Ministry of Finance
of the Czech Republic

Macroeconomic Forecast
of the Czech Republic

April 2020

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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 was made on the basis of data known as of **31 March 2020**, the cut-off date for selected forecast assumptions was 26 March 2020.

Notes

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

Data from the previous forecast (January 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

This year, the global economy is being severely hit by the spreading pandemic of a new type of coronavirus, the SARS-CoV-2. Measures that are being adopted in response and their side effects will almost inevitably lead to a global economic recession. With uncertainty on the rise and asset prices plummeting, developments in financial markets correspond to the situation.

Governments in the majority of countries hit by the virus are adopting radical measures to slow down explosive growth in the number of infected people. These necessary steps are having and will have a deeply negative effect on macroeconomic developments. In all affected countries, sharp easing of economic policies and adoption of massive monetary, fiscal and other stimuli is a natural reaction, which should help minimize the impact of the pandemic on long-run growth.

Developments in the Czech economy in Q4 2019 were characterized by a further slowdown in the growth of economic output. **Real gross domestic product** adjusted for seasonal and calendar effects rose 0.5% QoQ, or 2.0% YoY.

On the use side, it was driven by domestic demand, which increased by 4.3%. Despite a sharp increase in households' savings rate, the biggest contribution came from **household consumption**, which was up 2.9% thanks to high growth momentum of disposable income. Consumption of the general government sector was 1.8% higher due to increases in both employment and intermediate consumption.

There was another gain in growth momentum of **gross fixed capital formation**, which rose 4.3%. The growth was driven especially by corporate investments, though investments of the general government sector and households also contributed positively. By the type of expenditure, investments in housing and other buildings and structures recorded the biggest increases.

On the contrary, the contribution of **foreign trade** was deeply negative. On the export side, low demand from our main trading partners manifested itself and so did a decrease in export performance, especially in the case of export of cars. On the import side, there was another steep rise in import of business services in the area of research and development or consulting.

The Czech economy is profoundly influenced by the coronavirus pandemic and by measures taken to limit the spread of contagion. In this Macroeconomic Forecast, we work with a scenario that Europe will contain the situation in Q2 2020 and economic activity will gradually recover thereafter. The shock to aggregate demand and supply should therefore be only temporary and one-off in nature. Nevertheless, the Czech economy will not avoid a deep recession.

We expect economic output to drop by **5.6% in 2020**. Foreign trade and gross fixed capital formation should record the steepest declines. However, household consumption should also be lower. From H2 2020 on, economic activity should be recovering and economic **growth** could thus reach **3.1% in 2021**.

In November 2019, the year-on-year growth of **consumer prices** exceeded the 3% upper bound of the tolerance band around the Czech National Bank's inflation target for the first time since October 2012. Pro-inflationary effects of the positive output gap and growing unit labour costs were compounded by administrative measures and rising food prices. Taking into account price developments at the start of this year, we increase our forecast for the average **inflation rate** in 2020 to 3.2%. In 2021 there should be no significant pro-inflationary factors and inflation should thus ease to 1.6% as a result of a decrease in unit labour costs and persisting negative output gap.

Employment in the Labour Force Survey methodology has been decreasing since Q2 2019. The decrease should deepen in 2020 due to the economic slump and the associated drop in the demand for labour. At the same time, there should be an increase in the **unemployment rate** to 3.3% in 2020 and further to 3.5% in 2021. Apart from high numbers of job vacancies and employed foreigners the fiscal measures adopted should also help limit the impact of the recession on unemployment.

Within the **current account of the balance of payments**, the surplus on the balance of goods stopped increasing in Q4, while the surplus on the balance of services continued to decline. The coronavirus pandemic should cause both balances to deteriorate. Within other items on the current account, we expect lower deficit on the balance of primary income, resulting from deteriorated momentum of profits of firms under foreign control. The surplus on the current account could thus reach 0.2% of GDP this year and 0.3% of GDP in 2021.

The **budget of the general government sector** reached a surplus of 0.3% of GDP in 2019. In structural terms, the medium-term budgetary objective for the Czech Republic amounting to −1.0% of GDP was exactly met. The budget surplus and the economic growth resulted in a year-on-year decrease of total debt by 1.8 pp to 30.8% of GDP. In 2020 the budget performance of the general government will be greatly affected by the coronavirus pandemic. The deep slump in economic activity translates into a decrease or loss of tax revenues, while expenditures to fight the spread of the epidemic and mitigate its economic and social impact will mount. We

therefore expect the general government balance to end in a sizeable deficit of 4.1% of GDP. From the perspective of the structural balance the expansionary fiscal policy should lead to a deficit of 2.0% of GDP. The forecast envisages an increase of debt to 35.2% of GDP.

Table: Main Macroeconomic Indicators

		2016	2017	2018	2019	2020	2021	2019	2020	2021
						Current forecast		Previous forecast		
Nominal GDP	*bill. CZK*	**4 768**	**5 047**	**5 324**	**5 653**	**5 530**	**5 781**	5 652	5 913	6 168
	nominal growth in %	3.7	5.9	5.5	6.2	-2.2	4.5	6.2	4.6	4.3
Gross domestic product	*real growth in %*	**2.5**	**4.4**	**2.8**	**2.6**	**-5.6**	**3.1**	2.5	2.0	2.2
Consumption of households	*real growth in %*	3.6	4.3	3.2	3.0	-1.5	0.8	2.9	2.4	2.2
Consumption of government	*real growth in %*	2.7	1.3	3.4	2.6	2.6	2.0	3.0	1.9	1.9
Gross fixed capital formation	*real growth in %*	-3.1	3.7	7.6	2.8	-13.6	3.2	1.0	0.9	2.0
Contribution of net exports	*pp*	1.4	1.1	-0.8	-0.3	-1.2	0.7	0.1	0.2	0.3
Contrib. of change in inventories	*pp*	-0.4	0.1	-0.4	0.2	-0.8	0.8	0.1	0.0	0.0
GDP deflator	*growth in %*	**1.3**	**1.4**	**2.6**	**3.5**	**3.7**	**1.4**	3.6	2.6	2.1
Average inflation rate	*%*	**0.7**	**2.5**	**2.1**	**2.8**	**3.2**	**1.6**	2.8	2.8	2.2
Employment *(LFS)*	*growth in %*	**1.9**	**1.6**	**1.4**	**0.2**	**-1.2**	**0.2**	0.2	-0.1	0.0
Unemployment rate *(LFS)*	*average in %*	**4.0**	**2.9**	**2.2**	**2.0**	**3.3**	**3.5**	2.0	2.2	2.4
Wage bill *(domestic concept)*	*growth in %*	**5.7**	**8.3**	**9.5**	**7.1**	**2.6**	**0.8**	7.2	6.1	5.2
Current account balance	*% of GDP*	**1.6**	**1.7**	**0.4**	**-0.4**	**0.2**	**0.3**	0.3	0.6	0.7
General government balance	*% of GDP*	**0.7**	**1.5**	**0.9**	**0.3**	**-4.1**	**.**	0.3	0.0	.
Assumptions:										
Exchange rate CZK/EUR		**27.0**	**26.3**	**25.6**	**25.7**	**26.5**	**26.2**	25.7	25.4	25.1
Long-term interest rates	*% p.a.*	**0.4**	**1.0**	**2.0**	**1.5**	**1.5**	**1.5**	1.5	1.4	1.4
Crude oil Brent	*USD/barrel*	**44**	**54**	**71**	**64**	**38**	**40**	64	64	59
GDP in the euro area	*real growth in %*	**1.9**	**2.7**	**1.9**	**1.2**	**-5.7**	**2.9**	1.2	1.0	1.4

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

The biggest economic decline in the history of the CR
growth rate of real GDP in %, contributions in percentage points

- Net exports
- Gross capital formation
- Final consumption
- Gross domestic product

Source: CZSO. Calculations and forecast of the MoF.

The rise in inflation above 3% should be only temporary
YoY growth rate of CPI in %, contributions in percentage points

- Market increase
- Admin. measures
- CPI

Source: CZSO. Calculations and forecast of the MoF.

Wage growth should almost stall next year
average gross monthly wage, YoY growth rate, in %

- Nominal
- Real

Source: CZSO. Calculations and forecast of the MoF.

Public finances will be in deficit
general government net lending/borrowing, in % of GDP

Source: CZSO. Calculations and forecast of the MoF.

Profits should fall significantly in 2020
YoY growth of nominal GDP in %, contributions in percentage points

- Balance of taxes and subsidies
- Gross operating surplus
- Compensation of employees
- Gross domestic product

Source: CZSO. Calculations and forecast of the MoF.

Unemployment should increase this year
registered unemployment, in thous. of persons, seasonally adjusted
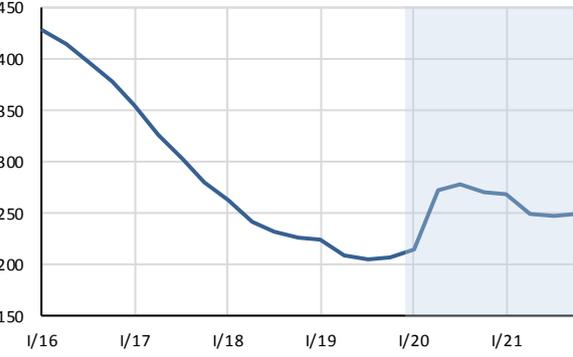
Source: MoLSA. Calc. and forecast of the MoF.

Current account should be roughly balanced
in % of GDP (yearly moving sums)

- Incomes
- Goods and services
- Current account

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

Forecast risks are significantly skewed to the downside
QoQ growth of real GDP in %

- 30% range
- 50%
- 75%
- Central forecast
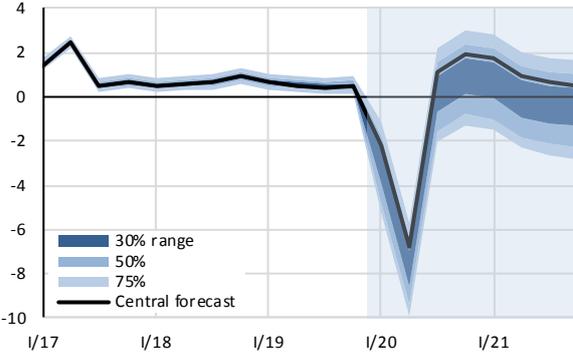
Note: Past probability distribution determined by data revisions.
Source: CZSO. Calculations and forecast of the MoF.

Forecast Risks and Uncertainty

The macroeconomic forecast is saddled with numerous risks that we consider, on balance, to be **significantly tilted to the downside**. Since the last macroeconomic forecast, the intensity of downside risks has greatly increased.

Needless to say, we believe that the spread of a **new type of coronavirus** (SARS-CoV-2) poses the biggest risk. In many countries, now primarily in Europe and in the US, vigorous measures are often being taken to contain the spread of contagion. These measures come at great economic cost. Because the situation is evolving so dynamically, it is extremely difficult to quantify, even generally, what the economic impacts will be and over what sort of timeframe they will be felt. It is likely that assessments will only be possible retrospectively and with a certain hindsight.

The baseline scenario of the macroeconomic forecast assumes that Europe will manage to contain the situation in Q2. If so, there should be a gradual rebound in economic activity starting in the second half of the year (and as early as Q2 in China). Therefore, the impact on economic growth, while hard-hitting, should only be temporary and short.

If this scenario does not play out, the economic downturn would be much more profound. In addition, risks that are associated with high levels of debt or with the situation in the banking sector could materialize in some economies. More information about the coronavirus fallout can be found in Box 3.1.

On 31 January 2020, the **United Kingdom** left the **European Union** with a deal. During the transition period, which, for the time being, is due to last until the end of this year, the UK and the EU should agree on what their future relations will look like, including in the realm of international trade. The macroeconomic forecast assumes that the new relations will retain, as fully as possible, the free movement of goods, services and persons. The risks associated with Brexit have not disappeared entirely, but have simply been put off until the end of the transition period and the next year. The coronavirus pandemic has increased the likelihood that no agreement on future relations will be reached this year.

A risk is also posed by the **tension in trade relations** between the US and China, and potentially the EU. Although the coronavirus pandemic has sidelined the issue

of trade relations, the disputes could well re-escalate (e.g. as part of efforts to "shield" US industry from foreign competition, thereby helping the economy to ride out the repercussions of the pandemic).

In some areas – most obviously in the labour and real estate markets – the Czech economy was showing palpable signs of overheating until recently. In the baseline scenario of the macroeconomic forecast, we expect the recession's impact on the labour market to be cushioned, for example, by the high number of vacancies and foreign nationals in employment here, or by economic policy measures. Taking into account demographic trends, it will remain crucial, in the medium and long term, to increase **labour productivity**.

The cyclical development of the economy, combined with low interest rates, resulted in high momentum of mortgage lending. Along with factors that limit the supply of residential property (some Prague-centric), this contributed to a strong increase in the prices of flats and their certain overvaluation. The combination of **debt financing of residential properties** and the **rapid rise** in their prices is a macroeconomic risk that could start to materialise in response to the expected economic plunge and potential price correction. With many households losing some or all of their income, at least temporarily, the Czech government has prepared to introduce a six-month moratorium, or holiday, on mortgage payments, consumer credit, and business loans. Even so, households may find themselves unable to make payments after the moratorium ends, especially if the economic downturn was felt particularly hard in the labour market.

As the **automotive industry** is so important 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, the risks are compounded by the structural changes that the automotive industry will go through as emission standards are progressively tightened. Manufacturers who fail to comply with those standards will find themselves faced with huge fines. However, the switch to alternative drives requires enormous investment in technological development, in machinery and equipment, and in infrastructure. Effects on employment, supply-and-demand relations, and energy prices are also anticipated.

1   Forecast Assumptions

1.1   External Environment

With world trade and investments slackening against a backdrop of heightened economic uncertainty, global economic growth slowed down at the end of 2019. This year, the economic momentum across all global economies will be severely dented by the pandemic of a new type of coronavirus (see Box 3.1). Following a downturn in China, economic performance in the US and the EU should also plunge in the first half of this year, and the subsequent recovery is likely to be very slow. We forecast that the global economy will fall by 2.0% this year.

In the **United States**, the quarter-on-quarter GDP growth stagnated at 0.5% in Q4 2019 (*versus 0.4%*). A major factor, alongside a modest fall in the momentum of household consumption, was the decrease in inventories. The positive contribution made by the external balance was fuelled by imports, which, following the introduction of tariffs on goods from China and weakening investment demand, fell by the steepest amount in a decade.

Monetary policy has been radically eased in response to the coronavirus pandemic. At its special meeting in early March, the Fed decided to cut the key interest rate by 0.5 pp to a target band of 1.00–1.50%. In mid-March, it went further, lowering the rate to a range of between 0% and 0.25% as part of a coordinated series of measures by several central banks. It also launched an unlimited bond purchase programme.

Unemployment rate dipped to 3.5% in February, close to its long-term low. However, in the second half of March, there was an abrupt reversal in the labour market, when the number of initial unemployment insurance claims rocketed to an all-time high of 3.3 million. The services purchasing managers' index slipped into the contraction zone in February because of weak demand in tourism and prolonged delivery times. Taking into account the profound consequences of the coronavirus pandemic, we expect GDP to decline by 2.7% this year (*versus 2.0% growth*), but then grow by 3.1% (*versus 2.0%*) next year.

Economic growth in China in Q4 2019 accelerated slightly to 1.5% (*versus 1.3%*). Industrial activity picked up as trade relations with the US eased, while household consumption was dampened by rising inflation rate.

Conversely, China's economic performance was hit hard by the coronavirus epidemic in Q1 2020, and seems set to be marred by slumping external demand in Q2. In addition to the initial impact on the service sector, there were outages in production in industrial sectors. In the first two months of this year, retail sales were down by 20.5% and industrial production fell by 13.5%. The government is expected to make a positive contribution of sorts by investing in the health sector and by transferring

funds to the affected regions. We forecast that the Chinese economy should more or less stagnate this year, recording a 0.2% dip (*versus 5.8% growth*), before generating 9.6% growth in 2021 (*versus 5.7%*).

In Q4 2019, the quarter-on-quarter GDP growth slowed to 0.2% in the **European Union** (EU27) and 0.1% in the EA19 (*as forecast*). This was the weakest growth rate since Q1 2013. While gross fixed capital formation returned to its previous level after the marked decline recorded in Q3, this was roughly offset by net exports. The slower momentum of household consumption expenditures was reflected in the slowdown, with employment virtually stagnating in the major economies.

The euro area inflation rate slowed to 1.2% in February, while the growth in food prices was offset by the year-on-year fall in energy prices. The unemployment rate in the EU27 stagnated at 6.6% in the first two months of the year. The European Central Bank kept the deposit rate at −0.5%, but temporarily expanded the volume of asset purchases by a total of EUR 120 billion up to the end of this year. In addition, liquidity will be provided to the banking sector through additional long-term refinancing operations. Leading indicators fell into deep contraction in March. The services purchasing managers' index reached an all-time low, well below the previous lowest level (from February 2009).

We assume that the economies of individual EU Member States will experience a deep decline in economic performance (more so in Italy) in the first half of the year, after which the situation could slowly begin to stabilise. Significant negative impacts can be expected on all GDP expenditure components due to increased uncertainty and measures taken against the spread of coronavirus. GDP in the EU27 could fall by 5.5% this year, before increasing by 2.8% in 2021.

Germany's economy stagnated in Q4 2019 (*versus growth of 0.1%*). The increase in stocks was fully cancelled out by a deterioration in the external trade balance, while other components, including household consumption, had an almost neutral effect on GDP growth.

According to the purchasing managers' indices in services and manufacturing, the coronavirus pandemic has been reflected in a pronounced drop of new export orders and the disruption of supply chains. Consumer confidence is at its lowest levels since May 2009, while fears about future income and economic developments have rocketed.

Although employment in manufacturing is declining, demand in the services sector has so far managed to

neutralise these effects on the labour market. Unemployment rate thus stagnated at 3.2% until February. In response to the impacts of the pandemic, the government agreed on an extraordinary package of measures, including the expansion of government support for part-time work, the provision of liquidity to vulnerable firms, and an increase in infrastructure investment by around 0.1% of GDP over the 2021–2024 period. We forecast that GDP will decline by 5.4% (*versus 0.6% growth*) in 2020 and increase by 3.2% (*versus 1.0%*) next year.

Slovakia's economic growth accelerated to 0.6% (*versus 0.3%*) in Q4 2019, with the external trade balance making the largest contribution. Household consumption

had a positive impact, but the upswing was stifled by a fall in inventories.

The Slovak economy is heavily dependent on demand from euro area countries, which will be dampened considerably as a result of the economic downturn in the EU. Production has been suspended at all car plants and future developments are highly uncertain. Services will be hit by restrictive measures to prevent the spread of the disease. Investment activity could cushion some of the decline, boosted by the approaching end of the EU funds programming period. This year, we expect the economy to contract by 5.2% (*versus growth of 2.2%*). In 2021, GDP could increase by 3.2% (*versus 2.6%*).

Graph 1.1.1: GDP Developments in the EA19 and USA
QoQ growth rate of real GDP in%, seasonally adjusted
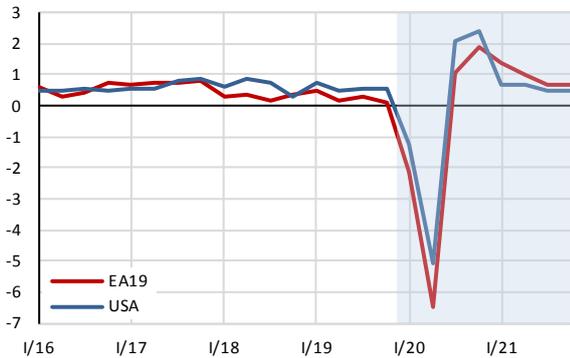
Source: Eurostat. Calculations and forecast of the MoF.

Graph 1.1.2: Real Gross Domestic Product
YoY growth in %, seasonally adjusted
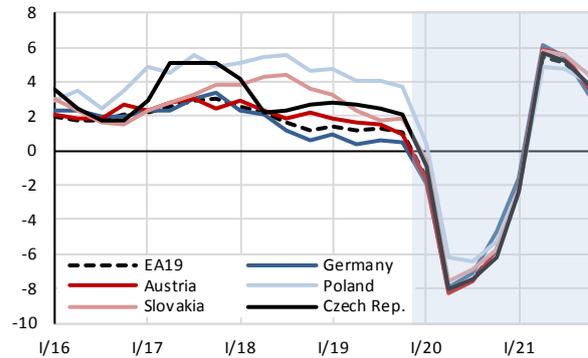
Source: CZSO, Eurostat. Calculations and forecast of the MoF.

Graph 1.1.3: HICP
quarterly averages, YoY growth in %
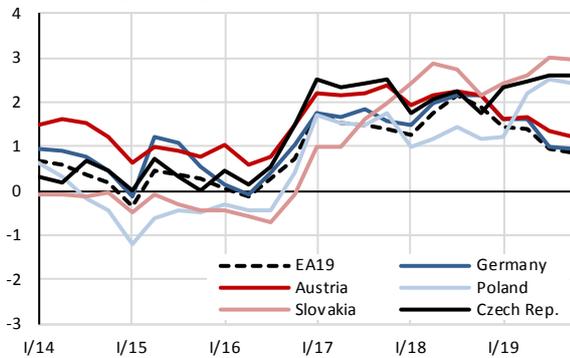
Source: Eurostat. Calculations of the MoF.

Graph 1.1.4: Unemployment Rate
in %, LFS methodology, seasonally adjusted
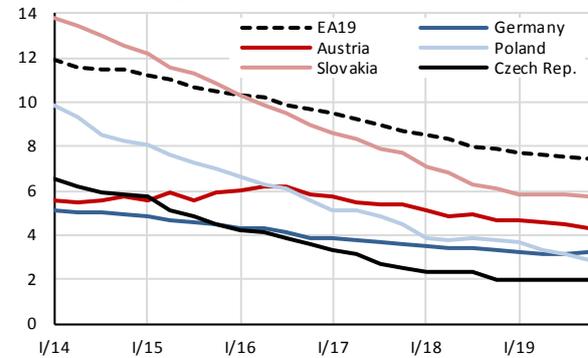
Source: Eurostat.

Graph 1.1.5: Economic Sentiment Indicator
quarterly averages, long-run average = 100
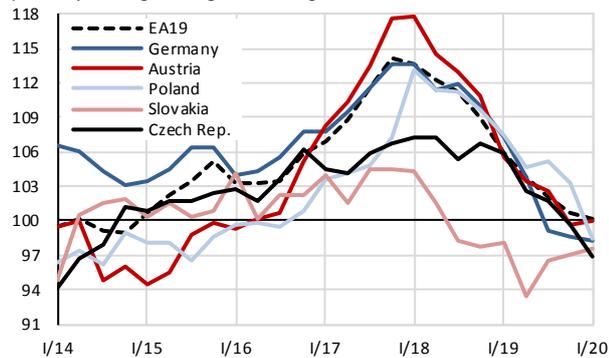
Source: Eurostat. Calculations of the MoF.

Graph 1.1.6: Purchasing Managers' Index
manufacturing, quarterly averages
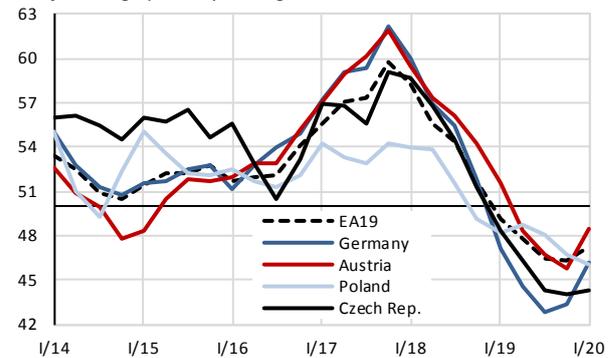
Source: Markit. Calculations of the MoF.

Graph 1.1.7: Business Tendency
manufacturing, quarterly averages
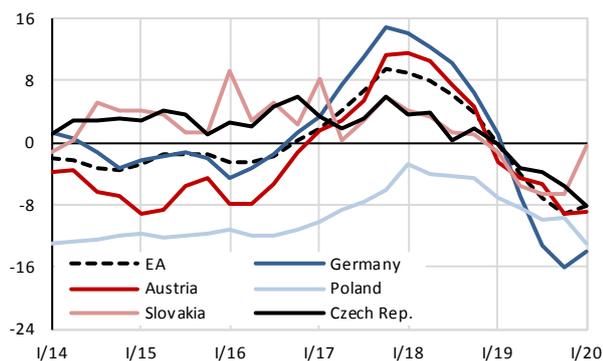
Source: OECD. Calculations of the MoF.

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 Forecast	2021 Forecast
World	seasonally adjusted	**3.5**	**3.5**	**3.6**	**3.5**	**3.4**	**3.8**	**3.6**	**2.9**	**-2.0**	**4.5**
USA	seasonally adjusted	**2.2**	**1.8**	**2.5**	**2.9**	**1.6**	**2.4**	**2.9**	**2.3**	**-2.7**	**3.1**
China	seasonally adjusted	**7.9**	**7.8**	**7.3**	**6.9**	**6.7**	**7.0**	**6.8**	**6.1**	**-0.2**	**9.6**
United Kingdom	seasonally adjusted	**1.5**	**2.1**	**2.6**	**2.4**	**1.9**	**1.9**	**1.3**	**1.4**	**-5.2**	**2.7**
EU27	seasonally adjusted	**-0.7**	**0.0**	**1.6**	**2.2**	**2.0**	**2.8**	**2.1**	**1.5**	**-5.5**	**2.8**
	unadjusted	-0.7	-0.1	1.6	2.3	2.1	2.7	2.1	1.7	.	.
EA19	seasonally adjusted	**-0.8**	**-0.2**	**1.4**	**2.0**	**1.9**	**2.7**	**1.9**	**1.2**	**-5.7**	**2.9**
	unadjusted	-0.9	-0.2	1.4	2.1	1.9	2.5	1.9	1.2	.	.
Germany	seasonally adjusted	**0.6**	**0.5**	**2.2**	**1.5**	**2.1**	**2.8**	**1.5**	**0.6**	**-5.4**	**3.2**
	unadjusted	0.4	0.4	2.2	1.7	2.2	2.5	1.5	0.6	-4.9	3.2
France	seasonally adjusted	**0.4**	**0.6**	**1.0**	**1.0**	**1.0**	**2.4**	**1.7**	**1.3**	**-5.8**	**2.9**
	unadjusted	0.3	0.6	1.0	1.1	1.1	2.3	1.7	1.2	-5.7	3.0
Italy	seasonally adjusted	**-3.0**	**-1.9**	**0.1**	**0.7**	**1.4**	**1.7**	**0.7**	**0.3**	**-8.7**	**2.2**
	unadjusted	-3.0	-1.8	0.0	0.8	1.3	1.7	0.8	0.3	-8.6	2.2
Austria	seasonally adjusted	**0.6**	**0.0**	**0.8**	**1.0**	**2.1**	**2.6**	**2.3**	**1.5**	**-5.8**	**3.1**
	unadjusted	0.7	0.0	0.7	1.0	2.1	2.5	2.4	1.4	-5.7	3.1
Hungary	seasonally adjusted	**-1.4**	**2.0**	**4.1**	**3.8**	**2.1**	**4.5**	**5.1**	**4.9**	**-4.9**	**3.1**
	unadjusted	-1.5	2.0	4.2	3.8	2.2	4.3	5.1	5.0	-4.7	3.1
Poland	seasonally adjusted	**1.7**	**1.3**	**3.3**	**3.8**	**3.1**	**4.9**	**5.2**	**4.1**	**-4.4**	**2.8**
	unadjusted	1.6	1.4	3.3	3.8	3.1	4.9	5.1	4.1	-4.4	2.8
Slovakia	seasonally adjusted	**1.9**	**0.7**	**2.8**	**4.8**	**2.1**	**3.0**	**4.0**	**2.3**	**-5.2**	**3.2**
Czech Republic	seasonally adjusted	**-0.7**	**-0.5**	**2.7**	**5.4**	**2.4**	**4.5**	**2.8**	**2.5**	**-5.6**	**3.0**
	unadjusted	-0.8	-0.5	2.7	5.3	2.5	4.4	2.8	2.6	-5.6	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

		2019				2020			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	*Forecast*	*Forecast*	*Forecast*
USA	*QoQ*	**0.8**	**0.5**	**0.5**	**0.5**	**-1.2**	**-5.1**	**2.1**	**2.4**
	YoY	2.7	2.3	2.1	2.3	0.3	-5.3	-3.8	-2.0
China	*QoQ*	**1.4**	**1.6**	**1.4**	**1.5**	**-7.5**	**3.2**	**4.8**	**2.7**
	YoY	6.4	6.2	6.0	6.0	-3.3	-1.8	1.5	2.7
United Kingdom	*QoQ*	**0.6**	**-0.1**	**0.5**	**0.0**	**-1.5**	**-6.7**	**1.0**	**2.4**
	YoY	2.0	1.3	1.2	1.1	-1.1	-7.6	-7.2	-5.0
EU27	*QoQ*	**0.5**	**0.2**	**0.4**	**0.2**	**-2.0**	**-6.3**	**1.0**	**1.8**
	YoY	1.7	1.4	1.6	1.2	-1.3	-7.7	-7.2	-5.7
EA19	*QoQ*	**0.5**	**0.1**	**0.3**	**0.1**	**-2.1**	**-6.5**	**1.0**	**1.9**
	YoY	1.4	1.2	1.3	1.0	-1.6	-8.1	-7.4	-5.8
Germany	*QoQ*	**0.5**	**-0.2**	**0.2**	**0.0**	**-1.9**	**-6.4**	**1.1**	**2.6**
	YoY	1.0	0.3	0.6	0.5	-1.9	-8.0	-7.1	-4.7
France	*QoQ*	**0.3**	**0.4**	**0.3**	**-0.1**	**-2.2**	**-6.8**	**1.3**	**2.5**
	YoY	1.3	1.5	1.5	0.9	-1.6	-8.6	-7.7	-5.3
Italy	*QoQ*	**0.2**	**0.1**	**0.1**	**-0.3**	**-2.5**	**-9.1**	**0.9**	**1.2**
	YoY	0.2	0.4	0.5	0.1	-2.7	-11.6	-10.8	-9.5
Austria	*QoQ*	**0.5**	**0.1**	**0.2**	**0.2**	**-2.2**	**-6.6**	**0.9**	**2.3**
	YoY	1.9	1.7	1.5	0.9	-1.8	-8.3	-7.6	-5.7
Hungary	*QoQ*	**1.4**	**1.0**	**1.1**	**1.0**	**-2.1**	**-7.1**	**1.2**	**1.9**
	YoY	5.3	5.1	4.8	4.6	1.0	-7.1	-7.1	-6.2
Poland	*QoQ*	**1.4**	**0.7**	**1.2**	**0.3**	**-1.8**	**-5.9**	**0.9**	**1.6**
	YoY	4.7	4.1	4.0	3.7	0.4	-6.2	-6.5	-5.3
Slovakia	*QoQ*	**0.6**	**0.3**	**0.4**	**0.6**	**-1.8**	**-6.7**	**1.1**	**1.8**
	YoY	3.3	2.3	1.7	1.9	-0.6	-7.5	-6.8	-5.7
Czech Republic	*QoQ*	**0.6**	**0.5**	**0.4**	**0.5**	**-2.2**	**-6.8**	**1.1**	**1.9**
	YoY	2.8	2.7	2.5	2.0	-0.9	-8.1	-7.4	-6.1

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

We estimate that the price of **Brent crude oil** averaged USD 51 per barrel (*versus USD 66 per barrel*) in Q1 2020. This was a drop by approximately 19% YoY (16% when expressed in CZK).

On the supply side, a key factor was that the Organisation of the Petroleum Exporting Countries had failed to reach agreement with Russia and other countries on whether to continue or tighten production limits. On the first trading day after their failed negotiations, the oil price tumbled by about a quarter. In addition, Saudi Arabia intends to increase production substantially and reduce the price of oil for its customers from April 2020. A decline in demand, which is associated with weakening global economic activity due to the spread of coronavirus, is also contributing significantly to the fall in oil prices. The US Energy Information Administration estimates that global oil production will significantly outstrip consumption in H1 2020. This is also reflected in the situation on the futures market, where oil is traded most cheaply in this period.

The Brent crude oil price outlook reflects the upward sloping curve of futures prices, which is positioned much lower compared to the January forecast. In 2020, the average price of a barrel of oil should be 41% lower than in 2019, i.e. USD 38 (*versus USD 64*), before rising to USD 40 in 2021 (*versus USD 59*). As we are expecting the Czech koruna to depreciate against the US dollar (see section 1.4.3), the decrease in the price of oil denominated in CZK should be gentler.

The question is whether the oil futures market, at a time of major fluctuations on commodity and capital markets, takes sufficient account of the fact that, in the long run, the current very low oil price is not in the interests of any producer whose public finances depend on the oil price. In addition, the current price will reduce supply from companies operating in areas with higher production costs. The projected oil price is therefore saddled with upside risks.

In 2019, there was a significant decrease in the price of **natural gas** in Europe, by 34% measured in CZK. In the first two months of 2020, the annual decline deepened to approximately 50%. However, as this has not yet been reflected in consumer prices at all, we rate it as an anti-inflationary risk.

Graph 1.2.1: Dollar Price of Brent Crude Oil

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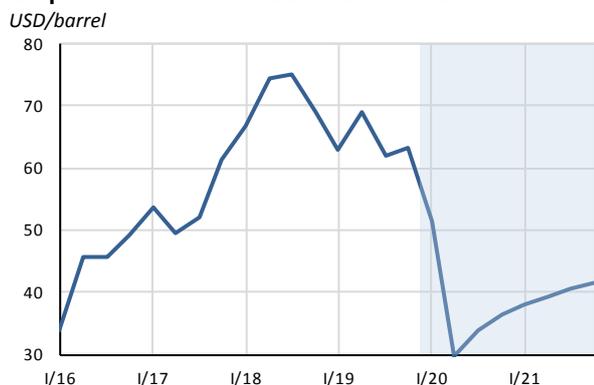
Source: U. S. EIA. Calculations and forecast of the MoF.

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	Forecast
Crude oil Brent	USD/barrel	111.5	108.6	99.0	52.4	43.6	54.2	71.4	64.3	38	40
	growth in %	0.2	-2.6	-8.8	-47.1	-16.9	24.3	31.7	-9.9	-41.1	5.2
Crude oil Brent index (in CZK)	2010=100	143.8	139.9	134.6	85.0	70.1	83.1	102.1	97.1	60	63
	growth in %	11.0	-2.7	-3.8	-36.9	-17.4	18.5	22.9	-4.9	-38.1	4.4
Natural gas (Europe)	USD/MMBtu	11.5	11.8	10.1	6.8	4.6	5.7	7.7	4.8	.	.
	growth in %	9.1	2.7	-14.7	-32.1	-33.1	25.3	34.4	-37.5	.	.
Natural gas (Europe) index (in CZK)	2010=100	142.2	145.9	131.7	106.2	70.7	84.2	105.9	69.6	.	.
	growth in %	20.6	2.6	-9.8	-19.4	-33.4	19.2	25.7	-34.3	.	.

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

		2019				2020			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	Forecast	Forecast	Forecast
Crude oil Brent	USD/barrel	63.1	69.0	61.9	63.3	51	30	34	36
	growth in %	-5.7	-7.4	-17.6	-8.3	-18.5	-56.8	-45.4	-42.3
Crude oil Brent index (in CZK)	2010=100	94.0	103.9	94.4	96.3	79	48	55	59
	growth in %	3.2	-1.6	-14.0	-5.8	-15.9	-53.4	-42.2	-39.3
Natural gas (Europe)	USD/MMBtu	6.1	4.3	3.8	4.9	.	.	.	.
	growth in %	-8.1	-41.2	-54.4	-40.8	.	.	.	.
Natural gas (Europe) index (in CZK)	2010=100	88.0	62.0	56.2	72.3	.	.	.	.
	growth in %	0.5	-37.5	-52.4	-39.2	.	.	.	.

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

1.3 Fiscal Policy

According to Czech Statistical Office data, the general government sector ended with a surplus of CZK 15.4 billion (*versus CZK 17.6 billion*), or 0.3% of GDP (*in line with the estimate*) in **2019**. Negative central government balance was outweighed by positive performance of local governments and social security funds (health insurance companies). This was the fourth consecutive year to report a surplus. The structural balance came exactly to the medium-term budgetary objective for the Czech Republic, which was set at −1.0% of GDP for 2019.

On the revenue side, the momentum of tax revenues, including social security contributions, was the dominant factor, rising by 6.6%. The high dynamism was preserved primarily by personal income tax (9.0%) and social security contributions (7.3%), i.e. revenues dependent on the wage bill trend (see section 3.3). On the other hand, the growing share in GDP taken up by compensation of employees affected corporate profits. Corporate income tax receipts thus recorded only a slight 0.3% increase.

Revenue from taxes on production and imports were up 6.5%. This growth was mainly driven by value added tax, which rose by 6.6%, outstripping the increase in nominal household consumption by 0.5 pp. Excise duties (excluding renewable energy subsidies) were up 1.7%.

Despite a 1.3 pp slowdown, general government final consumption expenditure reported continued significant growth of 8.1%. This was fuelled for the third consecutive year by double-digit growth in the compensation of employees (10.3%), which affected virtually all employees from the general government sector, and most of all teaching staff. Similar growth was also recorded in social transfers in kind (10.5%). Here, the momentum reflected an increase in health system expenditure. It was also affected by a 75% discount on bus and train fares for pupils, students up to 26 years, and seniors over 65 years, which resulted in an additional year-on-year cost of approximately CZK 4 billion. Growth of intermediate consumption slowed down considerably to 3.9% YoY, driven by central government expenditure on purchases of goods and services.

There was a significant increase in cash social benefits (7.5%), reflecting approved measures (in particular for pension benefits), on the one hand, and economic developments, on the other. Despite growing at a slower rate than in 2018, investment expenditure retained significant momentum of almost 11%. This growth was mainly driven by investments financed purely from national sources. The pace of interest expense slowed year on year to 1.5%, resulting in a decline, relative to GDP, to the 2017 level (0.7% GDP).

For 2020, we forecast a deep general government sector deficit of −4.1% of GDP (*versus 0.0% of GDP*), which will mainly be borne by central government (namely the state budget). For the first time since 2015, social security funds (health insurance companies) can also be expected to report a negative balance. By contrast, local governments should remain in a surplus, despite a significant fall in revenues. From the perspective of the structural balance, expansionary fiscal policy should result in a deficit of −2.0% of GDP (*versus −0.3% of GDP*).

On the revenue side, the COVID-19 epidemic and related measures will create a big tax receipt hole. Tax revenues, including social security contributions, are projected to fall by as much as 3.3% YoY, with the largest drop expected in corporate income tax revenues (−20.9%). In terms of personal income tax, we expect revenues to be down by almost 10% YoY, mainly due to the impact of extraordinary measures during the pandemic, such as direct lump-sum support of CZK 25,000 for the self-employed (subject to certain conditions), a move projected to cost about CZK 16 billion. The same macroeconomic factors, together with a planned increase in central government payments for state-insured persons by CZK 5.8 billion and a special measure in the form of a six-month remission of the minimum advance payments on social and health insurance for self-employed persons, with an estimated impact of CZK 23.1 billion, determine social security contributions (0.2%).

Value added tax revenues are predicted to rise by a slight 0.2%. The year-on-year momentum should be inhibited significantly by the slower growth of nominal household consumption and relevant area of general government expenditure. Excise duties (excluding renewable energy subsidies) should dip by 0.7%. Duty on mineral oils will reflect a decrease in diesel and petrol consumption due to the real decline in the economy, or − to be more specific − developments expected in household consumption. Duties on manufactured tobacco will be affected considerably by the volume of cross-border purchases and tourism, which will be severely constrained by anti-coronavirus measures. By contrast, a change in rates on tobacco products and alcohol should have a positive discretionary effect, with an estimated impact of approximately CZK 10 billion.

The expenditure side will be heavily influenced by measures taken to combat COVID-19 and schemes to mitigate its economic and social impacts. General government final consumption expenditure, with forecasted growth of 5.8% YoY, should be driven primarily by social transfers in kind. Their above-average 7% pace of growth reflects the higher health care expenditure necessitated by the current situation. The momentum of the compensation of employees should slow down to 6.4% YoY after double-digit growth in the previous three years. Intermediate consumption (6.2%) should grow only slightly less than the compensation of employees, both due to real consumption (mainly higher expenditure on medical supplies and protective equipment) and higher expected inflation rate.

We expect a strong rise in cash social benefits in 2020, reflecting not just already approved measures (particularly pension and state social support benefits – an increase in the parental allowance), but also economic developments. In addition, cash social benefits are being increased by an emergency measure in the form of nursing allowance, which is intended for parents of children up to 13 years of age if they are unable to work because they need to look after their children for the duration of school closures due to the coronavirus epidemic.

Higher government borrowing needs required to cover the increased state budget deficit will see interest expense rise by almost 16% to 0.9% of GDP, despite the low forecasts for yields on government bonds.

Fixed capital investment should decline slightly by 1.2% YoY after three years of double-digit growth, with over 80% to be financed from national sources (including the Czech funding of European projects).

The forecast anticipates an almost 28% increase in transfers. These include resources to support various groups of economic entities affected by the coronavirus pan-

demic and by measures taken to prevent its spread. The measures already approved include the payment of wage or salary compensation in cases where quarantine measures or other obstacles directly related to COVID-19 prevent employees from working or employers from operating. Another measure is aimed at supporting self-employed persons with CZK 424 per day for the duration of school closures if they have to take care of a child up to the age of 13 and are thus unable to engage in their business activities. Other projects and support schemes, as well as measures to counter the spread of coronavirus and mitigate the impacts, are at the drafting or preparation phase and funds have not yet been specifically allocated to them, but are budgeted for within the framework of a government budget reserve.

Absolute general government debt at the end of 2019 rose YoY, but due to a 6.2% increase in nominal GDP the relative debt fell to 30.8% of GDP (*versus 31.2% of GDP*). The positive trend, present since 2014, of steadily declining debt should reverse in 2020. We expect debt to rise by almost 12% to 35.2% of GDP (*versus 30.5% of GDP*).

Graph 1.3.1: General Government Balance
in % of GDP
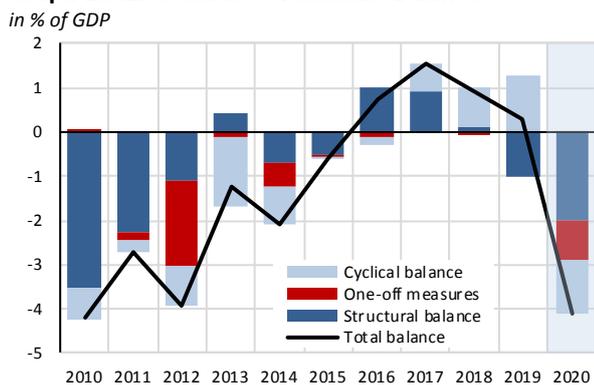
Source: CZSO. Calculations and forecast of the MoF.

Graph 1.3.2: General Government Debt
in % of GDP
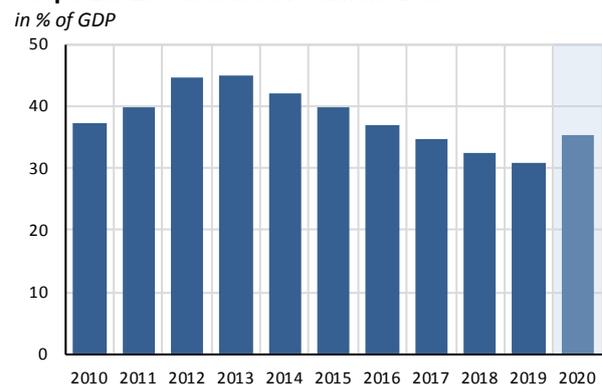
Source: CZSO. Calculations and forecast of the MoF.

Table 1.3.1: Net Lending/Borrowing and Debt

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 Forecast
General government balance	% GDP	-2.7	-3.9	-1.2	-2.1	-0.6	0.7	1.5	0.9	0.3	-4.1
	bill. CZK	-110	-160	-51	-91	-28	34	77	49	15	-228
Cyclical balance	% GDP	-0.3	-0.9	-1.6	-0.9	0.0	-0.1	0.6	0.9	1.3	-1.2
Cyclically adjusted balance	% GDP	-2.4	-3.0	0.3	-1.2	-0.6	0.9	0.9	0.0	-1.0	-2.9
One-off measures [1]	% GDP	-0.1	-1.9	-0.1	-0.5	-0.1	-0.1	0.0	-0.1	0.0	-0.9
Structural balance	% GDP	-2.3	-1.1	0.4	-0.7	-0.5	1.0	0.9	0.1	-1.0	-2.0
Fiscal effort [2]	pp	1.2	1.2	1.5	-1.1	0.2	1.5	-0.1	-0.8	-1.1	-1.0
Interest expenditure	% GDP	1.3	1.4	1.3	1.3	1.1	0.9	0.7	0.8	0.7	0.9
Primary balance	% GDP	-1.4	-2.5	0.1	-0.8	0.5	1.6	2.3	1.7	1.0	-3.3
Cyclically adjusted primary balance	% GDP	-1.1	-1.6	1.7	0.1	0.5	1.8	1.7	0.8	-0.3	-2.0
General government debt	% GDP	39.8	44.5	44.9	42.2	40.0	36.8	34.7	32.6	30.8	35.2
	bill. CZK	1 606	1 805	1 840	1 819	1 836	1 755	1 750	1 735	1 740	1 946
Change in debt-to-GDP ratio	pp	2.5	4.6	0.4	-2.7	-2.2	-3.1	-2.1	-2.1	-1.8	4.4

[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

Taking into account the expected further acceleration of inflation and the continued heightened domestic inflationary pressures, the CNB raised its two-week repo rate by 0.25 pp to 2.25% at the beginning of February. However, the pandemic of the new type of coronavirus and its negative impacts on the Czech economy led the CNB to cut its prime interest rate by 0.5 pp at a special monetary policy meeting on 16 March and then by 0.75 pp at its regular meeting on 26 March, i.e. to 1.00%. In both cases, the CNB concluded that a significant slowdown or decline in the Czech economy could be expected this year, that strong domestic inflationary pressures would wane, and that depreciation of the koruna was contributing to easing of monetary conditions, but was not sufficient to maintain inflation close to the target at the monetary policy horizon.

The interest rate component of monetary conditions was relaxed even after the two-week repo rate increase in February. The outlook for short-term interest rates and inflation means a further reduction in real interest rates. The real exchange rate component was also eased, mainly due to the marked depreciation of the nominal exchange rate at the end of Q1 2020. We also expect a weaker exchange rate in Q2. From H2 2020, the koruna could return to a path of gradual appreciation. In 2020 and 2021 monetary conditions should therefore stimulate the economy in the negative output gap.

1.4.2 Financial Sector and Interest Rates

In Q1 2020, the **three-month PRIBOR** averaged 2.2% (*as forecast*). If the stance of monetary policy meets our expectations, it should average 0.7% (*versus 2.2%*) in Q2 and 0.8% (*versus 2.2%*) for the full year 2020. In 2021, following developments in the CNB's prime interest rate, the 3M PRIBOR could average 0.3% (*versus 2.2%*).

The **yield to maturity on ten-year government bonds** for convergence purposes increased to 1.5% on average in January and February. As such, it continued to hover below the three-month PRIBOR rate. The yield curve of government bonds thus remains flat at shorter maturities; the yield on 10Y bonds was lower than the yield on 2Y and 5Y bonds in February. Taking into account the monetary policy we expect the CNB and ECB to pursue, inflation developments and the persisting flat yield curve, we believe that long-term interest rates will stagnate at 1.5% (*versus 1.4%*) over the entire forecast horizon.

In Q4 2019, total **loans to households** increased by 6.0% YoY. The increase for the year as a whole was 6.6%, which was 1.0 pp less than in 2018. The momentum remained driven by housing loans, which account for approximately 75% of all lending to households. Average customer interest rates on the overall volume of loans to households virtually stalled in 2019.

In connection with the CNB's recommendation for the management of risks associated with the granting of retail loans secured with residential property, effective as of 1 October 2018, new residential mortgages declined both in terms of volume and number last year. In 2019, the volume of new residential mortgages (excluding refinancing) was down 13.6% YoY, despite customer interest rates falling to 2.6% on average. However, since the end of 2019, the volume of new residential mortgages has been growing YoY, partly due to the low base effect.

The growth of total **loans to non-financial corporations** slowed further to 3.0% YoY in Q4. It was driven primarily by loans with maturity of more than five years. There was a 2.6% reduction in loans maturing within one year. For the full year 2019, loans to non-financial corporations increased by 4.3%, mainly due to foreign-currency loans and loans with maturities of one to five years. Loans with maturity of up to one year dipped by 0.3%, which may indicate that firms are increasingly financing their working capital out of their own resources.

The **non-performing loans ratio** fell again slightly in Q4 to 1.7% among households and to 3.2% among non-financial corporations. This trend continued in January and February 2020. Foreign-currency loans make up one third of loans to non-financial corporations and, in an environment of a rapidly depreciating koruna, they are at an increased risk of default, which would result in financial problems for the borrower.

1.4.3 Exchange Rates

During Q1 2020, the koruna at first gradually appreciated against the euro to CZK 24.8/EUR, but depreciated sharply from mid-February (by 10.8% over 36 days) to around CZK 27.8/EUR due to the uncertainty surrounding the coronavirus pandemic. An increase in global risks usually has a disproportionately greater impact on small open economies and their exchange rate. In Q1 2020, the exchange rate averaged CZK 25.6/EUR (*vs. CZK 25.5/EUR*), which corresponds to year-on-year appreciation of 0.2%.

We expect uncertainty to remain high in Q2. The koruna should trade at CZK 27.0/EUR (*versus CZK 25.4/EUR*) on average, depreciating by 4.9% YoY. Global sentiment could be improving from Q3 on. Factors fundamental to the appreciation of the koruna, i.e. real convergence of the Czech economy and a positive interest rate differential vis-à-vis the euro area, should start to play a role in 2021. In 2020, the koruna should weaken by 3.1% and average CZK 26.5/EUR (*vs. CZK 25.1/EUR*). In 2021 and in the outlook horizon, the koruna should return to a path of gradual appreciation.

The CZK/USD exchange rate is determined by the USD/EUR exchange rate, for which an assumption of stability at USD 1.09/EUR (*versus USD 1.12/EUR*), i.e. the average of the 10 days preceding the cut-off date for selected forecast assumptions, was adopted.

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
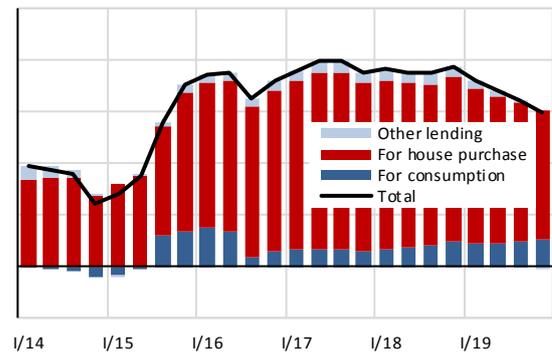
Source: CNB. Calculations of the MoF.

Graph 1.4.3: New Mortgage Loans
for purchase of residential property, YoY growth in %, CZK billion (rhs)
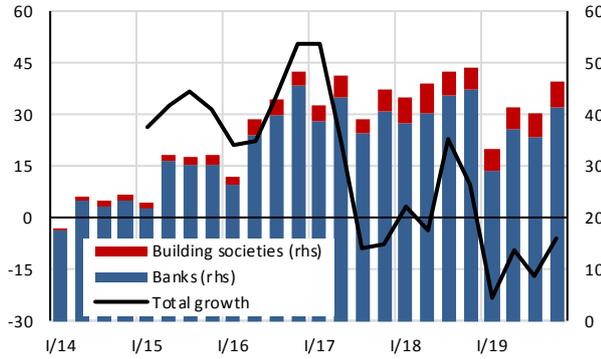
Source: CNB. Calculations of the MoF.

Graph 1.4.4: Loans to Non-financial Corporations
YoY growth rate in%, contributions in percentage points
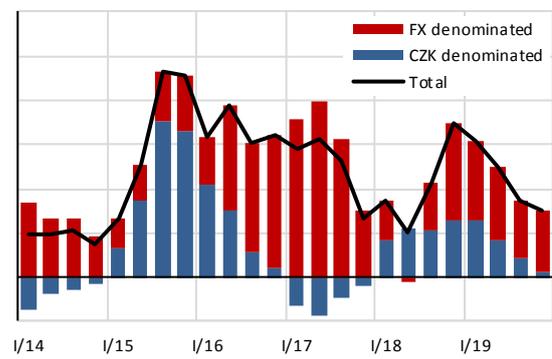
Source: CNB. Calculations of the MoF.

Graph 1.4.5: Non-performing Loans
ratio of non-performing to total loans, in%
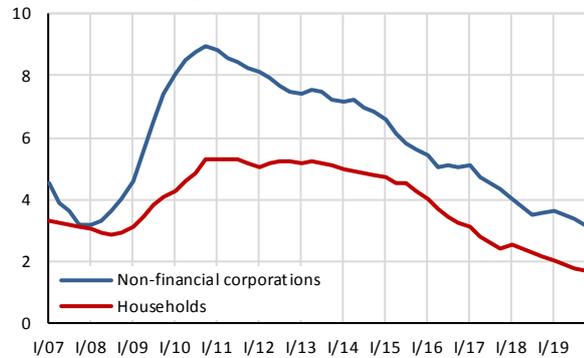
Source: CNB. Calculations of the MoF.

Graph 1.4.6: Deposits
YoY growth rate in%, contributions in percentage points
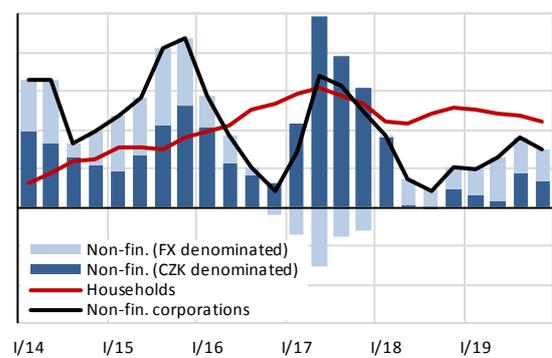
Source: CNB. Calculations of the MoF.

Graph 1.4.7: Nominal Exchange Rates
quarterly averages, average 2015=100 (rhs)
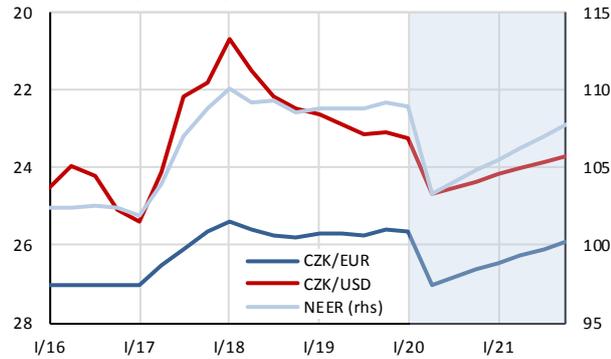
Source: CNB. Calculations and forecast of the MoF.

Graph 1.4.8: Real Exchange Rate to the EA19
deflated by GDP deflators, YoY growth rate in %, contributions in pp
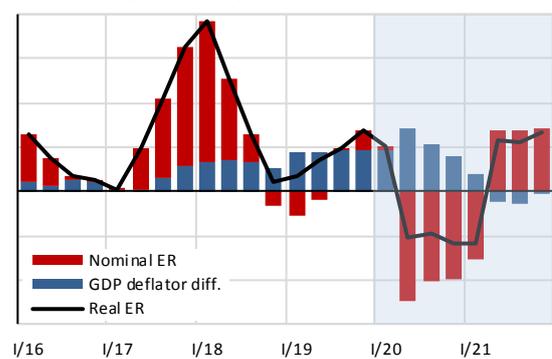
Source: CNB, CZSO, Eurostat. Calculations and forecast of the MoF.

Table 1.4.1: Interest Rates – yearly
average of period, unless stated otherwise

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
										Forecast	*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	.	.
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	.	.
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	.	.
PRIBOR 3M	*in % p.a.*	1.00	0.46	0.36	0.31	0.29	0.41	1.23	2.12	0.8	0.3
YTM of 10Y government bonds	*in % p.a.*	2.78	2.11	1.58	0.58	0.43	0.98	1.98	1.55	1.5	1.5
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

		2019				2020			
		Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
						Estimate	*Forecast*	*Forecast*	*Forecast*
Repo 2W rate CNB (*end of period*)	*in % p.a.*	1.75	2.00	2.00	2.00	1.00	.	.	.
Main refinancing rate ECB (*end of period*)	*in % p.a.*	0.00	0.00	0.00	0.00	0.00	.	.	.
Federal funds rate (*end of period*)	*in % p.a.*	2.50	2.50	2.00	1.75	0.00	.	.	.
PRIBOR 3M	*in % p.a.*	2.01	2.13	2.15	2.17	2.2	0.7	0.2	0.2
YTM of 10Y government bonds	*in % p.a.*	1.81	1.75	1.20	1.43	1.5	1.5	1.5	1.5
Client interest rates									
Loans to households	*in % p.a.*	3.67	3.66	3.66	3.65	.	.	.	.
Loans to non-financial corporations	*in % p.a.*	3.67	3.74	3.80	3.80	.	.	.	.
Deposits of households	*in % p.a.*	0.36	0.37	0.40	0.43	.	.	.	.
Deposits of non-financial corporations	*in % p.a.*	0.27	0.35	0.42	0.43	.	.	.	.

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			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Households									
Loans	growth in %	**7.7**	**7.6**	**7.5**	**7.7**	**7.2**	**6.8**	**6.4**	**6.0**
For consumption	growth in %	4.2	5.2	5.8	6.5	6.0	6.1	6.4	7.0
For house purchase	growth in %	8.8	8.5	8.3	8.5	8.0	7.6	7.2	6.7
Other lending	growth in %	4.7	4.4	4.3	3.7	2.7	2.1	0.4	-0.7
CZK denominated	growth in %	7.7	7.6	7.5	7.7	7.2	6.8	6.4	6.0
FX denominated	growth in %	11.1	-10.8	-0.9	10.9	23.2	13.3	0.6	0.9
Deposits	growth in %	**6.6**	**6.4**	**7.2**	**7.7**	**7.6**	**7.3**	**7.1**	**6.7**
CZK denominated	growth in %	7.1	6.4	7.2	7.7	7.5	7.0	6.7	6.3
FX denominated	growth in %	-7.3	7.8	6.9	7.5	11.3	13.6	18.2	17.4
Non-performing loans (banking statistics)	share, in %	**2.6**	**2.4**	**2.3**	**2.2**	**2.0**	**1.9**	**1.8**	**1.7**
Loans to deposits ratio	in %	**63**	**63**	**63**	**64**	**63**	**63**	**63**	**63**
Non-financial corporations									
Loans	growth in %	**3.5**	**2.0**	**4.2**	**7.0**	**6.1**	**5.0**	**3.4**	**3.0**
CZK denominated	growth in %	2.3	3.2	3.0	3.6	3.7	2.4	1.2	0.4
FX denominated	growth in %	6.3	-0.7	7.2	15.3	12.1	11.1	8.4	8.7
Deposits	growth in %	**5.6**	**2.2**	**1.3**	**3.1**	**2.9**	**3.9**	**5.4**	**4.5**
CZK denominated	growth in %	6.8	0.2	-0.1	1.8	1.1	0.6	3.3	2.5
FX denominated	growth in %	1.0	10.7	6.9	8.3	9.7	16.9	13.2	12.2
Non-performing loans (banking statistics)	share, in %	**4.0**	**3.8**	**3.5**	**3.5**	**3.7**	**3.5**	**3.4**	**3.2**
Loans to deposits ratio	in %	**103**	**104**	**109**	**108**	**107**	**105**	**107**	**107**

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 Forecast	2021 Outlook	2022 Outlook	2023 Outlook
Nominal exchange rates											
CZK / EUR	average	27.53	27.28	27.03	26.33	25.65	25.67	26.5	26.2	25.5	24.8
	appreciation in %	-5.7	0.9	0.9	2.7	2.7	-0.1	-3.2	1.3	2.8	2.8
CZK / USD	average	20.75	24.60	24.43	23.39	21.74	22.94	24.2	23.9	23.3	22.6
	appreciation in %	-5.7	-15.7	0.7	4.5	7.6	-5.2	-5.2	1.1	2.8	2.8
NEER	average of 2015=100	100.8	100.0	102.4	105.4	109.3	108.9	105	107	110	113
	appreciation in %	-5.2	-0.8	2.4	2.9	3.7	-0.3	-3.3	1.2	2.8	2.8
Real exchange rate to EA19 [1]	average of 2015=100	99.3	100.0	101.3	104.5	108.6	110.5	109	111	114	118
	appreciation in %	-4.2	0.7	1.3	3.1	4.0	1.7	-1.1	1.2	3.2	3.4
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

		2019 Q1	2019 Q2	2019 Q3	2019 Q4	2020 Q1 Estimate	2020 Q2 Forecast	2020 Q3 Forecast	2020 Q4 Forecast
Nominal exchange rates									
CZK / EUR	average	25.68	25.68	25.74	25.58	25.63	27.0	26.8	26.6
	appreciation in %	-1.1	-0.3	0.1	0.9	0.2	-4.9	-4.0	-3.9
CZK / USD	average	22.61	22.86	23.15	23.11	23.25	24.7	24.5	24.3
	appreciation in %	-8.6	-5.9	-4.2	-2.6	-2.7	-7.4	-5.5	-5.1
NEER	average of 2015=100	108.8	108.8	108.9	109.2	109	103	104	105
	appreciation in %	-1.1	-0.4	-0.5	0.6	0.1	-5.0	-4.4	-4.0
Real exchange rate to EA19 [1]	average of 2015=100	110.1	110.1	110.6	111.1	112	108	109	109
	appreciation in %	0.7	1.4	1.9	2.7	2.1	-2.0	-1.9	-2.3
REER [2]	average of 2015=100	111.8	111.1	111.3	111.8	.	.	.	.
	appreciation in %	-0.5	0.0	0.2	1.7	.	.	.	.

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

1.5 Structural Policies

In an effort to prevent the spread of the new corona-virus, the Czech government declared a nationwide **state of emergency** on 12 March 2020. The drastic but necessary measures taken to curb the explosive increase in the number of infected people are having a major negative impact on macroeconomic developments and budget of the general government sector. Because the situation is evolving so dynamically, it is extremely difficult to quantify, even generally, what the economic impacts will be and over what sort of timeframe they will be felt. It is likely that assessments will only be possible retrospectively and with a certain hindsight.

The forecast economic recession should be cushioned by **bold fiscal measures** increasing the deficit of the state budget from the originally planned CZK 40 billion to CZK 200 billion, i.e. by almost 3% of GDP. These measures include the suspension of electronic registration of sales

and of the launch of its final wave for the duration of the state of emergency plus the subsequent three months.

In the medium term, it is significant that, on 20 January 2020, the government approved the **principles underpinning the 2020–2030 Economic Strategy of the Czech Republic**. The ideas behind the economic strategy mainly address the Czech Republic's position in a global context and its competitiveness. The main vision and goal is to make the Czech Republic one of the 20 most competitive economies in the world by 2030 according to the World Economic Forum ranking.

On 17 February 2020, the government approved a draft regulation on an **increase in the levels of the living minimum and subsistence minimum** from 1 April 2020. The living minimum is the lowest socially recognised threshold of monetary income needed to cover food and other basic personal needs. The 13.2% increase for individuals takes the living minimum up to CZK 3,860 per month.

Similarly, the amounts for multi-person households, which are graded, for example, according to the age of children, are also going up. The subsistence minimum is the lowest threshold of monetary income considered necessary to cover food and other basic personal needs at a survivable level. It will also be increased by 13.2%, taking it to CZK 2,490.

1.6 Demographic Trends

The population of the Czech Republic is gently rising. At the beginning of 2020, there were 10,694,000 people living in the Czech Republic. The population increased by 44,100, i.e. by 0.4%, during 2019. Over the forecast horizon, we can expect a very small increase roughly in line with, or perhaps a little higher than, the central variant of the Czech Statistical Office's Population Projection.

The above-mentioned population growth was solely due to the **positive migration balance**. Foreign migration, motivated mainly by the tight situation on the labour market, increased the number of inhabitants by 44,300, the highest rise since 2008 and 5,600 more than in 2018. While 65,600 people moved to the Czech Republic from abroad, 21,300 people left for other countries. Citizens of Ukraine (18,200) contributed more than a third to the positive migration balance, with the share of Slovaks (4,600) and Russians (2,700) also high.

In 2019, the difference between **birth and death rates** was almost zero. There were 112,200 live births in 2019, 1,800 fewer than in 2018. The fertility rate in 2019 remained at a similar level as in 2018. Preliminary results show that it was 1.71–1.72 children per woman. The lower number of births can thus be attributed to changes in the age structure of women of reproductive age.

In the course of 2019, 112,400 inhabitants died, roughly equal with the previous year's result. We can expect the slight downward trend in the number of live births to continue in the next few years, while mortality should stall. Considering the vigorous measures that have been taken, we do not expect the coronavirus epidemic to have a major effect on mortality.

Although detailed data on the **age structure** of the Czech Republic's population at the beginning of 2020 will not be published until June, we can expect the population to increase in the youngest age groups and among seniors. By contrast, the decline in the population aged 20–64, albeit slowed down somewhat by the extensive immigration of people with a favourable age structure, seems set to continue.

The economic boom has meant that the number of **old-age pensioners** is not as high as one would have expected when demographic trends and the gradual hike in the statutory retirement age were factored in. At the beginning of 2020, there was only a slight year-on-year increase in the number of old-age pensioners by 4,700, i.e. by 0.2%. This stagnation should continue in the next few years.

At the beginning of 2020, there were 2,415,000 old-age pensioners (22.6% of the Czech population) in the pension system. Between the beginning of 2012 and 2019, the increase in their number lagged behind the dynamic growth in employment, and therefore there was a visible decrease in the effective dependency ratio by 2.7 pp. This was one of the factors behind the surplus of the pension account balance. The change in the labour market's behaviour, reflected in a decline in employment at the end of 2019 (see section 3.3), led to an increase in the effective dependency ratio for the first time in eight years. As a result of the deep economic downturn in 2020, accompanied by a decline in employment, the dependency ratio will continue to increase.

Graph 1.6.1: Age Groups
shares in total population, in %
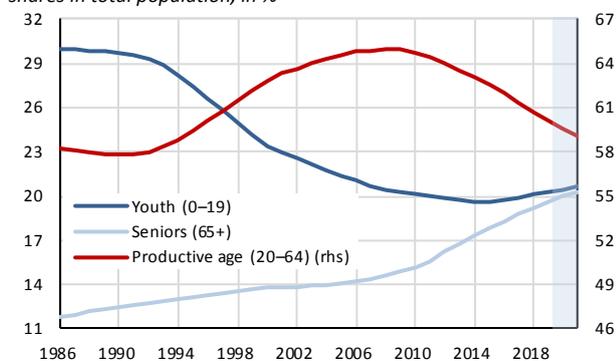
Source: CZSO. Calculations of the MoF.

Graph 1.6.2: Life Expectancy at Birth
in years
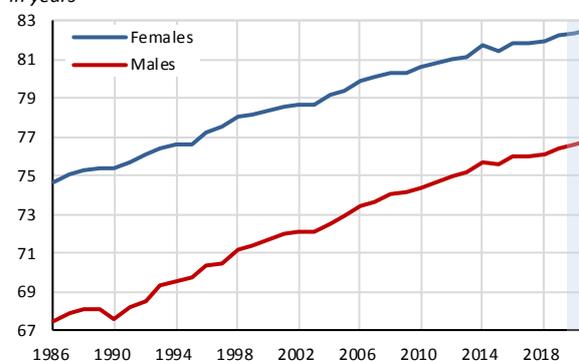
Source: CZSO.

Graph 1.6.3: Old-Age Pensioners

absolute increase over a year in thousands of persons
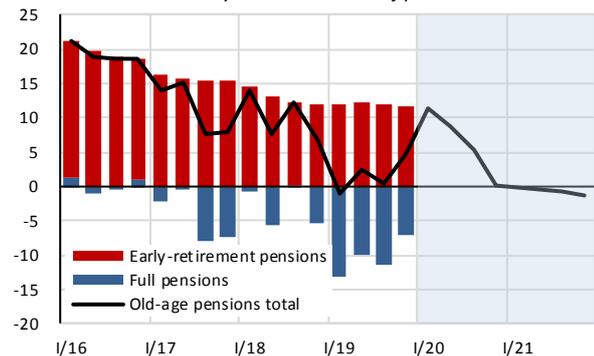
Source: Czech Social Security Administration, CZSO. Calculations of the MoF.

Table 1.6.1: Demographics

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
								Forecast	Forecast	Outlook	Outlook
Population (as of 1 January)	thous. persons	10 512	10 538	10 554	10 579	10 610	10 650	10 694	10 717	10 737	10 754
	growth in %	0.0	0.2	0.1	0.2	0.3	0.4	0.4	0.2	0.2	0.2
0–19 years	thous. persons	2 057	2 064	2 082	2 106	2 133	2 160	2 189	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	6 371	6 329	6 289	6 257
	growth in %	-0.7	-0.5	-0.8	-0.9	-0.7	-0.5	-0.5	-0.7	-0.6	-0.5
65 and more years	thous. persons	1 826	1 880	1 932	1 989	2 040	2 087	2 134	2 178	2 219	2 254
	growth in %	3.3	3.0	2.8	2.9	2.6	2.3	2.3	2.1	1.9	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	2 415	2 414	2 407
	growth in %	0.0	0.6	0.9	0.8	0.3	0.3	0.2	0.0	0.0	-0.3
Old-age dependency ratios (as of 1 January)											
Demographic [2]	%	27.5	28.5	29.5	30.7	31.7	32.6	33.5	34.4	35.3	36.0
Under current legislation [3]	%	38.8	39.3	39.8	40.1	40.4	40.4	40.6	40.7	40.7	40.5
Effective [4]	%	47.2	46.9	46.8	46.2	45.7	45.2	45.5	45.9	45.9	45.6
Fertility rate	children	1.528	1.570	1.630	1.687	1.708	1.71	1.70	1.70	1.70	1.70
Population increase	thous. persons	26	16	25	31	40	44	23	20	17	15
Natural increase	thous. persons	4	0	5	3	1	0	-3	-6	-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	112	113	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 2019, the Czech economy found itself at the peak of the business cycle. The **positive output gap** reached 3.8% of potential output[1] in Q4 2019. Against the background of the coronavirus pandemic and measures to stop it from spreading, we can expect the economic slump to steer the economy into a deeply negative output gap, which could amount to −5 to −6% of potential output in Q2 2020. In the subsequent period, the negative output gap should be closing.

The year-on-year growth of **potential output** is gradually slowing down. A new estimate puts it at 1.0% in Q4 2019. This result reflects the deep slump expected in economic activity in H1 2020. After the recession has ended, potential product growth should gradually increase.

Potential growth is profoundly influenced by the trend component of **total factor productivity**. In Q4, its contribution stood at 0.6 pp.

Labour supply is affected by population ageing (see section 1.6), a process that is being expressed, among other things, by a long-term decline in the working age population (20–64). This reduced the year-on-year growth in

potential output by 0.3 pp in Q4 2019. A similar result is projected in the period ahead.

The negative impact that demographic trends are having on labour supply was cushioned, until recently, by a dynamic **increase in the participation rate**, which swelled the size of the workforce in the economy. However, since Q2 2019, there was a juddering slowdown in the year-on-year growth of participation, and the size of the labour force actually shrank. The contribution made by the participation rate to the growth of potential output thus came to just 0.1 pp in Q4 2019. We do not expect the coronavirus epidemic to have a major effect on participation.

In the Czech Republic, we are witnessing a steady long-term decline in the number of **hours usually worked**. In Q4, this factor slowed the growth of potential product by 0.1 pp.

Capital stock contributed 0.7 pp in Q4 2019 on the back of strong growth in gross fixed capital formation in 2018.

Graph 2.1.1: Output Gap
in % of potential product

Source: CZSO. Calculations of the MoF.

Graph 2.1.2: Potential Product
YoY growth rate in %, contributions in percentage points
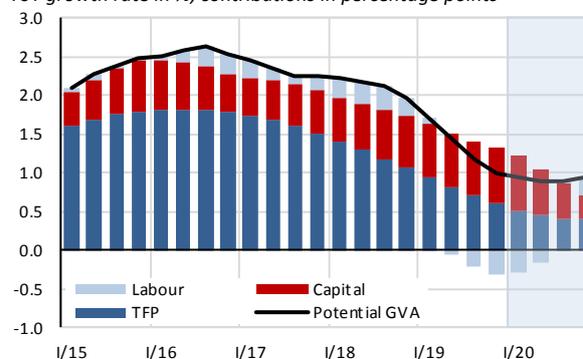
Source: CZSO. Calculations of the MoF.

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[1] In this Macroeconomic Forecast, the method used to calculate the output gap has changed. Previously, the calculations were based only on past data. Now, projections for the periods covered by estimates, forecasts and outlooks are included in the calculation. With this method of calculation, the expected deep contraction of the economy in the second quarter of 2020 significantly increases the values of the output gap and reduces the growth rate of potential output in the recent past.

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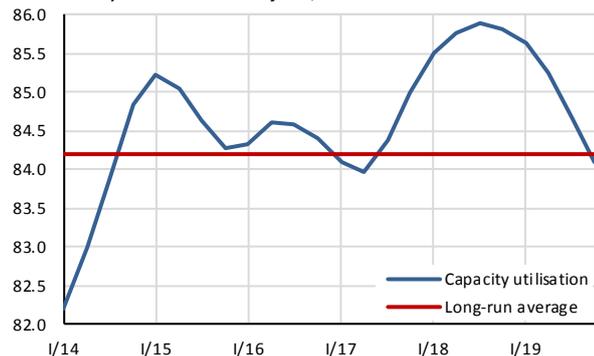
Source: CZSO.

Graph 2.1.4: Total Factor Productivity
YoY growth rate in %
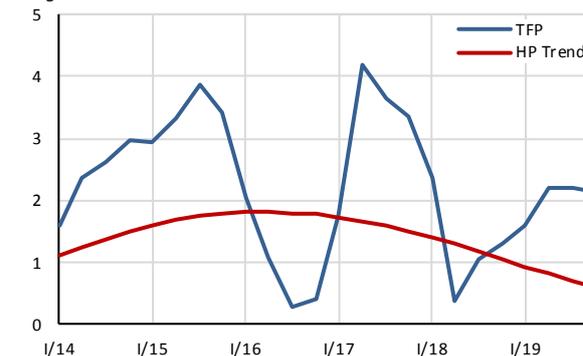
Source: CZSO. Calculations of the MoF.

Table 2.1.1: Output Gap and Potential Product

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 Forecast
Output gap	%	-0.9	-2.6	-4.3	-2.5	-0.1	-0.4	1.7	2.5	3.6	-3.3
Potential product [1]	growth in %	0.8	1.0	1.3	1.5	2.3	2.6	2.3	2.1	1.3	0.9
Contributions											
Trend total factor productivity	pp	0.4	0.5	0.8	1.3	1.7	1.8	1.6	1.2	0.8	0.4
Fixed assets	pp	0.6	0.5	0.4	0.4	0.6	0.6	0.5	0.6	0.7	0.5
Population 20–64 yers	pp	-0.1	-0.3	-0.3	-0.4	-0.3	-0.4	-0.4	-0.4	-0.3	-0.3
Participation rate	pp	0.0	0.6	0.8	0.3	0.5	0.7	0.7	0.7	0.3	0.4
Usually worked hours	pp	-0.2	-0.3	-0.4	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1

[1] Based on gross value added.
Source: CZSO. Calculations of the MoF.

2.2 Business Cycle Indicators

In March 2020, the economic impact of the spreading pandemic of the new type of coronavirus began to hit the confidence of economic entities hard. In Q1 2020, the confidence indicator pointed to a decline in the year-on-year momentum of gross value added in industry, construction and trade and services. 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 also drawing on business confidence in Germany, continued its slide, indicating that exports probably shrank in Q1 2020.

The Czech Statistical Office's consumer confidence indicator plunged in Q1 2020. This suggests a sharp slow-

down in household final consumption expenditure in H1 2020 because the confidence indicator has a lead of one to two quarters. On the other hand, the consumer confidence indicator compiled by the Ministry of Finance from questions used in the European Commission's consumer survey, stabilised after its previous falls. Worse assessment of the economic situation was offset by higher propensity to consume.

With all of its components slackening, the composite confidence indicator signals a marked slowdown in the year-on-year growth of gross value added in Q1 2020.

The composite leading indicator implies that the positive output gap will start to close significantly in H1 2020.

Graph 2.2.1: Confidence and GVA in Industry
2005=100 (lhs), YoY growth in % (rhs)
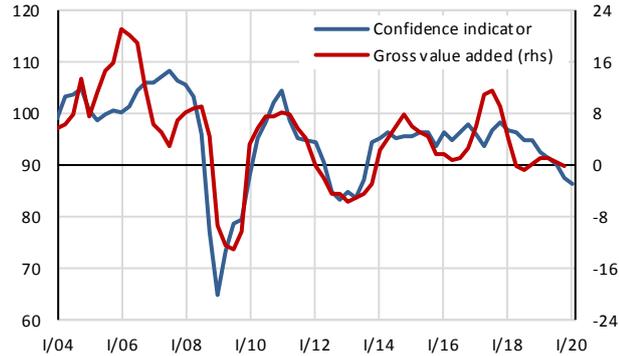
Source: CZSO.

Graph 2.2.2: Confidence and GVA in Construction
2005=100 (lhs), YoY growth in % (rhs)
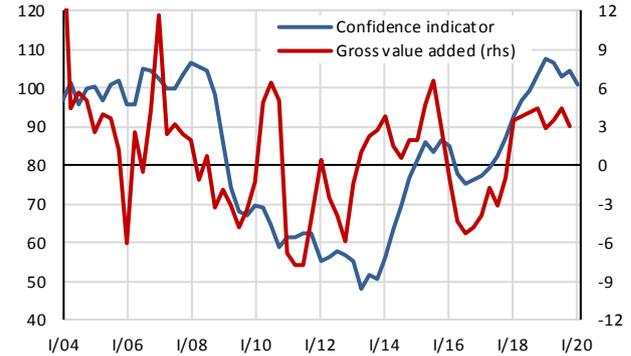
Source: CZSO.

Graph 2.2.3: Confidence and GVA in Trade and Services
2005=100 (lhs), YoY growth in % (rhs)
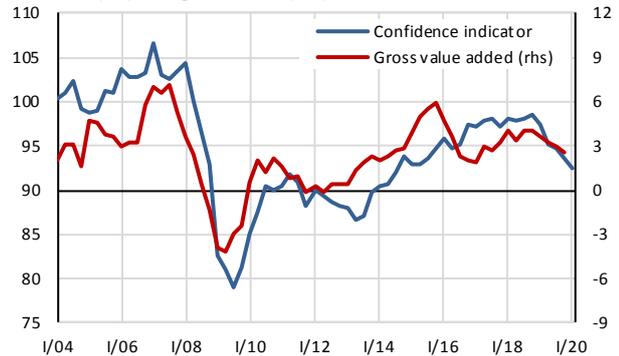
Source: CZSO. Calculations of the MoF.

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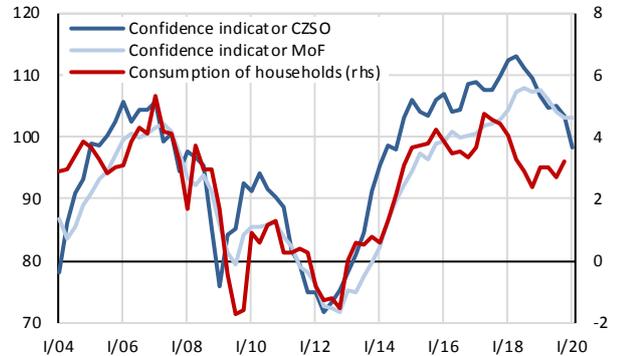
Source: CZSO, European Commission. Calculations of the MoF.

Graph 2.2.6: Decomposition of Consumer Sentiment
consumer confidence indicator of the MoF, balance, contributions
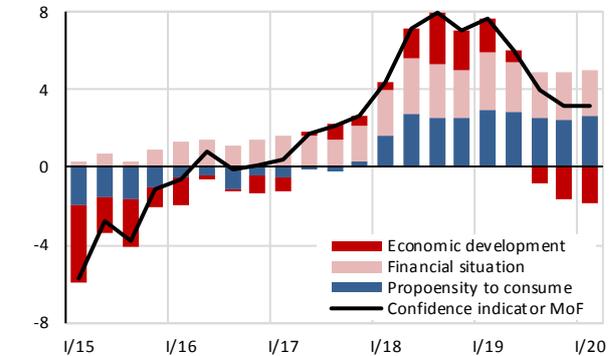
Source: European Commission. Calculations of the MoF.

Graph 2.2.7: Composite Confidence Indicator and GVA
2005=100 (lhs), YoY growth in % (rhs)
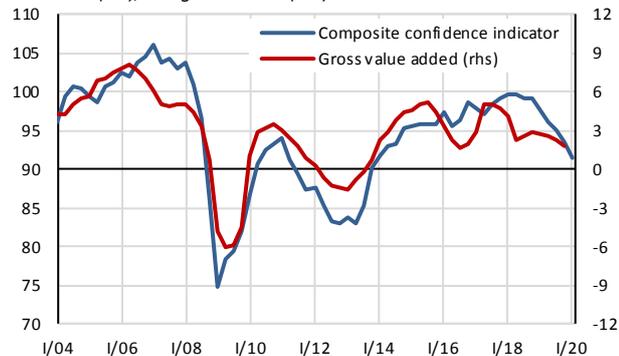
Source: CZSO.

Graph 2.2.8: Composite Leading Indicator
2005=100 (lhs), in % of potential output (rhs)
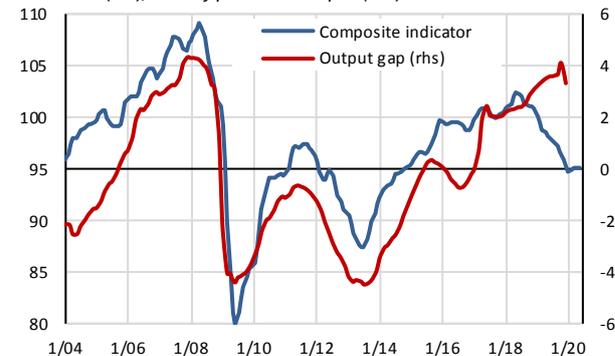
Source: CZSO. Calculations of the MoF.

3 Forecast of Macroeconomic Developments in the CR

3.1 Economic Output

3.1.1 GDP in the Fourth Quarter of 2019

Economic output measured by real GDP rose 1.8 % YoY (*versus 1.6 %*) in Q4 2019; seasonally adjusted GDP climbed by 0.5 % QoQ (*versus 0.2 %*). Most services contributed to the quarter-on-quarter growth, whereas manufacturing slowed the growth momentum. The Czech Statistical Office revised the year-on-year GDP growth down by 0.1 pp in both Q2 and Q3 2019. There were major changes to gross fixed capital formation and inventories; revisions of other expenditure items were not significant.

The year-on-year GDP growth was driven solely by domestic demand, while the contribution of external trade in goods and services was deeply negative.

Household consumption benefited from ongoing strong growth in disposable income, but was significantly inhibited by the year-on-year increase in the savings rate. Consumer confidence declined further, but remained high from a long-term perspective. Expenditure on semi-durables and services was the most dynamic component of household consumption, with expenditure on consumer durables and non-durables also increasing. In real terms, household final consumption expenditure increased by 2.9% (*versus 2.4%*). General government consumption went up by 1.8% (*versus 2.7%*), mainly on account of the momentum exhibited by employment, social benefits in kind and intermediate consumption.

Gross fixed capital formation increased by 4.3% (*versus a 0.6% downturn*). Investment in housing and non-residential structures, in particular, had a pro-growth effect, while investment in transport equipment declined year on year. From the sectoral perspective, investment activity was driven primarily by private entities and, to a lesser extent, by the general government sector. With the change in inventories making a highly positive contribution, gross capital formation increased more than fixed capital investment, i.e. by 8.8% (*versus 1.9%*).

With export performance appreciably falling and export markets essentially stalling, there was a major reduction in exports of goods and services compared to the same quarter of the previous year. As a result, overall exports fell 2.1% (*versus 1.6%*) in Q4 2019. Growth in imports of goods and services slowed as a result of weakening exports, but was boosted by accelerating import-intensive investment demand. Total imports grew by 1.0% (*versus a 0.8% dip*).

With both export and import prices falling, terms of trade improved by 0.7% (*versus 0.9%*). As a result, real gross domestic income rose by 2.3% YoY (*in line with the estimate*).

Gross operating surplus increased by 5.1% (*versus 4.6%*), compensation of employees climbed by 6.4% (*versus 6.6%*), and net taxes on production were up 3.4% YoY (*versus 1.7%*). Consequently, nominal GDP posted 5.5% growth (*versus 5.2%*).

3.1.2 Forecast for the Years 2020 and 2021

We estimate that real GDP fell by 2.2% QoQ (*versus 0.6% growth*) in Q1 2020 and 0.5% YoY (*versus 2.2% growth*), respectively. With the exception of confidence indicators, data on economic developments (production in industry and construction, sales in retail trade and services, and external trade) relating to the beginning of 2020 was only available for January at the forecast cut-off date. Therefore, apart from the business cycle survey data, no indicator had yet captured the strong economic effect of the COVID-19 pandemic at the end of Q1 2020.

The negative impacts are entirely unprecedented, they feed on each other and it is thus very difficult to estimate them. The standard forecasting tools are of very limited use in these circumstances. Taking into account the information available as at 31 March 2020, this forecast provides a scenario of potential economic developments. However, depending on how the coronavirus epidemic progresses and what national measures are taken by individual countries to prevent the spread of the disease and to support the economy, actual developments may differ significantly from that scenario.

In the first half of this year, a significant part of the economy, especially tourism, culture, sports, trade and transport, will be affected by the Czech government's measures introduced to stop the disease from spreading. The current situation will also affect manufacturing. Here, there is likely to be a negative supply shock, which will be reflected in other sectors of the economy through limited household consumption and companies' investment expenditure. Most European countries are in a similar situation. Nor will China and the United States avoid a drop in economic activity. Therefore, the Czech economy will also be severely affected through foreign demand.

Assuming that the coronavirus epidemic is brought under control in Q2, the Czech economy should report a quarter-on-quarter decline in Q1 and, especially, in Q2 2020. Economic activity could recover in the second half of this year, but this will be dampened by developments in the hardest hit European economies (Italy, Spain), where households and businesses are likely to have financial problems. This scenario, however, does not include the probable impact exerted by the disrup-

tion of supply chains, whether domestic or cross-border (for more details, see Box 3.1).

In 2020, domestic and foreign demand should both contribute to the decline in GDP. We forecast that real GDP will decline by 5.6% (*versus 2.0% growth*) in 2020 and increase by 3.1% (*versus 2.1%*) in 2021.

Household final consumption expenditure will be negatively affected by a decline in real disposable income in 2020, despite the fact that numerous socially-related discretionary changes will be positively reflected in its momentum. Measures related to the declaration of a state of emergency should affect expenditure on services in particular. With the savings rate expected to fall (consumption smoothing), real household consumption should contract by 1.5% (*versus 2.4%*). In 2021, household final consumption expenditure could increase by 0.8% (*versus 2.2%*), thanks to renewed growth of disposable income.

We forecast that general government consumption will increase by 2.6% (*versus 1.9%*) this year and by 2.0% (*versus 1.9%*) in 2021. Key factors will include growth in social benefits in kind, intermediate consumption and employment. Owing to 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 of consumption will also benefit from increased expenditure on the purchase of goods and services, with contributions from current EU subsidies.

Gross fixed capital formation in 2020 should sag under the weight of recession in the countries of our main trading partners and the escalating uncertainty surrounding the spread of coronavirus in the Czech Republic and abroad. By contrast, monetary conditions should have a faintly positive impact on the momentum of investment activity. In 2021, this factor should be compounded by renewed economic growth abroad, which is expected to see private investment rise again following the slump in 2020. However, investment recovery in 2021 faces significant external risks (see the section entitled Forecasting Risks and Uncertainty). In the case of general government investments in 2020, we expect to see a fall in nationally financed capital expenditure. However, in the coming years we forecast a renewal of government investment activity, supported by the implementation of projects co-financed by EU funds. The outlook for 2023 includes the purchase of military helicopters from the US (at a cost of CZK 17.5 billion, inclusive of value added tax), which will also be reflected in imports of goods. Gross fixed capital formation could decline by 13.6% (*versus 0.9% growth*) in 2020 and climb by 3.2% (*versus 2.0%*) in 2021.

We assume that inventories will shrink in 2020 due to a downturn in economic activity, but in 2021 they should increase again. In this respect, gross capital formation could slide by 16.3% (*versus 0.9% growth*) in 2020 and rise by 6.7% (*versus 1.9%*) in 2021.

We forecast that exports of goods and services will sink by 17.0% (*versus 1.1% growth*) in 2020 and grow by 6.8% (*versus 2.2%*) in 2021. The downturn in the export of goods and services in 2020 will reflect shrinking export markets and lower export performance (see section 3.4). The dynamism of exports and import-intensive investment demand will be reflected in a lower rate of import for goods and services. As a result, imports are likely to fall 16.8% (*versus 0.9% growth*) this year and grow by 6.3% (*versus 2.0%*) in 2021.

Box 3.1: Impacts of the New Type of Coronavirus on the Czech Economy

Developments and situation in China

Since the beginning of 2020, a new type of coronavirus (SARS-CoV-2) has been causing China considerable economic damage, and this has manifested itself in the rest of the world due to the country's deep involvement in international supply chains. Despite the Chinese government's restrictive measures at the epicentre of the disease (the city of Wuhan in Hubei province), the global spread of coronavirus was not contained. In the weeks that followed, the disease spread to 200 countries and territories. As at 31 March 2020, over 800,000 people had been infected with the virus and 39,019 people had died. China alone accounted for 10.2% of those infected, with countries in the European Union, the European Economic Area, Switzerland and the United Kingdom accounting for 49.9% of the number of people infected with coronavirus.

China is an important trading partner for the EU. In 2018, exports equivalent to 1.4% of the EU's GDP made their way from EU countries (including the UK) to China, while Chinese imports into the EU reached 2.6% of GDP. China also makes an important contribution to tourism in the EU, with 14.5 million Chinese tourists visiting the EU every year.

China is also an important partner for the Czech Republic, with an annual turnover of mutual trade of CZK 427.7 billion (7.6% of GDP). In terms of impacts, imports from China are crucial, amounting to CZK 387.2 billion in 2019. Of the total imports from China, telecommunication equipment accounts for 34.7%, data processing equipment 16.6%, and office machinery parts 4.2%. The outage in the supply chains means that a strain is being placed on parts and accessories for office and electrical equipment, which account for 8.3% of imports from China and over 17% of Czech exports. Car components, which account for 1.4% of Chinese imports, also play a significant role. Restrictions in air traffic with China and other Asian countries are sure to be felt by Czech tourism. In 2019 alone, 612,000 tourists from China visited the Czech Republic (5.6% of all foreign tourists).

In China itself, the coronavirus has resulted in production interruptions and restrictions in retail and transport. In January and February the aggregate industrial production decreased by 13.5% YoY, with retail sales down by 20.5% in the same period. Car sales plummeted by 81.7% YoY in February 2020. The development of industry was adversely affected by the fact that the city of Wuhan is an important transport hub with numerous industrial zones (pharmaceutical industry, semiconductors and the automotive sector).

Production restrictions at Chinese plants have disrupted supply chains around the world. According to preliminary data, exports fell by 17.2% in January and February 2020, while imports were down by 4.0% in the same period. Compared to 2003, when the SARS virus hit China, the country is more exposed to the international environment (according to the World Bank, its share of nominal world GDP was 15.8% in 2018, versus 4.2% in 2002, and its share of world trade was 11.7%, versus 4.7% in 2002). The number of those newly infected indicates that the disease has probably peaked in China, and production is also reported to be returning to pre-crisis levels (at the end of February, approximately 80% of businesses renewed production, of which over 86% were large and medium-sized enterprises).

Graph 1: Number of People Infected with Coronavirus
thousands of persons, as of 31 March 2020
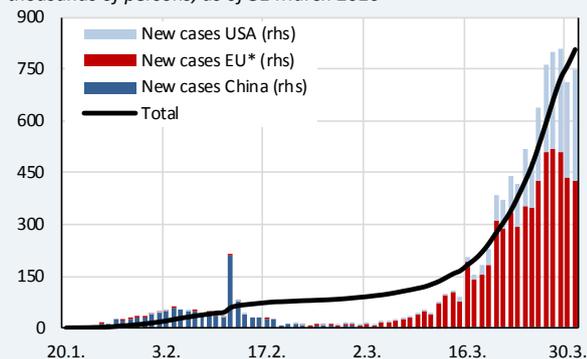
*Note: *) EU, EEA, United Kingdom and Switzerland.*
Source: European Centre for Disease Prevention and Control.

Graph 2: Number of Infected per 1 Million Inhabitants[2]
number of persons, as of 31 March 2020
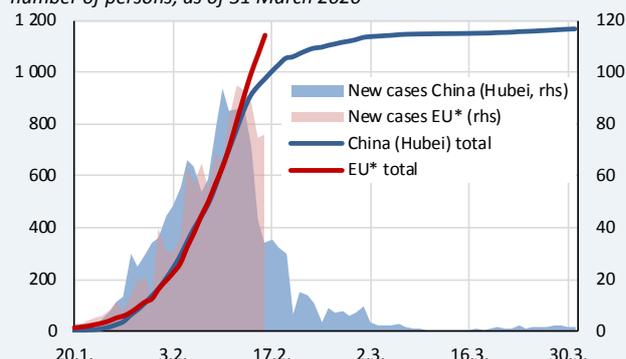
*Note: *) Selected EU countries: FR, DE, IT, ES.*
Source: European Centre for Disease Prevention and Control.

Graph 3: Number of Infected per 1 Million Inhabitants[3]
number of persons, as of 31 March 2020
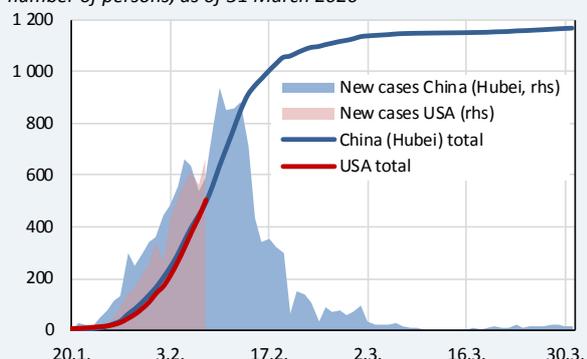
Source: European Centre for Disease Prevention and Control.

Graph 4: Number of Infected per 1 Million Inhabitants[4]
number of persons, as of 31 March 2020
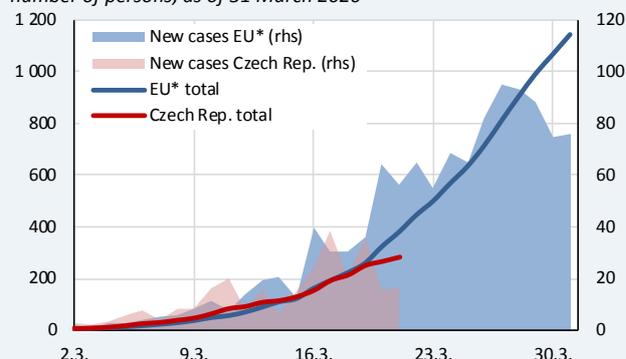
*Note: *) Selected EU countries: FR, DE, IT, ES*
Source: European Centre for Disease Prevention and Control.

Situation in Europe and in the US

In EU countries, where the coronavirus arose about one and a half months after it did in China, developments in the number of infections indicate that it has much further to go before it peaks (graphs 1 and 2). In the EU, the outbreak was most intensive in tourism-oriented countries (Italy, Spain), from where it spread to the rest of the Union.

Across the continent, cultural and sports events are being cancelled and shops and factories are being closed. Italy has imposed national quarantine since 10 March 2020. Other countries, including the Czech Republic, have also closed their borders. As in China, tourism-related areas and other services (hospitality, culture) will initially be hit hardest, followed by production restrictions. The automotive industry will be another severely affected sector. Here, many companies – including large carmakers – have already shuttered production. The coronavirus pandemic is also making itself felt on the stock markets. For example, the Italian stock market fell to its lowest level since the euro area debt crisis in 2012. This could jeopardise the stability of the fragile banking sector in the euro area's southern wing.

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[2] Data for Europe are lagged 44 days behind China, which corresponds to the time lag in the outbreak of the contagion.
[3] Data for the US are lagged 52 days behind China, which corresponds to the time lag in the outbreak of the contagion.
[4] Data for the Czech Republic are lagged 10 days behind the most severely hit EU countries, which corresponds to the time lag in the outbreak of the contagion.

The disease spread very quickly in the United States, with economic centre New York becoming the top coronavirus hotspot. The US is the world's largest economy (accounting for 24% of nominal global GDP in 2018), so escalating problems would have a profound impact on the world economy. The negative effects of the coronavirus pandemic are evidenced by an increase in the number of applicants seeking unemployment benefits, which increased from 211,000 (as at 7 March 2020) to 3.28 million (as at 21 March 2020), nearly five times the previous high (695,000) recorded in October 1982.

A number of central banks (including the CNB) have responded to the negative economic developments with either interest rate cuts or quantitative easing (e.g. the Fed and the ECB). Fiscal policy will also support individual countries' economies to an unprecedented extent.

Impacts on the economy

Individual estimates of economic impacts of the coronavirus pandemic on the global economy vary – often quite significantly – depending on scenario assumptions about the peak of the disease in China and the rest of the world, the intensity of the disease in developed countries, how long it takes the disease to spread from one region to another, and measures intended to stop it from spreading. The situation is changing so rapidly that these forecasts become outdated extremely quickly and are subject to fundamental revisions. For this reason, we are not listing any studies or estimates by other institutions here.

Supply constraints (labour outages, subcontracting restrictions) and demand constraints (restrictions in transport, services) are a complete unknown when quantifying the impacts of the coronavirus pandemic. The closure of airspace, restaurants and other recreational facilities and the cancellation of sports and cultural events are historically unique. The impact of these measures, unprecedented in post-war Europe, will be far-reaching and could put many economic entities out of business. The mood prevailing within the economy must also be taken into account when quantifying the potential impacts. Concerns about the spread of coronavirus may be manifested in reduced investment activity and household final consumption expenditure.

The Czech economy was hit hard by the impacts of the global pandemic of this new type of coronavirus at the end of Q1 2020. In response to how the disease was spreading, preventive measures were adopted earlier than in other European countries and therefore the progression in the number of cases in the Czech Republic is slower (see graph 4). The impacts of the crisis and the channels of contagion in the Czech Republic can be described by the following phases:

- Phase 1 – shock from China (Q1 2020) with global supply chains disrupted (see above).
- Phase 2 – shock from the EU (Q1 and Q2 2020). As the virus takes hold in EU countries (see graph 2), there are demand shocks that mainly disrupt the tourism, transport, hospitality and other service sectors. At the same time, consumers restrict purchases of non-essentials (e.g. cars).
- Phase 3 – shock from the roll-out of domestic restrictive measures (Q1 and Q2 2020) in the form of a ban on gatherings, the cancellation of sports and cultural events, production restrictions.
- Phase 4 – the lifting of measures (from Q2 on) and recovery of economic activity in industry and, more slowly, in tourism and hospitality. The economic recovery will be hindered by a number of hysteresis effects linked, in particular, to the labour market and the disruption of vertical supply-and-demand ties.

Considering the magnitude and synchronisation of the shock posed by the coronavirus pandemic, we have to assume that there will be a profound decline in economic activity in a number of countries and at global economic level. It is likely that this decline will be at least as deep as the Great Recession at the turn of 2008 and 2009. The central scenario of the macroeconomic forecast assumes that the economic downturn prompted by the coronavirus pandemic will be concentrated into the first half of this year. The subsequent recovery is expected to be slow – in many European economies, real GDP might not reach 2019 levels before the end of 2022. In some sectors, the coronavirus pandemic may also trigger deep structural changes.

Graph 3.1.1: Resources of Gross Domestic Product
QoQ growth rate of real GDP in %, contrib. in pp, season. adjusted

Legend: Agriculture, Net taxes on products, Construction, Trade and services, Industry, GDP
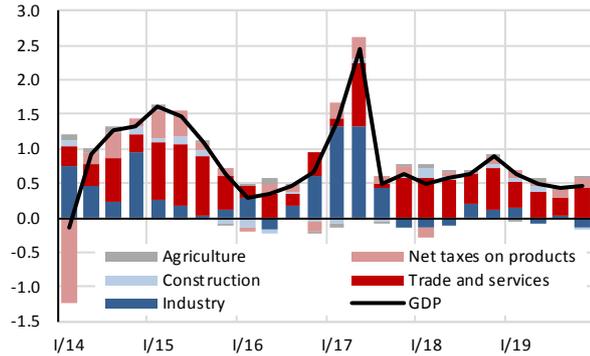
Source: CZSO. Calculations of the MoF.

Graph 3.1.2: GDP by Type of Expenditure
YoY growth rate of real GDP in %, contributions in pp

Legend: Net exports, Gross capital formation, Final consumption expenditure, Gross domestic product
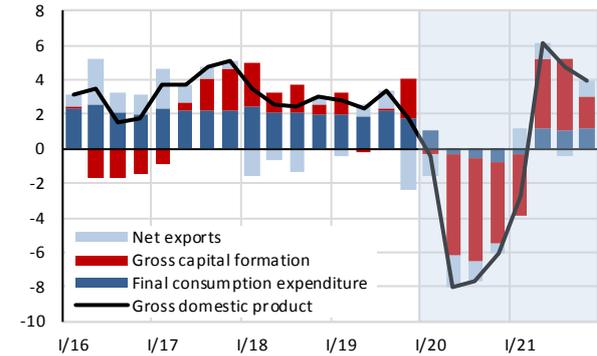
Source: CZSO. Calculations and forecast of the MoF.

Graph 3.1.3: Real Gross Domestic Product
growth in %, contributions in percentage points

Legend: Population 20–64, Labour utilization, Labour productivity, GDP
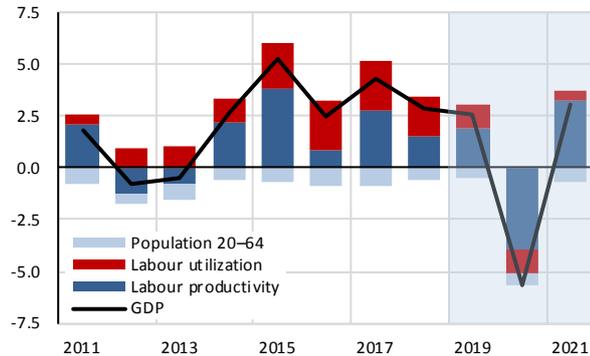
Note: Labour utilization is the ratio of employment to population 20–64.
Source: CZSO. Calculations and forecast of the MoF.

Graph 3.1.4: Real Consumption of Households
domestic concept, YoY growth rate in %, contributions in pp

Legend: Services, Non-durable goods, Semi-durable goods, Durable goods, Consumption of households
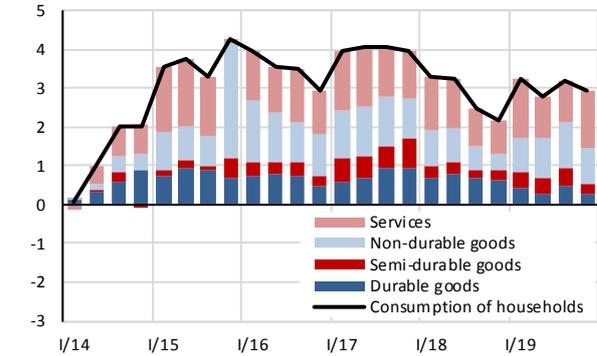
Source: CZSO. Calculations of the MoF.

Graph 3.1.5: Nominal Consumption of Households
national concept, YoY growth rate in %, contributions in pp

Legend: Savings, Taxes and social contrib., Other income and exp., Social benefits, Earnings, business income, Household consumption
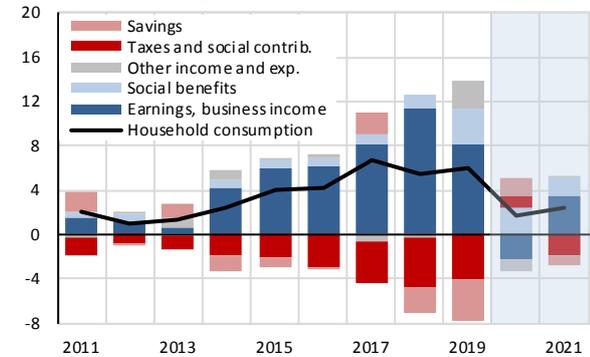
Source: CZSO. Calculations and forecast of the MoF.

Graph 3.1.6: Investment by Type of Expenditure
YoY growth rate of real GFCF in %, contributions in pp

Legend: Other, ICT, other machinery and equip., Transport equipment, Other buildings and structures, Dwellings, Gross fixed capital formation
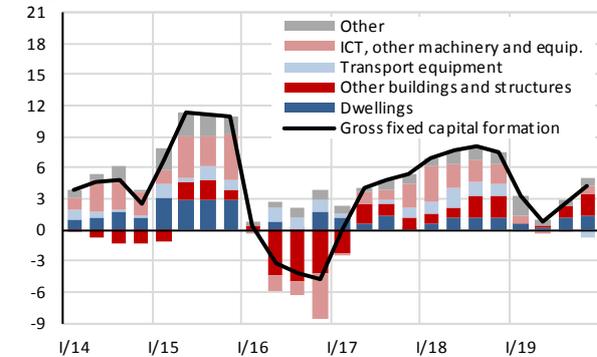
Source: CZSO. Calculations of the MoF.

Graph 3.1.7: Investment by Sector
YoY growth rate of real GFCF in %, contributions in percentage points

Legend: Households, Firms, Government, GFCF
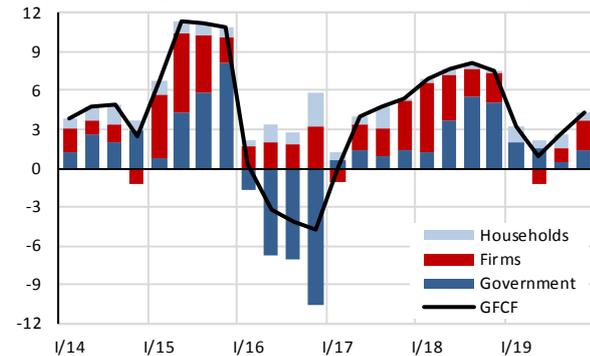
Source: CZSO. Calculations of the MoF.

Graph 3.1.8: Investment Co-financing from EU Funds
YoY growth rate of nominal GFCF in %, contributions in pp

Legend: Private non-EU, Private sector EU, Gov. sector non-EU, Gov. sector EU, GFCF
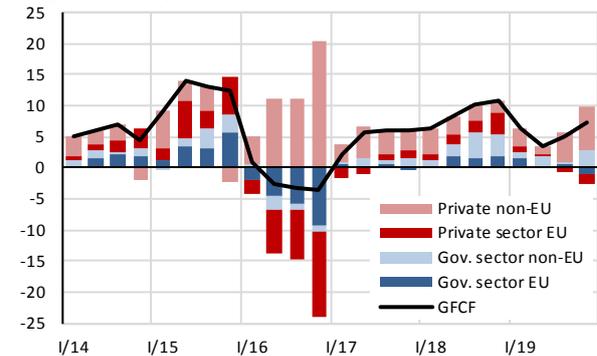
Source: CZSO. Calculations of the MoF.

Table 3.1.1: Real GDP by Type of Expenditure – yearly

chained volumes, reference year 2010

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
								Forecast	*Forecast*	*Outlook*	*Outlook*
Gross domestic product	bill. CZK 2010	**4 089**	**4 307**	**4 412**	**4 604**	**4 735**	**4 857**	**4 583**	**4 723**	**4 814**	**4 901**
	growth in %	2.7	5.3	2.5	4.4	2.8	2.6	-5.6	3.1	1.9	1.8
	growth in % [1]	2.7	5.4	2.4	4.5	2.8	2.5	-5.6	3.0	1.9	2.0
Private consumption expenditure [2]	bill. CZK 2010	**1 966**	**2 038**	**2 113**	**2 202**	**2 272**	**2 342**	**2 307**	**2 325**	**2 361**	**2 408**
	growth in %	1.8	3.7	3.6	4.3	3.2	3.0	-1.5	0.8	1.6	2.0
Government consumption exp.	bill. CZK 2010	**812**	**827**	**849**	**860**	**890**	**912**	**936**	**955**	**974**	**995**
	growth in %	1.1	1.9	2.7	1.3	3.4	2.6	2.6	2.0	2.0	2.1
Gross capital formation	bill. CZK 2010	**1 083**	**1 223**	**1 171**	**1 217**	**1 285**	**1 329**	**1 113**	**1 187**	**1 214**	**1 256**
	growth in %	8.6	13.0	-4.3	4.0	5.6	3.4	-16.3	6.7	2.2	3.5
Gross fixed capital formation	bill. CZK 2010	1 056	1 164	1 127	1 169	1 258	1 293	1 118	1 153	1 180	1 222
	growth in %	3.9	10.2	-3.1	3.7	7.6	2.8	-13.6	3.2	2.4	3.6
Change in stocks and valuables	bill. CZK 2010	26	59	43	48	27	36	-5	34	34	34
Exports of goods and services	bill. CZK 2010	**3 242**	**3 437**	**3 586**	**3 828**	**3 996**	**4 043**	**3 354**	**3 583**	**3 749**	**3 819**
	growth in %	8.7	6.0	4.3	6.7	4.4	1.2	-17.0	6.8	4.6	1.9
Imports of goods and services	bill. CZK 2010	**3 008**	**3 212**	**3 302**	**3 498**	**3 706**	**3 767**	**3 135**	**3 333**	**3 491**	**3 587**
	growth in %	10.1	6.8	2.8	5.9	5.9	1.7	-16.8	6.3	4.8	2.7
Gross domestic expenditure	bill. CZK 2010	**3 860**	**4 087**	**4 132**	**4 279**	**4 446**	**4 581**	**4 364**	**4 475**	**4 557**	**4 665**
	growth in %	3.4	5.9	1.1	3.5	3.9	3.0	-4.7	2.5	1.8	2.4
Methodological discrepancy [3]	bill. CZK 2010	**-4**	**-7**	**-5**	**-5**	**-3**	**-2**	**7**	**5**	**7**	**11**
Real gross domestic income	bill. CZK 2010	**4 112**	**4 344**	**4 486**	**4 644**	**4 777**	**4 914**	**4 660**	**4 805**	**4 907**	**5 004**
	growth in %	3.9	5.6	3.3	3.5	2.9	2.9	-5.2	3.1	2.1	2.0
Contributions to GDP growth [4]											
Gross domestic expenditure	pp	**3.2**	**5.5**	**1.0**	**3.3**	**3.6**	**2.8**	**-4.4**	**2.4**	**1.7**	**2.2**
Consumption	pp	**1.1**	**2.2**	**2.2**	**2.2**	**2.2**	**2.0**	**-0.2**	**0.8**	**1.2**	**1.4**
Household expenditure	pp	0.9	1.8	1.7	2.0	1.5	1.4	-0.7	0.4	0.8	1.0
Government expenditure	pp	0.2	0.4	0.5	0.2	0.7	0.5	0.5	0.4	0.4	0.5
Gross capital formation	pp	**2.1**	**3.4**	**-1.2**	**1.0**	**1.4**	**0.9**	**-4.3**	**1.6**	**0.5**	**0.8**
Gross fixed capital formation	pp	1.0	2.6	-0.8	0.9	1.9	0.7	-3.5	0.7	0.5	0.8
Change in stocks	pp	1.1	0.8	-0.4	0.1	-0.4	0.2	-0.8	0.8	0.0	0.0
Foreign balance	pp	**-0.5**	**-0.2**	**1.4**	**1.1**	**-0.8**	**-0.3**	**-1.2**	**0.7**	**0.2**	**-0.4**
External balance of goods	pp	-0.1	-1.1	1.0	0.8	-0.5	0.1	-0.7	0.5	0.1	-0.4
External balance of services	pp	-0.4	0.9	0.4	0.3	-0.3	-0.4	-0.5	0.2	0.1	0.0
Gross value added	bill. CZK 2010	**3 729**	**3 905**	**3 999**	**4 168**	**4 293**	**4 398**	.	.	.	.
	growth in %	3.4	4.7	2.4	4.2	3.0	2.4	.	.	.	.
Net taxes and subsidies on products	bill. CZK 2010	**363**	**402**	**414**	**437**	**443**	**460**	.	.	.	.

[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 2010

		2019				2020			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	*Forecast*	*Forecast*	*Forecast*
Gross domestic product	*bill. CZK 2010*	**1 138**	**1 221**	**1 241**	**1 256**	**1 133**	**1 124**	**1 146**	**1 180**
	growth in %	2.8	2.4	3.3	1.8	-0.5	-8.0	-7.7	-6.1
	growth in % [1]	2.8	2.7	2.5	2.0	-0.9	-8.1	-7.4	-6.1
	QoQ in % [1]	0.6	0.5	0.4	0.5	-2.2	-6.8	1.1	1.9
Private consumption expenditure [2]	*bill. CZK 2010*	**558**	**584**	**593**	**607**	**565**	**572**	**580**	**591**
	growth in %	3.2	2.8	3.3	2.9	1.2	-2.1	-2.2	-2.6
Government consumption exp.	*bill. CZK 2010*	**211**	**223**	**226**	**252**	**217**	**231**	**231**	**258**
	growth in %	2.1	2.8	3.7	1.8	2.6	3.4	2.4	2.2
Gross capital formation	*bill. CZK 2010*	**283**	**318**	**366**	**362**	**278**	**244**	**290**	**301**
	growth in %	5.6	-0.6	0.4	8.8	-1.5	-23.5	-20.7	-16.9
Gross fixed capital formation	*bill. CZK 2010*	281	307	336	370	281	252	276	309
	growth in %	3.3	0.9	2.6	4.3	-0.1	-17.8	-17.7	-16.5
Change in stocks and valuables	*bill. CZK 2010*	2	12	30	-8	-2	-9	14	-8
Exports of goods and services	*bill. CZK 2010*	**1 005**	**1 032**	**984**	**1 021**	**950**	**782**	**768**	**855**
	growth in %	1.3	1.9	3.8	-2.1	-5.5	-24.2	-22.0	-16.3
Imports of goods and services	*bill. CZK 2010*	**918**	**934**	**926**	**990**	**876**	**704**	**723**	**831**
	growth in %	1.9	1.0	2.7	1.0	-4.5	-24.6	-21.9	-16.1
Gross domestic expenditure	*bill. CZK 2010*	**1 052**	**1 125**	**1 183**	**1 221**	**1 060**	**1 049**	**1 102**	**1 152**
	growth in %	3.6	1.8	2.4	4.3	0.8	-6.7	-6.8	-5.6
Methodological discrepancy [3]	*bill. CZK 2010*	**-1**	**-2**	**-1**	**3**	**0**	**0**	**1**	**6**
Real gross domestic income	*bill. CZK 2010*	**1 154**	**1 235**	**1 253**	**1 272**	**1 152**	**1 144**	**1 163**	**1 201**
	growth in %	2.7	2.5	3.9	2.3	-0.2	-7.4	-7.2	-5.6
Gross value added	*bill. CZK 2010*	**1 038**	**1 106**	**1 123**	**1 131**	.	.	.	.
	growth in %	2.8	2.3	3.2	1.5	.	.	.	.
	growth in % [1]	2.8	2.6	2.3	1.8	.	.	.	.
	QoQ in % [1]	0.6	0.5	0.3	0.4	.	.	.	.
Net taxes and subsidies on products	*bill. CZK 2010*	**101**	**115**	**118**	**124**	.	.	.	.

[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
								Forecast	*Forecast*	*Outlook*	*Outlook*
Gross domestic product	*bill. CZK*	**4 314**	**4 596**	**4 768**	**5 047**	**5 324**	**5 653**	**5 530**	**5 781**	**6 005**	**6 239**
	growth in %	5.3	6.5	3.7	5.9	5.5	6.2	-2.2	4.5	3.9	3.9
Private consumption expenditure [1]	*bill. CZK*	**2 074**	**2 152**	**2 243**	**2 393**	**2 526**	**2 680**	**2 725**	**2 790**	**2 890**	**3 005**
	growth in %	2.4	3.8	4.2	6.7	5.5	6.1	1.7	2.4	3.6	4.0
Government consumption exp.	*bill. CZK*	**849**	**883**	**919**	**968**	**1 059**	**1 145**	**1 211**	**1 260**	**1 314**	**1 372**
	growth in %	2.8	4.0	4.0	5.4	9.4	8.1	5.8	4.1	4.3	4.4
Gross capital formation	*bill. CZK*	**1 116**	**1 285**	**1 239**	**1 306**	**1 398**	**1 484**	**1 282**	**1 377**	**1 426**	**1 499**
	growth in %	10.4	15.1	-3.6	5.4	7.1	6.1	-13.6	7.4	3.5	5.1
Gross fixed capital formation	*bill. CZK*	1 084	1 216	1 189	1 250	1 364	1 440	1 279	1 334	1 383	1 457
	growth in %	5.5	12.2	-2.3	5.2	9.1	5.6	-11.2	4.3	3.7	5.3
Change in stocks and valuables	*bill. CZK*	32	68	50	56	35	44	4	43	42	42
External balance	*bill. CZK*	**275**	**276**	**368**	**380**	**340**	**345**	**312**	**354**	**375**	**362**
Exports of goods and services	*bill. CZK*	3 561	3 725	3 793	4 024	4 177	4 267	3 652	3 891	4 050	4 134
	growth in %	13.0	4.6	1.8	6.1	3.8	2.1	-14.4	6.5	4.1	2.1
Imports of goods and services	*bill. CZK*	3 286	3 449	3 425	3 644	3 837	3 922	3 340	3 537	3 674	3 772
	growth in %	12.8	5.0	-0.7	6.4	5.3	2.2	-14.9	5.9	3.9	2.7
Gross national income	*bill. CZK*	**4 023**	**4 286**	**4 459**	**4 737**	**5 032**	**5 399**	**5 339**	**5 553**	**5 762**	**5 979**
	growth in %	4.4	6.5	4.0	6.2	6.2	7.3	-1.1	4.0	3.8	3.8
Primary income balance	*bill. CZK*	**-291**	**-310**	**-309**	**-310**	**-292**	**-254**	**-191**	**-227**	**-243**	**-259**

[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

		2019				2020			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	*Forecast*	*Forecast*	*Forecast*
Gross domestic product	*bill. CZK*	**1 307**	**1 412**	**1 446**	**1 488**	**1 344**	**1 358**	**1 385**	**1 443**
	growth in %	6.3	6.0	7.0	5.5	2.9	-3.8	-4.2	-3.1
Private consumption expenditure [1]	*bill. CZK*	**630**	**666**	**683**	**701**	**662**	**677**	**688**	**699**
	growth in %	6.2	5.8	6.3	6.0	5.0	1.6	0.7	-0.3
Government consumption exp.	*bill. CZK*	**256**	**276**	**283**	**330**	**271**	**295**	**298**	**346**
	growth in %	7.4	8.8	9.0	7.2	6.0	6.8	5.4	5.1
Gross capital formation	*bill. CZK*	**312**	**353**	**409**	**409**	**315**	**282**	**336**	**349**
	growth in %	9.0	1.9	2.7	11.5	0.8	-20.1	-17.9	-14.6
Gross fixed capital formation	*bill. CZK*	309	339	374	417	315	288	317	358
	growth in %	6.3	3.5	5.1	7.2	2.0	-15.0	-15.2	-14.3
Change in stocks and valuables	*bill. CZK*	3	14	35	-8	0	-6	18	-8
External balance	*bill. CZK*	**108**	**117**	**71**	**49**	**97**	**105**	**63**	**48**
Exports of goods and services	*bill. CZK*	1 063	1 092	1 039	1 073	1 004	868	846	934
	growth in %	3.9	3.5	4.3	-2.7	-5.5	-20.6	-18.6	-12.9
Imports of goods and services	*bill. CZK*	955	976	968	1 024	908	763	782	887
	growth in %	4.7	2.4	2.4	-0.3	-4.9	-21.8	-19.2	-13.4

[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 Forecast	2021 Forecast	2022 Outlook	2023 Outlook
GDP	bill. CZK	**4 314**	**4 596**	**4 768**	**5 047**	**5 324**	**5 653**	**5 530**	**5 781**	**6 005**	**6 239**
	growth in %	5.3	6.5	3.7	5.9	5.5	6.2	-2.2	4.5	3.9	3.9
Balance of taxes and subsidies	bill. CZK	**381**	**434**	**454**	**495**	**514**	**535**	**523**	**546**	**557**	**581**
	% of GDP	8.8	9.4	9.5	9.8	9.7	9.5	9.4	9.4	9.3	9.3
	growth in %	-5.1	13.8	4.7	9.0	3.7	4.1	-2.3	4.4	2.1	4.4
Taxes on production and imports	bill. CZK	518	571	595	637	666	698	.	.	.	.
	growth in %	-1.8	10.1	4.3	7.0	4.5	4.9	.	.	.	.
Subsidies on production	bill. CZK	137	137	141	142	152	164	.	.	.	.
	growth in %	8.5	-0.1	3.3	0.4	7.2	7.7	.	.	.	.
Compensation of employees	bill. CZK	**1 735**	**1 821**	**1 928**	**2 089**	**2 291**	**2 455**	**2 518**	**2 539**	**2 613**	**2 705**
(domestic concept)	% of GDP	40.2	39.6	40.4	41.4	43.0	43.4	45.5	43.9	43.5	43.4
	growth in %	3.5	5.0	5.9	8.4	9.7	7.1	2.6	0.8	2.9	3.5
Wages and salaries	bill. CZK	1 321	1 384	1 464	1 585	1 735	1 859	1 907	1 923	1 980	2 049
	growth in %	3.6	4.8	5.7	8.3	9.5	7.1	2.6	0.8	2.9	3.5
Social security contributions	bill. CZK	414	437	464	504	556	596	611	616	634	656
	growth in %	3.1	5.5	6.4	8.6	10.2	7.2	2.5	0.8	2.9	3.5
Gross operating surplus	bill. CZK	**2 198**	**2 341**	**2 386**	**2 463**	**2 519**	**2 663**	**2 490**	**2 696**	**2 835**	**2 952**
	% of GDP	50.9	50.9	50.0	48.8	47.3	47.1	45.0	46.6	47.2	47.3
	growth in %	8.8	6.5	1.9	3.2	2.3	5.7	-6.5	8.3	5.1	4.1
Consumption of capital	bill. CZK	939	969	998	1 026	1 066	1 120	1 116	1 154	1 194	1 222
	growth in %	3.6	3.2	3.0	2.9	3.9	5.1	-0.4	3.4	3.5	2.3
Net operating surplus	bill. CZK	1 259	1 372	1 388	1 436	1 453	1 542	1 374	1 542	1 641	1 730
	growth in %	13.0	9.0	1.2	3.5	1.1	6.2	-10.9	12.3	6.4	5.5

Source: CZSO. Calculations and forecast of the MoF.

Table 3.1.6: GDP by Type of Income – quarterly

		2019				2020			
		Q1	Q2	Q3	Q4	Q1 Estimate	Q2 Forecast	Q3 Forecast	Q4 Forecast
GDP	bill. CZK	**1 307**	**1 412**	**1 446**	**1 488**	**1 344**	**1 358**	**1 385**	**1 443**
	growth in %	6.3	6.0	7.0	5.5	2.9	-3.8	-4.2	-3.1
Balance of taxes and subsidies	bill. CZK	**111**	**140**	**146**	**139**	**107**	**128**	**147**	**140**
	growth in %	2.5	5.5	4.7	3.4	-2.9	-8.2	0.5	1.1
Compensation of employees	bill. CZK	**587**	**614**	**606**	**648**	**618**	**622**	**618**	**660**
(domestic concept)	growth in %	7.8	7.6	6.8	6.4	5.2	1.2	2.1	1.9
Wages and salaries	bill. CZK	443	464	460	492	467	470	470	501
	growth in %	7.7	7.5	6.9	6.5	5.2	1.3	2.1	1.9
Social security contributions	bill. CZK	144	150	145	156	151	152	149	159
	growth in %	8.1	7.8	6.4	6.3	4.9	1.0	2.1	1.9
Gross operating surplus	bill. CZK	**609**	**659**	**694**	**702**	**619**	**608**	**620**	**642**
	growth in %	5.5	4.6	7.7	5.1	1.8	-7.6	-10.7	-8.5

Source: CZSO. Calculations and forecast of the MoF.

3.2 Prices

The growth in **consumer prices** was 3.7% YoY (*versus 3.0%*) in February 2020. The forecast error was in part due to an unexpectedly rapid rise in prices of food and non-alcoholic beverages by 5.5% that contributed 1.0 pp to the year-on-year inflation. Housing contributed 1.1 pp. These two sections of the consumer basket alone accounted for more than half of the year-on-year inflation. The main contributors to inflation were market factors, since administrative measures accounted for just 0.6 pp. The contribution of tax changes was zero because the effect of reduction in VAT on heat (−0.1 pp) and the impact of the excise tax increase on spirits (0.1 pp) cancelled each other out. The contribution of regulated prices was mostly due to the price of electricity (0.4 pp).

The first significant factor affecting the change in the inflation forecast is the above-mentioned error in the previous forecast, which in itself would justify a substantial increase in the average inflation rate this year. Within assumptions of the macroeconomic forecast determining price developments, there was a change of view on future exchange rates, which also nudged the inflation forecast upwards. There was an exceptionally large change in the projected oil price (see section 1.2), which should fall by more than two fifths in 2020. We believe that the effect of the error in the previous forecast, together with the weaker exchange rate of the Czech koruna, outweighs the effects of lower oil prices.

While the impact of the coronavirus pandemic, or more specifically the measures to prevent the spread of the disease, is plainly negative for economic growth, the effect is ambiguous in the case of inflation. This is because aggregate supply is reduced, which has upside effects on inflation, and aggregate demand is also restricted, which has anti-inflationary effect.

In 2020, consumer price developments will be affected by several changes to indirect taxes. The aforementioned reclassification of heat to the second reduced VAT rate (effective as of 1 January 2020) and the increase in excise duty on alcohol (effective as of 1 January 2020) have already been reflected in consumer prices. In H1 2020, the increase in the excise duty applied to manufactured tobacco (effective as of 1 January 2020) and the reclassification of selected services and commodities[5] to the second reduced VAT rate in connection with the planned expansion of electronic registration of sales (effective as of 1 May 2020) will also be felt in consumer prices.

The aggregate technical impact of all changes in indirect taxes on the average inflation rate should be 0.2 pp, though the real impact is estimated at 0.4 pp as prices tend to be inflexible downward (the VAT reduction will not be fully reflected in end-user prices). The rise in regulated prices should slow down in 2020. We expect ad-

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[5] Services with a high share of labour, water supply and sewerage charges, food services.

ministrative measures to contribute 0.7 pp (*vs. 0.6 pp*) to the average inflation rate. This year, inflation should therefore be determined primarily by market factors.

We expect the extraordinarily robust rise in unit labour costs to have extensive pro-inflationary effects. The depreciation of the Czech koruna should also have upside effects. Household consumption should have the opposite effect. The broad-based demand-pull inflation factor in the form of the output gap points to a significant downward pressure on prices (see section 2.1). The decline in oil prices is another major downside factor.

In H1 2020, the year-on-year inflation should hover above the upper bound of the inflation target's tolerance band. Disinflation should be evident in the second half of the year in particular. **In 2020**, the **inflation rate** should **average** 3.2% (*versus 2.8%*). We view food prices as an upside risk and the price of natural gas as a downside risk (see chapter 1.2).

In 2021, more substantial pro-inflationary factors should be missing. The fall in unit labour costs and the persistent negative output gap should push inflation down. Household consumption, the exchange rate and oil prices should not have a major impact on inflation in 2021.

The rise in regulated prices should slow down further in 2021. In relation to indirect taxes, we forecast another – not particularly big – increase in cigarette excise duty. In view of the above, we expect the **average inflation rate in 2021** to slow down to 1.6% (*versus 2.2%*).

In Q4 2019, the **GDP deflator** increased by 3.5 % (*in line with the estimate*), with the gross domestic expenditure deflator growing by 3.2% (*versus 3.1%*) and terms of trade improving by 0.7% (*versus 0.9%*). Developments in the gross domestic expenditure deflator reflected growth in the deflators of general government and household consumption and gross capital formation.

GDP deflator should increase by 3.7% (*versus 2.6%*) in 2020 and in 2021 its growth could slow to 1.4% (*versus 2.1%*). This year the price level is affected by mutually offsetting demand and one-off supply shocks. Next year, most factors should be anti-inflationary. The changes expected in the momentum of the GDP deflator stem from a lower contribution of the terms of trade in 2021 and from trends in the gross domestic expenditure deflator, where the slowdown will be fuelled primarily by the household consumption deflator, but also – to a lesser extent – by the general government consumption and gross capital formation deflators (see graph 3.2.4).

The forecast developments in both export and import prices will be affected in particular by the sharp fall in oil prices in 2020 and by renewed appreciation of the exchange rate in 2021. As a result, terms of trade could improve by 0.8% (*versus 0.3%*) in 2020 and 0.1% (*versus 0.3 %*) in 2021.

Graph 3.2.1: Consumer Prices
YoY growth rate in %
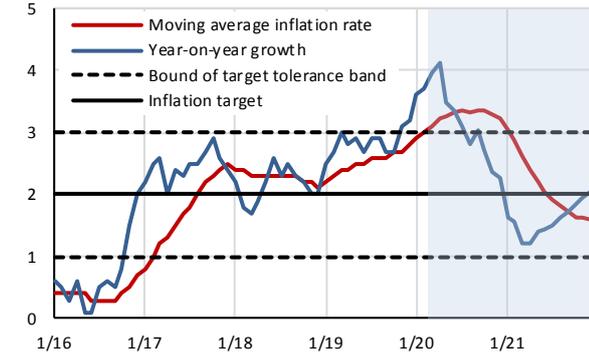
Source: CNB, CZSO. Calculations and forecast of the MoF.

Graph 3.2.2: Consumer Prices in Main Divisions
YoY growth of consumer price index in %, contributions in pp
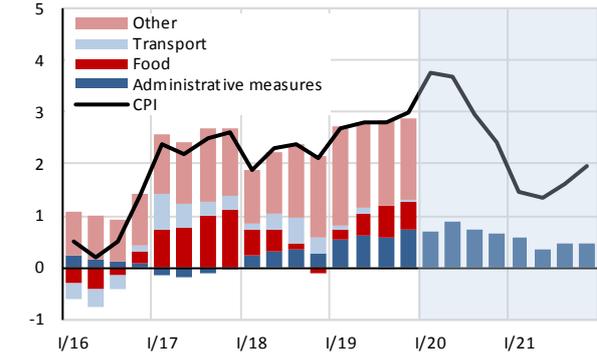
Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.3: Core Inflation and Unit Labour Costs
YoY growth rate in %
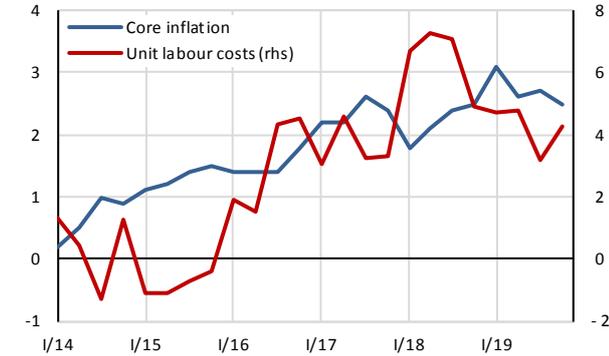
Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.4: Gross Domestic Product Deflator
growth rate in %, contributions in percentage points
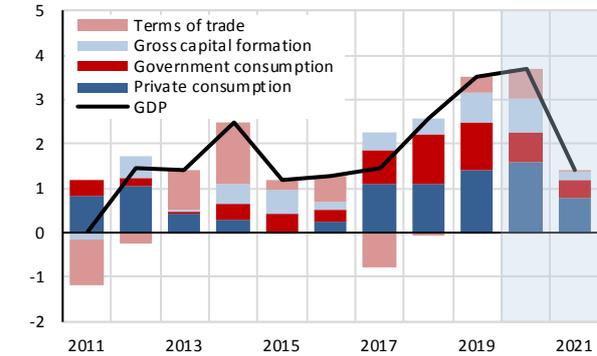
Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.5: Terms of Trade
YoY growth rate in %
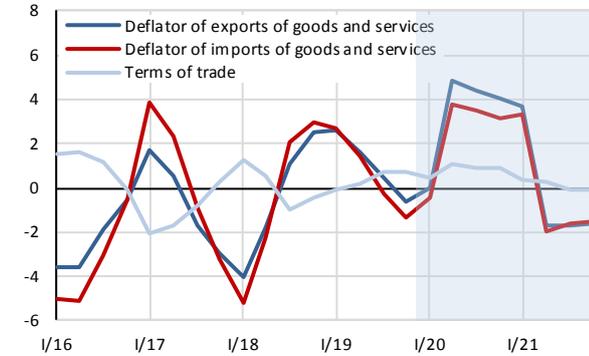
Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.6: Offering Prices of Flats
YoY growth rate in %
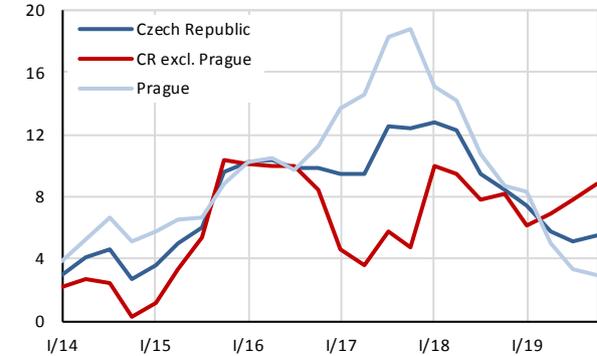
Source: CZSO.

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
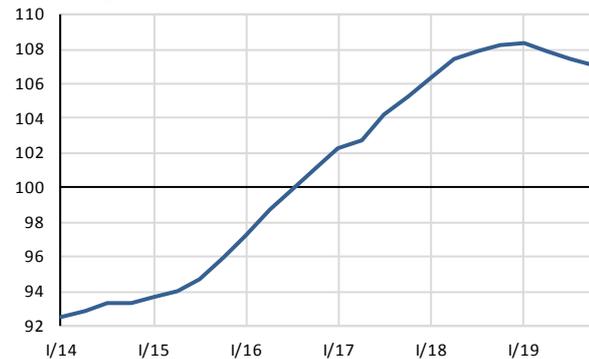
Source: CZSO. Calculations of the MoF.

Table 3.2.1: Prices – yearly

		2014	2015	2016	2017	2018	2019	2020 Forecast	2021 Forecast	2022 Outlook	2023 Outlook
Consumer Price Index											
Level	*average 2015=100*	99.7	100.0	100.7	103.1	105.3	108.3	111.8	113.6	115.9	118.2
Average inflation rate	*%*	**0.4**	**0.3**	**0.7**	**2.5**	**2.1**	**2.8**	**3.2**	**1.6**	**2.0**	**2.0**
Administrative measures [1]	*percentage points*	-0.4	0.2	0.2	-0.1	0.3	0.6	0.7	0.5	0.5	0.5
Market increase	*percentage points*	0.8	0.1	0.5	2.6	1.8	2.2	2.5	1.1	1.5	1.5
Level in December	*average 2015=100*	99.5	99.5	101.5	103.9	106.0	109.4	111.9	114.2	116.4	118.7
Annual inflation in December	*%*	**0.1**	**0.1**	**2.0**	**2.4**	**2.0**	**3.2**	**2.3**	**2.0**	**2.0**	**2.0**
Harmonized index of consumer prices											
Level	*average 2015=100*	99.8	100.0	100.7	103.1	105.1	107.8	111.3	112.9	115.1	117.2
Average inflation rate	*growth in %*	**0.4**	**0.3**	**0.6**	**2.4**	**2.0**	**2.6**	**3.2**	**1.5**	**1.9**	**1.9**
Deflators											
GDP	*average 2010=100*	105.5	106.7	108.1	109.6	112.4	116.4	120.7	122.4	124.7	127.3
	growth in %	2.5	1.2	1.3	1.4	2.6	3.5	3.7	1.4	1.9	2.0
Domestic final use	*average 2010=100*	104.6	105.7	106.5	109.1	112.1	115.9	119.6	121.3	123.6	126.0
	growth in %	1.1	1.0	0.7	2.4	2.8	3.4	3.2	1.4	1.9	2.0
Consumption of households	*average 2010=100*	105.5	105.6	106.2	108.7	111.1	114.4	118.1	120.0	122.4	124.8
	growth in %	0.6	0.1	0.5	2.4	2.3	3.0	3.2	1.6	2.0	2.0
Consumption of government	*average 2010=100*	104.6	106.7	108.1	112.6	119.1	125.4	129.3	131.9	134.8	137.9
	growth in %	1.7	2.0	1.3	4.1	5.8	5.4	3.1	2.0	2.3	2.3
Fixed capital formation	*average 2010=100*	102.7	104.5	105.4	106.9	108.4	111.3	114.4	115.7	117.2	119.2
	growth in %	1.6	1.8	0.9	1.4	1.4	2.7	2.8	1.1	1.3	1.7
Exports of goods and services	*average 2010=100*	109.8	108.4	105.8	105.1	104.5	105.5	108.9	108.6	108.0	108.3
	growth in %	4.0	-1.3	-2.4	-0.6	-0.6	1.0	3.2	-0.2	-0.5	0.2
Imports of goods and services	*average 2010=100*	109.2	107.4	103.7	104.2	103.5	104.1	106.5	106.1	105.2	105.2
	growth in %	2.5	-1.7	-3.4	0.4	-0.6	0.6	2.3	-0.4	-0.8	-0.1
Terms of trade	*average 2010=100*	100.5	100.9	102.0	100.9	101.0	101.4	102.2	102.3	102.6	103.0
	growth in %	1.5	0.4	1.0	-1.0	0.0	0.4	0.8	0.1	0.3	0.3

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

Table 3.2.2: Prices – quarterly

		2019				2020			
		Q1	Q2	Q3	Q4	Q1 *Estimate*	Q2 *Forecast*	Q3 *Forecast*	Q4 *Forecast*
Consumer Price Index	*average 2015=100*	**107.3**	**108.1**	**108.8**	**109.2**	**111.4**	**112.1**	**112.0**	**111.8**
	growth in %	2.7	2.8	2.8	3.0	3.8	3.7	3.0	2.4
Of which the contribution of:									
Administrative measures [1]	*percentage points*	0.5	0.6	0.6	0.7	0.7	0.9	0.7	0.7
Market increase	*percentage points*	2.2	2.2	2.2	2.3	3.1	2.8	2.2	1.8
Harmonized index of consumer	*average 2015=100*	**106.8**	**107.6**	**108.3**	**108.6**	**110.8**	**111.5**	**111.5**	**111.2**
prices	*growth in %*	2.3	2.4	2.6	3.0	3.8	3.6	2.9	2.4
Deflators									
GDP	*average 2010=100*	**114.8**	**115.6**	**116.5**	**118.5**	**118.7**	**120.9**	**120.8**	**122.3**
	growth in %	3.4	3.5	3.5	3.7	3.4	4.5	3.8	3.2
Domestic final use	*average 2010=100*	**113.9**	**115.1**	**116.2**	**117.9**	**117.7**	**119.5**	**119.9**	**121.0**
	growth in %	3.4	3.5	3.2	3.3	3.3	3.8	3.2	2.7
Consumption of households	*average 2010=100*	**112.9**	**114.0**	**115.2**	**115.5**	**117.2**	**118.3**	**118.7**	**118.3**
	growth in %	2.9	3.0	2.9	3.0	3.8	3.7	3.0	2.4
Consumption of government	*average 2010=100*	**121.1**	**123.8**	**125.3**	**130.6**	**125.1**	**127.9**	**129.0**	**134.3**
	growth in %	5.2	5.9	5.1	5.3	3.3	3.3	3.0	2.8
Fixed capital formation	*average 2010=100*	**110.0**	**110.6**	**111.4**	**112.8**	**112.3**	**114.3**	**114.9**	**115.9**
	growth in %	3.0	2.6	2.5	2.7	2.1	3.4	3.1	2.7
Exports of goods and services	*average 2010=100*	**105.7**	**105.9**	**105.5**	**105.1**	**105.8**	**111.0**	**110.2**	**109.3**
	growth in %	2.6	1.6	0.4	-0.7	0.0	4.8	4.4	4.0
Imports of goods and services	*average 2010=100*	**104.0**	**104.5**	**104.5**	**103.5**	**103.6**	**108.4**	**108.2**	**106.7**
	growth in %	2.7	1.4	-0.3	-1.3	-0.4	3.7	3.5	3.1
Terms of trade	*average 2010=100*	**101.6**	**101.3**	**101.0**	**101.5**	**102.1**	**102.4**	**101.9**	**102.4**
	growth in %	-0.1	0.2	0.7	0.7	0.5	1.1	0.9	0.9

[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 labour market continues to exhibit signs of overheating, though in many respects it is reaching its limits. Employment growth essentially halted and, according to Labour Force Survey methodology, it fell at the end of the year. While the internationally comparable unemployment rate evidently bottomed out at around 2%, registered unemployment continued to fall moderately year-on-year in early 2020. The number of vacancies was again in excess of 350,000. The ongoing robust increases in wages and salaries echoed this situation.

Employment (Labour Force Survey) dipped by 0.4% YoY (*versus 0.2%*) in Q4 2019. The number of employees was down by 0.1% (*versus stagnation*) and the number of entrepreneurs fell 1.8% (*versus 1.2%*). While the number of entrepreneurs without employees was 0.5% lower, the number of entrepreneurs with employees slumped by 7.5% (however, this is a highly volatile indicator). Despite slightly worse-than-expected developments at the end of the year, employment in the full year 2019 was 0.2% higher year on year (*in line with the estimate*).

From a sectoral perspective, the biggest contributors to employment growth (business statistics, full-time equivalents) in absolute terms were education, wholesale and retail trade, and human health and social work activities. There was a significant decrease in manufacturing (by 19,000, or 1.6%) and in administrative and support service activities (3.2%). This sector includes agency workers, many of whom probably actually work in industry.

In early 2020, a scarcity of labour was still evident in virtually all sectors of the economy and in almost all regions (in February 2020, the number of vacancies surpassed the number of unemployed in 10 regions and 47 districts). The labour shortage was singled out as the main barrier to production growth by more than 20% of industrial enterprises and more than a third of construction companies in Q1 2020.

Considering how extremely low unemployment was, further increases in employment via this channel were virtually impossible. Consequently, companies and institutions resolved this shortage by recruiting employees who would otherwise be economically inactive. The hiring of foreign workers from the EU and other countries, especially from Ukraine, continued.

The exact impact of the coronavirus pandemic on the labour market is difficult to gauge. However, we can assume that the effects of the severe economic downturn will be cushioned by targeted government measures (e.g. the Antivirus employment protection scheme that will provide employers with a contribution to fully or partially cover wage compensation). As the scenario adopted in the macroeconomic forecast envisages only a temporary economic slump, it should not be in many companies' interest to lay off employees immediately,

given the duration of the statutory notice period and amount of severance pay they would be liable for. Nonetheless, despite being on the receiving end of some state compensation, numerous self-employed persons who find themselves unable to carry on their trade are likely to suspend their trade licences and temporarily join the ranks of the unemployed. From the methodological perspective, it should be noted that employees drawing on a carer allowance and workers in quarantine remain classified as employed.

Taking these factors into account, we significantly raise the expected fall in employment in 2020 to 1.2% (*versus 0.1%*). For 2021, we forecast employment to grow by 0.2% (*versus stagnation*), which should partially offset this year's decline.

In Q4 2019, the **unemployment rate** (Labour Force Survey) was 2.0 % (*versus 2.2%*). For the year as a whole, it averaged 2.0% (*in line with the estimate*). The coronavirus pandemic and the economic downturn will push down labour demand significantly. As a result, the unemployment rate is expected to average 3.3% (*versus 2.2%*) this year and increase further to 3.5% (*versus 2.4%*) in 2021. A more significant rise in unemployment should be prevented by the extremely high number of vacancies and the significant number of foreign employees (more than 600,000), who are likely to be laid off first.

The year-on-year decline in the **share of unemployed persons** (Ministry of Labour and Social Affairs) continued to slow down. These reductions were really only in evidence in regions with the highest unemployment. Like the unemployment rate (Labour Force Survey), the share of unemployed persons should increase this year. We expect it to average 3.7% (*versus 2.7%*), followed by a rise to 4.1% (*versus 2.7%*) in 2021.

The **participation rate** (20-64 years) in Q4 2019 – in connection with the drop in employment – came to 82.2% (*versus 82.4%*).

The main role in the further development of the participation rate will be played by demographic aspects in the form of the rising share of age groups with a naturally high level of economic activity (especially those aged 45–54) and the rise in the retirement age. The participation rate averaged 82.0% (*as forecast*) in 2019, and we predict a rise to 82.3% (*versus 82.5%*) in 2020 on account of the factors explained above. In 2021, we forecast a further increase to 83.1% (*unchanged*) as employment growth resumes.

The year-on-year growth in **wages and salaries** slowed down to 6.5% (*versus 6.6 %*) in Q4 2019. The fastest momentum was recorded in real estate (11.3% growth). Overall growth was driven by higher wages and salaries in public administration, defence, education, human

health and social work activities (an increase by 10.7%). In the macroeconomically important manufacturing sector, wage growth continued its pronounced slowdown, dropping to 3.2%. This reflected a 1% decrease in the number of employees.

In January and February, wages and salaries may still have been supported by developments in services and in the general government sector. Under normal circumstances, the momentum of the average wage in industry would have remained virtually unchanged in Q1 2020 due to declining employment, but developments in March evidently reduced this growth. We estimate that the growth in wages and salaries in Q1 2020 slowed down to 5.2% (*versus 6.4%*).

In the first half of the year, demand and supply factors related to the coronavirus pandemic will be the dominant cause of the expected earnings deceleration. Childcare, linked to the shutdown of schools, may be felt in Q2 of this year in particular. Previously expected fundamental aspects, related to a record number of vacancies and the assumed recovery of industrial production, will not now come into play this year due to the decline in economic output. Overall, we expect to see the growth in the wage bill to slow down in 2020 to 2.6% (*versus 6.1%*). Due to the downward inflexibility of wages and a significant reduction in the operating surplus of companies in 2020, we do not expect a decline in wages to surface in real terms until next year. In addition, the projected slowdown in the public sector wage growth should act in the same direction. Wages and salaries could increase by 0.8% (*versus 5.2%*) next year.

The **average wage** (business statistics, FTE) grew by 6.7 % YoY (*as estimated*) in Q4 2019 and by 7.1% for the full year 2019. The median wage rose by 6.6% in Q4, almost exactly the same as the average wage. The negative factors outlined above, in terms of the impact on the average wage, could be mitigated by prioritising a reduction in employees' working hours (instead of redundancies). This year we expect a greater impact to be felt among employees at small companies and in lower-paid professions. The average nominal wage may have increased by 5.9% (*versus 6.3%*) in Q1, and we expect an increase of 3.7% (*versus 6.0%*) for the whole of 2020. It could rise by 0.6% (*versus 5.1%*) next year.

Graph 3.3.1: Employees in Different Statistics
YoY growth rate in%
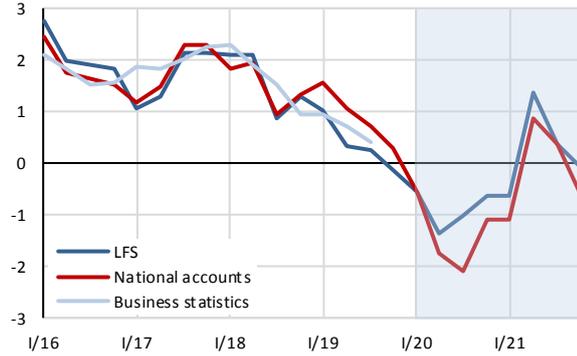
Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.2: Indicators of Unemployment
seasonally adjusted data, in%

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

Graph 3.3.3: Collection of Social Security Contributions and Earnings
YoY growth rate in%
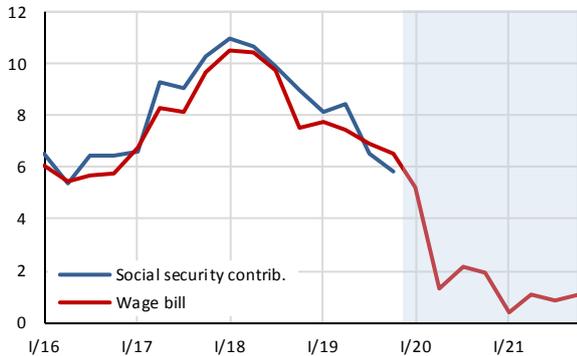
Source: CZSO, MoF. Calculations and forecast of the MoF.

Graph 3.3.4: Compensation per Employee and Real Productivity of Labour
YoY growth rate in %
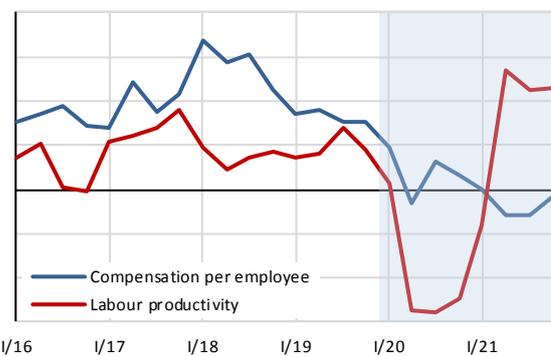
Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.5: Nominal Monthly Wage
YoY growth rate in%
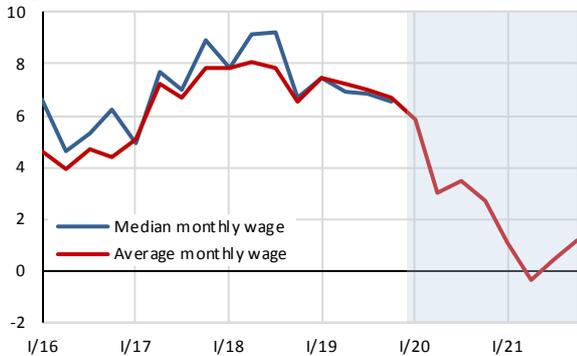
Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.6: Nominal Wage Bill
YoY growth rate in %, domestic concept of the wage bill
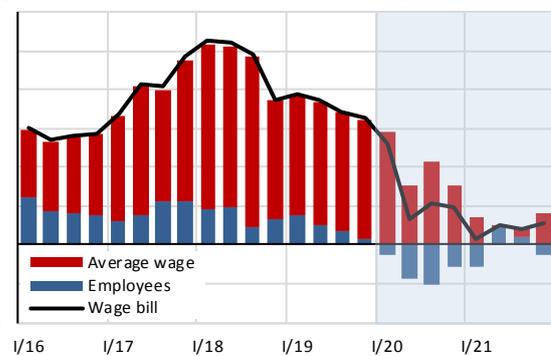
Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.7: Gross Savings Rate of Households
in % of disposable income
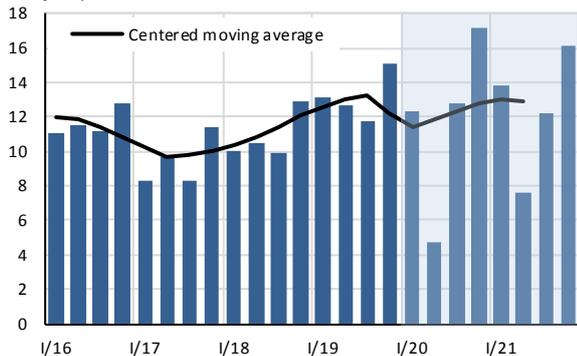
Source: CZSO. Calculations and forecast of the MoF.

Table 3.3.1: Labour Market – yearly

		2014	2015	2016	2017	2018	2019	2020 Forecast	2021 Forecast	2022 Outlook	2023 Outlook
Labour Force Survey											
Employment	*av. in thous.persons*	4 974	5 042	5 139	5 222	5 294	5 303	5 237	5 247	5 255	5 258
	growth in %	0.8	1.4	1.9	1.6	1.4	0.2	-1.2	0.2	0.2	0.1
Employees	*av. in thous.persons*	4 079	4 168	4 257	4 327	4 396	4 412	4 374	4 385	4 394	4 398
	growth in %	0.6	2.2	2.1	1.7	1.6	0.4	-0.9	0.3	0.2	0.1
Entrepreneurs and	*av. in thous.persons*	895	874	882	894	897	891	863	862	860	860
self-employed	*growth in %*	1.5	-2.4	1.0	1.4	0.4	-0.7	-3.1	-0.2	-0.1	-0.1
Unemployment	*av. in thous.persons*	324	268	211	156	122	109	177	191	192	192
Unemployment rate	*average in %*	6.1	5.1	4.0	2.9	2.2	2.0	3.3	3.5	3.5	3.5
Long-term unemployment [1]	*av. in thous.persons*	141	127	89	54	48	.	.	.	.	.
Labour force	*av. in thous.persons*	5 298	5 310	5 350	5 377	5 415	5 412	5 414	5 438	5 446	5 450
	growth in %	-0.2	0.2	0.8	0.5	0.7	-0.1	0.0	0.4	0.2	0.1
Population aged 20–64	*av. in thous.persons*	6 610	6 566	6 510	6 456	6 414	6 383	6 342	6 302	6 267	6 241
	growth in %	-0.7	-0.7	-0.9	-0.8	-0.7	-0.5	-0.6	-0.6	-0.6	-0.4
Employment/Pop. 20–64	*average in %*	75.3	76.8	78.9	80.9	82.5	83.1	82.6	83.3	83.9	84.3
Employment rate 20–64 [2]	*average in %*	73.6	74.8	76.7	78.5	79.9	80.3	79.6	80.2	80.8	81.0
Labour force/Pop. 20–64	*average in %*	80.1	80.9	82.2	83.3	84.4	84.8	85.4	86.3	86.9	87.3
Participation rate 20–64 [3]	*average in %*	78.2	78.7	79.9	80.9	81.7	82.0	82.3	83.1	83.6	83.7
Participation rate 15–64 [3]	*average in %*	73.5	74.0	75.0	75.9	76.6	76.9	77.1	77.6	77.8	77.8
Registered unemployment											
Unemployment	*av. in thous.persons*	561	479	406	318	242	212	277	311	314	316
Share of unemployed [4]	*average in %*	7.7	6.6	5.6	4.3	3.2	2.8	3.7	4.1	4.2	4.2
Wages and salaries											
Average monthly wage [5]											
Nominal	*CZK monthly*	25 768	26 591	27 764	29 638	31 868	34 125	35 383	35 597	36 600	37 858
	growth in %	2.9	3.2	4.4	6.7	7.5	7.1	3.7	0.6	2.8	3.4
Real	*CZK 2010*	24 036	24 730	25 641	26 735	28 146	29 304	29 426	29 138	29 375	29 796
	growth in %	2.5	2.9	3.7	4.3	5.3	4.1	0.4	-1.0	0.8	1.4
Median monthly wage	*CZK monthly*	21 786	22 414	23 692	25 398	27 479	29 380	.	.	.	.
	growth in %	3.2	2.9	5.7	7.2	8.2	6.9	.	.	.	.
Wage bill	*growth in %*	3.6	4.8	5.7	8.3	9.5	7.1	2.6	0.8	2.9	3.5
Labour productivity	*growth in %*	2.2	3.8	0.8	2.8	1.5	1.9	-4.0	3.2	1.7	1.6
Unit labour costs [6]	*growth in %*	0.4	-0.8	3.1	3.6	6.5	4.2	8.3	-2.2	0.9	1.6
Compens. of employees / GDP	*%*	40.2	39.6	40.4	41.4	43.0	43.4	45.5	43.9	43.5	43.4

[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

		2019 Q1	2019 Q2	2019 Q3	2019 Q4	2020 Q1 Estimate	2020 Q2 Forecast	2020 Q3 Forecast	2020 Q4 Forecast
Labour Force Survey									
Employment	av. in thous. persons	**5 306**	**5 296**	**5 306**	**5 305**	**5 266**	**5 172**	**5 242**	**5 267**
	YoY growth in %	0.9	0.1	0.1	-0.4	-0.7	-2.3	-1.2	-0.7
	QoQ growth in %	0.2	-0.4	-0.2	-0.1	-0.1	-2.0	1.0	0.4
Employees	av. in thous. persons	4 411	4 403	4 410	4 425	4 387	4 344	4 366	4 397
	growth in %	1.0	0.3	0.3	-0.1	-0.5	-1.3	-1.0	-0.6
Entrepreneurs and self-employed	av. in thous. persons	894	893	896	879	879	828	877	870
	growth in %	0.3	-0.8	-0.7	-1.8	-1.7	-7.3	-2.2	-1.1
Unemployment	av. in thous.persons	**110**	**102**	**115**	**109**	**128**	**191**	**200**	**189**
Unemployment rate	average in %	**2.0**	**1.9**	**2.1**	**2.0**	**2.4**	**3.6**	**3.7**	**3.5**
Long-term unemployment [1]	av. in thous.persons	**36**	**33**	**31**	**.**	**.**	**.**	**.**	**.**
Labour force	av. in thous. persons	**5 415**	**5 398**	**5 421**	**5 414**	**5 394**	**5 363**	**5 442**	**5 456**
	growth in %	0.5	-0.2	-0.1	-0.4	-0.4	-0.7	0.4	0.8
Population aged 20–64	av. in thous. persons	**6 403**	**6 384**	**6 376**	**6 369**	**6 358**	**6 347**	**6 337**	**6 326**
	growth in %	-0.4	-0.5	-0.5	-0.5	-0.7	-0.6	-0.6	-0.7
Employment/Pop. 20–64	average in %	**82.9**	**83.0**	**83.2**	**83.3**	**82.8**	**81.5**	**82.7**	**83.3**
	increase over a year	1.1	0.5	0.5	0.0	0.0	-1.5	-0.5	0.0
Employment rate 20–64 [2]	average in %	**80.1**	**80.2**	**80.4**	**80.5**	**79.9**	**78.6**	**79.8**	**80.3**
	increase over a year	0.9	0.4	0.3	0.0	-0.2	-1.6	-0.6	-0.3
Labour force/Pop. 20–64	average in %	**84.6**	**84.6**	**85.0**	**85.0**	**84.8**	**84.5**	**85.9**	**86.2**
	increase over a year	0.8	0.3	0.3	0.0	0.3	-0.1	0.9	1.2
Participation rate 20–64 [3]	average in %	**81.8**	**81.8**	**82.1**	**82.2**	**81.8**	**81.5**	**82.7**	**83.1**
	increase over a year	0.7	0.2	0.2	0.1	0.0	-0.3	0.6	0.8
Participation rate 15–64 [3]	average in %	**76.6**	**76.5**	**76.9**	**76.9**	**76.5**	**76.1**	**77.3**	**77.6**
	increase over a year	0.6	0.1	0.1	-0.1	-0.1	-0.3	0.4	0.7
Registered unemployment									
Unemployment	av. in thous. persons	**239**	**207**	**203**	**201**	**228**	**274**	**303**	**303**
Share of unemployed [4]	average in %	**3.2**	**2.7**	**2.7**	**2.6**	**3.0**	**3.6**	**4.0**	**4.0**
Wages and salaries									
Average monthly wage [5]									
Nominal	CZK monthly	32 489	34 115	33 732	36 144	34 400	35 130	34 891	37 112
	growth in %	7.5	7.2	7.0	6.7	5.9	3.0	3.4	2.7
Real	CZK 2010	28 167	29 358	28 841	30 790	28 736	29 154	28 976	30 868
	growth in %	4.7	4.4	4.0	3.6	2.0	-0.7	0.5	0.3
Median monthly wage	CZK monthly	**27 602**	**29 136**	**29 580**	**31 202**	**.**	**.**	**.**	**.**
	growth in %	7.4	6.9	6.8	6.6	.	.	.	.
Wage bill	growth in %	**7.7**	**7.5**	**6.9**	**6.5**	**5.2**	**1.3**	**2.1**	**1.9**

[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 Forecast	2021 Forecast
Current income											
Compensation of employees	bill.CZK	**1 669**	**1 692**	**1 760**	**1 852**	**1 964**	**2 127**	**2 322**	**2 472**	**2 536**	**2 557**
	growth in %	2.6	1.3	4.0	5.3	6.0	8.3	9.2	6.5	2.6	0.8
Gross operating surplus	bill.CZK	**654**	**645**	**662**	**691**	**711**	**728**	**799**	**851**	**728**	**802**
and mixed income	growth in %	-2.9	-1.3	2.6	4.3	2.9	2.5	9.7	6.5	-14.4	10.1
Property income received	bill.CZK	**147**	**158**	**166**	**166**	**175**	**165**	**168**	**231**	**194**	**196**
	growth in %	-4.0	7.8	5.1	-0.4	5.7	-5.8	1.6	37.7	-16.2	1.1
Social benefits not-in-kind	bill.CZK	**566**	**563**	**576**	**591**	**606**	**623**	**655**	**733**	**799**	**839**
	growth in %	2.4	-0.6	2.2	2.6	2.6	2.8	5.0	12.1	8.9	5.0
Other current transfers received	bill.CZK	**151**	**146**	**160**	**181**	**217**	**244**	**281**	**308**	**322**	**338**
	growth in %	8.6	-3.1	9.2	13.3	19.4	12.8	15.2	9.6	4.5	4.9
Current expenditure											
Property income paid	bill.CZK	**15**	**21**	**16**	**14**	**14**	**16**	**22**	**23**	**20**	**20**
	growth in %	-27.2	40.5	-24.3	-10.7	0.2	8.3	40.6	5.0	-14.6	1.3
Curr. taxes on income and property	bill.CZK	**158**	**166**	**177**	**183**	**203**	**226**	**258**	**296**	**266**	**280**
	growth in %	1.6	4.9	6.9	3.2	11.1	11.0	14.2	14.9	-9.9	5.0
Social contributions	bill.CZK	**654**	**670**	**696**	**732**	**775**	**836**	**910**	**973**	**974**	**1 012**
	growth in %	2.3	2.4	3.8	5.3	5.8	7.8	8.9	6.9	0.2	3.9
Other current transfers paid	bill.CZK	**154**	**140**	**150**	**168**	**205**	**235**	**274**	**299**	**308**	**319**
	growth in %	6.2	-9.3	6.9	11.9	22.5	14.7	16.6	9.0	3.2	3.5
Gross disposable income	bill.CZK	**2 206**	**2 208**	**2 285**	**2 383**	**2 474**	**2 576**	**2 761**	**3 006**	**3 011**	**3 100**
	growth in %	1.0	0.1	3.5	4.3	3.8	4.1	7.2	8.9	0.2	3.0
Final consumption	bill.CZK	**1 970**	**1 997**	**2 044**	**2 125**	**2 213**	**2 361**	**2 491**	**2 642**	**2 687**	**2 751**
	growth in %	0.9	1.3	2.4	3.9	4.1	6.7	5.5	6.1	1.7	2.4
Change in share in pension funds	bill.CZK	**15**	**35**	**35**	**33**	**31**	**32**	**33**	**37**	**42**	**45**
Gross savings	bill.CZK	**250**	**246**	**276**	**291**	**292**	**247**	**304**	**401**	**366**	**395**
Capital transfers											
(income (-) / expenditure (+))	bill.CZK	**-21**	**-13**	**-32**	**-12**	**-14**	**-11**	**-13**	**-13**	**-21**	**-24**
Gross capital formation	bill.CZK	**183**	**181**	**195**	**208**	**228**	**242**	**245**	**265**	**247**	**252**
	growth in %	-7.8	-1.3	8.3	6.6	9.6	5.9	1.4	8.0	-6.7	1.9
Change in financial assets and liab.	bill.CZK	**87**	**77**	**110**	**93**	**76**	**15**	**69**	**149**	**140**	**167**
Real disposable income	growth in %	**-1.2**	**-0.8**	**2.9**	**4.2**	**3.3**	**1.7**	**4.8**	**5.7**	**-3.0**	**1.3**
Gross savings rate	%	**11.3**	**11.0**	**11.9**	**12.1**	**11.6**	**9.5**	**10.9**	**13.2**	**12.0**	**12.5**

Source: CZSO. Calculations of the MoF.

3.4 External Relations

The **current account balance to GDP ratio**[6] was in a deficit of 0.4 % (*versus a surplus of 0.3 %*) in Q4 2019, meaning that it had diminished by 0.8% of GDP quarter on quarter. All items – most notably widening of the primary income deficit and reduction in the services surplus – contributed to the current account's flip to a deficit.

The publication of data for Q4 2019 was accompanied by a revision of data for 2018 and the first three quarters of 2019. The most significant change for 2018 was a decrease in the goods surplus by 0.3% of GDP to 3.8% of GDP. The narrowing of the primary income deficit by 0.4% of GDP to 4.9% of GDP acted in the opposite direction. The surplus on the current account of the balance of payments increased by 0.1% of GDP.

Export markets stagnated year on year in Q4 2019 (*versus 1.0% growth*) and thus lagged behind expectations. The main reason for this was a quarter-on-quarter decline in imports among most of our trading partners, most notably the United Kingdom and Austria. While GDP growth of the Czech Republic's main trading partners remained only slightly (by 0.1 pp) behind expectations, the decrease in import intensity by 1.1% (*versus 0.2%*) due to a decline in the intensity of trade, especially among EU countries, had a more pronounced effect. For 2019 as a whole, export market growth was 1.9% (*versus 2.4%*). Taking into account the downward revision of our main trading partners' forecasts in connection with the coronavirus pandemic this year, we expect export markets to contract by 14.7% (*versus growth of 1.3%*). In 2021, export markets should increase by 5.4% (*versus 1.9%*) as other countries recover.

Export performance in Q4 2019 decreased by 2.2% (*versus 1.1%*). The worse-than-expected outcome may reflect a decline in the production of motor vehicles and machinery. For the full year 2019, export performance was down by 1.1% (*versus 1.2%*). This year, it should fall by 1.4% (*versus 0.0%*). The negative trend in export performance reflects growth in unit labour costs and concerns about production constraints and labour shortages due to the quarantine-related measures imposed by firms and the state. The expected depreciation of the koruna could offset these effects somewhat. For 2021, we forecast a slight increase in performance by 0.2% (*versus a decrease of 0.2%*).

Within external trade (according to the balance of payments methodology) there was a slight decline in the surplus on the **balance of goods** in Q4 2019 owing to lower external demand for capital goods. Current figures place this surplus at 4.2% of GDP (*versus 4.3% of GDP*). The worsening balance in machinery and transport equipment, a group that accounts for more than half of all exports of goods, contributed to this result. In this re-

spect, there was a decline in exports of cars and electronic devices.

Prices of mineral fuels remain an important factor affecting **terms of trade** in goods. In Q4 2019, the deficit of the balance's fuel part was 2.5% of GDP (*versus 2.6% of GDP*). Bearing in mind the projected oil price (see section 1.2), we envisage a reduction in the deficit to 1.7% of GDP both this year (*versus 2.4% of GDP*) and next (*versus 2.2% of GDP*).

We forecast that the surplus on the balance of goods relative to GDP will reach 4.2% (*versus 4.3%*) this year. The export side mainly reflects a deterioration in developments abroad due to the coronavirus pandemic. The decline in imports will then also be fuelled by a slump in import-intensive investment demand. In addition, due to the weaker koruna and projections of lower oil prices, we expect better terms of trade, which should partially offset the negative effects of measures to stop coronavirus from spreading. In 2021, in connection with the recovery expected abroad, we forecast that the surplus will grow to 4.5% of GDP (*versus 4.3% of GDP*).

The surplus on the **balance of services** stood at 1.8% of GDP (*versus 2.2% of GDP*) in Q4 2019 due to unprecedented strong growth in service imports by 15.8%. In relative terms, this is the lowest value since Q1 2016. In the year-on-year comparison, the much lower balance can be attributed to a surge in imports (by CZK 14.9 billion) from Germany in the area of research and development, accompanied by a decline in revenues from transport services. Taking into account the restrictions on economic activities (e.g. tourism and air traffic), we expect the surplus to decline to 1.4% of GDP (*versus 2.3% of GDP*) this year; as effects of the coronavirus pandemic fade away, the surplus could increase to 1.6% of GDP (*versus 2.3% of GDP*) in 2021.

The **primary income balance** deteriorated by 0.3% of GDP quarter on quarter in Q4 2019, reporting a deficit of 5.7% of GDP (*versus 5.4% of GDP*). The increase in the deficit reflects a higher outflow of direct investment income due to an increase in the profitability of foreign-owned companies. Primary income exhibits high volatility over time; this is associated with the cyclical development of the economy. Bearing in mind the predicted economic growth and gross operating surplus, we expect the momentum of foreign-controlled companies' profits to fall considerably this year. In this respect, the primary income deficit could amount to 4.7% of GDP (*versus 5.3% of GDP*). For 2021, we forecast a deficit of 5.1% of GDP (*versus 5.4% 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** will report a modest surplus, which could be 0.2% of GDP (*versus 0.6% of GDP*) this year and 0.3% of GDP (*versus 0.7% of GDP*) in 2021.

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[6] 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

Secondary income, Services, Primary income, Goods, Current account
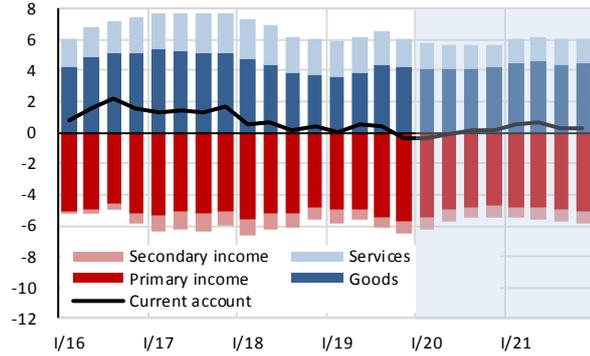
Source: CNB, CZSO. Calculations and forecast of the MoF.

Graph 3.4.2: Balance of Trade
four-quarter moving totals, in % of GDP, change of ownership concept

Other items, Machinery, Mineral fuels, Trade balance
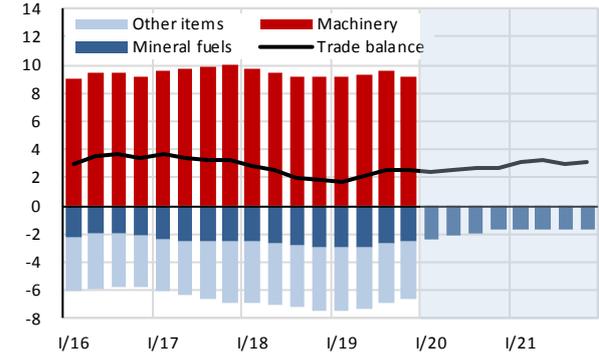
Source: CZSO. Calculations and forecast of the MoF.

Graph 3.4.3: Balance of Services
four-quarter moving totals, in % of GDP

Others, Transport, Tourism, Processing, Services
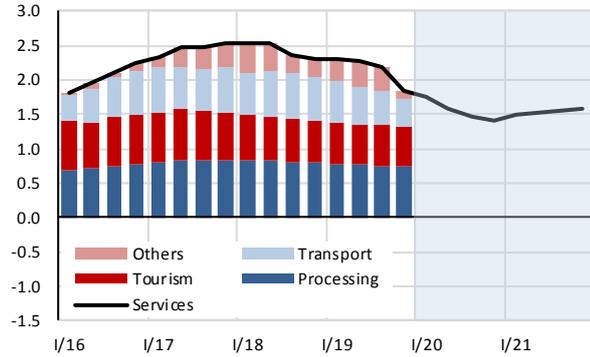
Source: CNB, CZSO. Calculations and forecast of the MoF.

Graph 3.4.4: Balance of Primary Income
four-quarter moving totals, in % of GDP

Other primary income, Investment income, Compensation of employees, Primary income
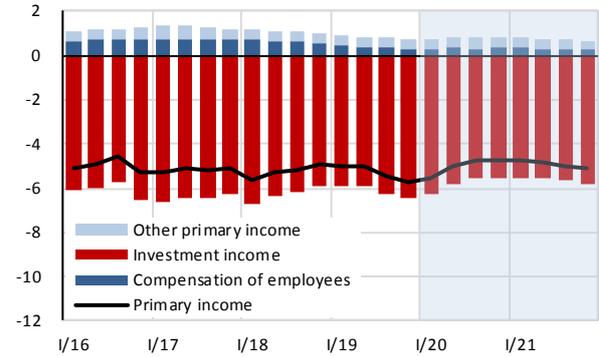
Source: CNB, CZSO. Calculations and forecast of the MoF.

Graph 3.4.5: GDP and Goods Imports of Partner Countries
YoY growth rate in %, seasonally adjusted

Export markets growth (lhs), Weighted average of GDP growth

Source: Eurostat. Calculations and forecast of the MoF.

Graph 3.4.6: Real Exports of Goods
YoY growth in %, contributions in pp, seasonally adjusted

Export performance, Export market growth, Exports of goods
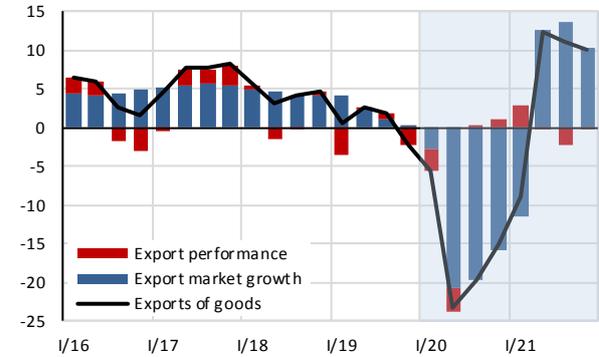
Source: CZSO, Eurostat. Calculations and forecast of the MoF.

Graph 3.4.7: Deflator of Exports of Goods
YoY growth in %, contributions in percentage points

Reached prices, Exchange rate, Deflator
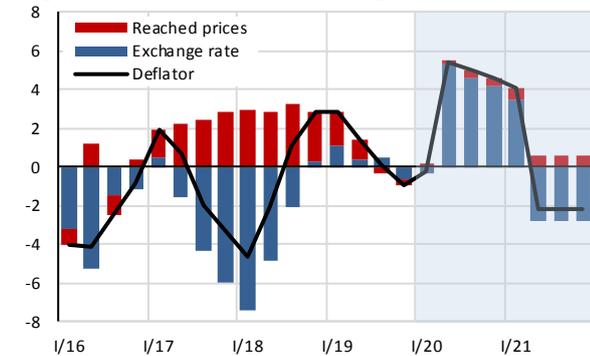
Source: CNB, CZSO. Calculations and forecast of the MoF.

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 Forecast	2021 Forecast
Goods and services	*bill.CZK*	**201**	**237**	**276**	**266**	**353**	**387**	**323**	**343**	**312**	**353**
	% GDP	5.0	5.8	6.4	5.8	7.4	7.7	6.1	6.1	5.6	6.1
Goods	*bill.CZK*	124	167	220	188	246	259	201	240	234	262
	% GDP	3.0	4.1	5.1	4.1	5.2	5.1	3.8	4.2	4.2	4.5
Services	*bill.CZK*	78	70	56	78	108	128	122	104	78	91
	% GDP	1.9	1.7	1.3	1.7	2.3	2.5	2.3	1.8	1.4	1.6
Primary income	*bill.CZK*	**-238**	**-249**	**-261**	**-255**	**-252**	**-255**	**-261**	**-324**	**-261**	**-297**
	% GDP	-5.9	-6.1	-6.0	-5.5	-5.3	-5.1	-4.9	-5.7	-4.7	-5.1
Secondary income	*bill.CZK*	**-27**	**-10**	**-7**	**0**	**-27**	**-48**	**-40**	**-41**	**-40**	**-38**
	% GDP	-0.7	-0.2	-0.2	0.0	-0.6	-1.0	-0.7	-0.7	-0.7	-0.7
Current account	*bill.CZK*	**-63**	**-22**	**8**	**11**	**74**	**83**	**23**	**-21**	**10**	**17**
	% GDP	-1.6	-0.5	0.2	0.2	1.6	1.7	0.4	-0.4	0.2	0.3
Capital account	*bill.CZK*	**53**	**82**	**32**	**102**	**54**	**41**	**14**	**14**	**26**	**36**
	% GDP	1.3	2.0	0.7	2.2	1.1	0.8	0.3	0.3	0.5	0.6
Net lending/borrowing	*bill.CZK*	**-10**	**61**	**40**	**113**	**128**	**124**	**37**	**-7**	**36**	**53**
	% GDP	-0.3	1.5	0.9	2.5	2.7	2.5	0.7	-0.1	0.7	0.9
Financial account	*bill.CZK*	**12**	**68**	**64**	**175**	**117**	**121**	**59**	**33**	**.**	**.**
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	-57	-102	-798	45	102	.	.
Reserve assets	*bill.CZK*	80	188	73	351	564	1 246	50	108	.	.
International investment position	*bill.CZK*	**-1 864**	**-1 695**	**-1 577**	**-1 513**	**-1 283**	**-1 264**	**-1 318**	**-1 168**	**.**	**.**
	% GDP	-45.9	-41.4	-36.6	-32.9	-26.9	-25.0	-24.8	-20.7	.	.
Gross external debt	*bill.CZK*	**2 434**	**2 733**	**2 947**	**3 119**	**3 498**	**4 370**	**4 413**	**4 384**	**.**	**.**
	% GDP	60.0	66.7	68.3	67.9	73.4	86.6	82.9	77.5	.	.

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

		2019				2020			
		Q1	Q2	Q3	Q4	Q1 Estimate	Q2 Forecast	Q3 Forecast	Q4 Forecast
Goods and services	bill.CZK	**320**	**336**	**363**	**343**	**332**	**320**	**313**	**312**
	% GDP	5.9	6.1	6.5	6.1	5.8	5.7	5.6	5.6
Goods	bill.CZK	195	211	241	240	232	231	231	234
	% GDP	3.6	3.9	4.3	4.2	4.1	4.1	4.1	4.2
Services	bill.CZK	125	125	122	104	100	89	82	78
	% GDP	2.3	2.3	2.2	1.8	1.8	1.6	1.5	1.4
Primary income	bill.CZK	**-269**	**-275**	**-304**	**-324**	**-313**	**-281**	**-267**	**-261**
	% GDP	-5.0	-5.0	-5.5	-5.7	-5.5	-5.0	-4.8	-4.7
Secondary income	bill.CZK	**-46**	**-35**	**-37**	**-41**	**-41**	**-40**	**-40**	**-40**
	% GDP	-0.9	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7
Current account	bill.CZK	**5**	**26**	**21**	**-21**	**-22**	**-2**	**6**	**10**
	% GDP	0.1	0.5	0.4	-0.4	-0.4	0.0	0.1	0.2
Capital account	bill.CZK	**6**	**16**	**13**	**14**	**17**	**20**	**23**	**26**
	% GDP	0.1	0.3	0.2	0.3	0.3	0.4	0.4	0.5
Net lending/borrowing	bill.CZK	**11**	**42**	**34**	**-7**	**-5**	**18**	**29**	**36**
	% GDP	0.2	0.8	0.6	-0.1	-0.1	0.3	0.5	0.7
Financial account	bill.CZK	**24**	**52**	**52**	**33**	**.**	**.**	**.**	**.**
Direct investments	bill.CZK	-73	-86	-85	-61	.	.	.	.
Portfolio investments	bill.CZK	-68	-188	-181	-118	.	.	.	.
Financial derivatives	bill.CZK	-18	-9	-15	1	.	.	.	.
Other investments	bill.CZK	129	271	241	102	.	.	.	.
Reserve assets	bill.CZK	54	64	91	108	.	.	.	.
International investment position	stock in bill.CZK	**-1 150**	**-1 172**	**-1 100**	**-1 168**	**.**	**.**	**.**	**.**
	% GDP	-21.3	-21.4	-19.7	-20.7	.	.	.	.
Gross external debt	stock in bill.CZK	**4 392**	**4 359**	**4 447**	**4 384**	**.**	**.**	**.**	**.**
	% GDP	81.3	79.5	79.8	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	2021
										Forecast	Forecast
GDP [1]	average of 2005=100	104.6	105.3	107.7	110.1	112.5	115.7	118.4	120.1	114	117
	growth in %	1.0	0.7	2.2	2.3	2.1	2.9	2.3	1.4	-5.3	3.1
Import intensity [2]	average of 2005=100	102.7	104.4	106.9	110.4	112.9	115.7	118.1	118.7	107	109
	growth in %	-0.9	1.6	2.4	3.2	2.3	2.5	2.1	0.5	-9.9	2.2
Export markets [3]	average of 2005=100	107.4	109.9	115.1	121.5	127.0	133.9	139.9	142.5	122	128
	growth in %	0.0	2.4	4.7	5.6	4.5	5.4	4.5	1.9	-14.7	5.4
Export performance	average of 2005=100	107.0	105.2	109.8	109.6	109.2	110.9	110.8	109.6	108	108
	growth in %	4.3	-1.7	4.3	-0.2	-0.3	1.6	-0.1	-1.1	-1.4	0.2
Real exports	average of 2005=100	114.9	115.7	126.3	133.2	138.7	148.5	155.1	156.2	131	139
	growth in %	4.4	0.6	9.2	5.4	4.2	7.1	4.4	0.7	-15.9	5.6
1 / NEER	average of 2005=100	101.2	103.0	108.6	109.9	106.9	103.9	100.2	100.5	104	103
	growth in %	4.4	1.7	5.5	1.2	-2.8	-2.8	-3.6	0.4	3.4	-1.2
Prices on foreign markets	average of 2005=100	102.8	102.6	101.0	98.4	98.3	100.5	103.5	104.0	104	105
	growth in %	-1.1	-0.1	-1.6	-2.6	-0.1	2.2	3.0	0.5	0.3	0.6
Exports deflator	average of 2005=100	104.1	105.7	109.7	108.2	105.1	104.4	103.7	104.6	108	108
	growth in %	3.2	1.5	3.8	-1.4	-2.8	-0.6	-0.7	0.9	3.7	-0.6
Nominal exports	average of 2005=100	119.6	122.2	138.5	144.0	145.7	155.1	160.8	163.2	142	149
	growth in %	7.7	2.2	13.4	3.9	1.2	6.4	3.7	1.5	-12.9	5.0

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

		2019				2020			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	Forecast	Forecast	Forecast
GDP [1]	average of 2010=100	119.8	119.8	120.3	120.4	118	111	112	114
	growth in %	1.9	1.3	1.3	1.1	-1.4	-7.8	-7.1	-5.1
Import intensity [2]	average of 2010=100	119.5	118.9	118.1	118.2	118	102	102	105
	growth in %	2.2	1.1	-0.3	-1.1	-1.3	-14.1	-13.5	-11.3
Export markets [3]	average of 2010=100	143.2	142.5	142.0	142.3	139	113	114	120
	growth in %	4.1	2.4	1.0	0.0	-2.6	-20.7	-19.7	-15.8
Export performance	average of 2010=100	107.8	111.2	110.9	108.4	105	108	111	110
	growth in %	-3.4	0.2	0.9	-2.2	-3.0	-3.0	0.2	1.0
Real exports	average of 2010=100	154.4	158.5	157.5	154.3	146	122	127	131
	growth in %	0.5	2.6	1.9	-2.2	-5.5	-23.1	-19.5	-15.0
1 / NEER	average of 2010=100	100.6	100.6	100.6	100.2	100	106	105	104
	growth in %	1.1	0.4	0.5	-0.6	-0.4	5.3	4.6	4.2
Prices on foreign markets	average of 2010=100	104.5	104.0	103.7	103.8	105	104	104	104
	growth in %	1.7	1.0	-0.4	-0.3	0.2	0.2	0.4	0.4
Exports deflator	average of 2010=100	105.1	104.7	104.3	104.1	105	110	110	109
	growth in %	2.9	1.4	0.1	-0.9	-0.2	5.5	5.0	4.6
Nominal exports	average of 2010=100	162.2	165.9	164.3	160.6	153	135	139	143
	growth in %	3.4	4.1	2.0	-3.1	-5.7	-18.9	-15.5	-11.1

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

Since the January Macroeconomic Forecast was released, only a few new monitored forecasts for the Czech economy have been published. None of them captured the onset of the pandemic of a new type of coronavirus and measures taken by the Czech government in response to this situation. For this reason, the survey of forecasts published here is for information purposes only and nothing can be deduced from it.

Graph 4.1: Forecasts for Real GDP Growth in 2020
in %; the month, in which the survey was made on the horizontal axis
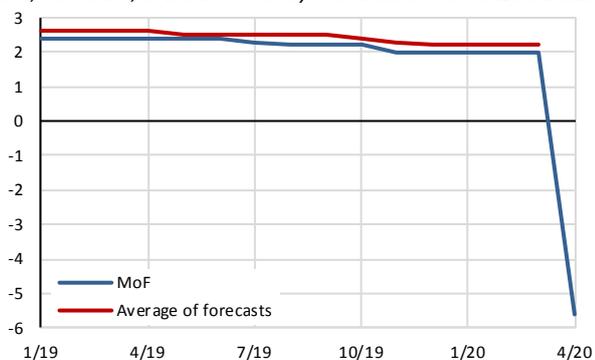
Source: Forecasts of individual institutions. Calculations of the MoF.

Graph 4.2: Forecasts for Average Inflation Rate in 2020
in %; the month, in which the survey was made on the horizontal axis
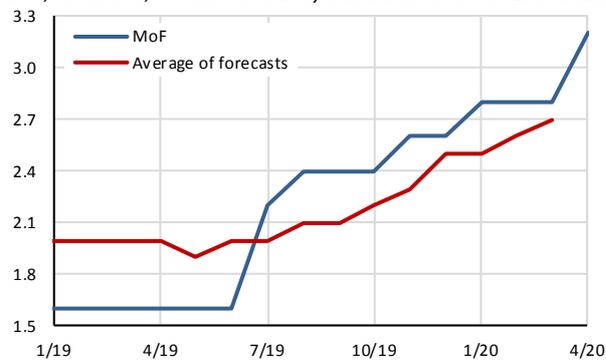
Source: Forecasts of individual institutions. Calculations of the MoF.

Table 4.1: Summary of the Surveyed Forecasts

		March 2020			April 2020
		min.	*max.*	*average*	*MoF forecast*
Gross domestic product (2020)	*growth in %, const.pr.*	1.7	2.7	2.2	-5.6
Gross domestic product (2021)	*growth in %, const.pr.*	1.9	2.8	2.3	3.1
Average inflation rate (2020)	*%*	2.3	3.2	2.7	3.2
Average inflation rate (2021)	*%*	1.9	2.3	2.0	1.6
Average monthly wage (2020)	*growth in %*	5.5	6.4	5.9	3.7
Average monthly wage (2021)	*growth in %*	4.5	5.7	5.0	0.6
Current account / GDP (2020)	*%*	-1.1	1.4	0.3	0.2
Current account / GDP (2021)	*%*	-2.1	1.5	0.1	0.3

Note: The survey is based on publicly available forecasts of 14 institutions, of which 9 institutions are domestic (CNB, Ministry of Labour and Social Affairs, Chamber of Commerce, 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 Looking back at the Year 2019

The macroeconomic framework of the state budget for 2019 was prepared on the basis of the Macroeconomic Forecast from July 2018. Table 5.1 presents a comparison with the data for 2019 that had been published up to 31 March 2020. However, for most indicators this data cannot be regarded as final, as it will be revised further.[7]

In hindsight, one can conclude that the state budget was based on a relatively realistic macroeconomic framework. Nominal GDP growth was 0.7 pp higher than the macroeconomic framework. Although the slowdown in real economic growth was deeper than forecast, this was more than offset by substantially stronger GDP deflator growth.

Of the indicators important for the general government budget, the development of wages and salaries was less favourable, mainly due to significant slowdown of economic growth. Nominal household consumption also lagged behind the forecast.

At the time the macroeconomic framework of the state budget was being prepared, the economy had just passed the peak of its growth cycle and was entering a slowdown. According to data available at the time, real GDP increased by 3.4% YoY, or 0.5% QoQ, in Q1 2018. Growth was driven by highly dynamic domestic demand. Gross domestic expenditure increased by 5.3% (this was later revised to 5.7%), of which fixed capital investment was up by 8.1% (now 6.9%), household consumption by 4.0% (now 3.8%) and general government consumption by 3.2% (now 3.1%). By contrast, the contribution made by foreign trade was deeply negative.

The macroeconomic scenario correctly worked with the hypothesis that there would be a gradual slowing of growth among most basic real indicators. In reality, however, the slowdown was more intense, especially in the second half of 2019. Accelerated inflation was also correctly identified, though it was actually more dynamic than expected.

These deviations are partly attributable to the assumptions that had been made. The slowdown in our main trading partners' economic growth was much more pronounced than expected. The CZK/EUR exchange rate stagnated when it had been expected to appreciate. Oil prices, for their part, recorded a slight decline compared to the expected stagnation.

The labour market reported relatively small deviations from the macroeconomic framework. The slowdown in employment growth to 0.2% was fully in line with the forecast. The unemployment rate, which had been the lowest in the EU since early 2016, dropped slightly to 2.0%. However, the greater-than-expected economic slowdown was reflected in the momentum of wages and salaries. These increased by 7.1%, compared to the 8.3% anticipated in the macroeconomic framework. However, in H2 2018 the growth of wages and salaries was slightly higher than expected; consequently, in 2019 the volume of wages and salaries was just CZK 16 billion lower than in the macroeconomic framework.

The average inflation rate was higher in 2019, amounting to 2.8% against a forecast of 2.3%. The main cause was the upward trend in food prices from the beginning of the year; this was accompanied by an unexpected increase in core inflation.

The 3.0% growth in household final consumption expenditure lagged behind the macroeconomic framework estimate by 0.8 pp. The momentum of real disposable income, growing by 5.7%, far exceeded expectations. However, household consumption expenditure was severely hampered by an increase in the savings rate, whereas the macroeconomic framework had expected the downward trend in the savings rate to continue.

Within the macroeconomic framework, a significant slowdown in the growth of fixed capital investments had been expected, which was projected to fall from 7.5% to 3.2%. Despite the increasing uncertainty in the external environment, the slowdown was only slightly deeper in the end, and investment increased by 2.8%.

The external environment was also a factor in the weaker contribution of the external balance of goods and services to GDP growth, which came to −0.3 pp rather than the predicted near-neutral contribution of +0.1 pp.

From the perspective of the general government's budget, it may be stated that the actual development of the macroeconomic environment was slightly less favourable than the forecast for the state budget framework.

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[7] In this respect, the revision of the national accounts planned for June 2020 will be particularly important.

Table 5.1: Macroeconomic Framework of the 2019 State Budget – Comparison with Actual Data

		2019 State Budget (July 2018)				Outcome (April 2020)				Difference (outcome - forecast)			
		2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019
				Forecast					*Prelim.*				
Gross domestic product	*bill. CZK*	4 768	5 045	5 300	5 589	4 768	5 047	5 324	5 653	0	2	23	63
Gross domestic product	*growth in %, curr.pr.*	3.7	5.8	5.1	5.5	3.7	5.9	5.5	6.2	0.0	0.0	0.4	0.7
Gross domestic product	*growth in %, const.pr.*	2.5	4.3	3.2	3.1	2.5	4.4	2.8	2.6	0.0	0.1	-0.4	-0.6
Consumption of households	*growth in %, const.pr.*	3.6	4.3	4.3	3.9	3.6	4.3	3.2	3.0	0.0	0.0	-1.1	-0.8
Consumption of government	*growth in %, const.pr.*	2.7	1.3	2.1	2.0	2.7	1.3	3.4	2.6	0.0	0.0	1.3	0.6
Gross fixed capital formation	*growth in %, const.pr.*	-3.1	3.3	7.5	3.2	-3.1	3.7	7.6	2.8	0.0	0.4	0.1	-0.3
Contr. of net exports to GDP growth	*p.p., const.pr.*	1.4	1.1	-0.7	0.1	1.4	1.1	-0.8	-0.3	0.0	0.0	-0.1	-0.4
GDP deflator	*growth in %*	1.3	1.5	1.8	2.3	1.3	1.4	2.6	3.5	0.0	0.0	0.8	1.3
Average inflation rate	*%*	0.7	2.5	2.2	2.3	0.7	2.5	2.1	2.8	0.0	0.0	-0.1	0.5
Employment (LFS)	*growth in %*	1.9	1.6	1.3	0.2	1.9	1.6	1.4	0.2	0.0	0.0	0.0	0.0
Unemployment rate (LFS)	*average in %*	4.0	2.9	2.3	2.3	4.0	2.9	2.2	2.0	0.0	0.0	-0.1	-0.3
Wage bill (domestic concept)	*growth in %, curr.pr.*	5.7	8.2	9.3	8.3	5.7	8.3	9.5	7.1	0.0	0.0	0.2	-1.2
Current account balance	*% of GDP*	1.6	1.1	-0.3	-0.2	1.6	1.7	0.4	-0.4	0.0	0.6	0.8	-0.2
Assumptions:													
Exchange rate CZK/EUR		27.0	26.3	25.6	25.2	27.0	26.3	25.6	25.7	0.0	0.0	0.0	0.4
Long-term interest rates	*% p.a.*	0.4	1.0	2.1	2.5	0.4	1.0	2.0	1.5	0.0	0.0	-0.1	-0.9
Crude oil Brent	*USD/barrel*	44	54	73	72	44	54	71	64	0.0	0.0	-2	-8
GDP of the euro area	*growth in %, const.pr.*	1.8	2.4	2.2	1.8	1.9	2.7	1.9	1.2	0.1	0.2	-0.3	-0.6