Ministry of Finance
of the Czech Republic

Macroeconomic Forecast

of the Czech Republic

January 2021

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The Macroeconomic Forecast is prepared by the Economic Policy Department of the Czech Ministry of Finance. It contains a forecast for the year 2021 and for certain indicators an outlook for 2 following years (i.e. until 2023). It is published on a quarterly basis (usually in January, April, July and November) and is also available on the website of the Ministry of Finance at:

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

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List of Abbreviations

BoP	balance of payments
const.pr.	constant prices
CNB	Czech National Bank
CPI	consumer price index
CR	Czech Republic
curr.pr.	current prices
CZSO	Czech Statistical Office
EA19	euro zone consisting of 19 countries
EC	European Commission
ECB	European Central Bank
EU27	European Union consisting of 27 countries
Fed	Federal Reserve System
GDP	gross domestic product
GFCF	gross fixed capital formation
GVA	gross value added
IMF	International Monetary Fund
LFS	Labour Force Survey
MoF	Ministry of Finance
MoLSA	Ministry of Labour and Social Affairs
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 2021**; the cut-off date for selected forecast assumptions was 6 January 2021.

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 (September 2020) are indicated by italics. Data relating to the years 2022 and 2023 are an extrapolation scenario that indicates only the direction of possible developments, and as such are not commented upon in the following text.

Introduction and Summary

The pandemic triggered by a new type of coronavirus, the measures taken to tackle the epidemic, and their knock-on effects caused deep and synchronous downturn of the global economy in 2020. Its extent is unprecedented in the period after the Second World War. Economic policy in all the countries affected responded by a sharp easing and by adopting massive fiscal and monetary stimuli, which limited the pandemic's impact on short-term growth. These measures also helped to minimise the repercussions for long-term growth.

This year should be characterised by an upswing in global economic activity. However, the recovery in most countries will evidently not be strong enough to offset the 2020 slump. The forecast for this year is saddled with enormous uncertainty, with plainly downside risks. The biggest include global developments of the pandemic with the possibility that economic activity is further restrained, delays in the process of inoculating the public, long-term effects on potential output, and, last but not least, the risk of financial instability. At national level, sensitive decisions will have to be made between stimulating the economy and increasing the debt.

In the short lull between the first and second coronavirus waves, the Czech economy rebounded strongly. In Q3 2020, **real gross domestic product** adjusted for seasonal and calendar effects surged 6.9% QoQ. As a result, its year-on-year slump softened from 10.8% in the second quarter to 5.0% in the third quarter.

On the use side, the most significant factor was **external trade**, which contributed +1.2 pp to the year-on-year GDP growth. This can be attributed to renewed output growth in the export – and especially automotive – industry. The record trade surpluses were also boosted by very weak investment activity among domestic companies (reflected in lower imports of capital goods) and the low price of oil.

Within components of domestic use, **household consumption** contracted by 3.9% YoY, squeezed by a reduction in real wages and salaries and a persistently high savings rate that can be attributed to heightened uncertainty about further developments. **General government consumption** was the only component of domestic use to grow, rising by 0.4%.

Gross fixed capital formation plunged by 11.5%. The decline in investment was synchronous across all categories. Investments in vehicles, down by almost a quarter, were hardest hit. From a sectoral perspective, the slump was almost exclusively due to the private sector.

In the macroeconomic forecast, we work on the assumption that the vaccination process will gradually quell the epidemic. Then, starting in Q2 2021, economic activity should slowly recover and gradually offset the previous shock to aggregate demand and supply.

We estimate that economic output went down by **6.1% in 2020** as a whole. There was a steep decline in probably all areas of domestic use, with the exception of general government final consumption expenditure. Economic **growth in 2021** could reach **3.1%** on the back of the projected improvement in the epidemic situation following the COVID-19 vaccination roll-out and the forecast recovery abroad.

In Q4 2020, the year-on-year growth of **consumer prices** visibly slackened and returned to under the upper 3% boundary of the tolerance band set for the Czech National Bank's inflation target. It appears that the landscape characterised by a fall in consumer demand is slowly beginning to prevail over frictions on the supply side of the economy. At the same time, food price growth has undeniably eased. The average **inflation rate** in 2020 was 3.2%. Oil prices aside, major pro-inflationary factors should be absent in 2021. Falling unit labour costs and the persistent negative output gap should ease inflation to 1.9%.

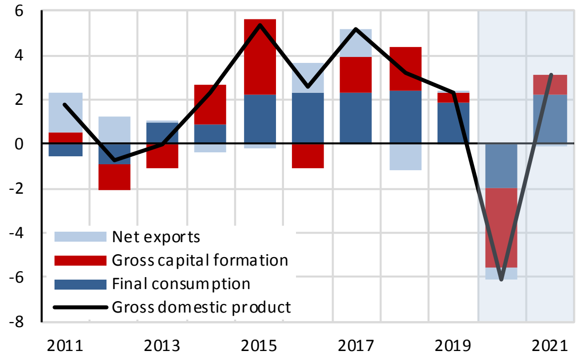
The labour market is largely under the sway of fiscal stimulus measures aimed at maintaining employment levels as much as possible. Consequently, while there has been a certain increase in **unemployment**, it is much lower than would be normal for the current cyclical position of the Czech economy. The unemployment rate last year, as measured by the Labour Force Survey, might have reached 2.6%. Delayed effects of the economic downturn and a gradual lifting of measures designed to keep employment levels high should push the unemployment rate up to 3.3% in 2021.

Somewhat paradoxically, the dismal economic situation is increasing the **current account** surplus. The reduced profitability of foreign-controlled businesses is reflected in a significant, albeit probably only temporary, improvement in the primary income deficit. The trade balance in the second half of 2020 benefited from a rise in vehicle exports, a decline in imports of capital goods, and the low price of oil. The current account surplus might have reached 3.6% of GDP in 2020. For 2021, we project a surplus of 1.4% of GDP.

Public finances have shouldered much of the costs of the epidemic. However, the downturn in economic activity not only resulted in a decline or loss in the momentum of tax revenues, but was also accompanied by spending to combat the spread of the epidemic, strengthen the public health system, and mitigate the economic and social impacts. We estimate that, in 2020, the general government balance had a deficit amounting to 5.8% of GDP, with debt increasing to 38.3% of GDP. In 2021, we forecast a deficit of 6.6% of GDP, which will deepen the relative amount of debt to 43.3% of GDP.

The recovery driven by domestic demand

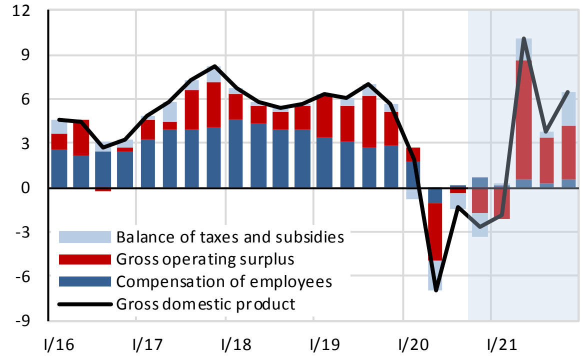
growth rate of real GDP in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

Firms' profitability likely to increase substantially

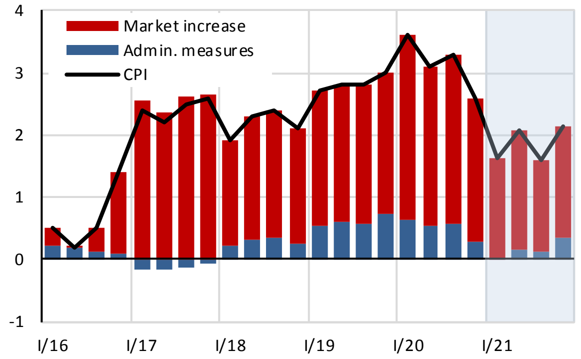
YoY growth of nominal GDP in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

Inflation should hover around the 2% target of the CNB

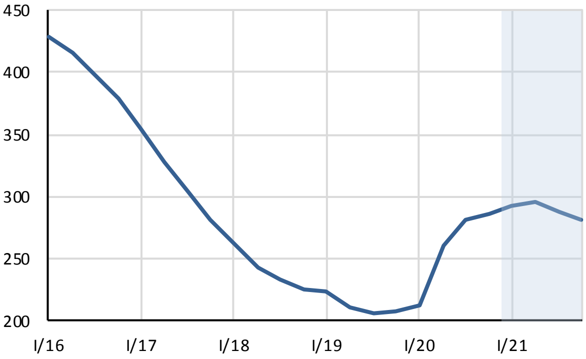
YoY growth rate of CPI in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

Unemployment should not rise much further

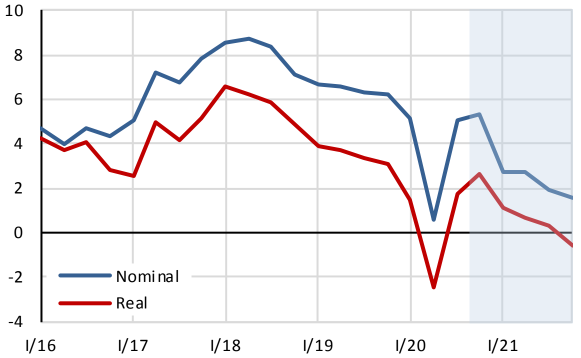
registered unemployment, in thous. of persons, seasonally adjusted



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

Wage growth should moderate

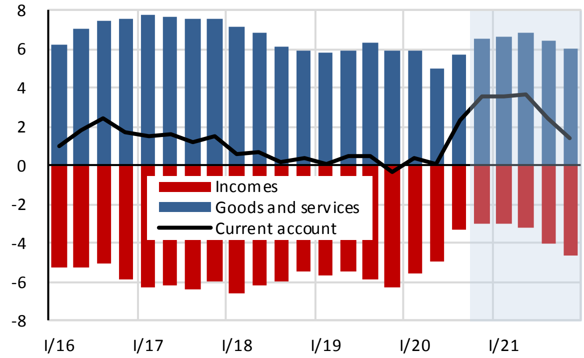
average gross monthly wage, YoY growth rate, in %



Source: CZSO. Calculations and forecast of the MoF.

Current account surplus should increase temporarily

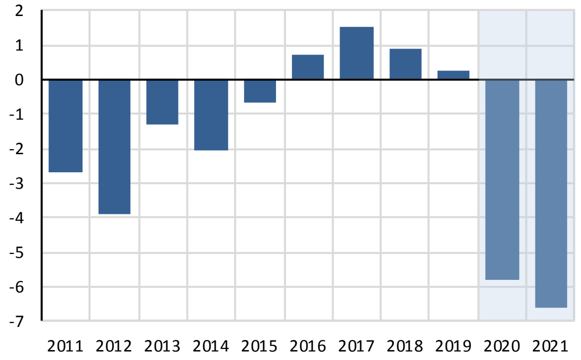
in % of GDP (yearly moving sums)



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

Public finances bear the costs of the crisis

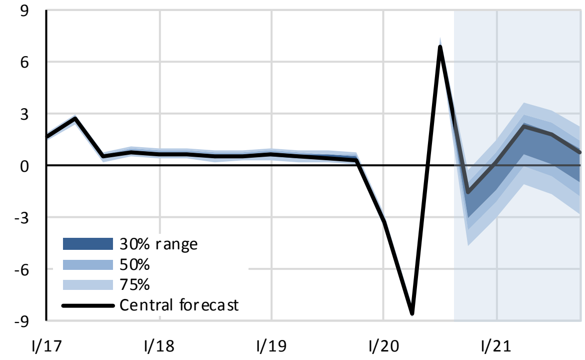
general government net lending/borrowing, in % of GDP



Source: CZSO. Calculations and forecast of the MoF.

Forecast risks are strongly 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

		2015	2016	2017	2018	2019	2020	2021	2020	2021
							Current forecast		*Previous forecast*	
Nominal GDP	*bill. CZK*	**4 625**	**4 797**	**5 111**	**5 410**	**5 749**	**5 613**	**5 874**	5 561	5 860
	nominal growth in %	6.4	3.7	6.5	5.8	6.3	-2.4	4.7	-3.3	5.4
Gross domestic product	*real growth in %*	**5.4**	**2.5**	**5.2**	**3.2**	**2.3**	**-6.1**	**3.1**	-6.6	3.9
Consumption of households	*real growth in %*	3.9	3.8	4.0	3.5	3.0	-5.1	3.3	-5.0	2.2
Consumption of government	*real growth in %*	1.8	2.5	1.8	3.8	2.2	2.1	2.9	3.8	2.9
Gross fixed capital formation	*real growth in %*	9.7	-3.0	4.9	10.0	2.3	-8.2	3.8	-7.5	3.0
Contribution of net exports	*pp*	-0.2	1.4	1.2	-1.2	0.0	-0.6	-0.1	-1.7	0.9
Contrib. of change in inventories	*pp*	0.9	-0.3	0.5	-0.5	-0.2	-1.4	0.0	-1.3	0.6
GDP deflator	*growth in %*	**1.0**	**1.1**	**1.3**	**2.6**	**3.9**	**4.0**	**1.5**	3.6	1.4
Average inflation rate	*%*	**0.3**	**0.7**	**2.5**	**2.1**	**2.8**	**3.2**	**1.9**	3.2	1.9
Employment *(LFS)*	*growth in %*	**1.4**	**1.9**	**1.6**	**1.4**	**0.2**	**-1.1**	**-0.6**	-1.2	-0.7
Unemployment rate *(LFS)*	*average in %*	**5.1**	**4.0**	**2.9**	**2.2**	**2.0**	**2.6**	**3.3**	2.6	3.4
Wage bill *(domestic concept)*	*growth in %*	**5.0**	**5.7**	**9.2**	**9.6**	**6.7**	**0.2**	**1.2**	-1.9	0.8
Current account balance	*% of GDP*	**0.4**	**1.8**	**1.5**	**0.4**	**-0.3**	**3.6**	**1.4**	0.3	0.4
General government balance	*% of GDP*	**-0.6**	**0.7**	**1.5**	**0.9**	**0.3**	**-5.8**	**-6.6**	-6.4	-4.9
Assumptions:										
Exchange rate CZK/EUR		**27.3**	**27.0**	**26.3**	**25.6**	**25.7**	**26.4**	**26.1**	26.3	25.8
Long-term interest rates	*% p.a.*	**0.6**	**0.4**	**1.0**	**2.0**	**1.5**	**1.1**	**1.2**	1.1	0.9
Crude oil Brent	*USD/barrel*	**52**	**44**	**54**	**71**	**64**	**42**	**51**	42	48
GDP in the euro area	*real growth in %*	**1.9**	**1.8**	**2.7**	**1.9**	**1.3**	**-7.3**	**3.6**	-9.0	5.4

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

Forecast Risks and Uncertainty

The macroeconomic forecast is saddled with numerous risks that we consider, on balance, to be **significantly tilted to the downside**.

The main negative factor for the Czech Republic and other economies is the development of the **epidemic situation** and of the vaccination of the population. The macroeconomic forecast is based on the assumption that a more significant and longer-lasting easing of anti-epidemic measures will take place in Q2 2021 at the earliest. As larger swathes of society are vaccinated, the restrictions in the second half of the year should not be macroeconomically significant. Nor does the forecast anticipate that the coronavirus pandemic will have a long-term effect on global supply chains.

Although the European Union and the United Kingdom reached a deal on the future arrangement of their relations, we still see some uncertainties in **international trade**, especially between the United States and China. The EU's trade relations with the United States remain an unresolved issue, but the new US administration's stance could be more accommodating.

Another crucial matter is whether and how quickly will the economy experience **structural changes**. There is a risk of insufficient balancing between labour supply and demand. On the one hand, this would lead to higher unemployment (workers laid off in declining sectors would not have relevant skills to fit in with the structure of labour demand). On the other, slow or insufficient change would curtail the growth of companies in growing sectors as they would be unable to find the staff they need.

Taking into account demographic trends, it will remain crucial, in the medium and long term, to increase **labour productivity**. Advances in automation, robotics and digital technologies are a great opportunity. As Czech companies are highly integrated in global supply chains, moving to positions with higher value added (either to the initial phase of research and development or to the phase where the final product is sold) would prove a major impetus for productivity.

The decline in economic activity and the associated deterioration in the financial situation of many households and companies are likely to bring about an **increase** in the volume of **non-performing loans**. Even so, a reduction in the quality of banks' loan portfolios should not jeopardize financial stability. The **overvaluation of residential real estate** remains a risk.

Given the importance of the **automotive industry** for the Czech economy, the highly cyclical nature of this sector, its focus on exports and its dependence on supply chains pose a risk. In the medium to long term, risks are compounded by structural changes that the automotive industry will likely go through as emission standards are progressively tightened. However, the switch to alternative drives requires enormous investment in technological development, in machinery and equipment, and in infrastructure. Effects on employment, supply-demand relations, and energy prices can also anticipated.

1 Forecast Assumptions

1.1 External Environment

After the measures taken in response to the coronavirus pandemic were temporarily eased, economic activity picked up in all major economies in Q3 2020. In the autumn, however, the epidemic situation gradually worsened again and restrictions were tightened. The recovery of economic output this year is only likely to progress little by little. Despite a deal being struck between the EU and the UK, uncertainties persist in the trade relations of major economies. The risks are further exacerbated by structural changes in the automotive industry. We forecast that the global economy will grow by 4.1% this year (*versus 4.8%*).

The **US** economy grew by 7.4% QoQ (*versus 4.1%*) in Q3 2020 in response to the easing of measures put in place to tackle the spread of COVID-19. There was an increase in all GDP components other than general government consumption, which fell by 1.5%.

The unemployment rate continued to decline as the economy recovered. In November it decreased to 6.7%, and remained unchanged in December. In manufacturing the purchasing managers' index rose slightly in December, but in services it dipped as there was a new surge in COVID-19 cases. The growth in retail sales slowed to 4.1% in November. At its December meeting, the Fed decided to keep the federal funds rate in the target range of 0.00–0.25%. It is not expecting to raise it until 2023.

The US economic outlook is mainly shaped by the epidemic situation, which has been deteriorating again since early December. We estimate that US economic output fell by 3.5% (*versus 4.7%*) in 2020. December's approval of the second fiscal stimulus package worth USD 900 billion (4.2% of the 2019 GDP) and emergency use of the vaccine, the probable broad inoculation of the US population this year and the related gradual economic recovery could lead to a 3.3% increase in US GDP in 2021 (*versus 4.1%*).

China's economic growth slowed to 2.7% QoQ (*versus 2.4%*) in Q3 2020, driven by investments and household consumption. Companies' expectations were improving due to strong economic recovery until December, when there was a dip. However, consumer confidence continues to rise. This is reflected in the growth of retail sales. We estimate that China's economy grew by 1.6% (*versus 1.1%*) in 2020. This year, its economic growth could accelerate to 8.5% (*versus 8.9%*).

In the **European Union**, GDP climbed by 11.5% QoQ (*versus 5.3%*) in Q3 2020. In the euro area, it was up by 12.5% (*versus 5.2%*). In connection with the temporary relaxation of containment measures and the renewed opportunity to spend on certain goods and services, private consumption was the dominant growth factor.

The inflation rate in the euro area has been in the deflationary zone for five months in a row, stagnating at −0.3% in December. The labour market is reflecting government support programmes and the relatively favourable situation in industry. The unemployment rate thus continued its trajectory of gentle descent to stand at 8.3% in November. In the same month, retail sales slipped by 2.9% YoY after the epidemic worsened. The manufacturing purchasing managers' index has been in the expansion zone since August, while activity in services dropped further in December. Business prospects for the next twelve months have improved, partly because of the announced plan to vaccinate the population.

At the end of last year, the EU and the UK hammered out a deal on what their mutual relations would look like in the future. The agreement places no cap on the volume of reciprocal trade in goods and does not introduce any customs duties. In the short term, it may take longer to transport goods because of the increased paperwork and the need to adapt to the new rules. On the other hand, the fact that much of the previous long-running uncertainty has been resolved could boost investment activity. The EU's trade relations with the US remain an unresolved issue; the new US administration's stance could be more accommodating. We estimate that economic output in the EU27 may have fallen by 6.9% (*versus 8.2%*) in 2020. This year, GDP could grow by 3.5% (*versus 5.3%*).

After seeing its GDP decline by 9.8% in Q2 2020, **Germany**'s economy grew by 8.5% QoQ in the third quarter (*versus 5.0%*). Alongside higher household consumption expenditure, foreign trade made a significant contribution to the recovery. The change in inventories, by contrast, had a negative effect.

Leading indicators from December signal that there were favourable developments only in manufacturing. The sentiment among service businesses and consumer confidence, which are more sensitive to the epidemic situation, have deteriorated in tandem with each other. The unemployment rate remained at 4.5% in November. This was reflected in a 1.9% MoM increase in retail sales. The duration of restrictions, which were tightened in December and then, at the beginning of this year, extended until the end of January, will be important for economic developments. We estimate that Germany's GDP decreased by 5.8% (*versus 6.1%*) last year. In 2021, economic growth could reach 2.9% (*versus 5.2%*).

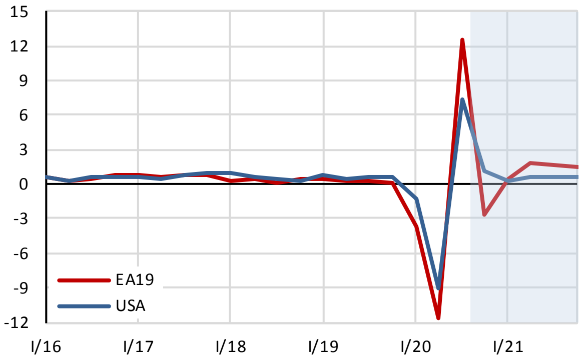
The **Slovak** economy grew by 11.6% QoQ (*versus 4.5%*) in Q3 2020. Household consumption and export activity returned to pre-crisis levels, with orders in the automotive industry having a positive effect.

In the labour market there has been a drop in employment in services. Certain sectors, however, continue to face labour shortages. In November, the unemployment rate stagnated at 7.4% for the third consecutive month.

Having gradually eased anti-epidemic measures in November and December, the government decided to tighten them again from the beginning of this year. The pace of economic recovery will depend heavily on the automotive industry and demand among trading partners, especially Germany and neighbouring countries. Slovakia's GDP may have slipped by 5.9% (*versus 7.9 %*) in 2020. In 2021, it could increase by 3.2% (*versus 5.3%*).

Graph 1.1.1: GDP Developments in the EA19 and USA

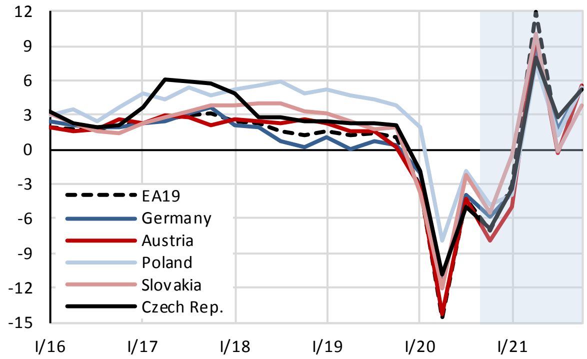
QoQ growth rate of real GDP in%, seasonally adjusted



Source: Eurostat. Calculations and forecast of the MoF.

Graph 1.1.2: Real Gross Domestic Product

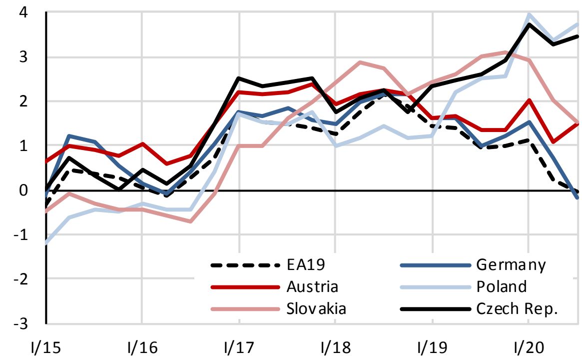
YoY growth in %, seasonally adjusted



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

Graph 1.1.3: HICP

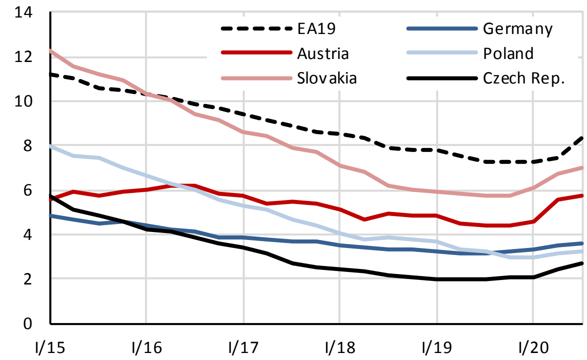
quarterly averages, YoY growth in %



Source: Eurostat. Calculations of the MoF.

Graph 1.1.4: Unemployment Rate

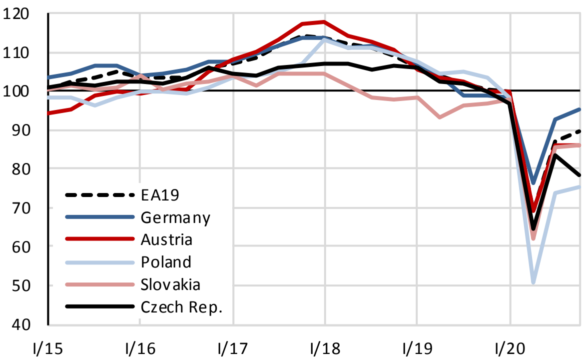
in %, LFS methodology, seasonally adjusted



Source: Eurostat.

Graph 1.1.5: Economic Sentiment Indicator

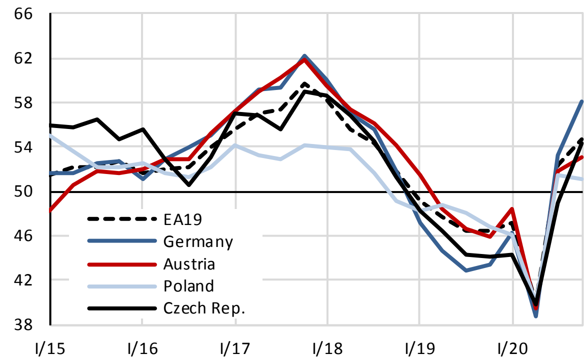
quarterly averages, long-run average = 100



Source: Eurostat. Calculations of the MoF.

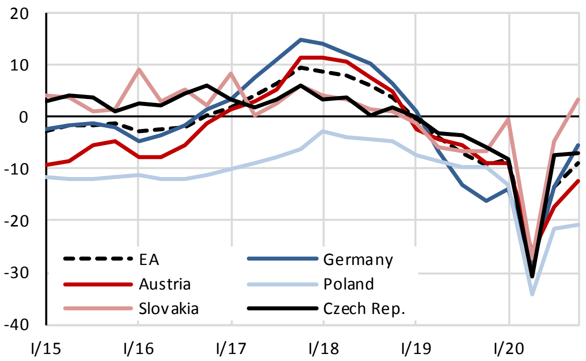
Graph 1.1.6: Purchasing Managers' Index

manufacturing, quarterly averages



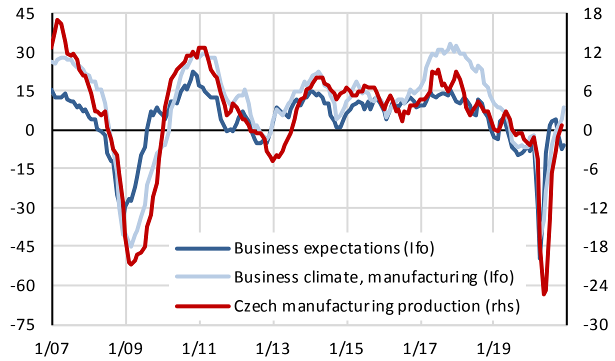
Source: Markit. Calculations of the MoF.

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 %

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
										Estimate	*Forecast*
World	*seasonally adjusted*	**3.5**	**3.5**	**3.5**	**3.4**	**3.3**	**3.8**	**3.5**	**2.8**	**-4.3**	**4.1**
USA	*seasonally adjusted*	**2.2**	**1.8**	**2.5**	**3.1**	**1.7**	**2.3**	**3.0**	**2.2**	**-3.5**	**3.3**
China	*seasonally adjusted*	**7.9**	**7.8**	**7.3**	**6.9**	**6.7**	**7.0**	**6.8**	**6.1**	**1.6**	**8.5**
United Kingdom	*seasonally adjusted*	**1.4**	**2.2**	**2.9**	**2.4**	**1.7**	**1.7**	**1.3**	**1.4**	**-10.3**	**4.3**
EU27	*seasonally adjusted*	**-0.7**	**0.0**	**1.6**	**2.2**	**2.0**	**2.9**	**2.1**	**1.6**	**-6.9**	**3.5**
	unadjusted	-0.7	0.0	1.6	2.3	2.0	2.8	2.1	1.6	.	.
EA19	*seasonally adjusted*	**-0.8**	**-0.2**	**1.4**	**1.9**	**1.8**	**2.7**	**1.9**	**1.3**	**-7.3**	**3.6**
	unadjusted	-0.9	-0.2	1.4	2.0	1.9	2.6	1.9	1.3	.	.
Germany	*seasonally adjusted*	**0.6**	**0.6**	**2.2**	**1.2**	**2.1**	**2.9**	**1.3**	**0.6**	**-5.8**	**2.9**
	unadjusted	0.4	0.4	2.2	1.5	2.2	2.6	1.3	0.6	-5.3	2.9
France	*seasonally adjusted*	**0.4**	**0.6**	**1.0**	**1.0**	**1.0**	**2.4**	**1.8**	**1.5**	**-8.9**	**5.3**
	unadjusted	0.3	0.6	1.0	1.1	1.1	2.3	1.8	1.5	-8.8	5.3
Italy	*seasonally adjusted*	**-3.0**	**-1.9**	**0.1**	**0.7**	**1.4**	**1.7**	**0.8**	**0.3**	**-9.1**	**4.5**
	unadjusted	-3.0	-1.8	0.0	0.8	1.3	1.7	0.9	0.3	-9.0	4.5
Austria	*seasonally adjusted*	**0.7**	**0.0**	**0.8**	**0.9**	**2.0**	**2.5**	**2.5**	**1.4**	**-7.4**	**2.3**
	unadjusted	0.7	0.0	0.7	1.0	2.0	2.4	2.6	1.4	-7.3	2.2
Hungary	*seasonally adjusted*	**-1.2**	**1.9**	**4.1**	**3.8**	**2.1**	**4.5**	**5.4**	**4.6**	**-5.9**	**2.6**
	unadjusted	-1.4	1.9	4.2	3.8	2.1	4.3	5.4	4.6	-5.8	2.6
Poland	*seasonally adjusted*	**1.4**	**1.1**	**3.4**	**4.2**	**3.2**	**4.9**	**5.4**	**4.6**	**-3.2**	**2.4**
	unadjusted	1.3	1.1	3.4	4.2	3.1	4.8	5.4	4.5	-3.1	2.3
Slovakia	*seasonally adjusted*	**1.9**	**0.7**	**2.6**	**4.8**	**2.1**	**3.0**	**3.8**	**2.3**	**-5.9**	**3.2**
Czech Republic	*seasonally adjusted*	**-0.7**	**0.0**	**2.3**	**5.5**	**2.4**	**5.4**	**3.2**	**2.2**	**-6.1**	**3.0**
	unadjusted	-0.8	0.0	2.3	5.4	2.5	5.2	3.2	2.3	-6.1	3.1

Note: Data are also adjusted for calendar effects (except for Slovakia).
Source: CZSO, Eurostat, IMF, NBS China, OECD. Calculations of the MoF.

Table 1.1.2: Gross Domestic Product – quarterly
growth rate of real GDP in %, seasonally adjusted data

		2020				2021			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
					Estimate	*Forecast*	*Forecast*	*Forecast*	*Forecast*
USA	*QoQ*	**-1.3**	**-9.0**	**7.4**	**1.2**	**0.2**	**0.6**	**0.7**	**0.7**
	YoY	0.3	-9.0	-2.9	-2.3	-0.9	9.6	2.7	2.2
China	*QoQ*	**-10.0**	**11.7**	**2.7**	**2.2**	**0.9**	**1.0**	**1.2**	**1.0**
	YoY	-6.8	3.2	4.9	5.5	18.3	7.0	5.4	4.1
United Kingdom	*QoQ*	**-3.0**	**-18.8**	**16.0**	**-1.1**	**0.2**	**2.1**	**1.9**	**1.6**
	YoY	-2.4	-20.8	-8.6	-9.6	-6.6	17.3	3.0	5.9
EU27	*QoQ*	**-3.3**	**-11.3**	**11.5**	**-2.6**	**0.5**	**1.8**	**1.7**	**1.4**
	YoY	-2.6	-13.9	-4.2	-6.9	-3.2	11.1	1.3	5.5
EA19	*QoQ*	**-3.7**	**-11.7**	**12.5**	**-2.7**	**0.4**	**1.9**	**1.7**	**1.4**
	YoY	-3.2	-14.7	-4.3	-7.0	-3.0	11.9	1.2	5.5
Germany	*QoQ*	**-1.9**	**-9.8**	**8.5**	**-1.9**	**0.3**	**1.8**	**1.6**	**1.5**
	YoY	-2.1	-11.2	-4.0	-5.8	-3.7	8.7	1.8	5.3
France	*QoQ*	**-5.9**	**-13.8**	**18.7**	**-3.4**	**0.5**	**1.9**	**1.7**	**1.4**
	YoY	-5.7	-18.9	-3.9	-7.0	-0.7	17.3	0.6	5.6
Italy	*QoQ*	**-5.5**	**-13.0**	**15.9**	**-3.2**	**0.5**	**1.9**	**1.6**	**1.2**
	YoY	-5.6	-18.0	-5.0	-7.7	-1.9	14.9	0.8	5.4
Austria	*QoQ*	**-2.8**	**-11.6**	**12.0**	**-4.3**	**0.3**	**2.2**	**1.5**	**1.4**
	YoY	-3.3	-14.2	-4.2	-7.9	-4.9	9.9	-0.4	5.5
Hungary	*QoQ*	**-0.4**	**-14.6**	**11.4**	**-2.4**	**0.6**	**1.9**	**1.6**	**1.4**
	YoY	2.0	-13.5	-4.6	-7.5	-6.6	11.4	1.6	5.6
Poland	*QoQ*	**-0.3**	**-9.0**	**7.9**	**-2.7**	**0.5**	**1.8**	**1.6**	**1.2**
	YoY	1.9	-8.0	-1.8	-4.7	-4.0	7.4	1.2	5.3
Slovakia	*QoQ*	**-5.1**	**-8.3**	**11.6**	**-2.8**	**0.1**	**1.4**	**1.3**	**1.0**
	YoY	-3.8	-12.1	-2.3	-5.6	-0.4	10.1	-0.1	3.9
Czech Republic	*QoQ*	**-3.3**	**-8.5**	**6.9**	**-1.5**	**0.2**	**2.3**	**1.8**	**0.8**
	YoY	-1.9	-10.8	-5.0	-6.8	-3.4	8.0	2.8	5.2

Note: Data are also adjusted for calendar effects (except for Slovakia).
Source: CZSO, Eurostat, NBS China, OECD. Calculations and forecast of the MoF.

1.2 Commodity Prices

In Q4 2020, the price of **Brent crude oil** averaged USD 44.3/barrel (*versus USD 46/barrel*). This was a drop by 30% YoY, or approximately 32% when expressed in CZK.

In the fourth quarter, there was a further revival in demand for oil, probably in response to the depreciation of the US dollar and optimism related to advances in the development, approval and distribution of COVID-19 vaccines. The Organisation of the Petroleum Exporting Countries agreed with Russia and other countries (OPEC+) to relax production limits, although this move will not be as bold as originally planned. The production cut by 7.7 million barrels per day that was valid until December 2020 was set to be eased to 5.8 million barrels per day from January 2021. Instead, there are to be cuts by 7.2 million barrels per day from January, 7.125 million from February, and 7.050 million from March. The extent of production restrictions in subsequent months has yet to be decided.

The US Energy Information Administration estimates that global oil production in 2021 will be roughly in line with oil consumption. Therefore, there will be no significant changes in the reserves of oil produced. This should pave the way for a stable price. This is consistent with the situation prevailing on the futures market, where oil supplied later is traded only a little more cheaply than oil supplied earlier.

The Brent oil price outlook thus reflects the almost flat price curve of futures contracts, although in 2021 it is positioned higher than in the September macroeconomic forecast. In 2021, the average price of a barrel of oil should be 22% higher than in 2020, i.e. USD 51 (*versus USD 48*). As we are expecting the Czech koruna to be stronger against the US dollar than in the previous forecast (see section 1.4.3), the upward revision to the predicted CZK price of oil is more moderate.

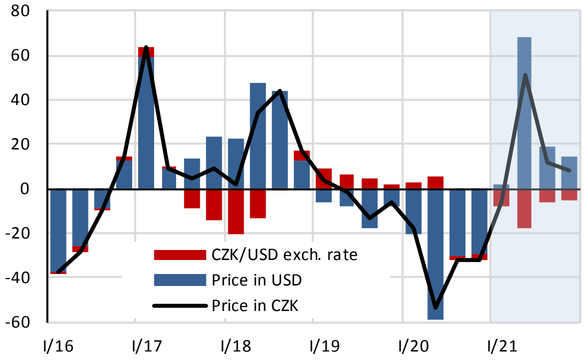
Graph 1.2.1: Dollar Price of Brent Crude Oil

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

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 *Forecast*
Crude oil Brent	*USD/barrel*	**111.5**	**108.6**	**99.0**	**52.4**	**43.6**	**54.2**	**71.4**	**64.3**	**41.8**	**51**
	growth in %	0.2	-2.6	-8.8	-47.1	-16.9	24.3	31.7	-9.9	-35.0	22.2
Crude oil Brent index *(in CZK)*	*2010=100*	**143.8**	**139.9**	**134.6**	**85.0**	**70.1**	**83.1**	**102.2**	**97.1**	**63.6**	**72**
	growth in %	11.0	-2.7	-3.8	-36.9	-17.4	18.5	23.0	-5.0	-34.6	13.0
Natural gas (Europe)	*USD/MMBtu*	**11.5**	**11.8**	**10.1**	**6.8**	**4.6**	**5.7**	**7.7**	**4.8**	**3.2**	.
	growth in %	9.1	2.7	-14.7	-32.1	-33.1	25.3	34.4	-37.5	-32.5	.
Natural gas (Europe) index *(in CZK)*	*2010=100*	**142.2**	**145.9**	**131.7**	**106.2**	**70.7**	**84.2**	**106.0**	**69.6**	**47.1**	.
	growth in %	20.6	2.6	-9.8	-19.4	-33.4	19.2	25.8	-34.3	-32.4	.

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

		2020				2021			
		Q1	Q2	Q3	Q4	Q1 *Forecast*	Q2 *Forecast*	Q3 *Forecast*	Q4 *Forecast*
Crude oil Brent	*USD/barrel*	**50.3**	**29.7**	**42.9**	**44.3**	**51**	**51**	**51**	**51**
	growth in %	-20.3	-57.0	-30.7	-30.0	1.8	72.8	19.0	14.4
Crude oil Brent index *(in CZK)*	*2010=100*	**77.0**	**48.0**	**64.0**	**65.2**	**73**	**72**	**72**	**71**
	growth in %	-18.0	-53.8	-32.2	-32.3	-5.8	50.7	12.0	8.5
Natural gas (Europe)	*USD/MMBtu*	**3.1**	**1.8**	**2.9**	**5.2**	.	.	.	.
	growth in %	-49.8	-57.6	-25.1	5.1	.	.	.	.
Natural gas (Europe) index *(in CZK)*	*2010=100*	**45.4**	**28.2**	**41.1**	**73.5**	.	.	.	.
	growth in %	-48.4	-54.5	-26.8	1.7	.	.	.	.

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** ended 2020 with a deficit of 5.8% of GDP (*versus 6.4% of GDP*), mainly because of the result of the state budget, which bore the brunt of the stabilising role of public finances. Local governments and health insurance companies, on the other hand, appear to have posted a surplus again. From the perspective of the structural balance, expansionary fiscal policy resulted in a deficit estimated at 2.0% of GDP (*versus 2.7% of GDP*). Figures on the performance of the general government sector using accrual methodology are currently available only for the first three quarters of the year, for which a deficit of CZK 195.4 billion was reported. However, it is the final quarter that plays heavily on the full-year balance, and its typical volatility was exacerbated last year by the unabating epidemic. The cash receipts of the state budget, state funds, local budgets and health insurance companies were also used to estimate the full-year result.

Using the national cash methodology, the state budget ended 2020 with a deficit of CZK 367.4 billion, which is CZK 338.9 worse than in 2019. The planned deficit, increased by three amendments to the State Budget Act to as much as CZK 500 billion, was higher than the actual outcome by CZK 132.6 billion. The overall budget performance was characterised by a sharp drop in tax revenues as a result of measures taken to combat the COVID-19 epidemic and an increase in expenditure aimed at helping households, companies and other parts of public budgets. EU funds and financial mechanisms had little impact on the state budget balance. Spending exceeded the revenues paid out by the EU and financial mechanisms only by CZK 3.8 billion, which proves that the state is capable of recouping pre-financed resources for its budget. Adjusted for these transactions on both the revenue and expenditure side, the budget ended up with a deficit of CZK 363.7 billion. In contrast, local governments reported a cash-based surplus of CZK 31 billion at the end of November 2020. This was just CZK 10 billion less year-on-year. Over the same period, health insurance companies posted a CZK 7.8 billion worse result year-on-year, but still made a surplus of CZK 5.5 billion.

The revenue side suffered a decline or loss in tax revenue momentum on account of the deep economic recession. Tax revenues, including social security contributions, fell by an estimated 2%. The largest decline in this respect was evident in corporate income tax revenue (−17.8%). On the other hand, we estimate that personal income tax, partly thanks to action to stabilise employment, reported year-on-year growth by 3.9%. The same macroeconomic factors, together with an increase in state budget payments for state-insured persons by CZK 25.4 billion and an emergency waiver of the minimum advance payments on social and health insurance for self-employed persons (CZK 14.3 billion), along with a waiver of social security contributions and the state employment policy contribution paid by employers (CZK 13.3 billion), had a bearing on the momentum of social security contributions (0.4%).

Considering the developments projected in nominal household consumption and the relevant part of general government expenditure, we estimate that there was a 1.2% YoY decline in value added tax revenues. Receipts are further stifled by lower tax rates on heat and cooling as of January 2020 and on other services and goods as of May and July. Excise duties (excluding renewable energy subsidies) fell by 2.6% according to the latest estimate. Duty on mineral oils was evidently affected by lower diesel and petrol consumption due to a significant drop in transport operations, as well as by expected higher rebate for “green diesel”. Duties on manufactured tobacco were affected considerably by the curtailment of cross-border purchases and tourism. By contrast, changes in rates on tobacco products, alcohol and the taxation of heated tobacco are expected to generate total of CZK 10.7 billion. However, this positive impact on revenue should be offset by the abolition of the tax on the acquisition of immovable property, with a projected impact of CZK 13.8 billion.

Growth momentum of general government final consumption likely remained strong at of 6.6%, consistent (among other things) with its average growth over the first three quarters of 2020. Of its individual components, we estimate that the fastest growth was in the compensation of employees (8.2%), with the salaries of education workers increasing by 10%. In addition, the pandemic pushed up the outlay on the remuneration of workers in health care, social services and the security forces. The estimated 7.6% growth of social transfers in kind reflects the increase in health care expenditure. Intermediate consumption expenditure is likely to have dipped 0.4%, as was evident back in Q2 and Q3 2020. Higher real consumption in the health sector (expenditure on medical supplies, protective equipment, tests and vaccines), together with higher year-on-year inflation, appears to have been outweighed by lower intermediate consumption in areas such as transport and public universities.

There was a significant increase in cash social benefits in 2020. Besides economic developments, this reflected measures approved in the area of pension benefits (including a one-off contribution to pensioners totalling CZK 15 billion) and state social support (an increase in the parental allowance aggregating CZK 14.1 billion). The CZK 25.4 billion increase in the state budget’s payments for state-insured individuals was also reflected here, mirroring social security contributions on the revenue side. In addition, cash social benefits were estimated to have been swelled by CZK 12.8 billion as a result of the carer’s allowance for persons looking after children while schools, day care centres and similar facilities were closed during the coronavirus epidemic, and which was also payable in cases where families were ordered to quarantine.

Capital expenditure had reported double-digit growth in the previous three years, but its momentum may have slowed down to 5.7% in 2020. It is estimated that more than 80% of investments were financed from national sources (including the Czech financing of European projects).

The current estimate anticipates an almost 46% rise in subsidies, comprising resources to support various groups of economic entities affected by the coronavirus pandemic and measures taken to prevent its spread. For the most part, this funding covers wage compensation in cases where quarantine measures or other measures related to COVID-19 infection prevented employees from working or employers from operating (regimes A/A Plus and B of the Antivirus Programme), and is estimated to amount to CZK −27.3 billion.

Other measures are reflected in transfers that are higher by more than 47%, primarily the "compensation bonus" paid to eligible self-employed persons, small private limited companies, and employees working on the basis of an "agreement on work activity" or an "agreement on the performance of work", with a total projected accrual-based impact of CZK −28.7 billion in 2020. The 2020 estimate anticipates an accrual-based impact of approximately CZK −19 billion in connection with the introduction of the concept of loss carryback, which may be used both by individuals and by legal entities.

In 2021, the **general government sector** is expected to run a deficit amounting to 6.6% of GDP. From the perspective of the structural balance, the deficit should deepen by almost four percentage points.

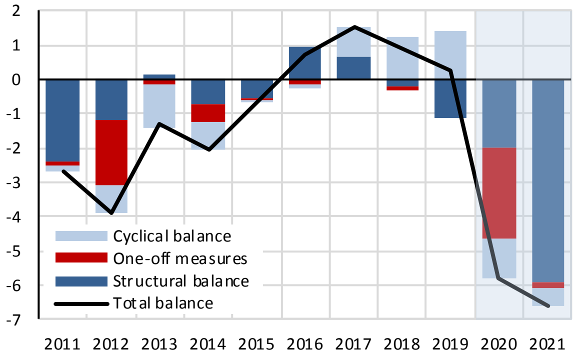
General government revenues are heavily influenced by the adoption of the tax package. Personal income tax revenue should fall by a third year-on-year as a result of a change in the effective tax rate. The economic recovery is expected to push up corporate income tax revenue slightly, although measures such as the flat-rate meal allowance, the tax exemption for government bond yields and accelerated depreciation will slow the momentum of such proceeds. Value added tax revenues are expected to grow at a rate of more than 4%. This can be attributed to the growth of VAT's macroeconomic base, i.e. an overall rise in household consumption, general government intermediate consumption and general government investment, by more than 5%. Excise duties (revenue growth of 6%) should also benefit from renewed economic activity, the easing of restrictions, and a hike in the tax on tobacco products. On the other hand, a reduction in diesel tax should essentially cancel out some of these effects. The 7% growth momentum of social security contributions is primarily the result of an increase in payments for the state-insured persons from the state budget, which should grow by approximately CZK 28 billion year-on-year.

We predict that government final consumption will be less than 5% higher. This is guided by the very similar dynamics of the compensation of employees, social transfers in kind, and intermediate consumption. The approved increase in salaries applies only to the education sector (9% for teachers, 4.3% for non-teaching staff) and to health care and social services (10%). The handling of the epidemic, including vaccination, will also be reflected in social transfers in kind. After a year-on-year decline last year, we expect to see intermediate consumption grow in response to the resumption of full activity by public institutions. Intermediate consumption may additionally be affected by new EU recovery instruments. This should also be a crucial factor for investments, which we project to increase by around 12%. Investments should also be underpinned by centrally allocated entitlements from 2020. The economic recovery, which would generate growth in receipts from shared taxes, could then encourage local governments to increase their investment activity. Under the current forecast, cash social benefits will increase by almost 6% due to the relatively strong statutory indexation of pension benefits, the growth of payments for state-insured persons from the state budget and, last but not least, developments in the labour market.

The deficits of general government institutions, especially the state budget, were reflected in the amount of debt. According to the current estimate, general government debt increased in 2020 by 8.1 pp to 38.3% of GDP (*versus 39.4% of GDP*). We believe it will increase further in 2021, rising to 43.3% of GDP.

Graph 1.3.1: General Government Balance

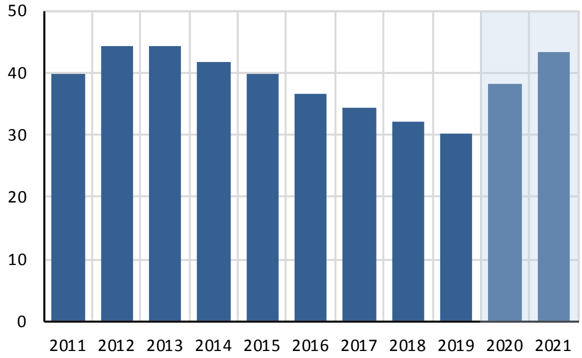
in % of GDP



Source: CZSO. Calculations and forecast of the MoF.

Graph 1.3.2: General Government Debt

in % of GDP



Source: CZSO. Calculations and forecast of the MoF.

Table 1.3.1: Net Lending/Borrowing and Debt

		2012	2013	2014	2015	2016	2017	2018	2019	2020 *Estimate*	2021 *Forecast*
General government balance	*% GDP*	**-3.9**	**-1.3**	**-2.1**	**-0.6**	**0.7**	**1.5**	**0.9**	**0.3**	**-5.8**	**-6.6**
	bill. CZK	-159	-53	-90	-30	34	77	49	15	-327	-388
Cyclical balance	*% GDP*	**-0.8**	**-1.3**	**-0.8**	**0.0**	**-0.1**	**0.9**	**1.2**	**1.4**	**-1.2**	**-0.5**
Cyclically adjusted balance	*% GDP*	**-3.1**	**0.0**	**-1.2**	**-0.6**	**0.8**	**0.7**	**-0.3**	**-1.1**	**-4.7**	**-6.1**
One-off measures [1]	*% GDP*	**-1.9**	**-0.1**	**-0.5**	**-0.1**	**-0.1**	**0.0**	**-0.1**	**0.0**	**-2.6**	**-0.2**
Structural balance	*% GDP*	**-1.2**	**0.1**	**-0.7**	**-0.6**	**1.0**	**0.7**	**-0.2**	**-1.1**	**-2.0**	**-5.9**
Fiscal effort [2]	*pp*	**1.2**	**1.3**	**-0.8**	**0.1**	**1.5**	**-0.3**	**-0.9**	**-0.9**	**-0.9**	**-3.9**
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**	**-5.1**	**-5.8**
Cyclically adjusted primary balance	*% GDP*	**-1.7**	**1.3**	**0.0**	**0.4**	**1.8**	**1.4**	**0.4**	**-0.4**	**-3.9**	**-5.2**
General government debt	*% GDP*	**44.2**	**44.4**	**41.9**	**39.7**	**36.6**	**34.2**	**32.1**	**30.2**	**38.3**	**43.3**
	bill. CZK	1 805	1 840	1 819	1 836	1 755	1 750	1 735	1 738	2 149	2 543
Change in debt-to-GDP ratio	*pp*	**4.4**	**0.3**	**-2.6**	**-2.2**	**-3.1**	**-2.3**	**-2.2**	**-1.8**	**8.1**	**5.0**

[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

1.4.1 Monetary Policy

In Q4 2020, the CNB kept the two-week repo rate at 0.25%. This was a response not only to the effects that measures to combat the spread of the pandemic were having on the domestic economy, but also to the economic situation abroad.

In the fourth quarter, monetary conditions were eased significantly in the interest rate component. Considering the outlook for short-term interest rates and inflation, real interest rates will remain supportive in 2021. The exchange rate component will approach neutrality in the coming quarters, with occasional deviations in both directions. As such, monetary conditions have had – and should continue to have – a pro-growth effect on the economy that remains in a negative output gap.

1.4.2 Financial Sector and Interest Rates

The three-month PRIBOR averaged 0.3% (*as forecast*) in Q4 2020 and 0.9% (*as forecast*) in 2020 as a whole. If monetary policy is in line with our expectations, it should average 0.4% (*versus 0.3%*) in Q1 2021, the same as for 2021 as a whole (*unchanged*).

The **yield to maturity on 10-year government bonds** for convergence purposes rose to 1.1% (*versus 0.9%*) on average in Q4 2020, reaching 1.1% (*as forecast*) in 2020 as a whole. Taking into account the assumed monetary policy stance of the CNB and the ECB, developments in inflation, and the growing yield curve, we believe that long-term interest rates could average 1.2% (*versus 0.9%*) in this year.

In October and November 2020, year-on-year growth in total **loans to households** accelerated to 6.4%, but this was still slower than in recent years. Growth in consumer credit was slowing down in 2020 to 1.2% in November. The momentum of other loans, including loans to self-employed persons, started growing gradually in August 2020 and had climbed to 4.3% in November. The growth in housing-related lending was picking up pace from the beginning of the year, boosted by the CNB's relaxation of its recommendations on the management of risks associated with the granting of retail loans secured with residential property. Since June 2020, only the recommendation that the loan-to-value ratio does not exceed 90% has been active. The momentum of newly granted residential mortgages (excluding refinancing) increased during 2020. In November, these loans grew by almost 40%. The average customer interest rate on the total volume of loans to households fell from 3.6% in January to 3.5% in November.

The year-on-year growth in total **loans to non-financial corporations**, which slowed all the way down to 1.9 % in October 2020 and 0.5% in November 2020, started to be driven solely by loans repayable in more than five years and by foreign-currency loans. The average customer interest rate on the overall volume of loans to non-financial corporations gradually fell over the year, going down from 3.8% in January to 2.5% in November.

The **non-performing loans ratio** virtually stalled in Q3 2020, standing at 1.6% among households and 3.2% among non-financial corporations. Measures to combat the spread of the coronavirus included a holiday on loan repayments for households and non-financial corporations as of May 2020. By law, these deferrals may have lasted for up to six months. In October, the option of deferring repayments had been taken up for 13.8% of the total volume of household loans and 16.6% of total loans to non-financial corporations. As of November, banks were no longer obliged to grant requests for repayment deferrals. This was reflected in an increase in the non-performing loans ratio, which in November was 1.7% for households and 3.8% for non-financial corporations.

1.4.3 Exchange Rates

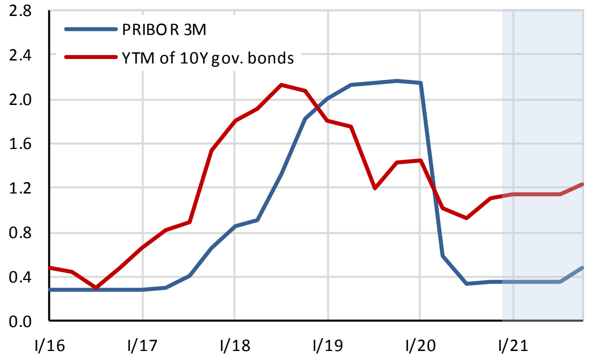
In Q4 2020, the exchange rate of the koruna to the euro averaged CZK 26.7/EUR (*versus CZK 26.2/EUR*), tantamount to 4.1% YoY depreciation. In 2020 as a whole, the average exchange rate depreciated by 2.9% YoY to CZK 26.4/EUR (*versus CZK 26.3/EUR*). The unexpected depreciation of the koruna by 4.8% between the end of August and mid-October probably reflected an increase in global uncertainty surrounding the adverse course of the coronavirus pandemic. This depreciation was almost fully offset by the koruna's rapid 4.6% appreciation in November. The koruna's exchange rate was thus highly volatile in 2020, probably due to the wildly changing sentiment in international financial markets.

In Q1 2021, we expect to see an enduring temporary year-on-year depreciation of the koruna by 2.5% to CZK 26.3/EUR. In the next quarter, the exchange rate should return to a trajectory of gradual appreciation by 0.5% QoQ. For 2021, it should average CZK 26.1/EUR (*versus CZK 25.8/EUR*). This gradual appreciation should reflect fundamental factors (the positive interest rate differential vis-à-vis the euro area, and the real convergence of the Czech economy). Improvements in global sentiment linked to the stabilisation of the epidemic situation could also contribute.

The trend expected in the exchange rate of the koruna to the US dollar is implied by the USD/EUR exchange rate, for which we made an assumption of stability at USD 1.22 per EUR (*versus USD 1.18/EUR*), i.e. the average of the 10 days preceding the cut-off date for selected forecast assumptions.

Graph 1.4.1: Interest Rates

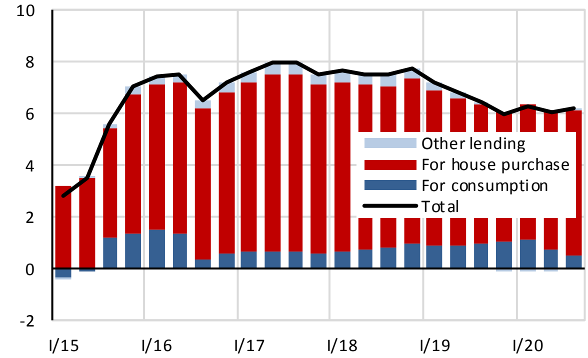
in % p.a.



Source: CNB. Calculations and forecast of the MoF.

Graph 1.4.2: Loans to Households

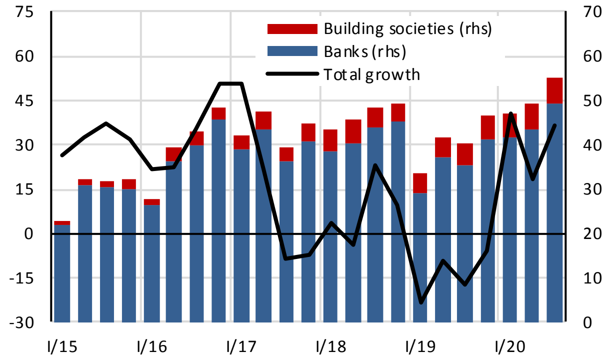
YoY growth rate in%, contributions in percentage points



Source: CNB. Calculations of the MoF.

Graph 1.4.3: New Mortgage Loans

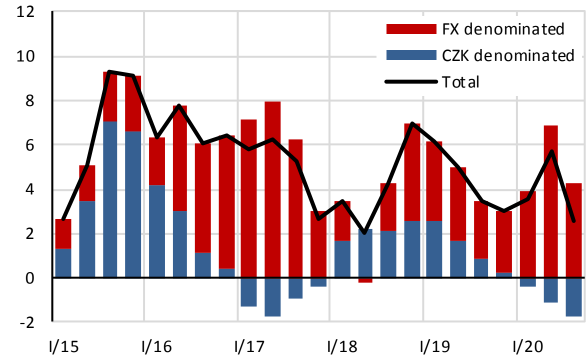
for purchase of residential property, YoY growth in %, CZK billion (rhs)



Source: CNB. Calculations of the MoF.

Graph 1.4.4: Loans to Non-financial Corporations

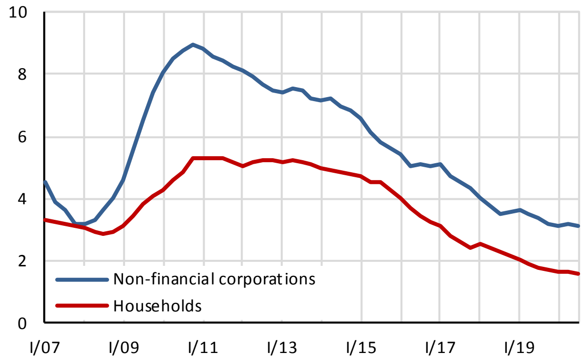
YoY growth rate in%, contributions in percentage points



Source: CNB. Calculations of the MoF.

Graph 1.4.5: Non-performing Loans

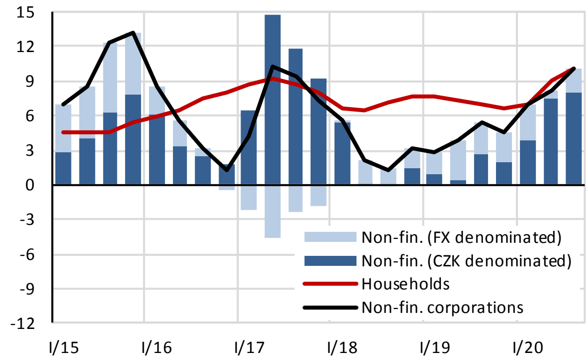
ratio of non-performing to total loans, in%



Source: CNB. Calculations of the MoF.

Graph 1.4.6: Deposits

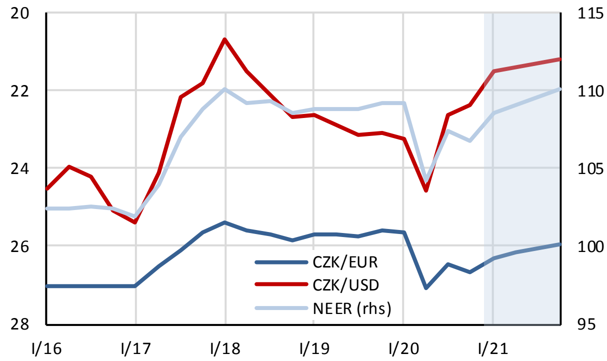
YoY growth rate in%, contributions in percentage points



Source: CNB. Calculations of the MoF.

Graph 1.4.7: Nominal Exchange Rates

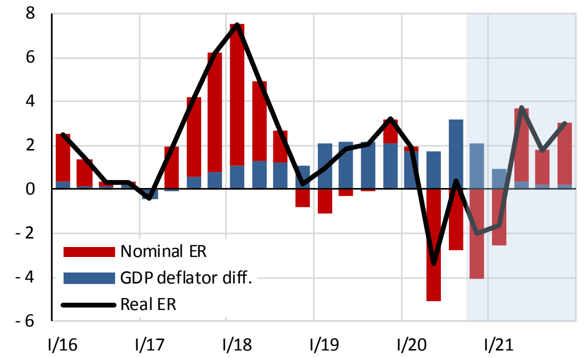
quarterly averages, average 2015=100 (rhs)



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

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Forecast
Repo 2W rate CNB (*end of period*)	*in % p.a.*	0.05	0.05	0.05	0.05	0.05	0.50	1.75	2.00	0.25	.
Main refinancing rate ECB (*end of period*)	*in % p.a.*	0.75	0.25	0.05	0.05	0.05	0.00	0.00	0.00	0.00	.
Federal funds rate (*end of period*)	*in % p.a.*	0.25	0.25	0.25	0.50	0.75	1.50	2.50	1.75	0.25	.
PRIBOR 3M	*in % p.a.*	1.00	0.46	0.36	0.31	0.29	0.41	1.23	2.12	0.86	0.4
YTM of 10Y government bonds	*in % p.a.*	2.78	2.11	1.58	0.58	0.43	0.98	1.98	1.55	1.13	1.2
Client interest rates											
Loans to households	*in % p.a.*	6.47	6.05	5.59	5.15	4.65	4.10	3.76	3.66	.	.
Loans to non-financial corporations	*in % p.a.*	3.72	3.20	3.01	2.78	2.59	2.57	3.05	3.75	.	.
Deposits of households	*in % p.a.*	1.18	1.02	0.85	0.65	0.47	0.36	0.33	0.39	.	.
Deposits of non-financial corporations	*in % p.a.*	0.56	0.41	0.29	0.19	0.10	0.05	0.11	0.37	.	.

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

Table 1.4.2: Interest Rates – quarterly

average of period, unless stated otherwise

		2020				2021			
		Q1	Q2	Q3	Q4	Q1 Forecast	Q2 Forecast	Q3 Forecast	Q4 Forecast
Repo 2W rate CNB (*end of period*)	*in % p.a.*	1.00	0.25	0.25	0.25	.	.	.	.
Main refinancing rate ECB (*end of period*)	*in % p.a.*	0.00	0.00	0.00	0.00	.	.	.	.
Federal funds rate (*end of period*)	*in % p.a.*	0.25	0.25	0.25	0.25	.	.	.	.
PRIBOR 3M	*in % p.a.*	2.15	0.59	0.34	0.35	0.4	0.4	0.4	0.5
YTM of 10Y government bonds	*in % p.a.*	1.46	1.02	0.93	1.11	1.2	1.2	1.2	1.2
Client interest rates									
Loans to households	*in % p.a.*	3.62	3.53	3.50	.	.	.	.	.
Loans to non-financial corporations	*in % p.a.*	3.76	2.97	2.55	.	.	.	.	.
Deposits of households	*in % p.a.*	0.44	0.38	0.30	.	.	.	.	.
Deposits of non-financial corporations	*in % p.a.*	0.43	0.22	0.08	.	.	.	.	.

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

Table 1.4.3: Loans and Deposits – yearly averages

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Households											
Loans	*growth in %*	**8.9**	**6.6**	**5.0**	**4.0**	**3.4**	**4.8**	**7.2**	**7.8**	**7.6**	**6.6**
For consumption	*growth in %*	7.3	4.2	-1.0	-0.1	-0.9	3.4	6.0	4.3	5.4	6.4
For house purchase	*growth in %*	8.9	6.5	6.4	5.5	4.5	5.6	8.1	9.0	8.5	7.4
Other lending	*growth in %*	11.6	11.1	6.0	1.2	2.9	1.0	3.0	4.2	4.3	1.1
CZK denominated	*growth in %*	8.8	6.6	4.9	4.0	3.4	4.7	7.2	7.7	7.6	6.6
FX denominated	*growth in %*	31.0	2.4	30.8	-1.3	0.0	12.7	8.5	36.3	1.7	9.0
Deposits	*growth in %*	**5.1**	**5.0**	**4.5**	**3.3**	**2.9**	**4.8**	**7.0**	**8.7**	**7.0**	**7.2**
CZK denominated	*growth in %*	5.6	5.4	4.7	3.3	2.7	4.1	6.9	9.7	7.1	6.9
FX denominated	*growth in %*	-6.8	-4.0	-2.1	2.3	8.5	22.5	7.3	-13.9	3.5	15.2
Non-performing loans *(banking statistics)*	*share, in %*	**4.8**	**5.3**	**5.2**	**5.2**	**4.9**	**4.5**	**3.6**	**2.7**	**2.4**	**1.9**
Loans to deposits ratio	*in %*	**61**	**62**	**63**	**63**	**63**	**63**	**63**	**63**	**63**	**63**
Non-financial corporations											
Loans	*growth in %*	**-5.2**	**4.7**	**3.5**	**1.3**	**1.9**	**6.5**	**6.6**	**5.0**	**4.2**	**4.3**
CZK denominated	*growth in %*	-5.2	4.9	2.6	0.3	-1.0	5.9	2.8	-1.4	3.0	1.9
FX denominated	*growth in %*	-5.4	3.7	7.8	5.7	13.7	9.0	20.5	24.4	6.9	10.0
Deposits	*growth in %*	**5.5**	**0.4**	**8.9**	**4.9**	**7.6**	**10.3**	**4.6**	**7.8**	**3.0**	**4.2**
CZK denominated	*growth in %*	6.9	2.0	8.2	4.2	5.6	6.7	4.5	13.9	2.1	1.9
FX denominated	*growth in %*	0.2	-6.1	11.8	8.0	15.2	23.2	4.8	-11.1	6.6	13.0
Non-performing loans *(banking statistics)*	*share, in %*	**8.6**	**8.5**	**7.8**	**7.4**	**7.0**	**6.0**	**5.2**	**4.7**	**3.7**	**3.4**
Loans to deposits ratio	*in %*	**121**	**126**	**120**	**116**	**110**	**106**	**108**	**105**	**106**	**106**

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

		2018	2019				2020		
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Households									
Loans	*growth in %*	**7.7**	**7.2**	**6.8**	**6.4**	**6.0**	**6.3**	**6.1**	**6.2**
For consumption	*growth in %*	6.5	6.0	6.1	6.4	7.0	7.6	5.2	3.6
For house purchase	*growth in %*	8.5	8.0	7.6	7.2	6.7	6.9	7.1	7.3
Other lending	*growth in %*	3.7	2.7	2.1	0.4	-0.7	-0.4	-0.7	1.1
CZK denominated	*growth in %*	7.7	7.2	6.8	6.4	6.0	6.3	6.1	6.2
FX denominated	*growth in %*	10.9	23.2	13.3	0.6	0.9	-2.7	4.9	7.4
Deposits	*growth in %*	**7.7**	**7.6**	**7.3**	**7.1**	**6.7**	**6.9**	**9.1**	**10.1**
CZK denominated	*growth in %*	7.7	7.5	7.0	6.7	6.3	6.4	8.9	10.1
FX denominated	*growth in %*	7.5	11.3	13.6	18.2	17.4	21.0	14.7	9.0
Non-performing loans *(banking statistics)*	*share, in %*	**2.2**	**2.0**	**1.9**	**1.8**	**1.7**	**1.7**	**1.7**	**1.6**
Loans to deposits ratio	*in %*	**64**	**63**	**63**	**63**	**63**	**63**	**61**	**61**
Non-financial corporations									
Loans	*growth in %*	**7.0**	**6.1**	**5.0**	**3.4**	**3.0**	**3.6**	**5.7**	**2.6**
CZK denominated	*growth in %*	3.6	3.7	2.4	1.2	0.4	-0.5	-1.6	-2.5
FX denominated	*growth in %*	15.3	12.1	11.1	8.4	8.7	12.7	21.8	13.4
Deposits	*growth in %*	**3.1**	**2.9**	**3.9**	**5.4**	**4.5**	**6.9**	**8.2**	**10.0**
CZK denominated	*growth in %*	1.8	1.1	0.6	3.3	2.5	5.0	9.7	10.4
FX denominated	*growth in %*	8.3	9.7	16.9	13.2	12.2	13.9	2.8	8.7
Non-performing loans *(banking statistics)*	*share, in %*	**3.5**	**3.7**	**3.5**	**3.4**	**3.2**	**3.1**	**3.2**	**3.2**
Loans to deposits ratio	*in %*	**108**	**107**	**105**	**107**	**107**	**103**	**103**	**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 1.4.5: Exchange Rates – yearly

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
								Estimate	*Forecast*	*Outlook*	*Outlook*
Nominal exchange rates											
CZK / EUR	*average*	**27.53**	**27.28**	**27.03**	**26.33**	**25.65**	**25.67**	**26.44**	**26.1**	**25.6**	**25.1**
	appreciation in %	-5.7	0.9	0.9	2.7	2.7	-0.1	-2.9	1.3	1.9	1.9
CZK / USD	*average*	**20.75**	**24.60**	**24.43**	**23.39**	**21.74**	**22.94**	**23.19**	**21.4**	**21.0**	**20.6**
	appreciation in %	-5.7	-15.7	0.7	4.5	7.6	-5.2	-1.1	8.6	1.9	1.9
NEER	*average of 2015=100*	**100.8**	**100.0**	**102.4**	**105.4**	**109.3**	**108.9**	**109.0**	**109**	**111**	**113**
	appreciation in %	-5.2	-0.8	2.4	2.9	3.7	-0.3	0.1	8.6	1.9	1.9
Real exchange rate to EA19 [1]	*average of 2015=100*	**99.5**	**100.0**	**101.1**	**104.0**	**108.1**	**110.3**	**109**	**111**	**114**	**117**
	appreciation in %	-4.1	0.5	1.1	2.9	3.9	2.0	-0.8	1.7	2.3	2.6
REER [2]	*average of 2015=100*	**100.9**	**100.0**	**102.6**	**106.6**	**111.1**	**111.5**	**.**	**.**	**.**	**.**
	appreciation in %	-5.2	-0.9	2.6	3.9	4.3	0.3	.	.	.	.

[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

		2020				2021			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
					Estimate	*Forecast*	*Forecast*	*Forecast*	*Forecast*
Nominal exchange rates									
CZK / EUR	*average*	**25.63**	**27.05**	**26.46**	**26.66**	**26.3**	**26.2**	**26.1**	**25.9**
	appreciation in %	0.2	-5.1	-2.7	-4.1	-2.5	3.4	1.6	2.8
CZK / USD	*average*	**23.25**	**24.55**	**22.64**	**22.36**	**21.5**	**21.4**	**21.3**	**21.2**
	appreciation in %	-2.7	-6.9	2.3	3.3	8.1	14.7	6.3	5.5
NEER	*average of 2015=100*	**109.2**	**104.2**	**107.4**	**106.8**	**109**	**109**	**110**	**110**
	appreciation in %	0.4	-4.2	-1.3	-2.2	-0.7	4.6	2.0	3.1
Real exchange rate to EA19 [1]	*average of 2015=100*	**111.8**	**106.3**	**110.8**	**109**	**110**	**110**	**113**	**112**
	appreciation in %	1.9	-3.4	0.4	-2.0	-1.6	3.7	1.8	3.0
REER [2]	*average of 2015=100*	**114.0**	**109.1**	**113.5**	**.**	**.**	**.**	**.**	**.**
	appreciation in %	2.0	-1.8	1.9	.	.	.	.	.

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

1.5 Structural Policies

In Q4 2020 the Czech Republic was hit hard by another wave of the COVID-19 epidemic. In response, a **state of emergency** was declared as of 5 October, allowing the government to take the measures necessary to minimise the risk of spreading the disease.

Decisive **fiscal stimuli** were introduced to mitigate the macroeconomic and social impacts of these measures and to support the subsequent recovery. These stimuli encompassed both the revenue side (e.g. waiver of minimum advance payments on health and social insurance for self-employed persons, waiver of social security contributions for certain employers) and the expenditure side (schemes to support self-employed persons and companies, compensation of payroll costs under Antivirus programmes, support for health care and social services, etc.) of public budgets. They are listed in detail in the Fiscal Outlook of the CR from January 2021. Estimates of the macroeconomic impacts are presented in section 5.

In 2021, the economy will receive a major stimulus from changes in the **personal income tax**. Narrowing of the tax base to the gross wage excluding social security contributions paid by the employer, accompanied by an increase in the basic personal tax credit, will reduce general government revenues by approx. CZK 99 billion in favour of households (for more details on the impact on private consumption, see section 5.2). Another measure that should improve the economic situation of low-income families with children is the planned increase in child allowance and the widening of the group entitled to receive this benefit.

In order to improve the epidemic (and consequently economic) situation in the long run, **a substantial part of the Czech population needs to be vaccinated**. This process began at the end of December 2020, when the first doses of the vaccine arrived in the Czech Republic. According to the updated version of the COVID-19 Vaccination Strategy drawn up by the Ministry of Health, if deliveries are made as promised and if timely approval is issued for vaccines made by other manufacturers, there should be enough vaccines to inoculate almost four million people (37% of the population) by the end of Q2 2021 and about seven million people (66% of the population) by the end of the third quarter. This should make a significant contribution to the resumption of normal economic and social life.

The **Government Regulation on the Minimum Wage** took effect on 1 January 2021. It increased the minimum wage by 4.1% YoY to CZK 15,200 per month. The levels of the guaranteed wage were increased along similar lines.

1.6 Demographic Trends

The secularly steady and moderate population growth in the Czech Republic slowed down significantly in 2020. At the end of September 2020, 10.708 million people were living in the Czech Republic. The number of inhabitants went up by 25,000 YoY, i.e. by 0.2 %, but by just 13,900 people in the period from January to September 2020. This was roughly two fifths of the increase in the same period in 2019. Over the forecast horizon, we can expect just a creeping increase in the population roughly in line with the central variant of the Population Projection of the CZSO.

The difference between the number of **births and deaths** led to a decline in the population by 1,700 persons. The number of live births (83,300) fell slightly year on year, while the number of deaths (85,000) was roughly at the same level as in the previous year.

However, this situation changed dramatically in Q4 2020 when another wave of COVID-19 struck. According to an estimate based on the CZSO's preliminary weekly data, about 16,000 more people died in this period compared to the 2015–2019 average. In Q4 2020, the Institute of Health Information and Statistics reported more than 11,000 people dying with COVID-19 (92% of whom were over 65 years of age), the remaining 5,000 deaths were likely due to reduced medical care for patients without COVID-19 (see Graph 1.6.4). The increased mortality is likely to continue in 2021.

The epidemic also had a big impact on the migration balance in the period from January to September. The **positive migration balance** came to just 15,600 persons, a reduction by half year on year. There was both a decrease in the number of immigrants and an increase in emigration. A discernibly positive migration balance was recorded only with Ukrainians (11,600), much less so with Slovaks and Russians. In contrast, a small-scale negative net migration rate was recorded among citizens of the United Kingdom, Poland and Germany. It is likely that the intensity and directions of migration flows will continue to be influenced by the pandemic and the economic environment.

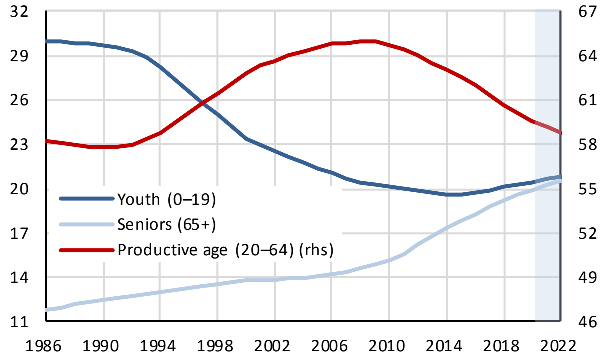
Population ageing was reflected in a year-on-year rise in the number of seniors (65+) by more than 30,000 persons in Q3 2020 (according to the Labour Force Survey). The high number of females born in the late 1970s and in the 1980s and the gradually rising fertility rate resulted in an increase in the number of young persons up to 19 years by 19,000.

On the other hand, the population aged 20–64 fell by 18,000. The decline was concentrated on the 20–44 age group, where the number of people went down by 51,000. In contrast, there was a marked increase in the population aged 44–59 by 33,000. A high employment and participation rate can be found among people of this age, which has helped to alleviate the impacts of the population ageing on the supply side of the labour market. The number of inhabitants aged 20–64 should gradually go down by approximately 0.6% annually over the forecast horizon.

At the end of September 2020, there were 2.404 million **old-age pensioners** (22.6% of the Czech population) in the pension system. Extensions to the statutory retirement age, combined with demographic developments, led to a decrease in the number of old-age pensioners by 5,900, i.e. by 0.2%, at the end of September 2020. How this number develops will depend, in the near future, on how the COVID-19 epidemic is managed.

Graph 1.6.1: Age Groups

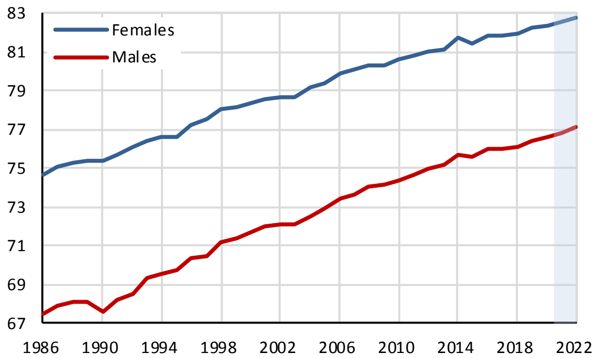
shares in total population, in %



Source: CZSO. Calculations of the MoF.

Graph 1.6.2: Life Expectancy at Birth

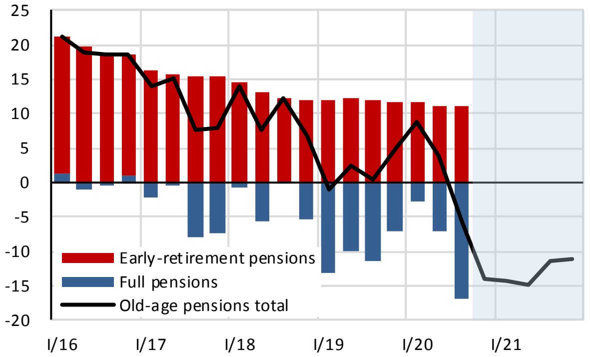
in years



Source: CZSO.

Graph 1.6.3: Old-Age Pensioners

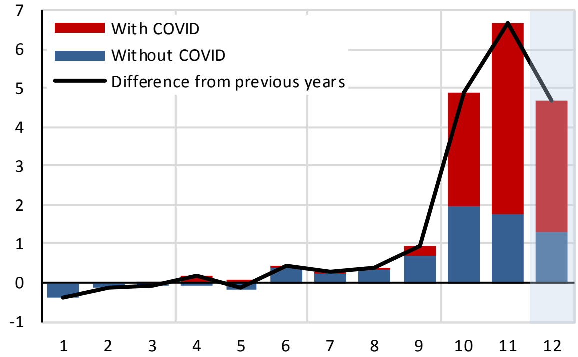
absolute increase over a year in thousands of persons



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

Graph 1.6.4: Number of Deaths in 2020

difference from the 2015–2019 average, in thousands



Note: October and November – preliminary data based on weekly figures from the CZSO. December – estimate of the MoF.
Source: CZSO, Institute of Health Information and Statistics. Calculations of the MoF.

Table 1.6.1: Demographics

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
								Estimate	*Forecast*	*Outlook*	*Outlook*
Population (as of 1 January)	*thous. persons*	**10 512**	**10 538**	**10 554**	**10 579**	**10 610**	**10 650**	**10 694**	**10 702**	**10 712**	**10 729**
	growth in %	0.0	0.2	0.1	0.2	0.3	0.4	0.4	0.1	0.1	0.2
0–19 years	*thous. persons*	2 057	2 064	2 082	2 106	2 133	2 160	2 188	2 210	2 228	2 244
	growth in %	-0.6	0.3	0.9	1.2	1.3	1.3	1.3	1.0	0.9	0.7
20–64 years	*thous. persons*	6 630	6 594	6 540	6 484	6 437	6 403	6 374	6 329	6 289	6 257
	growth in %	-0.7	-0.5	-0.8	-0.9	-0.7	-0.5	-0.4	-0.7	-0.6	-0.5
65 and more years	*thous. persons*	1 826	1 880	1 932	1 989	2 040	2 087	2 132	2 163	2 194	2 229
	growth in %	3.3	3.0	2.8	2.9	2.6	2.3	2.2	1.5	1.4	1.6
Old-age pensioners (as of 1 January) [1]	*thous. persons*	**2 340**	**2 355**	**2 377**	**2 395**	**2 403**	**2 410**	**2 415**	**2 401**	**2 390**	**2 383**
	growth in %	0.0	0.6	0.9	0.8	0.3	0.3	0.2	-0.6	-0.5	-0.3
Old-age dependency ratios (as of 1 January)											
Demographic [2]	*%*	27.5	28.5	29.5	30.7	31.7	32.6	33.4	34.2	34.9	35.6
Under current legislation [3]	*%*	38.8	39.3	39.8	40.1	40.4	40.4	40.5	40.3	40.1	40.0
Effective [4]	*%*	47.2	46.9	46.8	46.2	45.7	45.2	45.5	45.8	45.6	45.5
Fertility rate	*children*	**1.528**	**1.570**	**1.630**	**1.687**	**1.708**	**1.715**	**1.70**	**1.70**	**1.70**	**1.70**
Population increase	*thous. persons*	**26**	**16**	**25**	**31**	**40**	**44**	**8**	**10**	**17**	**15**
Natural increase	*thous. persons*	**4**	**0**	**5**	**3**	**1**	**0**	**-18**	**-16**	**-9**	**-11**
Live births	*thous. persons*	110	111	113	114	114	112	109	107	105	103
Deaths	*thous. persons*	106	111	108	111	113	112	127	123	114	114
Net migration	*thous. persons*	**22**	**16**	**20**	**28**	**39**	**44**	**26**	**26**	**26**	**26**
Immigration	*thous. persons*	42	35	38	46	58	67	.	.	.	.
Emigration	*thous. persons*	20	19	17	18	20	21	.	.	.	.

[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

In 2020 the Czech economy plunged into a **deeply negative output gap** as a result of measures to quell the COVID-19 epidemic. In Q2 2020, real gross value added lagged behind its potential by more than 8%. This was by far the largest difference in the history of the independent Czech economy. The rapid economic recovery in the third quarter reduced the negative gap to −2%, but the onset of another wave of the epidemic in the fourth quarter and in early 2021 saw it widen again to around −4%. We estimate that the output gap for the whole of 2020 was below −3%, which is comparable to the recessions in 2009 and 2013. We expect the negative output gap to narrow in the period ahead. However, the increased uncertainty of results at a time of extreme volatility in economic output means that these estimates need to be treated with a high degree of caution.

The economic downturn highlighted the tendency towards a slowdown in the growth of **potential output**. According to the current estimate, it increased by less than 1% in 2020. After the recession has ended, potential output growth should gradually accelerate to roughly 1.6 % in 2023.

From the perspective of components (Graph 2.1.2), potential growth is determined by the trend part of **total factor productivity**. Its contribution could have reached 0.7 pp in 2020.

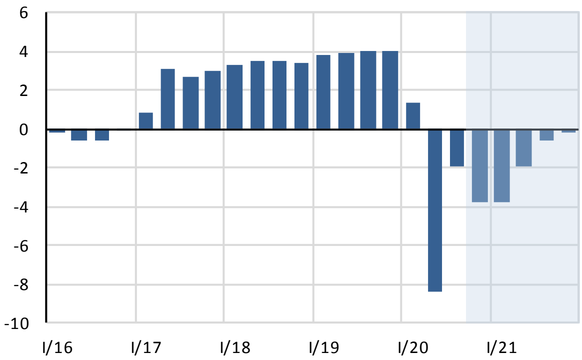
Labour supply is affected by population ageing (see section 1.6). This is reflected, in part, in the long-term decline in the working-age population (20–64 years). In 2020, this probably shaved 0.2 pp off the growth of potential output, and a similar value can be expected in the coming period.

The negative impact of demographic trends on the labour supply have long been cushioned by dynamic **increases in the participation rate**, which swelled the size of the labour force in the economy. However, the year-on-year growth in participation has subsided since 2019, and the rate of economic activity actually declined at the beginning of 2020. Despite the measures taken to protect the labour market, the economic uncertainty probably intensified this trend temporarily. The participation rate's contribution to the growth of potential output in 2020 was thus estimated at −0.1 pp.

In the Czech Republic, we are witnessing a steady long-term decline in the number of **hours usually worked**. This factor has further hampered potential output growth.

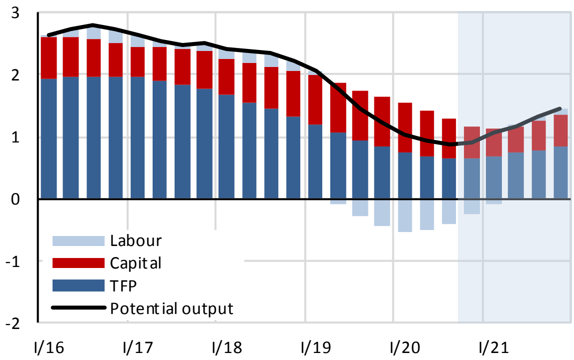
The decline in gross fixed capital formation in 2020 has slowed down increases in capital stock in the Czech economy. **Capital stock** contributed 0.7 pp to the increase in potential last year and it is likely that this contribution will contract in the period ahead.

Graph 2.1.1: Output Gap
in % of potential product



Source: CZSO. Calculations of the MoF.

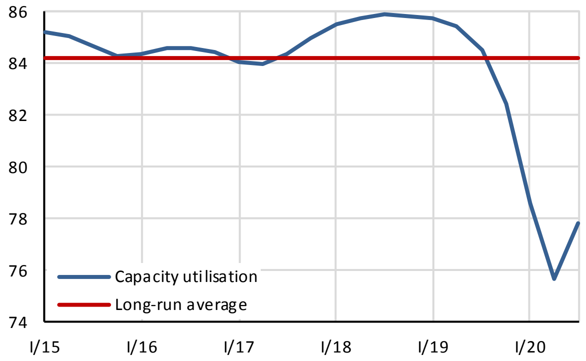
Graph 2.1.2: Potential Output
YoY growth rate in %, contributions in percentage points



Source: CZSO. Calculations of the MoF.

Graph 2.1.3: Capacity Utilisation in Industry

smoothed by Hodrick-Prescott filter, in %



Source: CZSO.

Table 2.1.1: Output Gap and Potential Product

		2014	2015	2016	2017	2018	2019	2020 *Estimate*	2021 *Forecast*	2022 *Outlook*	2023 *Outlook*
Output gap	*%*	**-2.4**	**0.0**	**-0.4**	**2.4**	**3.4**	**3.9**	**-3.2**	**-1.6**	**0.2**	**0.8**
Potential product [1]	*growth in %*	**1.6**	**2.5**	**2.7**	**2.5**	**2.3**	**1.6**	**0.9**	**1.3**	**1.6**	**1.6**
Contributions											
Trend total factor productivity	*pp*	1.3	1.7	2.0	1.9	1.5	1.0	0.7	0.8	1.0	1.1
Fixed assets	*pp*	0.5	0.7	0.6	0.5	0.7	0.8	0.7	0.5	0.5	0.6
Population 20–64 yers	*pp*	-0.4	-0.3	-0.5	-0.5	-0.4	-0.3	-0.2	-0.3	-0.3	-0.2
Participation rate	*pp*	0.4	0.5	0.8	0.7	0.7	0.2	-0.1	0.4	0.4	0.2
Usually worked hours	*pp*	-0.1	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1	0.0	0.0	0.0

[1] *Based on gross value added.*

Source: CZSO. Calculations of the MoF.

2.2 Business Cycle Indicators

In 2020, the economic impact of restrictive measures to prevent the spread of coronavirus hit the confidence of economic entities very hard.

Developments in confidence indicators in Q4 2020 signalled that the year-on-year revival of gross value added in industry and trade and services had stalled. By contrast, the construction confidence indicator improved on the previous period. Nevertheless, the correlation between the trends in confidence and gross value added in construction is very low.

The composite indicator of goods exports, compiled by the Ministry of Finance from questions used in the Czech Statistical Office's business cycle survey and from business confidence in Germany, continued to surge, indicating that exports more or less stagnated year on year in Q4 2020.

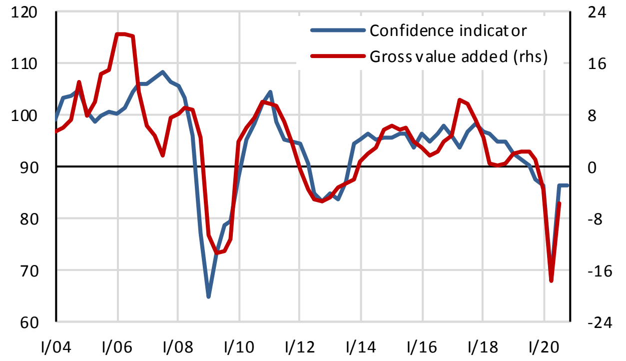
The Czech Statistical Office's consumer confidence indicator fell in Q4 2020. Bearing in mind the level of confidence, its evolution suggests that the momentum of household final consumption expenditure will stabilise in the first half of 2021 (the confidence indicator has a lead of 1–2 quarters). The consumer confidence indicator, compiled by the Ministry of Finance from questions used in the European Commission's consumer survey, continued to decline. As a result, the two indicators were close to each other in Q4 2020. The decline in consumer confidence stemmed from a greater preference for savings and, above all, from the much worse assessment of the economic situation.

With the above components reporting a decline, the composite confidence indicator signals a slight deepening of the year-on-year fall in gross value added in Q4 2020.

The composite leading indicator points to a significant closing of the negative output gap in Q4 2020 and early 2021. Taking into account the second wave of restrictive measures which were imposed at the end of 2020 and have remained in place at the beginning of this year, we view information from the composite leading indicator from a qualitative perspective and believe that the output gap will remain deeply negative in Q1 2021.

Graph 2.2.1: Confidence and GVA in Industry

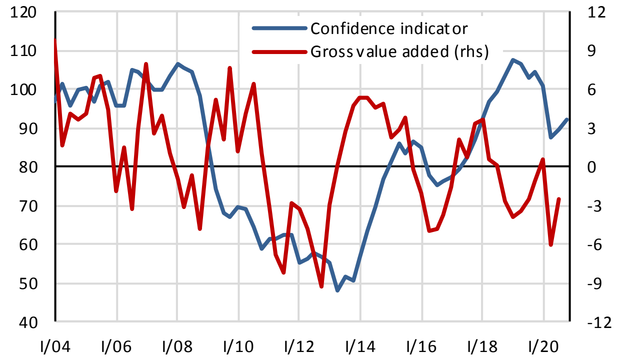
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

Graph 2.2.2: Confidence and GVA in Construction

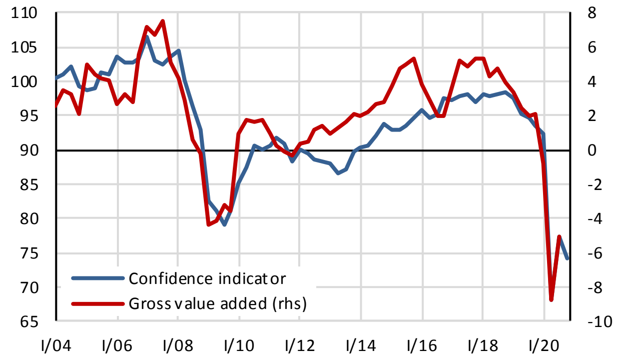
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

Graph 2.2.3: Confidence and GVA in Trade and Services

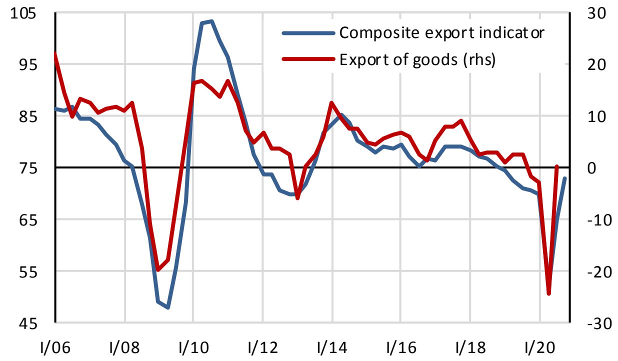
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO. Calculations of the MoF.

Graph 2.2.4: Composite Export Indicator

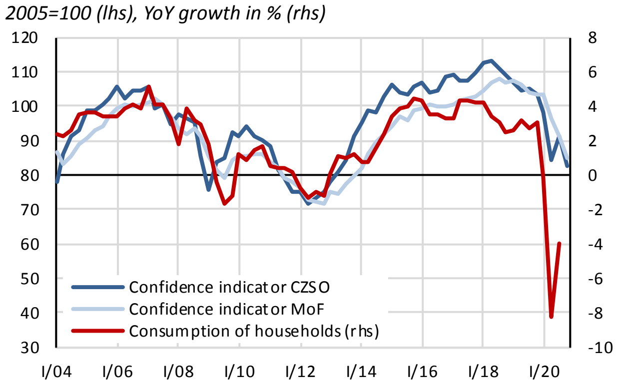
2010=100 (lhs), YoY growth in % (rhs)



Source: CESifo, CZSO. Calculations of the MoF.

Graph 2.2.5: Consumer Confidence and Consumption

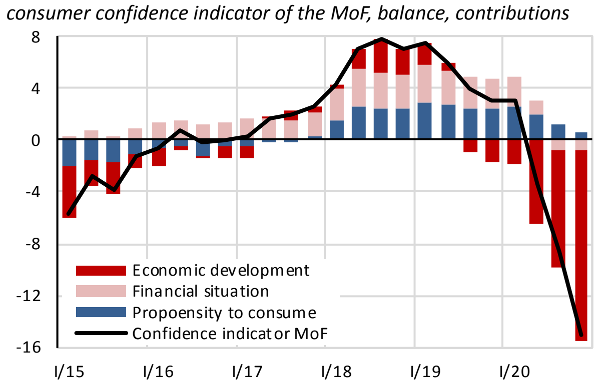
2005=100 (lhs), YoY growth in % (rhs)



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

Graph 2.2.6: Decomposition of Consumer Sentiment

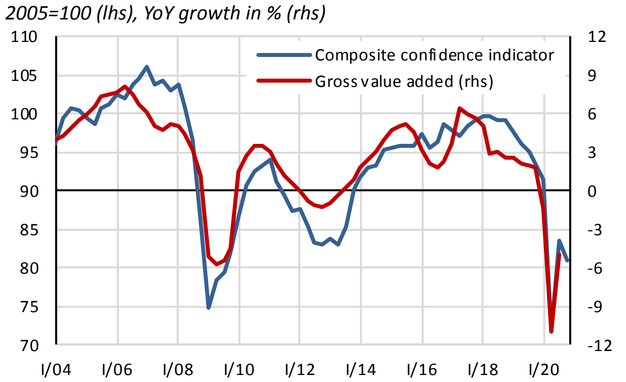
consumer confidence indicator of the MoF, balance, contributions



Source: European Commission. Calculations of the MoF.

Graph 2.2.7: Composite Confidence Indicator and GVA

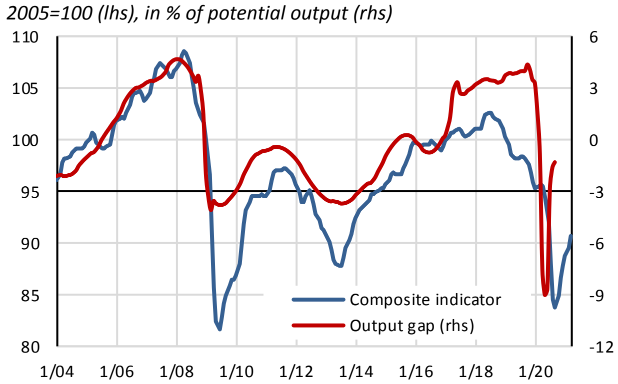
2005=100 (lhs), YoY growth in % (rhs)



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

3.1.1 GDP in the Third Quarter of 2020

Economic output, measured by real GDP, slumped by 5.3% YoY (*versus 7.8%*) in Q3 2020. After the easing of anti-epidemic measures, the seasonally adjusted GDP increased by 6.9% QoQ (*versus 4.2%*), mainly thanks to manufacturing and trade, transportation, accommodation and food service activities. The Czech Statistical Office revised the year-on-year decline in GDP in Q2 2020 by 0.2 pp (in the direction of smaller decrease). The fall in gross capital formation was much smaller, but household final consumption expenditure was revised downwards. There were no substantial changes in other expenditure items.

The year-on-year decline in real GDP can be attributed to a fall in domestic demand, which was dampened by the recovery in foreign demand.

Household consumption slumped year on year in the face of pessimistic expectations and falling real earnings. In relative terms, expenditure on semi-durables and services was hit hardest. Spending on non-durables and durables more or less stagnated. In real terms, household final consumption expenditure decreased by 3.9% (*versus 6.5%*). General government consumption went up by 0.4% (*versus 4.2%*), mainly on account of the momentum exhibited by employment and social benefits in kind.

Gross fixed capital formation plunged by 11.5% (*versus 10.2%*). All investment components, including housing and non-residential buildings, contributed to the decline. With the change in inventories making a highly negative contribution, gross capital formation decreased by more than investment in fixed capital, i.e. by 16.4% (*versus 16.3%*).

Exports of goods essentially stalled year on year in the third quarter. This is because a significant decrease in export markets was offset by a strong increase in export performance (see section 3.4). On the other hand, exports of services were down by around 20% YoY, as in the second quarter. In total, exports of goods and services fell by 3.6% (*versus 13.5%*) in Q3 2020. Following the slackening of exports and investment demand, imports of goods and services were down by 5.8% (*versus 13.2%*). Like on the export side, imports of services fared much worse, falling by 26.5% YoY.

With export and import prices declining, terms of trade improved by 2.2% (*versus 1.0%*). Thus, real gross domestic income was down by 3.9% YoY (*versus 7.2%*).

Gross operating surplus rose by 0.9% (*versus 3.6%*), compensation of employees was up by 0.3% (*versus a 2.7% decrease*), and net taxes on production were lower by 10.3% YoY (*versus 14.3%*). As a result, nominal GDP posted a 1.4% decrease (*versus 4.3%*).

3.1.2 GDP estimate for 2020 and Forecast for 2021

In response to the worsening of the epidemic situation, restrictive measures were tightened again in Q4 2020. As in the spring, services and retail trade were affected the most, which corresponded with the decrease in overall confidence of economic entities. Despite this, industrial output and external trade was returning to pre-crisis levels. Thus, real GDP may have gone down by 1.5% QoQ (*versus 2.5%*), which would translate into a year-on-year decline by 6.5% (*versus 5.6%*). Therefore, the economy could have contracted by 6.1% (*versus 6.6%*) in 2020 as a whole.

This year, GDP could grow by 3.1% (*versus 3.9%*). The forecast is based on the assumption that significant and prolonged easing of restrictive measures will take place in Q2 2021 at the earliest. As larger swathes of society are vaccinated, the restrictions in the second half of the year should not be macroeconomically significant. Nor does the forecast anticipate that the coronavirus pandemic will have a long-term effect on the global supply chain.

Household final consumption expenditure in 2020 was negatively affected by a decline in real income from labour and business. However, a number of discretionary social changes and measures to support the economy had a positive effect. As a result, real disposable income growth appears to have only slowed to 1.5% (from 3.1% in 2019). Nevertheless, consumption was stifled by the increase in the savings rate, which, apart from prudential reasons, reflected the limited ability of households to engage in certain consumer spending over part of the year. We estimate that the savings rate reached 18.0%, which would be over 4.5 pp more than the previous high recorded in 2009. Real household consumption could have therefore fallen by 5.1% in 2020 (*versus 5.0%*).

In 2021, household consumption recovery is supported by a reduction in the effective tax burden (see section 5) and by an expected decline in the savings rate, which will nevertheless remain high from the long-run perspective. Household consumption could therefore increase by 3.3% (*versus 2.2%*).

We estimate that general government consumption increased by 2.1% (*versus 3.8%*) in 2020. In 2021, it could go up by 2.9% (*unchanged*). Key factors may include growth in social benefits in kind, intermediate consumption and employment in the public sector. On the strength of an agreement reached in late 2019, health expenditure has already benefited from the partial deployment of health insurance companies' reserves, which has primarily been reflected in the compensation of employees. Additional healthcare spending is related to the handling of the coronavirus pandemic. Despite cuts at central bodies of state administration, an increase in the numbers of workers in education and the armed forces is envisaged. The momentum could also benefit from increased expenditure on the purchase of goods and services, with contributions from current EU subsidies.

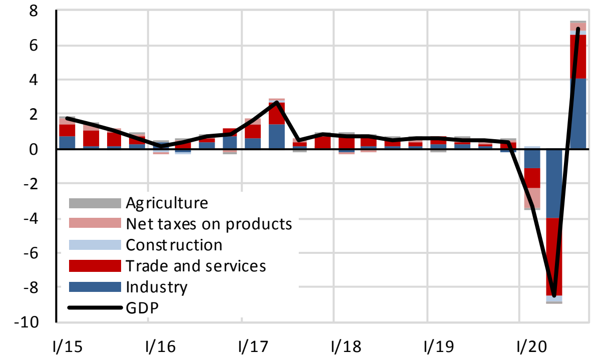
Gross fixed capital formation likely sagged by 8.2% (*versus 7.5%*) in 2020 under the weight of the global recession and the escalating uncertainty. However, monetary conditions had a positive impact on the momentum of investment activity. In 2021, this factor should be compounded by renewed economic growth abroad and accelerated depreciation of tangible assets, which should increase private investment again. However, investment revival in 2021 faces significant risks (see Forecast Risks and Uncertainty). In the case of general government investments, we expect to see a rise in nationally sourced capital expenditure. Government investment will also be underpinned by the implementation of projects co-financed by EU funds. Gross fixed capital formation should therefore increase by 3.8% this year (*versus 3.0%*). The outlook for 2023 includes the purchase of military helicopters from the US at a cost of CZK 17.5 billion, which will also be fully reflected in imports of goods.

We estimate that inventories shrank in 2020 due to the downturn in economic activity, but this decline should not deepen in 2021. Consequently, total capital formation may have fallen by 13.2% (*versus 12.1%*) in 2020; we are predicting growth by 3.9% (*versus 5.5%*) in 2021.

Exports of goods and services probably decreased by 7.2% (*versus 11.9%*) in 2020 due to declining export markets, though this was tempered by an increase in export performance (see section 3.4). The recovery of export markets and a slight increase in competitiveness could result in export growth by 4.7% (*versus 7.3%*) in 2021. The dynamism of exports and import-intensive investment demand will be reflected in the pace of imports of goods and services. As such, imports may have fallen by 6.9% (*versus 10.4%*) in 2020, but this year they should increase by 5.3% (*versus 6.5%*).

Graph 3.1.1: Resources of Gross Domestic Product

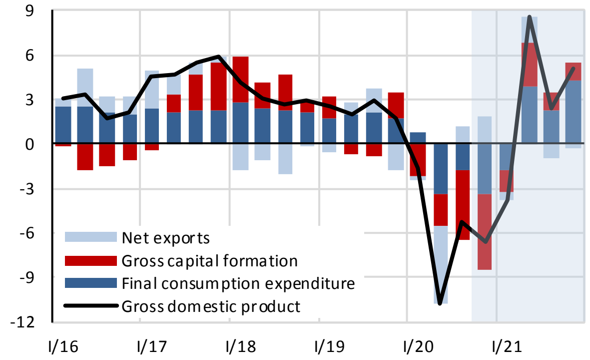
QoQ growth rate of real GDP in %, contrib. in pp, season. adjusted



Source: CZSO. Calculations of the MoF.

Graph 3.1.2: GDP by Type of Expenditure

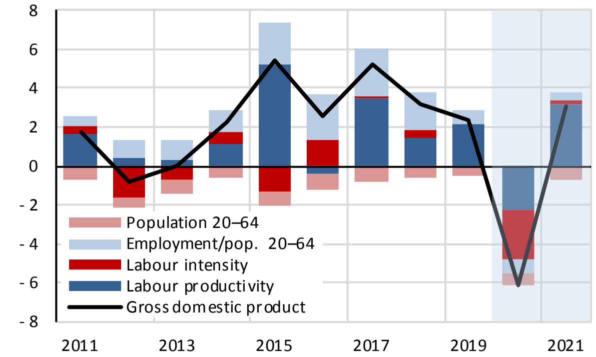
YoY growth rate of real GDP in %, contributions in pp



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.1.3: Real Gross Domestic Product

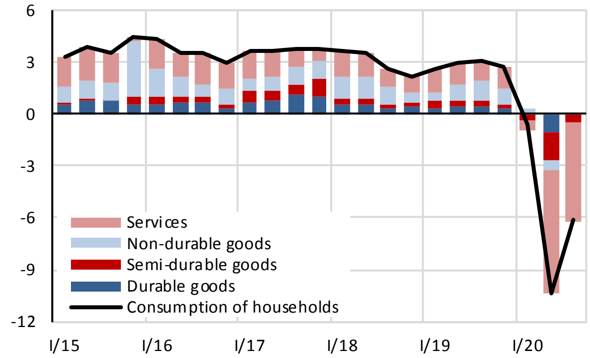
growth in %, contributions in percentage points



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

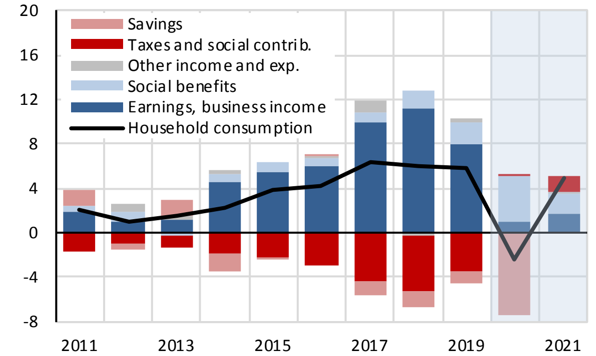
domestic concept, YoY growth rate in %, contributions in pp



Source: CZSO. Calculations of the MoF.

Graph 3.1.5: Nominal Consumption of Households

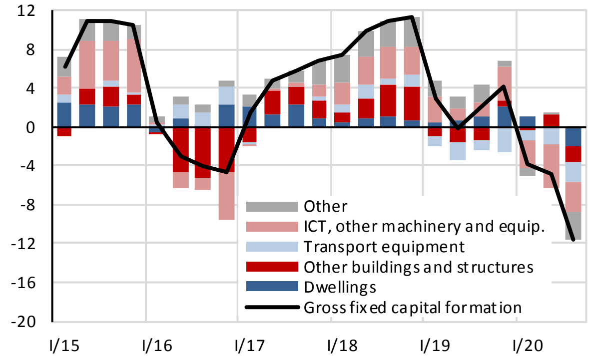
national concept, YoY growth rate in %, contributions in pp



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.1.6: Investment by Type of Expenditure

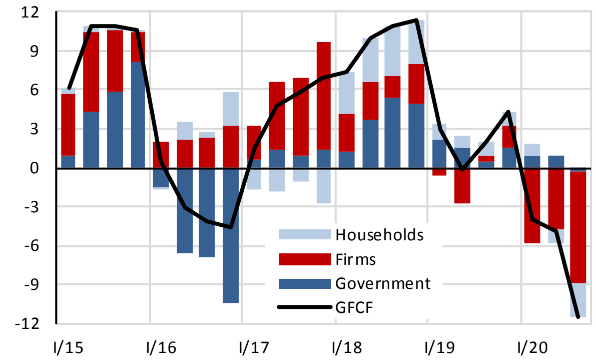
YoY growth rate of real GFCF in %, contributions in pp



Source: CZSO. Calculations of the MoF.

Graph 3.1.7: Investment by Sector

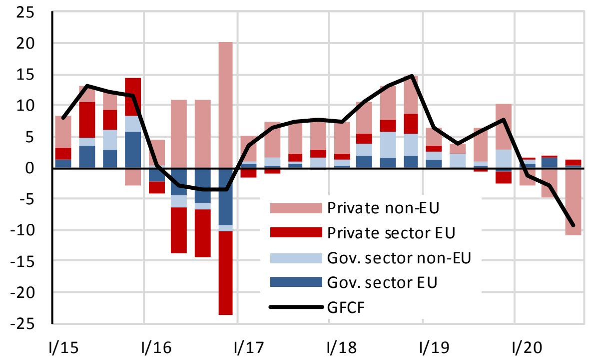
YoY growth rate of real GFCF in %, contributions in percentage points



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

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
								Estimate	*Forecast*	*Outlook*	*Outlook*
Gross domestic product	*bill. CZK 2015*	**4 389**	**4 625**	**4 743**	**4 988**	**5 147**	**5 267**	**4 944**	**5 095**	**5 270**	**5 382**
	growth in %	2.3	5.4	2.5	5.2	3.2	2.3	-6.1	3.1	3.4	2.1
	growth in % [1]	2.3	5.5	2.4	5.4	3.2	2.2	-6.1	3.0	3.4	2.3
Private consumption expenditure [2]	*bill. CZK 2015*	**2 100**	**2 181**	**2 264**	**2 355**	**2 438**	**2 512**	**2 385**	**2 464**	**2 535**	**2 580**
	growth in %	1.4	3.9	3.8	4.0	3.5	3.0	-5.1	3.3	2.9	1.8
Government consumption exp.	*bill. CZK 2015*	**860**	**875**	**897**	**913**	**948**	**969**	**989**	**1 017**	**1 038**	**1 059**
	growth in %	1.0	1.8	2.5	1.8	3.8	2.2	2.1	2.9	2.0	2.0
Gross capital formation	*bill. CZK 2015*	**1 144**	**1 294**	**1 243**	**1 323**	**1 425**	**1 447**	**1 256**	**1 305**	**1 375**	**1 443**
	growth in %	7.1	13.1	-4.0	6.5	7.7	1.6	-13.2	3.9	5.4	5.0
Gross fixed capital formation	*bill. CZK 2015*	1 119	1 227	1 190	1 248	1 374	1 405	1 290	1 339	1 384	1 435
	growth in %	3.3	9.7	-3.0	4.9	10.0	2.3	-8.2	3.8	3.4	3.6
Change in stocks and valuables	*bill. CZK 2015*	26	67	53	75	51	42	-34	-34	-10	9
Exports of goods and services	*bill. CZK 2015*	**3 514**	**3 726**	**3 888**	**4 168**	**4 322**	**4 379**	**4 065**	**4 254**	**4 496**	**4 676**
	growth in %	8.7	6.0	4.3	7.2	3.7	1.3	-7.2	4.7	5.7	4.0
Imports of goods and services	*bill. CZK 2015*	**3 230**	**3 451**	**3 549**	**3 771**	**3 989**	**4 044**	**3 763**	**3 961**	**4 189**	**4 399**
	growth in %	10.0	6.8	2.8	6.3	5.8	1.4	-6.9	5.3	5.8	5.0
Gross domestic expenditure	*bill. CZK 2015*	**4 104**	**4 351**	**4 404**	**4 592**	**4 810**	**4 928**	**4 637**	**4 792**	**4 953**	**5 087**
	growth in %	2.8	6.0	1.2	4.3	4.8	2.4	-5.9	3.4	3.4	2.7
Methodological discrepancy [3]	*bill. CZK 2015*	1	0	0	-1	3	4	12	16	16	23
Real gross domestic income	*bill. CZK 2015*	**4 375**	**4 625**	**4 780**	**4 988**	**5 148**	**5 286**	**5 017**	**5 166**	**5 340**	**5 465**
	growth in %	3.4	5.7	3.4	4.3	3.2	2.7	-5.1	3.0	3.4	2.3
Contributions to GDP growth [4]											
Gross domestic expenditure	*pp*	**2.7**	**5.6**	**1.2**	**3.9**	**4.4**	**2.3**	**-5.6**	**3.1**	**3.1**	**2.5**
Consumption	*pp*	**0.9**	**2.2**	**2.3**	**2.3**	**2.4**	**1.9**	**-2.0**	**2.2**	**1.8**	**1.3**
Household expenditure	*pp*	0.7	1.9	1.8	1.9	1.7	1.4	-2.4	1.6	1.4	0.8
Government expenditure	*pp*	0.2	0.3	0.5	0.3	0.7	0.4	0.4	0.6	0.4	0.4
Gross capital formation	*pp*	**1.8**	**3.4**	**-1.1**	**1.7**	**2.0**	**0.4**	**-3.6**	**1.0**	**1.3**	**1.3**
Gross fixed capital formation	*pp*	0.8	2.5	-0.8	1.2	2.5	0.6	-2.2	1.0	0.9	0.9
Change in stocks	*pp*	1.0	0.9	-0.3	0.5	-0.5	-0.2	-1.4	0.0	0.5	0.3
Foreign balance	*pp*	**-0.4**	**-0.2**	**1.4**	**1.2**	**-1.2**	**0.0**	**-0.6**	**-0.1**	**0.3**	**-0.4**
External balance of goods	*pp*	0.0	-1.0	1.0	0.9	-1.0	0.5	-0.4	0.0	0.3	-0.4
External balance of services	*pp*	-0.4	0.8	0.4	0.3	-0.2	-0.5	-0.2	0.0	0.0	0.0
Gross value added	*bill. CZK 2015*	**3 974**	**4 165**	**4 269**	**4 491**	**4 643**	**4 745**	**.**	**.**	**.**	**.**
	growth in %	2.9	4.8	2.5	5.2	3.4	2.2	.	.	.	.
Net taxes and subsidies on products	*bill. CZK 2015*	**416**	**460**	**474**	**497**	**504**	**521**	**.**	**.**	**.**	**.**

[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

		2020				2021			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
					Estimate	*Forecast*	*Forecast*	*Forecast*	*Forecast*
Gross domestic product	*bill. CZK 2015*	**1 215**	**1 185**	**1 275**	**1 268**	**1 169**	**1 286**	**1 306**	**1 333**
	growth in %	-1.7	-10.7	-5.3	-6.5	-3.8	8.5	2.4	5.1
	growth in % [1]	-1.9	-10.8	-5.0	-6.8	-3.4	8.0	2.8	5.2
	QoQ in % [1]	-3.3	-8.5	6.9	-1.5	0.2	2.3	1.8	0.8
Private consumption expenditure [2]	*bill. CZK 2015*	**598**	**578**	**611**	**598**	**570**	**615**	**633**	**646**
	growth in %	0.0	-8.0	-3.9	-8.0	-4.8	6.4	3.6	8.1
Government consumption exp.	*bill. CZK 2015*	**235**	**242**	**239**	**273**	**241**	**251**	**246**	**279**
	growth in %	4.2	1.9	0.4	1.9	2.6	3.9	2.8	2.4
Gross capital formation	*bill. CZK 2015*	**282**	**321**	**333**	**319**	**264**	**357**	**349**	**335**
	growth in %	-8.8	-8.2	-16.4	-18.0	-6.4	11.2	4.7	4.8
Gross fixed capital formation	*bill. CZK 2015*	290	313	323	363	280	316	349	393
	growth in %	-3.9	-4.9	-11.5	-11.0	-3.4	0.8	8.0	8.2
Change in stocks and valuables	*bill. CZK 2015*	-7	8	10	-44	-16	41	-1	-58
Exports of goods and services	*bill. CZK 2015*	**1 071**	**857**	**1 027**	**1 109**	**1 040**	**973**	**1 069**	**1 172**
	growth in %	-1.5	-23.3	-3.6	0.1	-2.9	13.6	4.1	5.6
Imports of goods and services	*bill. CZK 2015*	**973**	**818**	**935**	**1 037**	**949**	**913**	**992**	**1 107**
	growth in %	-1.3	-18.4	-5.8	-2.5	-2.4	11.5	6.1	6.8
Gross domestic expenditure	*bill. CZK 2015*	**1 118**	**1 142**	**1 183**	**1 194**	**1 078**	**1 223**	**1 227**	**1 264**
	growth in %	-1.5	-6.0	-6.9	-8.7	-3.5	7.1	3.7	5.9
Methodological discrepancy [3]	*bill. CZK 2015*	**0**	**6**	**0**	**5**	**3**	**3**	**2**	**8**
Real gross domestic income	*bill. CZK 2015*	**1 226**	**1 204**	**1 295**	**1 293**	**1 185**	**1 308**	**1 321**	**1 351**
	growth in %	-1.4	-9.6	-3.9	-5.2	-3.3	8.7	2.1	4.5
Gross value added	*bill. CZK 2015*	**1 108**	**1 068**	**1 148**	**.**	**.**	**.**	**.**	**.**
	growth in %	-1.1	-10.8	-5.2	.	.	.	.	.
	growth in % [1]	-1.4	-11.0	-4.9	.	.	.	.	.
	QoQ in % [1]	-2.4	-9.4	7.3	.	.	.	.	.
Net taxes and subsidies on products	*bill. CZK 2015*	**106**	**117**	**127**	**.**	**.**	**.**	**.**	**.**

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

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

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

Source: CZSO. Calculations and forecast of the MoF.

Table 3.1.3: Nominal GDP by Type of Expenditure – yearly

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
								Estimate	*Forecast*	*Outlook*	*Outlook*
Gross domestic product	*bill. CZK*	**4 346**	**4 625**	**4 797**	**5 111**	**5 410**	**5 749**	**5 613**	**5 874**	**6 177**	**6 432**
	growth in %	4.9	6.4	3.7	6.5	5.8	6.3	-2.4	4.7	5.2	4.1
Private consumption expenditure [1)]	*bill. CZK*	**2 100**	**2 181**	**2 273**	**2 420**	**2 568**	**2 720**	**2 656**	**2 787**	**2 923**	**3 031**
	growth in %	2.3	3.9	4.2	6.5	6.1	5.9	-2.4	4.9	4.9	3.7
Government consumption exp.	*bill. CZK*	**840**	**875**	**910**	**959**	**1 049**	**1 134**	**1 208**	**1 265**	**1 313**	**1 362**
	growth in %	2.8	4.1	4.0	5.4	9.4	8.1	6.6	4.8	3.8	3.7
Gross capital formation	*bill. CZK*	**1 130**	**1 294**	**1 248**	**1 348**	**1 472**	**1 549**	**1 378**	**1 464**	**1 570**	**1 680**
	growth in %	9.1	14.5	-3.6	8.0	9.2	5.2	-11.0	6.2	7.3	7.0
Gross fixed capital formation	*bill. CZK*	1 104	1 227	1 196	1 273	1 423	1 509	1 418	1 503	1 586	1 677
	growth in %	5.1	11.2	-2.5	6.4	11.7	6.0	-6.0	6.0	5.5	5.7
Change in stocks and valuables	*bill. CZK*	26	67	52	74	49	40	-40	-39	-16	4
External balance	*bill. CZK*	**275**	**275**	**366**	**384**	**321**	**346**	**372**	**359**	**371**	**359**
Exports of goods and services	*bill. CZK*	3 562	3 726	3 795	4 039	4 163	4 277	3 991	4 142	4 361	4 540
	growth in %	13.0	4.6	1.8	6.4	3.1	2.7	-6.7	3.8	5.3	4.1
Imports of goods and services	*bill. CZK*	3 286	3 451	3 429	3 654	3 842	3 931	3 620	3 783	3 990	4 182
	growth in %	12.7	5.0	-0.7	6.6	5.1	2.3	-7.9	4.5	5.5	4.8
Gross national income	*bill. CZK*	**4 047**	**4 308**	**4 473**	**4 821**	**5 113**	**5 402**	**5 363**	**5 515**	**5 794**	**6 024**
	growth in %	4.3	6.4	3.8	7.8	6.0	5.7	-0.7	2.8	5.1	4.0
Primary income balance	*bill. CZK*	**-298**	**-317**	**-324**	**-289**	**-297**	**-347**	**-250**	**-360**	**-384**	**-408**

[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

		2020				2021			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
					Estimate	*Forecast*	*Forecast*	*Forecast*	*Forecast*
Gross domestic product	*bill. CZK*	**1 353**	**1 340**	**1 450**	**1 469**	**1 329**	**1 476**	**1 505**	**1 565**
	growth in %	1.9	-7.0	-1.4	-2.7	-1.8	10.1	3.8	6.5
Private consumption expenditure [1]	*bill. CZK*	**664**	**644**	**681**	**667**	**640**	**697**	**715**	**735**
	growth in %	3.8	-5.0	-1.6	-6.2	-3.7	8.2	5.0	10.2
Government consumption exp.	*bill. CZK*	**278**	**289**	**294**	**347**	**290**	**306**	**307**	**362**
	growth in %	9.5	5.5	5.2	6.3	4.4	5.8	4.5	4.3
Gross capital formation	*bill. CZK*	**305**	**350**	**366**	**357**	**293**	**393**	**393**	**385**
	growth in %	-6.4	-6.2	-14.4	-15.5	-4.1	12.4	7.4	7.8
Gross fixed capital formation	*bill. CZK*	314	343	357	404	310	354	394	446
	growth in %	-1.3	-2.8	-9.4	-9.0	-1.2	3.0	10.3	10.5
Change in stocks and valuables	*bill. CZK*	-9	7	9	-47	-17	40	-1	-61
External balance	*bill. CZK*	**106**	**58**	**109**	**98**	**107**	**80**	**90**	**83**
Exports of goods and services	*bill. CZK*	1 038	852	1 001	1 100	1 020	940	1 036	1 146
	growth in %	-2.4	-22.1	-3.8	2.1	-1.8	10.3	3.5	4.2
Imports of goods and services	*bill. CZK*	932	794	891	1 002	913	860	946	1 064
	growth in %	-2.5	-18.7	-8.0	-2.5	-2.0	8.3	6.1	6.1

[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

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
								Estimate	*Forecast*	*Outlook*	*Outlook*
GDP	*bill. CZK*	**4 346**	**4 625**	**4 797**	**5 111**	**5 410**	**5 749**	**5 613**	**5 874**	**6 177**	**6 432**
	growth in %	4.9	6.4	3.7	6.5	5.8	6.3	-2.4	4.7	5.2	4.1
Balance of taxes and subsidies	*bill. CZK*	**384**	**434**	**454**	**493**	**504**	**534**	**453**	**514**	**555**	**586**
	% of GDP	8.8	9.4	9.5	9.7	9.3	9.3	8.1	8.8	9.0	9.1
	growth in %	-4.3	13.0	4.8	8.6	2.2	5.9	-15.1	13.4	7.9	5.6
Taxes on production and imports	*bill. CZK*	521	570	595	635	656	697	.	.	.	.
	growth in %	-1.2	9.6	4.4	6.6	3.3	6.2	.	.	.	.
Subsidies on production	*bill. CZK*	137	137	141	142	152	163	.	.	.	.
	growth in %	8.5	-0.1	3.2	0.4	7.2	7.5	.	.	.	.
Compensation of employees	*bill. CZK*	**1 800**	**1 891**	**2 003**	**2 185**	**2 399**	**2 562**	**2 583**	**2 605**	**2 670**	**2 747**
(domestic concept)	*% of GDP*	41.4	40.9	41.7	42.8	44.3	44.6	46.0	44.3	43.2	42.7
	growth in %	3.7	5.1	5.9	9.1	9.8	6.8	0.8	0.8	2.5	2.9
Wages and salaries	*bill. CZK*	1 386	1 455	1 538	1 680	1 842	1 965	1 970	1 994	2 046	2 106
	growth in %	3.9	5.0	5.7	9.2	9.6	6.7	0.2	1.2	2.6	2.9
Social security contributions	*bill. CZK*	414	437	464	505	557	597	613	611	624	642
	growth in %	3.1	5.5	6.4	8.7	10.3	7.2	2.7	-0.4	2.1	2.9
Gross operating surplus	*bill. CZK*	**2 162**	**2 300**	**2 340**	**2 432**	**2 506**	**2 653**	**2 577**	**2 755**	**2 952**	**3 098**
	% of GDP	49.8	49.7	48.8	47.6	46.3	46.1	45.9	46.9	47.8	48.2
	growth in %	7.8	6.4	1.7	4.0	3.0	5.8	-2.9	6.9	7.1	4.9
Consumption of capital	*bill. CZK*	923	957	988	1 022	1 074	1 141	1 192	1 258	1 318	1 367
	growth in %	3.7	3.8	3.2	3.5	5.0	6.3	4.5	5.5	4.8	3.7
Net operating surplus	*bill. CZK*	1 240	1 343	1 352	1 410	1 433	1 511	1 384	1 497	1 634	1 731
	growth in %	11.0	8.3	0.6	4.3	1.6	5.5	-8.4	8.2	9.1	5.9

Source: CZSO. Calculations and forecast of the MoF.

Table 3.1.6: GDP by Type of Income – quarterly

		2020				2021			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
					Estimate	*Forecast*	*Forecast*	*Forecast*	*Forecast*
GDP	*bill. CZK*	**1 353**	**1 340**	**1 450**	**1 469**	**1 329**	**1 476**	**1 505**	**1 565**
	growth in %	1.9	-7.0	-1.4	-2.7	-1.8	10.1	3.8	6.5
Balance of taxes and subsidies	*bill. CZK*	**100**	**109**	**133**	**113**	**102**	**129**	**137**	**147**
	growth in %	-9.2	-21.3	-10.3	-18.6	2.1	18.4	3.6	30.4
Compensation of employees	*bill. CZK*	**637**	**625**	**633**	**688**	**638**	**633**	**637**	**696**
(domestic concept)	*growth in %*	4.0	-2.5	0.3	1.6	0.2	1.3	0.6	1.2
Wages and salaries	*bill. CZK*	488	459	492	531	489	470	498	537
	growth in %	4.2	-6.4	1.2	1.9	0.2	2.4	1.3	1.1
Social security contributions	*bill. CZK*	149	166	141	157	150	163	139	159
	growth in %	3.2	10.1	-2.9	0.6	0.3	-1.7	-1.7	1.4
Gross operating surplus	*bill. CZK*	**616**	**607**	**685**	**669**	**588**	**714**	**731**	**722**
	growth in %	1.9	-8.4	-0.9	-3.7	-4.6	17.7	6.7	8.0

Source: CZSO. Calculations and forecast of the MoF.

3.2 Prices

The **average inflation rate**, measured by the consumer price index, was 3.2% in 2020 (*as forecast*). Inflation was affected by both supply and demand factors, the composition and interaction of which is particularly difficult to assess. While the impact of the pandemic, or more specifically the measures to stamp it out, was plainly negative for economic growth, the effect was ambiguous in the case of inflation. This is because there were restrictions of both aggregate supply, which has pro-inflationary effects, and aggregate demand, which has an anti-inflationary effect. The supply effects seem to have prevailed at first, with demand effects likely to be more pronounced after a time lag, following a gradual rise in unemployment. The dominant cost factor for inflation in 2020 was the exceptionally strong growth in unit labour costs. Inflation was also supported by exchange rate developments. On the other hand, demand factors such as household consumption and the output gap inhibited inflation. Of the items in the consumer basket, food and non-alcoholic beverages (0.8 pp), housing (0.7 pp), and alcoholic beverages and tobacco (0.6 pp) contributed significantly to the average inflation rate. Administrative measures added 0.5 pp to last year's average inflation rate.

In 2020, the year-on-year inflation was generally above the upper limit of the tolerance band around the CNB's 2% inflation target, but then slowed down in the fourth quarter to stand at 2.3% (*versus 2.7%*) in December. Lower prices of food and non-alcoholic beverages contributed to the deviation from the previous forecast. The contribution made by administrative measures to December's year-on-year inflation was just 0.2 pp.

As far as assumptions of the macroeconomic forecast determining price developments are concerned, there were no significant changes in the exchange rates and the price of oil. However, the macroeconomic forecast now draws on lower effective taxation of wage income (see section 5). All things being equal, this would result in a slight increase in the inflation forecast for 2021, mainly due to growth in disposable income and household consumption.

Inflation is expected to go down **in 2021**. Administrative measures will probably add only 0.2 pp (*versus 0.4 pp*) to the average inflation rate. As regulated prices should almost stagnate, this contribution reflects changes in indirect taxes, with a further increase in the excise duty on manufactured tobacco and a reduction in the excise duty on diesel coming to the fore. This year, inflation should therefore be driven primarily by market factors. With the exception of the price of oil, stronger pro-inflationary factors will be absent. Renewed household consumption growth amid an enduring negative output gap should not have any significant inflationary effects. The fall in unit labour costs should slow down inflation. The appreciation of the Czech koruna against both of the world's main currencies should also inhibit inflation somewhat.

In 2021, the year-on-year inflation will probably hover within the CNB's inflation target's tolerance band. We expect the **average inflation rate in 2021** to slow down to 1.9% (*unchanged*).

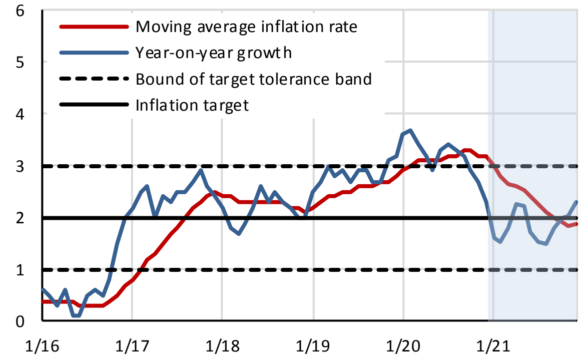
In Q3 2020, the **GDP deflator** increased by 4.2% (*versus 3.8%*), with the domestic final use deflator growing by 3.0% (*versus 3.3%*) and terms of trade improving by 2.2% (*versus 1.0%*). Developments in the domestic final use deflator reflected growth in the deflators of all domestic demand components.

We estimate that the GDP deflator increased by 4.0% (*versus 3.6%*) in 2020. In 2021, its growth could slow to 1.5% (*versus 1.4%*) due to worse developments in terms of trade and the slackening momentum of household and general government consumption deflators. The situation is clearly depicted in Graph 3.2.4.

The developments in both export and import prices were affected in particular by the sharp fall in oil prices in 2020. The renewed appreciation of the exchange rate should be felt in 2021. As a result, terms of trade may have improved by 1.6% (*versus 1.0%*) in 2020, with a slight deterioration by 0.1% (*unchanged*) forecast for this year.

Graph 3.2.1: Consumer Prices

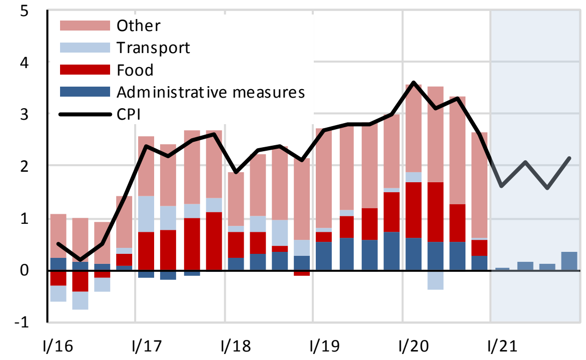
YoY growth rate in %



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

Graph 3.2.2: Consumer Prices in Main Divisions

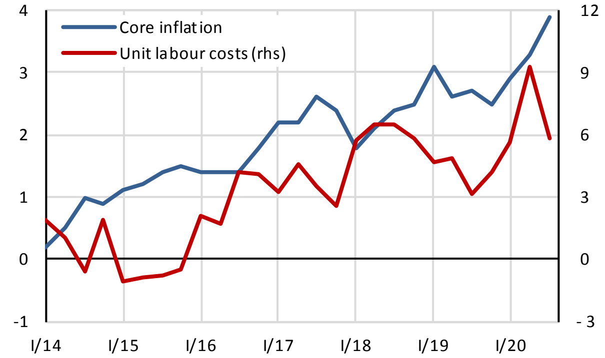
YoY growth of consumer price index in %, contributions in pp



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.3: Core Inflation and Unit Labour Costs

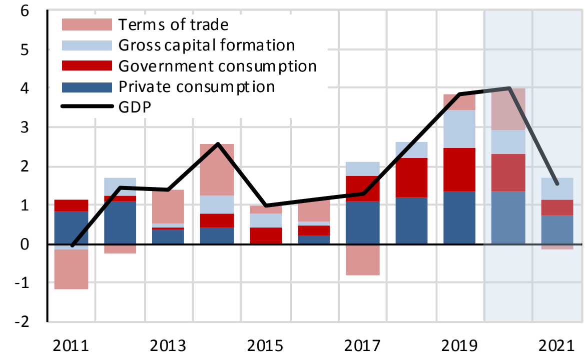
YoY growth rate in %



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.4: Gross Domestic Product Deflator

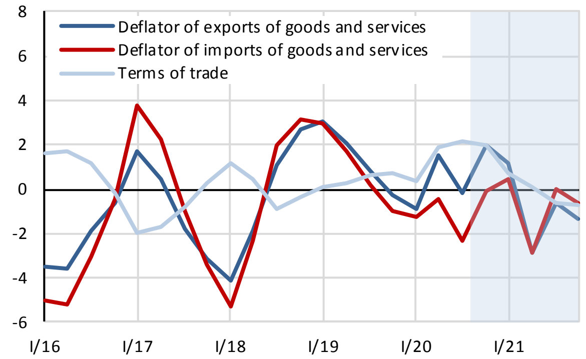
growth rate in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.5: Terms of Trade

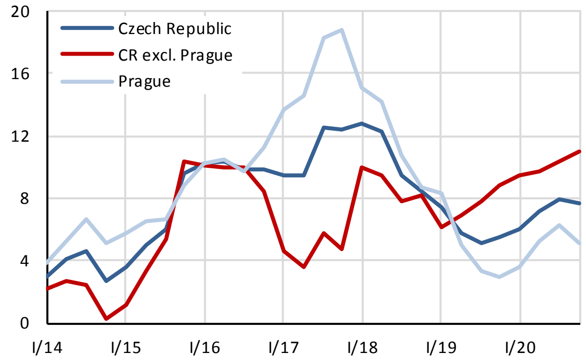
YoY growth rate in %



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.6: Offering Prices of Flats

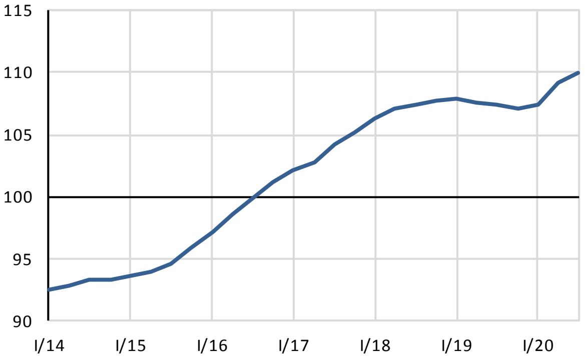
YoY growth rate in %



Source: CZSO.

Graph 3.2.7: 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 of the MoF.

Table 3.2.1: Prices – yearly

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
								Estimate	*Forecast*	*Outlook*	*Outlook*
Consumer Price Index											
Level	*average 2015=100*	**99.7**	**100.0**	**100.7**	**103.1**	**105.3**	**108.3**	**111.8**	**113.8**	**116.2**	**118.4**
Average inflation rate	*%*	**0.4**	**0.3**	**0.7**	**2.5**	**2.1**	**2.8**	**3.2**	**1.9**	**2.0**	**1.9**
Administrative measures [1]	*percentage points*	-0.4	0.2	0.2	-0.1	0.3	0.6	0.5	0.2	0.5	0.4
Market increase	*percentage points*	0.8	0.1	0.5	2.6	1.8	2.2	2.7	1.7	1.6	1.5
Level in December	*average 2015=100*	**99.5**	**99.5**	**101.5**	**103.9**	**106.0**	**109.4**	**111.9**	**114.5**	**116.7**	**118.9**
Annual inflation in December	*%*	**0.1**	**0.1**	**2.0**	**2.4**	**2.0**	**3.2**	**2.3**	**2.3**	**1.9**	**1.9**
Harmonized index of consumer prices											
Level	*average 2015=100*	**99.8**	**100.0**	**100.7**	**103.1**	**105.1**	**107.8**	**111.4**	**113.4**	**115.6**	**117.7**
Average inflation rate	*growth in %*	**0.4**	**0.3**	**0.6**	**2.4**	**2.0**	**2.6**	**3.3**	**1.8**	**2.0**	**1.8**
Deflators											
GDP	*average 2015=100*	**99.0**	**100.0**	**101.1**	**102.5**	**105.1**	**109.2**	**113.5**	**115.3**	**117.2**	**119.5**
	growth in %	2.6	1.0	1.1	1.3	2.6	3.9	4.0	1.5	1.7	2.0
Domestic final use	*average 2015=100*	**99.2**	**100.0**	**100.6**	**102.9**	**105.8**	**109.6**	**113.1**	**115.1**	**117.2**	**119.4**
	growth in %	1.3	0.8	0.6	2.3	2.8	3.7	3.1	1.8	1.9	1.8
Consumption of households	*average 2015=100*	**100.0**	**100.0**	**100.4**	**102.7**	**105.3**	**108.3**	**111.4**	**113.1**	**115.3**	**117.5**
	growth in %	0.8	0.0	0.4	2.3	2.5	2.8	2.8	1.6	1.9	1.9
Consumption of government	*average 2015=100*	**97.7**	**100.0**	**101.4**	**105.0**	**110.6**	**117.0**	**122.2**	**124.4**	**126.5**	**128.6**
	growth in %	1.8	2.3	1.4	3.5	5.4	5.8	4.4	1.8	1.7	1.7
Fixed capital formation	*average 2015=100*	**98.7**	**100.0**	**100.5**	**102.0**	**103.6**	**107.4**	**109.9**	**112.3**	**114.6**	**116.9**
	growth in %	1.8	1.3	0.5	1.5	1.6	3.7	2.3	2.2	2.0	2.0
Exports of goods and services	*average 2015=100*	**101.3**	**100.0**	**97.6**	**96.9**	**96.3**	**97.7**	**98.2**	**97.3**	**97.0**	**97.1**
	growth in %	4.0	-1.3	-2.4	-0.7	-0.6	1.4	0.5	-0.9	-0.4	0.1
Imports of goods and services	*average 2015=100*	**101.7**	**100.0**	**96.6**	**96.9**	**96.3**	**97.2**	**96.2**	**95.5**	**95.2**	**95.1**
	growth in %	2.5	-1.7	-3.4	0.3	-0.6	0.9	-1.0	-0.7	-0.3	-0.2
Terms of trade	*average 2015=100*	**99.6**	**100.0**	**101.0**	**100.0**	**100.0**	**100.5**	**102.1**	**101.9**	**101.8**	**102.2**
	growth in %	1.5	0.4	1.0	-1.0	0.0	0.5	1.6	-0.1	-0.1	0.3

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

Table 3.2.2: Prices – quarterly

		2020				2021			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
					Estimate	*Forecast*	*Forecast*	*Forecast*	*Forecast*
Consumer Price Index	*average 2015=100*	**111.2**	**111.5**	**112.4**	**112.0**	**113.0**	**113.8**	**114.2**	**114.4**
	growth in %	3.6	3.1	3.3	2.6	1.6	2.1	1.6	2.1
Of which the contribution of:									
Administrative measures [1]	*percentage points*	0.6	0.5	0.6	0.3	0.0	0.2	0.1	0.3
Market increase	*percentage points*	3.0	2.6	2.7	2.3	1.6	1.9	1.5	1.8
Harmonized index of consumer	*average 2015=100*	**110.7**	**111.1**	**112.1**	**111.6**	**112.5**	**113.4**	**113.8**	**113.8**
prices	*growth in %*	3.7	3.3	3.5	2.7	1.7	2.0	1.5	2.0
Deflators									
GDP	*average 2015=100*	**111.4**	**113.1**	**113.7**	**115.9**	**113.7**	**114.7**	**115.2**	**117.4**
	growth in %	3.7	4.1	4.2	4.2	2.0	1.5	1.3	1.3
Domestic final use	*average 2015=100*	**111.6**	**112.3**	**113.3**	**114.9**	**113.3**	**114.1**	**115.3**	**117.3**
	growth in %	3.8	3.0	3.0	2.9	1.6	1.6	1.8	2.1
Consumption of households	*average 2015=100*	**111.0**	**111.4**	**111.6**	**111.6**	**112.3**	**113.3**	**113.0**	**113.7**
	growth in %	3.8	3.2	2.5	2.0	1.2	1.7	1.3	2.0
Consumption of government	*average 2015=100*	**118.0**	**119.6**	**123.0**	**127.3**	**120.1**	**121.9**	**125.0**	**129.7**
	growth in %	5.1	3.6	4.7	4.4	1.8	1.9	1.7	1.9
Fixed capital formation	*average 2015=100*	**108.4**	**109.5**	**110.4**	**111.0**	**110.7**	**111.9**	**112.7**	**113.4**
	growth in %	2.7	2.3	2.4	2.3	2.2	2.1	2.1	2.1
Exports of goods and services	*average 2015=100*	**96.9**	**99.4**	**97.5**	**99.2**	**98.0**	**96.6**	**96.9**	**97.8**
	growth in %	-0.9	1.5	-0.2	1.9	1.2	-2.8	-0.6	-1.4
Imports of goods and services	*average 2015=100*	**95.8**	**97.1**	**95.4**	**96.6**	**96.2**	**94.3**	**95.4**	**96.1**
	growth in %	-1.3	-0.4	-2.3	0.0	0.4	-2.9	0.0	-0.6
Terms of trade	*average 2015=100*	**101.2**	**102.4**	**102.2**	**102.6**	**101.9**	**102.4**	**101.6**	**101.8**
	growth in %	0.4	1.9	2.2	2.0	0.7	0.0	-0.6	-0.8

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

3.3 Labour Market

The impact of the deep economic recession, caused by the COVID-19 pandemic and the anti-epidemic measures taken in response, on the labour market have been significantly cushioned by government programmes. The internationally comparable unemployment rate has so far grown only very slightly. Not even registered unemployment has risen that much. According to all available statistics, however, there was a year-on-year decline in employment, despite the number of vacancies still exceeding 300,000. Labour market developments in 2020 and the effects of the COVID-19 epidemic are discussed in more detail in Box 1.

The Labour Force Survey shows that **employment** fell by 1.4% YoY (*versus 1.3%*) in Q3 2020. The number of employees went down by 1.4% (*versus 1.1%*) and the number of entrepreneurs fell by 1.2% (*versus 2.3%*). While the number of own-account workers shrank by only 0.6% YoY, the number of entrepreneurs with employees slumped by 5.1% (however, this is a highly volatile indicator). From the perspective of employees and own-account workers, government measures such as the Antivirus Programme and compensation bonuses for sole traders prevented the situation from being even worse.

From a sectoral perspective, the biggest contributor to the employment downturn (business statistics, full-time equivalent) was manufacturing, which shed almost 60,000 jobs. There was also a sharp decline in administrative and support service activities (this sector includes agency workers, a significant proportion of whom work in industry), in accommodation and food service activities, and in transportation and storage.

Broken down by age structure, employment fell most in the 20–24 and 35–39 age groups. The decrease in younger of these age groups can probably be explained by a fall in casual jobs. In the 35–39 age group, the decline can be attributed in part to an increase in the parental allowance as of 1 January 2020, combined with the deteriorating economic conditions.

According to job vacancy figures, a labour shortage was evident in practically all sectors and regions throughout 2020. In December 2020, there were more vacancies than unemployed persons in six regions and 38 districts. The labour shortage was singled out as the main barrier to output growth by more than a third of construction companies, but only by 13% of industrial enterprises and 11% of services companies in Q4 2020.

Despite the major deterioration in much of the economy, companies have not yet laid off foreign workers on a larger scale. In fact, in November 2020 their numbers even increased year on year by 15,000 to 661,000.

A host of government measures have inhibited the impact of the severe economic downturn on the labour market. The headline scheme is the Antivirus Programme, under which employers receive contributions to cover wage costs. We assume that the effects of the economic downturn on the labour market will continue to be mitigated by government measures. The Antivirus scheme was extended until the end of February 2021. It should be followed by a partial employment subsidy, the so-called kurzarbeit.

Taking into account these factors, we estimate that employment decreased by 1.1% (*versus 1.2%*) in 2020 and will further decline by 0.6% (*versus 0.7%*) in 2021. The fallout from the recession should be felt on the labour market with a greater lag. This can be attributed to the government measures.

For the same reasons, the **unemployment rate** (Labour Force Survey) was just 2.9% (*versus 2.8%*) in Q3 2020. We estimate that it averaged 2.6% (*unchanged*) in 2020 and that it will increase only slightly to 3.3% (*versus 3.4%*) in 2021. Higher unemployment growth is being stalled not only by the ongoing government schemes, but also by the still high demand for labour, which is evident in the number of vacancies and the numbers of foreign workers.

The **share of unemployed persons** (Ministry of Labour and Social Affairs) also expanded only slightly. Higher rises were evident in regions that are more geared towards tourism (such as Prague and the surrounding area, and Karlovy Vary). In the fourth quarter, the share of unemployed persons was 3.8% (*versus 4.1%*). Data from the end of the year suggests that the second wave of the COVID-19 pandemic had virtually no effect on the labour market. The share of unemployed persons averaged 3.5% (*versus 3.6%*) in 2020. In 2021, we forecast an increase to 4.1% (*versus 4.6%*).

The **participation rate** (20–64 years) came to 82.0% (*versus 82.1%*) in Q3 2020, reflecting the decline in employment. Demographic aspects, namely the growing share of age groups with naturally high levels of economic activity (especially those in the 40–54 bracket), will continue to play a major role in the further development of the participation rate. The rising statutory retirement age is another factor. We estimate that the participation rate in 2020, on account of these factors, reached 81.8% (*versus 82.0%*). In 2021, considering the forecast for employment and unemployment and the decline in the working-age population, the participation rate could increase to 82.6% (*unchanged*). This development will reflect, to some degree, the poorer prospects faced by school-leavers and graduates on the labour market (i.e. the flow from inactivity to unemployment) and the impact of the tax package. However, the increase in the economic activity rate could be hampered by a decline in the participation of people approaching retirement age, larger numbers of whom could take early retirement.

The volume of wages and salaries went up by 1.2% (*versus a 3.1% downturn*) in Q3 2020, with the number of employees going down by 1.7%. The main contributors to growth were public administration, defence, education, and health and social care, where earnings increased by 9.0%. By contrast, earnings fell by 3.7% in manufacturing and by 2.8% in trade, transport, accommodation and food service activities.

Government support mechanisms, which have resulted in a relatively stable unemployment rate, continue to cushion the negative effects that weaker economic activity is having on wage and salary growth. Redundancies are more common among the lowest-paid professions and those employed under work agreements (not employment contracts). This is compounded by the more palpable influence that restrictive measures have on lower-paid sectors, which reduces the effective impact on the momentum of overall earnings. We estimate that the volume of wages and salaries may have increased by 1.9% (*versus a decrease of 3.4%*) in Q4 2020 and gone up by 0.2% (*versus a decrease of 1.9%*) in 2020 as a whole.

This year, we expect wage growth in the general government sector (driven by education, health and social services – see section 1.3) to continue at a faster pace than in market sectors. While labour market tensions have been defused, we can also expect the 4.1% increase in the minimum and guaranteed wage to provide a faintly positive impulse. The tax package will lower the effective tax on labour, which could have a positive effect by giving people greater motivation to work. On the other hand, it will reduce employees' pressure to increase gross wages. In this respect, wages and salaries could increase by 1.2% (*versus 0.8%*) this year.

In Q3 2020, the **average wage** (business statistics, full-time equivalent) grew by 5.1% (*versus 1.0%*). The median wage also increased at the same pace over this period. In addition to the 9.4% YoY rise in the minimum and guaranteed wage, the momentum of the average wage is statistically increased by the lay-offs of lower-paid employees, a factor which is currently likely to be increasing. There may have been an increase in the average nominal wage by 5.3% (*versus 0.4%*) in Q4 2020, and by 4.0% (*versus 1.7%*) in 2020 as a whole. This year, due to the aforementioned factors, it could go up by 2.2% (*versus 0.9%*).

Box 1: Selected Aspects of the Labour Market in Relation to the COVID-19 Pandemic

Available data indicates that developments in the labour market in 2020 were much more favourable than would be usual given the scale of the economic slump. Even taking into account the fact that the labour market lags behind economic output by one or two quarters, the economic downturn made itself felt in employment and unemployment only to a limited extent. Government measures and pre-crisis "cushions" in the form of high numbers of vacancies and foreign workers played a positive role. The labour market slack[1], which had fallen sharply before the coronavirus pandemic, has so far increased only slightly (see Graph 1).

In Q2 2020, employment decreased by 1.6% YoY according to the Labour Force Survey, and by 1.9% according to national accounts. In Q3 2020, there was a gentler decrease of 1.4% according to the Labour Force Survey, and 1.7% according to national accounts. From a sectoral perspective, manufacturing and trade, transportation, accommodation and food service activities made a major contribution to the reduction in employment. The statistics paint a different picture when it comes to professional, scientific, technical and administrative activities, which comprise agency workers. The national accounts methodology shows that there was a 5.8% decrease in the second and third quarters, yet, according to the Labour Force Survey, employment in this sector essentially stagnated. This difference can be partly explained by the fact that this sector formally includes agency workers, many of whom could be foreign nationals. However, for methodological reasons, they are generally recorded only to a limited extent in the Labour Force Survey (it is not conducted in collective accommodation establishments, such as hostels).

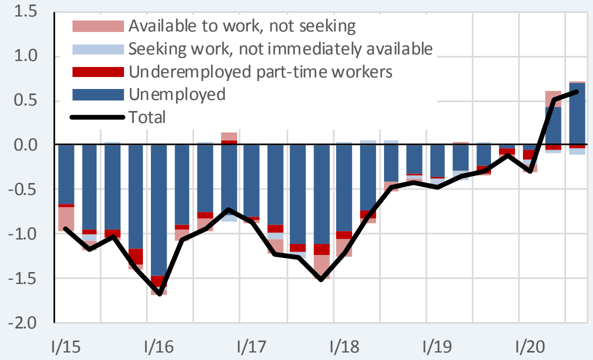
Broken down by labour market status and hours worked, the decline in employment was similarly determined by the reduction in the number of full-time and part-time workers (see Graph 2). However, as the share of part-time workers in total employment is very low, the percentage reduction in employment in this category was much stronger than for full-time workers. In the first three quarters of 2020, the year-on-year decline averaged more than 10%. On the other hand, there had already been a significant decrease in the number of part-time workers prior to the pandemic.

The unemployment rate (LFS) rose from 2.0% in February 2020 to 2.9% in November, growing year on year as of April (see Graph 3). Initially, the increases were much higher among men than women. This was paradoxical in a way because, in the sectors hardest hit by the COVID-19 pandemic (accommodation and food service activities), the majority of workers are women. On the other hand, women predominate in sectors that have hardly been affected by the pandemic at all (public administration, education, and the health sector). Furthermore, Eurostat's experimental statistics on labour market flows show that the rise in women's unemployment in the second and third quarters was dampened by a shift to inactivity to a greater extent than for men.

[1] The sum of the number of unemployed persons, underemployed part-time workers, people available to work but not seeking and those seeking work but not immediately available, in relation to the extended workforce. The extended workforce comprises employed and unemployed persons, people available to work but not seeking and those seeking work but not immediately available.

Graph 1: Labour Market Slack

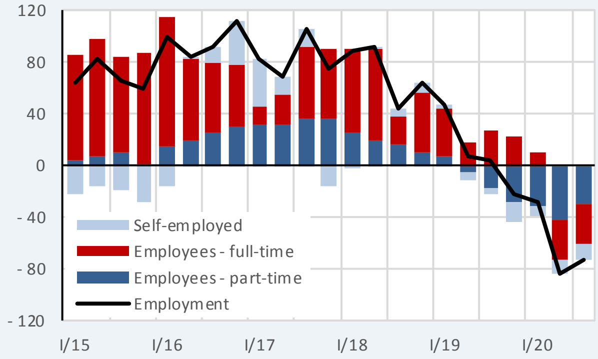
YoY change in percentage points, LFS



Source: Eurostat. Calculations of the MoF.

Graph 2: Employment

YoY change in thousands of persons, LFS

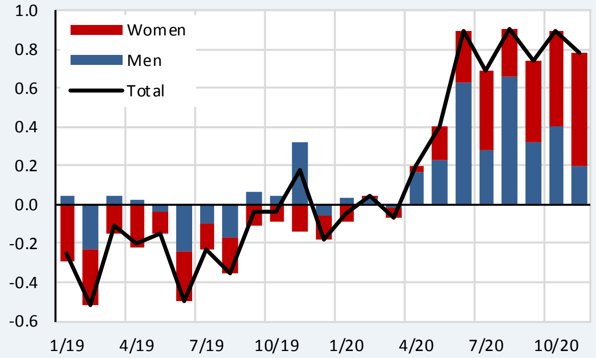


Source: Eurostat. Calculations of the MoF.

Likewise, the share of unemployed persons remains low for the time being, climbing from 3.0% in February to 3.8% in July and then hovering at that level in the subsequent months. In December, it rose slightly to 4.0%. There were year-on-year increases in the number of registered jobseekers starting in April, but the situation stabilised from June (see Graph 4). At the time the COVID-19 pandemic emerged, younger people (under the age of 35) accounted for a large proportion of the increase. These may have been workers made redundant in the sectors most affected. During the third quarter, however, the share of these groups in the increase in the unemployed went down. Conversely, the share of the 45+ age groups went up. These people may face age discrimination in the labour market, and their ICT knowledge and skills and labour mobility may be no match for younger jobseekers. If the macroeconomic situation continues to deteriorate or if the policy support to the economy is diminished, they may become long-term unemployed.

Graph 3: Unemployment Rate

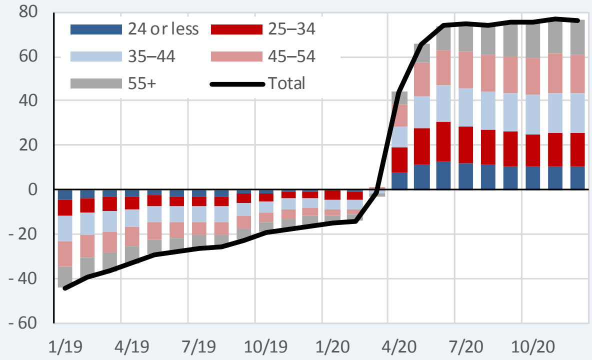
YoY change in percentage points, LFS



Source: CZSO. Calculations of the MoF.

Graph 4: Registered Unemployment

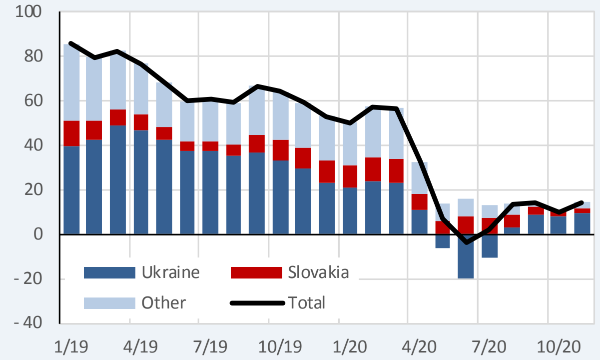
YoY change in thousands of persons



Source: MoLSA. Calculations of the MoF.

Graph 5: Foreigners Employed in the CR

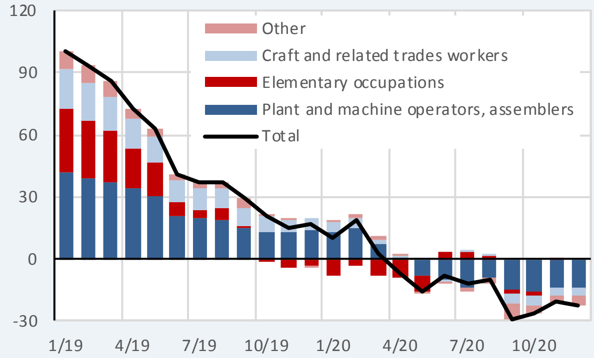
YoY change in thousands of persons



Source: MoLSA. Calculations of the MoF.

Graph 6: Job Vacancies

YoY change in thousands



Source: MoLSA. Calculations of the MoF.

The number of foreign workers grew rapidly up to 2019. It can be assumed that if redundancies are necessary, many companies would lay off foreign nationals first. They would most likely feature in unemployment statistics only to a limited extent. Available data shows that, despite the deep economic downturn, there has not yet been a major reduction in the number of foreign workers. This workforce shrank from 645,000 in March to 603,000 in June, before growing again[2]. In the year-on-year comparison, besides the dip in June, there were slight increases (see Graph 5). By all accounts, these workers do not appear to have been squeezed out of the labour market much. Most employers were probably banking on the fact that the economic downturn would be temporary. Breaking the employment structure of foreigners down by country, there has been little change. Most come from Slovakia and Ukraine, followed by Poland, Romania and Bulgaria. The employment of foreigners continues to be hampered by red tape, but also by the fact that they may not be adequately conditioned to live and work in the Czech setting (MVČR: Koncepce integrace cizinců – ve vzájemném respektu, 2016 [Ministry of the Interior: Concept for the Integration of Foreign Nationals – in Mutual Respect]).

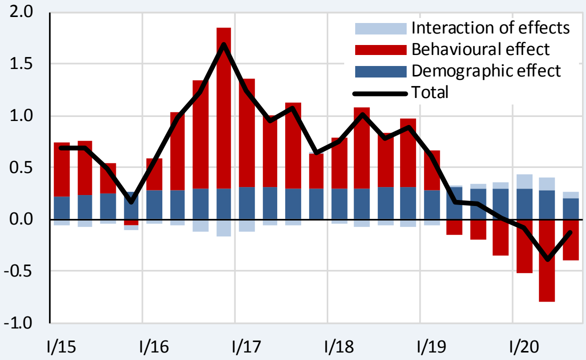
The number of job vacancies remains above 300,000, but has been declining year on year since April (see Graph 6). In recent months, this downturn has been driven by dwindling vacancies for plant and machine operators and assemblers. On the other hand, the number of vacancies for elementary occupations, which is only slightly lower than for plant and machine operators, has gone down only slightly. However, by no means can all job vacancies reported in the official statistics be considered active – on the cut-off date for this forecast, the share of jobs last changed since August 2020 and starting in November 2020 or later was around 38%.

The participation rate for the 20–64 age bracket has been reporting a slight year-on-year decline since the beginning of 2020 (see Graph 7). This is due to the behavioural effect, which, in a fixed demographic structure, only reflects changes in the participation rates of the individual five-year age groups.[3] Conversely, the demographic effect, which only captures changes in the age structure of the working-age population, still has a positive effect accounting for approximately 0.3 pp (0.4 pp for women, 0.2 pp for men). The number of people in the age groups with the highest participation rates is therefore relatively high and rising.

Since Q2 2019, the behavioural effect (see Graph 8) has been negative, reflecting in particular the momentum of this indicator among women. In the group of economically inactive women aged 20–24, there was a strong increase in the number of students (their usual economic status is "in education"). This may be related to the decline in student jobs in sectors hard hit by the economic downturn (tourism and food service activities). The behavioural effect is also negatively impacted by the 35–39 age group, reflecting the growing number of housewives. The decline can be attributed in part to an increase in the parental allowance as of 1 January 2020, combined with the deteriorating economic conditions. Conversely, the gradual increase in the retirement age is making a positive contribution to the participation rate among women. The participation rate among men decreased by 0.3 pp YoY in Q2 2020 (with a negative −0.5 pp contribution by the behavioural effect), but increased to the same extent in the third quarter (with the behavioural effect contributing 0.3 pp). In the second quarter, the most significant contribution was made by the 60–64 age group (−0.2 pp). In the third quarter, the key factor was the trend in the 20–29 age group (0.3 pp). Here, according to data on respondents' usual economic status, the higher student participation in the labour market was reflected.

Graph 7: Participation Rate

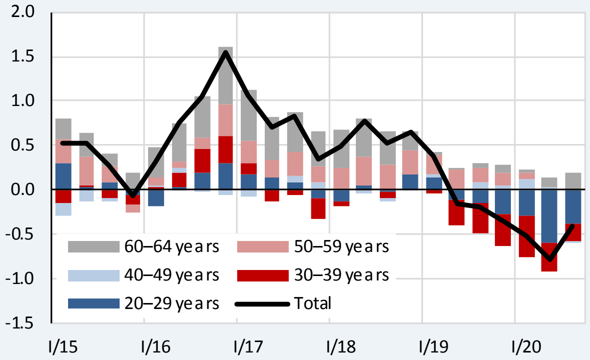
YoY change in percentage points, 20–64 years



Source: Eurostat. Calculations of the MoF.

Graph 8: The Behavioural Effect

contribution to the YoY change in participation rate, in pp, 20–64 years



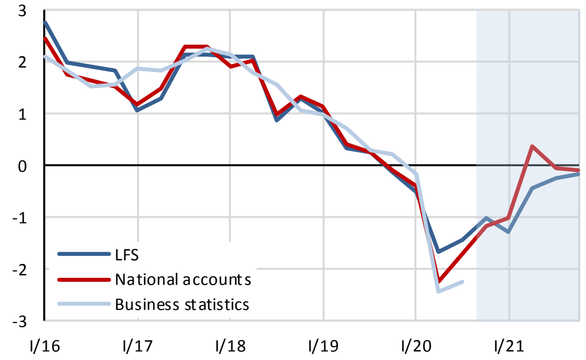
Source: Eurostat. Calculations of the MoF.

[2] The figures are not seasonally adjusted, but in previous years there was always an increase in the number of foreign workers in this period.

[3] For the 60–64 age group, the behavioural effect also includes the impact of extending the statutory retirement age.

Graph 3.3.1: Employees in Different Statistics

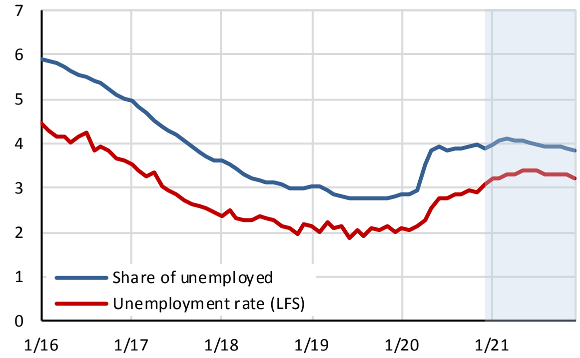
YoY growth rate in%



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.2: Indicators of Unemployment

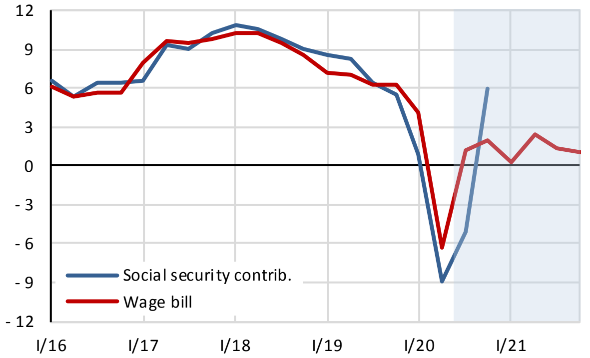
seasonally adjusted data, in%



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

Graph 3.3.3: Social Security Contributions and Earnings

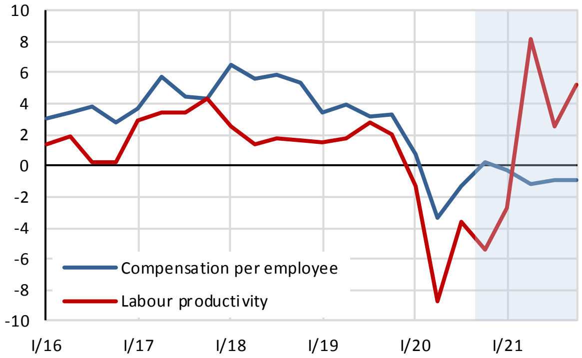
YoY growth rate in%



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

Graph 3.3.4: Compens. per Employee and Productivity

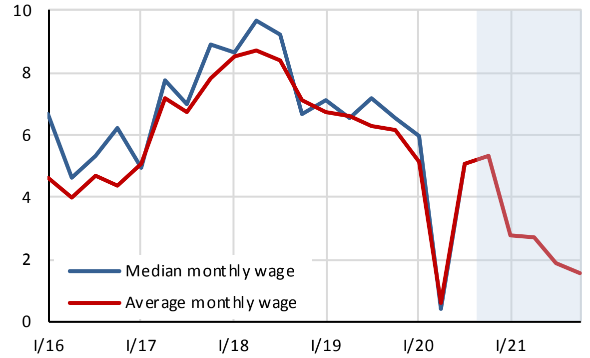
YoY growth rate in %



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.5: Nominal Monthly Wage

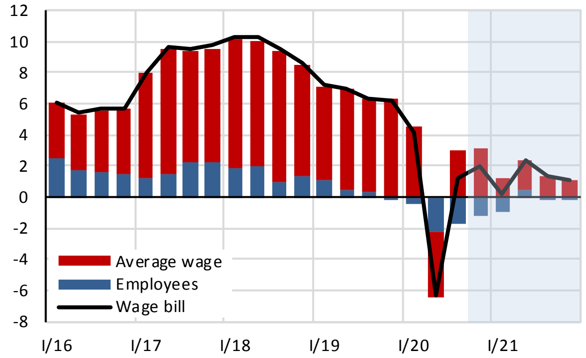
YoY growth rate in%



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.6: Nominal Wage Bill

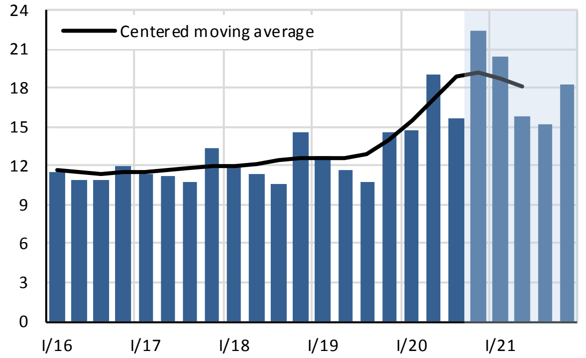
YoY growth rate in %, domestic concept of the wage bill



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.7: Gross Savings Rate of Households

in % of disposable income



Source: CZSO. Calculations and forecast of the MoF.

Table 3.3.1: Labour Market – yearly

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
								Estimate	*Forecast*	*Outlook*	*Outlook*
Labour Force Survey											
Employment	*av. in thous.persons*	**4 974**	**5 042**	**5 139**	**5 222**	**5 294**	**5 303**	**5 243**	**5 211**	**5 223**	**5 224**
	growth in %	0.8	1.4	1.9	1.6	1.4	0.2	-1.1	-0.6	0.2	0.0
Employees	*av. in thous.persons*	4 079	4 168	4 257	4 327	4 396	4 412	4 362	4 339	4 351	4 353
	growth in %	0.6	2.2	2.1	1.7	1.6	0.4	-1.1	-0.5	0.3	0.0
Entrepreneurs and	*av. in thous.persons*	895	874	882	894	897	891	881	872	872	871
self-employed	*growth in %*	1.5	-2.4	1.0	1.4	0.4	-0.8	-1.1	-1.0	0.0	-0.1
Unemployment	*av. in thous.persons*	**324**	**268**	**211**	**156**	**122**	**109**	**137**	**178**	**178**	**173**
Unemployment rate	*average in %*	**6.1**	**5.1**	**4.0**	**2.9**	**2.2**	**2.0**	**2.6**	**3.3**	**3.3**	**3.2**
Long-term unemployment [1]	*av. in thous.persons*	**141**	**127**	**89**	**54**	**37**	**33**	**.**	**.**	**.**	**.**
Labour force	*av. in thous.persons*	**5 298**	**5 310**	**5 350**	**5 377**	**5 415**	**5 412**	**5 380**	**5 389**	**5 401**	**5 397**
	growth in %	-0.2	0.2	0.8	0.5	0.7	-0.1	-0.6	0.2	0.2	-0.1
Population aged 20–64	*av. in thous.persons*	**6 610**	**6 566**	**6 510**	**6 456**	**6 414**	**6 383**	**6 358**	**6 322**	**6 287**	**6 261**
	growth in %	-0.7	-0.7	-0.9	-0.8	-0.7	-0.5	-0.4	-0.6	-0.6	-0.4
Employment/Pop. 20–64	*average in %*	**75.3**	**76.8**	**78.9**	**80.9**	**82.5**	**83.1**	**82.4**	**82.4**	**83.1**	**83.4**
Employment rate 20–64 [2]	*average in %*	**73.6**	**74.8**	**76.7**	**78.5**	**79.9**	**80.3**	**79.8**	**79.6**	**80.2**	**80.4**
Labour force/Pop. 20–64	*average in %*	**80.1**	**80.9**	**82.2**	**83.3**	**84.4**	**84.8**	**84.6**	**85.2**	**85.9**	**86.2**
Participation rate 20–64 [3]	*average in %*	**78.2**	**78.7**	**79.9**	**80.9**	**81.7**	**81.9**	**81.8**	**82.3**	**82.7**	**82.8**
Participation rate 15–64 [3]	*average in %*	**73.5**	**74.0**	**75.0**	**75.9**	**76.6**	**76.7**	**76.8**	**77.1**	**77.3**	**77.2**
Registered unemployment											
Unemployment	*av. in thous.persons*	**561**	**479**	**406**	**318**	**242**	**212**	**259**	**294**	**290**	**288**
Share of unemployed [4]	*average in %*	**7.7**	**6.6**	**5.6**	**4.3**	**3.2**	**2.8**	**3.5**	**4.1**	**4.0**	**4.0**
Wages and salaries											
Average monthly wage [5]											
Nominal	*CZK monthly*	25 768	26 591	27 764	29 638	32 051	34 111	35 480	36 265	37 124	38 129
	growth in %	2.9	3.2	4.4	6.7	8.1	6.4	4.0	2.2	2.4	2.7
Real	*CZK 2010*	24 036	24 730	25 641	26 735	28 307	29 292	29 514	29 623	29 718	29 948
	growth in %	2.5	2.9	3.7	4.3	5.9	3.5	0.8	0.4	0.3	0.8
Median monthly wage	*CZK monthly*	**21 786**	**22 414**	**23 692**	**25 398**	**27 561**	**29 447**	**.**	**.**	**.**	**.**
	growth in %	3.2	2.9	5.7	7.2	8.5	6.8	.	.	.	.
Wage bill	*growth in %*	**3.9**	**5.0**	**5.7**	**9.2**	**9.6**	**6.7**	**0.2**	**1.2**	**2.6**	**2.9**
Labour productivity	*growth in %*	**1.7**	**3.9**	**0.9**	**3.6**	**1.8**	**2.1**	**-4.8**	**3.3**	**3.1**	**2.0**
Unit labour costs [6]	*growth in %*	**1.1**	**-0.8**	**3.0**	**3.5**	**6.1**	**4.2**	**7.4**	**-2.2**	**-0.9**	**0.7**
Compens. of employees / GDP	*%*	**41.4**	**40.9**	**41.7**	**42.8**	**44.3**	**44.6**	**46.0**	**44.3**	**43.2**	**42.7**

[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, Ministry of Labour and Social Affairs. Calculations and forecast of the MoF.

Table 3.3.2: Labour Market – quarterly

		2020				2021			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
					Estimate	*Forecast*	*Forecast*	*Forecast*	*Forecast*
Labour Force Survey									
Employment	*av. in thous. persons*	**5 277**	**5 213**	**5 233**	**5 247**	**5 207**	**5 186**	**5 217**	**5 235**
	YoY growth in %	-0.5	-1.6	-1.4	-1.1	-1.3	-0.5	-0.3	-0.2
	QoQ growth in %	0.0	-1.2	0.0	0.1	-0.2	-0.4	0.2	0.2
Employees	*av. in thous. persons*	4 390	4 330	4 347	4 380	4 335	4 312	4 337	4 373
	growth in %	-0.5	-1.7	-1.4	-1.0	-1.3	-0.4	-0.2	-0.2
Entrepreneurs and	*av. in thous. persons*	888	882	886	866	872	875	880	862
self-employed	*growth in %*	-0.7	-1.1	-1.2	-1.5	-1.7	-0.9	-0.7	-0.5
Unemployment	*av. in thous.persons*	**106**	**126**	**154**	**163**	**174**	**174**	**181**	**181**
Unemployment rate	*average in %*	**2.0**	**2.4**	**2.9**	3.0	3.2	3.3	3.4	3.3
Long-term unemployment [1]	*av. in thous.persons*	**29**	**26**	**31**	**.**	**.**	**.**	**.**	**.**
Labour force	*av. in thous. persons*	**5 384**	**5 339**	**5 387**	**5 410**	**5 381**	**5 361**	**5 397**	**5 416**
	growth in %	-0.6	-1.1	-0.6	-0.1	0.0	0.4	0.2	0.1
Population aged 20–64	*av. in thous. persons*	**6 374**	**6 355**	**6 358**	**6 347**	**6 337**	**6 327**	**6 317**	**6 307**
	growth in %	-0.4	-0.5	-0.3	-0.3	-0.6	-0.4	-0.6	-0.6
Employment/Pop. 20–64	*average in %*	**82.8**	**82.0**	**82.3**	**82.7**	**82.2**	**82.0**	**82.6**	**83.0**
	increase over a year	-0.1	-0.9	-0.9	-0.6	-0.6	0.0	0.3	0.3
Employment rate 20–64 [2]	*average in %*	**80.1**	**79.4**	**79.7**	**79.9**	**79.4**	**79.2**	**79.8**	**80.1**
	increase over a year	0.0	-0.8	-0.7	-0.6	-0.7	-0.2	0.1	0.2
Labour force/Pop. 20–64	*average in %*	**84.5**	**84.0**	**84.7**	**85.2**	**84.9**	**84.7**	**85.4**	**85.9**
	increase over a year	-0.1	-0.6	-0.3	0.2	0.5	0.7	0.7	0.6
Participation rate 20–64 [3]	*average in %*	**81.7**	**81.3**	**82.0**	**82.3**	**82.0**	**81.8**	**82.5**	**82.8**
	increase over a year	-0.1	-0.4	-0.1	0.1	0.3	0.5	0.5	0.5
Participation rate 15–64 [3]	*average in %*	**76.4**	**75.9**	**76.6**	**77.2**	**76.9**	**76.6**	**77.2**	**77.5**
	increase over a year	-0.3	-0.6	-0.3	0.3	0.5	0.7	0.6	0.3
Registered unemployment									
Unemployment	*av. in thous. persons*	**226**	**256**	**277**	**277**	**309**	**290**	**291**	**287**
Share of unemployed [4]	*average in %*	**3.0**	**3.5**	**3.8**	**3.8**	**4.3**	**4.0**	**4.0**	**4.0**
Wages and salaries									
Average monthly wage [5]									
Nominal	*CZK monthly*	34 127	34 312	35 402	38 080	35 067	35 243	36 076	38 674
	growth in %	5.1	0.6	5.1	5.3	2.8	2.7	1.9	1.6
Real	*CZK 2010*	28 549	28 627	29 300	31 629	28 868	28 805	29 393	31 446
	growth in %	1.4	-2.5	1.7	2.7	1.1	0.6	0.3	-0.6
Median monthly wage	*CZK monthly*	**29 376**	**29 300**	**31 183**	**.**	**.**	**.**	**.**	**.**
	growth in %	5.9	0.4	5.1	.	.	.	.	.
Wage bill	*growth in %*	**4.2**	**-6.4**	**1.2**	**1.9**	**0.2**	**2.4**	**1.3**	**1.1**

[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, Ministry of Labour and Social Affairs. Calculations and forecast of the MoF.

Table 3.3.3: Income and Expenditures of Households – yearly

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
										Estimate	*Forecast*
Current income											
Compensation of employees	*bill.CZK*	**1 724**	**1 751**	**1 825**	**1 923**	**2 038**	**2 223**	**2 430**	**2 579**	**2 611**	**2 633**
	growth in %	2.8	1.5	4.2	5.4	6.0	9.1	9.3	6.2	1.2	0.8
Gross operating surplus	*bill.CZK*	**660**	**655**	**674**	**691**	**703**	**740**	**801**	**852**	**844**	**865**
and mixed income	*growth in %*	-3.8	-0.7	3.0	2.4	1.7	5.2	8.3	6.4	-0.9	2.5
Property income received	*bill.CZK*	**128**	**133**	**133**	**127**	**133**	**162**	**162**	**173**	**169**	**172**
	growth in %	5.3	3.9	0.0	-4.3	4.1	21.9	0.2	6.9	-2.4	1.6
Social benefits not-in-kind	*bill.CZK*	**587**	**583**	**596**	**613**	**630**	**650**	**685**	**734**	**847**	**896**
	growth in %	2.8	-0.8	2.2	2.8	2.8	3.2	5.4	7.2	15.3	5.9
Other current transfers received	*bill.CZK*	**151**	**146**	**160**	**181**	**217**	**244**	**281**	**339**	**321**	**335**
	growth in %	8.6	-3.1	9.2	13.3	19.4	12.8	15.1	20.5	-5.3	4.3
Current expenditure											
Property income paid	*bill.CZK*	**15**	**21**	**16**	**14**	**14**	**13**	**19**	**20**	**17**	**17**
	growth in %	-27.2	40.5	-24.3	-10.7	0.2	-7.4	43.2	2.0	-13.3	1.2
Curr. taxes on income and property	*bill.CZK*	**179**	**185**	**197**	**205**	**227**	**264**	**309**	**335**	**325**	**223**
	growth in %	2.9	3.5	6.5	3.9	10.8	16.3	16.9	8.4	-3.0	-31.2
Social contributions	*bill.CZK*	**654**	**670**	**696**	**732**	**775**	**836**	**911**	**974**	**985**	**1 052**
	growth in %	2.3	2.4	3.8	5.3	5.8	7.9	9.0	7.0	1.0	6.9
Other current transfers paid	*bill.CZK*	**154**	**140**	**150**	**169**	**207**	**238**	**278**	**336**	**320**	**332**
	growth in %	6.2	-9.3	7.3	12.5	22.4	15.3	16.5	20.7	-4.6	3.8
Gross disposable income	*bill.CZK*	**2 248**	**2 251**	**2 328**	**2 414**	**2 497**	**2 666**	**2 842**	**3 013**	**3 146**	**3 276**
	growth in %	1.4	0.2	3.4	3.7	3.4	6.8	6.6	6.0	4.4	4.1
Final consumption	*bill.CZK*	**1 995**	**2 027**	**2 072**	**2 152**	**2 241**	**2 383**	**2 524**	**2 671**	**2 606**	**2 734**
	growth in %	1.0	1.6	2.2	3.9	4.1	6.4	5.9	5.8	-2.4	4.9
Change in share in pension funds	*bill.CZK*	**15**	**35**	**35**	**33**	**31**	**32**	**33**	**38**	**35**	**36**
Gross savings	*bill.CZK*	**267**	**260**	**292**	**295**	**286**	**315**	**350**	**380**	**574**	**577**
Capital transfers											
(income (-) / expenditure (+))	*bill.CZK*	**-21**	**-13**	**-32**	**-12**	**-14**	**-11**	**-12**	**-13**	**-33**	**-28**
Gross capital formation	*bill.CZK*	**200**	**203**	**214**	**220**	**237**	**216**	**261**	**294**	**287**	**292**
	growth in %	-9.2	1.7	5.2	2.9	7.9	-9.2	21.2	12.5	-2.4	1.9
Change in financial assets and liab.	*bill.CZK*	**87**	**68**	**108**	**85**	**61**	**110**	**100**	**100**	**320**	**313**
Real disposable income	*growth in %*	**-0.7**	**-0.5**	**2.6**	**3.7**	**3.0**	**4.4**	**4.0**	**3.1**	**1.5**	**2.6**
Gross savings rate	*%*	**11.8**	**11.4**	**12.4**	**12.1**	**11.3**	**11.7**	**12.2**	**12.5**	**18.0**	**17.4**

Source: CZSO. Calculations of the MoF.

3.4 External Relations

The **current account balance** reached a surplus of 2.4% of GDP[4] (*versus 0.3% of GDP*) in Q3 2020, improving by 2.3% of GDP quarter on quarter. With the exception of the secondary income balance, all items contributed to this result, most notably the reduction in the primary income deficit.

Export markets shrank by 8.2% YoY (*versus 10.3%*) in Q3 2020. The root cause of the deviation from the forecast was the higher-than-expected quarter-on-quarter GDP growth of main trading partners after restrictive anti-epidemic measures were lifted. Taking into account the figures for Q3 2020 and the improved GDP forecast for the Czech Republic's main trading partners, we estimate that export markets fell by 8.1% (*versus 9.4%*) in 2020. In 2021, they could increase by 4.2% (*versus 6.1%*) as other countries gradually recover.

Export performance increased by 9.2% (*versus a 1.8% decrease*) in the third quarter. This was the largest rise since Q1 2010. The rapid resumption of production and supply chains, which partially made up for the shortfall during the spring restrictions, contributed to this strong improvement. Owing to improved conditions in industry, export performance may have increased by 2.5% (*versus a 2.7% decrease*) in 2020. This year, we forecast only a slight 0.6% (*versus 0.4%*) increase in performance. It will be hobbled by the forecast stronger koruna (see section 1.4) and, evidently, also by a hike in the costs incurred by vehicle makers as financial penalties start being imposed on them for breaching the tougher new emission standards.

In external trade (balance of payments methodology), the **balance of goods** surplus grew to 3.8% of GDP (*versus 3.3% of GDP*) in Q3 2020. The improving balance of machinery and vehicles, a group that accounts for more than half of all exports of goods, contributed to this result. In this respect, there was an uptick in exports of electronic devices. The growth in the external balance can also be attributed to a decline in import-intensive investment demand and the low price of oil.

Prices of mineral fuels remain an important factor affecting **terms of external trade** in goods. The deficit in the fuel part of the balance was 1.8% of GDP (*versus 1.9% of GDP*) in Q3 2020. Bearing in mind developments in the price of oil (see section 1.2), the fuel balance deficit may have been 1.6% of GDP (*versus 1.7% of GDP*) in 2020, and this year it could deepen slightly to 1.7% of GDP (*unchanged*).

We estimate that the surplus of the balance of goods relative to GDP reached 4.8% (*versus 3.3%*) last year. The improvement in the forecast reflects the growth of the balance in Q3 2020 and positive developments in external trade in October and November 2020, underpinned by strong motor vehicle exports. The improvement in terms of trade also contributed to the growth of the surplus. In 2021, in the context of slower recovery abroad and the expected stronger investment activity, the balance could deteriorate to 4.4% of GDP (*versus 3.6% of GDP*).

The **balance of services** posted a surplus of 1.9% of GDP (*versus 1.7% of GDP*) in the third quarter. The year-on-year improvement in the surplus was due to a decline in imports in research and development and a reduction in charges for the use of intellectual property. Considering the constrained economic activity in services, we estimate that the balance of services ran a surplus of 1.8% of GDP (*versus 1.7% of GDP*) in 2020. In 2021, the surplus could dip to 1.7% of GDP (*versus 1.8% of GDP*).

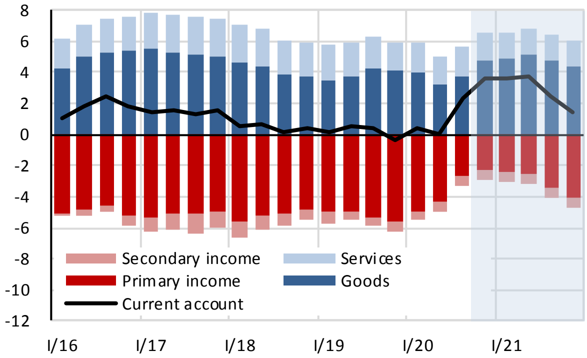
In Q3 2020, the **primary income** deficit decreased by 2.7% of GDP year on year to 2.6% of GDP (*versus 4.4% of GDP*), the lowest since Q1 2001. The reduction in the deficit reflects the much lower-than-expected outflow of direct investment income (mainly among financial institutions) due to a drop in the profitability of firms owned by non-residents. The overall primary income balance may also have been affected by the CNB's recommendation that banks suspend dividend payments at a time of heightened uncertainty. However, due to the exceptional nature of the economic situation, this is probably a one-off phenomenon. Taking into account the forecast for GDP and gross operating surplus, we assume that companies under foreign control saw their profit momentum decrease significantly in 2020. In this respect, the primary income deficit could have reached 2.3% of GDP (*versus 4.3% of GDP*). For 2021, we forecast a deepening of the deficit to 4.1% of GDP (*versus 4.7% of GDP*) as economic activity is revived and the profitability of foreign-controlled firms recovers.

In this context, we estimate that the **current account of the balance of payments** has a large surplus, which may have come to 3.6% of GDP (*versus 0.3% of GDP*) last year. This would be the highest surplus in the history of the independent Czech Republic. In 2021, the surplus could fall to 1.4% of GDP (*versus 0.4% of GDP*).

[4] All *quarterly* figures relative to GDP are reported as annual rolling totals.

Graph 3.4.1: Current Account

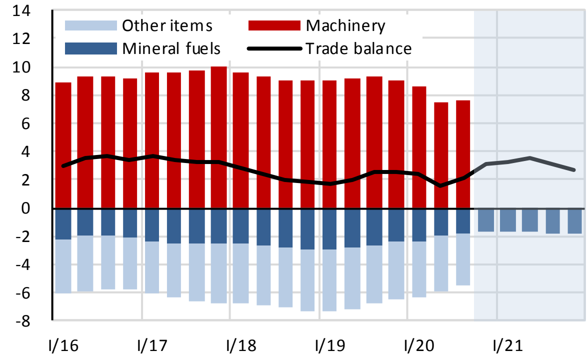
four-quarter moving totals, in % of GDP, BoP methodology



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

Graph 3.4.2: Balance of Trade

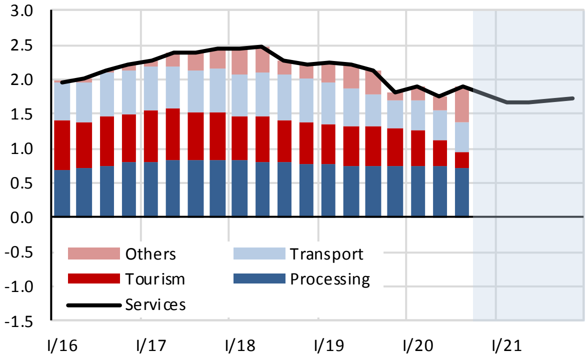
four-quarter moving totals, in % of GDP, change of ownership concept



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.4.3: Balance of Services

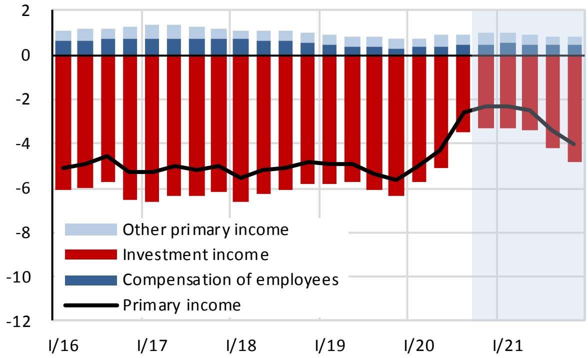
four-quarter moving totals, in % of GDP



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

Graph 3.4.4: Balance of Primary Income

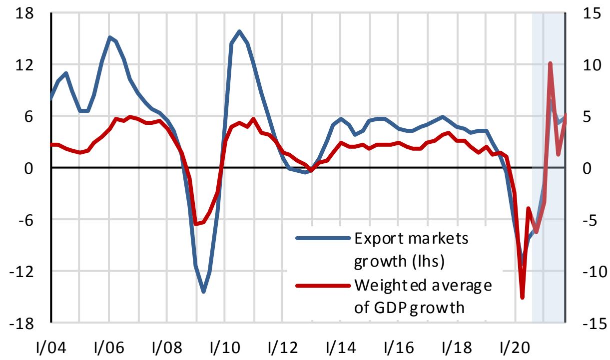
four-quarter moving totals, in % of GDP



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

Graph 3.4.5: GDP and Goods Imports of Partner Countries

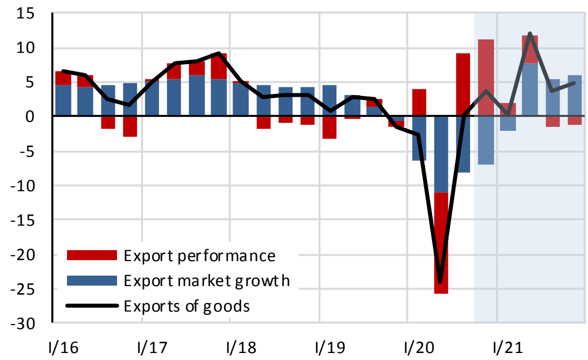
YoY growth rate in %, seasonally adjusted



Source: Eurostat. Calculations and forecast of the MoF.

Graph 3.4.6: Real Exports of Goods

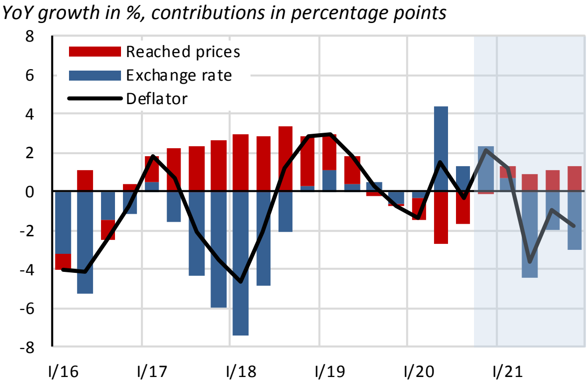
YoY growth in %, contributions in pp, seasonally adjusted



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

Graph 3.4.7: Deflator of Exports of Goods

YoY growth in %, contributions in percentage points



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

Table 3.4.1: Balance of Payments – yearly

international investment position and gross external debt – end of period

		2012	2013	2014	2015	2016	2017	2018	2019	2020 *Estimate*	2021 *Forecast*
Goods and services	*bill.CZK*	**201**	**237**	**276**	**274**	**365**	**384**	**321**	**341**	**370**	**357**
	% GDP	4.9	5.7	6.3	5.9	7.6	7.5	5.9	5.9	6.6	6.1
Goods	*bill.CZK*	124	167	220	188	259	259	201	236	270	256
	% GDP	3.0	4.0	5.1	4.1	5.4	5.1	3.7	4.1	4.8	4.4
Services	*bill.CZK*	78	70	56	87	107	125	120	104	100	101
	% GDP	1.9	1.7	1.3	1.9	2.2	2.4	2.2	1.8	1.8	1.7
Primary income	*bill.CZK*	**-238**	**-249**	**-261**	**-255**	**-253**	**-255**	**-260**	**-324**	**-130**	**-239**
	% GDP	-5.8	-6.0	-6.0	-5.5	-5.3	-5.0	-4.8	-5.6	-2.3	-4.1
Secondary income	*bill.CZK*	**-27**	**-10**	**-7**	**1**	**-27**	**-50**	**-37**	**-33**	**-37**	**-35**
	% GDP	-0.7	-0.2	-0.2	0.0	-0.6	-1.0	-0.7	-0.6	-0.7	-0.6
Current account	*bill.CZK*	**-63**	**-22**	**8**	**21**	**85**	**79**	**24**	**-17**	**203**	**83**
	% GDP	-1.5	-0.5	0.2	0.4	1.8	1.5	0.4	-0.3	3.6	1.4
Capital account	*bill.CZK*	**53**	**82**	**32**	**99**	**52**	**45**	**13**	**30**	**80**	**90**
	% GDP	1.3	2.0	0.7	2.1	1.1	0.9	0.2	0.5	1.4	1.5
Net lending/borrowing	*bill.CZK*	**-10**	**61**	**40**	**120**	**137**	**124**	**37**	**13**	**283**	**173**
	% GDP	-0.3	1.5	0.9	2.6	2.9	2.4	0.7	0.2	5.0	2.9
Financial account	*bill.CZK*	**12**	**68**	**64**	**173**	**122**	**116**	**61**	**45**	**.**	**.**
Direct investments	*bill.CZK*	-121	7	-80	50	-187	-46	-51	-61	.	.
Portfolio investments	*bill.CZK*	-55	-93	90	-164	-170	-268	30	-118	.	.
Financial derivatives	*bill.CZK*	-9	-5	-6	-5	11	-14	-15	1	.	.
Other investments	*bill.CZK*	116	-30	-13	-59	-97	-802	47	112	.	.
Reserve assets	*bill.CZK*	80	188	73	351	564	1 246	50	110	.	.
International investment position	*bill.CZK*	**-1 864**	**-1 695**	**-1 577**	**-1 523**	**-1 304**	**-1 273**	**-1 320**	**-1 167**	**.**	**.**
	% GDP	-45.6	-40.9	-36.3	-32.9	-27.2	-24.9	-24.4	-20.3	.	.
Gross external debt	*bill.CZK*	**2 434**	**2 733**	**2 947**	**3 119**	**3 499**	**4 370**	**4 413**	**4 383**	**.**	**.**
	% GDP	59.5	66.0	67.8	67.4	72.9	85.5	81.6	76.2	.	.

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

Table 3.4.2: Balance of Payments – quarterly

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

		2020				2021			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
					Estimate	*Forecast*	*Forecast*	*Forecast*	*Forecast*
Goods and services	*bill.CZK*	**341**	**282**	**321**	**370**	**370**	**392**	**372**	**357**
	% GDP	5.9	5.0	5.7	6.6	6.6	6.8	6.4	6.1
Goods	*bill.CZK*	232	183	215	270	277	296	275	256
	% GDP	4.0	3.2	3.8	4.8	5.0	5.2	4.8	4.4
Services	*bill.CZK*	109	99	107	100	93	96	98	101
	% GDP	1.9	1.8	1.9	1.8	1.7	1.7	1.7	1.7
Primary income	*bill.CZK*	**-287**	**-242**	**-148**	**-130**	**-132**	**-145**	**-197**	**-239**
	% GDP	-5.0	-4.3	-2.6	-2.3	-2.4	-2.5	-3.4	-4.1
Secondary income	*bill.CZK*	**-31**	**-38**	**-39**	**-37**	**-36**	**-36**	**-35**	**-35**
	% GDP	-0.5	-0.7	-0.7	-0.7	-0.7	-0.6	-0.6	-0.6
Current account	*bill.CZK*	**22**	**2**	**134**	**203**	**202**	**211**	**140**	**83**
	% GDP	0.4	0.0	2.4	3.6	3.6	3.7	2.4	1.4
Capital account	*bill.CZK*	**53**	**61**	**74**	**80**	**82**	**85**	**87**	**90**
	% GDP	0.9	1.1	1.3	1.4	1.5	1.5	1.5	1.5
Net lending/borrowing	*bill.CZK*	**75**	**63**	**208**	**283**	**284**	**296**	**227**	**173**
	% GDP	1.3	1.1	3.7	5.0	5.1	5.2	3.9	2.9
Financial account	*bill.CZK*	**118**	**77**	**238**	**.**	**.**	**.**	**.**	**.**
Direct investments	*bill.CZK*	-56	-62	-15	.	.	.	.	.
Portfolio investments	*bill.CZK*	-9	-23	21	.	.	.	.	.
Financial derivatives	*bill.CZK*	23	20	21	.	.	.	.	.
Other investments	*bill.CZK*	39	33	104	.	.	.	.	.
Reserve assets	*bill.CZK*	121	109	107	.	.	.	.	.
International investment position	*stock in bill.CZK*	**-778**	**-826**	**-655**	**.**	**.**	**.**	**.**	**.**
	% GDP	-13.5	-14.6	-11.6	.	.	.	.	.
Gross external debt	*stock in bill.CZK*	**4 476**	**4 400**	**4 389**	**.**	**.**	**.**	**.**	**.**
	% GDP	77.5	77.6	77.6	.	.	.	.	.

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

Table 3.4.3: Decomposition of Exports of Goods (National Accounts Methodology) – yearly
seasonally adjusted

		2012	2013	2014	2015	2016	2017	2018	2019	2020 Estimate	2021 Forecast
GDP [1]	*average of 2005=100*	**104.5**	**105.2**	**107.6**	**109.9**	**112.2**	**115.6**	**118.1**	**119.8**	**112**	**116**
	growth in %	1.0	0.7	2.2	2.2	2.1	3.0	2.2	1.5	-6.2	3.2
Import intensity [2]	*average of 2005=100*	**102.8**	**104.4**	**106.9**	**110.5**	**113.1**	**115.9**	**118.4**	**119.1**	**117**	**118**
	growth in %	-0.9	1.6	2.4	3.4	2.4	2.4	2.2	0.6	-2.0	1.0
Export markets [3]	*average of 2005=100*	**107.4**	**109.9**	**115.0**	**121.4**	**127.0**	**133.9**	**139.8**	**142.7**	**131**	**137**
	growth in %	0.0	2.3	4.7	5.6	4.5	5.5	4.4	2.1	-8.1	4.2
Export performance	*average of 2005=100*	**107.0**	**105.4**	**110.0**	**109.8**	**109.4**	**111.6**	**110.6**	**109.6**	**112**	**113**
	growth in %	4.3	-1.6	4.4	-0.2	-0.4	2.0	-0.9	-0.9	2.5	0.6
Real exports	*average of 2005=100*	**114.9**	**115.8**	**126.5**	**133.4**	**138.9**	**149.5**	**154.7**	**156.5**	**147**	**155**
	growth in %	4.4	0.7	9.3	5.4	4.2	7.6	3.5	1.1	-5.8	4.8
1 / NEER	*average of 2005=100*	**100.5**	**103.0**	**108.6**	**109.9**	**106.9**	**103.9**	**100.2**	**100.5**	**102**	**100**
	growth in %	3.6	2.4	5.5	1.2	-2.8	-2.8	-3.6	0.4	1.9	-2.2
Prices on foreign markets	*average of 2005=100*	**103.5**	**102.5**	**100.8**	**98.2**	**98.2**	**100.3**	**103.2**	**104.0**	**103**	**103**
	growth in %	-0.4	-0.9	-1.7	-2.6	-0.1	2.1	2.9	0.7	-1.4	1.0
Exports deflator	*average of 2005=100*	**104.0**	**105.6**	**109.5**	**108.0**	**104.9**	**104.1**	**103.4**	**104.5**	**105**	**104**
	growth in %	3.2	1.5	3.7	-1.4	-2.8	-0.7	-0.7	1.1	0.5	-1.3
Nominal exports	*average of 2005=100*	**119.6**	**122.2**	**138.5**	**144.0**	**145.7**	**155.6**	**159.9**	**163.5**	**155**	**160**
	growth in %	7.7	2.2	13.4	3.9	1.2	6.8	2.8	2.2	-5.4	3.6

[1] *Weighted average of GDP of the six most important partners – Germany, Slovakia, Austria, the United Kingdom, Poland and France.*
[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 3.4.4: Decomposition of Exports of Goods (National Accounts Methodology) – quarterly
seasonally adjusted

		2020				2021			
		Q1	Q2	Q3	Q4 Estimate	Q1 Forecast	Q2 Forecast	Q3 Forecast	Q4 Forecast
GDP [1]	*average of 2010=100*	**116.9**	**104.5**	**115.5**	**113**	**113**	**115**	**117**	**119**
	growth in %	-2.4	-12.6	-3.8	-6.1	-3.2	10.2	1.3	5.2
Import intensity [2]	*average of 2010=100*	**115.2**	**121.8**	**113.2**	**117**	**117**	**119**	**118**	**118**
	growth in %	-4.0	1.7	-4.6	-0.8	1.3	-2.3	3.9	0.8
Export markets [3]	*average of 2010=100*	**134.6**	**127.3**	**130.8**	**132**	**132**	**137**	**138**	**140**
	growth in %	-6.3	-11.1	-8.2	-6.8	-1.9	7.7	5.3	6.0
Export performance	*average of 2010=100*	**112.5**	**94.3**	**120.6**	**122**	**115**	**98**	**119**	**120**
	growth in %	3.9	-14.6	9.2	11.2	2.1	4.1	-1.4	-1.2
Real exports	*average of 2010=100*	**151.4**	**120.1**	**157.8**	**160**	**152**	**135**	**164**	**168**
	growth in %	-2.6	-24.1	0.2	3.6	0.1	12.1	3.8	4.7
1 / NEER	*average of 2010=100*	**100.2**	**105.0**	**101.9**	**103**	**101**	**100**	**100**	**99**
	growth in %	-0.4	4.4	1.3	2.3	0.7	-4.4	-1.9	-3.0
Prices on foreign markets	*average of 2010=100*	**103.2**	**101.3**	**101.9**	**103**	**104**	**102**	**103**	**105**
	growth in %	-1.0	-2.7	-1.6	-0.1	0.6	0.9	1.1	1.3
Exports deflator	*average of 2010=100*	**103.5**	**106.5**	**103.9**	**106**	**105**	**103**	**103**	**104**
	growth in %	-1.4	1.6	-0.3	2.2	1.2	-3.6	-0.9	-1.7
Nominal exports	*average of 2010=100*	**156.7**	**127.8**	**163.9**	**170**	**159**	**138**	**169**	**175**
	growth in %	-4.0	-22.9	-0.1	5.9	1.4	8.1	2.9	2.9

[1] *Weighted average of GDP of the six most important partners – Germany, Slovakia, Austria, the United Kingdom, Poland and France.*
[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.

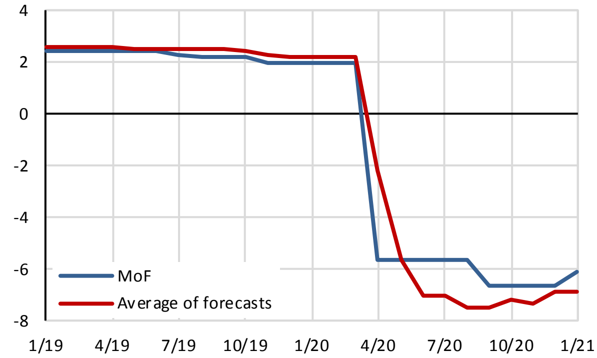
4 Survey of Other Institutions' Forecasts

The average of **forecasts of monitored institutions** indicates that the consequences of measures to mitigate the fallout from the coronavirus epidemic led to a 6.9% slump in real GDP in 2020. This shows that the Ministry of Finance captured the depth of the probable decline in economic activity in 2020 several months earlier than other institutions. The low statistical base should facilitate 3.1% growth in 2021, though there would still be a long way to go to fully recover the level of economic output in 2019. The average inflation rate should slacken from the 3.2% reported in 2020 to 2.3% this year. The average wage growth should settle at around 2.8% in both years. In both 2020 and 2021, the current account of the balance of payments should continue to post a surplus.

The forecasts of the Ministry of Finance for GDP, inflation and the current account differ only slightly from the averaged estimates of the monitored institutions and fall within the range of those predictions. The only exception is the average inflation rate in 2021. Here, the Ministry of Finance's forecast is slightly below the minimum of a very narrow range because it incorporates the effect of disinflation at the end of 2020.

Graph 4.1: Forecasts for Real GDP Growth in 2020

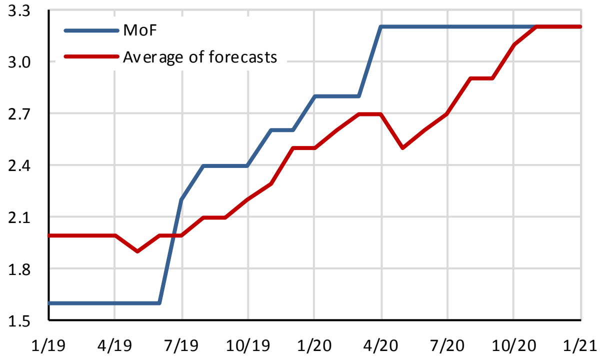
in %; the month, in which the survey was made on the horizontal axis



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

Graph 4.2: Forecasts for Average Inflation Rate in 2020

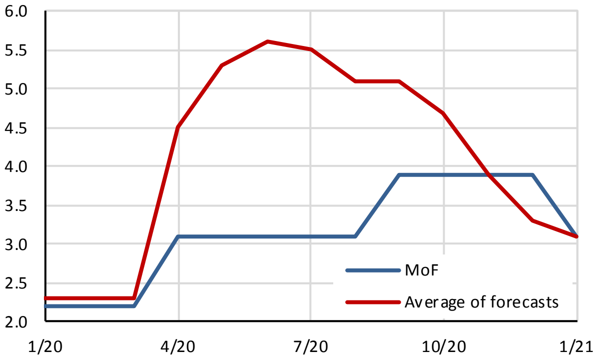
in %; the month, in which the survey was made on the horizontal axis



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

Graph 4.3: Forecasts for Real GDP Growth in 2021

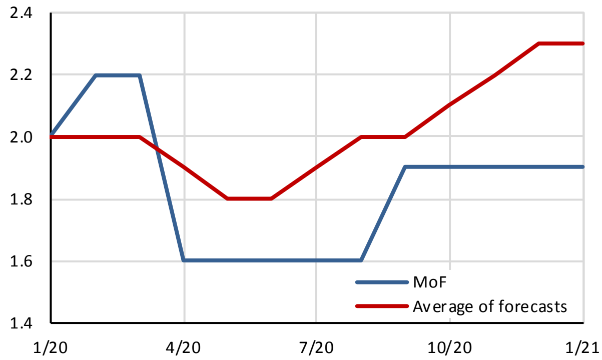
in %; the month, in which the survey was made on the horizontal axis



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

Graph 4.4: Forecasts for Average Inflation Rate in 2021

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 2021			January 2021
		min.	*max.*	*average*	*MoF forecast*
Gross domestic product (2020)	*growth in %, const.pr.*	-8.0	-6.0	-6.9	-6.1
Gross domestic product (2021)	*growth in %, const.pr.*	1.5	5.1	3.1	3.1
Average inflation rate (2021)	*%*	2.0	2.4	2.3	1.9
Average monthly wage (2020)	*growth in %*	1.1	4.4	2.8	4.0
Average monthly wage (2021)	*growth in %*	2.0	3.0	2.7	2.2
Current account / GDP (2020)	*%*	-0.7	3.6	1.4	3.6
Current account / GDP (2021)	*%*	-0.5	2.7	1.0	1.4

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 of the MoF.

5 Effects of Fiscal Measures to Support the Economy

In March 2020, the COVID-19 pandemic required the roll-out of unprecedented measures in the Czech Republic, as elsewhere, to prevent the spread of the disease. A state of emergency was declared, the free movement of persons was banned, and retail trade and services were restricted. Various forms of support for households and companies were gradually adopted to make up for the anti-epidemic restrictions. For example, the government increased amount of the care allowance and extended the period over which beneficiaries could collect it, introduced employment retention schemes, and waived or postponed advances on social contributions and taxes. In connection with the second wave of the epidemic in the latter half of the year, the existing economic support platforms – modified to be more targeted and focused on the hardest hit sectors – were used. In all, the discretionary measures that were implemented accounted for almost 5% of GDP in 2020.

5.1 Fiscal Stimulation of the Economy in 2020

On the revenue side, adjustments to the corporate income tax and employer's social security contributions were the most significant item, amounting to 1.1% of GDP, followed by measures related to the personal income tax and social security contributions, amounting to 0.8% of GDP. On the expenditure side, the largest item was government final consumption expenditure, corresponding to 1.1% of GDP. The volume of the Antivirus scheme and social benefits was also relatively high, standing at 0.5% of GDP in both cases. The fiscal measures adopted are described in detail in the Fiscal Outlook of the Czech Republic from January 2021.

5.1.1 The Impact of Revenue and Expenditure Measures on GDP in 2020

Fiscal multipliers are used to capture the overall effects, both direct and indirect, of fiscal measures. They express the multiple by which the change in fiscal aggregates will be reflected in economic activity. Their value most often empirically ranges between 0 (the measure is ineffective) and 1 (the effect of the measure will be felt in full in GDP). As fiscal multipliers are not directly measurable, statistical and econometric approaches are used to estimate them. In this respect, it must be taken into account that the direct impact of the adopted fiscal measures on economic activity is reduced by the propensity of households to save.

When estimating fiscal multipliers, Klyuev and Snudden (2011) apply an integrated global monetary and fiscal model of dynamic stochastic general equilibrium from the International Monetary Fund (Krumhof et al., 2010), calibrated to the conditions of the Czech Republic and the EU. The multipliers reach values of less than 0.1 on the revenue side and between 0.1 and 0.4 on the expenditure side. Compared to the US and EU countries, the multipliers are low, which can be explained primarily by the trade and capital openness of the Czech economy, with its floating exchange rate.

Pikhart (2019) approached the estimate of fiscal multipliers using a vector autoregressive model, which, in addition to fiscal variables, also took into account monetary conditions and exogenous variables capturing economic growth in Germany and the price of oil. The time series used include both the period of expansion before the Great Recession, the recession itself, and subsequent developments up to the end of 2017. The resulting estimate is the average annual fiscal multipliers of 0.2 for final consumption expenditure and indirect taxes and 0.3 for direct taxes including social security contributions, which is in line with the low estimates of fiscal multipliers in the Czech Republic from the previous study.

Gawthorpe (2021) examined the change in the value of multipliers in the Czech Republic depending on the position of the economy in the economic cycle using the Ministry of Finance's dynamic stochastic general equilibrium models (Aliyev et al., 2014), the European Commission's QUEST model (Varga and Veld, 2011), and a structural vector autoregressive model. These models estimate the fiscal multipliers to be between 0.3 and 0.5, with values almost doubling during the Great Recession.

The above studies show that, compared internationally, the multiplier effects of fiscal policy are relatively low for the Czech Republic. According to empirical findings, the multipliers differ significantly in periods of economic expansion and recession. During a boom, fiscal expansion crowds out private demand, leading to lower multiplier effects. Conversely, if an economic downturn is characterised by insufficient private demand, the fiscal impulse may replace it, so estimates of multiplier effects covering these periods are higher.

In 2020, the Czech economy found itself in an unprecedented global economic downturn. However, in contrast to an ordinary demand recession, there were strong supply-side restrictions. Therefore, the cause of the under-utilisation of resources, which were maintained in their existing use by fiscal measures (e.g. Antivirus), changed to a large extent. Supply-side restrictions were followed by weakening of aggregate demand (decline in confidence and higher share of industrial companies with main barrier to increased production being insufficient demand). **Considering the depth of the economic downturn in 2020 and the nature of the shocks, the re-**

al multiplier effect is likely to be in the upper half of the estimation range.

Understandably, the impact of the measures on GDP varies depending on the value of the multiplier and the type of measure. We believe that the impact of discretion ranges between 0.5–0.9% of GDP on the revenue side, and 0.4–0.6% of GDP on the expenditure side. **Total impact of the economic stimulus measures in 2020 may range from 0.9% to 1.5%.**

Table 5.1: The Impact of Revenue and Expenditure Measures on GDP in 2020

	Measure	Direct impact on GDP		Impact on GDP including multiplier effects					
				Klyuev, Snudden		Pikhart		Gawthorpe	
	% GDP	*Prop. to consume*	*% of GDP*	*Multiplier*	*% of GDP*	*Multiplier*	*% of GDP*	*Multiplier*	*% of GDP*
Measures on the revenue side									
Personal income tax, social security contributions	**0.8**	**0.8**	**0.7**	**0.1**	**0.1**	**0.3**	**0.2**	**0.5**	**0.3**
Corporate income tax, employers' contributions	**1.1**	**0.8**	**0.9**	**0.0**	**0.0**	**0.3**	**0.3**	**0.5**	**0.5**
Abolition of real estate acquisition tax	**0.2**	**0.6**	**0.1**	**0.1**	**0.0**	**0.3**	**0.0**	**0.5**	**0.1**
VAT, excise tax and road tax	**0.0**	**0.8**	**0.0**	**0.1**	**0.0**	**0.2**	**0.0**	**0.4**	**0.0**
Measures on the expenditure side									
Measures related to salaries	**0.3**	**0.8**	**0.3**	**0.1**	**0.0**	**0.2**	**0.1**	**0.4**	**0.1**
Social benefits (+ care allowance for self-employed)	**0.5**	**0.8**	**0.4**	**0.2**	**0.1**	**0.2**	**0.1**	**0.4**	**0.2**
Antivirus (A, B)	**0.5**	**0.8**	**0.4**	**0.2**	**0.1**	**0.2**	**0.1**	**0.4**	**0.2**
Government consumption	**1.1**		**1.1**	**0.3**	**0.3**	**0.2**	**0.2**	**0.2**	**0.2**
Purchase of personal protective equip.	0.2		0.2	0.1	0.0	0.1	0.0	0.1	0.0
Other	0.8		0.8	0.4	0.3	0.2	0.2	0.2	0.2
Government investment	**0.1**		**0.1**	**0.4**	**0.0**	**0.4**	**0.0**	**0.5**	**0.0**
Total on the revenue side	**2.2**		**1.7**		**0.1**		**0.5**		**0.9**
Total on the expenditure side	**2.5**		**2.2**		**0.6**		**0.4**		**0.6**
Total (revenue + expenditure side)	**4.6**		**4.0**		**0.7**		**0.9**		**1.5**

Note: Measures without an effect on aggregate demand are excluded, both on the revenue (lower dividends from the Prague Airport, lower revenues of the State Material Reserves Administration from the sale of metals, lower revenues from an auction of 5G) and the expenditure side (especially the debt relief of hospitals, higher payments for state-insured persons and a temporary cancellation of fare discounts) In total, these measures amount to 0.5% of GDP.
Source: MoF, Klyuev and Snudden (2011), Pikhart (2019) and Gawthorpe (2021).

5.1.2 Effects of the Antivirus Programme

Impacts of the Antivirus Programme (regimes A/A Plus, B and C) were also estimated using an alternative analytical approach. Using the symmetric input-output table for 2015 (no newer one is available), the elasticities of gross value added and employment on the change in final demand were calculated for individual sectors. The elasticities of gross value added and the development of value added between Q4 2019 and Q2 2020 were used as a conduit to derive the magnitude of the demand shock. This, in conjunction with employment elasticities, resulted in an estimate of the percent change in employment in individual sectors. Based on these calculations, compared to Q1 2020 the number of employees (national accounts, seasonally adjusted) should have decreased by 126,000 in the second quarter. The actual reduction was 84,000. In sectors with lower-than-estimated decline, the more favourable developments were attributed to the Antivirus Programme, with sectors dominated by the general government sector excluded from the calculation. Antivirus's estimated impact on employment in Q2 2020 alone was almost 70,000 people.

The estimated impacts of the Antivirus scheme in further quarters are based on the number of workers receiving support according to figures from the Ministry of Labour (920,000 for the period from March to November), the estimated total costs of CZK 30.3 billion, and the scheme's efficiency in maintaining jobs (the ratio of estimated number of jobs preserved by Antivirus to the number of workers supported), which was expertly adjusted to reflect the average amount of support paid per worker. Estimated effect in Q3 2020 also takes into account actual employment developments. The results are clearly set out in Table 5.2.

The impact on household consumption and GDP due to job retention thanks to Antivirus is then based on the number of jobs preserved in each sector of the economy and the average gross wage (according to national accounts, i.e. the volume of wages and salaries divided by the number of workers) in these sectors in Q1 2020. The average net wage is calculated for a taxpayer applying both the basic personal tax credit and tax credit per dependent child. The factored-in propensity to save in Q2 and Q3 2020 corresponds to the households' savings rate from sector accounts; for Q4 2020 and Q1 2021, the forecast of the MoF is used (see Graph 3.3.7). The amount of consumption estimated in this way is adjusted for expenses that laid-off workers would make from their unemployment benefits (100% propensity to consume and support amounting to CZK 8,750 per month are factored in), or after the exhaustion of support from other social benefits. To calculate the impact on GDP, the same range of multipliers as in section 5.1.1 is considered, i.e. 0.2–0.4. The impacts of the Antivirus scheme on household consumption are again summarised in Table 5.2.

Table 5.2: Economic Effects of the Antivirus Programme

		II/20	III/20	IV/20	I/21
Average quarterly GDP in 2019	*bill. CZK, curr.pr.*	1 437 848	1 437 848	1 437 848	1 437 848
Number of jobs retained in the quarter		68 797	64 879	15 301	2 693
Total number of jobs retained		**68 797**	**133 676**	**148 977**	**151 670**
	% of number of employees in Q1 2020	1.5	2.9	3.2	3.3
Impact on consumption	*bill. CZK*	2 520	5 054	5 572	5 680
	% of GDP	0.18	0.35	0.39	0.40
Multiplier (Pikhart, 2019)		0.20	0.20	0.20	0.20
Impact on GDP after multiplication	*% of GDP*	**0.04**	**0.07**	**0.08**	**0.08**
Multiplier (Gawthorpe, 2021)		0.40	0.40	0.40	0.40
Impact on GDP after multiplication	*% of GDP*	**0.07**	**0.14**	**0.16**	**0.16**

Source: CZSO, MoLSA, Pikhart (2019) and Gawthorpe (2021). Calculations of the MoF.

5.2 Effects of the Tax Package

On 1 January 2021, an extensive tax package took effect that is intended to help kick-start and boost the recovery of the Czech economy. A reduction in direct taxation of wages by narrowing the tax base to the gross wage, taxable at rates of 15% and 23%, an increase in the basic personal tax credit, and the flat-rate meal allowance are the most important components. In addition, the accelerated depreciation of assets acquired in 2020 and 2021 was introduced and the entry price limit for the depreciation of tangible assets was increased. **These stimulus measures should contribute 0.6 pp to the increase in GDP in 2021, mainly on the back of higher household consumption. In 2022, they should have, on balance, a roughly neutral effect on GDP.**

This year, household consumption will benefit significantly from the narrowing of the tax base to the gross wage at rates of 15% and 23%. In 2021 and 2022, an increase in the basic personal tax credit by CZK 3,000 per year should have a positive effect. Microdata from the Household Income and Living Conditions Survey and from the Household Budget Survey was used to estimate the impact of these changes on household consumption. At the level of individual households, the propensity to consume and the impact of the aforementioned tax adjustments on net income were calculated. The impact on consumption at household level is the product of the propensity to consume (capped at 1) and the change in net income. The change in total consumption is then a weighted sum across all households. Finally, based on an estimate drawn from the microdata, a correction by less than 5% is made that takes into account the fact that low-income households may have become ineligible for certain social benefits due to net income growth resulting from the tax changes (their actual consumption would not increase). **The adjustment to the tax base should result in household consumption increasing by 0.9% of GDP in 2021. The effect of increasing the basic personal tax credit, which will be reflected in both 2021 and 2022, was estimated to be 0.1% of GDP per year.** One risk is the response of households to increased uncertainty, which could manifest itself by a decline in the propensity to consume. However, reducing the tax burden will be beneficial even if it is reflected primarily in an increase in savings, as this would strengthen households' financial reserves.

Investment activity will be positively stimulated in 2021 by the introduction of the extraordinary depreciation of assets acquired in 2020 and 2021 and by increasing the entry price limit for the depreciation of tangible assets. Sectors of the economy that have been hit hard by measures to counter the COVID-19 pandemic have quite significant unused production capacities and are unlikely to invest in their expansion or maintenance in the coming period. However, the acceleration of depreciation will lead to investments resulting in the reallocation of the workforce. Due to the one-off nature of the measure, effective taxation will be increased again in 2022, so we expect investments that would have been made in the coming years to be brought forward to 2021, i.e. to an environment where resources are considerably untapped. Accelerating these investment projects may stimulate economic recovery and facilitate the reallocation of factors of production from the affected sectors to prosperous parts of the economy. **We therefore assume that the tax package could prompt an increase in companies' investments by approximately 0.3% of GDP this year, followed by a decline on a similar scale in 2022.**

The impact of the above-mentioned increase in household consumption and investment on real GDP should be dampened by additional imports of goods and services from abroad and an anticipated change in the price level. Indirect multiplier effects of tax cuts are empirically relatively low (see section 5.1), partly due to the relatively high import intensity of household consumption (approximately 40%) and investment (roughly 50%). As the economy in 2021 is likely to be in an environment of significantly untapped resources, where the multiplier effects tend to be higher than the long-term averages, we assume a multiplier of 0.5. Taking these factors into account, **the tax package is likely to boost real GDP growth by 0.6 pp in 2021 – the effect of household consumption will be 0.5 pp and the effect of investments will be 0.1 pp.** In 2022, household consumption (0.1 pp) and investment (−0.1 pp) will have a contradictory effect on GDP and will more or less neutralise each other. **Real GDP growth in 2022 should therefore not be affected that much by the tax package.**

According to model assumptions, the isolated effect of the tax package could **inhibit slightly the increase in the unemployment rate in 2021**.

The effects of the tax package on inflation, measured by the consumer price index, can be divided into the effect of a change in excise duties and the effect of a change in the taxation of personal income. We consider the inflationary effects of other changes contained in the package to be negligible. Excise duties have a direct effect on prices of goods, making it easier to quantify the impacts on inflation. Changes in personal income taxation will have an indirect effect on inflation, mainly by increasing households' disposable income and consequently pushing up consumption expenditure. However, the resulting impact on inflation through this mechanism can only be identified with a high degree of uncertainty, which must be taken into account when interpreting these estimates. Changes in excise duties could increase the average inflation rate in 2021 by 0.2–0.3 pp and changes in personal income taxation by 0.1 pp. For 2022, we estimate the effect of excise duties on the average inflation rate to be 0.1–0.2 pp. The impact of changes in personal income taxation could range from 0.0 to 0.1 pp. **Therefore, the calculated tax package's overall effect on the average inflation rate is approximately 0.3 pp in 2021 and roughly 0.2 pp in 2022.**

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