CZECH NATIONAL BANK

CNB’s New Forecast

Monetary Policy Report – Autumn 2022

Meeting with Analysts

4 November 2022

Petr Král (Executive Director, Monetary Department)

CZECH NATIONAL BANK

Parameters of the MP regime

The baseline scenario of the forecast assumes that the central bank sets interest rates in order to achieve the 2% target at a **monetary policy horizon 15–21 months ahead**.

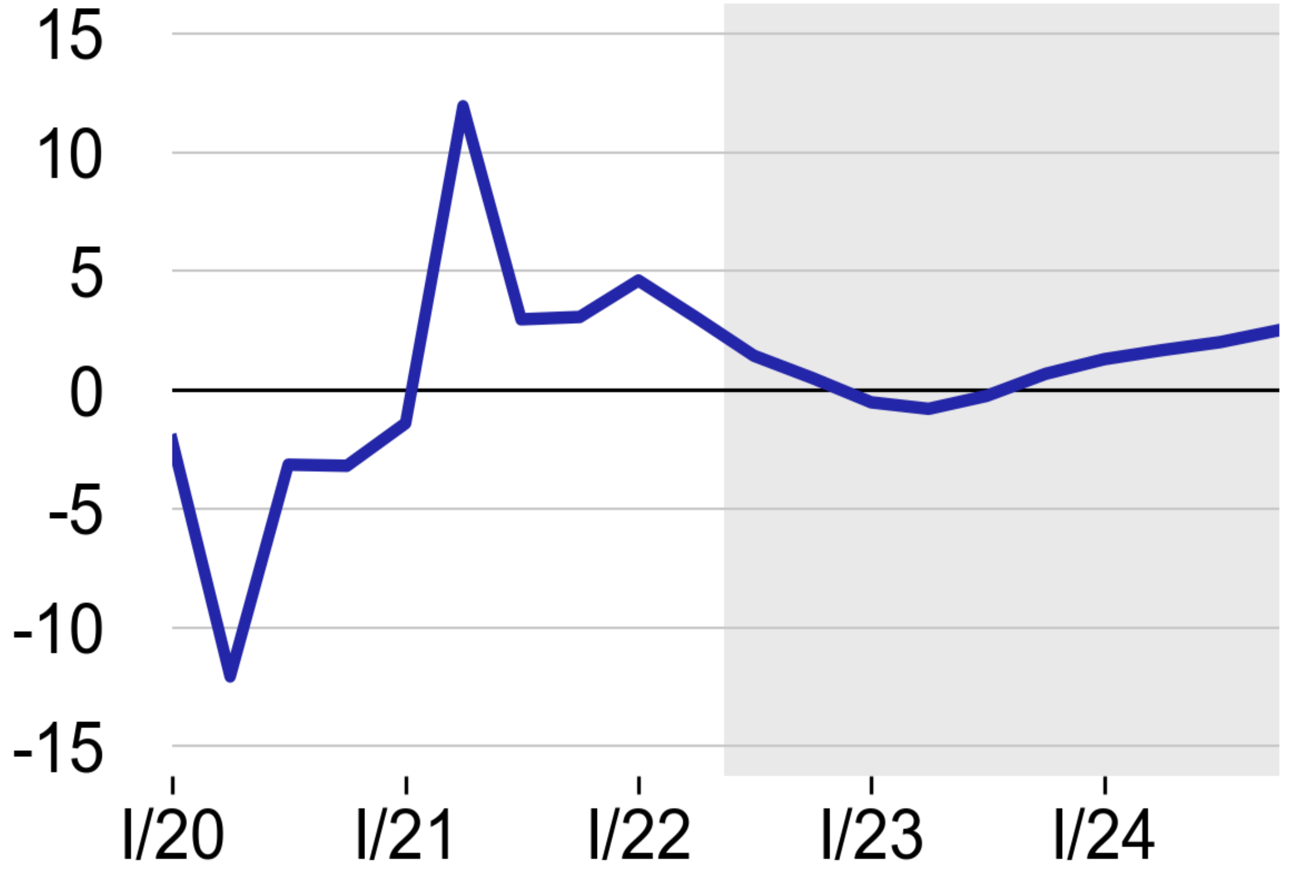
The strong external cost pressures are gradually fading and the need to exempt them is lower than in the previous forecast. The central bank is thus now looking at a monetary policy horizon 15–21 months ahead, which, as in the summer forecast, covers the first half of 2024.

Presentation Outline

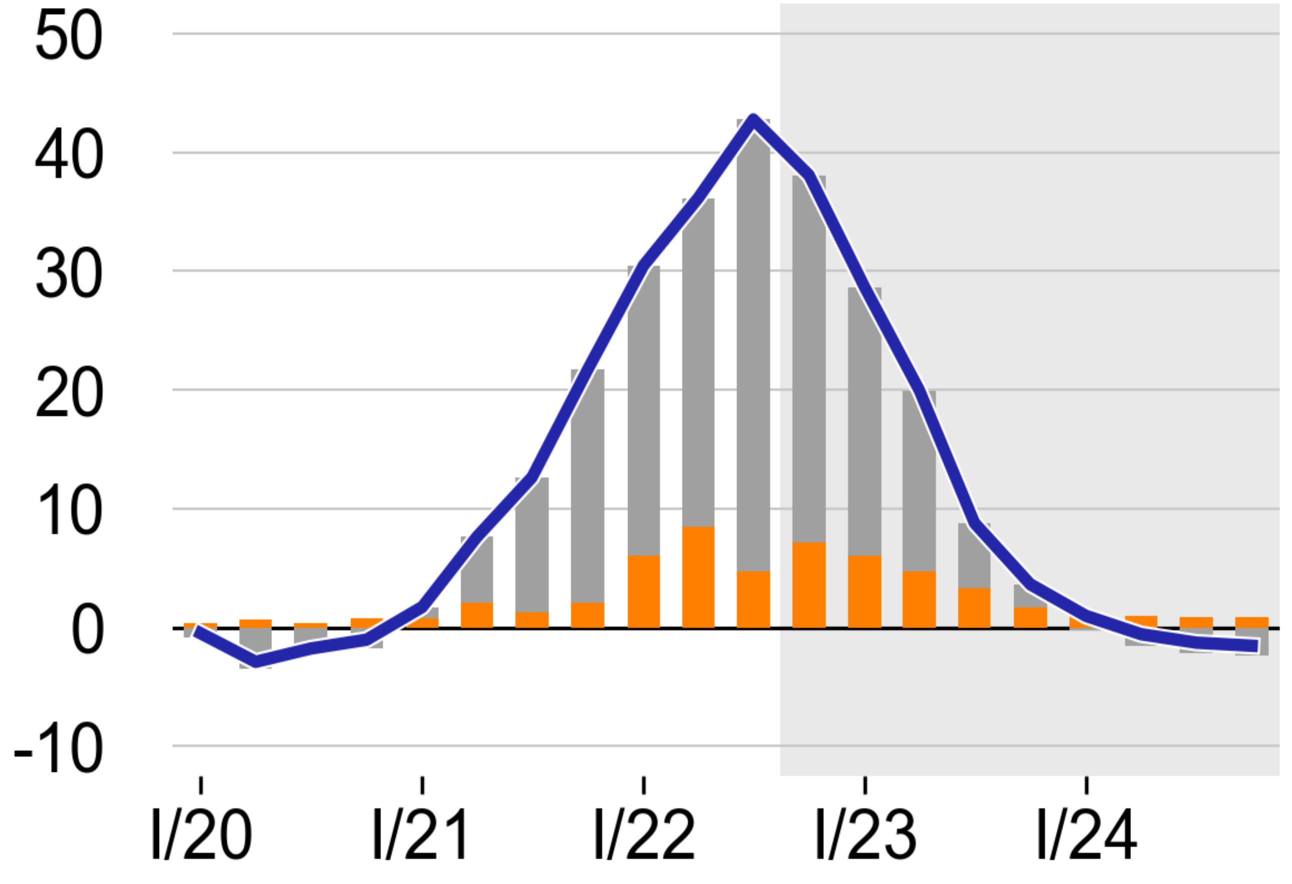
1. **Assumptions of the Forecast**
2. The New Macroeconomic Forecast
3. Comparison with the Previous Forecast
4. Monetary Policy Simulations

External Environment Outlook

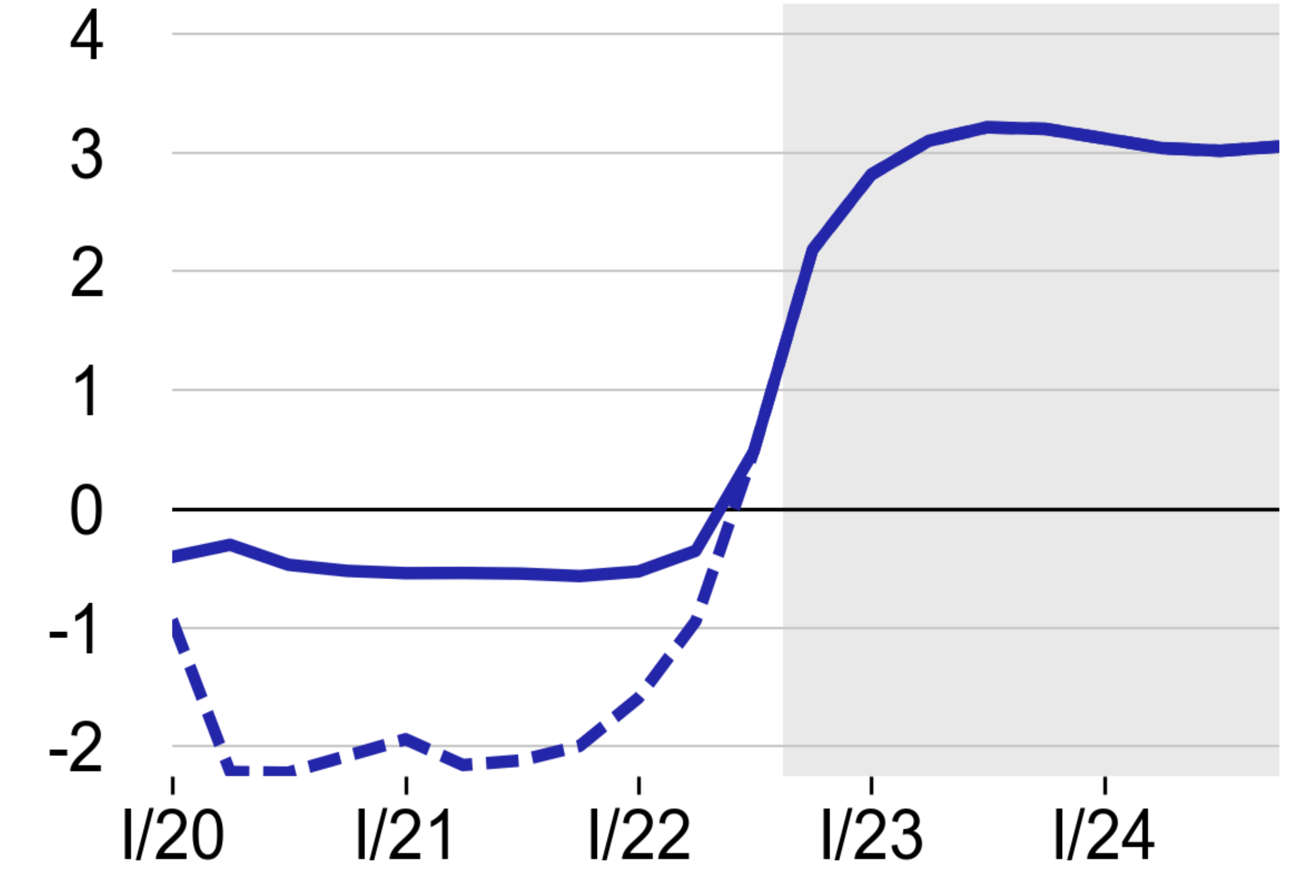
GDP - effective euro area (y/y, in %)



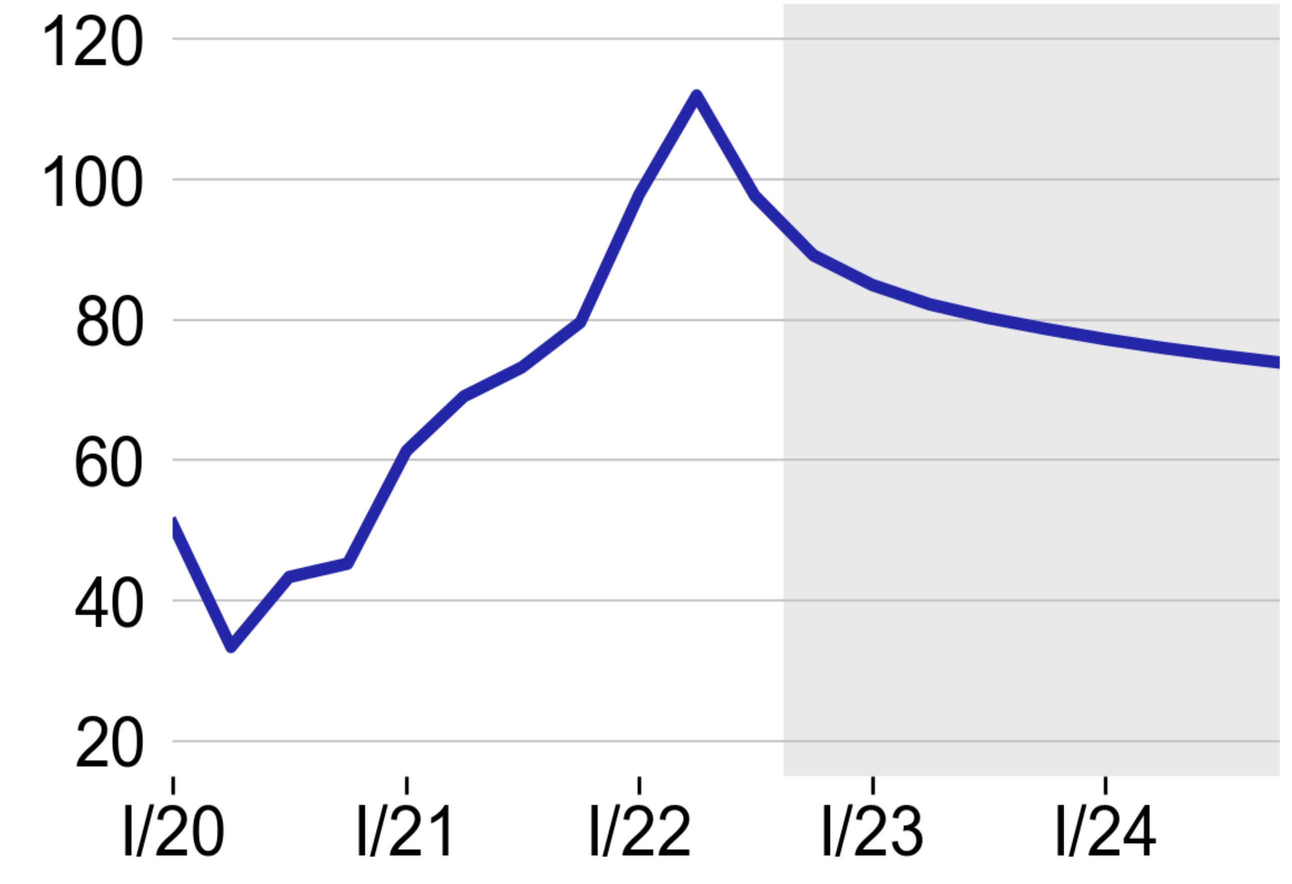
PPI - effective euro area (y/y, in %)



3M EURIBOR (%, p. a.)



Brent oil price (USD/b)



Core foreign prices Energy prices Shadow rate

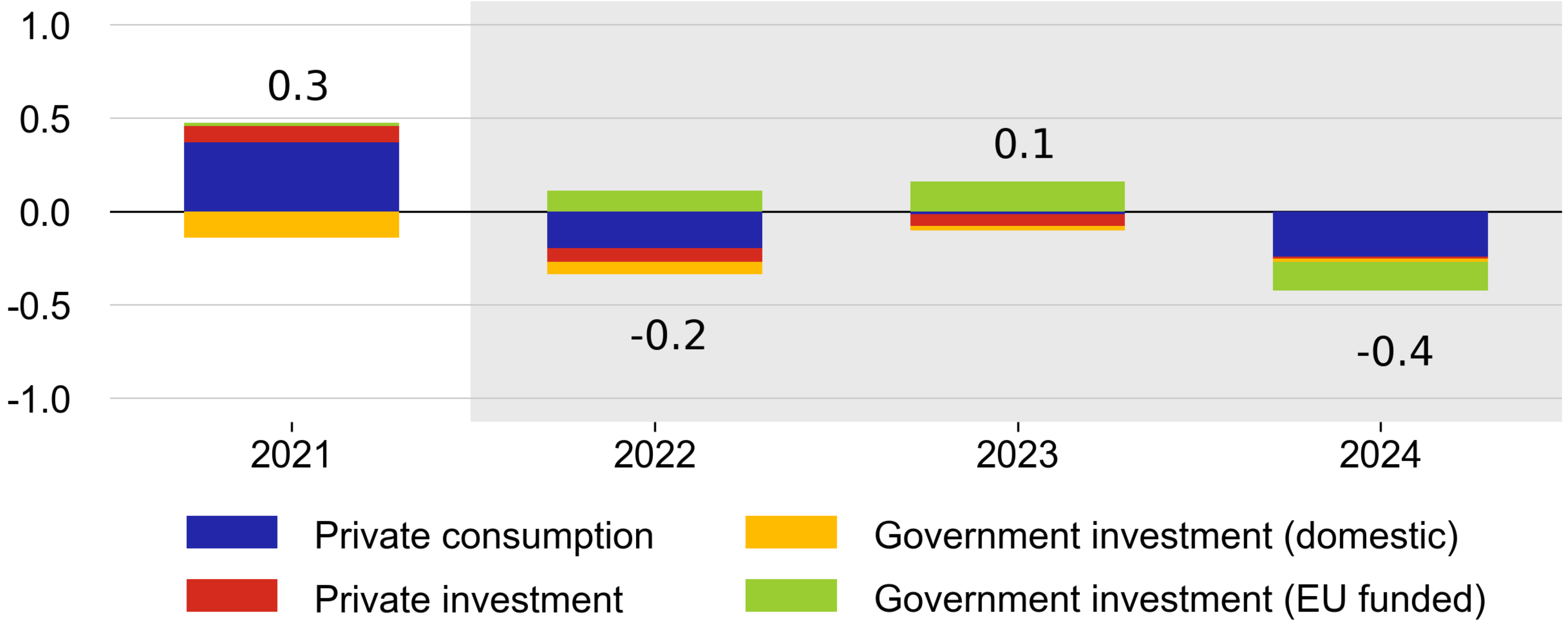
- The European energy crisis and global demand slowdown will cause **effective euro area GDP** to decline. The economy will recover in autumn 2023 as supply chain disruptions ease and international trade recovers.
- The current extraordinary **price growth in industry** abroad is being driven mainly by the energy component (prices of gas and electricity). It will slow down next year due to an expected decline in commodity prices and easing of supply chain stress.
- The outlook for the **Brent crude oil price** remains falling in expectation of a global economic downturn.
- The market outlook for rising interest rates reflects the **ECB's** expected reaction to the increasing inflation pressures.

Fiscal Policy

Fiscal Measures Related to Rising Energy Prices

(in billion CZK)	2022	2023	Total
Remission of the fee on renewable energy sources (re-routing)	4.5	18.0	22.5
Energy compensations to households	10.4		10.4
Compensations for energy price ceilings		100.0	100.0
Subsidy program for companies for increased energy costs	15.0		15.0
Energy compensations for companies	0.5	1.5	2.0
TOTAL EXPENDITURE	**30.4**	**119.5**	**149.9**
Decrease in excise duty rates on diesel fuel	-7.4	-12.6	-20.0
Windfall tax		77.6	77.6
Levy on excess profits		15.0	15.0
TOTAL REVENUES	**-7.4**	**80.0**	**72.6**
TOTAL IMPACT ON THE GOVERNMENT BUDGET BALANCE	**-37.8**	**-39.5**	**-77.3**

Fiscal impulse (contributions to GDP growth in pp)



- Despite extraordinary refugee and energy crisis-related expenditure, **fiscal impulse** will dampen GDP growth slightly this year due to the phasing out of Covid support programmes.
- However, the restrictive impact associated with their phasing out will be partly offset this year by a large number of measures on both the revenue and expenditure sides of public budgets relating to rising energy prices.
- Next year, by contrast, **fiscal impulse** will stimulate GDP growth slightly, mainly due to the effects of an extended reduction in excise duty on diesel, and increase in the VAT registration threshold.

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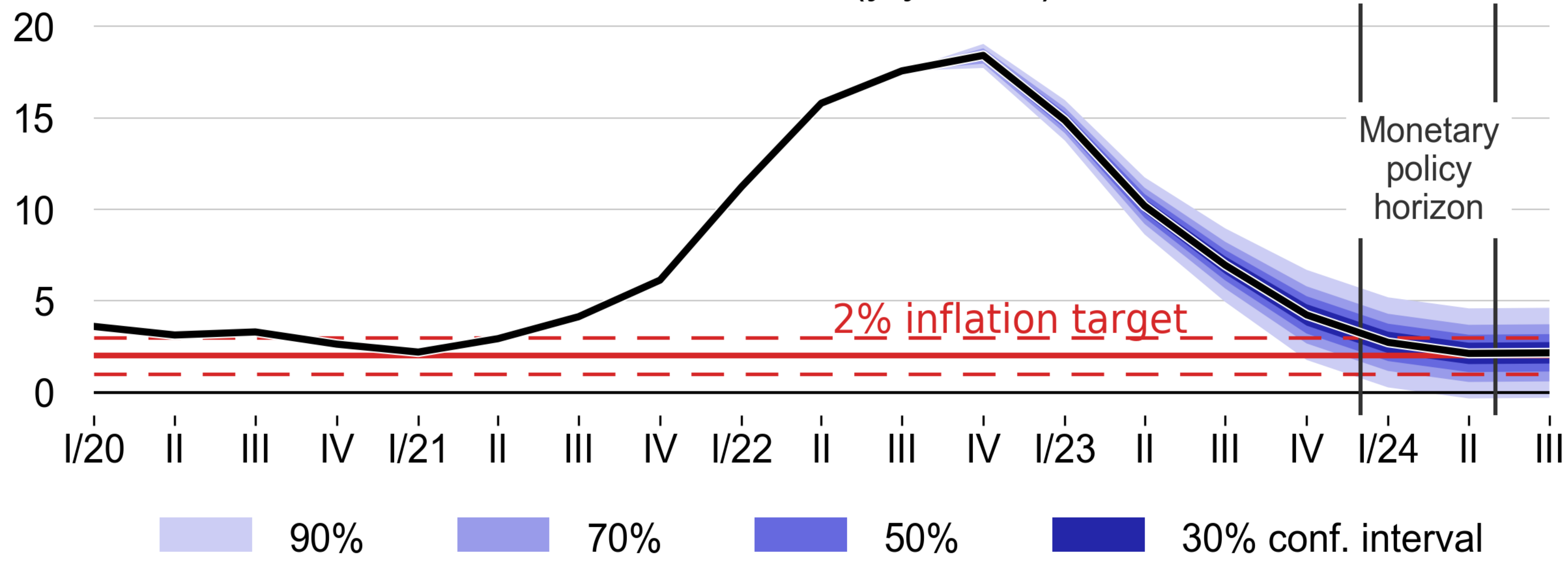
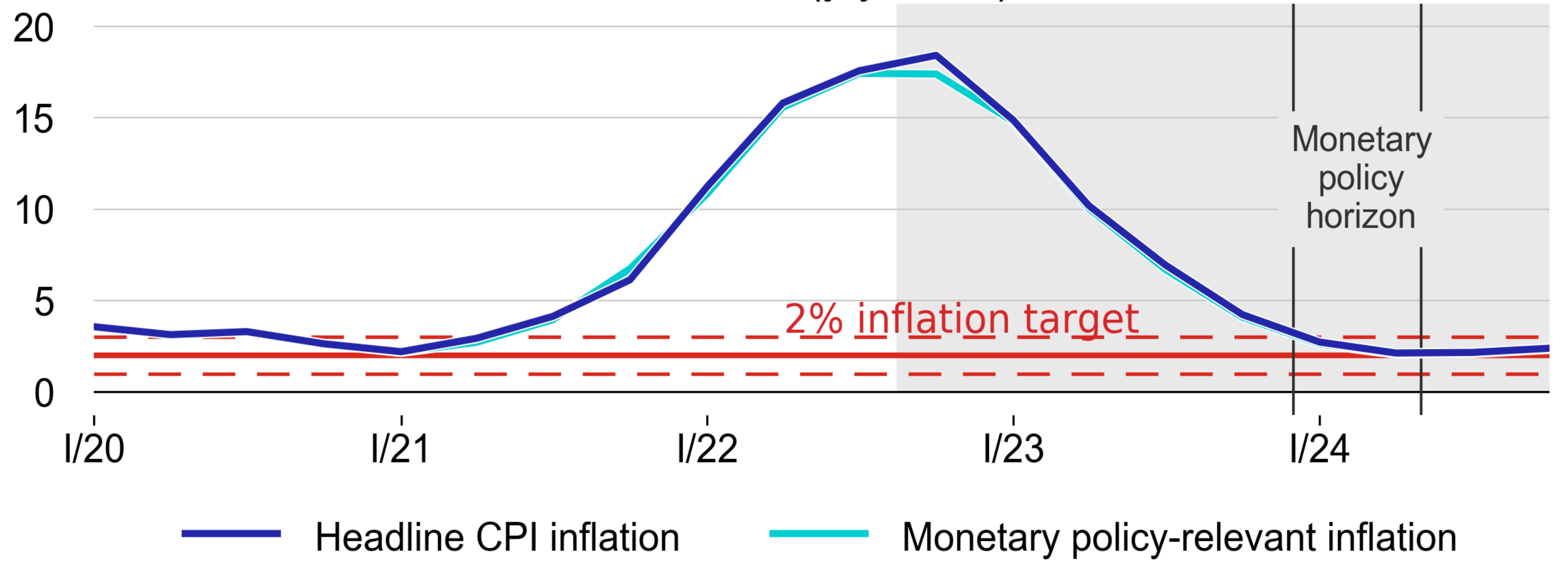
Headline and Monetary Policy-Relevant Inflation

CPI inflation (y/y, in %)

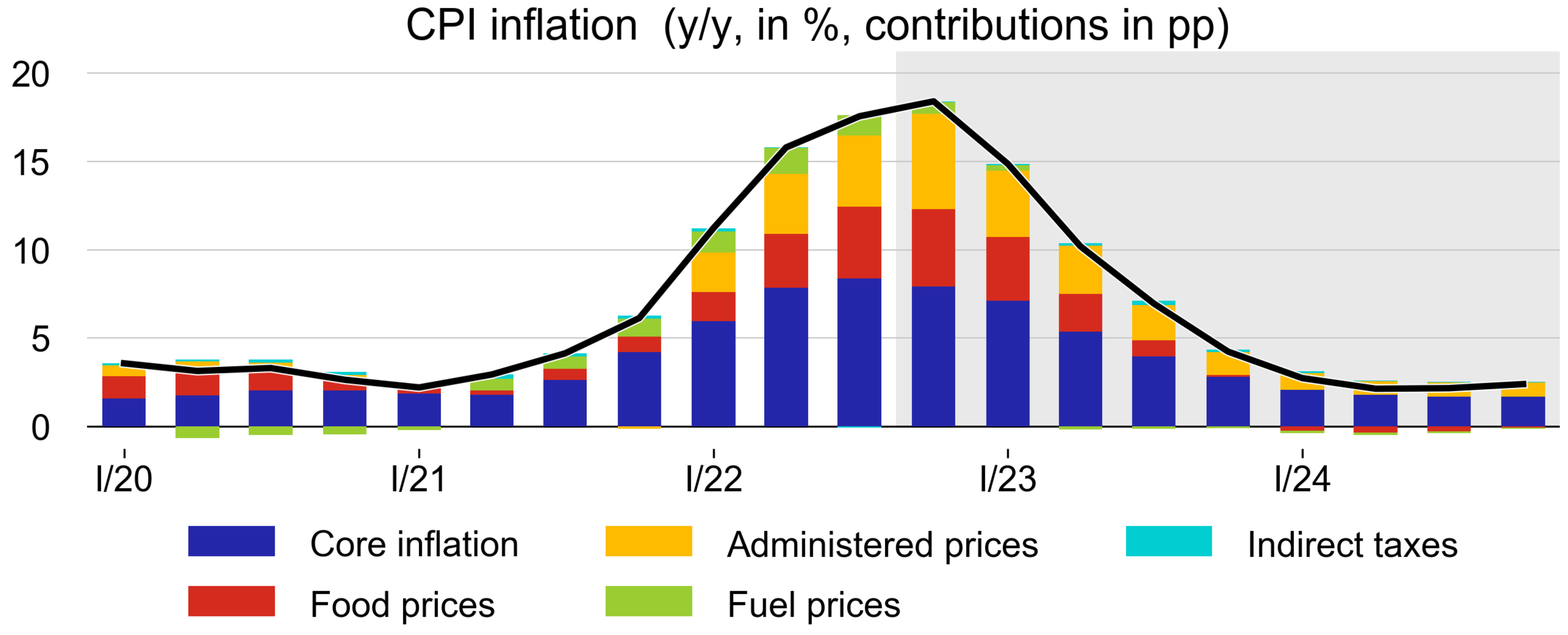


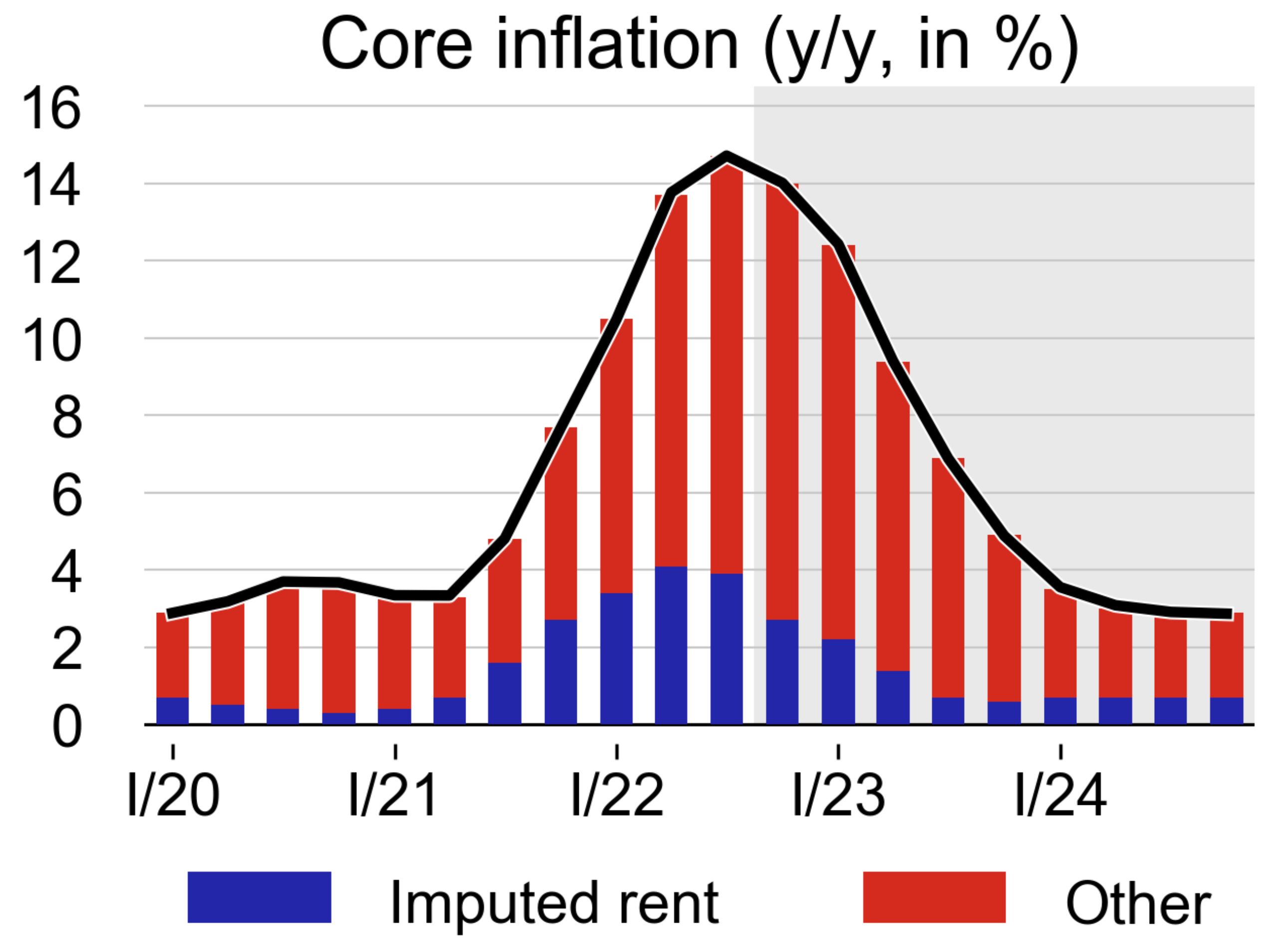
Inflation (y/y, in %)

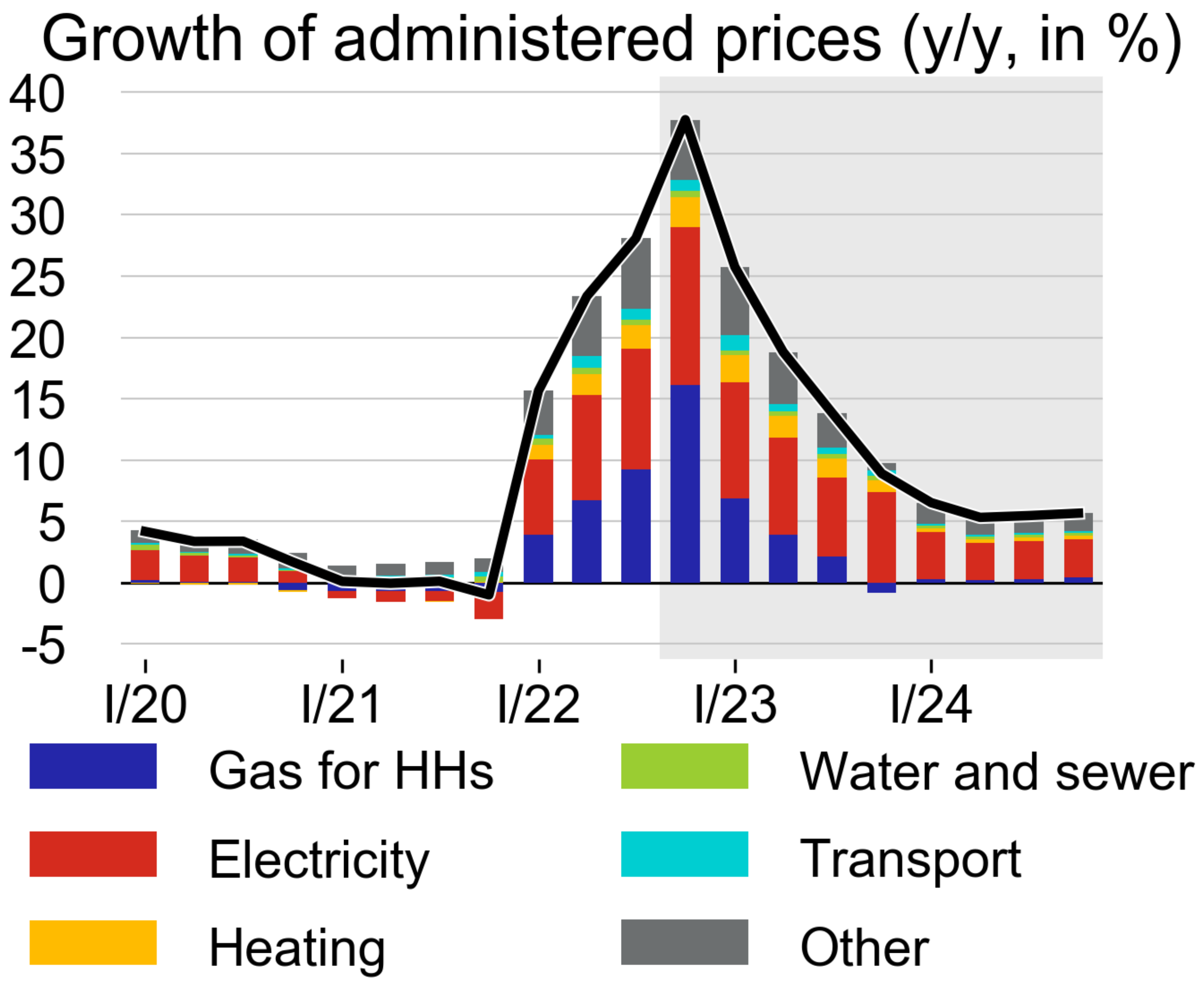


- The current high inflation will rise slightly further. **CPI Inflation** will increase above 18 % in 2022 Q4 and then start to fall, returning close to the 2% target in the first half of 2024. Growth in interest rates at the end of this year will contribute to it.
- Headline inflation will be above **monetary policy-relevant inflation** over the entire outlook.
- The temporary waiver of VAT on electricity and gas in the last two months of 2021 will widen the gap between headline and monetary policy-relevant inflation for a short time at the end of this year, due to base effects.

Inflation Components, Core Inflation and Admin. Prices



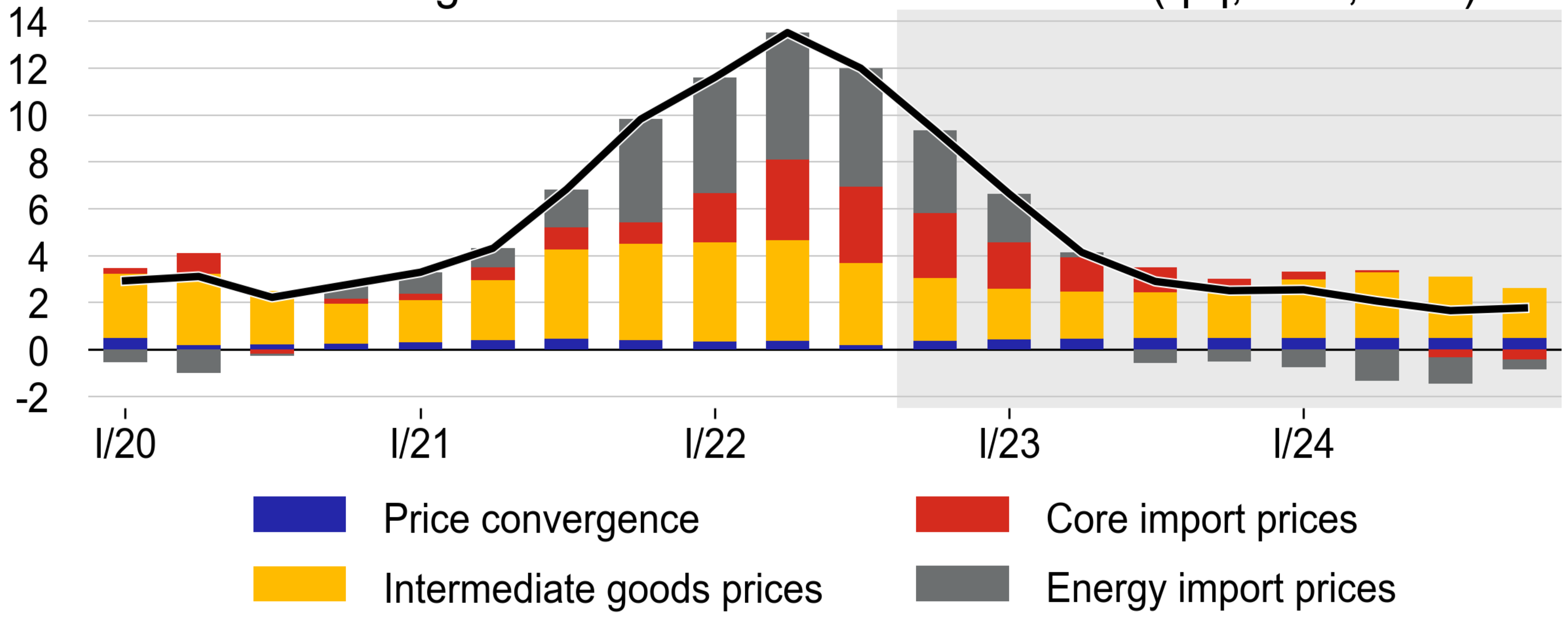




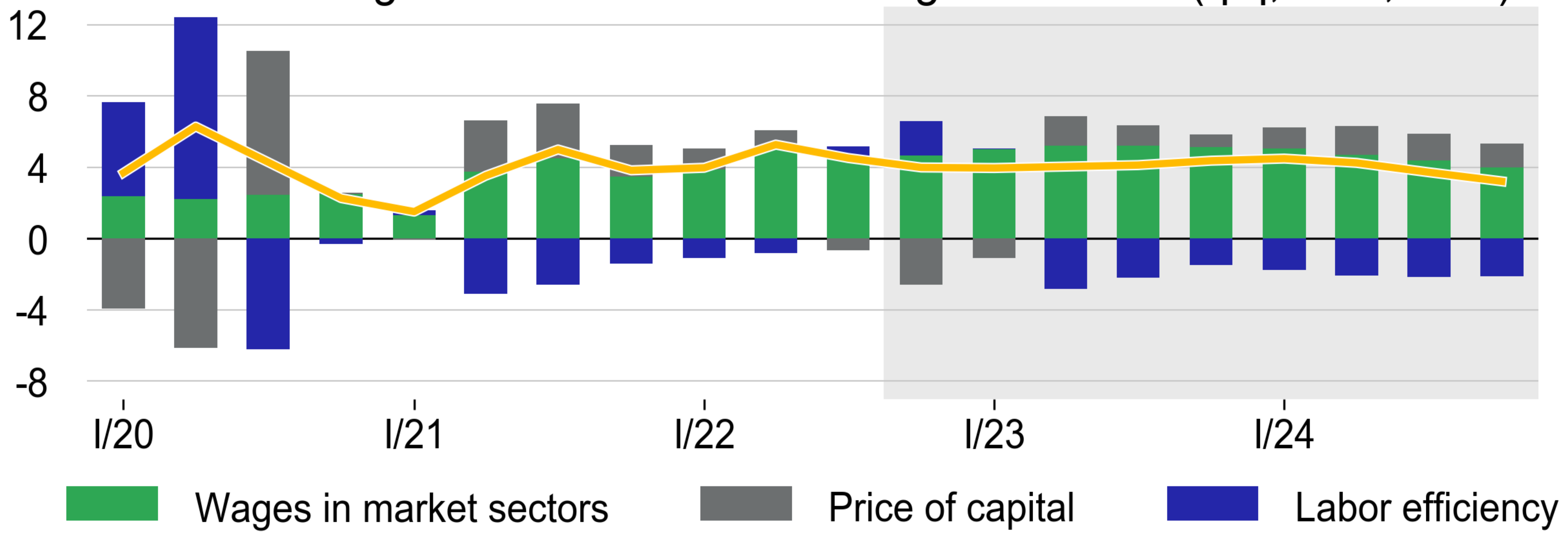
- **Price growth** will continue to be dominated by core inflation, but growing contributions of administered prices and rising food prices will also play a significant role.
- Within **core inflation**, there is still significant growth in prices of tradables, while growth in non-tradables prices has started to slow.
- The until recently increasing contribution of **imputed rent** has started to decrease since the summer, due mainly to the previous interest rate increases.
- **Administered price inflation** will be extremely high in 2022–2023 despite the dampening effects of government measures; it is not expected to ease significantly until 2024.

Cost Pressures

Nominal marginal costs in the consumer sector (q/q, in %, ann.)



Nominal marginal costs in intermediate goods sector (q/q, in %, ann.)



- Growth of **total costs in the consumer sector** decelerated in 2022 Q3, owing to lower growth in import prices and prices of domestic intermediate goods.
- The strong overall cost pressures will ease rapidly in the coming quarters, due mainly to the weakening effect of import prices, but they will remain elevated until the end of 2023.
- The **domestic cost pressures** will ease somewhat at the end of this year, as economic activity will decline markedly due to a continued cooling of domestic demand.
- Growth in domestic costs will remain elevated into 2023 especially due to expected growth in wages.

Labour Market

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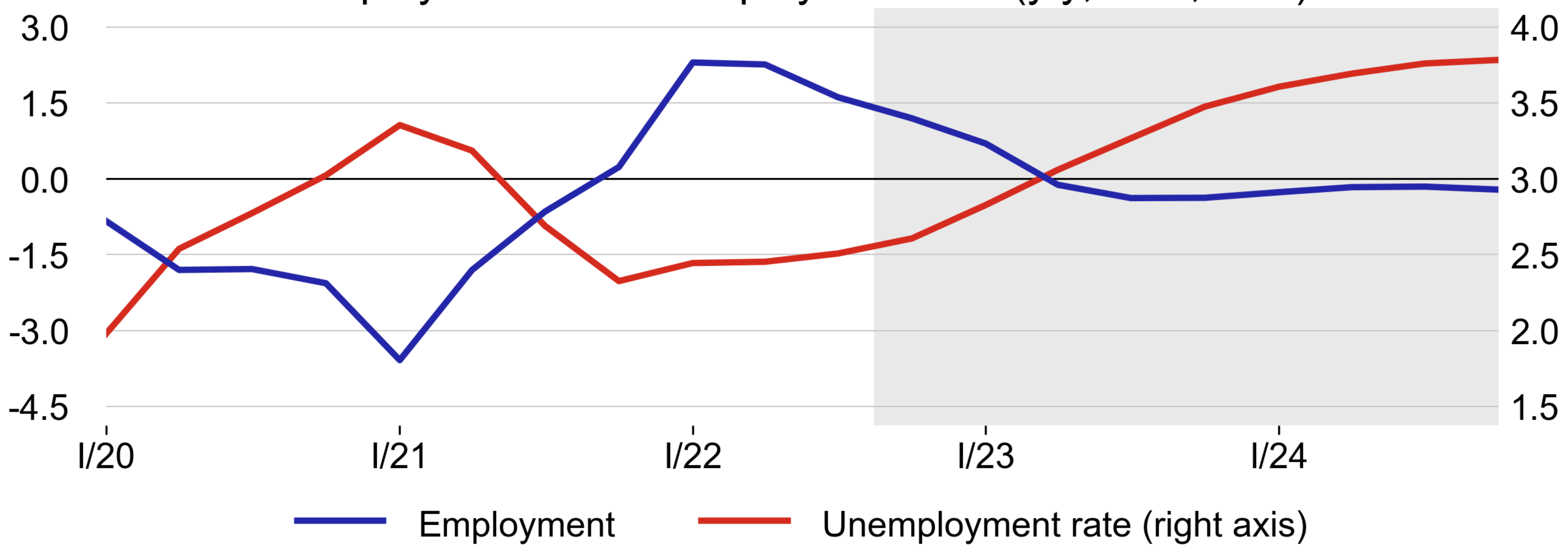
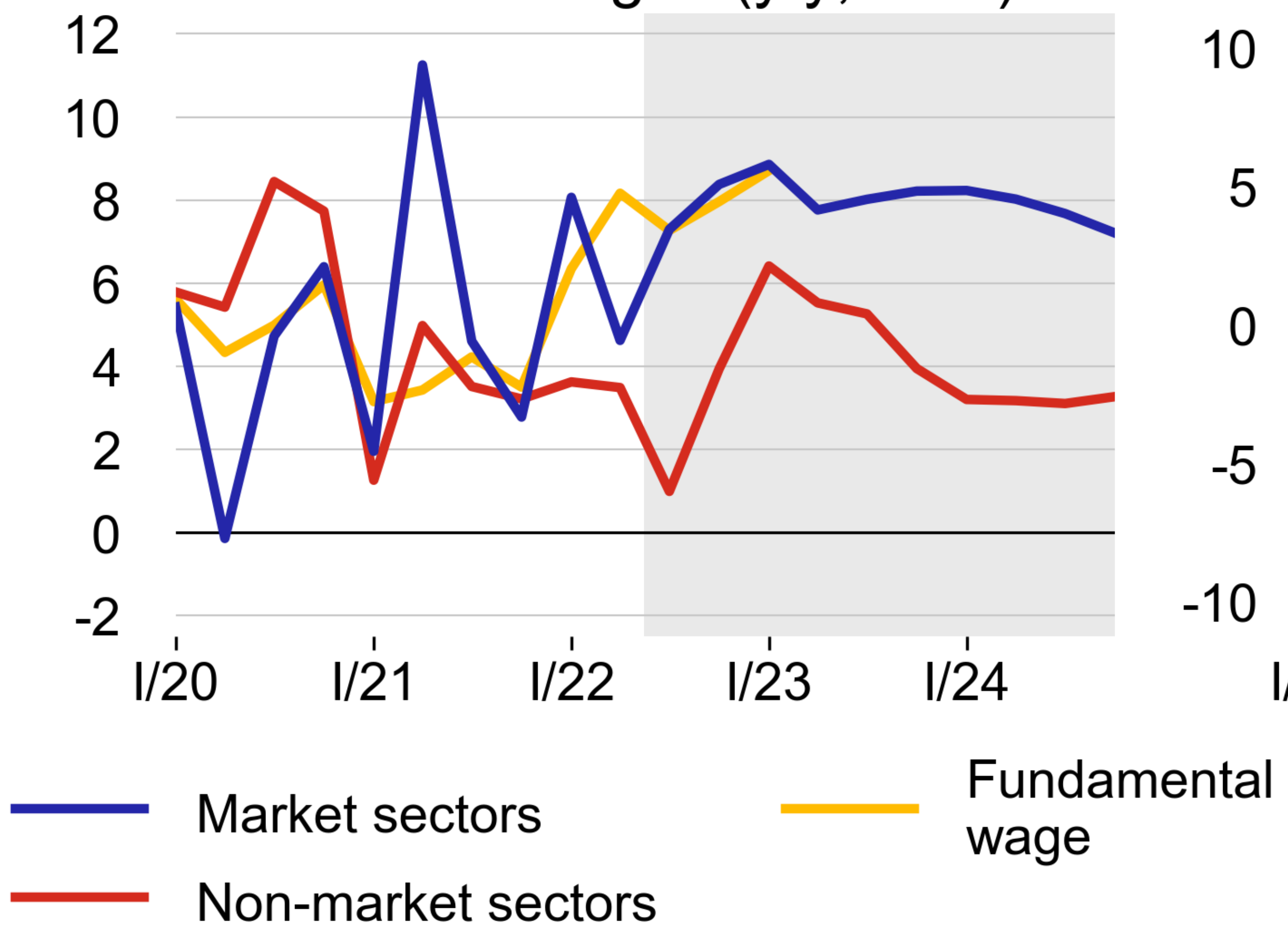
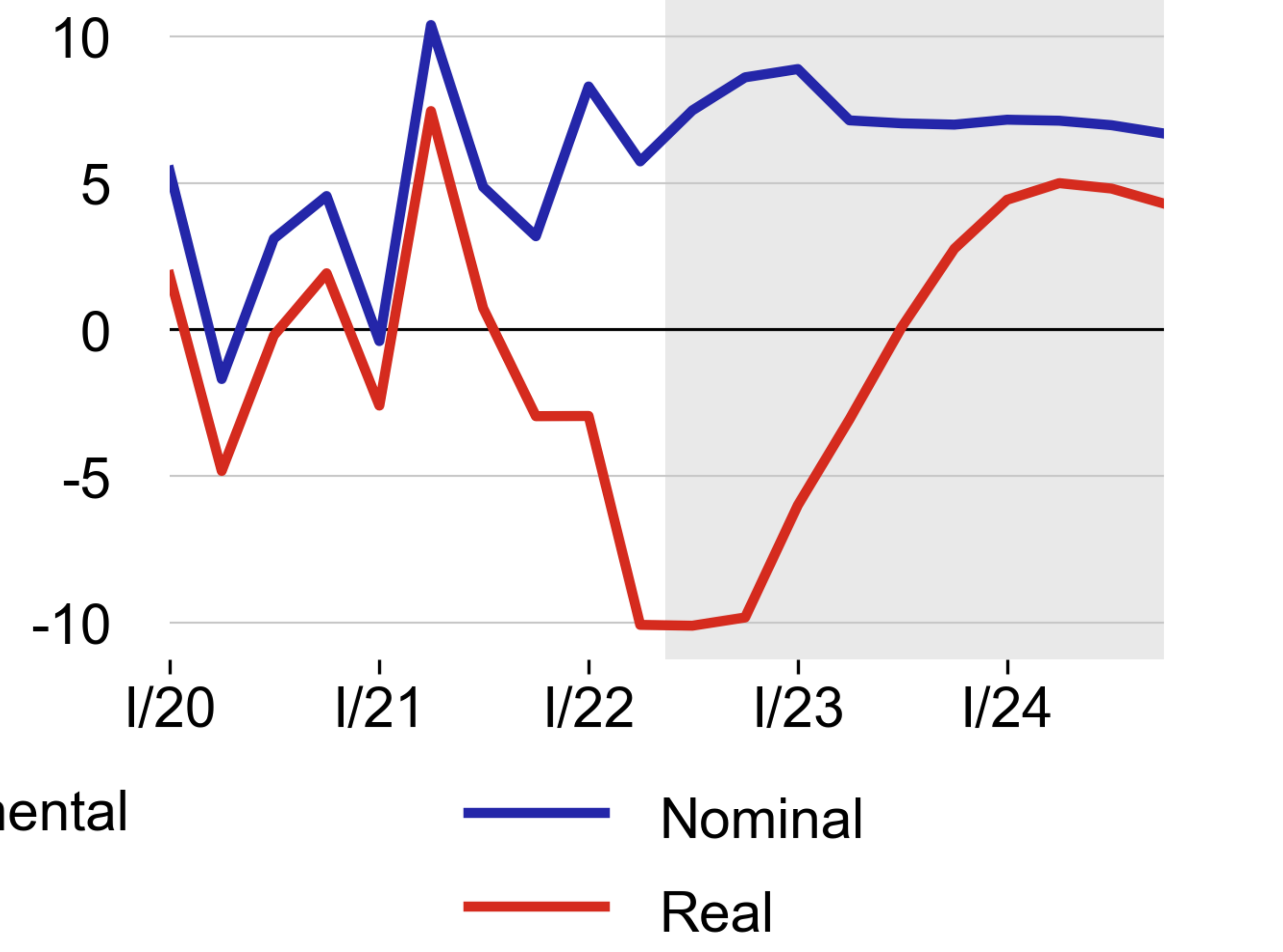
Employment and unemployment rate (y/y, in %, s. a.)



Nominal wages (y/y, in %)



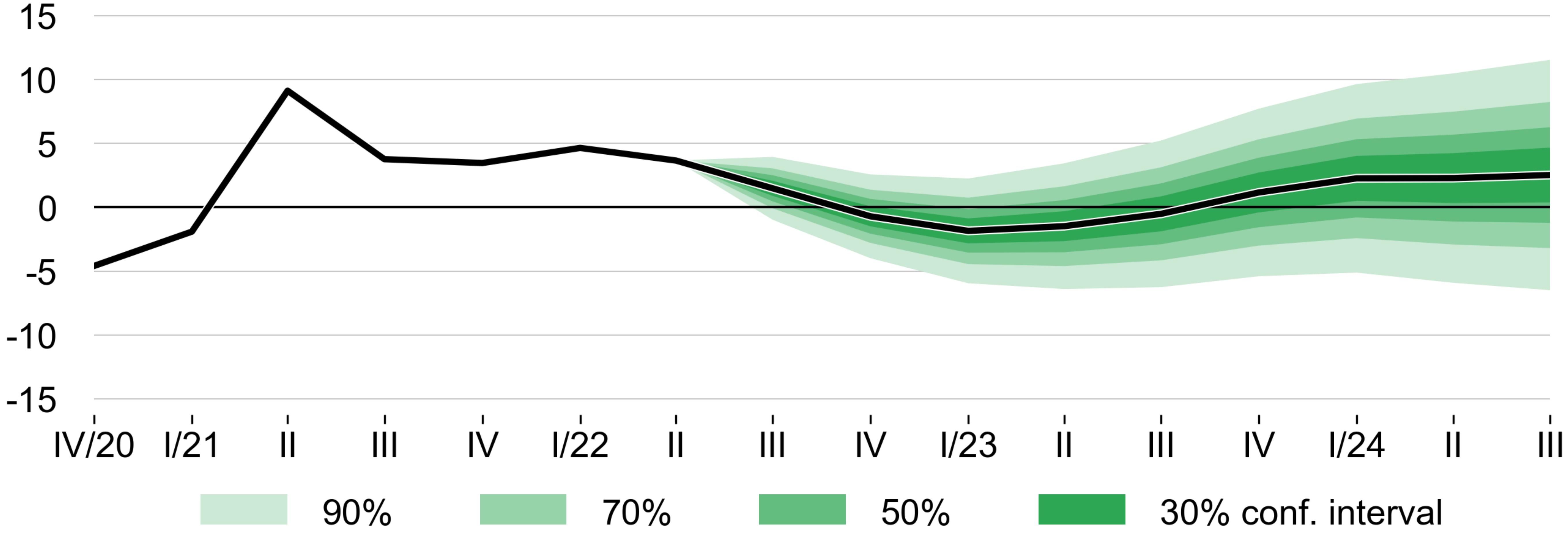
Volume of wages and salaries (y/y, in %)



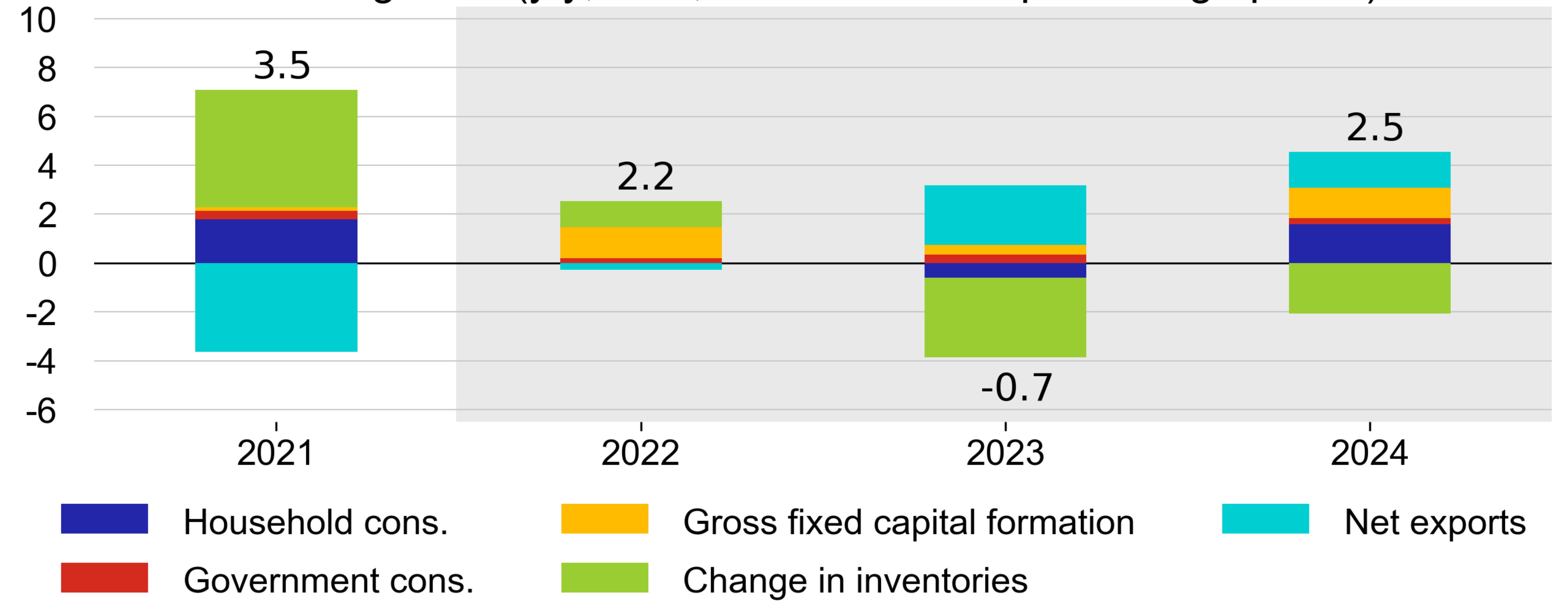
- **Employment** will peak this year and then gradually fall in response to declining economic activity. **The general unemployment rate** will start to rise gradually at the end of the year. It will then return to the range not indicating an overheating labour market at the end of the forecast horizon.
- **Nominal wage growth** will accelerate appreciably in market sector. This will reflect the strong bargaining position of employees; the scope to raise wages in firms will be however limited due to high input prices.
- **Growth in the real volume of wages and salaries** will be deeply negative in the next few quarters due to high inflation and will thus lead to subdued growth in household consumption.

GDP Growth Forecast

GDP growth (y/y, in %)

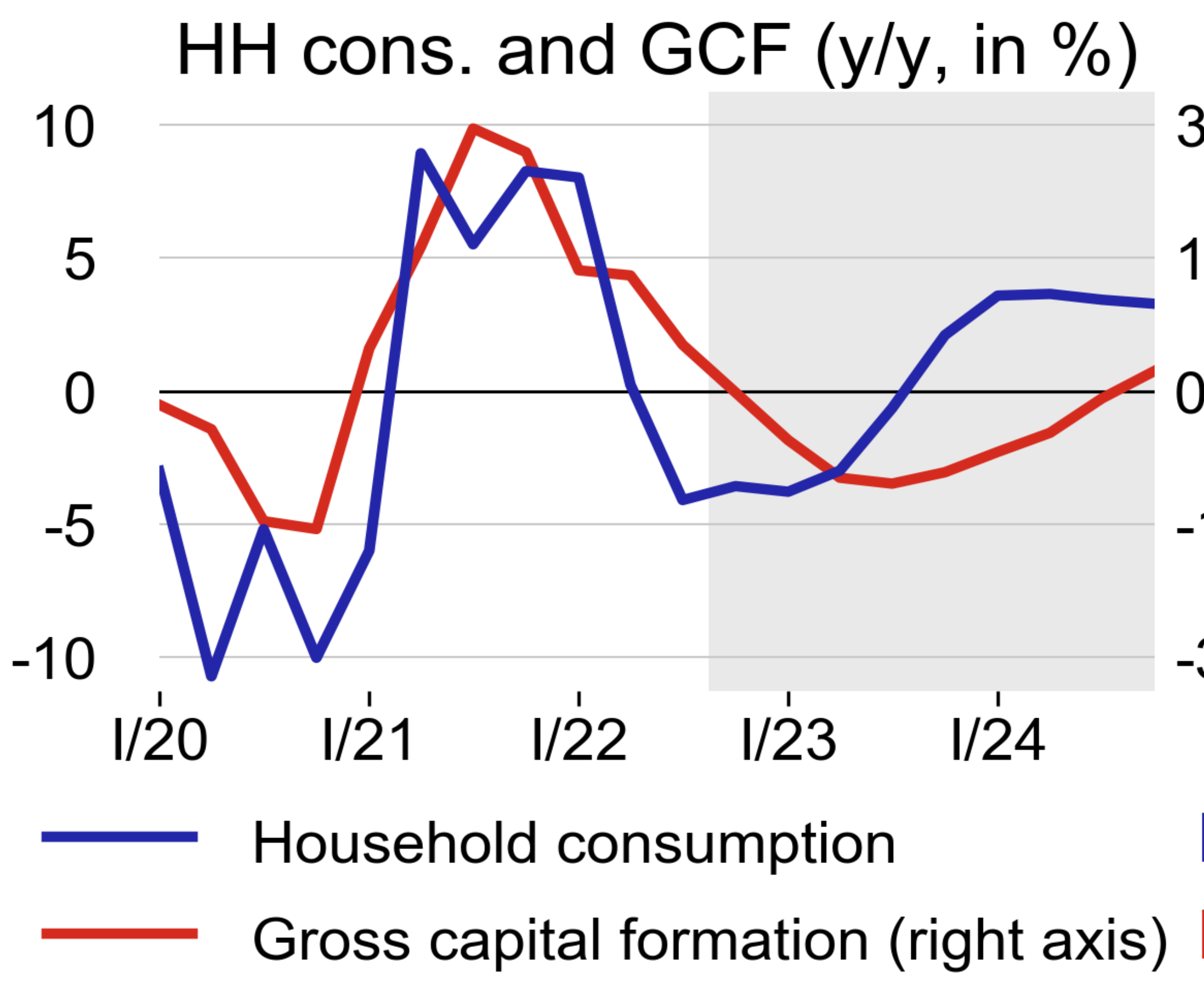


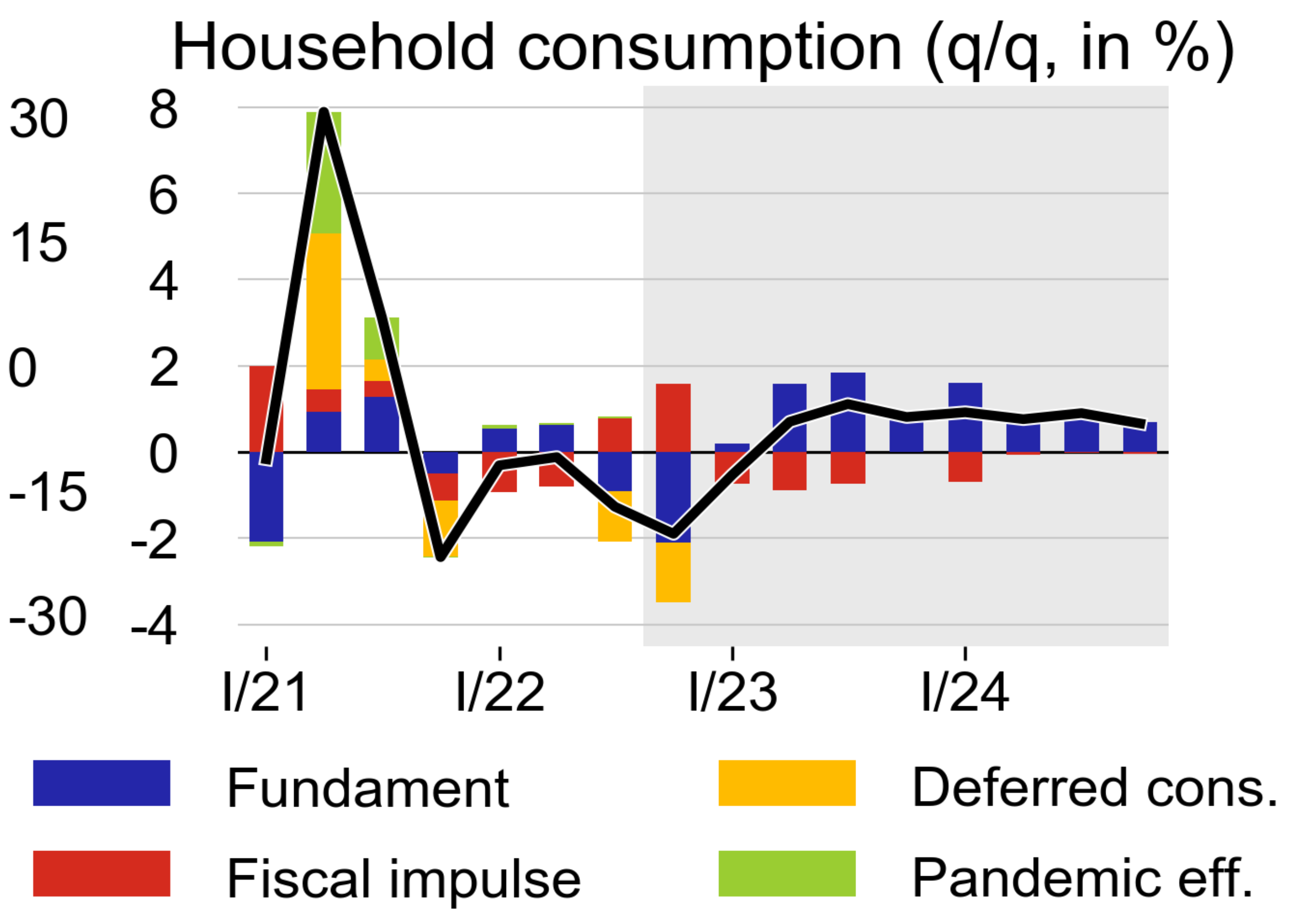
GDP growth (y/y, in %, contributions in percentage points)

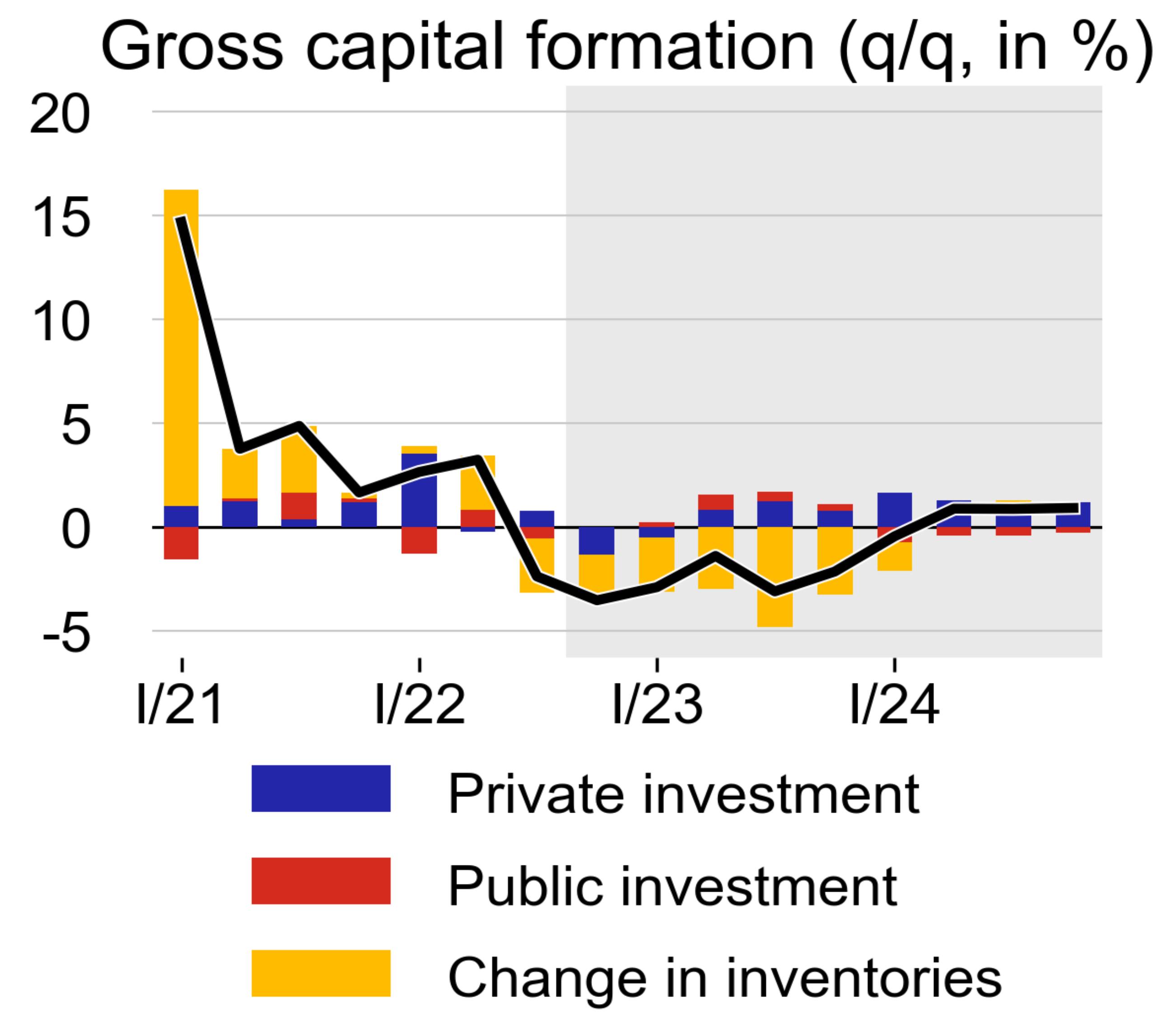


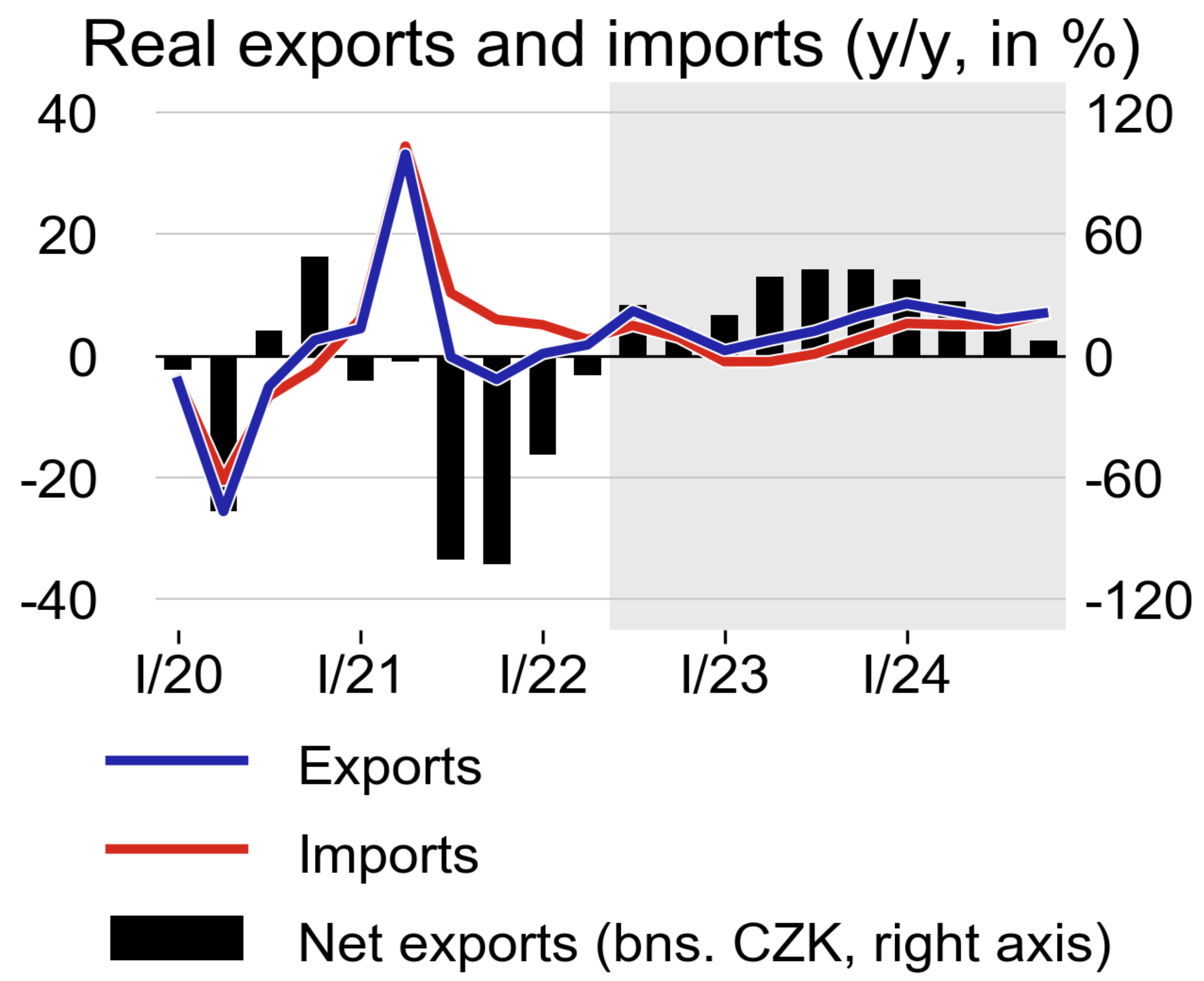
- **Economic growth** will be dampened in the coming quarters by a further deterioration in the financial situation of Czech firms and households, a cooling of external demand and persisting problems in global value chains.
- The economy will contract, with year-on-year growth not recovering fully until 2024.
- GDP growth will slow to approx. **2%** this year in **whole-year terms**. In 2023, it will decrease slightly, and return to growth of around **2.5%** in 2024.
- According to a **preliminary CZSO estimate**, Czech GDP **increased** by **1.6%** y/y in 2022 Q3 and **decreased** by **0.4%** q/q, which is in line with the CNB forecast.
- The previous overheating of the economy will fade away quickly in the 2022 H2 and the economy will be operating somewhat below its **potential**.

GDP Components



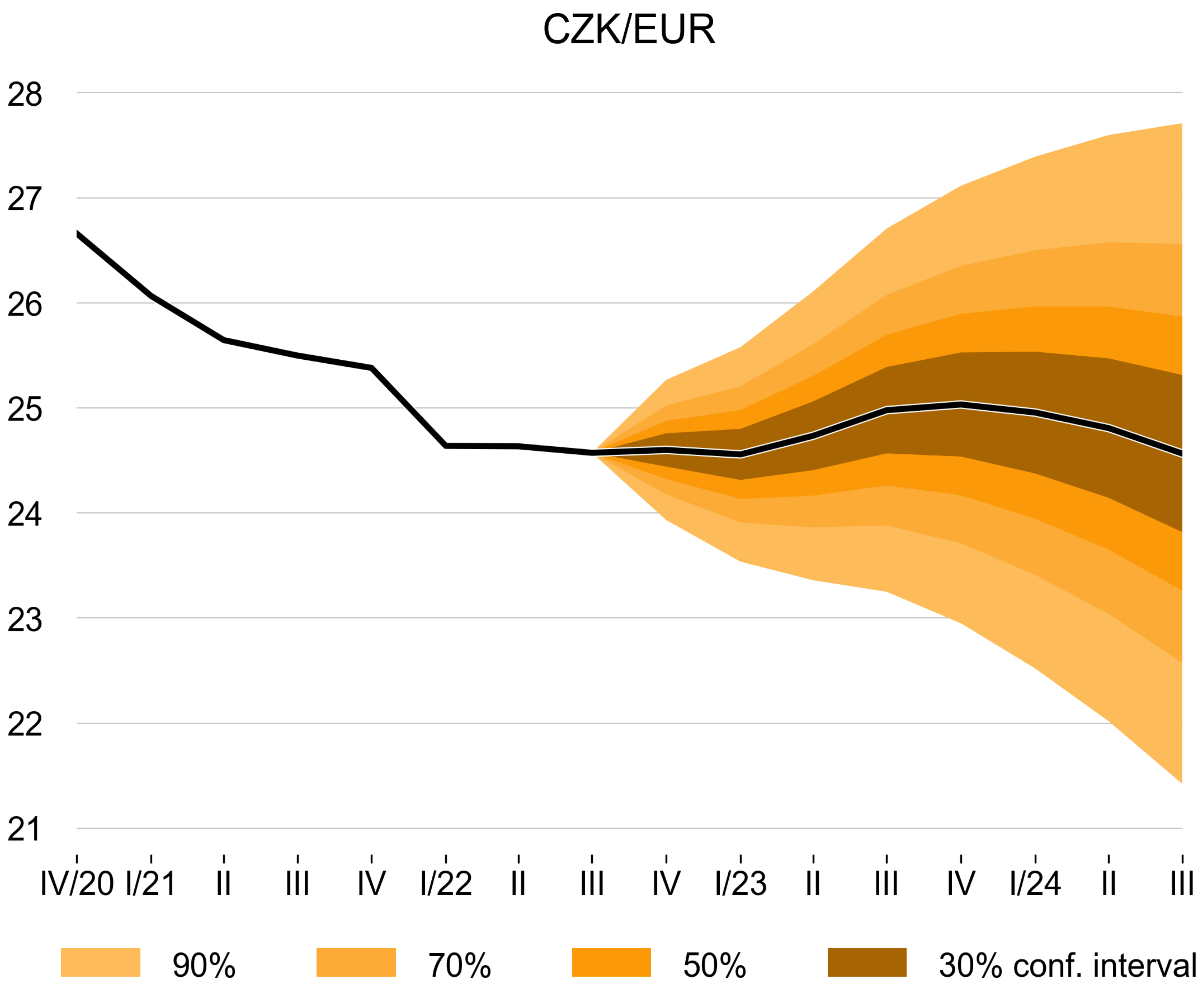






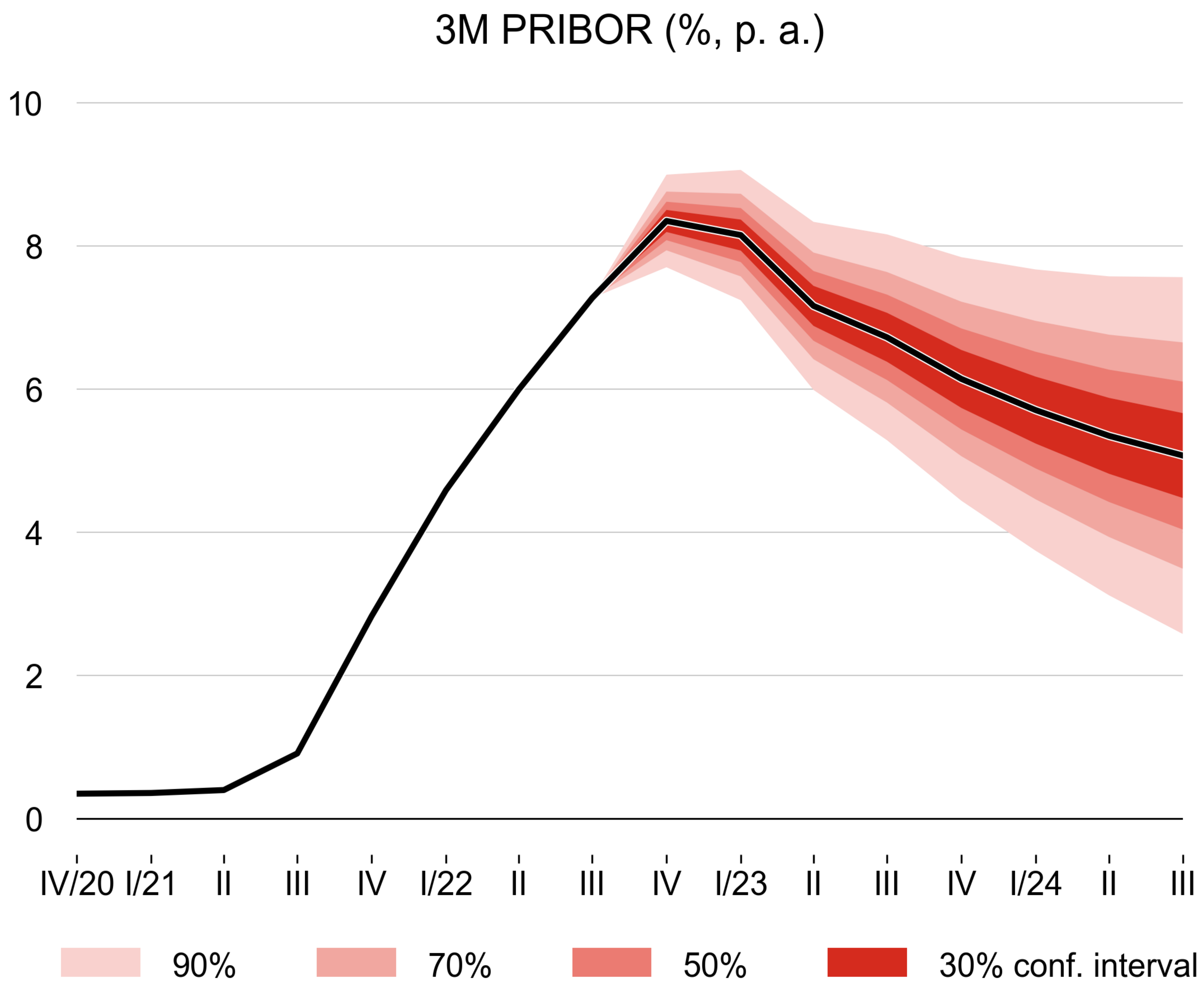
- **Household consumption** will be adversely affected by a sharp fall in real income and a record deterioration in sentiment, while fiscal policy – including financial compensation for costly energy – will have the opposite effect. As a result, household consumption will decline in y-o-y terms for most of next year.
- Households' purchasing power will later improve as inflation drops significantly. Renewed real wage growth will then trigger growth in private consumption.
- **Growth in total gross investment** will be affected predominantly by **additions to inventories**.
- **Export** and **import growth** will slow next year due to a downturn in external and domestic demand.

Exchange Rate CZK/EUR



- The forecast expects the **koruna** to average CZK 24.6 to the euro in 2022 Q4 and stay at similar levels over the next few quarters.
- However, the exchange rate will later be affected by a gradually **narrowing interest rate differential**. It will thus tend to depreciate slightly next year.
- After the negative impacts of disrupted global value chains and the direct impacts of the war in Ukraine fade out, the balance of trade will return to a surplus and global sentiment will improve. This will in turn be reflected in moderate **appreciation** of the koruna during 2024.

Interest Rate Path (3M PRIBOR)



- Consistent with the forecast is a rise in **market interest rates** initially, followed by a gradual decline in the course of next year.
- The baseline scenario of the forecast assumes that the central bank sets interest rates in order to achieve the 2% target at a **monetary policy horizon 15–21 months** ahead.
- A gradual fading of cost price pressures, combined with continued tightening of domestic monetary policy, will result in inflation falling close to the target in the first half of 2024. Interest rates will thus be able to start decreasing gradually in the course of next year.

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Comparison with Previous Forecast: Domestic Economy

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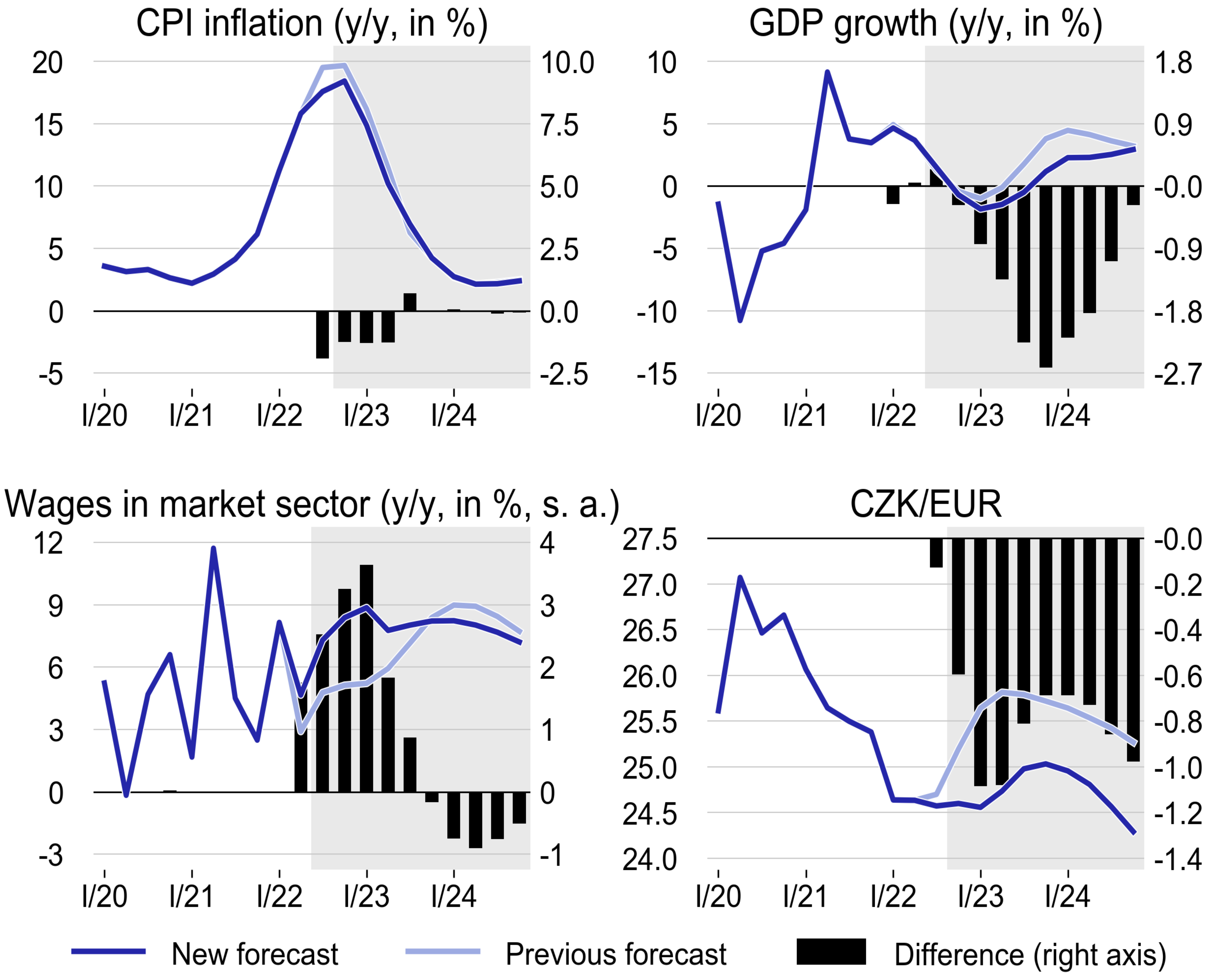
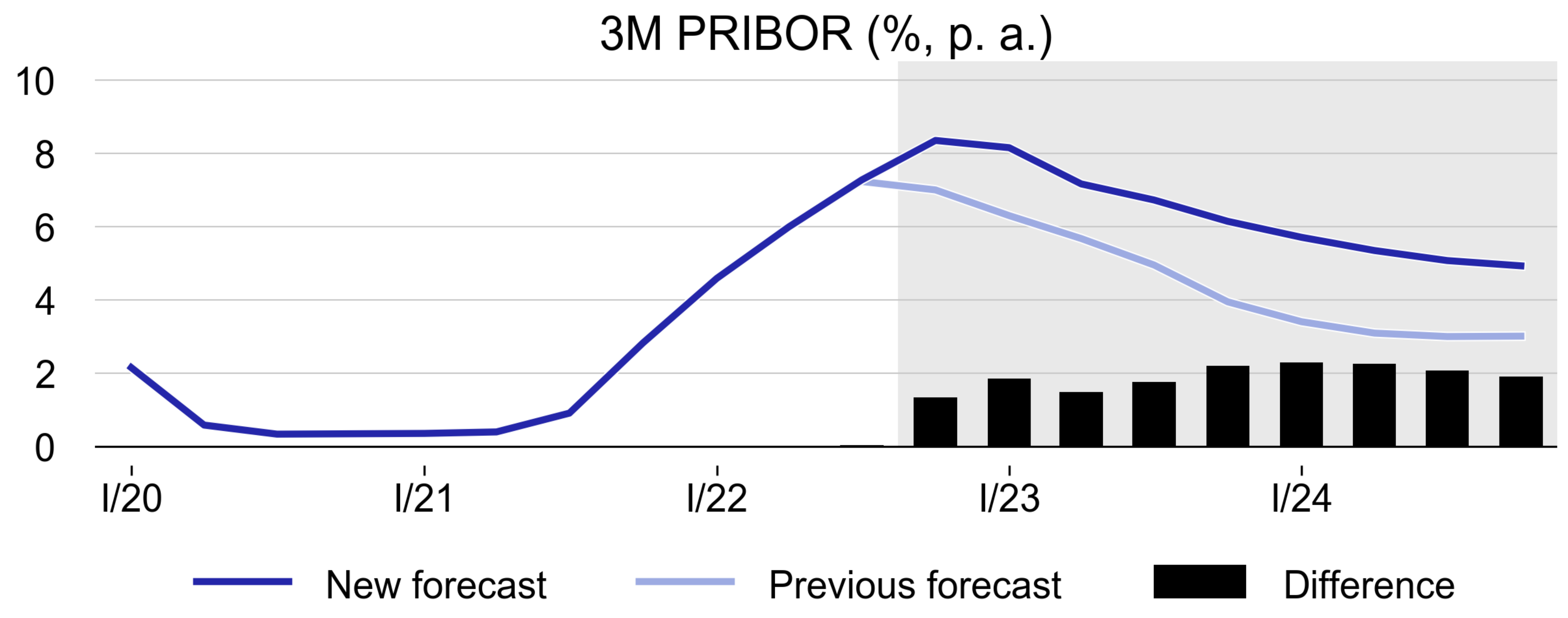
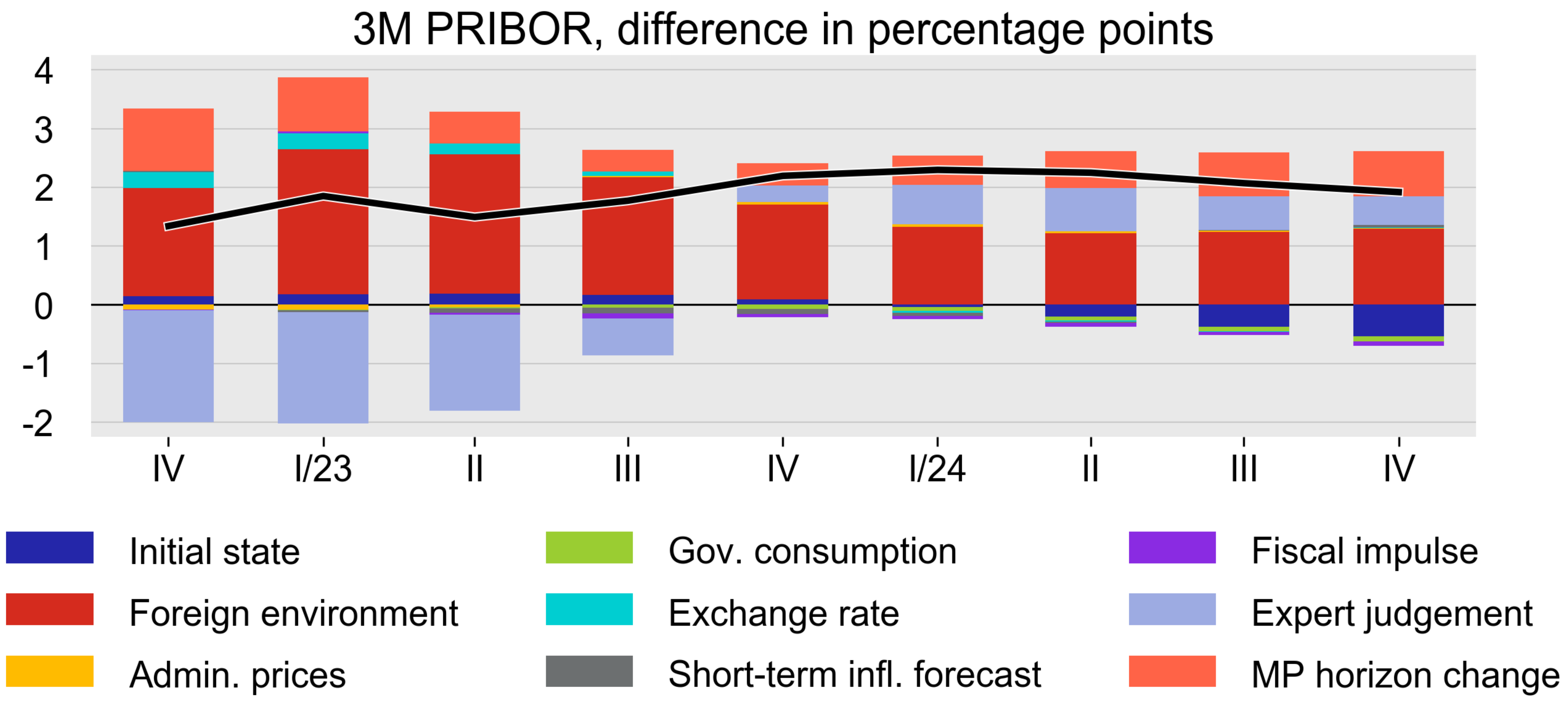


- The downward revision of the **inflation** forecast is due to all its components.
- **Economic growth** will be considerably lower in the next two years due to a greater cooling of domestic and external demand.
- The higher **wage growth** this year and the next mainly reflects the stronger figures observed in 2022 H1; the worse condition of firms and lower demand for labour reduce the wage growth outlook for 2024.
- **The exchange rate** of the koruna will be stronger over the entire forecast horizon.
  - The shift to stronger levels at the near end is due to its observed levels.
  - The assumption of a limited pass-through of the rapidly rising interest rates abroad to the koruna’s exchange rate via the interest rate differential in the coming quarters acts also in the same direction.

Comparison with Previous Forecast: 3M PRIBOR





- **The interest rate** path has moved higher.
- **The foreign outlook** fosters higher rates over the entire forecast horizon (significantly stronger expected tightening of ECB monetary policy, a weaker outlook for the euro-dollar exchange rate).
- **The shift of the monetary policy horizon** by one quarter closer to the present fosters higher interest rates along the entire forecasted path.
- **Expert adjustments** foster lower rates at first (expert reduction of the effect of the narrowing interest rate differential on the exchange rate, expertly reduced domestic economic activity). From next autumn the overall effect of expert adjustments is positive (downward expert adjustment of labour productivity growth with continued brisk wage growth).

Presentation Outline

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2. The new Macroeconomic Forecast

3. Comparison with the Previous Forecast

4. **Monetary Policy Simulations**

Simulation Featuring Different Monetary Policy Horizons

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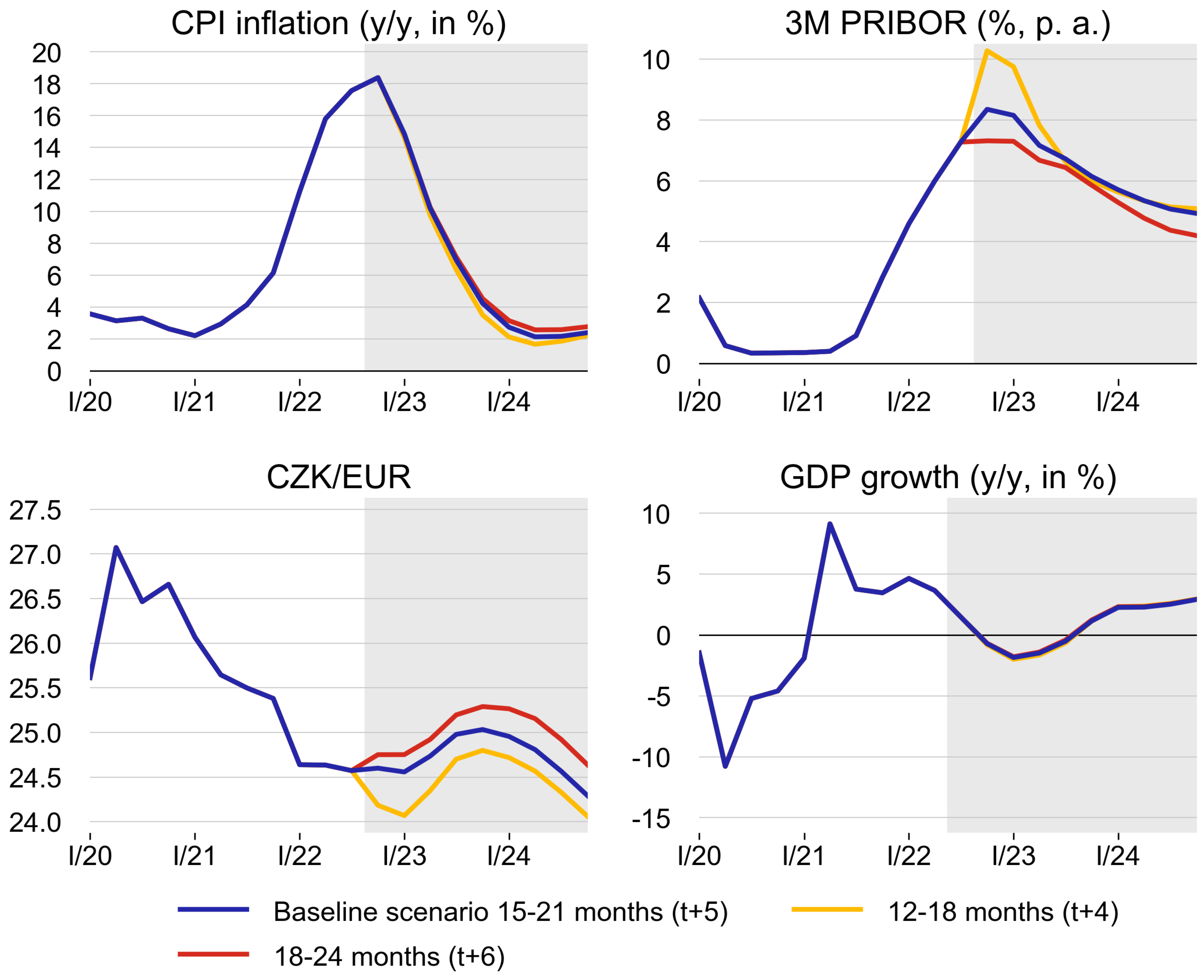

- The central bank's response differs depending on the **monetary policy horizon** selected.
- The strongest response is required in the simulation with the "nearest" monetary policy horizon **12–18 months** ahead (yellow in the charts), as the central bank endeavours to steer inflation to the 2% target in a year to a year and a half.
- The simulation with the "farthest" monetary policy horizon **18–24 months** ahead (red in the charts) implies broadly stable rates until the start of next year. The exchange rate remains weaker than in the baseline scenario over the entire outlook. The easier monetary conditions in both the interest rate and exchange rate components lead to somewhat higher inflation.

The Unanchored Inflation Expectations Scenario

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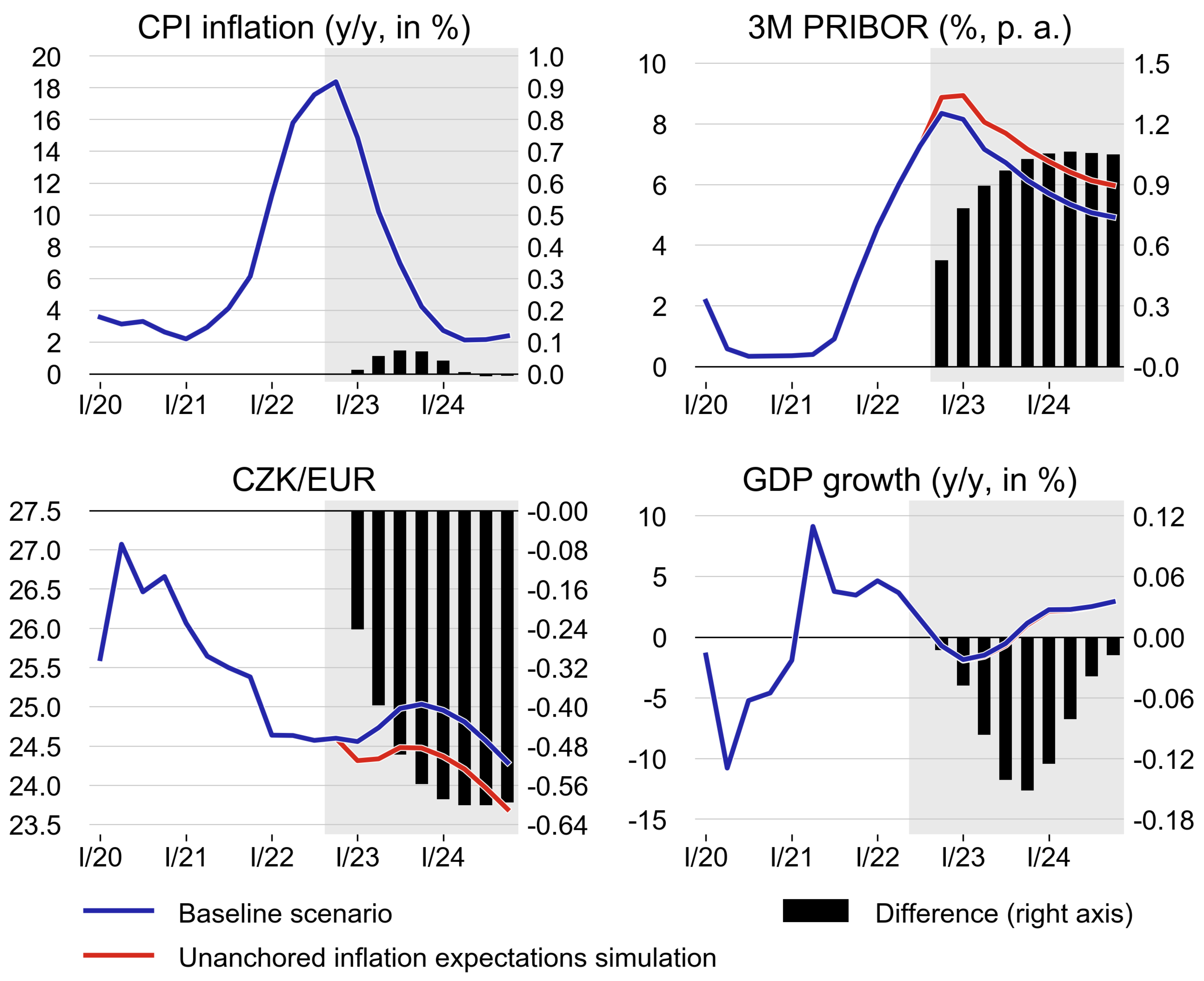

- Scenario uses data from the September 2022 **FMIE** (Survey of Professional Forecasters). Expectations regarding inflation at the one-year and **three-year horizons** are used as the source of information for inflation expectations in the g3+ model.
- In the simulation, the model inflation expectations were increased by **0.4 pp at the one-year horizon and 0.8 pp at the three-year horizon** compared with the baseline scenario.
- The central bank must quell the elevated inflation expectations with an even greater rise in **interest rates** than in the baseline scenario (to 9%). A wider interest rate differential vis-à-vis the euro area leads to a **stronger koruna exchange rate** – about 0.5 CZK stronger on average over the outlook.

Scenarios Summary

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	MP Horizon (Abbreviation)	Interest Rates Peak	Inflation Values at the MP Horizon		Average CZK/EUR Exchange Rate in 2023
18-24 Months	2Q 2024 – 3Q 2024 (t+6)	7.3 % in 4Q 2022	2.6 %	2.6 %	25.0
BASELINE SCENARIO 15-21 Months	1Q 2024 – 2Q 2024 (t+5)	8.3 % in 4Q 2022	2.7%	2.1%	24.8
Unanchored Infl. Expectations	1Q 2024 – 2Q 2024 (t+5)	8.9 % in 1Q 2022	2.8 %	2.1 %	24.4
12-18 Months	4Q 2023 – 1Q 2024 (t+4)	10.3 % in 4Q 2022	3.5 %	2.1 %	24.5

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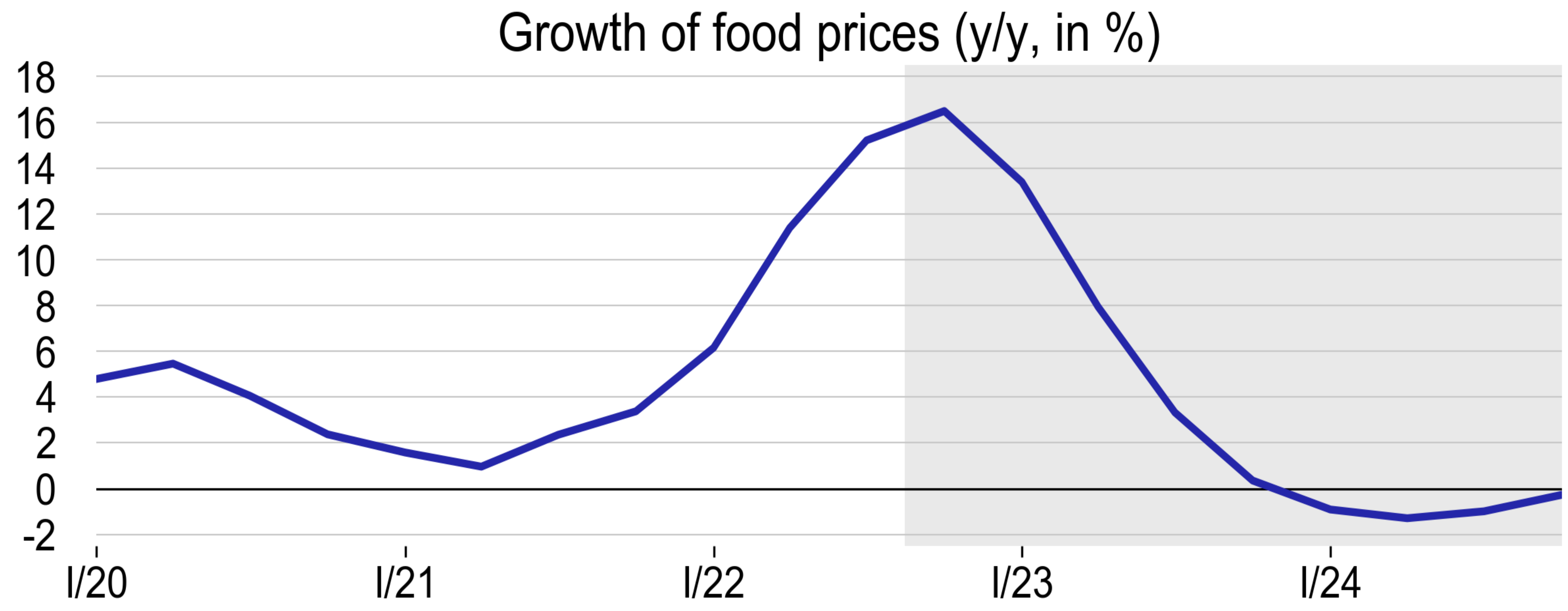
Thank you for your attention

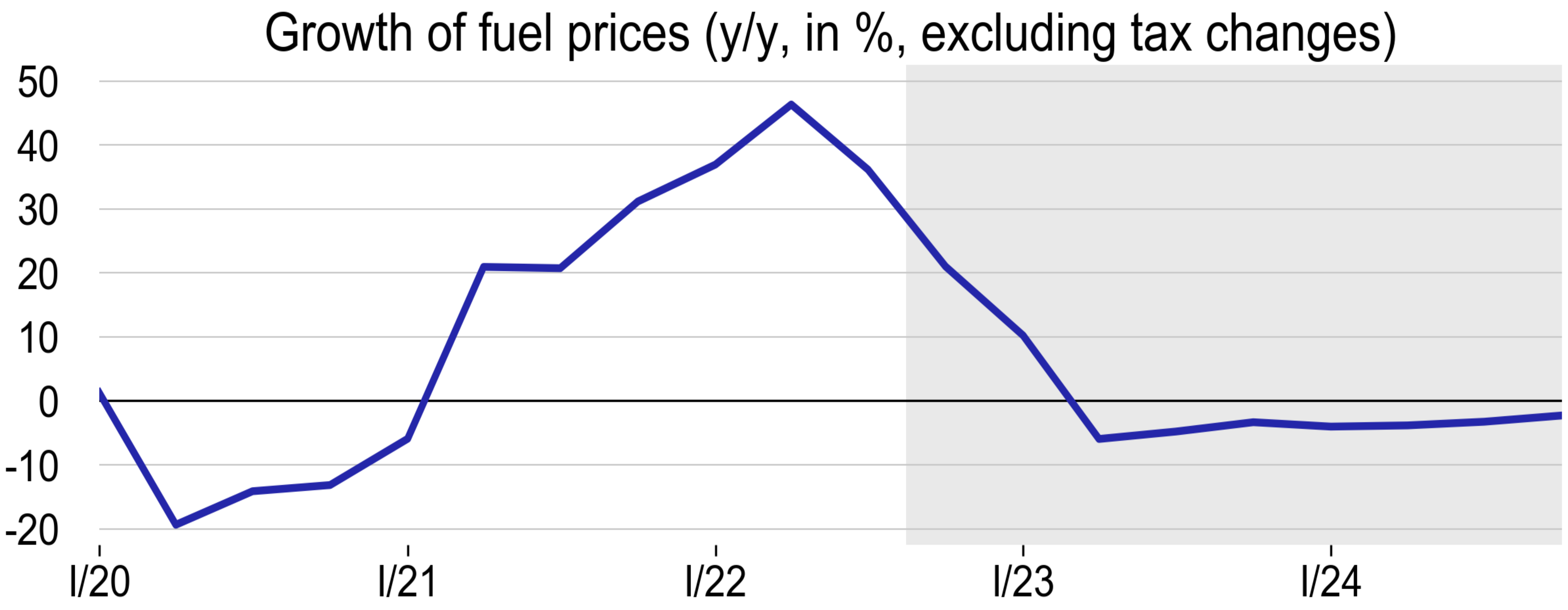
Petr Král

Executive Director, Monetary Department

Petr.Kral@cnb.cz

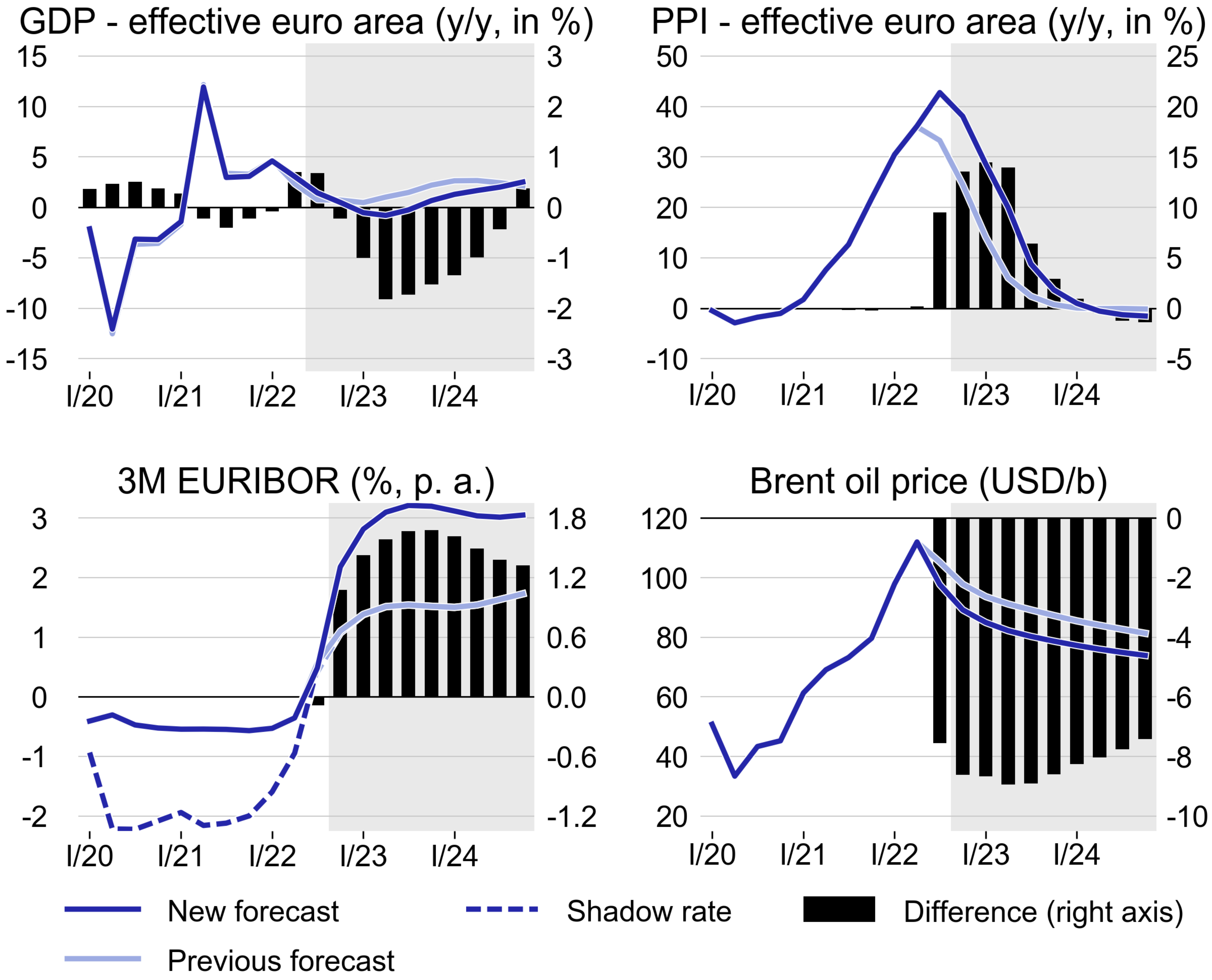
Food and Fuel Prices





- Elevated prices of global agricultural commodities and domestic agricultural producer prices amid rising energy costs will continue to foster a slight increase in **food price inflation** in 2022 Q4.
- Growth in food prices will slow distinctly in 2023 owing to a correction of world agricultural commodity prices and a cooling of domestic demand, and will turn into a decline at the end of 2023.
- **Fuel price inflation** will be broadly stable in the months ahead. Prices at filling stations will then decrease year on year in the first half of 2023 due to weakening demand and a high base.

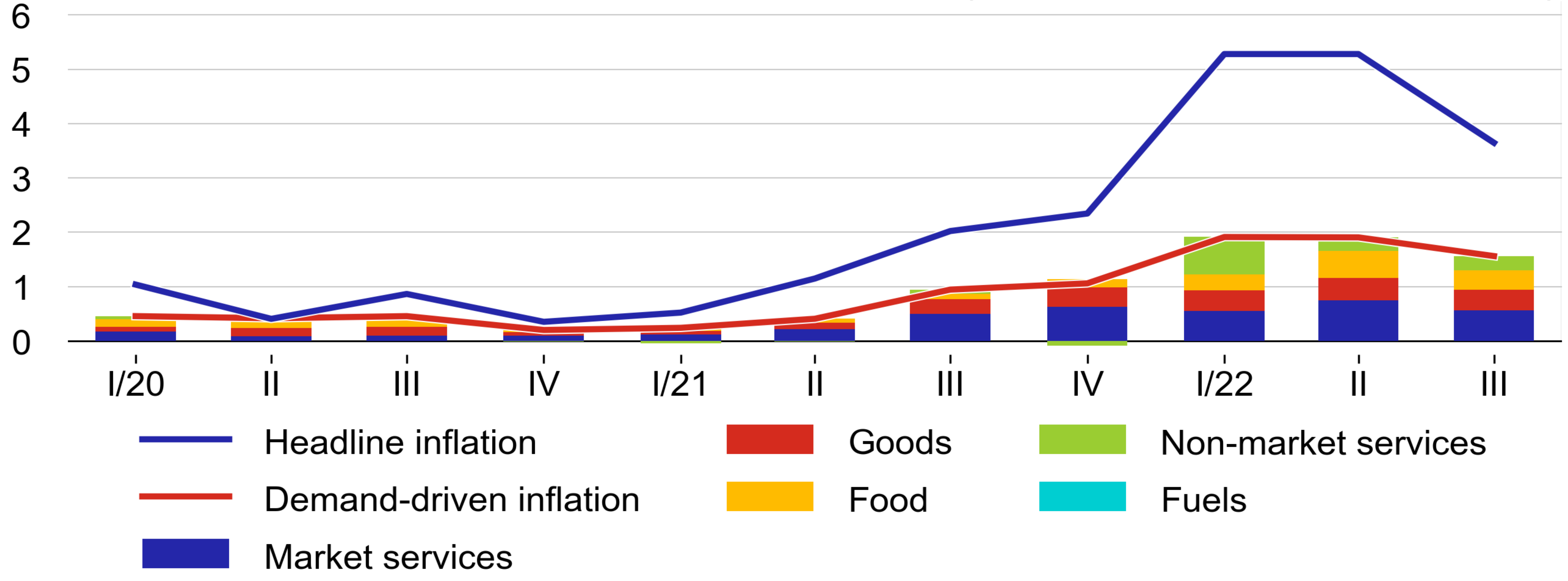
Comparison with Previous Forecast: Foreign Outlook



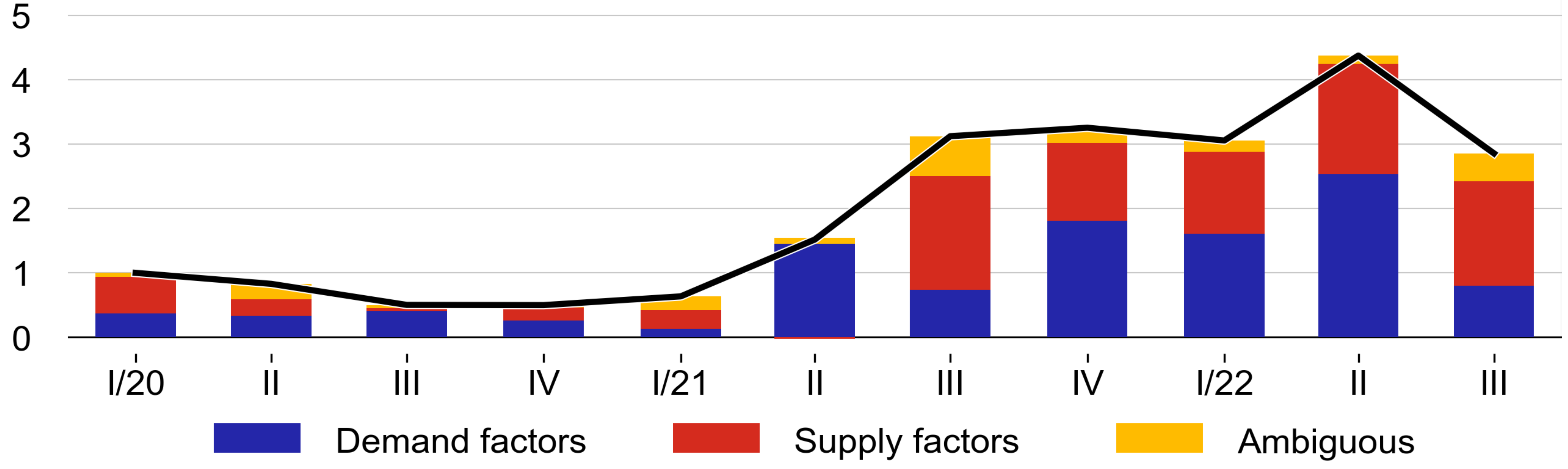
- The worse outlook for **foreign economic growth** in the effective EA is due to more quickly weakening global demand amid unexpectedly high energy prices and worse household sentiment.
- The higher **foreign producer price outlook** mainly reflects higher electricity and gas prices in Europe.
- **The Brent oil price** outlook is lower, while remaining sharply falling; the decrease next year reflects a larger global growth slowdown compared to the previous forecast.
- The expected **3M EURIBOR** market interest rate is markedly higher due to the stronger reaction to the faster-rising inflation announced by the ECB compared to the previous forecast.

Demand Pressures in Inflation

Headline inflation and demand-driven inflation (q/q in %, s. a., contrib. in p. p.)



Decomposition of core inflation (q/q in %, s. a., contrib. in p. p.)



Note: The ambiguous category includes inflation expectations and other factors that cannot be clearly attributed to supply or demand.

- Headline inflation this year has primarily reflected costs and other factors, but **demand-driven inflation** has also been significantly elevated.
- Demand inflation pressures are apparent in the prices of all the main consumer basket categories (except fuel prices).
- In the past year, **core inflation** has been driven by both demand and supply factors; the demand factors weakened this summer.