# Monetary Policy Report
# Winter 2024

Czech National Bank —— Monetary Policy Report —— Winter 2024

CNB CZECH NATIONAL BANK

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This Monetary Policy Report was approved by the CNB Bank Board on 15 February 2024 and (with some exceptions) contains the information available as of 26 January 2024. By means of this document, the CNB fulfils its statutory duty to regularly inform constitutional officials and the public about monetary developments. Unless stated otherwise, the sources of the data are the CZSO or the CNB. All the reports published to date, along with the underlying data, are available on our website. A large part of the data we evaluate in our monetary policy decision-making can be found in the Chartbook, which is a parallel publication to the Monetary Policy Report.

# Contents


## — We maintain price stability

Under the Constitution of the Czech Republic and in accordance with primary EU law, the primary objective of the Czech National Bank is to maintain price stability. The central bank contributes to sustainable economic growth by maintaining a low-inflation environment. We have been pursuing price stability in an inflation targeting regime since 1998.

## — We are transparent

Our monetary policy is based on a publicly announced inflation target of 2% and open communication with the public. We believe that by being transparent and predictable, the central bank assists households and companies in their economic decision-making.

## — We look to the future

A decision made by the CNB Bank Board today will affect inflation 12–18 months ahead. The CNB's forecast describes the most likely future path of the economy as seen by our Monetary Department's economists. The Bank Board is kept informed about the forecast under preparation, discusses the contours of the emerging baseline scenario and asks for potential additional forecast scenarios to be drawn up. The forecast is produced four times a year and, along with a discussion of related risks and uncertainties, is the key, but not the only, input to the CNB Bank Board's monetary policy decisions.

## — We decide on rates

The CNB's main monetary policy instrument is the two-week repo rate. The decision on the level of this rate sends an impulse through the financial market to the whole economy, ultimately affecting inflation in such a way as to keep it close to the target. The Bank Board meets eight times a year to discuss monetary policy issues. When making rate decisions, the members of the Bank Board discuss the current forecast and assess the newly available information and the risks and uncertainties of the forecast.

# Governor's foreword

Dear Readers,

It is my pleasure to present the first Monetary Policy Report of 2024. The Report is one of the main inputs to the Bank Board's decision-making on CNB monetary policy.

At our February meeting, my Bank Board colleagues and I lowered policy rates by 0.5 percentage point. The two-week repo rate will thus be 6.25%. This decision follows on from the first rate cut last December, when we began the cautious process of easing monetary policy from its highly tight stance.

We are convinced that inflation fell to 3% at the start of the year and will converge to the inflation target over the outlook horizon. In this regard, we agree with the baseline scenario of the Monetary Department's new forecast, which this publication presents in detail. However, we still see upside risks to inflation in the outlook for the years ahead. The materialisation of these risks would mean that inflation would fall significantly compared to previous years, but not close to the 2% target.

The Bank Board therefore considers it necessary to persist with tight monetary policy and approach further rate cuts with caution. From this perspective, rates will be above the levels implied by the baseline scenario of the new macroeconomic forecast in this quarter and probably also the next quarter. Consistent with this scenario is a rapid decline in market interest rates in the course of this year.

The CNB's tight monetary policy has slowed growth in the quantity of money in the economy created by lending to the private sector. Lending on the property market and, in turn, activity on the property market, has declined in particular. At the same time, the strong koruna has made imports cheaper, especially in the first half of 2023. Inflation thus declined markedly between autumn 2022 and December 2023: headline inflation fell from 18% to 6.9% and core inflation from 14.7% to 3.6%.

Although the CNB started lowering rates gradually in December 2023, the fight against inflation is not over. Interest rates remain significantly positive in real terms and are dampening inflation. The Bank Board confirms its determination to continue its tight monetary policy until inflation is stabilised close to the 2% target.

The Bank Board assures the public that the CNB's actions will be sufficient to restore price stability in accordance with its statutory mandate. In addition, the Bank Board is ready to react appropriately to any materialisation of the risks of the forecast.

**On behalf of the Czech National Bank**

**Aleš Michl**

Governor

# The decision, the outlook and associated risks

*At its February meeting, the Bank Board lowered the two-week repo rate by 0.50 pp to 6.25%, thus continuing the process of gradual monetary policy normalisation. Consistent with the winter forecast is a rapid decline in market interest rates in the course of this year. This will lead to inflation stabilising near the 2% target and inflation expectations being anchored once the disinflation process is complete. Month-on-month inflation has been very subdued since mid-2023. The price level even dropped in December, testifying to the robustness of the current phase of the process of restoring price stability. The cooling domestic inflation pressures are apparent mainly in falling core inflation, primarily reflecting the dampening effect of the current tight monetary policy stance. Lower inflation is also being fostered by weak domestic economic activity – a result of low household confidence and consumption and the economic difficulties of our largest trading partner, Germany. Elevated inflation expectations, which may manifest as a slower decline in inflation this year, are still the main risk of the forecast. The slower pace of rate cuts than in the baseline scenario of the winter forecast reflects the Bank Board's view that the risks and uncertainties are broadly inflationary overall and expresses its cautious approach to easing monetary policy. This approach will lead to the target being hit even if the inflationary risks materialise.*

The inflation pressures in the Czech economy continue to weaken. In December 2023, as in the previous two months, annual inflation was affected by the statistical effect of the energy savings tariff, and stood at 6.9%. Adjusted for that effect, inflation would have dropped to 4.2% in December. This confirms the robustness of the disinflationary trend. The decline in inflation reflects a slowdown in food price inflation, caused by falling agricultural commodity prices and subdued household consumption. Fuel prices are also falling as a result of a decrease in oil prices on global markets. Also important is the gradual decline in core inflation that has been going on for more than a year now. It reflects fading growth in prices of foreign inputs and cooling domestic demand. The latter is fostering a decrease in the profit margins of producers, retailers and service providers. To assess the pace of decline in inflation, it is important to look at monthly inflation, which has been subdued since around mid-2023.

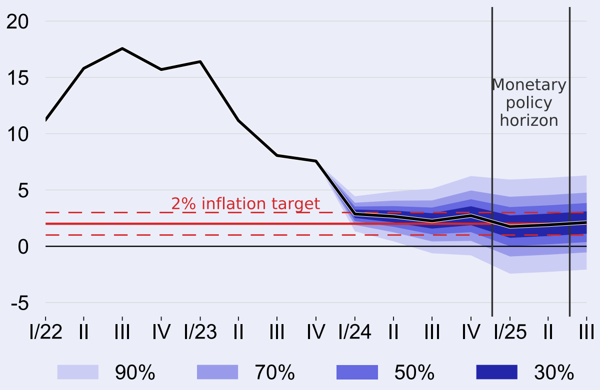
According to the forecast, annual inflation will decline sharply towards 3% in January 2024. This drop will be due partly to the fade-out of the sharp price growth recorded in January 2023, as well as to the current tight monetary policy stance and stagnating economic activity. By contrast, an increase in the administered component of energy prices due to the abolition of government energy distribution subsidies and the reintroduction of fees for renewable sources will have an inflationary effect. Given the government's consolidation efforts, fiscal policy will be restrictive this year. Its resulting anti-inflationary effect will be reduced by the slightly positive overall effect of increases in indirect taxes. Inflation will be below 3% for the rest of this year. At the monetary policy horizon, i.e. in the first half of 2025, it will be close to the 2% target.

The Czech economy underwent a downturn last year. It was connected primarily with a drop in private consumption due to a decline in households' purchasing power and higher saving. The contribution of change in inventories to GDP growth was also negative. However, additions to inventories remained high by historical standards due to firms' concerns about a potential return of supply chain disruptions. Still swift growth in general government consumption expenditure, a positive contribution of foreign trade and growth in fixed investment supported by co-financing from EU funds from the previous programme period had the opposite effect.

The economy will gradually start to grow again this year, although the growth will be dampened appreciably by domestic fiscal consolidation and Germany's economic difficulties. As inflation goes down, real wages will grow for the first time in two years, becoming the main driving force of a recovery in household consumption. However, the saving rate will stay elevated due to persisting pessimistic expectations of households and still attractive returns on deposits. Total investment activity will remain weak due to diminishing additions to inventories, a sluggish recovery in external demand and the current restrictive monetary policy stance. The positive contribution of net exports of goods and services to GDP growth will dissipate gradually over the forecast horizon despite a gradual recovery in external demand and hence in Czech exports. The growth surge in 2025 will be based on domestic demand, above all

### Inflation will return close to the 2% inflation target at the start of this year and stay there over the monetary policy horizon

headline inflation; y-o-y in %; confidence intervals in colours




### Following a slight decline last year, economic output will increase this year

y-o-y changes in % (unless otherwise indicated); changes in pp compared to previous forecast in brackets

| | 2023 | 2024 | 2025 |
|---|---|---|---|
| **Headline inflation** (%) | **10.7**<br>(-0.1) | **2.6**<br>(0.0) | **2.0**<br>(-0.1) |
| **GDP** | **-0.5**<br>(-0.1) | **0.6**<br>(-0.6) | **2.4**<br>(-0.4) |
| **Average nominal wage** | **7.4**<br>(-0.1) | **5.8**<br>(-0.9) | **5.8**<br>(-0.1) |
| **3M PRIBOR** (%) | **7.1**<br>(0.1) | **4.0**<br>(-0.3) | **2.6**<br>(-0.8) |
| **Exchange rate** (CZK/EUR) | **24.0**<br>(0.0) | **24.6**<br>(0.0) | **24.3**<br>(0.2) |

Green indicates a shift of the forecast to higher levels, or to a weaker koruna exchange rate, compared with the previous forecast. Red indicates a shift in the opposite direction.

consumption expenditure by households and gross capital formation. The latter is highly import-intensive and will therefore reduce net exports.

The domestic labour market remains tight. The unemployment rate has been among the lowest in the EU for seven years. The number of vacancies was roughly equal to the number of job applicants at the end of last year. The labour market will continue to cool gradually, owing to the lagged effect of the subdued real economy. However, given its resilience so far, this will imply a gradual rather than rapid rise in the unemployment rate. There are still several buffers on the labour market preventing sharper growth in the number of unemployed persons. These include a still high number of vacancies and a tendency of firms to first dismiss external (agency) employees, who may not be captured accurately in the statistics. Moderate wage growth will reflect a preference for job security over higher pay. Nominal wage growth will outpace inflation this year and the next.

The koruna weakened slightly in early 2024 because of the start of the rate-cutting cycle and market expectations of a continued narrowing of the interest rate differential vis-à-vis euro area rates. The forecast assumes the Czech currency will strengthen gradually from roughly mid-2024 onwards due to a rising goods and services surplus, against a backdrop of renewed real convergence of the domestic economy.

Consistent with the forecast is a rapid decline in market interest rates in the course of this year. Nonetheless, monetary policy will remain restrictive for most of 2024 via its interest rate component.

The Bank Board assessed the risks of the forecast and the uncertainties of the outlook as being broadly inflationary. A slower decline in the elevated inflation expectations is a risk in this direction. Given the tight labour market, this could be reflected in higher wage demands. Higher-than-expected inertia in services prices and a halt in tradables disinflation, which has so far been due mainly to fading supply-side problems, are additional upside risks. An inflationary risk in the longer term is an acceleration of money creation in the economy stemming from excessive lending activity in the property market. The latter could lead to renewed highly positive contributions of imputed rent to core inflation. By contrast, a stronger-than-expected downturn in global economic activity and in German economic output is a downside risk to inflation. The future monetary policy stance abroad remains an uncertainty of the outlook.

Even if the above inflationary risks materialise, the CNB’s cautious approach to cutting interest rates guarantees that the domestic economy will return to price stability.

# I. ECONOMIC DEVELOPMENTS ABROAD

*Following lacklustre growth in 2023, the euro area will recover modestly this year as global trade and consumer demand strengthen. Households' budgets will gradually reflect higher real income as inflation declines. Moreover, expected cuts in euro area interest rates will reduce the incentive to save. According to the financial markets, the ECB could start lowering rates in 2024 Q2 and then continue to ease monetary policy rapidly over the rest of the year. The ECB's communications have been more cautious so far, as the inflation pressures in the euro area are still significant in its view. The decline in inflation will be aided by a further decrease in prices of energy commodities and miscellaneous manufactured articles, reflecting still moderate growth in core industrial producer prices. However, greater supply chain tensions due to the conflict in the Red Sea are preventing any major decrease in the latter.*

### Global economic growth will remain muted this year and not recover until next year

According to leading indicators, the international trade situation worsened in late 2023, especially as regards goods trade. This was due partly to growing tensions in the Middle East, in particular the attacks by Yemeni rebels on commercial ships in the Red Sea. Container freight prices (see Chart I.1) thus returned to growth after having decreased in the first half of 2023 (see the panel on the situation in the Red Sea on the next page). However, the conflict is not expected to have a long-lasting effect on international trade. The euro area and UK economies continue to show lacklustre growth. The Chinese economy is being dragged down by its property market and structural problems.

The US economy is maintaining swift growth despite the Fed's tight monetary policy. Analysts predict that inflation will not fall to 2% until the end of the summer. The market expects the first rate cut by the Fed to come in spring 2024. However, there is still uncertainty over the timing of the start of rate cuts and the pace of decrease. The growth outlook for the US economy has increased for this year on expectations that the Fed will succeed in lowering inflation to the target and avoiding a recession.

The Chinese economy is still facing the impacts of its property market crisis, which depressed investment and undermined consumer and business confidence. Persistently low inflation suggests that the economy is below its potential, despite stimuli from the government and the central bank. The effects of the fiscal stimulus might be felt in the first half of 2024. However, it remains very uncertain whether this fiscal impulse will restore the confidence of households and firms. The Chinese economy is expected to grow by less than 5% both this year and the next (see Table I.1). The market also expects the central bank to cut the key rate further and provide targeted liquidity support to selected sectors.

Chart I.1

**Prices of global container transport are rising, due mainly to the conflict in the Red Sea**

The World Container Index (WCI) covers container sea transport on eight major routes between the USA, Europe and Asia (Drewry) and on the Shanghai–Rotterdam route as assessed by Drewry Maritime Research; USD/container; source: Bloomberg

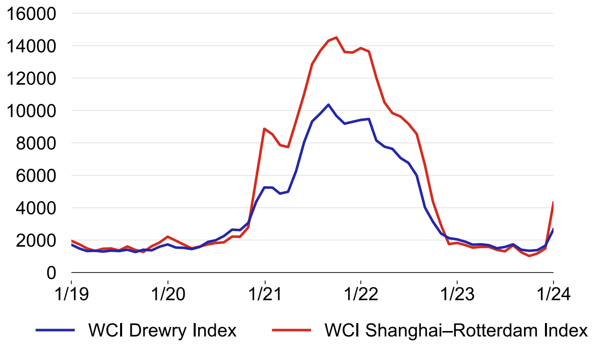
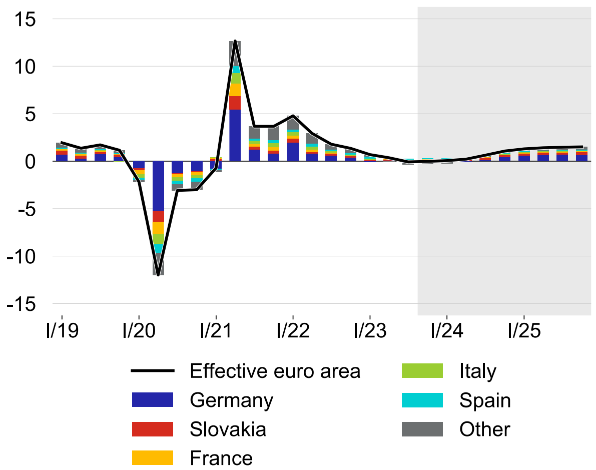



Chart I.2

**Germany will not make a significant contribution to the growth of the effective euro area until late 2024**

annual GDP growth in %; contributions in pp; seasonally adjusted



**Growth in the effective euro area will surge in the second half of this year on the back of improving global demand and consumer purchasing power, while monetary conditions will ease slightly**

Effective euro area output fell by 0.1% both quarter on quarter and year on year in 2023 Q3 (see Chart I.2). The euro area is gradually rebounding from the energy crisis, but as in previous crises, the pace of recovery differs from economy to economy. Countries where services account for a larger share of output fare better in tighter monetary conditions.[1] However, individual countries' previous growth in energy prices and gain/loss of competitiveness in the single European market have also played a role. The differences between economies are also due to differences in fiscal policy and households' confidence and willingness to save,[2] and by different monetary policy effectiveness in different countries.[3] In Slovakia, for example, the investment and government consumption data in 2023 Q3 surprised on the positive side. Household consumption continues to rise steadily in Spain, contributing to robust service sector performance.

The income situation of German households started to improve slightly in the second half of the year as inflation fell and real wages began to rise again (see Chart I.3). However, households still preferred to save and household consumption thus continued to fall. According to a GfK survey, German consumers' income expectations and willingness to buy improved, but households are still concerned about geopolitical conflicts, rising food prices and government expenditure. At the end of 2023, the German Constitutional Court ruled that the government had to comply with the debt brake, and the government reacted by curbing its fiscal plans.

The European Commission survey also indicates that German consumers are still mostly preferring to delay major purchases (see Chart I.4), so no turnaround in household consumption can be expected even in late 2023.[4] German industry is not thriving either, especially in energy-intensive sectors, so the German economy will not avoid a technical recession. The fall in

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1 According to an ECB estimate, monetary policy shocks have a greater impact on manufacturing than on services – see ECB Economic Bulletin 8/2023.

2 In Slovakia, for example, the saving rate was around 9% before the pandemic according to the National Bank of Slovakia. However, after the pandemic, it fell and last year was approximately 4%, which is significantly lower than in the Czech Republic.

3 For details, see *The transmission of monetary policy*, Philip R. Lane, *EU and US Perspectives: New Directions for Economic Policy* conference, New York, October 2022.

4 For details, see the February 2024 cnBlog article Špatná nálada německých spotřebitelů a jejich výdaje – příběh dvou krizí (*Bad mood of German consumers and their spending – a tale of two crises*; available in Czech only).

Table I.1

**The global economy will not grow significantly until next year**

real GDP; y-o-y changes in %; source CF and Oxford Economics

| | 2022 | 2023 Q2 | 2023 Q3 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|---|
| Euro area | 3.4 | 0.6 | 0.0 | 0.5 | 0.5 | 1.3 |
| USA | 1.9 | 2.4 | 2.9 | 2.4 | 1.4 | 1.7 |
| United Kingdom | 4.3 | 0.0 | -0.1 | 0.4 | 0.2 | 1.0 |
| China | 3.0 | 6.3 | 4.9 | 5.2 | 4.6 | 4.3 |

***The attacks in the Red Sea are a painful blow to container shipping between Asia and Europe.*** *According to Bloomberg estimates, sea freight transport in this region has dropped to one-half the level six months ago, while container transport has almost disappeared. 10%–15% of global maritime trade goes via the Red Sea and this route is crucial for ships sailing from Shanghai to Rotterdam (i.e. from Asia to Europe) and vice versa. A longer journey around Africa may cause ports to become congested and containers to accumulate at various destinations, with negative short-term effects on global trade.*

*This notwithstanding, the disruptions to shipping in the Red Sea are likely to have only a limited impact on European producers and retailers, as firms have experience with a similar situation during the Covid pandemic. Logistics processes are thus now more flexible.*

*However, the rise in sea transport prices will probably foster increased pressures in supply chains and affect producer prices. Shipping costs will be higher both for companies that continue to navigate the risky zones (higher insurance) and for those that now use the much longer route around southern Africa (higher fuel costs and ship rental costs, partly offset by savings on Suez Canal transit fees).*

*The impact on oil prices has been limited so far, as most Gulf production is supplied eastwards to customers in Asia. Moreover, oil tankers continue to transit the Red Sea, albeit in smaller numbers. The same direction from the Gulf to Asia is predominant in the case of liquefied natural gas (LNG). However, LNG supplies from Qatar, the second-largest LNG supplier after the USA, go to Europe via the Red Sea. LNG transport was problem-free until mid-January, but after the USA and its allies carried out air strikes, shipping via this route was halted. However, gas prices did not react markedly, thanks to high stocks in Europe.*

production in some manufacturing sectors has been slowed in recent months by the completion of past orders, but this effect has now dissipated and firms are now bearing the full brunt of the low demand and still relatively high energy costs. Leading indicators suggest some stabilisation of the German economy at the close of the year, albeit at a subdued level. Overall, the effective euro area will record only a marginal quarterly decline in 2023 Q4.[5]

The euro area economy will grow at a weak pace (0.5%) this year, too, and will not recover significantly until 2025 (1.4%). The first half of this year will still be characterised by lacklustre GDP growth. On top of the factors that dominated at the end of 2023, European firms will have to deal with problems linked with the attacks in the Red Sea. In the second half of the year, growing household demand will take over as the engine of growth, accompanied by a gradual recovery in global trade. Private consumption will reflect growth in real disposable income, supported by falling inflation, continued wage growth and a stable labour market situation. The expected start of the rate-cutting cycle in the euro area will boost borrowing by firms and households and reduce households' incentive to save. The recovery will foster a gradual closing of the negative output gap in the effective euro area, which will, however, stay in negative territory until the end of the forecast horizon. As regards individual countries, Germany will remain a drag on effective euro area growth. Moreover, questions remain about the funding of Germany's green transition and its current industry-based growth model.

**The decline in industrial producer prices in the effective euro area is fading, due partly to increased tensions in supplier relationships, which will later be joined by recovering demand**

Oil prices fell at the close of last year due to negative investor sentiment caused by a weakening global demand outlook. Despite lower production by OPEC+, the tensions on the physical market eased due to unexpectedly high oil exports from non-OPEC+ countries (the USA, Brazil, Guyana) and Iran. Besides the situation in the Red Sea, the higher prices were also due to a weaker dollar following signals that the Fed had ended its cycle of rate increases. The market outlook for the price of Brent crude oil remains slightly falling towards USD 72 a barrel at the end of 2025. The price of natural gas in Europe has been dropping steadily (from over EUR 50/MWh in late October to EUR 30/MWh in mid-January). The impact of the Red Sea conflict on gas prices has been limited so far and

Chart I.3

**Real wages have edged up in Germany, but household consumption is not recovering (yet)**

y-o-y changes in %; source Destatis and Eurostat

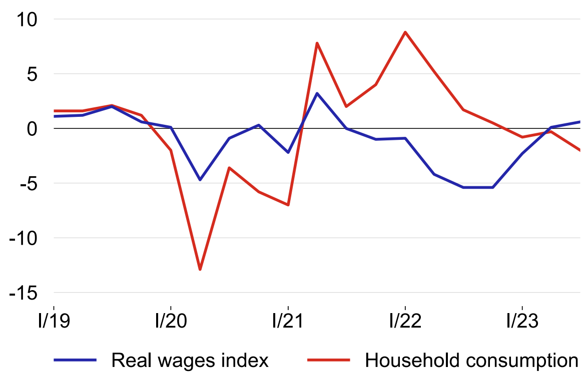



Chart I.4

**German consumers remain averse to large purchases**

difference in pp between purchase plans one year ahead and today; ESI sub-indices; source Eurostat

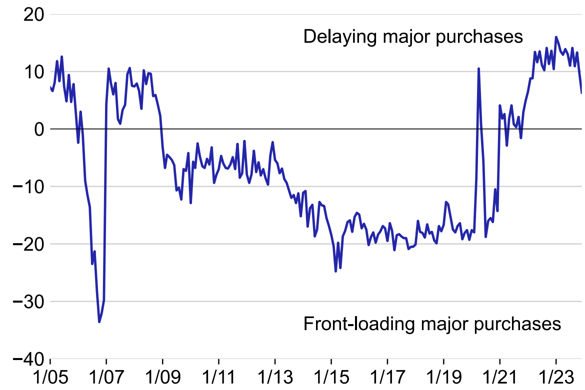
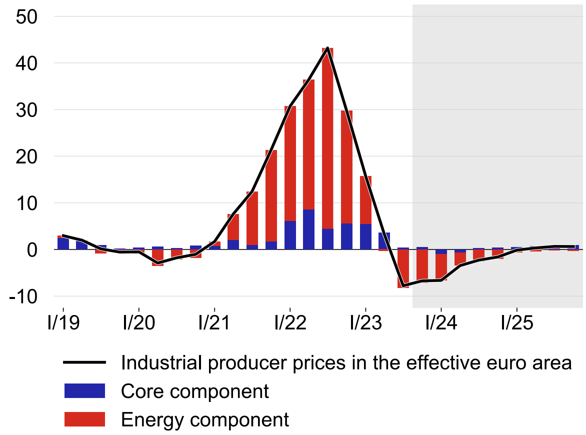



Chart I.5

**The year-on-year decline in industrial producer prices in the effective euro area will be driven by the energy component this year**

y-o-y changes in %; contributions in pp; seasonally adjusted

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5 According to Eurostat's flash estimate, GDP in the effective euro area was flat quarter on quarter and rose by 0.1% year on year in 2023 Q4. This figure was published on 30 January 2024, i.e. after the closing date of the forecast.

LNG supplies are stable. European gas stocks remain sufficient thanks to a mild start to the winter. Demand from industry also remains weak. No major gas price growth is expected this winter.

The decrease in prices of energy, i.e. oil, natural gas and electricity, is reflected in a continued year-on-year decline in effective euro area producer prices this year (see Chart I.5). This effect will subside in 2025 as the decline in commodity prices slows and demand recovers. In the near term, the decrease in core prices will reflect a worse economic situation in the effective euro area, especially in industry. Increased supply chain tensions will have the opposite effect. These tensions, as measured by the Global Supply Chain Pressure Index (GSCPI), rose significantly during the autumn owing to shipping problems in the Panama Canal (see Chart I.6). A further rise can be expected in the context of the Red Sea conflict. Overall, industrial producer prices will fall by 3.5% this year and be broadly flat in 2025. Italy and Germany will record the largest decreases this year, whereas France will see the smallest fall.

The gradual dissipation of cost shocks (especially in the energy area), weakening demand and tight monetary conditions fostered a decrease in consumer price inflation in the euro area during autumn 2023.[6] This was particularly apparent for industrial goods and, in the second half of the year, services as well. The disinflation will continue this year, when the previous interest rate increases will be felt in full, and inflation should fall to the ECB's 2% target in the course of a few months. In the ECB's view, however, domestic price pressures remain elevated, primarily as a result of strong growth in unit labour costs. Wage bargaining for this year will also be a key factor for the ECB.

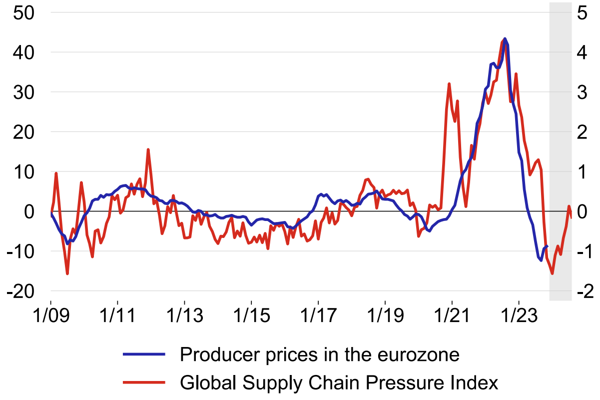
## The cycle of interest rate hikes in the USA and the euro area has peaked and the first rate cuts are getting closer

The ECB left its key rates unchanged at its December and January meetings. It also decided to accelerate the reduction of its balance sheet under the PEPP programme by EUR 7.5 billion a month from mid-2024. No reinvestments will be made from 2025. This will be reflected in the shadow rate estimate (see Chart I.7), which captures both conventional and unconventional monetary policy in the euro area. The ECB's communications following both meetings focused on the risk of price pressures and the future course of inflation. Financial markets still believe that the euro area monetary policy easing cycle will start in April and

Chart I.6

**Growth in supply chain tensions will temper the decline in producer prices in the months ahead**

year-on-year growth in producer prices in %; standard deviations from historical average of GSCPI (right-hand scale), shifted nine months forward; source Eurostat, NY Fed




***The ECB's unconventional monetary policy tools enter the CNB forecast via the shadow foreign interest rate.*** *This rate is based on the market outlook for the 3M EURIBOR and additionally reflects the expected amount of net asset purchases by the ECB on financial markets. These tools have recently mainly included the Pandemic Emergency Purchase Programme (PEPP) and the Asset Purchase Programme (APP). The relationship between the purchase amount and the shadow rate is derived from a model simulation of the impact on the euro area economy as described in the Focus article in the October 2015 issue of Global Economic Outlook. This approach is also being applied symmetrically during the current reduction of the ECB's balance sheet. Since spring 2023, the maturing assets have not been reinvested in full, and reinvestment under the PEPP will also be reduced from mid-2024. The shadow rate is therefore higher than the 3M EURIBOR both at present and at the outlook horizon.*

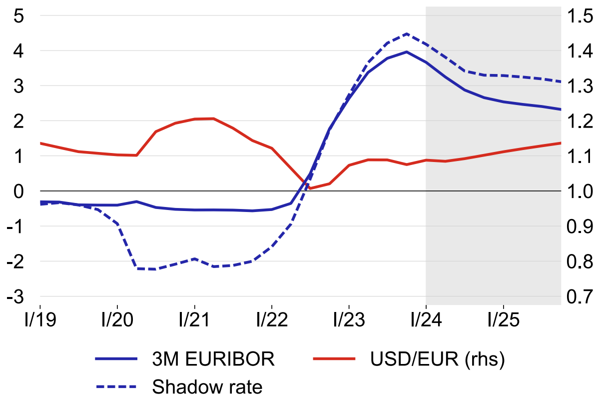
6 According to Eurostat's flash estimate, consumer price inflation as measured by the HICP in the effective euro area slowed to 3.1% year on year in January 2024. This figure was published on 1 February 2024, i.e. after the closing date of the forecast.

rates will be cut at every subsequent meeting, although President Lagarde is trying to rein in these expectations.[7] The 3M EURIBOR market rate could thus fall from its current level of just below 4% by more than one percentage point by the end of this year. As for the Federal Reserve, financial markets expect the first rate cut to come in March, followed by further policy easing at roughly the same pace as the ECB. In view of ECB and Fed communications, however, it cannot be ruled out that the two central banks will start cutting rates later. The euro strengthened slightly against the dollar. According to the Consensus Forecasts analysts, the exchange rate will remain stable this year and the euro will appreciate slowly against the dollar in 2025.

Chart I.7

**According to the financial markets, interest rates will go down this year, but the decline in the shadow rate will be reduced by an expected decrease in the rate of reinvestment**

3M EURIBOR and shadow rate in %; nominal USD/EUR rate




## COMPARISON WITH THE PREVIOUS FORECAST: Economic developments abroad

| | | 2023 | 2024 | 2025 | |
|---|---|---|---|---|---|
| **GDP** (in the effective EA) | y-o-y changes in % / pp | **0.2** (0.0) | **0.5** (-0.4) | **1.4** (-0.3) | The outlook for economic growth in the effective euro area has worsened compared with the previous forecast, mainly reflecting a slower recovery in Germany. |
| **Consumer prices** (in the effective EA) | y-o-y changes in % / pp | **6.4** (-0.2) | **1.8** (-1.2) | **1.8** (-0.1) | The consumer price inflation forecast has been lowered, mainly due to a larger-than-expected decrease in inflation at the end of last year. |
| **Indust. prod. prices** (in the effective EA) | y-o-y changes in % / pp | **0.5** (-0.1) | **-3.5** (-2.8) | **0.4** (-0.5) | A lower energy commodity price forecast, coupled with the worse economic outlook for the effective euro area, has led to a decrease in the industrial producer price forecast. |
| **Brent crude oil price** | USD/barrel | **82.2** (-1.4) | **76.1** (-6.5) | **73.1** (-4.9) | The Brent price outlook has shifted markedly lower over the entire horizon due to a worse outlook for global oil demand amid unexpectedly strong oil production outside OPEC+. |
| **3M EURIBOR** | % / pp | **3.4** (0.0) | **3.1** (-0.6) | **2.4** (-0.7) | The lower market rate outlook reflects financial market expectations that inflation will fall and the ECB will start cutting rates earlier than assumed in the previous forecast. |
| **Exchange rate** | USD/EUR | **1.08** (0.0) | **1.09** (0.0) | **1.12** (0.0) | The expected slight appreciation of the euro against the dollar is unchanged compared with the previous forecast. |

Note: Changes compared to the previous forecast in brackets (a green label indicates an increase in value or a shift to a weaker dollar, while a red label indicates a decrease in value or a shift to a stronger dollar).

7 For example, in Davos in mid-January she said that the first rate cut was likely to happen in the summer, and then after the ECB's monetary meeting in late January she emphasised that it was premature to discuss rate cuts.

# II. THE REAL ECONOMY AND THE LABOUR MARKET

*The Czech economy will emerge only slowly from last year's downturn in the first half of 2024. Household consumption will rebound only very slowly. Real wages are only gradually returning to growth and the saving rate remains elevated due to the current high interest rates and pessimistic sentiment of Czech households. Moreover, most of the measures in the fiscal consolidation package took effect at the start of this year, adversely affecting households' income and consumer appetite. The contribution of net exports to GDP growth will decline this year owing to subdued external demand, as our main trading partner – Germany – is going through a period of economic difficulties. Gross fixed capital formation will rise steadily, mainly as a result of continued investment by the private corporate sector. By contrast, additions to inventories will decline further. In whole-year terms, Czech GDP will grow only slightly this year and the economy will thus still operate below its potential. Economic activity will return to stronger growth only next year. This will be aided above all by faster growth in household consumption, supported by stronger real wage growth and a decline in the saving rate. To a lesser extent, economic growth will also be driven next year by private and government investment activity and a recovery in external demand. The labour market tightness will gradually ease further. Nominal wages in the market sector will rise at a swift pace by historical standards, but more slowly than last year.*

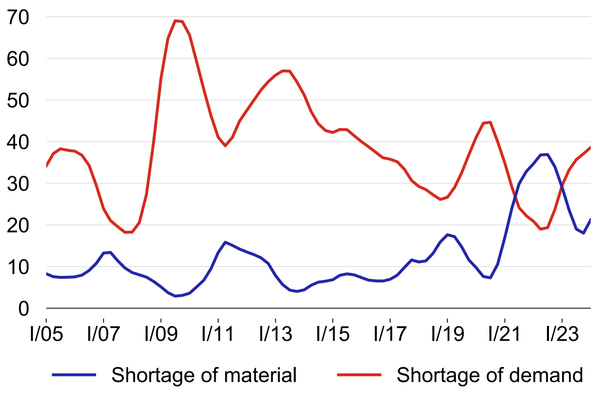
### Domestic economic activity fell slightly overall last year; economic growth will resume this year but will be very modest

The protracted problems in global value chains caused by the pandemic and the energy crisis have largely disappeared (see Chart II.1). Firms thus no longer need to stockpile massively and are gradually returning to just-in-time planning where possible. This is consistent with a gradual decrease in change in inventories, which was the largest contributor to the decline in GDP last year alongside weak household consumption.[8] Inventories will also be a significant drag on economic activity this year. This will be accompanied – especially in the first half of the year – by an only slow recovery in household consumption, reflecting still none-too-optimistic consumer sentiment, the current high interest rates and ongoing elevated saving. This is indicated by a rise in the share of firms reporting a shortage of demand as the main factor limiting production. The fiscal consolidation package will also have a highly adverse effect on households' income and spending appetite. Fixed investment growth will slow as well. Corporate profitability will remain solid and, coupled with falling interest rates, keep fixed investment growth in positive figures. Subdued economic activity in our main trading partner countries (especially Germany) will reduce the contribution of net exports to the growth of the Czech economy. Domestic

Chart II.1

**The fall in the share of firms reporting shortages of materials as a factor limiting production has halted and the share of firms reporting a decline in demand is rising**

share of domestic industrial firms in % reporting shortages of materials or equipment and insufficient demand as factor limiting production; series smoothed by HP filter (lambda = 1); source CZSO business survey

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8 According to a preliminary CZSO estimate, Czech GDP increased by 0.2% quarter on quarter and fell by 0.2% year on year in 2023 Q4. This is slightly above the CNB forecast. This figure was published on 30 January 2024, i.e. after the closing date of the forecast.

economic activity will thus continue to decrease in year-on-year terms until mid-2024 (see Chart II.2). In whole-year terms, GDP will grow by 0.6%. In 2025, its growth will pick up to 2.4%.

### Growth in household consumption will recover only gradually

Overall confidence in the economy[9] remains low and, given – among other things – the coming into effect of the measures in the consolidation package, no major improvement can be expected in Q1 either. Saving will thus remain elevated and the saving rate will gradually decline as interest rates fall and sentiment improves. All this will slow the turnaround in real household consumption. However, the latter will start to grow in year-on-year terms for the first time in almost two years, owing to a marked decline in inflation (see Chart II.3). In quarter-on-quarter terms, household consumption will gradually accelerate in the course of the year amid steadily growing real wages. Overall, it will grow by more than 1% in 2024 as a whole.

The renewed growth in real household income will continue into next year. Its year-on-year pace will rise slightly further due to a further decrease in inflation. Together with improving sentiment and the already lowered interest rates, this will result in brisker growth in consumer demand, which will persist despite the still negative effects of the fiscal consolidation package. Household consumption will thus go up by around 3% overall next year.

Growth in households' nominal gross disposable income will slow further from the elevated rates seen in previous years and will be muted this year and the next. It will be driven above all by the contribution of wages and salaries (see Chart II.4), which will initially decrease slightly and from the second half of 2024 be broadly stable, reflecting a still resilient, albeit slackening, labour market. In addition to lower wage growth, a drop in property income, now only below-average growth in entrepreneurs' income and a negative effect of taxes due to the government's austerity package will cause nominal disposable income growth to slow. The contributions of social benefits and other current transfers will weaken gradually.

### The saving rate will remain elevated for the next two years and its decline will be gradual

The saving rate remained elevated in 2023 Q3 (see Chart II.5). Consumer sentiment remained lacklustre in Q4. Concerns about further growth in energy prices and bleak economic prospects supported strong precautionary saving. The current high interest rates have also boosted saving, so the saving rate will not

9 According to the January business cycle survey data, consumer and business confidence remain below their long-term averages. However, consumer confidence improved slightly.

Chart II.2

**Economic activity will decrease in year-on-year terms until mid-2024**

y-o-y changes in %; seasonally adjusted; confidence interval

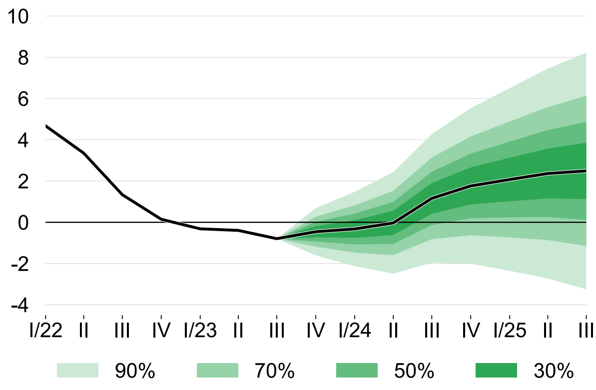



Chart II.3

**Household consumption will return to year-on-year growth this year; general government consumption will grow at a subdued pace**

household and general government consumption; y-o-y changes in %; constant prices; seasonally adjusted

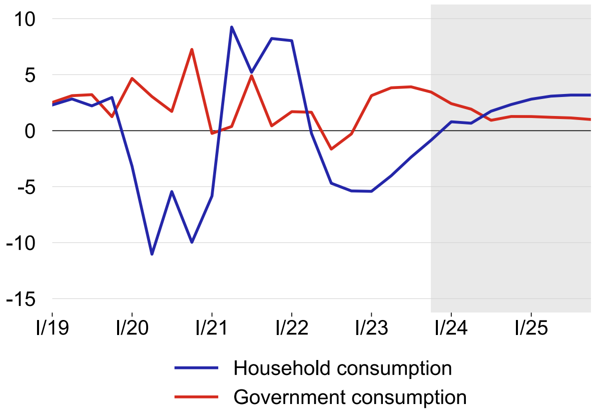
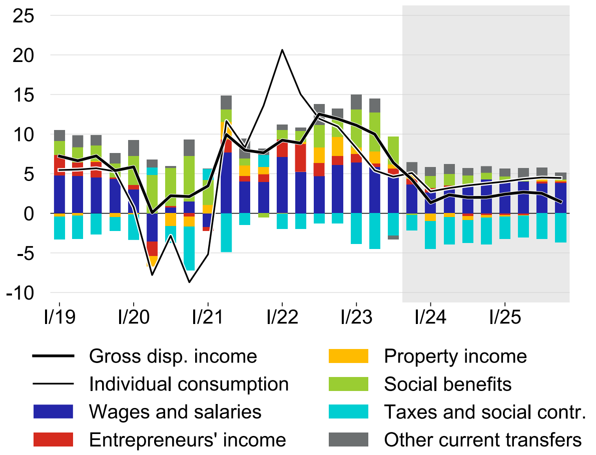



Chart II.4

**Growth in nominal disposable income will gradually slow this year, due mainly to shrinking contributions of wages and salaries, property income and social benefits**

household consumption and gross disposable income; y-o-y changes in %; contributions in pp; current prices; seasonally unadjusted



begin to fall gradually until the start of 2024. The reasons for this fall will include – in addition to falling interest rates – a slight improvement in sentiment and households' efforts to make up for the negative impacts of the consolidation package on their income situation and thus smooth their consumption. The saving rate will return close to its usual level in 2025.[10]

### Export growth will accelerate over the next two years as external demand recovers

The subdued Czech export performance in the second half of last year was caused by weak external demand (see Chart II.6). However, the export-oriented part of the domestic economy (especially the automotive industry) picked up slightly in Q4 after the input supply problems subsided. The accumulated materials and forced stocks of unfinished products were thus completed and exported at the end of 2023. Growth in external demand will pick up this year and export growth will start to return to its long-term rate.

Imports will be affected by the growth in exports but will be dampened at the same time by an only slow recovery in domestic household consumption and will keep declining in year-on-year terms. In the second half of 2024, by contrast, import growth will be supported by an upturn in household consumption growth and solid growth in import-intensive fixed investment. However, import growth will be lower than export growth. Net exports will thus make a positive contribution to GDP growth. However, this effect will decrease over time and the contribution of foreign trade to growth will be broadly neutral in 2025 (see Chart II.6).

### Growth in fixed investment will be solid this year, due mainly to a recovery in private investment expenditure

The overall financial condition of firms remains exceptionally good. Firms will therefore continue to invest in the expansion of production and in renewable energy sources and energy savings. Investment activity will later be supported by slowly recovering external demand and decreasing interest rates. Investment in dwellings, whose negative contribution has long been dampening total capital expenditure, is expected to start growing again. Private fixed

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10 The new forecast assumes that the steady-state saving rate is around 1.5 pp higher than the previously assumed level of 12%. This change was made after the publication of CZSO experimental statistics from the household satellite account for 2021. These data show that the saving rate of the wealthiest income quintile rose by around 1 pp year on year in 2021, while those in most other income quintiles fell slightly, due mainly to the reopening of the economy after the Covid measures were relaxed. It is reasonable to assume that the growth in the saving rate of the wealthiest part of the Czech population was supported by the abolition of the "super-gross wage". This primarily benefited high-income households, who moved their additional net income into savings.

Chart II.5

**The saving rate remains elevated and its decline will be gradual**

households' saving rate in %; seasonally adjusted

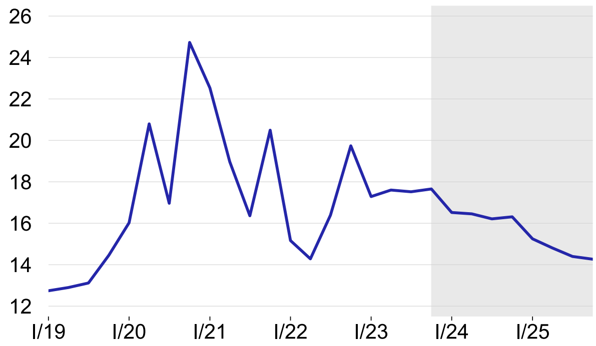



Chart II.6

**Export and import growth will initially be negative due to weak external and domestic demand; growth in foreign trade turnover will accelerate again as export markets recover**

real exports and imports of goods and services; y-o-y changes in % for exports and imports and in CZK billions for net exports; seasonally adjusted

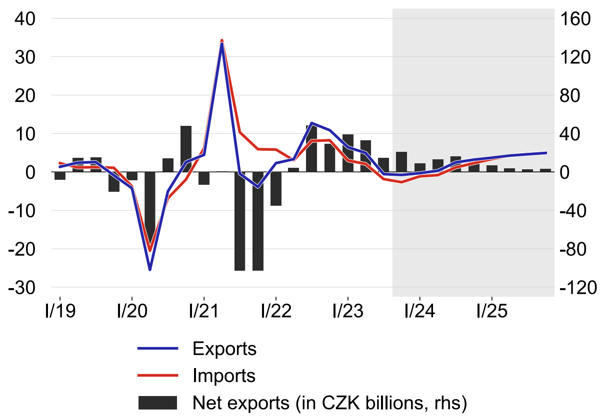
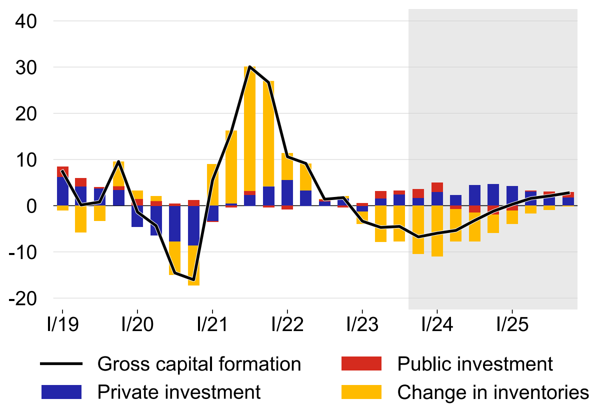



Chart II.7

**Growth in total gross capital formation will be negatively affected by inventories until the end of 2024, while private investment will grow**

investment activity; y-o-y changes in %; contributions in pp; constant prices; seasonally adjusted



investment will thus increase by almost 5% overall this year. Conversely, general government investment will fall this year, following strong growth in 2023 (see Chart II.7). In addition to a slow start to the absorption of European funds at the beginning of the new programme period, this will be due to base effects, as the base was increased last year by a one-off purchase of military helicopters.[11] Fixed investment will thus grow by around 3.5% overall in 2024.

General government investment will nonetheless start to grow again next year. This will be aided mainly by expected faster absorption of European funds. However, private investment growth will slow to its steady-state level and fixed investment will grow at a pace of around 3% overall.

Growth in inventories will keep falling for the rest of this year (see Chart II.8). Firms will be able to complete and distribute their forced stocks of unfinished products. To some extent, they will also be able to go back to just-in-time planning, which implies a return to only low additions to inventories. Total gross capital formation growth will stay negative this year due to a negative contribution of change in inventories. Total investment will rise by around 1.5% in 2025.

## Fiscal policy will dampen GDP growth this year and have a roughly neutral effect next year

Real government consumption growth will slow significantly this year and the next (see Chart II.3). This will be due mainly to a reduction in operating expenditure under the consolidation package and the fade-out of last year's effect of increased expenditure in health care and education linked with the arrival of Ukrainian nationals. Growth in nominal general government consumption will also slow due to the wage savings included in the consolidation package.

Fiscal policy will dampen GDP growth noticeably this year (see Chart II.9) owing to the consolidation package,[12] the definitive termination of energy support measures, a fall in absorption of EU funds due to a slow start to the new programme period and a decrease in

Chart II.8

**Change in inventories will fall this year and will be close to pre-crisis levels next year**

change in inventories in CZK billions; constant prices; seasonally adjusted

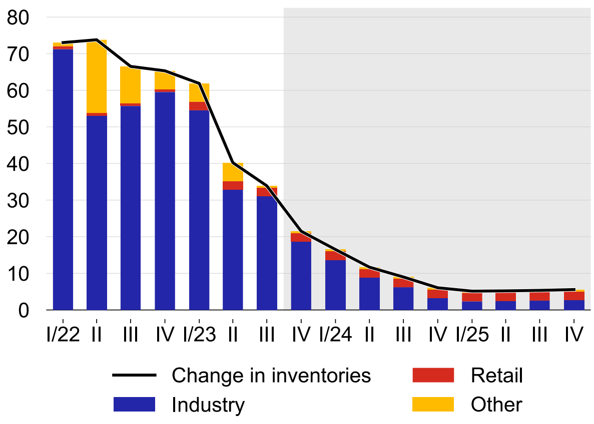
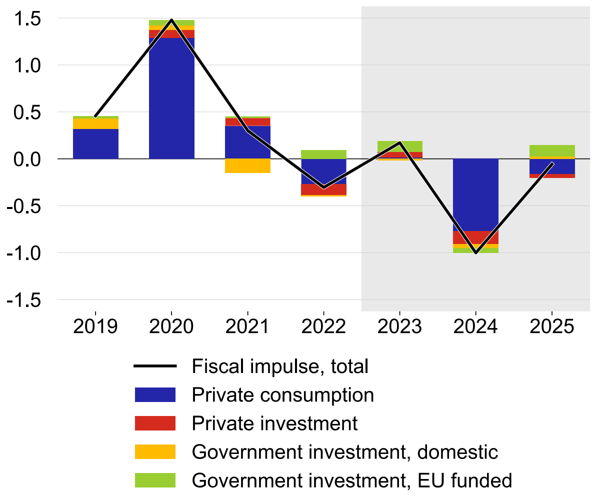



Chart II.9

**Fiscal policy will significantly dampen GDP growth this year, due mainly to the consolidation package**

fiscal impulse; contributions to GDP growth in pp

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11 The investment will amount to CZK 14 billion, distributed predominantly across the second half of 2023, with a small part falling in the first quarter of 2024.

12 The overall fiscal effect of the consolidation package is equal to -1.4% of GDP in 2024 (including further measures not included in the package, the fiscal impulse will be approximately -1 pp to GDP growth). In 2025, the fiscal effect of the package will be an additional -0.2% of GDP. On the revenue side, the consolidation package includes the following measures: an increase in excise duties, changes to VAT rates, an increase in real property tax, an increase in contributions for the self-employed, adjustments to personal and corporate income tax, the abolition of tax exemptions, the introduction of sickness insurance for employees, and contributions arising from agreements to complete a job. On the expenditure side, it includes cuts in subsidies for entrepreneurs, a reduction in the volume of public sector pay and cuts in operating and other expenditure.

pension expenditure stemming from the fading effect of the reduction of the extraordinary increase in pensions last year. In 2025, the overall effect of fiscal policy will be broadly neutral, as the additional (residual) slightly dampening effect of the consolidation package will be offset by expected faster absorption of EU funds.

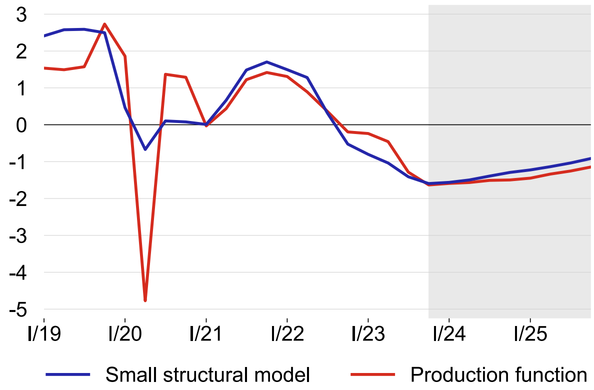
**The Czech economy will remain below potential over the next two years**

The output gap will remain negative in the first half of this year due to subdued external and domestic demand given the restrictive fiscal consolidation package. The gap will start to close gradually as domestic and foreign economic activity recover, but the pace of closure will be very slow and the economy will still be visibly below its potential at the end of 2025 (see Chart II.10). Growth in potential output itself will start to pick up slightly towards its medium-term rate this year once some of the supply constraints disappear.

Chart II.10

**The economy will be below potential over the next two years due to subdued domestic and external demand**

output gap in % of potential output




## COMPARISON WITH THE PREVIOUS FORECAST: The real economy and the labour market

| | | 2023 | 2024 | 2025 | |
|---|---|---|---|---|---|
| **GDP** | y-o-y changes in %<br>pp | **-0.5**<br>(-0.1) | **0.6**<br>(-0.6) | **2.4**<br>(-0.4) | The GDP outlook is lower over the entire forecast horizon due to weaker domestic and external demand. |
| **Household consumption** | y-o-y changes in %<br>pp | **-3.2**<br>(0.0) | **1.4**<br>(-1.3) | **3.1**<br>(-0.6) | The household consumption forecast for this year and the next has been revised downwards due to slower growth in real wages. |
| **Government consumption** | y-o-y changes in %<br>pp | **3.6**<br>(1.1) | **1.6**<br>(0.5) | **1.1**<br>(0.1) | The government consumption forecast has been revised upwards over the entire forecast horizon due to higher observed and expected non-wage expenditure. |
| **Gross fixed capital formation** | y-o-y changes in %<br>pp | **2.8**<br>(-0.1) | **3.4**<br>(-1.1) | **3.2**<br>(-0.1) | Growth in fixed investment has been revised downwards due to a slower recovery in external demand, especially this year. |
| **Net exports** | contr. to GDP growth<br>pp | **1.8**<br>(-0.5) | **0.8**<br>(0.3) | **0.3**<br>(0.0) | The contribution of net exports is slightly higher this year, with the effect of weaker domestic demand outweighing more subdued external demand. |
| **Employment** | y-o-y changes in %<br>pp | **1.5**<br>(-0.6) | **0.0**<br>(-0.8) | **0.2**<br>(0.1) | The slower employment growth this year mainly reflects lower observed data in the second half of last year. |
| **Unemployment** (ILO) | %<br>pp | **2.6**<br>(-0.1) | **3.0**<br>(0.0) | **3.1**<br>(0.1) | The outlook for the general unemployment rate is almost unchanged compared to the previous forecast. |
| **Average monthly nominal wage** | y-o-y changes in %<br>pp | **7.4**<br>(-0.1) | **5.8**<br>(-0.9) | **5.8**<br>(-0.6) | The weaker expected wage growth reflects slower expected wage growth at the end of 2023 and more subdued economic activity than in the previous forecast over the entire horizon. |

Note: Changes compared to the previous forecast in brackets (a green label indicates an increase in value and a red label a decrease).

### The labour market tightness will continue to ease and the labour market will thus be slowly returning to equilibrium

Despite continuing to cool, the labour market remains resilient (see Chart II.11). Total employment rose at high year-on-year rates in 2023, due mainly to the participation of Ukrainian nationals and people of pre-retirement age. Employment will be flat from mid-2024 onwards due to a gradual draining of the labour pool and more cautious recruitment by employers at a time of economic downturn. The unemployment rate remained stable close to 2.6% and will rise only slightly over the outlook horizon. It will thus stay very low. Wage growth in market sectors has been slowing markedly since 2023 Q2 but will remain slightly elevated. The subdued wage growth will also reflect employees continuing to prefer job security to strong wage growth.

### Real household income will start to grow again in year-on-year terms at the start of this year, but its previous falls will be offset only partially

Year-on-year growth in the average nominal wage remains slightly elevated from a historical perspective (see Chart II.12). The fundamental factors supporting brisk wage growth in market sectors are gradually diminishing in line with the economic downturn, weak performance of industry and falling inflation. High wage growth is also being prevented by a preference for job security. Wage growth will thus continue to slow in year-on-year terms, despite some factors that will boost it at the start of this year (a rise in doctors' pay, an increase in the minimum wage, which will also be reflected in guaranteed wages in some categories, and a slightly above-average increase in wage scales). Employees will thus only slowly regain their share of income and make up for some of the lost real purchasing power of their wages and salaries.

Wages and salaries will also grow in non-market sectors, albeit at a more modest pace than in the market sector. In 2024, the forecast takes into account the rise in teachers' pay, which takes the form of additional bonuses. The forecast assumes a freeze on the wage scales of other state employees in 2024 and the announced reduction in the wage bill. However, the latter will manifest predominantly as a drop in the number of employees (and systemised job positions).

The real wage will grow in year-on-year terms at the start of 2024 after more than two years of decline. This will be due mainly to a marked slowdown in inflation to close to the upper boundary of the tolerance band around the 2% target amid still slightly elevated nominal wage growth.

Growth in the nominal wage bill is being affected predominantly by lower average wage growth this year and the next. In real terms, the wage bill will start to

Chart II.11

**From the perspective of the LUCI, the tightness in the labour market will decrease further**

LUCI; vertical axis shows standard deviations

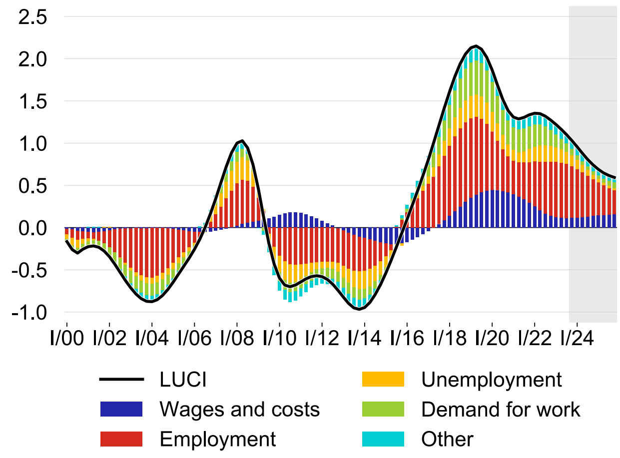



Chart II.12

**Nominal wage growth will remain slightly elevated from the long-term perspective**

nominal wages; y-o-y changes in %; seasonally adjusted

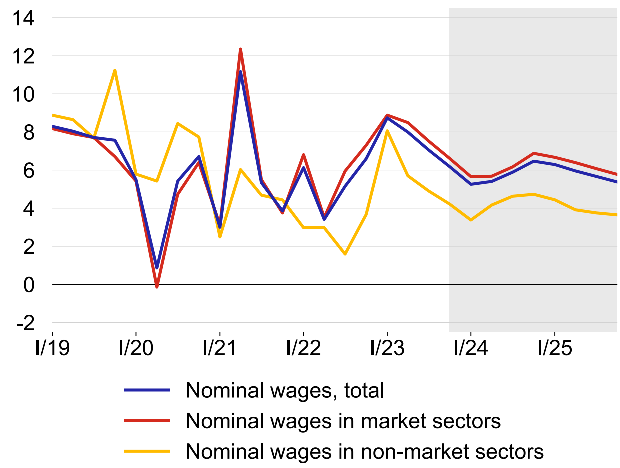
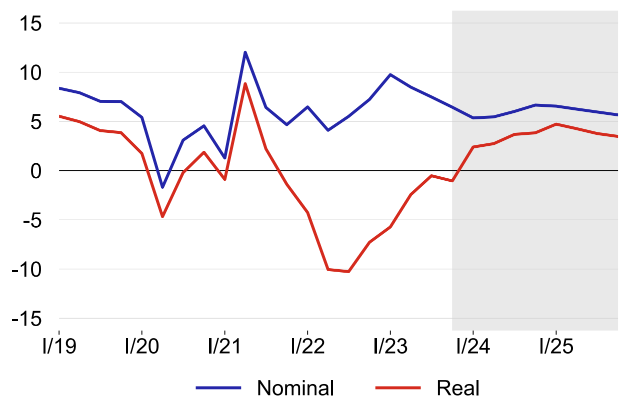



Chart II.13

**Growth in the real wage bill will turn positive again this year and thus help household consumption to recover**

wage bill; y-o-y changes in %



grow again year on year in the first half of this year (see Chart II.13). The growth will rise slightly further over the outlook horizon, due to low inflation and a slight increase in the nominal wage bill. Growth in the real wage bill will thus contribute to the recovery in household consumption.

## Caution will prevail on the labour market this year and employment will thus be flat

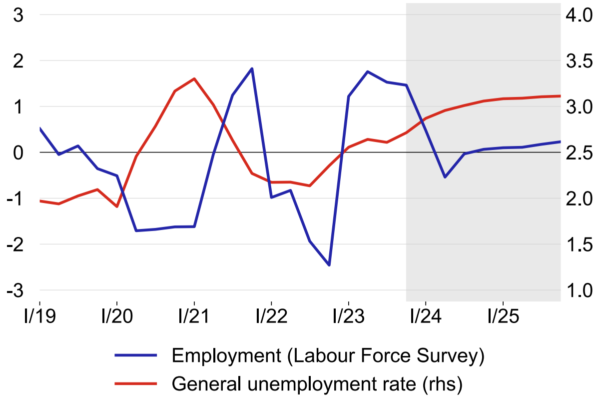
Owing to the previous economic downturn, employment growth will halt at the start of 2024 and the number of employed persons will remain flat for the rest of the year (see Chart II.14). The number of employees will still grow slightly year on year at the start of this year but will later slow and will also flatten out at the end of 2024. The European Commission survey even expects the number of employees to decline over the next three months. By contrast, the index of expected employment and some other high-frequency and leading indicators[13] suggest continued relatively strong corporate recruitment.

The general unemployment rate was flat in 2023. It will rise only slowly over the outlook horizon owing to subdued economic activity. The forecast expects a similar trend in the share of unemployed persons next year.

Chart II.14

**Employment will be flat this year on average, and unemployment will increase only slowly**

employment; y-o-y changes in %; general unemployment rate in %; seasonally adjusted




13 For 2024 Q1, the Manpower Group index of expected employment is signalling continued, but weakening growth in the number of employees. The Google Trends scores for “unemployment” and “unemployment benefit” have remained low in recent weeks. In 2023 Q4, the total number of vacancies was virtually unchanged compared to the previous quarter.

# III. INFLATION

*Inflation rose sharply in October 2023 due to a base effect. Annual consumer price inflation then slowed in the remaining two months of the year. At the start of this year, inflation will fall sharply towards the upper boundary of the tolerance band around the CNB's target as the base effect drops out, with most of its components contributing. The contributions of administered prices in particular will decrease significantly, although their growth will remain somewhat elevated. The contribution of market prices will also fall. This will be linked to subdued cost pressures from abroad and the rapid fading of domestic demand inflationary pressures. At the same time, the previous increase in the profit margins of domestic producers, retailers and service providers will undergo a gradual correction. Headline and monetary policy-relevant inflation will be close to the CNB's 2% target over the monetary policy horizon, aided by monetary policy.*

### Inflation will fall towards the upper boundary of the tolerance band at the start of this year

The disinflation trend halted temporarily at the start of 2023 Q4 in the case of annual consumer price inflation (see Chart III.1). This was due to a base effect linked with a drop in electricity prices caused by the introduction of the government's energy savings tariff in 2022 Q4. Chart III.2 shows how annual headline inflation would have evolved in the absence of this measure and the waiver and reintroduction of the fee for renewable energy sources.[14] For this reason, the contribution of administered prices increased markedly for a short time at the end of 2023. By contrast, the contributions of core inflation and especially food prices continued to fall visibly (see Chart III.3). Inflation will slow appreciably at the start of this year. The contribution of administered prices will decrease significantly, although their growth will remain elevated from a historical perspective. The traditional repricing of goods and services at the start of the year will take place to roughly the usual extent according to the forecast. Annual food and fuel price inflation will be negative.

### Administered price inflation will fall sharply at the start of 2024 but will remain elevated nonetheless

Annual administered price inflation increased sharply for a short time in Q4. This was due almost solely to the contribution of electricity prices. It reflected the aforementioned extraordinary base effect caused by the introduction of the energy savings tariff, which led to a temporary sharp drop in electricity prices from October to December 2022.

Administered price inflation will fall sharply at the start of 2024 as the base effect drops out, but will remain elevated from a longer-term perspective at around 9%

Chart III.1

**Inflation will return close to the 2% inflation target at the start of this year, where it will stay over the monetary policy horizon**

headline inflation; y-o-y in %; confidence interval

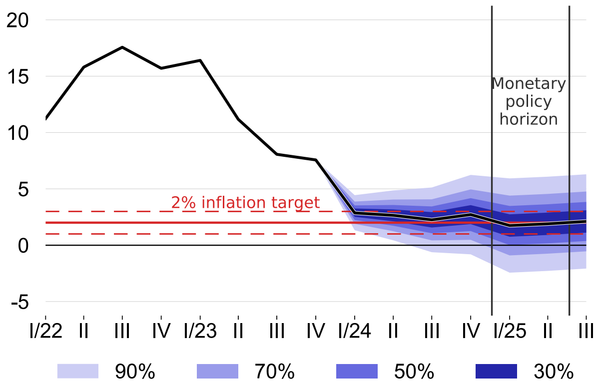
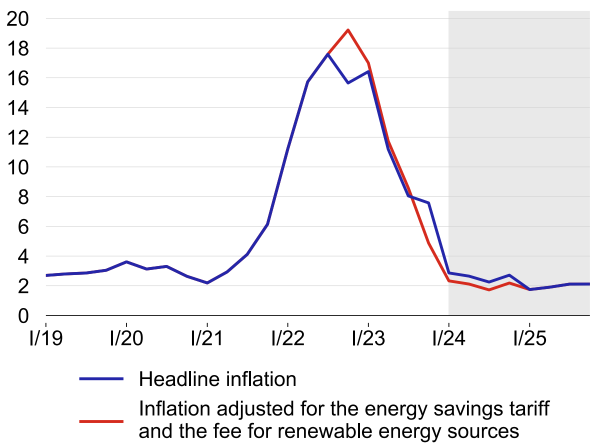



Chart III.2

**Without the base effect, the sharp decline in annual inflation would have continued into 2023 Q4**

headline inflation; y-o-y in %

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14 According to the CZSO, headline inflation adjusted for the energy savings tariff would have been 4.2% in December 2023 (as against an unadjusted value of 6.9%).

(see Chart III.4). On the one hand, the commodity component of energy prices will decrease below the government price caps effective last year. On the other hand, however, this will be outweighed by a surge in the administered component of energy prices linked with the abolition of government energy distribution subsidies, the reintroduction of the fee for renewable sources[15] and the impact of the ending of fixed contracts from the period before the energy crisis. A marked increase in water supply and sewerage collection charges and heat prices will also contribute to keeping administered price inflation elevated. Measures in the government consolidation package, in the form of an increase in the price of the road toll vignette[16] and an increase in the VAT rate on selected administered price items (in particular heat, water supply, sewerage collection and transport), will also have an inflationary effect.

### Annual core inflation will slow further

Core inflation decreased markedly further in 2023 Q4 on account of slowing growth in prices of non-tradables and especially tradables. Core inflation will slow further in 2024 Q1. This will be due to still subdued industrial producer price inflation abroad and its spillover into domestic price categories. The falling core inflation will also be due to weak domestic consumer demand. By contrast, the contribution of imputed rent will start to rise moderately again due to a recovery in the property market (see Chart III.5). Core inflation will thus continue to come down this year (below 3%), aided by the tight domestic monetary conditions to date.

### Food prices will decline year on year

The annual food price inflation rate declined appreciably at the end of last year. This trend will continue into the start of this year, with food prices even starting to decrease year on year (see Chart III.3). This will be due to falling global agricultural commodity prices and domestic agricultural producer prices and to the significant pass-through of the reduction of the VAT rate on food by 3 pp to retail prices. Food price inflation will be negative throughout 2024.

### Fuel will remain somewhat cheaper at the start of this year than a year earlier

The year-on-year decline in prices at filling stations slowed significantly at the end of last year, despite the month-on-month decreases observed throughout Q4. Fuel price inflation will stay negative at the start of this

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15 The waiver of the fee for renewable energy sources approved by the Czech government was in effect from October 2022 until December 2023.

16 The price of an annual road toll vignette will rise by CZK 800 (from CZK 1,500 to CZK 2,300, i.e. by more than 50%) in March 2024. A regular indexation scheme will also be introduced for these vignettes to reflect inflation.

Chart III.3

**Consumer price inflation will slow sharply at the start of this year, with most components contributing**

structure of inflation; y-o-y changes in %; contributions in pp

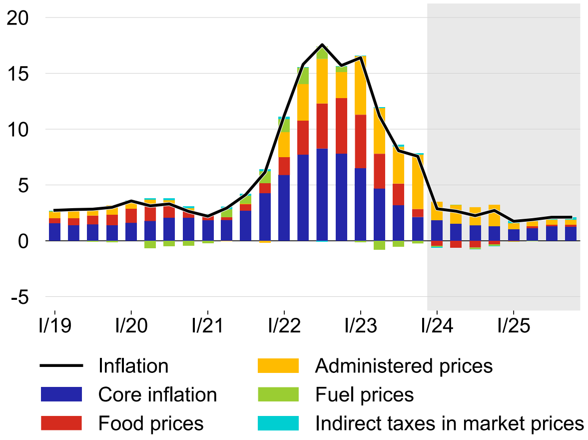



Chart III.4

**Administered price inflation will fall sharply at the start of this year but will remain elevated**

administered prices; y-o-y changes in %; contributions in pp; including taxes

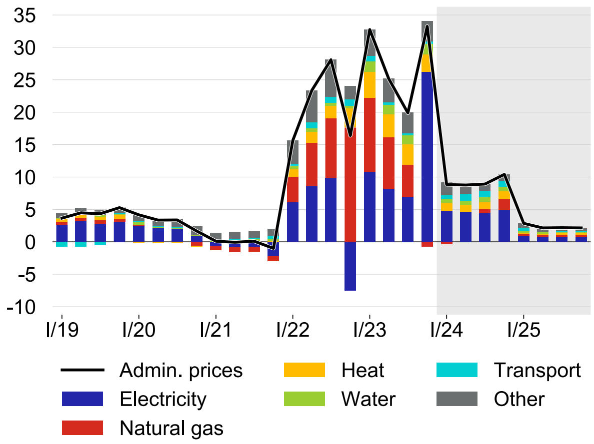
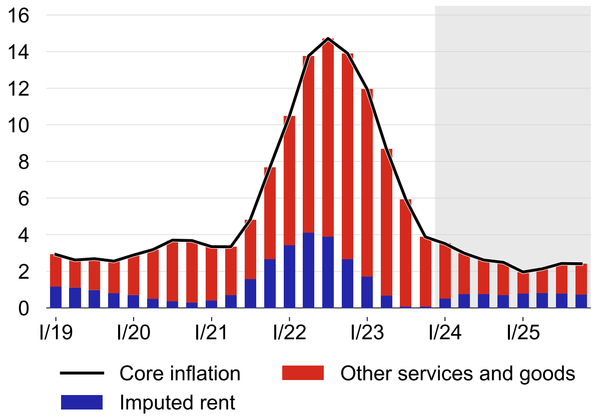



Chart III.5

**Core inflation will continue to slow this year due to a decline in overall inflation pressures amid a still low contribution of imputed rent**

y-o-y changes in %; contributions in pp



year, due mainly to a significant year-on-year decline in oil prices.

### Headline inflation will be slightly above monetary policy-relevant inflation

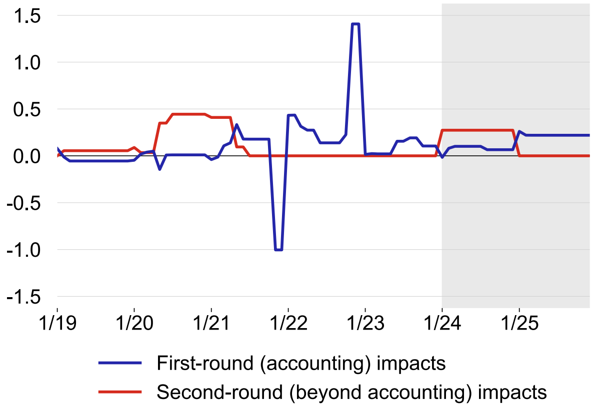
At the start of 2024, the changes to indirect taxes in the government's consolidation package will have a mixed effect on consumer price inflation and will be moderately inflationary overall. The inflationary measures include a 10% increase in excise duties on tobacco and alcohol. Conversely, a reduction in the number of VAT rates and the transfer of selected groups of goods and services between these rates is expected to have an anti-inflationary effect. Overall, these changes will have slightly positive first-round (accounting) effects and are thus expected to lift consumer price inflation moderately. The forecast also assumes that the VAT rate cut will not pass through fully to the prices of the items concerned.[17] For this reason, the immediate (second-round) effects of these changes are positive. This will simultaneously affect both headline and monetary policy-relevant inflation in 2024. Excise duty on tobacco and alcohol will be raised again at the start of next year, when it will go up by 5% and 10% respectively. Headline inflation will thus be slightly above monetary policy-relevant inflation over the entire outlook (see Chart III.6).

Monetary policy-relevant inflation will stay close to the central bank's 2% target over the monetary policy horizon, i.e. in the first half of 2025 (see Chart III.7). This will be a result of a switch to diminishing monetary policy tightness.

Chart III.6

**The first-round and second-round effects of changes to indirect taxes will reflect the numerous changes to VAT and excise duties in the government's consolidation package**

first-round and second-round effects of tax changes; contributions to annual inflation in pp

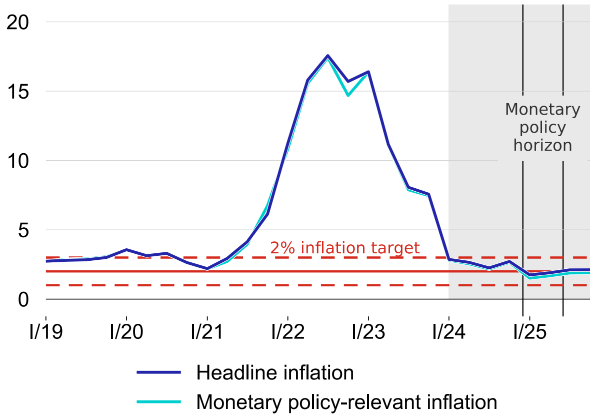



*We distinguish two types of direct effects on prices in relation to* ***changes to indirect taxes*** *– first-round effects (or accounting effects in the items concerned) and second-round effects (going beyond accounting effects in the items concerned). The first-round effects are the calculated price changes due to the indirect tax changes implied by full (accounting) pass-through of the tax changes to prices of the relevant items of the consumer basket. The second-round effects capture the immediate price changes going beyond the first-round effects and may be positive or negative. The second-round effects affect both monetary policy-relevant inflation and headline inflation. The CNB applies escape clauses to the first-round effects of indirect tax changes and sets interest rates with regard to the outlook for monetary policy-relevant inflation.*

Chart III.7

**Headline and monetary policy-relevant inflation will both be close to the 2% target at the monetary policy horizon**

headline and monetary policy-relevant inflation; in %

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17 The largest items on which the VAT rate was reduced are food (excluding tobacco and alcoholic and non-alcoholic beverages), construction work and books. The reduction of the VAT rate on construction work will be reflected in inflation via imputed rent. Books are to be exempted from VAT. During January it was observed that the VAT rate cut was passed on to customer prices in most cases for food but not for books.

## Pricing from the perspective of the g3+ core forecasting model

The following part of this section describes the cost pressures and the gap in mark-ups from the perspective of the g3+ core forecasting model. Unlike the statistical data and variables described in the first part of this section, these are unobserved variables that do not have a direct data counterpart. Their estimated paths are thus based on the one hand on the structural relationships between the directly observed macroeconomic variables captured directly in the g3+ core forecasting model, and on the other hand on additional information based on data obtained and processed during the forecast and then inserted into the model using expert judgement:[18]

- the contribution of import prices to total costs reflects industrial producer price inflation in the effective euro area and the koruna exchange rate;
- the contribution of price convergence is captured by the Balassa-Samuelson effect, which is identified as the difference between non-tradables and tradables inflation;
- prices of domestic intermediate goods reflect domestic costs and the gap in mark-ups in the relevant sector of the economy (for more on the gap in mark-ups in the consumer sector see the information panel below);
- the contribution of wages to domestic costs is linked to wage growth in market sectors;
- the contribution of the price of capital reflects demand for this production factor, which reacts to capacity utilisation and the overall performance of the economy in the business cycle;
- the contribution of labour efficiency reflects the evolution of a unit of production (value added) per hour worked/per person employed;
- in addition to costs, the estimate of the gap in mark-ups in the final consumer goods and intermediate goods sectors takes into account observed inflation, i.e. consumer price inflation and changes in deflators.

**The overall cost pressures will strengthen temporarily at the start of 2024 due to an increase in firms' energy costs, but will later diminish, falling to the steady-state level in 2025**

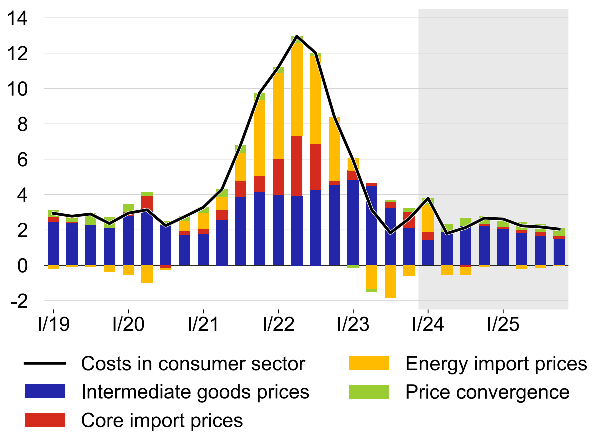
Growth of total costs in the consumer sector continued to be driven at the end of last year largely by growth in prices of domestic intermediate goods, although its contribution decreased further. Growth in costs as a whole increased slightly, mainly as a result of an easing of the negative contribution of energy import prices. This reflected the lingering effect of the correction of energy commodity prices seen mainly in the first half of 2023. The positive contribution of core import prices increased slightly due to a weakening koruna (see Chart III.8).

The overall cost pressures will strengthen further temporarily at the start of 2024. The abolition of government electricity distribution subsidies will be reflected in corporate energy costs (the commodity part of which is mainly imported). The contribution of prices of imported energy as a whole to quarter-on-quarter growth in total costs will thus be distinctly positive on a one-off basis in 2024 Q1. A moderate depreciation of the koruna will also be reflected in import prices. In addition, growth of total costs will be driven by continued growth in prices of domestic intermediate goods. The contribution of price convergence will also gradually turn positive again over the forecast horizon.

Chart III.8

**The cost pressures will strengthen temporarily at the start of the year due to a significant increase in the administered component of energy prices for firms and a weakening koruna**

costs in consumer sector; q-o-q changes in %; contributions in pp; current prices; annualised




18 The price vertical of the g3+ core forecasting model is described in detail in the box *Pricing and its importance for monetary policy from the perspective of the g3+ model* in MPR – Summer 2021.

Once the effect of the increase in the administered component of energy prices for firms at the start of 2024 fades out, growth in total costs will slow. In 2025, it will fall gradually to the steady-state level consistent with the fulfilment of the inflation target. Over the outlook horizon, the contribution of domestic costs will be slightly elevated initially but will also decrease gradually in 2025. Positive growth in core foreign producer prices will outweigh gradual appreciation of the koruna. This in turn will be reflected in slightly positive contributions of core import prices.

**The domestic cost pressures eased further at the end of last year; they will remain elevated this year due to buoyant wage growth but will fall gradually in 2025**

The slowdown in growth in domestic costs (see Chart III.9) in 2023 Q4 was due predominantly to a continued rapid slowdown in market sector wage growth. The contribution of the price of capital to the growth in costs was slightly negative during the autumn due to persisting subdued economic activity in the domestic economy. Labour efficiency also meanwhile worsened marginally. This, conversely, slightly increased the resulting domestic cost pressures.

The contribution of market wages to growth in domestic costs will rise temporarily at the start of this year, due mainly to government measures,[19] but also to an expected slightly higher-than-usual increase in wage scales in firms. However, the contribution of wage costs to domestic inflation pressures will begin to decrease at the end of this year. Along with the gradual recovery of growth in economic activity, the contribution of the price of capital to growth in domestic costs will turn positive again over the outlook horizon. However, this will be roughly offset by a concurrent rise in labour efficiency, which will thus have an anti-inflationary effect. The continued slowdown in quarter-on-quarter wage growth will lead to a gradual decline in domestic cost pressures to close to their steady-state level next year.

**The until recently sharply increasing gap in mark-ups started to decrease visibly in late 2023 and early 2024 due to subdued domestic demand and temporarily elevated growth in costs**

The recent increase in the gap in mark-ups in the consumer sector to significantly positive territory reflected growth in prices far outpacing growth in the costs of domestic producers, retailers and providers of goods and services to households. However, the gap

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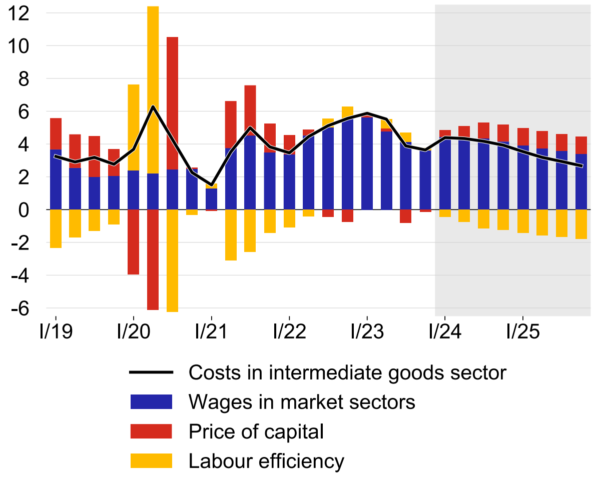
19 An agreement on higher pay for healthcare workers entered into force at the start of 2024. The minimum wage was also increased and the cascade of guaranteed wages linked to it was adjusted. Both these legislative changes will increase quarter-on-quarter average wage growth.

Chart III.9

**The domestic cost pressures will ease gradually from the end of this year onwards as wage growth steadily decreases**

costs in intermediate goods sector; q-o-q changes in %; contributions in pp; current prices; annualised



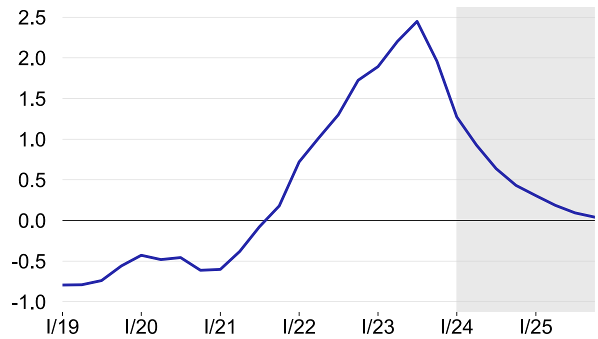

*__Mark-ups in the consumer sector__ represent the difference between the prices and marginal unit costs of producers of final consumer goods. The gap in mark-ups shows the deviation of current mark-ups from their steady-state level. A positive gap in mark-ups thus implies a higher-than-usual "profit margin", while a negative gap represents a lower-than-usual one. If the gap increases (decreases) over time, it gives rise to an additional inflationary (anti-inflationary) effect, i.e. upward (downward) pressure on consumer prices going beyond the increase (decrease) in costs.*

in mark-ups started to decrease visibly in late 2023 and early 2024 (see Chart III.10). The overall cost pressures strengthened significantly in the short term, while inflation remained subdued. Domestic demand is being dampened by the current tight monetary policy and, since the start of this year, by restrictive measures stemming from fiscal consolidation. Household consumption – together with the real wage level – will thus recover only gradually from its current low level. At the same time, retailers will not be able to pass on fully the growth in their costs associated with the jump in the administered component of energy prices seen at the start of this year to prices for end customers, so profit margins will continue to decline rapidly. This will significantly reduce the overall inflation pressures and the resulting price growth. The forecast expects a similar trend in the gap in mark-ups in the domestic intermediate goods sector.

Chart III.10

**The positive gap in mark-ups has started to narrow noticeably amid only slowly recovering domestic demand**

gap in mark-ups on consumer goods in pp




## COMPARISON WITH THE PREVIOUS FORECAST: Price developments

| | | 2023 | 2024 | 2025 | |
|---|---|---|---|---|---|
| **Consumer prices** | y-o-y changes in %<br>pp | **10.7**<br>(-0.1) | **2.6**<br>(0.0) | **2.0**<br>(-0.1) | The inflation forecast remains unchanged this year, with higher expected administered price inflation offset by lower growth in market price inflation. |
| **Administered prices** | y-o-y changes in %<br>pp | **27.8**<br>(0.5) | **9.2**<br>(4.5) | **2.3**<br>(0.8) | The outlook for administered prices for this year is higher due to faster growth in prices of energy and other housing-related items. |
| **Core inflation** | %<br>pp | **7.6**<br>(0.0) | **2.9**<br>(-0.1) | **2.2**<br>(-0.2) | The slight downward revision of the core inflation forecast is due to weaker domestic demand and somewhat smaller inflation pressures from the labour market. |
| **Food prices** (incl. alc. bev. and tobacco) | y-o-y changes in %<br>pp | **10.0**<br>(-0.1) | **-1.9**<br>(-2.1) | **0.6**<br>(-0.5) | The food price outlook is visibly lower for this year due to an unexpectedly large drop in food prices at the end of 2023 and stronger pass-through of the VAT reduction to food prices. |
| **Fuel prices** | y-o-y changes in %<br>pp | **-12.1**<br>(-0.8) | **-3.3**<br>(-7.1) | **-0.5**<br>(-1.0) | The fuel price forecast has shifted significantly downwards, due mostly to a lower outlook for crude oil prices. |

Note: Changes compared to the previous forecast in brackets (a green label indicates an increase in value and a red label a decrease).

## BOX 1 Assessment of the fulfilment of the inflation target over the last two years

The CNB's price stability mandate involves retrospectively assessing the fulfilment of its 2% inflation target and determining the causes of any past deviations of inflation from the target. This box, regularly included in the report, contains the said assessment for the last two calendar years, i.e. for 2022 and 2023.

In 2022, inflation was well above the CNB's 2% inflation target (see Chart 1). The rate of inflation decreased gradually from double to single figures last year but remained well above the target. The factors underlying the deviation of inflation from the target were identified using the g3+ core forecasting model.[1] These factors provide an insight into the origin of the inflation pressures faced by the Czech economy in the past two years (see Chart 2).

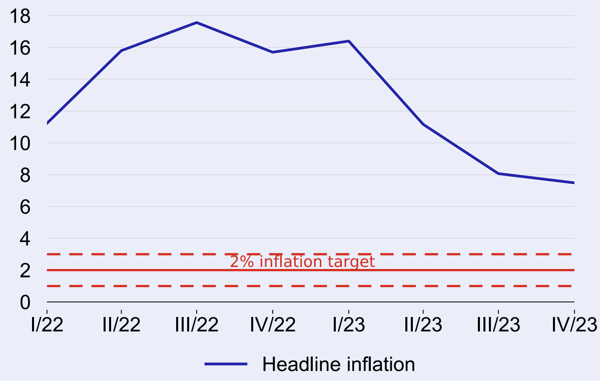
The record growth in foreign industrial producer prices in 2022 reflected a huge rise in energy commodity prices on global markets exacerbated by Russia's aggression in Ukraine. Disruptions to global value chains during the pandemic acted in the same direction. Last year's partial correction of foreign industrial producer prices, which reflected an easing of supply chain bottlenecks and a decline in exchange prices of energy commodities, reduced the inflationary effect of foreign prices. The massive rise in energy prices drove up domestic firms' costs and, in turn, final prices of products and services. These external cost pressures thus gradually passed through to all domestic price categories. Family budgets were also squeezed, as the jump in exchange prices of energy led to record growth in administered prices, especially those related to housing.[2] The gradual fading of the energy price shock then reduced the contribution of administered prices for most of last year.

*__The monetary policy rule in the g3+ model__ sets interest rates so as to ensure that inflation returns to the 2% target at the monetary policy horizon. The inflation outlook takes on board the forecasts for all relevant macroeconomic variables. The emphasis on the monetary policy horizon reflects the gradual transmission of interest rates to future economic developments and in turn to inflation. By concentrating on inflation at this horizon, the central bank simultaneously abstracts from short-term inflation shocks. Their impact can be controlled by monetary policy to only a minimal extent. In addition, any efforts to mitigate them quickly would cause excessive interest rate volatility, which would destabilise the economy. The monetary policy rule also includes interest rate smoothing by the central bank. Nonetheless, active monetary policy stabilises inflation at the target in the medium term. This is usually accompanied by gradual movement of interest rates towards their neutral long-run level (3%).*

Chart 1

**Inflation started to decline gradually last year due to decreasing growth in corporate costs and cooler household demand amid a tight CNB monetary policy stance**

consumer prices in %




The domestic economy also had a strong inflationary effect in the past two years. This stemmed mainly from an increase in firms' profit margins in an environment of continued solid growth in nominal household income amid still low unemployment and expansionary fiscal policy. Firms across sectors thus on average raised their prices even more than the growth in their costs implied, thereby partly making up for their previous pandemic-related losses. At the same time, however, the sharp growth in prices weakened households' purchasing power, causing a record plunge in real incomes. The subdued consumer demand thus contributed to a gradual reduction in the inflationary effect of the domestic economy last year. In addition, the effect of the initially insufficient domestic monetary policy tightening (see also the last paragraph) faded out during 2023 amid diminishing extraordinary price pressures, with interest rates kept at elevated levels.

The ECB responded to the surge in price pressures in the euro area later and less forcefully than the CNB. The widening positive interest rate differential thus exerted appreciation pressure on the koruna, hence slowing domestic inflation. In addition to foreign interest rates, a cyclical cooling of foreign economic activity last year had an anti-inflationary effect.

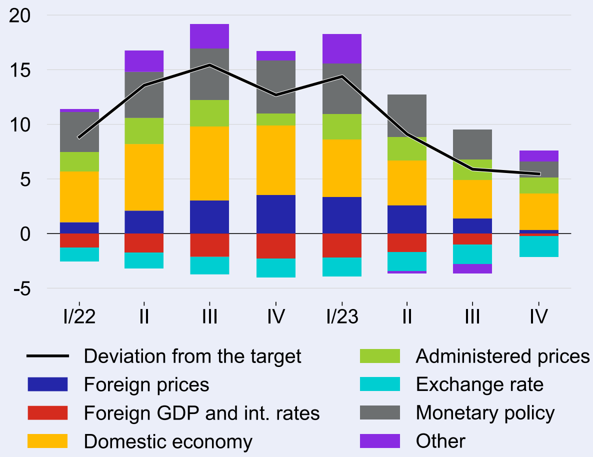
The koruna exchange rate acted in the anti-inflationary direction over the entire period under assessment.[3] Although sentiment deteriorated significantly in early 2022 due to the energy crisis and the war in Ukraine, the koruna steadily appreciated owing to the positive interest rate differential, aided by actual and verbal foreign exchange interventions by the CNB. In late 2022 and early 2023, it strengthened further, mainly on the back of improved sentiment in the region due to the creation of sufficient gas stocks before the heating season. The koruna subsequently depreciated slightly last year, though to a lesser extent than implied by the narrowing interest rate differential vis-à-vis foreign interest rates. The exchange rate thus continued to slow inflation.

The Bank Board started to raise interest rates in June 2021, when it communicated the upside risks to inflation of its forecasts, which themselves had been predicting growth in interest rates for 2021 since the end of 2020. The rate hikes gained in intensity during the autumn. In the first half of 2022, the Bank Board assessed the risks and uncertainties of the CNB's forecasts at the time mostly as significant and inflationary overall. A risk identified in the long term was that of weaker anchoring of inflation expectations in an environment of long-running overshooting of the inflation target, which could manifest itself in a wage-price spiral. The already sharp rise in energy commodity prices intensified in early 2022 due to the outbreak of the war in Ukraine. Linked with this was an increasing risk of more expansionary domestic fiscal policy (measures aimed at mitigating the impacts of the energy and refugee crises). The future monetary policy stance abroad was a significant uncertainty. In response to the exceptionally strong across-the-board inflation pressures, the CNB continued to raise interest rates until June 2022, when the 2W repo rate reached 7%. In the second half of the year, the Bank Board assessed the risks and uncertainties as being significant and going in both directions. The growing likelihood of recession abroad and a stronger-than-forecasted downturn in domestic consumer and investment demand were newly identified risks.

Chart 2

**The deviation from the target in 2022 and 2023 was due mainly to a sharp rise in energy prices and insufficient monetary policy tightening in 2021–2022**

deviation of monetary policy-relevant inflation from the CNB's 2% target; contributions in pp




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

In 2023, the Bank Board assessed the risks and uncertainties initially as significant and going in both directions, and in the second half of the year as inflationary. Most of the previously identified risks persisted. The Bank Board communicated that the interest rate path would be higher than in the baseline scenario of the forecast. The uncertainties continued to include the future course of the war in Ukraine, the availability and prices of energy, and the future monetary policy stance abroad. In December 2023, the Bank Board cut interest rates by 0.25 pp due to a falling inflation outlook, stating that it considered it necessary to persist with tight monetary policy and approach potential further rate cuts with caution.

Inflation was well above the 2% inflation target over the entire period under assessment. From this perspective, it can be said with the benefit of hindsight that monetary policy should have been tighter at certain times. The roots of this can be traced back to the pre-pandemic period. Rates should have fallen less during the pandemic and then started to rise earlier and faster at the first sign of renewed inflationary pressures. This view takes into account the standard monetary policy horizon (12–18 months ahead). During 2022, however, the CNB temporarily considered more distant monetary policy horizons (18–24 months and 15–21 months) in its forecasts. This reflected the mostly supply nature of the inflationary shocks and the need to partially exempt their effects.

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1 The g3+ core prediction model is used to prepare the CNB's macroeconomic forecasts. It is also employed to assess the fulfilment of previous forecasts and to determine the sources of deviations of the actual figures from the forecasts under assessment and the inflation target. For details, see *The g3+ Model: An Upgrade of the Czech National Bank's Core Forecasting Framework*, CNB WP 7/2020.

2 The deviation of inflation from the target narrowed temporarily at the end of 2022 following the adoption of a government measure to counter the high energy prices (the energy savings tariff). Due to its base effect, this measure conversely caused the disinflation process to halt temporarily in 2023 Q4, when annual administered price inflation – and hence also headline inflation – surged temporarily.

3 The contribution of the exchange rate captures the part of the evolution of the exchange rate that cannot be explained by other variables. Thus, if, for example, the koruna depreciated, but less than in line with other macroeconomic variables, the contribution of the exchange rate is assessed as anti-inflationary.

# IV. MONETARY POLICY

*At its February monetary policy meeting, the Bank Board lowered the two-week repo rate by 0.50 pp to 6.25%, the discount rate by the same amount to 5.25% and the Lombard rate to 7.25%. The Bank Board assessed the risks of the forecast and the uncertainties of the outlook as being broadly inflationary. A slower decline in the elevated inflation expectations is a risk in this direction. Given the tight labour market, this could be reflected in higher wage demands. Higher-than-expected inertia in services prices and a halt in tradables disinflation, which has so far been due mainly to fading supply-side problems, are additional upside risks. An inflationary risk in the longer term is an acceleration of money creation in the economy stemming from excessive lending activity in the property market. The latter could lead to renewed highly positive contributions of imputed rent to core inflation. By contrast, a stronger-than-expected downturn in global economic activity and in German economic output is a downside risk to inflation. The future monetary policy stance abroad remains an uncertainty of the outlook. Consistent with the baseline scenario of the Monetary Department's forecast is a rapid decline in market interest rates in the course of this year. This is in line with the expected achievement of the inflation target at the monetary policy horizon once the extraordinary cost pressures from the foreign environment fade out and amid still subdued domestic demand.*

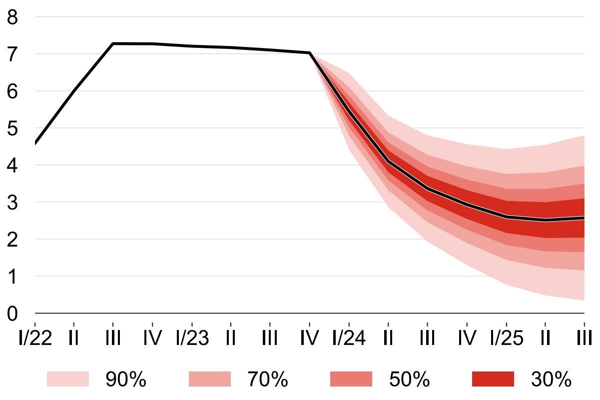
### Consistent with the baseline scenario of the forecast is a rapid decline in market interest rates in the course of this year

The winter forecast implies a rapid decline in market interest rates over the next few quarters (see Chart IV.1). According to the baseline scenario, interest rates fall sharply from 2024 Q1 onwards and are near the policy-neutral level at the year-end. This is due to the fade-out of the extraordinary cost pressures from the foreign environment and to subdued domestic demand. These factors lead to the achievement of a low-inflation environment, which is maintained over the monetary policy horizon. A temporary increase in cost pressures in late 2023 and early 2024 will not prevent consumer price inflation from declining close to the upper boundary of the tolerance band around the CNB's target in early 2024. Firms' profit margins will therefore decrease. This will be accompanied by a slowdown in quarter-on-quarter wage growth in the market sector from the end of 2024 onwards. Inflation will remain close to the target over the monetary policy horizon, i.e. in the first half of 2025. Rates will temporarily fall a little below 3% next year, preventing an undesirable decrease in inflation markedly below the target. The anchoring of inflation expectations to the 2% target remains an important assumption of the baseline scenario of the forecast. This helps inflation return close to the target and stay at that level.

Chart IV.1

**Consistent with the baseline scenario of the forecast is a rapid decline in market interest rates**

3M PRIBOR in %; confidence interval




***The confidence intervals of the forecasts** for key macroeconomic variables reflect the predictive power of past forecasts. They are symmetric and linearly widening. In the case of headline inflation, they widen 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.*

### The koruna continues to weaken

The gradual weakening of the koruna, which started last spring, continued at the close of last year and during January. The koruna retreated from its highs against the euro by more than 6%, trading close to CZK 24.8 to the euro in late January. Its losses were temporarily interrupted only by the CNB's November decision to leave policy rates unchanged, as markets had mostly expected the first rate cut. However, the koruna returned to depreciation in December and did not react strongly to the widely expected rate reduction at the close of the month.

The publication of new domestic and foreign macroeconomic indicators suggesting a further decline in inflation pressures led to a new decrease in market expectations about domestic monetary policy rates and a weakening of the koruna during January. The key role of the falling interest rate differential between the koruna and world currencies is confirmed by the net outflow of foreign debt capital from the Czech Republic, which intensified in the second half of last year.

### Following a further slight weakening, the koruna will appreciate modestly over the outlook horizon

The winter forecast expects the koruna to average CZK 24.7 to the euro in 2024 Q1. The koruna will then appreciate slightly (see Chart IV.2), mostly reflecting favourable net exports of goods and services. The improvement in the goods and services balance will be due to initially still very subdued domestic demand amid a gradual pick-up in export activity linked with recovering foreign economies. However, the appreciation will be partially offset by a narrowing interest rate differential vis-à-vis the euro area[20] (see Chart IV.3), which will close at the end of the year.

### The market interest rate outlook is higher than the CNB forecast; at the same time, the analysts expect a slightly weaker koruna than the central bank

The market outlook for short-term FRA rates has moved lower in recent weeks. The market expects the 3M PRIBOR to decline gradually at the one-year horizon (see Chart IV.4). This outlook is above the interest rate path in the baseline scenario of the CNB forecast. All the respondents in the FMIE survey were expecting the 2W repo rate to be reduced by 0.25−0.75 pp (median 0.25 pp) at the February monetary policy meeting. The analysts expect the CNB's key interest rate to be in the range of 3%–4.75% (median 4%) one year ahead.

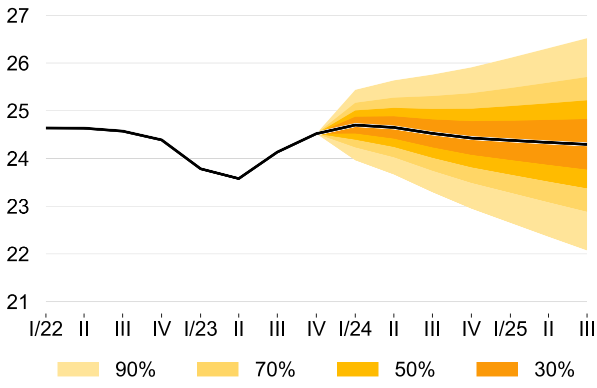
On average, the analysts in the FMIE and FECF surveys expect the koruna to be close to CZK 24.7 to the euro one year ahead (see Table IV.1). The exchange rate path they expect is at a slightly weaker level than the central bank's outlook. However, the difference between the minimum and maximum expected exchange rate against the euro one year ahead in the

20 This effect is partly reduced by expert adjustments.

Chart IV.2

**Following a slight initial weakening, the koruna will appreciate modestly again during the year**

CZK/EUR exchange rate; confidence interval

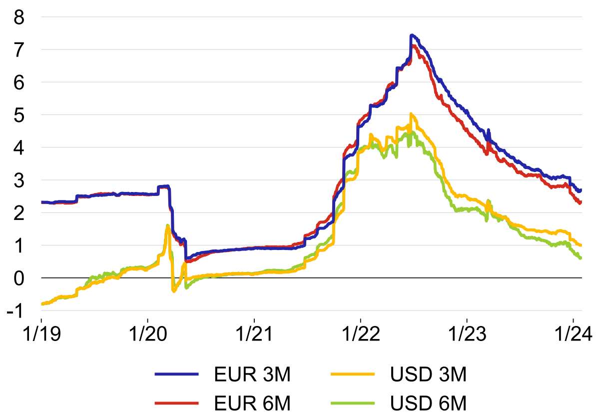



***The monetary policy horizon** (normally 12–18 months ahead) is the future time period which the CNB focuses on when making its monetary policy decisions and which reflects the length of the transmission of monetary policy. By targeting inflation at this horizon, the central bank also abstracts from short-term inflation shocks, whose impact monetary policy can control to only a minimal extent.*

Chart IV.3

**The interest rate differential vis-à-vis euro and dollar rates is gradually narrowing**

pp; differential of Czech money market rates vis-à-vis EUR and USD rates



two surveys is CZK 2.5 and CZK 3 respectively. In the longer term, the analysts expect the koruna to gradually return to a path of sustained slow appreciation as the economy recovers and general financial market sentiment improves.

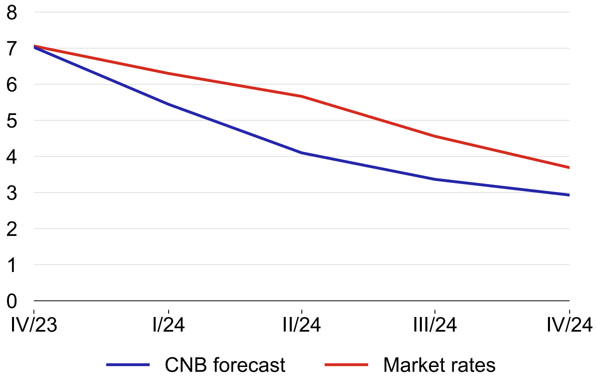
### In its communications, the Bank Board was inclined towards lowering rates further

The Bank Board members agreed in their media statements that interest rates would continue to decline throughout the year. They said that the pace of reduction, which will depend mainly on inflation and also on other economic indicators, would be discussed at the February meeting. Several members said the rate cuts could be halted at any time if, for example, inflation pressures were more persistent, as is the case in the service sector. They also said rates would be reduced at a slower pace – by 25 bp, for example – if inflation were to fall more slowly towards the 2% target. However, a bigger cut of 50 bp, for example, could be considered if it dropped faster. One member expressed support for a sharper rate cut of at least 50 bp. Several members said the CNB's monetary policy would remain tight.

Chart IV.4

**The market was expecting rates to be lowered at the February meeting; the market outlook is above the CNB forecast**

3M PRIBOR; FRA in %




Note: Market rates represent for 2023 Q4 the 3M PRIBOR and for 2024 Q1–2024 Q4 the average values of the FRA 1*4, 3*6, 6*9 and 9*12 rates for the last 10 trading days as of 31 January 2024.

*The **3M PRIBOR market interest rate** is a money market reference rate with a maturity of three months which is closely linked to the CNB's monetary policy rates. The CNB's key rate is the **two-week (2W) repo rate**, paid on commercial banks' excess liquidity as absorbed by the CNB in two-week repo operations. The difference between the 3M PRIBOR and the 2W repo rate fluctuates over time and reflects, among other things, expectations regarding the future path of monetary policy interest rates. This difference currently (before the CNB Bank Board's February monetary policy meeting) stands at -0.2 pp.*

## COMPARISON WITH THE PREVIOUS FORECAST: Interest rates and the exchange rate

Chart IV.5

**The interest rate path is noticeably lower than in the autumn forecast**

decomposition of changes in 3M PRIBOR forecast in pp

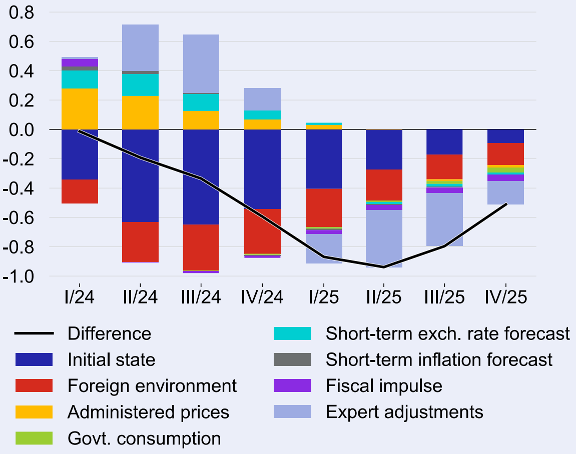
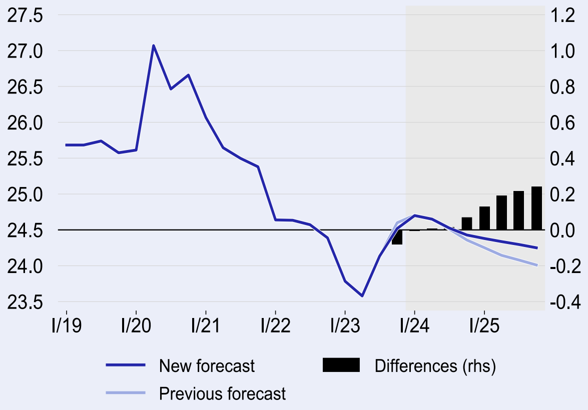



Chart IV.6

**The exchange rate will be slightly weaker than in the autumn forecast next year**

change in CZK/EUR exchange rate forecast; differences in CZK – right-hand scale




**Comparison of the interest rate path with the previous forecast** (Chart IV.5)

- The negative contribution of the **foreign environment** mainly reflects a lower outlook for ECB interest rates.
- The **initial state** of the domestic economy fosters lower rates due to lower observed wage growth and more subdued GDP growth in the second half of 2023. Lower observed growth of energy import prices has the same effect. The smoothing in the interest rate rule acts in the opposite direction to a lesser extent.
- The **short-term exchange rate forecast** for 2024 Q1 has a slight upward effect on rates.
- The **short-term inflation forecast** is broadly in line with evolution of the economy from the model perspective and has thus a neutral effect.
- The positive contributions of **administered prices** in the next few quarters reflect a smaller decrease in energy prices for households and a larger expected increase in their administered component at the start of 2024.
- The impacts of the revised outlook for **general government consumption** and the **fiscal impulse** are broadly neutral.
- **Expert adjustments** foster somewhat higher rates initially but have the opposite effect next year. The higher rates are fostered mainly by a reduced expert adjustment dampening the effect of the interest rate differential on the koruna exchange rate, which stems from a revision of the outlook for foreign rates. Worse labour efficiency at the start of the forecast horizon has the same effect. Next year, by contrast, the effect of reduced market wage growth is dominant over the entire outlook horizon, as the pace of making up for the previous decline in real wages is lower. The speed of economic recovery is meanwhile reduced amid more slowly improving sentiment.

**Comparison of the koruna exchange rate with the previous forecast** (Chart IV.6)

- The short-term exchange rate forecast mainly reflects the **observed levels**.
- An improvement in the **goods and services balance** due to more subdued domestic demand and a reduced expert adjustment dampening the effect of the **interest rate differential** vis-à-vis the euro area act in opposite directions over the outlook horizon. As a result, the exchange rate forecast is almost unchanged this year.
- A more modest appreciation of the koruna next year reflects a later recovery in **external demand for domestic exports** and a slightly reduced outlook for **core producer prices in the effective euro area**, which foster lower competitiveness of domestic exporters.

## Long-term financing conditions eased during 2023

PRIBOR interest rates have been decreasing gradually since approximately June 2023. The decline strengthened in late 2023 and early 2024 (particularly at maturities of over 3M) due to expectations that the CNB would cut its key interest rates. The slope of the money market yield curve thus turned markedly negative. Domestic rates with longer maturities (over 1Y) also declined (see Chart IV.7). This was also due to developments on foreign markets, where positive news about inflation dominated, along with markets' belief that the policy rates of major central banks had peaked. Overall, domestic IRS rates dropped by up to 2 pp at individual maturities in 2023 as a whole. Government bond yields went down by roughly the same amount.[21] Long-term financing conditions on the domestic market thus eased significantly. The negative slope of the domestic IRS and government bond yield curves remained approximately unchanged (see Chart IV.8).

## The drop in domestic market rates is starting to be reflected in client interest rates

Loan rates have recently decreased slightly in some segments owing to the reduction in the CNB's monetary policy rates in December and expectations that they will decline further. The rate on genuinely new loans to non-financial corporations dropped, reaching 8.2% in December. It is thus 2 pp higher than the rate on euro-denominated loans. The rate on genuinely new koruna mortgages is 5.7%. The rate on new loans for house purchase has recently stabilised at 5.4% (see Chart IV.9). Interest rates on private sector deposits are responding quickly – the rate on new deposits with agreed maturity fell to 6% in December. Real interest rates remain positive for the entire private sector due to lower inflation expected by financial market analysts one year ahead.

## Growth in corporate loans increased, while growth in loans to households remains subdued

Growth in corporate loans increased in Q4, reaching 7.4% in December, due in part to base effects. Genuinely new euro loans went up in December, while a further year-on-year decline was observed for koruna loans. The share of foreign currency loans thus increased to a historical high of 51%. However, its growth lessened in intensity overall last year amid a decreasing interest rate differential vis-à-vis the rest of the world and tighter bank credit standards in this segment. Overall corporate demand for loans as perceived by banks declined slightly in Q4, with only short-term loans and loans to large corporations

—

21 The Ministry of Finance issued CZK 409 billion of government bonds on the primary market in 2023. The Funding and Debt Management Strategy for 2024 assumes issues amounting to CZK 300–400 billion.

Chart IV.7

**Domestic interest rates with longer maturities showed a downward trend last year**

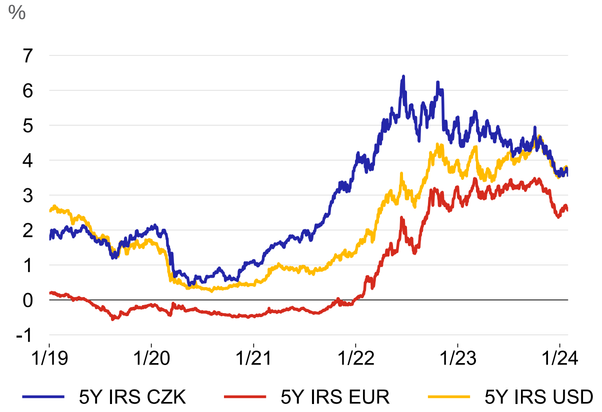



Chart IV.8

**The Czech government bond yield curve shifted lower compared to the autumn, while its slope remained negative at the shorter end**

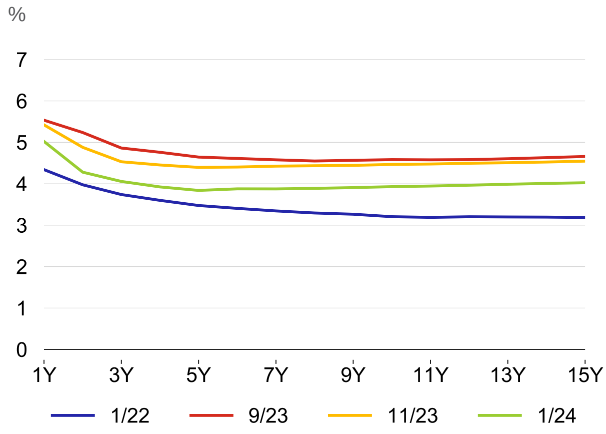
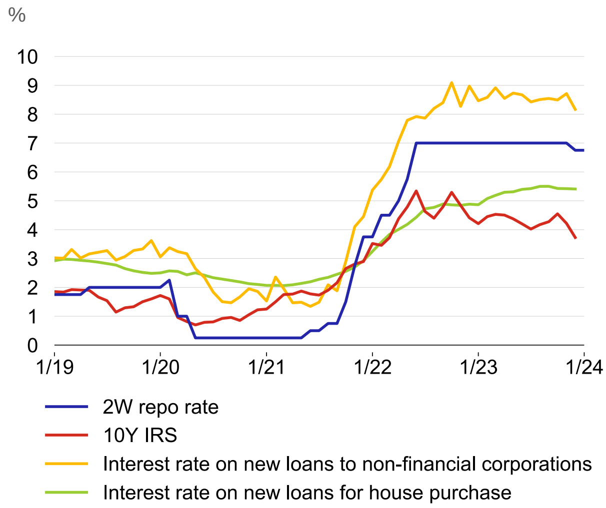



Chart IV.9

**Interest rates on loans to corporations and loans for house purchase remained elevated at the end of last year**



recording a slight increase in interest. Half of the banking market regards the still high domestic interest rates to be the main factor behind the lower demand. According to the forecast, growth in loans to corporations will stabilise in the period ahead (see Chart IV.10) in response to a gradual decline in interest rates and renewed economic growth.

By contrast, growth in loans to households for house purchase slowed further to 4.2%. However, banks perceived a rise in demand for housing loans at the end of last year. This reflected more favourable prospects for the residential property market, a slight drop in interest rates and an easing of credit limits. In line with this, genuinely new mortgages increased by 80.5% year on year in December, although this was due largely to base effects. According to the forecast, growth in housing loans will start to rise gradually at the end of 2024 but will be lower than in previous years (see Chart IV.10).

### The risks of the forecast are broadly inflationary

A slower fading of the still elevated inflation expectations is an upside risk. This could be reflected in a later drop in inflation to the 2% target than in the baseline scenario of the forecast. A later start to interest rate cuts by the ECB and the Fed cannot be ruled out either. An upside risk also stems from the wide general government deficits in recent years, which may potentially affect future inflation.

The extent of repricing at the start of this year, which also reflects multiple changes to indirect taxes, and the impact of the regular revision of consumer basket weights by the CZSO are uncertainties of the forecast. Another uncertainty is the speed of decline in the household saving rate.

### Inflation expectations have declined but remain above the 2% target so far

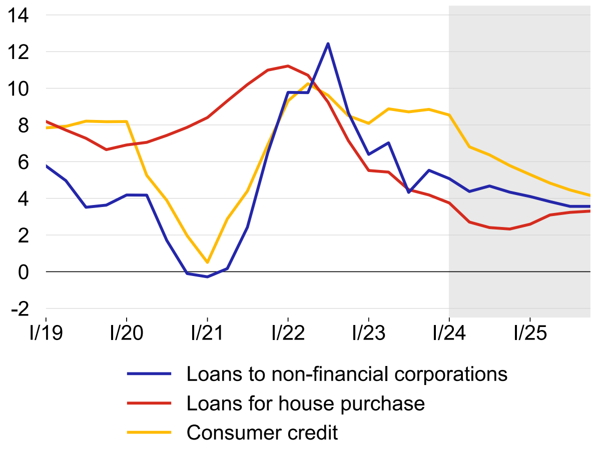
The available indicators are signalling that the risk of inflation expectations becoming unanchored is fading gradually. According to a joint survey conducted by the Confederation of Industry and the CNB, the inflation expectations of non-financial corporations one year ahead stood at 5.8% in December (see Table IV.1). Three years ahead, they fell to 4.9% but are still above the CNB's 2% inflation target (see Chart IV.11). Firms are also asked about the prices of their main inputs (commodities, materials, energy, etc.) one year ahead. This forward-looking indicator decreased to 6.4% in December. The European Commission's business survey also shows that the share of firms expecting the prices of their products and services to increase in the near term has dropped.

Concerns about growth in the price level among Czech households are also diminishing. The indicator of inflation perceived by domestic households in the European Commission survey fell from an all-time high

Chart IV.10

**Growth in loans to households for house purchase will bottom out this year and pick up next year**

annual rates of growth in %



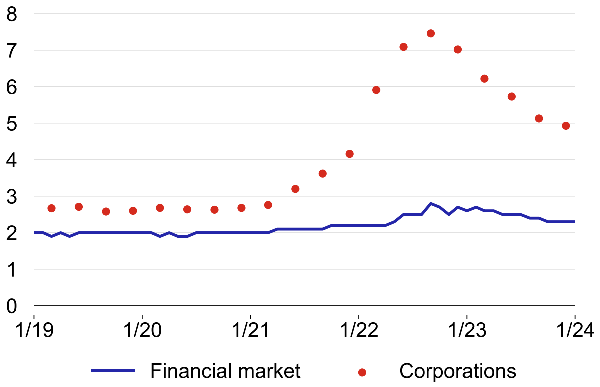

Note: The annual rates of growth in loans were affected in 2023 Q2 by the purchase of the loans of Sberbank CZ by Česká spořitelna in April.

***The inflation expectations of households, firms and the financial markets*** *fundamentally affect their behaviour and decision-making, and hence also the overall economic situation and the resulting inflation rate. As expectations can be largely self-fulfilling, it is important that central banks monitor them and try to keep them close to their inflation target.*

Chart IV.11

**Inflation expectations declined further among non-financial corporations at the three-year horizon but remain above the 2% target**

sample of approximately 18 analysts and 150 corporations; %



in the second half of last year. The indicator of the inflation rate expected one year ahead initially increased slightly at the end of 2023 but decreased again in January this year (see Chart IV.12). According to the CZSO's business survey, consumers remain pessimistic about the future economic situation, though less so than a year ago. The outlook for their financial situation is also still worsened, due mainly to the recent rapid growth in energy prices.

Inflation expected by analysts one year ahead decreased in January. This is probably linked with lower expected repricing in January. Inflation expected at the three-year horizon remains stable just above the CNB's 2% target.

### In a scenario of elevated inflation expectations, domestic interest rates stay well above the baseline scenario path

Consistent with the baseline scenario of the winter forecast is a rapid decline in market interest rates. However, the central bank may wait with rapid rate cuts until it is clear that the drop in inflation towards the 2% target is robust and inflation will stay at the target for a long time. This wait-and-see attitude may be a reaction to the risk of elevated inflation expectations, which create additional inflationary pressures in the economy, observed, for example, in the form of a slower fading of inflation in services. A scenario of elevated inflation expectations has been constructed to illustrate this risk. The scenario shows that a later decline in interest rates only partly offsets the upward effects of elevated inflation expectations on consumer price inflation. The 2% inflation target is therefore not reached until beyond the monetary policy horizon (at the end of 2025).

Table IV.1

**Analysts' inflation expectations at the three-year horizon are slightly above the inflation target; those of firms dropped below 5%**

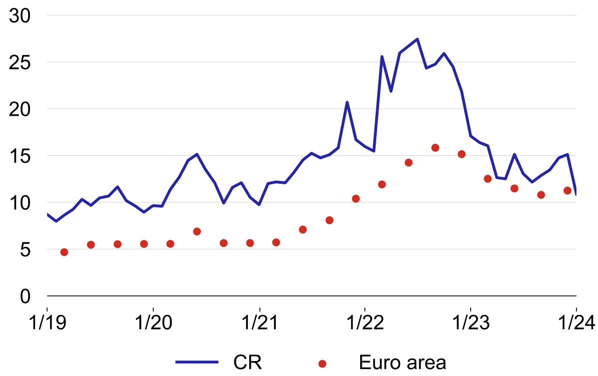
sample of approximately 18 analysts and 150 corporations; 1Y horizon; annual percentage changes unless otherwise indicated

| | 9/23 | 10/23 | 11/23 | 12/23 | 1/24 |
|---|---|---|---|---|---|
| FMIE: | | | | | |
| CPI | 2.7 | 2.8 | 2.8 | 2.9 | 2.5 |
| CPI, 3Y horizon | 2.4 | 2.3 | 2.3 | 2.3 | 2.3 |
| Real GDP in 2023 | 0.1 | 0.0 | -0.3 | -0.4 | |
| Real GDP in 2024 | 2.2 | 2.1 | 1.8 | 1.4 | 1.4 |
| Nominal wages in 2023 | 8.4 | 8.2 | 8.1 | 7.8 | |
| Nominal wages in 2024 | 6.7 | 6.6 | 6.5 | 6.5 | 6.3 |
| CZK/EUR exchange rate (level) | 24.3 | 24.4 | 24.6 | 24.5 | 24.6 |
| 2W repo rate (%) | 4.9 | 4.8 | 4.4 | 4.3 | 4.0 |
| 1Y PRIBOR (%) | 4.7 | 4.6 | 4.3 | 4.1 | 4.0 |
| Corporations: | | | | | |
| CPI | 6.6 | | | 5.8 | |
| CPI, 3Y horizon | 5.1 | | | 4.9 | |
| CF: | | | | | |
| Real GDP in 2023 | 0.1 | 0.0 | -0.2 | -0.3 | |
| Real GDP in 2024 | 2.2 | 2.2 | 1.8 | 1.6 | 1.6 |
| Nominal wages in 2023 | 8.5 | 8.1 | 8.1 | 7.9 | |
| Nominal wages in 2024 | 6.6 | 6.7 | 6.6 | 6.5 | 6.1 |
| CZK/EUR exchange rate (level) | 24.4 | 24.5 | 24.6 | 24.7 | 24.7 |
| 3M PRIBOR (%) | 4.7 | 4.7 | 4.4 | 4.3 | 3.9 |

Chart IV.12

**The inflation expectations of Czech and euro area households have decreased markedly over the last year**

households' inflation expectations in next 12 months according to European Commission Business and Consumer Survey; sample of approximately 1,000 households for the Czech Republic; in %



## Scenario of elevated inflation expectations

The approach to modelling elevated inflation expectations in this scenario is similar to the one applied in the 2023 summer forecast. The scenario uses the Common Inflation Expectations (CIE) Index, which provides a comprehensive overview of inflation expectations in the Czech economy. The CIE Index initially decreased quite significantly last year from previous unprecedentedly high levels, but the decline halted at the end of 2023. This indicates that inflation expectations are still elevated (see Chart IV.13).

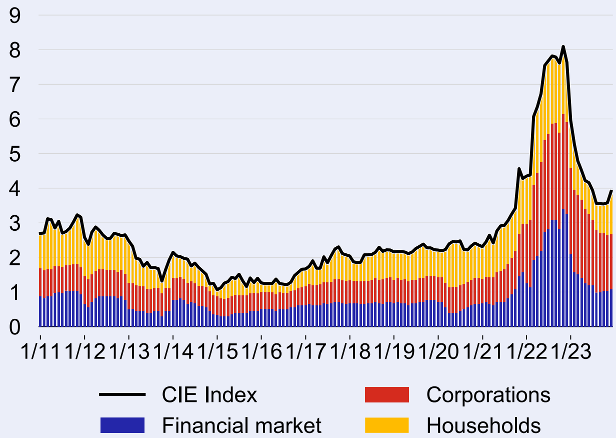
The values of the index are used as a source of information for making adjustments to inflation expectations in the g3+ model, which in this simulation additionally contains a process of endogenous deviation of inflation expectations from the target and additional depreciation pressure on the koruna.[22] The scenario was calibrated so that inflation expectations in the model approximate the course of the CIE Index, especially in the recent past.

Chart IV.13

**Modelling elevated inflation expectations using the CIE Index**

**Common Inflation Expectations (CIE) Index**

expected y-o-y changes in CPI one year ahead in %




The elevated inflation expectations fundamentally affect economic agents' decisions, generating additional inflation pressures in the economy. The CNB partially responds by leaving interest rates higher than in the baseline scenario.[23] However, this response is not sufficient to offset the effect of the elevated inflation expectations. This in turn manifests itself mainly in higher inflation and higher nominal wage growth than in the baseline scenario. Additional depreciation pressure on the koruna due to an increase in the risk premium leads to a slightly weaker koruna over the forecast horizon in this scenario. This also fosters higher inflation than in the baseline scenario (see Chart IV.14).

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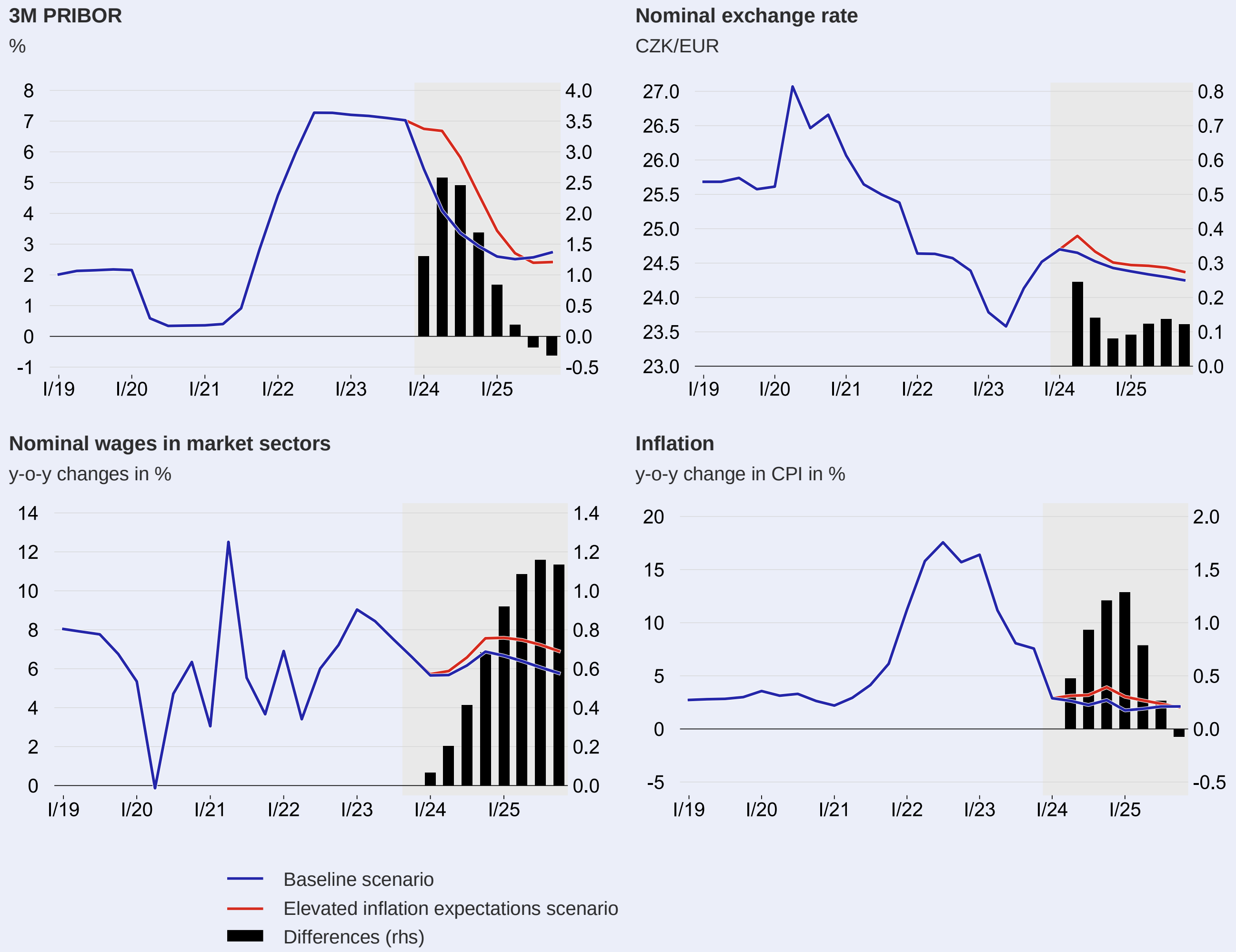
22 The simulation assumes that the deviation of inflation expectations from the 2% target is reflected in a deterioration in sentiment. This in turn increases the risk premium and exerts additional depreciation pressure on the koruna.

23 In addition to elevated inflation expectations, the simulation considers a 3M PRIBOR interest rate of 6.75% for 2024 Q1. The short-term exchange rate and inflation forecasts for 2024 Q1 are the same as in the baseline scenario, as some information on the evolution of these variables at the start of the year is already available.

Chart IV.14

**Elevated inflation expectations lead to higher inflation this year despite higher interest rates**

comparison of baseline scenario with elevated inflation expectations scenario



### The wide general government deficits in recent years are an inflationary risk of the forecast, potentially affecting future inflation due to increased growth in the quantity of money in the economy

The contribution of general government debt to M3 growth was 3.4 pp last year (3.8 pp in December), while it was 0.2 pp on average in 2010–2019 (see Chart IV.15). The increase in the quantity of money in the economy due – among other things – to fiscal deficits may be reflected in economic agents' decision-making and inflation expectations and slow the return of inflation to the target. However, given the ongoing consolidation of public finance, this risk will decrease over time, as indicated by an expected reduction in the general government deficits this year and the next (see Chart IV.16).

M3 growth remained high. Its annual growth rate was 9.5% in December. The maintaining of high M3 growth was caused – among other things – by the financing of fiscal deficits, while growth in loans to the private sector weakened gradually due to restrictive monetary policy and a downturn in economic activity.

### The timing of the first interest rate cuts by the ECB and the Fed is also uncertain

According to the communications of ECB and Fed representatives in late January, the first rate cuts could come later than suggested by the available market outlooks included in the baseline scenario of the forecast. This would push the koruna exchange rate to weaker levels and reduce the need to lower domestic interest rates rapidly compared to the forecast.

### The extent of repricing at the start of the year is an uncertainty of the forecast; this year, it also reflects multiple changes made to indirect taxes and revisions of the weights in the consumer basket

Using the data available in January, the winter forecast assumes that the effect of the usual repricing of goods and services at the start of the year was similar in extent as before the energy crisis, i.e. in 2019–2021. Annual inflation is thus expected to decrease towards 3% in January. In addition, alongside the usual repricing, the weights of the consumer basket are revised by the CZSO and multiple changes are also made to indirect taxes in January. It was observed during January that the VAT rate cut was passed on to customers in the majority of cases for food. By contrast, prices of books, which are now exempt from VAT, are yet to come down.

### The speed of decline in the saving rate of households is another uncertainty

The saving rate of households has been well above its long-term pre-crisis average of around 12% in recent

Chart IV.15

**M3 growth is high due in part to a large contribution of general government financing**

annual rates of growth in %; contributions in pp

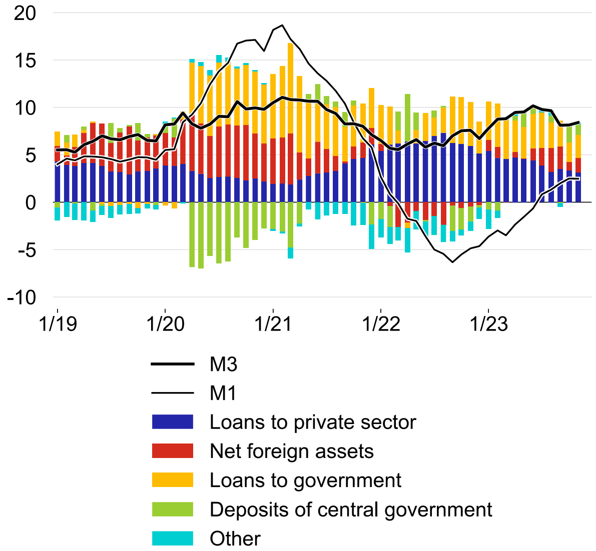
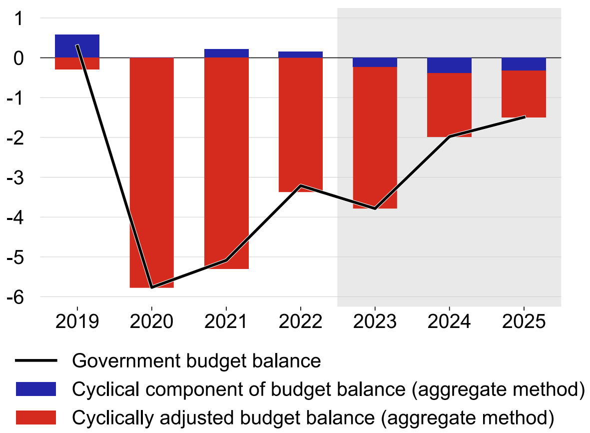



Chart IV.16

**General government will continue to run a deficit, but this deficit will shrink significantly over the forecast horizon**

% of nominal GDP



years. However, as a result of the abolition of the "super-gross wage" and other changes in the tax burden, the current steady-state value of the saving rate of households may now be between 13% and 14%. The current saving rate is still significantly elevated. This can be explained by the tight interest rate settings (which are stimulating savings) and worse sentiment caused by the energy crisis, with households setting aside sufficient financial reserves partly for precautionary reasons. However, this trend will eventually reverse and an expected improvement in consumer confidence will – in the baseline scenario of the forecast – lead the saving rate to decline from its current above-average level. The speed of return of the saving rate to its steady-state level remains uncertain.

**In the context of upside risks to inflation, the decline in rates may be slower than in the forecast**

Consistent with the baseline scenario of the winter forecast is a rapid decline in 3M PRIBOR market interest rates from their average level of 7% in 2023 Q4 to 5.4% in 2024 Q1. The risks of the forecast, however, are assessed as being broadly inflationary overall, i.e. acting towards a slower decline in interest rates compared to the baseline scenario. The appropriate central bank response is to take a cautious approach and lower interest rates more slowly than indicated in the forecast, especially in light of the risk of higher inflation expectations than assumed in the baseline scenario of the forecast.

**Headline inflation will fall to the upper boundary of the tolerance band around the 2% target in January, with volatile items of the consumer basket contributing significantly**

A prudent approach consisting in reducing interest rates more slowly is the appropriate response partly because headline inflation will decrease to close to the upper boundary of the tolerance band around the CNB's 2% target with a substantial contribution from those consumer basket items whose prices generally show increased volatility (especially food prices). Core inflation, which reflects the underlying inflation environment most strongly, will not reach 2% until the start of 2025.

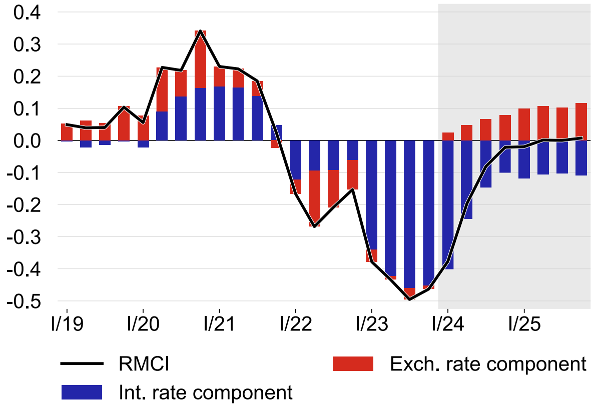
**The real monetary conditions indicate significantly restrictive monetary policy**

The deviations of ex ante real interest rates and the real exchange rate from their equilibrium levels enter the real monetary conditions index. Real interest rates were highly restrictive throughout 2023 (see Chart IV.17), reflecting a decline in expected/forecasted inflation amid stable nominal interest rates. The restrictiveness of this component of the monetary conditions is expected to ease gradually this year as a result of the

Chart IV.17

**Real monetary conditions index (RMCI)**

index; positive (negative) values correspond to easy (tight) monetary conditions



forecasted rapid decline in interest rates in the baseline scenario.

After having been restrictive for some time, the exchange rate component of the real monetary conditions is now expansionary this year. This is due to the forecasted only slight strengthening of the koruna, which lags behind the equilibrium rate of real appreciation. The eased exchange rate component of the monetary conditions helps the domestic economy – hit by low external and domestic demand (as well as fiscal restriction starting this year) – return to growth and, along with the declining domestic interest rates, counteracts an undershooting of the inflation target in the future.

### The central bank may lower interest rates more evenly than suggested in the baseline scenario

Consistent with the baseline scenario of the winter forecast is a rapid decline in rates. Given the slightly inflationary risks of the forecast, and in an effort to avoid excessive exchange rate volatility, the central bank may lower interest rates more gradually to begin with, i.e. more evenly over 2024 as a whole, by comparison with the baseline scenario.

To illustrate a more gradual easing of monetary conditions, we prepared a monetary policy simulation of a more even reduction in interest rates. In this simulation, the central bank lowers interest rates by 50 bp at each monetary policy meeting in 2024.

The simulation shows that an initially slower-than-forecasted decline in interest rates will lead to a slightly slower recovery of the domestic economy and an undershooting of the inflation target at the monetary policy horizon (see Chart IV.18).

## Scenario of a more even reduction in interest rates

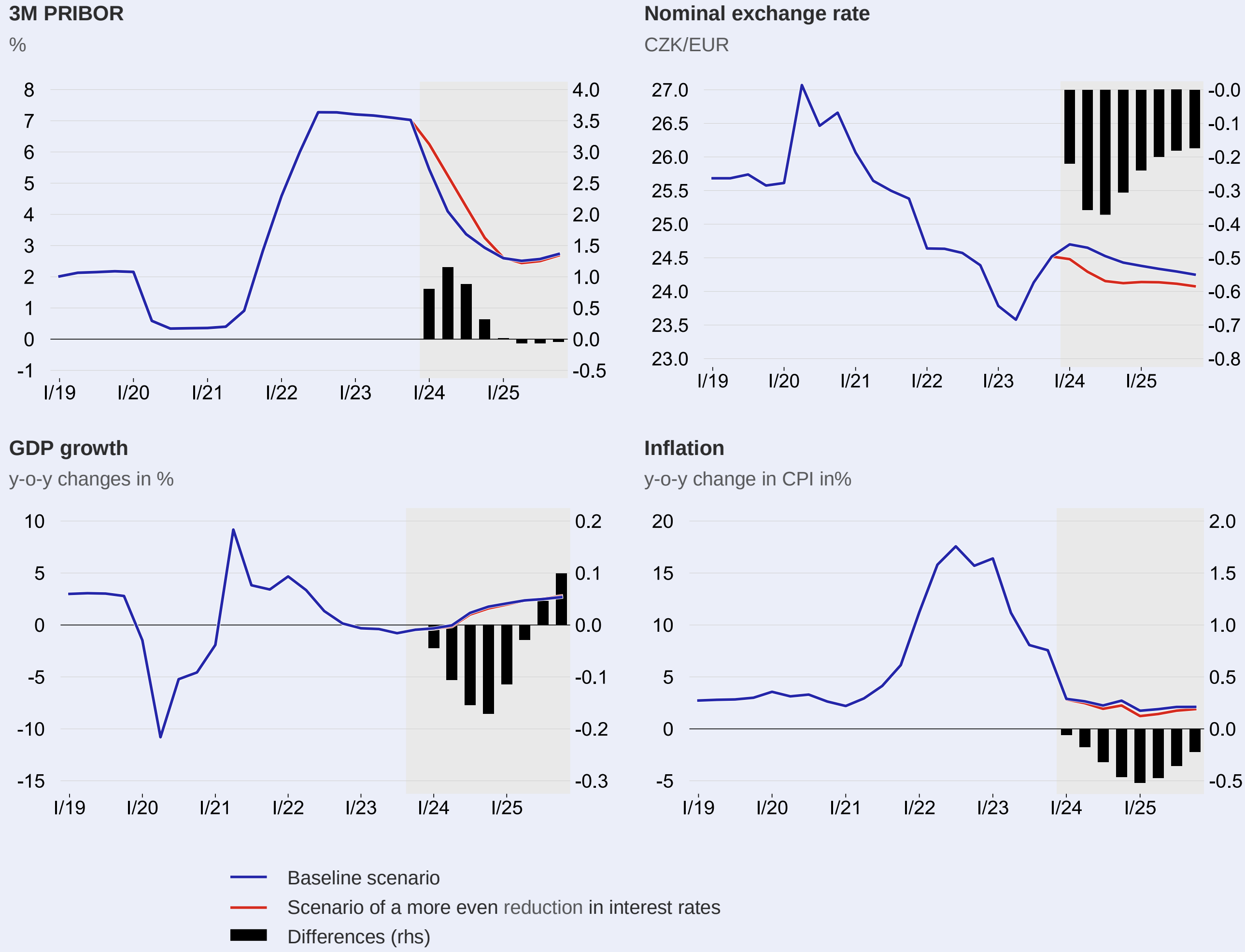
The following scenario considers a more even decline in 3M PRIBOR market interest rates during 2024 than that implied by the baseline scenario. The simulation assumes that the CNB's 2W repo rate is lowered by 0.5 pp at each of the Bank Board's monetary policy meetings this year. This means a decline in pace of about one percentage point a quarter. As in the baseline scenario, interest rates will converge to the monetary policy-neutral level of 3% at the end of 2024.

The scenario shows the effects of an initially slower decline in domestic interest rates than in the baseline scenario of the forecast. The koruna exchange rate, which is somewhat stronger than in the baseline scenario, responds to the wider interest rate differential vis-à-vis the euro area. As a result, both components of the monetary conditions are therefore tighter than in the forecast. Annual headline inflation is almost 0.5 pp lower in 2024 than in the baseline scenario amid slightly lower economic growth. Inflation thus falls to the lower boundary of the tolerance band around the target over the monetary policy horizon.

Chart IV.18

**A more even decline in rates leads to a stronger koruna and lower inflation at the monetary policy horizon**

comparison of baseline scenario with scenario of more even reduction in interest rates



# APPENDIX The updated g3+ core forecasting model and the shadow forecast

The Czech National Bank employs a whole range of analytical and forecasting tools to prepare its forecasts. Central to these is the core projection model, which lies at the heart of the entire forecasting system. The g3+ model took over this role from the previous version g3 in mid-2019 (starting with Inflation Report III/2019).[1] However, analytical tools require constant refinement to reflect recent economic developments and forecasting experience. Innovations and improvements have therefore been made to g3+, as described in this appendix.[2] The appendix also presents a shadow forecast, which is intended to outline the forecast prepared using the updated version of the model, not to capture a specific risk of the baseline scenario. We plan to start using the updated g3+ model as the CNB's new main forecasting tool in the spring Monetary Policy Report.

## The updated g3+ core forecasting model

The enhancements made to the core model primarily reflect the extreme economic events seen in recent years, such as temporary sharp swings on the supply side and dramatic growth in energy prices and their role in firms' production processes. We have revised certain linkages in the model to better capture the economic environment. Some of the previous expert judgement is now done via linkages built directly into the model. Other innovations include changes to the steady-state growth rates of certain macroeconomic variables. We also modify the way the external assumptions of the forecast are created. Among other things, we have started to monitor in detail the macroeconomic situation in Austria, another major European trading partner of the Czech Republic.

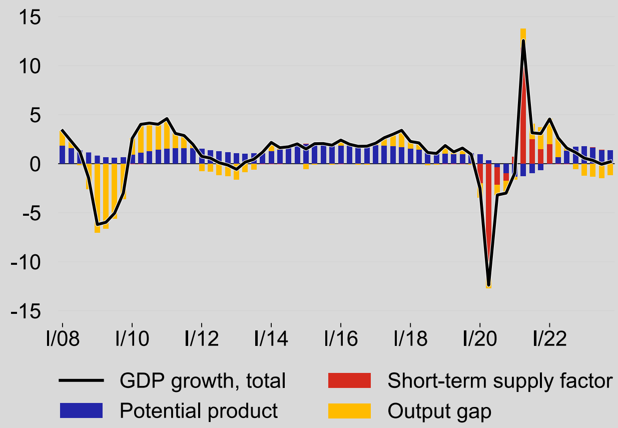
The Czech economy has been through a number of turbulent episodes over the last three years. To begin with, it faced the economic consequences of the Covid pandemic in 2020 and 2021. They were linked, among other things, with government measures that strongly affected the economic life of households and firms. The production capacity of the domestic and foreign economy was temporarily reduced, a factor that was difficult to capture in the g3+ structural model framework. Based on this experience, we have added short-term (sharp) supply swings to the decomposition of foreign economic activity into the output gap and potential output. This extension of the structure of potential output enables us to set more flexibly the long-term evolution of supply from the foreign economy using expert judgement (see Chart 1A). In addition, we now assess the position of the foreign economy in the business cycle directly within the core model, whereas the previous approach used methods outside it. This makes for a consistent estimate and provides a more complete structural narrative for the output gap in the foreign economy, as the estimate now incorporates, for example, inflation and the monetary policy stance abroad.

Chart 1

**New features of the updated g3+ model – foreign variables**

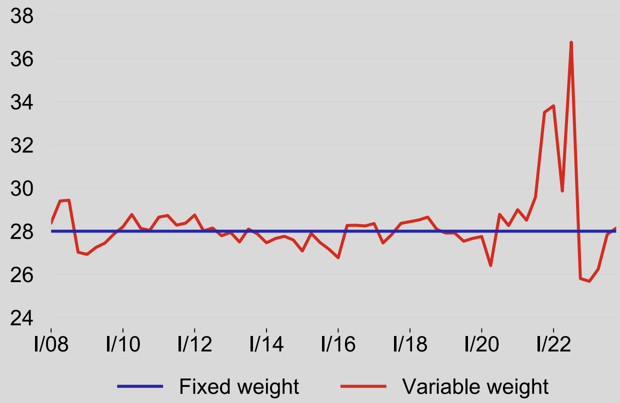
**1A Decomposition of effective EA6 GDP growth**

y-o-y in %; contributions in pp




**1B Weight on growth in the energy component of foreign PPI prices**

%




Prices of energy commodities then surged in 2022. Producer and consumer price inflation began to soar. Foreign industrial producer prices (and hence prices of imports into the Czech Republic) were already broken down into an energy component and a core component in the g3+ model. Until the energy crisis broke out, however, our focus in terms of energy commodities was primarily on the price of oil, because the Czech and global economies had in the past faced a number of sharp oil price swings that had strongly affected producer prices of consumer goods, so it was more than desirable to capture their impacts precisely. We adjusted the energy component at the data level following the surge in prices of energy commodities (electricity and natural gas) in 2022. In the updated model, we nonetheless make a systematic change by also modifying the model structure itself. We expand the original definition of the energy component of foreign industrial producer prices to include other commodities, in particular electricity and gas.[3] We thus capture price movements on the energy market, which strongly affect companies' costs. Moreover, we introduce a variable weight on the components of foreign PPI inflation into the model structure. This allows us to account for the temporary difference in the weight on energy price growth in the event of significant fluctuations in that growth relative to the core component (see Chart 1B).

In the domestic economy, we now consider the possibility of limited substitution between production factors (domestic intermediate goods, energy imports and other imports) for the production of goods for household consumption and exports.[4] This is particularly important in extreme situations such as the recent growth in energy prices, when other production inputs were substituted for expensive energy commodities, albeit to only a small extent. At the same time, we increase the imported energy intensity of domestic production.[5]

The changes to the core model also involve revisions to the validity of some relationships. Since 2008, the core model has used the concept of external demand,[6] a key factor for forecasting domestic exports. We have assumed up to now that the rate of growth in external demand for domestic exports in the long run can be expressed as roughly four times the rate of economic growth in the effective euro area. However, estimates of the relationship between demand for Czech exports and foreign economic activity over recent years indicate a steady decline in this elasticity. We therefore reduce the steady-state value of the multiple of external demand to three in the updated model. In addition, we make the coefficient time-variable. This allows it to diverge from its steady-state level (see Chart 2A) and fit the historical data more accurately. We also revise the effect of external demand on domestic investment activity in the short run. Besides the potential output of the foreign economy, which has long influenced investment demand in the Czech economy, we now incorporate the short-term effect of the effective euro area business cycle.

Along with making structural refinements to the model, we alter the steady-state growth rates of some macroeconomic variables too.[7] In the foreign block, the long-run steady-state level of energy-sector industrial producer price inflation is set to 2%. The steady-state year-on-year rate of growth in domestic imports and exports of goods and services is changed from 6.5% to 4.8%, in line with the revision of the trend in external demand for Czech exports as a multiple of effective euro area growth. This fits the observed data available for the pre-2020 – i.e. pre-pandemic – period.

Chart 2

**New features and forecasting performance of the updated g3+ model – domestic variables**

**2A Czech goods and services exports and external demand**

y-o-y in %


**2B Forecasting performance of the model for selected domestic variables**

improvement in forecasting performance in % relative to current model

| | 2001–2019 | 2001–2023 H1 |
|---|---|---|
| **CPI inflation** | 3.2 | 4.2 |
| **CZK/EUR rate** | 0.4 | 5.0 |
| **3M PRIBOR** | 14.7 | 20.8 |
| **Imports** | 17.3 | 8.7 |
| **Exports** | 24.0 | 25.9 |

Note: The figures in the table show the percentage difference in the root mean square errors (RMSE) of historical simulations between the current and updated model with full knowledge of the assumptions and with no expert judgement. The method for conducting such in-sample model simulations is described, for example, in Brázdik et al. (2022).

Besides making changes to the structure of the core g3+ model, we also modify the way the data input for the effective euro area economic outlook is used.[8] Up to now, we have prepared outlooks for consumer and producer prices and economic activity for five countries: Germany, Slovakia, France, Italy and Spain (the EA5). These countries (with specific weights)[9] then enter the aggregate effective euro area indicator. The remaining euro area countries are assumed to grow at the same pace on average as the EA5. Data for all the euro area countries in effective terms (the EA17) are used to describe the historical evolution.[10] There is therefore a methodological difference between the outlooks (EA5) and the historical evolution (EA17). However, our experience, underscored by events during the pandemic, indicates a need to change this practice, as the GDP growth rates of the EA5 and the EA17 can diverge considerably at times. We add Austria to the portfolio of countries we monitor closely and hence introduce an EA6 aggregate. We additionally unify the way we treat the data for forecasting and historical purposes, as we also use the effective EA6 indicator to describe the historical economic evolution of the Czech Republic's major trading partners. This is because foreign industrial producer prices[11] and GDP turn out to follow very similar paths in effective terms in the EA6 and the EA17 (see Chart 3). By focusing on a narrower set of countries, we can also analyse developments in the economic area of greatest relevance to the Czech Republic in more detail.

In summary, the refinements made to the g3+ core forecasting model represent another step forward in forecasting practice at the CNB. The new and modified linkages in the foreign and domestic blocks help the model provide a truer description of the economic environment and enable it to capture the extraordinary economic phenomena of recent years in a structural – i.e. internally consistent, economically sound, objective and replicable – way. The richer model structure allows for more detailed analysis of economic developments. It meanwhile offers a consistent estimate of the position of the foreign economy in the business cycle and a truer representation of the role of energy prices in the production process. The changes to the model's steady-state parameters fit the past long-run economic trends and also the expected future evolution of the Czech economy. The updated model delivers better forecasting performance. Table 2B shows that the forecasting performance of the model is substantially better not only for the period before the pandemic and the energy crisis, but also for the turbulent times of 2020–2023.

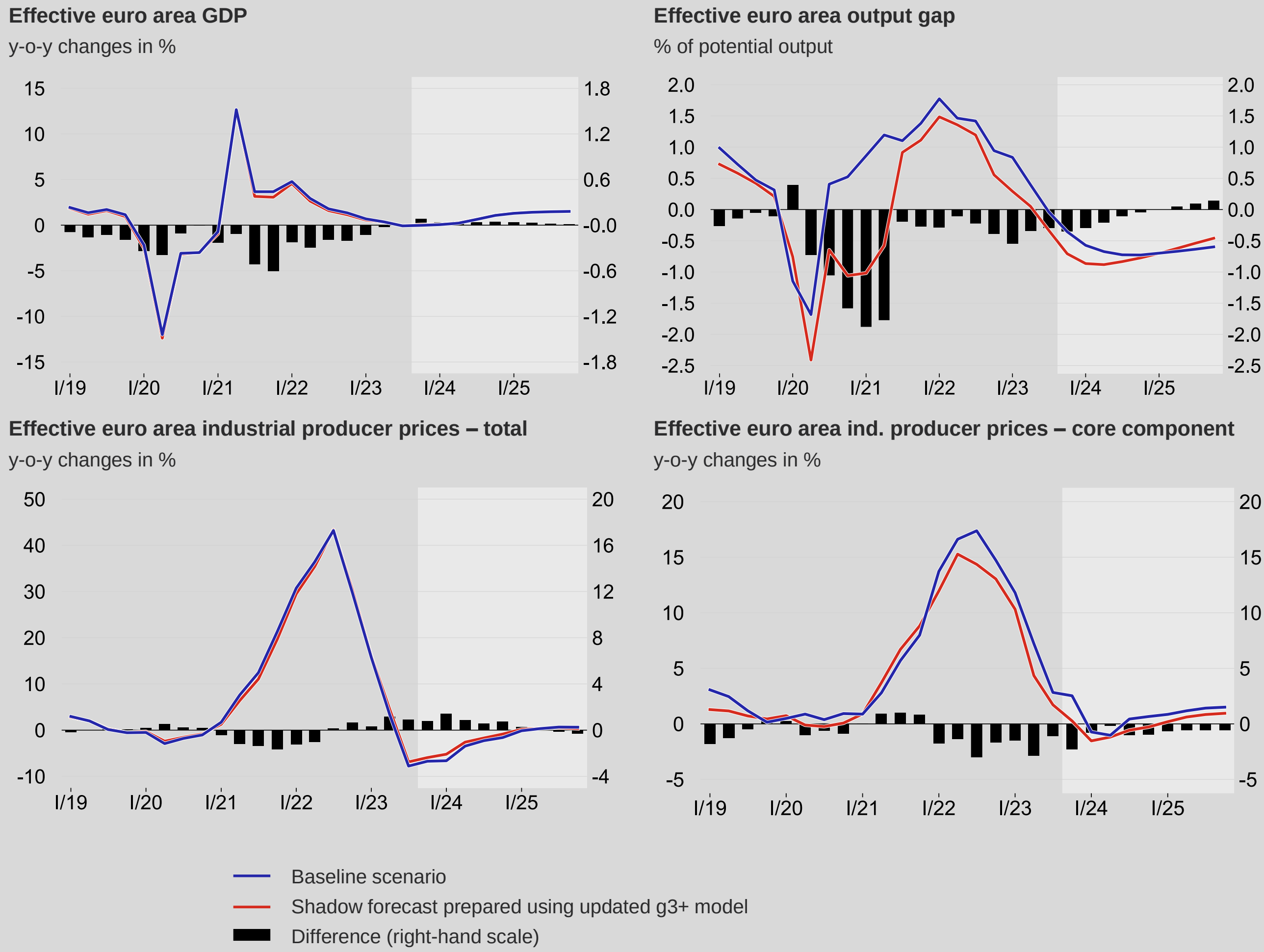
## Shadow forecast

A shadow forecast was produced to demonstrate the effects of the changes made to the model and data. It is based on assumptions made about economic developments in the Czech Republic's six largest trading partners in the euro area – the EA6 (see Chart 3). The changes made to the foreign outlook relative to that in the baseline scenario pertain to GDP growth, the identification of the position of the economy in the business cycle, industrial producer prices and their breakdown, and HICP inflation. The other foreign assumptions remain unchanged.

Chart 3

### Foreign assumptions of the shadow forecast

comparison of assumptions of baseline scenario with shadow forecast prepared using updated g3+ model



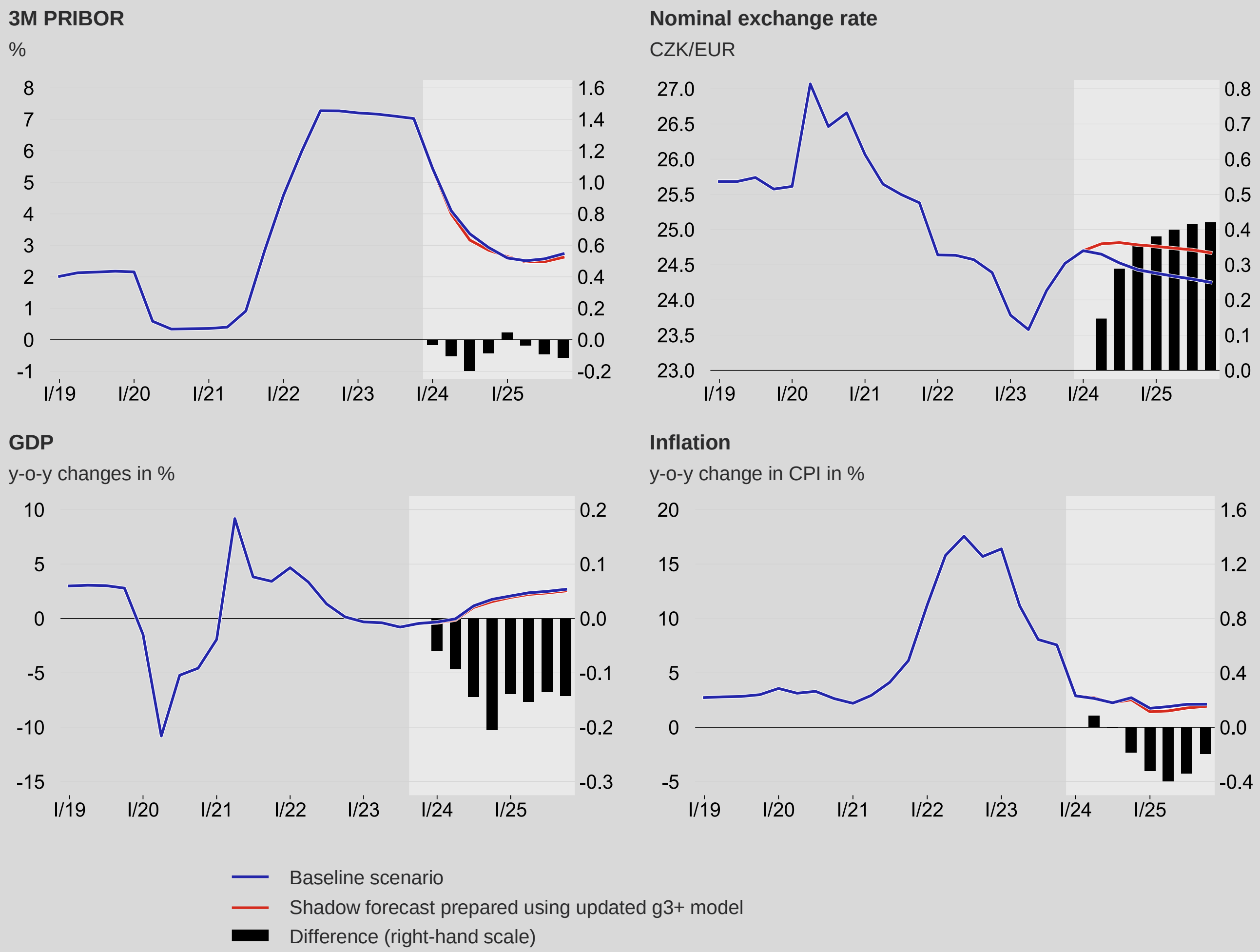
The biggest differences are visible in the components of foreign producer prices, but their path as a whole is similar to that in the baseline scenario of the forecast. Core industrial producer price inflation is lower, while growth in energy producer prices is less negative than in the baseline scenario. This reflects the different compositions of the core and energy components of the PPI. Foreign GDP growth shows only slight differences compared to the baseline scenario, mostly in the past. This is linked with the switch to a narrower effective euro area aggregate, which involved an increase in the weights of countries that grew at slower rates (primarily Italy and Germany). Given the similar potential output growth estimates for the two aggregates, the lower GDP growth is reflected in a more negative output gap.

The shadow forecast drawn up using the updated g3+ model provides a similar view of the present state and future path of the domestic economy as the baseline scenario of the winter forecast but contains a few minor deviations (see Chart 4). Czech GDP growth is predicted to be rather lower in the shadow forecast. This is due to weaker domestic investment and export activity, reflecting a wider negative output gap in the effective euro area this year and the modified structural relationships in the updated model. For example, domestic investment activity now also takes the cyclical position of the foreign economy into account. This leads to lower investment growth than in the baseline scenario. The weaker domestic demand puts downward pressure on growth in consumer prices, so domestic inflation is a little lower in the shadow forecast than in the baseline scenario. Despite the rather weaker inflationary pressure, the decline in interest rates is similar as in the baseline scenario. The central bank thus returns inflation to the 2% target at the monetary policy horizon. The lower export activity caused by the more negative foreign output gap leads to a slight depreciation of the koruna this year, as opposed to a modest appreciation in the baseline scenario. Next year, the exchange rate strengthens at a similar pace and for the same reason as in the baseline scenario, i.e. mainly due to an improving trade balance of the Czech Republic.

Chart 4

**Shadow forecast of the main domestic variables**

comparison of baseline scenario with shadow forecast prepared using updated g3+ model



1 The g3+ core forecasting model is described in detail in Andrle et al. (2009) and Brázdik et al. (2020), as well as in the Appendix to Inflation Report III/2019 *Introducing the g3+ extended projection model* and the cnBlog articles *The CNB's projection model gets a new plus* and *Model g3+ boduje* (*The g3+ model scores*; in Czech only).

2 In this appendix, we focus on the motivation for changing the model and on selected aspects of the change. Some minor – mostly technical – adjustments were made in addition to the modifications presented here. A more detailed account of the changes will be published in a forthcoming research paper.

3 We use the Eurostat Main Industrial Groupings (MIG) classification.

4 Up to now, the model has assumed that production factors are not substitutable and are used in fixed ratios.

5 Here we use the OECD's input-output tables.

6 See Inflation Report II/2008.

7 As well as changing selected steady-state growth parameters, we revised some parameters in the foreign block of the model. We backed these revisions by partially estimating the model on pre-pandemic data (covering 2000–2019).

8 We have been using effective euro area indicators since 2006 (see Inflation Report III/2006). However, their definitions have changed over time.

9 The weights of the individual countries in the calculation equal their shares in Czech exports.

10 The EA17 aggregate lacks Luxembourg and Malta (due to limited data availability) and Croatia, which did not join the euro area until 2023 and is of negligible importance as far as the geographical structure of Czech exports is concerned.

11 The differences are most visible at the level of the components of foreign industrial producer prices but are negligible in aggregate terms.

# Abbreviations

| | |
|---|---|
| AEIS | Average Earnings Information System |
| BoE | Bank of England |
| BoJ | Bank of Japan |
| CF | Consensus Forecasts |
| CNB | Czech National Bank |
| 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 | US Energy Information Administration |
| EIA | Environmental Impact Assessment |
| EIU | Economist Intelligence Unit |
| ESA | European System of Accounts |
| ESCB | European System of Central Banks |
| ESI | Economic Sentiment Indicator |
| ESR | electronic sales registration |
| EU | European Union |
| EUR | euro |
| EURIBOR | Euro Interbank Offered Rate |
| FDI | foreign direct investment |
| FECF | Foreign Exchange Consensus Forecasts |
| 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 |
| GVCs | global value chains |
| 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 |
| MFI | monetary financial institutions |
| MLSA | Ministry of Labour and Social Affairs |
| m-o-m | month-on-month |
| MPR | Monetary Policy Report |
| 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 |
| q-o-q | quarter-on-quarter |
| repo rate | repurchase agreement rate |
| rhs | right-hand scale |
| USD | US dollar |
| VAT | value added tax |
| WTI | West Texas Intermediate |
| y-o-y | year-on-year |

# Key macroeconomic indicators

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **DEMAND AND SUPPLY** | | | | | | | | | | | | |
| ***Gross domestic product*** | | | | | | | | | | | | |
| GDP (CZK bn, constant p. of 2015, seas. adjusted) | 4387.8 | 4627.4 | 4740.8 | 4994.2 | 5154.3 | 5307.2 | 5014.3 | 5189.6 | 5311.6 | **5285.6** | **5319.4** | **5447.2** |
| GDP (CZK bn, current p., seas. adjusted ) | 4344.6 | 4627.4 | 4794.9 | 5116.9 | 5416.4 | 5793.9 | 5710.8 | 6107.0 | 6785.2 | **7344.4** | **7588.7** | **7919.0** |
| GDP (%, y-o-y, real terms, seas. adjusted) | 2.3 | 5.5 | 2.5 | 5.3 | 3.2 | 3.0 | -5.5 | 3.5 | 2.4 | **-0.5** | **0.6** | **2.4** |
| GDP (%, q-o-q, real terms, seas. adjusted ) | - | - | - | - | - | - | - | - | - | - | - | - |
| Household consumption (%, y-o-y, real terms, seas. adjusted) | 1.4 | 3.9 | 3.7 | 4.0 | 3.3 | 2.6 | -7.4 | 4.1 | -0.8 | **-3.2** | **1.4** | **3.1** |
| Government consumption (%, y-o-y, real terms, seas. adjusted) | 1.0 | 1.8 | 2.5 | 1.8 | 3.9 | 2.5 | 4.2 | 1.4 | 0.3 | **3.6** | **1.6** | **1.1** |
| Gross capital formation (%, y-o-y, real terms, seas. adjusted) | 7.1 | 13.1 | -4.0 | 6.6 | 7.7 | 4.4 | -9.2 | 19.0 | 5.6 | **-4.8** | **-4.0** | **1.7** |
| Gross fixed capital formation (%, y-o-y, real terms, seas. adjusted) | 3.3 | 9.8 | -3.1 | 5.1 | 10.0 | 5.8 | -6.0 | 0.7 | 3.1 | **2.8** | **3.4** | **3.2** |
| Exports of goods and services (%, y-o-y, real terms, seas. adjusted) | 8.7 | 6.2 | 4.1 | 7.6 | 3.7 | 1.4 | -8.1 | 6.8 | 7.2 | **2.4** | **1.4** | **4.4** |
| Imports of goods and services (%, y-o-y, real terms, seas. adjusted) | 10.0 | 7.0 | 2.7 | 6.5 | 5.8 | 1.4 | -8.2 | 13.2 | 6.3 | **0.1** | **0.4** | **4.3** |
| Net exports (CZK bn, constant p. of 2015, seas. adjusted) | 283.4 | 276.2 | 337.7 | 400.0 | 336.5 | 337.6 | 315.3 | 97.2 | 144.2 | **252.0** | **302.5** | **318.2** |
| **PRICES** | | | | | | | | | | | | |
| ***Main price indicators*** | | | | | | | | | | | | |
| Consumer Price Index (%, y-o-y, average) | 0.4 | 0.3 | 0.7 | 2.5 | 2.1 | 2.8 | 3.2 | 3.8 | 15.1 | 10.7 | **2.6** | **2.0** |
| Administered prices (14.21%)* (%, y-o-y, average) | -3.0 | 0.0 | 0.2 | 0.0 | 1.8 | 4.4 | 3.1 | -0.2 | 20.9 | 27.8 | **9.2** | **2.3** |
| Food prices (incl. alcoholic beverages and tobacco) (26.50%)* (%, y-o-y, average) | 1.8 | 0.1 | 0.2 | 3.6 | 1.6 | 2.6 | 4.2 | 2.1 | 12.9 | 10.0 | **-1.9** | **0.6** |
| Core inflation (56.14%)* (%, y-o-y, average) | 0.5 | 1.2 | 1.2 | 2.4 | 2.1 | 2.7 | 3.4 | 4.8 | 13.2 | 7.6 | **2.9** | **2.2** |
| Fuel prices (3.15%)* (%, y-o-y, average) | 0.2 | -13.5 | -8.5 | 6.7 | 6.3 | -0.4 | -11.4 | 16.7 | 33.6 | -12.1 | **-3.3** | **-0.5** |
| Monetary policy-relevant inflation (%, y-o-y, average) | 0.2 | 0.2 | 0.5 | 2.5 | 2.1 | 2.9 | 3.2 | 3.9 | 14.6 | 10.6 | **2.5** | **1.7** |
| ***Partial price indicators*** | | | | | | | | | | | | |
| Industrial producer prices (%, y-o-y, average) | -0.8 | -3.2 | -3.3 | 1.8 | 2.0 | 2.6 | 0.1 | 7.1 | 24.3 | 5.0 | **1.0** | **1.1** |
| Agricultural prices (%, y-o-y, average) | -3.7 | -5.9 | -5.8 | 7.4 | -0.1 | 5.4 | -3.8 | 7.4 | 31.8 | -5.5 | **-10.8** | **-2.2** |
| **LABOUR MARKET** | | | | | | | | | | | | |
| Average monthly wage (%, y-o-y, nominal terms) | 2.9 | 3.2 | 4.4 | 6.7 | 8.2 | 7.9 | 4.6 | 5.8 | 5.3 | **7.4** | **5.8** | **5.8** |
| Average monthly wage in market sectors (%, y-o-y, nominal terms) | 3.0 | 3.2 | 4.3 | 6.7 | 7.7 | 7.6 | 4.1 | 6.1 | 5.9 | **7.8** | **6.1** | **6.2** |
| Average monthly wage (%, y-o-y, real terms) | 2.6 | 2.8 | 3.7 | 4.1 | 5.9 | 4.9 | 1.4 | 2.0 | -8.4 | **-2.9** | **3.0** | **3.8** |
| Unit labour costs (%, y-o-y) | 1.6 | -0.4 | 3.1 | 3.9 | 6.2 | 4.7 | 5.9 | 2.2 | 6.8 | **8.5** | **4.7** | **3.6** |
| Aggregate labour productivity (%, y-o-y) | 1.7 | 3.9 | 0.9 | 3.6 | 1.9 | 2.8 | -3.8 | 3.1 | 0.9 | **-1.4** | **0.8** | **2.2** |
| ILO general unemployment rate (%, average, age 15–64, seas. adjusted) | 6.2 | 5.1 | 4.0 | 2.9 | 2.2 | 2.0 | 2.6 | 2.8 | 2.2 | **2.6** | **3.0** | **3.1** |
| Share of unemployed persons (MLSA) (%, average, seas. adjusted) | 7.7 | 6.5 | 5.5 | 4.2 | 3.2 | 2.8 | 3.6 | 3.8 | 3.4 | **3.6** | **4.0** | **4.4** |
| Employment (ILO) (%, y-o-y) | 0.7 | 1.3 | 1.8 | 1.5 | -1.4 | 0.1 | -1.4 | 0.3 | -1.6 | **1.5** | **0.0** | **0.2** |
| Full-time employment (%, y-o-y) | 1.1 | 2.1 | 1.8 | 2.2 | 1.5 | -0.3 | -1.7 | 0.2 | 0.5 | **0.5** | **0.1** | **0.3** |
| **PUBLIC FINANCE** | | | | | | | | | | | | |
| Government budget balance (ESA2010) (CZK bn, current prices) | -90.2 | -29.8 | 34.1 | 76.7 | 48.3 | 16.7 | -329.2 | -310.6 | -217.9 | **-277.6** | **-150.0** | **-118.1** |
| Government budget balance/GDP** (%, nominal terms) | -2.1 | -0.6 | 0.7 | 1.5 | 0.9 | 0.3 | -5.8 | -5.1 | -3.2 | **-3.8** | **-2.0** | **-1.5** |
| Government debt (ESA2010) (CZK bn, current prices) | 1818.9 | 1836.0 | 1754.7 | 1749.7 | 1734.6 | 1740.3 | 2149.8 | 2566.7 | 2997.6 | **3243.4** | **3409.5** | **3539.0** |
| Government debt/GDP** (%, nominal terms) | 41.9 | 39.7 | 36.6 | 34.2 | 32.1 | 30.0 | 37.7 | 42.0 | 44.2 | **44.2** | **45.0** | **44.7** |
| **EXTERNAL RELATIONS** | | | | | | | | | | | | |
| ***Current account*** | | | | | | | | | | | | |
| Trade balance (CZK bn, current prices) | 220.0 | 187.7 | 258.5 | 259.3 | 200.9 | 239.8 | 280.3 | 69.0 | -99.3 | **265.5** | **352.2** | **391.3** |
| Trade balance/GDP (%, nominal terms) | 5.1 | 4.1 | 5.4 | 5.1 | 3.7 | 4.1 | 4.9 | 1.1 | -1.5 | **3.6** | **4.6** | **4.9** |
| Balance of services (CZK bn, current prices) | 55.7 | 86.6 | 106.6 | 124.6 | 120.0 | 106.0 | 103.5 | 105.0 | 89.9 | **92.4** | **96.9** | **90.1** |
| Current account (CZK bn, current prices) | 7.9 | 20.7 | 85.2 | 79.1 | 24.1 | 19.2 | 113.7 | -168.0 | -415.3 | **68.1** | **42.2** | **82.5** |
| Current account/GDP (%, nominal terms) | 0.2 | 0.4 | 1.8 | 1.5 | 0.4 | 0.3 | 2.0 | -2.8 | -6.1 | **0.9** | **0.6** | **1.0** |
| ***Foreign direct investment*** | | | | | | | | | | | | |
| Direct investment (CZK bn, current prices) | -80.4 | 49.7 | -186.5 | -45.9 | -51.0 | -137.1 | -149.1 | -28.5 | -172.4 | **-25.0** | **-80.0** | **-90.0** |
| ***Exchange rates*** | | | | | | | | | | | | |
| CZK/USD (average) | 20.8 | 24.6 | 24.4 | 23.4 | 21.7 | 22.9 | 23.2 | 21.7 | 23.4 | 22.2 | **22.5** | **21.6** |
| CZK/EUR (average) | 27.5 | 27.3 | 27.0 | 26.3 | 25.6 | 25.7 | 26.5 | 25.6 | 24.6 | 24.0 | **24.6** | **24.3** |
| **MONEY AND INTEREST RATES** | | | | | | | | | | | | |
| M3 (%, y-o-y, average) | 5.1 | 7.3 | 9.1 | 11.7 | 6.6 | 6.3 | 9.0 | 9.6 | 6.4 | 9.0 | **8.7** | **9.2** |
| 2W repo rate (%, average) | 0.1 | 0.1 | 0.1 | 0.2 | 1.1 | 1.9 | 0.8 | 0.9 | 5.9 | 7.0 | **4.1** | **2.6** |
| 3M PRIBOR (%, average) | 0.4 | 0.3 | 0.3 | 0.4 | 1.3 | 2.1 | 0.9 | 1.1 | 6.3 | 7.1 | **4.0** | **2.6** |
| **EXTERNAL ASSUMPTIONS** | | | | | | | | | | | | |
| Foreign GDP (%, y-o-y, seas. adjusted, effective EA) | 1.9 | 2.0 | 2.0 | 2.8 | 1.8 | 1.5 | -5.1 | 4.6 | 2.7 | **0.2** | **0.5** | **1.4** |
| Foreign GDP (%, q-o-q, seas. adjusted, effective EA) | - | - | - | - | - | - | - | - | - | - | - | - |
| Foreign HICP (%, y-o-y, seas. adjusted, effective EA) | 0.6 | 0.4 | 0.3 | 1.6 | 2.0 | 1.5 | 0.6 | 2.9 | 9.2 | **6.4** | **1.8** | **1.8** |
| Foreign PPI (%, y-o-y, seas. adjusted, effective EA) | -1.6 | -2.5 | -2.3 | 2.7 | 3.3 | 1.1 | -1.6 | 10.8 | 35.0 | **0.5** | **-3.5** | **0.4** |
| Brent crude oil (in USD/barrel) (average) | 99.5 | 53.6 | 45.0 | 54.8 | 71.5 | 64.2 | 43.2 | 70.8 | 98.9 | 82.2 | **76.1** | **73.1** |
| 3M EURIBOR (%, average) | 0.2 | 0.0 | -0.3 | -0.3 | -0.3 | -0.4 | -0.4 | -0.5 | 0.3 | 3.4 | **3.1** | **2.4** |
| USD/EUR (average) | 1.33 | 1.11 | 1.11 | 1.13 | 1.18 | 1.12 | 1.14 | 1.18 | 1.05 | 1.08 | **1.09** | **1.12** |

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

| | 2023 | | | | 2024 | | | | 2025 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | QI | QII | QIII | QIV | QI | QII | QIII | QIV | QI | QII | QIII | QIV |
| **DEMAND AND SUPPLY** | | | | | | | | | | | | |
| ***Gross domestic product*** | | | | | | | | | | | | |
| GDP (CZK bn, constant p. of 2015, seas. adjusted) | 1324.9 | 1325.9 | 1317.5 | **1317.3** | **1320.5** | **1325.5** | **1332.8** | **1340.5** | **1348.0** | **1356.8** | **1366.0** | **1376.4** |
| GDP (CZK bn, current p., seas. adjusted ) | 1816.5 | 1837.4 | 1841.9 | **1848.6** | **1862.4** | **1886.1** | **1910.4** | **1929.8** | **1948.1** | **1968.1** | **1988.2** | **2014.6** |
| GDP (%, y-o-y, real terms, seas. adjusted) | -0.3 | -0.4 | -0.8 | **-0.5** | **-0.3** | **0.0** | **1.2** | **1.8** | **2.1** | **2.4** | **2.5** | **2.7** |
| GDP (%, q-o-q, real terms, seas. adjusted ) | 0.1 | 0.1 | -0.6 | **0.0** | **0.2** | **0.4** | **0.6** | **0.6** | **0.6** | **0.7** | **0.7** | **0.8** |
| Household consumption (%, y-o-y, real terms, seas. adjusted) | -5.4 | -4.0 | -2.4 | **-0.8** | **0.8** | **0.7** | **1.7** | **2.3** | **2.8** | **3.1** | **3.2** | **3.2** |
| Government consumption (%, y-o-y, real terms, seas. adjusted) | 3.1 | 3.8 | 3.9 | **3.4** | **2.4** | **1.9** | **0.9** | **1.3** | **1.3** | **1.2** | **1.1** | **1.0** |
| Gross capital formation (%, y-o-y, real terms, seas. adjusted) | -3.4 | -4.7 | -4.5 | **-6.8** | **-5.9** | **-5.4** | **-3.2** | **-1.2** | **0.3** | **1.6** | **2.1** | **2.8** |
| Gross fixed capital formation (%, y-o-y, real terms, seas. adjusted) | -0.9 | 3.8 | 3.9 | **4.3** | **5.9** | **1.8** | **3.3** | **2.9** | **3.4** | **3.3** | **3.1** | **2.9** |
| Exports of goods and services (%, y-o-y, real terms, seas. adjusted) | 6.4 | 5.0 | -0.6 | **-0.8** | **-0.3** | **0.3** | **2.5** | **3.2** | **3.7** | **4.3** | **4.6** | **4.9** |
| Imports of goods and services (%, y-o-y, real terms, seas. adjusted) | 3.0 | 2.1 | -1.8 | **-2.7** | **-1.1** | **-0.8** | **1.2** | **2.3** | **3.4** | **4.2** | **4.7** | **5.0** |
| Net exports (CZK bn, constant p. of 2015, seas. adjusted) | 62.5 | 62.3 | 60.5 | **66.8** | **71.6** | **75.1** | **76.8** | **79.0** | **78.2** | **78.6** | **79.3** | **82.1** |
| **PRICES** | | | | | | | | | | | | |
| ***Main price indicators*** | | | | | | | | | | | | |
| Consumer Price Index (%, y-o-y, average) | 16.4 | 11.2 | 8.1 | 7.6 | **2.9** | **2.6** | **2.3** | **2.7** | **1.7** | **1.9** | **2.1** | **2.1** |
| Administered prices (14.21%)* (%, y-o-y, average) | 32.8 | 25.2 | 19.9 | 33.2 | **8.8** | **8.8** | **8.9** | **10.4** | **2.9** | **2.2** | **2.2** | **2.2** |
| Food prices (incl. alcoholic beverages and tobacco) (26.50%)* (%, y-o-y, average) | 18.2 | 11.8 | 7.3 | 2.6 | **-1.7** | **-2.2** | **-2.3** | **-1.2** | **-0.1** | **0.8** | **0.7** | **0.8** |
| Core inflation (56.14%)* (%, y-o-y, average) | 11.9 | 8.7 | 5.9 | 3.9 | **3.5** | **3.0** | **2.6** | **2.5** | **2.0** | **2.1** | **2.4** | **2.4** |
| Fuel prices (3.15%)* (%, y-o-y, average) | -3.7 | -21.5 | -15.5 | -7.6 | **-3.1** | **1.4** | **-5.4** | **-6.0** | **-0.9** | **-1.8** | **0.2** | **0.4** |
| Monetary policy-relevant inflation (%, y-o-y, average) | 16.4 | 11.1 | 7.9 | 7.5 | **2.8** | **2.5** | **2.2** | **2.7** | **1.5** | **1.7** | **1.9** | **1.9** |
| ***Partial price indicators*** | | | | | | | | | | | | |
| Industrial producer prices (%, y-o-y, average) | 15.0 | 3.9 | 1.3 | 0.8 | **-0.7** | **1.5** | **1.5** | **1.7** | **0.5** | **1.0** | **1.4** | **1.6** |
| Agricultural prices (%, y-o-y, average) | 19.6 | -8.2 | -14.7 | -15.0 | **-19.4** | **-12.1** | **-4.7** | **-5.1** | **-2.8** | **-2.2** | **-2.1** | **-1.8** |
| **LABOUR MARKET** | | | | | | | | | | | | |
| Average monthly wage (%, y-o-y, nominal terms) | 8.7 | 8.0 | 7.1 | **6.2** | **5.3** | **5.4** | **5.9** | **6.5** | **6.3** | **6.0** | **5.7** | **5.4** |
| Average monthly wage in market sectors (%, y-o-y, nominal terms) | 8.9 | 8.5 | 7.5 | **6.6** | **5.7** | **5.7** | **6.2** | **6.9** | **6.7** | **6.4** | **6.1** | **5.8** |
| Average monthly wage (%, y-o-y, real terms) | -6.6 | -2.9 | -0.9 | **-1.3** | **2.3** | **2.7** | **3.6** | **3.7** | **4.5** | **4.0** | **3.5** | **3.2** |
| Unit labour costs (%, y-o-y) | 10.2 | 9.4 | 8.5 | **6.2** | **4.6** | **4.8** | **4.7** | **4.8** | **4.4** | **3.8** | **3.4** | **2.9** |
| Aggregate labour productivity (%, y-o-y) | -1.3 | -1.8 | -1.5 | **-0.9** | **-0.6** | **0.7** | **1.2** | **1.7** | **2.0** | **2.3** | **2.3** | **2.4** |
| ILO general unemployment rate (%, average, age 15–64, seas. adjusted) | 2.6 | 2.6 | 2.6 | **2.7** | **2.9** | **3.0** | **3.0** | **3.1** | **3.1** | **3.1** | **3.1** | **3.1** |
| Share of unemployed persons (MLSA) (%, average, seas. adjusted) | 3.6 | 3.6 | 3.6 | **3.6** | **3.7** | **4.0** | **4.1** | **4.2** | **4.3** | **4.4** | **4.4** | **4.4** |
| Employment (ILO) (%, y-o-y) | 1.2 | 1.8 | 1.5 | **1.5** | **0.5** | **-0.5** | **0.0** | **0.1** | **0.1** | **0.1** | **0.2** | **0.2** |
| Full-time employment (%, y-o-y) | 0.9 | 0.5 | 0.4 | **0.3** | **0.1** | **0.1** | **0.1** | **0.2** | **0.2** | **0.3** | **0.3** | **0.3** |
| **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) | 80.1 | 79.4 | 38.3 | **67.8** | **113.4** | **100.2** | **65.3** | **73.3** | **125.9** | **110.4** | **74.8** | **80.2** |
| Trade balance/GDP (%, nominal terms) | 4.7 | 4.3 | 2.1 | **3.6** | **6.4** | **5.3** | **3.4** | **3.7** | **6.8** | **5.6** | **3.7** | **3.9** |
| Balance of services (CZK bn, current prices) | 19.7 | 22.2 | 23.7 | **26.8** | **28.0** | **30.4** | **23.9** | **14.6** | **25.8** | **28.4** | **22.4** | **13.6** |
| Current account (CZK bn, current prices) | 34.1 | -25.4 | 4.6 | **54.8** | **83.9** | **6.7** | **-47.1** | **-1.2** | **97.6** | **14.6** | **-36.7** | **7.1** |
| Current account/GDP (%, nominal terms) | 2.0 | -1.4 | 0.2 | **2.9** | **4.8** | **0.4** | **-2.4** | **-0.1** | **5.3** | **0.7** | **-1.8** | **0.3** |
| ***Foreign direct investment*** | | | | | | | | | | | | |
| Direct investment (CZK bn, current prices) | -32.8 | -14.9 | 31.9 | **-9.2** | **-20.0** | **-20.0** | **-20.0** | **-20.0** | **-22.5** | **-22.5** | **-22.5** | **-22.5** |
| ***Exchange rates*** | | | | | | | | | | | | |
| CZK/USD (average) | 22.2 | 21.6 | 22.2 | 22.8 | **22.7** | **22.7** | **22.5** | **22.2** | **21.9** | **21.7** | **21.5** | **21.3** |
| CZK/EUR (average) | 23.8 | 23.6 | 24.1 | 24.5 | **24.7** | **24.7** | **24.5** | **24.4** | **24.4** | **24.3** | **24.3** | **24.3** |
| **MONEY AND INTEREST RATES** | | | | | | | | | | | | |
| M3 (%, y-o-y, average) | 8.5 | 9.6 | 9.2 | 8.7 | **8.4** | **7.4** | **9.0** | **10.0** | **10.6** | **10.4** | **8.6** | **7.0** |
| 2W repo rate (%, average) | 7.0 | 7.0 | 7.0 | 7.0 | **5.5** | **4.2** | **3.5** | **3.0** | **2.6** | **2.5** | **2.5** | **2.6** |
| 3M PRIBOR (%, average) | 7.2 | 7.2 | 7.1 | 7.0 | **5.4** | **4.1** | **3.4** | **2.9** | **2.6** | **2.5** | **2.6** | **2.7** |
| **EXTERNAL ASSUMPTIONS** | | | | | | | | | | | | |
| Foreign GDP (%, y-o-y, seas. adjusted, effective EA) | 0.7 | 0.4 | -0.1 | **0.0** | **0.1** | **0.2** | **0.6** | **1.1** | **1.3** | **1.4** | **1.5** | **1.5** |
| Foreign GDP (%, q-o-q, seas. adjusted, effective EA) | 0.1 | 0.1 | -0.1 | **-0.1** | **0.1** | **0.3** | **0.3** | **0.4** | **0.4** | **0.4** | **0.4** | **0.4** |
| Foreign HICP (%, y-o-y, seas. adjusted, effective EA) | 9.4 | 7.4 | 5.8 | **3.3** | **2.2** | **1.8** | **1.4** | **1.7** | **1.9** | **1.9** | **1.8** | **1.7** |
| Foreign PPI (%, y-o-y, seas. adjusted, effective EA) | 15.7 | 3.3 | -7.8 | **-6.7** | **-6.6** | **-3.5** | **-2.3** | **-1.6** | **-0.1** | **0.3** | **0.7** | **0.6** |
| Brent crude oil (in USD/barrel) (average) | 82.2 | 77.7 | 85.9 | 82.9 | **77.2** | **76.6** | **75.8** | **74.9** | **74.1** | **73.3** | **72.7** | **72.1** |
| 3M EURIBOR (%, average) | 2.6 | 3.4 | 3.8 | 4.0 | **3.7** | **3.2** | **2.9** | **2.7** | **2.5** | **2.5** | **2.4** | **2.3** |
| USD/EUR (average) | 1.07 | 1.09 | 1.09 | 1.08 | **1.09** | **1.08** | **1.09** | **1.10** | **1.11** | **1.12** | **1.13** | **1.14** |

* 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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