CNB's New Forecast

Monetary Policy Report – Spring 2023

Meeting with Analysts

4 May 2023

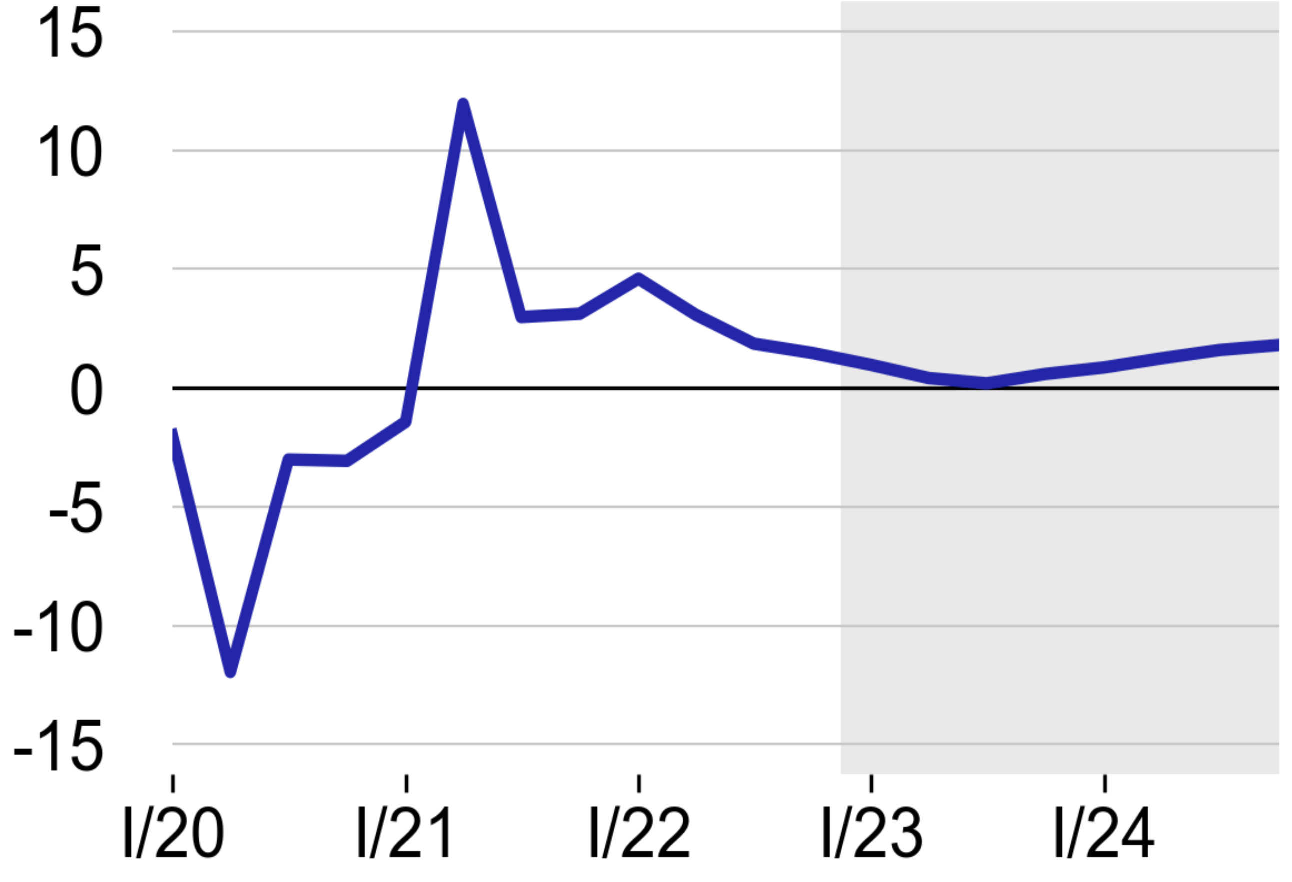
Petr Král (Executive Director, Monetary Department)

Presentation Outline

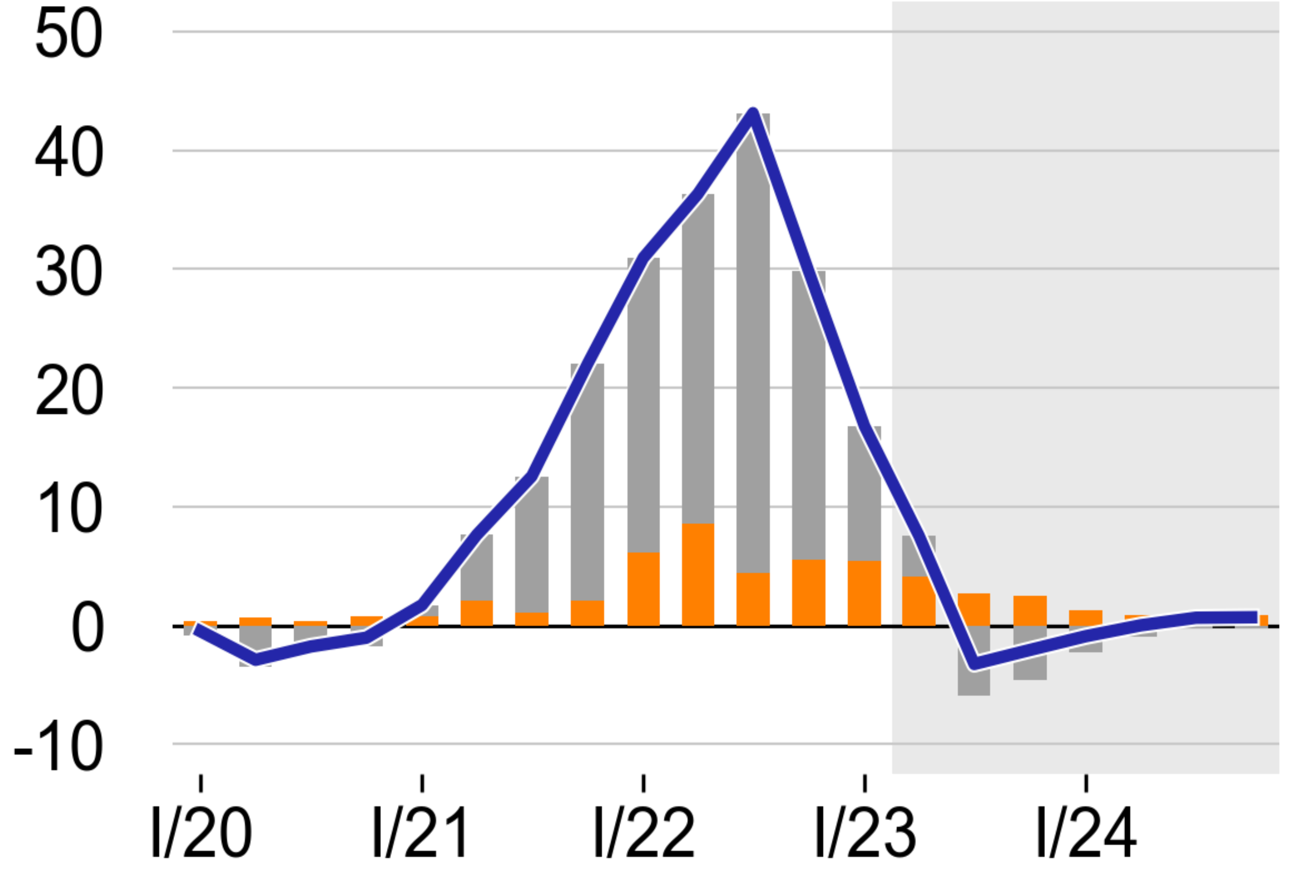
1. **Assumptions of the Forecast**
2. The New Macroeconomic Forecast
3. Comparison with the Previous Forecast
4. Monetary Policy Simulations

External Environment Outlook

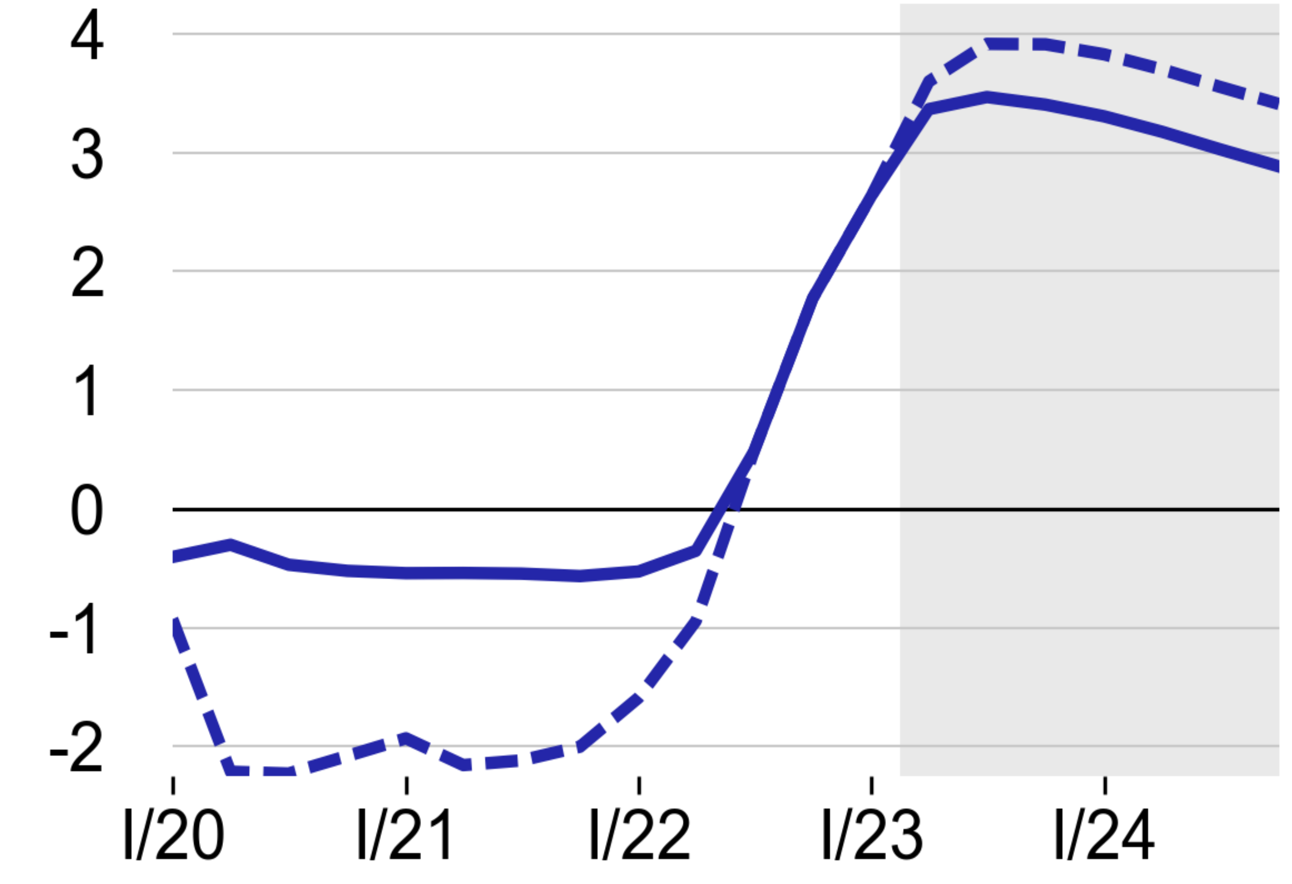
GDP - effective euro area (y/y, in %)



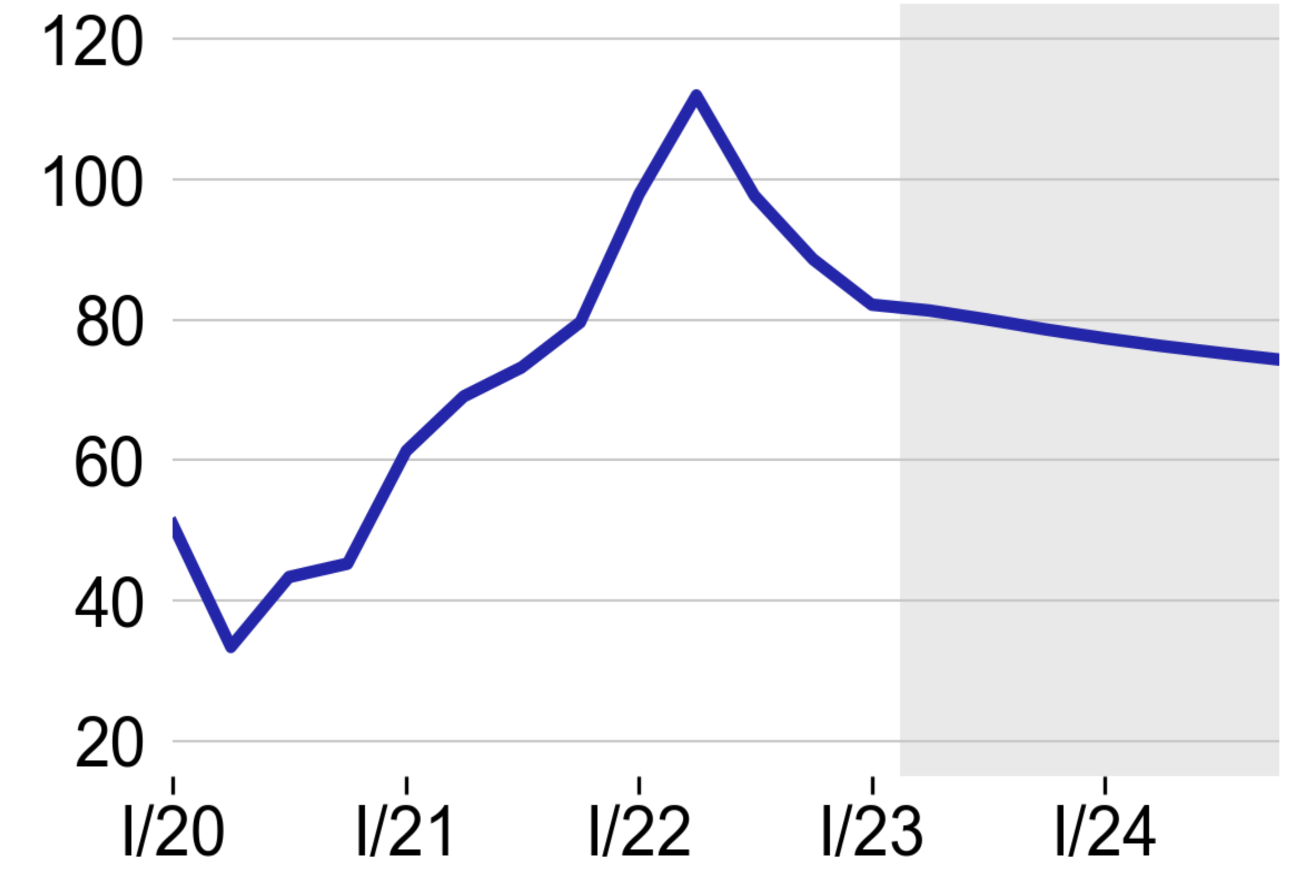
PPI - effective euro area (y/y, in %)



3M EURIBOR (%, p. a.)



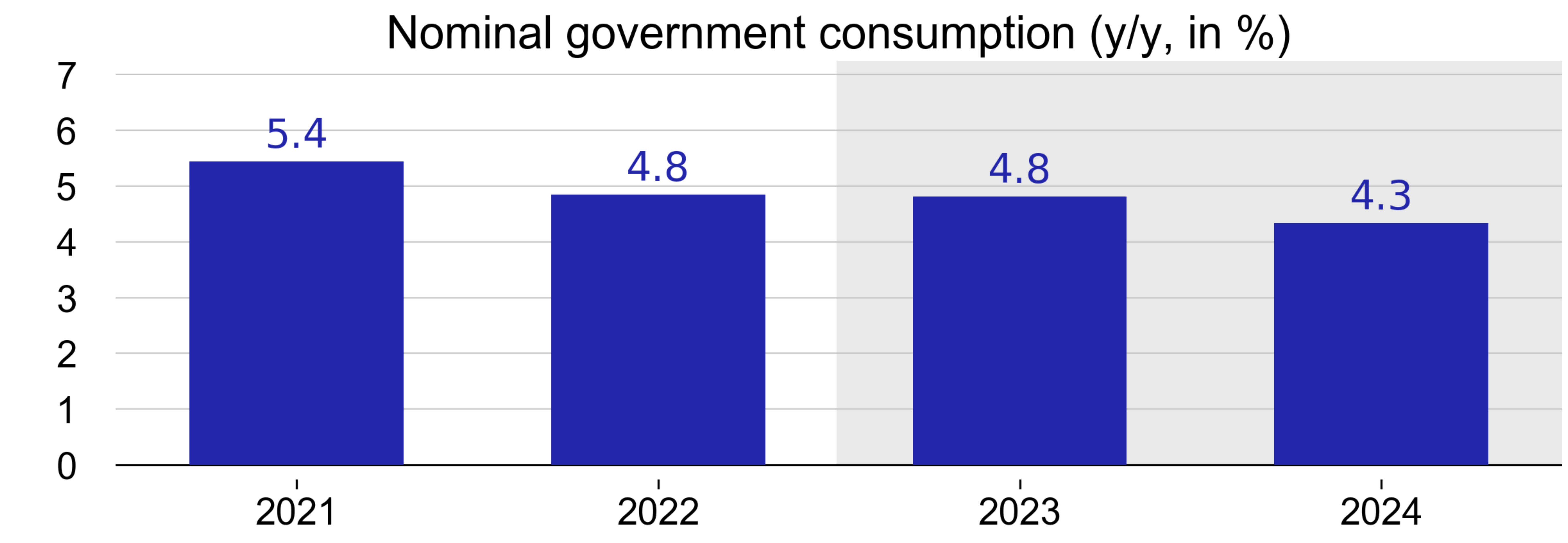
Brent oil price (USD/b)

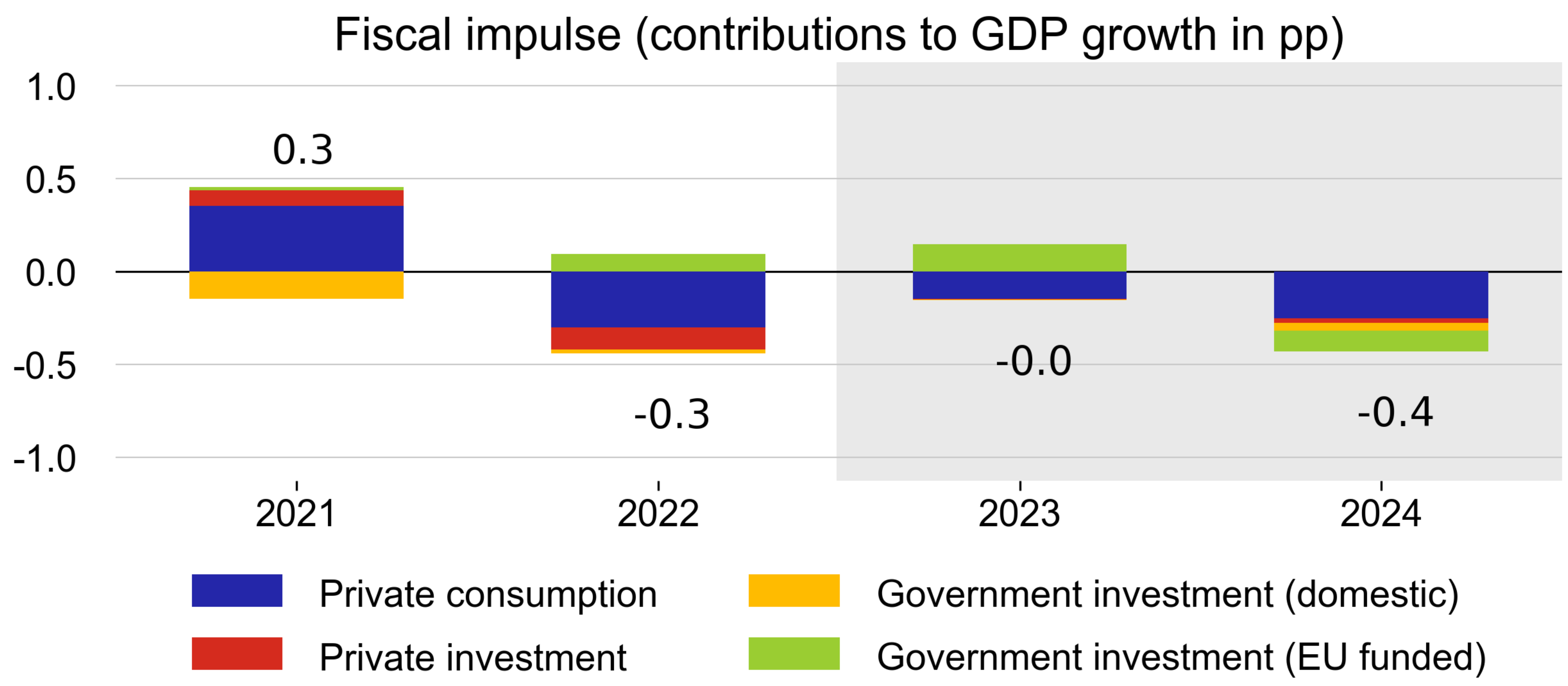


Core foreign prices Energy prices Shadow rate

- The **effective euro area** economy will grow much more slowly this year due to a downswing in global demand and a decline in real household income.
- **Industrial producer prices** in the effective euro area will switch to a year-on-year decline this year. In 2024, industrial prices in the effective euro area will stagnate on average.
- The outlook for the **Brent crude oil** price remains slightly falling.
- The **3M EURIBOR** interest rate outlook reflects market expectations of further tightening by the ECB, including a reduction of its balance sheet.

Fiscal Policy





- **Nominal government consumption** will grow by about 4.8 % this year due to an increase in wages and salaries in the non-market sector and an increase in public expenditure mainly in health care and education, linked with the arrival of Ukrainian nationals.
- **Fiscal impulse** will have a roughly neutral effect on GDP growth this year. The fade-out of some of last year's support measures is offset by the continuation of some of the measures adopted on both the revenue and expenditure sides of public budgets relating to the rise in inflation and the help with high energy prices.
- The complete end of the temporary support measures and a fall in absorption of EU funds due to a slow start to the new programme period will significantly dampen GDP growth in 2024.

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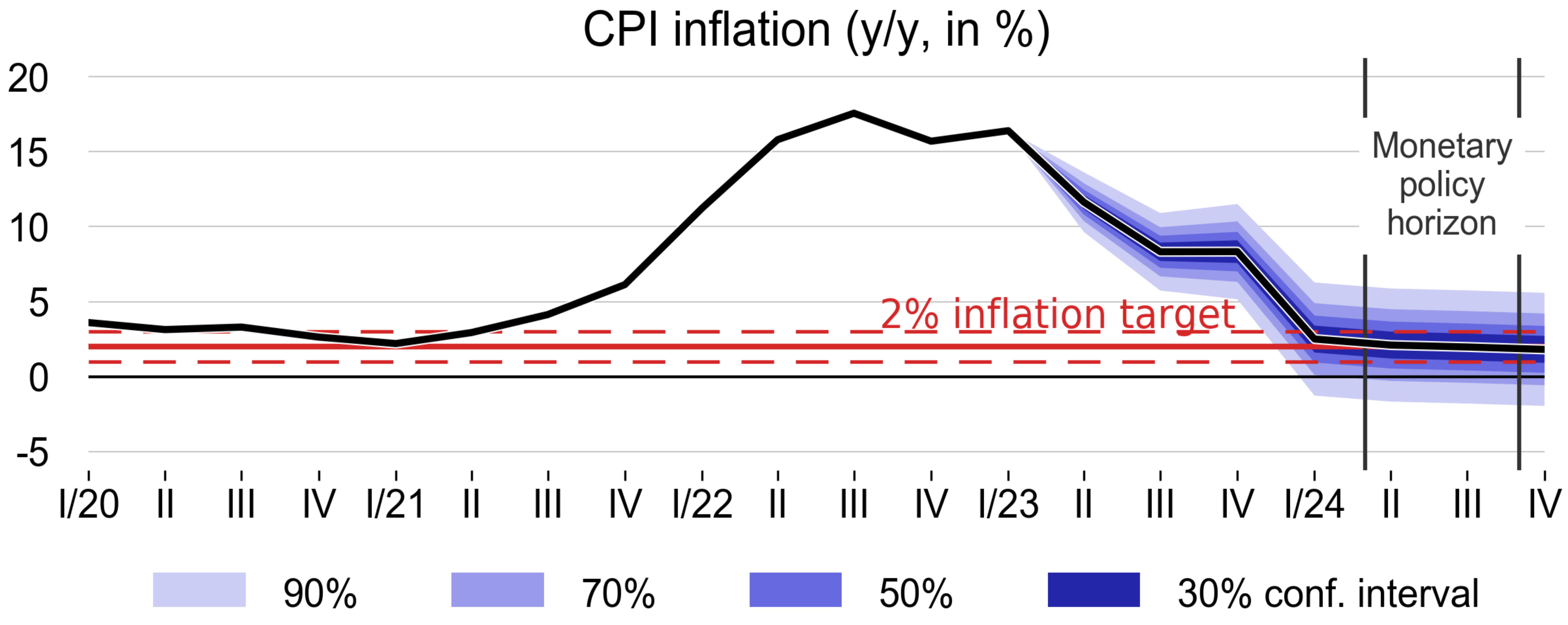
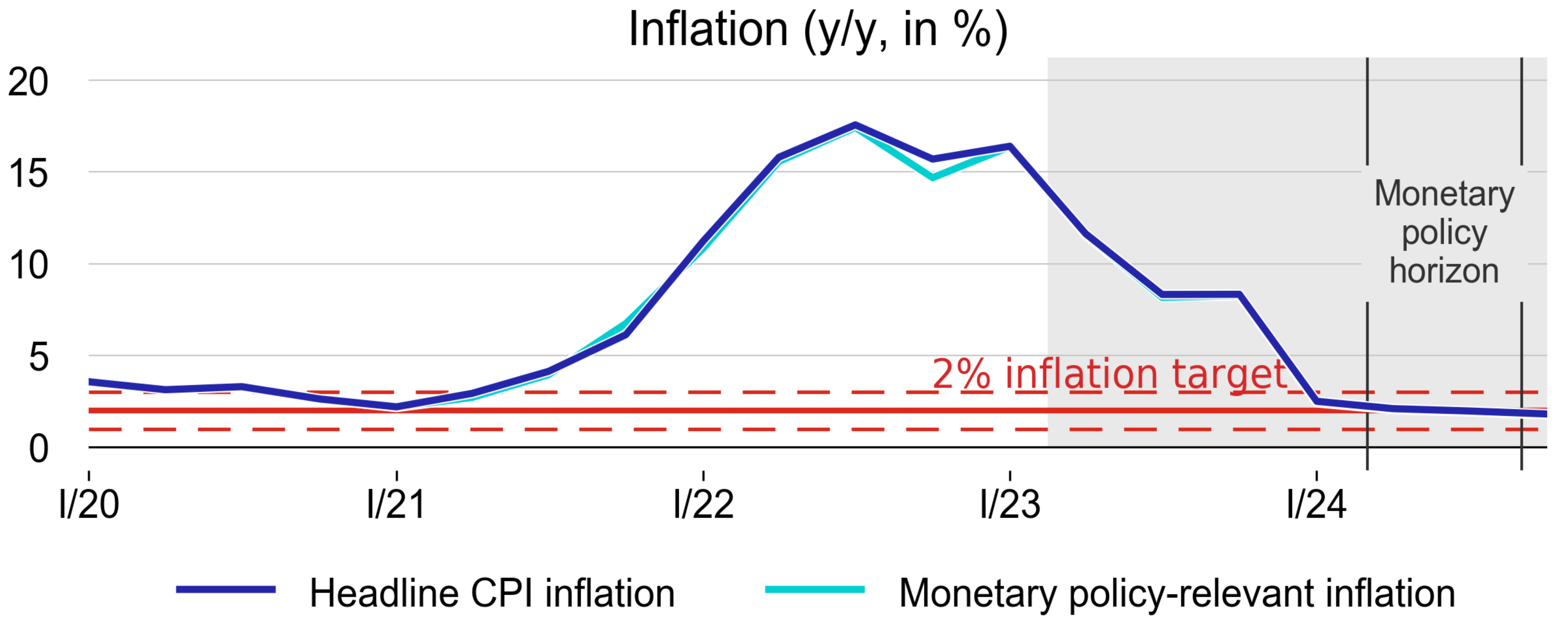
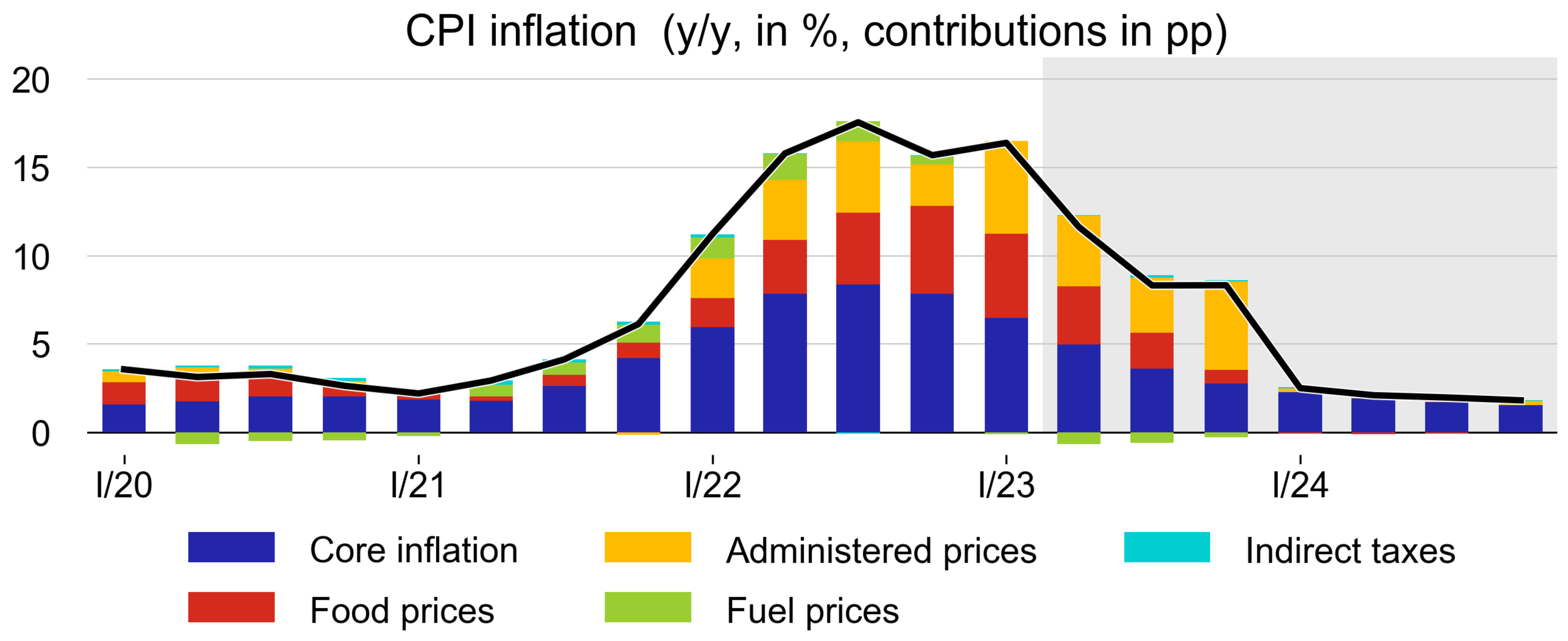
Headline and Monetary Policy-Relevant Inflation

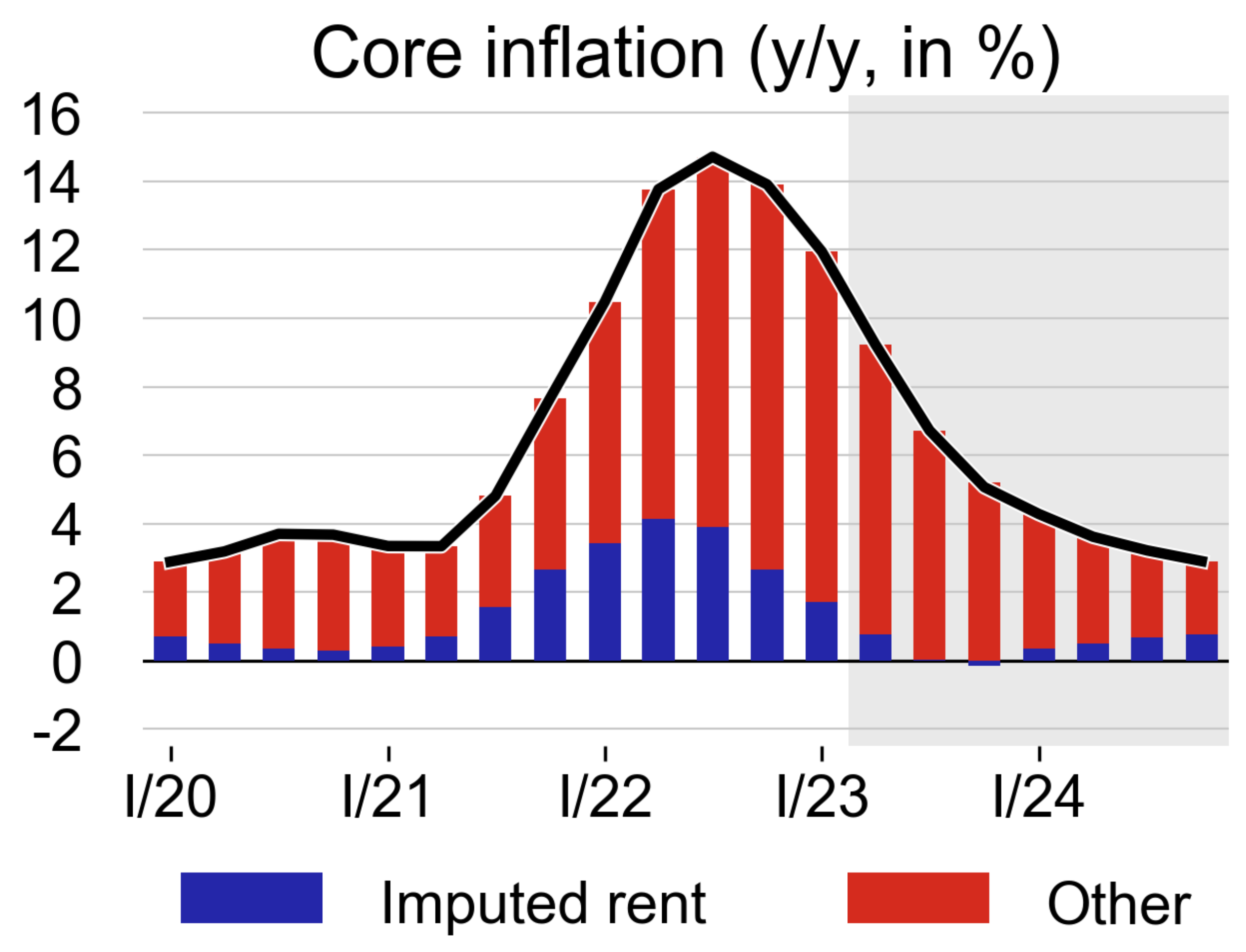


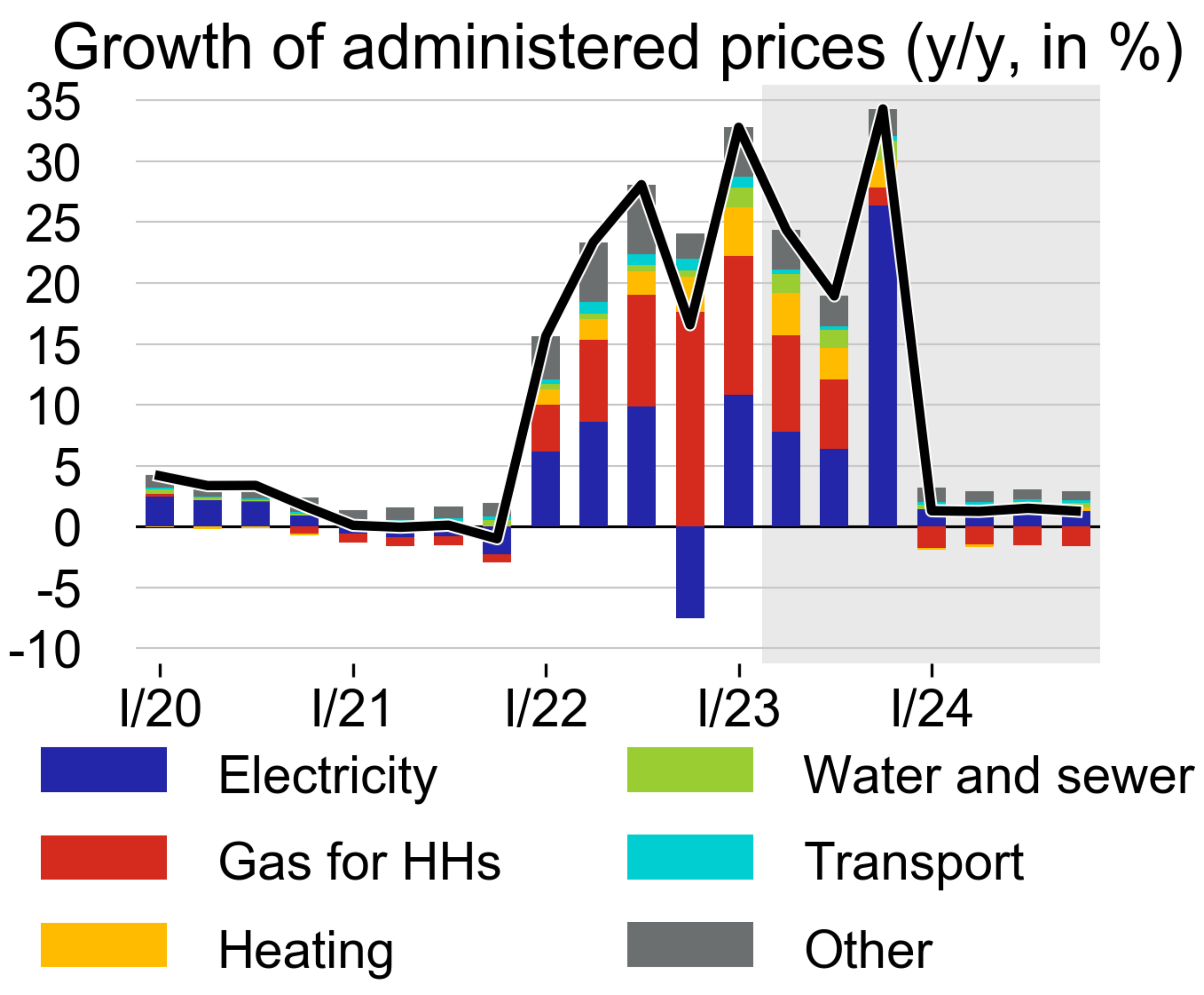


- **CPI Inflation** will continue to fall rapidly this spring and summer, returning close to the 2% target in early 2024.
  - Growth in market prices will decline due to rapidly decreasing cost pressures from abroad and a simultaneous further easing of price pressures from the domestic economy.
  - The currently peaking profit margins of domestic producers, retailers and service providers will undergo a gradual correction.
  - Previous tightening of monetary policy will contribute to this decline.
- Headline inflation will be slightly above **monetary policy-relevant inflation** over the entire outlook.

Inflation Components, Core Inflation and Admin. Prices



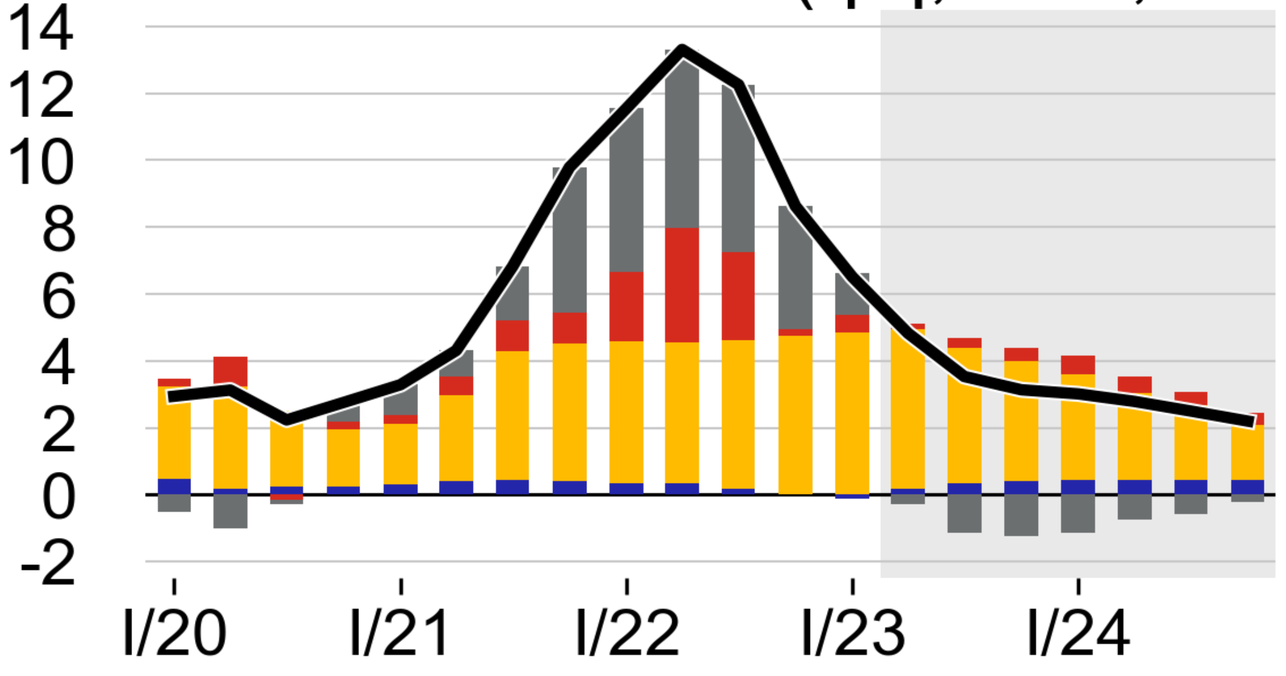




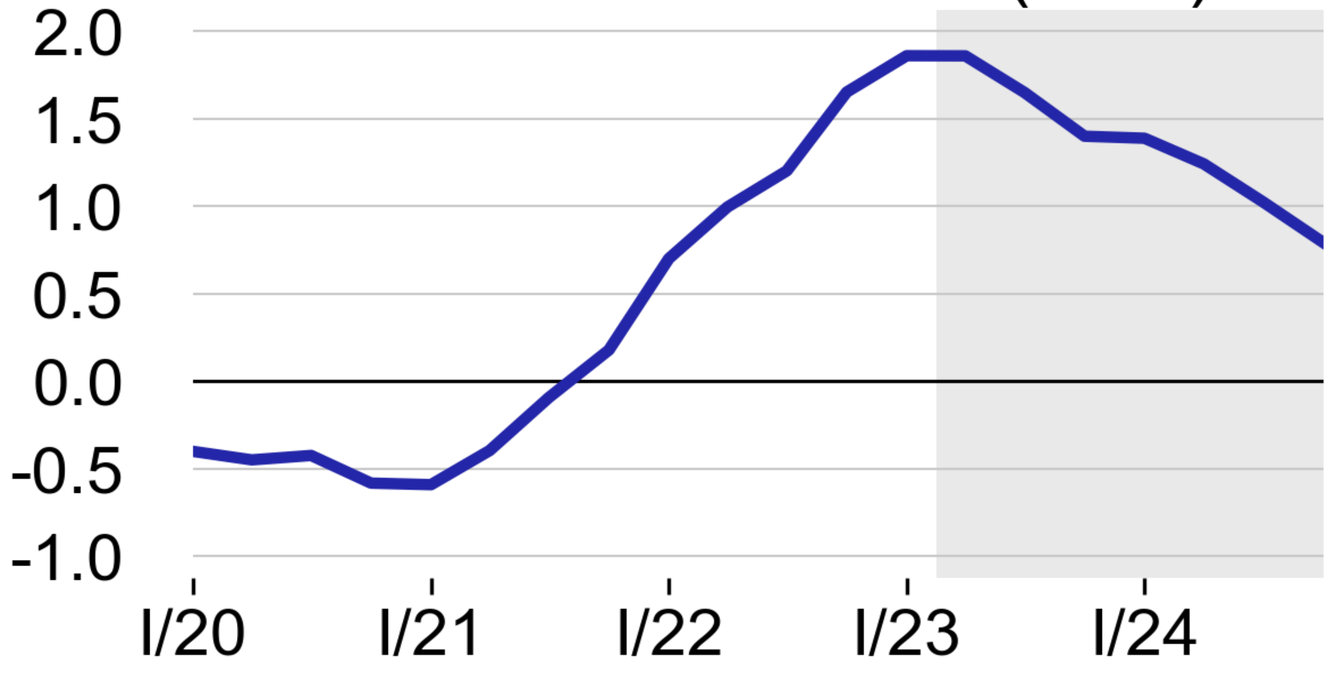
- **CPI inflation** will slow sharply for most of 2023 and at the start of 2024, with all components contributing.
- **Core inflation** will slow due to a further drop in the contribution of **imputed rent** and a decline in overall inflation pressures and to base effects.
- **Administered price inflation** will initially decline. It will rise temporarily at the end of this year (due almost solely to the contribution of electricity prices, reflecting the effect of an extraordinary decrease in the comparison base at the end of last year following the introduction of the savings tariff). Administered price inflation will fall sharply at the start of next year and remain at around 1% throughout 2024.

Cost Pressures and Profit Mark-ups

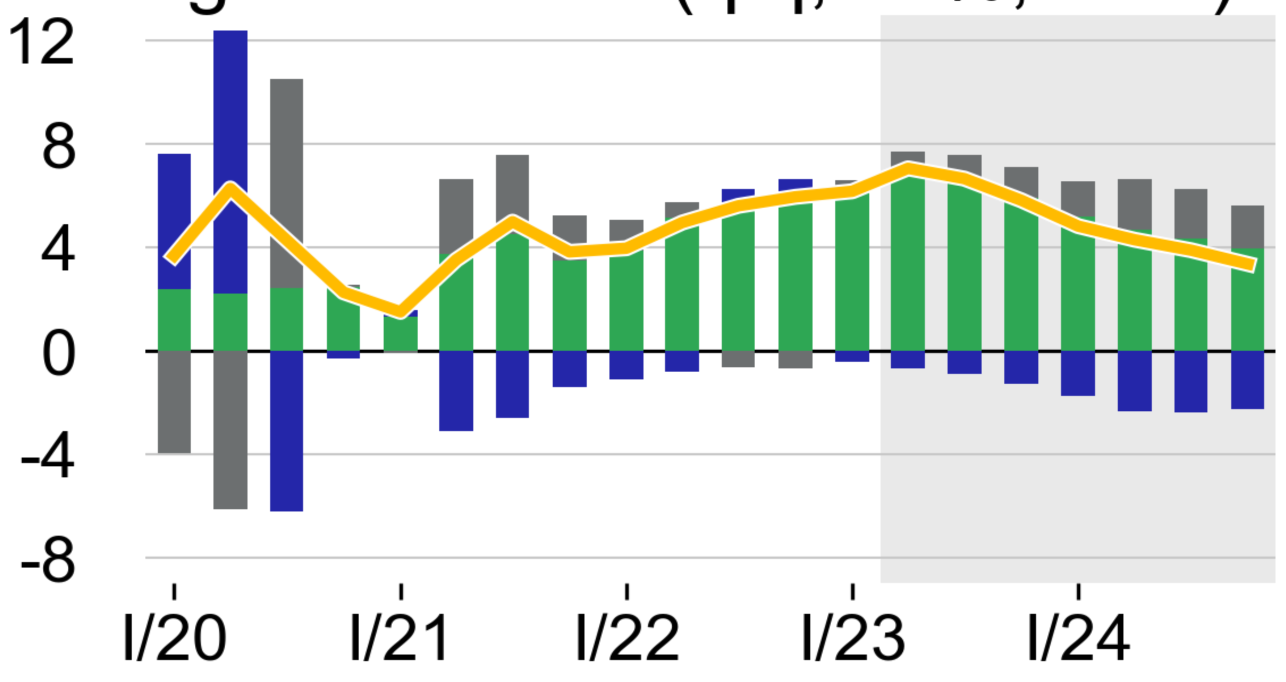
Nominal marginal costs
in consumer sector (q/q, in %, ann.)



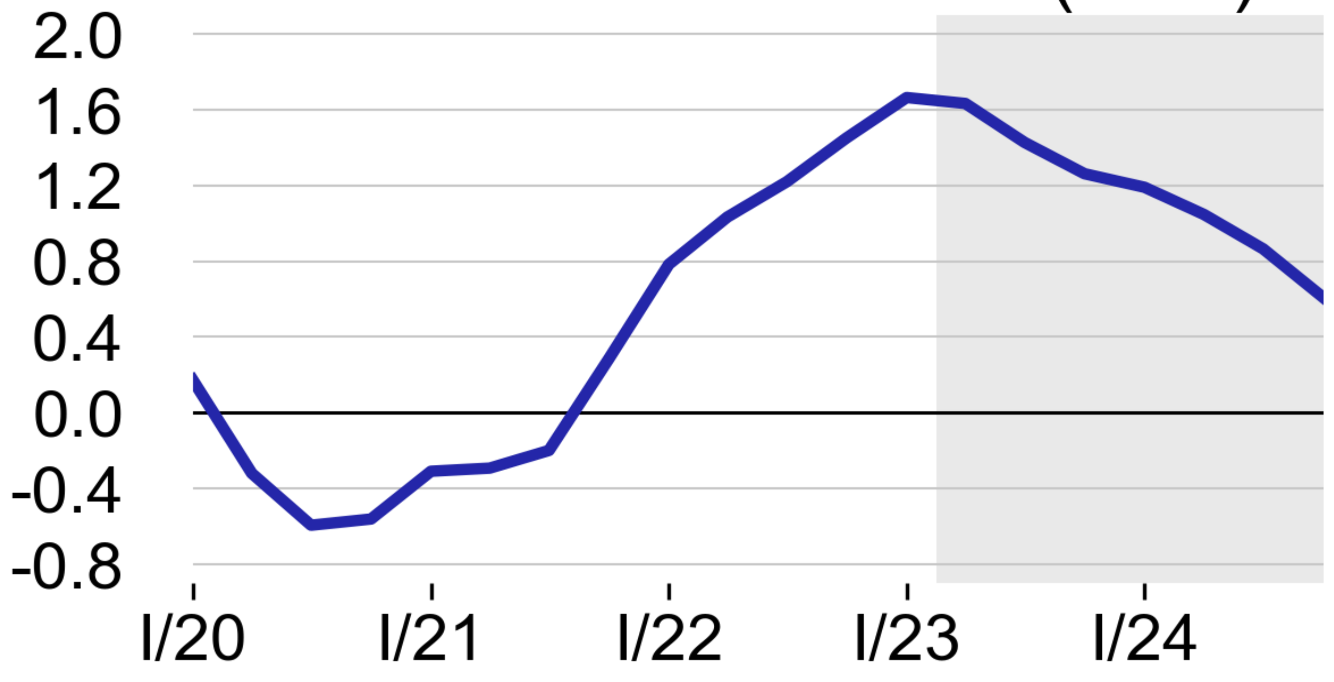
Gap in profit mark-ups
in consumer sector (in %)

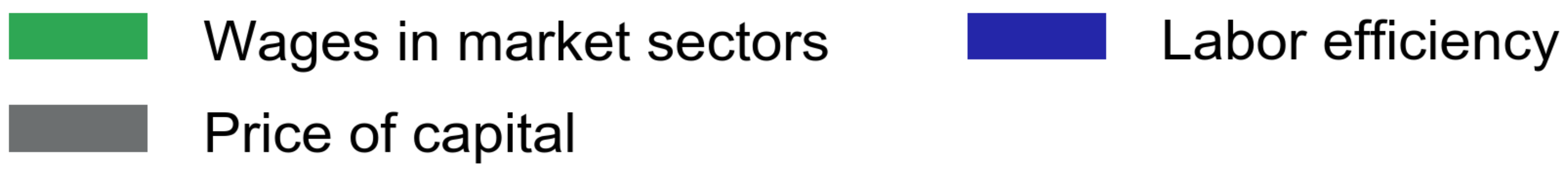


Nominal marginal costs in intermediate
goods sector (q/q, in %, ann.)



Gap in profit mark-ups
in intermediate sector (in %)

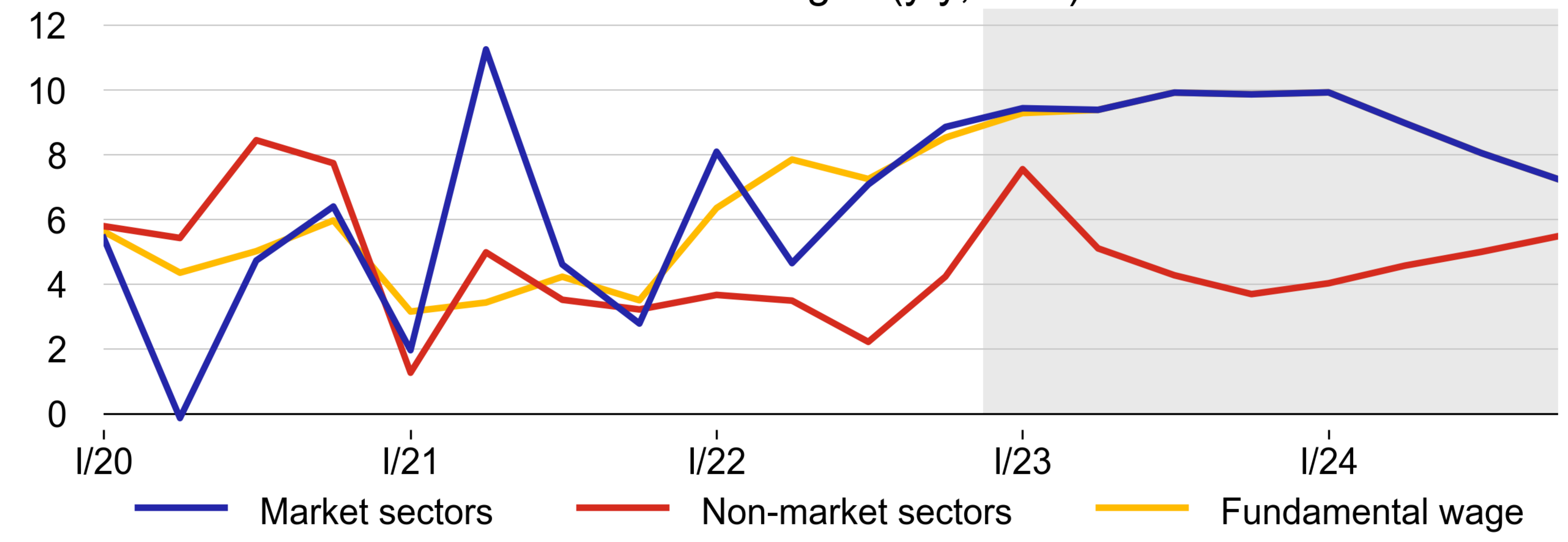




- The **total costs in the consumer sector** eased further at the start of the year.
- The overall cost pressures will continue to ease, due mainly to a drop in energy import prices and a decrease in the contributions of the domestic economy.
- The **domestic cost pressures** will strengthen temporarily in the spring. They will be driven mainly by wage growth, which will start to slow gradually in the second half of this year.
- The domestic cost pressures will start to ease gradually in the second half of this year, but will remain elevated.
- The highly positive **gap in mark-ups** will close only gradually as domestic demand cools, aided by the previous monetary policy tightening.

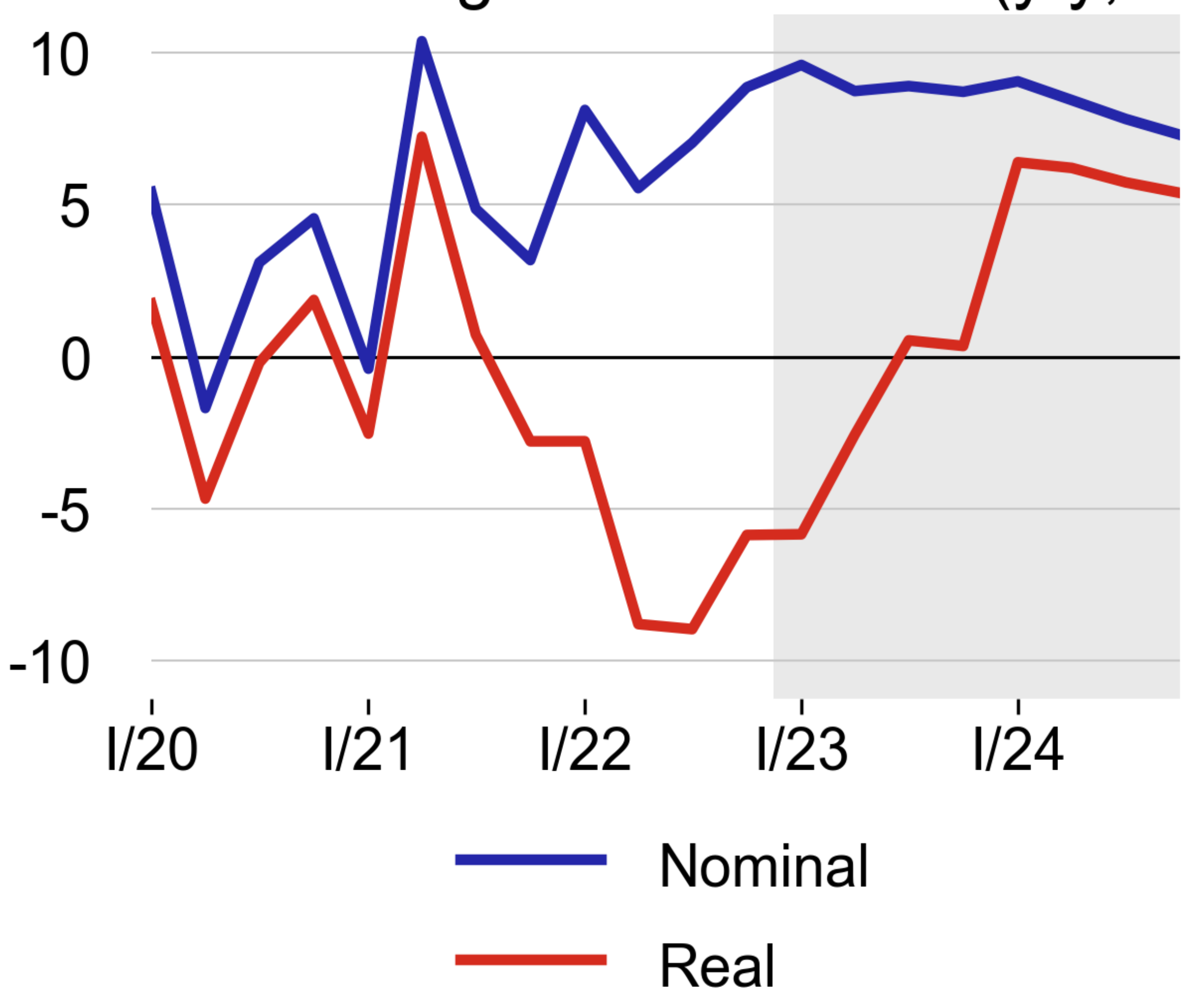
Labour Market

Nominal wages (y/y, in %)



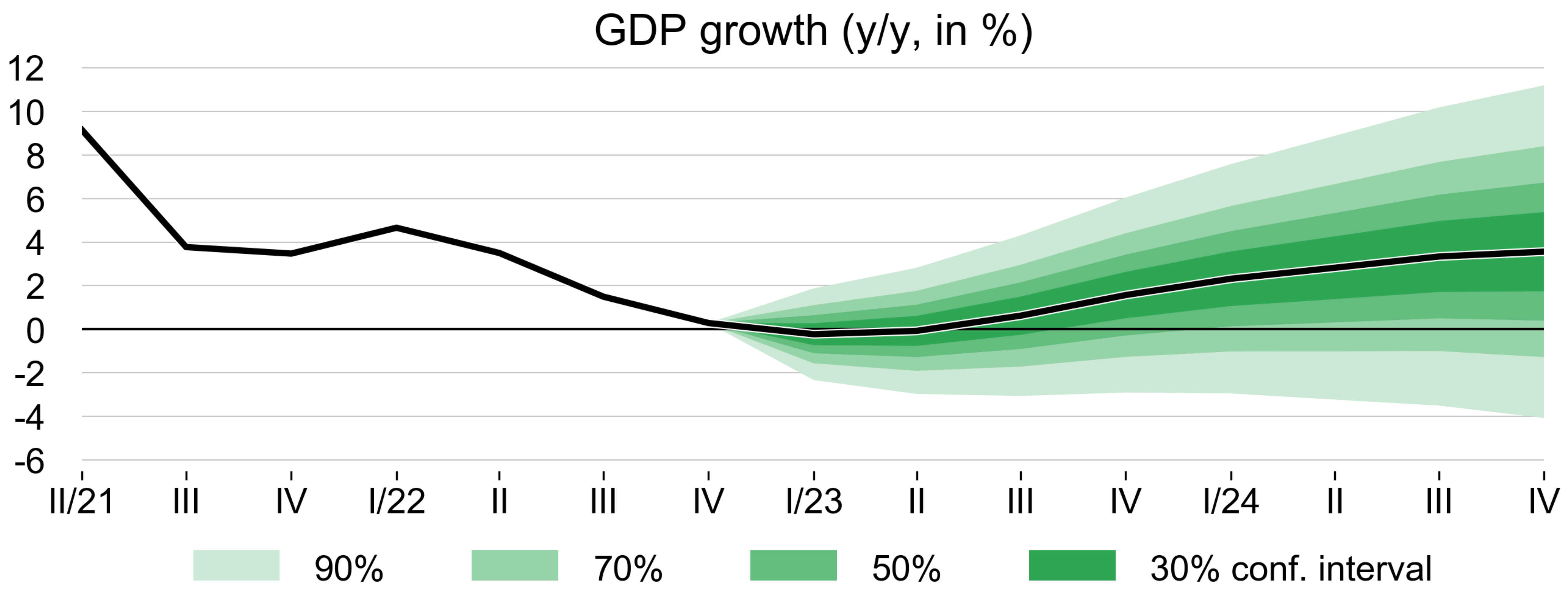
Employment and unemployment rate (y/y, in %, s. a.)

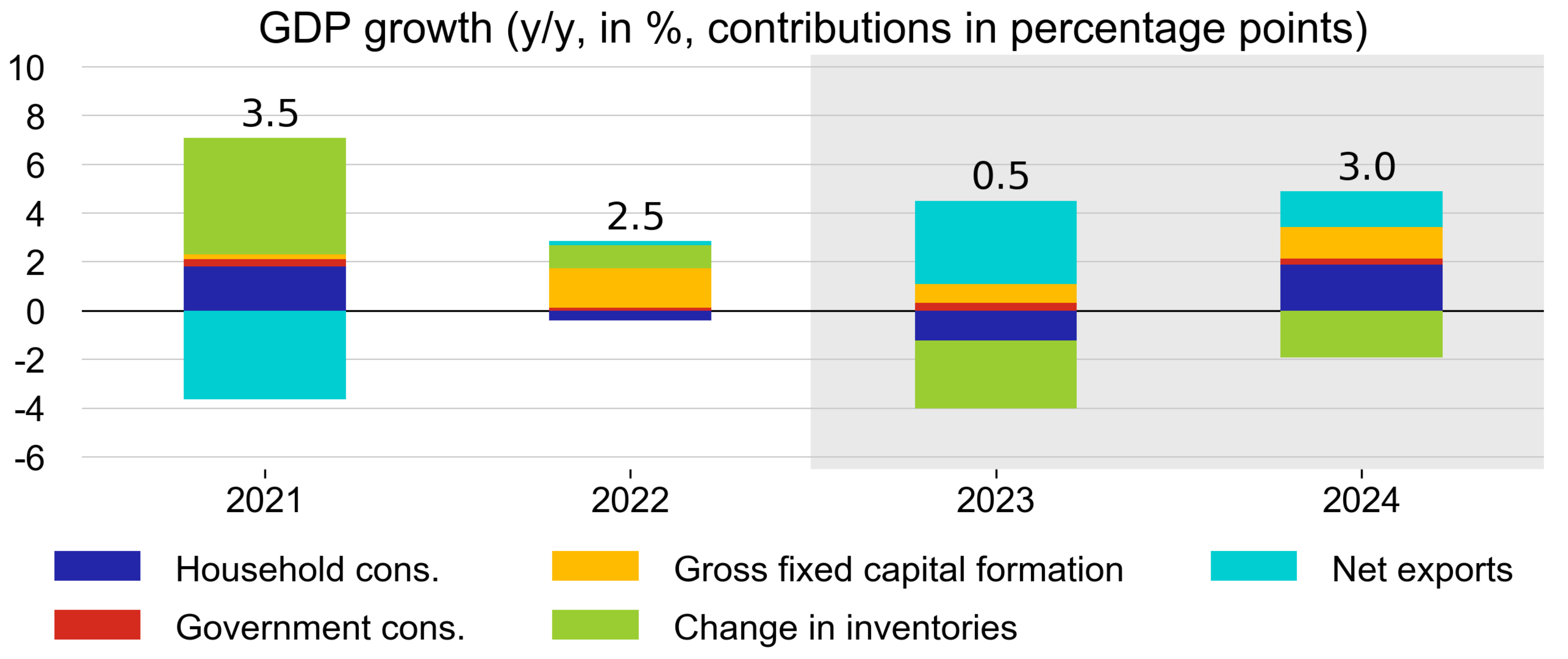
Volume of wages and salaries (y/y, in %)



- **Nominal wage growth** will continue to pick up this year, mitigating the decline in wages in real terms; the subsequent slowdown will be gradual.
- **Employment** will remain broadly flat. The **general unemployment rate** switched to slight growth at the end of 2022 and will continue to rise this year.
- **Growth in the real volume of wages and salaries** will be negative over the next few quarters due to high inflation. It will then turn positive again and help growth in household consumption to recover.

GDP Growth Forecast

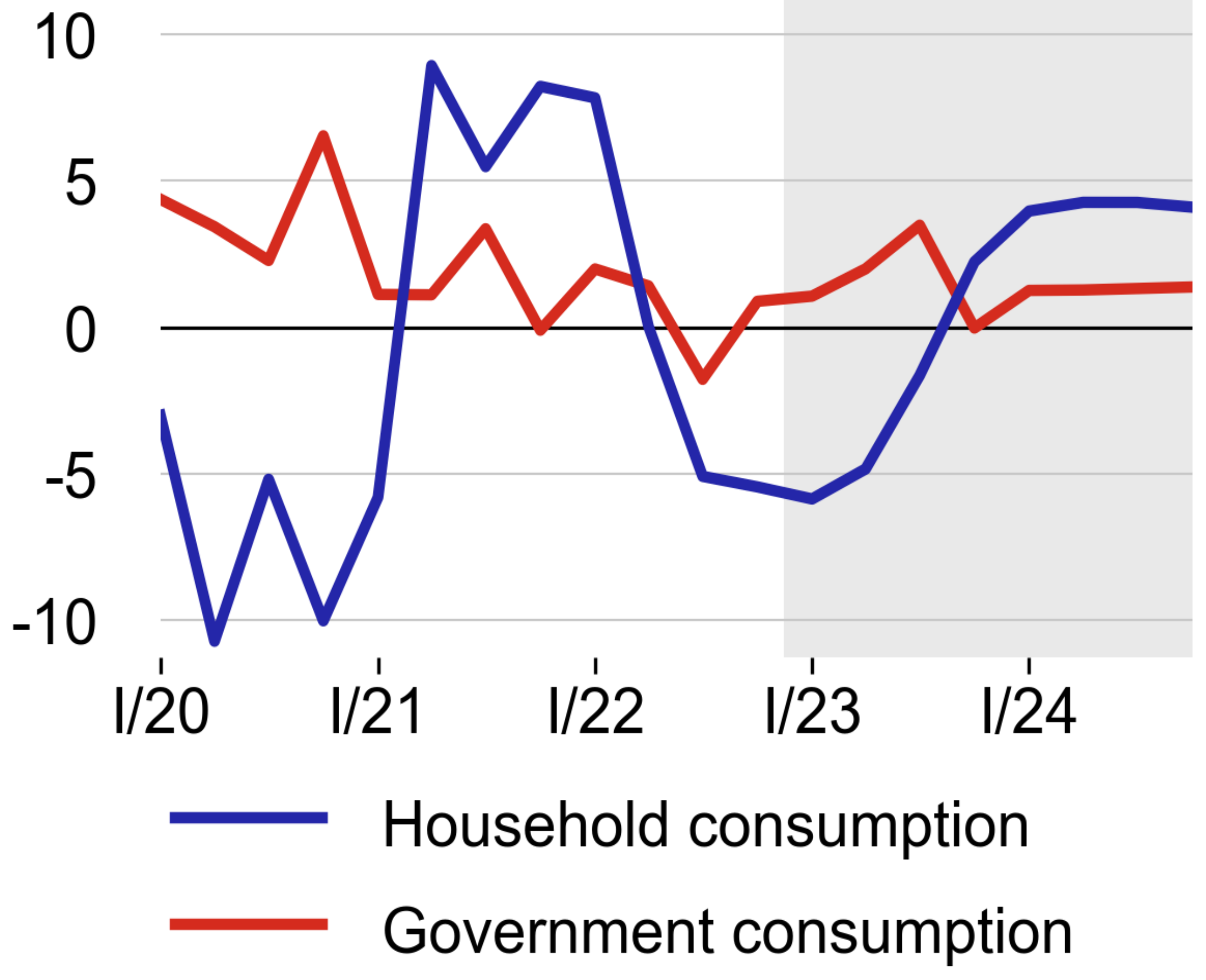




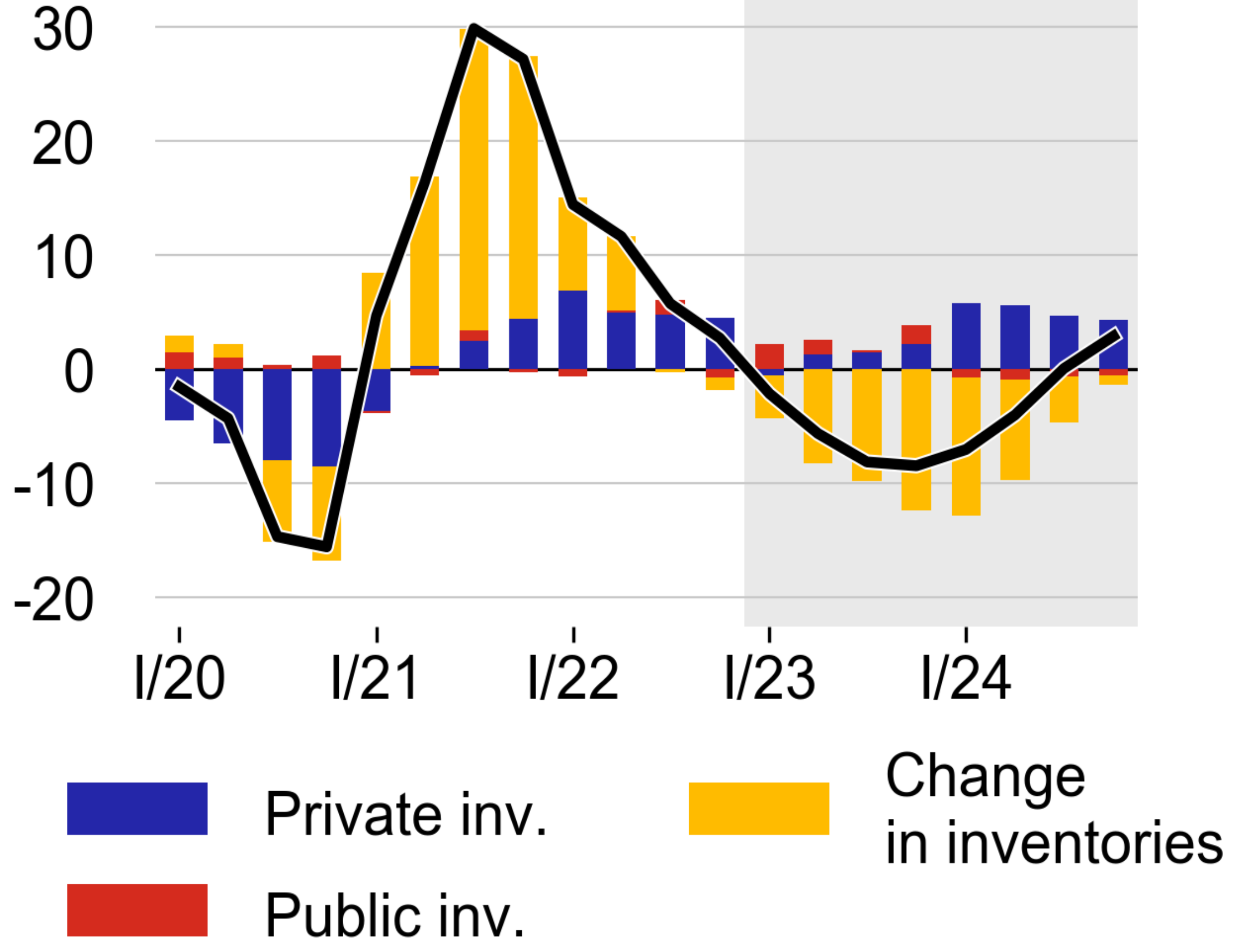
- **Economic activity** is beginning to show signs of recovery but will not accelerate markedly until next year, when household consumption will rebound.
- This year, **GDP** will grow by **0.5%** in whole-year terms. It will accelerate to **3%** in 2024.
- According to a preliminary CZSO estimate, Czech GDP decreased by 0.2% y/y in 2023 Q1 and increased by 0.1% q/q, which is in line with the CNB forecast.
- The Czech economy fell below its **potential** at the end of last year and will remain there until the beginning of next year.

GDP Components

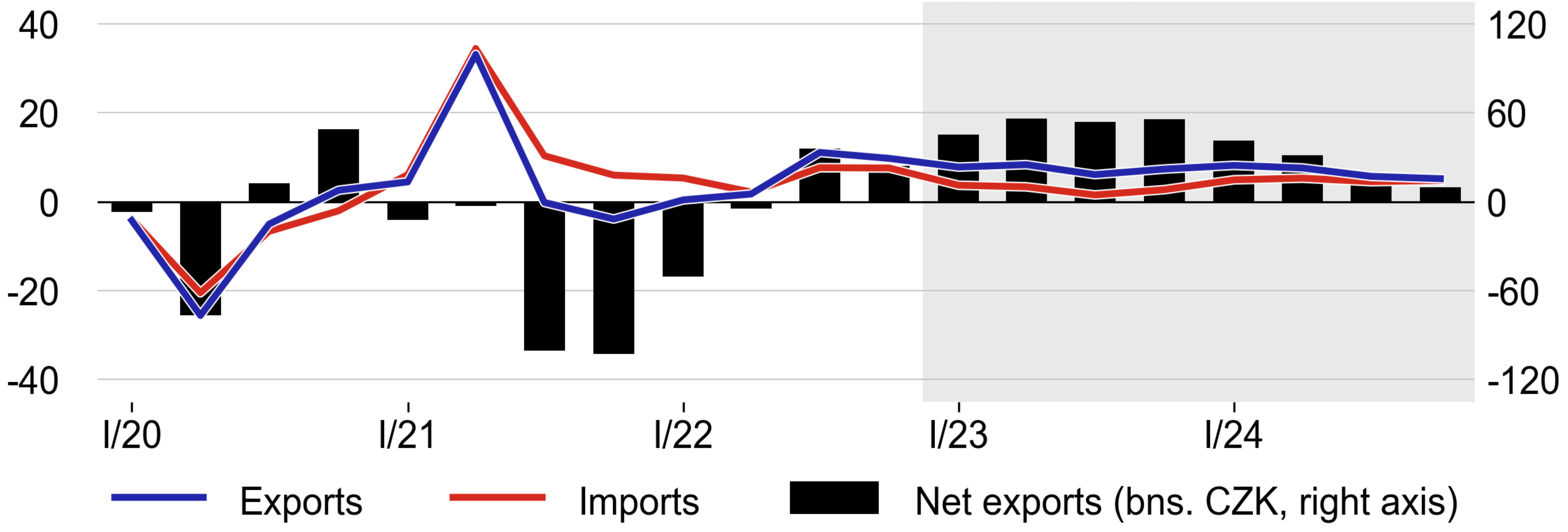
Household and Gov. cons. (y/y, in %)



Gross capital formation (y/y, in %)

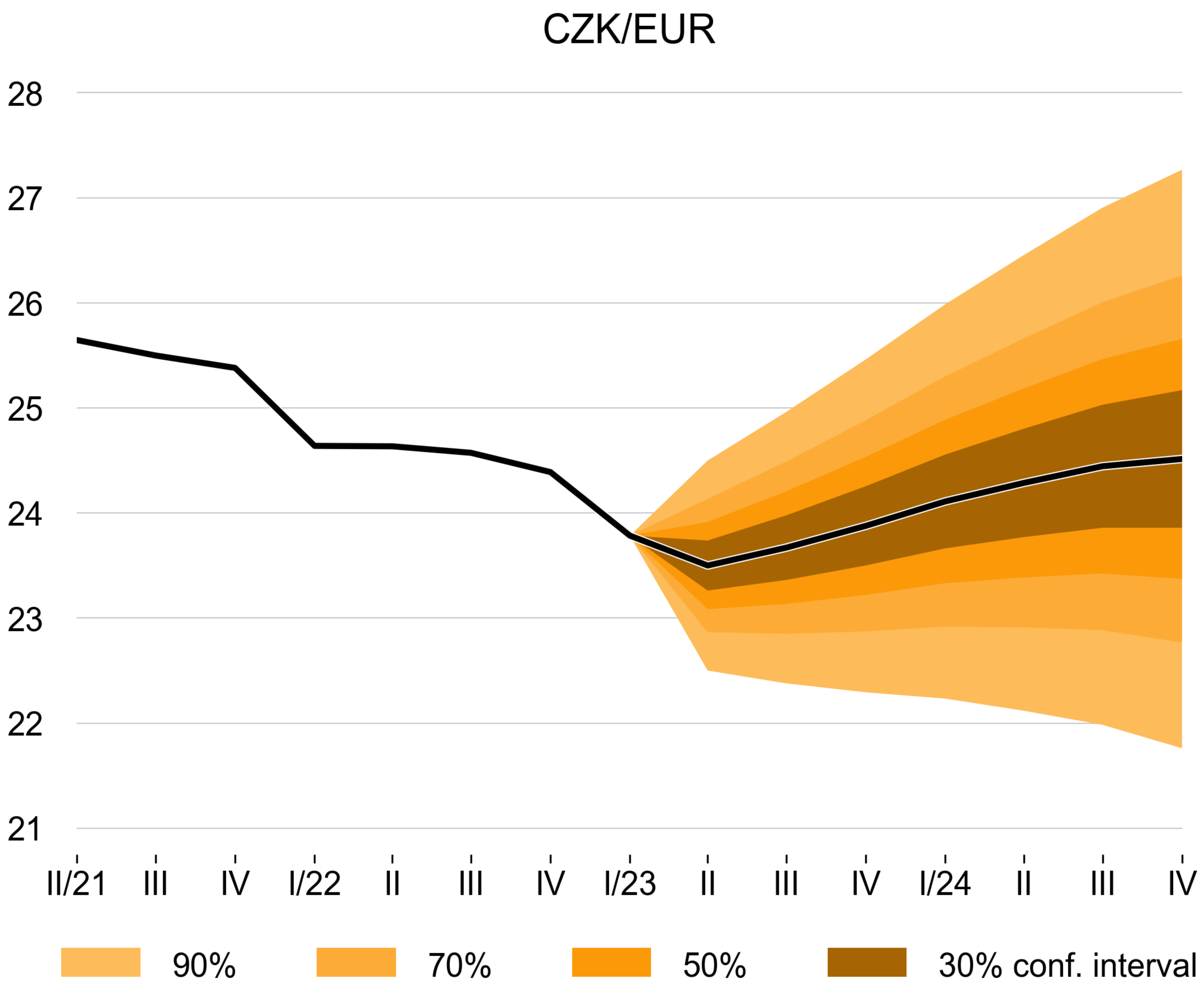


Real exports and imports (y/y, in %)



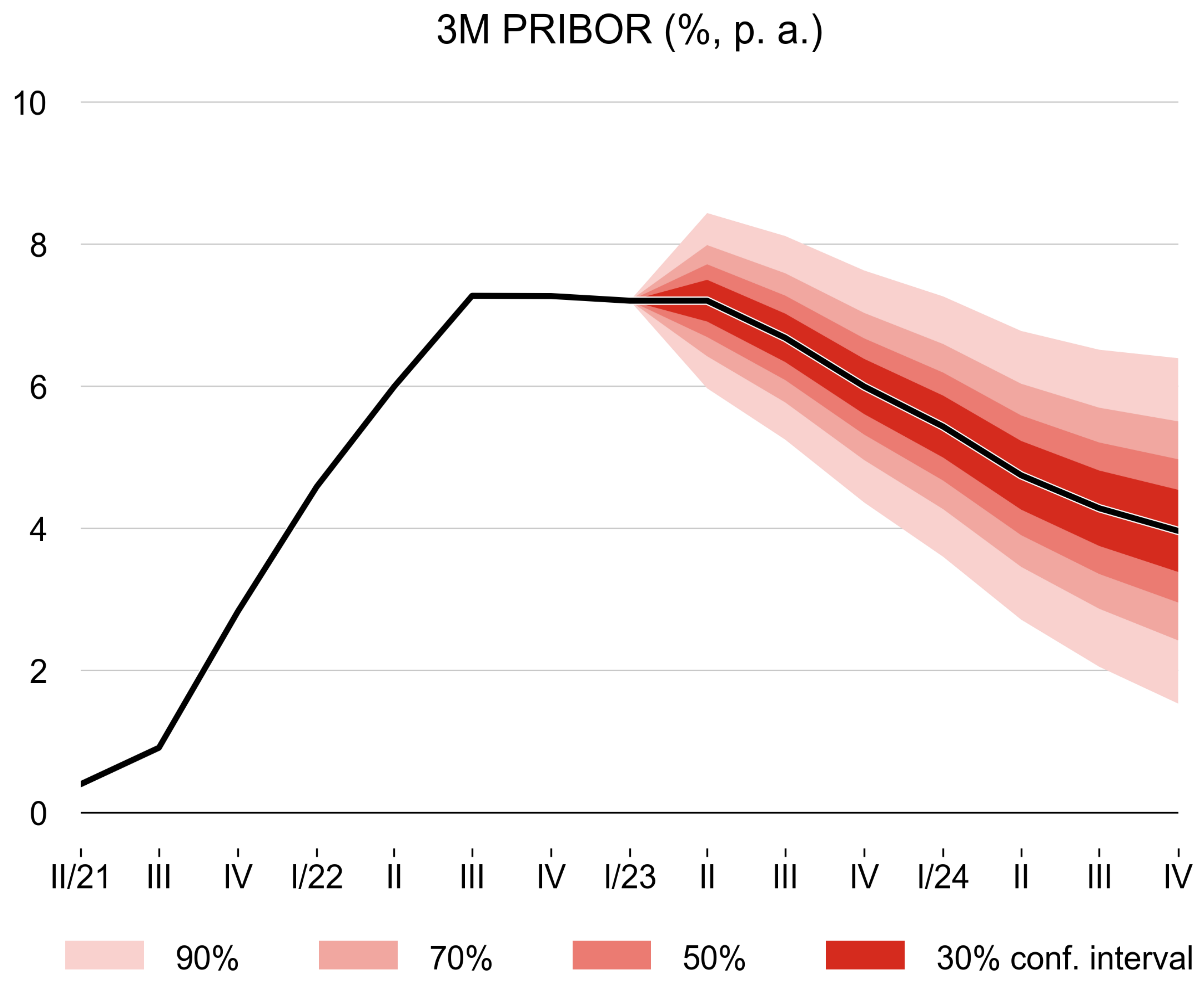
- **Household consumption** will begin to increase at the end of this year on the back of renewed growth in real income, but the recovery will be held back by high saving.
- Real household income will continue to rise next year. Together with the decline in the saving rate, this will result in brisk growth in real consumption.
- **Government consumption growth** will fluctuate.
- **Growth in total gross investment** will be affected predominantly by **additions to inventories**.
- **Imports** and above all **exports** will achieve solid growth rates due to the unwinding of supply chain problems and later a recovery in external demand, and in the case of imports also domestic demand.

Exchange Rate CZK/EUR



- The forecast expects the **koruna** to average CZK 23.5 to the euro in 2023 Q2 and gradually weaken to about CZK 24 to the euro in the following quarters.
- It will be affected by a gradual receding of the wave of positive **sentiment** and a **narrowing interest rate differential** vis-à-vis the euro area, which will have a weakening effect.
- A more pronounced depreciation of the koruna will be prevented by a renewed trade surplus linked with the fade-out of the negative impacts of disrupted global value chains and of the immediate economic and inflationary impacts of the war in Ukraine.

Interest Rate Path (3M PRIBOR)



- Consistent with the spring forecast is stability of **market interest rates** at their current level initially, followed by a gradual decline from the second half of this year onwards.
- This is in line with the receding extraordinary inflation pressures from the external environment and with the second-round effects of high inflation in the domestic economy.
- A continued decline in the extreme foreign price pressures combined with the previous monetary policy tightening will result in inflation falling close to the target at the monetary policy horizon, i.e. in 2024 Q2 and Q3.
- Interest rates will thus be able to start coming down in the second half of this year.

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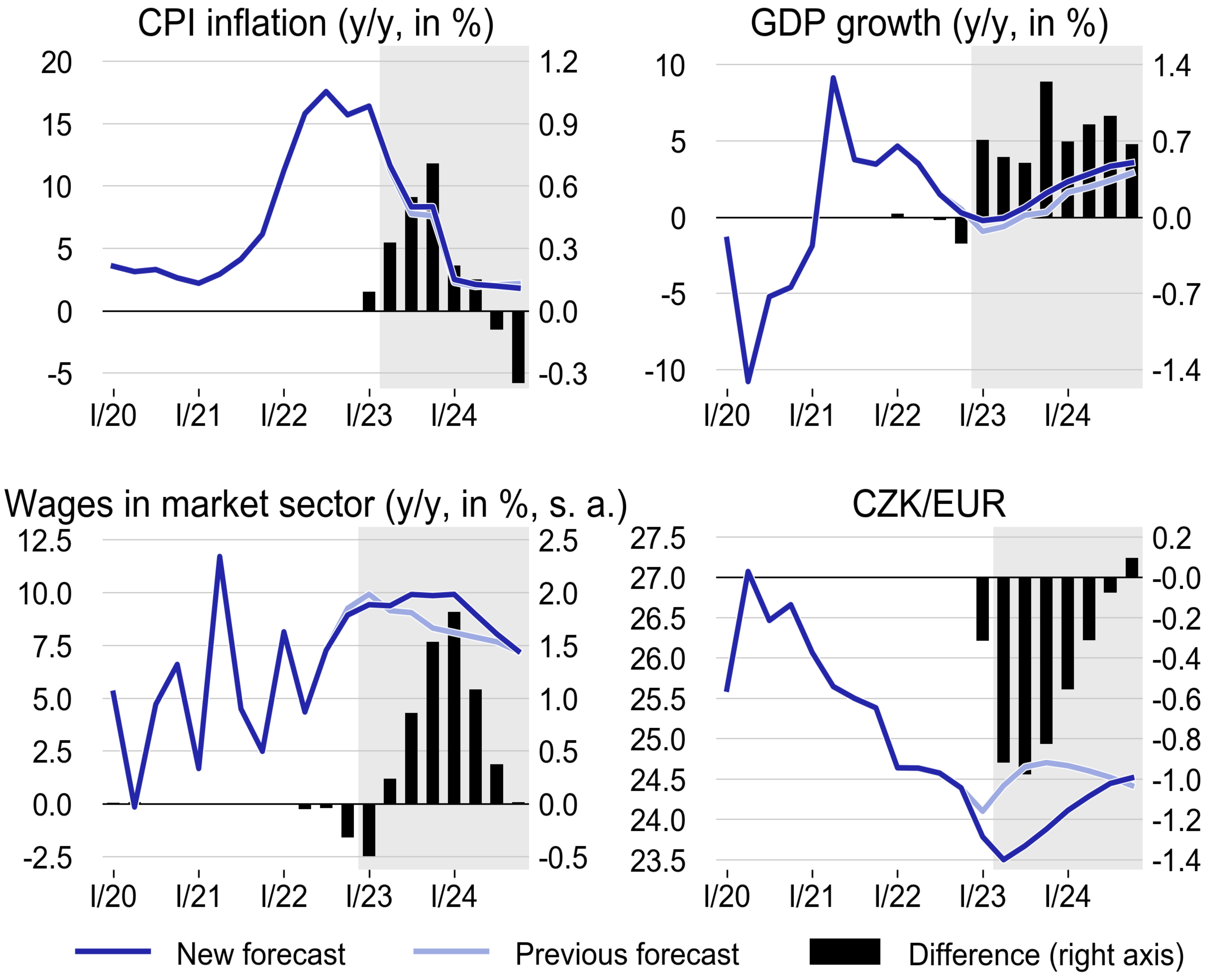
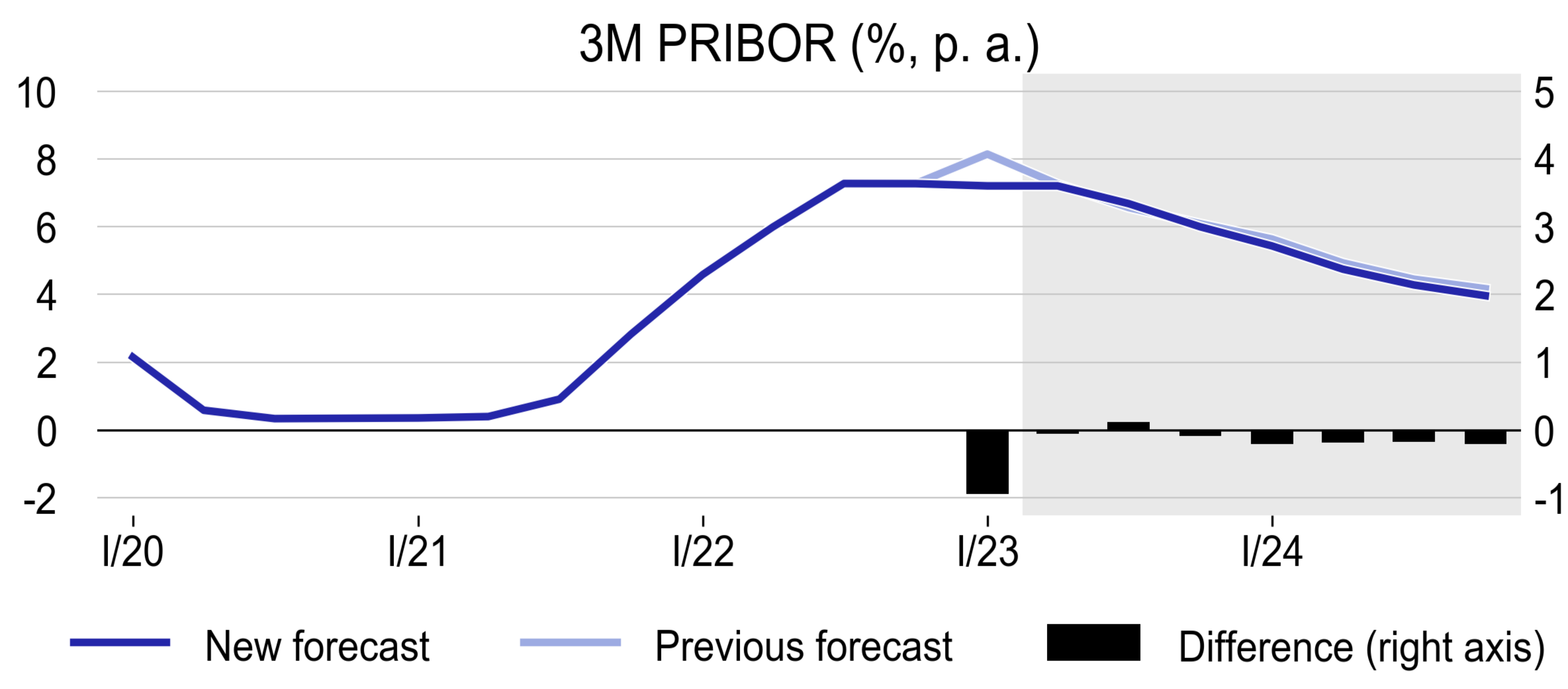
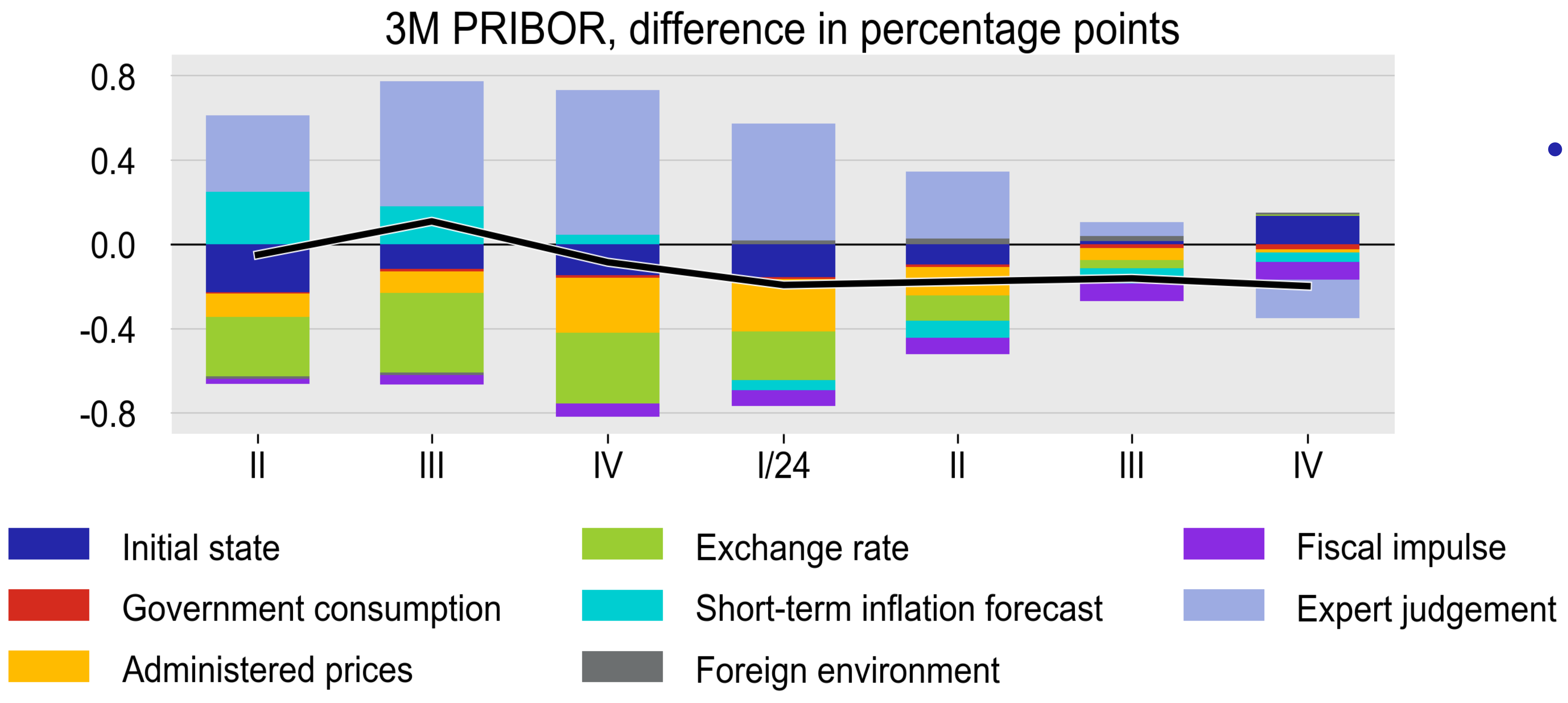
Comparison with Previous Forecast: Domestic Economy



- The upward revision of the **inflation** forecast this year is due mainly to higher food price inflation and core inflation.
- The **GDP growth** outlook is higher this year due to higher gross fixed capital formation and a slightly larger contribution of net exports, which will be joined next year by a stronger recovery in household consumption.
- The higher **wage growth** reflects faster wage growth in late 2022 and early 2023, a better-than-expected condition of firms and an earlier renewal of growth in demand for labour.
- The shift in the **exchange rate** to stronger levels at the nearer end of the forecast horizon is due mainly to its observed levels.

Comparison with Previous Forecast: 3M PRIBOR





- **The initial state** initially fosters lower rates - lower initial rate level and to the smoothing effect in the reaction function.
- **The short-term exchange rate forecast** for 2023 Q2 causes a downward revision.
- The negative contributions of **administered prices** reflect a faster decline in energy prices below the government caps.
- **The short-term inflation forecast** (higher food price inflation than expected) fosters higher rates this year.
- **Expert adjustments** first foster higher rates (the expert incorporation of later and slower closure of the gap in mark-ups in the domestic intermediate goods sector, faster wage growth in spring and summer). The entire outlook contains strengthened expert adjustments reducing the effect of the narrowing interest rate differential on the exchange rate, which foster lower rates.

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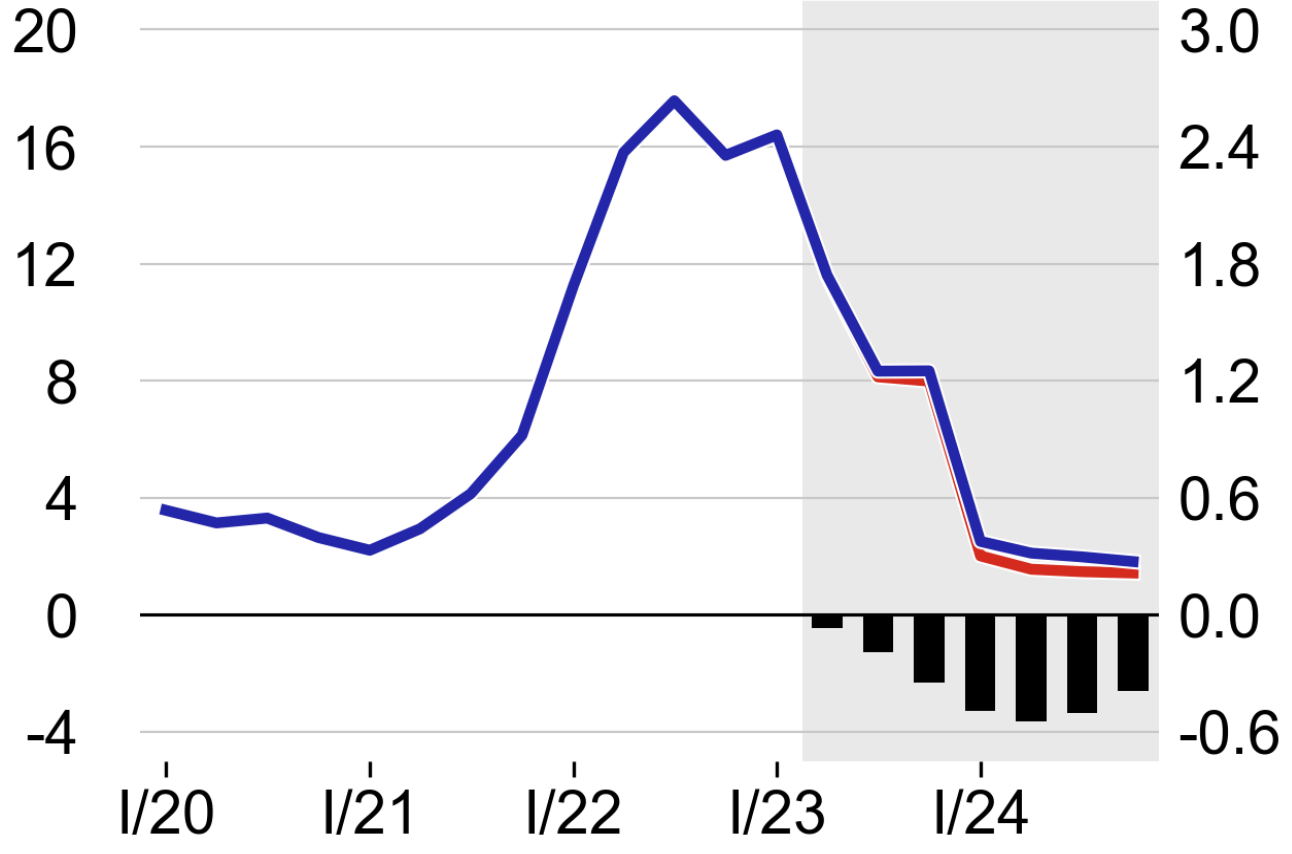
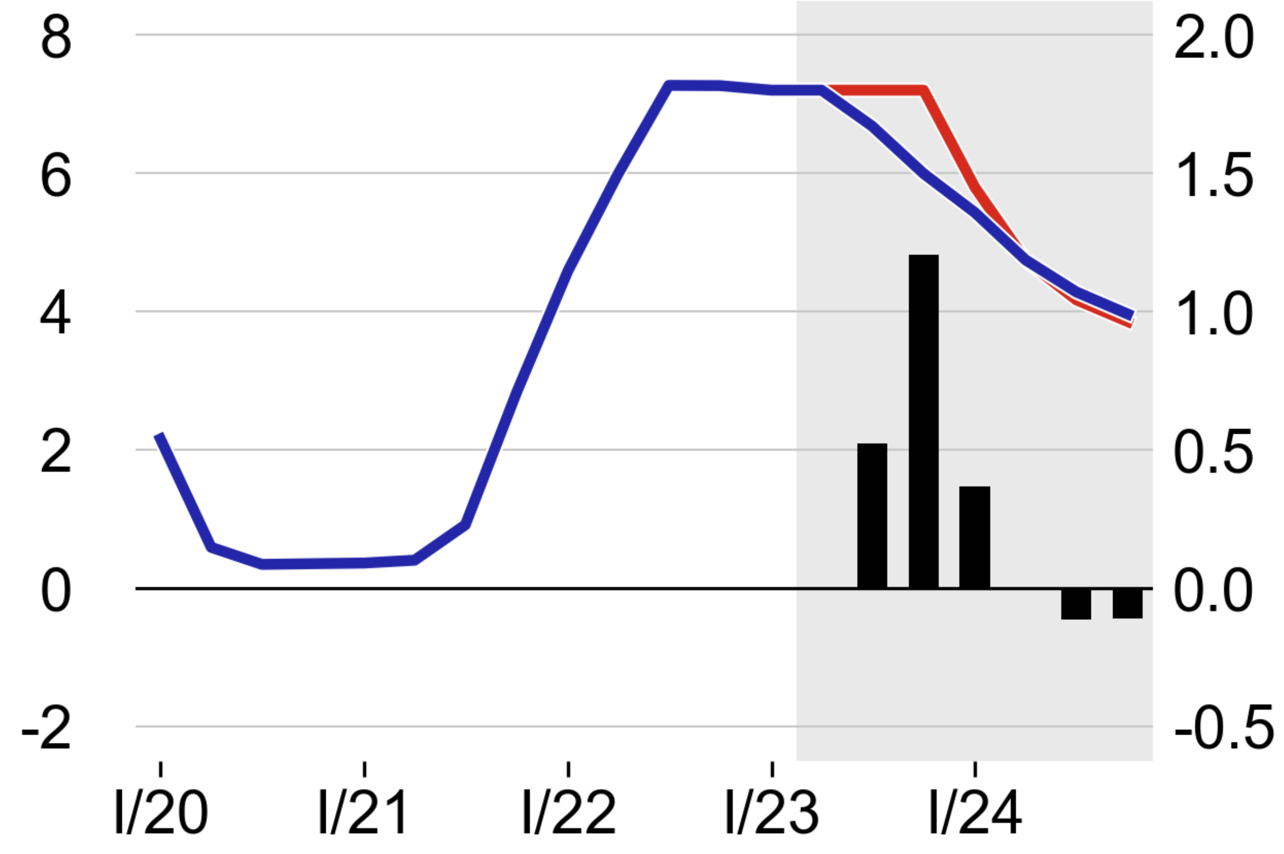
Simulation of keeping rates unchanged for longer

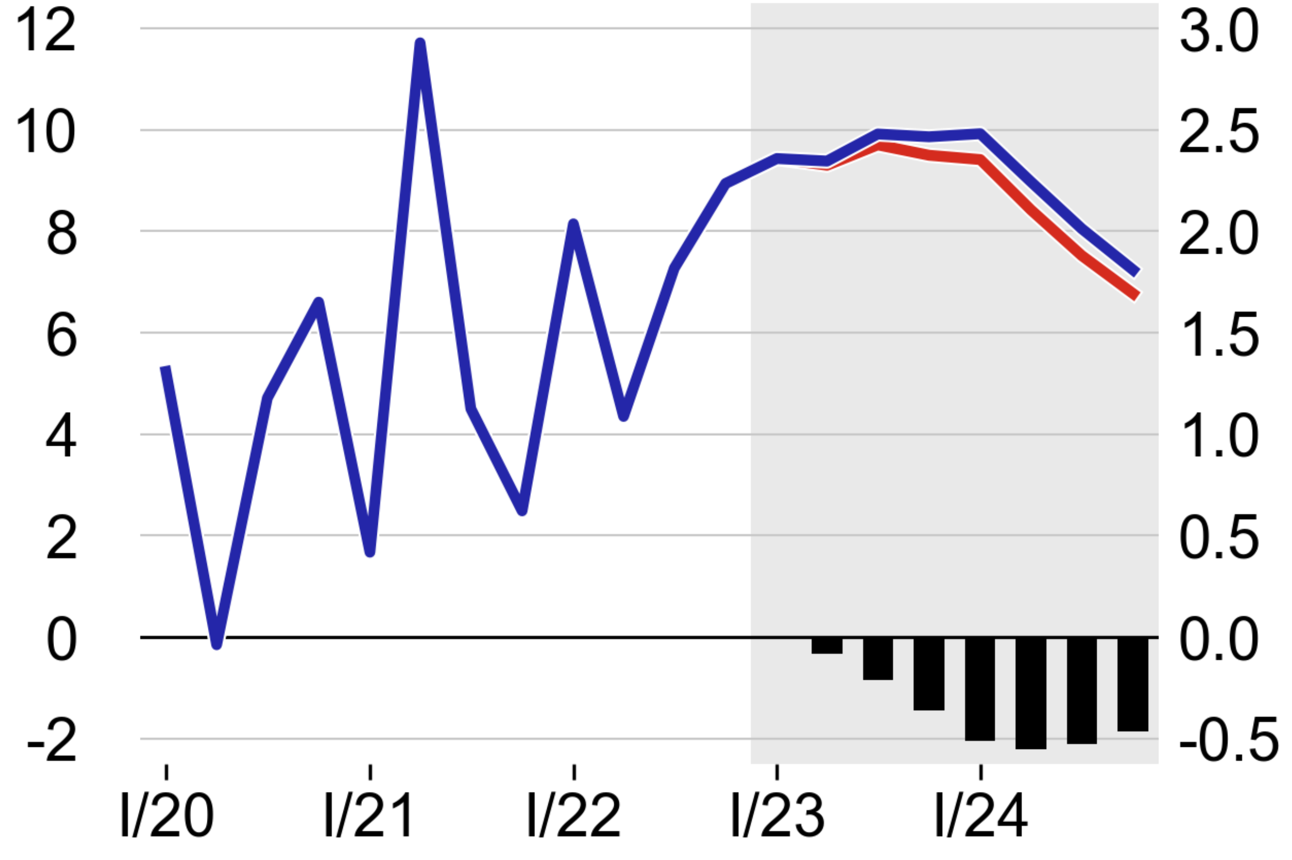
CPI inflation (y/y, in %)



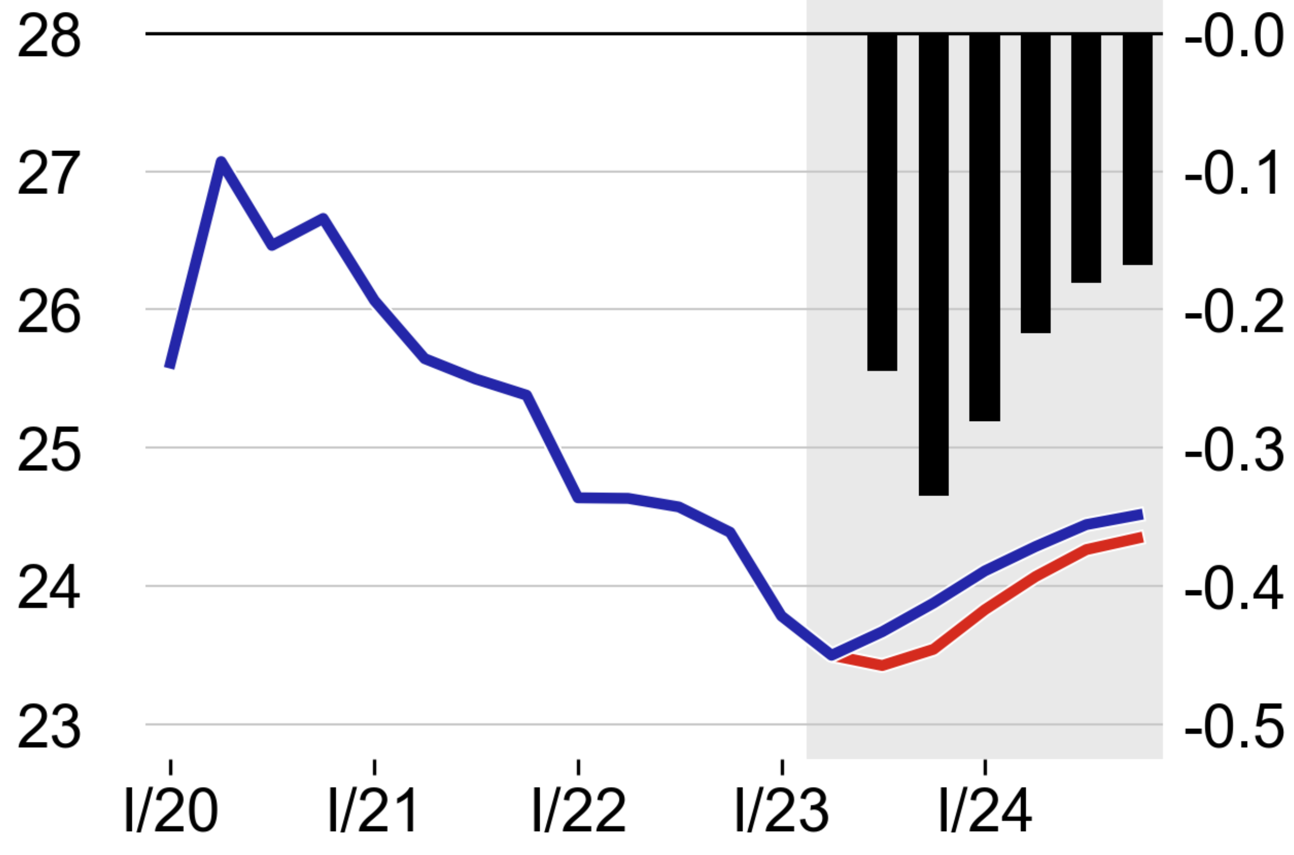
3M PRIBOR (%, p. a.)



Nominal wages in market sectors (y/y, in %)



CZK/EUR



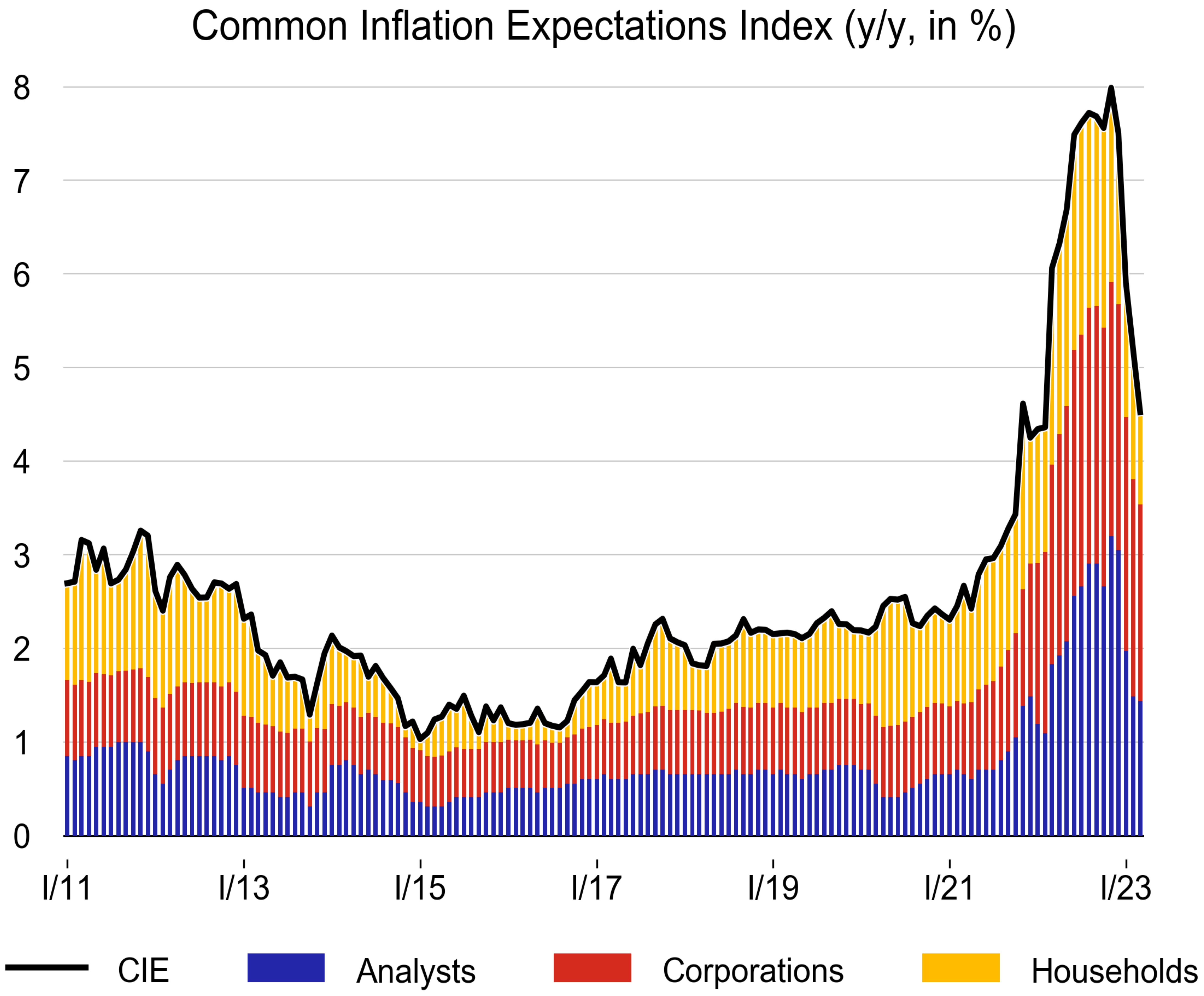
Baseline

Simulation of keeping rates unchanged for longer

Difference (right axis)

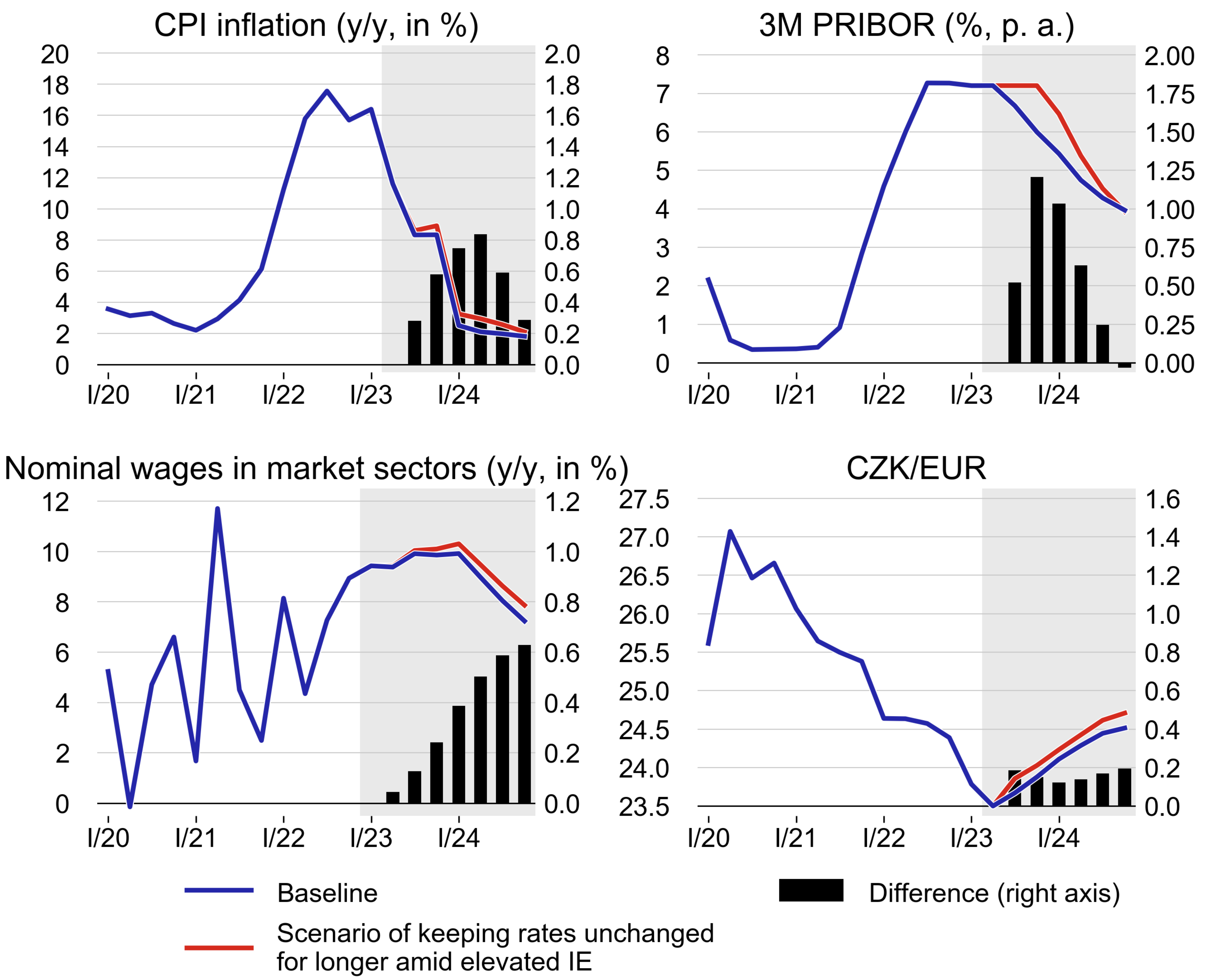
- In this simulation, interest rates are expected to be kept unchanged until the end of this year.
- The **interest rate path** is higher than in the baseline scenario until the start of next year. This leads to a stronger **koruna** than in the baseline scenario over the entire forecast horizon. Both components of the monetary conditions are thus tighter than in the baseline scenario.
- **Inflation** is thus lower both this year and the next and undershoots the 2% target at the monetary policy horizon, i.e. in 2024 Q2 and Q3. It is around 0.6 pp lower than in the baseline scenario of the forecast.
- The impacts on other domestic variables foster slightly lower GDP and **nominal wages.**

Common Inflation Expectations Index



- The updated approach to modelling elevated inflation expectations uses a newly constructed **Common Inflation Expectations (CIE)** index which aggregates data on the expected change in inflation one year ahead taken from surveys of IE of the **financial market** (the FMIE survey), **businesses** and **households.**
- The values of this index are used as a source of information for making adjustments to inflation expectations in the core forecasting model. The calibration of the adjusted model was chosen so that inflation expectations in the model approximate the course of the CIE index in 2022 and especially in 2023 Q1.

Scenario of keeping rates unchanged for longer amid elevated inflation expectations



- As in the previous simulation, interest rates are expected to be kept unchanged until the end of this year.
- The main difference is the assumption of a different path of **IE** and their approximation to the **CIE index**. Elevated IE fundamentally affect economic agents' decisions, generating additional inflation pressures in the economy.
- The central bank leaves **interest rates** unchanged. However, this response is not sufficient to offset the effect of the elevated inflation expectations.
- This in turn manifests itself mainly in faster **nominal wage growth** and a higher **inflation rate** than in the baseline scenario. Additional depreciation pressure due to an increase in the risk premium leads to weaker levels of the **koruna** over the forecast horizon.

Thank you for your attention

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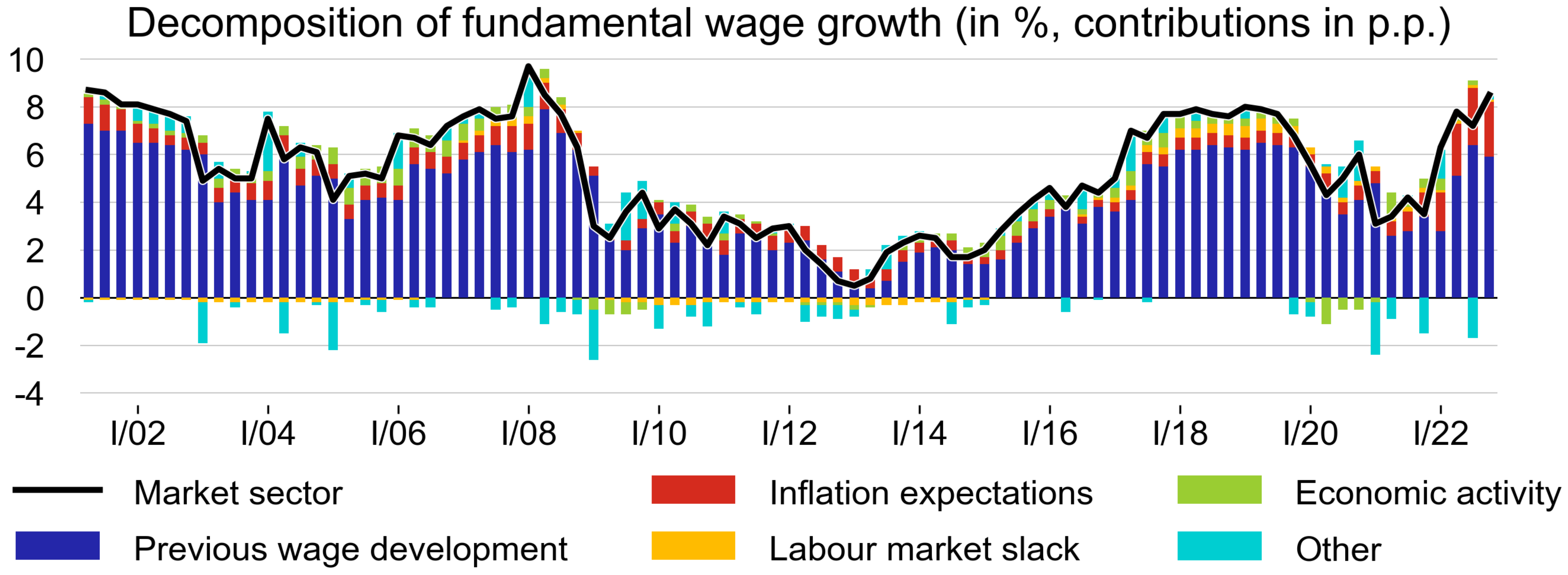
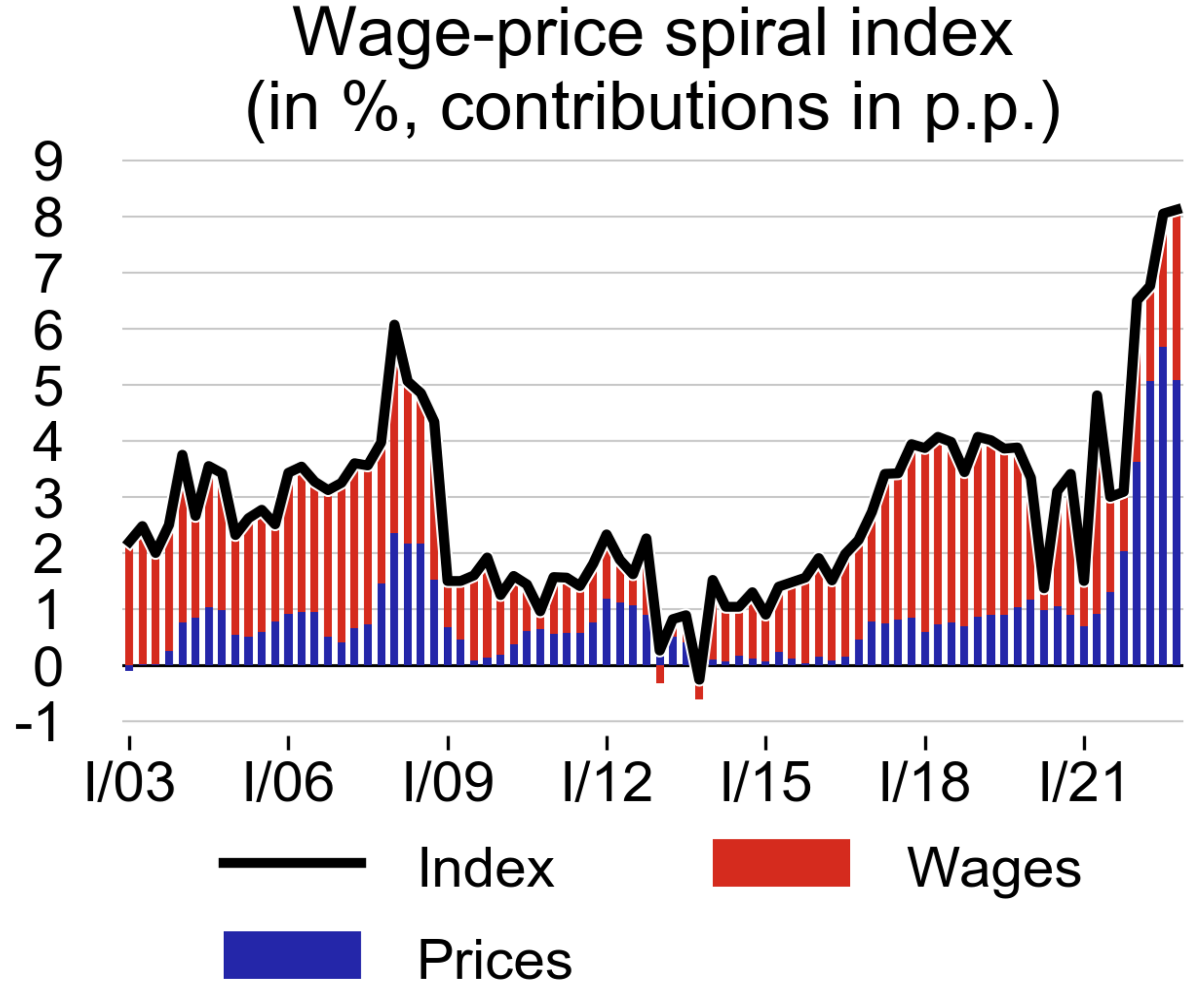
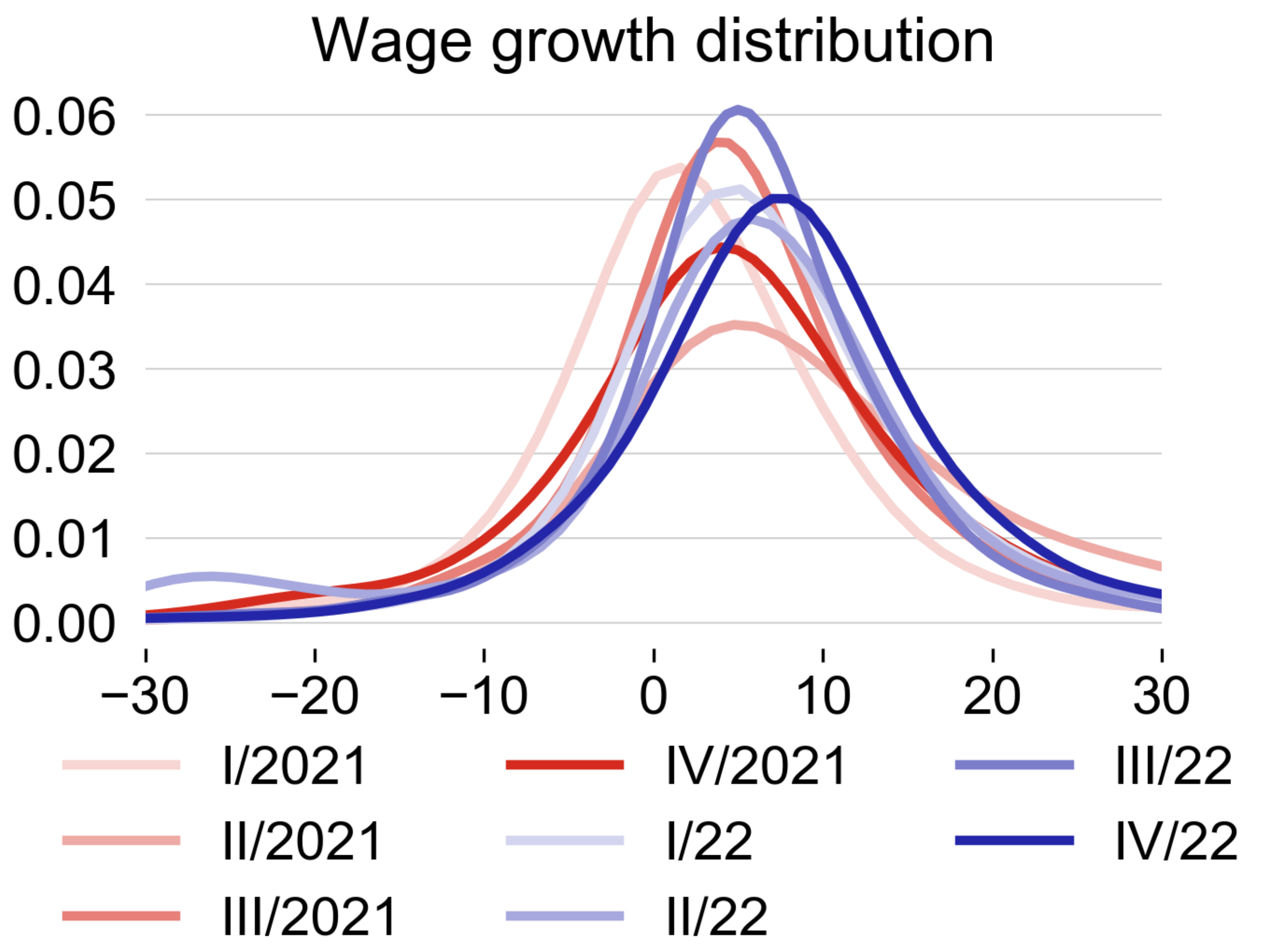
Wage Growth in Czech Republic and Wage-Price Spiral



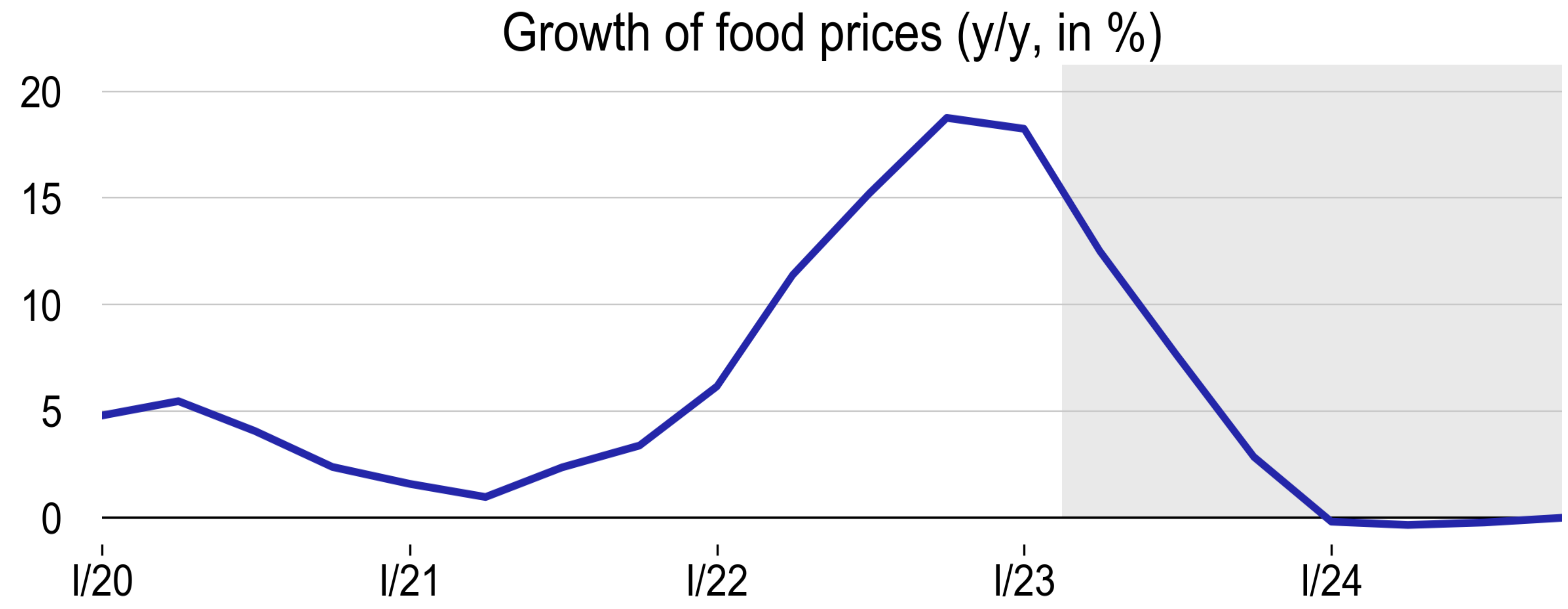


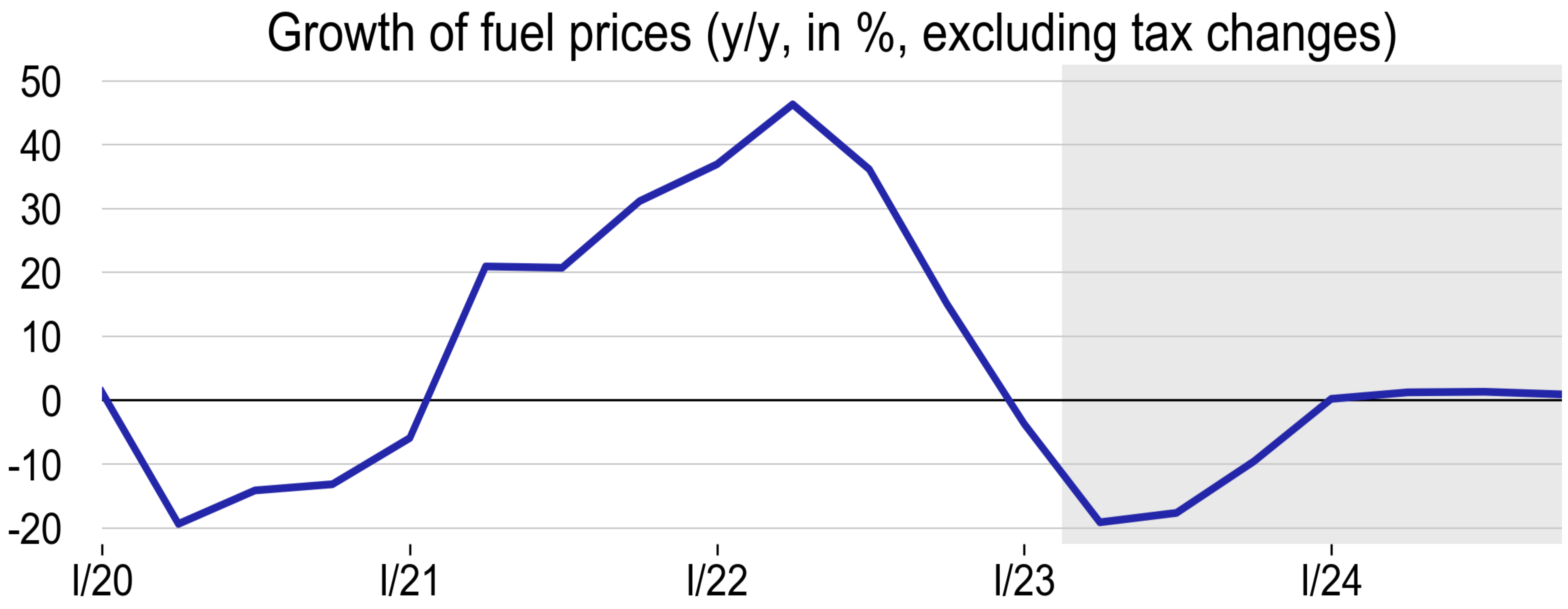


x-axis: y/y nominal wage growth in market sectors in %,
y-axis: probability density

- The **resilience and persistence** of wage growth have long been high. Past wage growth has a dominant effect on the current and future level of wages. The role of **households' inflation expectations** intensifies at times of high inflation.
- The risk of a **wage-price spiral** can be analysed using an **index** measuring joint growth in wages and prices. Its elevated level in the Czech Republic over the last year implies concurrent high growth in wages and prices.
- The broad surge in wage growth is evident from a shift of the entire **wage growth distribution** to higher levels, particularly between 2021 and 2022.

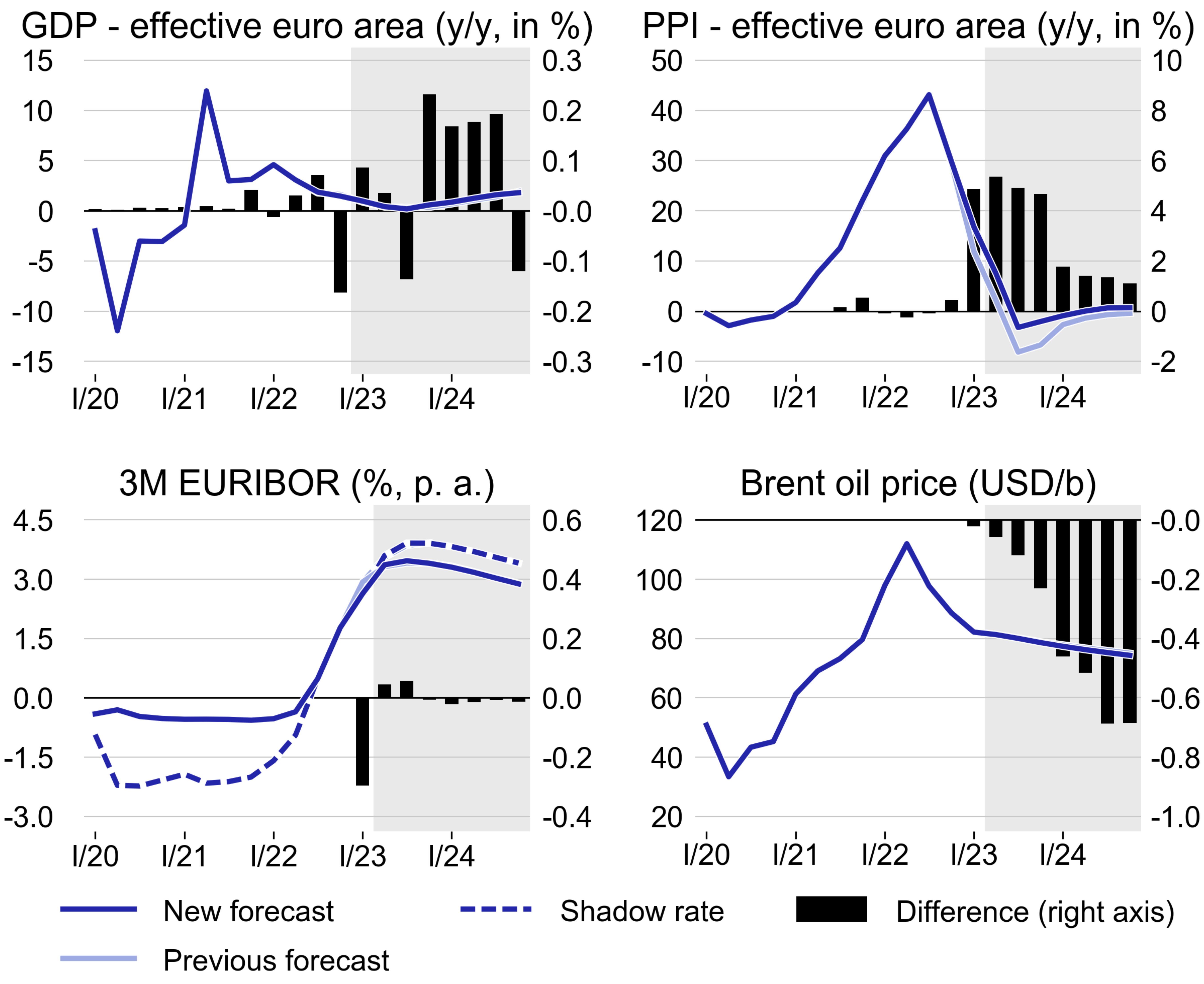
Food and Fuel Prices





- **Food price inflation** declined only gradually at the start of this year and it will decrease quite sharply in the spring. This will be due to falling world agricultural commodity prices and domestic agricultural producer prices and to base effects amid a general decline in profit margins in the economy. Food price inflation will slow markedly further in the second half of this year.
- Year-on-year growth in **fuel prices** turned deeply negative at the end of 2023 Q1, due mainly to base effects. Aided by a strong koruna, fuel prices will decrease in year-on-year terms throughout 2023, albeit with diminishing intensity.

Comparison with Previous Forecast: Foreign Outlook



- The **effective euro area growth** outlook has increased slightly for both this year and the next
- **Industrial producer prices** have been revised upwards due to lower pass-through of the decline in market prices of natural gas and electricity (especially in Slovakia).
- **The Brent oil price** outlook is virtually unchanged.
- The **market interest rate** outlook remains stable.