Monetary Policy Report
Autumn 2023

Czech National Bank —— Monetary Policy Report —— Autumn 2023

CNB CZECH NATIONAL BANK

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This Monetary Policy Report was approved by the CNB Bank Board on 9 November 2023 and (with some exceptions) contains the information available as of 20 October 2023. 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.

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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 autumn issue of the Monetary Policy Report. The Report is one of the main inputs to the Bank Board’s decision-making on CNB monetary policy.

At our November meeting, my Bank Board colleagues and I kept interest rates unchanged. The two-week repo rate remains at 7%, the highest level since 1999. Five members voted in favour of this decision, and two members voted for lowering rates by 25 basis points.

The baseline scenario of the new macroeconomic forecast, which is presented in detail in this Report, implies a gradual decline in interest rates from 2023 Q4 onwards. The decision to keep interest rates at a very tight level is the Bank Board’s reaction above all to the risk of unanchored inflation expectations. This risk could manifest itself in the results of the ongoing wage bargaining process and in stronger-than-expected repricing of goods and services at the start of next year. In addition, the core inflation outlook for 2024 is still elevated at 3%.

The monetary conditions in the Czech economy are still highly restrictive. The CNB’s interest rates are at a level that is slowing growth in koruna bank loans to households and firms and hence also in the quantity of money in the economy. On the other hand, the depreciation of the koruna against the euro to roughly the levels observed last autumn has already delivered a slight easing of overall monetary conditions.

Inflation has declined markedly since autumn 2022: headline inflation has fallen from 18% to 6.9% and core inflation from 14.7% to 5% in September 2023. However, it remains at unacceptable levels. The Bank Board confirms its determination to continue fighting inflation until it is fully under control, i.e. stabilised close to the 2% target. Interest rates will therefore remain relatively high for some time. At each of the meetings ahead, we will base our decision mainly on an assessment of newly available data and of the fulfilment of the forecast.

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

The high inflation continues to recede. However, in October, the decline will halt temporarily and annual inflation will jump due to a statistical effect linked to the inclusion of the energy savings tariff in the consumer price index last year. In January, however, this effect will drop out and annual inflation will fall to the upper bound of the tolerance band around the target. The ongoing disinflation reflects both the fade-out of the sizeable price shocks seen in recent years and a significant cooling of domestic inflation pressures. This is also apparent in falling core inflation, which primarily reflects the dampening effect of the tight monetary policy stance. With an outlook for low inflation next year, the moment at which continuing with the current monetary policy stance could have an excessively tight effect has moved closer. Consistent with the baseline scenario of the Monetary Department's forecast, therefore, is a decline in interest rates from 2023 Q4 onwards. The Bank Board assessed the risks of the forecast and the uncertainties of the outlook as being significant and tilted to the upside. Still elevated inflation expectations, which could manifest themselves in stronger repricing of goods and services at the start of next year and in wage bargaining, are the main risk. The Bank Board therefore left the two-week repo rate at 7%.

Inflation continues to fall. Annual consumer price inflation slowed to 6.9% in September. To assess the pace of the decline in inflation, it is important to look at month-on-month inflation. It has been very subdued for more than six months now. The current annual inflation is therefore mostly an aftershock of the growth in prices recorded right at the start of this year, which was caused largely by rising energy prices. The decline in inflation is due to the fade-out of the earlier external cost shocks associated with the energy crisis, the supply chain disruptions and the unavailability of materials and components, and to diminishing domestic inflation pressures. Annual inflation will fall to 3% at the start of next year.

The Czech economy is going through a downturn this year. This is linked predominantly with a drop in household consumption, reflecting a deep decline in the real purchasing power of wages in the previous high-inflation episode. The growth of the Czech economy is also being dragged down by decreasing additions to inventories, which are returning to normal after the value chain disruptions. Growth in general government consumption, the contribution of net exports and renewed growth in fixed investment are having the opposite effect.

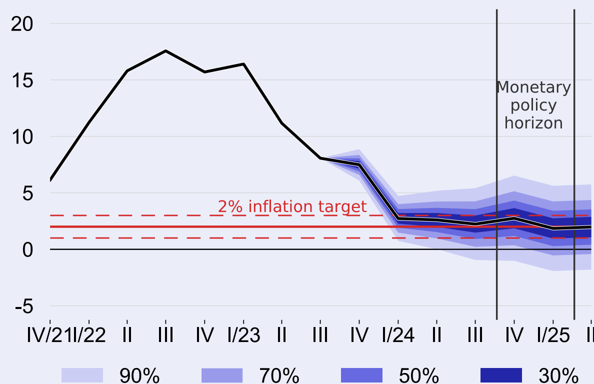
The economy will begin to grow again gradually in the next few quarters. Next year, it will record growth of 1.2%, despite the restrictive effect of fiscal consolidation. In 2025, the growth of the Czech economy will rise to almost 3%. The renewed growth will be due mostly to a recovery in consumption by households as their real income starts to rise again. The current negative contribution of additions to inventories will shrink as well. On the other hand, the positive contribution of net exports will diminish. This will reflect not only renewed demand of Czech firms and households for imported goods and services, but also quite subdued (though gradually rising) export activity. The latter is linked primarily with demand from other countries, especially Germany. Box 1 discusses the nature of Czech-German trade relations. The analysis reveals that Czech firms may be more dependent on Germany than would be consistent with the latter's share in mutual trade.

Growth in domestic demand, and especially in household consumption, will replace net exports as the driver of growth next year. In addition to the above-mentioned income growth, domestic demand will be supported by a gradual decline in the currently very high saving rate. It was due to lower consumption by medium- and high-income groups, as Box 2 illustrates. The consumption behaviour of this section of the population might be less dependent on income situation. As a result, the expected decline in the saving rate is also very gradual. However, the speed of decline in the saving rate and the related recovery in household consumption remain an uncertainty of the forecast.

Despite the downturn, the labour market remains tight. The unemployment rate is still very low by international standards. There are still more vacancies than people out of work. Total employment is also rising. The persisting labour market tightness is illustrated by the composite LUCI, a revised computation method for which is presented in Box 3. The forecast expects only modest growth in the unemployment rate towards its steady-state level. Nominal wage growth remains elevated this year amid still high annual inflation. The forecast expects high but steadily falling wage growth in the coming years, too. However, this will not hamper the fulfilment of the inflation target, as firms' currently high profit margins,

Inflation will fall to close to the 2% target at the start of next year and stay there over the monetary policy horizon

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



The economy is going through a downturn this year but will start to grow again next year

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

	2023	2024	2025
Headline inflation (%)	**10.8**	**2.6**	**2.1**
	(-0.2)	(0.4)	(0.4)
GDP	**-0.4**	**1.2**	**2.8**
	(-0.5)	(-1.1)	(0.1)
Average nominal wage	**7.5**	**6.7**	**6.4**
	(-1.1)	(-1.2)	(0.1)
3M PRIBOR (%)	**7.0**	**4.3**	**3.4**
	(0.1)	(-0.5)	(-0.3)
Exchange rate (CZK/EUR)	**24.0**	**24.6**	**24.1**
	(0.2)	(-0.1)	(-0.5)

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.

will simultaneously correct. The real purchasing power of wages will thus start to grow again gradually, boosting household consumption. However, wage growth is another uncertainty of the forecast.

After rising temporarily in the final quarter of this year, inflation will drop to 3% at the start of next year. At the monetary policy horizon, it will be close to the 2% target. The significant slowdown of inflation in January will be caused primarily by the fade-out of the growth in energy prices for households seen at the start of this year, which will drop out of the year-on-year comparison. Growth in food prices will also slow. Meanwhile, year-on-year growth in fuel prices will turn positive. Core inflation, i.e. inflation adjusted for the aforementioned volatile items, will stay above 3% in the first half of the year. This will be due in part to tax changes approved in a government consolidation package. These changes are broadly neutral in accounting terms, but their historically observed asymmetric effect (tax cuts immediately show up less in prices than tax hikes do) will keep core inflation elevated. Besides the uncertainty associated with the tax impacts, the effect of energy prices, which are rising again, on firms' costs is also unclear.

The koruna has weakened in the second half of this year. It will depreciate slightly further at the start of next year due to a narrowing interest rate differential vis-à-vis the euro area. The subsequent modest appreciation of the koruna will primarily reflect recovering external demand and a related pick-up in the domestic economy and its export performance.

With an outlook for low inflation next year (including over the monetary policy horizon), the moment at which continuing with the current monetary policy stance could have an excessively tight effect has moved closer. The high interest rates have served their purpose, as lending has dropped sharply in the case of mortgages and koruna loans to corporations. Moreover, high interest rates abroad are now making euro-denominated corporate loans less attractive. Growth in money in circulation due to private demand for credit financing is thus relatively moderate overall. The inflation pressures in the Czech economy have diminished and will stay subdued for most of the next two years. Consistent with the forecast, therefore, is a decline in interest rates of approximately 0.5 pp already in 2023 Q4.

However, the forecast is subject to a number of uncertainties and risks, the balance of which is significant and tilted to the upside. The threat of inflation expectations becoming unanchored is the main upside risk to inflation. This could lead to increased wage bargaining demands and stronger repricing at the start of next year. This risk is described in a scenario that assumes 1 pp stronger repricing. This would be consistent with keeping rates at the present level until the end of the first quarter of 2024. A longer effect of expansionary fiscal policy is also an inflationary risk. By contrast, a stronger-than-expected downturn in economic activity in Germany and the potential impacts of globally tightened monetary and financial conditions are downside risks to inflation. The uncertainties of the outlook include the future course of the war in Ukraine and the Middle East, the prices of energy, and the future monetary policy stance abroad.

Taking into account the upside risks to inflation and all the other uncertainties, the Bank Board decided to leave the two-week repo rate at 7%. This decision ensures that inflation will decline towards the target even if the inflation pressures diminish more slowly than assumed in the baseline scenario of the CNB's forecast.

I. ECONOMIC DEVELOPMENTS ABROAD

The euro area economy will be stagnant this year and is expected to recover gradually next year. Export-oriented industrial production has been hit particularly hard, as firms are facing a decline in new orders due to slowing global demand growth and are also having to deal with tightened financial conditions. Core industrial producer prices, which represent the key non-energy costs for Czech firms, are responding to this situation by falling slightly. By contrast, energy prices have now bottomed out and the energy component of producer prices will increase next year on the back of higher prices of crude oil and natural gas. The ECB is unlikely to tighten monetary policy further, as core consumer price inflation in the euro area also started to come down in the summer months. Despite having depreciated due to heightened geopolitical risks connected with the conflict in Israel, the euro is expected to appreciate gradually.

Global economic growth is slowing further, mainly on account of tightened monetary conditions and only slowly fading inflation pressures

The euro area economy slowed again in year-on-year terms in 2023 Q3. Its quarterly growth rate has been around zero for a year now. The UK economy is also on the brink of stagnation. Across the Atlantic, the US economy has been resilient to the Fed's tight monetary policy so far but is also expected to slow markedly next year. A sizeable acceleration of economic growth in advanced countries is therefore unlikely next year. This is partly due to expectations that interest rates will remain higher for longer. Despite government support measures, the growth of the Chinese economy will remain relatively weak by that country's standards (see Table I.1).

Table I.1

The growth outlook for advanced economies remains weak

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

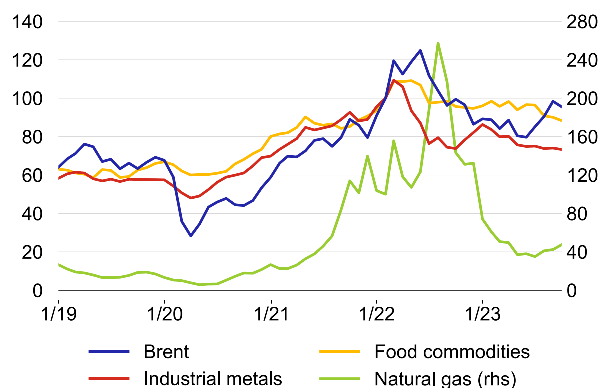
	2022	2023 Q1	2023 Q2	2023	2024	2025
Euro area	3.4	1.1	0.5	0.5	0.6	1.4
USA	1.9	1.7	2.4	2.2	0.9	1.9
United Kingdom	4.3	0.5	0.6	0.4	0.3	1.1
China	3.0	4.5	6.3	5.0	4.4	4.0

Following a favourable summer, the situation is beginning to worsen in most countries. Price growth in the services sector meanwhile continues to slow, whereas renewed inflation pressures can be observed in industry, mainly because of recent growth in oil prices (see Chart I.1). Industrial production in advanced countries is flat at the pre-Covid level (see Chart I.2). Manufacturing output continues to decline, albeit at a slower pace. The number of new orders and now also employment are decreasing, the situation being worst in the euro area and the United Kingdom. Firms are continuing to run down their inventories of finished products and input commodities, due in part to weaker demand and in part to a decreasing risk of supply disruptions. The volume of international trade is also subdued owing to a fall in global demand and the redirection of some trade flows.

Chart I.1

Growth in oil and gas prices in 2023 Q3 acted against a faster decrease in producer prices and subsequently also consumer prices

prices of selected commodities; February 2022 = 100; source Bloomberg, CNB calculations



For the purposes of the CNB's forecast, the ***market outlooks for commodity prices*** *(in USD per unit) are derived from the futures curve for the given commodity. To prevent excessive swings between forecasts, the average of the exchange data for the last ten trading days is used for each prediction and commodity. Individual predictions may be aggregated into broader indices (industrial metals index, food commodity index) based on the structure and weighting scheme of* The Economist *commodity price indices.*

Consumer price inflation is gradually losing its demand-pull nature, which pushed up goods prices last year and services prices in the first half of this year. Cost factors are becoming predominant. They include oil price growth in Q3 (see below for details), exacerbated by a tight situation on the oil derivatives

market. Food commodity prices fell slightly in Q3 but are still high by historical standards, as are prices of industrial metals (see Chart I.1).

The effective euro area economy is stagnant this year as a result of a slowdown in global demand and restrictive domestic monetary conditions; the economy will recover in 2024

Annual GDP growth in the effective euro area slowed further to 0.3% in 2023 Q2 (see Chart I.3). Slovakia was the biggest contributor, whereas the contribution of Germany was negative. In quarter-on-quarter terms, economic activity in the effective euro area was broadly flat. According to the forecast, the effective euro area economy declined negligibly in both year-on-year and quarter-on-quarter terms in Q3.[1] The slowdown was due largely to weaker external demand, faced especially by export-oriented Germany, which has long been viewed as the driver of Europe's economy.[2] The worse situation in euro area industry had a particularly adverse effect; the year-on-year decline in industrial production intensified in August. However, different tendencies can be observed across the euro area. The German economy slowed but may receive some support from steady consumption, as German consumers seem resilient to negative factors and their shopping habits remain stable despite the economic uncertainty. By contrast, Slovakia recorded buoyant growth in industry and rising retail sales, indicating a relatively robust economy. The southern countries of the euro area maintained solid economic growth thanks to a successful tourist season. According to the European Commission's September survey, economic sentiment worsened slightly. Moreover, the downturn in economic activity was also due to tighter ECB monetary policy. By contrast, employment expectations have not worsened much so far, remaining above their long-term average (see Chart I.4).

Annual GDP growth in the effective euro area will slow this year compared to 2022, reaching just 0.2% overall. It will pick up slightly to 0.9% next year and rise further to 1.8% in 2025. This year's slowdown will be due mainly to the contribution of Germany, while the outlooks for France and Spain are brighter owing to a greater role of services, which fared especially well in the spring and summer. Industrial firms, particularly in Germany, are reporting impacts of the tighter monetary policy on investment and limited growth in global demand. Conditions will also be difficult in Italy,

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1 According to Eurostat's flash estimate, GDP in the effective euro area was stagnant in both quarter-on-quarter and year-on-year terms in 2023 Q3. This figure is not included in the forecast, as it was released on 31 October, i.e. after its closing date.

2 The situation in Germany is described in detail in the October 2023 cnBlog article Německo – opět nemocný muž Evropy? (*Germany – the sick man of Europe again?* available in Czech only) and the dependence of Czech exports on Germany is analysed in Box 1 at the end of this section.

Chart I.2

Industrial production in advanced economies is flat at the pre-Covid level

global industrial production; 2019 = 100; source CPB Netherlands Bureau for Economic Policy

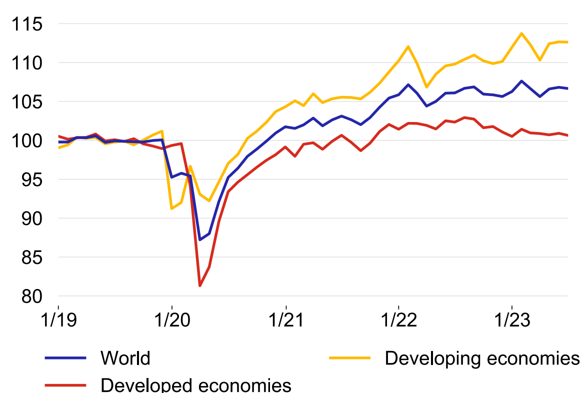


Chart I.3

The subdued performance of the effective euro area is due above all to a downturn in Germany

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

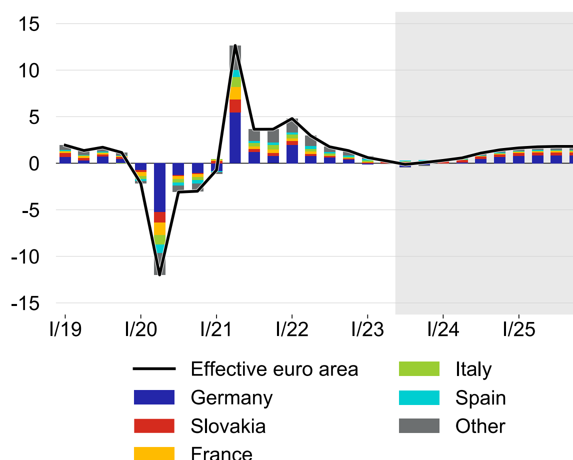
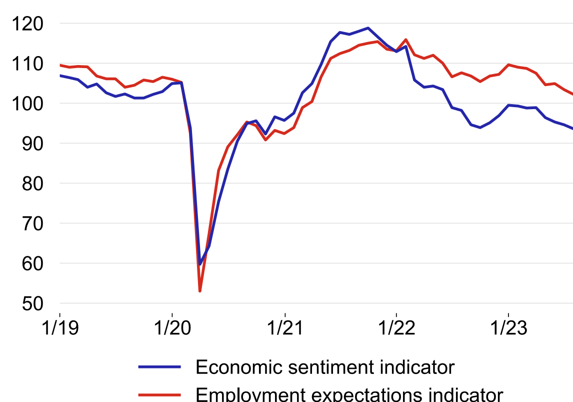


Chart I.4

Despite a slight worsening of economic sentiment, the labour market situation remains favourable

confidence indicators; source European Commission



which – given the structure of its economy – will be affected by the adverse situation in European industry. The euro area proper will thus grow slightly faster than the effective euro area. The output gap in the effective euro area turned negative in 2023 Q3 and will start to close gradually next year.

Energy prices have risen recently, causing the year-on-year decline in industrial producer prices in the effective euro area to halt

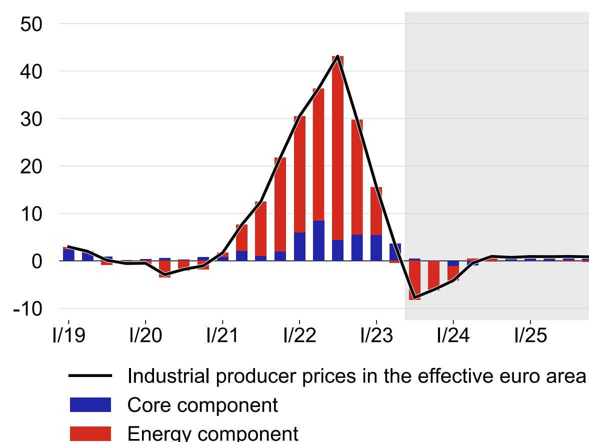
The three month-long surge in oil prices – a result of limited production by Saudi Arabia and Russia and extremely low stocks of oil and oil products – peaked in late September. However, concerns that a longer period of tighter financial conditions could slow global economic growth, which would be reflected in a fall in oil demand, subsequently prevailed. The Brent crude oil price thus corrected down sharply to USD 84 a barrel. However, growth in geopolitical tensions after the unexpected attack by the radical Palestinian Hamas movement on Israel caused prices to rise again. The IEA estimates that this led to an increase in the risk premium on the market of USD 3–4 a barrel. The price of natural gas in Europe also rose sharply (above EUR 50/MWh), owing partly to a strike at Australian LNG export facilities and the outage of a pipeline between Finland and Estonia due to damage. Given the above-average storage filling rates in Europe and weak demand in industry, natural gas prices had been at a two-year low since May 2023. Nonetheless, the gas price in Europe had been more than four times that in the USA, further undermining competitiveness in Europe's energy-intensive industrial sectors in particular. Shortly before the start of this year's heating season, natural gas prices were expected to rise above the current high levels. According to the market outlook, the Brent crude oil price will fall to USD 76 a barrel at the end of 2025.

The current year-on-year decline in producer prices in the effective euro area is due mainly to previously falling prices of energy – crude oil, natural gas and electricity (see Chart I.5). The energy component of industrial producer prices started to decrease year on year in May. According to the forecast, its year-on-year decline bottomed out at around 20% in September. However, the currently elevated crude oil price and the expected increase in the natural gas price during the heating season will cause the year-on-year declines to slow gradually. The contribution of the energy component of the PPI will thus be positive again from 2024 Q2 on. By contrast, the price pressures in core prices have receded more gradually. However, core prices are also increasingly reflecting the deterioration of the economic situation in the effective euro area. This is mainly affecting industry, which is facing a sizeable drop in new orders. Core prices will thus fall slightly in the first half of next year. Given the expected recovery of the main European economies, price

Chart I.5

The year-on-year decline in industrial producer prices in the effective euro area has been driven this year by the energy component

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

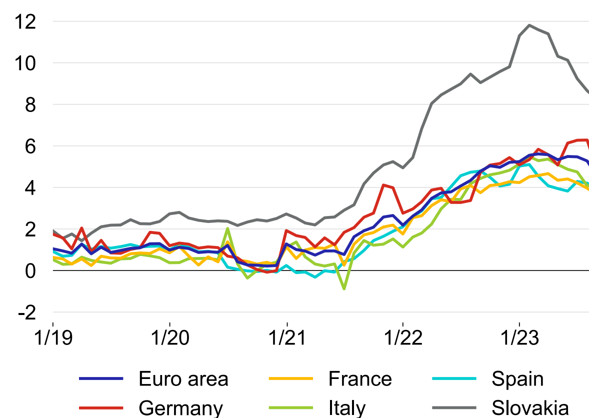


*Germany has a weight of about 50% in the **effective euro area indicators** for GDP, inflation and industrial producer prices. This corresponds to its share in total Czech exports to the euro area. Germany's weight in the euro area is meanwhile only one-third. This is the main difference between the effective indicators used in the assumptions of the forecast and the commonly used indicators for the euro area proper. Slovakia is the Czech Republic's second largest trading partner behind Germany. Its weight in the GDP, inflation and industrial producer price indicators for the effective euro area is around 11% (again corresponding to the country's share in total Czech exports to the euro area). The weights of the other large euro area countries (France, Italy and Spain) are below 10%. The effective euro area indicators thus differ from the commonly used euro area ones.*

Chart I.6

Core inflation in the euro area is slowing

core inflation (HICP); y-o-y changes in %; source Eurostat



growth in non-energy industrial sectors will strengthen again at the end of next year. This year, industrial producer prices will decline the most in Italy and Spain, whereas Slovakia will record further price growth in industry. In the euro area proper, prices will therefore decrease both this year and the next. In the effective euro area, industrial producer prices will grow by just 0.6% this year (compared with 35% last year) and even go down slightly (by 0.8%) in 2024. Producer price inflation will recover in 2025, reaching 0.9%.

Consumer price inflation in the effective euro area has also been declining since late 2022. According to the assumption of the forecast, it will fall below 3% in the second half of next year. Besides the recent decrease in energy-related inflation pressures, the slowdown in non-energy producer price inflation is also manifesting itself. This is being reflected in prices of miscellaneous manufactured articles as well. However, the price pressures in services have not receded much so far. The evolution of core inflation, which also has started to slow in recent months, will be crucial for a return of inflation to the ECB's 2% target (see Chart I.6).

The ECB continued to raise interest rates in September, while the Fed kept rates unchanged

The ECB raised its interest rates by 0.25 pp at its September meeting. The deposit rate thus reached 4%. The ECB kept rates unchanged in October.[3] According to market expectations, the 3M EURIBOR is peaking at its current level, i.e. also close to 4%, where it will stay until early 2024 (see Chart I.7). Besides the increases in interest rates to date, the ECB is continuing to reduce its balance sheet. This is reflected in the shadow rate estimate, which is above the 3M EURIBOR. The tightening of ECB monetary policy was reflected in a gradual tightening of financial conditions in the euro area to historical highs. This is being mirrored in a rise in ten-year government bond yields across euro area countries (see Chart I.8). At its September and November meetings, the Fed left its key interest rate unchanged (in the 5.25–5.50% range). The USD/EUR exchange rate is still being affected mainly by expectations about central banks' future actions and inflation and now also by rising geopolitical risks. The euro has therefore weakened in recent months, but analysts expect it to appreciate gradually against the dollar (see Chart I.7).

Chart I.7

The market interest rate outlook and the shadow rate reflect tightening by the ECB and the reduction of its balance sheet

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

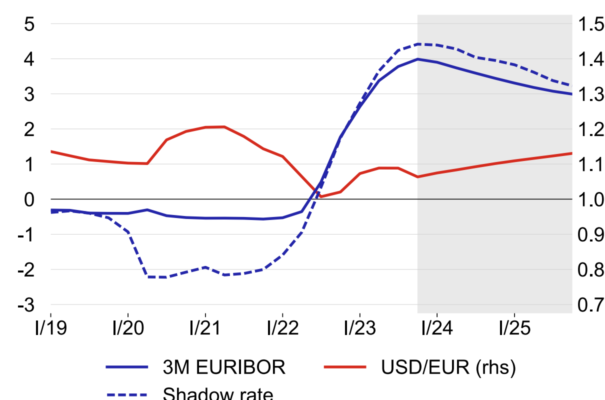
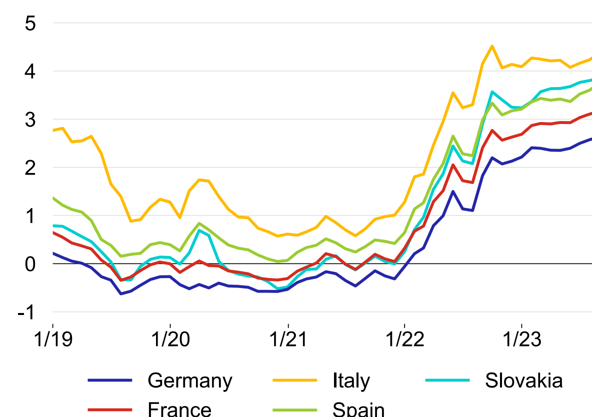


Chart I.8

Financial conditions in the euro area have tightened further

10Y government bond yields; source Eurostat



3 ECB President Christine Lagarde emphasised that the decision at each meeting depends on the new data. The ECB assesses inflation, the inflation outlook and monetary policy transmission. The current interest rates are helping to push down inflation, but the outlook for inflation is still high in the long term, so monetary policy needs to be kept tight.

COMPARISON WITH THE PREVIOUS FORECAST: Economic developments abroad

		2023	2024	2025	
GDP (in the effective EA)	y-o-y changes in % pp	**0.2** (-0.1)	**0.9** (-0.4)	**1.8** (0.0)	The expected growth of the effective euro area is below the previous forecast in both 2023 and 2024, due to a worse condition of industry, especially in Germany.
Consumer prices (in the effective EA)	y-o-y changes in % pp	**6.6** (0.2)	**3.0** (0.1)	**1.9** (0.0)	The consumer price inflation forecast has been increased slightly due to a higher outlook for energy prices.
Producer prices (in the effective EA)	y-o-y changes in % pp	**0.6** (0.0)	**-0.8** (-0.4)	**0.9** (0.3)	A lower core component is only partly offset by a higher energy component due to growth in oil prices; the overall producer price outlook is thus slightly lower for next year.
Brent crude oil price	USD/barrel	**83.7** (6.2)	**82.7** (9.9)	**78.0** (7.6)	The Brent crude oil price outlook is significantly higher over the entire horizon as a result of limited production by OPEC+ and rising geopolitical risks, but it remains decreasing.
3M EURIBOR	% pp	**3.4** (0.0)	**3.7** (-0.2)	**3.1** (-0.2)	The market interest rate outlook has shifted slightly lower because of statements made by ECB representatives, slowing inflation and current geopolitical risks.
Exchange rate	USD/EUR	**1.08** (-0.01)	**1.09** (-0.03)	**1.12** (-0.02)	The expected euro-dollar exchange rate has shifted towards a stronger dollar due to still positive economic sentiment in the USA and investors' preference for safe assets.

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)

BOX 1 The dependence of Czech exports on Germany

The weak performance of German industry and the deteriorating growth outlooks for the largest European economy are an important signal for the Czech Republic. This is not just because Germany is the most important destination for Czech exports, but also due to other specifics in mutual economic relations. This box uses firm-level and macro data[1] to disentangle the Czech Republic's foreign trade relations and shows not only Germany's importance to our economy, but also the specific nature of Czech exports in general.

Czech goods exports are dominated by intermediate products such as metal products and machinery parts. By contrast, the share of goods for final consumption (15%) is one of the lowest in the EU. The upshot of this export structure is that Czech exports react faster (i.e. earlier) and more strongly to changes in global demand. While Czech exports of final goods depend on domestic demand in each destination country and move relatively independently across export territories (see Chart 1),[2] Czech exports of intermediate products to different destinations are more synchronised (see Chart 2). This is because demand for intermediate products reacts in advance to expected changes in global demand, as it very quickly reflects the sentiment and order books of final producers.[3] The current cooling of the global economy has thus been visible in exports of intermediate products already since the spring. Czech exports to Germany include a particularly high share of intermediate products, making them all the more sensitive to expected global economic developments.

A related feature of Czech exports is a high share of specific intermediate products intended for, and useful to, specific customers only (see Chart 3),[4] such as automotive parts, computer processors and medicaments. Exporting such products does not give exporters much room to change their geographical focus or seek new opportunities when existing customers reduce their orders. This orientation towards specific products makes exporters more vulnerable and sensitive to macroeconomic developments. The firm-level data of Czech exporters allow us to determine the proportion of specific intermediate products for which there are no alternative export destinations. In the case of Czech exports to Germany, 15% of the total value of Czech firms' specific intermediate products are products that are exported nowhere else. Higher shares are observed only for exports to Slovakia and the UK.

Chart 1

Czech exports of consumer goods differ markedly by destination country

Czech exports of consumer goods by destination country; y-o-y changes in %

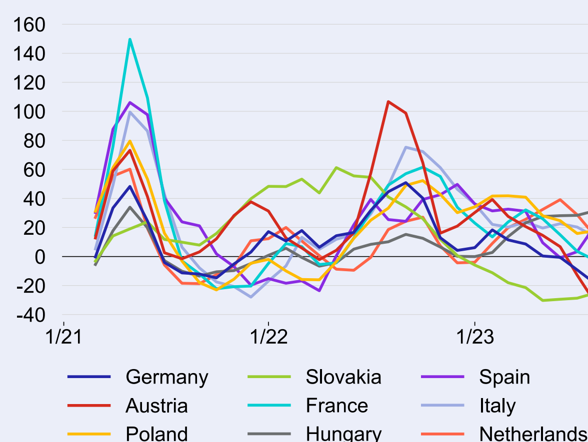
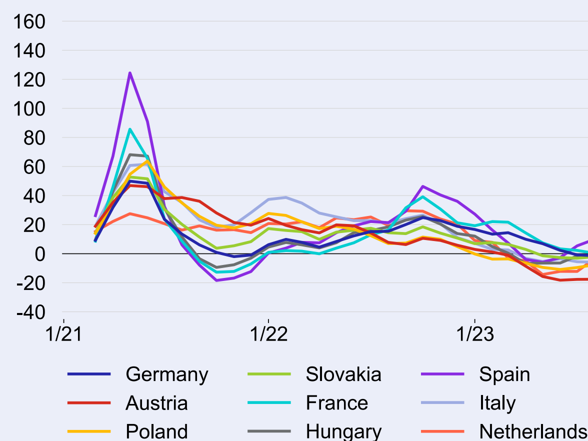


Chart 2

Czech exports of intermediate products are fairly synchronised across destinations

Czech exports of intermediate products by destination country; y-o-y changes in %



The key role of established business relations is confirmed by the breakdown of export growth into intensive and extensive margins. This shows how much exports rise thanks to established business relations and how much thanks to new opportunities – due either to new firms becoming involved or to existing firms exporting new products or finding new markets for their goods. Established business relations have long been predominant in Czech exports. Exports therefore rise and fall due to rising and falling orders placed with the same exporters and to rising and falling demand for the same products and from the same countries (see Chart 4).[5]

Exports to Germany are extreme from this point of view as well. Unlike other destinations, only a negligible proportion of changes in exports to Germany stem from new products or new Czech exporters entering this market. More than 60% of all Czech exporters supply the German market, and over one-sixth of them supply no other market. From this perspective, the German market may be largely saturated with Czech products, so it may be difficult for other Czech

exporters to find new opportunities there. Existing exporters are unable to make up for a decline in orders by switching to new customers. This again indicates the high sensitivity of Czech exports to the condition of the German economy.

What lies behind these unusually strong trade links between Czech and German firms? The size and geographical proximity of the German economy no doubt plays a key role. The close ownership links between Czech and German firms are also important. Foreign-owned companies account for almost 75% of Czech exports, with Germany being by far the largest direct investor in the Czech Republic.[6]

Although Germany plays a crucial role in Czech exports, two factors dampen the impact on the Czech economy. The first is that sectors with a lower share of domestic value added account for an above-average share of Czech exports to Germany. In manufacturing, for example, the share of domestic value added in exports is just 54% according to OECD estimates. This sector's share in exports to Germany is meanwhile 4 pp higher than its share in total exports. Conversely, Germany's share in services exports, where the Czech Republic adds over 80% of the value, is below average. The second dampening factor is the above-mentioned large-scale foreign ownership of Czech exporters. When exporters thrive, part of their profits leave the Czech economy via dividends. By contrast, when exports are sluggish, the outflow is less pronounced.

Overall, the dependence of Czech exports on demand from Germany is even stronger than would be consistent with the role of our Western neighbour as the largest customer of domestic firms. The high share of intermediate products in Czech exports further increases the sensitivity of the latter to global sentiment. Moreover, the importance of established business relations and the saturation of the German market with Czech products limit the room for finding new opportunities when existing customers reduce their orders. However, the ultimate impact of this asymmetric export orientation towards Germany on the Czech economy is partly cushioned by the below-average share of home value added in exports to Germany compared with exports to other countries and by the extensive foreign ownership of Czech exporters.

Chart 3

Czech exports are characterised by a high share of products intended for specific customers only

share of generic and specific intermediate products in total exports of those intermediate products from EU countries in 2022; Eurostat; CNB calculations

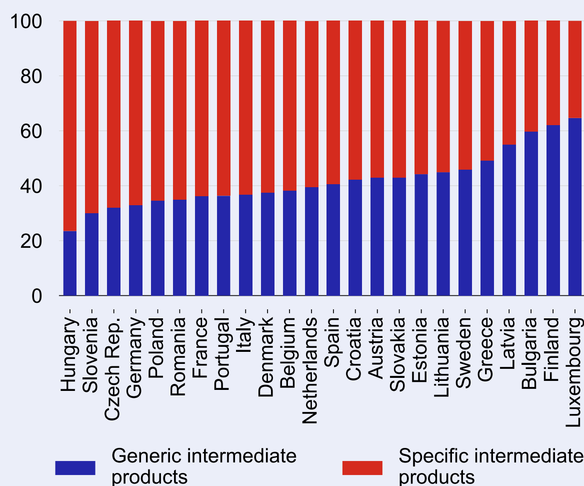
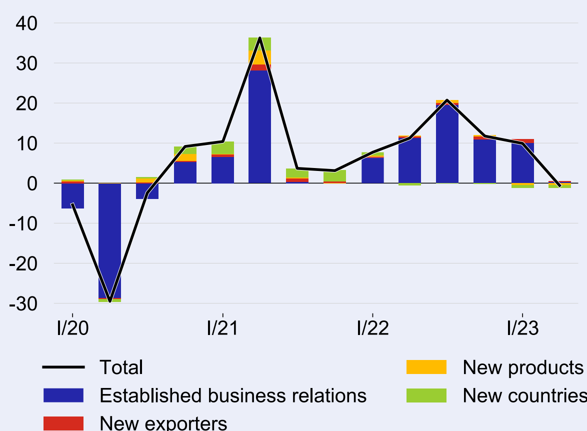


Chart 4

Established business relations largely determine the dynamics of Czech exports

annual growth rate of Czech exports and net contributions; CZSO firm-level data from residents on movements of goods; CNB calculations



Note: Weighted averages of year-on-year changes in exports at firm level, at product level under the six-digit classification of goods codes (Harmonized System) and at destination country level. Average exports in both periods are in the denominator.

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1 The series *International trade in goods* and *Cross-border movements of goods* (CZSO), and *International trade* (Eurostat).

2 The charts show the Czech Republic's largest export destination countries.

3 See the October 2023 cnBlog article Německo – opět nemocný muž Evropy? (*Germany – the sick man of Europe again?* available in Czech only).

4 The distinction between generic and specific intermediate products is based on the BEC (Broad Economic Categories) product classification, Rev. 5.

5 See Margins of trade: Czech firms before, during and after the crisis, Kamil Galuščák and Ivan Sutóris: CNB WP 12/2016. France is in a similar situation, with established business relations making the biggest contribution in the French firm-level data, although their role is not as important as in the Czech Republic (see From macro to micro: Large exporters coping with common shocks, Jean-Charles Bricongne, Juan Carluccio, Lionel Fontagné, Guillaume Gaulier and Sebastian Stumpner, Banque de France WP 881, July 2022).

6 See the thematic article Disentangling financial globalisation: Who are the ultimate owners of foreign investment in the Czech Republic? in the June 2021 Balance of Payments Report.

II. THE REAL ECONOMY AND THE LABOUR MARKET

The Czech economy will remain subdued in the second half of this year. Household consumption is rebounding only very slowly, reflecting an only gradual renewal of growth in real wages, still none-too-optimistic consumer sentiment and a continuing elevated saving rate. The strongly pro-growth contribution of net exports will start to decrease due to slowing external demand, problems primarily in domestic industry and later also a recovery in domestic demand. Government and private gross fixed capital formation will increase, with the private sector making use of the profits it has generated in recent quarters. By contrast, the contribution of change in inventories will dampen economic growth. In whole-year terms, Czech GDP will decline slightly this year and the economy will thus still operate below its potential. Economic activity will start to grow again next year. This will be due mainly to buoyant growth in household consumption, supported by solid growth in real wages, and to a lesser extent to growth in private fixed investment amid falling interest rates and recovering external demand. Meanwhile, the fiscal consolidation package will slow growth in household consumption and to a lesser extent in investment. The labour market remains tight but will gradually slacken. The unemployment rate will go up only slightly, amid broadly flat employment. Nominal wages in the market sector will receive a fresh growth impulse in the first half of next year from an increase in wage scales in firms. Wage growth will subsequently slow.

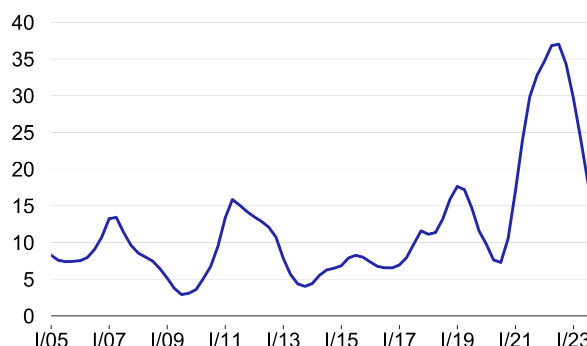
Domestic economic activity will decline slightly overall this year, due mainly to falling household consumption, which, however, will pick up and conversely drive economic growth next year

The protracted problems in global value chains related to the pandemic and the energy crisis have disappeared (see Chart II.1). However, domestic car makers had to shut down their plants for a short time in Q3, due in part to floods in Slovenia. Coupled with problems in industry, mainly reflecting weak demand at home and abroad, this will negatively affect overall economic activity through a decreasing contribution of net exports. Households' financial situation will improve only very slowly. Household consumption will be hindered by still none-too-optimistic consumer sentiment and continuing elevated saving. Firms' profitability will remain solid and will be reflected in an investment recovery and continued brisk wage growth. Overall economic activity will be broadly flat in quarter-on-quarter terms and continue to decrease in year-on-year terms in the second half of this year (see Chart II.2). In whole-year terms, GDP will decline slightly this year.[4] In 2024, the economy will grow by 1.2%. Its

Chart II.1

The global supply chain problems have now disappeared from the perspective of Czech industry

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



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4 According to a preliminary CZSO estimate, Czech GDP decreased by 0.3% quarter on quarter and 0.6% year on year in 2023 Q3. This is in line with the CNB forecast. This figure was published on 31 October 2023.

recovery will be dampened by the fiscal consolidation package.[5] In 2025, GDP growth will pick up to 2.8%.

Household consumption began to rise in quarter-on-quarter terms and will increase only slowly until the end of this year

Overall confidence in the economy[6] remains low and, given the problems in industry and the temporary increase in inflation, no substantial improvement can be expected in Q4 either. Concerns about further growth in prices at the start of 2024 and the effect of the fiscal consolidation package will lead to continuing elevated precautionary saving. All this will dampen the pick-up in household consumption, whose year-on-year growth will stay negative until the end of this year (see Chart II.3). In quarter-on-quarter terms, however, the renewed growth in real income has started to prevail, so from this point of view, household consumption will also increase slightly in the second half of the year. Household consumption will decrease by 3.2% in 2023 as a whole.

Real household income will continue to rise next year. Its year-on-year growth rate will also turn positive, owing to a sharp drop in inflation. Together with improved sentiment and declining interest rates, this will result in brisk growth in consumer demand, which will outweigh the dampening effects of the fiscal consolidation package. Household consumption will thus go up by around 2.5% overall next year and pick up further in 2025.

Growth in households' nominal gross disposable income will slow further this year and increase only moderately over the next two years. Over the entire forecast horizon, it will be driven above all by the contribution of wages and salaries (see Chart II.4), which will initially decrease slightly and from 2024 on be broadly stable, reflecting a still tight, albeit slightly slackening, labour market. In addition to lower wage growth, a drop in property income, below-average growth in entrepreneurs' income and a relatively strong negative effect of taxes will cause nominal disposable income growth to slow. The contributions of other current transfers and social benefits, including repeated pension increases and some other fiscal support measures, will weaken gradually.

Chart II.2

Following a year-on-year decline this year, economic activity will start to grow again in 2024

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

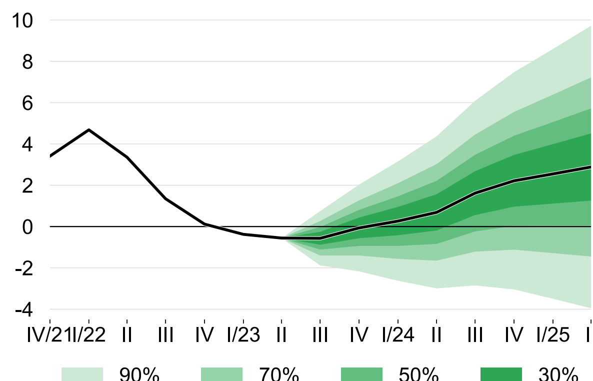


Chart II.3

Household consumption will fall in year-on-year terms throughout 2023 and will not start to grow again until early next year; general government consumption will grow at a subdued pace

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

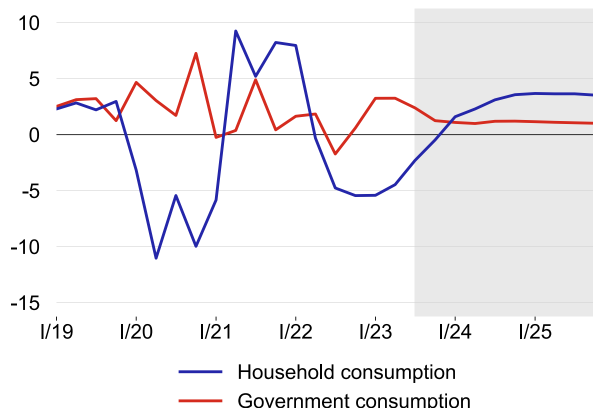
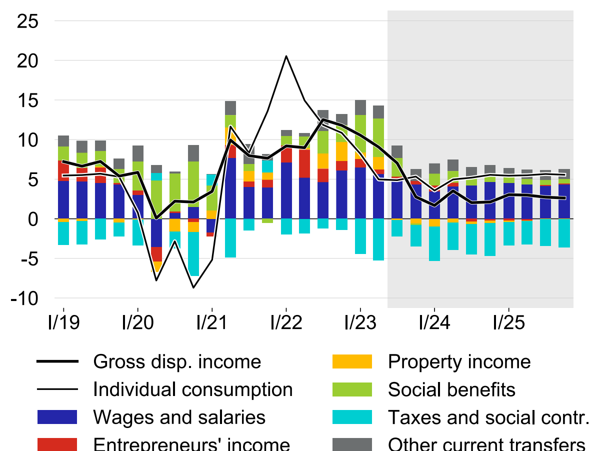


Chart II.4

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



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5 The CNB forecast takes into account the version of the fiscal consolidation package that was approved in its third reading in the Chamber of Deputies on 13 October 2023.

6 According to the October business cycle survey data, consumer and business confidence remain below their long-term averages. However, they improved compared to September.

The saving rate will remain elevated for the next two years and decline only gradually to the long-term average

The saving rate edged up in 2023 Q2 and thus remains high (see Chart II.5). Households' consumer confidence remained lacklustre in Q3. Concerns of further growth in energy prices and bleak economic prospects are supporting high precautionary saving. The saving rate cannot be expected to decline dramatically over the rest of this year, so the pick-up in household consumption will be subdued. Consumption is also being depressed by muted demand for loans, reflecting – like the growth in time deposits – higher interest rates. These factors will begin to diminish more substantially at the start of next year and the propensity to save will accordingly start to decline slowly. The saving rate will not return to its long-term average until 2025. A more detailed view of saving in the recent period is given in Box 2 at the end of this section.

Exports will grow at only a modest pace for the rest of the year due to subdued external demand and accelerate next year as demand recovers

Growth in Czech exports will slow in the second half of this year due to weak external demand (see Chart II.6).[7] In addition, some input supply problems hampered the export-oriented part of the domestic economy (especially the automotive industry). The completion and export of forced stocks of unfinished products will prevent export growth from turning negative. Growth in external demand will pick up next year and export growth will start to return to its steady-state level.

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

Growth in fixed investment will rise, due mainly to a recovery in private investment expenditure driven by good corporate profitability

The overall financial condition of firms remains more than solid, as evidenced by increasing profit rates. Firms will therefore continue to invest in the expansion of production and in renewable energy sources and energy savings. Investment activity will be supported

Chart II.5

The saving rate remains high and will decline only gradually

households' saving rate in %, seasonally adjusted

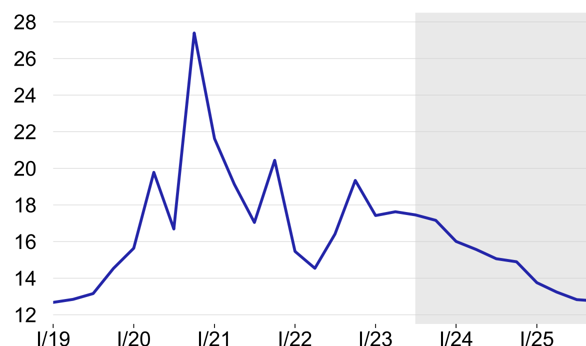


Chart II.6

Export and import growth will initially slow due to weak external and domestic demand; growth in foreign trade turnover will accelerate again in 2024 as demand recovers

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

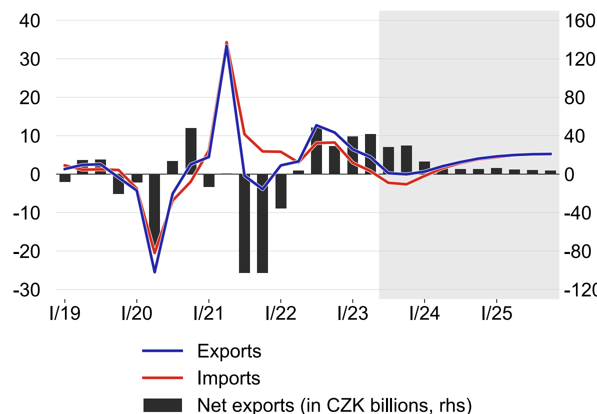
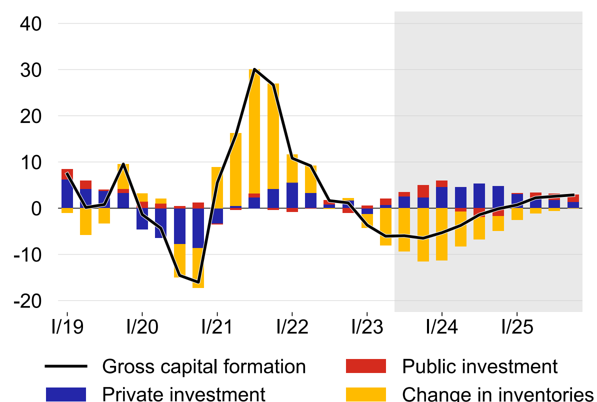


Chart II.7

Growth in total gross investment will be affected predominantly by a negative contribution of change in inventories until the end of 2024

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



7 Box 1 describes the dependence of Czech goods exports on Germany.

further at the end of this year by slowly recovering external demand. Domestic interest rates will continue to negatively affect households' investment in dwellings. Private fixed investment will thus increase by around 1.5% overall this year. General government investment will grow at a higher rate (see Chart II.7). In addition to the absorption of EU funds from the previous programme period, this will be due to a one-off purchase of military helicopters.[8] Fixed investment will thus grow by around 3% overall in 2023.

Next year, a stronger recovery in external demand and a decline in domestic interest rates will outweigh the effect of the fiscal consolidation package, and growth in private fixed investment will pick up further. Conversely, general government investment will decrease due to a slow start to the absorption of European funds at the beginning of the new programme period coupled with base effects. Fixed investment will rise by 4.5% in 2024 as a whole. In 2025, its growth will slow to the steady-state level of around 3%.

Growth in inventories will keep falling for the rest of this year (see Chart II.8). Despite some component supply problems, firms will be able to complete and distribute their forced stocks of unfinished products. Total gross capital formation growth will stay negative this year due to a negative contribution of change in inventories. Total investment will also decrease next year due to change in inventories. Total investment will rise by around 2% in 2025.

Fiscal policy will make a roughly neutral contribution to GDP growth this year and dampen it next year

Real government consumption growth will increase above 2% this year in whole-year terms (see Chart II.3). This will be due to both an increase in expenditure mainly in health care and education linked with the arrival of Ukrainian nationals, a rise in the total amount of housing benefits paid and higher general government intermediate consumption expenditure. Growth in nominal general government consumption will slow in the years ahead due to wage savings and cuts in operating expenditure under the consolidation package.

Fiscal policy will have a roughly neutral effect overall on GDP growth this year (see Chart II.9). The fade-out of some of last year's support measures was offset by the continuation of some of the measures adopted on both the revenue and expenditure sides of public budgets. They were predominantly related to the high inflation and the help with high energy prices. These measures included a temporary extension of the

8 The investment will amount to CZK 14 billion, distributed across the second half of this year and, to a small extent, the first quarter of 2024.

Chart II.8

Change in inventories will fall sharply this year and will be close to pre-crisis levels over the next two years

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

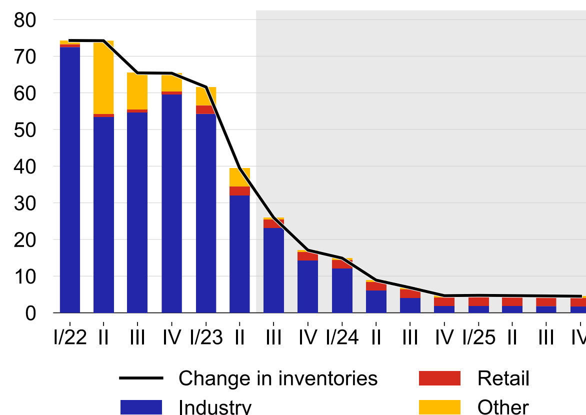
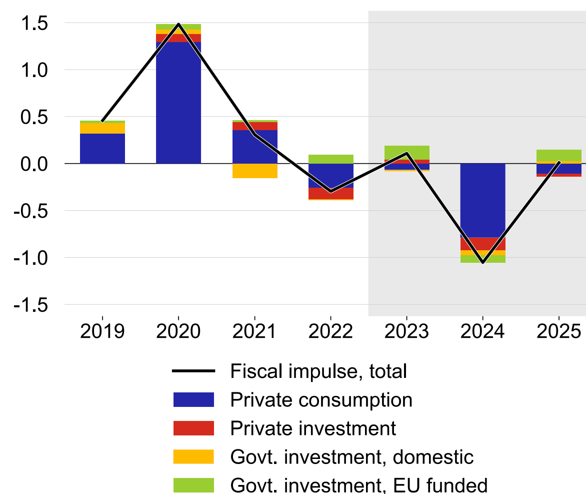


Chart II.9

Fiscal policy will have a roughly neutral effect overall on GDP growth this year; it will significantly dampen growth in 2024, due mainly to the consolidation package

fiscal impulse; contributions to GDP growth in pp



reduced excise duty on diesel (to the end of July 2023) and financial compensation for energy distributors. An increase in the VAT registration threshold and the payment of a child-raising bonus in old-age pensions had the same effect. The discontinuation of the energy savings tariff, the phasing out of some measures to support Ukrainian nationals and a reduction of the extraordinary increase in pensions in June 2023[9] had the opposite effect. In 2024, GDP growth will be dampened noticeably by the definitive termination of support measures, the fiscal consolidation package,[10] a fall in absorption of EU funds due to the above-mentioned slow start to the new programme period and a decrease in pension expenditure stemming from the reduction of the extraordinary increase in pensions this year. In 2025, the overall effect of fiscal policy will be broadly neutral, as the additional dampening effect of the consolidation package will be offset by expected faster absorption of EU funds.

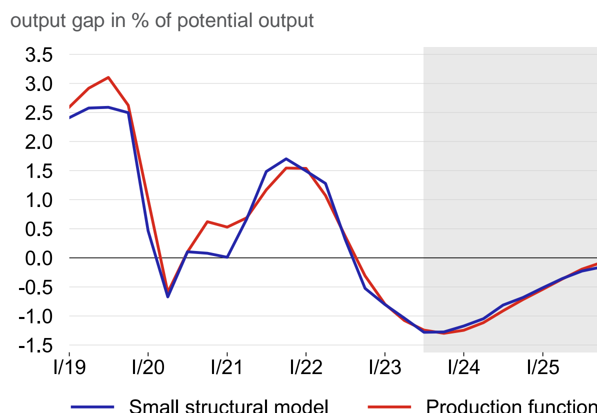
The Czech economy will remain below potential over the next two years

During the mild recession and subsequent stagnation in the first half of this year, the domestic economy fell below its potential. The stagnation expected for the rest of this year will widen the negative output gap further, due to subdued domestic and external demand. The negative output gap will start to close gradually at the start of next year as demand recovers, but the fiscal consolidation package will slow the pace of closure. As a result, the output gap will almost close at the end of 2025 (see Chart II.10). Potential output growth will slow slightly this year due to some supply constraints, but next year it will start to return slowly to its medium-term rate, which it will converge closer to in 2025.

Chart II.10

The economy will remain below potential next year, mainly because of subdued domestic demand due to the consolidation package

output gap in % of potential output



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9 As well as the regular January increase, pensions saw an extraordinary inflation-linked increase again in June. The average old age pension increased by CZK 760 instead of the CZK 1,770 implied by the original indexation scheme.

10 The overall fiscal effect of the consolidation package reflected in the fiscal impulse is -1.4% of GDP in 2024 (including further measures not included in the package, the fiscal impulse will be -1.1 pp to GDP growth next year). 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, 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.

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

		2023	2024	2025	
GDP	y-o-y changes in %	**-0.4**	**1.2**	**2.8**	The GDP growth outlook is lower due mainly to weaker external demand; a lower contribution of net exports both this year and the next is consistent with this.
	pp	(-0.5)	(-1.1)	(0.1)	
Household consumption	y-o-y changes in %	**-3.2**	**2.6**	**3.6**	The household consumption forecast for 2023 is affected by a data revision at the start of the year; a slower pick-up in H2 due to lower wage growth will also have an effect next year.
	pp	(0.2)	(-1.1)	(-0.5)	
Government consumption	y-o-y changes in %	**2.5**	**1.1**	**1.1**	The government consumption forecast has been revised upwards this year due to higher non-wage expenditure in H1; it is unchanged for the following years.
	pp	(0.3)	(0.0)	(0.0)	
Gross fixed capital formation	y-o-y changes in %	**2.9**	**4.5**	**3.2**	The faster growth in fixed investment this year is due to faster capital expenditure growth in the private and public sectors; the outlook for the following years is almost unchanged.
	pp	(2.3)	(0.1)	(0.1)	
Net exports	contr. to GDP growth	**2.3**	**0.5**	**0.3**	The contribution of net exports is markedly lower than in the previous forecast due to weaker external demand both this year and the next; it is slightly higher in 2025.
	pp	(-0.9)	(-1.1)	(0.4)	
Employment	y-o-y changes in %	**2.1**	**0.8**	**0.0**	The faster employment growth mainly reflects higher observed data at the start of the year due to higher participation of Ukrainian workers and a change in the LFS methodology.
	pp	(1.1)	(0.7)	(0.0)	
Unemployment (ILO)	%	**2.7**	**3.0**	**3.0**	The outlook for the general unemployment rate is slightly higher than in the previous forecast due to a slower recovery in domestic economic activity.
	pp	(0.0)	(0.2)	(0.1)	
Average monthly nominal wage	y-o-y changes in %	**7.5**	**6.7**	**6.4**	The lower wage growth in 2023 and 2024 reflects the weaker nominal wage growth observed in 2023 H1 and more subdued economic activity than in the previous forecast.
	pp	(-1.1)	(-1.2)	(0.1)	

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

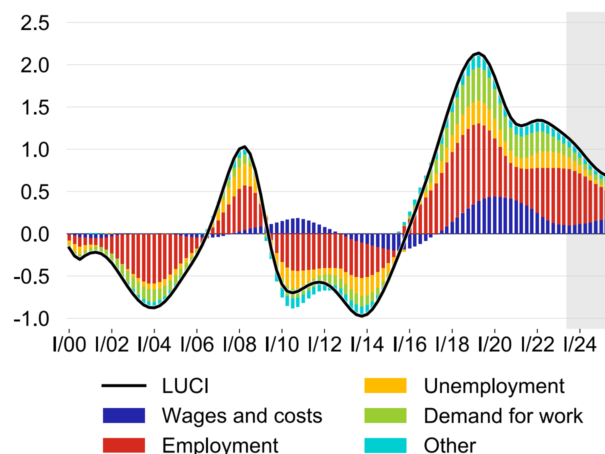
The labour market remains tight but is gradually slackening

Despite having cooled slightly, the labour market remains significantly tight (see Chart II.11).[11] Total employment has been rising at robust year-on-year rates since the end of last year, due mainly to the participation of Ukrainian workers and workers of pre-retirement age. Employment will continue to rise next year, albeit at a slowing pace due to gradual exhaustion of the labour market. It will then remain flat at this level. The unemployment rate kept rising moderately. However, it will continue to increase only gradually and remain very low from the historical perspective. Wage growth in market sectors slowed markedly in Q2 but will remain elevated. This will be due mainly to high corporate profitability, another increase in the minimum wage and a strong position of employees in wage bargaining and negotiating collective agreements.

Chart II.11

From the perspective of the LUCI, the tightness in the labour market will slacken gradually but will remain significant

LUCI; vertical axis shows standard deviations



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11 An updated LUCI computation method is described in Box 3 at the end of this section.

Real income will start to grow again in year-on-year terms at the start of next year and will stay at solid levels going forward

After surging in early 2023, year-on-year growth in the average nominal wage slowed in Q2. However, it remains high from a historical perspective (see Chart II.12). All sectors contributed to the slowdown in wage growth in Q2. Year-on-year wage growth is still lagging well behind inflation, amid persisting high corporate profitability, still significant inflation and a tight labour market. However, pressures fostering sustained brisk wage growth persist, so wage growth will slow only slightly in year-on-year terms at the end of this year. According to the forecast, this will reflect the payment of performance-based awards and bonuses. Wage growth will pick up slightly further at the start of next year. This will be due to a further increase in the minimum wage[12] and a larger effect of the increase in wage rates (base salaries) in firms for next year. This will reflect the high inflation in the previous period and the strong bargaining position of workers, who will attempt to make up at least partly for the previous drop in their real income. Wage growth will also be supported by the expected economic recovery.

The real wage rebounded in 2023 Q2 and will grow in year-on-year terms at the start of 2024. This will be fostered by solid nominal wage growth and a marked slowdown in inflation to close to the CNB's 2% target.

Wages will also grow in non-market sectors,[13] albeit at a more modest pace than in the market sector. In 2024, the forecast takes into account the rise in teachers' pay contained in the draft state budget for 2024. The forecast expects the average wage of other state employees whose salaries are subject to state budget regulation to go up, but it also assumes that the announced decline in the wage bill will happen.

Growth in the nominal wage bill is being affected predominantly by increased average wage growth this year and the next. To a lesser extent, growth in the total wage bill will also be fostered by a rise in the number of employees in terms of the full-time equivalent. In real terms, the wage bill continued to drop sharply year on year in the first half of this year (see Chart II.13). This was due to nominal wage growth lagging well behind inflation, which was in double figures at the time. However, year-on-year growth in the real wage bill will turn positive again at the start of 2024 and will pick up further over the outlook horizon. This will reflect continued brisk wage growth and a rapid decline in inflation back to the inflation target. Growth in real

Chart II.12

Nominal wage growth will remain elevated due to the previous high inflation

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

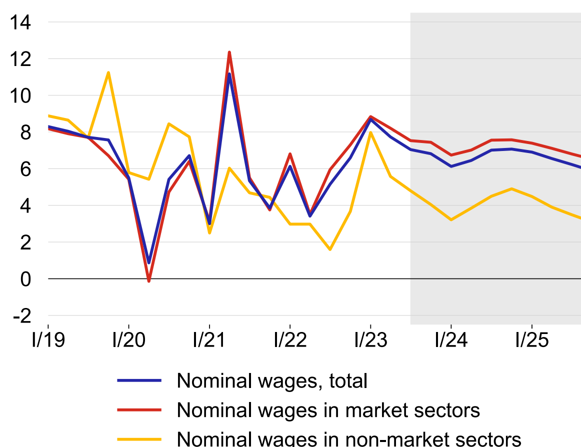
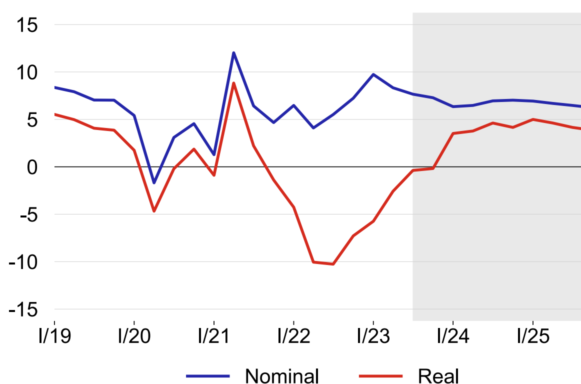


Chart II.13

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

wage bill; y-o-y changes in %



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12 The forecast assumes a CZK 2,100 increase in the minimum wage on 1 January 2024.

13 The forecast expects annual average non-market sector wage growth of 5.5% in 2023, 4.2% in 2024 and 3.7% in 2025.

wages and salaries will thus contribute significantly to the recovery in household consumption.

Demand for labour will also remain strong for the rest of 2023 and employment will thus rise further

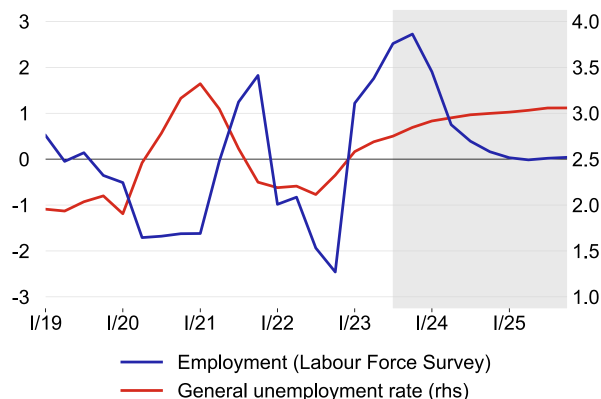
Employment will continue to grow in late 2023 and early 2024, reflecting continued solid demand for labour. Employment will be broadly flat from the second half of 2024 on (see Chart II.14). The number of employees will still grow at a high year-on-year pace until the end of this year but will later slow and will flatten out at the end of 2024. The European Commission survey expects a switch to a decline in the number of employees over the next three months, whereas the index of expected employment and some other high-frequency and leading indicators[14] suggest continued corporate recruitment, as reflected in the official data on employment in previous quarters. From the structural perspective, the short-term growth in employment will be driven not only by a rising number of employees, but also by growth in the number of entrepreneurs.

The general unemployment rate has been edging up since the end of 2022 and will rise only slightly over the outlook horizon. The forecast expects a similar trend in the share of unemployed persons next year.

Chart II.14

Employment will grow moderately further this year and unemployment will increase slightly

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



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14 For 2023 Q4, the Manpower Group index of expected employment is signalling a continuation of the rise in the number of employees observed in previous quarters. The Google Trends scores for "unemployment" and "unemployment benefit" have increased slightly in recent weeks. In 2023 Q3, the total number of vacancies was virtually unchanged compared to the previous quarter.

BOX 2 Household savings, net wealth and consumption

The household saving rate was almost 19% in 2023 Q2, roughly 7 pp above its long-term average. If consumer expectations were to become optimistic again, a rapid drop in the rate could represent potential for a stronger recovery in household consumption. In this context, this box presents some views on households' balance sheets from the perspective of the different degrees of asset liquidity and the distribution of assets by income group.

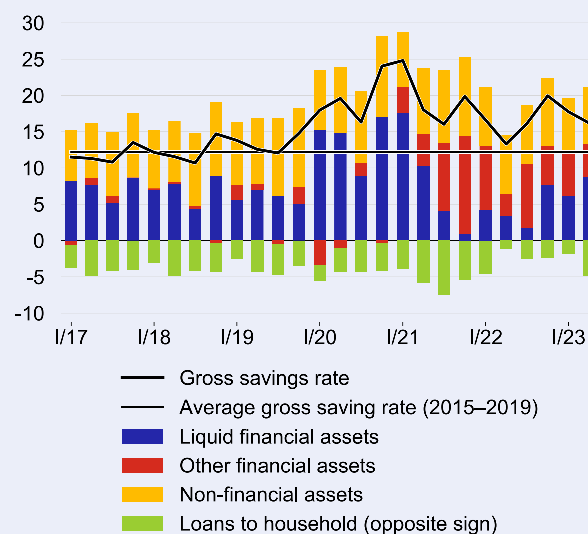
Households' net wealth increased by 48% in nominal terms between 2017 and 2022. This reflects a sustained period of growth in net financial wealth. With house prices rising, the value of housing has gone up even more strongly. In real terms, though, net wealth fell by 0.6% and net financial wealth by 3.1% year on year in 2022 for the first time in ten years because of high inflation. Amid elevated interest rates and negative sentiment, this was accompanied by precautionary and speculative saving.

Since 2021, households have been investing their savings in less liquid financial assets – primarily investment fund shares and units and bonds – to a greater extent than in the past (see Chart 1). There has also been growth in liquid financial assets in the form of savings deposits and time deposits at banks. Creation of liquid financial assets has recently been lower than it was during the Covid pandemic, when, amid lockdowns, households accumulated highly liquid forced overnight deposits (often at the same time as claiming government financial assistance). Those deposits peaked at the start of 2021, when the abolition of the "supergross wage" also had an effect. These forced savings were then released partially. Some savings have also been invested in non-financial assets such as housing, the creation of which, however, has fallen recently. Savings are currently invested mostly in less liquid assets. The conversion of these into liquid assets and in turn into consumer expenditure may be slow.

Chart 1

The savings breakdown has moved partially towards less liquid items compared to the past

ratio of flows to gross disposable income in %; CNB calculation



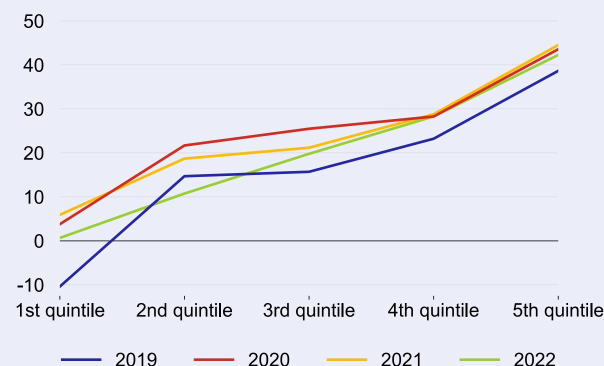
Note: Liquid financial assets comprise cash and deposits. Non-financial assets consist of gross capital formation. Other financial assets are calculated as the difference between savings and the aforesaid items.

The saving rate increases with increasing household income (see Chart 2). Until 2019, it was much higher among high-income than lower-income households. In 2020, the above factors during the Covid pandemic caused the saving rate to rise sharply in lower income groups as well (which may have implied a faster decline in the saving rate). In 2022, the household saving rate remained higher than in 2019 primarily among medium- and higher-income households.

Chart 2

The formation of savings in previous years was due mainly to high-income households, who are maintaining a relatively constant saving rate

ratio to net money income; CNB calculation based on data from Household Budget and Living Conditions Survey (CZSO)



The shape of the Lorenz curve indicates that until 2019, households with the highest income accounted for 80% of total saving. By contrast, households in the lowest two income groups did not save, while medium-income households accounted for around 20%. This shows that the formation of savings is highly uneven.

According to the European Commission's survey of the perceptions of Czech consumers, higher-income households remain the biggest contributor to the formation of savings in 2023 (see Chart 3).[1] PAQ Research reports similar results.[2] Medium-income households have also been saving more since last year. On the other hand, low-income households are hardly

saving at all. Of all the income groups, these households also recorded the biggest deterioration in financial condition as a result of the high inflation and rising cost of living.

The ratio of consumer expenditure to income (the propensity to consume) fell in 2022 relative to 2021 mainly in the case of food and non-alcoholic beverages, doing so across most income groups (see Chart 4). By contrast, the ratio of housing expenditure to income rose among households in the first to third quintiles. The ratios of spending on transport and in restaurants also increased, although least of all for higher-income households. Overall, the propensity to consume is lowest among high-income households.

The distribution of loans to households is also relevant to consumption. According to the Household Finance and Consumption Survey,[3] households in the highest income quintile accounted for around 51% of housing loans in 2021. The figure for the two highest income quintiles combined is 77%. These households are the biggest contributors to the formation of savings.

According to the above survey, net wealth per household was CZK 3.6 million on average (see Table 1). Real assets make up around 96% of total net wealth, followed by liquid financial assets (7.6%) and other financial assets (2.5%), while the ratio for total debt is 5.7%. The wealthiest 20% of households account for more than 50% of the total net wealth in the population. They have a net wealth of CZK 10 million on average. Households in the first quintile have the highest debt ratio and even have negative net wealth.

All this implies that households' net wealth rose further in nominal terms last year. In real terms, however, it fell year on year because of high inflation. In an environment of elevated interest rates, savings are being invested more in less liquid assets than they were in the past. Higher-income households are the biggest contributors to the creation of savings and net wealth. Such households moreover have a lower propensity to consume. However, year-on-year growth in savings is apparent across all household income groups in 2023. Improving consumer sentiment and falling inflation and interest rates can be expected to foster a gradual recovery in household consumption growth and a decline in the household saving rate over the coming quarters. However, much uncertainty still surrounds the speed of return of the saving rate to its long-run level.

Chart 3

Saving remains concentrated in higher-income households in 2023

net percentage of households' answers regarding their ability/inability to save; source: European Commission Business and Consumer Survey

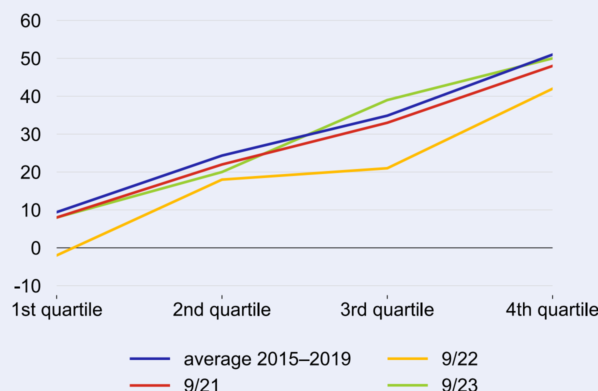


Chart 4

The propensity to consume fell mainly in the case of food and rose in the case of housing in 2022

comparison of ratio of consumer expenditure to net money income between 2022 and 2021; differences in pp; CNB calculation based on data from Household Budget and Living Conditions Survey (CZSO)

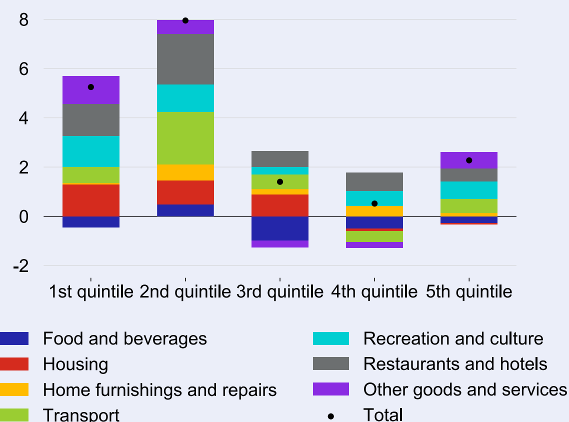


Table 1

Net wealth is formed mainly of the real assets of wealthier households

source: Household Finance and Consumption Survey; loans with opposite sign; CNB calculation

	Net wealth		Share of total net wealth in %			
	Average per household (in CZK thousands)	Czech Rep. total (CZK bn)	Real (non-financial) assets	Liquid financial assets	Other financial assets	Total loans
Net wealth	3,562	16,017	95.6	7.6	2.5	-5.7
of which:						
1st quintile	-28	-25	0.9	0.3	0.1	-1.5
2nd quintile	1,207	1,086	6.7	0.9	0.2	-1.0
3rd quintile	2,494	2,241	13.7	1.1	0.3	-1.0
4th quintile	4,097	3,680	21.8	1.7	0.4	-0.9
5th quintile	10,050	9,035	52.6	3.6	1.5	-1.2

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1 See the European Commission survey.

2 See Kolik domácnostem zbývá po zaplacení všech výdajů (*How much households have left after paying all expenses*, available in Czech only), a Czech Radio–PAQ Research project.

3 See Household Finance and Consumption Survey (HFCS) organised by the ECB. Preliminary results are available.

BOX 3 An updated LUCI computation method

The CNB introduced the Labour Utilisation Composite Index – LUCI – in 2017 and extended it two years later.[1] In recent years, the Czech economy has been hit by a series of shocks which have greatly complicated macroeconomic analysis and forecasting, and some of the approaches used in the past have become obsolete. As the labour market plays a major role in domestic inflation pressures, it was also useful to revise the method for calculating its composite indicator. This box briefly describes the impacts of the revised method on the paths of the LUCI and its components.

The first motive for changing the method was that the volatility of most of the time series had increased substantially over the previous few years. The sensitivity of the computation to sharp movements therefore needed to be revised to give more intuitive identification of trends and especially cycles in the recent past. The resulting LUCI thus better matches the expert view of observed developments on the labour market. The second major motive for changing the method was the effect of the 2021 census in the Czech Republic on some labour market time series. The modified Labour Force Survey weighting scheme has given rise to significant changes in those series. The changes, however, are purely statistical, do not reflect a structural change in the labour market[2] and hence carry no fundamental information. For this reason, the series were replaced by alternatives not subject to these issues.[3]

The new LUCI computation method is nonetheless essentially the same as the previous one. The trend and cyclical components of a total of 28 time series of labour market variables are simultaneously separated. The composite information from all the cyclical components – de facto their first common component – then offers a comprehensive view of the cyclical position of the labour market, expressed at the aggregate level by the LUCI.

The changes described above have changed the entire profile of the LUCI (see Chart 1). The qualitative story, though, remains similar (except for the results in the recent past). Even with the new method, we identify labour market slack until 2006 and also after the great economic and financial crisis. The interpretation of the strong overheating of the labour market in 2017–2020 is also unchanged. By contrast, with the onset of the pandemic and the other shocks we see only a slight slackening of the labour market under the new method. The labour market therefore does not converge markedly towards the steady state. This interpretation is more consistent both with the time series and with other analytical sub-indicators of labour market tightness, such as the Beveridge curve. Unlike in the previous forecast, there is no repeated tightening of the labour market in the outlook either.

As can be seen from the lower figure in Chart 1, if we were to apply the new LUCI computation retrospectively to the data that were available when the previous forecast was drawn up (Monetary Policy Report – Summer 2023), we would assess the current

Chart 1

The LUCI revision pertains mostly to the recent past, when the economy was hit by a series of shocks

index; y-axis shows standard deviations

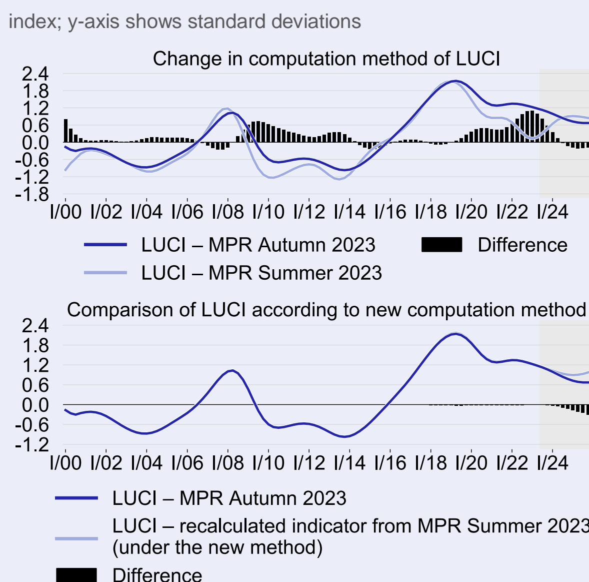
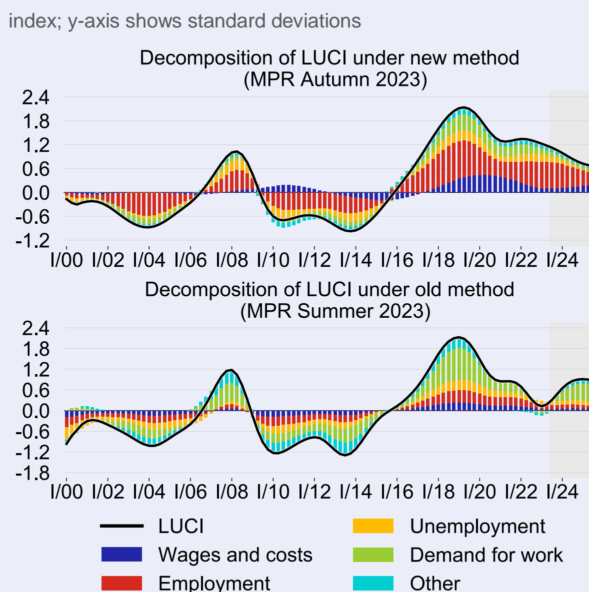


Chart 2

The paths of the contributions of the various categories are now more consistent with each other and with the overall labour market story

index; y-axis shows standard deviations



labour market situation almost identically using the revised method as we do now. The overall labour market situation has changed little since then, as strong employment growth, a still low unemployment rate and continued willingness of employers to hire new staff are outweighing the marked fall in real wages. This is keeping the labour market tight.

The new computation better reflects the macroeconomic evolution of the labour market, including from the perspective of its components (see Chart 2). With hindsight, we can say that the previous method attributed all the large movements of the LUCI (in the past and in the outlook) to demand for work to too great an extent, primarily to the detriment of employment and wages and costs. In the new LUCI, the contributions of its components better reflect the observed paths of labour market variables. The new LUCI therefore more faithfully describes the current labour market situation and continues to offer an important overall assessment and partial information for forecasting purposes.

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1 The construction and reasons for the creation of the LUCI were described in Box 1 in Inflation Report IV/2017. The extension of the LUCI was presented in Box 2 in Inflation Report IV/2019. A more detailed description of the LUCI will be published as a CNB working paper in the coming months.

2 For more information, see the official opinion of the CZSO (in Czech only).

3 The new series include unemployment series of various lengths published also by the MLSA, moreover before the CZSO (LFS statistics).

III. INFLATION

Inflation fell visibly further in Q3, with most of its components contributing. The disinflation process, expressed in terms of year-on-year growth in consumer prices, will halt temporarily in 2023 Q4 due to the base effect of last year's decrease in electricity prices caused by the introduction of the government's energy savings tariff. This will markedly increase the contribution of administered prices to annual inflation at the end of the year (starting in October). By contrast, growth in market prices will continue to slacken due to subdued cost pressures from abroad and continued moderation of the inflationary effect of the domestic economy. At the same time, the profit margins of domestic producers, retailers and service providers will undergo a gradual correction. Once the base effect fades out, both headline and monetary policy-relevant inflation will decline sharply to close to the CNB's 2% target at the start of 2024, aided by the previous tightening of monetary policy, and will stay there over the monetary policy horizon.

Inflation will fall to close to the 2% inflation target at the start of next year

Annual consumer price inflation will fall slightly in Q4, to below 8% on average (see Chart III.1).[15] The slower decline in annual inflation than in the previous quarters will be due to the base effect of last year's decrease in electricity prices caused by the introduction of the government's energy savings tariff. (Chart III.2 shows how annual headline inflation would have evolved without this measure and without the waiver and reintroduction of the fee for renewable energy sources.) For this reason, the contribution of administered prices will increase markedly for a short time (see Chart III.3). By contrast, the contributions of core inflation and especially food prices will continue to fall visibly. The contribution of fuel prices will remain negative at the end of the year. Inflation will go down significantly at the start of next year, when the high administered price inflation will fade out and the traditional January repricing of goods and services will take place to roughly the usual extent according to the forecast. Inflation will thus return close to the inflation target at the start of next year and fluctuate near the target until the end of the forecast horizon.

Administered price inflation will fall sharply at the start of next year but will remain elevated nonetheless

Annual administered price inflation will increase sharply for a short time in Q4. This will be due almost solely to the contribution of electricity prices. It will reflect the aforementioned extraordinary base effect caused by the introduction of the energy savings tariff at the end of last year, which led to a temporary drop in electricity prices from October to December 2022. This will be counteracted by a reduction in the

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15 Annual inflation will initially rise above 8% in October and then decrease to 7% in the remaining months of this year.

Chart III.1

Inflation will return close to the 2% inflation target at the start of 2024, where it will stay over the monetary policy horizon

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

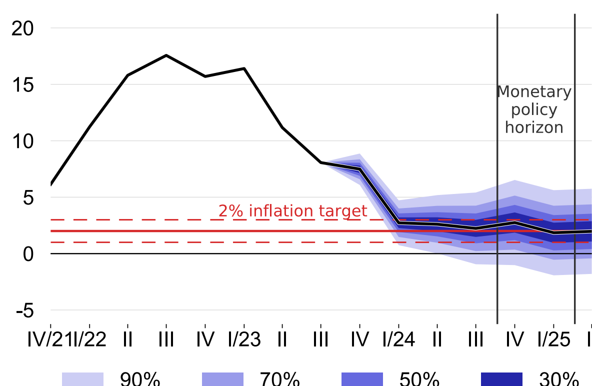
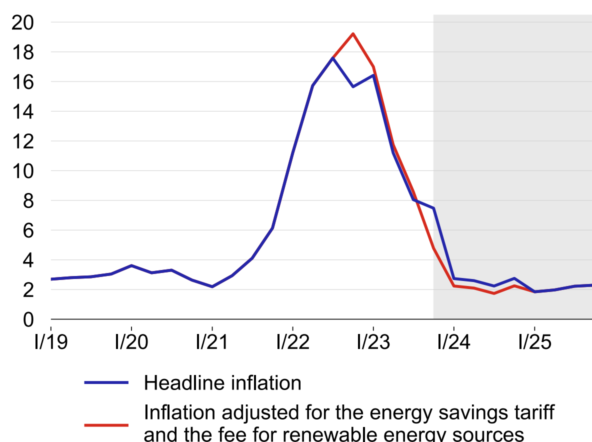


Chart III.2

Without last year's base effect, the rapid decline in annual inflation would have continued into 2023 Q4

headline inflation; y-o-y in %



commodity component of energy prices for households before the start of this year's heating season.

Administered price inflation will fall sharply at the start of next year as the base effect drops out, but will remain elevated at around 4% (see Chart III.4). A decrease in the commodity component of energy prices to well below the government price caps effective this year will be outweighed by a surge in the administered component of energy prices linked with the abolition of government energy distribution subsidies and the reintroduction of the fee for renewable sources.[16] Planned measures in the government consolidation package, in the form of an increase in the price of the road toll vignette[17] 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 next year.

Annual core inflation will slow further

Core inflation decreased markedly further in Q3 on account of slowing growth in prices of both tradables and non-tradables. Core inflation will slow further in Q4. 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 demand and a continued decline in the contribution of imputed rent (see Chart III.5). This decline reflects a combination of stabilising prices of new properties and falling growth in construction prices (of both work and materials). Core inflation will thus continue to come down for the rest of this year and all of next year, aided by the tight domestic monetary conditions to date.

Food price inflation will fall to low single digits

The high food price inflation rate, which almost hit 20% at the start of this year, has declined appreciably during the course of 2023. This trend will continue into Q4 (see Chart III.3) and food price inflation will reach low single digits at the end of the year. This will be due to falling global agricultural commodity prices and a drop in domestic agricultural producer prices. Food prices will be broadly flat next year.

Annual fuel price inflation will remain negative throughout 2023, but fuel prices will increase year on year in 2024

The year-on-year decline in prices at filling stations slowed significantly during 2023 Q3, due mainly to rising prices of crude oil and depreciation of the koruna.

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

17 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 to reflect inflation.

Chart III.3

Consumer price inflation will remain elevated in 2023 Q4 due to base effects and will slow sharply at the start of 2024, with most components contributing

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

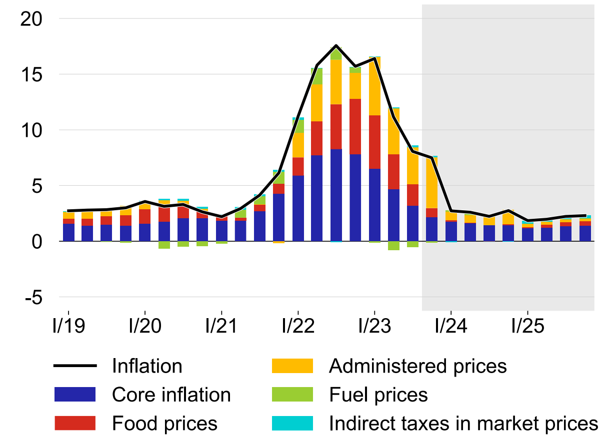


Chart III.4

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

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

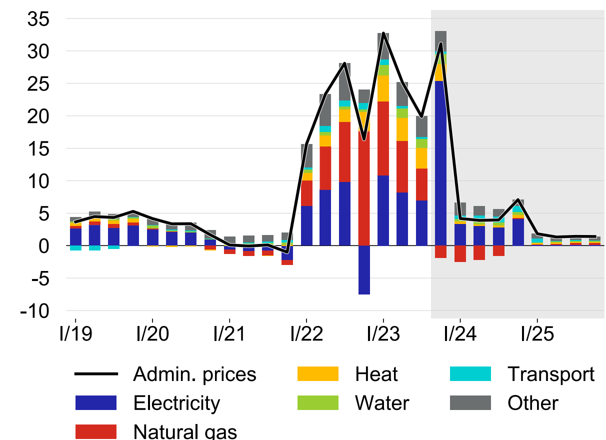
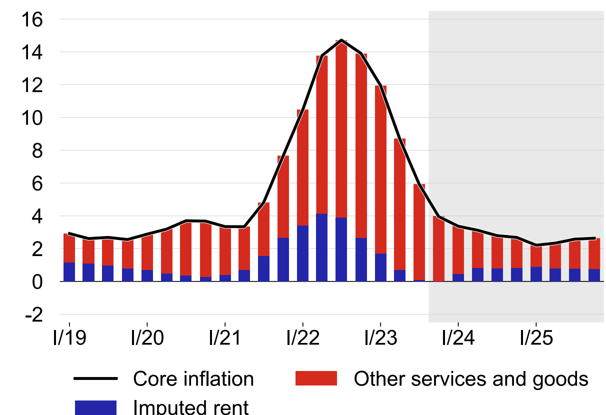


Chart III.5

Core inflation will continue to slow for the rest of this year and next year due to a decline in overall inflation pressures amid a low contribution of imputed rent

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



Even so, fuel prices will decrease on average in year-on-year terms at the end of 2023. Growth in fuel prices will turn positive again in 2024 Q1.

The decline in inflation during the summer reflected a slight drop in total cost pressures, but these will strengthen temporarily in late 2023 and early 2024 due to an increase in firms' energy costs

Growth of total costs in the consumer sector was driven in 2023 Q3 largely by continued high growth in prices of domestic intermediate goods. Growth in costs as a whole slowed further, due mainly to an increase in the negative contribution of energy import prices. It reflected a correction of energy commodity prices in the first half of this year. The contribution of domestic costs also decreased. Slightly higher core import prices had the opposite effect (see Chart III.6).

The overall cost pressures will strengthen temporarily in late 2023 and early 2024. The currently negative contribution of energy import prices will fade out almost entirely by the end of the year. The weakening koruna will also be reflected in import prices as a whole. In addition, the abolition of government electricity distribution subsidies will be reflected in corporate energy costs (the commodity part of which is mainly imported) at the start of next year. The contribution of prices of imported energy as a whole to quarter-on-quarter growth in total costs will thus be strongly positive on a one-off basis in 2024 Q1. In addition, growth of total costs will continue to be driven by continued growth in domestic costs. The contribution of price convergence will also gradually turn positive again over the forecast horizon.

Once the effect of the above increase in the administered component of energy prices for firms at the start of 2024 fades out, growth in total costs will slow again. In 2025, it will fall gradually to the steady-state level consistent with the fulfilment of the inflation target. Renewed appreciation of the koruna will be reflected in slightly negative contributions of import prices during 2024. Over the outlook horizon, the contribution of domestic costs will be elevated initially and will decrease gradually in 2025.

The domestic cost pressures have continued to ease this year but will remain elevated despite fading gradually further from mid-2024 onwards

The slowdown in growth in domestic costs (see Chart III.7) in 2023 Q3 was due predominantly to slowing market sector wage growth. The contribution of the price of capital to the growth in costs was slightly negative during the summer due to the fading shallow recession in the domestic economy. Labour efficiency meanwhile worsened, with the economic downturn being accompanied by continued growth in

Chart III.6

The cost pressures will strengthen temporarily in late 2023 and early 2024 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

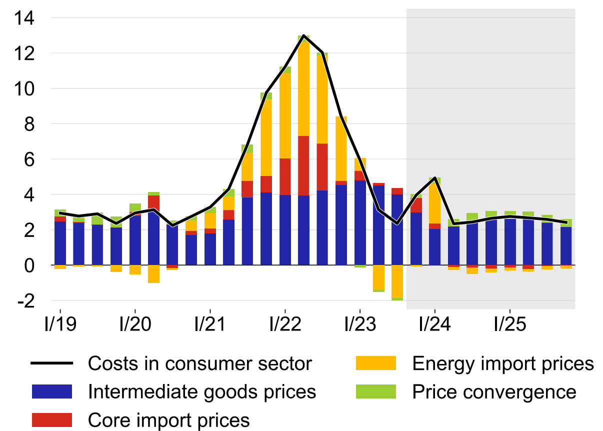


Chart III.7

The domestic cost pressures will ease gradually from mid-2024 onwards as wage growth steadily decreases

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

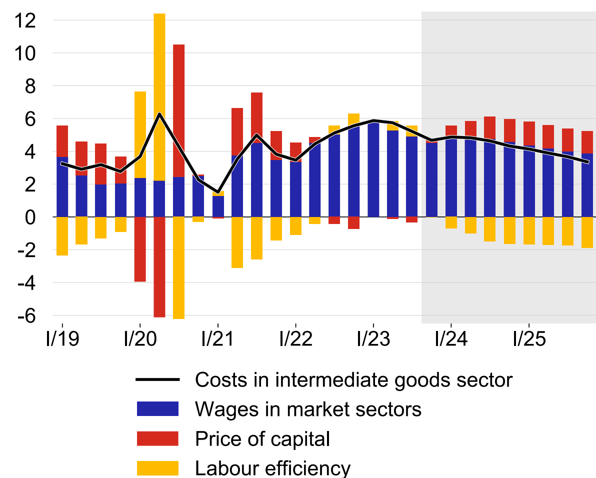
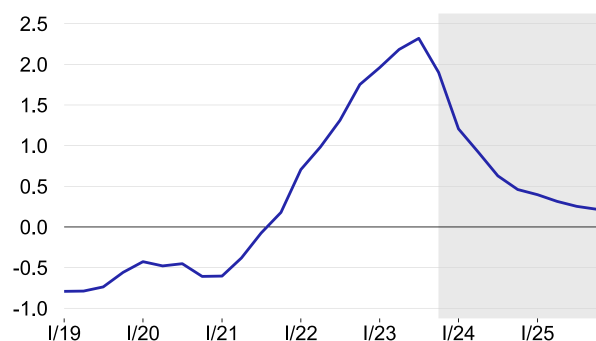


Chart III.8

The positive gap in mark-ups will start to narrow noticeably amid only slowly recovering domestic demand dampened by the tight monetary policy to date and by restrictive fiscal policy next year

gap in mark-ups on consumer goods in pp



employment. This, conversely, slightly increased the domestic cost pressures.

The contribution of wages to growth in domestic costs will ease further at the end of this year. However, it will briefly edge up at the start of next year, as collective agreements for 2024 will be concluded in an environment of fading high inflation and elevated profit margins of firms. Nonetheless, a decrease in the contribution of labour costs gradually reasserts itself. Economic activity will start to grow at the end of this year and the contribution of the price of capital to growth in domestic costs will later turn positive again. Conversely, a simultaneous improvement in labour efficiency will have an anti-inflationary effect next year and roughly offset the growth in the price of capital. Quarter-on-quarter wage growth will start to decline gradually again from mid-2024 onwards. This will lead to the domestic cost pressures gradually decreasing. Compensation for the previous falls in real household income will thus occur gradually over the entire forecast horizon, due mainly to a renewed environment of low inflation.

The strongly positive gap in mark-ups will decrease quickly in late 2023 and early 2024 due to subdued domestic demand and temporarily elevated growth in costs

The previously strongly positive gap in mark-ups in the consumer sector reflects growth in prices far outpacing growth in the costs of domestic producers, retailers and providers of goods and services to households. However the gap in mark-ups will start to decrease visibly from late 2023 and early 2024 onwards (see Chart III.8). The overall cost pressures will strengthen significantly in the short term, while inflation will remain subdued. Domestic demand will be subdued by the tight monetary policy to date and by fiscal consolidation next year as well. 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 sharp growth in their costs associated with the jump in the administered component of energy prices to prices for end customers, so profit margins will start to decline. This will significantly reduce the overall inflation pressures. Given the broad-based nature of the current increased profitability of domestic firms, the forecast also expects a similar trend in the gap in mark-ups in the domestic intermediate goods sector.

Headline inflation will be slightly above monetary policy-relevant inflation

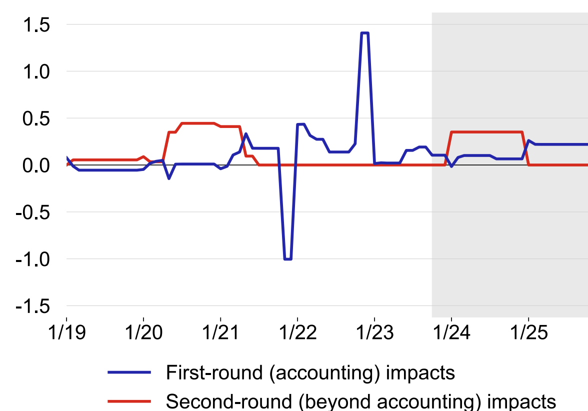
Annual consumer price inflation will be increased for the rest of this year by a 5% rise in excise duty on tobacco in January of this year and a return of excise duty on diesel to its original level (CZK 9.95 a litre) in August. At the start of 2024, the changes to indirect taxes under the government's consolidation package

__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.

Chart III.9

The first-round and immediate second-round effects of changes to indirect taxes will mainly reflect the planned measures contained 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. In the case of an indirect tax increase (decrease), they are positive if the prices of the items concerned rise (fall) more (less) than implied by mechanistic pass-through of the tax changes. Conversely, they are negative if prices rise (fall) less (more) than the tax increase (decrease) would imply. 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.

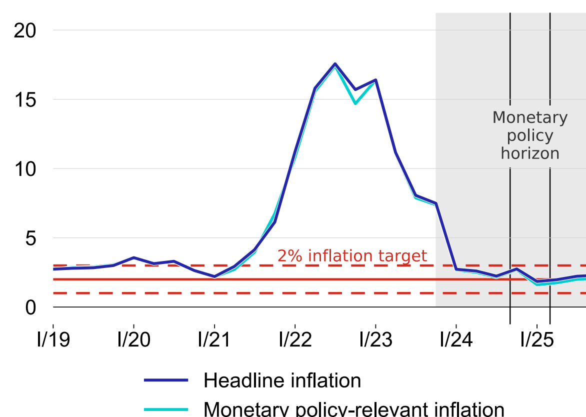
will have a mixed effect on consumer price inflation and will be moderately inflationary overall. The planned measures that will have an inflationary effect include a 10% increase in excise duties on tobacco and alcohol. Conversely, a reduction in the number of VAT rates and the transfer of selected 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 will lift consumer price inflation moderately. At the same time, the forecast assumes that the VAT rate cut will pass through only partially to the prices of the items concerned.[18] For this reason, the immediate second-round effects of these changes are positive and will affect both headline and monetary policy-relevant inflation in 2024. Excise duty on tobacco and alcohol will be raised again at the start of 2025, 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.9).

Monetary policy-relevant inflation will stay close to the inflation target over the monetary policy horizon (i.e. in 2024 Q4 and 2025 Q1), due in part to the tight monetary policy to date (see Chart III.10).

Chart III.10

Monetary policy-relevant inflation will be close to the 2% target at the monetary policy horizon; headline inflation will be slightly above it

headline and monetary policy-relevant inflation; in %



COMPARISON WITH THE PREVIOUS FORECAST: Price developments

		2023	2024	2025	
Consumer prices	y-o-y changes in % pp	**10.8** (-0.2)	**2.6** (0.4)	**2.1** (0.4)	The inflation forecast has been revised up for next year, due mainly to higher administered price inflation.
Administered prices	y-o-y changes in % pp	**27.3** (-0.7)	**4.8** (3.6)	**1.5** (0.1)	The outlook for administered prices for next year is higher due to significant growth in the administered component of housing-related energy prices.
Core inflation	% pp	**7.6** (-0.3)	**3.0** (-0.5)	**2.4** (0.1)	The 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 % pp	**10.1** (-0.2)	**0.2** (-0.3)	**1.1** (0.6)	The food price forecast is slightly lower for 2023 and 2024 due to lower observed values in summer 2023 and a lower agricultural producer price outlook.
Fuel prices	y-o-y changes in % pp	**-11.3** (3.0)	**3.8** (2.7)	**0.5** (0.8)	The fuel price forecast has shifted significantly upwards, due mostly to a higher 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)

18 The largest items on which there will be a reduction in the VAT rate are food, 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.

IV. MONETARY POLICY

At its November monetary policy meeting, the CNB Bank Board kept the two-week repo rate at 7%, the discount rate at 6% and the Lombard rate at 8%. The Bank Board assessed the risks of the forecast and the uncertainties of the outlook as being significant and tilted to the upside. The threat of inflation expectations becoming unanchored is the main upside risk to inflation. This could lead to increased wage bargaining demands and stronger repricing at the start of next year, which would result in inflation being more markedly above the target throughout 2024. A longer effect of expansionary fiscal policy is also an inflationary risk. By contrast, a stronger-than-expected downturn in economic activity in Germany and the potential impacts of globally tightened monetary and financial conditions are downside risks to inflation. The uncertainties of the outlook include the future course of the war in Ukraine and the Middle East, the prices of energy, and the future monetary policy stance abroad. Consistent with the baseline scenario of the Monetary Department's forecast is a decline in market interest rates from 2023 Q4 onwards. The path of market rates reflects the fade-out of the extraordinary cost pressures from the external environment and the easing of domestic inflation factors. In the context of the mentioned risks and uncertainties, and given the message of the baseline scenario of the forecast, the Bank Board decided to postpone the start of the interest rate reduction process.

Consistent with the baseline scenario of the forecast is a decline in market interest rates from 2023 Q4 onwards

The autumn forecast implies a need for a decline in market interest rates over the next few quarters (see Chart IV.1). According to the baseline scenario, interest rates start to decline in 2023 Q4 and broadly stabilise slightly above the policy-neutral level at the end of 2024. This is in line with the fact that the extraordinary cost pressures have disappeared from the external environment and with the easing of inflation factors from the domestic economy. A temporary increase in cost pressures in late 2023 and early 2024 will not prevent consumer price inflation from declining close to the inflation target in early 2024. In a context of subdued domestic demand, firms will reflect the rise in costs in lower profit margins rather than higher prices. The current exceptionally high profit margins of domestic producers and retailers will thus start to come down quickly, dampening price growth over the outlook horizon. This will be accompanied by falling wage growth from mid-2024 onwards. Inflation will then remain close to the target over the monetary policy horizon, i.e. in late 2024 and early 2025. 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.

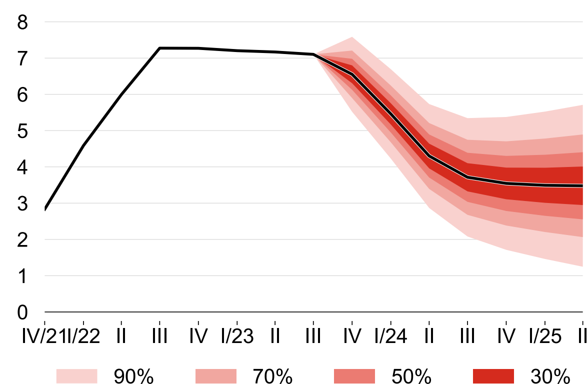
The koruna has depreciated recently

The koruna has depreciated by more than 5% since April. A further weakening connected with the release of a lower-than-expected inflation figure for September was recorded in the first half of October. In response,

Chart IV.1

Consistent with the baseline scenario of the forecast is a 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.*

markets started to expect an earlier interest rate reduction. This was also due partly to comments made by some Bank Board members. As a result, the koruna depreciated by around 1% to CZK 24.6–24.7 to the euro, where it stabilised in the second half of October.

A decline in the elevated demand for foreign currency (linked mainly with the period of dividend payments and outgoing summer tourism) is a favourable, albeit only seasonal, factor.[19] By contrast, high US interest rates and market expectations that they will stay high for longer are the main adverse influence on the koruna. The far less favourable economic situation and outlook in Europe (due to the economic impacts of the Green Deal and the war in Ukraine) than in East Asia and North America is another negative factor for the koruna. In this situation, the current and expected interest rate differential vis-à-vis the US dollar and the euro remains crucial for the future course of the koruna exchange rate.

The koruna will depreciate slightly further in the next few quarters

The autumn forecast expects the koruna to average CZK 24.6 to the euro in 2023 Q4. The koruna will depreciate slightly further in early 2024 (see Chart IV.2), mainly because of a narrowing interest spread vis-à-vis the euro area[20] (see Chart IV.3), which will, however, broadly stabilise at the end of next year. A subsequent slight appreciation of the koruna will reflect above all a recovery in external demand and a related upswing in the domestic economy and its export performance.

The market interest rate outlook is higher than the CNB forecast; at the same time, the analysts expect similar movements in the koruna exchange rate as the central bank

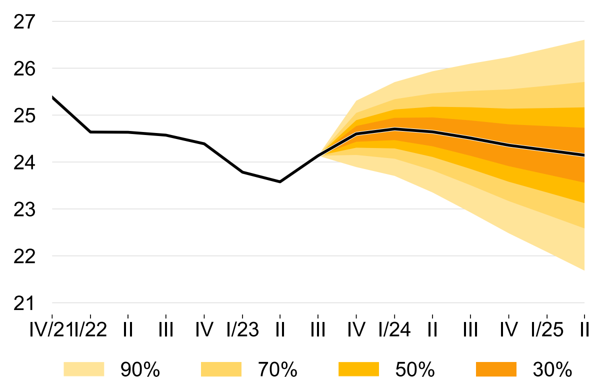
The market outlook for short-term FRA rates has moved lower in recent weeks. The market expects the 3M PRIBOR to decline gradually at the one-year horizon (see Chart IV.4). This outlook is above the interest rate path in the baseline scenario of the CNB forecast. Most of the respondents in the FMIE survey were expecting the 2W repo rate to be left at its current level at the November monetary policy meeting. Four were expecting a rate cut of 0.25 pp. The analysts expect the CNB's key interest rate to be in the wide range of 3.50%–5.75% (4.8% on average) one year ahead.

On average, the analysts in the FMIE and FECF surveys expect the koruna to be close to its current exchange rate of around CZK 24.6 to the euro one year ahead (see Table IV.1). They regard the recent

Chart IV.2

Following an initial weakening, the koruna will appreciate again next year

CZK/EUR exchange rate; confidence interval

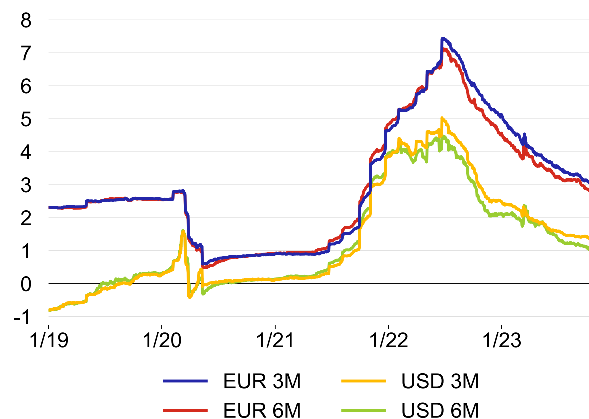


***The monetary policy horizon** (normally 12–18 months ahead) is the future time period which the CNB focuses on when making its monetary policy decisions and which reflects the length of the transmission of monetary policy. By targeting inflation at this horizon, the central bank also abstracts from 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



19 In the low hundreds of CZK billions in the case of dividends and in the tens of CZK billions in the case of tourism.

20 This effect is partly reduced by expert adjustments, but less so than in the summer forecast.

depreciation as temporary and expect the koruna to appreciate slightly at the one-year horizon. The exchange rate movements they expect are thus almost the same as the central bank's outlook. The difference between the minimum and maximum expected exchange rate against the euro one year ahead in the two surveys is around CZK 2.

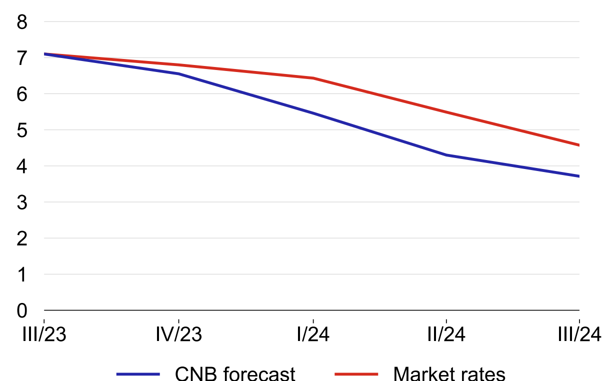
The Bank Board's communications were signalling that the approach to reducing interest rate would be cautious

Most of the Bank Board members were saying that the decision to cut rates had to be approached with caution in terms of the timing and pace of the first steps. According to one member, caution was warranted due to the risk of stronger January repricing. Three members mentioned core inflation, which was still significant and would remain so in 2024, as grounds for caution. Given the high expected levels of core inflation throughout next year, one member felt rates would have to be kept tight for longer. One member said he considered a temporary undershooting of the inflation target to be a smaller risk than having inflation anchored between 4% and 6% for longer. However, it was also said several times that if inflation was in low single digits at the start of 2024, the current rate settings would be too tight. Three members stated they did not rule out a decrease in rates before the end of this year. Two members emphasised it would be wise for the central bank to prepare the financial markets for the idea of a future reduction in rates with appropriate communication.

Chart IV.4

Most of the market was expecting rates to be left unchanged at the November meeting; the market outlook is above the CNB forecast

3M PRIBOR; FRA in %



Note: Market rates represent for 2023 Q3 the 3M PRIBOR and for 2023 Q4–2024 Q3 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 October 2023.

*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 is currently almost zero.*

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

Chart IV.5

The interest rate path is somewhat lower than in the summer forecast, especially next year

decomposition of changes in 3M PRIBOR forecast in pp

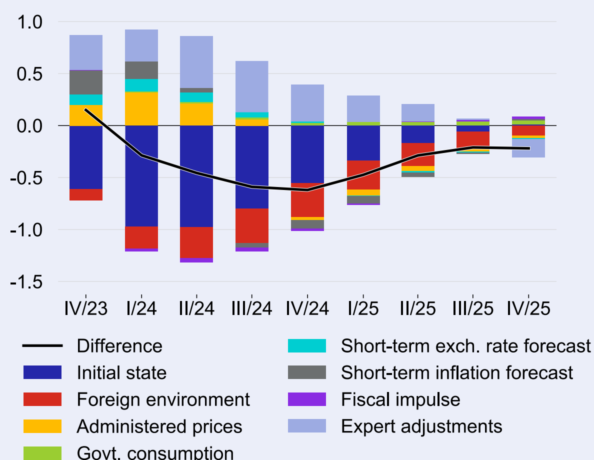
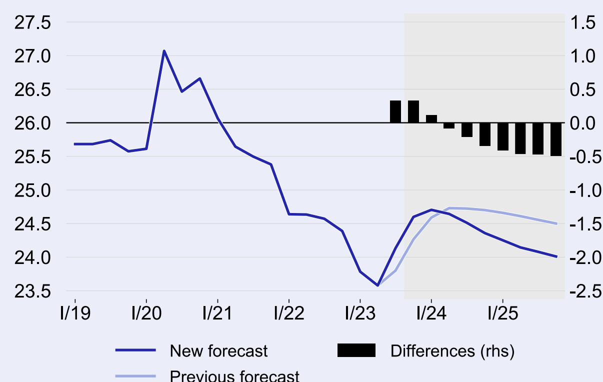


Chart IV.6

The exchange rate will initially be weaker than in the summer forecast; next year, by contrast, the koruna will appreciate more markedly

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 the core component of foreign producer prices and a rather faster expected reduction of ECB rates over the outlook horizon.
- The **initial state** of the domestic economy fosters visibly lower rates due to lower observed wage growth and more subdued GDP growth. A revision of energy import prices acts in the same direction, as the pass-through of their previous decline to the costs of domestic firms is faster.
- The **short-term exchange rate and inflation forecasts** for 2023 Q4 foster slightly higher interest rates.
- The positive contributions of administered prices in the next few quarters reflect an expected increase in the **administered component of energy prices** at the start of 2024 connected with the abolition of government energy distribution subsidies.
- The impacts of the revised outlook for **general government consumption** and the **fiscal impulse** are broadly neutral next year. In 2025, higher real government consumption fosters slightly higher rates.
- **Expert adjustments** foster higher interest rates over almost the entire outlook horizon. This is due predominantly to an expected rise in the administered component of electricity prices at the start of next year, which will cause a one-off increase in firms' energy costs. A reduction in the expert adjustments reducing the depreciation of the koruna in reaction to the narrowing interest rate differential acts in the same direction. The above-mentioned effects are partly offset by expert adjustments lowering wage growth at the start of the forecast horizon and reducing the partial indexation of wages in the later part of the forecast horizon, and by the taking into account of the postponed and more gradual recovery in household consumption.

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

- The shift in the exchange rate to weaker levels at the nearer end of the forecast horizon is due primarily to its **observed levels**. An initially more quickly narrowing **interest rate differential** vis-à-vis the euro area and a **worse balance of payments outlook** act in the same direction.
- By contrast, the more marked appreciation next year reflects faster growth in **nominal net exports** over the outlook horizon.

Long-term financing conditions have eased during 2023

PRIBOR interest rates with short maturities remained flat, while those with longer maturities (over 3M) started to decrease approximately in June this year. The slope of the money market yield curve thus turned negative. Domestic rates with longer maturities (over 1Y) initially moved broadly in line with rates on foreign markets (see Chart IV.7). Approximately in June, they started to deviate downwards partly, as markets abroad – unlike those in the Czech Republic – do not completely rule out further slight monetary policy tightening by central banks. Uncertainty on the market increased in early October following the attack on Israel by the Hamas movement, but the flight to safe assets was reflected in rates to only a limited extent. Overall, domestic IRS rates have dropped by up to 1.2 pp at individual maturities since the start of this year. Government bond yields have gone down by roughly the same amount.[21] Long-term financing conditions have thus eased. The negative slope of the domestic IRS and government bond yield curves remained approximately unchanged (see Chart IV.8).

The movements of domestic market rates are being reflected in client interest rates

Loan rates have recently decreased slightly in some segments, as, among other things, the market expects the CNB's monetary policy rates to go down in the future. The rate on genuinely new loans to non-financial corporations was 8.5% in September (see Chart IV.9) and is almost 3 pp higher than the rate on euro-denominated loans. The rate on genuinely new mortgages is 5.8%. The rate on new loans for house purchase has recently increased slightly to 5.5% as a result of gradual mortgage refixing agreed well in advance. The interest rate on new deposits with agreed maturity remained at 6.4% in Q3. Real interest rates increased to more positive levels due to a drop in inflation expected by financial market analysts one year ahead, reaching 5.7% in the case of loans to corporations. The real interest rate on loans to corporations taking into account the current inflation will also turn positive in the period ahead.

Growth in loans to corporations and households slowed further

Growth in corporate loans slackened, reaching 4.3% in September. Amid a decrease in input prices, a drop was recorded mainly for short-term loans. The share of foreign currency loans is high (49.3%). However, its growth has lessened in intensity this year amid a decreasing interest rate differential vis-à-vis the rest

—

21 The Ministry of Finance has issued CZK 357 billion of government bonds on the primary market since the start of this year. The updated Funding and Debt Management Strategy for 2023 assumes issues amounting to CZK 400–500 billion.

Chart IV.7

Domestic interest rates with longer maturities have shown a downward trend over the last year

%

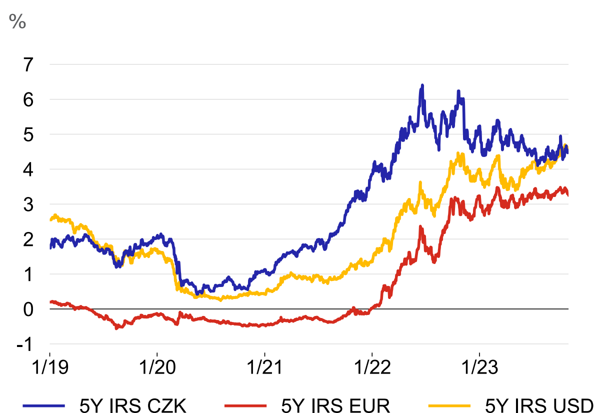


Chart IV.8

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

%

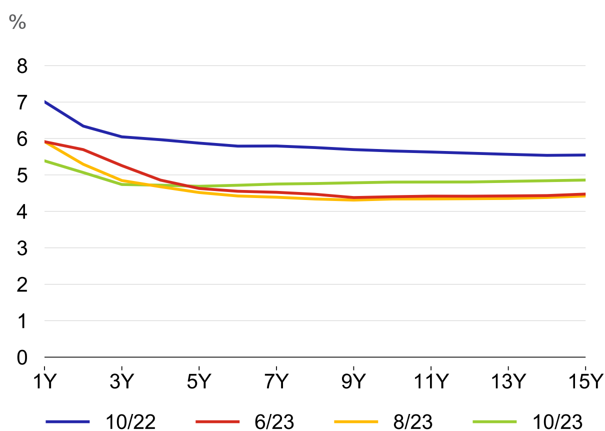
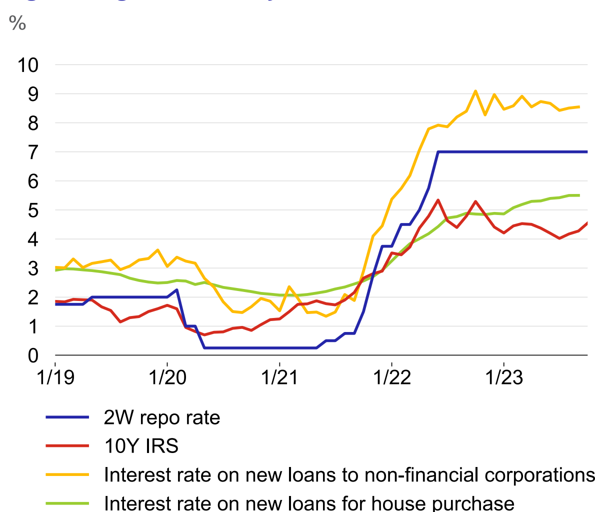


Chart IV.9

Interest rates on loans to corporations and loans for house purchase are elevated following the tightening of monetary conditions

%



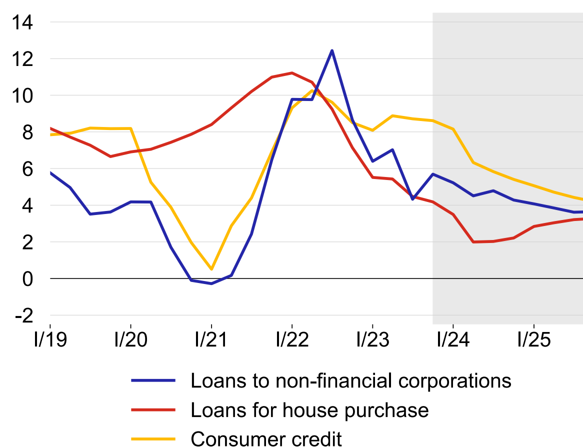
of the world and banks' tighter credit standards in this segment. Following a decline, corporate demand for loans as perceived by banks picked up slightly in Q3 due to the financing of mergers and acquisitions and corporate and debt restructuring. Despite the current recovery, demand for loans is still weak as a result of high interest rates and subdued private investment activity. This is also evidenced by a double-digit year-on-year drop in genuinely new corporate loans. 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.

Growth in loans to households for house purchase also slowed further, to 4.4%. However, banks perceived a rise in demand for housing loans. This reflected expectations of a change in trend for residential property prices, a slight drop in mortgage interest rates and the deactivation of the DSTI limit. Genuinely new mortgages increased year on year for the first time since the end of 2021, although this was due largely to base effects. In the period ahead, growth in the mortgage market will be affected mainly by households' expectations regarding future interest rates. According to the forecast, growth in housing loans will start to rise gradually in mid-2024 but will be much lower than in previous years (see Chart IV.10).

Chart IV.10

Growth in loans to households and firms will gradually stabilise

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 risks of the forecast and the uncertainties of the outlook are significant and tilted to the upside

The upside risk of the forecast stems mainly from stronger-than-expected repricing of goods and services in January, in which the still elevated inflation expectations could materialise, leading to inflation declining more slowly next year or staying above the 2% target throughout 2024. Longer-lasting general government sector deficits, resulting in increased growth in the quantity of money in circulation, are another upside risk to inflation.

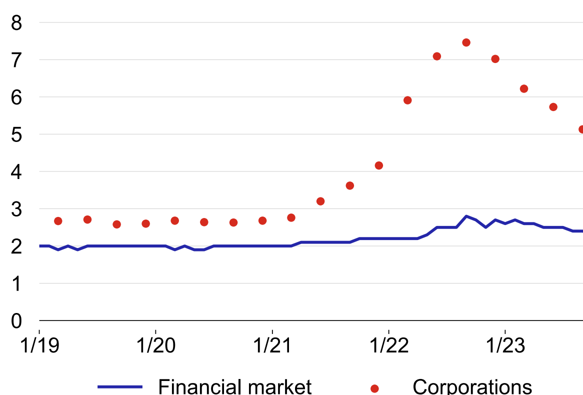
A slower-than-expected recovery in external demand amid significantly tighter global financial conditions is a downside risk. By contrast, the ongoing conflict in the Middle East is a new cost inflationary risk from abroad. The potential involvement of neighbouring countries, especially Iran, could cause a further increase in the price of oil, and possibly also natural gas, due to jeopardised supplies.

A persisting uncertainty is the pace of decline in the saving rate from its current high level. Another uncertainty is wage growth amid a still tight labour market. The immediate (second-round) effects of changes to indirect taxes on headline inflation and an increase in the administered component of energy prices in January 2024 are just as uncertain. The pass-through of energy import prices and administrative

Chart IV.11

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

sample of approximately 18 analysts and 150 corporations; %



changes in electricity and gas prices to domestic firms' costs also remains a source of uncertainty.

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

The available indicators are signalling that there is still a risk of inflation expectations becoming unanchored, albeit to a lesser extent than before. According to a joint survey conducted by the Confederation of Industry and the CNB, the inflation expectations of non-financial corporations one year ahead reached 6.6% in September (see Table IV.1). Three years ahead, they fell to 5.1% but are still well 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 7.3% in September. 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 significantly.

Concerns about rising prices among households are also diminishing. The indicator of inflation perceived by households in the European Commission survey is close to an all-time high, but the indicator of the inflation rate expected one year ahead has decreased sharply over the last 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 housing-related energy prices.

The analysts continue to project inflation slightly above the CNB's 2% target at the three-year horizon (in the October FMIE survey they were expecting 2.3% on average).

The repricing of goods and services in January may be stronger than expected, amid elevated inflation expectations

The baseline scenario of the forecast prepared by the Monetary Department expects the effect of the usual January repricing of goods and services to be similar in its extent as before the energy crisis (2019–2021). The annual inflation rate is thus expected to decrease to close to 3% in January under the baseline scenario.

Amid elevated inflation expectations and a temporary interruption of the disinflation trend in the last quarter of this year, however, there is a risk of the January repricing being stronger than expected.

To illustrate this risk, a scenario of higher January repricing has been constructed which considers a larger rise in market prices with an impact of 1 pp on annual inflation in January while interest rates stay at their current level until the end of the first quarter of next year.

Table IV.1

Analysts' inflation expectations at the three-year horizon have long been above the inflation target, while those of firms exceed 5%

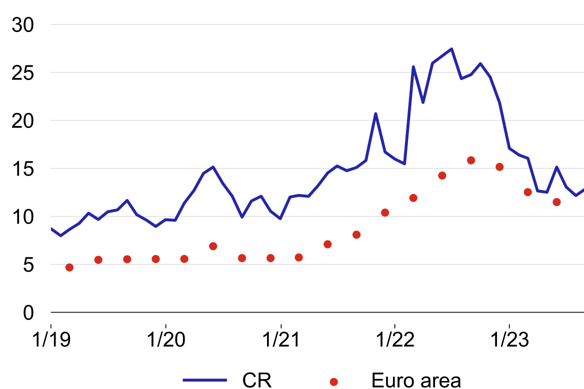
sample of approximately 18 analysts and 150 corporations; 1Y horizon; annual percentage changes unless otherwise indicated

	6/23	7/23	8/23	9/23	10/23
FMIE:					
CPI	3.1	3.1	2.7	2.7	2.8
CPI, 3Y horizon	2.5	2.5	2.4	2.4	2.3
Real GDP in 2023	0.3	0.3	0.1	0.1	0.0
Real GDP in 2024	2.5	2.5	2.3	2.2	2.1
Nominal wages in 2023	8.7	8.5	8.8	8.4	8.2
Nominal wages in 2024	6.5	6.4	6.8	6.7	6.6
CZK/EUR exchange rate (level)	23.9	24.0	24.2	24.3	24.4
2W repo rate (%)	5.4	5.3	5.1	4.9	4.8
1Y PRIBOR (%)	5.3	5.2	4.9	4.7	4.6
Corporations:					
CPI	8.0			6.6	
CPI, 3Y horizon	5.7			5.1	
CF:					
Real GDP in 2023	0.2	0.2	0.1	0.1	0.0
Real GDP in 2024	2.6	2.5	2.4	2.2	2.2
Nominal wages in 2023	8.6	8.5	8.5	8.5	8.1
Nominal wages in 2024	6.3	6.5	6.5	6.6	6.7
CZK/EUR exchange rate (level)	23.9	23.8	24.1	24.4	24.5
3M PRIBOR (%)	5.3	5.2	4.9	4.7	4.6

Chart IV.12

The inflation expectations of Czech and euro area households have decreased markedly over the last year; however, Czech households' expectations have been flat in recent months

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 %



***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.*

Scenario of stronger January repricing with rates kept unchanged for longer

It cannot be ruled out that the elevated inflation expectations combined with the still relatively high annual inflation rate observed at the end of this year will result in stronger January repricing of goods and services than considered in the baseline scenario of the forecast.

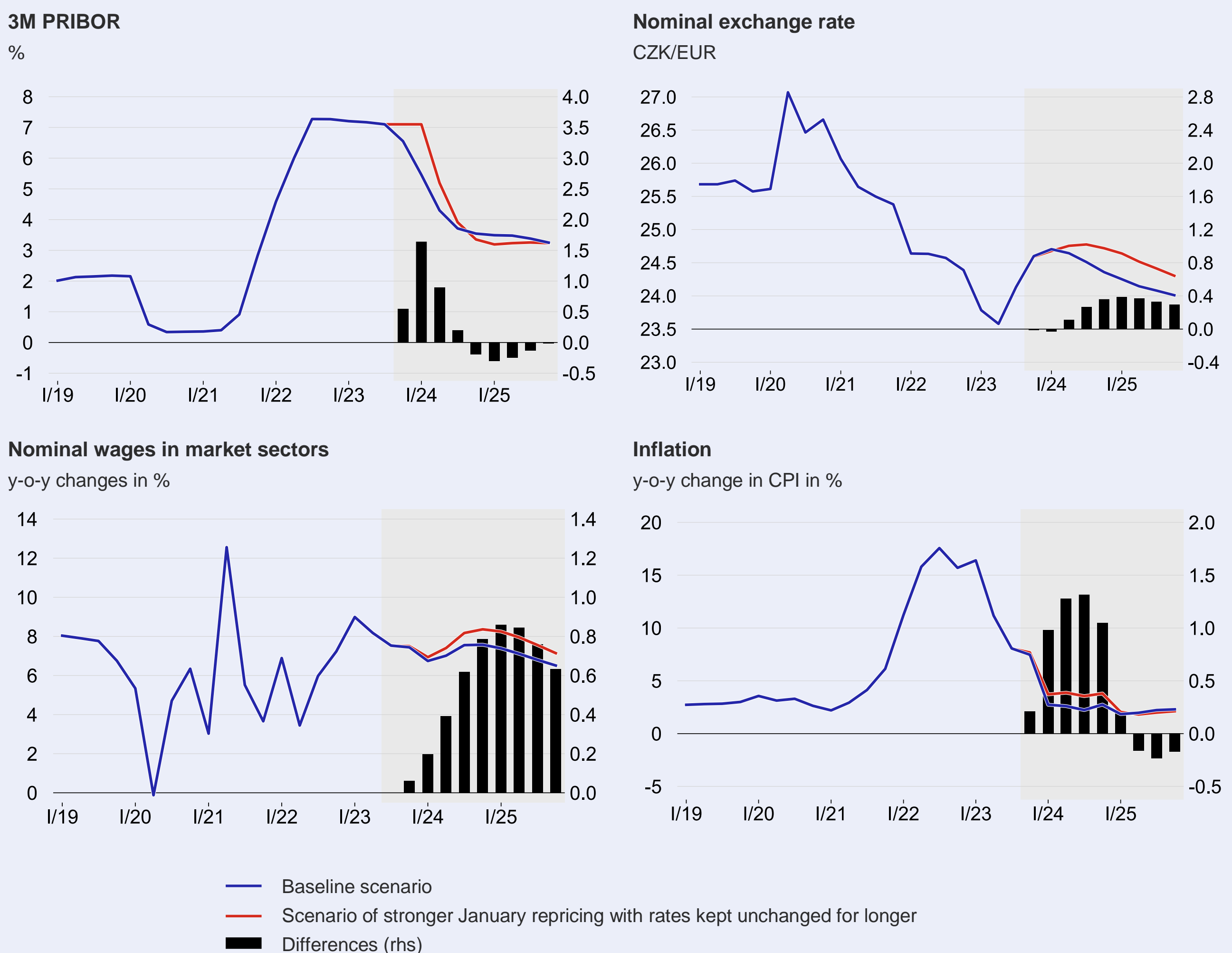
The scenario of stronger January repricing assumes higher growth in market prices in January 2024 compared to the baseline scenario, with an impact of 1 pp on annual headline inflation. Inflation then remains significantly elevated throughout next year and does not return close to the target until 2025.

Monetary policy responds to the stronger repricing with tighter interest rates than in the baseline scenario. Interest rates will stay at their current level until the end of the first quarter of next year, ensuring that inflation returns close to the target over the monetary policy horizon. Rates will subsequently fall rapidly to the baseline scenario levels. Despite the temporarily higher interest rate path, the koruna will weaken above the levels in the baseline scenario, owing to higher domestic inflation, which will be reflected in a worsening of Czech companies' price competitiveness. The higher inflation and weaker koruna will also be reflected in faster nominal wage growth than in the baseline scenario.

Chart IV.13

Stronger January repricing leads to markedly higher inflation throughout 2024 even with rates kept unchanged for longer

comparison of baseline scenario with scenario of stronger January repricing with rates kept unchanged for longer



Increased growth in the quantity of money in the economy linked with general government deficits is another inflationary risk of the forecast

M3 growth remains relatively high (see Chart IV.14) and well above the euro area level. As regards the main sources of money creation, the financing of elevated fiscal deficits is fostering higher M3 growth (see below). The contribution of government debt to M3 growth is almost 4 pp on average so far this year, while it was 0.2 pp on average in 2010–2019. By contrast, the higher interest rates are being reflected in a continued slowdown in growth in loans to the private sector to 5.5%. Turning to the sectoral breakdown, the higher contribution of non-monetary financial institutions to M3 growth than in the past is partly due to portfolio reallocation. The migration of highly liquid overnight deposits to products with higher interest rates decreased. This is reflected in renewed growth in the highly liquid money aggregate M1. A decline in households' saving rate is expected to contribute to future M1 growth.

General government has run large deficits in recent years (see Chart IV.15). The potential lagged impact of a longer-lasting sizeable general government sector deficit is thus an inflationary risk for next year. However, given the planned consolidation of public finance, this risk is expected to lessen in future years.

In addition, fiscal policy is a source of some uncertainty

In the case of fiscal policy, uncertainty still surrounds the impacts of the compensation paid as a result of the caps on energy prices and the collection of windfall tax and extraordinary levies approved to finance this compensation. In 2024, most uncertainty surrounds the actual extent of the cuts in subsidies and other current expenditure included in the consolidation package. There is also uncertainty regarding the impact of the planned changes to indirect taxes and their effects on the repricing of goods and services in January.

The future evolution of the saving rate and its effect on household consumption is also an uncertainty of the forecast

The saving rate of households has been well above its long-term pre-crisis average of around 12%. This year, the high saving rate is due mainly to the level of interest rates 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 improvement in consumer confidence will – in the baseline scenario of the forecast – lead the saving rate to decline from its current above-average level. In reality, however, the return of the saving rate to its steady-state level may differ compared to the baseline scenario, affecting the

Chart IV.14

M3 growth is relatively high due to a large contribution of loan financing of the government

annual rates of growth in %; contributions in pp

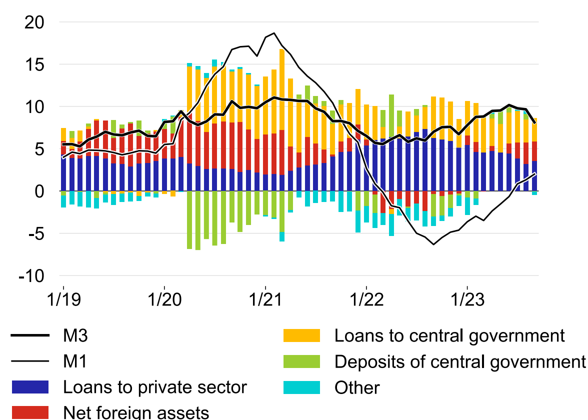
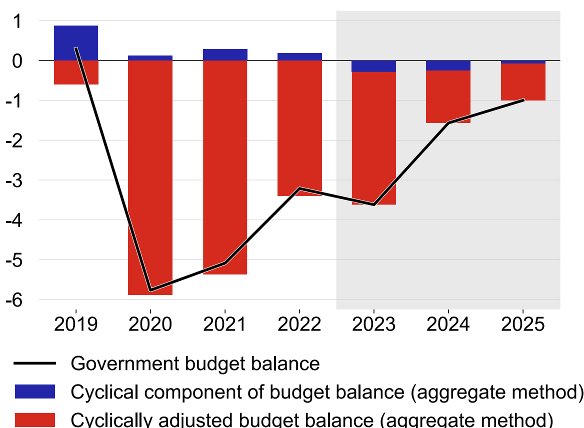


Chart IV.15

General government will continue to run a deficit, but this deficit will shrink significantly in subsequent years

% of nominal GDP



pace of the recovery in household consumption and the resulting demand-pull inflationary pressures.

Wage growth is also an uncertainty of the outlook amid a tight labour market and persistently elevated inflation

Available labour market data are signalling slowing, albeit still solid, wage growth. Strong corporate profitability may continue to foster wage growth amid a very tight labour market and persistently elevated inflation.

There is also uncertainty about the pass-through of energy import prices to firms' costs

Foreign producer prices switched to a year-on-year decline in 2023 Q3. This is being driven mainly by a fall in the energy component. There is uncertainty over the timing and intensity of the pass-through of this decline to energy import prices, i.e. to domestic firms' costs and, in turn, to prices for end customers. This depends on the duration of the contracts between domestic producers and energy suppliers and the timing of their repricing and subsequent pass-through to final prices, including the possible effect of competition. The planned increase in the administered component of energy prices will also play a role. In addition to its impact on households' monthly electricity and gas bills, it will affect domestic firms' costs.

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

Consistent with the baseline scenario of the autumn forecast is a reduction in the 3M PRIBOR from its initial level of 7.1% to an average of 6.6% in 2023 Q4 and 5.5% in 2024 Q1. The risks and uncertainties of the forecast, however, are assessed as being significant and tilted to the upside, i.e. towards a slower decline in interest rates compared to the baseline scenario. The appropriate central bank response is to take a cautious approach and reduce the pace of interest rate cuts, especially in light of the upside risk of stronger-than-expected January repricing, which may be confirmation of increased inflation expectations.

Headline inflation will fall to the target next year, 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 inflation 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 converge to the target until the start of 2025.

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	**5290.8**	**5354.2**	**5505.2**
GDP (CZK bn, current p., seas. adjusted)	4344.6	4627.4	4794.9	5116.9	5416.4	5793.9	5710.8	6107.0	6784.3	**7295.8**	**7532.1**	**7905.1**
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	**-0.4**	**1.2**	**2.8**
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**	**2.6**	**3.6**
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	0.6	**2.5**	**1.1**	**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	**-5.5**	**-2.7**	**2.1**
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	3.0	**2.9**	**4.5**	**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	**2.7**	**2.5**	**5.0**
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	**-0.3**	**1.9**	**4.9**
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	143.4	**282.3**	**313.4**	**332.9**
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	**10.8**	**2.6**	**2.1**
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	**27.3**	**4.8**	**1.5**
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	**10.1**	**0.2**	**1.1**
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**	**3.0**	**2.4**
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	**-11.3**	**3.8**	**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	**10.7**	**2.5**	**1.9**
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	**5.3**	**2.7**	**0.7**
Agricultural prices (%, y-o-y, average)	-3.7	-5.9	-5.8	7.4	-0.1	5.4	-3.8	7.4	31.8	**-5.8**	**-10.3**	**-2.8**
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	**7.5**	**6.7**	**6.4**
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	**8.0**	**7.2**	**6.9**
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	**-2.8**	**4.0**	**4.2**
Unit labour costs (%, y-o-y)	1.6	-0.4	3.1	3.9	6.2	4.7	5.9	2.2	6.8	**8.7**	**5.2**	**3.7**
Aggregate labour productivity (%, y-o-y)	1.7	3.9	0.9	3.6	1.9	2.8	-3.8	3.1	0.9	**-1.8**	**0.5**	**2.8**
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	**2.7**	**3.0**	**3.0**
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**	**4.1**	**4.2**
Employment (ILO) (%, y-o-y)	0.7	1.3	1.8	1.5	-1.4	0.1	-1.4	0.3	-1.6	**2.1**	**0.8**	**0.0**
Full-time employment (%, y-o-y)	1.1	2.1	1.8	2.2	1.5	-0.3	-1.7	0.2	0.5	**0.6**	**0.0**	**0.2**
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	**-263.8**	**-118.0**	**-78.8**
Government budget balance/GDP** (%, nominal terms)	-2.1	-0.6	0.7	1.5	0.9	0.3	-5.8	-5.1	-3.2	**-3.6**	**-1.6**	**-1.0**
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	**3279.5**	**3413.8**	**3503.7**
Government debt/GDP** (%, nominal terms)	41.9	39.7	36.6	34.2	32.1	30.0	37.7	42.0	44.2	**45.0**	**45.4**	**44.4**
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	**254.2**	**306.6**	**373.5**
Trade balance/GDP (%, nominal terms)	5.1	4.1	5.4	5.1	3.7	4.1	4.9	1.1	-1.5	**3.5**	**4.1**	**4.7**
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	**77.5**	**85.6**	**88.2**
Current account (CZK bn, current prices)	7.9	20.7	85.2	79.1	24.1	19.2	113.7	-168.0	-415.3	**-60.8**	**-34.1**	**25.2**
Current account/GDP (%, nominal terms)	0.2	0.4	1.8	1.5	0.4	0.3	2.0	-2.8	-6.1	**-0.8**	**-0.5**	**0.3**
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	**-75.0**	**-60.0**	**-70.0**
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**	**22.3**	**21.4**
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**	**24.1**
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	**8.9**	**8.5**	**8.1**
2W repo rate (%, average)	0.1	0.1	0.1	0.2	1.1	1.9	0.8	0.9	5.9	**6.9**	**4.2**	**3.3**
3M PRIBOR (%, average)	0.4	0.3	0.3	0.4	1.3	2.1	0.9	1.1	6.3	**7.0**	**4.3**	**3.4**
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**	**0.9**	**1.8**
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	**6.6**	**3.0**	**1.9**
Foreign PPI (%, y-o-y, seas. adjusted, effective EA)	-1.6	-2.5	-2.3	2.7	3.3	1.1	-1.6	10.9	34.9	**0.6**	**-0.8**	**0.9**
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	**83.7**	**82.7**	**78.0**
3M EURIBOR (%, average)	0.2	0.0	-0.3	-0.3	-0.3	-0.4	-0.4	-0.5	0.3	**3.4**	**3.7**	**3.1**
USD/EUR (average)	1.3	1.1	1.1	1.1	1.2	1.1	1.1	1.2	1.1	**1.1**	**1.1**	**1.1**

* 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)	1324.2	1323.8	**1320.7**	**1322.1**	**1327.7**	**1332.9**	**1342.1**	**1351.5**	**1361.6**	**1371.4**	**1381.3**	**1390.9**
GDP (CZK bn, current p., seas. adjusted)	1815.4	1835.5	**1815.8**	**1829.1**	**1840.3**	**1868.7**	**1898.7**	**1924.5**	**1946.6**	**1964.9**	**1984.3**	**2009.3**
GDP (%, y-o-y, real terms, seas. adjusted)	-0.4	-0.6	**-0.6**	**-0.1**	**0.3**	**0.7**	**1.6**	**2.2**	**2.6**	**2.9**	**2.9**	**2.9**
GDP (%, q-o-q, real terms, seas. adjusted)	0.1	0.0	**-0.2**	**0.1**	**0.4**	**0.4**	**0.7**	**0.7**	**0.7**	**0.7**	**0.7**	**0.7**
Household consumption (%, y-o-y, real terms, seas. adjusted)	-5.4	-4.5	**-2.3**	**-0.5**	**1.6**	**2.3**	**3.1**	**3.6**	**3.7**	**3.6**	**3.6**	**3.5**
Government consumption (%, y-o-y, real terms, seas. adjusted)	3.2	3.2	**2.4**	**1.2**	**1.1**	**1.0**	**1.2**	**1.2**	**1.2**	**1.1**	**1.1**	**1.0**
Gross capital formation (%, y-o-y, real terms, seas. adjusted)	-3.7	-6.0	**-6.0**	**-6.5**	**-5.3**	**-3.7**	**-1.4**	**-0.1**	**0.7**	**2.3**	**2.6**	**2.9**
Gross fixed capital formation (%, y-o-y, real terms, seas. adjusted)	-0.8	2.5	**4.1**	**5.9**	**7.0**	**4.2**	**3.7**	**3.2**	**3.4**	**3.4**	**3.2**	**2.9**
Exports of goods and services (%, y-o-y, real terms, seas. adjusted)	6.4	4.4	**0.2**	**0.0**	**0.7**	**2.1**	**3.2**	**4.1**	**4.6**	**5.0**	**5.2**	**5.2**
Imports of goods and services (%, y-o-y, real terms, seas. adjusted)	3.0	0.8	**-2.2**	**-2.6**	**-0.5**	**1.6**	**2.9**	**3.8**	**4.4**	**4.9**	**5.2**	**5.3**
Net exports (CZK bn, constant p. of 2015, seas. adjusted)	62.4	70.6	**74.2**	**75.2**	**75.3**	**77.8**	**79.6**	**80.7**	**81.6**	**82.7**	**84.0**	**84.5**
PRICES												
Main price indicators												
Consumer Price Index (%, y-o-y, average)	16.4	11.2	8.1	**7.5**	**2.7**	**2.6**	**2.2**	**2.8**	**1.8**	**2.0**	**2.2**	**2.3**
Administered prices (14.21%)* (%, y-o-y, average)	32.8	25.2	19.9	**31.1**	**4.2**	**3.9**	**4.0**	**7.1**	**1.8**	**1.3**	**1.4**	**1.4**
Food prices (incl. alcoholic beverages and tobacco) (26.50%)* (%, y-o-y, average)	18.2	11.8	7.3	**2.9**	**0.6**	**0.0**	**-0.1**	**0.4**	**0.4**	**1.0**	**1.4**	**1.5**
Core inflation (56.14%)* (%, y-o-y, average)	11.9	8.7	5.9	**4.0**	**3.4**	**3.1**	**2.8**	**2.7**	**2.2**	**2.3**	**2.6**	**2.6**
Fuel prices (3.15%)* (%, y-o-y, average)	-3.7	-21.5	-15.5	**-4.4**	**3.6**	**9.0**	**3.3**	**-0.5**	**0.2**	**0.1**	**0.6**	**0.9**
Monetary policy-relevant inflation (%, y-o-y, average)	16.4	11.1	7.9	**7.4**	**2.7**	**2.5**	**2.2**	**2.7**	**1.6**	**1.7**	**2.0**	**2.1**
Partial price indicators												
Industrial producer prices (%, y-o-y, average)	15.0	3.9	1.3	**1.7**	**1.1**	**3.4**	**3.6**	**2.9**	**0.2**	**0.6**	**0.9**	**1.1**
Agricultural prices (%, y-o-y, average)	19.6	-8.2	-14.7	**-16.1**	**-19.1**	**-12.1**	**-4.2**	**-3.7**	**-3.1**	**-2.9**	**-2.9**	**-2.2**
LABOUR MARKET												
Average monthly wage (%, y-o-y, nominal terms)	8.7	7.7	**7.0**	**6.8**	**6.1**	**6.4**	**7.0**	**7.1**	**6.9**	**6.6**	**6.2**	**5.9**
Average monthly wage in market sectors (%, y-o-y, nominal terms)	8.8	8.2	**7.5**	**7.4**	**6.7**	**7.0**	**7.6**	**7.6**	**7.4**	**7.1**	**6.8**	**6.5**
Average monthly wage (%, y-o-y, real terms)	-6.6	-3.1	**-1.0**	**-0.6**	**3.3**	**3.8**	**4.7**	**4.2**	**5.0**	**4.5**	**3.9**	**3.5**
Unit labour costs (%, y-o-y)	10.2	9.3	**8.6**	**6.9**	**5.3**	**5.7**	**5.2**	**4.7**	**4.2**	**3.7**	**3.4**	**3.3**
Aggregate labour productivity (%, y-o-y)	-1.4	-1.9	**-2.0**	**-1.8**	**-1.4**	**-0.1**	**1.2**	**2.1**	**2.5**	**2.9**	**2.9**	**2.9**
ILO general unemployment rate (%, average, age 15–64, seas. adjusted)	2.6	2.7	**2.8**	**2.8**	**2.9**	**3.0**	**3.0**	**3.0**	**3.0**	**3.0**	**3.1**	**3.1**
Share of unemployed persons (MLSA) (%, average, seas. adjusted)	3.6	3.6	**3.6**	**3.6**	**3.9**	**4.1**	**4.2**	**4.2**	**4.2**	**4.2**	**4.2**	**4.2**
Employment (ILO) (%, y-o-y)	1.2	1.8	**2.5**	**2.7**	**1.9**	**0.8**	**0.4**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**
Full-time employment (%, y-o-y)	1.0	0.6	**0.6**	**0.4**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.2**	**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	80.6	**39.1**	**54.5**	**91.6**	**86.4**	**60.8**	**67.7**	**118.5**	**105.9**	**71.3**	**77.8**
Trade balance/GDP (%, nominal terms)	4.7	4.4	**2.1**	**2.9**	**5.3**	**4.6**	**3.2**	**3.4**	**6.4**	**5.3**	**3.5**	**3.8**
Balance of services (CZK bn, current prices)	19.7	24.6	**17.8**	**15.3**	**25.2**	**27.2**	**20.9**	**12.3**	**24.4**	**28.0**	**22.3**	**13.6**
Current account (CZK bn, current prices)	34.1	-30.4	**-59.3**	**-5.1**	**64.5**	**-12.7**	**-63.3**	**-22.6**	**87.6**	**2.0**	**-53.7**	**-10.8**
Current account/GDP (%, nominal terms)	2.0	-1.6	**-3.2**	**-0.3**	**3.7**	**-0.7**	**-3.3**	**-1.1**	**4.8**	**0.1**	**-2.7**	**-0.5**
Foreign direct investment												
Direct investment (CZK bn, current prices)	-32.8	-25.4	**15.7**	**-32.5**	**-15.0**	**-15.0**	**-15.0**	**-15.0**	**-17.5**	**-17.5**	**-17.5**	**-17.5**
Exchange rates												
CZK/USD (average)	22.2	21.6	22.2	**22.8**	**22.7**	**22.5**	**22.2**	**21.9**	**21.6**	**21.4**	**21.3**	**21.2**
CZK/EUR (average)	23.8	23.6	24.1	**24.6**	**24.7**	**24.6**	**24.5**	**24.4**	**24.3**	**24.1**	**24.1**	**24.0**
MONEY AND INTEREST RATES												
M3 (%, y-o-y, average)	8.5	9.6	9.2	**8.3**	**7.8**	**7.5**	**8.9**	**9.8**	**10.0**	**8.8**	**7.2**	**6.4**
2W repo rate (%, average)	7.0	7.0	7.0	**6.5**	**5.4**	**4.2**	**3.6**	**3.4**	**3.4**	**3.4**	**3.3**	**3.2**
3M PRIBOR (%, average)	7.2	7.2	7.1	**6.6**	**5.5**	**4.3**	**3.7**	**3.5**	**3.5**	**3.5**	**3.4**	**3.3**
EXTERNAL ASSUMPTIONS												
Foreign GDP (%, y-o-y, seas. adjusted, effective EA)	0.6	0.3	**-0.1**	**0.1**	**0.3**	**0.6**	**1.1**	**1.4**	**1.7**	**1.8**	**1.8**	**1.8**
Foreign GDP (%, q-o-q, seas. adjusted, effective EA)	0.0	0.1	**-0.1**	**0.1**	**0.2**	**0.3**	**0.4**	**0.4**	**0.5**	**0.5**	**0.5**	**0.4**
Foreign HICP (%, y-o-y, seas. adjusted, effective EA)	9.3	7.4	**5.9**	**4.2**	**3.6**	**3.2**	**2.8**	**2.3**	**2.1**	**2.0**	**1.9**	**1.8**
Foreign PPI (%, y-o-y, seas. adjusted, effective EA)	15.6	3.2	**-7.8**	**-6.1**	**-4.1**	**-0.5**	**0.9**	**0.7**	**0.9**	**0.9**	**0.9**	**0.9**
Brent crude oil (in USD/barrel) (average)	82.2	77.7	85.9	**88.4**	**85.1**	**83.2**	**81.8**	**80.5**	**79.4**	**78.4**	**77.4**	**76.6**
3M EURIBOR (%, average)	2.6	3.4	3.8	**4.0**	**3.9**	**3.7**	**3.6**	**3.4**	**3.3**	**3.2**	**3.1**	**3.0**
USD/EUR (average)	1.1	1.1	1.1	**1.1**	**1.1**	**1.1**	**1.1**	**1.1**	**1.1**	**1.1**	**1.1**	**1.1**

* 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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