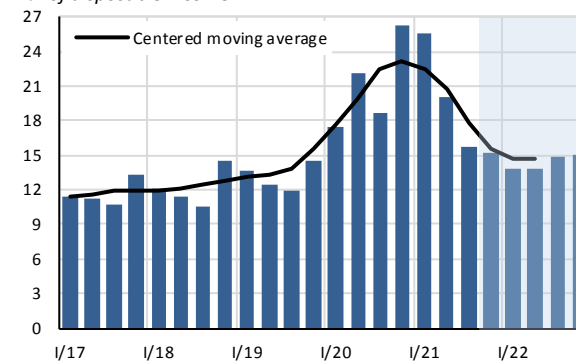
YoY growth rate in %, domestic concept of the wage bill



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

			2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
										Estimate	Forecast	Outlook	Outlook
Labour Force Survey													
Employment	av. in thous.persons		5 042	5 139	5 222	5 294	5 303	5 235	5 216	5 271	5 282	5 285	
	growth in %		1.4	1.9	1.6	1.4	0.2	-1.3	-0.4	1.1	0.2	0.1	
Employees	av. in thous.persons		4 168	4 257	4 327	4 396	4 412	4 351	4 377	4 425	4 436	4 440	
	growth in %		2.2	2.1	1.7	1.6	0.4	-1.4	0.6	1.1	0.2	0.1	
Entrepreneurs and self-employed	av. in thous.persons		874	882	894	897	891	884	839	845	846	846	
	growth in %		-2.4	1.0	1.4	0.4	-0.8	-0.7	-5.1	0.8	0.0	0.0	
Unemployment	av. in thous.persons		268	211	156	122	109	137	153	125	120	114	
Unemployment rate	average in %		5.1	4.0	2.9	2.2	2.0	2.6	2.8	2.3	2.2	2.1	
Long-term unemployment ¹⁾	av. in thous.persons		127	89	54	37	33	30	.	.	.	.	
Labour force	av. in thous.persons		5 310	5 350	5 377	5 415	5 412	5 372	5 369	5 396	5 401	5 400	
	growth in %		0.2	0.8	0.5	0.7	-0.1	-0.7	-0.1	0.5	0.1	0.0	
Population aged 20–64	av. in thous.persons		6 566	6 510	6 456	6 414	6 383	6 355	6 316	6 279	6 253	6 240	
	growth in %		-0.7	-0.9	-0.8	-0.7	-0.5	-0.4	-0.6	-0.6	-0.4	-0.2	
Employment/Pop. 20–64	average in %		76.8	78.9	80.9	82.5	83.1	82.4	82.6	83.9	84.5	84.7	
Employment rate 20–64 ²⁾	average in %		74.8	76.7	78.5	79.9	80.3	79.7	79.8	80.9	81.1	81.4	
Labour force/Pop. 20–64	average in %		80.9	82.2	83.3	84.4	84.8	84.5	85.0	85.9	86.4	86.5	
Participation rate 20–64 ³⁾	average in %		78.7	79.9	80.9	81.7	82.0	81.8	82.2	82.6	83.1	83.3	
Participation rate 15–64 ³⁾	average in %		74.0	75.0	75.9	76.6	76.7	76.4	76.6	76.8	76.8	76.7	
Registered unemployment													
Unemployment	av. in thous.persons		479	406	318	242	212	259	280	246	235	224	
Share of unemployed ⁴⁾	average in %		6.6	5.6	4.3	3.2	2.8	3.5	3.8	3.4	3.2	3.1	
Wages and salaries													
Average monthly wage ⁵⁾													
Nominal	CZK monthly		26 591	27 764	29 638	32 051	34 578	35 662	37 728	39 583	41 128	42 869	
	growth in %		3.2	4.4	6.7	8.1	7.9	3.1	5.8	4.9	3.9	4.2	
Real	CZK 2015		26 591	27 571	28 747	30 438	31 928	31 898	32 496	31 447	31 838	32 482	
	growth in %		2.9	3.7	4.3	5.9	4.9	-0.1	1.9	-3.2	1.2	2.0	
Median monthly wage	CZK monthly		22 414	23 692	25 398	27 561	29 439	30 528	.	.	.	.	
	growth in %		2.9	5.7	7.2	8.5	6.8	3.7	.	.	.	.	
Wage bill	growth in %		5.0	5.7	9.2	9.6	7.8	0.2	5.7	5.4	4.1	4.3	
Labour productivity	growth in %		3.9	0.9	3.6	1.8	2.8	-4.2	2.9	1.9	2.8	2.1	
Unit labour costs ⁶⁾	growth in %		-0.8	3.0	3.5	6.1	4.3	7.7	2.1	0.9	0.9	2.0	
Compens. of employees / GDP	%		40.9	41.7	42.8	44.3	44.7	46.1	45.4	43.6	42.8	42.6	

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	Forecast	Forecast
Labour Force Survey									
Employment	<i>av. in thous. persons</i>	5 166	5 171	5 257	5 269	5 254	5 256	5 288	5 285
	<i>YoY growth in %</i>	-2.1	-0.8	0.5	1.0	1.7	1.6	0.6	0.3
	<i>QoQ growth in %</i>	-0.6	0.2	1.1	0.4	0.1	0.1	0.1	0.1
Employees	<i>av. in thous. persons</i>	4 351	4 353	4 422	4 383	4 428	4 426	4 450	4 398
	<i>growth in %</i>	-0.9	0.5	1.7	1.0	1.8	1.7	0.6	0.4
Entrepreneurs and self-employed	<i>av. in thous. persons</i>	815	819	836	886	826	830	838	887
	<i>growth in %</i>	-8.2	-7.2	-5.7	0.7	1.4	1.4	0.3	0.1
Unemployment	<i>av. in thous. persons</i>	179	159	146	128	133	117	128	123
Unemployment rate	<i>average in %</i>	3.4	3.0	2.7	2.4	2.5	2.2	2.4	2.3
Long-term unemployment ¹⁾	<i>av. in thous. persons</i>	40	45	42	.	.	.	.	.
Labour force	<i>av. in thous. persons</i>	5 345	5 330	5 403	5 397	5 387	5 372	5 416	5 408
	<i>growth in %</i>	-0.7	-0.2	0.3	0.3	0.8	0.8	0.2	0.2
Population aged 20–64	<i>av. in thous. persons</i>	6 333	6 321	6 310	6 299	6 291	6 283	6 275	6 267
	<i>growth in %</i>	-0.6	-0.5	-0.7	-0.5	-0.7	-0.6	-0.6	-0.5
Employment/Pop. 20–64	<i>average in %</i>	81.6	81.8	83.3	83.6	83.5	83.6	84.3	84.3
	<i>increase over a year</i>	-1.2	-0.2	1.0	1.3	2.0	1.8	1.0	0.7
Employment rate 20–64 ²⁾	<i>average in %</i>	79.0	79.2	80.5	80.5	80.3	80.5	81.1	81.5
	<i>increase over a year</i>	-1.0	-0.2	0.8	0.8	1.3	1.2	0.6	1.0
Labour force/Pop. 20–64	<i>average in %</i>	84.4	84.3	85.6	85.7	85.6	85.5	86.3	86.3
	<i>increase over a year</i>	-0.1	0.3	0.9	0.7	1.2	1.2	0.7	0.6
Participation rate 20–64 ³⁾	<i>average in %</i>	81.8	81.7	82.7	82.5	82.3	82.2	83.0	83.0
	<i>increase over a year</i>	0.1	0.4	0.7	0.4	0.5	0.5	0.3	0.5
Participation rate 15–64 ³⁾	<i>average in %</i>	76.7	76.0	77.1	76.8	76.6	76.4	77.1	77.0
	<i>increase over a year</i>	0.3	0.1	0.5	0.2	0.0	0.4	0.0	0.2
Registered unemployment									
Unemployment	<i>av. in thous. persons</i>	307	291	269	252	268	246	239	233
Share of unemployed ⁴⁾	<i>average in %</i>	4.2	4.0	3.7	3.4	3.7	3.4	3.3	3.2
Wages and salaries									
Average monthly wage ⁵⁾									
Nominal	<i>CZK monthly</i>	35 338	38 292	37 499	39 782	37 263	39 222	39 571	42 275
	<i>growth in %</i>	3.3	11.4	5.7	3.1	5.4	2.4	5.5	6.3
Real	<i>CZK 2015</i>	31 107	33 384	32 050	33 458	29 916	31 246	31 315	33 276
	<i>growth in %</i>	1.2	8.3	1.5	-2.9	-3.8	-6.4	-2.3	-0.5
Median monthly wage	<i>CZK monthly</i>	29 925	32 408	32 979	.	.	.	.	.
	<i>growth in %</i>	2.8	11.6	5.7	.	.	.	.	.
Wage bill	<i>growth in %</i>	-1.8	14.4	7.6	3.3	6.6	3.4	5.6	6.1

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

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
										Estimate	Forecast
Current income											
Compensation of employees	bill.CZK	1 751	1 825	1 923	2 038	2 223	2 430	2 599	2 647	2 785	2 899
	growth in %	1.5	4.2	5.4	6.0	9.1	9.3	7.0	1.8	5.2	4.1
Gross operating surplus and mixed income	bill.CZK	655	674	691	703	740	801	845	835	894	925
	growth in %	-0.7	3.0	2.4	1.7	5.2	8.3	5.5	-1.1	7.0	3.5
Property income received	bill.CZK	133	133	127	133	162	162	163	179	178	183
	growth in %	3.9	0.0	-4.3	4.1	21.9	0.2	0.5	10.0	-0.4	2.8
Social benefits not-in-kind	bill.CZK	583	596	613	630	650	685	738	881	925	994
	growth in %	-0.8	2.2	2.8	2.8	3.2	5.4	7.7	19.3	5.0	7.5
Other current transfers received	bill.CZK	146	160	181	217	244	281	338	309	318	333
	growth in %	-3.1	9.2	13.3	19.4	12.8	15.1	20.4	-8.8	2.9	4.7
Current expenditure											
Property income paid	bill.CZK	21	16	14	14	13	19	28	27	23	23
	growth in %	40.5	-24.3	-10.7	0.2	-7.4	43.2	44.8	-3.2	-15.6	2.3
Curr. taxes on income and property	bill.CZK	185	197	205	227	264	309	316	308	264	262
	growth in %	3.5	6.5	3.9	10.8	16.3	16.9	2.3	-2.4	-14.4	-0.5
Social contributions	bill.CZK	670	696	732	775	836	911	976	1023	1 140	1 204
	growth in %	2.4	3.8	5.3	5.8	7.9	9.0	7.1	4.8	11.5	5.6
Other current transfers paid	bill.CZK	140	150	169	207	238	278	335	300	309	322
	growth in %	-9.3	7.3	12.5	22.4	15.3	16.5	20.6	-10.5	2.8	4.4
Gross disposable income	bill.CZK	2 251	2 328	2 414	2 497	2 666	2 842	3 029	3 193	3 365	3 523
	growth in %	0.2	3.4	3.7	3.4	6.8	6.6	6.6	5.4	5.4	4.7
Final consumption	bill.CZK	2 027	2 072	2 152	2 241	2 383	2 524	2 663	2 545	2 754	3 046
	growth in %	1.6	2.2	3.9	4.1	6.4	5.9	5.5	-4.4	8.2	10.6
Change in share in pension funds	bill.CZK	35	35	33	31	32	33	37	38	35	38
Gross savings	bill.CZK	260	292	295	286	315	350	404	686	646	515
Capital transfers											
(income (-) / expenditure (+))	bill.CZK	-13	-32	-12	-14	-11	-12	-13	-41	-36	-29
Gross capital formation	bill.CZK	203	214	220	237	216	261	297	292	316	324
	growth in %	1.7	5.2	2.9	7.9	-9.2	21.2	13.7	-1.7	8.4	2.5
Change in financial assets and liab.	bill.CZK	68	108	85	61	110	101	116	435	364	218
Real disposable income	growth in %	-0.5	2.6	3.7	3.0	4.4	4.0	3.7	2.6	2.1	-3.3
Gross savings rate	%	11.4	12.4	12.1	11.3	11.7	12.2	13.2	21.2	19.0	14.5

Source: CZSO. Calculations of the MoF.

3.4 External Relations

The **current account of the balance of payments** reached a surplus of 0.6% of GDP¹ in Q3 2021 (vs. 1.3% of GDP). The year-on-year deterioration of the balance by 2.4% of GDP was mainly due to a marked decline in the surplus on the goods balance and a higher deficit on the primary income balance.

Export markets increased by 10.0% YoY in Q3 2021 (vs. 11.6%). While GDP of our trading partners grew in line with estimates, their import intensity grew more slowly. The lower import dynamics, especially in the case of Germany, is likely related to the disruption of global supply chains. Taking into account the forecast evolution of import intensity and economic activity of our trading partners, we estimate that export markets grew by 9.3% in 2021 (vs. 10.2%). In 2022, they could increase by 4.2% (vs. 5.5%).

Export performance fell by 13.1% (vs. 11.0%) in Q3 2021. This was due to a reduction in manufacturing production caused by shutdowns in the automotive industry related to shortages of certain components (especially semiconductors). Given the disruption in supply chains and industrial production, which continued in Q4 2021, we estimate that export performance declined by 3.4% last year (vs. 3.3%). For this year, we estimate a slowdown in the decline in export performance to 0.1% (*unchanged*) as the difficulties in supply chains are expected to subside gradually. The recovery in performance should be limited by a stronger appreciation of the koruna against the euro (see Section 1.4).

Within international trade (balance of payments methodology), the **balance of goods** surplus fell significantly to 3.6% of GDP in Q3 2021 (vs. 4.1% of GDP). This was driven by a year-on-year deterioration in the balance 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 a fifth due to production shutdowns in the automotive industry. The deterioration in the balance also reflects strong imports of intermediate goods, which is likely to have been related to inventory accumulation triggered by fears of possible future supply shortages and of further increases in input prices.

Prices of mineral fuels continue to be an important factor influencing the terms of trade in foreign trade with goods. The deficit on the fuel part of the balance was 2.2% of GDP (vs. 1.9% of GDP) in Q3 2021. Taking into account the projected crude oil price (see Section 1.2), the deficit of the fuel balance could reach 2.4% of GDP in 2021 (vs. 2.1% of GDP), and we expect the same deficit in relative terms this year (vs. 2.0% of GDP).

We estimate that the surplus of the balance of goods relative to GDP reached 2.1% (vs. 2.8%) last year. The deterioration in the estimate reflects the decline in the balance in the second half of the year due to the strong momentum in imports for production. The export side has been severely constrained by supply chain shortages and production cutbacks in the automotive industry. We then project a further reduction in the surplus to 1.5% of GDP in 2022 (vs 2.5% of GDP) due to deterioration in terms of trade and acceleration in investment growth.

The **services balance** posted a surplus of 1.6% of GDP in Q3 2021 (*in line with the estimate*). The year-on-year decline in the surplus was mainly due to a deterioration in the tourism balance and transport services. This shortfall was partly offset by a growth of revenues in the telecommunication services sector. We estimate that the balance of services ran a surplus of 1.7% of GDP in 2021. In relative terms, the surplus should remain positive at this level in 2022 (vs. 1.6% of GDP in both years). This year, the surplus should be driven by a gradual recovery in international tourism and the extension of toll for freight transport to lower-class roads (higher toll revenues are expected).

The **primary income** deficit widened by 0.8% of GDP quarter-on-quarter to 4.2% of GDP (vs. 3.8% of GDP) in Q3 2021 due to higher-than-expected outflows of direct investment income in the form of dividends and reinvested earnings. Given the forecast for GDP and gross operating surplus, we estimate that profits of foreign-owned firms rose in 2021. Thus, the primary income deficit appears to have reached 4.3% of GDP (vs. 3.9% of GDP). We expect the same level of deficit in relative terms in 2022 (vs. 4.1% of GDP). Profitability growth of firms owned by non-residents is likely to be limited by ongoing supply chain constraints and forced production shutdowns. Increases in energy and other input prices may also negatively affect corporate earnings growth.

Against this background, we expect the **current account of the balance of payments** to have reached a deficit of 1.0% of GDP last year (vs. 0.1% of GDP). In 2022 we expect the deficit to widen to 1.3% of GDP (vs. 0.3% of GDP).

The **current external balance** (national accounts methodology) reached a surplus of 0.6% of GDP in Q3 2021 (see Graph 3.4.8). From a sectoral perspective, this was mainly driven by households, whose savings exceeded investment by 7.1% of GDP. In the general government sector, the relationship between savings and investment was reversed, with gross capital formation exceeding gross savings by 6.3% of GDP.

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

Graph 3.4.1: GDP and Goods Imports of Partner Countries

YoY growth rate in %, seasonally adjusted



Source: Eurostat. Calculations and forecast of the MoF.

Graph 3.4.2: Real Exports of Goods

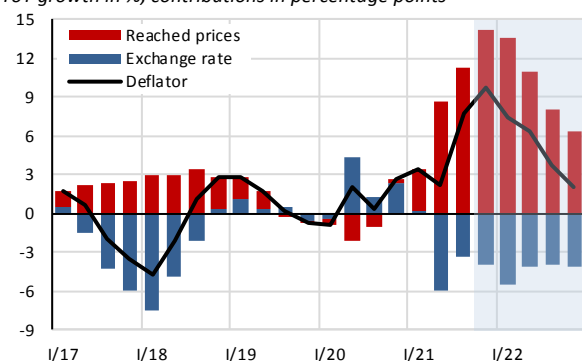
YoY growth in %, contributions in pp, seasonally adjusted



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

Graph 3.4.3: Deflator of Exports of Goods

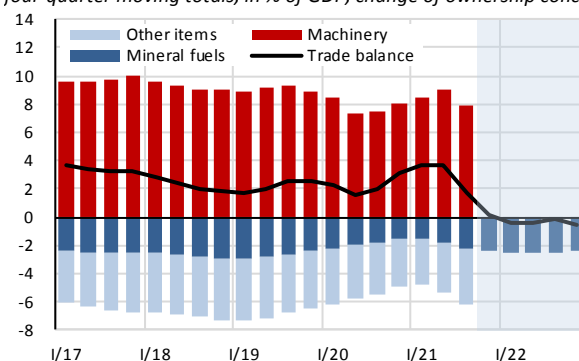
YoY growth in %, contributions in percentage points



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

Graph 3.4.4: Balance of Trade

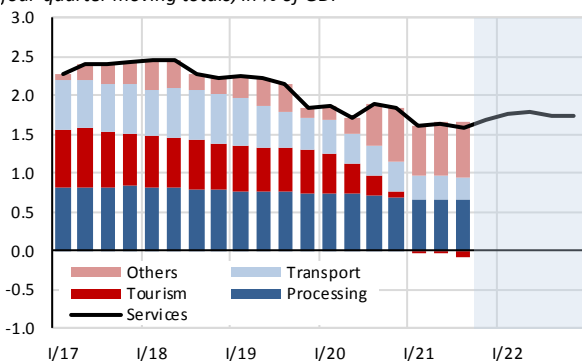
four-quarter moving totals, in % of GDP, change of ownership concept



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.4.5: Balance of Services

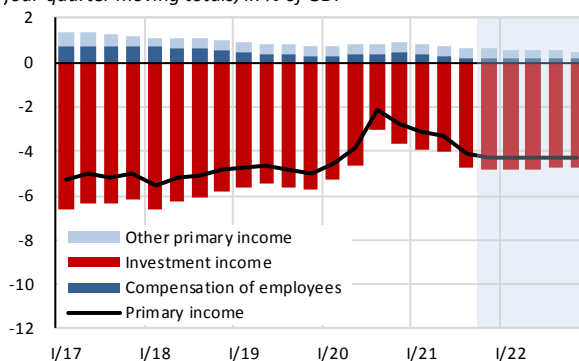
four-quarter moving totals, in % of GDP



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

Graph 3.4.6: Balance of Primary Income

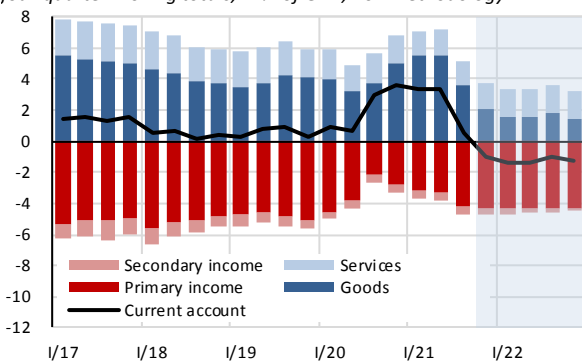
four-quarter moving totals, in % of GDP



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

Graph 3.4.7: Current Account

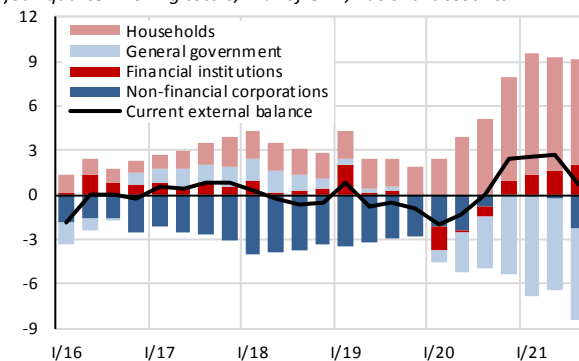
four-quarter moving totals, in % of GDP, BoP methodology



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

Graph 3.4.8: Current External Balance

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



Source: CZSO. Calculations of the MoF.

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

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
											Estimate Forecast
GDP ¹⁾	average of 2010=100	104.5	106.8	109.2	111.5	114.8	117.3	119.6	113.1	118	123
	growth in %	0.6	2.2	2.2	2.1	3.0	2.2	1.9	-5.4	4.1	4.3
Import intensity ²⁾	average of 2010=100	104.0	106.8	110.3	112.8	115.8	118.4	118.6	118.2	124	124
	growth in %	1.4	2.8	3.3	2.3	2.6	2.2	0.2	-0.3	4.9	-0.1
Export markets ³⁾	average of 2010=100	108.6	114.1	120.5	125.8	132.9	138.9	141.8	133.7	146	152
	growth in %	2.0	5.0	5.6	4.4	5.7	4.5	2.0	-5.7	9.3	4.2
Export performance	average of 2010=100	106.6	110.9	110.7	110.4	112.4	111.4	110.4	111.2	107	107
	growth in %	-1.3	4.1	-0.2	-0.2	1.8	-0.9	-0.8	0.7	-3.4	-0.1
Real exports	average of 2010=100	115.7	126.5	133.3	138.9	149.4	154.7	156.6	148.7	157	163
	growth in %	0.7	9.3	5.4	4.2	7.6	3.5	1.2	-5.0	5.5	4.1
1 / NEER	average of 2010=100	103.0	108.6	109.9	106.9	103.9	100.2	100.5	102.4	99	95
	growth in %	2.4	5.5	1.2	-2.8	-2.8	-3.6	0.4	1.9	-3.2	-4.4
Prices on foreign markets	average of 2010=100	102.5	100.8	98.2	98.2	100.2	103.2	103.9	103.0	113	123
	growth in %	-0.9	-1.7	-2.6	-0.1	2.1	3.0	0.6	-0.8	9.3	9.7
Exports deflator	average of 2010=100	105.6	109.5	108.0	104.9	104.1	103.4	104.4	105.5	112	117
	growth in %	1.5	3.7	-1.4	-2.8	-0.8	-0.7	1.0	1.1	5.8	4.8
Nominal exports	average of 2010=100	122.2	138.5	143.9	145.7	155.6	159.9	163.4	156.8	175	191
	growth in %	2.2	13.4	3.9	1.2	6.8	2.8	2.2	-4.1	11.6	9.2

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				2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Forecast	Forecast	Forecast	Forecast
GDP ¹⁾	average of 2010=100	114.7	117.3	119.4	120	121	122	124	125
	growth in %	-1.9	12.5	3.4	3.4	5.3	4.2	3.5	4.1
Import intensity ²⁾	average of 2010=100	126.6	125.0	122.1	122	123	124	124	124
	growth in %	10.6	2.7	6.3	0.3	-2.7	-0.8	1.7	1.5
Export markets ³⁾	average of 2010=100	145.3	146.6	145.8	147	149	152	153	155
	growth in %	8.5	15.5	10.0	3.8	2.5	3.4	5.3	5.6
Export performance	average of 2010=100	111.2	109.7	102.7	106	107	108	108	107
	growth in %	-1.7	16.2	-13.1	-10.1	-4.1	-1.8	4.7	1.1
Real exports	average of 2010=100	161.5	160.8	149.7	156	159	163	165	166
	growth in %	6.7	34.2	-4.5	-6.7	-1.7	1.5	10.2	6.8
1 / NEER	average of 2010=100	100.4	98.9	98.6	99	95	95	95	95
	growth in %	0.2	-5.9	-3.3	-3.9	-5.5	-4.1	-4.0	-4.1
Prices on foreign markets	average of 2010=100	106.9	110.7	114.3	118	121	123	124	126
	growth in %	3.2	8.6	11.3	14.2	13.6	10.9	8.1	6.4
Exports deflator	average of 2010=100	107.4	109.5	112.7	117	115	116	117	119
	growth in %	3.4	2.2	7.7	9.8	7.4	6.3	3.8	2.1
Nominal exports	average of 2010=100	173.4	176.1	168.7	182	183	190	193	198
	growth in %	10.3	37.2	2.9	2.4	5.5	7.9	14.4	9.0

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*

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
		<i>Estimate Forecast</i>									
Goods and services	<i>bill.CZK</i>	237	276	274	365	384	321	346	390	228	211
	<i>% GDP</i>	5.7	6.3	5.9	7.6	7.5	5.9	6.0	6.8	3.7	3.2
Goods	<i>bill.CZK</i>	167	220	188	259	259	201	240	285	125	97
	<i>% GDP</i>	4.0	5.1	4.1	5.4	5.1	3.7	4.1	5.0	2.1	1.5
Services	<i>bill.CZK</i>	70	56	87	107	125	120	106	105	103	114
	<i>% GDP</i>	1.7	1.3	1.9	2.2	2.4	2.2	1.8	1.8	1.7	1.7
Primary income	<i>bill.CZK</i>	-249	-261	-255	-253	-255	-260	-292	-158	-262	-282
	<i>% GDP</i>	-6.0	-6.0	-5.5	-5.3	-5.0	-4.8	-5.0	-2.8	-4.3	-4.3
Secondary income	<i>bill.CZK</i>	-10	-7	1	-27	-50	-37	-34	-29	-27	-15
	<i>% GDP</i>	-0.2	-0.2	0.0	-0.6	-1.0	-0.7	-0.6	-0.5	-0.5	-0.2
Current account	<i>bill.CZK</i>	-22	8	21	85	79	24	19	204	-61	-87
	<i>% GDP</i>	-0.5	0.2	0.4	1.8	1.5	0.4	0.3	3.6	-1.0	-1.3
Capital account	<i>bill.CZK</i>	82	32	99	52	45	13	24	71	83	105
	<i>% GDP</i>	2.0	0.7	2.1	1.1	0.9	0.2	0.4	1.3	1.4	1.6
Net lending/borrowing	<i>bill.CZK</i>	61	40	120	137	124	37	44	275	22	18
	<i>% GDP</i>	1.5	0.9	2.6	2.9	2.4	0.7	0.8	4.8	0.4	0.3
Financial account	<i>bill.CZK</i>	68	64	173	122	116	61	8	244	.	.
Direct investments	<i>bill.CZK</i>	7	-80	50	-187	-46	-51	-137	-73	.	.
Portfolio investments	<i>bill.CZK</i>	-93	90	-164	-170	-268	30	-105	-136	.	.
Financial derivatives	<i>bill.CZK</i>	-5	-6	-5	11	-14	-15	1	12	.	.
Other investments	<i>bill.CZK</i>	-30	-13	-59	-97	-802	47	139	393	.	.
Reserve assets	<i>bill.CZK</i>	188	73	351	564	1 246	50	110	48	.	.
International investment position	<i>bill.CZK</i>	-1 695	-1 577	-1 523	-1 304	-1 273	-1 320	-1 147	-709	.	.
	<i>% GDP</i>	-40.9	-36.3	-32.9	-27.2	-24.9	-24.4	-19.8	-12.5	.	.
Gross external debt	<i>bill.CZK</i>	2 733	2 947	3 119	3 499	4 370	4 413	4 384	4 301	.	.
	<i>% GDP</i>	66.0	67.8	67.4	72.9	85.5	81.6	75.7	75.5	.	.

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

Table 3.4.4: Balance of Payments – quarterly*four-quarter moving totals, international investment position and gross external debt – end of period*

		2021				2022			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
					<i>Estimate</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>
Goods and services	<i>bill.CZK</i>	404	422	313	228	207	210	233	211
	<i>% GDP</i>	7.1	7.1	5.2	3.7	3.3	3.3	3.6	3.2
Goods	<i>bill.CZK</i>	313	326	217	125	96	96	121	97
	<i>% GDP</i>	5.5	5.5	3.6	2.1	1.5	1.5	1.9	1.5
Services	<i>bill.CZK</i>	91	96	96	103	111	113	113	114
	<i>% GDP</i>	1.6	1.6	1.6	1.7	1.8	1.8	1.7	1.7
Primary income	<i>bill.CZK</i>	-178	-196	-250	-262	-268	-272	-277	-282
	<i>% GDP</i>	-3.1	-3.3	-4.2	-4.3	-4.3	-4.3	-4.3	-4.3
Secondary income	<i>bill.CZK</i>	-36	-31	-29	-27	-24	-21	-18	-15
	<i>% GDP</i>	-0.6	-0.5	-0.5	-0.5	-0.4	-0.3	-0.3	-0.2
Current account	<i>bill.CZK</i>	191	195	33	-61	-85	-84	-63	-87
	<i>% GDP</i>	3.3	3.3	0.6	-1.0	-1.4	-1.3	-1.0	-1.3
Capital account	<i>bill.CZK</i>	50	53	73	83	90	95	100	105
	<i>% GDP</i>	0.9	0.9	1.2	1.4	1.4	1.5	1.5	1.6
Net lending/borrowing	<i>bill.CZK</i>	241	248	106	22	5	11	37	18
	<i>% GDP</i>	4.2	4.2	1.8	0.4	0.1	0.2	0.6	0.3
Financial account	<i>bill.CZK</i>	227	254	55	.	.	.	.	.
Direct investments	<i>bill.CZK</i>	-46	-43	-78	.	.	.	.	.
Portfolio investments	<i>bill.CZK</i>	-33	58	112	.	.	.	.	.
Financial derivatives	<i>bill.CZK</i>	-11	-27	-46	.	.	.	.	.
Other investments	<i>bill.CZK</i>	232	190	-107	.	.	.	.	.
Reserve assets	<i>bill.CZK</i>	86	76	173	.	.	.	.	.
International investment position	<i>stock in bill.CZK</i>	-493	-579	-644	.	.	.	.	.
	<i>% GDP</i>	-8.6	-9.8	-10.7	.	.	.	.	.
Gross external debt	<i>stock in bill.CZK</i>	4 277	4 190	4 318	.	.	.	.	.
	<i>% GDP</i>	74.9	71.1	71.9	.	.	.	.	.

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

4 Survey of Other Institutions' Forecasts

On average, the surveyed institutions expect real GDP to grow by 3.8% this year and 3.9% in 2023. The average inflation rate is expected to accelerate further to 5.1% in 2022, but to slow to 2.5% in 2023. Average wage growth could be slightly above 5% this year and next. The current account balance of payments should be roughly balanced this year and could reach a surplus of 0.6% GDP in 2023.

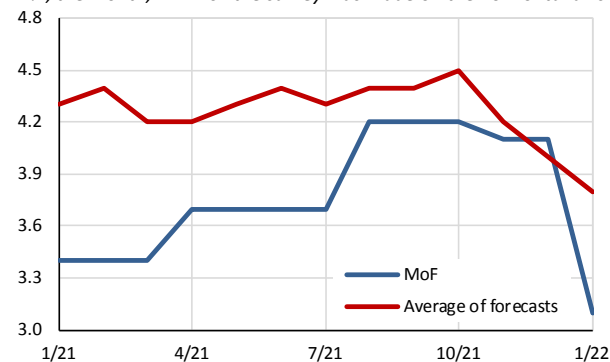
The current forecast of the MoF is in most cases within the range of estimates of individual institutions. However, when assessing the differences, it is necessary to take into account the date of preparation of individual forecasts and the information available to their authors.

The MoF expects that the exceptionally strong increase in the cost of living will significantly dampen household consumption, and the Czech economy will therefore grow more slowly in 2022 compared to the average of other institutions' forecasts. Slower growth rate is also expected in 2023. The forecast for the inflation rate in

2022 is significantly higher than other institution's forecasts and even deviates from their range. It takes into account both the lagging of past forecasts behind the extreme acceleration in price growth in the second half of last year and new information on the possible development of inflationary factors within the Czech economy, including an increase in administered prices (see Section 3.2). In 2023, like other institutions, we expect inflation to return to the tolerance band of the CNB's inflation target. Average wage growth in 2023 also shows a more pronounced difference between the MoF's forecast and the average of the surveyed forecasts, probably due to the stagnation of earnings in non-market sectors that we expect. The forecast of a slight 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.

Graph 4.1: Forecasts for Real GDP Growth in 2022

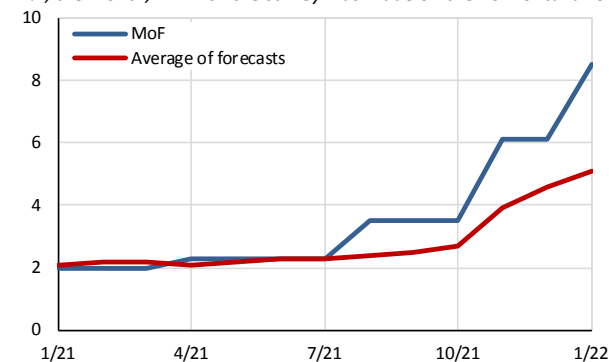
in %; the month, in which the survey was made on the horizontal axis



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

			January 2022			January 2022
			min.	max.	average	MoF forecast
Gross domestic product (2022)	growth in %, const.pr.		3.0	4.5	3.8	3.1
Gross domestic product (2023)	growth in %, const.pr.		3.2	4.7	3.9	3.1
Average inflation rate (2022)			2.3	6.9	5.1	8.5
Average inflation rate (2023)	%		2.0	3.2	2.5	2.6
Average monthly wage (2022)	growth in %		4.3	6.4	5.1	4.9
Average monthly wage (2023)	growth in %		5.0	6.0	5.6	3.9
Current account / GDP (2022)	%		-3.5	2.1	0.0	-1.3
Current account / GDP (2023)	%		-1.9	1.2	0.6	.

Note: The survey is based on publicly available forecasts of 13 institutions, of which 8 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 International Comparison

In 2020, the purchasing power parity of the Czech currency compared to the EU27 was CZK 19.14/PPS, and CZK 18.12/EUR compared to the EA19. Economic level of the Czech Republic in current purchasing power parity remained at 88% of the EA19 average in the same year and approached the economic level of Italy.

In 2020, GDP per capita in **current purchasing power parity** declined in all countries surveyed as a result of the coronavirus pandemic. The largest declines were recorded in countries with stronger tourism orientation, notably Spain, Italy, Greece and France. In these countries, as well as in Portugal and Croatia, there was a simultaneous decline in relative economic performance to the euro area average. In relative terms, the Czech economy may have declined slightly to 86% of euro area GDP last year and could remain around this level in 2022.

GDP per capita in **exchange rate** terms fell to EUR 20 100 in 2020, equivalent to around 61% of the average EA19 level. We expect the Czech economy to continue to converge slowly towards the euro area, reaching 68% of its level in 2022. Higher inflation and exchange rate appreciation should be the main factors over the forecast horizon.

We estimate that the **comparative price level of GDP** in the Czech Republic, after a period of growth in 2014–19, remained at around the 2019 level of 69% of the EA19 average in 2020. In 2021, it could rise again to 72%, and in 2022, due to the expected inflation differential and exchange rate appreciation, it could increase to 79%.

Persistent labour shortages, continued wage growth in the general government sector and further increases in the minimum and guaranteed wages have kept **average earnings** in current purchasing power parity at 74% of the EA19 average in 2020.

The differences in relative economic performance compared to the euro area average in 2020 are summarised in more detail in Figure 5.17 by decomposing GDP per

capita into hourly labour productivity, average hours worked per worker, the share of employed persons in the working-age population and the effect of demographics.

In 2020, all the countries surveyed (countries listed in Tables 5.1 and 5.2), except Croatia and Spain, experienced an increase in hourly **labour productivity**. In general, the level of labour productivity in the new EU Member States is still several tens of percent lower than in the EA19. In France, on the other hand, labour productivity has long been substantially higher than the EA19 average. In the Czech Republic, it reached 71% of the euro area average in 2020, while among the new EU Member States it was higher only in Slovenia (76%).

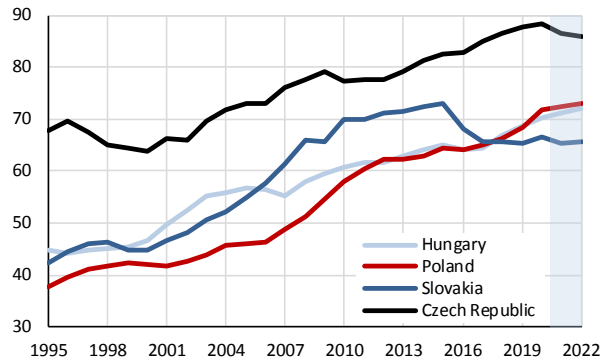
The average number of hours worked per worker fell in all countries surveyed in 2020, but remains above the euro area average, with the exception of France. The average number of hours worked in the Czech Republic has long been well above the EA19 average, exceeding it by 16% in 2020.

The ratio of employed people to the working-age population (20–64 years) varies considerably across the countries surveyed. Countries with high structural unemployment rates (Spain, Italy, etc.) have been below the EA19 level for a long time. Very dynamic employment growth until 2019, limited labour market effects of the pandemic and increasing effective retirement age have contributed to the Czech Republic being above the euro area average since 2012 – by 6% in 2020.

The share of the working-age population captured by **the demographic component** has been declining in most countries over the past decade as a result of population ageing. Although the level of the demographic component in the Czech Republic is slightly above the EA19 average, given demographic developments, no significant improvement can be expected over the forecast horizon.

Graph 5.1: GDP per Capita in Current PPP

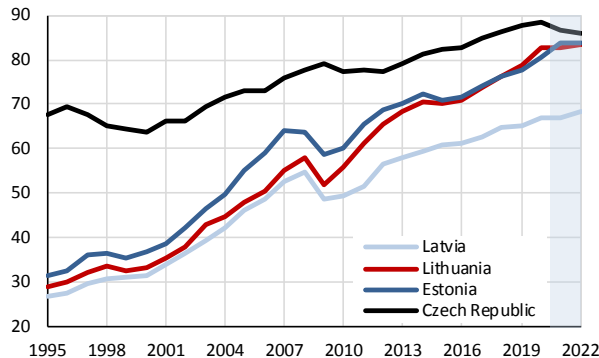
EA19=100



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

Graph 5.2: GDP per Capita in Current PPP

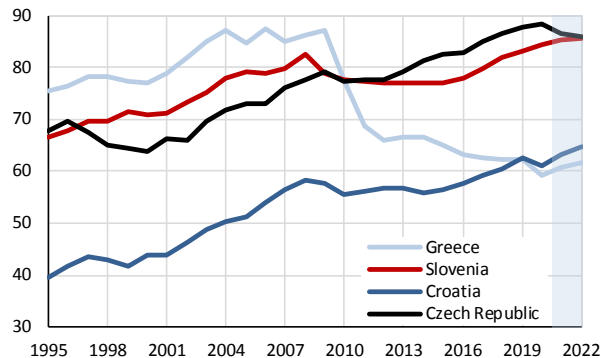
EA19=100



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

Graph 5.3: GDP per Capita in Current PPP

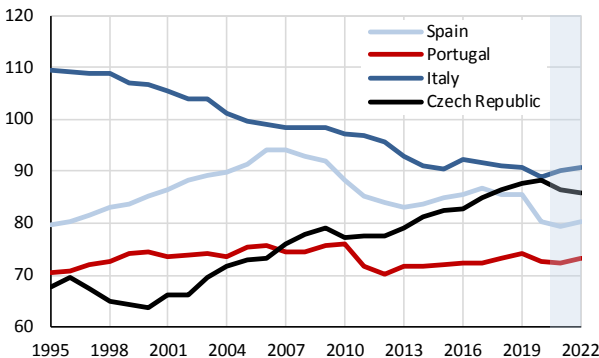
EA19=100



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

Graph 5.4: GDP per Capita in Current PPP

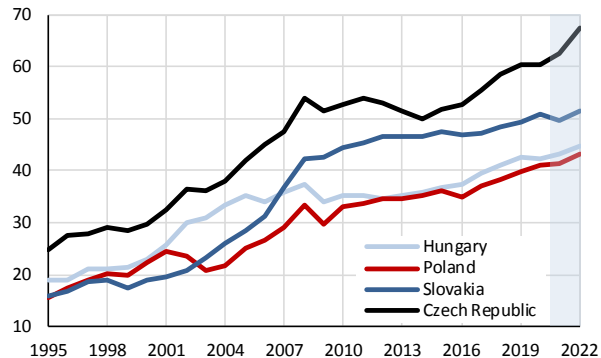
EA19=100



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

Graph 5.5: Exchange Rate Adjusted GDP per Capita

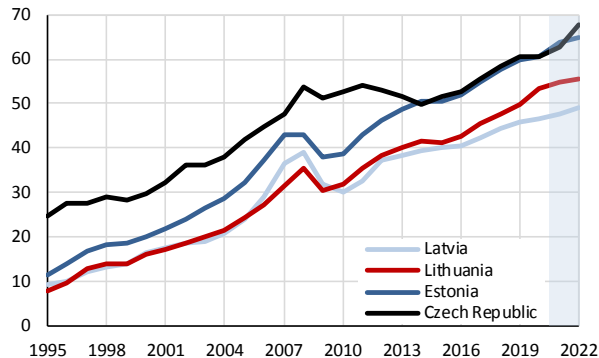
EA19=100



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

Graph 5.6: Exchange Rate Adjusted GDP per Capita

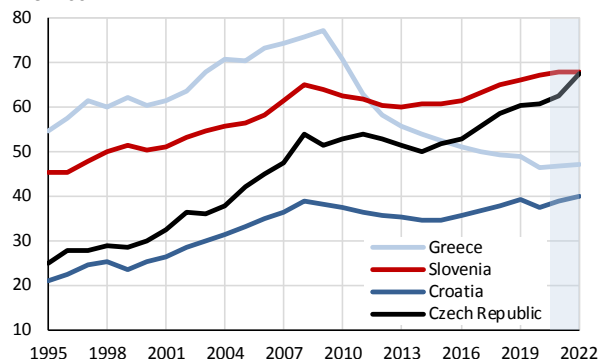
EA19=100



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

Graph 5.7: Exchange Rate Adjusted GDP per Capita

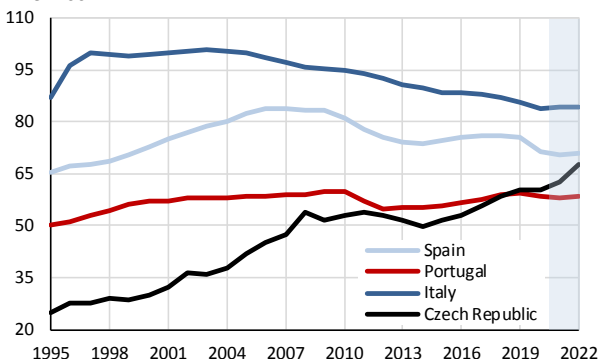
EA19=100



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

Graph 5.8: Exchange Rate Adjusted GDP per Capita

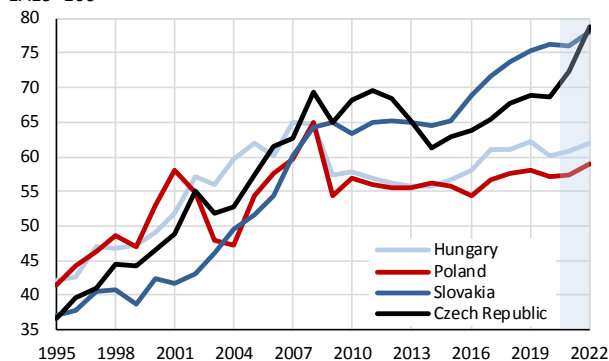
EA19=100



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

Graph 5.9: Comparative Price Level of GDP

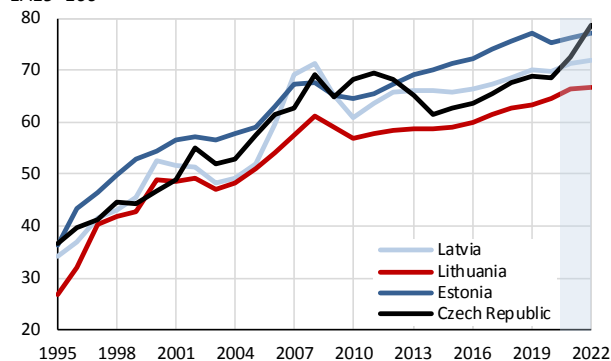
EA19=100



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

Graph 5.10: Comparative Price Level of GDP

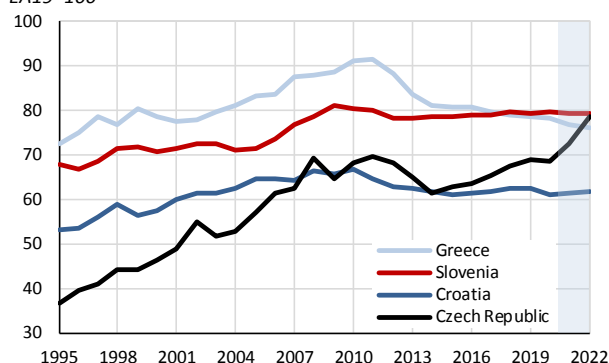
EA19=100



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

Graph 5.11: Comparative Price Level of GDP

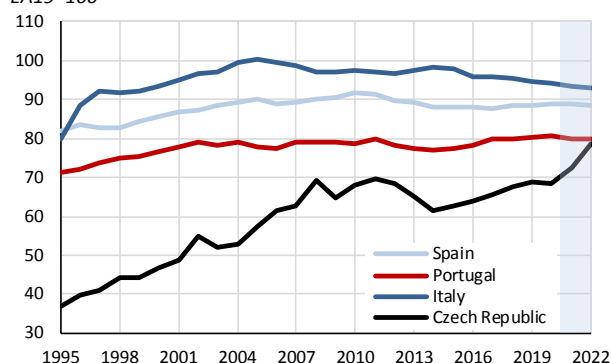
EA19=100



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

Graph 5.12: Comparative Price Level of GDP

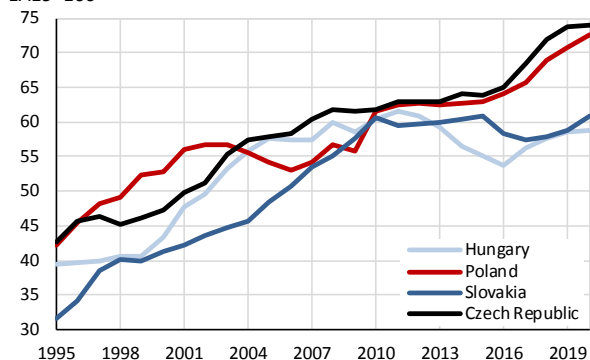
EA19=100



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

Graph 5.13: Average Earnings in Current PPP

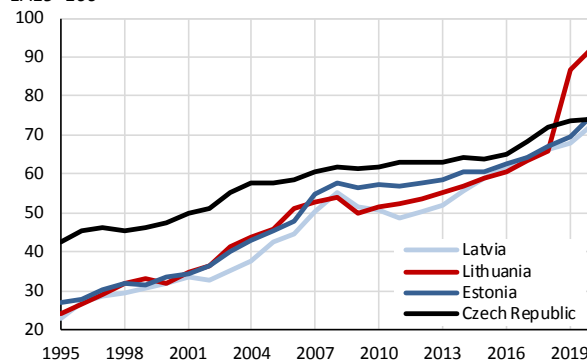
EA19=100



Source: Eurostat. Calculations of the MoF.

Graph 5.14: Average Earnings in Current PPP

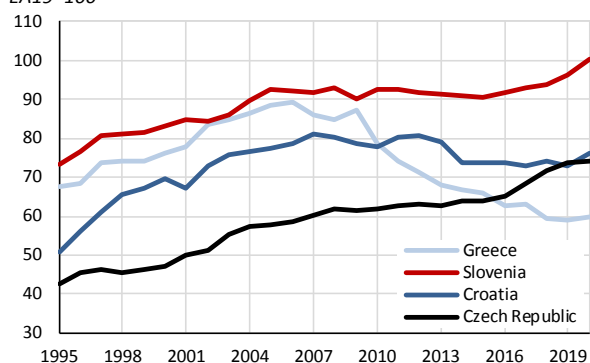
EA19=100



Source: Eurostat. Calculations of the MoF.

Graph 5.15: Average Earnings in Current PPP

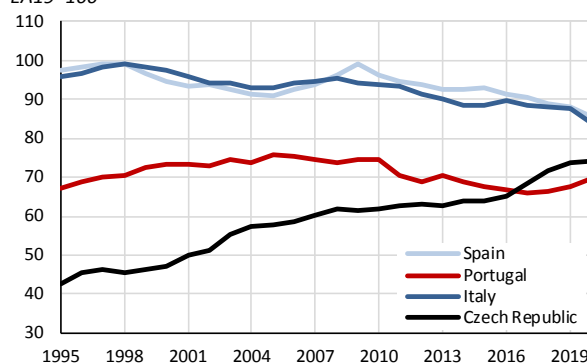
EA19=100



Source: Eurostat. Calculations of the MoF.

Graph 5.16: Average Earnings in Current PPP

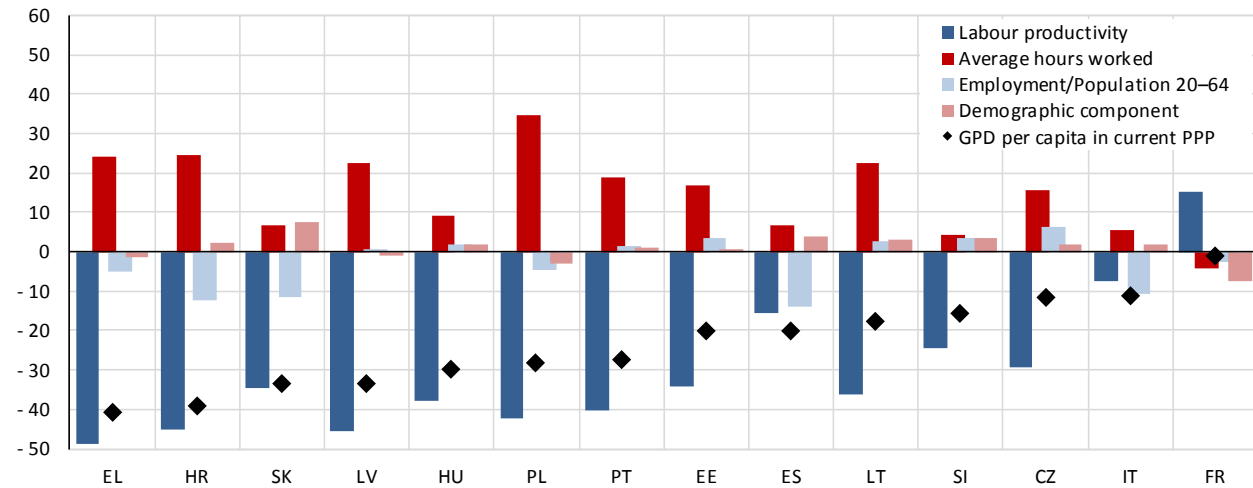
EA19=100



Source: Eurostat. Calculations of the MoF.

Graph 5.17: Current PPP Adjusted GDP per Capita Level Relative to the EA19 Average in 2020

in percentage points



Note: The demographic component is the ratio of the working-age (20–64) to total population.

Source: Eurostat. Calculations of the MoF.

Table 5.1: GDP per Capita in Current Purchasing Power Parity

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
											Estimate Forecast
France	PPS	28 500	28 800	29 400	29 800	30 500	31 500	33 200	31 200	33 700	35 500
	EA19=100	101	100	99	98	97	97	100	99	100	100
Italy	PPS	26 200	26 100	26 700	28 000	28 800	29 500	30 200	28 000	30 300	32 100
	EA19=100	93	91	90	92	92	91	91	89	90	91
Czech Republic	PPS	22 200	23 300	24 400	25 100	26 700	27 900	29 200	27 800	29 000	30 400
	EA19=100	79	81	82	83	85	86	88	88	86	86
Slovenia	PPS	21 600	22 100	22 700	23 600	25 100	26 400	27 700	26 500	28 700	30 300
	EA19=100	77	77	77	78	80	82	83	84	85	86
Lithuania	PPS	19 300	20 200	20 700	21 500	23 200	24 700	26 200	26 000	27 800	29 500
	EA19=100	68	70	70	71	74	76	79	83	83	83
Estonia	PPS	19 800	20 700	21 000	21 700	23 300	24 600	25 800	25 400	28 100	29 700
	EA19=100	70	72	71	72	74	76	78	81	84	84
Spain	PPS	23 400	24 000	25 100	25 900	27 200	27 600	28 400	25 200	26 700	28 500
	EA19=100	83	84	85	86	87	86	85	80	79	80
Portugal	PPS	20 200	20 600	21 300	21 900	22 700	23 700	24 600	22 800	24 200	26 000
	EA19=100	72	72	72	72	72	73	74	73	72	73
Poland	PPS	17 500	18 000	19 100	19 400	20 400	21 400	22 700	22 600	24 300	25 900
	EA19=100	62	63	64	64	65	66	68	72	72	73
Hungary	PPS	17 700	18 400	19 300	19 400	20 300	21 600	22 800	22 100	23 900	25 600
	EA19=100	63	64	65	64	65	67	69	70	71	72
Latvia	PPS	16 300	17 100	18 000	18 600	19 700	21 000	21 700	21 000	22 500	24 200
	EA19=100	58	59	61	61	63	65	65	67	67	68
Slovakia	PPS	20 100	20 700	21 500	20 600	20 600	21 200	21 800	20 900	21 900	23 300
	EA19=100	72	72	73	68	66	66	65	67	65	66
Croatia	PPS	15 900	16 000	16 700	17 500	18 600	19 600	20 800	19 200	21 200	23 000
	EA19=100	57	56	57	58	59	61	63	61	63	65
Greece	PPS	18 700	19 100	19 200	19 100	19 600	20 100	20 700	18 600	20 300	21 900
	EA19=100	67	66	65	63	63	62	62	59	61	62

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

Table 5.2: Exchange Rate Adjusted GDP per Capita

			2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
											Estimate	Forecast
France			32 100	32 400	33 000	33 400	34 200	35 100	36 000	34 000	36 400	38 200
			109	108	106	105	104	103	103	102	103	102
	Comparative price level		107	107	107	107	107	106	103	103	102	102
Italy		EUR	26 700	27 000	27 500	28 200	28 900	29 600	30 100	27 800	29 900	31 600
		EA19=100	91	90	88	89	88	87	86	84	84	84
	Comparative price level	EA19=100	98	98	98	96	96	95	95	94	94	93
Spain		EUR	21 900	22 200	23 200	24 000	25 000	25 700	26 400	23 700	25 000	26 600
		EA19=100	74	74	75	75	76	76	75	71	71	71
	Comparative price level	EA19=100	89	88	88	88	87	89	88	89	89	88
Slovenia		EUR	17 700	18 300	18 800	19 600	20 800	22 100	23 200	22 300	24 100	25 500
		EA19=100	60	61	61	62	63	65	66	67	68	68
	Comparative price level	EA19=100	78	79	79	79	79	80	80	80	79	79
Estonia		EUR	14 300	15 200	15 700	16 500	18 100	19 600	20 900	20 200	22 700	24 200
		EA19=100	49	51	51	52	55	58	60	61	64	65
	Comparative price level	EA19=100	69	70	71	72	74	76	77	75	76	77
Czech Republic		EUR	15 200	15 000	16 100	16 800	18 300	19 900	21 100	20 100	22 200	25 300
		EA19=100	51	50	52	53	56	58	60	61	63	68
	Comparative price level	EA19=100	65	61	63	64	65	68	69	69	72	79
Portugal		EUR	16 300	16 600	17 400	18 100	19 000	20 000	20 800	19 400	20 500	22 000
		EA19=100	55	55	56	57	58	59	60	58	58	59
	Comparative price level	EA19=100	77	77	77	78	80	80	80	81	80	80
Lithuania		EUR	11 800	12 500	12 900	13 600	14 900	16 200	17 500	17 700	19 400	20 800
		EA19=100	40	41	41	43	45	48	50	53	55	56
	Comparative price level	EA19=100	59	59	59	60	61	63	63	65	66	67
Slovakia		EUR	13 700	14 000	14 700	14 900	15 500	16 400	17 200	16 900	17 600	19 200
		EA19=100	47	47	47	47	47	48	49	51	50	51
	Comparative price level	EA19=100	65	65	65	69	72	74	75	76	76	78
Latvia		EUR	11 300	11 800	12 400	12 900	13 900	15 100	16 000	15 500	16 900	18 400
		EA19=100	38	39	40	41	42	45	46	47	48	49
	Comparative price level	EA19=100	66	66	66	66	67	69	70	70	71	72
Greece		EUR	16 400	16 300	16 300	16 200	16 400	16 700	17 100	15 400	16 500	17 600
		EA19=100	56	54	52	51	50	49	49	46	47	47
	Comparative price level	EA19=100	84	81	81	81	80	79	79	78	77	76
Hungary		EUR	10 300	10 800	11 500	11 800	13 000	13 900	15 000	14 000	15 400	16 700
		EA19=100	35	36	37	37	39	41	43	42	43	45
	Comparative price level	EA19=100	56	56	57	58	61	61	62	60	61	62
Poland		EUR	10 200	10 600	11 200	11 100	12 200	13 000	13 900	13 700	14 700	16 200
		EA19=100	35	35	36	35	37	38	40	41	41	43
	Comparative price level	EA19=100	56	56	56	54	57	58	58	57	57	59
Croatia		EUR	10 400	10 400	10 700	11 300	12 100	12 900	13 700	12 400	13 800	15 000
		EA19=100	35	34	35	36	37	38	39	37	39	40
	Comparative price level	EA19=100	62	62	61	62	62	63	62	61	62	62

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

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