Inflation Report —— III/2020

Czech National Bank —— Inflation Report —— III/2020

CNB CZECH NATIONAL BANK

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This Inflation Report was approved by the CNB Bank Board on 13 August 2020 and – with some exceptions – contains the information available as of 24 July 2020. Unless stated otherwise, the sources of the data contained in this Inflation Report are the CZSO or the CNB. All the Inflation Reports published to date are available on our website. Underlying data for the tables and charts presented in the text of this Inflation Report, minutes of Bank Board meetings, and time series of selected economic and monetary indicators (available in the ARAD database) are also published there.

Contents

Foreword

Dear Readers,

The Inflation Report is our key monetary policy publication. We have been publishing it since 1998. Section I of the Report presents the message of our new quarterly forecast and the reasons behind the monetary policy decision adopted by the CNB Bank Board. In section II you will find a detailed description of the new forecast and its risks. Section III contains our assessment of past economic and monetary developments.

According to the Czech Constitution and the Act on the CNB, our primary objective is to maintain price stability. In addition, we maintain financial stability and see to the sound and smooth operation of the financial system in the Czech Republic. Without prejudice to our primary objective, we also aim to support the general economic policies of the Government leading to sustainable economic growth. By maintaining price stability, we assist Czech firms and households in their decision-making and planning, which ultimately results in greater stability of the entire Czech economy. Our independence is a necessary condition for successful implementation of monetary policy focused on price stability. For that reason, we are not allowed to seek or take instructions from the President of the Republic, from the Government, from Parliament, from administrative authorities or from any other body.

We have been maintaining price stability in the inflation targeting regime since 1998. The main features of this regime are a publicly announced inflation target, a focus on forecasts of the future path of inflation, and open communication with the public. We set the inflation target as year-on-year growth in consumer prices of 2% starting from 2010. We endeavour to ensure that actual inflation does not differ from this target by more than one percentage point on either side. Most advanced economies have similar inflation targets. There are several reasons why we define price stability as slight growth in prices rather than zero inflation. Inflation measures tend to be distorted upward because of imperfect adjustment for the impacts of changes in the quality of goods and services, where growth in quality is sometimes statistically captured as growth in prices. This distortion is also due to an assumption of constant weights in the consumer basket, whereas in reality people have a natural tendency to move away from goods and services whose prices are rising faster to those which are recording below-average growth or even falling. Last but not least, if we were to target an inflation rate that was too low or even zero, there would often be a threat of deflation, which has very harmful consequences for society as a whole. In such situations, moreover, the central bank would repeatedly hit the zero lower bound on interest rates and would often have to use other, less conventional instruments.

Changes in the monetary policy settings manifest themselves in the economy with a lag. Therefore, it is the future evolution of the Czech economy, rather than its current situation, that is of prime importance for the CNB Bank Board's decisions. The forecast for inflation at the "monetary policy horizon" (about 12–18 months ahead) is of greatest relevance to our decision-making. Our forecast tells us the most likely future course of the economy. It is drawn up by experts from the Monetary Department using a structural macroeconomic model. The g3+ core model provides a comprehensive and consistent view of the relationships between nominal variables and the real economy. It captures the basic characteristics of the Czech economy as described by key variables such as prices, wages, GDP components in both nominal and real terms, the koruna exchange rate and nominal interest rates. Given the openness of the Czech economy, the structural linkages in the external economy affecting foreign trade and the koruna-euro exchange rate play an important role in the new model. Forward-looking expectations gradually reflecting outlooks for exogenous variables and their interaction with monetary policy, which reacts to economic shocks through changes in interest rates in an effort to stabilise inflation close to 2% at the monetary policy horizon, are an important feature of the model. The main forecasting inputs are an assessment of the current state of the economy (the initial state), projected developments abroad, and the outlook for administered prices and domestic fiscal policy. Based on this input information, and using the model and additional detailed analyses drawn up by economists from the Monetary Department, a forecast of the most likely course of the Czech economy is then compiled. In addition to the baseline scenario of the forecast, alternative or sensitivity scenarios are prepared as needed using the core projection model.

The forecast is the key, but not the only, input to our monetary policy decision-making. Unless the economic situation requires an extraordinary monetary policy meeting, the Bank Board meets eight times a year to discuss monetary policy issues. At four of the meetings (in February, May, August and November) we discuss a new forecast, while at the other four (in March, June, September and December) we discuss the risks and uncertainties of the most recent forecast in the light of newly available information on domestic and foreign economic developments. The arrival of new information since the forecast was drawn up and the possibility of the Bank Board members assessing its risks differently mean that the decision we adopt may not fully match the message of the forecast prepared by our experts.

The CNB's main monetary policy instrument is the two-week repo rate. We also set the discount rate and the Lombard rate. By changing these monetary policy rates, we influence financial market interest rates from which commercial banks derive their loan and deposit rates for their customers. A rate increase leads – via the "transmission mechanism" – to slower demand growth in the economy, which, in turn, causes inflation to go down. Lowering the repo rate has the opposite effect. If the forecast indicates growing inflation pressures which might cause inflation to exceed the 2% target, this is a signal that our monetary policy should be more restrictive, i.e. that interest rates should be raised. The opposite applies, of course, if inflationary tendencies decrease, as monetary policy in the (future) inflation-targeting regime is symmetrical in both directions. The exception is a situation where inflation is affected by extraordinary supply-side shocks which we cannot influence and which will cause it to deviate from the target only temporarily. Changes to indirect taxes and sharp swings in oil prices are typical examples of such shocks. Attempts to keep inflation on target despite such shocks would lead to unnecessary volatility in economic growth and employment. We therefore look past the first-round effects of such factors in our decision-making and tolerate a temporary deviation of inflation from the target due to such price shocks. Inflation then returns to the target after the shocks fade away.

We have a whole range of other instruments besides the monetary policy rates described above. These we can use in situations where the use of interest rates is not enough to reach the inflation target. One such situation was the adoption of the exchange rate commitment in autumn 2013, which we did after monetary policy rates had been lowered to "technical zero" in November 2012 and the situation called for a further easing of the monetary conditions. The exchange rate commitment was used until April 2017, when the Bank Board decided to discontinue it. In the standard managed float exchange rate regime to which we have returned, we can moreover respond to potential excessive fluctuations of the koruna exchange rate by intervening in the foreign exchange market. We use these instruments primarily to deliver price stability; to maintain financial stability we use a separate set of instruments called macroprudential tools. However, monetary policy and macroprudential policy affect one another, as monetary policy decisions have an impact on the financial sector and, conversely, macroprudential policy decisions influence the economy and inflation. We therefore take the interactions between the two policies into account.

We are proud of the fact that the CNB is one of the most transparent central banks in the world according to renowned international analyses. We publish our forecast and its risks and an explanation of the reasons for the Bank Board's decision in order to make our monetary policy as transparent, comprehensible, predictable and therefore credible as possible. We are convinced that credible monetary policy effectively anchors inflation expectations and thereby significantly helps to maintain price stability and overall macroeconomic stability in the Czech Republic.

On behalf of the Czech National Bank

Jiří Rusnok
Governor

I. SUMMARY

Inflation will stay above the upper boundary of the tolerance band this year and return close to the CNB's 2% target over the monetary policy horizon (see Chart I.1). Consumer prices increased by 3.1% in 2020 Q2, driven mainly by buoyant core inflation and growth in food prices. The latter was due to strong consumer demand, international transport restrictions due to the coronavirus pandemic, and labour shortages in agriculture in Europe. Growth in administered prices was also high. Inflation will stay above 3% until the end of this year. A drop in firms' revenues and growth in their costs during the coronavirus pandemic will foster continued price growth despite a deep decline in demand and overall economic activity. Inflation will fall more markedly at the start of next year in connection with lower growth in domestic costs, a slightly appreciating koruna and a cooling of the labour market. As regards the structure of inflation, this will be driven by core inflation and above all food prices. Administered price inflation will also decrease due to slower growth in electricity prices. By contrast, the fall in fuel prices stemming from the previous collapse of global oil prices will dissipate. Inflation will decrease towards the target over the monetary policy horizon and stay close to it in 2022. Monetary policy-relevant inflation will be slightly lower than headline inflation, as the first-round effects of changes to indirect taxes will be slightly positive overall (see Chart I.2).

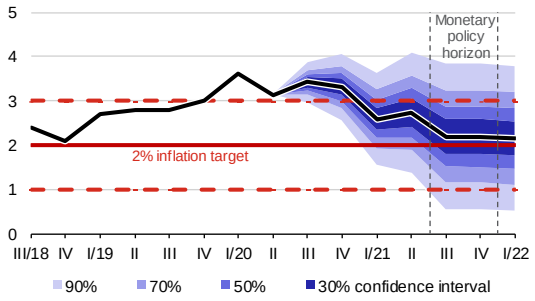
GDP will drop sharply this year due to the coronavirus pandemic, but its growth will recover next year (see Chart I.3). Part of the Czech economy was shut down during the spring months due to measures to combat the coronavirus pandemic. Although the quarantine measures have been almost fully lifted, reduced external demand, a marked rise in unemployment and worse overall perceptions of the economic situation among Czech firms and households will have an adverse effect in the months ahead. GDP will decline by around 8% this year and return to growth next year. However, the economy will not reach the pre-pandemic level until the end of 2022. The decline in GDP this year will be due mainly to a drop in private investment. This is because the recovery in investment will be hindered by a deep downturn in external demand together with significantly worse global economic sentiment. For the same reasons, the export performance of Czech corporations will also decrease sharply. This will be reflected in a negative contribution of net exports to GDP growth. By contrast, the negative impacts of the coronavirus pandemic are being softened by faster growth in government consumption coupled with stabilising budgetary measures, which are supporting household consumption above all. Wage growth will fall markedly this year, especially in market sectors, but will recover next year as the impacts of the pandemic fade out.

The koruna will appreciate gradually over the entire forecast horizon (see Chart I.4). The exchange rate forecast for 2020 Q3 is set at CZK 26.7 to the euro. This thus reflects the appreciation recorded in late May caused by a change in global sentiment connected with the easing of the quarantine measures in Europe and the Czech Republic. A relatively moderate course of the pandemic in the domestic economy and in Europe will then allow the rate to appreciate gradually further over the forecast

Chart I.1 Headline inflation forecast

Headline inflation will fall into the tolerance band around the target at the start of next year and will be close to the CNB's 2% target over the monetary policy horizon

(year on year in %)

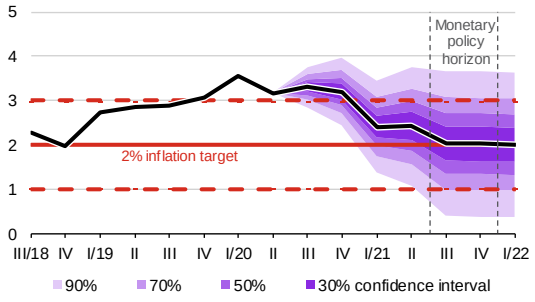


Note: The confidence intervals of the headline inflation forecast reflect the predictive power of past forecasts and are symmetric. They are widening only for the first five quarters and then stay constant. This is consistent with both the past predictive power and the stabilising role of monetary policy.

Chart I.2 Monetary policy-relevant inflation forecast

Monetary policy-relevant inflation will be slightly lower than headline inflation and will be at the CNB's 2% target over the monetary policy horizon

(year on year in %)

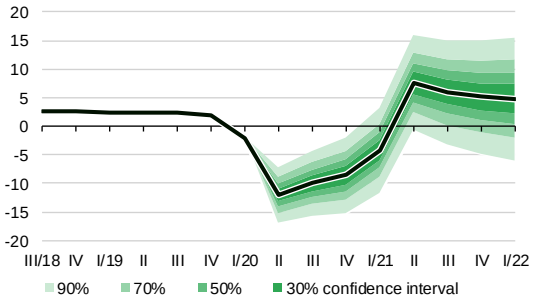


Note: The confidence intervals of the monetary policy-relevant inflation forecast reflect the predictive power of past forecasts and are symmetric. They are widening only for the first five quarters and then stay constant. This is consistent with both the past predictive power and the stabilising role of monetary policy.

Chart I.3 GDP growth forecast

The Czech economy will contract sharply this year due to the coronavirus pandemic; its growth will resume next year, but from a substantially lower level

(annual percentage changes; seasonally adjusted)



Note: The current uncertainty regarding future GDP growth is much higher than implied by the historical forecast errors. The confidence intervals of the GDP growth forecast have therefore been widened significantly to reflect this increased uncertainty.

horizon (to CZK 26 to the euro at the end of 2022). This will be due to renewed growth in external demand and, in turn, domestic economic activity, against a backdrop of continued real convergence of the Czech economy.

Consistent with the forecast is stability of domestic market interest rates until mid-2021, followed by a gradual rise in rates (see Chart I.5). Following a sizeable decrease in 3M PRIBOR market interest rates in the first half of this year, which reflected the CNB's response to the negative impacts of the coronavirus pandemic, rates will remain stable for a few quarters. The forecast indicates a gradual increase in market interest rates from 2021 H2 onwards as domestic economic activity recovers, amid stabilisation of inflation close to the target.

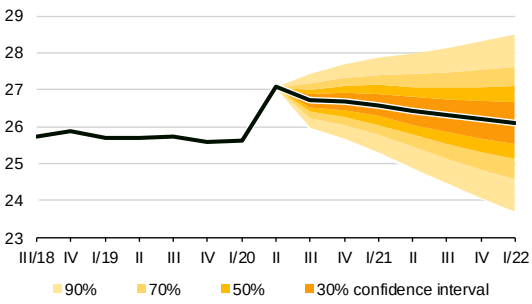
At its August monetary policy meeting, the Bank Board of the Czech National Bank unanimously kept interest rates unchanged. The two-week repo rate thus remains at 0.25%, the discount rate at 0.05% and the Lombard rate at 1%.

The Bank Board assessed the risks to the forecast as being significant but not tilted in either direction overall. The course of the pandemic and the possible reintroduction of quarantine measures remain a risk. However, the uncertainties of the forecast also include the speed of recovery of the European and domestic economies now that the quarantine restrictions imposed during the first wave of the pandemic have been lifted. The current evolution of the exchange rate may be a downside risk to inflation. By contrast, fiscal policy support for the domestic economy may be stronger than assumed by the forecast in the years ahead. A specific domestic uncertainty is the structure of the supply and demand factors underlying the surprisingly rapid growth in consumer prices in recent months.

Chart I.4 Exchange rate forecast

The koruna will appreciate gradually over the entire forecast horizon

(CZK/EUR)

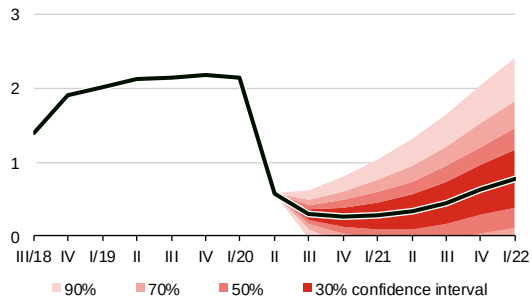


Note: The confidence intervals of the CZK/EUR exchange rate reflect the predictive power of past forecasts (with the exception of the exchange rate commitment period). They are symmetric and linearly widening.

Chart I.5 Interest rate forecast

Consistent with the forecast is stability of domestic market interest rates until mid-2021, followed by a gradual rise in rates

(3M PRIBOR in %)



Note: The confidence intervals of the 3M PRIBOR forecast reflect the predictive power of past forecasts (with the exception of the exchange rate commitment period). They are symmetric, linearly widening and limited below by the zero lower bound.

II. THE FORECAST, ITS CHANGES AND RISKS

II.1 DEVELOPMENTS ABROAD AND EXTERNAL ASSUMPTIONS OF THE FORECAST

The global economy will record an unprecedented contraction this year owing to the coronavirus pandemic. Most countries, including the euro area, bottomed out in Q2 and their economies are gradually recovering from the quarantine restrictions, although the epidemiological situation is not entirely under control everywhere. Fiscal and monetary policy measures should support the expected recovery from the middle of this year onwards. Producer prices in the euro area will drop this year owing to low oil prices and weak demand pressures in the production sector. However, these anti-inflationary effects will fade out next year. Euro area consumer price inflation can also be expected to decrease this year, but will remain positive. Despite an improvement in financial market sentiment, central banks are keeping their monetary policies extremely easy, with both the ECB and the Fed stepping up their support measures. Short-term euro rates remain negative, as does their outlook. The euro will appreciate slightly against the dollar.

II.1.1 Economic developments abroad

The coronavirus pandemic has had a sizeable impact on the world economy, and especially on advanced countries.[1] All the major economies except China can be expected to contract in 2020 as a whole. Despite the significantly negative impacts of the pandemic, China is expected to grow by almost 2%. The UK and the euro area will record the largest contractions. Overall, the weighted decline in the economies monitored will be about 4% this year. The world economy will grow by almost 6% in 2021 (see Chart II.1.1).[2]

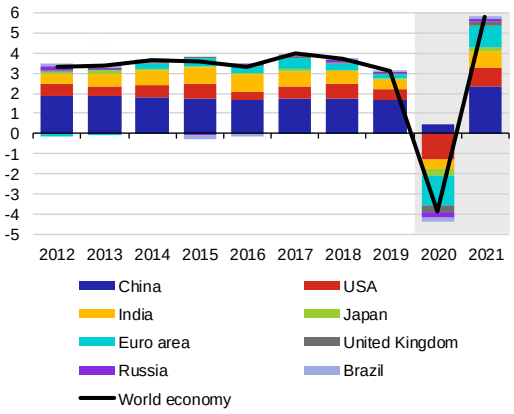
The euro area economy declined by 3.1% year on year in Q1 (see Chart II.1.2). Governments' measures to combat the pandemic hit household consumption and foreign trade in the euro area in Q1, whereas the contribution of government consumption and investment to the year-on-year change in GDP was positive. From a sectoral perspective, activity in services declined, especially in wholesale and retail trade, transport, hotels and restaurants, and professional and scientific activities. The contribution of industry was also negative, mainly on account of plant shutdowns, which affected production chains throughout the EU. Fully renewed smooth functioning of foreign trade and production chains in the future is uncertain for the time being, as described by the lower global productivity scenario in section II.4. The measures adopted weighed on economic activity in Q1 above all in Italy and Spain, while the impact on activity in Germany was smaller (see Box 1 in Inflation Report II/2020).

The available business indicators are signalling that the euro area economy dropped even deeper in Q2. Industrial production fell by almost 30% year on year in April. The decline moderated to 21% in May. The restart of industrial firms in Italy and France was relatively swift, but euro area industrial activity is recovering gradually overall. This is confirmed by the Purchasing

Chart II.1.1 World economy growth outlook

The world economy will contract in 2020 owing to the Covid-19 pandemic, and will return to growth next year

(annual percentage changes in real GDP; contributions in percentage points; source: EIU, CF, CNB calculation)

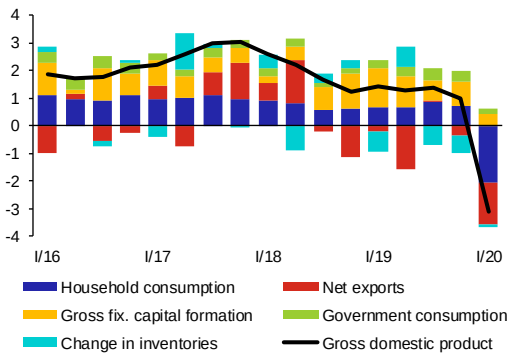


Note: World economy growth is proxied by the growth of the eight largest economies, which account for around 75% of global GDP. The weights of the individual economies are calculated on the basis of nominal GDP at purchasing power parity. The sources of the outlooks are CF and EIU.

Chart II.1.2 Structure of annual GDP growth in the euro area

Euro area GDP declined in 2020 Q1, owing mainly to household consumption and net exports

(annual percentage changes; contributions in percentage points; seasonally adjusted; source: Datastream, CNB calculation)



1 A more detailed description of expected developments abroad, updated every month, is available in Global Economic Outlook.

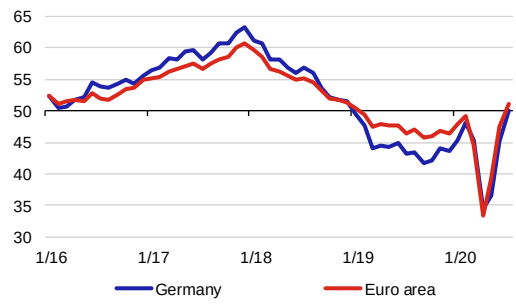
2 The outlook, including the expected outcome, is indicated by the grey area in the chart. This convention is used throughout this Report.

Managers' Index (PMI; see Chart II.1.3) and by alternative indicators of economic activity (see Box 1). On the other hand, the evolution of consumer demand is rather more favourable. Retail sales in the euro area fell by just 5% year on year in May; in Germany, they even rose by 3.8% year on year. The decrease in demand was largely dampened by fiscal support measures, which amount to at least 2% of GDP in the Czech Republic's main trading partner countries. The German fiscal package of EUR 130 billion (almost 4% of GDP) is the largest of the measures announced. Besides a VAT rate cut, it contains higher health care expenditure, support for families and SMEs, and higher investment in green energy. The massive fiscal stimuli in the euro area are also supporting the labour market and maintaining employment. In May, therefore, the unemployment rate increased by just 0.3 percentage point compared with March, to 7.4%.

Chart II.1.3 PMI in manufacturing

Industrial production in Germany and the euro area as a whole is recovering only gradually

(Purchasing Managers' Index; source: Bloomberg)



BOX 1 High-frequency indicators of economic activity during the Covid-19 pandemic

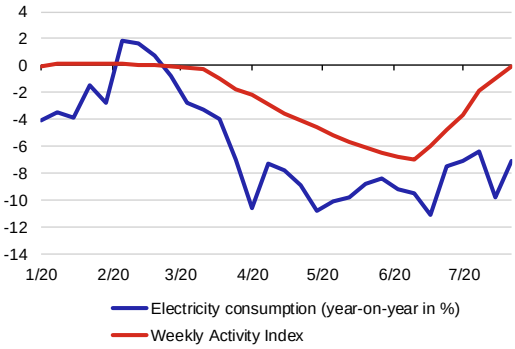
Central banks have started using alternative, high-frequency indicators to monitor economic developments. Lags in the publication of traditional economic data and complications with their collection make it difficult to monitor and interpret current economic developments in dramatic situations such as the Covid-19 pandemic. By contrast, some high-frequency indicators available on a daily or weekly basis can provide additional information on economic activity with no significant lags, especially in periods of abrupt changes in the economy.[3] For example, monitoring of keywords in internet searches, information on transactions based on payment card data, and trends in the movement of persons can be used to monitor and assess consumer behaviour. The volume of industrial production can be illustrated using data on energy consumption, railroad and air transport, or road tolls collected.

Activity indices published, for example, by the Bundesbank and the Fed provide a more comprehensive view of various sectors of the economy. The Weekly Activity Index for the German Economy[4] comprises nine high-frequency indicators. The data are transformed so that the resulting index describes quarter-on-quarter developments in the German economy, i.e. developments over the last 13 weeks compared with the previous 13 weeks. Besides electricity consumption and tolls collected on German roads, it includes the worldwide number of commercial passenger and cargo flights. The German labour market situation is proxied by the number of internet searches for "unemployment", "short-time work" and "state support". The behaviour of German consumers is signalled by the number of passers-by on shopping streets in German cities along with

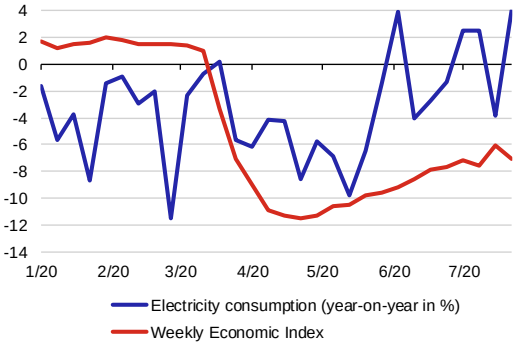
Chart 1 (BOX) High-frequency indicators of economic developments in selected economies

From the perspective of high-frequency indicators, the German, US and Czech economies are past their turning point, but the recovery is gradual

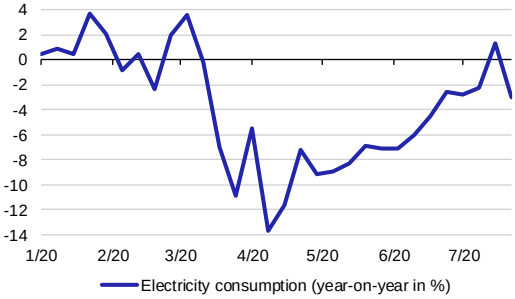
Germany



USA



Czech Republic



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3 See, for example, *"High-frequency" Data Are Especially Useful for Economic Forecasting in Periods of Devastating Crisis*, https://www.insee.fr/en/statistiques/4620518?sommaire=4473307.

4 Weekly Activity Index for the German Economy (WAI), https://www.bundesbank.de/en/statistics/economic-activity-and-prices/weekly-activity-index)

a consumer confidence index. Air pollution data indicate developments in transport. The New York Fed publishes a Weekly Economic Index[5] summarising the evolution of ten high-frequency indicators available for the US economy. These indicators include electricity consumption data, weekly labour market data, and data on retail sales, fuel sales, raw steel production, freight transport and tax collection. Unlike the Bundesbank's index, this index is scaled to align with the year-on-year growth of the US economy.

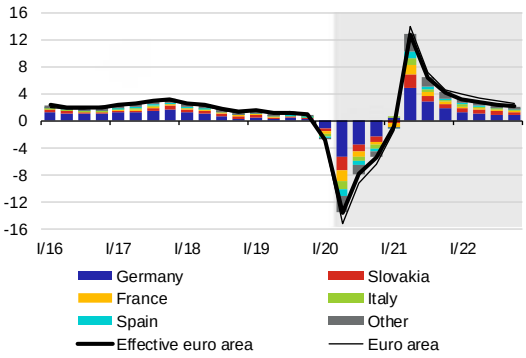
These indices suggest that the two large economies have now bottomed out (see Chart 1). The USA reached a trough in late April, when the weekly index fell by more than 11% year on year, whereas Germany did not bottom out until early June (down by almost 7% quarter on quarter). Consumer demand in Germany is recovering quickly, but electricity consumption data are suggesting a more gradual recovery in industrial sectors. By contrast, the Czech economy bottomed out from the perspective of electricity consumption[6] in mid-April, when its year-on-year decline troughed at 13.7%. Since then, all indicators have been improving steadily. At the end of July, the German index was signalling a quarterly decline (i.e. a decline over the last 13 weeks compared with the previous 13 weeks) of 0.1%. The US index fell slightly owing to a rise in unemployment, signalling a year-on-year drop of 7.1%. In the Czech Republic, weekly electricity consumption recorded a year-on-year decline of 3%.

The drop in GDP in the effective euro area[7] will bottom out in Q2 and the year-on-year decline will then start to moderate (see Chart II.1.4). Overall, the effective euro area economy will decline by more than 7% this year and grow by more than 5% next year. France, Italy and Spain will record the largest decreases in GDP (over 10%) this year. By contrast, the German economy will contract by around 6%. The economic impacts of the coronavirus pandemic will also be uneven from the sectoral perspective. Sectors with a high degree of social contact, such as tourism, will record more permanent losses. Government fiscal measures (especially in Germany) are aimed mainly at stabilising employment and supporting domestic consumption. However, the effects of the stimulus on investment and foreign trade in Germany are less visible. Fiscal expansion will support economic activity mainly in the second half of this year and in some countries also in 2021. However, the expected recovery will not be enough for the currently highly negative output gap to close before the end of the forecast horizon (i.e. at the end of 2022).

Chart II.1.4 Euro area GDP growth outlook

The year-on-year decline in GDP will start to moderate in the second half of this year and switch to growth next year

(annual percentage changes; contributions in percentage points to growth in the effective euro area; seasonally adjusted; CNB calculation)



Note: Other comprises 12 other euro area countries. Its forecasted growth corresponds to the average growth of the five countries shown in the chart.

5 Weekly Economic Index (WEI), https://www.newyorkfed.org/research/policy/weekly-economic-index

6 The original blog describing the methodology, longer-term correlations and first estimates of the impact of the coronavirus pandemic is available (in Czech only) at: https://www.cnb.cz/cs/o_cnb/cnblog/Prvni-odhad-dopadu-pandemie-COVID-19-na-ekonomiku-CR-zverejneno-8.-4./. The latest update is available at: https://www.cnb.cz/cs/o_cnb/cnblog/Prvni-odhad-dopadu-pandemie-COVID-19-na-ekonomiku-CR/.

7 For the purposes of the forecast, external real and price developments are proxied by effective euro area indicators (see the Glossary).

II.1.2 Price developments abroad

The Brent crude oil price increased in 2020 Q2 and its outlook is slightly rising. The price rise was driven by an unprecedented output cut by OPEC+ in May and by a rapid decline in output in other countries due to low oil prices and limited storage capacity. Rapidly recovering demand from China and other countries also played a role. However, renewed growth in new Covid-19 cases around the world is causing concerns of a slowdown in growth in physical demand. Financial investors also remain cautious. OPEC+ intends to gradually increase production starting in August. According to the EIA, global oil inventories will fall by 3.3 million barrels a day on average in the second half of this year and the rate of decline in inventories will slow to 1.1 million barrels next year. However, the EIA expects the Brent crude oil price to remain broadly at the current level on average during the second half of this year, as its growth will initially be dampened by high global inventory levels and surplus production capacity. Oil prices are later expected to rise further to USD 53 a barrel at the end of 2021. In mid-July, the Brent market curve was signalling more gradual price growth to USD 44 a barrel at the close of 2020 and USD 46 a barrel at the end of 2021 (see Chart II.1.5).

Price developments on other commodity markets also started to switch to growth in Q2 (see Chart II.1.5). The more than six-month decline in the average natural gas price in Europe halted in June. This was due to lower imports of liquefied natural gas, which was no longer competitive at the low market prices of other types of gas in Europe. However, gas prices can be expected to drop further in the near term, as their long-term contracts will reflect the recent extremely low oil prices with a lag. Natural gas prices will return to growth next year. The industrial metals price sub-index was supported by a recovery in industrial activity in China. Prices of copper and iron ore recorded particularly strong growth. The iron ore price responded to higher steel production in China and the risk of supply disruptions in Brazil due to the spread of the pandemic in local mines. The coal price also increased. The movements in the food commodity price sub-index were mixed.

The year-on-year decline in industrial producer prices will bottom out in 2020 H2 (see Chart II.1.6). The strong negative contribution of the energy component reflects the previous collapse of the oil price and its subsequent only partial correction. The substantial decline in sales will also be reflected in slower year-on-year growth in the core component of producer prices. According to the PMI leading indicator in industry, production was below capacity in June. This was linked with a fall in employment in industry, especially in Germany, Italy and the Netherlands. Weak demand will continue to push producer prices down. The year-on-year decline in producer prices in the effective euro area deepened to 3.3% in May. Prices dropped the most in Spain and Italy. Conversely, the price decline was significantly shallower in Germany and Slovakia. This is reflected in a significantly higher indicator for the effective euro area than the euro area proper (see Chart II.1.6). Declines were recorded both for energy prices and for prices of intermediate goods, while growth in prices of non-durable consumer goods slowed. Producer prices in the effective euro area will decline by 2.1% in

Chart II.1.5 Prices of crude oil and other commodities

The outlook for the Brent crude oil price is slightly rising from an initial level of just above USD 40 a barrel

(oil in USD/barrel (right-hand scale); other commodities: index [January 2016 = 100]; average price of natural gas in Europe; source: Bloomberg, World Bank, CNB calculation)

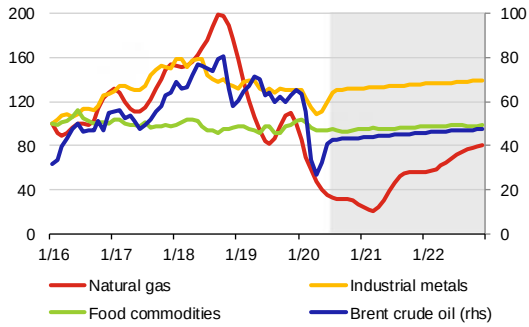
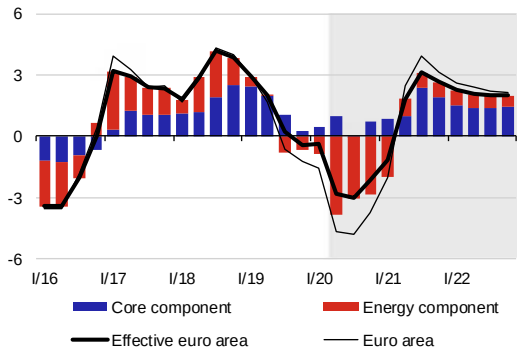


Chart II.1.6 Industrial producer prices in the euro area

Strongly negative contributions of the energy component will lead to a sizeable decline in industrial producer prices overall amid a fall in economic activity

(annual percentage changes; contributions in percentage points to growth in the effective euro area; seasonally adjusted; CNB calculation)



Note: The energy component is determined by developments in industries strongly linked to the oil price. The rest of the PPI index in effective terms is the core component.

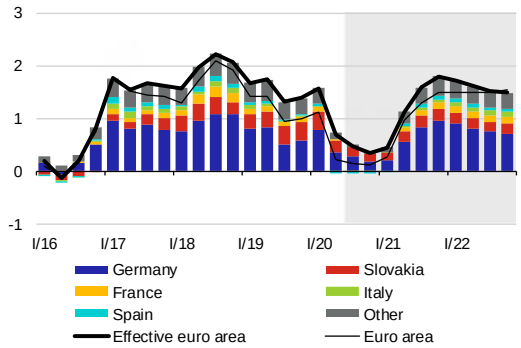
2020 as a whole. They will gradually rise again in 2021 due to the expected economic recovery and rising oil price, and their growth will temporarily accelerate to 3%. In 2022, prices will increase by around 2%.

Consumer price inflation in the euro area will slow considerably this year (see Chart II.1.7). Headline inflation in the euro area stood at 0.3% in June (0.8% in effective terms). It was thus slightly higher than in the previous month, due mainly to a decline in the negative contribution of energy prices. By contrast, the positive contribution of the other components decreased and core inflation edged down. The long-running subdued inflation pressures and low inflation expectations in the euro area will be temporarily amplified by a fall in consumer demand. Consumer price inflation is expected to bottom out at the end of this year. Consumer prices will then grow the most in Slovakia, while shallow deflation is expected for Spain and Italy. However, consumer price inflation will recover next year due to the expected recovery in economic activity and the fade-out of the decrease in oil prices. This notwithstanding, effective inflation will be just 1.2% in 2021. Inflation in the euro area proper will be even lower (0.4% this year and 1% next year).[8]

Chart II.1.7 Consumer price inflation outlook in the euro area

Inflation will slow considerably this year, and growth in consumer prices will pick up again next year

(HICP; annual percentage changes; contributions in percentage points to growth in the effective euro area; seasonally adjusted; CNB calculation)



Note: Other comprises 12 other euro area countries. Its forecasted growth corresponds to the average growth of the five countries shown in the chart.

II.1.3 Financial developments abroad

According to the market outlook, the 3M EURIBOR will remain negative over the entire forecast horizon (see Chart II.1.8).[9] Following the March shock, financial market sentiment returned to cautious optimism amid easy monetary and fiscal policies. Risk aversion decreased. The ECB left its key monetary policy rates unchanged, but in June it announced an expansion of the March support measures. The Pandemic Emergency Purchase Programme (PEPP) was increased to EUR 1,350 billion. This amount was confirmed at the meeting in July, together with a repeated assurance that the ECB would adjust or expand the programme as necessary. Ten-year German government bond yields remain negative over almost the entire outlook, so the difference with respect to the gradually rising yields on US government bonds is widening again as the horizon lengthens (see Chart II.1.9).

The outlook for the 3M USD LIBOR is close to zero due to the Fed's easy monetary policy (see Chart II.1.8). The US central bank expects zero rates until the end of 2022 amid only a gradual recovery of the labour market and the economy as a whole. The range of unconventional instruments was expanded in June to include purchases of corporate bonds under the Secondary Market Corporate Credit Facility (SMCCF). The volume of purchases will be governed by the market situation. The July CF survey shows that at the current rate of economic support, the

Chart II.1.8 3M EURIBOR and 3M USD LIBOR

The Fed's monetary policy easing was reflected in a decline in the spread between 3M rates in the USA and the euro area

(percentages; differences in percentage points)

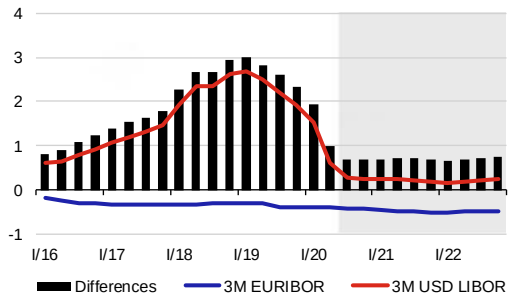
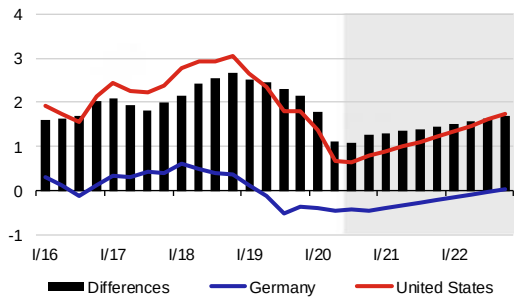


Chart II.1.9 10Y government bond yields

The outlook for the spread between ten-year government bond yields in the USA and Germany is widening again

(percentages; differences in percentage points)



8 The ECB's forecast predicts even lower inflation levels for the euro area (0.3% this year and 0.8% next year).

9 Given the financial market stress, short-term unsecured EURIBOR rates were temporarily volatile in late March and early April, while secured segments remained stable. The 3M EURIBOR is therefore temporarily proxied in the forecast using the EONIA rate with the relevant spread. Moreover, this forecast takes into account expectations regarding the ECB's asset purchase programme through adjustments using shadow interest rates, which are significantly lower than market rates.

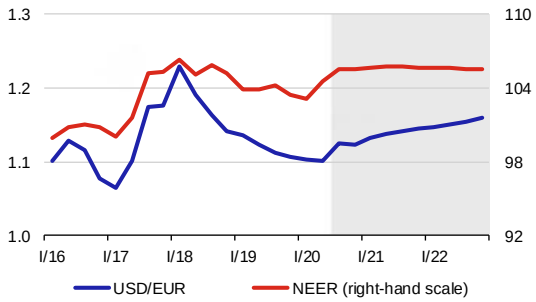
Fed's balance sheet will get close to 50% of US GDP at the end of this year. The analysts also agree that more forceful expansionary fiscal policy should be pursued to support the economy.

According to the current outlook, the euro will appreciate slightly against the dollar (see Chart II.1.10). The euro is also expected to appreciate in effective terms in the short term (mainly due to appreciation against the Chinese and British currencies) and to be broadly stable later. The single European currency should benefit mainly from the massive volumes of fiscal measures aimed at supporting the economy. A stronger euro against the dollar is also suggested by the current epidemiologic situation, which the USA has yet to get fully under control.

Chart II.1.10 Euro exchange rate

The CF analysts expect the euro to appreciate slightly against the dollar and to remain broadly stable against other currencies after an initial strengthening

(USD/EUR; NEER of euro against currencies of euro area countries' 18 main partners; 2016 Q1 = 100; right-hand scale)



II.2 THE FORECAST

Inflation will stay above the upper boundary of the tolerance band around the 2% target until the end of this year. A drop in firms' revenues and continued growth in their costs will foster rising prices despite the deterioration in demand caused by the ongoing coronavirus pandemic. Costs in the domestic economy will keep climbing owing to an economic recovery following the lifting of the quarantine measures, amid an only gradual recovery of labour efficiency. Inflation will slow more substantially next year due to the fade-out of the increased growth in domestic costs, slight appreciation of the koruna, a cooled labour market and subdued domestic demand. Inflation will return into the tolerance band at the start of next year and decrease close to the target over the monetary policy horizon, where it will stay in 2022. Economic activity will recover gradually after the contraction recorded in the first half of this year. This will be aided by renewed growth in household consumption following the lifting of across-the-board quarantine measures and by a recovery in exports on account of a rise in external demand. However, a deterioration in business confidence and the risk of local outbreaks of the disease will continue to weigh on corporate investment activity, which will not return to growth until next year. The decline of the economy of around 8% this year will be only partly slowed by highly expansionary fiscal policy. The crisis will significantly affect the labour market, which will cool quickly in the quarters ahead. Wage growth will therefore remain muted over the forecast horizon. The koruna partly reversed its previous weakening and will continue to firm modestly according to the outlook. Consistent with the forecast is stability of domestic market interest rates until mid-2021, followed by a gradual rise in rates.

II.2.1 Inflation and monetary policy

Headline inflation will stay above the upper boundary of the tolerance band for the rest of this year and return close to the target next year (see Chart II.2.1). After having slowed in 2020 Q2, inflation will briefly edge up. This increase will be due mainly to rising core inflation, reflecting the fading previously strong domestic demand and temporarily elevated growth in corporate costs owing to the spring "shutdown" of part of the domestic economy. A related drop in firms' revenues and continued growth in their costs will foster rising prices despite a deterioration in demand caused by the ongoing coronavirus pandemic. The decrease in demand pressures will thus have only a limited effect on inflation. Core inflation will not fall significantly until early next year (see Chart II.2.2). This, together with a decline in food price inflation and a fading out of the high growth in administered prices seen in recent years, will cause inflation to return into the tolerance band around the target. In the second half of next year, i.e. over the monetary policy horizon, inflation will decrease close to the 2% target, where it will stay in 2022.

Monetary policy-relevant inflation[10] will be slightly below headline inflation over the entire forecast horizon. This is because the first-round effects of changes to indirect taxes will be slightly positive overall, stemming mainly from repeated increases in excise duty on tobacco products. In addition, the VAT rate on selected services was lowered in July 2020. However, the negative first-round effects of this cut will be offset by equal but opposite second-round effects. The VAT change will therefore

Table II.2.1 Forecasts of selected variables

GDP will fall sharply this year and return to growth next year

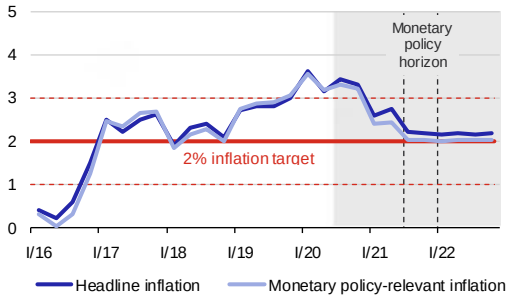
(annual percentage changes unless otherwise indicated)

	2019 actual	2020 forecast	2021 forecast	2022 forecast
Headline inflation	2.8	3.4	2.4	2.2
GDP	2.3	-8.2	3.5	4.0
Average nominal wage	6.4	3.0	3.6	4.1
Exchange rate (CZK/EUR)	25.7	26.5	26.4	26.0
3M PRIBOR (in %)	2.1	0.8	0.4	1.1

Chart II.2.1 Headline inflation and monetary policy-relevant inflation

Inflation will stay above the upper boundary of the tolerance band this year and will be close to the 2% target over the monetary policy horizon

(annual percentage changes)



10 Monetary policy-relevant inflation is inflation adjusted for the first-round effects of changes to indirect taxes. The difference between headline and monetary policy-relevant inflation is equal to the size of the first-round tax effect.

affect neither the prices of the relevant items, nor headline inflation.

Core inflation will remain elevated until the end of this year. This will reflect the fading strong demand pressures connected with the until recently tight labour market and temporarily higher costs caused by the coronavirus pandemic. From July 2020, core inflation is also affected by positive second-round effects of the decrease in VAT on accommodation services and admission fees in sport and culture, because this change – as stated above – is not expected to pass through to prices for final consumers. During next year, core inflation will decline close to 2% (see Chart II.2.3), owing to a significant cooling of the labour market and a related easing of domestic demand pressures. A gradual economic recovery and a related resurgence of inflation pressures will keep core inflation close to 2% in 2022.

Still solid consumer demand and elevated costs will foster continued growth in food prices in the near future. The price growth will be due to high demand for food, labour shortages in agriculture across Europe, and air transport restrictions due to the coronavirus pandemic. Cold weather (morning frost) in early spring is another factor that will lead to growth in prices, especially those of fruit. Strong growth in food import prices and renewed growth in agricultural producer prices (especially for crop products) will also push food prices upwards. These factors will largely fade out next year and food price inflation will drop significantly (see Chart II.2.3).

The fall in fuel prices resulting from the previous collapse of global oil prices will gradually dissipate. Even so, fuel prices will continue to decline year on year until 2021 Q1. Prices at filling stations will subsequently switch to strong short-term growth due to base effects (see Chart II.2.3). Thereafter, fuel prices will grow slightly on the back of a gradual rise in global oil prices.

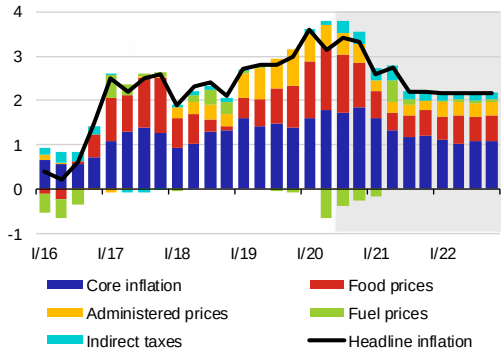
Growth in administered prices will continue to slow for the rest of this year. This will be due mainly to a gradual decline in the currently high growth in electricity prices. Gas prices for households will keep recording subdued growth, while heat prices will continue to fall. Next year, growth in electricity prices will moderate and gas prices will also start to drop, pushing administered price inflation down to 1.6% (see Table II.2.2). The decline in gas prices will taper out in 2022 and administered price inflation will be close to 2%.

The koruna will appreciate gradually over the entire forecast horizon (see Chart II.2.4). The exchange rate forecast for 2020 Q3 is set at CZK 26.7 to the euro. It thus reflects the appreciation recorded in late May caused by a change in global sentiment connected with the easing of the quarantine measures in Europe and the Czech Republic. A relatively moderate course of the pandemic in the domestic economy and in Europe will then allow the rate to appreciate gradually further over the forecast horizon (to CZK 26 to the euro at the end of 2022). This will be due to renewed growth in external demand and, in turn, domestic economic activity, against a backdrop of continued real convergence of the Czech economy. The slightly appreciating koruna will thus help inflation return to the 2% target next year and subsequently stabilise.

Chart II.2.2 Structure of inflation and the inflation forecast

Inflation will continue to be affected mainly by core inflation and food prices

(annual percentage changes; contributions in percentage points)



Note: Food prices also include prices of alcoholic beverages and tobacco. The contribution of the first-round effects of changes to indirect taxes relates to non-administered prices.

Chart II.2.3 Components of inflation

Core inflation will not fall until next year, the current strong growth in food prices will slow, and fuel prices will continue to decline sharply for the rest of this year

(annual percentage changes)

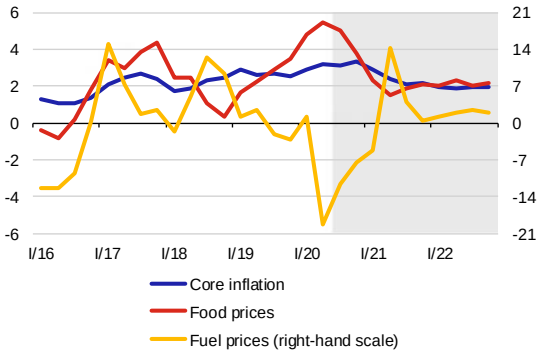


Table II.2.2 Forecast of administrative effects

Administered price inflation will slow and continue to be driven mainly by electricity prices

(annual average percentage changes; contributions to headline inflation in percentage points)

	2019 actual		2020 forecast		2021 forecast		2022 forecast	
ADMINISTERED PRICES[a)]	4.4	0.69	3.4	0.50	1.6	0.23	2.1	0.30
of which (main changes):								
electricity	10.6	0.45	7.8	0.30	2.3	0.09	2.0	0.08
natural gas	3.3	0.08	0.6	0.01	-2.3	-0.05	1.1	0.02
heat	4.6	0.08	-1.2	-0.02	2.0	0.03	2.0	0.03
water	2.6	0.02	2.8	0.02	1.8	0.01	3.0	0.02
health care	2.3	0.03	2.9	0.04	3.6	0.05	3.1	0.04
transport	-5.0	-0.08	1.5	0.02	2.2	0.03	2.1	0.03

a) including effects of indirect tax changes

Consistent with the forecast is stability of domestic market interest rates until mid-2021, followed by a gradual rise in rates (see Chart II.2.5). Following a sizeable decrease in 3M PRIBOR market interest rates in the first half of this year, which reflected the CNB's response to the negative impacts of the coronavirus pandemic, rates will remain stable for a few quarters. The forecast indicates a gradual increase in market interest rates from 2021 H2 onwards as domestic economic activity recovers, amid stabilisation of inflation close to the target.

II.2.2 Costs and the labour market

Growth in total costs will slow temporarily on account of a stronger exchange rate, but will then accelerate again due to a recovery in foreign inflation (see Chart II.2.6). Growth in total costs in the consumer sector surged temporarily in 2020 Q2 on the back of a substantial depreciation of the koruna in March. This was reflected in a significantly positive contribution of core import prices. Conversely, energy import prices continued to dampen the growth in total costs, as the drop in world oil prices recorded early this year outweighed the depreciation of the koruna. The contribution of domestic costs to the overall inflation pressures also decreased in the first half of this year. Growth in total costs will ease temporarily in Q3 owing to a decrease in core import prices. The latter will be due to a decline in foreign producer prices amid renewed appreciation of the koruna. At the end of this year, core import prices will resume their positive effect owing to a recovery in foreign inflation and an only slightly strengthening koruna. In addition, the negative contribution of energy import prices to growth in total costs will fade out owing to an increase in oil prices, and will turn slightly positive at the end of this year. The contribution of the domestic economy to the evolution of total costs will fall further in 2020 Q3; its subsequent increase will reflect a recovery in domestic economic activity. The currently volatile growth in total costs will therefore stabilise gradually and will be consistent with its steady-state level in 2022. The contribution of price convergence will be constantly positive over the entire forecast horizon.

Domestic costs will rise at a faster pace until the end of this year and then slow to their steady-state growth rate (see Chart II.2.7). Domestic nominal marginal costs in the intermediate goods sector continued to grow in the first half of this year amid the government quarantine measures introduced during the spring months. Growth in fundamental wage costs almost halted, and the shutdown of part of the economy was reflected in a deeply negative contribution of the price of capital. However, this was countered by a deep decline in labour efficiency related to falls in output and restricted operation of firms and even entire sectors. Domestic costs will accelerate slightly in the second half of this year owing to the gradual recovery in domestic economic activity. This will cause the price of capital to go up and the contribution of wages to resume gradually. However, the latter will remain subdued as a result of a worsening labour market situation. At the same time, the contribution of labour efficiency will start to dampen growth in costs again. At the beginning of next year, growth in domestic costs will slow to its steady-state level, where it will remain in 2022.

Chart II.2.4 Exchange rate forecast

The koruna will appreciate gradually over the entire forecast horizon

(CZK/EUR and CZK/USD)

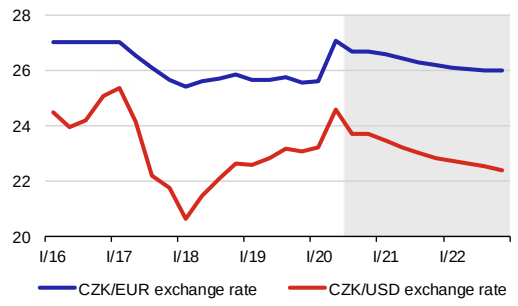


Chart II.2.5 Interest rate forecast

Consistent with the forecast is stability of domestic market interest rates until mid-2021, followed by a gradual rise in rates

(percentages)

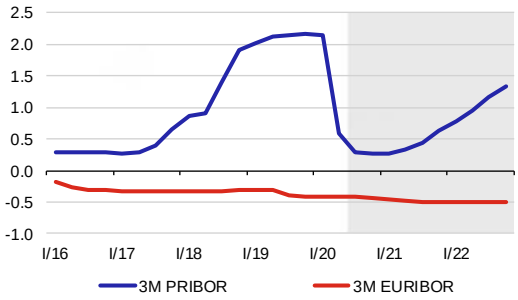
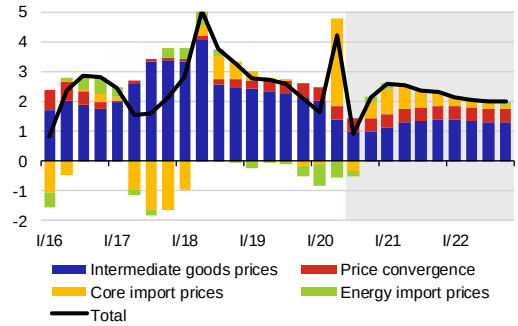


Chart II.2.6 Costs in the consumer sector

Growth in costs will initially ease owing to exchange rate appreciation and a decline in foreign producer prices, but will accelerate again thereafter

(nominal quarterly percentage changes; contributions in percentage points; annualised)



Employment will decline appreciably almost until the end of next year owing to the fall in economic activity (see Chart II.2.8). In 2020, this will be the result of a significant decline in economic activity amid a downturn in domestic and external demand. Next year, as economic growth resumes, demand for labour will stop declining. Growth in employment will turn slightly positive again at the end of next year. The number of employees converted into full-time equivalents will fall even more significantly than the physical number of employees this year, due to a reduction in average hours worked. The subsequent switch of this indicator to growth in 2021 H2 will also be more pronounced than the growth in the physical number of employees, owing to renewed growth in average hours worked. From a sectoral point of view, industry and market services will contribute roughly equally to the decline in the converted number of employees.

The unemployment rate will increase rapidly, peaking at the start of 2021 (see Chart II.2.8). Despite the government's employment protection measures, the general unemployment rate will rise rapidly to 5% due to this year's sharp economic downturn. The rise in the unemployment rate will be reflected mainly in a significant increase in the number of unemployed, accompanied by a slight reduction in the workforce. More marked growth in unemployment will be prevented mainly by a high initial number of vacancies and lay-offs of foreign workers. In 2021 H2, conversely, a recovery in demand for labour will start to emerge, leading to a gradual decrease in the jobless total. The share of unemployed persons will follow a similar path as the general unemployment rate, increasing to 5.8% by the start of 2021. The economic downturn will be reflected over the forecast horizon in a marked increase in the number of registered job applicants amid a continued slight decline in the population aged 15–64.

Wage growth will slow significantly this year owing to the rapid labour market cooling and the government quarantine measures during the spring (see Chart II.2.9). The average wage in market sectors fell significantly in Q2. This was due mainly to the statistical effect of a short-term drop in the wages of employees drawing attendance allowance or wage compensation in the event of quarantine. Wages also dropped for employees not working as a result of pandemic-related obstacles to work. Some of these employees are receiving only partial wage compensation.[11] This statistical effect is clear from Chart II.2.10, which shows the average wage in absolute terms. Conversely, the further increase in the minimum wage introduced at the start of this year,[12] the compositional effect[13] connected with the marked rise in unemployment, and extraordinary bonus

Chart II.2.7 Costs in the intermediate goods sector

The structure of growth in domestic costs will reflect the gradual recovery in domestic economic activity

(nominal quarterly percentage changes; contributions in percentage points; annualised)

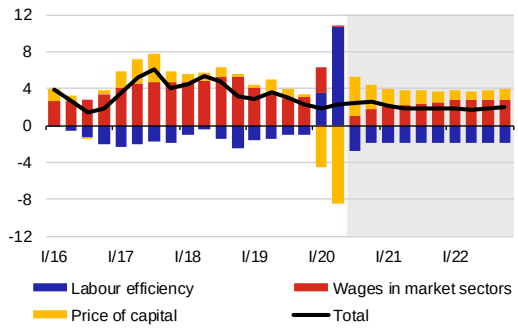


Chart II.2.8 Labour market forecast

Total employment will decrease this year and the next, while the unemployment rate will increase markedly in the near future

(annual percentage changes in employment; general unemployment rate in percentages; seasonally adjusted)

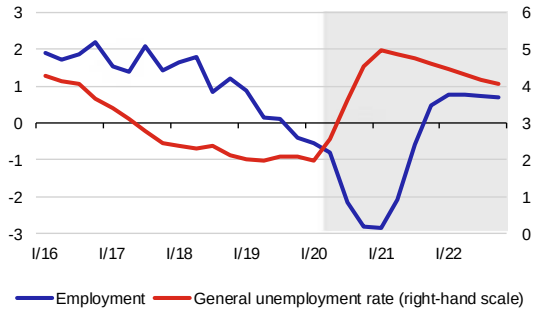
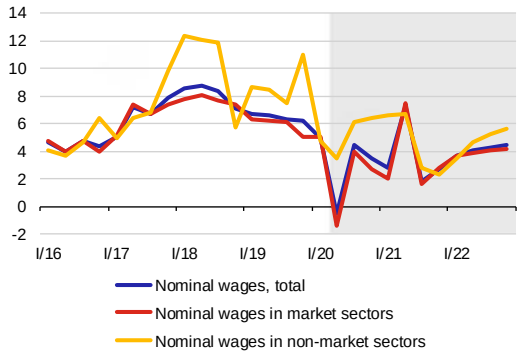


Chart II.2.9 Average nominal wages

Wage growth will slow significantly in both market and non-market sectors this year, and will be highly volatile over the entire forecast horizon

(annual percentage changes; total wages – source: CZSO; wages in market and non-market sectors – source: CNB calculation)



11 Methodologically, the attendance allowance and compensation for mandatory quarantine are not components of wages, so drawdown of these benefits reduces the average wage, similar to the payment of only partial wage compensation to employees by firms impacted by the coronavirus. This effect was strongest in 2020 Q2 and will make wage growth more volatile next year, too. Firms are partially reimbursed for the provision of wage compensation under the Antivirus programme.

12 The minimum wage was increased by CZK 1,250 to CZK 14,600 in January 2020.

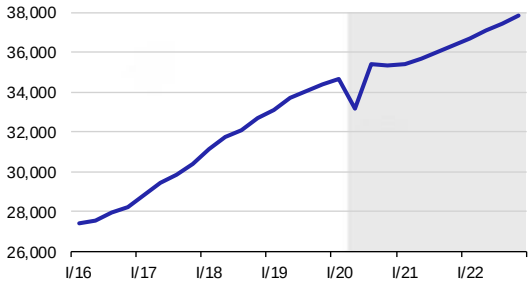
13 The statistical effect on the average wage due to the dismissal of low-income employees.

payments made to health care and social services workers[14] due to the pandemic are acting in the opposite direction. Growth of the average wage in market sectors will thus slow to 2.5% for this year as a whole due to the above combination of factors and the cool labour market. Wage growth will gradually increase next year as the impacts of the pandemic fade out. The effect of the low comparison base in 2020 H1 (resulting from the above-mentioned loss of income captured in the wage statistics) will also partly contribute to this. Wage growth in non-market sectors will remain high this year, reflecting both a significant increase in the salaries of teaching and non-teaching staff in the education system, and a fixed salary increase for other employees of institutions financed directly from the state budget.[15] As in the case of market wages, the above statistical effect will cause wage growth in non-market sectors to fluctuate.

Chart II.2.10 Average nominal wage in market sectors

The average wage will be affected this year by a drop in wages linked with the pandemic and statistical effects

(CZK; seasonally adjusted)



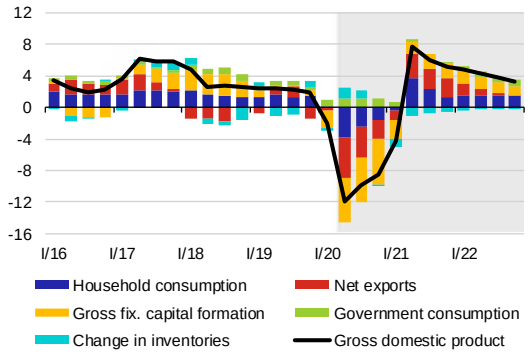
II.2.3 Economic activity

Domestic economic activity will fall sharply this year as a result of the coronavirus pandemic (see Chart II.2.11). Part of the economy was "switched off" during the spring months due to government quarantine measures. Although the restrictions were later lifted almost fully, reduced external demand, increased unemployment and worse sentiment of Czech households and firms will have an adverse effect in the months ahead. This year's decline in domestic economic activity will be due mainly to private investment, but also to net exports and household consumption. Conversely, accelerating growth in government consumption helps reduce the negative impacts of the coronavirus pandemic this year. Government anti-crisis budgetary measures, aimed mainly at supporting household consumption, act in the same direction. As a result, GDP will decline by around 8% this year. Renewed economic growth next year (of 3.5%) will be driven mainly by household consumption and net exports and, to a lesser extent, by investment. Virtually all the components of GDP will contribute positively to growth in 2022.

Chart II.2.11 Annual GDP growth structure

Government consumption (and to a lesser extent change in inventories) will make a positive contribution to GDP growth in 2020; the other components will resume positive contributions next year

(annual percentage changes; contributions in percentage points; seasonally adjusted)



Domestic economic activity will return to the pre-crisis level at the end of 2022. As the level charts in Block 1 show, economic activity will start to increase again in the middle of this year. This will initially primarily reflect the easing of the previous government and corporate quarantine measures. However, the economy will not reach the end-2019 level until the end of 2022. The economic recovery will be slowed primarily by a drop in fixed private investment, as the resumption of its growth will be hindered by dramatically worse corporate sentiment. Despite numerous government support measures, household consumption will not return to the pre-pandemic level until 2022 H1. This will be due mainly to a cooling of the labour market and a decline in wage growth amid worse economic sentiment of households. Exports of goods and services will be

14 The CNB classifies "NACE Q – Health" as a whole as a market sector due to the predominant number of private entities in this sector.

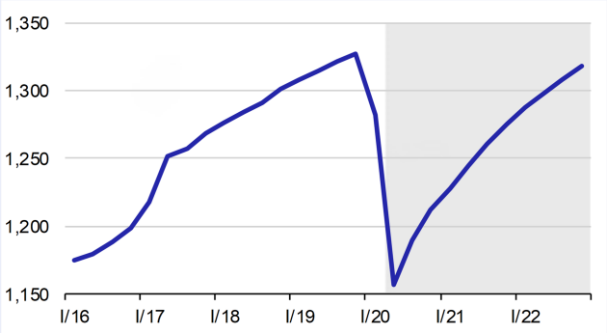
15 In connection with the pandemic, the forecast also assumes a temporary increase in compensation of emergency services employees.

strongly affected by this year's drop in external demand and restrictions on the international movement of persons.

Block 1: Selected indicators in levels

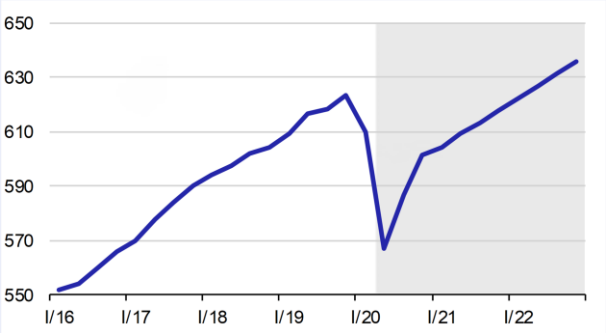
GDP

(CZK billions; constant prices; seasonally adjusted)



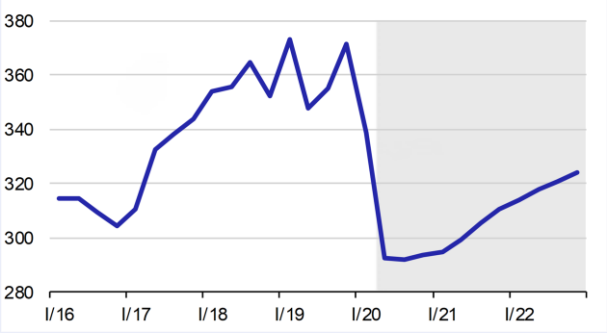
Household consumption

(CZK billions; constant prices; seasonally adjusted)



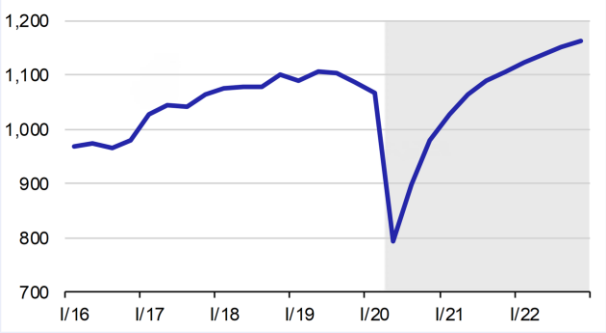
Gross capital formation

(CZK billions; constant prices; seasonally adjusted)



Exports of goods and services

(CZK billions; constant prices; seasonally adjusted)



Household consumption will drop this year as a result of the coronavirus pandemic and the abrupt cooling of the labour market. The previously favourable income situation of households will worsen. This will be apparent in significantly slower growth in nominal gross disposable income (see Chart II.2.12), mainly reflecting a drop in entrepreneurs' income and in wages and salaries. By contrast, the deterioration in the income situation and liquidity of many households and firms will be partly offset by increased social benefits and other government support measures. After the impact of the quarantine measures subsides and services get up and running, the decline in household consumption will begin to moderate in mid-2020. Consumption will grow by 3.5% next year – partly due to base effects – and its growth will slow slightly in 2022 (see Chart II.2.13). After a temporary rise this year reflecting cautious behaviour and sharply deteriorating sentiment of households, the saving rate will return to the end-2019 level and then remain broadly stable over the entire forecast horizon.

Government consumption will be the only component of final domestic demand to maintain a positive contribution to GDP growth this year. Its real growth will rise to 5.5% this year (see Chart II.2.13). In nominal terms, government consumption will be affected mainly by increased spending on health care and the

emergency services. Growth in the government consumption deflator will nevertheless slow. This will be due to a drop in the salaries of some government employees drawing attendance allowance due to school closures during the spring months. Real government consumption will slow close to 1% in 2021, reflecting this year's base effect. Government consumption will rise by almost 3% in 2022.

The effects of the coronavirus pandemic and the sharp deterioration in corporate sentiment will be adversely reflected in private investment activity. The decline in private sector investment this year will be caused by the government quarantine measures and the production stoppages in some industrial firms during the spring months. The deep decline in external demand together with the global spread of the coronavirus pandemic and the significant deterioration in global economic sentiment will have the same effect. This factor will persist longer than the two preceding ones.[16] Government investment will conversely maintain modest growth, which will continue to be supported by drawdown of EU funds. The decline in gross fixed capital formation will be only symbolically offset by a positive contribution of change in inventories this year. It will mainly reflect worse sales and slower removal of goods from warehouses due to government-imposed shutdowns. The recently hampered conditions for the movement of goods from suppliers, together with firms' increased efforts to stock up due to concerns about supply chain disruptions, will act in the same direction. Total gross capital formation will thus fall by almost 16% this year (see Chart II.2.14). Next year, private investment will start to rise again and growth in government investment activity will also increase. Private investment will benefit from renewed economic growth abroad and will also be supported by the easing of domestic monetary conditions in 2020 H1. Growth in total investment will thus resume during 2021, despite a year-on-year decline in additions to inventories. Gross capital formation will increase by more than 5% in 2022.

Exports of goods and services will drop sharply as a result of the drop in external demand. The fall in exports to the 2013 level will not be significantly affected even by the improvement in domestic exporters' price competitiveness resulting from the March depreciation of the koruna. Despite a slightly appreciating koruna, export growth will begin to recover in mid-2020 after the domestic and foreign economy restarts (see Chart II.2.15). Next year, exports will continue to grow as external demand recovers. However, the drop in tourism income (under exports of services) will be more protracted. Export growth will stand at 6.5% in 2022.

Import growth will decrease significantly this year due to the drop in domestic demand and exports. The expected fall in exports and import-intensive private investment will lead to a drop in imports of almost 12% this year (see Chart II.2.15). The decline in imports will also partly reflect lower household consumption. External and domestic demand will return to growth next year.

Chart II.2.13 Real household and government consumption

Household consumption will drop sharply this year, while growth in government consumption will pick up further

(annual percentage changes; seasonally adjusted)

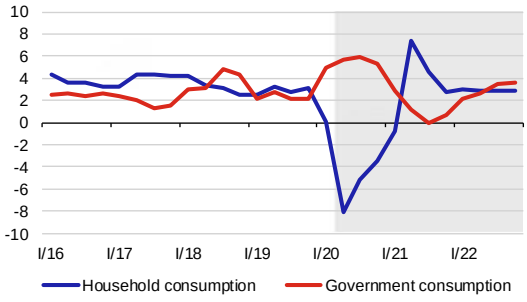


Chart II.2.14 Investment decomposition

The deep decline in gross capital formation will fade away during 2021, with a renewed positive contribution of private investment

(annual percentage changes; contributions in percentage points; constant prices; seasonally adjusted)

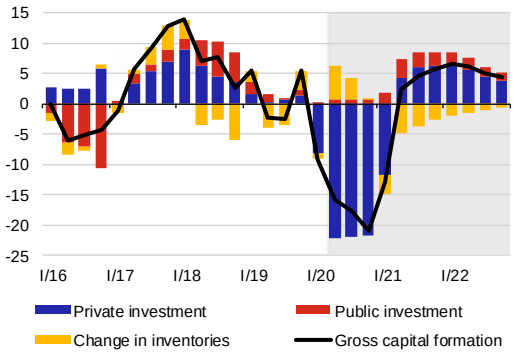
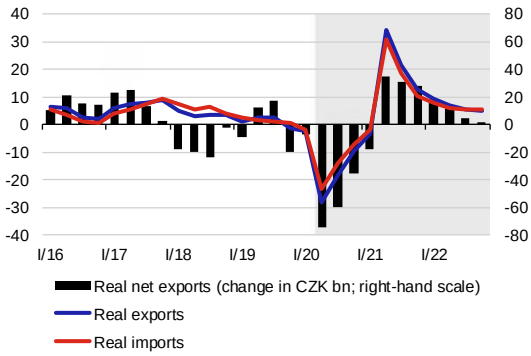


Chart II.2.15 Real exports and imports

The current deeply negative pace of growth in both exports and imports will not turn positive until next year

(annual percentage changes and CZK billions; seasonally adjusted)



16 By contrast, the possibility of tax carryback and the COVID-Ubytování programme will have a favourable effect, albeit to a limited extent, on firms' investment appetite.

This will lead to a recovery in import growth. Import growth will slow in 2022.

The contribution of net exports to GDP growth will be negative this year and positive next year. Both sides of foreign trade will fall sharply this year, while the decline in export growth will be deeper than that in import growth. In 2021, on the other hand, exports will recover slightly faster than imports, which will lead to a positive contribution of net exports. The same will hold in 2022.

II.2.4 The balance of payments

The current account will return to a surplus of 0.4% of GDP this year (see Chart II.2.16). The drop in external demand connected with the coronavirus pandemic will strongly affect the export-oriented Czech economy. Exports of goods and services will decrease by around 15%. Just like external demand, domestic demand will go down. This, coupled with the aforementioned drop in exports, will lead to a sharp fall in imports of goods and services. In addition, the renewal of a current account surplus will be due to a sizeable decline in commodity prices on global markets (oil and gas prices in particular). The mild winter moreover reduced gas consumption and imports. The goods surplus will nonetheless decrease significantly, due mainly to a decline in the surplus on cars and car parts. The services surplus is forecasted to stay at last year's level. It will be increased by growth in the surplus on IT services, while the tourism sector will act in the opposite direction. However, the sizeable drop in the goods and services surplus will be more than offset by changes in the income balances (see Table II.2.3). The change in the current account balance will be due mainly to a sizeable decrease in the primary income deficit. The direct investment earnings deficit will fall markedly, due mainly to a decline in dividends paid. The secondary income deficit will also narrow, as the European Commission has allowed faster drawdown of unused EU funds in the current programming period.

The current account will be balanced in 2021, despite a marked improvement in the goods and services balance. The increase in the goods and services surplus will be due mainly to the expected recovery in external demand and hence Czech exports. The dissipation of this year's extraordinary factors in the income balances will act in the opposite direction, but to a greater extent.

The forecast expects the current account surplus to reach 0.7% of GDP in 2022. According to the forecast, exports and imports of goods and services, and their balance, will slightly exceed the 2019 levels. The primary income deficit will widen further.

The capital account surplus will increase sharply this year and decline in the following years. This will reflect the above-mentioned accelerated drawdown of EU funds. The surplus will also be affected this year by a decline in net payments for emission permits, despite their increased prices.

A slight net outflow of capital (excluding operations of banks under other investment) is expected on the financial account this

Chart II.2.16 Ratios of the balance of payments accounts to GDP

The current account will be balanced or run a slight surplus over the forecast horizon

(percentages)

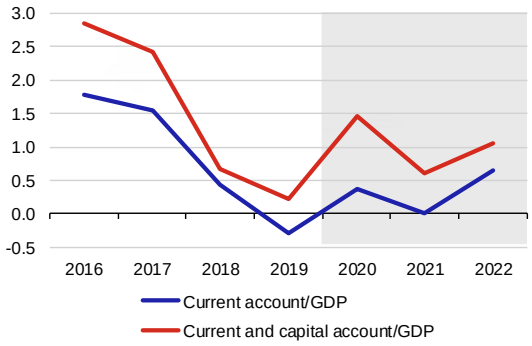


Table II.2.3 Balance of payments forecast

The forecast expects the current account to switch from a slight deficit in 2019 to a slight surplus this year

(CZK billions)

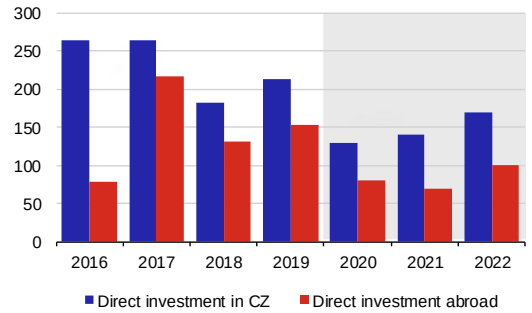
	2019 outcome	2020 forecast	2021 forecast	2022 forecast
A. CURRENT ACCOUNT	-17.0	20.0	0.0	40.0
Goods	236.1	135.0	170.0	230.0
Services	104.4	105.0	120.0	120.0
Primary income	-324.4	-205.0	-260.0	-280.0
Secondary income	-33.0	-15.0	-30.0	-30.0
B. CAPITAL ACCOUNT	30.2	60.0	35.0	25.0
C. FINANCIAL ACCOUNT[a)]	44.6	25.0	0.0	20.0
Direct investment	-61.0	-50.0	-70.0	-70.0
Portfolio investment	-117.6	-90.0	-50.0	-50.0
Financial derivatives	1.0	-	-	-
Other investment	112.0	70.0	40.0	60.0
Reserve assets	110.2	95.0	80.0	80.0

a) forecast excluding operations of banking sector and financial derivatives

Chart II.2.17 Direct investment structure

The net inflow of direct investment into the Czech Republic will decrease only slightly compared with 2019, while turnovers will drop much more strongly

(CZK billions)



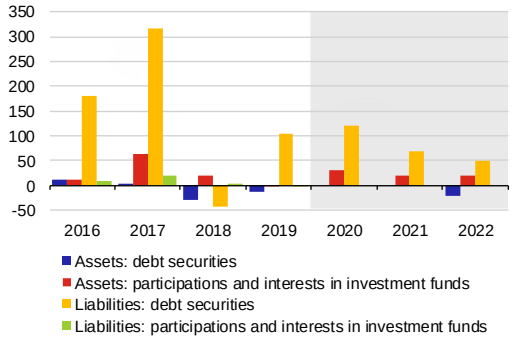
year. According to the forecast, the net outflow of capital under other investment and reserve assets will slightly outweigh the net inflow of direct and portfolio investment. The overall direct investment balance (see Chart II.2.17) will fall only slightly compared with 2019, but both the inflow and the outflow will decrease in terms of both new capital and reinvestment. As for portfolio investment (see Chart II.2.18), the forecast expects a slight year-on-year decrease in the net inflow. A sharp decrease in the interest rate differential, a sizeable decline in share prices, especially in Europe, and limited opportunities to make returns on capital will lead to a reversal of flows on the asset side out of the country. Residents' demand for foreign shares will resurge and the decline in foreign bond holdings will halt. However, a significant increase in the inflow of capital on the liabilities side partly offsets these effects. Unlike last year, the dominant factor underpinning the total inflow will be a rapidly growing Czech government debt rather than a highly positive interest rate differential.[17] The net capital inflow on the liabilities side will be partly reduced by a decline in external debt in the banking sector. The net outflow of capital under other investment excluding banking sector operations will be associated mainly with a reversal of the flow of investment in the business sector (in particular, a sharp increase in claims abroad under trade credits due to worse payment discipline of domestic exporters' customers). However, it will be moderated somewhat by foreign borrowing by the Czech government sector. The increase in reserve assets will be slightly smaller than in 2019 (despite a significant increase in the balance vis-à-vis the EU) due to a decline in returns on the CNB's international reserves.

The forecast sees a balanced financial account in 2021 and a modest net capital outflow in 2022. The overall net inflow of direct investment will increase. On both the inflow and outflow side, the amount of acquisitions will rise, especially in sectors hit by the coronavirus pandemic. The main contributor to the increase in the net capital inflow in 2021 will be a sale of ČEZ's foreign assets, which was originally planned for an earlier date but will be postponed until next year due to the pandemic. In 2022, a gradual renewal of private direct investment will be noticeable. Under portfolio investment, by contrast, the net capital inflow will weaken substantially next year, mainly due to a lower supply of domestic government bonds. By 2022, however, debt capital flows will also be influenced by CNB monetary policy, i.e. by a gradual rise in domestic interest rates starting in mid-2021. With rates in the euro area still negative, this will lead to growth in the positive interest rate differential. As regards other investment (excluding banking sector operations), the outflow of capital will fall significantly in 2021. This will be due mainly to a decrease in trade credits provided by Czech exporters to foreign partners, owing to an improvement in the economic situation and payment discipline in Europe. The expected halt in foreign loan financing of the government in 2022 will lead to renewed slight growth of the net outflow of capital abroad. A declining surplus on operations vis-

Chart II.2.18 Portfolio investment structure

The net inflow of portfolio investment in 2020 will be driven by foreign investment in the rapidly rising domestic government debt

(CZK billions)



17 According to the forecast, about half of new government debt will be financed from abroad this year, partly with the use of loans.

à-vis the EU and a renewed rise in returns on the CNB's international reserves will continue to be reflected in the evolution of reserve assets.

Despite a deep decline in exports, the Czech economy will not need foreign financing. This is mainly because of high net payments from the EU.[18] According to the forecast, the government's rising external debt will be fully eliminated by an increase in the creditor position of the CNB and other sectors. After the financial market situation calms, the favourable macroeconomic characteristics of the Czech Republic and its external balance should make koruna assets an attractive investment in Europe. The forecast expects part of the capital that flowed abroad in March to return to the Czech Republic. Supply of foreign currency on the market should thus slightly exceed demand, buoyed over the longer term by a growing koruna-euro interest rate differential. This should lead to a gradual reduction of the indebtedness of the banking sector and to modest appreciation pressure on the koruna.

II.2.5 Fiscal developments

The government sector will fall into a large deficit this year due to the pandemic and fiscal stabilisation measures. The forecast expects a deficit of 5.8% of GDP this year. This will be due to a marked drop in tax revenues reflecting the temporary shutdown of economic activity in some sectors and the fiscal measures adopted to support the economy. Once most of the currently running support programmes have been phased out, the deficit will fall to 4.3% of GDP next year and decline further to 3.9% of GDP in 2022 (see Table II.2.4).

The fiscal stabilisation measures will amount to 3.1% of GDP this year and 0.2% of GDP next year. The employment support programme (Antivirus), the support for the self-employed,[19] the payment of increased attendance allowance while schools are closed, the tax loss carryback, the cancellation of real estate transfer tax, the payment of 50% of rents by the government and the support for accommodation facilities have the biggest fiscal impacts this year. Government consumption will reflect a rise in expenditure on materials in the health and emergency services and extraordinary compensation of employees. On top of the above-mentioned support measures, the previously approved higher-than-usual increase in pensions,[20] increase in parental allowance[21] and increase in salaries of teachers in regional education systems will have an effect this year. As of

Table II.2.4 Fiscal forecast

The general government sector will run large deficits over the forecast horizon

(% of nominal GDP unless otherwise indicated)

	2019 actual	2020 forec.	2021 forec.	2022 forec.
Government revenue	41.4	41.6	42.5	42.6
Government expenditure	41.2	47.4	46.8	46.5
of which: interest payments	0.7	0.7	0.7	0.7
GOVERNMENT BUDGET BALANCE (CZK in bn)	15.4	-320.7	-249.0	-239.5
GOVERNMENT BUDGET BALANCE	0.3	-5.8	-4.3	-3.9
of which:				
primary balance[a)]	1.0	-5.1	-3.6	-3.3
one-off measures[b)]	0.2	0.2	0.2	0.1
ADJUSTED BUDGET BALANCE[c)]	0.0	-6.0	-4.5	-4.0
Cyclical component (disaggregated method)[d)]	1.6	-1.1	-1.1	-0.6
Structural balance (disaggregated method)[d)]	-1.6	-4.9	-3.4	-3.4
Fiscal stance in pp (disaggregated method)[e)]	-0.9	-3.3	1.5	0.0
Cyclical component (aggregated method)[d)]	0.3	-1.4	-0.6	0.1
Structural balance (aggregated method)[d)]	-0.3	-4.6	-3.9	-4.1
Fiscal stance in pp (aggregated method)[e)]	-0.8	-4.3	0.7	-0.2
GOVERNMENT DEBT (CZK in bn)	1738.7	2072.6	2327.0	2567.9
GOVERNMENT DEBT	30.2	37.5	40.1	42.1

a) government budget balance minus interest payments

b) This item consists of expected revenue from primary sales of emission permits, expenditure on the (New) Green Savings Programme, guarantees and revenue from the sale of frequency bands to mobile operators.

c) adjusted for one-off measures; CNB estimate

d) CNB estimate; the disaggregated method is based on the evolution of the individual tax bases in the business cycle; the aggregated method defines the position of the cycle on the basis of the output gap only.

e) year-on-year change in structural balance

—

18 While the net amount of EU funds over the three-year forecast horizon is CZK 200 billion, the current account and capital account surplus in the same period is CZK 180 billion. The forecast, meanwhile, does not include funds from the new EU Recovery Fund, which, for the most part, the Czech authorities will probably not draw down until after 2022.

19 This involves the half-year suspension of minimum social and health insurance contributions for the self-employed and the payment of a one-off benefit (the 25k Programme).

20 In January 2020, pensions were raised: the average old-age pension went up by CZK 900 (increasing pension spending by some 0.1% of GDP).

21 With effect from 1 January 2020, the total parental allowance was increased from CZK 220,000 to CZK 300,000, which means an increase in expenditure on social benefits of approximately 0.1% of GDP.

this year, general government revenues have been influenced by an increase in excise duty on cigarettes and alcohol, restrictions on the exemption for winnings in games of chance from income tax, an increase in tax rates on lotteries and gambling,[22] a change in the method of the creation and tax deductibility of technical reserves of insurance companies, and the reclassification of selected goods and some services into the reduced VAT rate category. A further hike in excise duty on cigarettes is expected in January 2021, along with the launch of the third and fourth phases of ESR.[23]

Fiscal stabilisation policy is being implemented primarily through substantial support for household consumption this year (see Table II.2.5). The positive fiscal impulse this year is largely a result of the extraordinary measures taken to support the economy in connection with the fight against the coronavirus. As most of the support programmes will be temporary,[24] the forecast expects the fiscal impulse to be negative in 2021. In 2022, the fiscal impulse will be slightly negative. This is related mainly to the end of the positive impact of the tax loss carryback.

The general government sector will also run a deep deficit in structural terms and the government debt will rise substantially. The general government structural deficit will markedly exceed the medium-term objective – a structural deficit of 0.75% of GDP from 2020 – this year. However, due to the ongoing coronavirus pandemic, this divergence will be evaluated as justified. For next year, the amended Budget Responsibility Act allows a structural deficit of up to 4% of GDP, which, according to the CNB forecast, should not be exceeded. Consolidation of public finances should subsequently start under a European Council regulation.[25] Government debt will grow to 42.1% of GDP by the end of 2022 owing to high primary deficits and this year to a drop in nominal GDP as well.

Table II.2.5 Fiscal impulse

The fiscal impulse will be strongly positive this year and negative to a similar extent next year due to the unwinding of most of the stabilisation measures taken this year

(contributions to GDP growth in percentage points)

	2019 actual	2020 forec.	2021 forec.	2022 forec.
FISCAL IMPULSE	0.4	1.7	-1.2	-0.3
of which impact through:				
private consumption	0.4	1.6	-1.2	-0.2
private investment	0.0	0.2	-0.1	-0.1
government investment, domestic	0.1	-0.1	0.0	0.0
government investment, EU funded	0.0	0.0	0.1	0.1

22 These tax changes form part of a “rate package”. The most important change in terms of budgetary impact is the increase in excise duty on cigarettes (0.13% of GDP).

23 The third and fourth phases of ESR should contribute about 0.1% of GDP to the growth in tax revenues.

24 Next year, the only stimulatory factor will be the gradual onset of the effect of the measures of a permanent nature introduced in the course of this year, specifically tax loss carryback, the cancellation of real estate transfer tax and the lowering of VAT on selected services. These measures will reduce the negative contribution of fiscal policy to economic growth.

25 Pursuant to European Council Regulation No. 1466/97, public finances will be consolidated by at least 0.5 percentage point of GDP a year until the medium-term budget objective is met again.

II.3 COMPARISON WITH THE PREVIOUS FORECAST

The changes by comparison with the previous forecast stem mainly from an upward revision of the fundamental inflation pressures. These are linked with a larger decline in labour efficiency given the shutdowns in the domestic economy in the first half of this year, a faster recovery in foreign producer price inflation, and higher oil prices. A slight upward revision of demand pressures in the second half of this year has the same effect. These factors are only partially offset by a stronger exchange rate of the koruna against the euro and slower growth in wages. The inflation forecast is thus higher until mid-2021. The slower renewal of private investment growth is reflected in a slight decrease in the outlook for domestic economic activity. This year, this effect will be dampened by higher government consumption and a more positive fiscal impulse. The path of market interest rates is slightly lower than in the previous forecast, mainly due to a stronger exchange rate.

As regards the external assumptions of the forecast, the outlook for producer prices in the effective euro area has shifted upward (see Chart II.3.1). This change is due to the expected slightly higher price of oil and, by extension, the entire energy price component of industrial producer prices, and in particular due to their core component. The observed data and updated outlooks signal a smaller decline in industrial producer prices than the previous forecast assumed. Added to this is a somewhat faster recovery of economic activity in the effective euro area as from the end of this year. The euro will appreciate slightly faster against the dollar, due to positive fiscal measures in the euro area and a more moderate course of the coronavirus pandemic compared with the United States. The outlook for 3M EURIBOR rates is virtually unchanged, and shadow interest rates sink deeper into negative territory as a result of the expansion of the ECB's asset purchase programmes.[26]

The forecast for domestic economic activity has been revised down slightly (see Chart II.3.2). The drop in GDP in 2020 Q2 was apparently somewhat deeper than in the previous forecast, owing mainly to a more marked drop in investment. This, coupled with the worse business confidence expected in the coming quarters, leads to a downward revision of the outlook for private investment compared with the previous forecast. Conversely, household consumption growth will recover somewhat faster. This will be aided by a stronger positive fiscal impulse this year. However, that impulse will fade out once the government's stabilisation measures end. Next year, GDP growth will thus be dampened more markedly from the fiscal side than expected in the previous forecast. This year, government consumption will also contribute to GDP growth to a greater extent than the previous forecast expected, due to higher-than-expected government expenditure related to the coronavirus pandemic. The opposite will be true in 2021. The drop in exports and imports in 2020 H1 was slightly more moderate than in the previous forecast. While exports will recover faster as a result of a stronger external demand recovery, imports will be depressed by a significantly more gradual resumption of import-intensive private investment.

Wage growth is lower due to lower fundamental wage growth (see Chart II.3.3). Average wage growth adjusted for the statistical

Chart II.3.1 Change in the forecast for the PPI of the effective euro area

The higher outlook for producer prices reflects more moderate deflationary pressures in the euro area and a higher price of Brent crude oil

(annual percentage changes; differences in percentage points; seasonally adjusted)

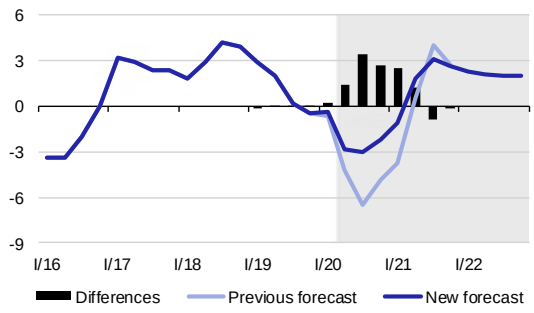
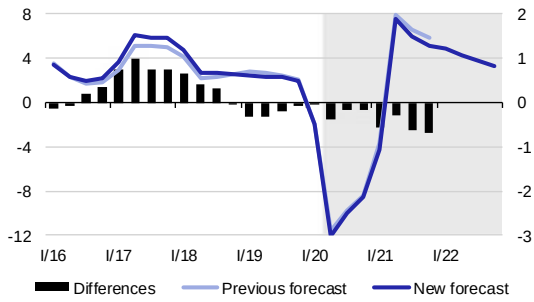


Chart II.3.2 Change in the GDP forecast

The outlook for domestic economic activity is slightly lower, mainly due to a slower resumption of growth in private investment

(annual percentage changes; differences in percentage points – right-hand scale; seasonally adjusted)



26 The Pandemic Emergency Purchase Programme was increased by EUR 600 billion to EUR 1,350 billion.

effects of the drop in wage income of employees receiving attendance allowance or partial wage compensation halted in 2020 Q2, whereas the previous forecast had expected continued modest growth. This is reflected in the forecast, which expects a more gradual resumption of fundamental wage growth in market sectors and hence slightly weaker domestic cost pressures than the previous forecast. Wage compensation and the attendance allowance were drawn to a lesser extent in 2020 Q2 compared with the previous forecast. This led to a milder decline in wage growth. In Q3, moreover, the payment of special bonuses in health care and social services[27] will be reflected in wage growth, temporarily increasing it compared with the previous forecast.

The inflation outlook is higher due to a more gradual fading of the previous high demand and to stronger cost pressures (see Chart II.3.4). Headline inflation slowed less markedly in 2020 Q2 than in the previous forecast, due to higher-than-expected core inflation. The observed consumer price data and stronger cost pressures lead to a higher forecast for inflation (especially its core components). Slower fading of the previously strong demand amid the coronavirus pandemic acts in the same direction.[28] Firms are thus taking advantage of the opportunity to make up for past sales falls in their prices before the negative effects of the crisis become fully manifested in the labour market. Higher import prices due to growth in core foreign producer prices will also have an impact, despite the stronger koruna. The forecast for food prices is higher mainly next year, due to higher production and transport costs (and thus import prices) linked to a large extent with the coronavirus pandemic. The increase in the fuel price outlook, reflecting higher expected global oil prices, also fosters an upward revision of the inflation forecast. Compared with the previous forecast, monetary policy-relevant inflation has moved upward even more markedly than headline inflation, due to the positive second-round effects of the newly introduced reduction of the VAT rate on selected services in July this year. This will not pass through to prices of the relevant items in the consumer basket, so the headline inflation forecast remains unchanged.

The exchange rate forecast has been revised towards a stronger koruna over the entire forecast horizon (see Chart II.3.5). The previous forecast expected the koruna to remain at weaker levels over the entire forecast horizon due to a worse foreign and domestic economic outlook. However, the relaxing of quarantine measures in the domestic economy and Europe, which was slightly faster than originally expected, contributed to a change in sentiment on financial markets and the koruna strengthened close to CZK 26.7 to the euro in late May. The new forecast expects the koruna to appreciate gradually due to the relatively mild course of the pandemic in both Europe and the Czech Republic. This will be aided by a somewhat faster recovery in external demand.

Chart II.3.3 Change in the forecast for nominal wages in market sectors

The lower wage growth forecast reflects milder fundamental wage pressures and a revision of statistical effects

(annual percentage changes; differences in percentage points; seasonally adjusted)

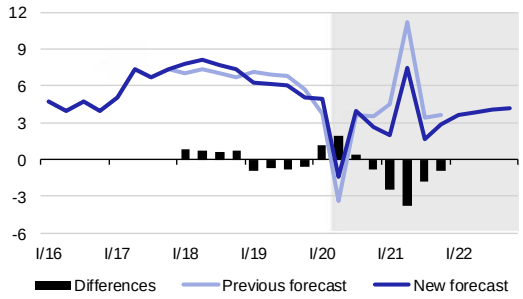


Chart II.3.4 Change in the headline inflation forecast

The headline inflation forecast is higher at the one-year horizon

(year on year in %; differences in percentage points)

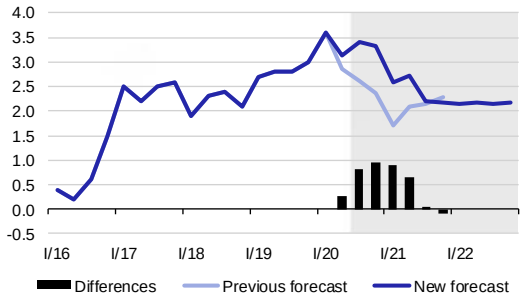
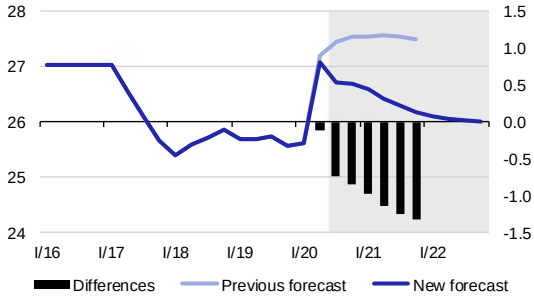


Chart II.3.5 Change in the exchange rate forecast

The stronger exchange rate of the koruna against the euro is due mainly to a change in sentiment on financial markets

(CZK/EUR; differences in CZK – right-hand scale)



27 The effect of special bonuses is regarded as non-fundamental and is therefore included in the statistical effects. Fundamental wage growth will therefore not be affected by the amounts of bonuses.

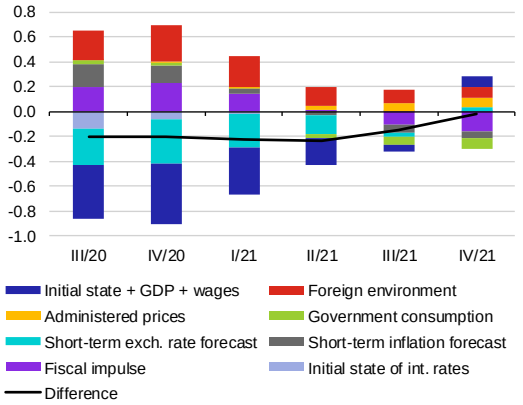
28 The anti-inflationary effects of prices of holidays abroad are more moderate than in the previous forecast.

The new forecast contains a slightly lower path of domestic interest rates than the previous one (see Chart II.3.6). The overall contribution of the initial state and expert GDP and wage outlooks is the dominant factor fostering lower interest rates over the entire forecast horizon. The negative contribution of the initial state also incorporates the change in the view of the path of the koruna[29] towards stronger levels. Lower rates are also fostered by the actual short-term koruna outlook for 2020 Q3, which is markedly stronger than in the previous forecast. The effect of the sharp reduction in interest rates in 2020 Q2, which is captured in the interest rate rule as a short-term monetary policy shock so as to ensure a smooth transition from the past to the forecast, acts in the same direction this year.[30] By contrast, changes in the external outlook have an upward effect on rates, mainly due to a less pronounced drop in foreign producer prices and a higher short-term outlook for domestic inflation. A stronger positive fiscal impulse acts in the same direction over the next few quarters.[31]

Chart II.3.6 Decomposition of changes in the interest rate forecast

The interest rate outlook is slightly lower, with the effects of the individual factors largely offsetting each other

(3M PRIBOR; percentage points)



29 The openness of the domestic economy has undergone a downward expert adjustment in the model due to the sharp drop in external demand and foreign trade in 2020 Q2. Its subsequent gradual return to the initial levels will foster appreciation of the koruna over the forecast horizon.

30 The sharp (and deeper than previously forecasted) drop in market interest rates in May was reflected only partially in their average level for Q2. 3M PRIBOR rates were thus around 0.3 percentage point lower in the first half of July than the average for Q2.

31 The fading of this impulse conversely fosters slightly lower interest rates from mid-2021 onwards.

II.4 RISKS AND UNCERTAINTIES OF THE FORECAST

The Bank Board assessed the risks to the forecast as being significant but not tilted in either direction overall. The course of the Covid-19 pandemic and the possible reintroduction of quarantine measures in the EU and the Czech Republic – whether in response to local outbreaks or to a broad resurgence of the pandemic – remain a risk.[32] However, the uncertainties of the forecast also include the speed of recovery of the European and domestic economies now that the quarantine restrictions imposed during the first wave of the pandemic have been lifted. The current evolution of the exchange rate, described by the stronger koruna exchange rate scenario, may be a downside risk to inflation. By contrast, fiscal policy support for the domestic economy may be stronger than assumed by the forecast in the years ahead. A specific domestic uncertainty is the structure of the supply and demand factors underlying the surprisingly rapid growth in consumer prices in recent months. A scenario of lower global productivity describes the risk of a potential drop in the intensity of international trade, which would lead to a decrease in the efficient use of production factors and a fall in the future rate of growth of productivity in the global economy.

II.4.1 Risks perceived by the CNB

The appreciation of the koruna seen in late July, whose impacts are captured by the stronger exchange rate scenario, represents a risk to the forecast. The scenario assumes that the koruna will strengthen temporarily to CZK 26 to the euro in 2020 Q3 and then gradually return close to the path contained in the baseline scenario. The scenario thus expects a short-term deviation of the koruna from the baseline scenario path due to the current market sentiment. The latter is positively affected by stabilisation measures adopted at the EU level. This is also reflected in the current appreciation of the euro against the dollar.

Consistent with the stronger exchange rate scenario is a slightly lower interest rate path than in the baseline scenario. Monetary policy responds to the fact that the stronger exchange rate magnifies the fall in import prices expected in the forecast and thus leads to weaker inflation pressures. Inflation one year ahead is consequently around 0.3 percentage point lower than in the baseline scenario and falls to the target earlier. In this scenario, the stabilising effect of monetary policy thus prevents inflation from falling below the 2% target and helps keep it close to this target. Another effect of the stronger exchange rate is lower price competitiveness of domestic exporters, which will foster lower net exports and hence lower GDP. However, the stronger koruna will also allow for cheaper imports. This, together with the lower interest rates and inflation, will boost household consumption and private investment. The resulting path of GDP is thus similar overall to that in the baseline scenario of the forecast. The simulation results, expressed as deviations from the forecast, are given in Table II.4.1.

Table II.4.1 Stronger exchange rate scenario

The stronger exchange rate leads to slightly lower interest rates and slightly lower inflation

(deviations from baseline scenario paths)

	CPI inflation (pp)	3M PRIBOR (pp)	GDP (y-o-y in pp)	Nominal exch. rate (CZK/EUR)
III/20	-0.1	0.0	-0.1	-0.7
IV/20	-0.2	-0.3	-0.1	-0.3
I/21	-0.3	-0.3	-0.1	-0.2
II/21	-0.3	-0.2	-0.1	-0.1
III/21	-0.3	-0.1	0.0	-0.1
IV/21	-0.2	0.0	0.1	-0.1
I/22	0.0	0.1	0.0	-0.1
II/22	0.0	0.1	0.1	-0.1
III/22	0.0	0.0	0.0	-0.1
IV/22	0.0	0.0	0.0	-0.1

The scenario of lower global productivity describes the impacts of stronger barriers to international trade and the division of labour. Such barriers had already emerged to some degree before the pandemic broke out and may strengthen further as

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32 The impacts of the potential reintroduction of across-the-board restrictive quarantine measures in response to a resurgence of the pandemic were described in the pandemic resurgence scenario in IR II/2020.

a result of the current crisis.[33] They are contained to some extent in the baseline scenario of the forecast. The lower global productivity scenario describes a situation where changes in the global economic environment will lead to a visible fall in the efficient use of production factors in the global economy. Negative supply shocks will thus have a stronger effect than assumed by the forecast. According to the scenario, the lower intensity of international trade and the international division of labour will be a result of, among other things, a strategic shortening of supply chains, whose smooth operation was disrupted by new, previously non-existent frictions when the pandemic broke out. There will also be a natural or administratively enforced preference for domestic production at the expense of imports in individual countries. This will result in a lower rate of global economic growth coupled with higher global inflation, as the replacement of cheaper imports with more expensive substitutes will be reflected in faster growth in prices of production inputs and consumer goods worldwide. The drop in productivity in individual economies will lead to lower growth in potential output and slower technological progress.

The scenario assumes a gradual decline in total global factor productivity over the next five years. The global economic impacts are simulated using the NiGEM model[34] through shocks to total factor productivity in the production functions of individual economies.[35] The scenario also assumes that the world's major central banks will prefer easy monetary conditions to strict inflation targeting in this period in order to support an economic recovery, so interest rates remain at the levels contained in the baseline scenario.

In the effective euro area, the scenario leads to an economic slowdown and faster inflation (see Table II.4.2). Given the long-term nature of the shock, the contrary tendencies in inflation and the real economy gradually strengthen over time. The ECB and the world's other major central banks leave interest rates unchanged despite higher inflation pressures. The exchange rate of the euro against the dollar is slightly stronger over the entire forecast horizon than in the baseline scenario.[36]

The lower productivity in the global economy will be reflected mainly in more subdued domestic activity and a weaker koruna. The direct impacts of the global drop in efficiency on the domestic economy are not considered in the scenario. The decrease in the productivity of global production capacity is thus reflected in the domestic economy solely through the outlook for the external environment. Two channels – higher inflation abroad and weaker external demand – play the main roles. For

Table II.4.2 Lower global productivity scenario – foreign variables

The lower outlook for euro area GDP in the scenario is accompanied by higher inflation than in the baseline scenario

(deviations from baseline scenario paths)

	Effective GDP (y-o-y in pp)	Effective PPI (y-o-y in pp)	Shadow 3M EURIBOR (pp)	USD/EUR cross rate (%)
III/20	-0.1	0.3	0.0	0.1
IV/20	-0.2	0.3	0.0	0.2
I/21	-0.4	0.3	0.0	0.3
II/21	-0.7	0.6	0.0	0.4
III/21	-0.9	0.6	0.0	0.5
IV/21	-1.0	1.0	0.0	0.5
I/22	-1.1	1.2	0.0	0.6
II/22	-1.2	1.2	0.0	0.6
III/22	-1.3	1.3	0.0	0.7
IV/22	-1.3	1.4	0.0	0.7

—

33 They include tariff and trade barriers, the costs of electromobility and green energy, lower availability of foreign workers, and relocation of production from more distant countries closer to European headquarters.

34 This is a global econometric model which captures the interconnectedness of all areas of the global economy in detail.

35 The scenario assumes that free trade will be maintained in the EU single market.

36 The US economy is geared more towards production for domestic consumption than the euro area. An improvement in net exports is therefore generated for the euro area in the event of a sharper drop in investment and consumption, despite the euro area's greater export dependence.

domestic exporters, the higher growth in core foreign producer prices means an improvement in their price competitiveness. This fosters a stronger koruna than in the baseline scenario. By contrast, the worse outlook for external demand fosters a weaker koruna. The second factor is dominant, leading to a weaker exchange rate than in the baseline scenario. Together with the higher inflation abroad, this results in higher import prices and related upward pressure on consumer price inflation. The weaker koruna, along with the higher foreign producer prices and worsening external demand, stifles the domestic economy, primarily through slower investment growth and deteriorating net exports. The domestic inflation pressures are thus more subdued than in the baseline scenario of the forecast. Despite the considerably higher imported inflation, only slightly higher market interest rates (in the longer term) are therefore sufficient to keep inflation at the target compared with the baseline scenario. The simulation results, expressed as deviations from the forecast, are presented in Table II.4.3.

The Bank Board assessed the risks to the forecast as being significant but not tilted in either direction overall. The course of the pandemic and the possible reintroduction of quarantine measures remain a risk. However, the uncertainties of the forecast also include the speed of recovery of the European and domestic economies now that the quarantine restrictions imposed during the first wave of the pandemic have been lifted. The current evolution of the exchange rate may be a downside risk to inflation. By contrast, fiscal policy support for the domestic economy may be stronger than assumed by the forecast in the years ahead. A specific domestic uncertainty is the structure of the supply and demand factors underlying the surprisingly rapid growth in consumer prices in recent months.

Table II.4.3 Lower global productivity scenario – domestic variables

The lower global productivity is reflected mainly in a lower outlook for domestic economic activity; the koruna is slightly weaker in the scenario, while interest rates are visibly higher only at the longer end of the horizon

(deviations from baseline scenario paths)

	CPI inflation (pp)	3M PRIBOR (pp)	GDP (y-o-y in pp)	Nominal exch. rate (CZK/EUR)
III/20	0.0	0.0	-0.4	0.0
IV/20	0.0	0.0	-0.8	0.1
I/21	0.1	0.1	-1.2	0.1
II/21	0.1	0.1	-1.8	0.1
III/21	0.1	0.1	-1.8	0.2
IV/21	0.1	0.1	-1.9	0.3
I/22	0.0	0.1	-2.2	0.4
II/22	0.0	0.2	-2.4	0.6
III/22	0.0	0.3	-2.7	0.7
IV/22	0.1	0.5	-2.9	0.8

II.4.2 Risks signalled by other entities' forecasts

Inflation expectations in the economy continue to be anchored by the CNB's 2% target. Inflation forecasted by financial market analysts is currently slightly below the CNB's 2% target at the one-year horizon. At the three-year horizon, it is exactly at the target (see Table II.4.4). According to the analysts, the still low unemployment rate is not yet preventing consumers from spending, and solid household consumption is helping keep core inflation elevated. However, the weak demand in the production sector should gradually be reflected in higher unemployment and subsequently in slower wage growth, and ultimately in lower consumer price inflation.

The indicators of inflation perceived and expected by households increased slightly. The level of perceived inflation suggests an increasing preponderance of households that felt that prices rose significantly over the last 12 months (see Chart II.4.1). The indicator of expected inflation also went up in Q2. Its level signals that respondents who expect inflation to stay the same or increase over the next 12 months predominate.

The analysts estimate that the Czech economy will contract by 7%–8% this year (see Table II.4.4). This year's economic downturn not only reflects the quarantine measures introduced by the government during the spring months; increased uncertainty is also an important factor stifling corporate investment activity

Table II.4.4 Expected indicators of FMIE, CF and corporations

The analysts' inflation expectations are slightly below the CNB's 2% target at the one-year horizon and at the target at the three-year horizon; the analysts expect the economy to contract sharply this year and the koruna to strengthen

(at 1Y; annual percentage changes unless otherwise indicated)

	3/20	4/20	5/20	6/20	7/20
FMIE:					
CPI	1.9	1.6	1.6	1.6	1.7
CPI, 3Y horizon	1.9	2.0	1.9	1.9	2.0
Real GDP in 2020	0.7	-7.2	-7.9	-7.9	-8.0
Real GDP in 2021	2.2	5.8	5.5	5.6	5.6
Nominal wages in 2020	5.2	3.8	3.5	3.2	3.1
Nominal wages in 2021	4.1	3.2	2.8	2.8	2.9
CZK/EUR exchange rate (level)	25.5	26.0	26.2	26.0	25.9
2W repo rate (in per cent)	1.4	0.4	0.2	0.1	0.2
1Y PRIBOR (in per cent)	1.7	0.8	0.4	0.4	0.5
Corporations:					
CPI	2.2			2.4	
CPI, 3Y horizon	2.7			2.6	
CF:					
Real GDP in 2020	1.2	-6.1	-7.0	-7.2	-7.4
Real GDP in 2021	2.5	5.3	5.6	5.1	5.2
Nominal wages in 2020	5.6	4.1	3.4	3.1	3.1
Nominal wages in 2021	4.5	3.5	3.4	2.9	3.2
CZK/EUR exchange rate (level)	25.2	25.7	26.0	26.3	26.1
3M PRIBOR (in per cent)	1.9	0.7	0.4	0.3	0.4

and household consumption (due to the fear of loss of employment). The recovery expected next year will depend not only on the course of the pandemic in the Czech Republic and abroad and its possible resurgence, but also on the effectiveness of monetary and fiscal stabilisation measures and the degree of job retention. The economic contraction will also be reflected in the labour market and lead to a slowdown in wage growth. According to the analysts, wages will grow mainly in the public sector this year, while wages in the private sector will increase only in segments experiencing labour shortages.

The analysts on average forecast slight appreciation of the koruna and broad stability of interest rates at the one-year horizon. According to the analysts, the improved global economic sentiment could attract capital back to the Czech Republic and foster slight appreciation of the koruna. However, the uncertainty is high, as reflected in a wide range between the maximum and minimum values of the koruna expected at the one-year horizon.[37] Almost all the analysts in the July FMIE survey were expecting the CNB Bank Board to leave key interest rates unchanged at the August meeting. Only one analyst was expecting the 2W repo rate to be lowered to 0.05%. Their average estimate of the 2W repo rate at the one-year horizon was 0.2%.

The analysts thus predict lower inflation and a slightly stronger koruna compared with the CNB forecast. Their one-year outlook for interest rates is very similar to the central bank's forecast (see Table II.4.4). The analysts' expectations regarding this year's GDP decline and wages do not differ much from the CNB's forecast either.

The current market outlook for the 3M PRIBOR implies stability over the one-year horizon. Consistent with the CNB forecast is stability of market interest rates at their current level until mid-2021. The two paths are thus similar (see Chart II.4.2).

Chart II.4.1 Perceived and expected inflation

Perceived and expected inflation rose slightly from the perspective of households

(balance of answers; source: European Commission Business and Consumer Survey)

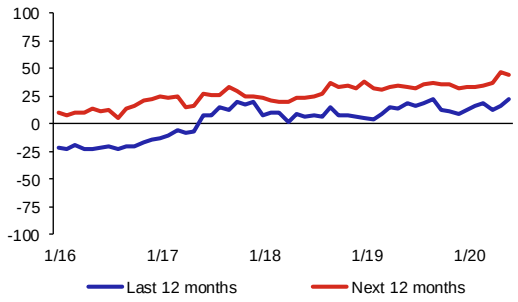
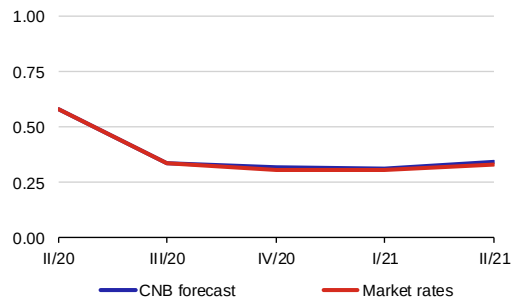


Chart II.4.2 FRA rates versus the CNB forecast

The market outlook for interest rates is stable; until mid-2021 it is in line with the rates contained in the CNB forecast

(percentages)



Note: Market rates represent for 2020 Q2 and 2020 Q3 the 3M PRIBOR and for 2020 Q4–2021 Q2 the average values of the FRA 3*6, 6*9 and 9*12 rates for the last 10 trading days as of 31 July 2020.

37 At the one-year horizon, the range was CZK 25.0–26.6 to the euro in the July FMIE survey and CZK 25.0–28.5 to the euro in the CF survey.

III. CURRENT ECONOMIC DEVELOPMENTS

III.1 INFLATION AND INFLATION TARGET FULFILMENT

Consumer prices increased by 3.1% on average in 2020 Q2. Observed inflation was above the forecast published in winter 2019, a retrospective assessment of which is relevant for evaluating the current fulfilment of the inflation target. The deviation from the forecast increased in the first half of this year. With the benefit of hindsight, the CNB's monetary policy in the past period can be assessed as having been insufficiently tight as regards the fulfilment of the inflation target. The still elevated consumer price inflation was due mainly to high core inflation, but also to buoyant food price growth. By contrast, administered price inflation slowed and fuel prices decreased, significantly dampening the overall rise in consumer prices. Import price growth was insignificant on average in Q2, while domestic producer prices declined due to a fall in global oil prices.

III.1.1 Fulfilment of the inflation target

In 2020 Q2, observed inflation was well above the forecast published in Inflation Report I/2019 (see Chart III.1.1).[38] The gap between actual inflation and the forecast gradually widened, reaching 1.2 percentage points in 2020 Q2 (see Table III.1.1). This was due mainly to an unexpectedly sharp rise in food prices and core inflation. However, administered prices also increased faster than expected. By contrast, fuel prices reflected the decline in global oil prices seen at the start of 2020.

All external factors deviated considerably from the assumptions of the forecast (see Table III.1.2). The slowdown in industrial producer price inflation in the effective euro area was more pronounced, due both to weaker demand pressures connected with substantially lower GDP growth in the effective euro area, and to supply pressures stemming from lower Brent crude oil prices. Industrial producer prices continued to decline in 2020 H1 due to a drop in economic activity caused by the outbreak of the coronavirus pandemic. The path of foreign interest rates was actually more negative as a result of further monetary policy accommodation by the ECB in the shape of a renewed asset purchase programme.[39] Overall, according to a simulation performed using the CNB's model, the observed external developments fostered more gradual appreciation of the koruna and lower domestic interest rates compared with the forecast, with a dampening impact on inflation.

Domestic real GDP grew more slowly over the entire period compared with the forecast, recording an unprecedented drop in 2020 H1. Household consumption and investment fell

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38 This section of the Inflation Report briefly analyses the contribution of the CNB's monetary policy to this situation. In order to assess the effect of monetary policy on the fulfilment of the inflation target it is appropriate to analyse retrospectively the forecasts and the Bank Board's decisions based thereon in the past. To assess the fulfilment of the target in 2020 Q2, we have to examine – in view of the monetary policy transmission lag – the period from October 2018 to June 2019 (the "reference period"). For the sake of clarity, the analysis of the fulfilment of the forecasts in this section is limited to a comparison of Inflation Report I/2019 with subsequent inflation.

39 The observed 3M EURIBOR market rates do not fully reflect the introduction of the ECB's unconventional measures. These measures are usually captured in the CNB's forecasts by shadow rates, which were more negative.

Chart III.1.1 Forecast versus actual headline inflation

The positive deviation of observed inflation from the forecast increased in early 2020

(year on year in %)

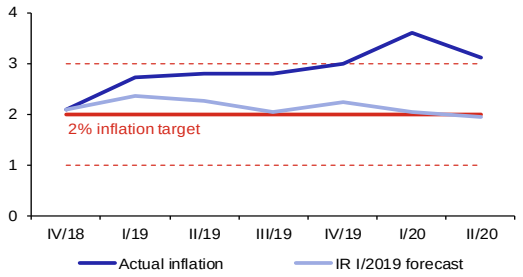


Table III.1.1 Fulfilment of the inflation forecast

Most inflation components – most of all food prices – exceeded expectations

(annual percentage changes; contributions in percentage points)

	IR I/2019 forecast	2020 Q2 outturn	Contribution to total difference
CONSUMER PRICES	1.9	3.1	1.2
of which:			
administered prices	2.0	3.4	0.2
first-round impacts of changes to indirect taxes[a)]	0.0	0.1	0.1
core inflation[b)]	2.1	3.2	0.6
food prices[b)]	2.1	5.4	0.9
fuel prices[b)]	-1.8	-19.4	-0.6

a) impact on headline inflation except administered prices
b) excluding the first-round effects of changes to indirect taxes

Table III.1.2 Fulfilment of the external assumptions

External factors lagged behind the forecast assumptions

(annual percentage changes unless otherwise indicated; p – prediction, o – outturn)

		I/19	II/19	III/19	IV/19	I/20	II/20
GDP in euro area[a), b), c)]	p	1.4	1.3	1.6	1.7	1.7	1.7
	o	1.5	1.1	1.2	0.9	-2.8	-
PPI in euro area[b), c)]	p	2.8	2.2	1.2	1.2	1.5	1.7
	o	2.9	2.0	0.2	-0.4	-0.4	-
3M EURIBOR (percentages)	p	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2
	o	-0.3	-0.3	-0.4	-0.4	-0.4	-0.4
USD/EUR exchange rate (levels)	p	1.15	1.15	1.17	1.18	1.19	1.19
	o	1.14	1.12	1.11	1.11	1.10	1.10
Brent crude oil price (USD/barrel)	p	59.2	59.7	59.8	59.8	59.8	59.8
	o	63.8	68.5	62.0	62.4	50.8	33.4

a) at constant prices
b) seasonally adjusted
c) IR I/2019 outlook for effective indicator

dramatically compared with the forecast, due to the shutdown of part of the economy. On the other hand, growth in government consumption exceeded expectations over the entire forecast horizon. It reflected a more pronounced increase in wage and non-wage expenses and also additional coronavirus-related expenses incurred so far this year. The stronger-than-expected slowdown in external demand was reflected in lower growth in exports over the entire forecast horizon. Moreover, exports and imports both dropped sharply in 2020 H1 due to the coronavirus pandemic. Observed wage growth was also lower than forecasted.

The structure of the domestic monetary conditions deviated from the forecast. The exchange rate remained significantly weaker than forecasted due to negative global sentiment and a decreasing outlook for external economic and price growth. Domestic monetary policy reflected this with a more pronounced, albeit later, increase in interest rates than forecasted (see Table III.1.3). In response to the outbreak of the coronavirus pandemic and the subsequent measures in the domestic and foreign economy, the CNB started to lower interest rates significantly in March 2020, a process accompanied by a marked weakening of the koruna. This significantly eased the overall monetary conditions.

The monetary policy pursued by the CNB between October 2018 and June 2019 can be assessed as having been insufficiently tight as regards the fulfilment of the inflation target. In addition to the forecast, an assessment of the risks associated with the forecast is important for the Bank Board's decisions on monetary policy settings. In the said period, the Bank Board assessed the risks to the forecast in four cases as balanced and twice as inflationary. Interest rates were raised two times in this period. Observed inflation was just above the upper boundary of the tolerance band around the CNB's 2% target in 2020 Q2. From this perspective, therefore, it can be said that monetary policy should have been tighter in the said period, even though the later peak in rates was actually higher than the winter 2019 forecast had foreseen. The CNB is nonetheless fulfilling its price stability mandate, as inflation expectations are anchored by the 2% target. In light of the expected major anti-inflationary effects and risks relating to the impacts of the coronavirus pandemic, it can be said that monetary policy had in the past created room for cutting interest rates this spring.

III.1.2 Consumer prices

Inflation was just above 3% on average in Q2 (see Chart III.1.2). Core inflation was still the biggest contributor to the continued high price growth, but food price inflation also reached high levels. By contrast, consumer price inflation was dampened by a significant fall in fuel prices. Monetary policy-relevant inflation was slightly above headline inflation on average in Q2.[40]

40 The first-round effect of changes to indirect taxes was slightly positive in April, negative in May due a reduction in VAT on selected services, and slightly positive again in June due to the gradual pass-through of the increase in excise duty on tobacco. It was slightly negative on average in Q2.

Table III.1.3 Fulfilment of the forecast for key variables

The monetary conditions were easier than forecasted in both the interest and exchange rate components in 2020 Q2 due to the outbreak of the coronavirus pandemic

(p – prediction, o – outturn)

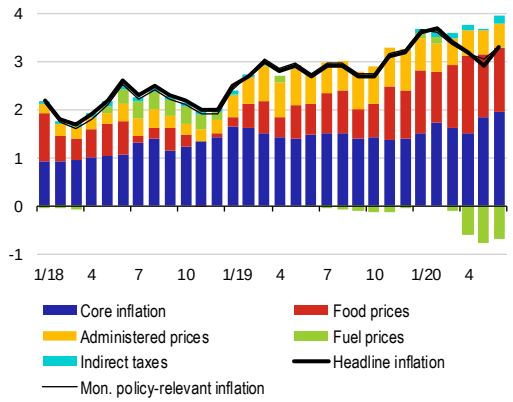
		I/19	II/19	III/19	IV/19	I/20	II/20
Consumer price index	p	2.4	2.3	2.0	2.2	2.0	1.9
(annual perc. changes)	o	2.7	2.8	2.8	3.0	3.6	3.1
3M PRIBOR	p	2.2	2.2	2.0	2.0	2.0	2.0
(percentages)	o	2.0	2.1	2.2	2.2	2.2	0.6
CZK/EUR exchange rate	p	25.6	25.2	24.8	24.5	24.3	24.2
(levels)	o	25.7	25.7	25.7	25.6	25.6	27.1
Real GDP[a)]	p	2.5	2.7	2.9	3.2	3.2	3.1
(annual perc. changes)	o	2.4	2.4	2.3	2.0	-2.0	-
Nominal wages[b)]	p	7.4	6.8	6.9	6.5	6.0	5.7
(annual perc. changes)	o	6.3	6.2	6.1	5.1	5.0	-

a) seasonally adjusted
b) in market sectors

Chart III.1.2 Structure of inflation

Inflation fluctuated around 3% in Q2, driven mostly by core inflation and food prices; conversely, it was dampened by a fall in fuel prices

(annual percentage changes; contributions in percentage points)

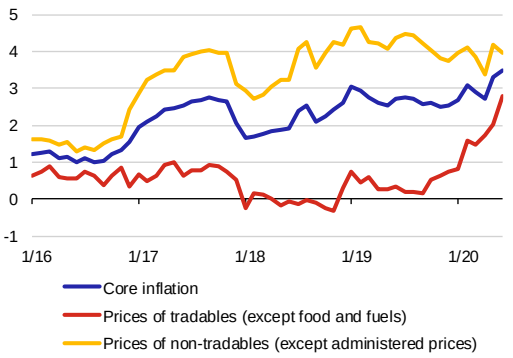


Note: Food prices also include prices of alcoholic beverages and tobacco. The contribution of the first-round effects of changes to indirect taxes relates to non-administered prices.

Chart III.1.3 Core inflation

Core inflation remained elevated, due to price growth in both components

(annual percentage changes)



Core inflation rose further due to fading high demand amid higher costs, including the effect of the weaker exchange rate. The increase in core inflation was due to rising tradables inflation amid continued high non-tradables inflation (see Chart III.1.3). The surge in tradables inflation in Q2 was mostly due to an increase in prices of used cars and a further rise in prices of household equipment. Price growth in this segment was affected by a sharp depreciation of the koruna at the end of Q1. The persisting strong growth in non-tradables prices was due mainly to continued buoyant price growth in restaurants and cafés and – despite a gradual slowdown – still solid growth in housing-related prices. Moreover, the cut in the VAT rate did not pass through to consumer prices of selected services.

The previously high administered price inflation gradually decreased in Q2 (see Chart III.1.4). This was due mainly to a further unwinding of the dominant contribution of rising electricity prices. To a lesser extent, it was fostered by slower growth in water supply and sewerage charges owing to the VAT reduction in May. Gas price growth remained subdued and prices of heat for household recorded a year-on-year decline.

The fall in global oil prices was reflected in a pronounced decline in fuel prices (see Chart III.1.4). This was associated with producers' trade wars and a decline in global demand for oil due to the coronavirus pandemic.

Food price growth remained strong in Q2 (see Chart III.1.4). Persisting, though gradually falling, growth in meat prices and, to a lesser extent, an increase in fruit prices were the biggest contributors. Growth in prices of bread products and vegetables increased on average in Q2. In addition to demand factors, food prices are being affected by increased costs relating to restrictions on transport and the movement of labour in Europe due to the coronavirus pandemic.

Growth in the CPIH index was 0.9 percentage point higher than consumer inflation in 2020 Q1 (see Chart III.1.5). This was due to continued brisk growth in property prices (of around 9%). Growth in the experimental CPIH, consisting of prices of both new and older property including land, stood at 4.5% in 2020 Q1 and so, like consumer inflation, went up compared with the previous quarter.

III.1.3 Import prices and producer prices

Import price inflation in Q2 was very mixed in terms of structure, but muted overall (see Chart III.1.6). The decline in producer prices in the effective euro area in response, among other things, to the fall in oil prices and the effect of the weaker koruna broadly offset each other. The fall in oil prices was most prominent in prices of mineral fuels. Conversely, prices of machinery and transport equipment products raised the overall growth. The contributions of non-energy commodity prices and semi-finished product prices remained insignificant. Import prices of food, especially fruit and vegetables, continued to rise apace.

Industrial producer prices began to decline slightly year on year in Q2 (see Chart III.1.7). As in the case of import prices, domestic

Chart III.1.4 Food prices, administered prices and fuel prices

Administered price inflation slowed in 2020 H1, while food prices rose apace and fuel prices fell

(annual percentage changes)

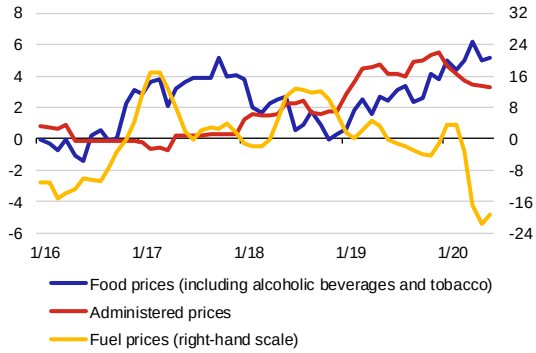


Chart III.1.5 The experimental CPIH price index

Just like consumer prices, the rate of growth of the CPIH index rose further and remained almost one percentage point above inflation in Q1

(annual percentage changes)

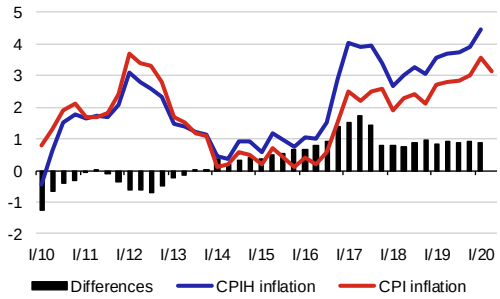
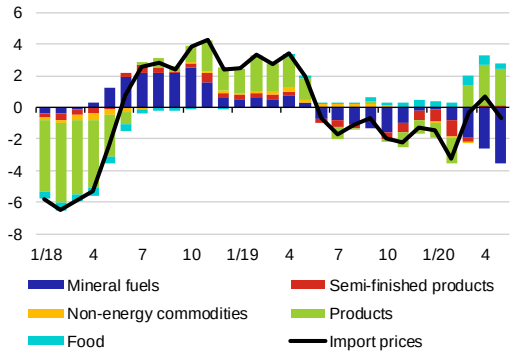


Chart III.1.6 Import prices

Rising product prices and falling oil prices acted in opposite directions within import prices

(annual percentage changes; contributions in percentage points)



Note: Food also includes beverages and tobacco.

industrial producer prices were pushed downwards mainly by the fall in global oil prices. It was reflected mainly in prices of raw materials and energy. The negative growth in industrial producer prices was also due to decreasing prices in metal manufacturing. Growth in prices in the food industry gradually subsided during Q2. The contribution of prices in other manufacturing sectors was also positive, due mainly to growth in prices of transport equipment and furniture.

The slight decline in agricultural producer prices persisted, amid a narrowing of the gap between prices of crop and livestock products (see Chart III.1.8). The previous sharp drop in crop product prices – associated since the end of 2019 with a decline in prices of cereals due to the good harvest in the Czech Republic and around the world – partially faded out in Q2. The previously fast growth in prices of potatoes switched to a year-on-year decline. Livestock product prices started to decrease in Q2. The surge in prices of slaughter pigs, which had been due to a swine fever epidemic going on in a number of South-East Asian countries since mid-2019, faded away. Prices of most other items of livestock production, most notably milk and bovine animals, also decreased in H1 as a whole.

Construction work prices continued to grow briskly, while growth in market services also remained buoyant (see Chart III.1.9). The still relatively high growth in construction work prices reflected persisting increased demand for construction output. Prices of materials and products consumed in the construction industry were broadly flat on average in Q2. The buoyant growth in prices of market services in the business sector in Q2 stemmed mainly from prices of employment services and support services in transport and storage.

Chart III.1.7 Industrial producer prices

Industrial producer prices dropped due to a decline in prices of raw materials and energy

(annual percentage changes; contributions in percentage points)

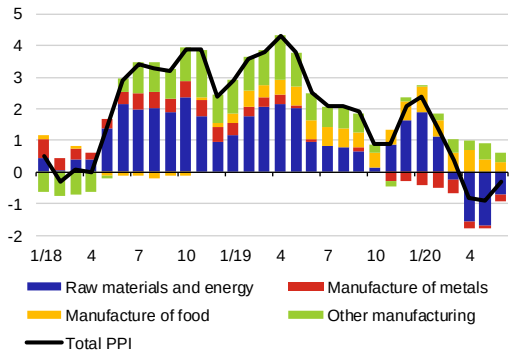


Chart III.1.8 Agricultural producer prices

Agricultural producer prices decreased in crop production and newly also in livestock production

(annual percentage changes)

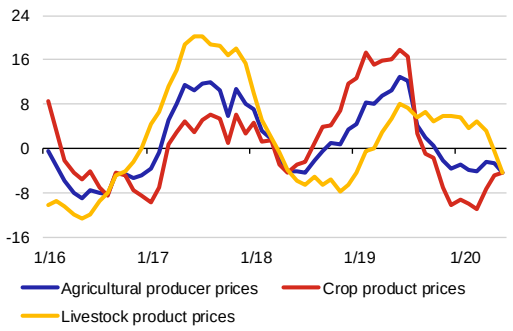
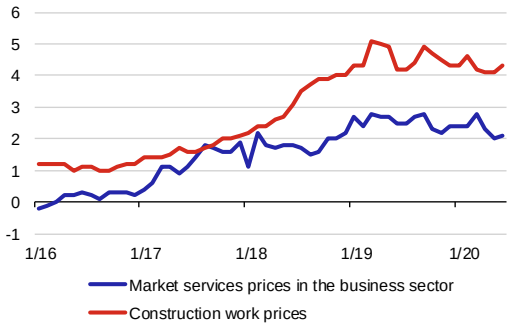


Chart III.1.9 Market services prices in the business sector and construction work prices

Construction work prices continued to grow briskly, while growth in market services prices also remained solid

(annual percentage changes)



III.2 ECONOMIC DEVELOPMENTS

The Czech economy contracted by 2% in Q1 as a result of the global coronavirus pandemic. Potential output was also hit by shutdowns of firms and even entire sectors. In addition to a slump in private investment, the observed drop in GDP reflected a halt of the previous long-running growth in household consumption. The contribution of net exports remained negative, though less so than in the previous quarter. The fall in aggregate domestic demand was partially reduced by an increase in the contribution of government consumption. On the supply side of the economy, domestic and foreign measures related to the coronavirus were reflected in a 1.5% decrease in gross value added in Q1. The sectors most affected were wholesale and retail trade, transport, hospitality and industry. The May output and orders data meanwhile indicate that industry is recovering gradually. Construction output also recorded a decline, which, though not as sharp, deepened, in contrast to industry. The leading indicator of business sentiment was also negative at the end of H1 but improved markedly in July. Consumer sentiment improved somewhat as the quarantine restrictions were eased. This was reflected in modest year-on-year growth in retail sales in May.

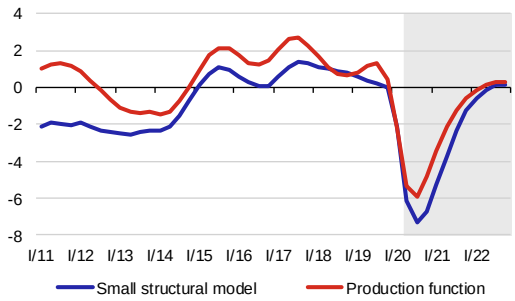
III.2.1 The cyclical position of the economy

The Czech economy is currently well below its potential output level. According to the small structural model, the unprecedentedly rapid opening of the output gap in the first half of this year (see Chart III.2.1) was due to a sharp year-on-year drop in GDP resulting from the quarantine measures. A cooling of the labour market situation also had an effect. The wide negative output gap will begin to narrow gradually over the course of the second half of this year owing to the expected improvement in the global pandemic situation and recovery of domestic economic activity. The negative output gap will then close in 2022. An alternative estimate using the production function, which does not take inflation and the effect of monetary policy directly into account, indicates a rather more moderate opening and a rather earlier closing of the output gap.

Chart III.2.1 Output gap

The negative output gap, which has now opened dramatically, will close in 2022

(% of potential output)

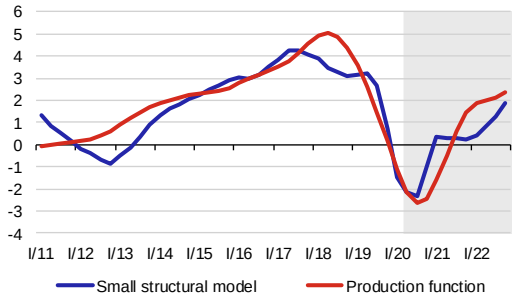


An unprecedented drop was also recorded by potential output, which will start growing again next year (see Chart III.2.2). The previous growth in potential output, which had been going on for years and had even been accelerating most of the time, turned into a sharp year-on-year decline due to the coronavirus pandemic and related measures. As regards the factors entering the production function, this is due above all to a deep decline in labour productivity. Over the forecast horizon, the negative effects of the pandemic will initially be even more pronounced, but potential output will start growing again next year as economies open and external demand and domestic economic activity recover. The small structural model estimate foresees a more rapid onset of potential output growth next year, whereas according to the production function the rate of growth will be lower. However, it will be slightly higher at the longer end of the forecast.

Chart III.2.2 Potential output

Potential output declined substantially; its growth will turn positive again at the long end of the forecast but will be lower than in previous years

(annual percentage changes)



III.2.2 The expenditure side of the economy

Czech GDP dropped by 2% year on year in Q1 due to the shutdown of part of the economy resulting from the coronavirus measures (see Chart III.2.3). A steep decline in fixed investment was the biggest contributor to the drop in GDP. However, the contribution of change in inventories also turned negative. The marked drop in domestic demand was exacerbated by a halt of

the previously solid growth in household consumption. A decrease in the negative contribution of net exports and an upturn in government consumption growth had the opposite effect.

The previously solid growth in household consumption suddenly halted (see Chart III.2.3). The government's March shutdowns of sectors with a high share of private consumption, such as market services and wholesale and retail trade, transport, and hotels and restaurants, led overall to a sudden halt in the previously robust growth in household consumption in Q1. The impact of the quarantine measures was only partially offset by a temporary increase in short-term household consumption due to households stocking up on foods and other fast-moving everyday consumer goods. The support and stabilisation measures[41] gradually introduced by the government increased growth in households' nominal disposable income, which thus significantly exceeded nominal consumption growth (see Chart III.2.4). The saving rate thus continued to rise. The consumer confidence balance saw an unprecedented fall in April, mainly due to households' increased concerns about future economic developments and a rise in the unemployment rate. The perceived financial situation of households also worsened. The decline in consumer confidence nonetheless began to ease in May. Households meanwhile indicated a greater intention to save again (see Chart III.2.5). May's retail sales also sent a positive signal, rising in year-on-year terms.

The only GDP component to record a positive contribution in Q1 was government consumption (see Chart III.2.3). It more than doubled by comparison with the previous quarter, mainly due to growth in non-wage government expenditure on health care. Despite slowing slightly, growth in the government consumption deflator remained high on the back of continued robust growth in compensation of government sector employees. Growth in real government consumption thus increased overall.

Investment activity dropped sharply, mainly as a result of a fall in private investment[42] (see Chart III.2.6). In particular, the contribution of investment by non-financial corporations fell dramatically into negative territory, and that of investment by financial corporations was also strongly negative. Besides the worse global economic sentiment, this was due to the sharp drop in external demand. Household investment also decreased year on year, though not significantly compared with the corporate sector. The generally unfavourable trend in private investment was only partially offset by government investment, which continued to increase with significant support from European funds.

The contribution of change in inventories to GDP growth was slightly negative in Q1. The level of additions to inventories was

41 For example, a loan moratorium, cancellation of social and health contributions for the self-employed, and tax loss carryback.

42 The relevant data include a historical revision of the gross fixed capital formation time series. This revision mainly increased the level of investment by CZK 20 billion in 2018. It primarily concerned investment in information and communication technology, intellectual property and housing.

Chart III.2.3 Gross domestic product

The downturn in the Czech economy was dampened in 2020 Q1 by increased government consumption and a decrease in the negative contribution of net exports

(annual percentage changes; contributions in percentage points; seasonally adjusted)

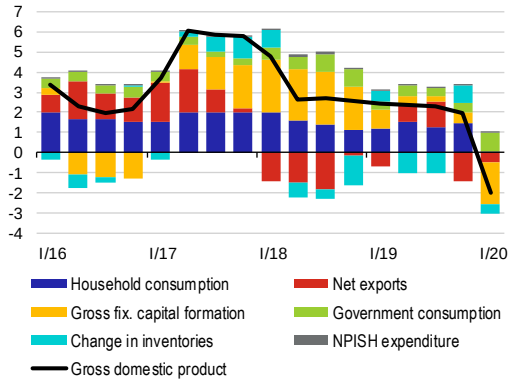
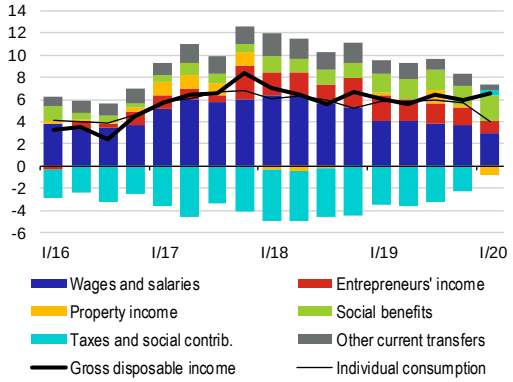


Chart III.2.4 Disposable income

In contrast to household consumption, growth in disposable income increased, mainly due to government measures

(annual percentage changes; contributions in percentage points; current prices; seasonally unadjusted)

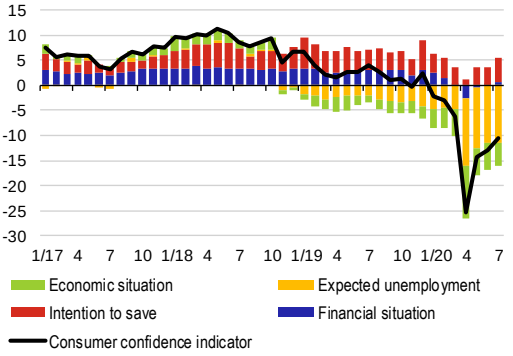


Note: Entrepreneurs' income comprises gross operating surplus and mixed income.

Chart III.2.5 Consumer confidence balance

After falling sharply in April, consumer confidence rebounded

(balance is difference in per cent between answers expressing improvement and deterioration in expected and ongoing tendencies)



high and probably reflected the hindering effect of government shutdowns on sales and removal of goods from warehouses.

The negative contribution of net exports to GDP growth decreased amid falling exports and imports (see Chart III.2.7). The marked weakening of external demand was reflected in a decrease in total exports, mainly due to goods exports. The hardest hit segment was the automotive industry, whose production was noticeably affected by production shutdowns at the individual company level. By contrast, services exports were affected to only a limited extent by the coronavirus pandemic during Q1, and their growth remained positive. The drop in total imports was due to a downswing in import-intensive exports and to a deep decline in highly import-intensive private investment and partly also household consumption.

III.2.3 The output side of the economy

Gross value added declined by 1.5% in 2020 Q1, due mainly to wholesale and retail trade and manufacturing (see Chart III.2.8). The government-imposed shutdowns and restrictions on cross-border movement had the biggest effect on wholesale and retail trade and market services. The hospitality and tourism sectors were affected across the board. The markedly negative contribution of manufacturing was related not only to the drop in external demand, but also to the decision of many businesses to curb or completely shut down production for reasons of preventive hygiene, especially in the automotive industry. The overall drop in gross value added was slightly reduced by positive contributions from non-market services and agriculture.

Czech industrial production saw a record fall in the spring, primarily due to shutdowns in the automotive industry (see Chart III.2.9). While in January and February, growth in industrial production was only slightly negative, in March it recorded a sharp decline, which further intensified in April. The biggest contributor to this was the automotive industry, which plunged by roughly 80%. The May data is not favourable either, indicating that industrial production is rebounding only slowly.

Insufficient demand was the biggest barrier to growth in production for industrial firms in July. Half of firms listed it as a limiting factor, which represents another sharp rise. To a lesser extent, production was hindered by shortages of employees. This barrier limited businesses significantly less than at the beginning of the year. This is associated mainly with a decline in firms' demand for new employees due to reduced production and services. The number of firms citing unspecified factors also decreased. This is linked with production shutdowns in some industrial firms in the first half of the year.

The decline in production in the construction sector was relatively mild (see Chart III.2.9). The situation reflected both an increased decline in production in building construction and a weakening of the previous brisk growth in civil engineering, which, however, continues to be supported by government investment co-financed from EU funds.

Business sentiment is recovering from its record plunge in April. The increase in pessimistic sentiment was apparent across all

Chart III.2.6 Investment by sector

The deep decline in investment activity was driven mainly by non-financial and financial corporations

(annual percentage changes; contributions in percentage points; constant prices; seasonally adjusted)

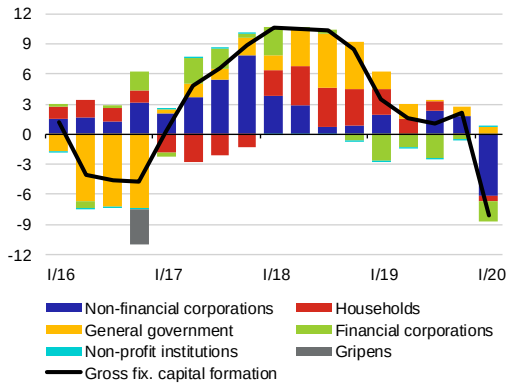


Chart III.2.7 Exports and imports

The decline in exports was slightly larger than that in imports

(year-on-year changes in per cent and CZK billions; constant prices; seasonally adjusted)

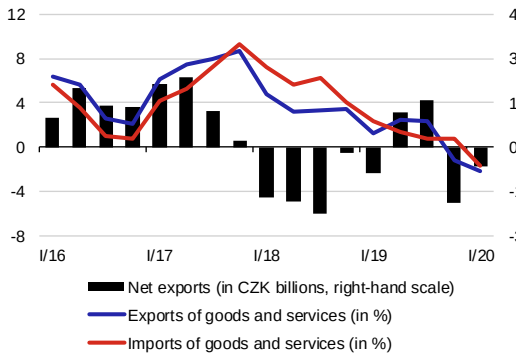
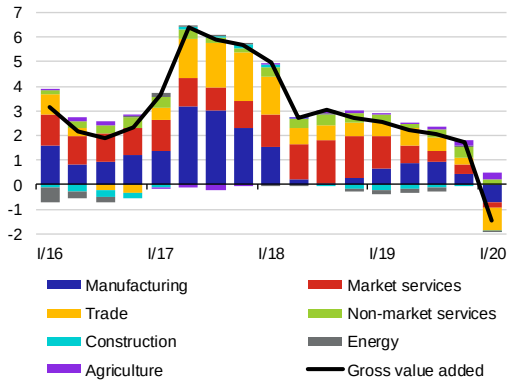


Chart III.2.8 Contributions of sectors of activity to GVA growth

The decline in gross value added was due mainly to wholesale and retail trade and industry

(annual percentage changes; contributions in percentage points; constant prices)



Note: Trade also includes hotels and restaurants and transport. Energy also includes mining and quarrying.

sectors, but was concentrated mainly in industry and services. This was due primarily to the restrictive measures enacted by the government. The July data showed a marked improvement, especially in industry, which was reflected in growth of optimism in the outlook for domestic and external demand.

Growth in gross operating surplus in non-financial corporations slowed (see Chart III.2.10). Both gross value added and compensation of employees recorded gradually slowing growth. By contrast, output and intermediate consumption saw a sharper fall in growth, which turned into a decline late last year. This decline was then amplified in Q1 by the nascent pandemic.

Chart III.2.9 Industrial production and construction output

Industrial production dropped in March and especially April, but the decline slowed somewhat in May; the downturn in construction was relatively moderate

(annual percentage changes)

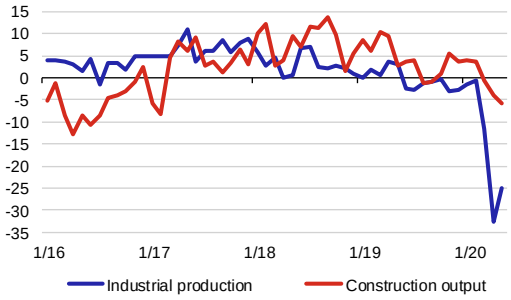
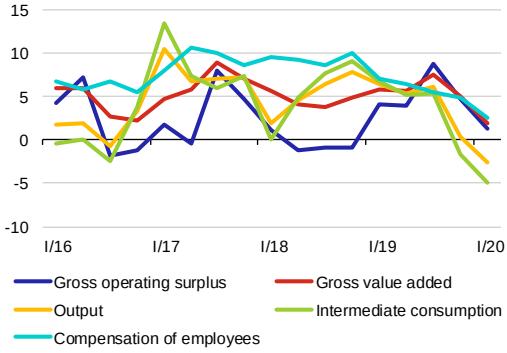


Chart III.2.10 Key financial indicators

Growth in gross operating surplus slowed due to the drop in output

(annual percentage changes)



III.3 THE LABOUR MARKET

The outbreak of the coronavirus pandemic in March was reflected only slightly in most labour market indicators in Q1. The decline in employment deepened slightly and the unemployment rate stayed close to a historical low. Despite the drop in economic activity caused by the coronavirus and the quarantine measures, the number of job vacancies remained high. Wage growth was also solid in Q1, aided, among other things, by a further increase in the minimum wage. Wage growth thus stayed near 5% in Q1 in both market and non-market sectors. As a result of shutdowns of firms and even entire sectors, whole-economy labour productivity dropped and thus lagged well behind average real wage growth. The pace of growth in nominal unit wage costs rose appreciably. The available data for Q2 indicate an ongoing noticeable cooling of the labour market.

III.3.1 Employment and unemployment

The outbreak of the coronavirus pandemic had a relatively small negative impact on the labour market in Q1. This is illustrated by the composite LUCI indicator, which is still very high from the historical perspective (see Chart III.3.1). Employment fell by 0.5% in 2020 Q1. From the sectoral point of view, industry and market services contributed in roughly equal measure to the decrease, whereas employment in non-market services continued to rise (see Chart III.3.2). A large number of individuals who are not actively seeking a job[43] but are willing to work, continued to be observed.

Both a lower number of employees and shorter average working hours contributed to the reduction in the converted number of employees. From the sectoral point of view, the decrease in the converted number of employees in Q1 was due mainly to industry. Here, the decrease in the number of employees was amplified by a fall in average hours worked. The slowdown in industry was also associated with a decrease in employees in market services. This was concentrated mainly in administrative and support service activities, where agency employees also working mainly for industrial firms predominate. As a result of the coronavirus pandemic, employment decreased in accommodation and food service activities and transport. On the other hand, employment in non-market services increased, driven mainly by education.

The worse economic situation led to an increase in unemployment indicators in 2020 Q2 (see Chart III.3.3). While both the general unemployment rate and the share of unemployed persons remained close to their historical lows in Q1, their increase in Q2 indicates that a relatively rapid cooling is taking place in the until recently overheated labour market. The seasonally adjusted share of unemployed persons increased to 3.9% in June. This represents a 1 percentage point rise since the pandemic broke out in March. An increase of roughly half this size was recorded for the general unemployment rate, which reached 2.5% in May. The rate of economic activity of the

Chart III.3.1 LUCI – Labour Utilisation Composite Index

The current LUCI values are still high from the historical perspective, but the labour market is now cooling slightly

(index; vertical axis shows standard deviations)

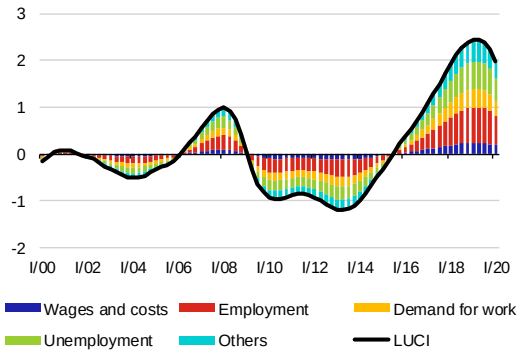
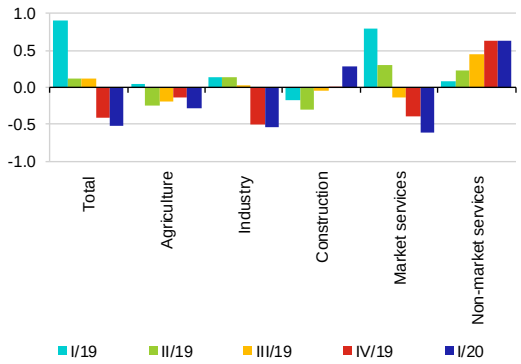


Chart III.3.2 Employment breakdown by sector of activity

The decline in overall employment deepened in Q1

(contributions in percentage points to year-on-year change; selected sectors of activity; source: LFS)



43 These persons are identified not as unemployed but as economically inactive under the ILO methodology. This potential reserve labour force (on top of the number of unemployed) stood at 93,400 persons in Q1, down by more than 11,000 year on year.

working-age population[44] meanwhile fell back slightly from a record high to 76.4% in May.

Despite the marked drop in GDP and the related cooling of the labour market, the number of vacancies remains high. It decreased only slightly in the course of Q2. This was the result of a reduced number of newly reported vacancies in April and May, which was countered by a lower number of cancelled vacancies. The consequences of the coronavirus crisis will thus probably be reflected in these statistics with a lag. As in the previous period, the highest number of vacancies offered via labour offices was registered in manufacturing. There was also strong demand for new employees in the construction and wholesale and retail sectors. In June, almost 70% of vacancies were for employees with basic education and another more than 10% were for employees with vocational training with a school leaving certificate. Viewed in terms of the Beveridge curve (see Chart III.3.4), the current labour market situation shows a still noticeably lower number of registered job applicants per vacancy than at the peak of the previous economic cycle in 2008. According to the latest data, the labour market is cooling significantly. However, this is reflected only very slightly in the decline in the number of job vacancies. The until recently tight situation on the labour market is meanwhile still reflected in increased core inflation.

III.3.2 Wages and productivity

Average wage growth stood at 5% in Q1, which represented a further slowdown (see Chart III.3.5). This was the result of a decrease in wage growth in non-market sectors (to 4.7%) amid roughly stable wage growth in market sectors (5%). An increase in the minimum wage from CZK 13,350 to CZK 14,600 in January 2020 helped maintain solid growth in the average nominal wage at the beginning of the year. Wage growth varied across market sectors, but remained above 4% in most branches. Average wage growth in non-market sectors slowed across the main branches. Wages rose fastest in education (7%) and public administration (5.2%). In arts, entertainments and recreation, conversely, the average wage decreased (by 3.8%) due the base effect of the payment of extraordinary bonuses the previous year. The median wage in the economy rose by 5.8% in 2020 Q1 and thus outpaced average wage growth (5%). Monthly data from industry for April and May indicate a marked decline in the average wage. However, this is related largely to the loss of income of employees receiving attendance allowance and partial wage compensation as a result of the coronavirus pandemic. To a lesser extent, average wage growth in the construction sector also fell during Q2.

Labour productivity fell considerably due to the production shutdowns and the drop in demand in many sectors. Its year-on-year decrease of 1.5% in 2020 Q1 (see Chart III.3.5) was driven mainly by market services and, to a lesser extent, by industry. The lag of productivity growth behind average real wage growth (1.4%) thus increased compared with the end of 2019.

Chart III.3.3 Unemployment indicators

The share of unemployed persons increased in Q2 owing to the economic contraction

(percentages; seasonally adjusted; source: MLSA, CZSO)

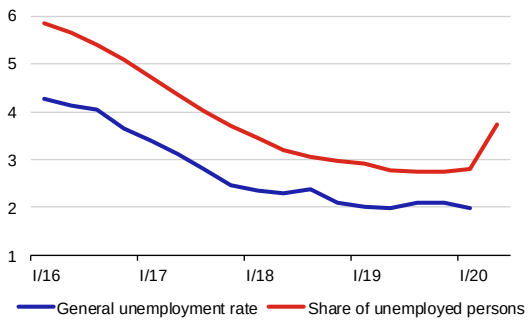


Chart III.3.4 Beveridge curve

The number of vacancies is still higher than the number of registered unemployed persons, amid higher core inflation

(numbers in thousands; seasonally adjusted; annual percentage changes for core inflation; source: MLSA, CZSO)

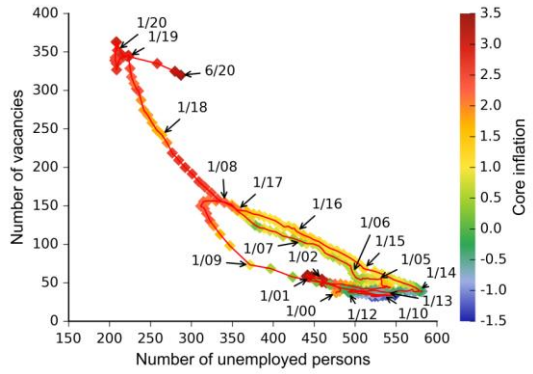
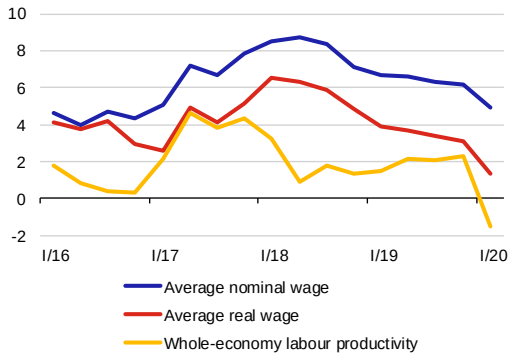


Chart III.3.5 Average wage and whole-economy labour productivity

Labour productivity dropped markedly, still lagging well behind wage growth

(annual percentage changes; whole-economy productivity – seasonally adjusted)



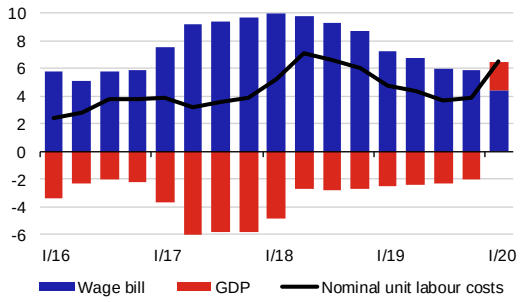
44 This concerns the 15–64 age group.

Growth in nominal unit labour costs accelerated significantly due to the drop in labour productivity associated with the pandemic (see Chart III.3.6). Growth in unit labour costs rose to 6.5% in Q1. This reflected an upswing in growth in nominal unit labour costs in industry (to 4.6%) and market services (to 7.4%). It was only partially offset by a slowdown in growth of nominal unit labour costs in construction and non-market services, which have been affected less severely by the coronavirus pandemic so far.

Chart III.3.6 Unit labour costs

The upswing in nominal unit labour costs reflected a drop in productivity amid persisting solid wage growth

(annual percentage changes; contributions in percentage points)



III.4 FINANCIAL AND MONETARY DEVELOPMENTS

The CNB cut the 2W repo rate significantly further to 0.25% at the May meeting in response to the fundamental change in the economic outlook caused by the coronavirus pandemic. At the June and August meetings, monetary policy rates were left unchanged. The previous financial market turbulence calmed gradually. Interest rates stabilised at low levels and the koruna appreciated. The drop in monetary policy and market interest rates has so far been reflected mainly in interest rates on new loans to corporations and new deposits with agreed maturity. The mortgage rate decreased only marginally in Q2. Annual growth in loans to the private sector slowed slightly, most of all in the segment of loans to households for consumption. In addition, credit standards were tightened and demand for loans dropped. M3 growth slowed slightly despite a significant increase in overnight deposits of households.

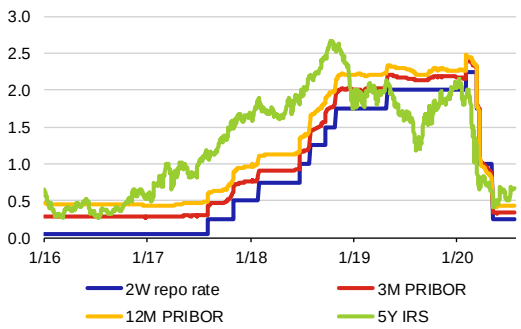
III.4.1 Monetary policy and interest rates

The CNB lowered monetary policy interest rates at the May meeting and left them unchanged in June and August. The two-week repo rate is set at 0.25%, the Lombard rate at 1% and the discount rate at 0.05% with effect from 11 May 2020. The Bank Board also adopted further stabilising monetary, macroprudential and microprudential policy measures aimed at softening the impacts of the coronavirus pandemic on price and financial stability and the Czech economy (see Box 2 for details). The 3M PRIBOR fell to 0.6% on average in Q2 and has been close to 0.3% since mid-May[45] (see Chart III.4.1). FRA rates also stabilised at similar levels following the repo rate cut in May. Their end-July outlook implied broad stability of the 3M PRIBOR over the one-year horizon. The market rate outlook is in line with the interest rate path contained in the new CNB forecast until mid-2021.

Chart III.4.1 Interest rates

Following sharp drops in March and May, interest rates stabilised

(percentages)



BOX 2 The CNB's measures in response to the Covid-19 pandemic

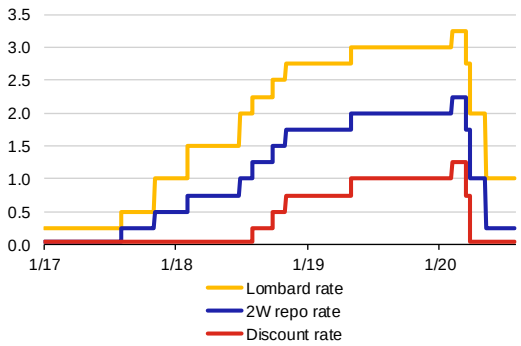
The CNB responded to the expected impacts of the pandemic with a combination of monetary policy and macroprudential measures. They were aimed at softening the impacts of the pandemic on price and financial stability and supporting the Czech economy. The measures adopted are helping to create an environment on the financial market that will enable Czech financial institutions and the entire Czech economy to better deal with the economic situation that has arisen.

In the first step, it was desirable to cut interest rates. The CNB Bank Board therefore lowered the key interest rates by 50 basis points at an extraordinary monetary policy meeting on 16 March. The rates were cut further (by 75 basis points in the case of the 2W rate) at the regular monetary policy meeting on 26 March. The 2W repo rate was lowered by another 75 basis points to 0.25% at the May monetary policy meeting. The Lombard rate was set at 1% and the discount rate at 0.05% (see Chart 1). These changes were immediately reflected in financial market interest rates and some time later also in client interest rates on loans and deposits. Moreover, the overall

Chart 1 (BOX) The CNB's key interest rates

The 2W rate was lowered by 2 percentage points in three steps in a short period of time

(percentages)



45 The money market premium, as measured by the spread between the 3M PRIBOR and the 2W repo rate, was thus only slightly positive.

monetary conditions were eased by a weakening of the exchange rate, which responded to the worsening financial market sentiment and thus worked as a natural stabiliser.

Other measures were aimed at supporting the Czech banking sector's liquidity. Although no liquidity shortage is observed in the Czech banking sector, the rules for monetary operations have been modified for preventive reasons. Since 18 March 2020, liquidity-providing repo operations have been announced three times a week instead of the previous weekly frequency. Banks' bids in these repo operations are fully satisfied at a fixed rate corresponding to the 2W repo rate, i.e. with a zero spread. In addition, liquidity-providing operations with three-month maturity were introduced in May. The approved amendment of the Act on the CNB also made it possible to prepare a liquidity-providing instrument for certain non-bank financial institutions (insurance, pension management and management companies). Since 18 May, these institutions have been able to obtain liquidity in the form of short-term credit from the CNB. Such credit will be secured on the part of these financial institutions by the same securities that are used as standard collateral by credit institutions in liquidity-providing repo operations with the CNB, i.e. primarily Czech government bonds. In addition, the range of eligible collateral accepted from credit institutions (banks, foreign bank branches and credit unions) in existing liquidity-providing operations was broadened to include mortgage bonds. The CNB also called on banks, insurance companies and pension management companies to refrain from making dividend payouts or taking any other steps that might jeopardise individual institutions' resilience until both the acute and longer-term consequences of the pandemic fade away.

Domestic banks' initial capitalisation is robust thanks to capital buffers and voluntary capital surpluses. The Czech banking sector as a whole can cope with the consequences of even significantly adverse economic developments. However, economic activity is deteriorating considerably due to the coronavirus-related restrictions, which will have an adverse effect on the quality of banks' loan portfolios. The CNB has therefore gradually lowered the countercyclical capital buffer (CCyB) rate to support banks' ability to finance the real economy without interruption and cover potential credit risks (these may arise particularly after the loan moratorium ends this autumn; see below). In March, the CNB Bank Board cancelled its previous year's decision to raise the CCyB rate to 2% and left it at 1.75%. It lowered the rate to 1% with effect from 1 April 2020 and 0.5% with effect from 1 July 2020.

The mortgage lending rules have been relaxed. The CNB no longer feels the need to dampen potential demand as it did during the peak of the overheated property market. It therefore relaxed the limits on the three credit ratios used to assess applications for new mortgage loans in several steps (see Table 1). As from 18 June, only the LTV ratio (the ratio of the loan amount to the value of collateral) of 90%, reflecting the persisting overvaluation of housing prices, remains in place.

The CNB in cooperation with the Ministry of Finance initiated a loan moratorium. It allows firms, the self-employed and

Table 1 (BOX) Recommended mortgage lending ratios

Two mortgage assessment limits were cancelled; only the LTV limit remains in place

	to 1 April 2020	from 1 April 2020	from 18 June 2020
LTV (loan-to-value) Ratio of loan to value of collateral	80%	90%	90%
DTI (debt-to-income) Ratio of loan applicant's total debt to net annual income	eightfold	no limit	no limit
DSTI (debt-service-to-income) Ratio of loan applicant's monthly debt repayments to net monthly income	45%	50%	no limit

Note: The abolition of the DSTI limit on 18 June 2020 entered into force on 8 July 2020.

households to avoid unnecessary or early insolvencies caused by a drop in their incomes due to the coronavirus pandemic. Such insolvencies would cause irreparable damage to the Czech economy and, in turn, negatively affect the condition of banks and other financial institutions. Under a law passed in April 2020, borrowers suffering a negative economic impact from the Covid-19 pandemic may stop repaying for three or six months. The moratorium not only allows instalments to be postponed quickly and simply, but also makes it unnecessary for banks and credit unions to increase their provisions due to such postponement. It thus strikes a balance between the needs of consumers and firms on the one hand and banks and non-bank lenders on the other, as both sides are important for maintaining financial stability.

Following a previous significant drop, domestic interest rates with longer maturities remained low. The slope of the domestic IRS yield curve is distinctly positive, and the same goes for the domestic government bond yield curve (see Chart III.4.2). The panic on global financial markets subsided, interest rates stabilised at low levels and stock markets erased previous losses. Cautious optimism, coupled with a hope of economic recovery following the lifting of restrictive (government quarantine) measures, prevails on the markets. The markets responded positively to the extensive fiscal and monetary stimuli, and global market risk aversion decreased. On the other hand, escalated tensions between the USA and China, including trade disputes, and concerns about a resurgence of the pandemic, had an adverse impact. Medium- and long-term interest rates in the euro area and the USA declined only slightly overall in Q2. Domestic IRS rates also fell moderately at most maturities.

Extraordinary amounts of government bonds were issued on the primary market to finance fiscal stabilisation measures. The Ministry of Finance of the Czech Republic has issued T-bills and bonds with various maturities totalling CZK 569 billion since the start of 2020.[46] Demand from investors (including foreign ones) was several times higher than the amounts supplied in some auctions. The Ministry of Finance took advantage of the decrease in the cost of state financing caused by the drop in market rates[47] to create reserves for increased fiscal expenditure. A "Republic Bond" intended for the public and euro-denominated bonds were also issued. According to Ministry of Finance statistics, non-residents' total government bond holdings increased[48] to CZK 692 billion in June; non-residents accounted for 35% of total government bond holdings.

The drop in monetary policy and market interest rates is gradually being reflected in interest rates on loans to corporations (see Table III.4.1). Since February, the rate on total new corporate loans has dropped by 0.7 percentage point to

Chart III.4.2 Government bond yield curve

The shape and slope of the yield curve both changed substantially during 2020 Q2

(percentages)

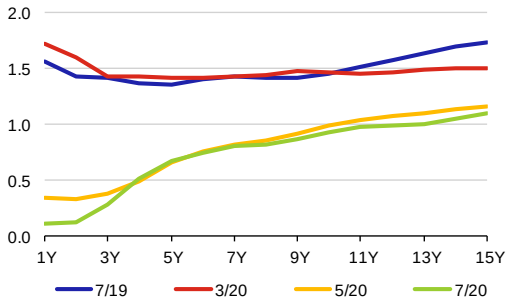


Table III.4.1 Client interest rates on loans and deposits

Rates on corporate loans and deposits with agreed maturity responded particularly strongly to the drop in monetary policy and market interest rates

(interest rates in percentages; changes in percentage points)

	Interest rate	Change since	
	5/20	2/20	11/16
HOUSEHOLDS			
Mortgages	2.4	0.0	0.5
Mortgages with rate fixation 1–5 years	2.4	-0.1	0.5
Mortgages with rate fixation 5–10 years	2.3	-0.1	0.5
New mortgages	2.3	-0.1	0.5
Refinanced mortgages	2.2	-0.2	0.4
Consumer credit	7.4	-0.6	-2.7
Deposits			
Overnight deposits	0.2	-0.1	0.1
New deposits with agreed maturity	0.5	-1.2	-0.6
NON-FINANCIAL CORPORATIONS			
Total loans	2.6	-0.7	0.8
Small loans (up to CZK 30 million)	3.4	-0.8	1.0
Large loans (over CZK 30 million)	2.3	-1.0	0.5
New loans	1.9	-1.8	0.0
Total outstanding loans	2.8	-1.0	0.3
Deposits			
Overnight deposits	0.1	-0.2	0.0
New deposits with agreed maturity	0.3	-1.5	0.2

Note: The change in interest rates since November 2016, when rates were close to their historical lows, and since February 2020, the last month before the onset of the coronavirus crisis.

46 The Funding and Debt Management Strategy for 2020, updated at the end of June, assumes issues on the domestic market of at least CZK 480 billion.

47 Almost no yield in primary auctions exceeded 1%. Only the longest bond (with a maturity of 20 years) was sold at an average yield of 1.5%.

48 Non-residents' short-term deposits at banks also increased.

2.6% and the rate on genuinely new corporate loans by as much as 1.8 percentage points to 1.9%. The more moderate decline in the rate on total new loans to corporations than in the rate on genuinely new loans was due mainly to an increase in the share of other renegotiations of existing loans as a result of the loan moratorium. The difference in the total funding costs of corporations, as expressed by the cost of borrowing, compared with the euro area dropped to 1 percentage point (see Chart III.4.3).

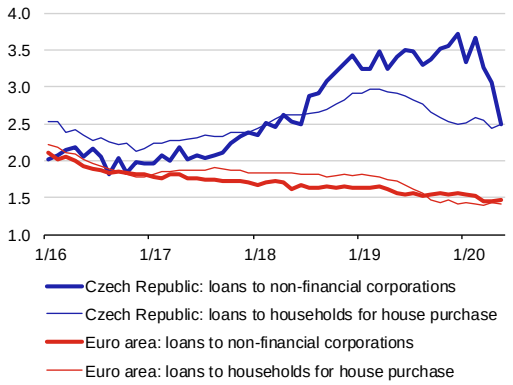
The interest rate on loans for house purchase decreased moderately in Q2 (see Table III.4.1). The rate on new mortgages was 2.4% and the rate on genuinely new mortgages 2.3% in May. The mortgage rate is usually correlated with the yield on the ten-year government bond or ten-year interest rate swap (IRS), passing through with a lag of several months. According to Fincentrum Hypoindex data, interest rates on new mortgages declined slightly further in June. The interest rate on new consumer credit fell sharply in May. Ex ante real interest rates remained positive in both segments.

Client rates on new deposits with agreed maturity decreased significantly. The rate on new deposits with agreed maturity has dropped by more than 1 percentage point since February – the decline having been less pronounced for households than for corporations. However, the average rate on total deposits has decreased only slightly, due to the dominant share of overnight deposits with an almost zero interest rate. Banks' interest margin, as expressed by the spread between rates on new loans and deposits, decreased for corporate loans and was little changed for loans to households.

Chart III.4.3 Client interest rates in the Czech Republic and the euro area

Despite a recent drop, client interest rates on loans in the Czech Republic are still markedly higher than those in the euro area

(total credit costs as expressed by cost of borrowing; percentages)



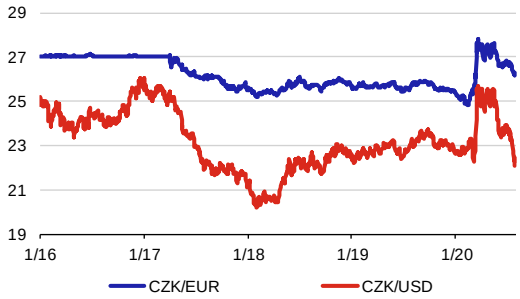
III.4.2 The exchange rate

During 2020 Q2, the koruna partly reversed the sharp depreciation against the euro recorded in March (see Chart III.4.4). In the second half of May, the koruna appreciated rapidly from CZK 27.0–27.6 to the euro (where it had fluctuated with quite large swings from the end of March until mid-May) into the CZK 26.6–26.8 band. It thus responded to the gradual opening of the European and Czech economies following the relatively well-handled first wave of the coronavirus pandemic. The koruna strengthened further to CZK 26.3 to the euro in the second half of July in response to the approval of a European recovery fund. The average exchange rate of the koruna against the euro in Q2 was CZK 27.05. This was slightly stronger than the projection contained in the previous forecast (CZK 27.2 to the euro). The koruna thus weakened by 5.3% in year-on-year terms.

Against the dollar, the koruna followed a similar pattern as against the euro in Q2 and appreciated in the second half of May (see Chart III.4.4). The exchange rate of the koruna against the dollar fluctuated between CZK 24.5 and CZK 25.5 from the start of the quarter, but after a rapid appreciation in the second half of May it oscillated in a much narrower band of CZK 23.5–23.9. However, the year-on-year depreciation of the koruna against the dollar remained much bigger on average than that against the euro in Q2, amounting to around 7.5%. The difference in the extent of the depreciation against the euro and dollar was a result of year-on-year appreciation of the dollar against the

Chart III.4.4 CZK/EUR and CZK/USD exchange rates

The koruna partly reversed its previous sharp depreciation against both the euro and the dollar in Q2



euro. This reflected the apparently still positive, though significantly narrowed, interest rate differential of the dollar vis-à-vis the euro and visibly strengthening divergence of economic growth across the euro area countries. In July, however, the dollar weakened quite considerably on global markets. This was due to the USA coping much worse with the epidemiological situation than Europe, and particularly to the approval of a European recovery fund, which demonstrated the EU's ability to ensure mutual fiscal assistance. The koruna thus continued to strengthen quite significantly against the dollar and stood at around CZK 22.8 to the dollar in late July.

The strengthening of the koruna was linked with the gradual opening of European economies after a successfully handled first wave of the coronavirus pandemic. This led to a partial calming of the financial market situation. This trend was reflected in renewed demand for the koruna, associated primarily with short-term banking sector operations and, to a lesser extent, also with a modest increase in holdings of domestic government (mostly koruna) bonds by non-residents. Not even the sharp, 0.75 percentage point interest rate cut made by the CNB in May weakened the koruna, which is maintaining a positive interest rate differential against comparably risky currencies despite the rate reductions in March and May. The approval of a European recovery fund in the second half of July contributed to a further partial calming of financial markets, which had been concerned about the considerable risks ensuing from divergence of the euro area economies, especially on the southern periphery.

The positive differential between koruna and euro interest rates fell significantly, while the differential vis-à-vis the dollar turned slightly positive (see Chart III.4.5). The positive differential between three-month koruna and euro rates decreased from around 1.4 percentage point to 0.8 percentage point in 2020 Q2. The spread between three-month koruna and dollar rates shifted from about -0.4 percentage point to around 0.1 percentage point in the same period.

The year-on-year depreciation of the nominal effective exchange rate of the koruna was 3.1% in June and slowed compared with the previous period (see Chart III.4.6). The koruna weakened against ten currencies in the basket, strengthened against two and remained stable against one (the Polish zloty) in year-on-year terms in June. It depreciated particularly sharply (by 8.6%) against the Swiss franc. However, year-on-year depreciation of the koruna was also observed against the currencies of most other advanced countries. The koruna strengthened markedly only against the Hungarian forint and the Russian rouble (by 3.4% and 3.3% respectively).

III.4.3 Credit

Growth in loans to the private sector slowed further in Q2 (see Chart III.4.7). This mainly reflected a continued decline in growth of loans to financial corporations and a significant slowdown in growth of loans to households for consumption. According to the June Bank Lending Survey, the slowdown in credit growth was due on the supply side mainly to a broad tightening of credit standards and collateral conditions across all credit market segments in response to a sharp increase in risk

Chart III.4.5 Interest rate differentials

The highly positive koruna-euro interest rate differential decreased significantly, while the slightly negative koruna-dollar differential turned slightly positive

(percentage points)

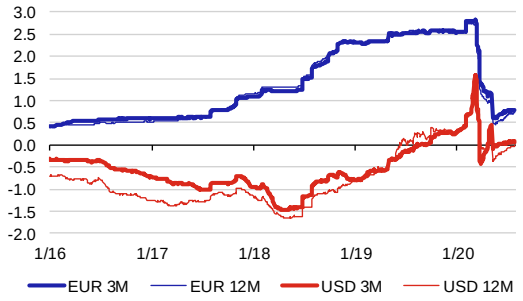
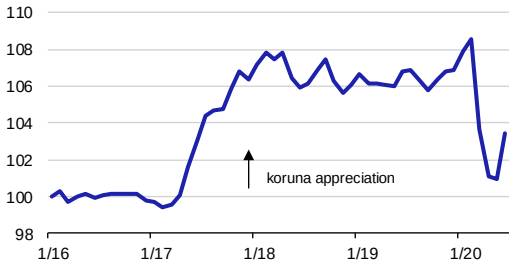


Chart III.4.6 Nominal effective koruna exchange rate

The koruna partly reversed its previous sharp depreciation in effective terms in Q2

(basic index; January 2016 = 100)

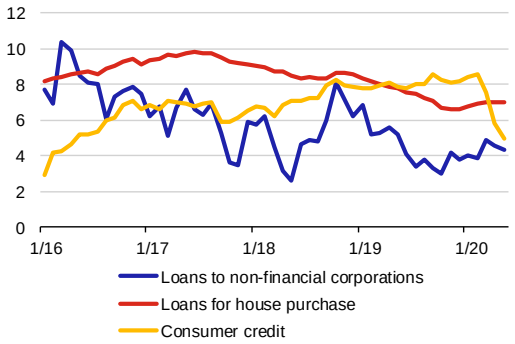


Note: In the calculation of the nominal effective exchange rate of the koruna (NEER), the euro has the largest share in the basket (64.3%). The renminbi, the zloty, the pound, the forint, the dollar and the rouble have smaller, but still significant shares (2.6%–7.8%). The shares of the remaining six currencies range between 0.9% and 1.4%. The calculation method (as applied by the IMF) includes all SITC categories.

Chart III.4.7 Loans to the private non-financial sector

Growth in loans to the private non-financial sector decreased, with consumer credit showing a particularly sharp slowdown

(annual percentage rates of growth)



associated with the impacts of the coronavirus pandemic. Overall, instalments on loans of CZK 448.2 billion, or around 14% of total loans, were postponed due to the coronavirus crisis. The percentage figures were about the same for loans to households and loans to non-financial corporations.

Growth in loans for house purchase has been stable since the start of the year, but growth in loans for consumption has slowed significantly due to the coronavirus. The annual rate of growth in loans for house purchase remained at 7% in May, and the monthly volumes of new loans are still high (see Chart III.4.8).[49] In the Bank Lending Survey, banks pointed to a decline in households' demand for loans due to worsening consumer confidence and negative expectations regarding the economic impacts of the pandemic. This pessimistic outlook is partly offset by favourable interest rates on house purchase loans and better housing market prospects. The rate of growth of loans for consumption fell from a five-year high in February to 5% in May.

Growth in loans to non-financial corporations slowed in Q2 after a previous surge. The growth in corporate loans was 4.3% in May. The observed slowdown was quite broad-based but was strongest in real estate activities and construction (see Chart III.4.9). Borrowing under the COVID programmes remains moderate.[50] According to the Bank Lending Survey, corporate demand for loans declined in 2020 Q2, due mainly to subdued fixed investment and also to mergers and acquisitions and corporate restructuring. However, banks perceived increased demand for operational funding from corporations. They expect overall corporate demand for loans to decline further in 2020 Q3. The share of foreign currency loans in total loans to non-financial corporations dropped slightly in May (to 36.2%).

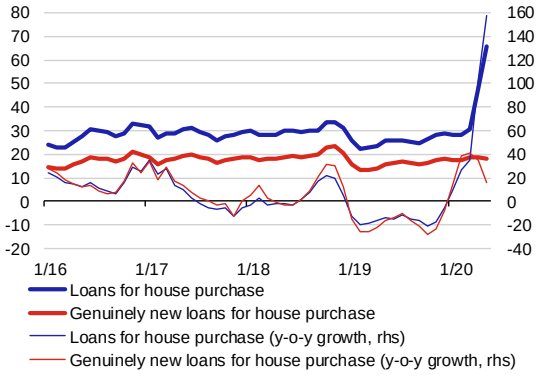
III.4.4 Money

Following a strong acceleration, M3 growth slowed in Q2 (see Chart III.4.10). The annual growth rate of M3 reached 7.8% in May. Money creation is being supported by growth in government debt – primarily large issues of government bonds (in April) purchased predominantly by banks and also by non-residents and financial corporations (especially pension funds). However, this was largely offset by growth in deposits of central government at banks. Growth in overnight deposits included in M1 surged to 10%. This was related to the closure of shops and other businesses during the peak of the first phase of the pandemic, lower consumption expenditure of households, and to financial assistance provided by the government. Growth in currency likewise accelerated. By contrast, growth in deposits of non-financial corporations slowed to 5.1%.

Chart III.4.8 New loans to households for house purchase

The monthly volumes of genuinely new loans for house purchase are returning to their 2018 levels after the sharp decline observed last year

(monthly volumes in CZK billions; annual percentage changes)

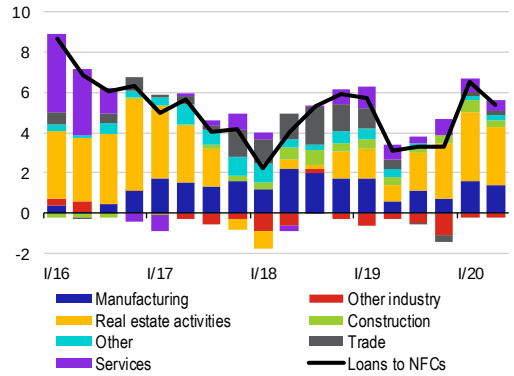


Note: The data are smoothed using three-month moving averages. Total new loans for house purchase comprise genuinely new loans (i.e. loans newly provided to the economy), refinanced loans and other renegotiated loans.

Chart III.4.9 Loans to non-financial corporations by sector of activity

Credit growth showed a quite broad-based slowdown in Q2, most of all in real estate activities and construction

(annual percentage changes; contributions in percentage points; end-of-quarter data; most recent data are for May 2020)

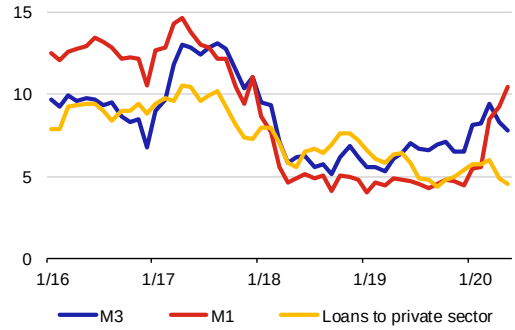


Note: Other comprises agriculture and transport.

Chart III.4.10 Monetary aggregates and loans

M3 growth was driven by increasing growth in currency and overnight deposits of households; besides subdued household consumption, this reflected government financial assistance for households and the self-employed

(annual percentage rates of growth)



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49 The sharp rise in total new loans to households for house purchase was driven by growth in other renegotiations. Those do not constitute genuinely new loans, but reflect new terms and conditions negotiated largely as a result of the loan moratorium.

50 According to extraordinary reporting to the CNB, loans totalling CZK 13.1 billion had been provided to the economy under these programmes as of 17 July 2020 – CZK 9.7 billion under the COVID II programme and CZK 0.9 billion under the COVID Praha programme. A large part of these funds have gone into wholesale and retail trade and manufacturing. The latest statistics are published weekly at https://www.cnb.cz/cs/dohled-financni-trh/souhrnne-informace-fin-trhy/statistika-odkladu-splatek-a-uveru-v-programech-covid/ (available in Czech only).

Abbreviations

AEIS	Average Earnings Information System
BoE	Bank of England
BoJ	Bank of Japan
CF	Consensus Forecasts
CNB	Czech National Bank
Covid-19	disease caused by SARS-CoV-2 coronavirus
CPI	consumer price index
CPIH	experimental consumer price index incorporating prices of older properties
CZK	Czech koruna
CZSO	Czech Statistical Office
DSTI	debt service-to-income
DTI	debt-to-income
ECB	European Central Bank
EEA	European Economic Area
EIA	Environmental Impact Assessment
EIA	U.S. Energy Information Administration
EIU	Economist Intelligence Unit
ESA	European System of Accounts
ESCB	European System of Central Banks
ESR	electronic sales registration
EU	European Union
EUR	euro
EURIBOR	Euro Interbank Offered Rate
FDI	foreign direct investment
Fed	US central bank
FMIE	Financial Market Inflation Expectations
FOMC	Federal Open Market Committee
FRA	forward rate agreement
GDP	gross domestic product
GNP	gross national product
GVA	gross value added
HICP	harmonised index of consumer prices
HP filter	Hodrick-Prescott filter
HPI	house price index
ICT	information and communications technology
IEA	International Energy Agency
Ifo	index of economic confidence in Germany
ILO	International Labour Organization
IMF	International Monetary Fund
IR	Inflation Report
IRI	Institute for Regional Information
IRS	interest rate swap
JPY	Japanese yen
LFS	Labour Force Survey
LIBOR	London Interbank Offered Rate
LTV	loan to value
LUCI	Labour Utilisation Composite Index
M1, M3	monetary aggregates
MFIs	monetary financial institutions
MLSA	Ministry of Labour and Social Affairs
NAIRU	non-accelerating inflation rate of unemployment
NBS	National Bank of Slovakia
OECD	Organisation for Economic Co-operation and Development
OPEC+	The OPEC member countries and another ten oil-exporting countries (the most important being Russia, Mexico and Kazakhstan)
PMI	Purchasing Managers Index
pp	percentage points
PPI	producer price index
PRIBOR	Prague Interbank Offered Rate
repo rate	repurchase agreement rate
USD	US dollar
VAT	value added tax
WTI	West Texas Intermediate

Glossary

This glossary explains some terms frequently used in the Inflation Report. A more detailed glossary can be found on the CNB website (www.cnb.cz/en/general/glossary/index.html).

Administered prices: A sub-category of the consumer basket consisting of items with price ceilings (set at either central or local level), prices regulated on a cost-plus basis (items whose prices may only reflect economically justified costs and a reasonable profit) and administratively fixed fees. The selection of these items is based on the Price Bulletin of the Czech Ministry of Finance.

Agricultural producer prices: Surveyed by the CZSO monthly on the basis of exercise contract prices (excluding their own consumption) of products intended solely for the domestic market excluding VAT.

Apartment asking prices: Asking prices of apartments as estimated by the CZSO.

Apartment transaction prices (returns): Prices based on Ministry of Finance statistics from property transfer tax returns and published by the CZSO. These prices are the closest to actual market prices of apartments in terms of methodology, but are published with a time delay.

Apartment transaction prices (survey): An alternative source of data on transaction prices of older apartments based on a CZSO survey in estate agencies and available with a shorter time delay.

Balance of payments: Records economic transactions with other countries (i.e. between residents and non-residents) over a particular period. The basic structure of the balance of payments includes the current account, the capital and financial accounts and the change in CNB international reserves.

Bid-to-cover ratio: The ratio of total demand to demand coverage in primary auctions of medium-term and long-term government bonds.

Consensus Forecasts: A regular monthly publication issued by Consensus Economics bringing together the forecasts of hundreds of prominent economists and analytical teams regarding future world developments. The CNB uses these predictions in its macroeconomic forecast when forming assumptions regarding the future development of the external environment.

Core inflation: (Formerly called adjusted inflation excluding fuels.) The increase in prices of non-food items of the consumer basket excluding items with administered prices, indirect tax changes and fuels.

Covered bond: A bond collateralised (backed) by long-term assets, usually mortgage loans or public sector loans. The issuers are mostly banks and the issuance of covered bonds is subject to strict legislative rules. Compared to standard bonds, this type of bond has lower credit risk thanks to higher coverage (known as dual recourse), which gives the covered bond holder a preferential claim on the issuer's receivables underlying the mortgage loans or public sector loans and likewise a claim on the issuer. If the issuer defaults, the holder therefore has a preferential right to the assets backing the covered bond.

Current account: Records exports and imports of goods and services, income from capital, investment and labour and unrequited transfers.

Cyclical component of the general government balance: Expresses the effect of the business cycle on the general government fiscal balance.

Discount rate: A monetary policy rate which as a rule represents the floor for short-term money market interest rates. The CNB applies it to the excess liquidity which banks deposit with the CNB overnight under the deposit facility.

Disinflation: A decline in inflation.

Effective euro area indicators: Proxy for the effect of economic activity (effective GDP) and inflation (effective producer prices and consumer prices) in the euro area on the Czech economy. The weights used in the calculation are equal to the shares of the individual euro area countries in the total exports of the Czech Republic to the euro area.

Effective exchange rate: Shows the appreciation (index > 100) or depreciation (index < 100) of the national currency against a basket of selected currencies for a certain time period relative to a base period. The weights applied in the basket are the shares of major trading partners in foreign trade turnover.

Escape clause: Excuses the central bank from its obligation to hit the inflation target. In the flexible inflation targeting regime, it is applied in the event of large shock changes in exogenous factors (particularly supply-side shocks, e.g. indirect tax changes) that are completely or largely outside the purview of central bank monetary policy.

Euro area: The territory of all Member States of the European Union that have adopted the euro as a single currency pursuant to the Treaty Establishing the European Community.

Experimental CPIH price index: Unlike the Consumer Price Index (CPI), the CPIH includes prices of older property, i.e. the transactions that households carry out between themselves. The weight of housing is therefore substantially higher. This index can be viewed as an experimental analytical tool for macrofinancial considerations. For details, see Box 1 in Inflation Report III/2017.

Financial account: Records transactions connected with the creation, liquidation and change in ownership of the financial assets and liabilities of the government, the banking and corporate sectors and other entities vis-à-vis the rest of the world. It consist of direct investment, portfolio investment, other investment and financial derivatives transactions.

Fiscal impulse: A variable taking into account the effect of fiscal policy on economic activity in the short run.

Fiscal stance: The annual change in the general government structural balance (in percentage points). A positive figure indicates fiscal restriction and a negative figure indicates fiscal expansion.

Food prices: In CNB documents, the term food prices refers to the consolidated category of prices of food and non-alcoholic beverages and prices of alcoholic beverages and tobacco.

General government balance: Revenues minus expenditures of the general government sector. A negative government balance is called a general government deficit and a positive government balance is called a general government surplus.

General government primary balance: The general government balance net of interest payments (i.e. debt service).

General government structural balance: The cyclically adjusted general government balance adjusted for extraordinary one-off operations. It captures the structural configuration of fiscal policy.

General unemployment rate: Covers the 15–64 age group (as measured by the ILO methodology in the LFS). It is the ratio of the number of unemployed persons to the labour force (i.e. the sum of employed and unemployed persons) in the given age group.

Gross domestic product (GDP): The key indicator of economic development. It represents the sum of the value added by all economic sectors. In terms of use it consists of expenditure on final consumption (consumption of households, the government and non-profit institutions), gross capital formation (fixed investment and change in inventories) and foreign trade (net exports of goods and services).

Gross operating surplus and mixed income of the household sector: Gross operating surplus – as a part of the gross disposable income of households – is the difference between gross value added in the household sector and the sum of compensation of employees and other taxes less other subsidies on production in this sector. Gross mixed income is generated only in the household sector, where remuneration for labour performed by a firm's owner or by family members cannot be distinguished from the entrepreneurial profit of the owner.

Housing transaction prices: An internationally comparable House Price Index (HPI), which measures movements in the price level of apartments and houses including related plots of land according to a single harmonised EU standard. It includes both new and older (previously inhabited) residential property. The source of the data is the CZSO.

Industrial producer prices: Surveyed by the CZSO monthly on the basis of data provided by selected organisations. Industrial producer prices are those agreed upon between the supplier and the customer inland.

They exclude VAT, excise tax, costs of transport to the customer and costs incidental to transport, and are invoiced for more important trade cases.

Industrial producer prices in the euro area: Divided into their energy and core components for the purposes of the g3+ projection model. The core component approximates price developments in foreign industrial sectors affecting the price competitiveness of Czech exports. By contrast, the energy component captures price developments in foreign industrial sectors most sensitive to oil prices.

Inflation: Commonly, inflation is considered to be recurring growth of most prices in the economy. It means a decrease in the real value (i.e. purchasing power) of a given currency relative to the goods and services which consumers buy. If there is inflation in the economy, consumers need ever more currency units of the given country to buy the same basket of goods and services. In practice, inflation is measured by the increment of the consumer price index.

Inflation pressures: Determined in the CNB's modelling system by real marginal costs in the consumption sector and are divided into domestic (in the intermediate goods sector) and imported (in the import price sector).

Inflation rate: The increase in the average (basic) consumer price index for the last 12 months relative to the average for the previous 12 months.

Inflation target: The level of consumer price inflation that the CNB endeavours to achieve, set publicly and well in advance.

Labour efficiency: Affects the quantity of output per unit of labour. From a model perspective, it is the productivity of the production factor of labour in the Cobb-Douglas production function. A rise in labour efficiency enables a higher real volume of output to be produced using the same quantity of production factors. It therefore increases supply and causes the price of output relative to inputs to go down.

Loan-to-value ratio (LTV): The ratio of the amount of a loan to the value of the property securing the financing.

Lombard rate: A monetary policy interest rate which provides a ceiling for short-term interest rates on the money market. The CNB applies it to the liquidity which it provides to banks overnight under the lending facility.

Market services prices: Surveyed by the CZSO monthly. Market services prices comprise prices of domestic freight transport, postal and telecommunications services, banking and finance and insurance and sewerage charges.

Monetary aggregates: Represent the amount of money in the economy and are calculated from the liquid liabilities of a monetary nature of resident monetary financial institutions (the "money-issuing" sector) to other resident sectors (the "money-holding" sector). Besides households, the latter include non-financial corporations and non-monetary financial institutions, as well as local government authorities and social security funds (excluding central government). The Eurosystem has defined a narrow (M1), an intermediate (M2) and a broad aggregate (M3). These aggregates differ with respect to the degree of moneyness of the assets of residents of the Czech Republic included. The monetary aggregates also include liquid assets denominated in foreign currency of residents of the Czech Republic which are held with monetary financial institutions located in the Czech Republic. Narrow money (M1) consists of currency in circulation and overnight deposits. Intermediate money (M2) comprises narrow money (M1) and, in addition, deposits with an agreed maturity of up to two years and deposits redeemable at notice of up to three months. Broad money (M3) comprises M2 and marketable instruments issued by the monetary financial institutions sector. Certain money market instruments, in particular money market fund shares/units, and repurchase agreements, which are close substitutes for deposits, are included in this aggregate.

Monetary conditions: Represent the combined effect of interest rates (the interest rate component of the monetary conditions) and the exchange rate (the exchange rate component) on the economy. These are the key variables through which monetary policy can affect economic activity and, through it, inflation. Interest rates and the exchange rate do not necessarily affect the economy in the same direction.

Monetary policy horizon: The time horizon which monetary policy-makers focus on when making decisions and which takes into account the monetary policy transmission lag. This horizon is about 12–18 months ahead.

Monetary policy interest rates: Short-term interest rates associated with monetary policy-making. They comprise the two-week repo rate, the discount rate and the Lombard rate.

Monetary policy-relevant inflation: Inflation to which monetary policy reacts. It is defined as headline inflation adjusted for the first-round effects of changes to indirect taxes.

Money market: The part of the financial markets which is used to obtain short-term loans and where debt instruments maturing in less than one year are traded. T-bills are typical securities traded on this market. Within this market the CNB carries out its repo operations.

Nominal costs in the consumption sector: These comprise output prices in the intermediate goods sector and import sector, as final consumption goods are produced using inputs from these sectors. In addition, the import sector is divided into a component importing energy and a component importing other goods and services. Import prices are divided analogously (for a more detailed description of the breakdown of foreign prices into their core and energy components, see "Industrial producer prices in the euro area"). They also include price convergence, which approximates the productivity differential between the tradables sector and the non-tradables sector and its price effect, known as an analogy to the Balassa-Samuelson effect.

Nominal costs in the intermediate goods sector: Co-determined by prices of production factors, i.e. labour costs in the market sector and the price of capital. In addition to these components, they are determined by labour efficiency. In addition to domestic and external demand, the price of capital reflects the price deflator of fixed investment, which is affected by movements in the prices of imported capital goods.

Nominal unit labour costs: The labour costs needed to produce a unit of output. Nominal unit labour costs are calculated as the ratio of the nominal volume of wages and salaries to GDP at constant prices (both seasonally adjusted).

Non-tradables prices: Prices of items in the CZSO consumer basket which have the nature of services. These items can be divided into administered (e.g. water supply and sewerage collection charges, waste collection charges, public transport, electricity and gas, health care and education) and other (e.g. imputed rent proxying for housing prices, rental housing, repair services, recreation and accommodation, restaurants and canteens, body care services and financial and insurance services). These other items are included in core inflation.

Primary income: An item on the current account of the balance of payments comprising income from labour, capital, financial resources provided and non-produced non-financial assets (wages and salaries, dividends, reinvested earnings, interest, rent as well as taxes and subsidies on production and on imports, which represent a part of the financial flows vis-à-vis the EU budget). In a more detailed breakdown, primary income consists of three balances: compensation of employees, investment income and other primary income.

Repo rate: The CNB's key monetary policy rate, paid on commercial banks' excess liquidity as withdrawn by the CNB in two-week repo tenders.

Secondary income: An item on the current account of the balance of payments covering offsets to real and financial resources provided or acquired without a quid pro quo (subsidies and contributions vis-à-vis the EU budget and EU funds, pensions, foreign assistance, benefits, etc.)

Share of unemployed persons: The ratio of available job applicants aged 15–64 to the population of the same age.

Tradables prices: Prices of items of the CZSO consumer basket which are included in core inflation and have the nature of goods. They include, for example, clothing, footwear, equipment for housing and gardening, transport equipment and IT equipment. However, this category excludes prices of food, alcohol, tobacco and fuels, which follow specific patterns.

Unemployment rate: The ratio of the number of unemployed persons to the total labour force. We distinguish between the general unemployment rate, as determined by the CZSO according to International Labour Organisation methodology, and the share of unemployed persons, as determined by the Ministry of Labour and Social Affairs.

Whole-economy labour productivity: Calculated as the ratio of seasonally adjusted GDP to employment (i.e. including the effect of taxes and subsidies on products). Labour productivity in individual sectors is calculated as the ratio of gross value added to employment (i.e. excluding taxes and subsidies on products.

Key macroeconomic indicators

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
DEMAND AND SUPPLY												
Gross domestic product												
GDP (CZK bn, constant p. of 2010, seas. adjusted)	4323.3	4292.6	4290.7	4387.7	4627.5	4740.7	4994.7	5152.7	5269.6	**4840.0**	**5008.5**	**5210.8**
GDP (%, y-o-y, real terms, seas. adjusted)	1.8	-0.7	0.0	2.3	5.5	2.4	5.4	3.2	2.3	**-8.2**	**3.5**	**4.0**
Household consumption (%, y-o-y, real terms, seas. adjusted)	0.4	-1.1	0.9	1.4	3.9	3.7	4.0	3.3	2.9	**-4.2**	**3.4**	**2.9**
Government consumption (%, y-o-y, real terms, seas. adjusted)	-3.5	-1.9	2.4	1.0	1.8	2.5	1.8	3.8	2.3	**5.5**	**1.1**	**2.9**
Gross capital formation (%, y-o-y, real terms, seas. adjusted)	1.8	-4.1	-4.3	7.1	13.1	-4.0	6.6	7.6	1.4	**-15.9**	**-0.6**	**5.5**
Gross fixed capital formation (%, y-o-y, real terms, seas. adjusted)	1.1	-3.2	-2.2	3.3	9.8	-3.1	5.1	10.0	2.1	**-18.0**	**3.1**	**6.7**
Exports of goods and services (%, y-o-y, real terms, seas. adjusted)	9.2	4.4	0.3	8.7	6.2	4.1	7.6	3.7	1.2	**-14.7**	**14.7**	**6.6**
Imports of goods and services (%, y-o-y, real terms, seas. adjusted)	6.7	2.7	0.1	10.0	6.9	2.7	6.5	5.8	1.3	**-11.6**	**13.3**	**6.1**
Net exports (CZK bn, constant p. of 2010, seas. adjusted)	230.1	289.0	295.6	283.1	276.4	337.4	400.7	337.3	337.1	**160.9**	**236.7**	**271.7**
Coincidence indicators												
Industrial production (%, y-o-y, real terms)	5.9	-0.8	-0.1	5.0	4.3	3.4	6.5	3.0	-0.2	**-**	**-**	**-**
Construction output (%, y-o-y, real terms)	-3.6	-7.6	-6.7	4.3	6.8	-5.6	3.3	9.2	2.7	**-**	**-**	**-**
Receipts in retail sales (%, y-o-y, real terms)	1.7	-1.1	1.2	5.5	7.7	6.1	4.5	2.7	3.7	**-**	**-**	**-**
PRICES												
Main price indicators												
Inflation rate (%, end-of-period)	1.9	3.3	1.4	0.4	0.3	0.7	2.5	2.1	2.8	**-**	**-**	**-**
Consumer Price Index (%, y-o-y, average)	1.9	3.3	1.4	0.4	0.3	0.7	2.5	2.1	2.8	**3.4**	**2.4**	**2.2**
Regulated prices (14.58%)* (%, y-o-y, average)	4.7	8.6	2.2	-3.0	0.0	0.2	0.0	1.8	4.4	**3.4**	**1.6**	**2.1**
Food prices (incl. alcoholic beverages and tobacco) (26.41%)* (%, y-o-y, average)	4.3	2.9	3.1	1.8	0.1	0.2	3.6	1.6	2.6	**4.8**	**1.9**	**2.1**
Core inflation (55.61%)* (%, y-o-y, average)	-0.4	-0.3	-0.5	0.5	1.2	1.2	2.4	2.1	2.7	**3.1**	**2.4**	**1.9**
Fuel prices (3.40%)* (%, y-o-y, average)	7.2	6.0	-2.1	0.2	-13.5	-8.5	6.7	6.3	-0.4	**-9.3**	**3.4**	**1.8**
Monetary policy-relevant inflation (%, y-o-y, average)	1.9	2.1	0.6	0.2	0.2	0.5	2.5	2.1	2.9	**3.3**	**2.2**	**2.0**
GDP deflator (%, y-o-y, seas. adjusted)	0.0	1.4	1.4	2.6	1.0	1.1	1.3	2.6	3.9	**4.8**	**1.2**	**1.1**
Partial price indicators												
Industrial producer prices (%, y-o-y, average)	5.6	2.1	0.8	-0.8	-3.2	-3.3	1.8	2.0	2.6	**0.1**	**0.6**	**1.7**
Agricultural prices (%, y-o-y, average)	22.1	3.3	-12.1	4.7	-6.2	-6.0	7.4	-0.2	5.8	**-0.8**	**2.2**	**3.0**
Construction work prices (%, y-o-y, average)	-0.5	-0.7	-1.1	0.5	1.2	1.1	1.7	3.2	4.6	**-**	**-**	**-**
Brent crude oil (in USD/barrel, %, y-o-y, average)	38.2	0.7	-2.6	-8.5	-46.1	-16.0	21.7	30.5	-10.3	**-33.7**	**5.0**	**4.3**
LABOUR MARKET												
Average monthly wage (%, y-o-y, nominal terms)	2.5	2.5	-0.1	2.9	3.2	4.4	6.7	8.2	6.4	**3.0**	**3.6**	**4.1**
Average monthly wage (%, y-o-y, real terms)	0.6	-0.8	-1.6	2.6	2.8	3.8	4.3	6.0	3.6	**-0.3**	**1.2**	**1.9**
Number of employees (%, y-o-y)	0.0	-0.1	1.6	0.6	2.2	2.1	1.7	1.6	0.4	**-1.6**	**-1.4**	**0.7**
Unit labour costs (%, y-o-y)	0.5	3.5	0.8	1.6	-0.5	3.2	3.7	6.3	4.2	**9.5**	**-1.3**	**1.2**
Unit labour costs in industry (%, y-o-y)	0.3	6.6	3.4	1.7	0.9	3.0	1.8	6.2	2.2	**-**	**-**	**-**
Aggregate labour productivity (%, y-o-y)	2.0	-1.1	-0.4	1.7	4.0	0.8	3.7	1.8	2.0	**-6.7**	**4.8**	**3.3**
ILO general unemployment rate (%, average, age 15–64)	6.8	7.0	7.1	6.2	5.1	4.0	2.9	2.3	2.1	**3.2**	**4.7**	**4.3**
Share of unemployed persons (MLSA) (%, average)	6.7	6.8	7.7	7.7	6.5	5.5	4.2	3.2	2.8	**4.1**	**5.6**	**4.9**
PUBLIC FINANCE												
Government budget balance (ESA2010) (CZK bn, current prices)	-109.9	-159.6	-51.1	-90.6	-28.3	34.1	76.7	49.3	15.4	**-320.7**	**-249.0**	**-239.5**
Government budget balance / GDP** (%, nominal terms)	-2.7	-3.9	-1.2	-2.1	-0.6	0.7	1.5	0.9	0.3	**-5.8**	**-4.3**	**-3.9**
Government debt (ESA2010) (CZK bn, current prices)	1606.5	1805.4	1840.4	1819.1	1836.3	1755.1	1749.7	1734.6	1738.7	**2072.6**	**2327.0**	**2567.9**
Government debt / GDP** (%, nominal terms)	39.5	44.2	44.4	41.9	39.7	36.6	34.2	32.1	30.2	**37.5**	**40.1**	**42.1**
EXTERNAL RELATIONS												
Current account												
Trade balance (CZK bn, current prices)	75.5	123.8	167.0	220.0	187.7	258.5	259.3	200.9	236.1	**135.0**	**170.0**	**230.0**
Trade balance / GDP (%, nominal terms)	1.9	3.0	4.0	5.1	4.1	5.4	5.1	3.7	4.1	**2.4**	**2.9**	**3.8**
Balance of services (CZK bn, current prices)	81.3	77.6	70.4	55.7	86.6	106.6	124.6	120.0	104.4	**105.0**	**120.0**	**120.0**
Current account (CZK bn, current prices)	-84.8	-63.3	-21.8	7.9	20.7	85.2	79.1	24.1	-17.0	**20.0**	**0.0**	**40.0**
Current account / GDP (%, nominal terms)	-2.1	-1.5	-0.5	0.2	0.4	1.8	1.5	0.4	-0.3	**0.4**	**0.0**	**0.7**
Foreign direct investment												
Direct investment (CZK bn, current prices)	-46.8	-121.3	7.4	-80.4	49.7	-186.5	-45.9	-51.0	-61.0	**-50.0**	**-70.0**	**-70.0**
Exchange rates												
CZK/USD (average)	17.7	19.6	19.6	20.8	24.6	24.4	23.4	21.7	22.9	**23.8**	**23.1**	**22.6**
CZK/EUR (average)	24.6	25.1	26.0	27.5	27.3	27.0	26.3	25.6	25.7	**26.5**	**26.4**	**26.0**
CZK/EUR (%, y-o-y, real (CPI euro area), average)	-1.9	1.5	3.5	6.3	-0.9	-1.3	-3.4	-2.8	-1.2	**0.7**	**-1.6**	**-1.7**
CZK/EUR (%, y-o-y, real (PPI euro area), average)	-3.0	2.2	2.4	5.1	-0.2	0.1	-1.8	-1.4	-1.2	**1.0**	**0.4**	**-0.9**
Foreign trade prices												
Prices of exports of goods (%, y-o-y, average)	1.7	2.9	1.2	3.5	-1.7	-3.1	-0.1	-0.3	0.9	**1.8**	**1.7**	**1.0**
Prices of imports of goods (%, y-o-y, average)	4.3	4.2	-0.2	1.9	-1.9	4.0	0.9	-0.7	0.3	**-0.4**	**1.3**	**1.5**
MONEY AND INTEREST RATES												
M3 (%, y-o-y, average)	1.0	5.1	5.1	5.1	7.3	9.1	11.7	6.7	6.3	**8.4**	**6.2**	**5.2**
2W repo rate (%, end-of-period, CNB forecast = average)	0.75	0.05	0.05	0.05	0.05	0.05	0.50	1.75	2.00	**0.74**	**0.33**	**0.97**
3M PRIBOR (%, average)	1.2	1.0	0.5	0.4	0.3	0.3	0.4	1.3	2.1	**0.8**	**0.4**	**1.1**

* figures in brackets are constant weights in current consumer basket
** CNB calculation
- data not available/forecasted/released
data in bold = CNB forecast

Key macroeconomic indicators

	2020				2021				2022			
	QI	QII	QIII	QIV	QI	QII	QIII	QIV	QI	QII	QIII	QIV
DEMAND AND SUPPLY												
Gross domestic product												
GDP (CZK bn, constant p. of 2010, seas. adjusted)	1281.6	**1156.7**	**1189.1**	**1212.6**	**1227.8**	**1244.9**	**1260.5**	**1275.3**	**1287.4**	**1298.0**	**1307.6**	**1317.8**
GDP (%, y-o-y, real terms, seas. adjusted)	-2.0	**-12.0**	**-10.0**	**-8.6**	**-4.2**	**7.6**	**6.0**	**5.2**	**4.9**	**4.3**	**3.7**	**3.3**
Household consumption (%, y-o-y, real terms, seas. adjusted)	0.1	**-8.0**	**-5.2**	**-3.5**	**-0.8**	**7.4**	**4.6**	**2.8**	**2.9**	**2.9**	**2.9**	**2.8**
Government consumption (%, y-o-y, real terms, seas. adjusted)	5.0	**5.6**	**5.9**	**5.3**	**2.9**	**1.1**	**-0.1**	**0.7**	**2.1**	**2.7**	**3.4**	**3.5**
Gross capital formation (%, y-o-y, real terms, seas. adjusted)	-9.1	**-15.8**	**-17.7**	**-21.0**	**-13.0**	**2.3**	**4.6**	**5.8**	**6.5**	**6.0**	**5.0**	**4.3**
Gross fixed capital formation (%, y-o-y, real terms, seas. adjusted)	-8.1	**-21.4**	**-21.2**	**-21.1**	**-10.0**	**7.3**	**8.5**	**8.5**	**8.5**	**7.5**	**6.1**	**5.1**
Exports of goods and services (%, y-o-y, real terms, seas. adjusted)	-2.2	**-28.1**	**-18.5**	**-9.9**	**-3.6**	**34.0**	**21.3**	**12.9**	**9.2**	**6.8**	**5.5**	**5.1**
Imports of goods and services (%, y-o-y, real terms, seas. adjusted)	-1.7	**-23.5**	**-14.3**	**-7.1**	**-2.0**	**30.6**	**18.5**	**10.4**	**7.9**	**6.1**	**5.4**	**5.3**
Net exports (CZK bn, constant p. of 2010, seas. adjusted)	67.9	**22.9**	**32.0**	**38.1**	**49.8**	**57.4**	**63.1**	**66.4**	**67.6**	**68.4**	**68.0**	**67.6**
Coincidence indicators												
Industrial production (%, y-o-y, real terms)	-4.1	-	-	-	-	-	-	-	-	-	-	-
Construction output (%, y-o-y, real terms)	2.7	-	-	-	-	-	-	-	-	-	-	-
Receipts in retail sales (%, y-o-y, real terms)	-2.7	-	-	-	-	-	-	-	-	-	-	-
PRICES												
Main price indicators												
Inflation rate (%, end-of-period)	3.1	3.1	-	-	-	-	-	-	-	-	-	-
Consumer Price Index (%, y-o-y, average)	3.6	3.1	**3.4**	**3.3**	**2.6**	**2.7**	**2.2**	**2.2**	**2.2**	**2.2**	**2.2**	**2.2**
Regulated prices (14.58%)* (%, y-o-y, average)	4.2	3.4	**3.2**	**2.9**	**1.8**	**1.6**	**1.5**	**1.5**	**2.1**	**2.1**	**2.1**	**2.1**
Food prices (incl. alcoholic beverages and tobacco) (26.41%)* (%, y-o-y, average)	4.8	5.5	**5.0**	**3.8**	**2.3**	**1.5**	**1.9**	**2.1**	**2.1**	**2.3**	**2.0**	**2.1**
Core inflation (55.61%)* (%, y-o-y, average)	2.9	3.2	**3.1**	**3.3**	**2.9**	**2.4**	**2.1**	**2.2**	**2.0**	**1.9**	**1.9**	**2.0**
Fuel prices (3.40%)* (%, y-o-y, average)	1.3	-19.4	**-11.5**	**-7.4**	**-5.2**	**14.3**	**4.0**	**0.5**	**1.1**	**1.9**	**2.4**	**2.0**
Monetary policy-relevant inflation (%, y-o-y, average)	3.6	3.2	**3.3**	**3.2**	**2.4**	**2.4**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**
GDP deflator (%, y-o-y, seas. adjusted)	3.7	**4.6**	**5.0**	**6.0**	**3.8**	**1.6**	**0.5**	**-1.0**	**-0.4**	**0.9**	**1.8**	**2.2**
Partial price indicators												
Industrial producer prices (%, y-o-y, average)	1.4	-0.6	**-0.5**	**0.3**	**-0.5**	**0.7**	**1.3**	**1.0**	**1.7**	**1.7**	**1.7**	**1.8**
Agricultural prices (%, y-o-y, average)	-3.6	-3.4	**1.1**	**3.8**	**2.2**	**2.2**	**1.8**	**2.9**	**3.0**	**3.0**	**3.0**	**3.0**
Construction work prices (%, y-o-y, average)	4.4	4.2	-	-	-	-	-	-	-	-	-	-
Brent crude oil (in USD/barrel, %, y-o-y, average)	-19.3	-50.7	**-30.9**	**-30.7**	**-7.2**	**37.7**	**5.2**	**5.0**	**4.7**	**4.4**	**4.1**	**4.1**
LABOUR MARKET												
Average monthly wage (%, y-o-y, nominal terms)	5.0	**-0.6**	**4.4**	**3.4**	**2.8**	**7.3**	**1.8**	**2.7**	**3.6**	**4.0**	**4.3**	**4.5**
Average monthly wage (%, y-o-y, real terms)	1.4	**-3.7**	**1.0**	**0.1**	**0.2**	**4.6**	**-0.3**	**0.5**	**1.5**	**1.8**	**2.1**	**2.3**
Number of employees (%, y-o-y)	-0.5	**-0.8**	**-1.9**	**-3.1**	**-2.9**	**-2.3**	**-0.9**	**0.4**	**0.6**	**0.7**	**0.7**	**0.7**
Unit labour costs (%, y-o-y)	6.5	**11.0**	**12.3**	**8.1**	**3.1**	**-2.6**	**-4.2**	**-1.2**	**0.1**	**1.0**	**1.7**	**2.1**
Unit labour costs in industry (%, y-o-y)	4.6	-	-	-	-	-	-	-	-	-	-	-
Aggregate labour productivity (%, y-o-y)	-1.5	**-11.1**	**-8.1**	**-6.1**	**-1.5**	**9.9**	**6.6**	**4.6**	**4.0**	**3.4**	**3.0**	**2.6**
ILO general unemployment rate (%, average, age 15–64)	2.0	**2.4**	**3.8**	**4.5**	**5.0**	**4.7**	**4.8**	**4.5**	**4.5**	**4.2**	**4.4**	**4.1**
Share of unemployed persons (MLSA) (%, average)	3.0	3.6	**4.3**	**5.4**	**6.0**	**5.5**	**5.5**	**5.2**	**5.4**	**4.9**	**4.9**	**4.7**
PUBLIC FINANCE												
Government budget balance (ESA2010) (CZK bn, current prices)	-	-	-	-	-	-	-	-	-	-	-	-
Government budget balance / GDP** (%, nominal terms)	-	-	-	-	-	-	-	-	-	-	-	-
Government debt (ESA2010) (CZK bn, current prices)	-	-	-	-	-	-	-	-	-	-	-	-
Government debt / GDP** (%, nominal terms)	-	-	-	-	-	-	-	-	-	-	-	-
EXTERNAL RELATIONS												
Current account												
Trade balance (CZK bn, current prices)	68.7	**18.0**	**18.0**	**30.3**	**63.0**	**50.0**	**28.0**	**29.0**	**74.0**	**68.0**	**43.0**	**45.0**
Trade balance / GDP (%, nominal terms)	5.1	**1.4**	**1.3**	**2.1**	**4.7**	**3.4**	**1.9**	**1.9**	**5.3**	**4.5**	**2.8**	**2.8**
Balance of services (CZK bn, current prices)	38.1	**35.0**	**20.0**	**11.9**	**30.0**	**36.0**	**28.0**	**26.0**	**34.0**	**35.0**	**27.0**	**24.0**
Current account (CZK bn, current prices)	74.6	**-14.0**	**-45.0**	**4.4**	**48.0**	**-9.0**	**-49.0**	**10.0**	**58.0**	**-2.0**	**-40.0**	**24.0**
Current account / GDP (%, nominal terms)	5.5	**-1.1**	**-3.2**	**0.3**	**3.6**	**-0.6**	**-3.3**	**0.7**	**4.1**	**-0.1**	**-2.6**	**1.5**
Foreign direct investment												
Direct investment (CZK bn, current prices)	-0.6	**-21.0**	**-23.0**	**-5.4**	**-3.0**	**-29.0**	**-30.0**	**-8.0**	**-3.0**	**-29.0**	**-30.0**	**-8.0**
Exchange rates												
CZK/USD (average)	23.2	24.6	**23.7**	**23.7**	**23.5**	**23.2**	**23.0**	**22.9**	**22.7**	**22.6**	**22.5**	**22.4**
CZK/EUR (average)	25.6	27.1	**26.7**	**26.7**	**26.6**	**26.4**	**26.3**	**26.2**	**26.1**	**26.1**	**26.0**	**26.0**
CZK/EUR (%, y-o-y, real (CPI euro area), average)	-2.2	2.9	**0.8**	**1.3**	**1.6**	**-4.0**	**-2.0**	**-2.0**	**-2.2**	**-1.9**	**-1.6**	**-1.3**
CZK/EUR (%, y-o-y, real (PPI euro area), average)	-2.0	3.1	**1.1**	**1.8**	**3.1**	**-1.3**	**0.3**	**-0.3**	**-1.3**	**-1.1**	**-0.7**	**-0.4**
Foreign trade prices												
Prices of exports of goods (%, y-o-y, average)	-1.4	**2.9**	**2.1**	**3.5**	**4.3**	**0.1**	**1.4**	**1.0**	**0.8**	**0.9**	**1.1**	**1.3**
Prices of imports of goods (%, y-o-y, average)	-1.7	**0.0**	**-0.3**	**0.5**	**1.7**	**0.1**	**1.9**	**1.5**	**1.5**	**1.5**	**1.4**	**1.6**
MONEY AND INTEREST RATES												
M3 (%, y-o-y, average)	8.6	**8.1**	**8.6**	**8.4**	**7.4**	**6.5**	**5.5**	**5.2**	**5.1**	**5.2**	**5.2**	**5.3**
2W repo rate (%, end-of-period, CNB forecast = average)	1.00	0.25	**0.20**	**0.17**	**0.19**	**0.24**	**0.36**	**0.54**	**0.69**	**0.87**	**1.07**	**1.24**
3M PRIBOR (%, average)	2.1	0.6	**0.3**	**0.3**	**0.3**	**0.3**	**0.5**	**0.6**	**0.8**	**1.0**	**1.2**	**1.3**

* figures in brackets are constant weights in current consumer basket
** CNB calculation
- data not available/forecasted/released
data in bold = CNB forecast

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