

Macroeconomic Forecast of the Czech Republic

January 2020

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Table of Contents

Introduction and Summary	1
Forecast Risks and Uncertainty	4
1 Forecast Assumptions.....	5
1.1 External Environment.....	5
1.2 Commodity Prices.....	10
1.3 Fiscal Policy.....	11
1.4 Monetary Policy, Financial Sector and Exchange Rates	12
1.5 Structural Policies	17
1.6 Demographic Trends	18
2 Economic Cycle.....	20
2.1 Position within the Economic Cycle.....	20
2.2 Business Cycle Indicators.....	21
3 Forecast of Macroeconomic Developments in the CR.....	23
3.1 Economic Output.....	23
3.2 Prices	30
3.3 Labour Market	34
3.4 External Relations.....	40
4 Survey of Other Institutions' Forecasts	45
5 International Comparison.....	46

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

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List of Tables

Table 1.1.1: Gross Domestic Product – yearly	8
Table 1.1.2: Gross Domestic Product – quarterly	9
Table 1.2.1: Prices of Selected Commodities – yearly	10
Table 1.2.2: Prices of Selected Commodities – quarterly	10
Table 1.3.1: Net Lending/Borrowing and Debt.....	12
Table 1.4.1: Interest Rates – yearly	15
Table 1.4.2: Interest Rates – quarterly	15
Table 1.4.3: Loans and Deposits – yearly averages	16
Table 1.4.4: Loans and Deposits – quarterly averages	16
Table 1.4.5: Exchange Rates – yearly.....	17
Table 1.4.6: Exchange Rates – quarterly.....	17
Table 1.6.1: Demographics	19
Table 2.1.1: Output Gap and Potential Product	21
Table 3.1.1: Real GDP by Type of Expenditure – yearly.....	26
Table 3.1.2: Real GDP by Type of Expenditure – quarterly.....	27
Table 3.1.3: Nominal GDP by Type of Expenditure – yearly	28
Table 3.1.4: Nominal GDP by Type of Expenditure – quarterly	28
Table 3.1.5: GDP by Type of Income – yearly	29
Table 3.1.6: GDP by Type of Income – quarterly	29
Table 3.2.1: Prices – yearly	32
Table 3.2.2: Prices – quarterly	33
Table 3.3.1: Labour Market – yearly	37
Table 3.3.2: Labour Market – quarterly	38
Table 3.3.3: Income and Expenditures of Households – yearly.....	39
Table 3.4.1: Balance of Payments – yearly	42
Table 3.4.2: Balance of Payments – quarterly	43
Table 3.4.3: Decomposition of Exports of Goods (National Accounts Methodology) – yearly	44
Table 3.4.4: Decomposition of Exports of Goods (National Accounts Methodology) – quarterly	44
Table 4.1: Summary of the Surveyed Forecasts.....	45
Table 5.1: GDP per Capita in Current Purchasing Power Parity.....	49
Table 5.2: Exchange Rate Adjusted GDP per Capita	50

List of Graphs

Graph 1.1.1: GDP Developments in the EA19 and USA	7
Graph 1.1.2: Real Gross Domestic Product.....	7
Graph 1.1.3: HICP.....	7
Graph 1.1.4: Unemployment Rate.....	7
Graph 1.1.5: Economic Sentiment Indicator.....	7
Graph 1.1.6: Purchasing Managers' Index.....	7
Graph 1.1.7: Business Tendency.....	7
Graph 1.1.8: Ifo and Czech manufacturing production	7
Graph 1.2.1: Dollar Price of Brent Crude Oil.....	10
Graph 1.2.2: Koruna Price of Brent Crude Oil.....	10
Graph 1.3.1: General Government Balance.....	12
Graph 1.3.2: General Government Debt	12
Graph 1.4.1: Interest Rates.....	14
Graph 1.4.2: Loans to Households.....	14
Graph 1.4.3: New Mortgage Loans.....	14
Graph 1.4.4: Loans to Non-financial Corporations	14
Graph 1.4.5: Non-performing Loans.....	14
Graph 1.4.6: Deposits	14
Graph 1.4.7: Nominal Exchange Rates.....	14
Graph 1.4.8: Real Exchange Rate to the EA19	14
Graph 1.6.1: Age Groups	18
Graph 1.6.3: Life Expectancy at Birth	18
Graph 1.6.4: Old-Age Pensioners.....	19
Graph 2.1.1: Output Gap	20
Graph 2.1.2: Potential Product	20
Graph 2.1.3: Capacity Utilisation in Industry	21
Graph 2.1.4: Total Factor Productivity.....	21
Graph 2.2.1: Confidence and GVA in Industry.....	22
Graph 2.2.2: Confidence and GVA in Construction	22
Graph 2.2.3: Confidence and GVA in Trade and Services	22
Graph 2.2.4: Composite Export Indicator	22
Graph 2.2.5: Consumer Confidence and Consumption	22
Graph 2.2.6: Decomposition of Consumer Sentiment.....	22
Graph 2.2.7: Composite Confidence Indicator and GVA	22
Graph 2.2.8: Composite Leading Indicator	22
Graph 3.1.1: Resources of Gross Domestic Product.....	25
Graph 3.1.2: GDP by Type of Expenditure	25
Graph 3.1.3: Real Gross Domestic Product.....	25
Graph 3.1.4: Real Consumption of Households.....	25
Graph 3.1.5: Nominal Consumption of Households.....	25
Graph 3.1.6: Investment by Type of Expenditure.....	25
Graph 3.1.7: Investment by Sector	25
Graph 3.1.8: Investment Co-financing from EU Funds	25
Graph 3.2.1: Consumer Prices	31
Graph 3.2.2: Consumer Prices in Main Divisions	31
Graph 3.2.3: Core Inflation and Unit Labour Costs.....	31

Graph 3.2.4: Gross Domestic Product Deflator	31
Graph 3.2.5: Terms of Trade.....	31
Graph 3.2.6: Offering Prices of Flats.....	31
Graph 3.2.7: Prices of Flats Relative to Average Wage.....	31
Graph 3.3.1: Employees in Different Statistics	36
Graph 3.3.2: Indicators of Unemployment.....	36
Graph 3.3.3: Collection of Social Security Contributions and Earnings	36
Graph 3.3.4: Compensation per Employee and Real Productivity of Labour	36
Graph 3.3.5: Nominal Monthly Wage.....	36
Graph 3.3.6: Nominal Wage Bill.....	36
Graph 3.3.7: Gross Savings Rate of Households	36
Graph 3.4.1: Current Account.....	41
Graph 3.4.2: Balance of Trade	41
Graph 3.4.3: Balance of Services	41
Graph 3.4.4: Balance of Primary Income	41
Graph 3.4.5: GDP and Goods Imports of Partner Countries.....	41
Graph 3.4.6: Real Exports of Goods.....	41
Graph 3.4.7: Deflator of Exports of Goods	41
Graph 4.1: Forecasts for Real GDP Growth in 2020.....	45
Graph 4.2: Forecasts for Average Inflation Rate in 2020.....	45
Graph 5.1: GDP per Capita in Current PPP.....	47
Graph 5.2: GDP per Capita in Current PPP.....	47
Graph 5.3: GDP per Capita in Current PPP.....	47
Graph 5.4: GDP per Capita in Current PPP.....	47
Graph 5.5: Exchange Rate Adjusted GDP per Capita	47
Graph 5.6: Exchange Rate Adjusted GDP per Capita	47
Graph 5.7: Exchange Rate Adjusted GDP per Capita	47
Graph 5.8: Exchange Rate Adjusted GDP per Capita	47
Graph 5.9: Comparative Price Level of GDP	48
Graph 5.10: Comparative Price Level of GDP	48
Graph 5.11: Comparative Price Level of GDP	48
Graph 5.12: Comparative Price Level of GDP	48
Graph 5.13: Average Earnings in Current PPP	48
Graph 5.14: Average Earnings in Current PPP	48
Graph 5.15: Average Earnings in Current PPP	48
Graph 5.16: Average Earnings in Current PPP	48
Graph 5.17: Current PPP Adjusted GDP per Capita Level Relative to the EA19 Average in 2018	49

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
EU28.....	European Union consisting of 28 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

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 **14 January 2020**, the cut-off date for selected forecast assumptions was 6 January 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 (November 2019) 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

Global economic growth slackened considerably last year, contracting to its lowest level since the 2008/2009 recession. In the years to come its momentum is projected to remain low despite a slight upswing. The slowdown in the growth of world trade has been much more profound.

The deepening tension in global trade relations, the rise of protectionism and the uncertainty this engenders have triggered economic losses worldwide by undermining the confidence that businesses and consumers have in future economic developments, a factor that primarily informs investment decisions. Nevertheless, since the last macroeconomic forecast, the intensity of downside risks has waned a little. The signing of the initial phase of a trade deal between the US and China inspires hope, though certain fundamental issues have yet to be resolved. For this year the situation regarding the United Kingdom has also become a bit clearer, with the country having exited the European Union with a deal at the end of January. On the other hand, uncertainty continues to surround the UK's future relations with the EU once the transition period comes to an end.

As expected, the Czech economy lost some of its growth momentum in Q3 2019. **Real gross domestic product**, adjusted for seasonal and calendar effects, grew by 0.4% QoQ and 2.5% YoY.

On the use side, it was driven by **household consumption** that rose 3.3% on the back of the still high growth momentum of wages, salaries and social benefits, as well as a dip in the savings rate. Consumption of the general government sector, underpinned by rising employment and intermediate consumption, increased by 4.0%.

Fixed capital investments remained mired in low dynamism, going up by 1.1%. While private corporate and general government investments effectively stalled, household investment – particularly in housing – reported fairly robust growth. By type of capital, investments were held back mainly by a fall in purchases of machinery and equipment.

As in the previous quarter, **external trade** made a strongly positive contribution. Exports of goods surged on the back of the previous year's low basis for comparison in car exports, whereas growth in imports of goods was inhibited by slowing domestic demand, especially highly import intensive investments. On the balance of services imports of business services, encompassing research and development and consulting, posted high growth.

The outlook for the Czech economy essentially remains unchanged. Our estimates indicate that real GDP **went up by 2.5% in 2019**. We also stick to our forecast that the economy will slow down to **2.0% in 2020**, stifled by weaker momentum of domestic demand. Subsequently, **in 2021**, we predict that GDP will climb by **2.2%** courtesy of a gradual upswing abroad.

Economic growth should continue to be driven by household consumption, echoing ongoing strength of wage momentum in combination with extremely low unemployment rate and a major hike in pensions. Fixed capital investment and general government sector consumption – much like the external balance – should also make a moderate contribution to growth.

In November 2019, the year-on-year growth in **consumer prices** broke through the upper limit of the tolerance

band set around the Czech National Bank's 2% inflation target for the first time since October 2012. The pro-inflationary effects of growing unit labour costs and positive output gap have been compounded by administrative measures and rising food prices. This last factor aside, these influences should slowly subside in the period ahead. Consequently, we can expect inflation to gradually converge to the target. Taking into account price developments at the end of last year and higher expectations for the price of oil, we are nudging up our forecast for average **inflation** to 2.8% in 2020, and predict that it will stand at 2.2% in 2021.

According to the Labour Force Survey, **employment** has more or less stagnated since Q2 2019. The ongoing shortage of labour is the main barrier to further extensive growth in production. However, as economic growth slows down, demand for labour should weaken. We estimate that the **unemployment rate** was 2.0% in 2019. As the output gap gradually closes, we expect to see unemployment increase slightly to 2.2% in 2020 and 2.4% in 2021.

Within the **current account of the balance of payments**, the surplus on the balance of goods is rising again, having bottomed out in Q1 2019. However, in relative terms the positive balance of goods should stagnate as a result of the weak momentum of global trade and domestic investment demand, before perhaps increasing slightly in 2021. Other current account items should also barely change in relation to GDP. Consequently, the current account surplus could experience an upswing from the estimated 0.3% of GDP in 2019 to 0.6% of GDP this year and then 0.7% GDP in 2021.

We leave the estimate for the **general government balance** in 2019 unchanged at 0.3% of GDP. The overall result evidently benefited from the surplus cash balance of local budgets and health insurance companies, which probably prevailed over the deficit reported by the central government budget. We are expecting an even balance for 2020. The relative level of general government debt should decline further to 30.5% of GDP by the end of 2020.

Looking at the **maturity of the Czech economy**, a matter discussed in more detail in the thematic chapter, we believe that last year the Czech Republic caught up with Spain and, relative to the euro area, GDP per capita (tak-

ing into account differences in price levels) was 86%. However, comparative price level was probably equal to 69% of the euro area average; the same can be said of the purchasing power of earnings.

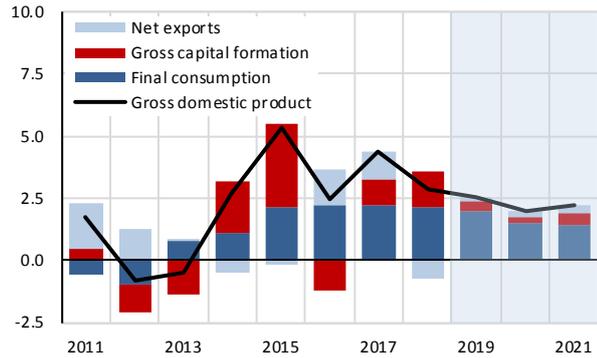
Table: Main Macroeconomic Indicators

		2015	2016	2017	2018	2019	2020	2021	2019	2020
		Current forecast							Previous forecast	
Nominal GDP	<i>bill. CZK</i>	4 596	4 768	5 047	5 324	5 652	5 913	6 168	5 645	5 894
	<i>nominal growth in %</i>	6.5	3.7	5.9	5.5	6.2	4.6	4.3	5.9	4.4
Gross domestic product	<i>real growth in %</i>	5.3	2.5	4.4	2.8	2.5	2.0	2.2	2.5	2.0
Consumption of households	<i>real growth in %</i>	3.7	3.6	4.3	3.2	2.9	2.4	2.2	2.7	2.4
Consumption of government	<i>real growth in %</i>	1.9	2.7	1.3	3.4	3.0	1.9	1.9	3.0	1.8
Gross fixed capital formation	<i>real growth in %</i>	10.2	-3.1	3.7	7.6	1.0	0.9	2.0	0.9	0.7
Contribution of net exports	<i>pp</i>	-0.2	1.4	1.1	-0.8	0.1	0.2	0.3	0.4	0.3
Contrib. of change in inventories	<i>pp</i>	0.8	-0.4	0.1	-0.4	0.1	0.0	0.0	0.0	0.0
GDP deflator	<i>growth in %</i>	1.2	1.3	1.4	2.6	3.6	2.6	2.1	3.3	2.4
Average inflation rate	<i>%</i>	0.3	0.7	2.5	2.1	2.8	2.8	2.2	2.8	2.6
Employment (LFS)	<i>growth in %</i>	1.4	1.9	1.6	1.4	0.2	-0.1	0.0	0.3	0.1
Unemployment rate (LFS)	<i>average in %</i>	5.1	4.0	2.9	2.2	2.0	2.2	2.4	2.0	2.2
Wage bill (domestic concept)	<i>growth in %</i>	4.8	5.7	8.3	9.5	7.2	6.1	5.2	7.4	5.9
Current account balance	<i>% of GDP</i>	0.2	1.6	1.7	0.3	0.3	0.6	0.7	0.9	1.4
General government balance	<i>% of GDP</i>	-0.6	0.7	1.6	1.1	0.3	0.0	.	0.3	0.1
Assumptions:										
Exchange rate CZK/EUR		27.3	27.0	26.3	25.6	25.7	25.4	25.1	25.7	25.5
Long-term interest rates	<i>% p.a.</i>	0.6	0.4	1.0	2.0	1.5	1.4	1.4	1.5	1.2
Crude oil Brent	<i>USD/barrel</i>	52	44	54	71	64	64	59	64	59
GDP in the euro area	<i>real growth in %</i>	2.0	1.9	2.7	1.9	1.2	1.0	1.4	1.0	0.7

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

Consumption should be the main driver of growth

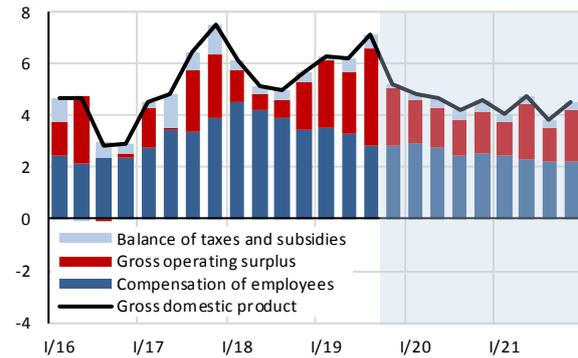
growth rate of real GDP in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

Rising earnings should weigh on the growth of profits

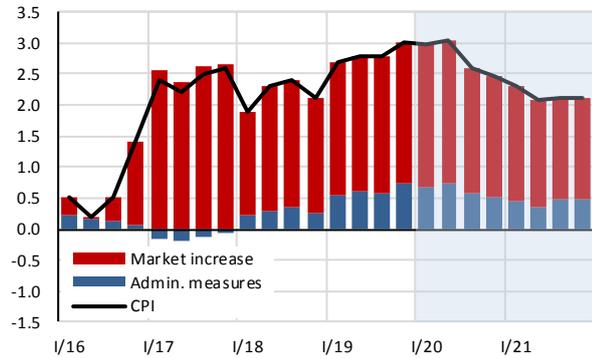
YoY growth of nominal GDP in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

The rise in inflation above 3% should be only temporary

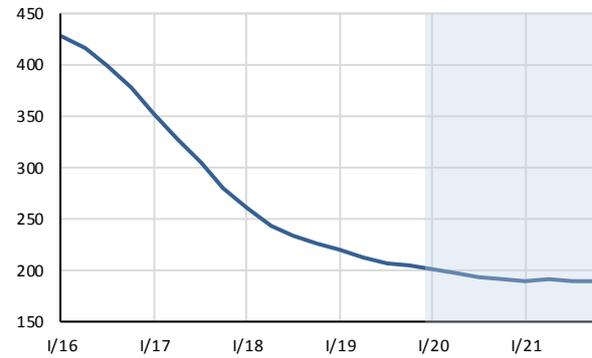
YoY growth rate of CPI in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

Unemployment should decline only moderately

registered unemployment, in thous. of persons, seasonally adjusted



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

Growth of wages should gradually decelerate

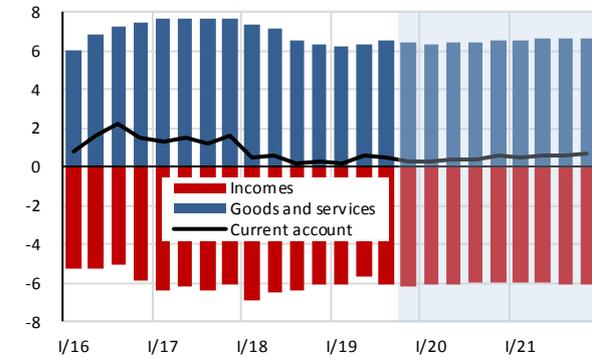
average gross monthly wage, YoY growth rate, in %



Source: CZSO. Calculations and forecast of the MoF.

Current account should remain in a small surplus

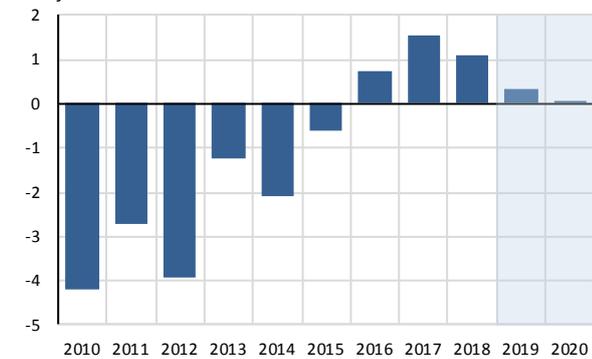
in % of GDP (yearly moving sums)



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

General government budget should be balanced

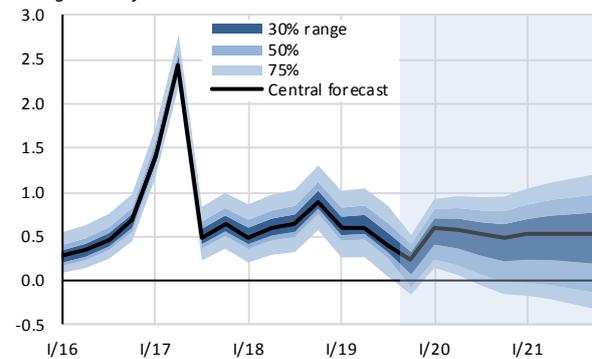
in % of GDP



Source: CZSO. Calculations and forecast of the MoF.

Risks to the forecast are skewed to the downside

QoQ growth of real GDP in %



Note: Past probability distribution determined by data revisions.

Source: CZSO. Calculations and forecast of the MoF.

Forecast Risks and Uncertainty

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

The revised agreement on the **withdrawal of the United Kingdom from the European Union** was approved in January 2020, paving the way for an orderly exit on 31 January. After this date a transition period started that will last until the end of the year, though it may be extended by a further two years. The UK would have to apply for an extension by 30 June 2020. During the transition period, 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, after the transition period has ended, 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 shifted towards the end of the transition period.

The US-China **trade tensions** also pose a risk. Although the signing of the initial phase of the mutual trade deal has lessened the uncertainty a little, it is not inconceivable that the dispute will re-escalate in the future, especially given that certain fundamental issues remain unresolved. Protectionist measures could even affect mutual trade between the US and the EU. If existing tariffs were put up by the US or new ones were imposed on additional types of goods, the repercussions for external trade and downstream benefits would be accompanied by a further decline in confidence among economic entities. Higher uncertainty could lead to shelving of certain investment decisions. Prices of imported goods and purchasing power of consumers could also be affected by tariffs. In addition, the highly complex nature of international supply chains leads us to believe that import duties would have numerous unintended consequences, such as the switch of production to other countries. While the Czech Republic trades predominantly with EU member states, its indirect exposure to certain third countries is hardly negligible. In terms of the consequences for the Czech economy, we consider the impact of indirect exposure to be greater than the direct effect.

Sentiment indicators in a number of euro area countries, especially in industry, also pose a risk to the Czech economy. Germany acts as a cautionary example in this respect – here, developments in such soft indicators are mirrored in the momentum of industrial production, which has been contracting since November 2018. This is all the more significant as Germany is the Czech Republic's biggest trading partner (with 31% of exports of goods headed for Germany in 2018).

Indirectly, potential escalation of problems in the Italian banking sector or a sharp growth slowdown in China could weigh on the Czech economy. Uncertainty in the

global economy continues to be fuelled by the instability of certain emerging economies (Turkey, Argentina and Brazil) and by geopolitical tensions in the Middle East.

In some areas – most obviously in the labour and property markets – the Czech economy is showing palpable signs of overheating. In business cycle surveys, a fair proportion of companies are pointing to the scarcity of labour as the main barrier impeding an increase in their output. With this in mind, and taking into account the situation in the labour market and projected demographic trends, increases in **labour productivity** will be crucial in the medium and longer term. In the short term, the labour market imbalances create strong pressure on wage growth, which then raises unit labour costs. If this trend were to continue over an extended period, it could impinge on competitiveness. On the other hand, this factor provides a major boost to the disposable income of households and productivity enhancing investments. It also creates an impetus to focus on producing goods and services with higher value added.

Cyclical developments of the economy, combined with low interest rates, raised the 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 overvaluation. The combination of **debt financing of residential properties** and the **rapid rise** in their prices is a macroeconomic risk. If the economic situation deteriorated and triggered a price correction or market rates rose, some households could be unable to repay their loans, which would also have repercussions for the financial sector. Nevertheless, increased interest rates, tightening of lending standards and the high property prices have gradually dampened the momentum of housing sector lending since around mid-2017. At the end of 2018, the volume of new mortgage lending started to slump after the CNB tightened its regulatory recommendations. Housing construction figures indicate that supply is set to speed up in the future, which – together with weaker demand – could alleviate the pressure on price growth.

Given the importance of **automotive industry** for the Czech economy, the highly cyclical nature of this sector poses a risk. The number of road vehicles made in the Czech Republic fell slightly in 2019, dragged down by demand from outside the EU. In the medium to long term, the risks are compounded by structural changes that the automotive industry will go through as emission standards are progressively tightened. Manufacturers who fail to comply with those standards will face huge fines. However, the switch to alternative drives requires enormous investments in technological development, machinery and equipment, and infrastructure. Effects on employment, customer-supplier relations, and energy prices can also be anticipated.

1 Forecast Assumptions

1.1 External Environment

Global economic growth has slowed, primarily on account of slackening industrial production and investment activity.

The quarter-on-quarter GDP growth¹ in the **United States** remained at 0.5% (*versus 0.4%*) in Q3 2019. The economy was driven almost exclusively by household consumption. The modest contribution made by expenditures of the general government was offset by a drop in private investments and by net exports.

At its October meeting, the Fed responded to the slowdown in global growth and low inflation expectations by cutting its key interest rate to a target range of 1.50–1.75%. At its December meeting, the central bank left the interest rate unchanged. A poll among analysts indicates that a change in monetary policy is not expected this year.

The initial stage of the trade deal between the US and China was signed in mid-January. Some imports to the US will be subject to 7.5% tariff (reduced from 15%), while planned tariffs will not be imposed on other goods. China has undertaken to increase imports of American agricultural products, industrial goods, energy and services in 2020 by at least \$77 billion above the 2017 level and in 2021 by at least \$123 billion above the 2017 level. In response to the news that a partial deal had been reached, there was an improvement in leading indicators, with the exception of executive sentiment, which continued to contract because of concerns surrounding developments in global trade.

The unemployment rate remained at a 50-year low of 3.5% in December. This is reflected in the continuing average nominal wage growth rate of around 3% (the average growth rate since March 2007 has been 2.5%). In recent months, consumer confidence has slowly picked up, rising to the level witnessed in the first half of 2019, accompanied by a modest increase in the momentum of retail sales. We estimate that economic growth in 2019 slowed to 2.3% (*versus 2.2%*). With investment activity and external trade slow to recover, economic growth could decelerate further to 2.0% (*unchanged*) this year and then reach this level also in 2021.

In **China**, the quarter-on-quarter GDP growth in Q3 remained at 1.6% (*versus 1.3%*). The economy slowed to 6.0% YoY, leaving it at the lower end of the Chinese government's target range for 2019 (6.0–6.5%). Both industrial production and retail sales recorded a discernible drop in dynamism.

The decline in exports in October and November, along with the stagnating purchasing managers' index in manufacturing, is a sign that economic growth slowed down moderately in Q4 2019. In a bid to relax financial conditions, the Chinese central bank cut the primary interest rate by a total of 0.1 pp in two steps. Economic growth may have slowed to 6.1% (*unchanged*) in 2019. In the coming years, it could slacken further to 5.8% (*unchanged*) in 2020 and 5.7% in 2021.

Economic growth in the **European Union** quickened slightly to 0.3% (*versus 0.1%*) in Q3 2019, and in the euro area remained at 0.2% (*versus 0.0%*). The most influential factor was the modestly rising contribution made by household consumption, backed by the still very favourable situation in the labour market thanks to a cyclical drop in the unemployment rate. Gross fixed capital formation, much like external trade, made little contribution to growth. In many states, investment activity is hobbled not only by economic uncertainty, but also by high government and private sector debt.

The euro area inflation rate continues to hover at around 1%. At its recent meetings, the European Central Bank has kept its key deposit rate at –0.50%. The EU-28 unemployment rate in November 2019 remained at 6.3% and has been stagnating at long-term lows in the majority of countries. The growth in retail sales tailed off and came to just 1.9% in November.

After slumping in the first three quarters of 2019, leading indicators indicate that economic confidence and, in particular, respondents' expectations have stabilised. Most indicators, however, remain in a contraction band. The purchasing managers' index in manufacturing indicates a fall in new orders, production and employment. As the global uncertainties related to trade tensions between the US and China and to Brexit lift, companies' prospects for 2020 are improving slightly.

The United Kingdom left the EU on 31 January 2020. The UK government is keen to strike a deal on trade arrangements with the EU by the end of this year. In this respect, the improved expectations from the end of last year should be reflected in the gradual resumption of investment and the recovery of external trade. The provisional deferral of tariffs on cars by the US should be another contributory factor here. We project that economic growth in the EU-28 may have come to 1.4% (*versus 1.3%*) in 2019. GDP could grow by 1.2% (*versus 0.9%*) this year, before speeding up to 1.6% in 2021.

¹ The GDP growth rates stated in this section relate to seasonally and calendar adjusted data.

The **German** economy reported faint growth of 0.1% (*versus a 0.1% drop*) in Q3 2019, following a 0.2% reduction in GDP in the preceding quarter. Exports made a surprisingly strong contribution to GDP growth. Household consumption and the general government sector made lesser contributions. Imports and gross fixed capital formation, on the other hand, were more or less neutral.

At the end of last year, the purchasing managers' index in manufacturing reported another fall in production and employment. As expected, the steepest decline was in capital and intermediate consumption goods. On the other hand, the fall in numbers of new orders slowed down considerably, while the outlook for the coming year was at its highest for 15 months. Business confidence measured by the Ifo index, which correlates closely with the purchasing managers' index, signals that business confidence is recovering. The purchasing managers' index in services points to a moderate improvement, while consumer confidence has trundled along more or less unchanged since mid-2019.

The erosion of industrial production has yet to make itself felt on the German labour market. In the initial stage working hours are being reduced and there is pressure to lower input prices. Throughout the period from May to November, the unemployment rate remained at 3.1%. This is positively reflected in the growth of households' disposable income and housing investments. Unless industrial enterprises suffer heavy setbacks, consumer demand should remain a key factor for economic growth in the timeframe covered by this forecast. We estimate that GDP grew by 0.5% (*unchanged*) in Germany in 2019.

In 2020, GDP could accelerate slightly to 0.6% (*versus 0.5%*), before speeding up to 1.0% in the year after.

Economic growth in **Slovakia** picked up a little speed to 0.4% (*versus 0.2%*) in Q3 2019, with the growth rate in the previous quarters of 2019 being revised downwards. The adverse contribution made by the external trade balance was less pronounced than in the previous quarter. Despite a palpable slowdown, the momentum of gross domestic expenditure more than compensated for the negative impact of net exports.

Labour market trends are uneven across the various sectors. In industry, employee numbers are being scaled down, whereas solid employment growth is continuing in services and the general government sector. The unemployment rate stagnated at 5.7% in November, but consumer confidence took a dip. Consumers' intensified concerns have been reflected in the quickening drop in retail sales, which were down 4% YoY in November. As labour demand diminishes, wage momentum should gradually decelerate. Nevertheless, the slowdown in the growth of disposable income should be cushioned this year by the higher parental allowance and a cut in income tax for small businesses. As global uncertainties disperse, investment activity should become more intensive. In future years, it should also be boosted by the looming end of the European Structural and Investment Funds' programming period. We estimate that economic growth in 2019 may have slowed to 2.3% (*versus 2.4%*). We are forecasting another slight decrease in growth to 2.2% (*unchanged*) this year, followed by a 2.6% uptick in Slovak GDP in 2021.

Graph 1.1.1: GDP Developments in the EA19 and USA

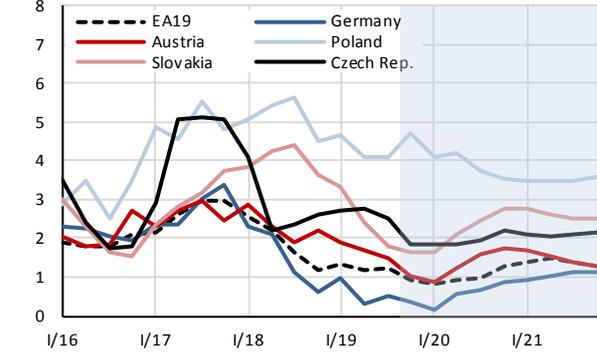
QoQ growth rate of real GDP in%, seasonally adjusted



Source: Eurostat. Calculations and forecast of the MoF.

Graph 1.1.2: Real Gross Domestic Product

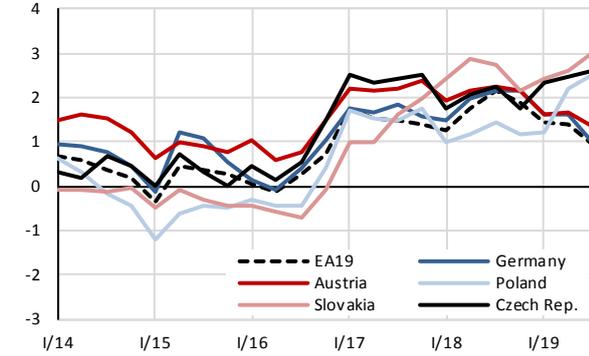
YoY growth in %, seasonally adjusted



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

Graph 1.1.3: HICP

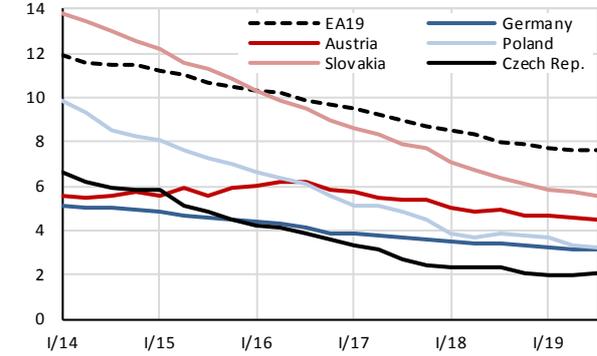
quarterly averages, YoY growth in %



Source: Eurostat. Calculations of the MoF.

Graph 1.1.4: Unemployment Rate

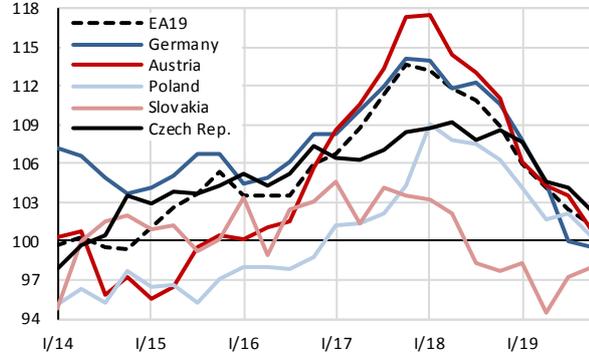
in %, LFS methodology, seasonally adjusted



Source: Eurostat.

Graph 1.1.5: Economic Sentiment Indicator

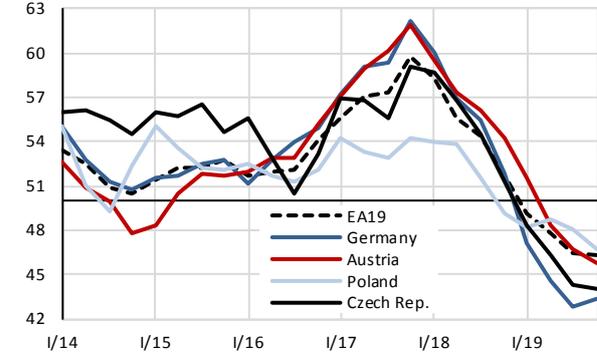
quarterly averages, long-run average = 100



Source: Eurostat. Calculations of the MoF.

Graph 1.1.6: Purchasing Managers' Index

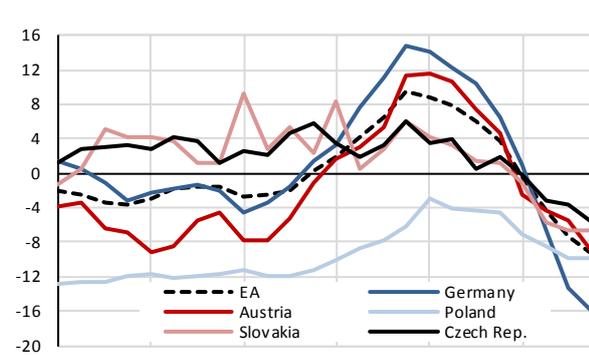
manufacturing, quarterly averages



Source: Markit. Calculations of the MoF.

Graph 1.1.7: Business Tendency

manufacturing, quarterly averages



Source: OECD. Calculations of the MoF.

Graph 1.1.8: Ifo and Czech manufacturing production

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



Source: CESifo, CZSO. Calculations of the MoF.

Table 1.1.1: Gross Domestic Product – yearly

growth rate of real GDP in %

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
										<i>Estimate</i>	<i>Forecast</i>	<i>Forecast</i>
World	<i>seasonally adjusted</i>	3.5	3.5	3.6	3.5	3.4	3.8	3.6	3.0	3.4	3.6	
USA	<i>seasonally adjusted</i>	2.2	1.8	2.5	2.9	1.6	2.4	2.9	2.3	2.0	2.0	
China	<i>seasonally adjusted</i>	7.9	7.8	7.3	6.9	6.7	6.8	6.6	6.1	5.8	5.7	
EU28	<i>seasonally adjusted</i>	-0.4	0.3	1.8	2.3	2.0	2.7	2.0	1.4	1.2	1.6	
	<i>unadjusted</i>	-0.4	0.3	1.7	2.3	2.0	2.6	2.0	.	.	.	
EA19	<i>seasonally adjusted</i>	-0.8	-0.2	1.4	2.0	1.9	2.7	1.9	1.2	1.0	1.4	
	<i>unadjusted</i>	-0.9	-0.2	1.4	2.1	1.9	2.5	1.9	.	.	.	
Germany	<i>seasonally adjusted</i>	0.6	0.5	2.2	1.5	2.1	2.8	1.5	0.5	0.6	1.0	
	<i>unadjusted</i>	0.4	0.4	2.2	1.7	2.2	2.5	1.5	0.5	1.1	1.1	
France	<i>seasonally adjusted</i>	0.4	0.6	1.0	1.0	1.0	2.4	1.7	1.3	1.1	1.2	
	<i>unadjusted</i>	0.3	0.6	1.0	1.1	1.1	2.3	1.7	1.2	1.2	1.3	
Italy	<i>seasonally adjusted</i>	-3.0	-1.9	0.1	0.7	1.4	1.8	0.7	0.2	0.4	0.6	
	<i>unadjusted</i>	-3.0	-1.8	0.0	0.8	1.3	1.7	0.8	0.2	0.5	0.6	
Austria	<i>seasonally adjusted</i>	0.6	0.0	0.8	1.0	2.1	2.6	2.3	1.5	1.4	1.5	
	<i>unadjusted</i>	0.7	0.0	0.7	1.0	2.1	2.5	2.4	1.4	1.5	1.4	
United Kingdom	<i>seasonally adjusted</i>	1.5	2.1	2.6	2.4	1.9	1.9	1.3	1.3	1.2	1.6	
Hungary	<i>seasonally adjusted</i>	-1.4	2.0	4.1	3.8	2.1	4.5	5.1	4.9	3.7	3.2	
	<i>unadjusted</i>	-1.5	2.0	4.2	3.8	2.2	4.3	5.1	5.0	3.9	3.2	
Poland	<i>seasonally adjusted</i>	1.7	1.3	3.3	3.8	3.1	4.9	5.2	4.4	3.9	3.5	
	<i>unadjusted</i>	1.6	1.4	3.3	3.8	3.1	4.9	5.1	4.4	3.9	3.5	
Slovakia	<i>seasonally adjusted</i>	1.9	0.7	2.8	4.8	2.1	3.0	4.0	2.3	2.2	2.6	
Czech Republic	<i>seasonally adjusted</i>	-0.7	-0.5	2.7	5.4	2.4	4.5	2.8	2.5	2.0	2.1	
	<i>unadjusted</i>	-0.8	-0.5	2.7	5.3	2.5	4.4	2.8	2.5	2.0	2.2	

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
					<i>Estimate</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>
USA	<i>QoQ</i>	0.8	0.5	0.5	0.4	0.5	0.6	0.6	0.5
	<i>YoY</i>	2.7	2.3	2.1	2.2	1.9	2.0	2.0	2.1
China	<i>QoQ</i>	1.4	1.6	1.6	1.3	1.3	1.5	1.4	1.4
	<i>YoY</i>	6.4	6.2	6.0	6.0	5.9	5.8	5.6	5.7
EU28	<i>QoQ</i>	0.5	0.2	0.3	0.3	0.3	0.3	0.4	0.4
	<i>YoY</i>	1.7	1.4	1.4	1.3	1.1	1.2	1.3	1.4
EA19	<i>QoQ</i>	0.4	0.2	0.2	0.1	0.3	0.3	0.3	0.4
	<i>YoY</i>	1.4	1.2	1.2	0.9	0.8	0.9	1.0	1.3
Germany	<i>QoQ</i>	0.5	-0.2	0.1	0.1	0.2	0.2	0.2	0.3
	<i>YoY</i>	1.0	0.3	0.5	0.4	0.2	0.6	0.7	0.9
France	<i>QoQ</i>	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3
	<i>YoY</i>	1.3	1.4	1.4	1.1	1.1	1.0	1.0	1.1
Italy	<i>QoQ</i>	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.2
	<i>YoY</i>	0.0	0.1	0.3	0.3	0.2	0.3	0.4	0.6
United Kingdom	<i>QoQ</i>	0.6	-0.2	0.4	0.2	0.3	0.4	0.4	0.4
	<i>YoY</i>	2.0	1.2	1.1	1.0	0.7	1.3	1.3	1.5
Austria	<i>QoQ</i>	0.5	0.1	0.1	0.3	0.4	0.5	0.5	0.4
	<i>YoY</i>	1.9	1.7	1.5	1.0	0.9	1.3	1.6	1.7
Hungary	<i>QoQ</i>	1.4	1.1	1.1	0.9	0.8	0.9	0.9	0.7
	<i>YoY</i>	5.2	5.2	4.8	4.6	4.0	3.8	3.5	3.3
Poland	<i>QoQ</i>	1.5	0.8	1.3	1.0	0.9	0.9	0.9	0.8
	<i>YoY</i>	4.7	4.1	4.1	4.7	4.1	4.2	3.7	3.5
Slovakia	<i>QoQ</i>	0.6	0.3	0.4	0.3	0.6	0.8	0.7	0.6
	<i>YoY</i>	3.3	2.4	1.8	1.7	1.6	2.1	2.4	2.8
Czech Republic	<i>QoQ</i>	0.6	0.6	0.4	0.2	0.6	0.6	0.5	0.5
	<i>YoY</i>	2.7	2.8	2.5	1.9	1.9	1.8	2.0	2.2

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

1.2 Commodity Prices

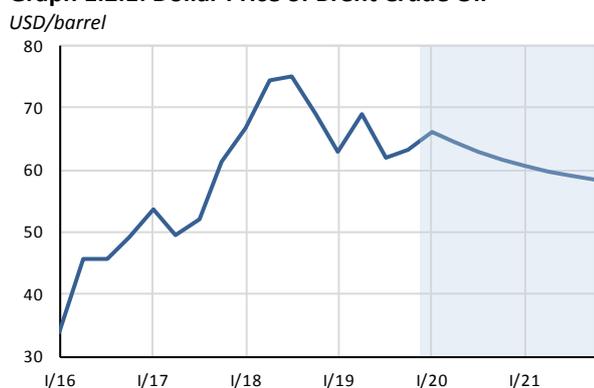
The price of Brent crude oil averaged USD 63.3 per barrel (*as predicted*) in Q4 2019. This was a drop by approximately 8% YoY (6% when expressed in CZK terms).

In December the OPEC and other countries involved confirmed that they would be applying production limits up to the end of Q1 2020. In addition, these limits were tightened by 0.5 million barrels per day. Saudi Arabia also announced that it would be producing 0.4 million barrels fewer per day than had been agreed. The United States is turning into a net exporter of oil, of which it is the biggest producer. The US Energy Information Administration estimates that global reserves of extracted oil will rise slightly in 2020. This is consistent with the situa-

tion prevailing in the futures market, where oil supplied later is traded more cheaply than oil supplied earlier.

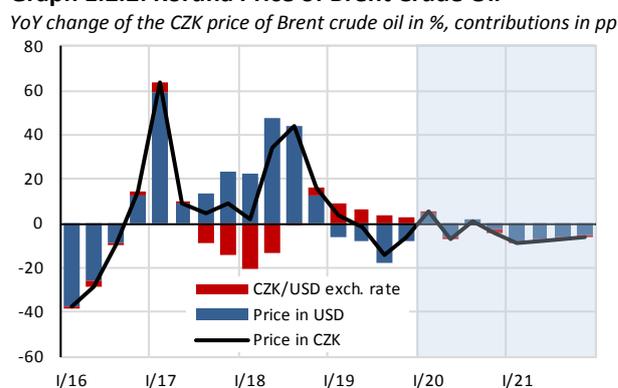
The Brent crude oil price outlook reflects the downward sloping curve of futures prices (though positioned higher compared to the November forecast). In 2020, the price should be USD 64 per barrel (*versus USD 59/barrel*), the same as in 2019, while in 2021 it should drop to USD 59 per barrel. As we are expecting the Czech koruna to appreciate only slightly against the US dollar (see section 1.4.3), the price of oil denominated in CZK should progress along the same lines as the dollar-denominated price. In 2020 it should virtually stagnate. In 2021 a decrease of approximately 8% is expected.

Graph 1.2.1: Dollar Price of Brent Crude Oil



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

Graph 1.2.2: Koruna Price of Brent Crude Oil



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	64	59	
	growth in %	0.2	-2.6	-8.8	-47.1	-16.9	24.3	31.7	-9.9	-0.9	-6.7	
Crude oil Brent index (in CZK)	2010=100	143.8	139.9	134.6	85.0	70.1	83.1	102.1	97.0	96	88	
	growth in %	11.0	-2.7	-3.8	-36.9	-17.4	18.5	22.9	-5.0	-1.4	-7.7	
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	69.5	.	.	
	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
						Forecast	Forecast	Forecast	Forecast
Crude oil Brent	USD/barrel	63.1	69.0	61.9	63.3	66	65	63	62
	growth in %	-5.7	-7.4	-17.6	-8.3	4.6	-6.5	1.6	-2.6
Crude oil Brent index (in CZK)	2010=100	94.0	104.1	93.7	96.3	99	97	94	92
	growth in %	3.2	-1.4	-14.6	-5.8	5.9	-6.9	0.6	-4.4
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	62.1	55.8	72.3	.	.	.	.
	growth in %	0.5	-37.4	-52.7	-39.2	.	.	.	.

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

1.3 Fiscal Policy

We estimate that the general government ended up with a surplus of 0.3% of GDP in 2019 (*unchanged*). The structural balance was evidently just about even (*versus -0.3% of GDP*), which would mean primary fiscal expansion of 0.8 pp compared to 2018. For 2019, figures on the budget performance of the general government in ESA 2010 accrual methodology are currently only available for the first three quarters. Consequently, in addition to those figures, the results of the cash receipts of the state budget, state funds, local government budgets and health insurance companies are used as a primary basis for the estimate.

Using the national cash methodology, the state budget ended in 2019 with a deficit of CZK 28.5 billion, which is CZK 11.5 billion better than budgeted. Compared to 2018, when the budget reported a surplus of CZK 2.9 billion, the balance worsened by CZK 31.5 billion, but even so this is still one of the best results in the Czech Republic's modern history. EU funding and financial mechanisms had little impact on the state budget's performance in 2019. Spending exceeded the revenues paid out by the EU and financial mechanisms only slightly (by CZK 0.8 billion), which proves that the state is capable of recouping pre-financed resources for its budget. Adjusted for these transactions both on the revenue and expenditure side, the budget ended up with a deficit of CZK 27.7 billion.

The revenue side was characterised by highly dynamic tax revenues, including social insurance contributions. At the state budget level, they were up, in cash terms, by CZK 74 billion (6.0%), and at the level of public budgets by almost CZK 94 billion (6.1%). The highest year-on-year growth from the perspective of the state budget was recorded by the collection of personal income tax (12.3%), driven by the surge in average wages in the economy, a partial rise in employment, and the increase in guaranteed wages. The same factors underpinned the collection of social insurance contributions, which recorded momentum of 7.5%. Corporate income tax – hampered by the rising share of the compensation of employees in GDP, which was reflected negatively in corporate profits – reported growth of more than 5%. Value added tax revenues went up by 4.4% YoY.

On the expenditure side of the state budget, capital expenditure rose by almost 20%, fuelled by an increase in direct capital purchases (by 43%) and much higher capital transfers to other components of public budgets, specifically local governments (by 29.5%) and state funds (by 33.2%). Of the total amount of capital expenditure, purely national investments accounted for 51% (CZK 70.8 billion), while the remaining 49% (CZK 68.5 billion) was channelled into the financing of joint EU/Czech programmes, including the common agricultural policy. Within current expenditure, there was a particularly pronounced rise in social benefits (by 8.2%), reflecting

the higher spending on pensions. Payroll expenditure, driven by an increase in earnings in regional education, was also very dynamic. Teachers' higher salaries affected year-on-year developments in non-capital transfers to local government budgets, which went up by almost 17% YoY.

In cash terms, local government budgets ended November 2019 with a surplus of CZK 41.2 billion. This was a doubling of the surplus year on year. This can mainly be attributed to the high momentum in revenues, both from taxes and from transfers, the principal provider of which was the state budget (see above). The enduring positive performance of local government budgets has contributed to the overall outcome of general government performance.

Besides local governments, the positive general government performance has also benefited from the health insurance companies. At the end of November 2019, these institutions reported a cash surplus of CZK 13.3 billion, a year-on-year improvement by almost CZK 1 billion. The key factor behind this development has been the faster rise in revenues from health-insurance contributions.

Using the ESA 2010 accrual methodology, the general government balance reported a surplus of CZK 40 billion in the first three quarters of 2019. However, the result of the final quarter plays heavily on the whole-year balance as it tends to be quite volatile and difficult to forecast. The exceptionally high tax revenue is also hinted at by the national accounts, according to which tax revenue, including social security contributions, increased by CZK 100 billion (7.1%) in the first three quarters. In contrast, on the expenditure side we are forecasting a leap in the compensation of employees, which went up by 10.0% YoY at the end of September 2019 as a result of the aforementioned pay rise, mainly among teachers. The quarterly national account figures confirm that, besides the compensation of employees, final consumption expenditure should also be driven by social transfers in kind, which also rose at a double-digit pace in the first three quarters (10.3%). Intermediate consumption gradually accelerated to report growth of 6.3% at the end of September. Over the same period, there was also 9.5% investment growth, though the momentum here was severely impacted by the third quarter.

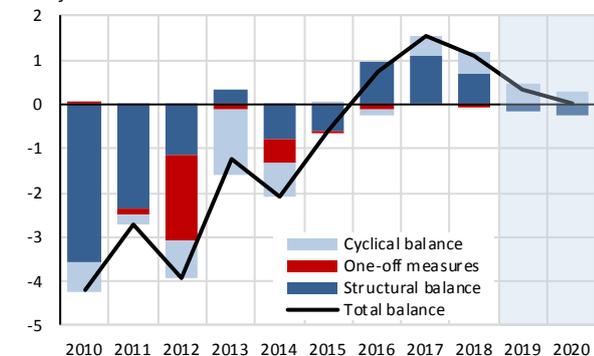
Taking into account the current estimate of the balance for 2019 and the slightly revised growth expected in general government consumption this year, we are adjusting our forecast of the headline balance in 2020 to 0.0% of GDP (*versus 0.1% of GDP*). The structural balance should report a modest deficit of 0.3% of GDP (*unchanged*).

The general government debt in absolute terms apparently rose year on year at the end of 2019. However, the forecast growth in nominal GDP by more than 6% would spell a contraction of relative debt to 31.2% of GDP (*un-*

changed). General government debt is forecast to decrease again, in relative terms, in 2020, when the level of debt should fall to 30.5% of GDP (*versus 30.6%*).

Graph 1.3.1: General Government Balance

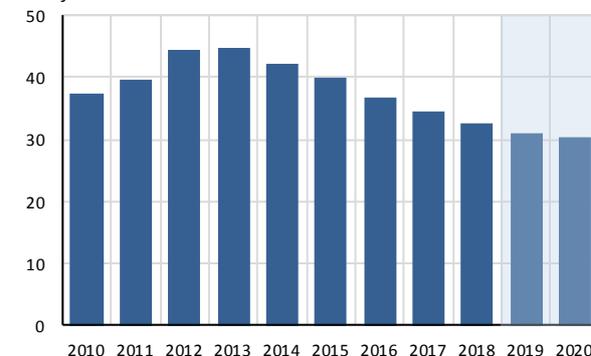
in % of GDP



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	
											Estimate	Forecast
General government balance	% GDP	-2.7	-3.9	-1.2	-2.1	-0.6	0.7	1.6	1.1	0.3	0.0	
	bill. CZK	-110	-160	-51	-91	-28	34	79	58	18	1	
Cyclical balance	% GDP	-0.2	-0.8	-1.5	-0.8	0.1	-0.1	0.5	0.5	0.5	0.3	
Cyclically adjusted balance	% GDP	-2.5	-3.1	0.2	-1.3	-0.7	0.8	1.1	0.6	-0.1	-0.3	
One-off measures¹⁾	% GDP	-0.1	-1.9	-0.1	-0.5	-0.1	-0.1	0.0	-0.1	0.0	0.0	
Structural balance	% GDP	-2.3	-1.2	0.3	-0.8	-0.6	0.9	1.1	0.7	-0.1	-0.3	
Fiscal effort²⁾	pp	1.2	1.2	1.5	-1.1	0.2	1.6	0.2	-0.4	-0.8	-0.1	
Interest expenditure	% GDP	1.3	1.4	1.3	1.3	1.1	0.9	0.7	0.8	0.7	0.7	
Primary balance	% GDP	-1.4	-2.5	0.1	-0.8	0.5	1.6	2.3	1.8	1.0	0.7	
Cyclically adjusted primary balance	% GDP	-1.2	-1.7	1.6	0.0	0.4	1.7	1.9	1.4	0.6	0.4	
General government debt	% GDP	39.8	44.5	44.9	42.2	40.0	36.8	34.7	32.6	31.2	30.5	
	bill. CZK	1 606	1 805	1 840	1 819	1 836	1 755	1 750	1 735	1 763	1 803	
Change in debt-to-GDP ratio	pp	2.5	4.6	0.4	-2.7	-2.2	-3.1	-2.1	-2.1	-1.4	-0.7	

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

Although the upper limit of the tolerance band for the inflation target was exceeded at the end of 2019, inflation expectations remain anchored and core inflation stays at around 2.5%. After factoring in the length of the monetary policy transmission (12–18 months), the CNB left the two-week repo rate at 2.0% in Q4 2019.

The currently moderately relaxed interest-rate component of monetary conditions should move closer to the neutral effect over the forecast horizon. The assumed stability of short-term interest rates and the forecast fall in inflation will result in the growth of real interest rates. Conversely, the real exchange rate component is now somewhat restrictive due to positive inflation differential

of the Czech Republic vis-à-vis the euro area and appreciation of the nominal exchange rate. Looking ahead, however, the exchange rate component is expected to act neutrally in a situation where the currency is appreciating due to economic convergence. Consequently, monetary conditions will shift from their currently slightly relaxed effect to a neutral effect in 2020 and 2021.

1.4.2 Financial Sector and Interest Rates

In line with the development of monetary-policy rates of the CNB, the **three-month PRIBOR** was 2.2% in Q4, averaging 2.1% in 2019 as a whole (*as forecast in both cases*). If the monetary policy stance of the CNB and the ECB matches our expectations, the three-month PRIBOR should be 2.2% (*unchanged*) in Q1 and also in 2020 as

a whole. The PRIBOR rate is forecast to remain stable at this level also in 2021.

The **yield to maturity on 10-year government bonds** for convergence purposes increased to 1.4% (*versus 1.2%*) in Q4, averaging 1.5% in 2019 as a whole (*as forecast*). It therefore remains below the three-month PRIBOR rate, a unique situation since records began (i.e. since 2000). The yield curve of government bonds remains flat at shorter maturities; the yield on five-year bonds was lower than the yield on two-year bonds in November and December. Taking into account the expected monetary policy stance of the CNB and the ECB, inflation developments and the persistently flat yield curve, we believe that long-term interest rates will stagnate at current levels. Hence, they should be 1.4% in Q1 2020, the same as the whole-year average in 2020 (*versus 1.2%*) and 2021.

In Q3 2019, total **lending to households** grew 6.4% YoY, its momentum dipping by 0.4 pp. A similar trend continued in October and November. Lending to households remains driven by housing loans, which account for approximately 75% of all lending to households. Average client interest rates on the overall volume of loans to households continued along their gentle downward trajectory.

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, since December 2018 we have seen new mortgages decline on average, both in terms of their volume and number of contracts. In the first three quarters of 2019, the volume of new mortgages decreased by 15% YoY on average. Measured by the number of contracts, there were 20% fewer new mortgages. Client interest rates on loans for property purchases have been broadly decreasing since March 2019. The steepest decline was registered in loans with rates fixed for more than five years. This can probably be attributed to banks' expectations of trends in CNB rates, and to the amount of competition.

The growth of total **loans to non-financial corporations** slowed down further to 3.4% YoY in Q3 2019. It was driven primarily by loans with maturity of more than five years. Loans maturing within one year fell 2.3%. Developments were similar in October and November. This

may indicate that non-financial corporations are increasingly financing their working capital out of their own resources. Both CZK and foreign currency loans contributed to the momentum.

The **share of non-performing loans** in total loans fell again slightly in Q3 to 1.8% among households and to 3.3% among non-financial corporations. This trend continued in October and November.

In Q3, the **growth of deposits** of non-financial corporations accelerated to 5.4% YoY, but slowed slightly to 7.1% among households. The solid growth paves the way for financing future consumption and investment.

1.4.3 Exchange Rates

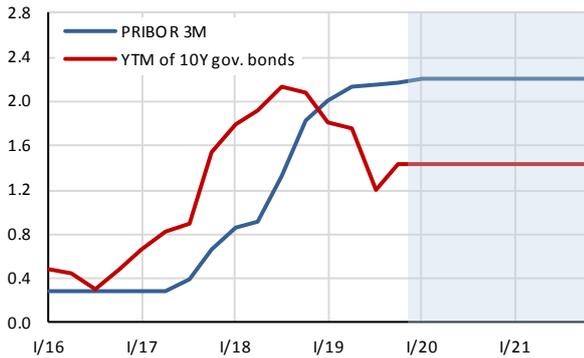
During Q4 2019, the koruna gradually weakened from almost CZK 25.9/EUR at the beginning of October to CZK 25.4/EUR at the end of December. The koruna therefore traded at an average of CZK 25.6/EUR (*versus CZK 25.7/EUR*), which corresponds to year-on-year appreciation of 0.9%. The average exchange rate in 2019 as a whole was CZK 25.7/EUR, virtually the same as in 2018.

Real convergence of the Czech economy and the Czech Republic's positive interest rate differential vis-à-vis the euro area will continue to push towards the appreciation of the koruna. Compared to the previous macroeconomic forecast, international investors were more upbeat about the Czech koruna and other central and east European currencies. Lower global risks might also play a role in the stronger-than-expected appreciation of the koruna. In Q1 2020, the average exchange rate could be CZK 25.5/EUR. This would mean year-on-year appreciation of the koruna by 0.7%, which is in line with model estimates of developments of the equilibrium real exchange rate. The koruna should appreciate by 1.0% to an average of CZK 25.4/EUR (*versus CZK 25.5/EUR*) in 2020, and to CZK 25.1/EUR in 2021. As such, it is expected to continue along the path of a gradual trend appreciation.

The trend expected in the exchange rate of the koruna to the US dollar is implied by the USD/EUR exchange rate, for which an assumption of stability at USD 1.12/EUR (*versus USD 1.10/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

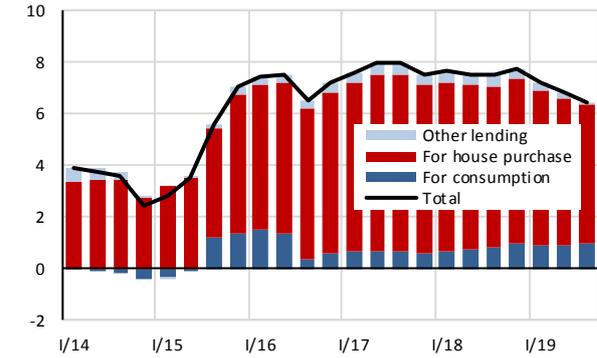
in % p.a.



Source: CNB. Calculations and forecast of the MoF.

Graph 1.4.2: Loans to Households

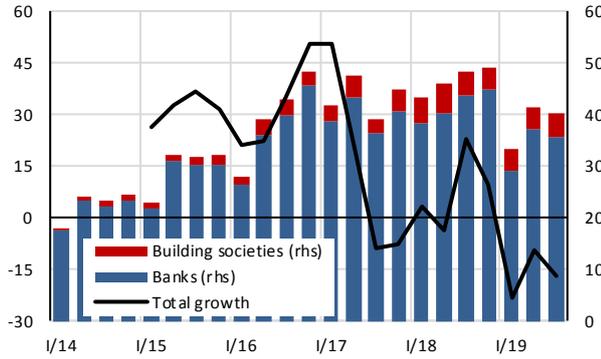
YoY growth rate in%, contributions in percentage points



Source: CNB. Calculations of the MoF.

Graph 1.4.3: New Mortgage Loans

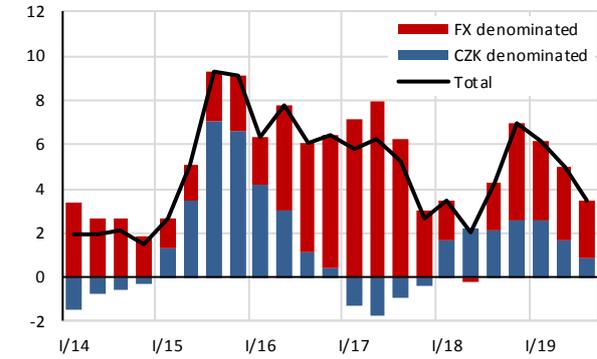
for purchase of residential property, YoY growth in %, CZK billion (rhs)



Source: CNB. Calculations of the MoF.

Graph 1.4.4: Loans to Non-financial Corporations

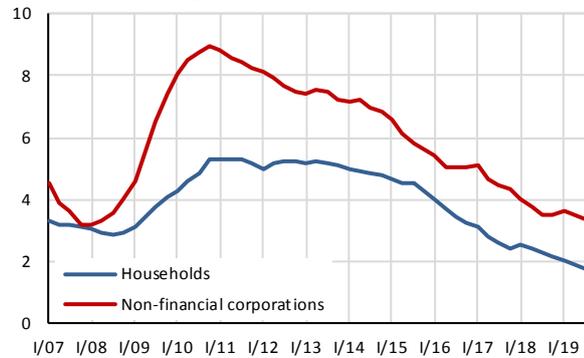
YoY growth rate in%, contributions in percentage points



Source: CNB. Calculations of the MoF.

Graph 1.4.5: Non-performing Loans

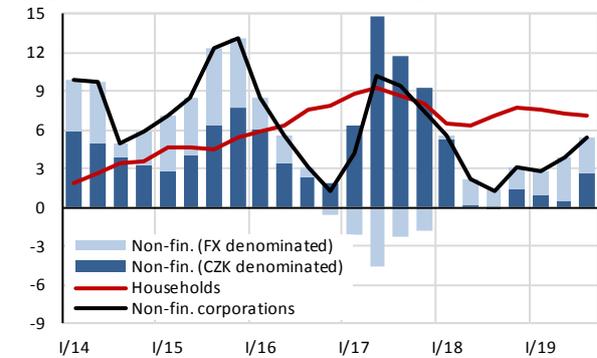
ratio of non-performing to total loans, in%



Source: CNB. Calculations of the MoF.

Graph 1.4.6: Deposits

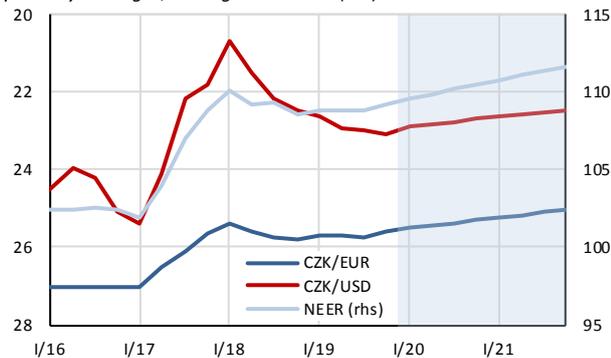
YoY growth rate in%, contributions in percentage points



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	2.2	2.2
YTM of 10Y government bonds	in % p.a.	2.78	2.11	1.58	0.58	0.43	0.98	1.98	1.55	1.4	1.4
Client interest rates											
Loans to households	in % p.a.	6.47	6.05	5.59	5.15	4.65	4.10	3.76	.	.	.
Loans to non-financial corporations	in % p.a.	3.72	3.20	3.01	2.78	2.59	2.57	3.05	.	.	.
Deposits of households	in % p.a.	1.18	1.02	0.85	0.65	0.47	0.36	0.33	.	.	.
Deposits of non-financial corporations	in % p.a.	0.56	0.41	0.29	0.19	0.10	0.05	0.11	.	.	.

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

Table 1.4.2: Interest Rates – quarterly
average of period, unless stated otherwise

		2019				2020			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Forecast	Forecast	Forecast	Forecast
Repo 2W rate CNB (end of period)	in % p.a.	1.75	2.00	2.00	2.00	.	.	.	.
Main refinancing rate ECB (end of period)	in % p.a.	0.00	0.00	0.00	0.00	.	.	.	.
Federal funds rate (end of period)	in % p.a.	2.50	2.50	2.00	1.75	.	.	.	.
PRIBOR 3M	in % p.a.	2.01	2.13	2.15	2.17	2.2	2.2	2.2	2.2
YTM of 10Y government bonds	in % p.a.	1.81	1.75	1.20	1.43	1.4	1.4	1.4	1.4
Client interest rates									
Loans to households	in % p.a.	3.67	3.66	3.66	.	.	.	.	.
Loans to non-financial corporations	in % p.a.	3.67	3.74	3.80	.	.	.	.	.
Deposits of households	in % p.a.	0.36	0.37	0.40	.	.	.	.	.
Deposits of non-financial corporations	in % p.a.	0.27	0.35	0.42	.	.	.	.	.

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

Table 1.4.3: Loans and Deposits – yearly averages

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Households											
Loans	<i>growth in %</i>	16.5	8.9	6.6	5.0	4.0	3.4	4.8	7.2	7.8	7.6
For consumption	<i>growth in %</i>	16.4	7.3	4.2	-1.0	-0.1	-0.9	3.4	6.0	4.3	5.4
For house purchase	<i>growth in %</i>	15.5	8.9	6.5	6.4	5.5	4.5	5.6	8.1	9.0	8.5
Other lending	<i>growth in %</i>	23.9	11.6	11.1	6.0	1.2	2.9	1.0	3.0	4.2	4.3
CZK denominated	<i>growth in %</i>	16.5	8.8	6.6	4.9	4.0	3.4	4.7	7.2	7.7	7.6
FX denominated	<i>growth in %</i>	0.1	31.0	2.4	30.8	-1.3	0.0	12.7	8.5	36.3	1.7
Deposits	<i>growth in %</i>	10.2	5.1	5.0	4.5	3.3	2.9	4.8	7.0	8.7	7.0
CZK denominated	<i>growth in %</i>	10.1	5.6	5.4	4.7	3.3	2.7	4.1	6.9	9.7	7.1
FX denominated	<i>growth in %</i>	13.1	-6.8	-4.0	-2.1	2.3	8.5	22.5	7.3	-13.9	3.5
Non-performing loans (banking statistics)	<i>share, in %</i>	3.6	4.8	5.3	5.2	5.2	4.9	4.5	3.6	2.7	2.4
Loans to deposits ratio	<i>in %</i>	59	61	62	63	63	63	63	63	63	63
Non-financial corporations											
Loans	<i>growth in %</i>	1.9	-5.2	4.7	3.5	1.3	1.9	6.5	6.6	5.0	4.2
CZK denominated	<i>growth in %</i>	0.5	-5.2	4.9	2.6	0.3	-1.0	5.9	2.8	-1.4	3.0
FX denominated	<i>growth in %</i>	9.1	-5.4	3.7	7.8	5.7	13.7	9.0	20.5	24.4	6.9
Deposits	<i>growth in %</i>	-2.2	5.5	0.4	8.9	4.9	7.6	10.3	4.6	7.8	3.0
CZK denominated	<i>growth in %</i>	-3.2	6.9	2.0	8.2	4.2	5.6	6.7	4.5	13.9	2.1
FX denominated	<i>growth in %</i>	1.6	0.2	-6.1	11.8	8.0	15.2	23.2	4.8	-11.1	6.6
Non-performing loans (banking statistics)	<i>share, in %</i>	6.0	8.6	8.5	7.8	7.4	7.0	6.0	5.2	4.7	3.7
Loans to deposits ratio	<i>in %</i>	135	121	126	120	116	110	106	108	105	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

		2017	2018				2019		
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Households									
Loans	<i>growth in %</i>	7.6	7.7	7.6	7.5	7.7	7.2	6.8	6.4
For consumption	<i>growth in %</i>	3.9	4.2	5.2	5.8	6.5	6.0	6.1	6.4
For house purchase	<i>growth in %</i>	8.8	8.8	8.5	8.3	8.5	8.0	7.6	7.2
Other lending	<i>growth in %</i>	4.1	4.7	4.4	4.3	3.7	2.7	2.1	0.4
CZK denominated	<i>growth in %</i>	7.5	7.7	7.6	7.5	7.7	7.2	6.8	6.4
FX denominated	<i>growth in %</i>	35.8	11.1	-10.8	-0.9	10.9	23.2	13.3	0.6
Deposits	<i>growth in %</i>	8.0	6.6	6.4	7.2	7.7	7.6	7.3	7.1
CZK denominated	<i>growth in %</i>	8.9	7.1	6.4	7.2	7.7	7.5	7.0	6.7
FX denominated	<i>growth in %</i>	-13.7	-7.3	7.8	6.9	7.5	11.3	13.6	18.2
Non-performing loans (banking statistics)	<i>share, in %</i>	2.4	2.6	2.4	2.3	2.2	2.0	1.9	1.8
Loans to deposits ratio	<i>in %</i>	64	63	63	63	64	63	63	63
Non-financial corporations									
Loans	<i>growth in %</i>	2.6	3.5	2.0	4.2	7.0	6.1	5.0	3.4
CZK denominated	<i>growth in %</i>	-0.5	2.3	3.2	3.0	3.6	3.7	2.4	1.2
FX denominated	<i>growth in %</i>	11.5	6.3	-0.7	7.2	15.3	12.1	11.1	8.4
Deposits	<i>growth in %</i>	7.4	5.6	2.2	1.3	3.1	2.9	3.9	5.4
CZK denominated	<i>growth in %</i>	12.0	6.8	0.2	-0.1	1.8	1.1	0.6	3.3
FX denominated	<i>growth in %</i>	-7.8	1.0	10.7	6.9	8.3	9.7	16.9	13.2
Non-performing loans (banking statistics)	<i>share, in %</i>	4.3	4.0	3.8	3.5	3.5	3.7	3.5	3.4
Loans to deposits ratio	<i>in %</i>	104	103	104	109	108	107	105	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	2021	2022	2023
							Estimate	Forecast	Outlook	Outlook	Outlook
Nominal exchange rates											
CZK / EUR	average	27.53	27.28	27.03	26.33	25.65	25.67	25.4	25.1	24.9	24.6
	appreciation in %	-5.7	0.9	0.9	2.7	2.7	-0.1	1.0	1.1	1.1	1.1
CZK / USD	average	20.75	24.60	24.43	23.39	21.74	22.94	22.8	22.5	22.3	22.1
	appreciation in %	-5.7	-15.7	0.7	4.5	7.6	-5.2	0.6	1.1	1.1	1.1
NEER	average of 2015=100	100.8	100.0	102.4	105.4	109.3	108.9	110	111	112	114
	appreciation in %	-5.2	-0.8	2.4	2.9	3.7	-0.3	1.0	1.1	1.1	1.1
Real exchange rate to EA19¹⁾	average of 2015=100	99.3	100.0	101.3	104.5	108.6	111	113	115	117	119
	appreciation in %	-4.2	0.7	1.3	3.1	4.0	1.8	2.1	1.7	1.6	1.7
REER²⁾	average of 2015=100	100.9	100.0	102.6	106.6	111.1	.	.	.	.	.
	appreciation in %	-5.2	-0.9	2.6	3.9	4.3	.	.	.	.	.

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				2020			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
					Estimate	Forecast	Forecast	Forecast	Forecast
Nominal exchange rates									
CZK / EUR	average	25.68	25.68	25.74	25.58	25.5	25.4	25.4	25.3
	appreciation in %	-1.1	-0.3	0.1	0.9	0.7	1.0	1.4	1.1
CZK / USD	average	22.61	22.91	22.99	23.11	22.9	22.8	22.8	22.7
	appreciation in %	-8.6	-6.1	-3.5	-2.6	-1.2	0.4	1.0	1.8
NEER	average of 2015=100	108.8	108.8	108.9	109.2	110	110	110	110
	appreciation in %	-1.1	-0.4	-0.5	0.6	0.7	1.0	1.2	1.2
Real exchange rate to EA19¹⁾	average of 2015=100	110.2	110.3	110.8	111	112	113	114	114
	appreciation in %	0.7	1.6	2.1	2.9	1.8	2.3	2.5	2.0
REER²⁾	average of 2015=100	111.8	111.1	111.3	.	.	.	.	.
	appreciation in %	-0.5	0.0	0.2	.	.	.	.	.

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

On 16 December 2019, the government acknowledged the **National Investment Plan of the Czech Republic up to 2050** and ordered members of the government, in cooperation with the finance minister, as far as the central government budget would allow and in keeping with the progress in project preparations, to factor in spending associated with the implementation of this investment plan into their various budget headings when preparing central government budgets and medium-term outlooks for the corresponding years. The National Investment Plan encompasses almost 20,000 project plans aggregating approximately CZK 8 trillion (about 140% of the GDP estimated for 2019), which are to be implemented by 2050 by harnessing the resources of general government budgets, European funds, and private sector involvement.

As of 1 January 2020, an **amendment to the Pension Insurance Act** added CZK 900 to average monthly pensions

with a view to increasing them to roughly 39% of the average gross wage.

An **amendment to the Social Support Act**, also taking effect as of 1 January 2020, increases the parental allowance for the care of a family's youngest child to CZK 300,000 or, in cases where such children are twins or come from other multiple births, to CZK 450,000. It also doubles the time that, from the age of two years, a child may attend a preschool facility to 92 hours per month. Consequently, this law increases the value placed on the care of small children, while meeting the need to be responsive to opportunities for the reconciliation of family and working life.

A **law amending certain tax-related legislation** took effect on 1 January 2020. The new legislation, aimed at restricting the availability of addictive substances, increases excise duty on cigarettes and tobacco by approximately 10% and the excise duty on alcohol by roughly

13%. Not least, it also increases the sub-taxes on selected games of chance. Winnings from gambling and other betting in excess of CZK 1 million are subject to 15% withholding tax. In addition, there has been a change to the way in which insurance companies' technical provisions are created and tax-deductible, and administration fees for registration in the property register have been increased.

1.6 Demographic Trends

The population of the Czech Republic is increasing slowly but surely, reaching 10.681 million people at the end of September 2019. The number of inhabitants went up by 41,500 persons YoY, i.e. by 0.4%, and by 31,400 from the start of 2019. Over the forecast horizon, we can expect a small increase roughly in line with the central variant of the Czech Statistical Office's Population Projection.

Most of this population rise can be attributed to **positive net migration** of 29,900 persons, an increase by 2,200 YoY. From January to September 2019, 49,200 people moved to the Czech Republic from abroad, while 19,300 left; both of these flows of foreign migration went up YoY. The positive net migration was dominated by citizens of Ukraine (13,100) and Slovakia (3,200).

The difference between the number of **births and deaths** in January–September 2019 resulted in a slight rise by 1,500 persons. There was a modest year-on-year drop in both the number of live births (85,200) and the number of deaths (83,700). We can expect the trend for the number of live births to continue in the next few years, while mortality should stall.

Population ageing was reflected in a year-on-year rise in the number of seniors (65+) by more than 48,000 people in Q3 2019 (according to figures from the Labour Force Survey). The high number of females born in the late 1970s and in the 1980s and the gradually rising fertility rate resulted in an increase in the number of young people up to 19 years by 28,000.

The **Government Regulation on the Minimum Wage** took effect on 1 January 2020. It has pushed up the minimum wage year on year by 9.4% to CZK 14,600 per month. The lowest levels of guaranteed wage were also increased by approximately 9.4%.

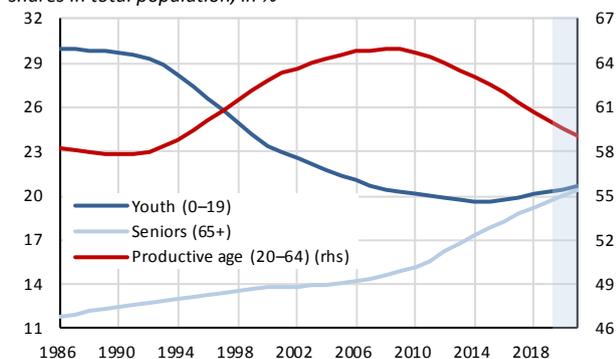
On the other hand, the population aged 20–64 plummeted by 31,000. Nevertheless, developments in this category are far from homogeneous on account of how the birth rate fluctuated in the past. The decline was concentrated on the 20–44 age group, where the number of people went down by 70,000. In contrast, there was a marked increase in the population aged 45–49 by 50,000. The highest employment and participation rate can be found among people of this age, which has helped to eliminate the impacts of the ageing population on the supply side of the labour market. The number of inhabitants aged 20–64 should gradually fall by 40,000 people annually, i.e. by 0.6–0.7%, over the timeframe of the forecast.

The economic boom has meant that the number of **old-age pensioners** is not as much as we would have expected when we factor in demographic trends and the gradual hike in the statutory retirement age. In Q3 2019, there was year-on-year stagnation (a rise by 600) in the number of old age pensioners. This situation should continue in the next few years.

At the end of September 2019, there were 2.41 million old-age pensioners (22.6% of the Czech population) in the pension system. As the growth in this number is not as much as the rise in employment, there was a palpable reduction in the effective dependency ratio by 2.7 pp between the beginnings of 2012 and 2019. This is one of the factors behind the current pension account surplus. However, with employment predicted to stagnate, these reductions should come to a halt.

Graph 1.6.1: Age Groups

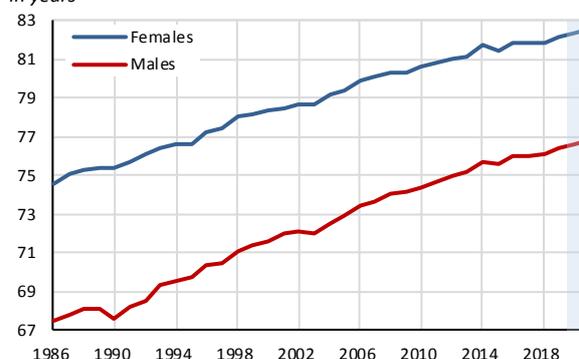
shares in total population, in %



Source: CZSO. Calculations of the MoF.

Graph 1.6.2: Life Expectancy at Birth

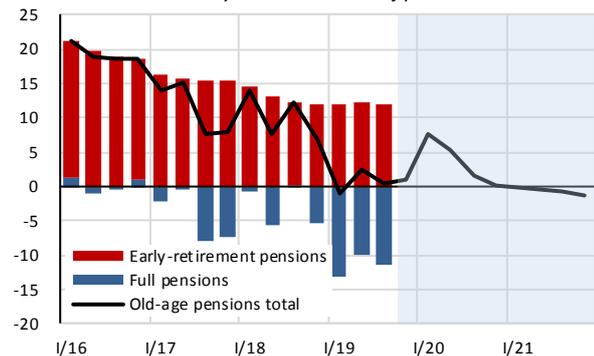
in years



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
							Estimate	Forecast	Forecast	Outlook	Outlook
Population (as of 1 January)	<i>thous. persons</i>	10 512	10 538	10 554	10 579	10 610	10 650	10 674	10 697	10 717	10 735
	<i>growth in %</i>	0.0	0.2	0.1	0.2	0.3	0.4	0.2	0.2	0.2	0.2
0–19 years	<i>thous. persons</i>	2 057	2 064	2 082	2 106	2 133	2 160	2 185	2 206	2 224	2 240
	<i>growth in %</i>	-0.6	0.3	0.9	1.2	1.3	1.3	1.1	1.0	0.9	0.7
20–64 years	<i>thous. persons</i>	6 630	6 594	6 540	6 484	6 437	6 403	6 356	6 313	6 274	6 241
	<i>growth in %</i>	-0.7	-0.5	-0.8	-0.9	-0.7	-0.5	-0.7	-0.7	-0.6	-0.5
65 and more years	<i>thous. persons</i>	1 826	1 880	1 932	1 989	2 040	2 087	2 134	2 178	2 219	2 254
	<i>growth in %</i>	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⁾	<i>thous. persons</i>	2 340	2 355	2 377	2 395	2 403	2 410	2 411	2 411	2 410	2 404
	<i>growth in %</i>	0.0	0.6	0.9	0.8	0.3	0.3	0.0	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	33.6	34.5	35.4	36.1
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	45.4	45.4	45.3	45.2
Fertility rate	<i>children</i>	1.528	1.570	1.630	1.687	1.708	1.69	1.70	1.70	1.70	1.70
Population increase	<i>thous. persons</i>	26	16	25	31	40	25	23	20	17	15
Natural increase	<i>thous. persons</i>	4	0	5	3	1	-1	-3	-6	-9	-11
Live births	<i>thous. persons</i>	110	111	113	114	114	111	109	107	105	103
Deaths	<i>thous. persons</i>	106	111	108	111	113	112	112	113	114	114
Net migration	<i>thous. persons</i>	22	16	20	28	39	26	26	26	26	26
Immigration	<i>thous. persons</i>	42	35	38	46	58	.	.	.	.	.
Emigration	<i>thous. persons</i>	20	19	17	18	20	.	.	.	.	.

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 all likelihood, the Czech economy is behind the peak of its business cycle. The **positive output gap** was 1.2% of potential output² in Q3 2019. Taking into account the forecast slowdown in economic growth and the projected trend of potential output, the output gap should start to narrow from the estimated average 1.3% in 2019 to 0.5% of potential output in 2021. In the period covered by the outlook, the gap should close altogether.

The positive output gap is most apparent on the **labour market** (see section 3.3). It is here that the extremely low unemployment and the scarcity of qualified candidates for vacancies have been felt. It is also reflected in core inflation.

The year-on-year growth of **potential output** is gradually slowing down. We estimate that it stood at 2.4% in Q3 2019. This is just slightly lower than the average 2.6% growth rate of gross value added in the period since 1995. The average potential output growth in 2020 and 2021 should remain at 2.4%.

The main driver of potential growth is **total factor productivity**. In Q3, as in previous quarters, the contribution of its trend component reached 1.9 pp.

Labour supply is swayed 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 (20–64) population, which shaved 0.3 pp from the year-on-year growth of potential output in Q3.

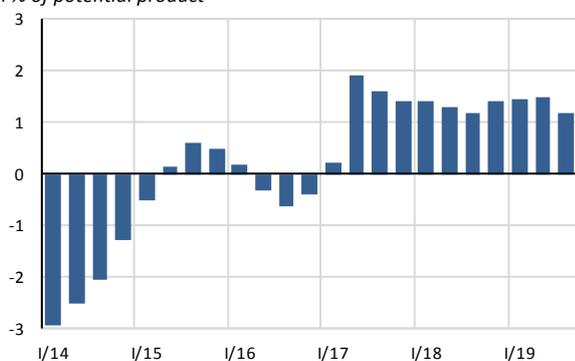
The negative impact that demographic trends are having on labour supply was cushioned, until recently, by a dynamic **increase in the participation rate**, which swelled the size of the labour force in the economy. However, since Q2 (probably influenced by one-off factors – see section 3.3 for more details), there was a juddering slowdown in the year-on-year growth of participation, and the size of the workforce actually shrank. The contribution made by the participation rate to the growth of potential output thus came to just 0.3 pp in Q3 2019 and caused a slowdown in potential output growth.

In the Czech Republic, we are witnessing a steady long-term decline in the number of **hours usually worked**. In Q3, this factor stalled potential output growth by 0.2 pp.

Capital stock contributed 0.7 pp in Q3 2019 on the back of strong growth in gross fixed capital formation in 2018.

Graph 2.1.1: Output Gap

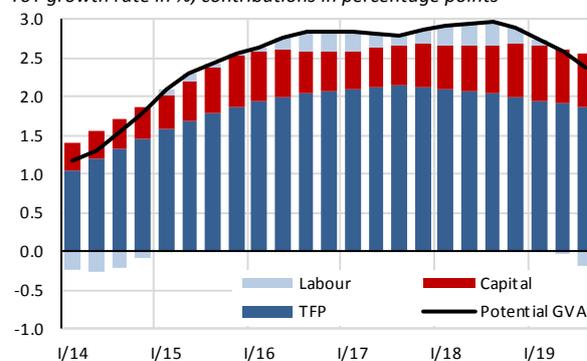
in % of potential product



Source: CZSO. Calculations of the MoF.

Graph 2.1.2: Potential Product

YoY growth rate in %, contributions in percentage points

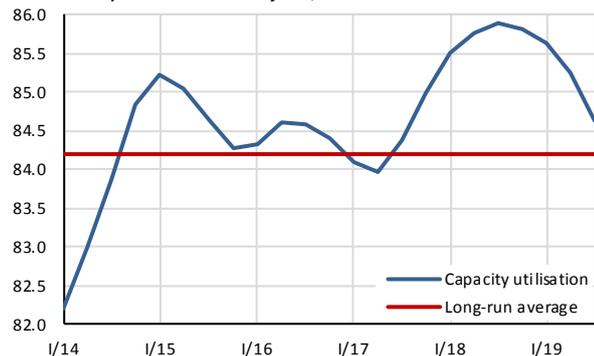


Source: CZSO. Calculations of the MoF.

² In the calculation of potential output and the output gap, there has been a change in the way that the hours actually worked are adjusted for the number of working days. As a result of this change, since 2017 the size of the output gap has decreased by approximately 0.2 pp.

Graph 2.1.3: Capacity Utilisation in Industry

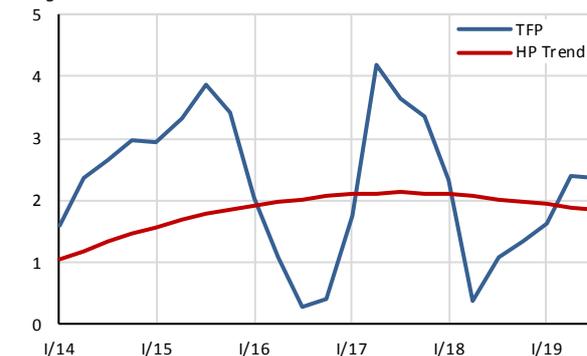
smoothed by Hodrick-Prescott filter, in %



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

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Output gap	%	-2.0	-0.7	-2.4	-4.0	-2.2	0.2	-0.3	1.3	1.3	1.4
Potential product ¹⁾	growth in %	0.8	0.7	0.9	1.2	1.4	2.3	2.8	2.8	2.9	2.6
Contributions											
Trend total factor productivity	pp	0.6	0.4	0.4	0.7	1.3	1.7	2.0	2.1	2.1	1.9
Fixed assets	pp	0.6	0.6	0.5	0.4	0.4	0.6	0.6	0.5	0.6	0.7
Population 20–64 yers	pp	-0.1	-0.1	-0.3	-0.3	-0.4	-0.3	-0.4	-0.4	-0.3	-0.3
Participation rate	pp	-0.1	0.0	0.6	0.8	0.3	0.5	0.7	0.7	0.7	0.4
Usually worked hours	pp	-0.3	-0.2	-0.3	-0.3	-0.2	-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

Developments of confidence indicators in Q4 2019 signalled a marked slowdown in the year-on-year momentum of gross value added in industry and in trade and services. The construction confidence indicator improved on the previous period. Nevertheless, the correlation between 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 (the Ifo indicator), is continuing its slide, suggesting that export momentum was weaker in Q4 2019.

The Czech Statistical Office's consumer confidence indicator fell a little in Q4 2019. This trend signals that final consumption expenditure of households slowed slightly

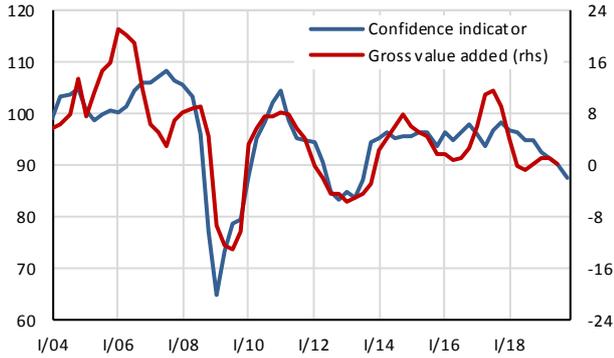
at the beginning of 2020 because the confidence indicator has a lead of one to two quarters. On the other hand, the consumer confidence indicator compiled by the Ministry of Finance from questions used in the European Commission's consumer survey reversed the previous downturns it had experienced. This improvement can be attributed primarily to the better assessment of households' economic situation.

With most of its components slackening, the composite confidence indicator is therefore signalling a palpable slowdown in the year-on-year growth of gross value added in Q4 2019.

The composite leading indicator points to a clear narrowing of the positive output gap at the end of 2019, though this could slow down in early 2020.

Graph 2.2.1: Confidence and GVA in Industry

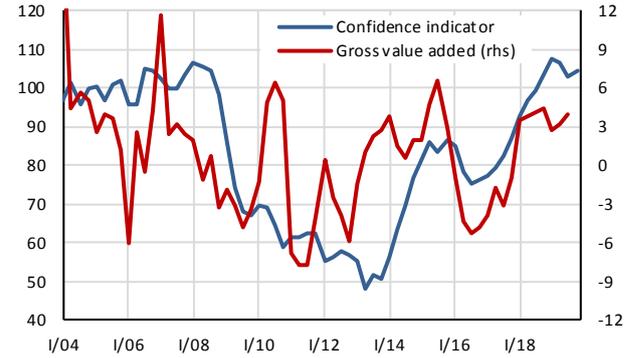
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

Graph 2.2.2: Confidence and GVA in Construction

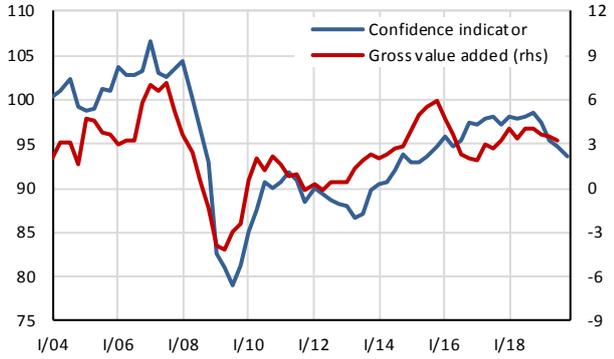
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO.

Graph 2.2.3: Confidence and GVA in Trade and Services

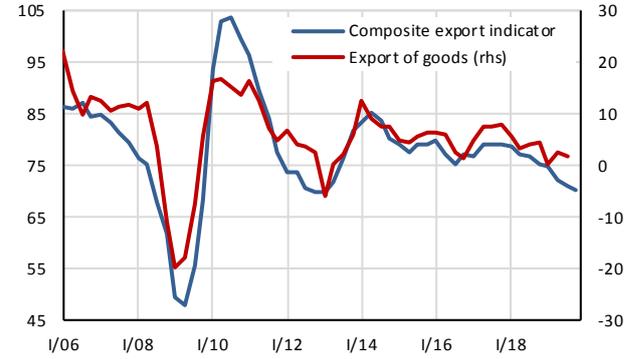
2005=100 (lhs), YoY growth in % (rhs)



Source: CZSO. Calculations of the MoF.

Graph 2.2.4: Composite Export Indicator

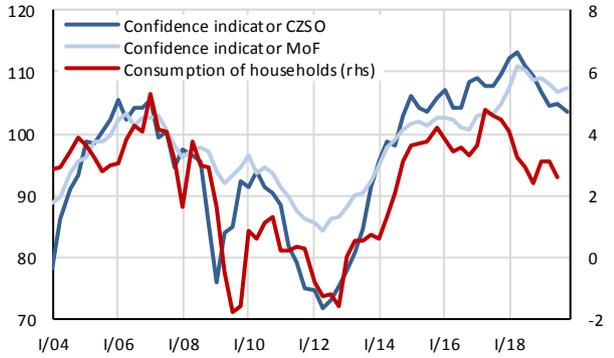
2010=100 (lhs), YoY growth in % (rhs)



Source: CESifo, CZSO. Calculations of the MoF.

Graph 2.2.5: Consumer Confidence and Consumption

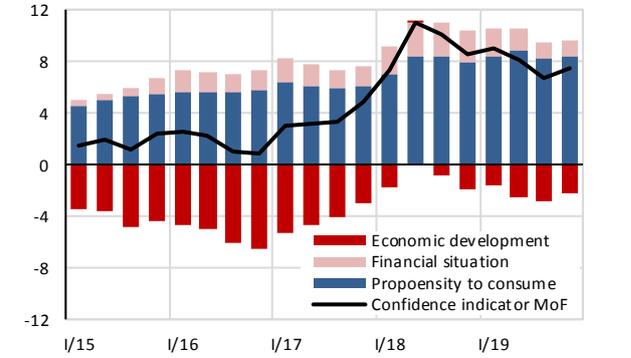
2005=100 (lhs), YoY growth in % (rhs)



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

Graph 2.2.6: Decomposition of Consumer Sentiment

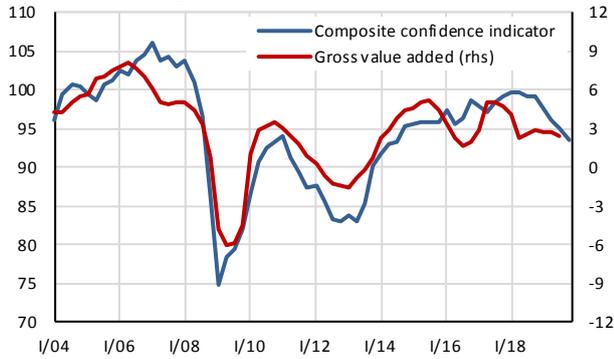
consumer confidence indicator of the MoF, balance, contributions



Source: European Commission. Calculations of the MoF.

Graph 2.2.7: Composite Confidence Indicator and GVA

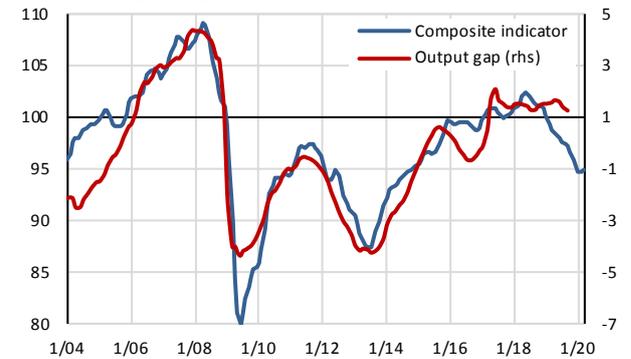
2005=100 (lhs), YoY growth in % (rhs)



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 Third Quarter of 2019

Economic output measured by real GDP increased by 3.4% YoY (*as estimated*) in Q3 2019; seasonally adjusted GDP climbed by 0.4% QoQ (*versus 0.3%*). The year-on-year growth rate was significantly affected by calendar effects – Q3 2019 had three business days more than the same quarter of the previous year, adding 0.9 pp to GDP growth. Virtually all sectors – headed by trade, transportation, accommodation and food service, and followed by information and communication activities – contributed to the quarter-on-quarter growth. Gross value added in industry, on the other hand, posted a mild downturn compared to the preceding quarter. The Czech Statistical Office revised national accounts, which reduced GDP growth in 2018 by 0.1 pp. The growth rate of GDP in H1 2019 remained largely unchanged, as did its structure.

The year-on-year GDP growth was driven by rising foreign and, especially, domestic demand. The main pro-growth item was household final consumption expenditure. The contribution of the balance of foreign trade with goods and services was strongly positive.

Household consumption increased on the back of rising disposable income, with consumer confidence running high. Consumption was also boosted by a year-on-year dip in the savings rate. Expenditures on semi-durables and durables were the most dynamic components of household consumption, though spending on consumer non-durables and services also went up. In real terms, household final consumption expenditure increased by 3.3% (*versus 3.1%*). General government consumption went up by 4.0% (*versus 3.0%*), mainly on account of the momentum exhibited by employment, social benefits in kind and intermediate consumption.

Gross fixed capital formation increased by 1.1% (*versus 1.6%*). Investments in housing and non-residential structures had a pro-growth effect, while investments in machinery and equipment declined year-on-year. From the sectoral perspective, investment activity was driven exclusively by private entities. Conversely, general government investment fell slightly in real terms. With the change in inventories making a negative contribution, gross fixed capital formation increased by less than fixed capital investment, i.e. by 0.3% (*versus a 0.2% downturn*).

With export markets plainly slowing, there was a reduction in the year-on-year growth of exports of goods and services compared to the same quarter of the previous year. As a result, overall exports rose by 3.8% (*versus 4.3%*) in Q3 2019. Following the slackening growth of

exports and import-intensive investment demand, imports of goods and services slowed to 2.6% (*versus 2.5%*).

With export prices rising and import prices falling, the terms of trade improved by 0.9% (*versus 0.5%*). Consequently, real gross domestic income rose by 4.0% YoY (*versus 3.8%*).

The gross operating surplus increased by 7.9% (*versus 7.7%*), the compensation of employees climbed by 6.8% (*versus 7.1%*), and the net taxes on production were up by 4.9% YoY (*versus 1.2%*). As a result, nominal GDP posted 7.1% growth (*versus 6.8%*).

3.1.2 Forecast for the Years 2019–2021

We estimate that real GDP increased by 1.6% YoY (*versus 1.5%*) and 0.2% QoQ (*unchanged*) in Q4 2019. The estimated reduction in the quarter-on-quarter momentum of GDP echoes data on economic developments at the end of 2019 available as of the forecast cut-off date (confidence indicators, output in industry and construction, sales in retail and services, and external trade). As such, the economy may have grown by 2.5% (*unchanged*) in 2019 as a whole.

In 2020, economic growth should be driven primarily by domestic demand, headed by strong household final consumption expenditure. GDP growth should also be boosted by general government consumption and, to a lesser extent, by investment activity, along with the external balance. We forecast that real GDP will grow by 2.0% (*unchanged*) in 2020 and by 2.2% in 2021.

Household consumption will continue to benefit from rising real disposable income, although its growth is set to be slower than in 2019, despite the fact that numerous socially-related discretionary changes will be positively reflected in its momentum this year. In the short term, household consumption should also be reinforced by consumer lending. By contrast, the increased taxation of cigarettes, tobacco and alcohol should have a slightly negative effect this year. In 2020, increase in the savings rate should also weigh on household final consumption expenditure. Consequently, real household consumption should decelerate to 2.4% in 2020 (*unchanged*) and 2.2% in 2021.

We forecast that general government consumption will grow by 1.9% (*versus 1.8%*) this year, and again in 2021. Key factors will include growth in social benefits in kind and employment. Spending in the health sector will benefit from the partial engagement of health insurance companies' provisions. Despite cuts at central bodies of state administration, the numbers of employees in education and the armed forces are set to increase. The

momentum will also benefit from increased expenditure on the purchase of goods and services, with contributions from current subsidies from EU funds.

Growth in gross fixed capital formation should decelerate a little in 2020 under pressure from the slowdown in economic growth in our main trading partner countries. Monetary conditions should have a slightly positive impact on the momentum of investment activity. Growth in the gross operating surplus should, if anything, also stimulate investment, as should the persistent labour shortage and decline in the relative price of capital versus labour costs. In 2021, these factors should be joined by stronger economic growth abroad, which is expected to trigger a slight rise in private investments following their stagnation of 2019 and 2020. However, investment revival in 2021 faces significant external risks (see the section Forecast Risks and Uncertainty). In the case of government investment, we expect capital expenditure financed from national resources to rise in both years. 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

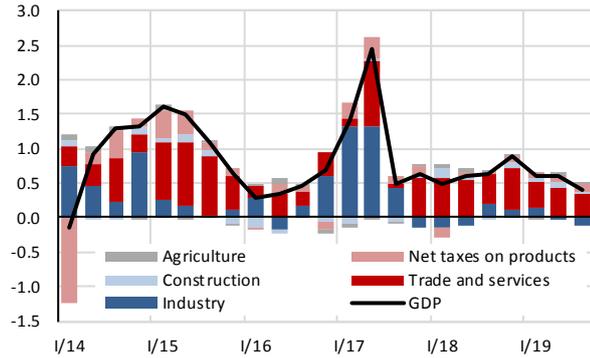
in imports of goods. Overall investments should also be underpinned by the ongoing implementation of projects co-financed by EU funds. Consequently, gross fixed capital formation could grow by 0.9% (*versus 0.7%*) in 2020 and by 2.0% in 2021.

This forecast is based on the technical assumption that there will be no contribution to GDP growth from change in inventories. Gross capital formation should thus grow by 0.9% (*versus 0.7%*) this year and by 1.9% next year.

We forecast that exports of goods and services will grow by 1.1% (*versus 1.6%*) in 2020 and by 2.2% in 2021. Growth of export of goods and services should slow down slightly in 2020 due to the slowing export markets (see section 3.4). The dynamism of exports and import-intensive investment demand will be reflected in lower growth rate of imports of goods and services. As a result, imports are likely to increase by 0.9% (*versus 1.3%*) this year and by 2.0% in 2021.

Graph 3.1.1: Resources of Gross Domestic Product

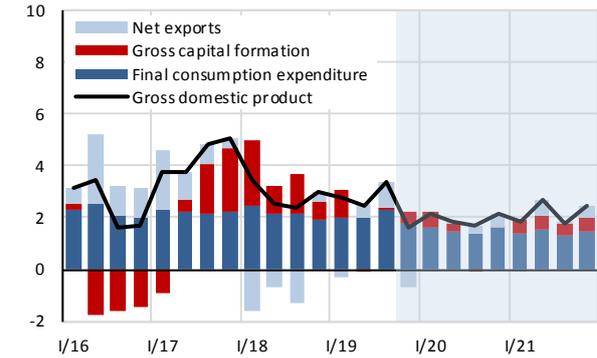
QoQ growth rate of real GDP in %, contrib. in pp, season. adjusted



Source: CZSO. Calculations of the MoF.

Graph 3.1.2: GDP by Type of Expenditure

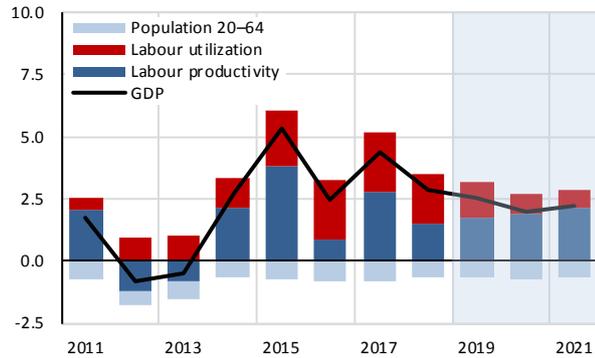
YoY growth rate of real GDP in %, contributions in pp



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.1.3: Real Gross Domestic Product

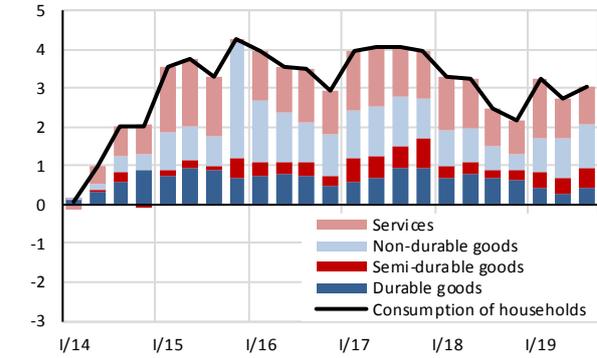
growth in %, contributions in percentage points



Note: Labour 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

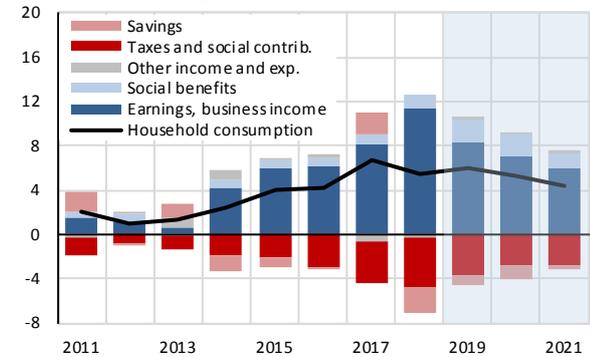
domestic concept, YoY growth rate in %, contributions in pp



Source: CZSO. Calculations of the MoF.

Graph 3.1.5: Nominal Consumption of Households

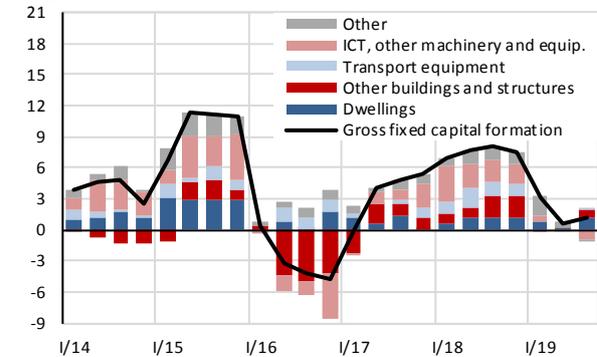
national concept, YoY growth rate in %, contributions in pp



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.1.6: Investment by Type of Expenditure

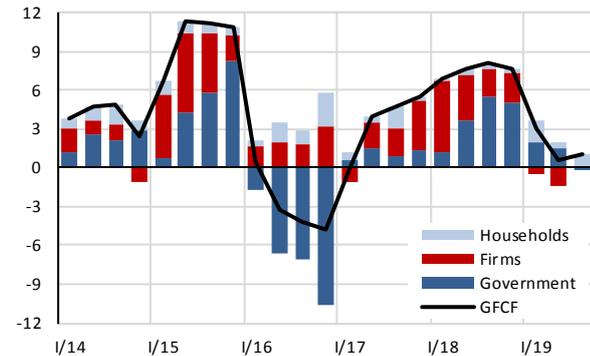
YoY growth rate of real GFCF in %, contributions in pp



Source: CZSO. Calculations of the MoF.

Graph 3.1.7: Investment by Sector

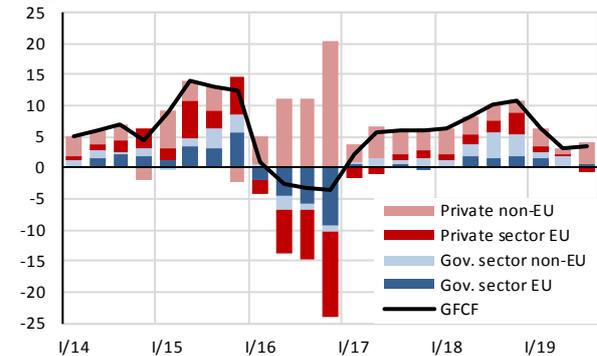
YoY growth rate of real GFCF in %, contributions in percentage points



Source: CZSO. Calculations of the MoF.

Graph 3.1.8: Investment Co-financing from EU Funds

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



Source: CZSO. Calculations of the MoF.

Table 3.1.1: Real GDP by Type of Expenditure – yearly*chained volumes, reference year 2010*

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
							<i>Estimate</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Outlook</i>	<i>Outlook</i>
Gross domestic product	<i>bill. CZK 2010</i>	4 089	4 307	4 412	4 604	4 735	4 855	4 950	5 058	5 162	5 262
	<i>growth in %</i>	2.7	5.3	2.5	4.4	2.8	2.5	2.0	2.2	2.1	1.9
	<i>growth in %¹⁾</i>	2.7	5.4	2.4	4.5	2.8	2.5	2.0	2.1	2.1	2.1
Private consumption expenditure²⁾	<i>bill. CZK 2010</i>	1 966	2 038	2 113	2 202	2 272	2 339	2 396	2 449	2 498	2 546
	<i>growth in %</i>	1.8	3.7	3.6	4.3	3.2	2.9	2.4	2.2	2.0	1.9
Government consumption exp.	<i>bill. CZK 2010</i>	812	827	849	860	890	916	933	951	969	987
	<i>growth in %</i>	1.1	1.9	2.7	1.3	3.4	3.0	1.9	1.9	1.9	1.9
Gross capital formation	<i>bill. CZK 2010</i>	1 083	1 223	1 171	1 217	1 285	1 304	1 315	1 341	1 372	1 421
	<i>growth in %</i>	8.6	13.0	-4.3	4.0	5.6	1.5	0.9	1.9	2.3	3.6
Gross fixed capital formation	<i>bill. CZK 2010</i>	1 056	1 164	1 127	1 169	1 258	1 270	1 281	1 307	1 338	1 387
	<i>growth in %</i>	3.9	10.2	-3.1	3.7	7.6	1.0	0.9	2.0	2.4	3.6
Change in stocks and valuables	<i>bill. CZK 2010</i>	26	59	43	48	27	34	34	34	34	34
Exports of goods and services	<i>bill. CZK 2010</i>	3 242	3 437	3 586	3 828	3 996	4 047	4 093	4 182	4 271	4 347
	<i>growth in %</i>	8.7	6.0	4.3	6.7	4.4	1.3	1.1	2.2	2.1	1.8
Imports of goods and services	<i>bill. CZK 2010</i>	3 008	3 212	3 302	3 498	3 706	3 749	3 784	3 859	3 943	4 037
	<i>growth in %</i>	10.1	6.8	2.8	5.9	5.9	1.2	0.9	2.0	2.2	2.4
Gross domestic expenditure	<i>bill. CZK 2010</i>	3 860	4 087	4 132	4 279	4 446	4 559	4 643	4 739	4 838	4 951
	<i>growth in %</i>	3.4	5.9	1.1	3.5	3.9	2.5	1.9	2.1	2.1	2.3
Methodological discrepancy³⁾	<i>bill. CZK 2010</i>	-4	-7	-5	-5	-3	-3	-3	-4	-5	-2
Real gross domestic income	<i>bill. CZK 2010</i>	4 112	4 344	4 486	4 644	4 777	4 917	5 022	5 140	5 256	5 367
	<i>growth in %</i>	3.9	5.6	3.3	3.5	2.9	2.9	2.1	2.4	2.2	2.1
Contributions to GDP growth⁴⁾											
Gross domestic expenditure	<i>pp</i>	3.2	5.5	1.0	3.3	3.6	2.4	1.7	1.9	1.9	2.2
Consumption	<i>pp</i>	1.1	2.2	2.2	2.2	2.2	2.0	1.5	1.4	1.4	1.3
Household expenditure	<i>pp</i>	0.9	1.8	1.7	2.0	1.5	1.4	1.1	1.1	1.0	0.9
Government expenditure	<i>pp</i>	0.2	0.4	0.5	0.2	0.7	0.6	0.4	0.4	0.4	0.4
Gross capital formation	<i>pp</i>	2.1	3.4	-1.2	1.0	1.4	0.4	0.2	0.5	0.6	0.9
Gross fixed capital formation	<i>pp</i>	1.0	2.6	-0.8	0.9	1.9	0.2	0.2	0.5	0.6	0.9
Change in stocks	<i>pp</i>	1.1	0.8	-0.4	0.1	-0.4	0.1	0.0	0.0	0.0	0.0
Foreign balance	<i>pp</i>	-0.5	-0.2	1.4	1.1	-0.8	0.1	0.2	0.3	0.1	-0.2
External balance of goods	<i>pp</i>	-0.1	-1.1	1.0	0.8	-0.5	0.3	0.2	0.2	0.0	-0.3
External balance of services	<i>pp</i>	-0.4	0.9	0.4	0.3	-0.3	-0.1	0.1	0.1	0.1	0.1
Gross value added	<i>bill. CZK 2010</i>	3 729	3 905	3 999	4 168	4 293	.	.	.	.	.
	<i>growth in %</i>	3.4	4.7	2.4	4.2	3.0	.	.	.	.	.
Net taxes and subsidies on products	<i>bill. CZK 2010</i>	363	402	414	437	443	.	.	.	.	.

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
		<i>Prelim.</i>	<i>Prelim.</i>	<i>Prelim.</i>	<i>Estimate</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>
Gross domestic product	<i>bill. CZK 2010</i>	1 138	1 222	1 242	1 253	1 162	1 244	1 262	1 281
	<i>growth in %</i>	2.8	2.5	3.4	1.6	2.2	1.8	1.7	2.2
	<i>growth in %¹⁾</i>	2.7	2.8	2.5	1.9	1.9	1.8	2.0	2.2
	<i>QoQ in %¹⁾</i>	0.6	0.6	0.4	0.2	0.6	0.6	0.5	0.5
Private consumption expenditure²⁾	<i>bill. CZK 2010</i>	558	585	593	603	573	599	606	618
	<i>growth in %</i>	3.2	3.0	3.3	2.4	2.6	2.3	2.2	2.5
Government consumption exp.	<i>bill. CZK 2010</i>	212	224	226	255	216	228	230	259
	<i>growth in %</i>	2.3	3.1	4.0	2.7	1.9	1.8	1.9	1.8
Gross capital formation	<i>bill. CZK 2010</i>	280	319	366	339	286	324	366	339
	<i>growth in %</i>	4.6	-0.3	0.3	1.9	2.4	1.3	0.0	0.1
Gross fixed capital formation	<i>bill. CZK 2010</i>	280	306	331	352	282	308	335	357
	<i>growth in %</i>	3.1	0.6	1.1	-0.6	0.4	0.7	1.1	1.2
Change in stocks and valuables	<i>bill. CZK 2010</i>	-1	13	35	-14	5	16	31	-17
Exports of goods and services	<i>bill. CZK 2010</i>	1 006	1 031	983	1 026	1 016	1 041	993	1 043
	<i>growth in %</i>	1.4	1.8	3.8	-1.6	0.9	0.9	1.0	1.7
Imports of goods and services	<i>bill. CZK 2010</i>	917	935	925	972	927	944	931	982
	<i>growth in %</i>	1.9	1.2	2.6	-0.8	1.1	0.9	0.7	1.0
Gross domestic expenditure	<i>bill. CZK 2010</i>	1 050	1 128	1 183	1 198	1 075	1 150	1 200	1 218
	<i>growth in %</i>	3.4	2.1	2.5	2.4	2.4	1.9	1.4	1.7
Methodological discrepancy³⁾	<i>bill. CZK 2010</i>	-1	-2	-1	2	-1	-3	-1	2
Real gross domestic income	<i>bill. CZK 2010</i>	1 154	1 237	1 254	1 272	1 180	1 263	1 278	1 302
	<i>growth in %</i>	2.7	2.7	4.0	2.3	2.2	2.1	1.9	2.4
Gross value added	<i>bill. CZK 2010</i>	1 038	1 107	1 124	.	.	.	.	.
	<i>growth in %</i>	2.8	2.4	3.3	.	.	.	.	.
	<i>growth in %¹⁾</i>	2.8	2.7	2.4	.	.	.	.	.
	<i>QoQ in %¹⁾</i>	0.6	0.6	0.3	.	.	.	.	.
Net taxes and subsidies on products	<i>bill. CZK 2010</i>	101	115	118	.	.	.	.	.

¹⁾ From seasonally and working day adjusted data²⁾ Including consumption of non-profit institutions serving households (NPISH).³⁾ Deterministic impact of using prices and structure of the previous year for calculation of y-o-y growth.

Source: CZSO. Calculations and forecast of the MoF.

Table 3.1.3: Nominal GDP by Type of Expenditure – yearly

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
							<i>Estimate</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Outlook</i>	<i>Outlook</i>
Gross domestic product	<i>bill. CZK</i>	4 314	4 596	4 768	5 047	5 324	5 652	5 913	6 168	6 424	6 683
	<i>growth in %</i>	5.3	6.5	3.7	5.9	5.5	6.2	4.6	4.3	4.1	4.0
Private consumption expenditure ¹⁾	<i>bill. CZK</i>	2 074	2 152	2 243	2 393	2 526	2 677	2 818	2 943	3 064	3 183
	<i>growth in %</i>	2.4	3.8	4.2	6.7	5.5	6.0	5.3	4.4	4.1	3.9
Government consumption exp.	<i>bill. CZK</i>	849	883	919	968	1 059	1 148	1 206	1 258	1 313	1 370
	<i>growth in %</i>	2.8	4.0	4.0	5.4	9.4	8.4	5.0	4.3	4.3	4.3
Gross capital formation	<i>bill. CZK</i>	1 116	1 285	1 239	1 306	1 398	1 454	1 493	1 546	1 606	1 690
	<i>growth in %</i>	10.4	15.1	-3.6	5.4	7.1	4.0	2.7	3.5	3.9	5.2
Gross fixed capital formation	<i>bill. CZK</i>	1 084	1 216	1 189	1 250	1 364	1 411	1 450	1 503	1 563	1 647
	<i>growth in %</i>	5.5	12.2	-2.3	5.2	9.1	3.5	2.7	3.7	4.0	5.3
Change in stocks and valuables	<i>bill. CZK</i>	32	68	50	56	35	43	43	43	43	43
External balance	<i>bill. CZK</i>	275	276	368	380	340	373	395	421	442	441
Exports of goods and services	<i>bill. CZK</i>	3 561	3 725	3 793	4 024	4 177	4 273	4 312	4 396	4 498	4 600
	<i>growth in %</i>	13.0	4.6	1.8	6.1	3.8	2.3	0.9	2.0	2.3	2.3
Imports of goods and services	<i>bill. CZK</i>	3 286	3 449	3 425	3 644	3 837	3 900	3 916	3 975	4 057	4 160
	<i>growth in %</i>	12.8	5.0	-0.7	6.4	5.3	1.7	0.4	1.5	2.0	2.5
Gross national income	<i>bill. CZK</i>	4 023	4 286	4 459	4 737	5 032	5 379	5 632	5 867	6 107	6 350
	<i>growth in %</i>	4.4	6.5	4.0	6.2	6.2	6.9	4.7	4.2	4.1	4.0
Primary income balance	<i>bill. CZK</i>	-291	-310	-309	-310	-292	-273	-281	-301	-317	-333

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
		<i>Prelim.</i>	<i>Prelim.</i>	<i>Prelim.</i>	<i>Estimate</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>
Gross domestic product	<i>bill. CZK</i>	1 306	1 415	1 448	1 484	1 370	1 482	1 509	1 552
	<i>growth in %</i>	6.3	6.2	7.1	5.2	4.9	4.7	4.2	4.6
Private consumption expenditure ¹⁾	<i>bill. CZK</i>	630	667	683	697	666	704	716	732
	<i>growth in %</i>	6.2	6.0	6.3	5.5	5.7	5.4	4.9	5.0
Government consumption exp.	<i>bill. CZK</i>	257	277	284	330	270	292	298	346
	<i>growth in %</i>	7.7	9.3	9.4	7.5	5.2	5.2	4.9	4.7
Gross capital formation	<i>bill. CZK</i>	309	355	409	381	322	366	416	389
	<i>growth in %</i>	7.9	2.3	2.7	3.9	4.2	3.1	1.8	2.0
Gross fixed capital formation	<i>bill. CZK</i>	309	338	369	395	316	347	380	407
	<i>growth in %</i>	6.2	3.3	3.6	1.6	2.4	2.7	3.0	2.9
Change in stocks and valuables	<i>bill. CZK</i>	1	16	40	-14	6	18	36	-18
External balance	<i>bill. CZK</i>	110	116	72	75	111	121	79	85
Exports of goods and services	<i>bill. CZK</i>	1 064	1 093	1 039	1 077	1 073	1 100	1 047	1 092
	<i>growth in %</i>	4.0	3.5	4.4	-2.4	0.8	0.7	0.7	1.4
Imports of goods and services	<i>bill. CZK</i>	954	977	967	1 002	962	980	968	1 007
	<i>growth in %</i>	4.6	2.6	2.4	-2.5	0.8	0.3	0.1	0.5

¹⁾ Including consumption of non-profit institutions serving households (NPISH).

Source: CZSO. Calculations and forecast of the MoF.

Table 3.1.5: GDP by Type of Income – yearly

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
							<i>Estimate</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Outlook</i>	<i>Outlook</i>
GDP	<i>bill. CZK</i>	4 314	4 596	4 768	5 047	5 324	5 652	5 913	6 168	6 424	6 683
	<i>growth in %</i>	5.3	6.5	3.7	5.9	5.5	6.2	4.6	4.3	4.1	4.0
Balance of taxes and subsidies	<i>bill. CZK</i>	381	434	454	495	514	532	555	574	595	614
	<i>% of GDP</i>	8.8	9.4	9.5	9.8	9.7	9.4	9.4	9.3	9.3	9.2
	<i>growth in %</i>	-5.1	13.8	4.7	9.0	3.7	3.5	4.3	3.5	3.6	3.2
Taxes on production and imports	<i>bill. CZK</i>	518	571	595	637	666	.	.	.	.	.
	<i>growth in %</i>	-1.8	10.1	4.3	7.0	4.5	.	.	.	.	.
Subsidies on production	<i>bill. CZK</i>	137	137	141	142	152	.	.	.	.	.
	<i>growth in %</i>	8.5	-0.1	3.3	0.4	7.2	.	.	.	.	.
Compensation of employees <i>(domestic concept)</i>	<i>bill. CZK</i>	1 735	1 821	1 928	2 089	2 291	2 457	2 607	2 743	2 872	2 991
	<i>% of GDP</i>	40.2	39.6	40.4	41.4	43.0	43.5	44.1	44.5	44.7	44.8
	<i>growth in %</i>	3.5	5.0	5.9	8.4	9.7	7.2	6.1	5.2	4.7	4.1
Wages and salaries	<i>bill. CZK</i>	1 321	1 384	1 464	1 585	1 735	1 861	1 974	2 077	2 175	2 265
	<i>growth in %</i>	3.6	4.8	5.7	8.3	9.5	7.2	6.1	5.2	4.7	4.1
Social security contributions	<i>bill. CZK</i>	414	437	464	504	556	596	633	666	697	726
	<i>growth in %</i>	3.1	5.5	6.4	8.6	10.2	7.2	6.1	5.2	4.7	4.1
Gross operating surplus	<i>bill. CZK</i>	2 198	2 341	2 386	2 463	2 519	2 663	2 751	2 851	2 957	3 078
	<i>% of GDP</i>	50.9	50.9	50.0	48.8	47.3	47.1	46.5	46.2	46.0	46.1
	<i>growth in %</i>	8.8	6.5	1.9	3.2	2.3	5.8	3.3	3.6	3.7	4.1
Consumption of capital	<i>bill. CZK</i>	939	969	998	1 026	1 066	1 122	1 171	1 216	1 260	1 300
	<i>growth in %</i>	3.6	3.2	3.0	2.9	3.9	5.2	4.4	3.9	3.7	3.1
Net operating surplus	<i>bill. CZK</i>	1 259	1 372	1 388	1 436	1 453	1 542	1 580	1 635	1 697	1 778
	<i>growth in %</i>	13.0	9.0	1.2	3.5	1.1	6.1	2.5	3.5	3.8	4.8

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	Q2	Q3	Q4
		<i>Prelim.</i>	<i>Prelim.</i>	<i>Prelim.</i>	<i>Estimate</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>
GDP	<i>bill. CZK</i>	1 306	1 415	1 448	1 484	1 370	1 482	1 509	1 552
	<i>growth in %</i>	6.3	6.2	7.1	5.2	4.9	4.7	4.2	4.6
Balance of taxes and subsidies	<i>bill. CZK</i>	110	139	146	136	113	145	153	143
	<i>growth in %</i>	1.9	5.2	4.9	1.7	3.2	4.1	4.4	5.2
Compensation of employees <i>(domestic concept)</i>	<i>bill. CZK</i>	588	614	606	649	626	654	642	686
	<i>growth in %</i>	8.0	7.6	6.8	6.6	6.4	6.4	5.9	5.7
	Wages and salaries	<i>bill. CZK</i>	444	464	460	492	472	494	488	521
<i>growth in %</i>		7.9	7.6	6.9	6.6	6.4	6.4	5.9	5.7
Social security contributions	<i>bill. CZK</i>	144	150	145	156	153	160	154	165
	<i>growth in %</i>	8.1	7.9	6.4	6.6	6.4	6.4	5.9	5.7
Gross operating surplus	<i>bill. CZK</i>	608	661	695	698	630	683	714	723
	<i>growth in %</i>	5.5	5.1	7.9	4.6	3.6	3.3	2.7	3.5

Source: CZSO. Calculations and forecast of the MoF.

3.2 Prices

The **average inflation rate in 2019** was 2.8% (*as predicted*). Supply and demand factors alike contributed to inflation. Very low unemployment and record-high number of vacancies boosted wage growth, which resulted in higher unit labour costs. These were the dominant cost factor behind inflation. Demand-pull inflation was fuelled by growing household consumption against the backdrop of a positive output gap. Within individual divisions of the consumer basket there was a significant price increase in housing, which contributed 1.4 pp to the average inflation rate. Administrative measures played an even greater role last year than they did in 2018, contributing 0.6 pp.

In 2019 the year-on-year inflation was generally in the upper half of the tolerance band around the 2% CNB inflation target, but then broke through this at the end of the year and came to 3.2% (*versus 2.9%*) in December. The actual result's deviation from the forecast can be attributed to accelerating food prices. Administrative measures contributed 0.8 pp to the year-on-year inflation in December, of which 0.6 pp came from electricity prices.

In price-determining areas, the assumptions of the current macroeconomic forecast are not that different from those used for the previous forecast. Nevertheless, the inflation forecast reflects, to some degree, higher projected oil price than in the November forecast. The revision of the forecast is also affected by the aforementioned deviation of actual and projected inflation in December 2019.

In 2020, we expect to see the same average inflation rate as last year, together with the same contribution from administrative measures. Consumer prices will be affected by the following changes in indirect taxes (see also section 1.5):

- the reclassification of selected services and commodities³ under the second reduced value added tax rate in connection with the expansion of electronic registration of sales, effective as of 1 May 2020;
- the reclassification of heat under the second reduced value added tax rate, effective as of 1 January 2020;
- an increase in excise duty applied to tobacco products and alcohol, effective as of 1 January 2020.

The aggregate technical impact of these measures on the average inflation rate should be 0.2 pp. However, we assume that the real impact will be 0.4 pp as prices tend to be inflexible downwards (the above-mentioned value added tax reduction will not be fully reflected in prices

³ Services with a high share of labour, water supply and sewerage charges, catering services, the serving of beverages, and the lending and hire of printed materials.

for the final consumer). The rise in regulated prices should slow down in 2020. We expect administrative measures to contribute 0.6 pp (*unchanged*) to the average inflation rate. This year, inflation should therefore be driven primarily by market factors.

We still expect to see extensive pro-inflationary effects of the robust rise in unit labour costs, combined with inflationary pressures stemming from rising household consumption against the backdrop of a positive output gap. The oil price and exchange rate trends should have an almost neutral effect.

In the first half of 2020, the year-on-year inflation will probably hover around the upper bound of the inflation target's tolerance band, but could slow down in the second half of the year. In 2020, the **inflation rate** should **average 2.8%** (*versus 2.6%*).

In 2021, the growth of unit labour costs and, very slightly, household consumption should slow down. The positive output gap is likely to narrow significantly, and current projections indicate that the price of oil should dip. Demand-pull and supply-side inflationary pressures are therefore likely to be a little weaker than in 2020. Exchange rate developments should have little impact on inflation.

The rise in regulated prices should slow down a little 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 forecast that the **average inflation rate in 2021** will slow down to 2.2%.

In Q3 2019, **GDP deflator** increased by 3.6% (*versus 3.2%*), with gross domestic expenditure deflator growing by 3.2% (*versus 3.1%*) and terms of trade improving by 0.9% (*versus 0.5%*). Developments of the gross domestic expenditure deflator reflected the growth of deflators of general government and household consumption and gross fixed capital formation.

In 2020, the GDP deflator should increase by 2.6% (*versus 2.4%*), and in 2021 its growth could slow to 2.1%. The contribution by the terms of trade should be moderately positive and almost the same in both years. The changes projected in the momentum of the GDP deflator thus derive from trends in the gross domestic expenditure deflator, where the slowdown in 2021 will be fuelled primarily by the household consumption deflator, but also – to a lesser extent – by the general government consumption and gross capital deflators (see graph 3.2.4).

The forecast appreciation of the koruna and the oil price momentum should affect the developments expected in both export and import prices. As a result, terms of trade could improve by 0.3% in both 2020 and 2021 (*unchanged*).

Graph 3.2.1: Consumer Prices

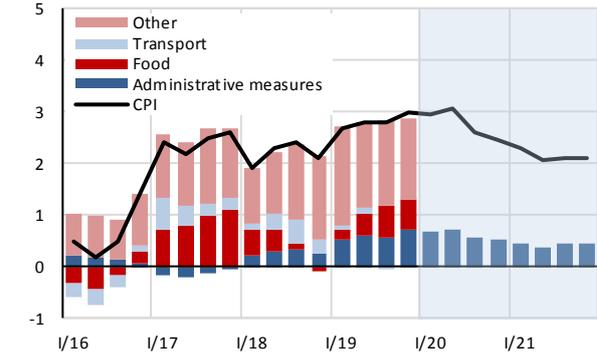
YoY growth rate in %



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

Graph 3.2.2: Consumer Prices in Main Divisions

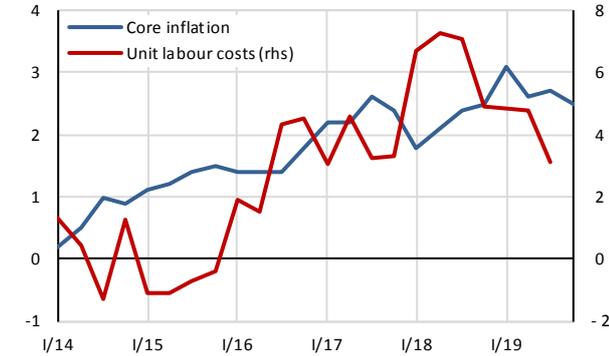
YoY growth of consumer price index in %, contributions in pp



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.3: Core Inflation and Unit Labour Costs

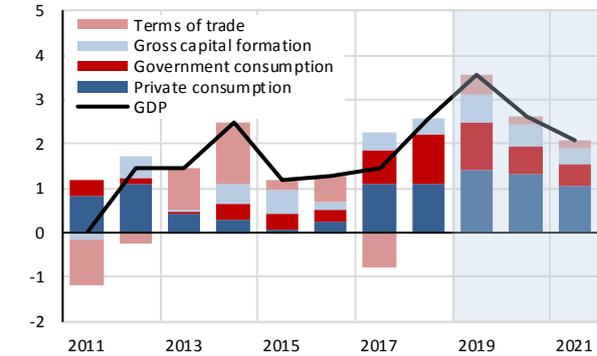
YoY growth rate in %



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.4: Gross Domestic Product Deflator

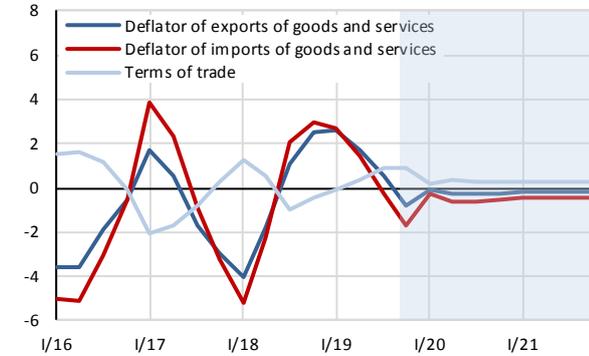
growth rate in %, contributions in percentage points



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.5: Terms of Trade

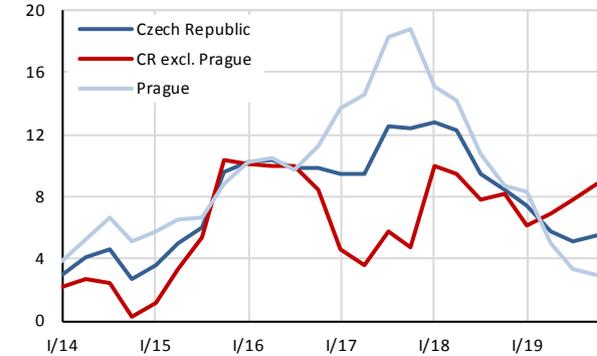
YoY growth rate in %



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.2.6: Offering Prices of Flats

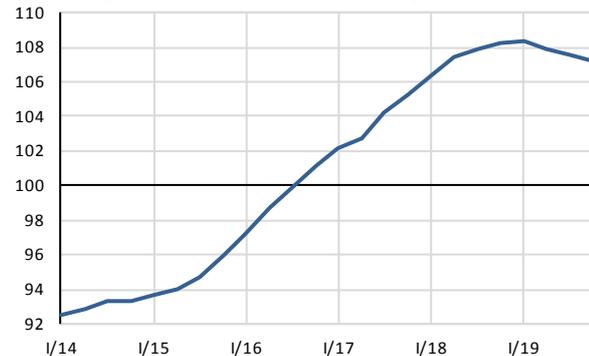
YoY growth rate in %



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, Q4 2019 wage estimate of the MoF



Source: CZSO. Calculations and forecast of the MoF.

Table 3.2.1: Prices – yearly

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
							<i>Estimate</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Outlook</i>	<i>Outlook</i>
Consumer Price Index											
Level	<i>average 2015=100</i>	99.7	100.0	100.7	103.1	105.3	108.3	111.4	113.8	116.1	118.4
Average inflation rate	%	0.4	0.3	0.7	2.5	2.1	2.8	2.8	2.2	2.0	2.0
Administrative measures ¹⁾	<i>percentage points</i>	-0.4	0.2	0.2	-0.1	0.3	0.6	0.6	0.4	0.5	0.5
Market increase	<i>percentage points</i>	0.8	0.1	0.5	2.6	1.8	2.2	2.1	1.7	1.6	1.5
Level in December	<i>average 2015=100</i>	99.5	99.5	101.5	103.9	106.0	109.4	112.1	114.4	116.7	119.0
Annual inflation in December	%	0.1	0.1	2.0	2.4	2.0	3.2	2.4	2.1	2.0	2.0
Harmonized index of consumer prices											
Level	<i>average 2015=100</i>	99.8	100.0	100.7	103.1	105.1	107.8	110.8	113.1	115.3	117.5
Average inflation rate	<i>growth in %</i>	0.4	0.3	0.6	2.4	2.0	2.6	2.7	2.1	2.0	1.9
Deflators											
GDP	<i>average 2010=100</i>	105.5	106.7	108.1	109.6	112.4	116.4	119.5	121.9	124.4	127.0
	<i>growth in %</i>	2.5	1.2	1.3	1.4	2.6	3.6	2.6	2.1	2.1	2.1
Domestic final use	<i>average 2010=100</i>	104.6	105.7	106.5	109.1	112.1	115.8	118.8	121.3	123.7	126.1
	<i>growth in %</i>	1.1	1.0	0.7	2.4	2.8	3.3	2.6	2.1	2.0	2.0
Consumption of households	<i>average 2010=100</i>	105.5	105.6	106.2	108.7	111.1	114.4	117.7	120.2	122.6	125.1
	<i>growth in %</i>	0.6	0.1	0.5	2.4	2.3	3.0	2.8	2.2	2.0	2.0
Consumption of government	<i>average 2010=100</i>	104.6	106.7	108.1	112.6	119.1	125.3	129.2	132.3	135.5	138.8
	<i>growth in %</i>	1.7	2.0	1.3	4.1	5.8	5.2	3.1	2.4	2.4	2.4
Fixed capital formation	<i>average 2010=100</i>	102.7	104.5	105.4	106.9	108.4	111.1	113.2	115.0	116.8	118.8
	<i>growth in %</i>	1.6	1.8	0.9	1.4	1.4	2.5	1.9	1.6	1.6	1.7
Exports of goods and services	<i>average 2010=100</i>	109.8	108.4	105.8	105.1	104.5	105.6	105.4	105.1	105.3	105.8
	<i>growth in %</i>	4.0	-1.3	-2.4	-0.6	-0.6	1.0	-0.2	-0.2	0.2	0.5
Imports of goods and services	<i>average 2010=100</i>	109.2	107.4	103.7	104.2	103.5	104.0	103.5	103.0	102.9	103.0
	<i>growth in %</i>	2.5	-1.7	-3.4	0.4	-0.6	0.5	-0.5	-0.5	-0.1	0.2
Terms of trade	<i>average 2010=100</i>	100.5	100.9	102.0	100.9	101.0	101.5	101.8	102.1	102.4	102.7
	<i>growth in %</i>	1.5	0.4	1.0	-1.0	0.0	0.5	0.3	0.3	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	Q2	Q3	Q4
					<i>Estimate</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>
Consumer Price Index	<i>average 2015=100</i>	107.3	108.1	108.8	109.2	110.5	111.4	111.6	111.9
	<i>growth in %</i>	2.7	2.8	2.8	3.0	3.0	3.1	2.6	2.5
Of which the contribution of:									
Administrative measures ¹⁾	<i>percentage points</i>	0.5	0.6	0.6	0.7	0.7	0.7	0.6	0.5
Market increase	<i>percentage points</i>	2.2	2.2	2.2	2.3	2.3	2.3	2.0	1.9
Harmonized index of consumer prices	<i>average 2015=100</i>	106.8	107.6	108.3	108.6	109.8	110.8	111.1	111.3
	<i>growth in %</i>	2.3	2.4	2.6	2.9	2.9	3.0	2.6	2.5
Deflators									
GDP	<i>average 2010=100</i>	114.8	115.8	116.6	118.4	117.9	119.0	119.5	121.2
	<i>growth in %</i>	3.4	3.6	3.6	3.5	2.6	2.8	2.5	2.4
Domestic final use	<i>average 2010=100</i>	113.9	115.2	116.3	117.6	117.1	118.4	119.2	120.4
	<i>growth in %</i>	3.5	3.5	3.2	3.1	2.7	2.8	2.5	2.4
Consumption of households	<i>average 2010=100</i>	112.9	114.0	115.2	115.5	116.3	117.5	118.3	118.4
	<i>growth in %</i>	2.9	3.0	2.9	3.1	3.0	3.1	2.6	2.5
Consumption of government	<i>average 2010=100</i>	121.3	124.0	125.4	129.7	125.2	128.1	129.1	133.5
	<i>growth in %</i>	5.3	6.0	5.2	4.6	3.2	3.3	3.0	2.9
Fixed capital formation	<i>average 2010=100</i>	110.0	110.6	111.4	112.2	112.2	112.7	113.5	114.1
	<i>growth in %</i>	3.0	2.6	2.5	2.1	2.0	1.9	1.8	1.7
Exports of goods and services	<i>average 2010=100</i>	105.8	106.0	105.7	104.9	105.6	105.7	105.4	104.7
	<i>growth in %</i>	2.6	1.7	0.6	-0.8	-0.1	-0.2	-0.3	-0.2
Imports of goods and services	<i>average 2010=100</i>	104.0	104.5	104.5	103.1	103.7	103.9	103.9	102.6
	<i>growth in %</i>	2.7	1.4	-0.3	-1.7	-0.3	-0.6	-0.6	-0.5
Terms of trade	<i>average 2010=100</i>	101.7	101.4	101.1	101.8	101.8	101.8	101.4	102.1
	<i>growth in %</i>	-0.1	0.3	0.9	0.9	0.2	0.4	0.3	0.3

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

3.3 Labour Market

The labour market has been exhibiting signs of overheating for several years and in many respects it is reaching its limits. Employment growth is showing a tendency to slow down and has virtually come to a standstill in the Labour Force Survey methodology. While the internationally comparable unemployment rate has evidently bottomed out and stands at around 2%, registered unemployment continues to fall moderately year on year. The number of vacancies has hovered around 340,000 in recent months, with no discernible signs of a reduction. The ongoing robust increases in wages and salaries echo this situation.

According to the Labour Force Survey, **employment** grew by just 0.1% YoY (*versus 0.4%*) in Q3 2019. The number of employees went up by 0.3% (*versus 0.6%*), but the number of entrepreneurs dipped by 0.6% (*as forecast*). While the number of entrepreneurs without employees grew by 0.2%, the decline in the number of entrepreneurs with employees was a pronounced 4.8%. Broken down by age structure, the growth in overall employment was driven by the 45–49 and 55–59 brackets; by contrast, women in the 30–39 bracket made the most negative contribution. This could be explained, in part, by the anticipated hike in the parental allowance. We expect this legislative change to have a moderately negative impact on the dynamics of overall employment also in this year.

From the sectoral perspective, the biggest contributors to the growth of number of employees (business statistics, full-time equivalent) in absolute terms were education, wholesale and retail, and human health and social work activities. Conversely, there was a significant decrease in manufacturing (by 16,000, or 1.4%) and in administrative and support service activities (3.3%). This sector includes agency workers, many of whom probably actually work in industry.

A scarcity of labour has long been evident in virtually all sectors of the economy and in almost all regions (in December 2019, the number of vacancies surpassed the number of unemployed in ten regions and 49 districts). This factor is a major hurdle to economic growth. The labour shortage was singled out as the main barrier to production growth by almost a third of industrial enterprises and a nearly half of construction companies in Q4 2019.

Considering how extremely low unemployment is, further increases in employment via this channel are virtually impossible. Consequently, companies and institutions often resolve this shortage by recruiting employees who would otherwise be economically inactive. The hiring of foreign workers from the EU and non-EU countries, especially from Ukraine, continues. In the medium and long term, the current labour market situation is paving the way for advances in automation and robotiza-

tion and the economy's focus on less labour-intensive sectors with higher value added.

In response to lower growth in Q3 2019, we are reducing our estimate of employment growth in 2019 to 0.2% (*versus 0.3%*). This year, in the wake of the aforementioned adjustment to the parental allowance, we predict a slight drop in employment by 0.1% (*versus 0.2% growth*). Developments in the private sector should also be reflected negatively in this year's employment momentum. Employment in the general government sector, by contrast, should increase (particularly in education and armed forces). In 2021, employment should stagnate.

In Q3 2019, the **unemployment rate** (Labour Force Survey) was 2.1% (*as forecast*). Based on the development of the seasonally adjusted unemployment rate (15–64 years) in October and November 2019, we estimate that the unemployment rate was 2.2% (*versus 2.1%*) in Q4 and 2.0% in 2019 as a whole (*unchanged*). Growth in labour demand should weaken as the economy slows down, and also as a result of previous investments to increase productivity. Consequently, the unemployment rate should gradually nudge up to an average of 2.2% in 2020 (*unchanged*) and 2.4% in 2021. A more significant rise in unemployment should be prevented, even if the economy takes a turn for the worse, by the extremely high number of vacancies and the significant number of foreign nationals who may be laid off first. Within the timeframe covered by our outlook, we expect unemployment to remain very low; it will move towards its equilibrium value at a snail's pace.

The year-on-year decline in the **share of unemployed persons** (Ministry of Labour and Social Affairs) is continuing to slow down. It is falling almost only in regions with the highest unemployment. However, we still assume that there is – very limited – room for a further reduction in the share of unemployed persons. This can be explained, for example, by the fact that some job-seekers are engaging in non-colliding part-time employment (i.e. they still qualify as registered unemployed), which means they are probably capable of deregistration and taking on a full-time job. Another crucial factor is that some people have had enforcement writs issued against them and/or are working in the informal economy, but may be motivated to find an official job by the continuing robust wage growth and the very wide range of vacancies on offer. The share of unemployed persons in 2019 as a whole was 2.8% (*as predicted*). In 2020, it could go down a notch to 2.7% (*versus 2.6%*), and should remain at this level in 2021.

The **participation rate** (20–64 years) rose only slightly in Q3 2019 by 0.2 pp to 82.1% (*versus 82.4%*), in connection with lower employment growth.

The main role in further – albeit slower – increases in 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. We estimate the participation rate to average 82.0% (*versus* 82.1%) in 2019, rising to 82.5% (*versus* 82.7%) in 2020 on account of the factors explained above. In 2021, we forecast a further increase to 83.1%.

The growth in **wages and salaries** (national accounts, domestic concept) slowed down to 6.9% (*versus* 7.1%) in Q3 2019. A double-digit growth was achieved in the real estate sector (11.3%) and in the significant sector of public administration, defence, education, and health care (10.1%). Conversely, the problematic situation in manufacturing was reflected in wage growth, which slowed to 4.5%, with the number of employees virtually stagnating year on year.

Developments of cash receipts from social security contributions and the slackening average wage momentum in industrial sectors indicate that we are in store for a further slowdown in the growth of wages and salaries. We estimate that it may have decreased to 6.6% (*versus* 7.0%) in Q4 2019 and to 7.2% in 2019 as a whole (*versus* 7.4%).

Although the tense situation on the labour market should be alleviated somewhat this year, the shortage of

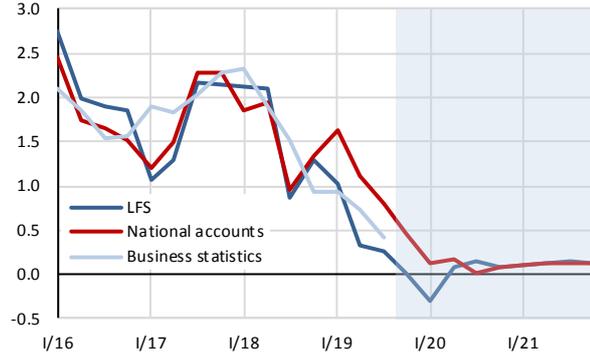
workers – manifested in the still high number of vacancies – should continue to boost wage dynamism. Another major factor is the latest increase in the minimum and guaranteed wage (by 9.4%) as of 1 January this year, which is higher than previously anticipated (5.7% *growth*). The rise in the volume of wages and salaries will also be fuelled by the higher than expected hike in pay in the health sector, made possible by drawing on health insurance companies' balances. In contrast, wage developments in market sectors lag a little behind our expectations. Overall, therefore, we expect the growth in the volume of wages and salaries to slow down to 6.1% (*versus* 5.9%) in 2020.

The projected slowdown in the demand for labour, accompanied by higher unemployment rate, could lower the momentum of wages and salaries more considerably in 2021, taking the figure down to as low as 5.2%.

In Q3 2019, the **average wage** (in business, FTE) grew by 6.9% (*as estimated*). The increase in the minimum and guaranteed wage prompted a major hike in wages in professions with low and middle earnings. The median wage rose by 6.7% in Q3. There may have been an increase in the average nominal wage by 6.7% (*versus* 6.8%) in Q4 2019 and by 7.0% (*versus* 7.1%) in 2019 as a whole. In the light of the factors mentioned above, the growth rate of average wages could slow down to 6.0% (*versus* 5.7%) this year, and to 5.1% in 2021.

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

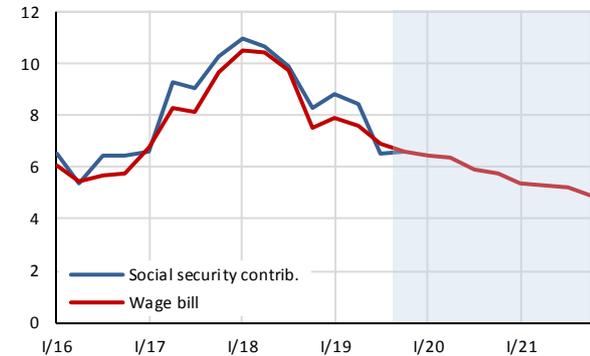
seasonally adjusted data, in%



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

Graph 3.3.3: Collection of Social Security Contributions and Earnings

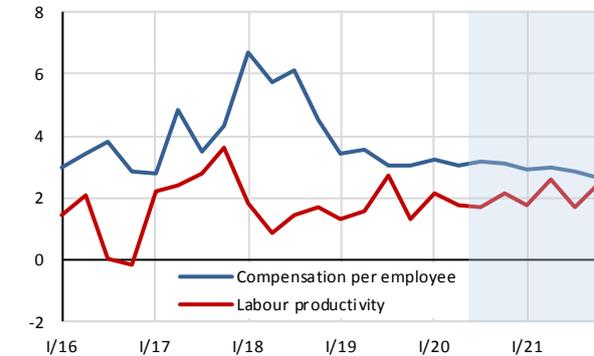
YoY growth rate in%



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

Graph 3.3.4: Compensation per Employee and Real Productivity of Labour

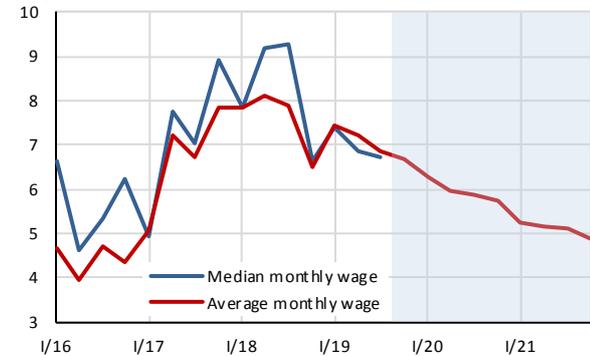
YoY growth rate in%



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.5: Nominal Monthly Wage

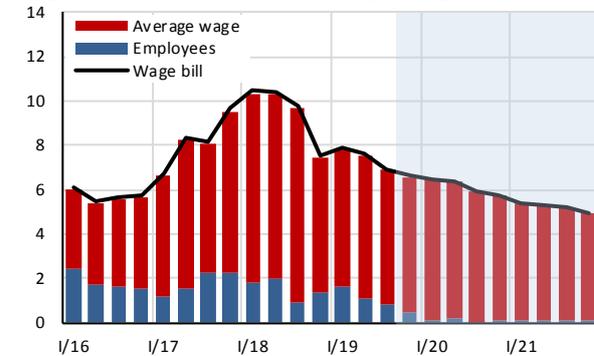
YoY growth rate in%



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.3.6: Nominal Wage Bill

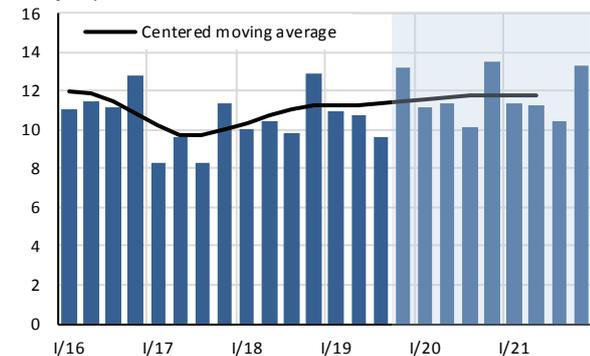
YoY growth rate in %, domestic concept of the wage bill



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	2021	2022	2023
							<i>Estimate</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Outlook</i>	<i>Outlook</i>
Labour Force Survey											
Employment	<i>av. in thous.persons</i>	4 974	5 042	5 139	5 222	5 294	5 306	5 302	5 305	5 305	5 304
	<i>growth in %</i>	0.8	1.4	1.9	1.6	1.4	0.2	-0.1	0.0	0.0	0.0
Employees	<i>av. in thous.persons</i>	4 079	4 168	4 257	4 327	4 396	4 414	4 414	4 420	4 423	4 422
	<i>growth in %</i>	0.6	2.2	2.1	1.7	1.6	0.4	0.0	0.1	0.1	0.0
Entrepreneurs and self-employed	<i>av. in thous.persons</i>	895	874	882	894	897	892	888	885	883	881
	<i>growth in %</i>	1.5	-2.4	1.0	1.4	0.4	-0.6	-0.5	-0.3	-0.2	-0.2
Unemployment	<i>av. in thous.persons</i>	324	268	211	156	122	111	121	130	136	139
Unemployment rate	<i>average in %</i>	6.1	5.1	4.0	2.9	2.2	2.0	2.2	2.4	2.5	2.5
Long-term unemployment¹⁾	<i>av. in thous.persons</i>	141	127	89	54	48	.	.	.	.	.
Labour force	<i>av. in thous.persons</i>	5 298	5 310	5 350	5 377	5 415	5 417	5 423	5 434	5 442	5 442
	<i>growth in %</i>	-0.2	0.2	0.8	0.5	0.7	0.0	0.1	0.2	0.1	0.0
Population aged 20–64	<i>av. in thous.persons</i>	6 610	6 566	6 510	6 456	6 414	6 382	6 338	6 297	6 262	6 236
	<i>growth in %</i>	-0.7	-0.7	-0.9	-0.8	-0.7	-0.5	-0.7	-0.6	-0.6	-0.4
Employment/Pop. 20–64	<i>average in %</i>	75.3	76.8	78.9	80.9	82.5	83.2	83.7	84.2	84.7	85.0
Employment rate 20–64²⁾	<i>average in %</i>	73.6	74.8	76.7	78.5	79.9	80.3	80.7	81.2	81.7	81.8
Labour force/Pop. 20–64	<i>average in %</i>	80.1	80.9	82.2	83.3	84.4	84.9	85.6	86.3	86.9	87.3
Participation rate 20–64³⁾	<i>average in %</i>	78.2	78.7	79.9	80.9	81.7	82.0	82.5	83.1	83.6	83.7
Participation rate 15–64³⁾	<i>average in %</i>	73.5	74.0	75.0	75.9	76.6	76.9	77.2	77.6	77.8	77.7
Registered unemployment											
Unemployment	<i>av. in thous.persons</i>	561	479	406	318	242	212	205	206	209	211
Share of unemployed⁴⁾	<i>average in %</i>	7.7	6.6	5.6	4.3	3.2	2.8	2.7	2.7	2.8	2.8
Wages and salaries											
Average monthly wage⁵⁾											
Nominal	<i>CZK monthly</i>	25 768	26 591	27 764	29 638	31 868	34 103	36 133	37 977	39 753	41 444
	<i>growth in %</i>	2.9	3.2	4.4	6.7	7.5	7.0	6.0	5.1	4.7	4.3
Real	<i>CZK 2010</i>	24 036	24 730	25 641	26 735	28 146	29 285	30 178	31 049	31 855	32 567
	<i>growth in %</i>	2.5	2.9	3.7	4.3	5.3	4.0	3.1	2.9	2.6	2.2
Median monthly wage	<i>CZK monthly</i>	21 786	22 414	23 692	25 398	27 477	.	.	.	.	.
	<i>growth in %</i>	3.2	2.9	5.7	7.2	8.2	.	.	.	.	.
Wage bill	<i>growth in %</i>	3.6	4.8	5.7	8.3	9.5	7.2	6.1	5.2	4.7	4.1
Labour productivity	<i>growth in %</i>	2.2	3.8	0.8	2.8	1.5	1.7	1.9	2.1	2.1	2.1
Unit labour costs⁶⁾	<i>growth in %</i>	0.4	-0.8	3.1	3.6	6.5	4.4	4.0	2.9	2.6	2.1
Compens. of employees / GDP	<i>%</i>	40.2	39.6	40.4	41.4	43.0	43.5	44.1	44.5	44.7	44.8

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				2020			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
		Estimate				Forecast			
Labour Force Survey									
Employment	<i>av. in thous. persons</i>	5 306	5 296	5 308	5 317	5 284	5 296	5 311	5 317
	<i>YoY growth in %</i>	0.9	0.1	0.1	-0.2	-0.4	0.0	0.1	0.0
	<i>QoQ growth in %</i>	0.2	-0.4	-0.1	0.1	0.0	0.0	0.0	0.0
Employees	<i>av. in thous. persons</i>	4 411	4 403	4 410	4 432	4 398	4 407	4 416	4 435
	<i>growth in %</i>	1.0	0.3	0.3	0.0	-0.3	0.1	0.1	0.1
Entrepreneurs and self-employed	<i>av. in thous. persons</i>	894	893	898	885	886	889	895	881
	<i>growth in %</i>	0.3	-0.8	-0.6	-1.2	-0.9	-0.4	-0.3	-0.4
Unemployment	<i>av. in thous. persons</i>	110	102	115	117	122	117	123	122
Unemployment rate	<i>average in %</i>	2.0	1.9	2.1	2.2	2.2	2.2	2.3	2.2
Long-term unemployment ¹⁾	<i>av. in thous. persons</i>	36	33	31	.	.	.	.	.
Labour force	<i>av. in thous. persons</i>	5 415	5 398	5 423	5 434	5 406	5 413	5 435	5 439
	<i>growth in %</i>	0.5	-0.2	-0.1	-0.1	-0.2	0.3	0.2	0.1
Population aged 20–64	<i>av. in thous. persons</i>	6 403	6 384	6 376	6 364	6 353	6 343	6 332	6 322
	<i>growth in %</i>	-0.4	-0.5	-0.5	-0.5	-0.8	-0.6	-0.7	-0.7
Employment/Pop. 20–64	<i>average in %</i>	82.9	83.0	83.2	83.5	83.2	83.5	83.9	84.1
	<i>increase over a year</i>	1.1	0.5	0.5	0.3	0.3	0.5	0.6	0.6
Employment rate 20–64 ²⁾	<i>average in %</i>	80.1	80.1	80.4	80.6	80.3	80.5	80.9	81.1
	<i>increase over a year</i>	0.9	0.3	0.4	0.1	0.2	0.4	0.5	0.4
Labour force/Pop. 20–64	<i>average in %</i>	84.6	84.6	85.1	85.4	85.1	85.3	85.8	86.0
	<i>increase over a year</i>	0.8	0.3	0.3	0.4	0.5	0.8	0.8	0.6
Participation rate 20–64 ³⁾	<i>average in %</i>	81.8	81.7	82.1	82.4	82.1	82.3	82.7	82.9
	<i>increase over a year</i>	0.7	0.1	0.2	0.3	0.3	0.6	0.6	0.5
Participation rate 15–64 ³⁾	<i>average in %</i>	76.6	76.5	76.9	77.1	76.7	76.9	77.3	77.4
	<i>increase over a year</i>	0.6	0.1	0.1	0.1	0.1	0.4	0.3	0.3
Registered unemployment									
Unemployment	<i>av. in thous. persons</i>	239	207	203	201	224	198	199	199
Share of unemployed ⁴⁾	<i>average in %</i>	3.2	2.7	2.7	2.6	3.0	2.6	2.6	2.7
Wages and salaries									
Average monthly wage ⁵⁾									
Nominal	<i>CZK monthly</i>	32 479	34 105	33 697	36 129	34 515	36 141	35 682	38 195
	<i>growth in %</i>	7.4	7.2	6.9	6.7	6.3	6.0	5.9	5.7
Real	<i>CZK 2010</i>	28 158	29 349	28 811	30 777	29 062	30 179	29 733	31 754
	<i>growth in %</i>	4.6	4.3	3.9	3.5	3.2	2.8	3.2	3.2
Median monthly wage	<i>CZK monthly</i>	27 593	29 127	29 549	.	.	.	.	.
	<i>growth in %</i>	7.4	6.9	6.7	.	.	.	.	.
Wage bill	<i>growth in %</i>	7.9	7.6	6.9	6.6	6.4	6.4	5.9	5.7

¹⁾ Persons in unemployment for longer than 12 months.

²⁾ The indicator does not include employment over 64 years.

³⁾ The indicator does not include labour force over 64 years.

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

⁵⁾ Derived from full-time-equivalent employers in the entire economy.

Source: CZSO, Ministry of Labour and Social Affairs. Calculations and forecast of the MoF.

Table 3.3.3: Income and Expenditures of Households – yearly

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
									<i>Estimate</i>	<i>Forecast</i>	<i>Forecast</i>
Current income											
Compensation of employees	<i>bill.CZK</i>	1 669	1 692	1 760	1 852	1 964	2 127	2 322	2 475	2 627	2 762
	<i>growth in %</i>	2.6	1.3	4.0	5.3	6.0	8.3	9.2	6.6	6.1	5.2
Gross operating surplus and mixed income	<i>bill.CZK</i>	654	645	662	691	711	728	799	855	888	921
	<i>growth in %</i>	-2.9	-1.3	2.6	4.3	2.9	2.5	9.7	6.9	3.9	3.7
Property income received	<i>bill.CZK</i>	147	158	166	166	175	165	168	174	183	194
	<i>growth in %</i>	-4.0	7.8	5.1	-0.4	5.7	-5.8	1.6	3.9	5.2	5.7
Social benefits not-in-kind	<i>bill.CZK</i>	566	563	576	591	606	623	655	703	754	788
	<i>growth in %</i>	2.4	-0.6	2.2	2.6	2.6	2.8	5.0	7.4	7.3	4.5
Other current transfers received	<i>bill.CZK</i>	151	146	160	181	217	244	281	307	325	344
	<i>growth in %</i>	8.6	-3.1	9.2	13.3	19.4	12.8	15.2	9.1	6.0	5.7
Current expenditure											
Property income paid	<i>bill.CZK</i>	15	21	16	14	14	16	22	22	23	24
	<i>growth in %</i>	-27.2	40.5	-24.3	-10.7	0.2	8.3	40.6	1.1	4.4	4.8
Curr. taxes on income and property	<i>bill.CZK</i>	158	166	177	183	203	226	258	287	307	330
	<i>growth in %</i>	1.6	4.9	6.9	3.2	11.1	11.0	14.2	11.3	7.3	7.5
Social contributions	<i>bill.CZK</i>	654	670	696	732	775	836	910	972	1027	1079
	<i>growth in %</i>	2.3	2.4	3.8	5.3	5.8	7.8	8.9	6.8	5.7	5.1
Other current transfers paid	<i>bill.CZK</i>	154	140	150	168	205	235	274	298	315	332
	<i>growth in %</i>	6.2	-9.3	6.9	11.9	22.5	14.7	16.6	8.6	5.8	5.5
Gross disposable income	<i>bill.CZK</i>	2 206	2 208	2 285	2 383	2 474	2 576	2 761	2 935	3 105	3 242
	<i>growth in %</i>	1.0	0.1	3.5	4.3	3.8	4.1	7.2	6.3	5.8	4.4
Final consumption	<i>bill.CZK</i>	1 970	1 997	2 044	2 125	2 213	2 361	2 491	2 640	2 779	2 902
	<i>growth in %</i>	0.9	1.3	2.4	3.9	4.1	6.7	5.5	6.0	5.3	4.4
Change in share in pension funds	<i>bill.CZK</i>	15	35	35	33	31	32	33	36	39	43
Gross savings	<i>bill.CZK</i>	250	246	276	291	292	247	304	332	365	383
Capital transfers	<i>bill.CZK</i>	-21	-13	-32	-12	-14	-11	-13	-16	-22	-24
<i>(income (-) / expenditure (+))</i>											
Gross capital formation	<i>bill.CZK</i>	183	181	195	208	228	242	245	265	280	290
	<i>growth in %</i>	-7.8	-1.3	8.3	6.6	9.6	5.9	1.4	8.1	5.4	3.6
Change in financial assets and liab.	<i>bill.CZK</i>	87	77	110	93	76	15	69	82	107	117
Real disposable income	<i>growth in %</i>	-1.2	-0.8	2.9	4.2	3.3	1.7	4.8	3.3	2.9	2.2
Gross savings rate	<i>%</i>	11.3	11.0	11.9	12.1	11.6	9.5	10.9	11.2	11.6	11.6

Source: CZSO. Calculations of the MoF.

3.4 External Relations

The **current account balance to GDP ratio**⁴ was 0.5% (*versus 1.0%*) in Q3 2019, dipping by 0.1% of GDP on the previous quarter. All items with the exception of the balance of goods contributed to the contraction of the current account surplus. The deepening of the primary income deficit was most striking in this respect.

Export market growth of 1.6% (*versus 2.2%*) in Q3 2019 lagged far behind expectations. The root cause was weak quarter-on-quarter momentum of imports of our trade partners, especially Poland and the United Kingdom. In Germany, there was even a fall in imports. While GDP growth of our main trading partners slightly exceeded expectations (by 0.1 pp), the growth of import intensity was 0.7 pp slower. We estimate that export markets grew by 2.4% (*versus 2.6%*) in 2019. Taking into account developments in the import intensity of our main trading partners in the second half of 2019 (and an evident tendency towards the fencing-in of economies, especially in the intra-EU trade), we expect export market growth to slow further this year to 1.3% (*versus 1.7%*). In 2021, growth could recover slightly to 1.9%.

Export performance increased by 0.1% (*versus a 0.1% downturn*) in Q3 2019, its contribution to the growth momentum of exports of goods was thus more or less neutral. Performance growth benefited somewhat from higher production of cars. A slowdown in the growth of final product prices may also have contributed to the positive value. We estimate that export performance fell by 1.2% (*versus 0.9%*) last year. It should stagnate this year (*versus a 0.2% fall*), while in 2021 we are forecasting a 0.2% dip. This negative export performance situation reflects growing unit labour costs (related to the lack of skilled labour) and the predicted appreciation of the koruna. These factors will dent the price competitiveness of Czech products.

In external trade (according to the balance of payments methodology), the surplus on the **balance of goods** continued to grow in Q3 2019 thanks to greater export activity. Current figures place the surplus in Q3 at 4.3% of GDP (*as forecast*).

The growing surplus on the balance of goods was fuelled significantly by an improvement in the balance with machinery and transport equipment, a group that accounts for more than half of all exports of goods. Exports of cars and machinery equipment were the most successful.

Prices of mineral fuels remain an important factor affecting the goods **terms of trade**. The deficit on the fuel part of the balance was 2.6% of GDP (*versus 2.7% of GDP*) in Q3 2019; in relative terms it may have reached the same level also in 2019 as a whole (*versus 2.7% of GDP*). Bearing in mind the projected oil price, we envisage a reduc-

tion of the deficit to 2.4% of GDP (*unchanged*) and then to 2.2% of GDP in 2021.

We estimate that the surplus on the balance of goods reached 4.3% of GDP (*unchanged*) in 2019. Relatively speaking, the surplus should remain at that level both this year and next (*versus 4.5% of GDP in 2020*). The downward revision of the forecast reflects lower growth in the terms of trade reported for goods, and a slight upward increase in the forecast of gross fixed capital formation, characterised by high import intensity. Over the medium term, the planned acquisitions of military machinery, which would lead to a one-off increase in the volume of imports (the purchase of helicopters is included in the outlook for 2023 – see section 3.1), pose the risk that the external balance will deteriorate.

In Q3 2019, the surplus on the **balance of services** was 2.3% of GDP (*as forecast*). In the year-on-year comparison, the rise in income from telecommunications services and better balance of maintenance and repair services contributed to the higher surplus. We estimate that the balance of services was 2.2% of GDP (*versus 2.3% of GDP*) in 2019. The downward revision in the forecast reflects developments in external trade with services in October and November 2019, when exports slumped by 6.5% YoY on average, with imports down by almost 3% (in total, the balance deteriorated by CZK 5.0 billion YoY). This year, we forecast a surplus equal to 2.3% of GDP (*versus 2.4% of GDP*), a value we expect to see, in relative terms, also in the next year.

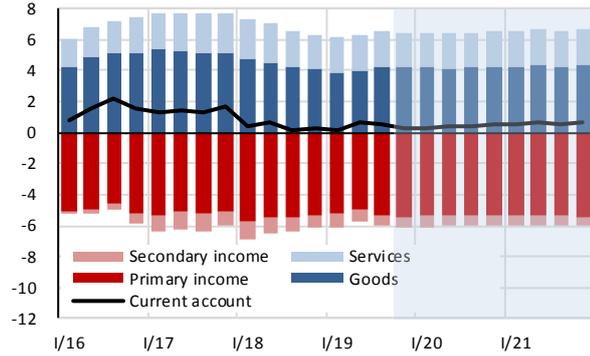
The **primary income balance** deteriorated by 0.3% of GDP quarter on quarter in Q3 2019, reporting a deficit of 5.4% of GDP (*versus 5.1% of GDP*). We forecast a deficit of the same amount for 2019 as a whole (*versus 5.1% of GDP*). The forecast has been revised downwards to reflect unexpectedly strong growth in the profitability of foreign-owned companies in Q3 2019. 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 foreign-controlled companies' profits to grow further. However, these increases will be dampened somewhat by tightness in the labour market and the persistent pressure on wage growth. In the future, therefore, one can expect a continued shift in the distribution of GDP from companies' net profits to the compensation of employees. In this respect, the primary income deficit could amount to 5.3% of GDP (*versus 4.9% of GDP*) in 2020 and 5.4% of GDP in 2021.

In this context, we estimate that in 2019 the **current account of the balance of payments** posted a modest surplus amounting to 0.3% of GDP (*versus 0.9% of GDP*). We forecast a further rise in the surplus to 0.6% of GDP (*versus 1.4% of GDP*) in 2020, and then to 0.7% of GDP in 2021.

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

Graph 3.4.1: Current Account

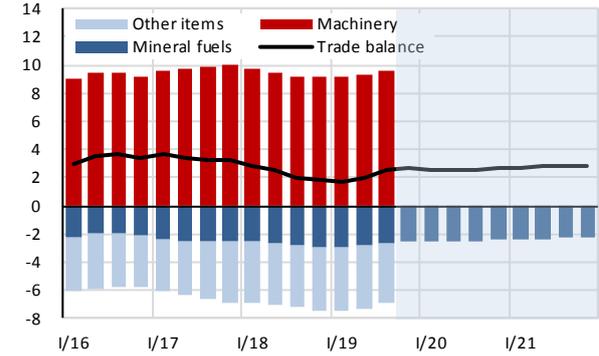
four-quarter moving totals, in % of GDP, BoP methodology



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

Graph 3.4.2: Balance of Trade

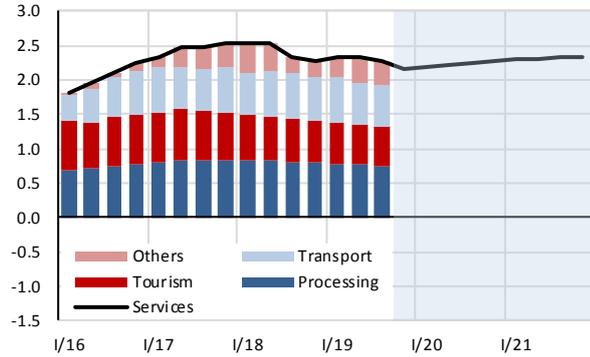
four-quarter moving totals, in % of GDP, change of ownership concept



Source: CZSO. Calculations and forecast of the MoF.

Graph 3.4.3: Balance of Services

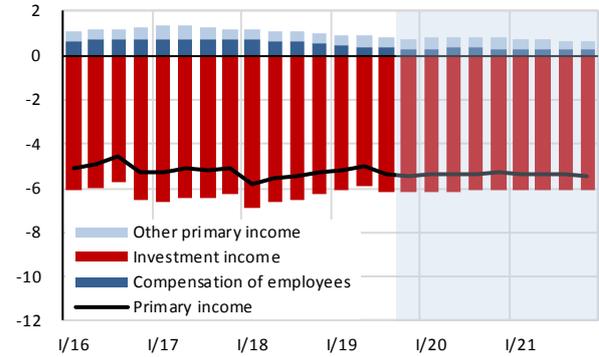
four-quarter moving totals, in % of GDP



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

Graph 3.4.4: Balance of Primary Income

four-quarter moving totals, in % of GDP



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

Graph 3.4.5: GDP and Goods Imports of Partner Countries

YoY growth rate in %, seasonally adjusted



Source: Eurostat. Calculations and forecast of the MoF.

Graph 3.4.6: Real Exports of Goods

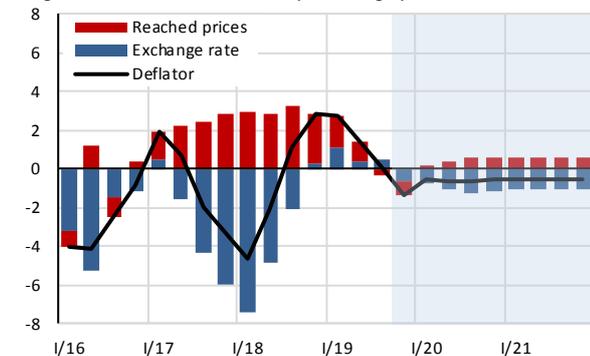
YoY growth in %, contributions in pp, seasonally adjusted



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

Graph 3.4.7: Deflator of Exports of Goods

YoY growth in %, contributions in percentage points



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

Table 3.4.1: Balance of Payments – yearly
international investment position and gross external debt – end of period

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
										Estimate	Forecast	Forecast
Goods and services	<i>bill.CZK</i>	201	237	276	266	353	387	338	364	386	412	
	<i>% GDP</i>	5.0	5.8	6.4	5.8	7.4	7.7	6.3	6.4	6.5	6.7	
Goods	<i>bill.CZK</i>	124	167	220	188	246	259	217	241	252	268	
	<i>% GDP</i>	3.0	4.1	5.1	4.1	5.2	5.1	4.1	4.3	4.3	4.3	
Services	<i>bill.CZK</i>	78	70	56	78	108	128	121	122	135	144	
	<i>% GDP</i>	1.9	1.7	1.3	1.7	2.3	2.5	2.3	2.2	2.3	2.3	
Primary income	<i>bill.CZK</i>	-238	-249	-261	-255	-252	-255	-282	-307	-315	-335	
	<i>% GDP</i>	-5.9	-6.1	-6.0	-5.5	-5.3	-5.1	-5.3	-5.4	-5.3	-5.4	
Secondary income	<i>bill.CZK</i>	-27	-10	-7	0	-27	-48	-40	-39	-38	-36	
	<i>% GDP</i>	-0.7	-0.2	-0.2	0.0	-0.6	-1.0	-0.7	-0.7	-0.7	-0.6	
Current account	<i>bill.CZK</i>	-63	-22	8	11	74	83	16	18	33	41	
	<i>% GDP</i>	-1.6	-0.5	0.2	0.2	1.6	1.7	0.3	0.3	0.6	0.7	
Capital account	<i>bill.CZK</i>	53	82	32	102	54	41	14	10	18	28	
	<i>% GDP</i>	1.3	2.0	0.7	2.2	1.1	0.8	0.3	0.2	0.3	0.5	
Net lending/borrowing	<i>bill.CZK</i>	-10	61	40	113	128	124	30	28	51	69	
	<i>% GDP</i>	-0.3	1.5	0.9	2.5	2.7	2.5	0.6	0.5	0.9	1.1	
Financial account	<i>bill.CZK</i>	12	68	64	175	117	121	12	.	.	.	
Direct investments	<i>bill.CZK</i>	-121	7	-80	50	-187	-46	-91	.	.	.	
Portfolio investments	<i>bill.CZK</i>	-55	-93	90	-164	-170	-268	23	.	.	.	
Financial derivatives	<i>bill.CZK</i>	-9	-5	-6	-5	11	-14	-15	.	.	.	
Other investments	<i>bill.CZK</i>	116	-30	-13	-57	-102	-798	46	.	.	.	
Reserve assets	<i>bill.CZK</i>	80	188	73	351	564	1 246	50	.	.	.	
International investment position	<i>bill.CZK</i>	-1 864	-1 695	-1 577	-1 513	-1 283	-1 264	-1 251	.	.	.	
	<i>% GDP</i>	-45.9	-41.4	-36.6	-32.9	-26.9	-25.0	-23.5	.	.	.	
Gross external debt	<i>bill.CZK</i>	2 434	2 733	2 947	3 119	3 498	4 370	4 355	.	.	.	
	<i>% GDP</i>	60.0	66.7	68.3	67.9	73.4	86.6	81.8	.	.	.	

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	Q2	Q3	Q4
					<i>Estimate</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>
Goods and services	<i>bill.CZK</i>	335	345	364	364	365	370	376	386
	<i>% GDP</i>	6.2	6.3	6.5	6.4	6.4	6.4	6.4	6.5
Goods	<i>bill.CZK</i>	209	217	238	241	240	241	245	252
	<i>% GDP</i>	3.9	4.0	4.3	4.3	4.2	4.2	4.2	4.3
Services	<i>bill.CZK</i>	126	128	127	122	125	128	131	135
	<i>% GDP</i>	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.3
Primary income	<i>bill.CZK</i>	-280	-275	-299	-307	-308	-310	-312	-315
	<i>% GDP</i>	-5.2	-5.0	-5.4	-5.4	-5.4	-5.4	-5.3	-5.3
Secondary income	<i>bill.CZK</i>	-47	-36	-37	-39	-39	-39	-39	-38
	<i>% GDP</i>	-0.9	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7
Current account	<i>bill.CZK</i>	8	34	28	18	18	21	25	33
	<i>% GDP</i>	0.1	0.6	0.5	0.3	0.3	0.4	0.4	0.6
Capital account	<i>bill.CZK</i>	6	16	13	10	12	14	16	18
	<i>% GDP</i>	0.1	0.3	0.2	0.2	0.2	0.2	0.3	0.3
Net lending/borrowing	<i>bill.CZK</i>	14	50	41	28	30	35	41	51
	<i>% GDP</i>	0.3	0.9	0.7	0.5	0.5	0.6	0.7	0.9
Financial account	<i>bill.CZK</i>	3	53	61	.	.	.	.	.
Direct investments	<i>bill.CZK</i>	-97	-86	-87	.	.	.	.	.
Portfolio investments	<i>bill.CZK</i>	-76	-195	-186	.	.	.	.	.
Financial derivatives	<i>bill.CZK</i>	-18	-9	-15	.	.	.	.	.
Other investments	<i>bill.CZK</i>	140	279	258	.	.	.	.	.
Reserve assets	<i>bill.CZK</i>	54	64	91	.	.	.	.	.
International investment position	<i>stock in bill.CZK</i>	-1 130	-1 131	-1 039	.	.	.	.	.
	<i>% GDP</i>	-20.9	-20.6	-18.6	.	.	.	.	.
Gross external debt	<i>stock in bill.CZK</i>	4 365	4 327	4 426	.	.	.	.	.
	<i>% GDP</i>	80.8	78.9	79.3	.	.	.	.	.

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
									Estimate	Forecast	Forecast
GDP ¹⁾	average of 2005=100	104.6	105.3	107.7	110.1	112.5	115.7	118.4	120	122	124
	growth in %	1.0	0.7	2.2	2.3	2.1	2.9	2.3	1.4	1.3	1.6
Import intensity ²⁾	average of 2005=100	102.7	104.4	106.9	110.4	112.9	115.7	118.2	119	119	120
	growth in %	-0.9	1.6	2.4	3.2	2.3	2.4	2.1	1.0	0.0	0.3
Export markets ³⁾	average of 2005=100	107.4	109.9	115.1	121.5	127.0	133.9	139.9	143	145	148
	growth in %	0.0	2.4	4.7	5.6	4.5	5.4	4.5	2.4	1.3	1.9
Export performance	average of 2005=100	107.0	105.2	109.8	109.6	109.2	110.9	110.8	109	109	109
	growth in %	4.3	-1.7	4.3	-0.2	-0.3	1.6	-0.1	-1.2	0.0	-0.2
Real exports	average of 2005=100	114.9	115.7	126.3	133.2	138.7	148.5	155.1	157	159	161
	growth in %	4.4	0.6	9.2	5.4	4.2	7.1	4.4	1.1	1.2	1.7
1 / NEER	average of 2005=100	101.2	103.0	108.6	109.9	106.9	103.9	100.2	101	99	98
	growth in %	4.4	1.7	5.5	1.2	-2.8	-2.8	-3.6	0.4	-1.0	-1.1
Prices on foreign markets	average of 2005=100	102.8	102.6	101.0	98.4	98.3	100.5	103.5	104	104	105
	growth in %	-1.1	-0.1	-1.6	-2.6	-0.1	2.2	3.0	0.4	0.4	0.6
Exports deflator	average of 2005=100	104.1	105.7	109.7	108.2	105.1	104.4	103.7	104	104	103
	growth in %	3.2	1.5	3.8	-1.4	-2.8	-0.6	-0.7	0.7	-0.6	-0.5
Nominal exports	average of 2005=100	119.6	122.2	138.5	144.0	145.7	155.1	160.8	164	165	167
	growth in %	7.7	2.2	13.4	3.9	1.2	6.4	3.7	1.9	0.6	1.2

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			
GDP ¹⁾	average of 2010=100	119.8	119.8	120.2	120	121	121	122	122
	growth in %	1.9	1.3	1.3	1.2	0.9	1.3	1.4	1.6
Import intensity ²⁾	average of 2010=100	119.7	119.4	118.9	119	119	119	119	119
	growth in %	2.3	1.5	0.3	-0.2	-0.4	-0.2	0.3	0.1
Export markets ³⁾	average of 2010=100	143.4	143.1	142.9	144	144	145	145	146
	growth in %	4.2	2.8	1.6	1.0	0.6	1.1	1.7	1.6
Export performance	average of 2010=100	107.6	110.6	110.0	110	108	111	110	110
	growth in %	-3.6	-0.3	0.1	-1.1	0.0	-0.1	-0.1	0.0
Real exports	average of 2010=100	154.2	158.3	157.2	158	155	160	160	160
	growth in %	0.5	2.5	1.7	-0.1	0.6	1.0	1.6	1.6
1 / NEER	average of 2010=100	100.6	100.6	100.6	100	100	100	99	99
	growth in %	1.1	0.4	0.5	-0.6	-0.7	-1.0	-1.2	-1.1
Prices on foreign markets	average of 2010=100	104.4	104.0	103.7	103	105	104	104	104
	growth in %	1.6	1.0	-0.4	-0.7	0.2	0.4	0.6	0.6
Exports deflator	average of 2010=100	105.0	104.7	104.3	104	105	104	104	103
	growth in %	2.8	1.4	0.1	-1.4	-0.5	-0.6	-0.6	-0.6
Nominal exports	average of 2010=100	162.0	165.7	164.0	163	162	166	166	165
	growth in %	3.3	4.0	1.8	-1.4	0.1	0.4	1.0	1.1

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.

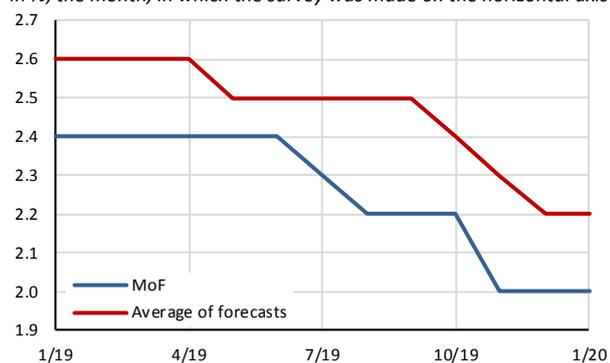
4 Survey of Other Institutions' Forecasts

The averaged forecasts of monitored institutions indicate that real GDP should rise by 2.2% this year and that there could be a slight acceleration in growth to 2.3% in 2021. The average inflation rate should ease from 2.5% in 2020 and come to 2.0% in the next year. The momentum reported by the average wage should gradually weaken from 5.9% this year to 5.0% in 2021. In both 2020 and 2021, the current account of the balance of payments should continue to post a small surplus.

The forecast by the Ministry of Finance differs from the averaged estimates of the monitored institutions only by several tenths of a percentage point and falls within the variation range for those estimates. The only exception is the forecast for this year's inflation, where the Ministry of Finance probably places more stress on pro-inflationary factors. However, general tendency for forecasts of inflation rate in 2020 to increase can be seen in Graph 4.2.

Graph 4.1: Forecasts for Real GDP Growth in 2020

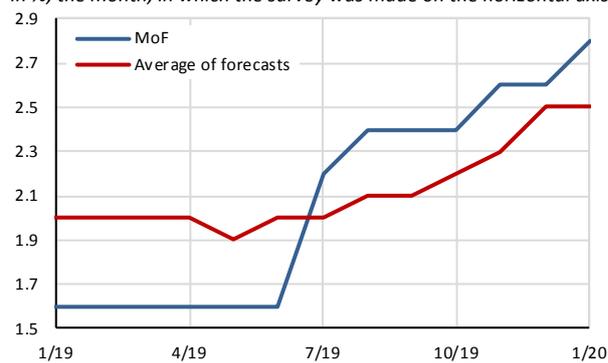
in %; the month, in which the survey was made on the horizontal axis



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

		January 2020			January 2020
		min.	max.	average	MoF forecast
Gross domestic product (2020)	growth in %, const.pr.	1.9	2.7	2.2	2.0
Gross domestic product (2021)	growth in %, const.pr.	1.7	2.8	2.3	2.2
Average inflation rate (2020)	%	2.2	2.7	2.5	2.8
Average inflation rate (2021)	%	1.8	2.3	2.0	2.2
Average monthly wage (2020)	growth in %	5.3	6.4	5.9	6.0
Average monthly wage (2021)	growth in %	4.3	5.7	5.0	5.1
Current account / GDP (2020)	%	-0.2	1.4	0.5	0.6
Current account / GDP (2021)	%	-0.7	1.5	0.4	0.7

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 International Comparison

In 2018, per-capita GDP (in **current purchasing power parity**) increased in all of the countries monitored. However, Spain and Italy reported a slight decline in the relative level compared to the EA-19 countries. Compared to the EU-28, purchasing power parity in the Czech Republic was 17.88 CZK/PPS, and 17.32 CZK/EUR compared to the EA-19. The Czech Republic's economic level rose to 86% of the EA-19 level and was almost equal to Spain. Regardless of the slowing economic growth, the Czech per-capita GDP in 2021 could rise to 88% of the EA-19 average and therefore come closer to the economic level of Italy.

Per-capita GDP converted by the nominal **exchange rate** was approx. €19,600 in 2018, i.e. 58% of the EA-19 level. Stronger growth in the Czech Republic than in the major EA-19 economies, accompanied by appreciating koruna against the euro, could result in the economic level nudging up a little to 63% of the EA-19 average in 2021.

The **comparative GDP price level**, which has been rising steadily in the Czech economy since 2014, amounted to 68% of the EA-19 average in 2018. In subsequent years, it could gradually rise to 71% in 2021, which should not significantly undermine the Czech Republic's price competitiveness.

The labour shortage, pay growth in the general government sector, and increases in the minimum and guaranteed wages are significantly speeding up the Czech economy's convergence in **average earnings** expressed in current purchasing power parity. In this respect, the average wage in 2018 stood at 68% of the EA-19 level, which meant that the Czech Republic had surpassed both Greece and Portugal.

By breaking down per-capita GDP into labour productivity, the number of hours worked, the ratio of employment to the working-age population, and demographic

component, we can analyse in more detail differences in the relative economic level versus the EA-19 countries. The results of the analysis are summed up in Graph 5.17.

In view of the stable structure of economies characterised by the relatively high labour intensity of production, the trend of **labour productivity**, measured as a ratio of GDP to the number of hours worked, is growing at a very slow pace in most of the countries monitored. In 2018, labour productivity in the Czech Republic grew slightly to 68% of the average reported for EA-19 countries.

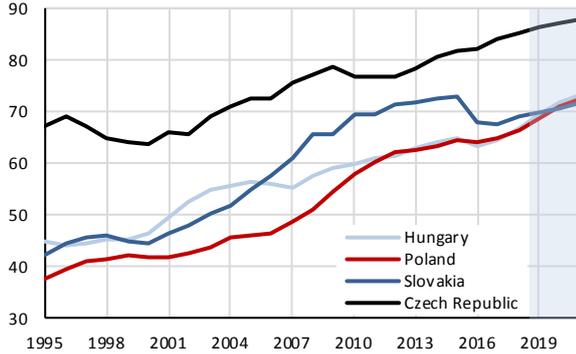
The **average number of hours worked** per worker is higher in all of the countries monitored due to lengthening of working hours in the economic boom. In 2018, the Czech Republic slightly improved in this figure to 14% above the EA-19 level.

The development of **ratio of the number of employed persons to the working-age population** (20–64 years) is very heterogeneous. The countries with a high structural rate of unemployment (for instance Greece or Spain) have long endured considerably below the EA-19 average. Conversely, the Czech economy has kept in the positive band since 2012 and exceeded the EA-19 level by 7% in 2018. The tense situation on the labour market combined with a rising effective retirement age was contributing to this.

In most of the countries monitored, population ageing has pushed down the share of the working-age population in recent years, as captured by the **demographic component**. The fastest declines in 2018 were recorded by Poland, Slovenia and the Czech Republic. Although the demographic component remained approximately 3% above the EA-19 average in 2018, over the time horizon of this forecast the current demographic trends offer no expectation of a significant improvement.

Graph 5.1: GDP per Capita in Current PPP

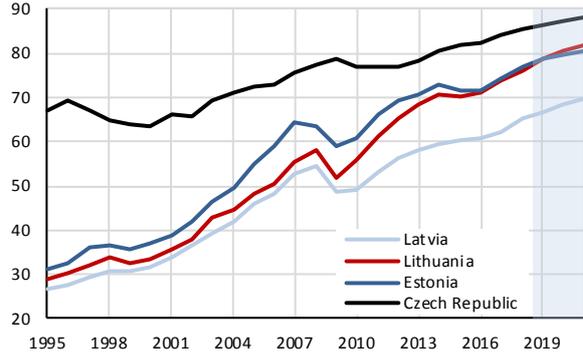
EA19=100



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

Graph 5.2: GDP per Capita in Current PPP

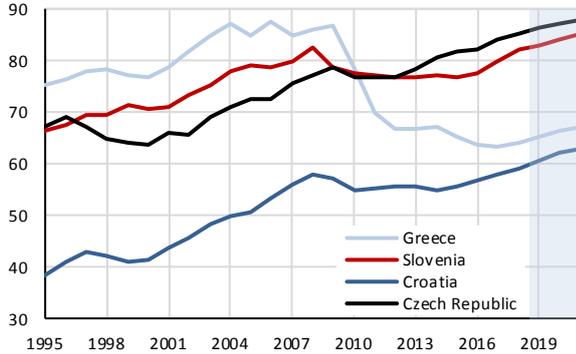
EA19=100



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

Graph 5.3: GDP per Capita in Current PPP

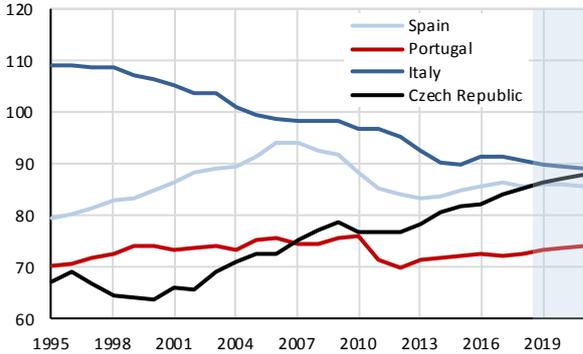
EA19=100



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

Graph 5.4: GDP per Capita in Current PPP

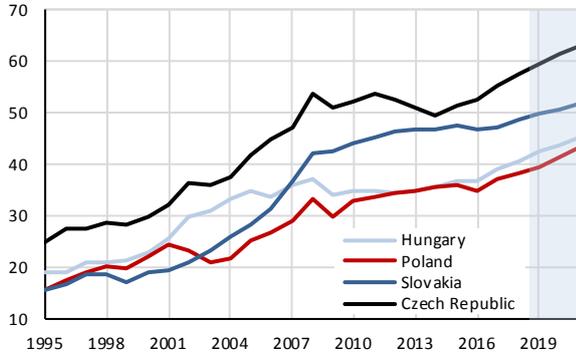
EA19=100



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

Graph 5.5: Exchange Rate Adjusted GDP per Capita

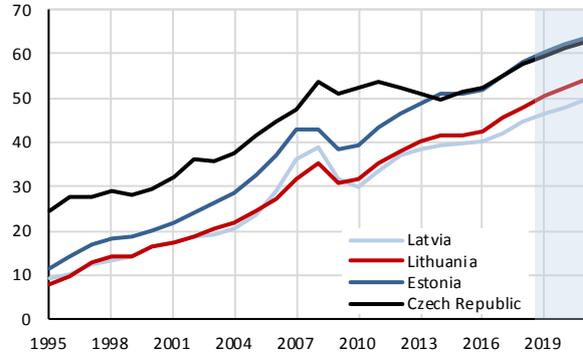
EA19=100



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

Graph 5.6: Exchange Rate Adjusted GDP per Capita

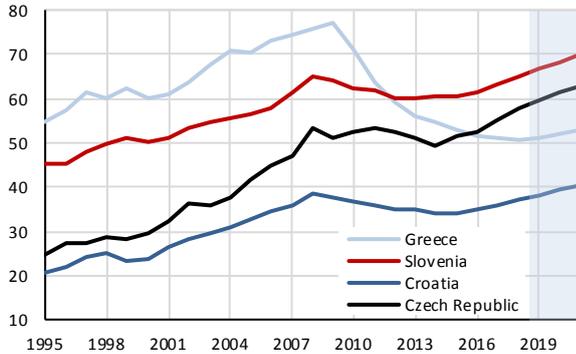
EA19=100



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

Graph 5.7: Exchange Rate Adjusted GDP per Capita

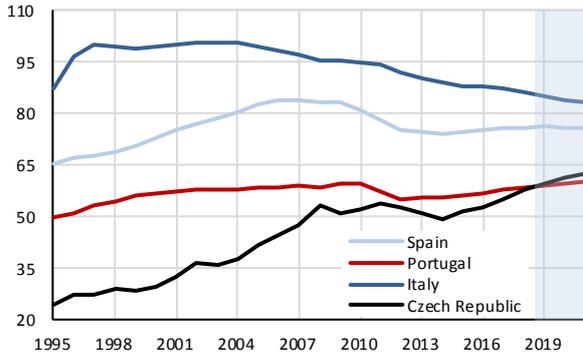
EA19=100



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

Graph 5.8: Exchange Rate Adjusted GDP per Capita

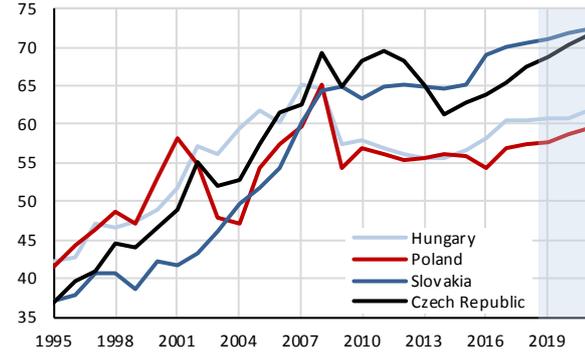
EA19=100



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

Graph 5.9: Comparative Price Level of GDP

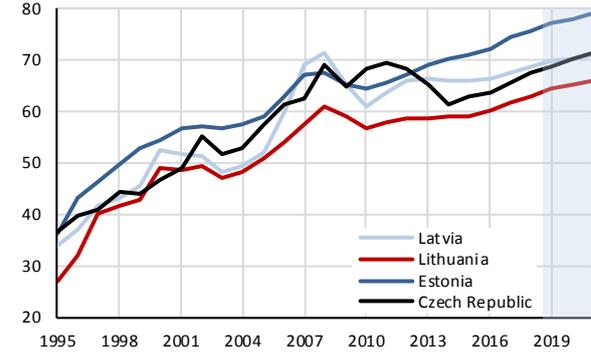
EA19=100



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

Graph 5.10: Comparative Price Level of GDP

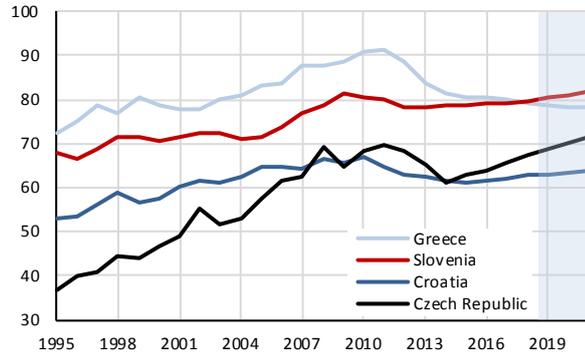
EA19=100



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

Graph 5.11: Comparative Price Level of GDP

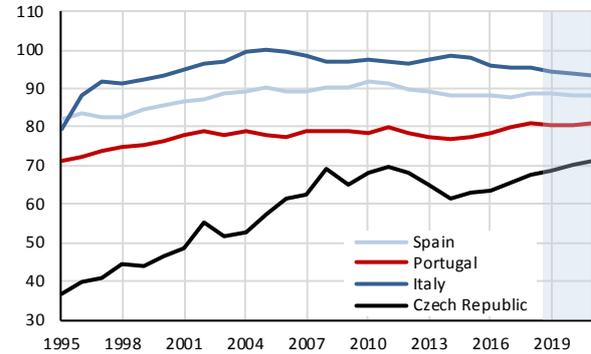
EA19=100



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

Graph 5.12: Comparative Price Level of GDP

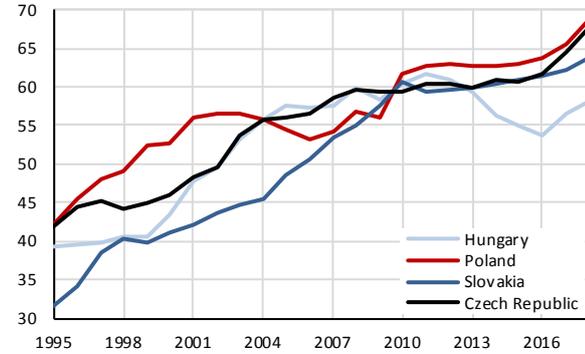
EA19=100



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

Graph 5.13: Average Earnings in Current PPP

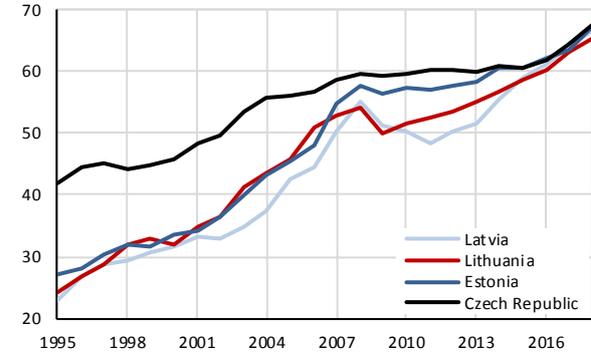
EA19=100



Source: Eurostat. Calculations of the MoF.

Graph 5.14: Average Earnings in Current PPP

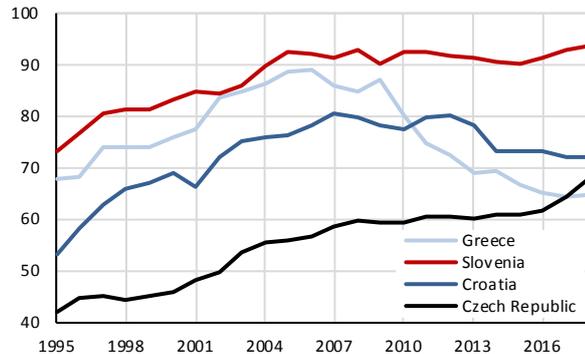
EA19=100



Source: Eurostat. Calculations of the MoF.

Graph 5.15: Average Earnings in Current PPP

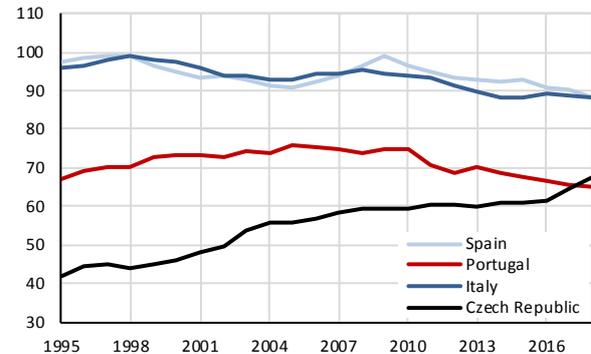
EA19=100



Source: Eurostat. Calculations of the MoF.

Graph 5.16: Average Earnings in Current PPP

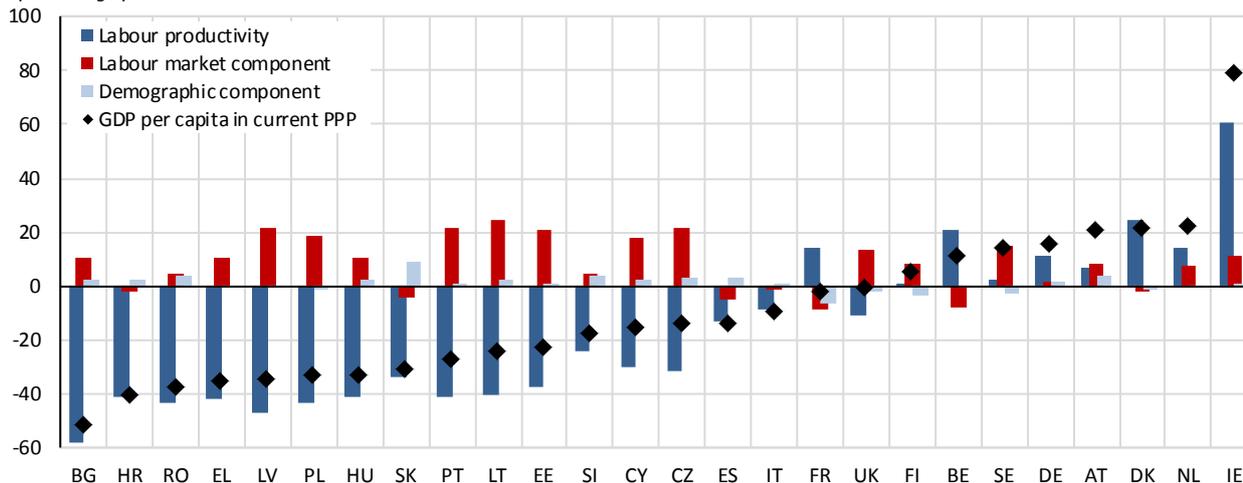
EA19=100



Source: Eurostat. Calculations of the MoF.

Graph 5.17: Current PPP Adjusted GDP per Capita Level Relative to the EA19 Average in 2018

in percentage points



Note: The labour market component is defined as the ratio of total hours worked to working-age (15–64) population, the demographic component is the ratio of the working-age to total population.

Source: Eurostat. Calculations of the MoF.

Table 5.1: GDP per Capita in Current Purchasing Power Parity

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
										Estimate	Forecast	Forecast
Italy	PPS	27 200	26 500	26 700	27 700	28 500	29 100	29 700	30 200	30 800	31 500	
	EA19=100	95	93	91	90	92	91	91	90	90	89	
Spain	PPS	24 000	23 800	24 700	26 300	26 700	27 600	28 100	28 900	29 600	30 200	
	EA19=100	84	83	84	85	86	87	86	86	86	86	
Czech Republic	PPS	22 000	22 400	23 800	25 300	25 600	26 800	28 000	29 100	30 000	31 000	
	EA19=100	77	78	81	82	82	84	85	86	87	88	
Slovenia	PPS	22 000	22 000	22 800	23 800	24 200	25 500	26 900	27 800	29 000	30 100	
	EA19=100	77	77	77	77	78	80	82	83	84	85	
Estonia	PPS	19 800	20 300	21 500	22 100	22 300	23 600	25 300	26 400	27 300	28 300	
	EA19=100	69	71	73	72	72	74	77	79	79	80	
Lithuania	PPS	18 600	19 600	20 800	21 700	22 100	23 600	24 800	26 400	27 600	28 900	
	EA19=100	65	68	70	70	71	74	76	78	80	82	
Slovakia	PPS	20 000	20 500	21 200	22 300	22 600	23 000	23 800	24 600	25 400	26 200	
	EA19=100	70	72	72	72	73	72	73	73	74	74	
Portugal	PPS	20 400	20 600	21 400	22 500	21 200	21 500	22 600	23 500	24 300	25 300	
	EA19=100	71	72	72	73	68	68	69	70	71	72	
Poland	PPS	17 500	18 000	18 900	20 000	19 800	20 600	21 900	23 400	24 700	25 900	
	EA19=100	61	63	64	65	64	65	67	70	72	73	
Hungary	PPS	17 800	17 900	18 700	19 900	20 000	20 800	21 800	23 100	24 400	25 600	
	EA19=100	62	63	63	65	64	65	66	69	71	73	
Latvia	PPS	16 100	16 700	17 600	18 700	18 900	19 900	21 300	22 400	23 500	24 600	
	EA19=100	56	58	60	60	61	62	65	67	68	70	
Greece	PPS	19 100	19 200	19 800	20 200	19 900	20 300	21 100	21 900	22 900	23 800	
	EA19=100	67	67	67	65	64	64	64	65	66	67	
Croatia	PPS	15 900	16 000	16 200	17 200	17 700	18 500	19 400	20 400	21 400	22 200	
	EA19=100	56	56	55	56	57	58	59	61	62	63	

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

Table 5.2: Exchange Rate Adjusted GDP per Capita

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021		
											<i>Estimate</i>	<i>Forecast</i>	<i>Forecast</i>
Italy	<i>EUR</i>	26 900	26 600	26 800	27 300	28 000	28 700	29 200	29 400	29 800	30 400		
	<i>EA19=100</i>	92	90	89	88	88	87	86	85	84	83		
	<i>Comparative price level</i>	<i>EA19=100</i>	97	98	98	98	96	96	95	94	94	93	
Spain	<i>EUR</i>	22 000	21 900	22 200	23 200	24 000	25 000	25 700	26 400	27 000	27 500		
	<i>EA19=100</i>	75	74	74	75	75	76	76	76	76	76		
	<i>Comparative price level</i>	<i>EA19=100</i>	90	89	88	88	88	88	89	89	88	88	
Slovenia	<i>EUR</i>	17 600	17 700	18 300	18 800	19 600	20 800	22 100	23 100	24 200	25 400		
	<i>EA19=100</i>	60	60	61	61	61	63	65	67	68	70		
	<i>Comparative price level</i>	<i>EA19=100</i>	78	78	79	79	79	79	80	80	81	82	
Estonia	<i>EUR</i>	16 000	16 300	16 600	17 400	18 100	19 000	19 800	20 500	21 200	21 900		
	<i>EA19=100</i>	55	55	55	56	57	58	59	59	60	60		
	<i>Comparative price level</i>	<i>EA19=100</i>	78	77	77	77	78	80	81	81	81	81	
Czech Republic	<i>EUR</i>	13 600	14 400	15 300	15 800	16 500	18 100	19 700	21 000	22 000	23 100		
	<i>EA19=100</i>	47	49	51	51	52	55	58	61	62	63		
	<i>Comparative price level</i>	<i>EA19=100</i>	67	69	70	71	72	74	76	77	78	79	
Portugal	<i>EUR</i>	15 400	15 000	14 900	16 000	16 700	18 100	19 500	20 600	21 700	22 900		
	<i>EA19=100</i>	53	51	50	51	53	55	58	60	61	63		
	<i>Comparative price level</i>	<i>EA19=100</i>	68	65	61	63	64	65	68	69	70	71	
Greece	<i>EUR</i>	17 300	16 500	16 400	16 400	16 400	16 800	17 200	17 800	18 400	19 200		
	<i>EA19=100</i>	59	56	55	53	52	51	51	51	52	53		
	<i>Comparative price level</i>	<i>EA19=100</i>	88	84	81	81	81	80	79	79	78	78	
Slovakia	<i>EUR</i>	13 600	13 700	14 100	14 700	14 900	15 500	16 500	17 200	18 000	18 900		
	<i>EA19=100</i>	47	47	47	47	47	47	49	50	51	52		
	<i>Comparative price level</i>	<i>EA19=100</i>	65	65	65	65	69	70	71	71	72	72	
Lithuania	<i>EUR</i>	11 200	11 800	12 500	12 800	13 600	14 900	16 200	17 500	18 600	19 700		
	<i>EA19=100</i>	38	40	41	41	43	45	48	50	52	54		
	<i>Comparative price level</i>	<i>EA19=100</i>	58	59	59	59	60	62	63	64	65	66	
Latvia	<i>EUR</i>	10 900	11 300	11 900	12 400	12 800	13 800	15 100	16 100	17 000	18 000		
	<i>EA19=100</i>	37	39	39	40	40	42	45	46	48	49		
	<i>Comparative price level</i>	<i>EA19=100</i>	66	66	66	66	66	67	69	70	70	71	
Hungary	<i>EUR</i>	10 100	10 300	10 700	11 400	11 700	12 800	13 700	14 700	15 500	16 500		
	<i>EA19=100</i>	34	35	36	37	37	39	40	42	44	45		
	<i>Comparative price level</i>	<i>EA19=100</i>	56	56	56	57	58	61	61	61	62		
Poland	<i>EUR</i>	10 100	10 300	10 700	11 200	11 100	12 200	12 900	13 700	14 700	15 700		
	<i>EA19=100</i>	35	35	36	36	35	37	38	40	42	43		
	<i>Comparative price level</i>	<i>EA19=100</i>	55	56	56	56	54	57	58	58	59	60	
Croatia	<i>EUR</i>	10 300	10 300	10 200	10 600	11 100	11 800	12 600	13 300	14 000	14 700		
	<i>EA19=100</i>	35	35	34	34	35	36	37	38	39	40		
	<i>Comparative price level</i>	<i>EA19=100</i>	63	62	62	61	62	62	63	63	64		

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

