CZECH NATIONAL BANK

CNB’s New Forecast (Inflation Report II/2020)

Meeting with Analysts

11 May 2020

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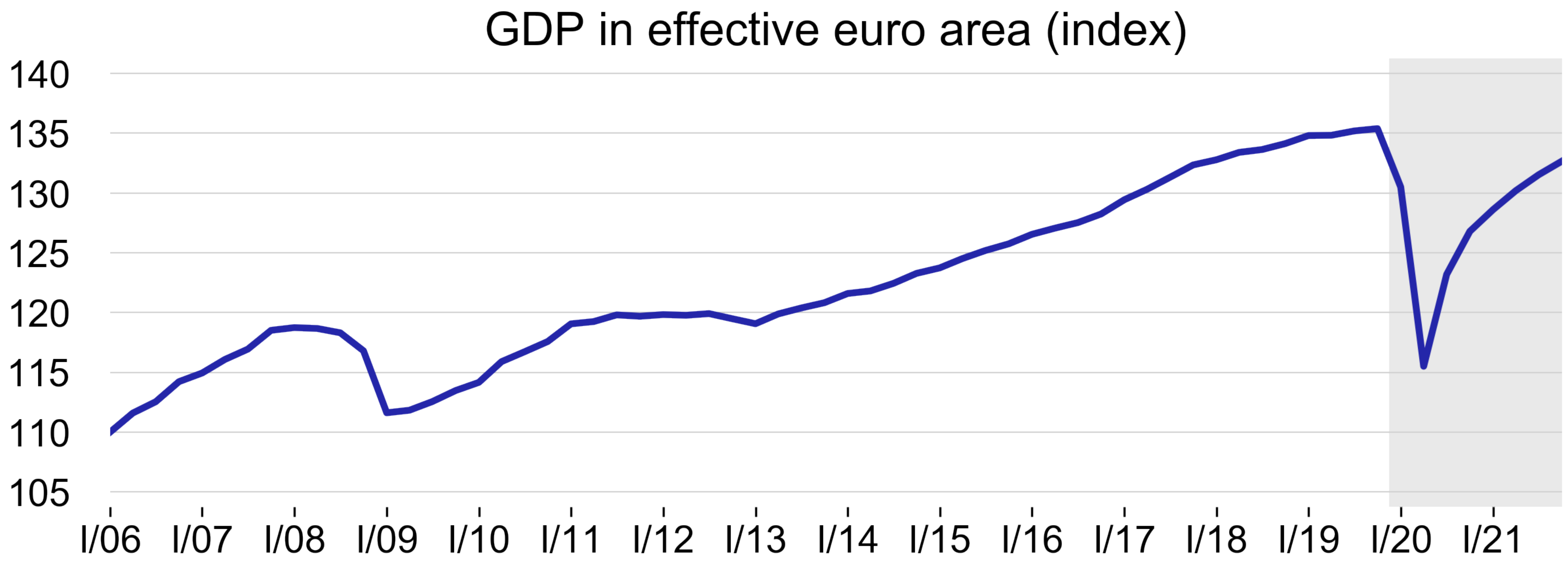
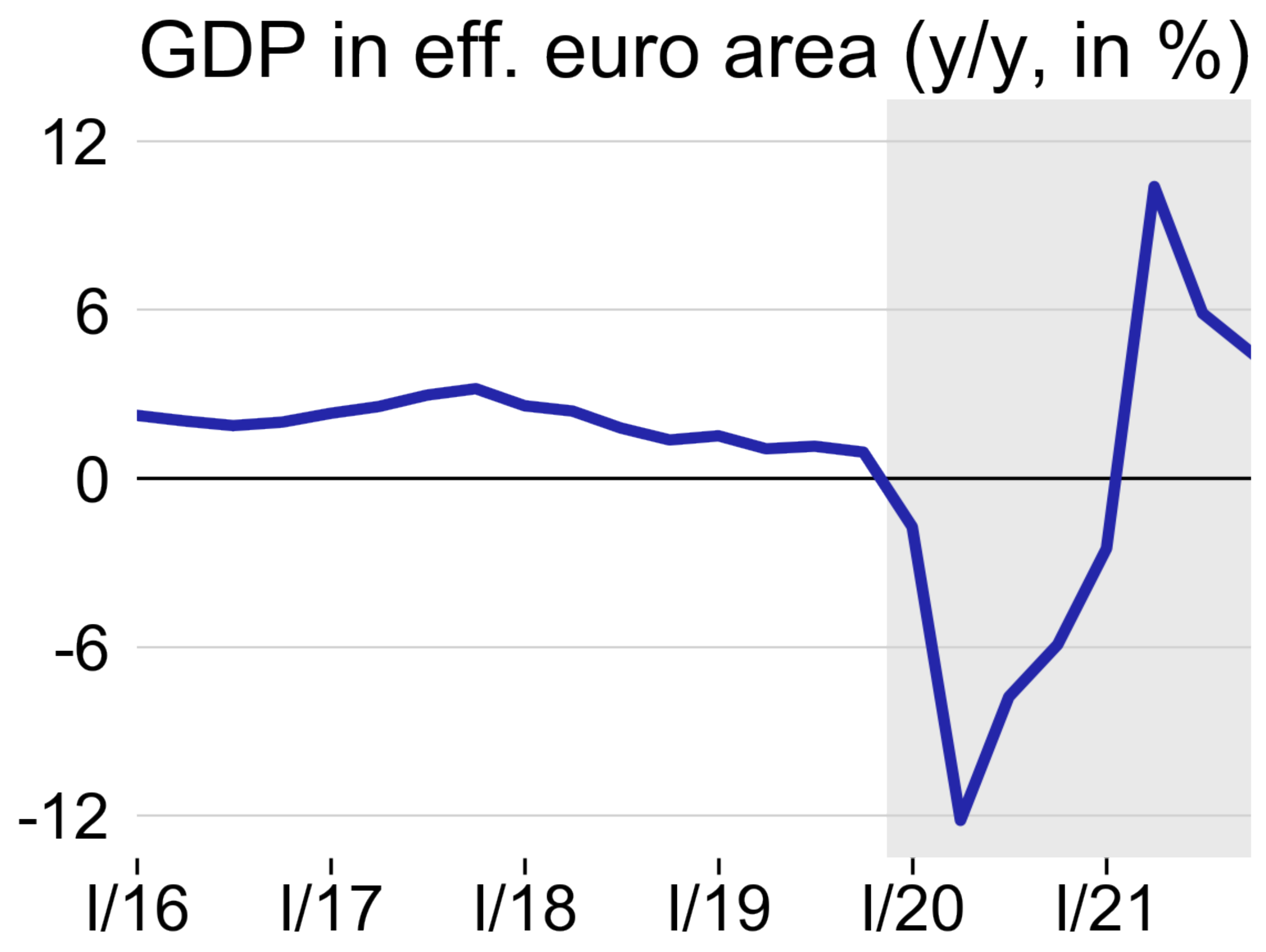
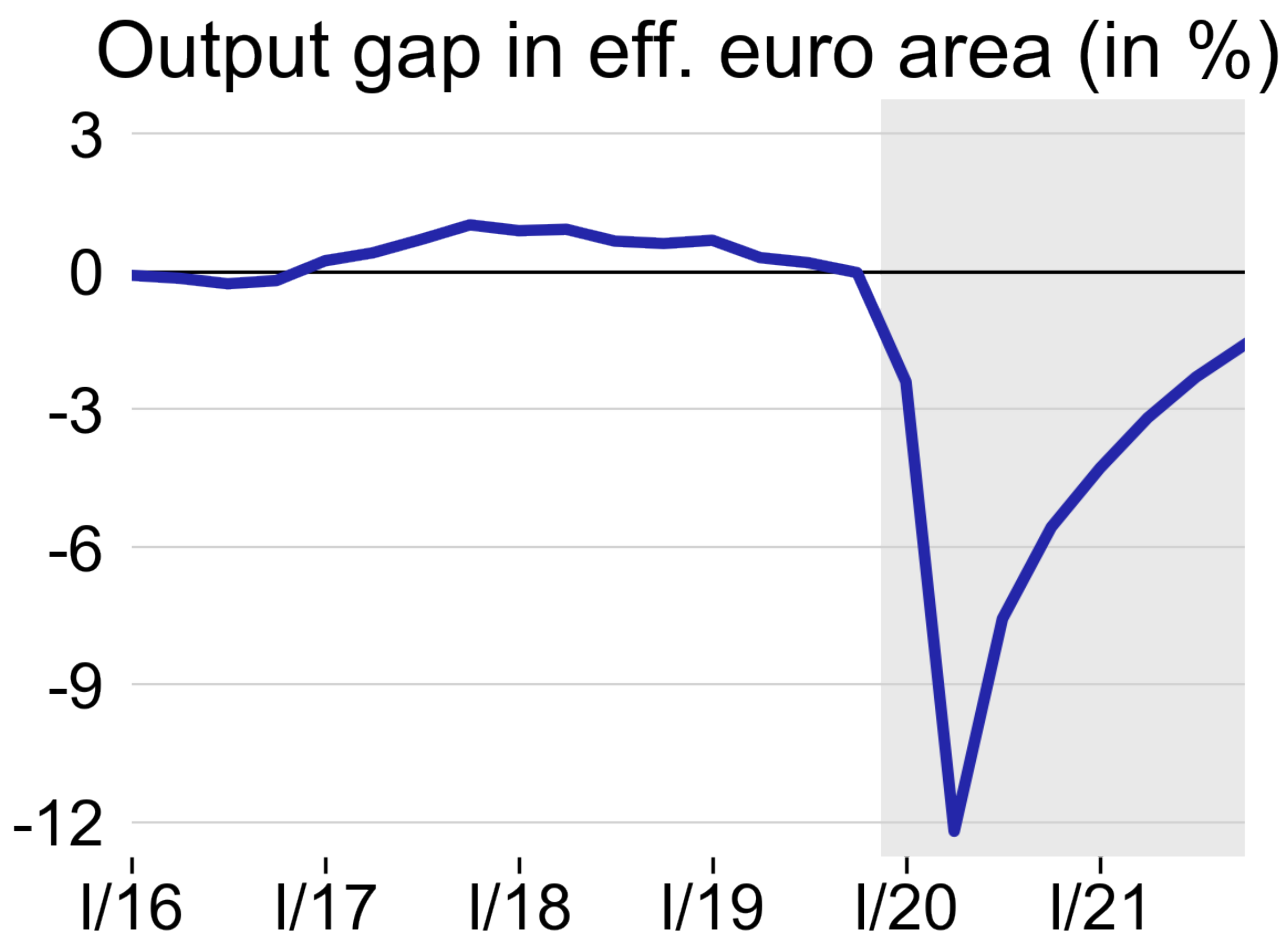
Presentation outline

1. **Assumptions of the forecast**
2. The new macroeconomic forecast
3. Comparison with the previous forecast
4. Scenario of prolonged pandemic
5. Scenario with second wave of pandemic

External Environment Outlook – Real Economic Activity

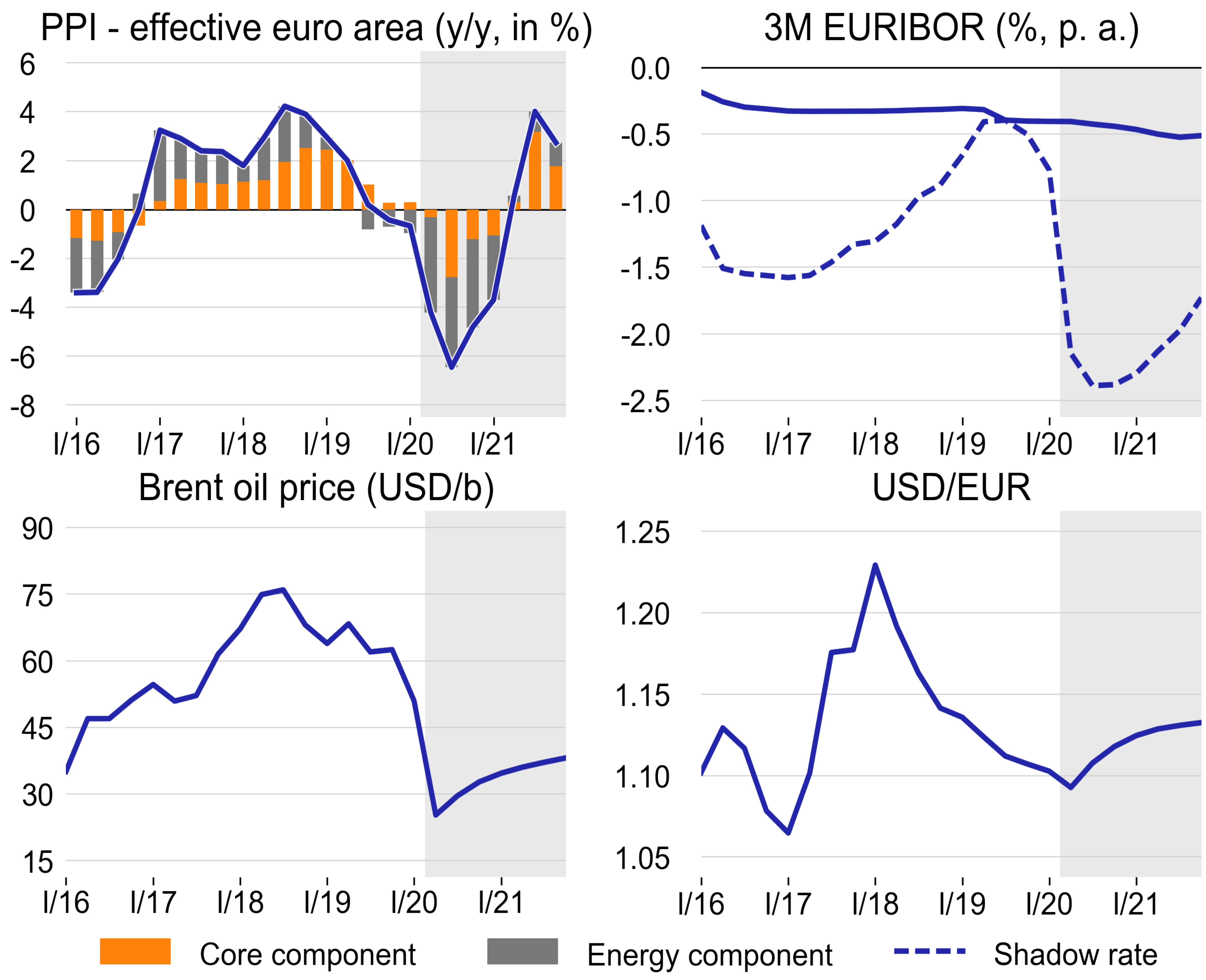






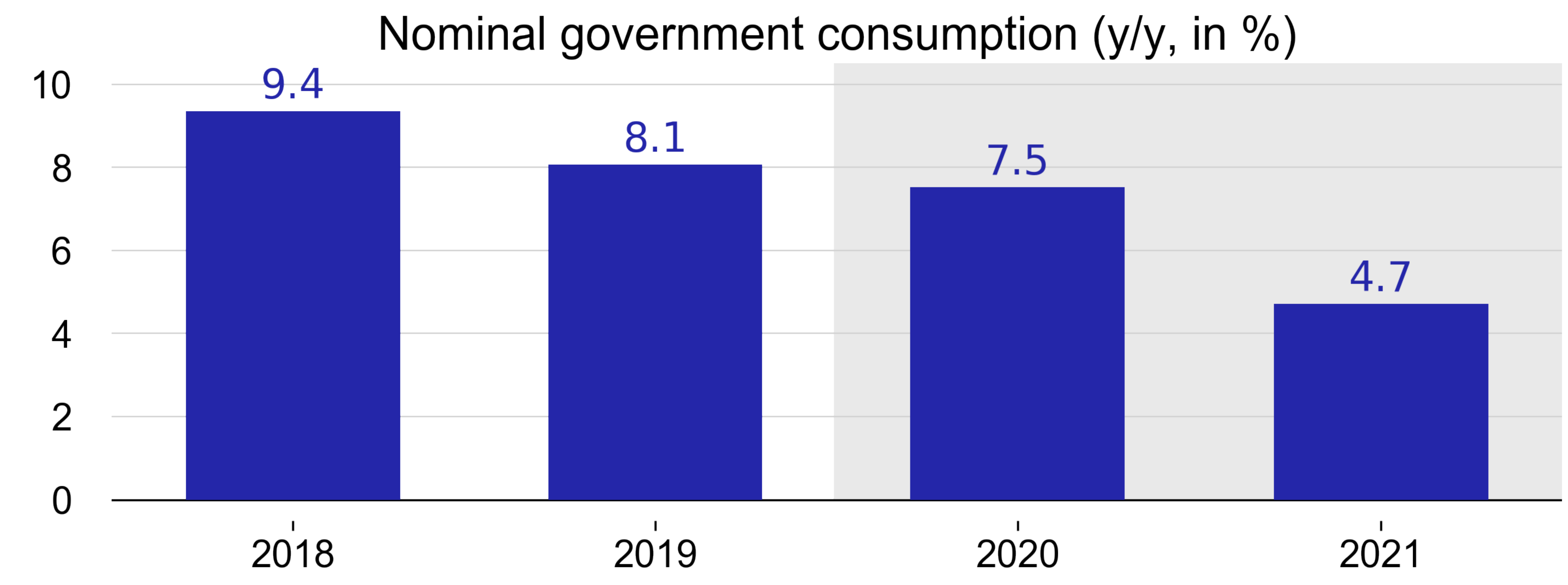
- **GDP in the effective euro area** will drop markedly in Q2, but its year-on-year decline will then start to moderate.
- The euro area economy in effective terms will contract by almost 7% overall this year. Next year, it will partly recover from an extremely low level, rising by more than 4%.
- However, the recovery will not be enough for GDP in the effective euro area to return to the pre-pandemic level.
- The **output gap** will thus remain negative over the entire forecast horizon and will close only gradually.

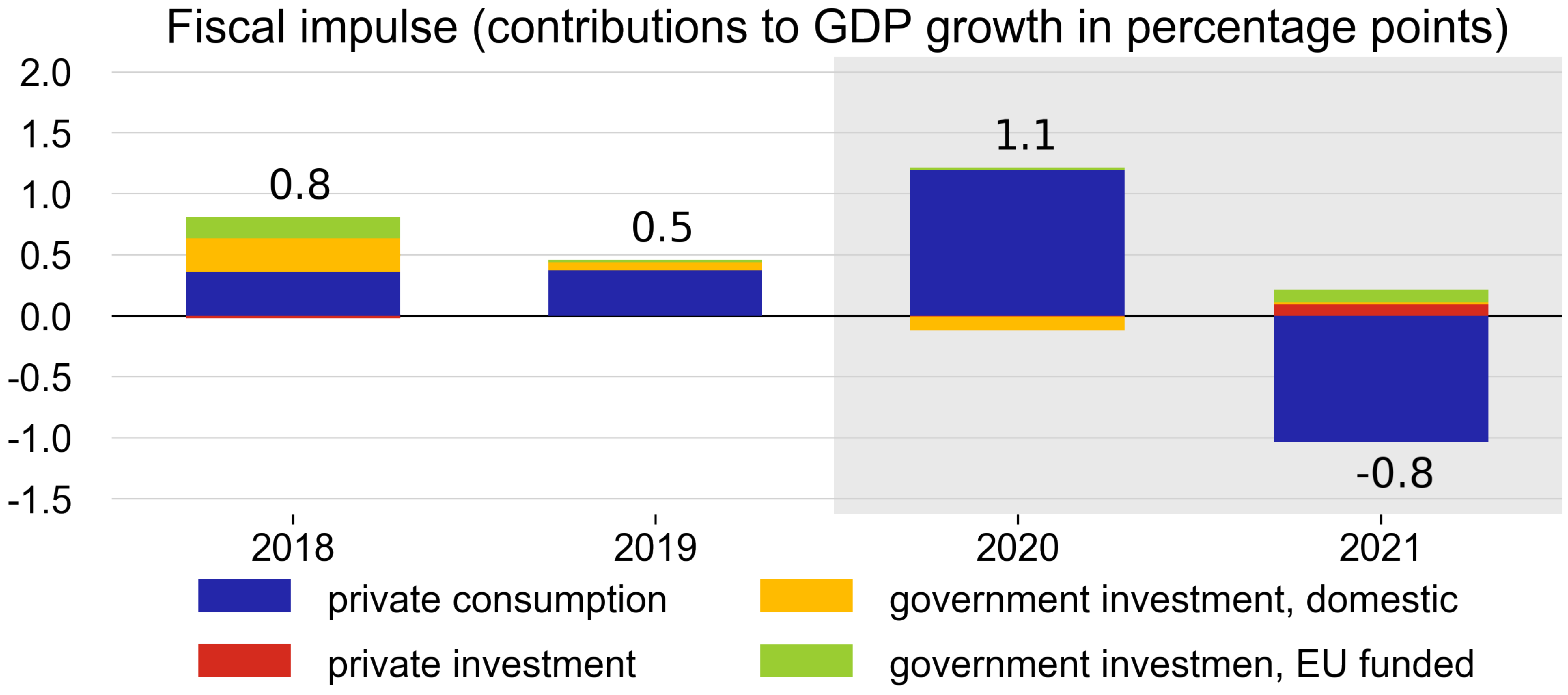
External Environment Outlook – Nominal Indicators



- The **price of oil** fell dramatically in Q1 as a result of failed OPEC+ talks in early March and a drop in the demand due to economic impacts of the measures to counter the pandemic. It will recover only gradually.
- The decline in **industrial producer prices** this year will be due mainly to a negative contribution of the energy component reflecting the collapse of oil prices. The core component will also contribute to the decline due to the expected fall in economic activity.
- The outlook of **3M EURIBOR** remains stable. **Shadow rate** shifts to more negative values due to launched PEPP.
- **Euro** will appreciate slightly against the US dollar.

Fiscal Policy





- **Government consumption** will reflect a rise in expenditure on materials in the health and emergency services and temporarily higher compensation of front-line state employees.
- **Fiscal stabilisation policy** is being implemented through substantial support for household consumption this year.
- A **positive fiscal impulse** this year is largely a result of the extraordinary measures taken to support the economy due to the epidemic (Antivirus, „25“ and care allowance).
- As most of the support measures will be temporary, the forecast expects a **negative fiscal impulse** in 2021. Only tax loss carryback will have a supportive effect next year.

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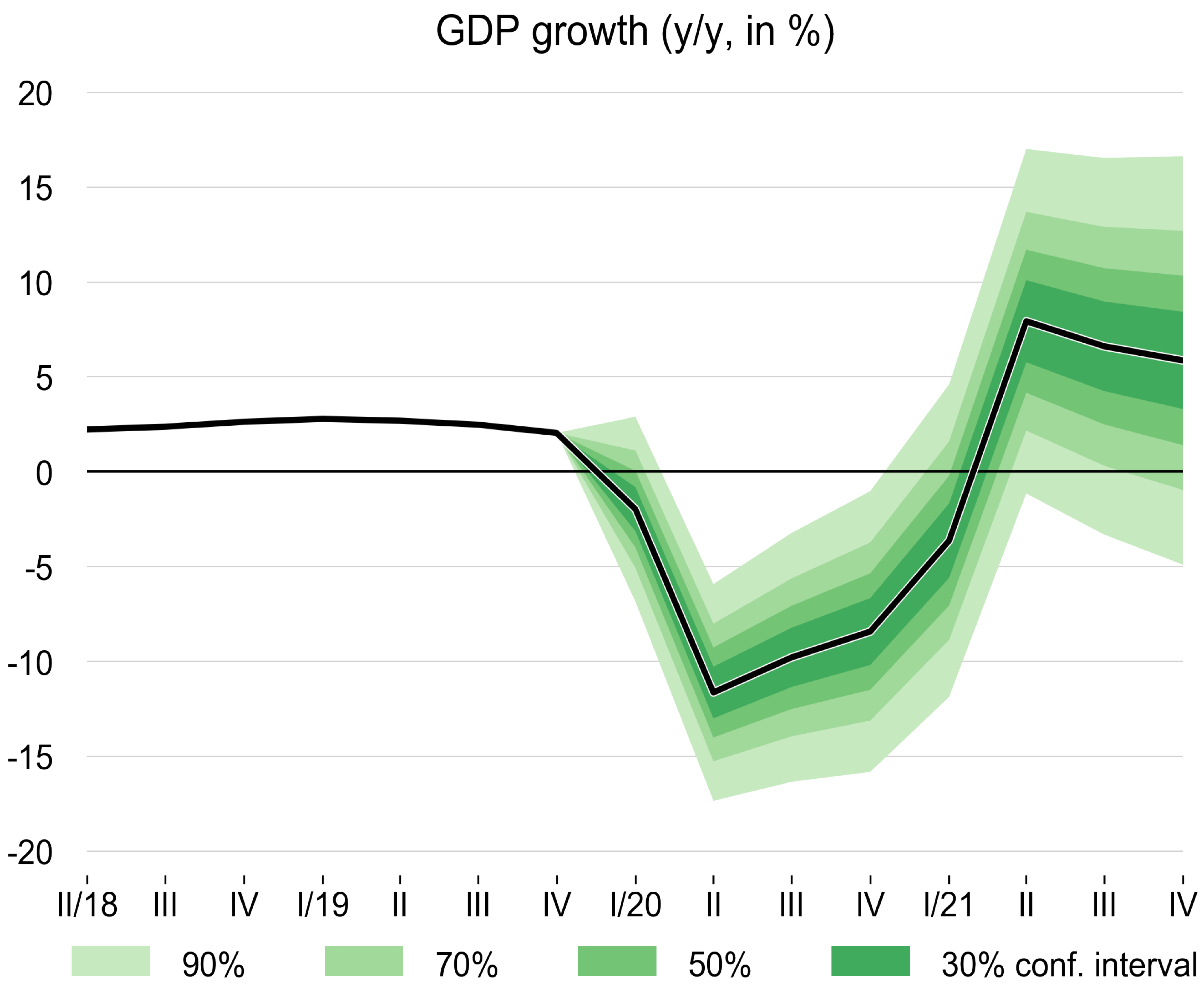
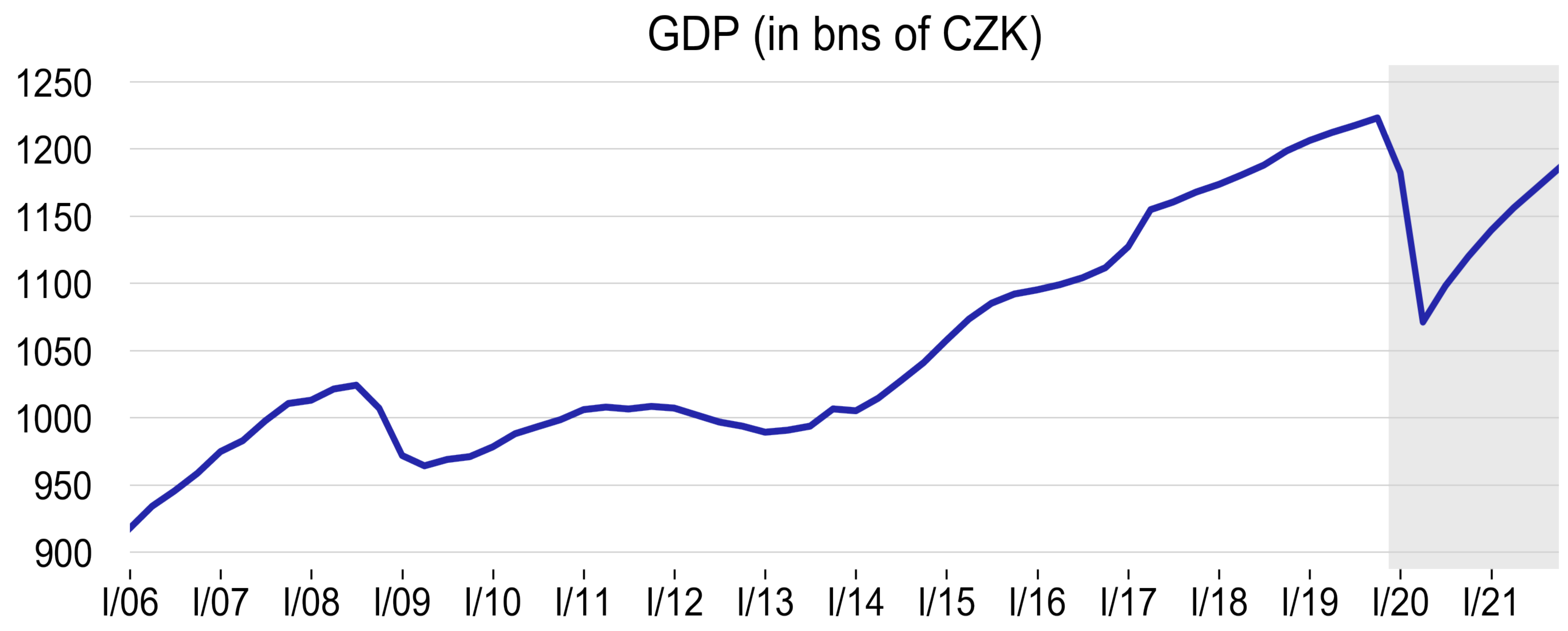
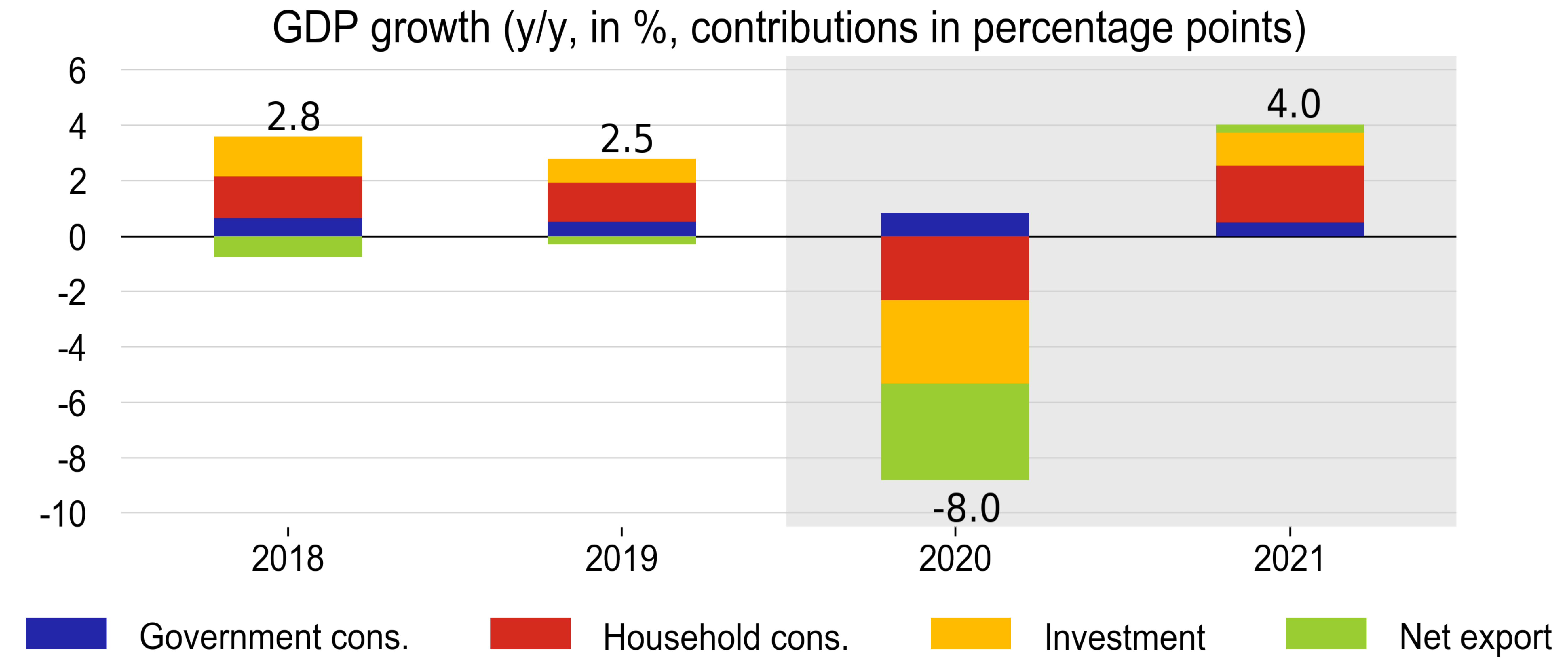
GDP Growth Forecast



- The **Czech economy** will fall into a deep decline this year as result of the coronavirus pandemic.
- A large part of the economy has been **"switched off"** since the end of Q1 due to government quarantine measures, production shutdowns in some companies and a drop in external demand.
- After the expected easing of government restrictions in the domestic economy during the spring, the **decline** in economic activity will **begin to moderate** in the second half of the year.

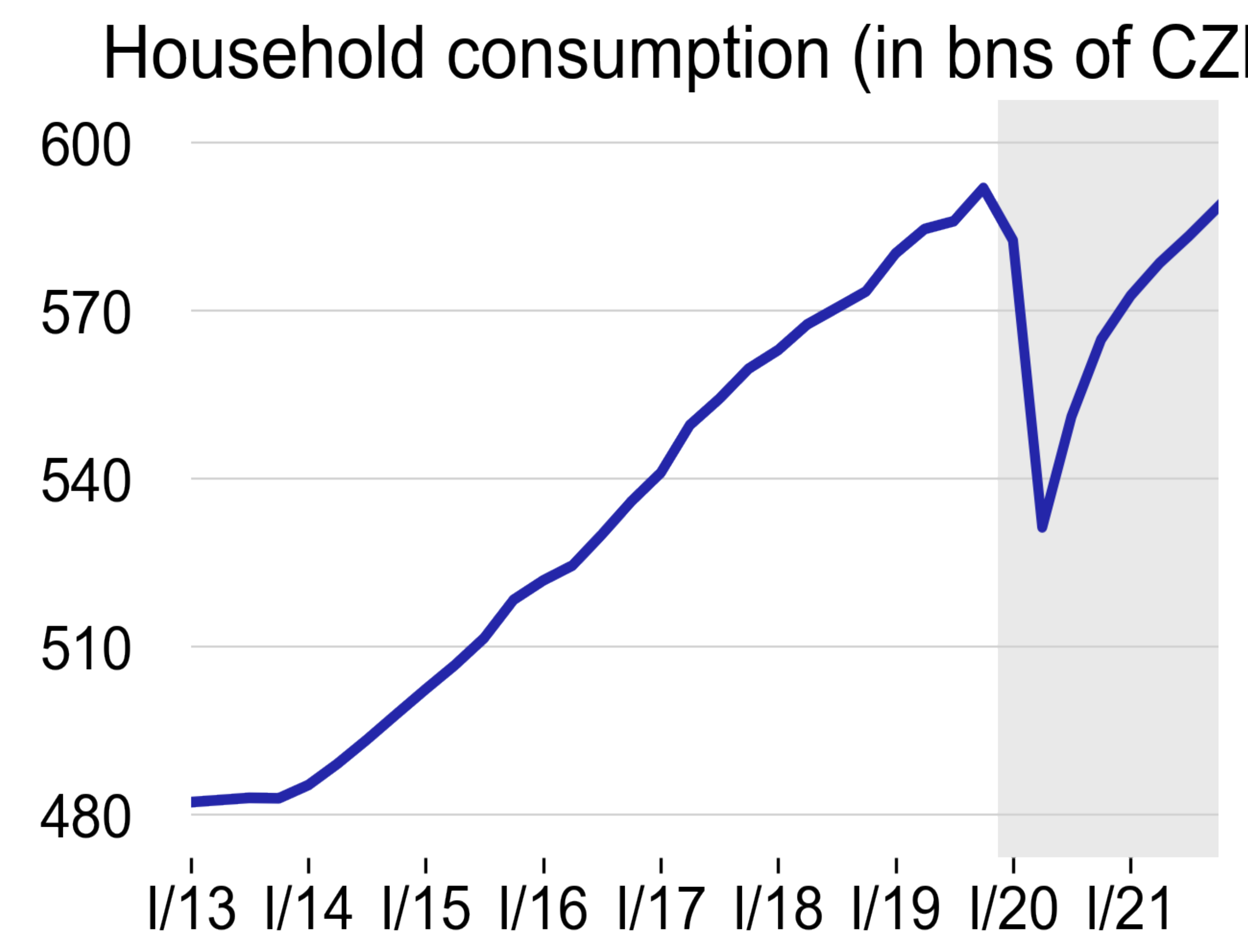
Structure of GDP Growth

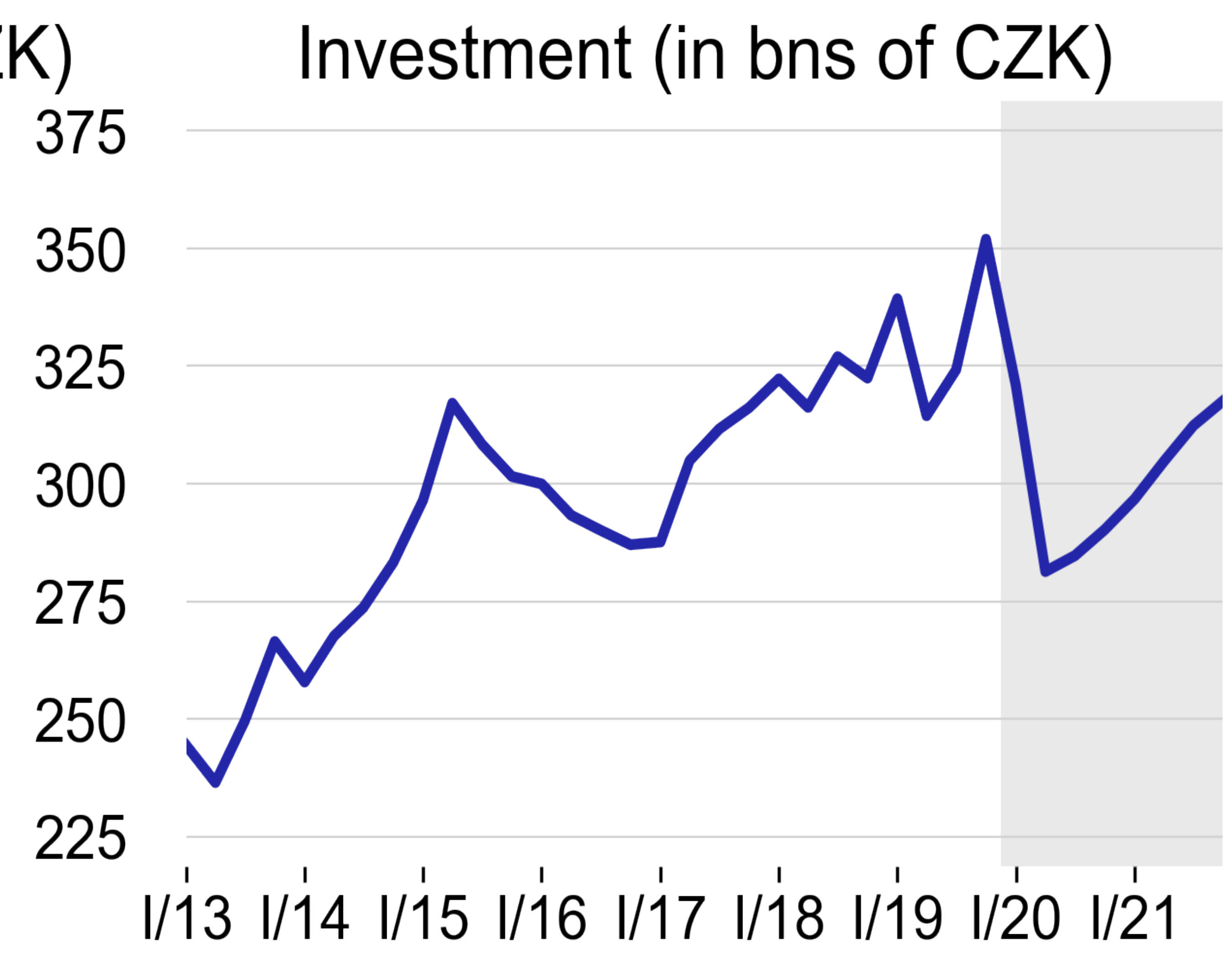


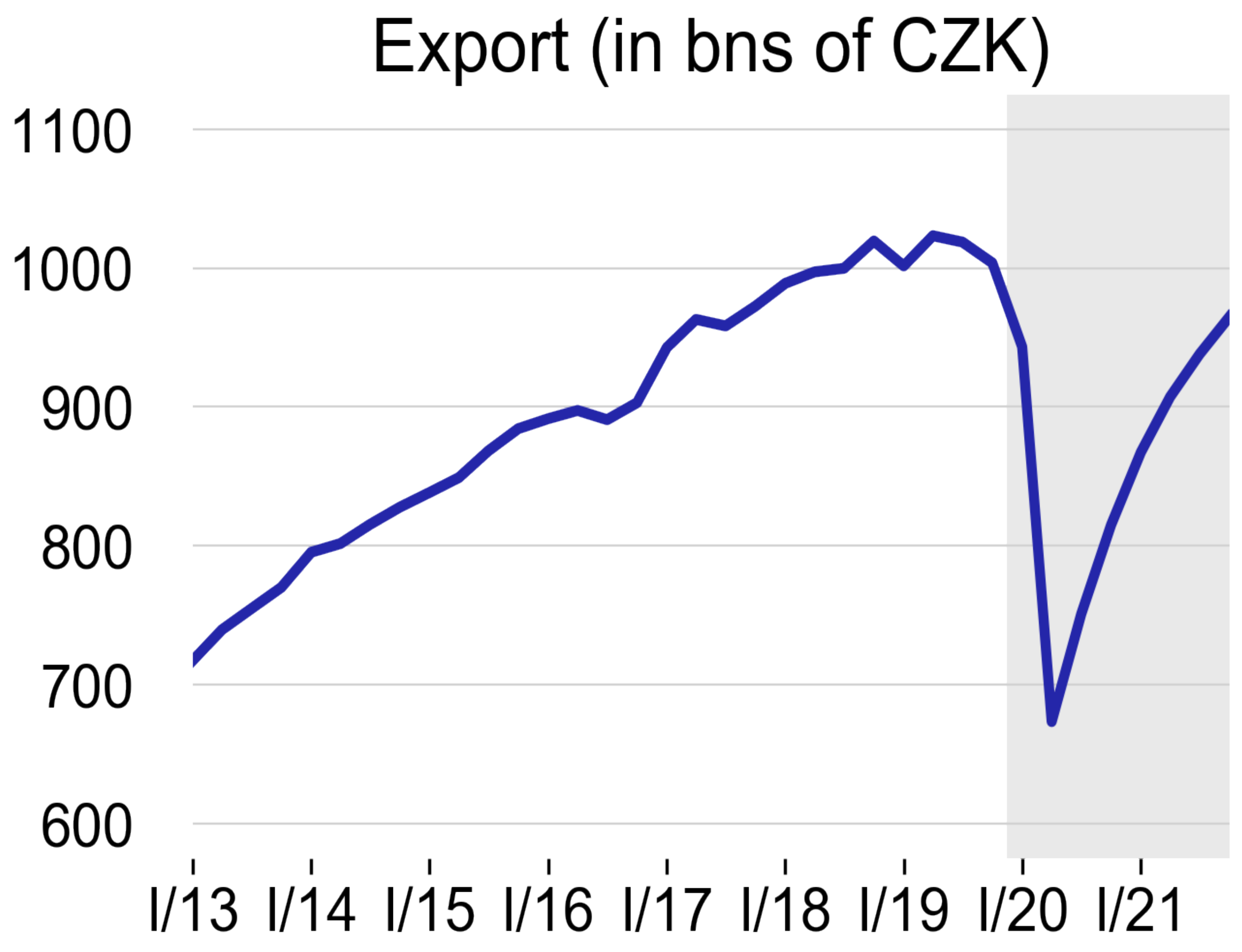


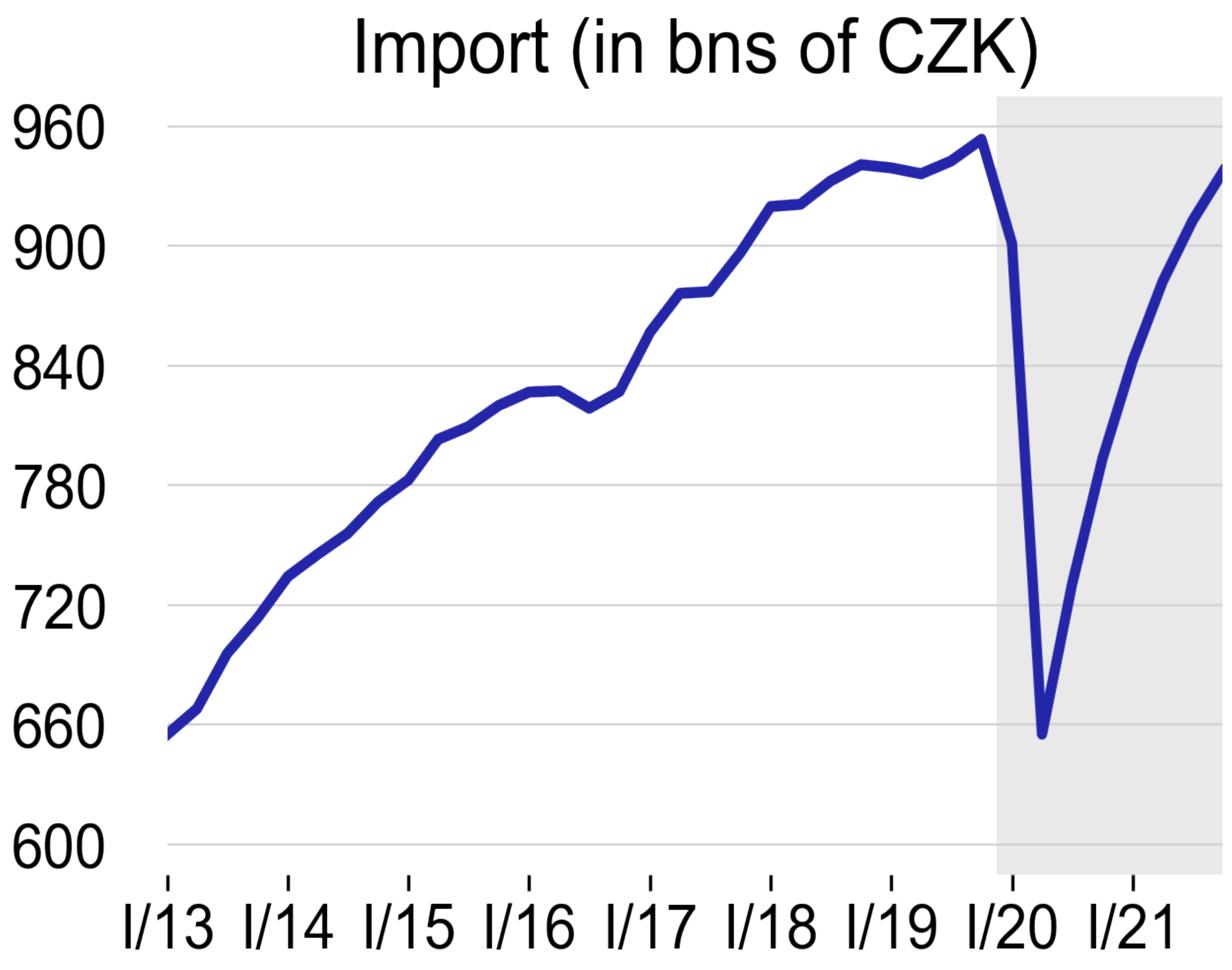
- **GDP** will fall by 8% this year as a whole. The economic activity will nonetheless start to increase again as from the middle of this year.
- However, overall economic activity will not have reached the **end-2019 level** even by the end of the forecast horizon.
- All **expenditure components** except government consumption will contribute to a significant drop in GDP in the first half of this year.
- The **output gap** will open into significantly negative values in the first half of this year, and **potential output** will also decrease temporarily.

Aggregate Demand Components





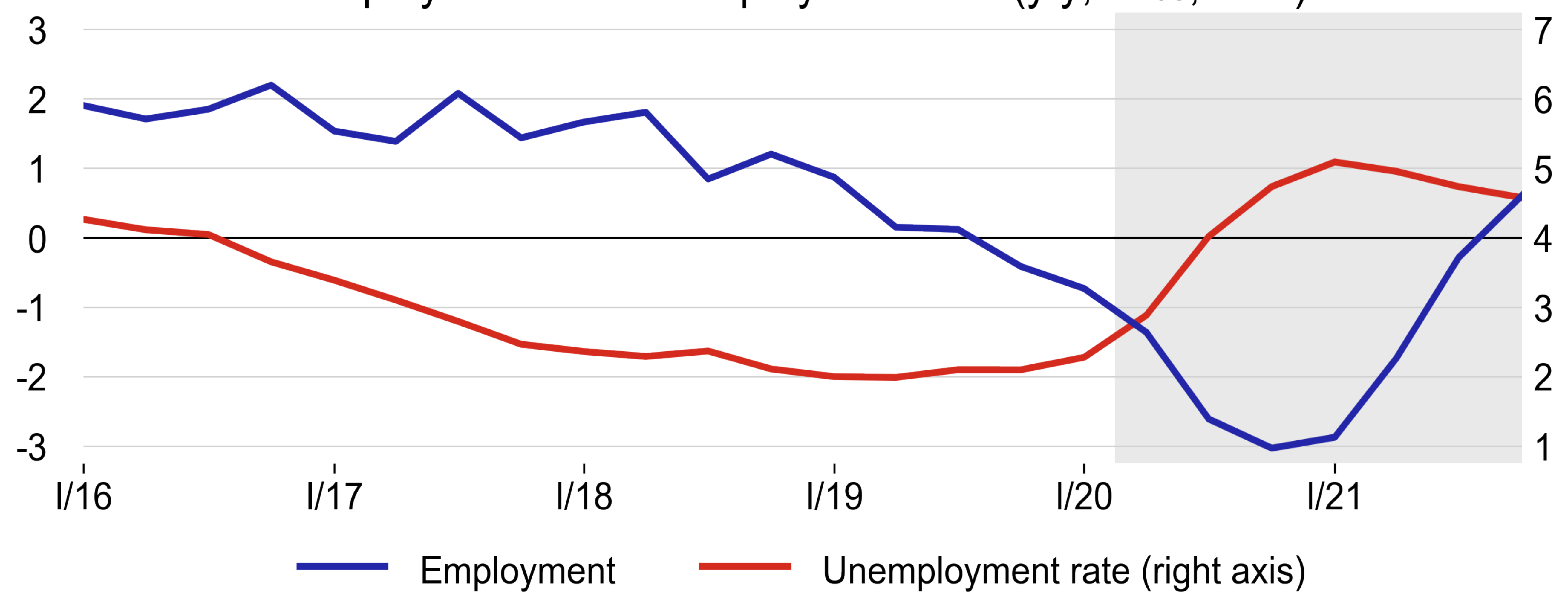




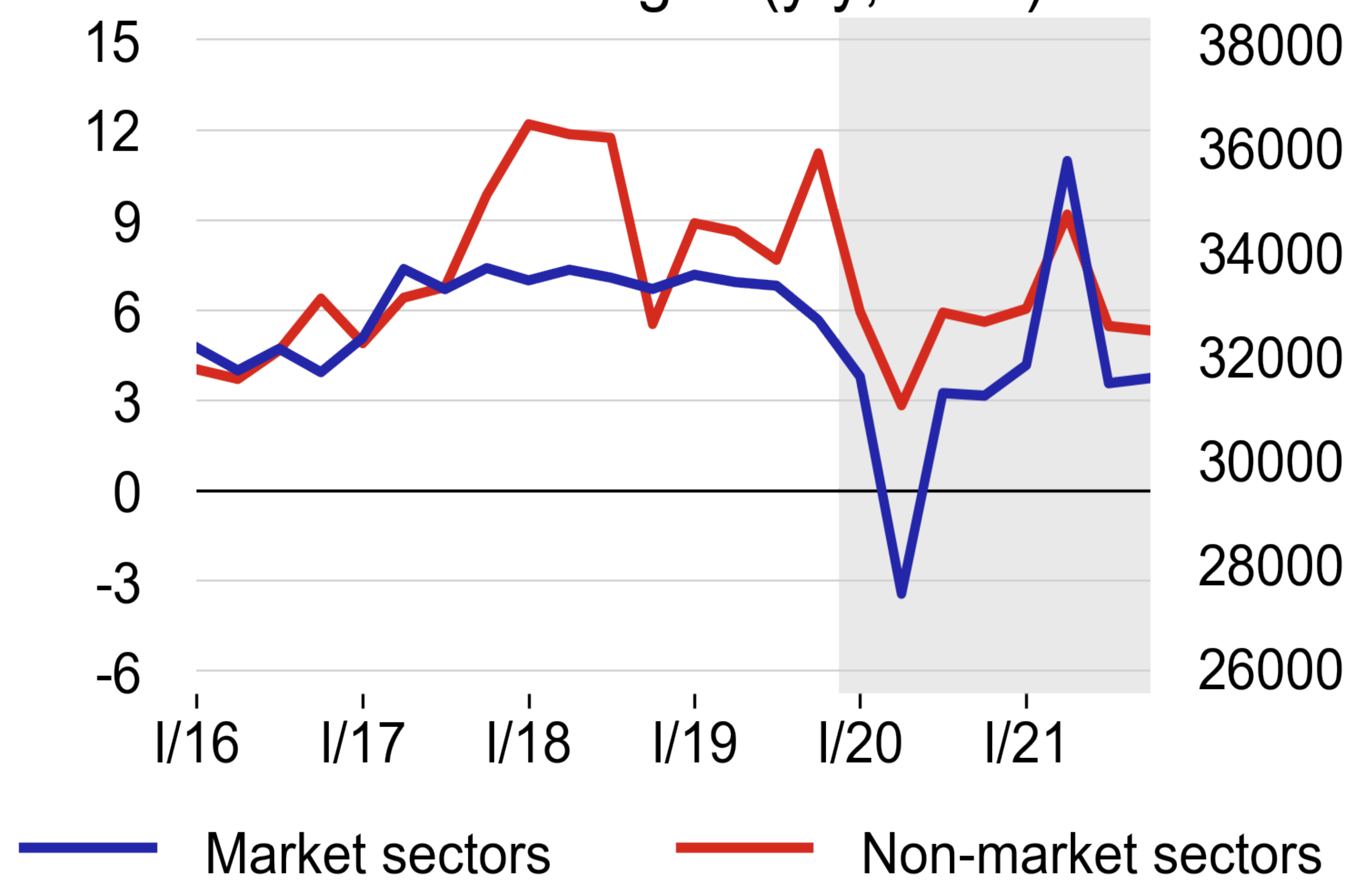
- **Household consumption** will slow this year as a result of the government pandemic measures and the subsequent abrupt cooling of the labour market. After the impact of the quarantine measures subsides the decline in household consumption will begin to moderate.
- The effects of the coronavirus pandemic and the sharp deterioration in corporate sentiment will be adversely reflected in private **investment activity**. Government investment will conversely maintain modest growth.
- **Exports** of goods and services will drop sharply as a result of the freeze in external demand.
- **Import** growth will decline significantly this year due to the drop in domestic demand and exports.

Labour Market

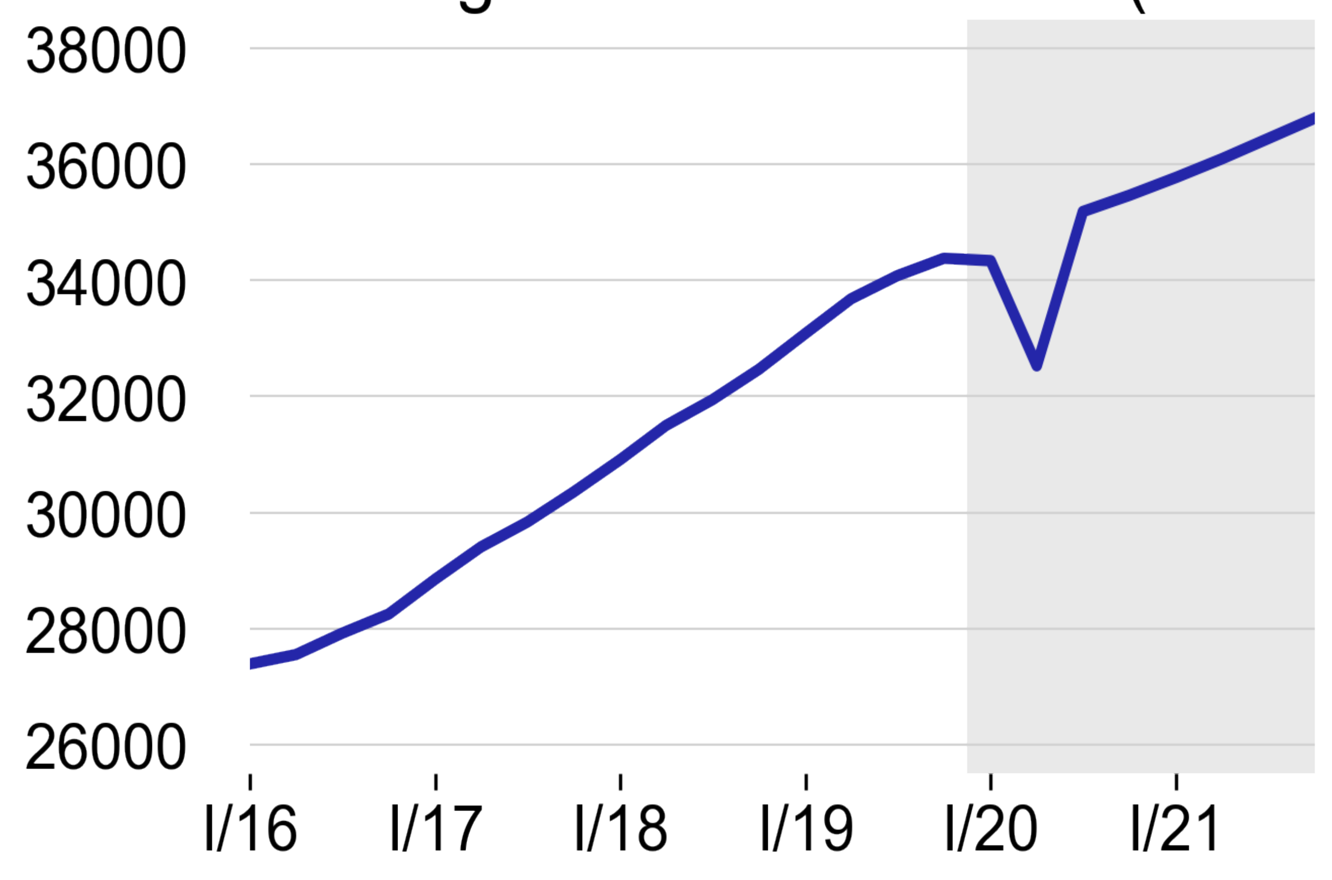
Employment and unemployment rate (y/y, in %, s. a.)



Nominal wages (y/y, in %)

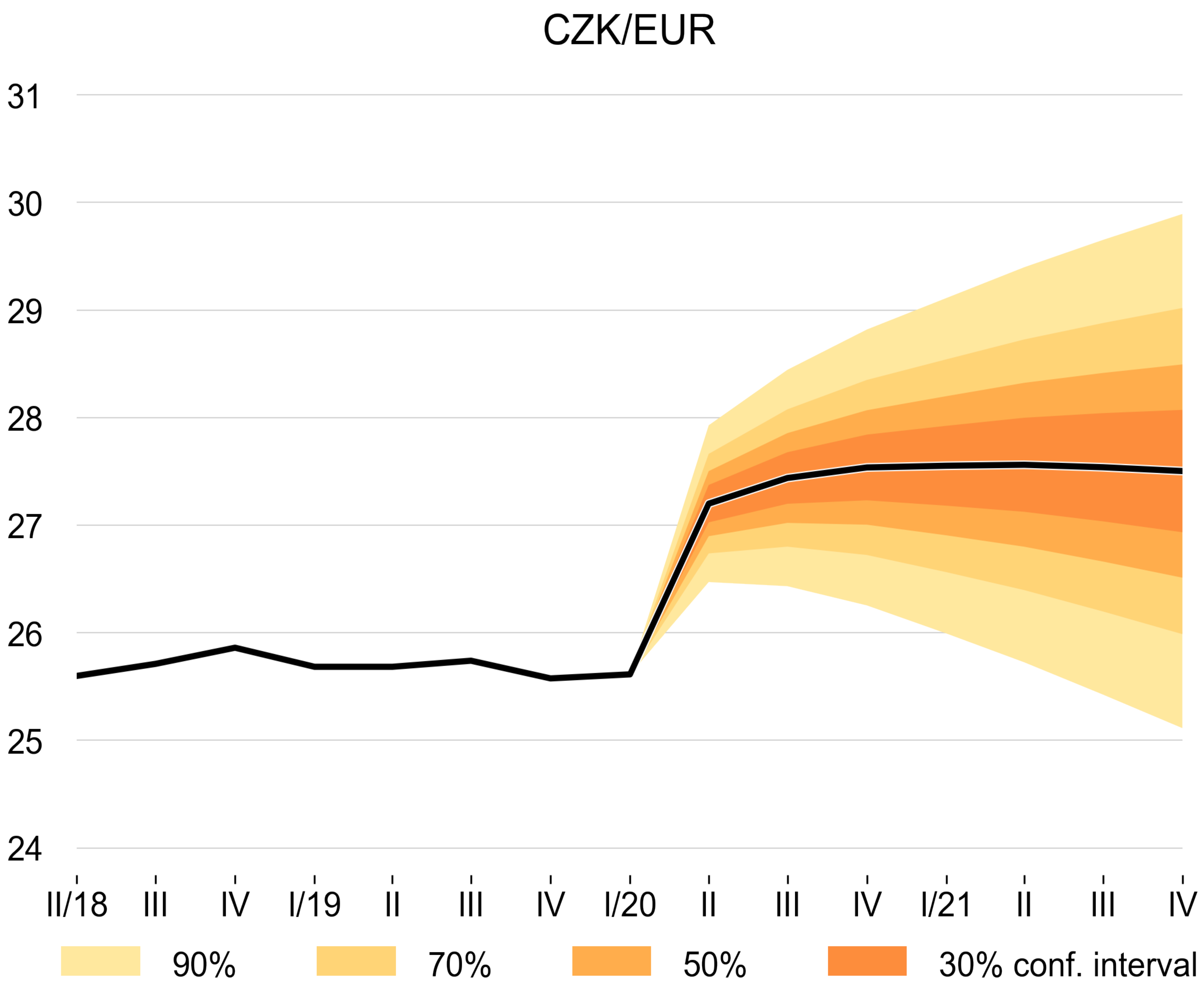


Nom. wage in market sectors (in CZK)



- **Employment** will decline appreciably until the end of the next year owing to the fall in economic activity.
- The **unemployment rate** will increase rapidly, peaking at the start of next year. More marked growth in unemployment will be prevented by lay-offs of foreign workers and a high initial number of vacancies.
- **Wage growth in market sectors** will slow significantly this year owing to the rapid cooling of the labour market and government quarantine measures, and will then recover.
- **Wage growth in non-market sectors** will remain high this year.
- Statistical effects will cause wage growth in both sectors to fluctuate.

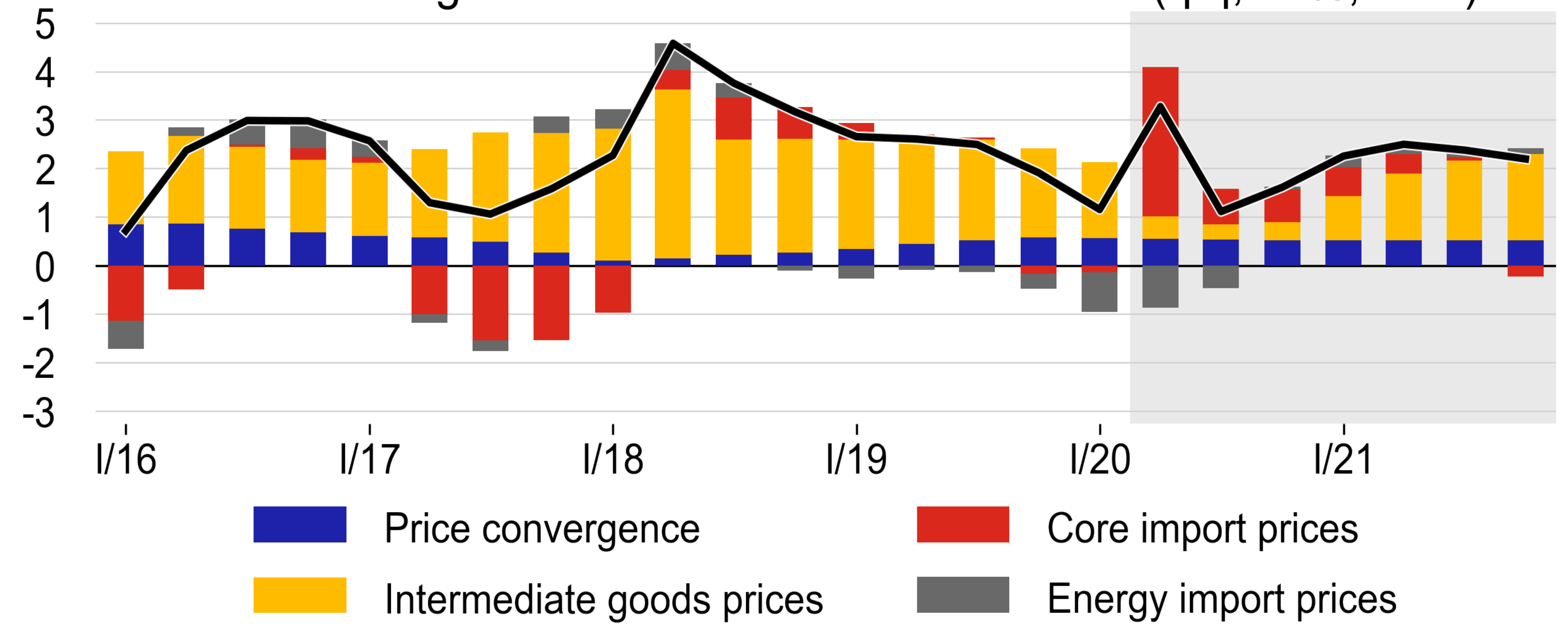
Exchange Rate CZK/EUR



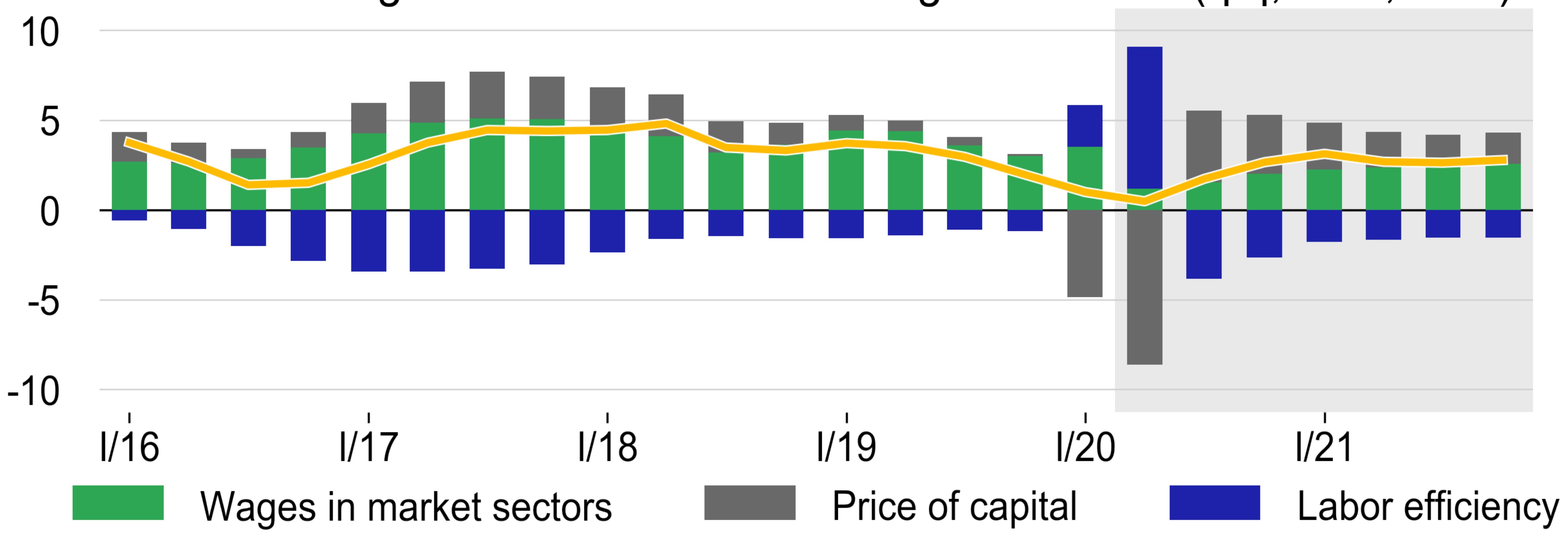
- Over the entire forecast horizon, the **exchange rate** will remain close to the current level to which it weakened after the pandemic broke out.
- The exchange rate forecast for **2020 Q2** is set at **CZK 27.2** to the euro and thus reflects the sharp weakening of the koruna at the end of Q1 caused by the outbreak of the coronavirus pandemic.
- The exchange rate will remain close to its current level over the entire forecast horizon due to the worse foreign and domestic economic outlook and narrower interest rate differential.

Inflation Pressures

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

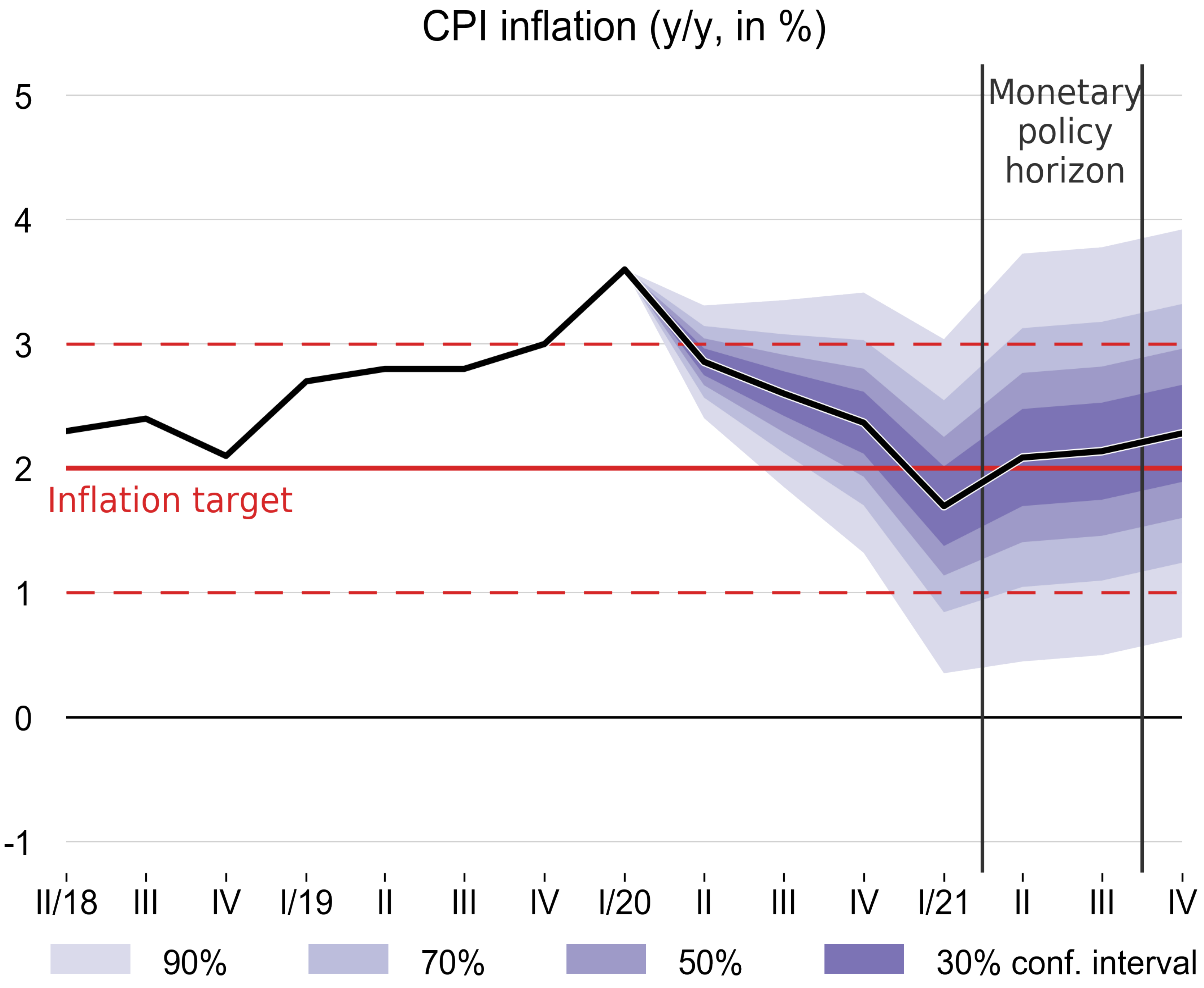


Nominal marginal costs in intermediate goods sector (q/q, in %, ann.)



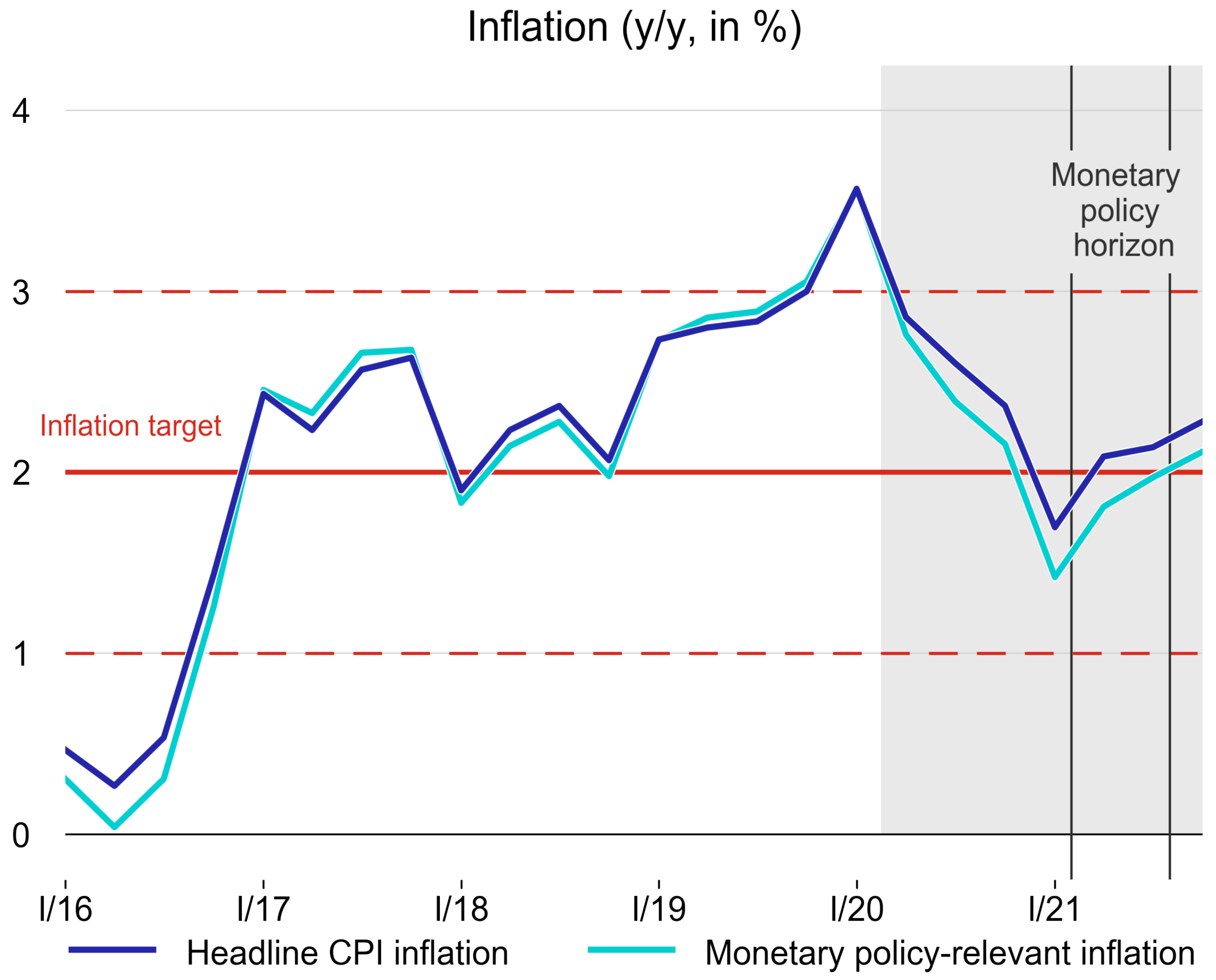
- **Growth in total costs** will initially surge temporarily on the back of a weaker exchange rate, but will later slow sharply due to subdued domestic inflationary pressures. The resumption of GDP growth in the second half of this year will lead to a recovering contribution of the domestic economy.
- **Growth in domestic costs** will initially almost come to a halt due to the freeze of the economy, and then gradually return to its steady-state level.
- A fall in domestic demand is reflected in a decline in the contribution of the **price of capital**, which is only partially offset by continued **wage growth** and a significant decline in **labour efficiency** linked with the limited usability of employees.

Headline Inflation Forecast



- **Headline inflation** will fall below the upper boundary of the tolerance band in Q2 and it will continue to slow in the remainder of this year.
- This will be due to all its components except food prices, whose growth will temporarily rise in Q2.
- Inflation will temporarily drop slightly below 2% at the start of 2021, despite an easing of the monetary conditions in both the exchange rate and interest rate components.
- It will then increase slightly and return close to the target in 2021.

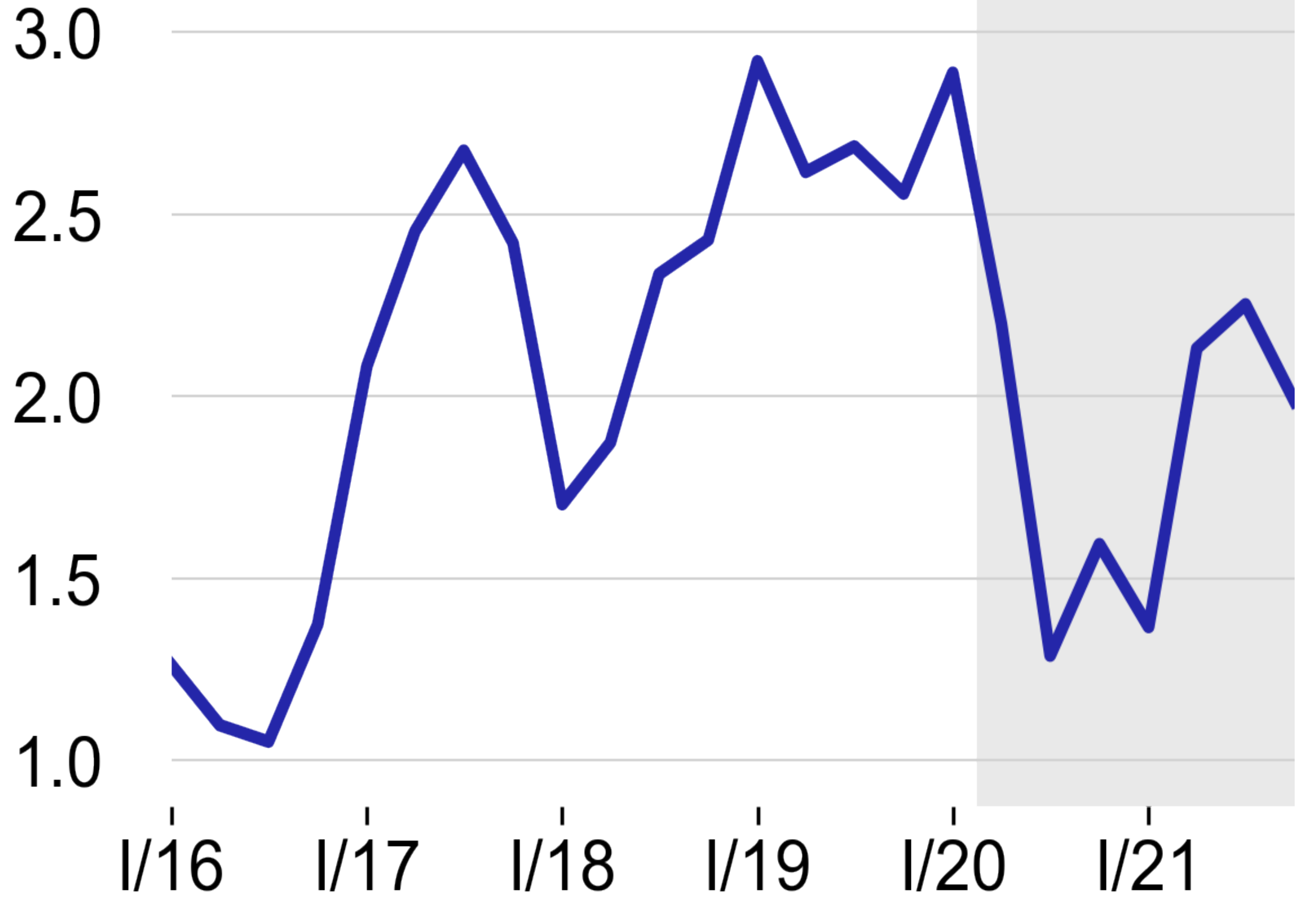
Headline and Monetary Policy-Relevant Inflation



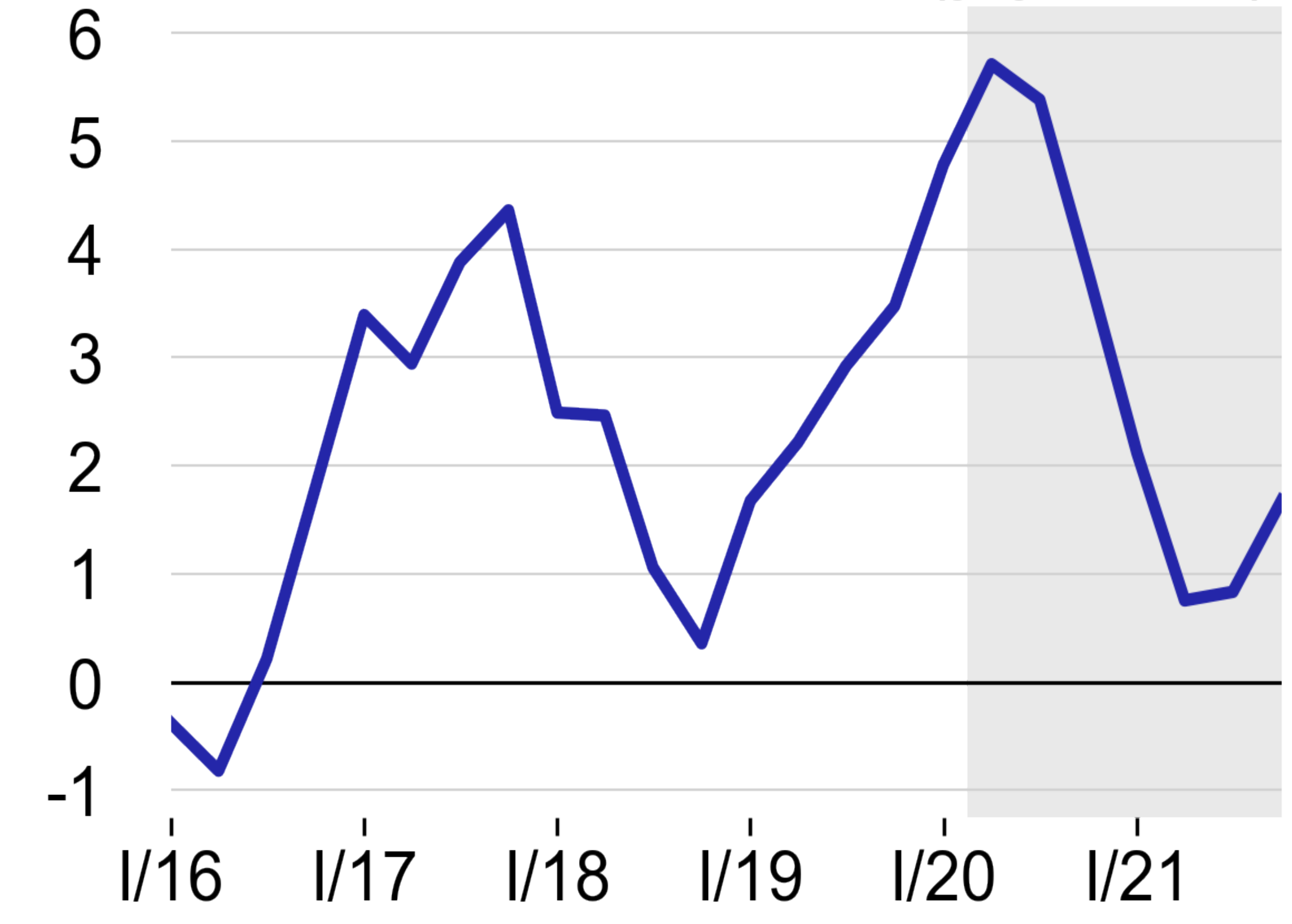
- **Monetary policy-relevant inflation** will be below headline inflation over the entire forecast horizon, as the first-round effects of changes to indirect taxes will be slightly positive.
- Monetary policy-relevant inflation will return to the 2% target during the second half of next year.

Core Inflation and Food Prices

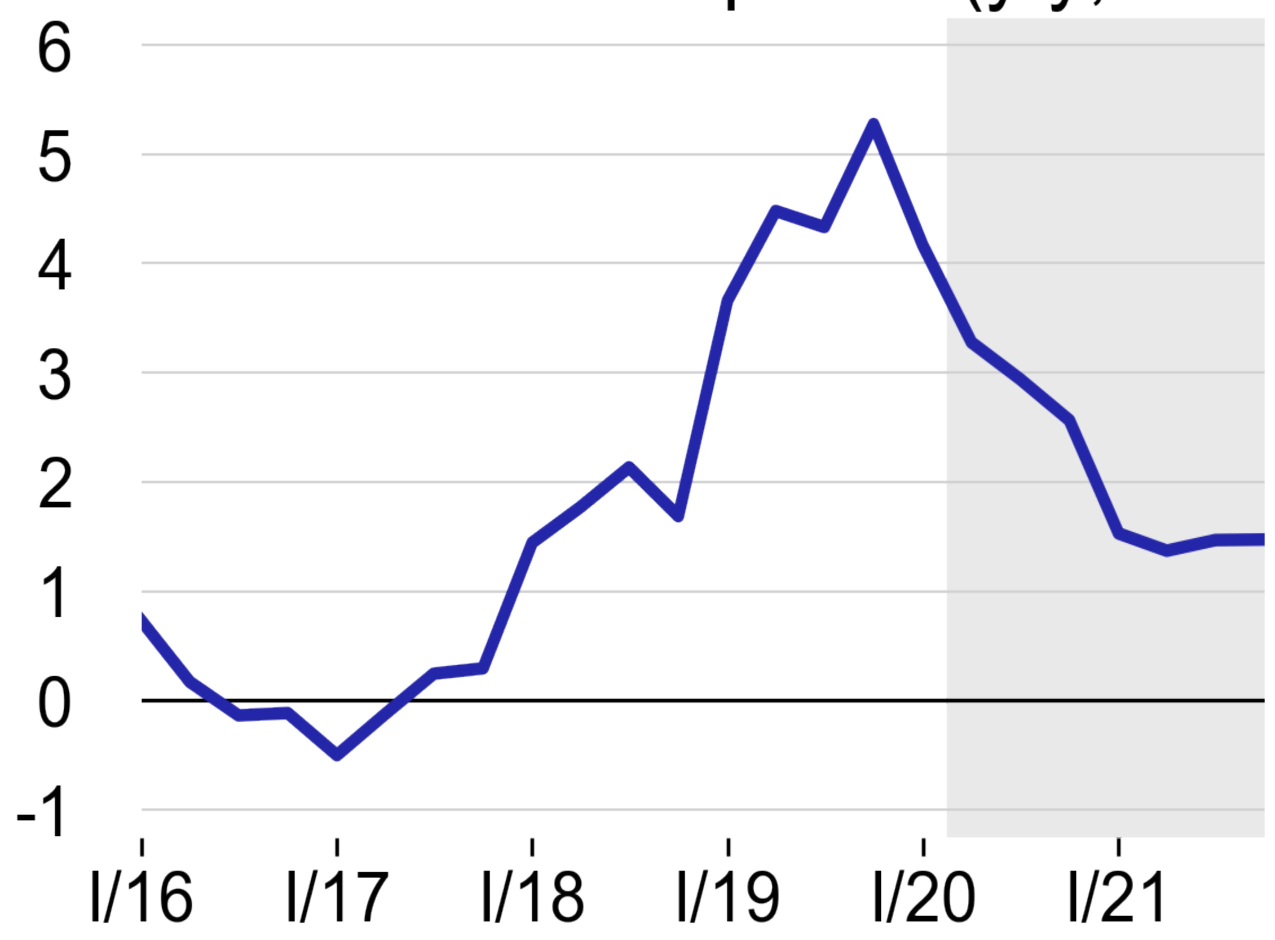
Core inflation excl. fuels (y/y, in %)*



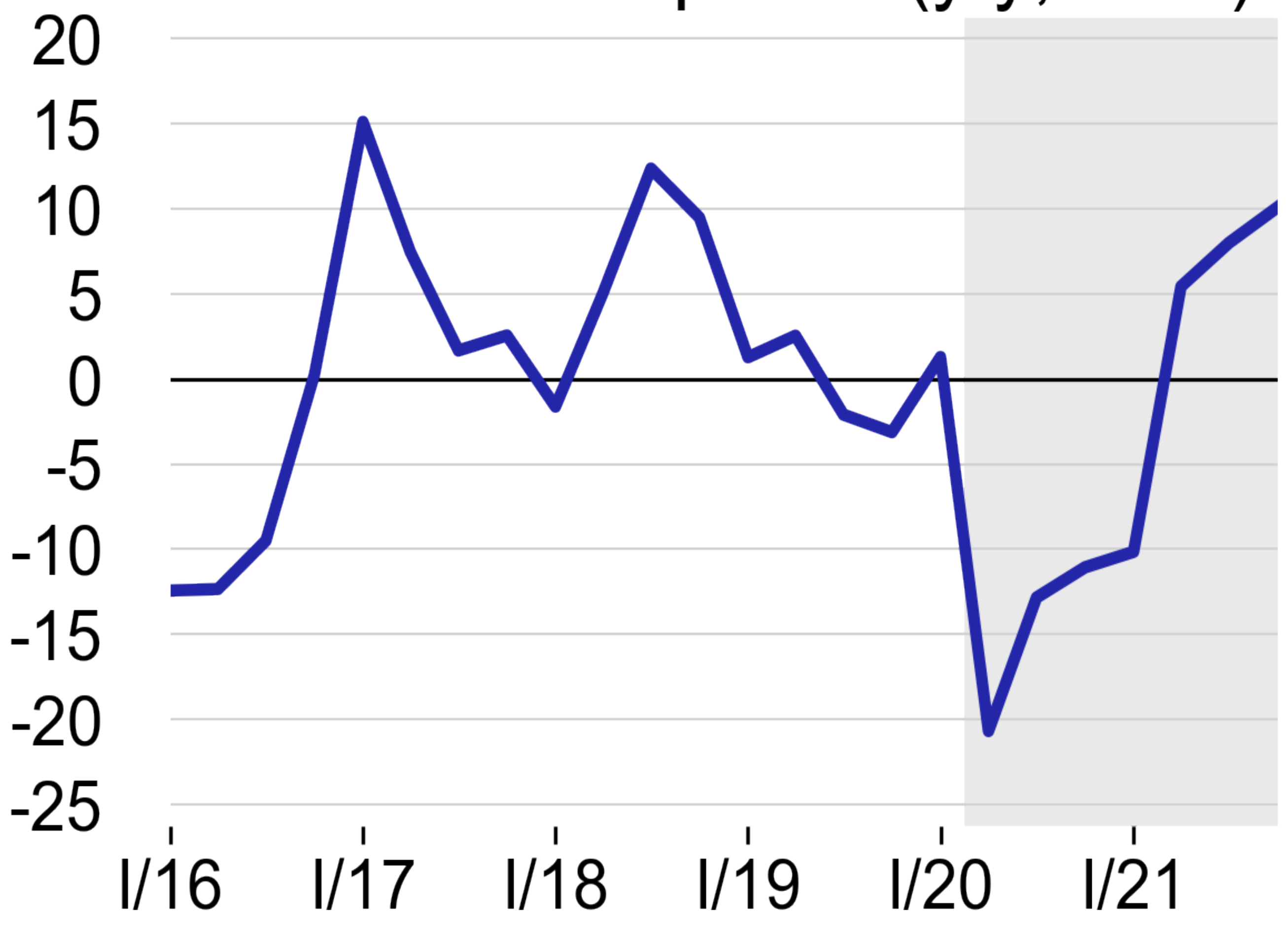
Growth of food prices (y/y, in %)*



Growth of admin. prices (y/y, in %)



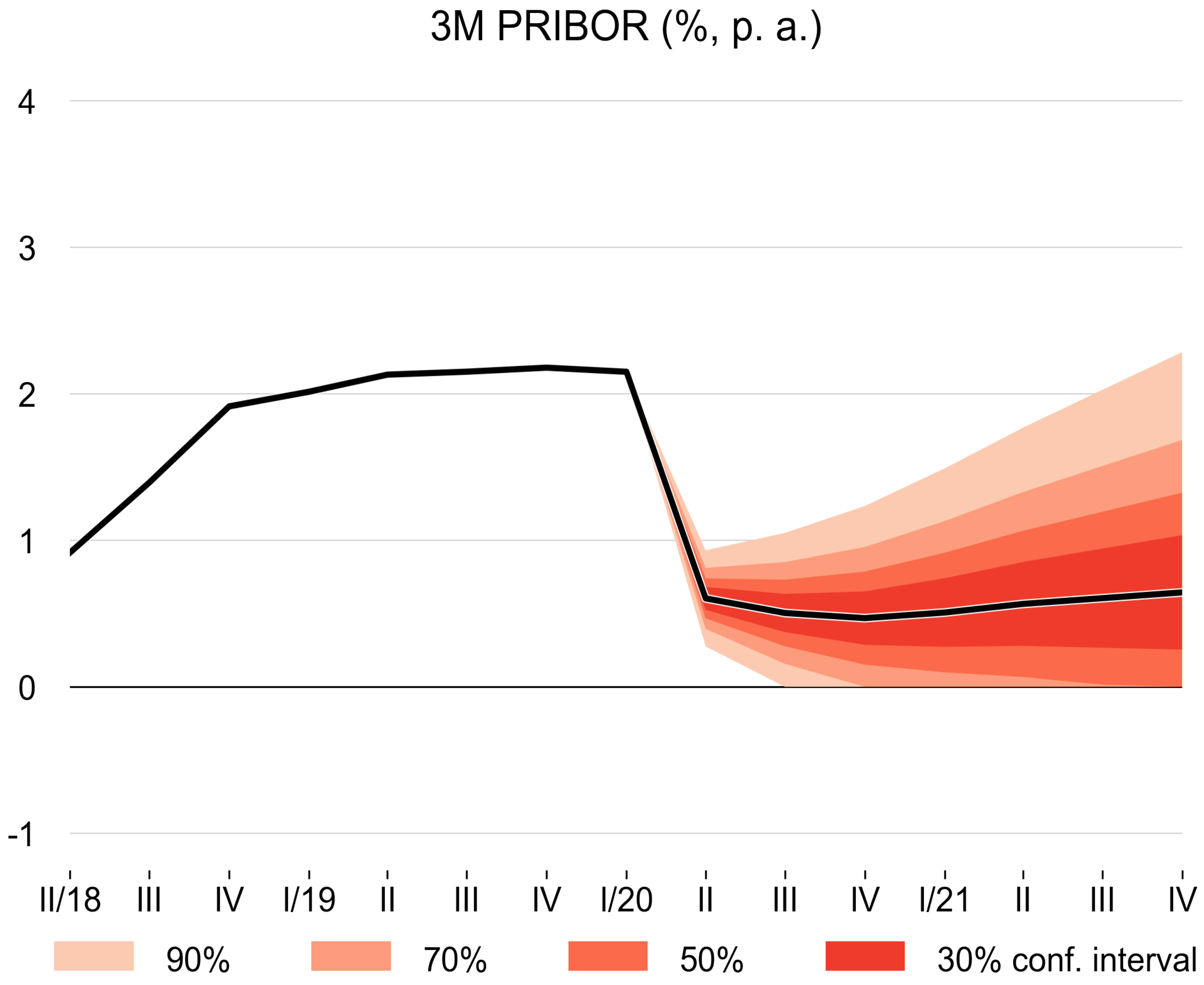
Growth of fuel prices (y/y, in %)*



* excluding tax changes

- **Core inflation** will slow considerably on account of declining domestic price pressures. In addition to the expected price decline in services, this will be due to the gradually worsening labour market situation.
- **Food price inflation** will reflect strong consumer demand and higher costs amid lower supply of some items in the near future and not decrease until late 2020 and early 2021.
- The recent high growth in **administered prices** will slow further this year. This will be due mainly to a gradual decline in the currently high growth in electricity prices and a decrease in heat prices.
- Domestic **fuel prices** will also fall significantly due to the collapse of global oil prices.

Interest Rate Path (3M PRIBOR)



- Consistent with the forecast is a further **decline in domestic market interest rates** in Q2.
- This decline in rates is a continuation of the sharp drop recorded at the end of March and reflects the effects of government quarantine measures in the domestic economy as well as the significantly worse external outlook.
- However, the decline in rates will be slowed by the recent sharp weakening of the koruna, which is contributing to an easing of the overall monetary conditions.
- Rates will then remain broadly stable over the rest of the forecast horizon.

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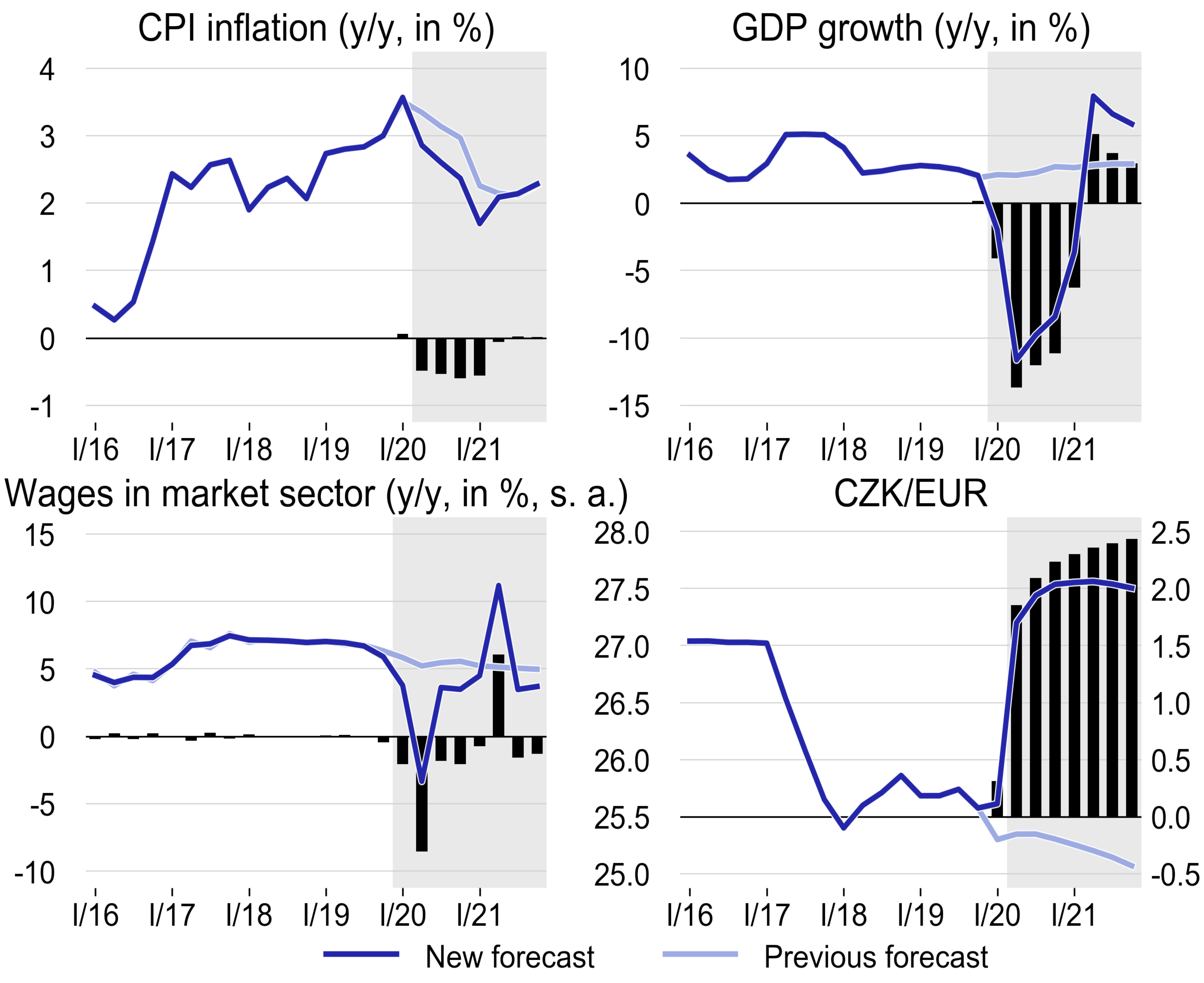
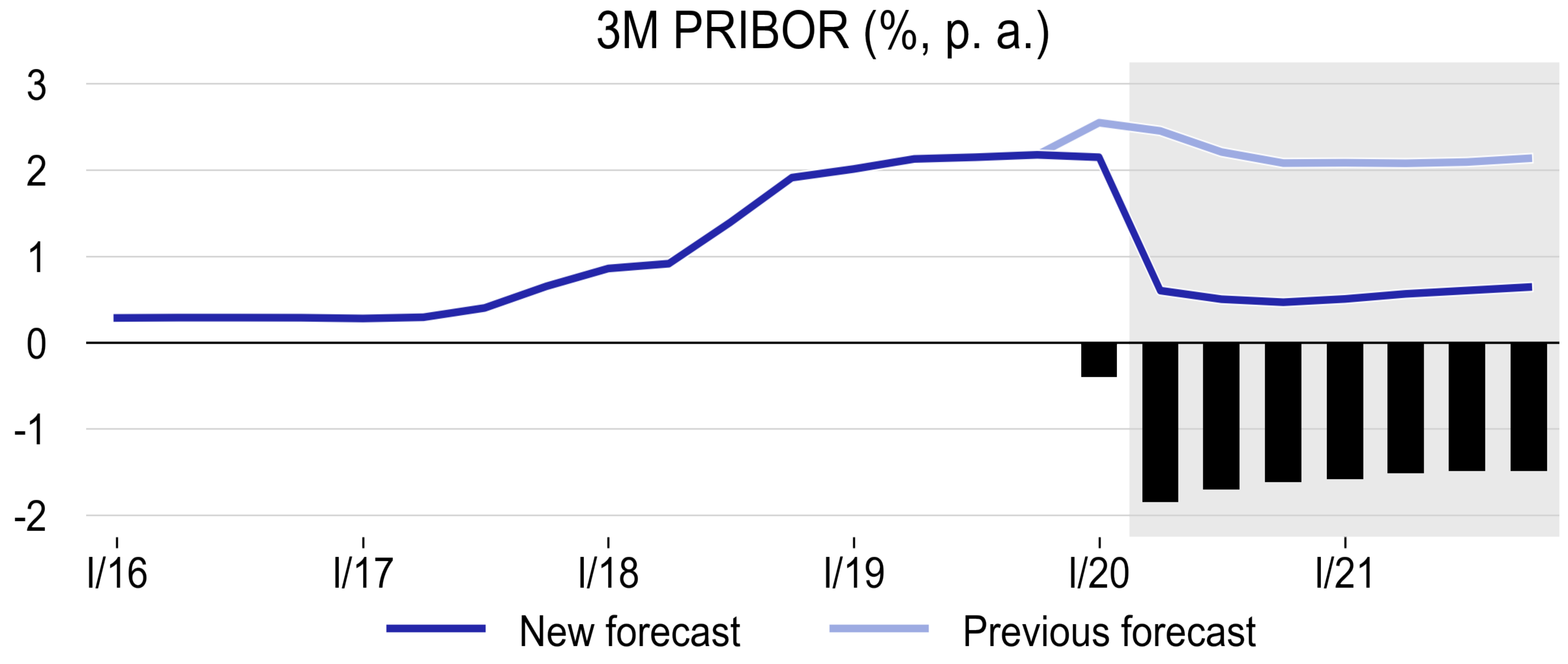
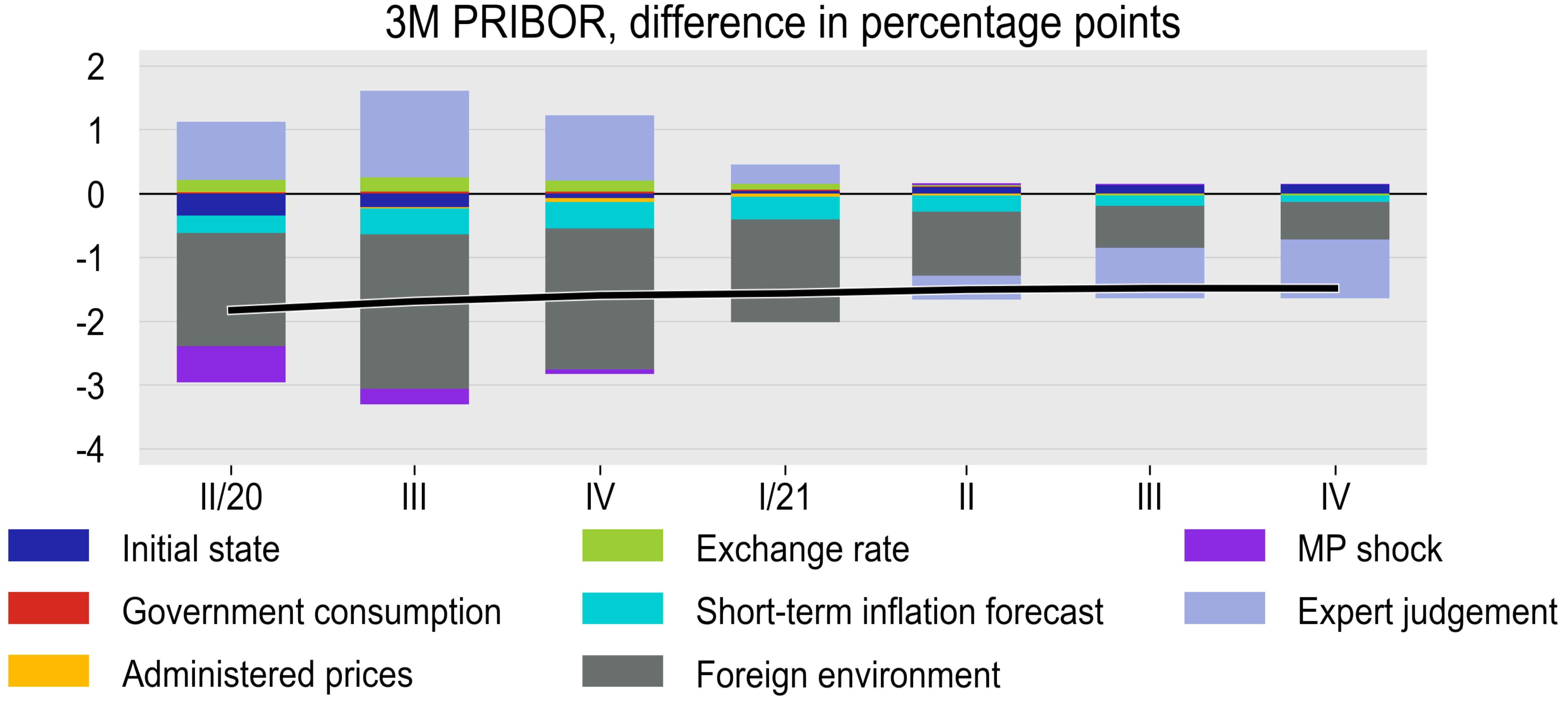
Comparison with Previous Forecast



- Current economic situation is dominated by strong global and domestic reaction to the **coronavirus pandemic**, unforeseen by the previous forecast.
- Freeze of economic activity in the domestic economy as well as abroad leads to a sharp drop in **GDP** in this year, while a moderate growth was predicted.
- Drop in foreign demand and increase in overall uncertainty leads to a notably weaker **CZK/EUR** exchange rate.
- Deterioration in labour market is reflected in slower **wage growth**.
- Weaker overall cost pressures are reflected in lower **inflation** this year. However, monetary policy reaction together with endogenous exchange rate depreciation will ensure the return of inflation to the 2% target in 2021.

Comparison: Interest Rate Forecast





- The new forecast contains a **dramatically lower path of domestic interest rates** due to the economic impacts of the pandemic.
- The contribution of the worse external demand outlook is the dominant factor fostering lower market interest rates.
- The contribution of the short-term inflation outlook and the effect of the sharp reduction in interest rates at the end of Q1 (MP shock) foster slightly lower interest rates, too.
- Expert adjustments act overall towards higher rates this year, mainly due to a significant decrease in labour efficiency. The expert adjustments reflecting the sharp contraction of the Czech economy and the cooling of the labour market this year will persist in negative territory in the next year.

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Scenario of prolonged pandemic – assumptions

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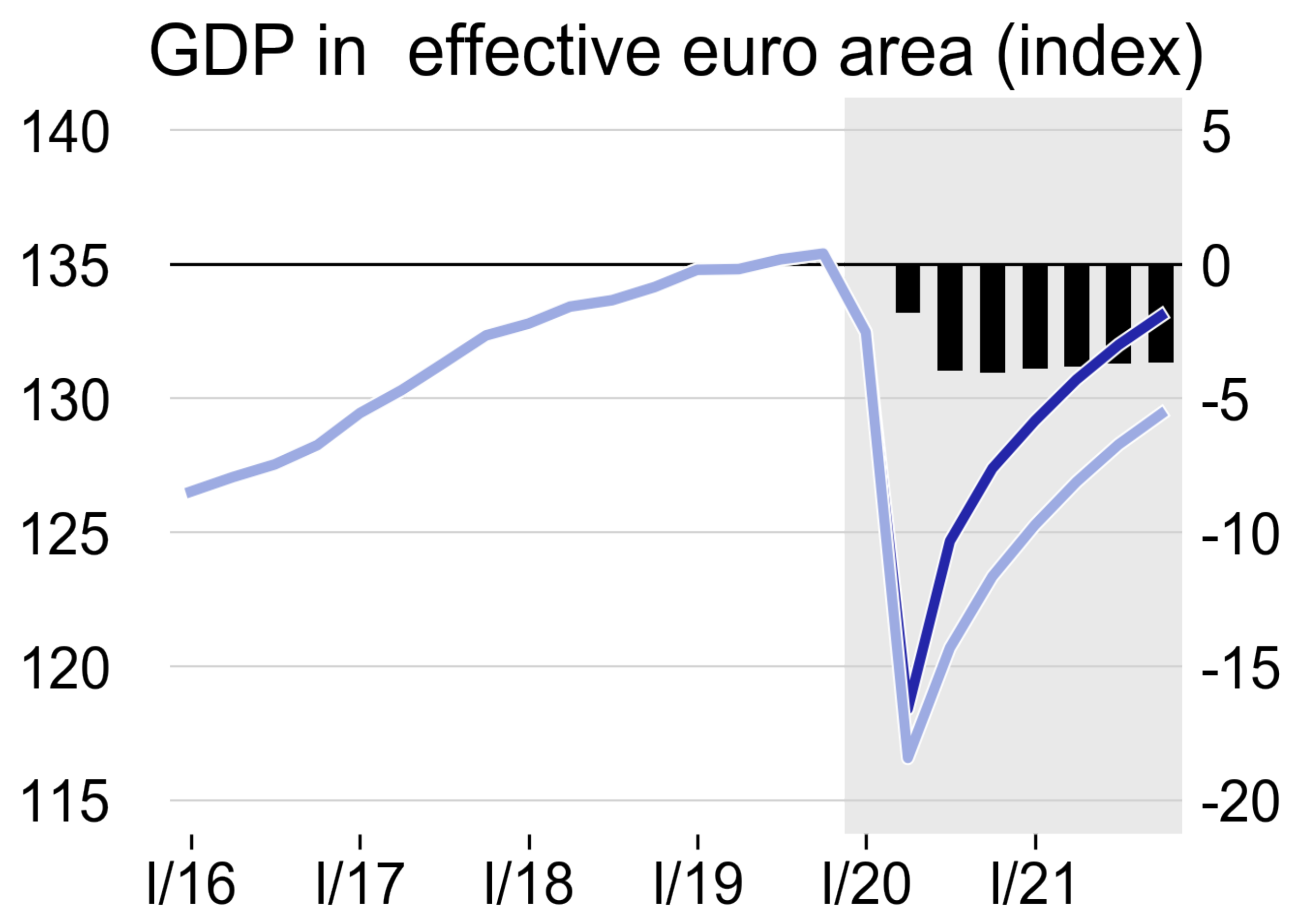
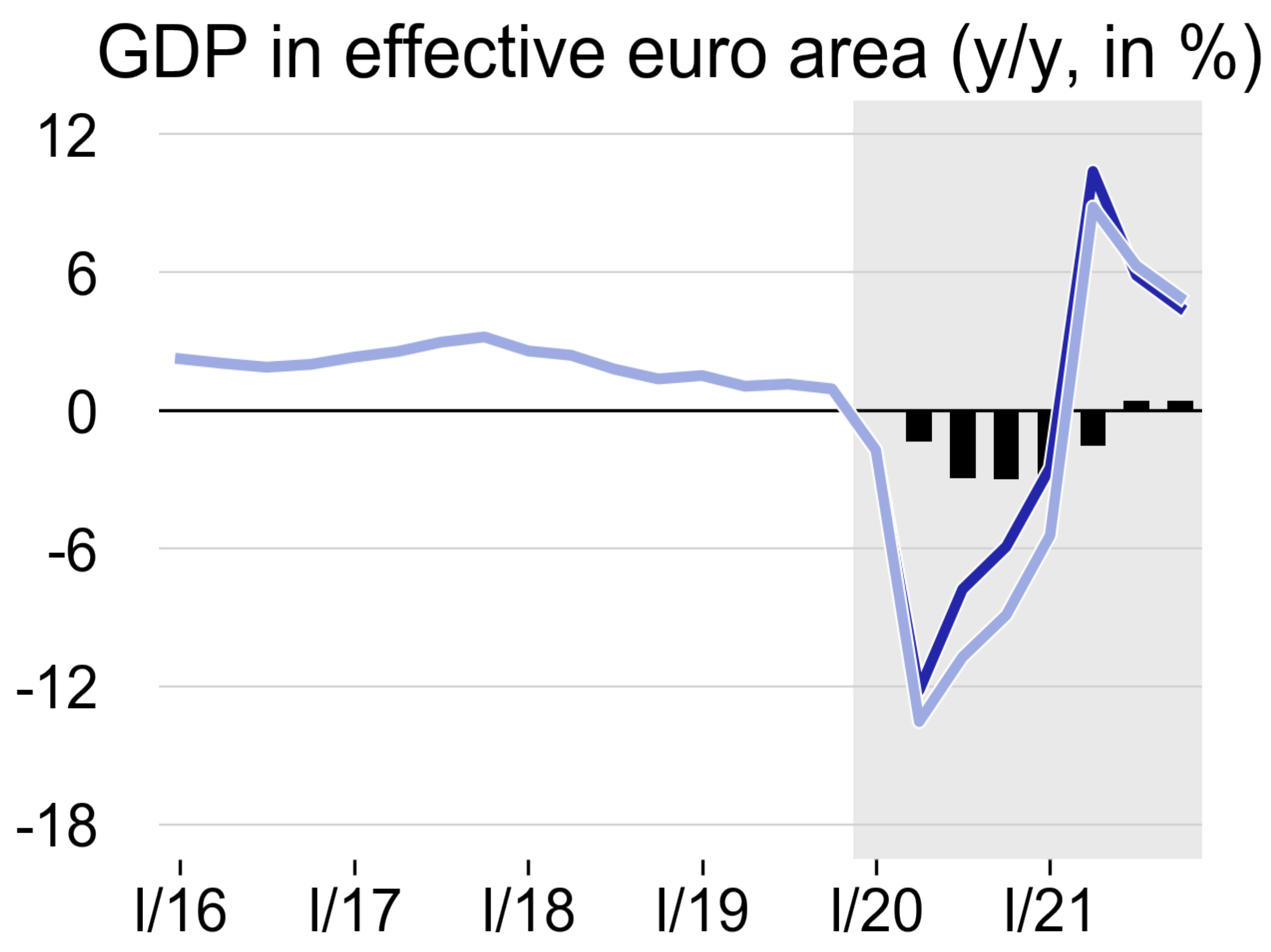
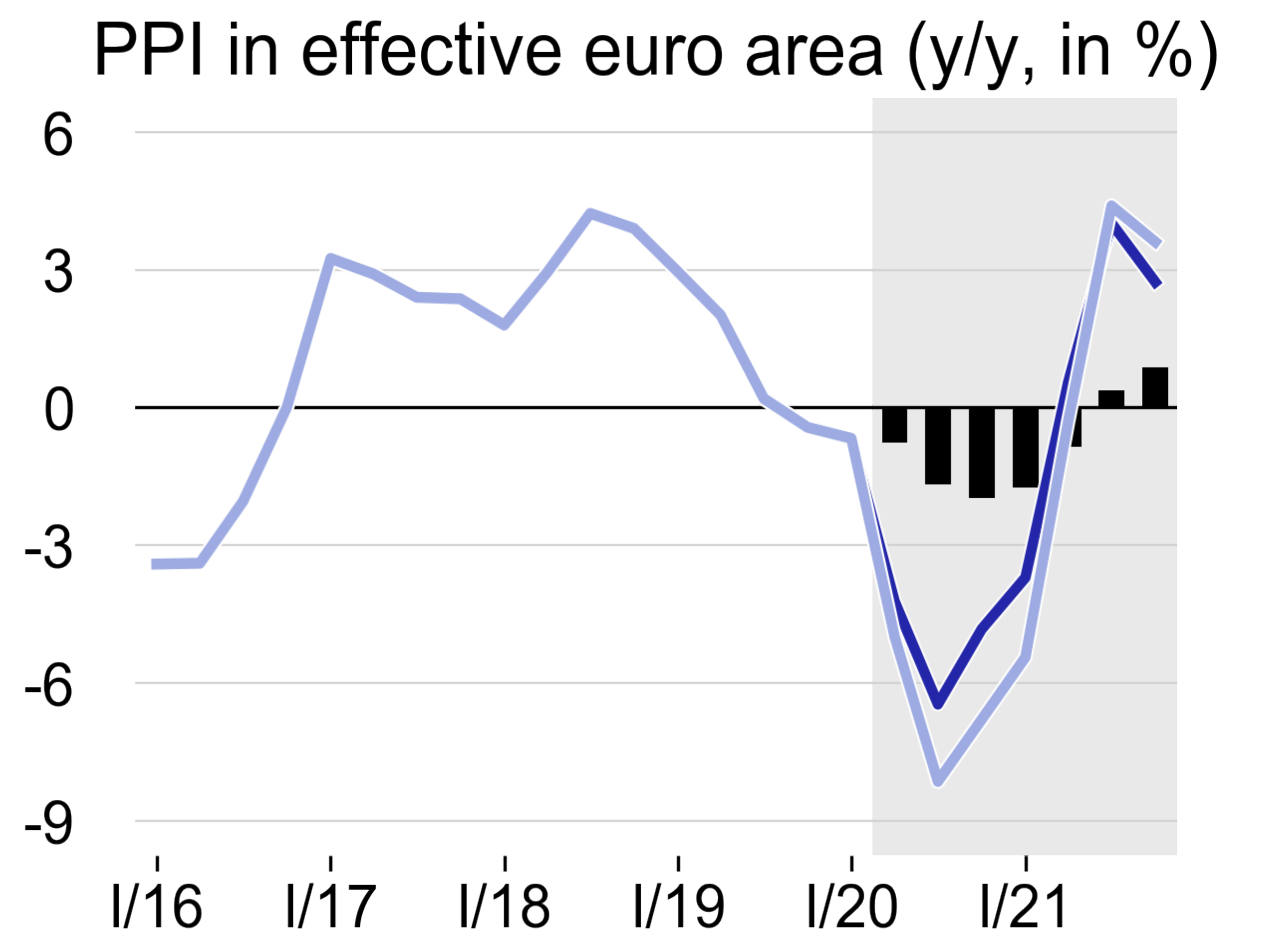
- The longer-lasting pandemic scenario assumes that the pandemic recedes more slowly and has **longer-lasting negative impacts abroad**.
- In this scenario, the **government restrictions** in Germany and Slovakia will be **extended** by two to three weeks.
- The scenario therefore assumes a **slower return** of economic activity in the effective euro area **to growth**.
- A longer-lasting pandemic will also worsen **consumer confidence** and **business sentiment** compared with the baseline scenario.

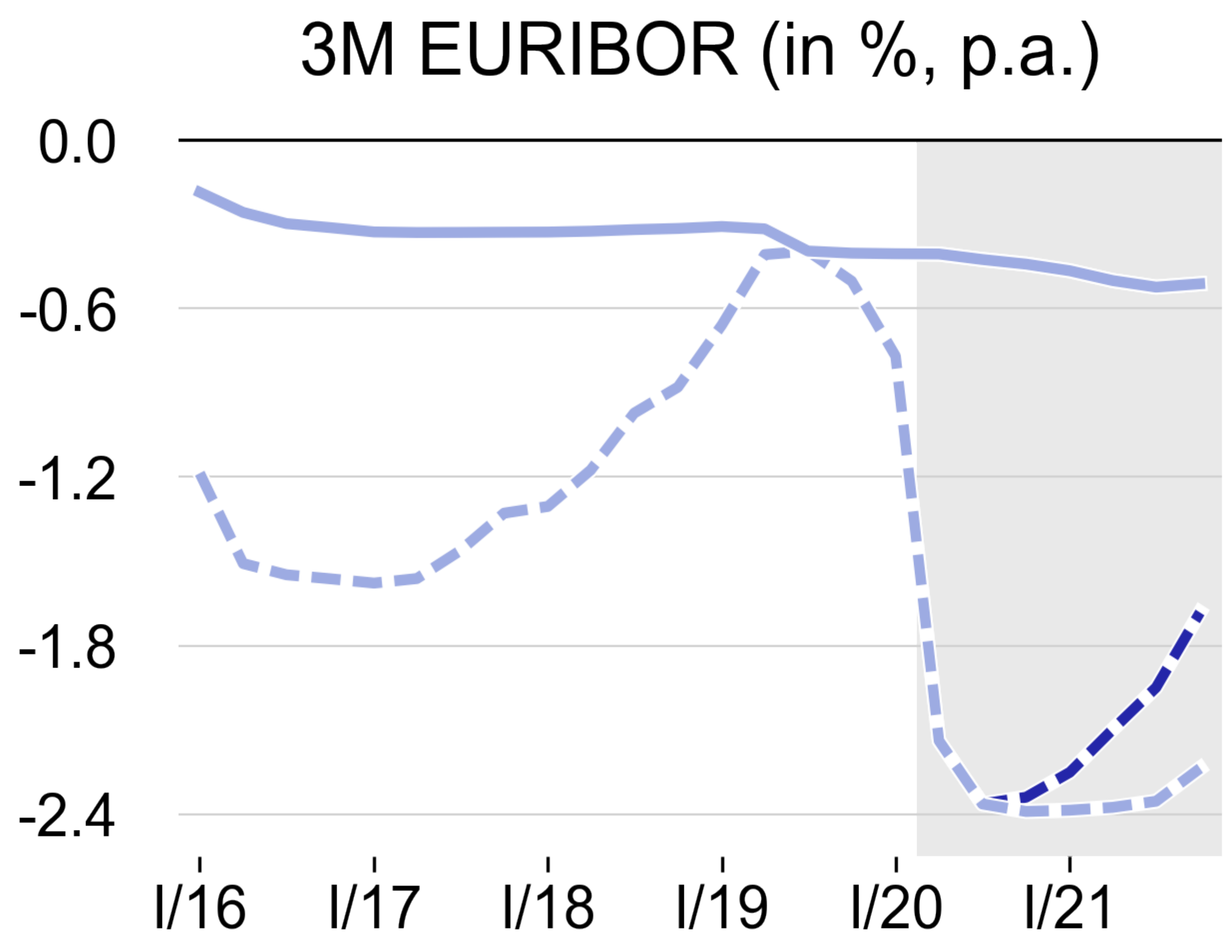
- The **domestic government restrictions** are **extended by about one month** relative to the baseline scenario.
- Except for tourism-related measures, the restrictions should be fully **lifted by the end of the summer** holidays.
- The longer-lasting measures will lead to a **larger decline in economic activity** and a **greater deterioration in the labour market** situation than in the baseline scenario.
- This will be accompanied by a **longer-lasting deterioration in** both household and business **sentiment**.

Scenario of prolonged pandemic – external environment





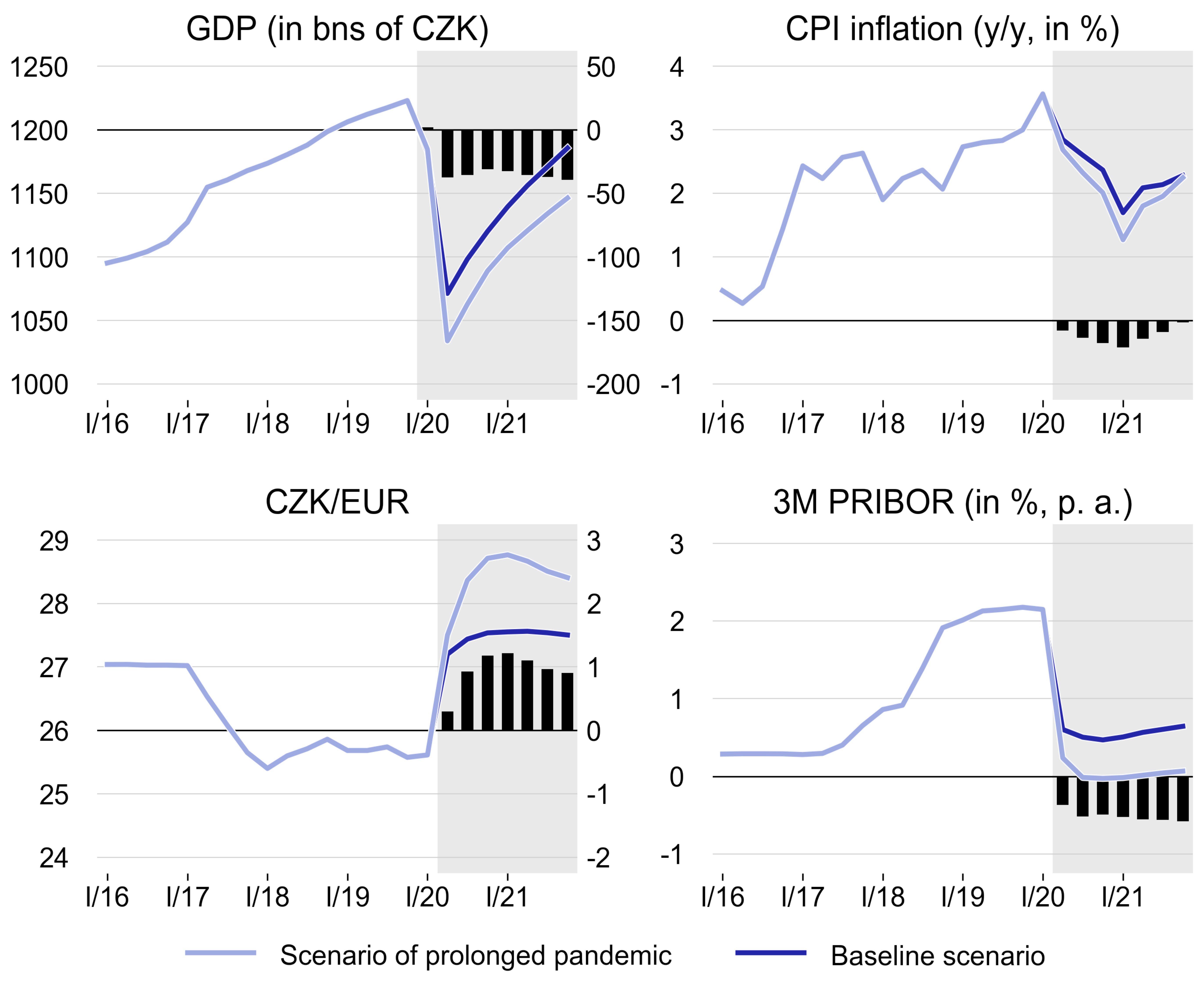




Scenario of prolonged pandemic
Baseline scenario
Shadow rate, Scenario of prolonged pandemic
Shadow rate, Baseline scenario

- Due to the worse **economic growth** and demand outlooks, the **oil price** is lower than in the forecast. This will be reflected in a sharper fall in the energy component of the **PPI**. The recovery of the core component of the PPI will also be slower than in the baseline scenario due to more subdued demand pressures.
- In addition to the already announced measures, the ECB will respond to the worse economic growth outlook for the euro area by broadening and prolonging its **asset purchases** under the PEPP. The ECB's response will be reflected in the **shadow 3M EURIBOR** rate, which will be lower than in the baseline scenario over the entire forecast horizon.

Scenario of prolonged pandemic – domestic economy



- A longer-lasting pandemic will be reflected in a deeper **economic decline** and greater cooling of the labour market, especially in this year.
- **Inflation** will be lower due to the lower wage growth and weaker domestic price pressures despite a weaker **koruna**, which will improve Czech exporters' price competitiveness and thus partly neutralise the impacts of the lower external demand on the domestic economy.
- Compared with the baseline scenario, the longer-lasting pandemic scenario requires **greater monetary policy easing** in the interest rate component. This will foster a return of inflation close to the 2% target from below over the monetary policy horizon.

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Scenario with 2nd wave of pandemic – assumptions

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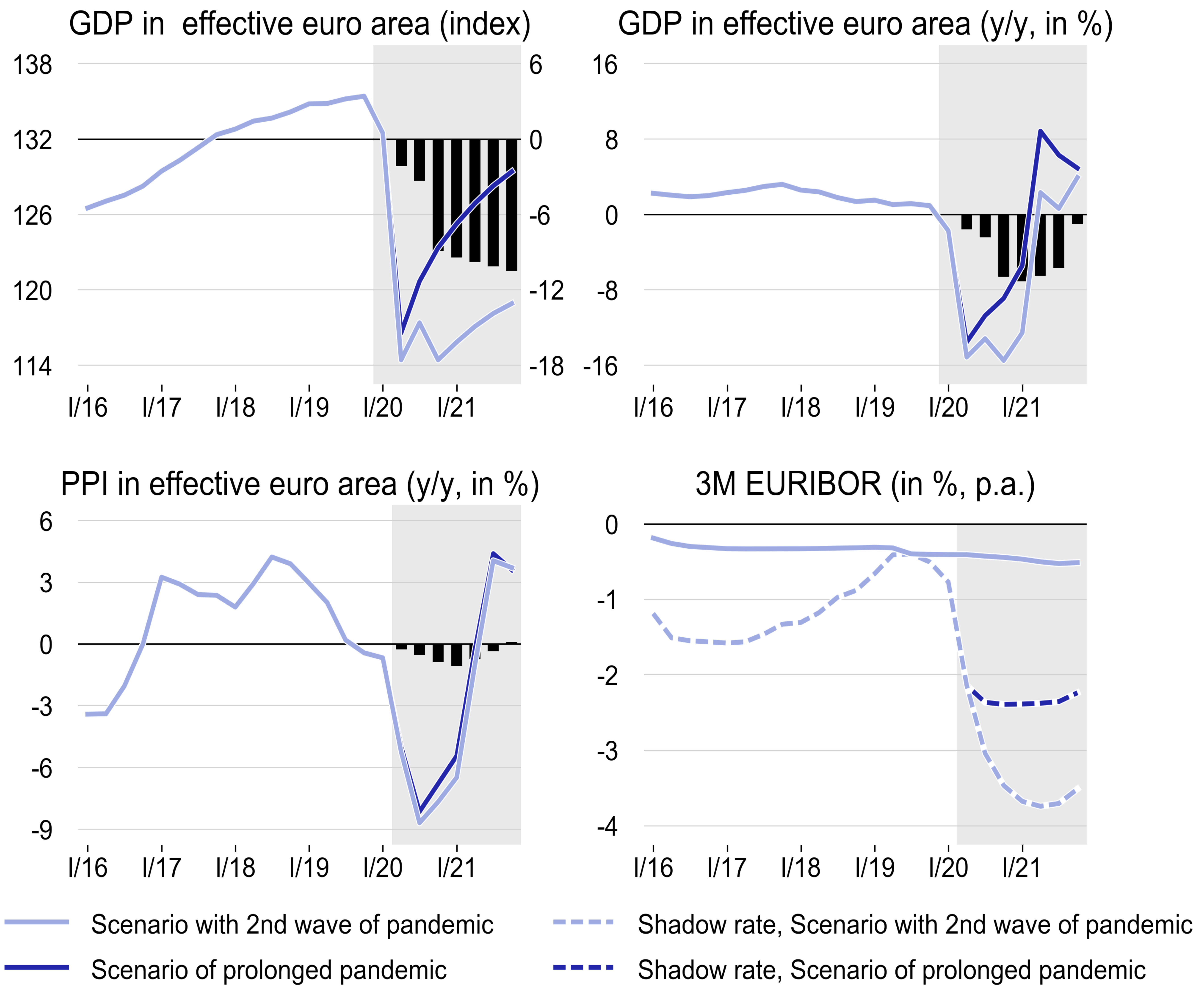
- The pandemic resurgence scenario expects the first wave of the pandemic to recede more gradually and a **second wave to emerge in late 2020**.
- Government **quarantine measures abroad** will be **reintroduced for about two months**, but on a much smaller scale than during the first wave.
- The longer period of uncertainty and the resurgence of the epidemic will be gradually reflected in a structural change in the global economic environment, leading to a **drop in potential output growth**. This **deglobalisation** trend will foster lower growth in economic activity and, conversely, higher inflation.
- The negative impacts will fade only very gradually due to stronger increase in **uncertainty** and more sustained worse household and business **sentiment**.

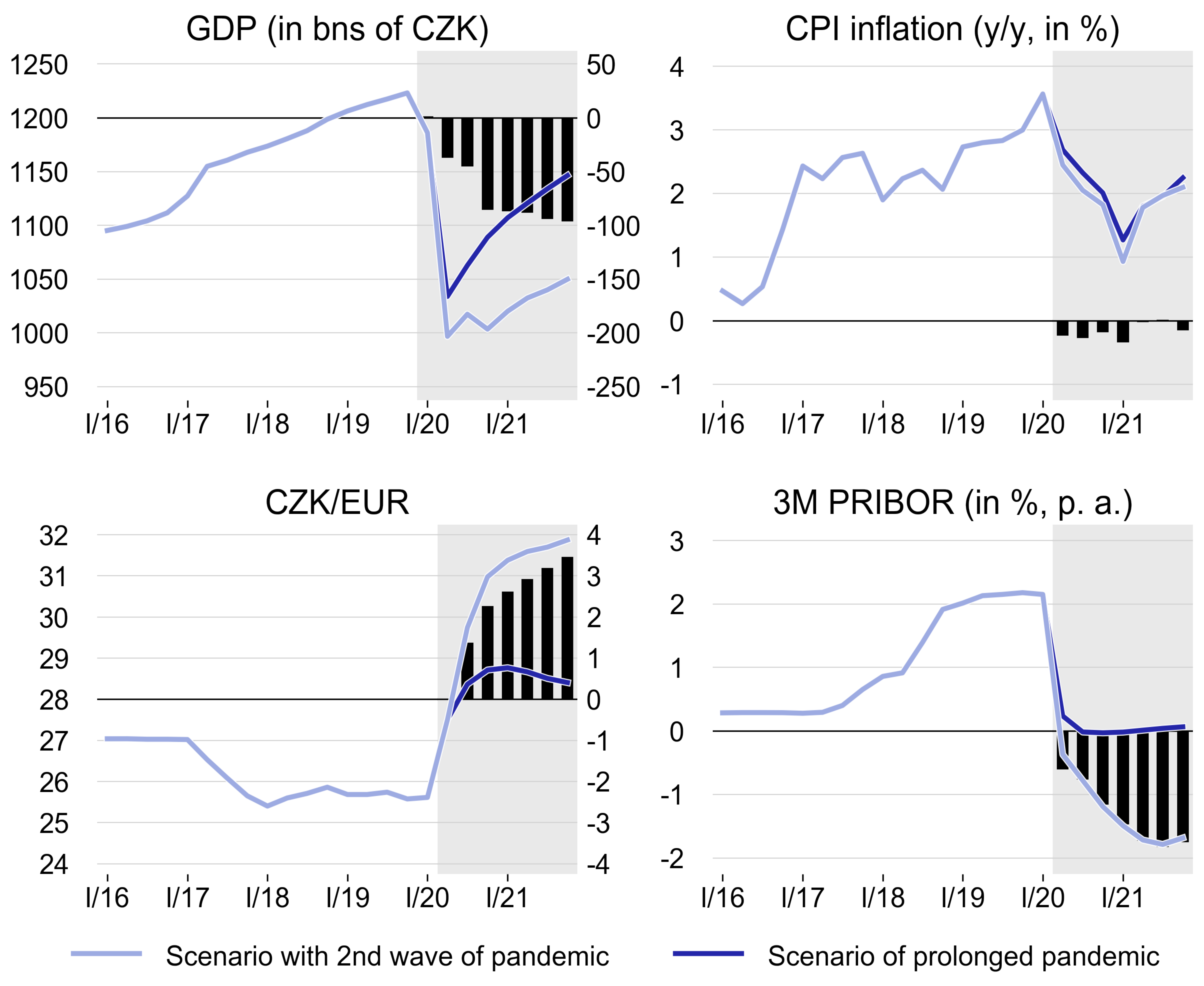
- The **domestic quarantine measures** will be renewed **from October until Christmas**. Assumptions regarding the first wave of the pandemic are the same as in the prolonged pandemic scenario.
- The second wave of closures and restrictions is **smaller in both scale and duration** than the first one, as all entities are better prepared and react more effectively.
- The resurgence of the pandemic, coupled with the worse external outlook, has an even **more adverse impact** on the entire domestic economy, including the labour market, than in the previous scenarios.
- On the **fiscal policy** side, supportive expenditure measures are introduced, though to a lesser extent than during the first wave due to the risk of high deficits and rapidly rising debt.

Scenario with 2nd wave of pandemic – external environ.



- The **GDP** drop in the pandemic resurgence scenario is so large that some supplier relationships will break down irreversibly, resulting in upward pressure on selected product prices.
- The **core component of the PPI** thus follows roughly the same path this year as in the previous two scenarios.
- The oil price will respond to the deeper economic contraction with a larger fall. As a result, the **energy component of the PPI** will be affected more significantly.
- In this scenario, the ECB makes unlimited asset purchases but keeps the deposit rate unchanged. The **3M EURIBOR shadow rate** thus falls much more deeply below zero compared to the previous two scenarios.

Scenario with 2nd wave of pandemic – domestic econ.



- The resurgence of the pandemic and the emergent deglobalisation will lead to an even deeper and longer-lasting **domestic economic downturn**.
- Lower growth in domestic costs amid non-existent demand pressures will be reflected in the outlook for **inflation**, which will temporarily dip below the lower boundary of the tolerance band around the target early next year.
- A markedly weaker **exchange rate** and a hypothetically deeply negative path of market **interest rates** will support a gradual recovery in economic activity and help inflation return to the 2% target at the end of next year.
- The pandemic resurgence scenario would thus most probably require monetary policy to be eased using an unspecified **unconventional instrument**.

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Thank you for your attention

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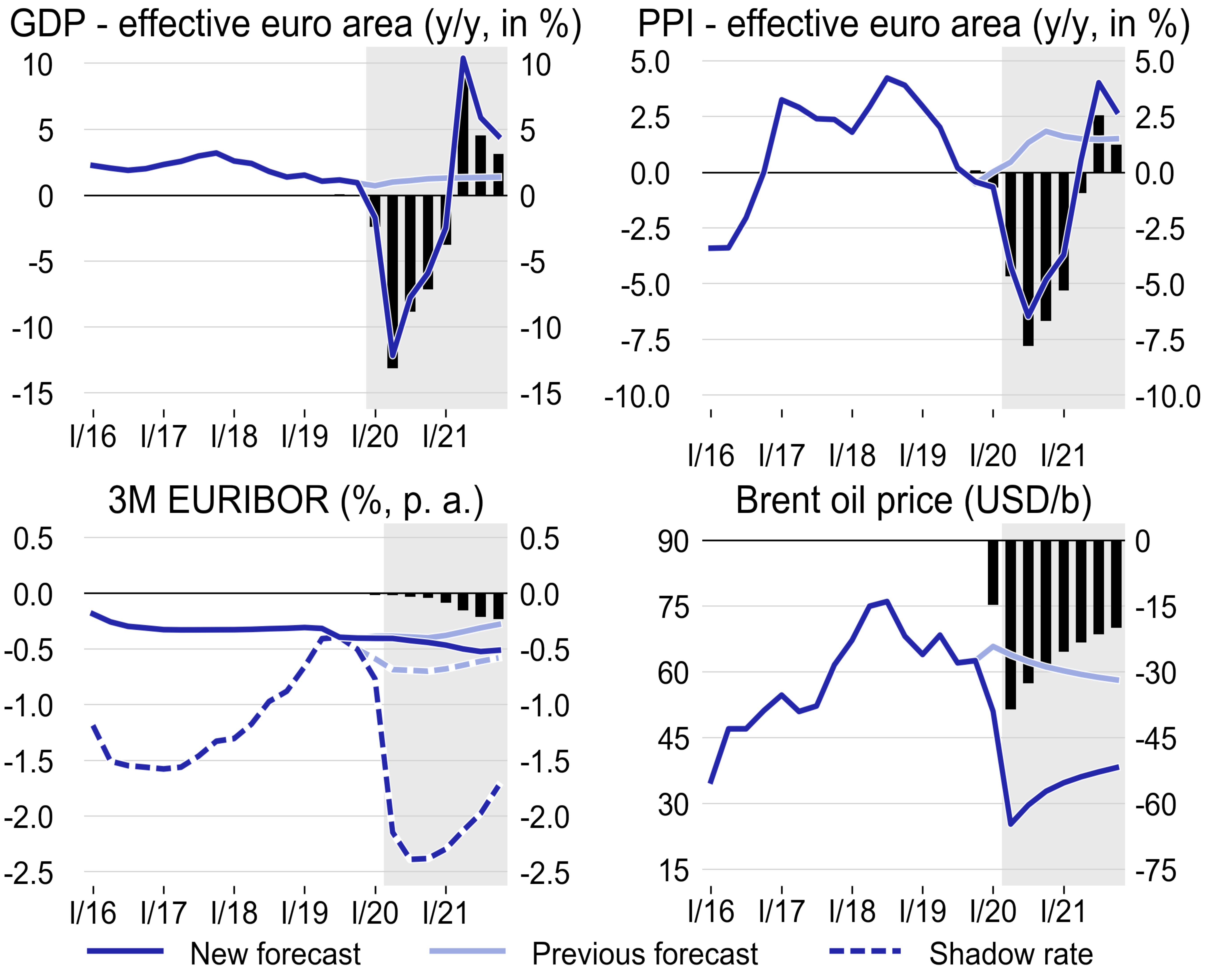
Backup

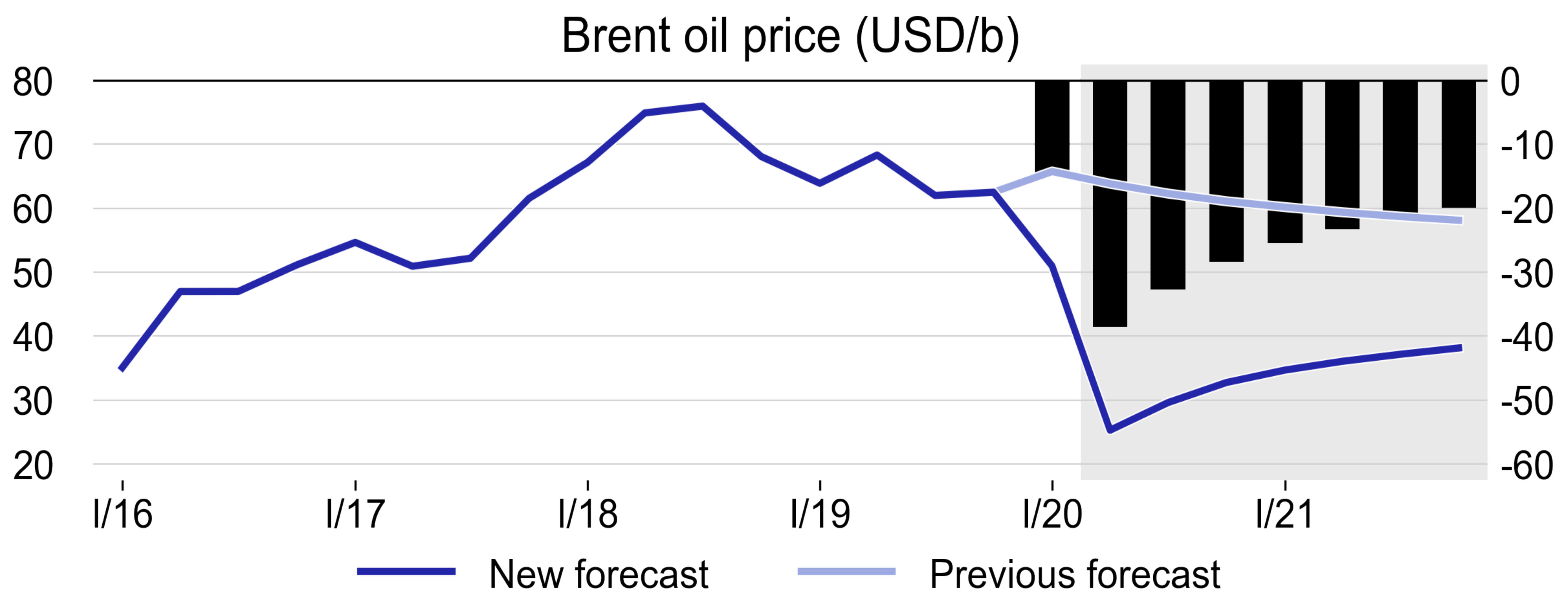
Foreign Outlook: Scenario comparison

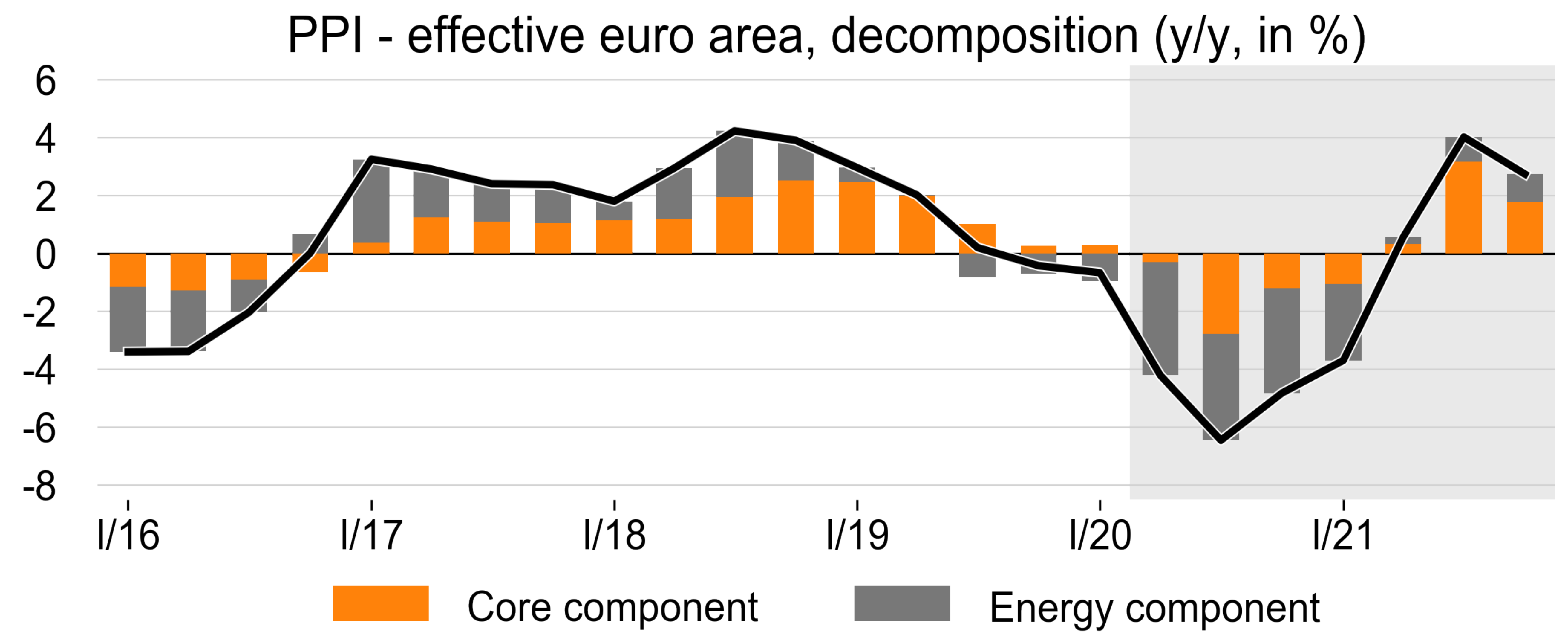
	Baseline scenario		Prolonged pandemic scenario		Scenario with 2nd wave of pandemic	
Assumed duration of government restrictions	1Q 2020: 2 to 4 weeks 2Q 2020: 6 to 10 weeks		1Q 2020: 2 to 4 weeks 2Q 2020: 10 weeks SK(+3 weeks) DE(+2 weeks)		1Q 2020: 2 to 4 weeks 2Q 2020: 10 weeks 4Q 2020: 2 weeks in all countries	
GDP growth (y/y, in %)	**2020**	**2021**	**2020**	**2021**	**2020**	**2021**
DE	-6.0	4.2	-7.6	3.5	-10.1	-1.3
SK	-6.2	4.1	-9.0	2.8	-11.4	-1.7
FR	-7.7	4.7	-9.3	3.5	-11.7	-1.2
IT	-12.6	5.1	-15.0	2.8	-18.8	-5.6
ES	-10.9	5.0	-12.0	3.4	-15.9	-4.2
Effective EA	*-6.9*	*4.4*	*-8.7*	*3.4*	*-11.4*	*-1.8*
GDP returns to the level of 4Q 2019	Q3 2022		Q3 2024		beyond 2026	
Output gap (4Q 2021)	-1.60%		-3.80%		-9.60%	
Fiscal measures (in % of GDP)	**2020**	**2021**				
DE	3.0	0	in the same extent as in the baseline scenario		in the same extent as in the baseline scenario	
SK	1.2	0				
FR	1.7	0				
IT	1.1	0				
ES	1.3	0				
ECB monetary policy						
announced measures	970 bn EUR		970 bn EUR		unlimited purchases of ECB	
additional measures	1177 bn EUR		1575 bn EUR			

Foreign Outlook: Comparison

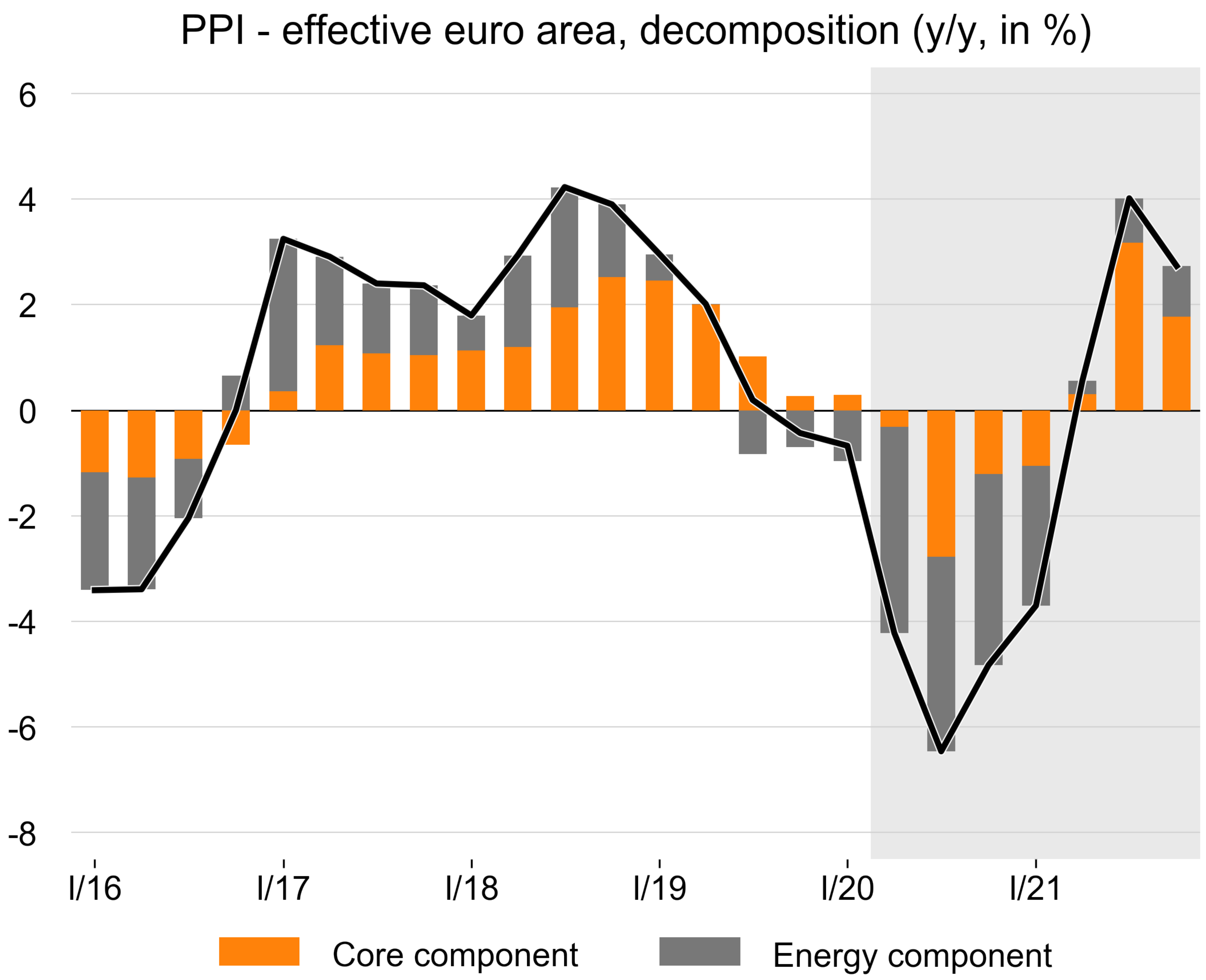


PPI in Effective Euro Area: Decomposition



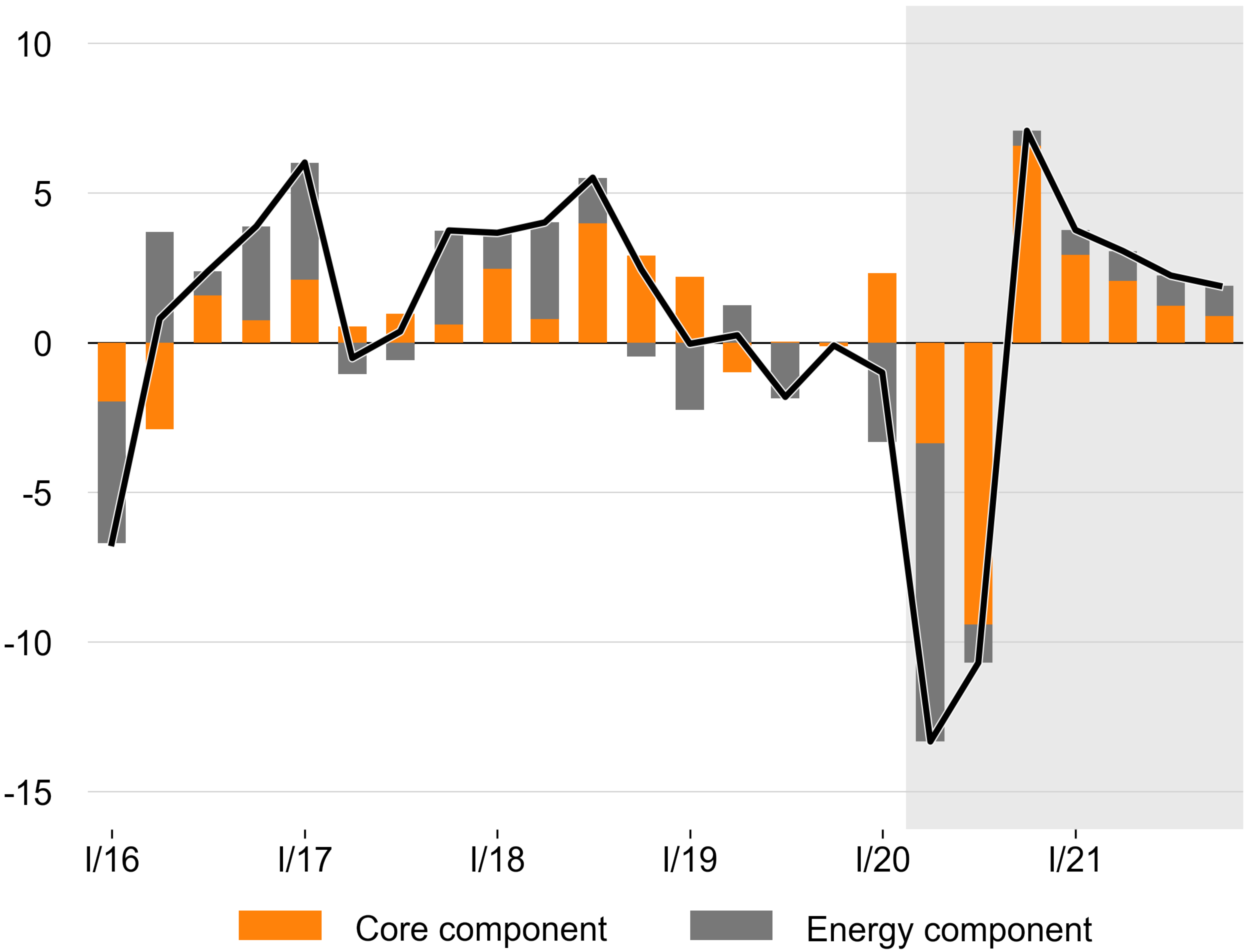


PPI in Effective Euro Area: Decomposition

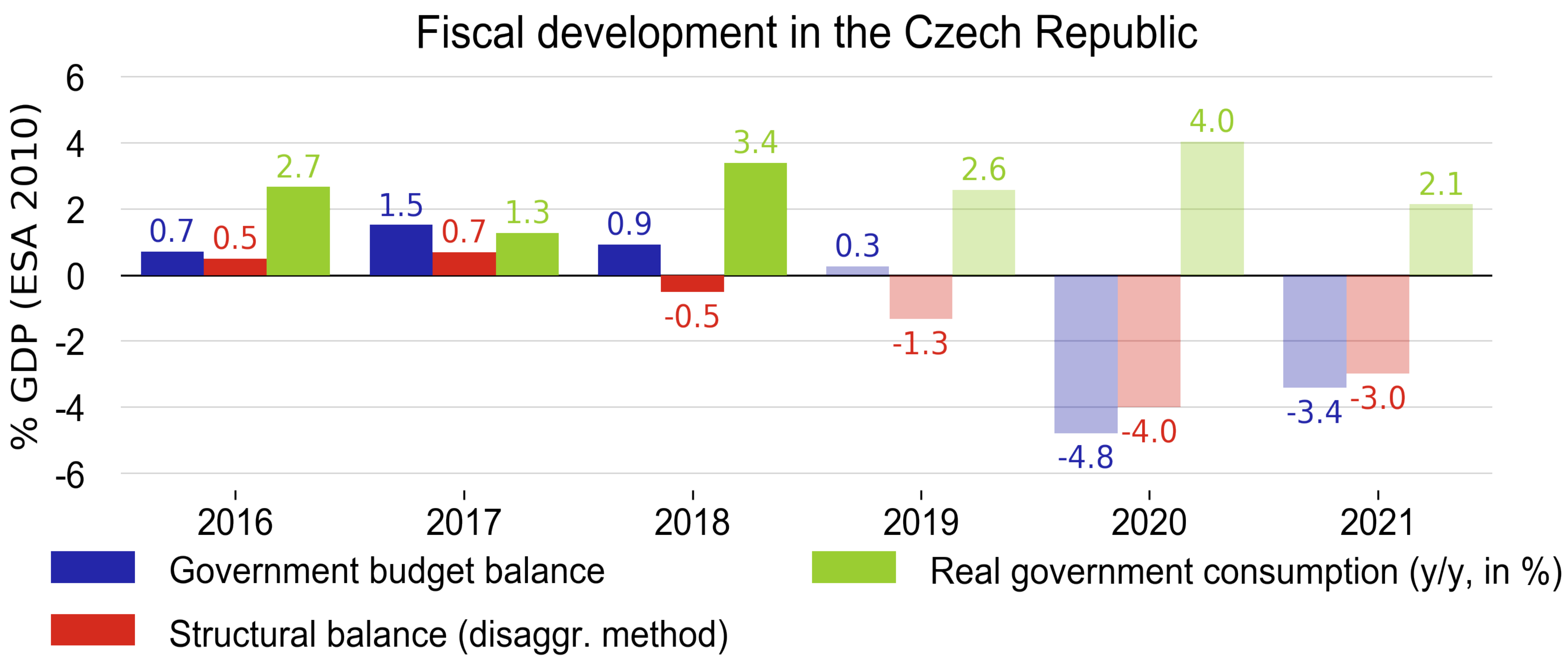


PPI in Effective Euro Area: Decomposition

PPI - effective euro area, decomposition (q/q, in %, ann.)



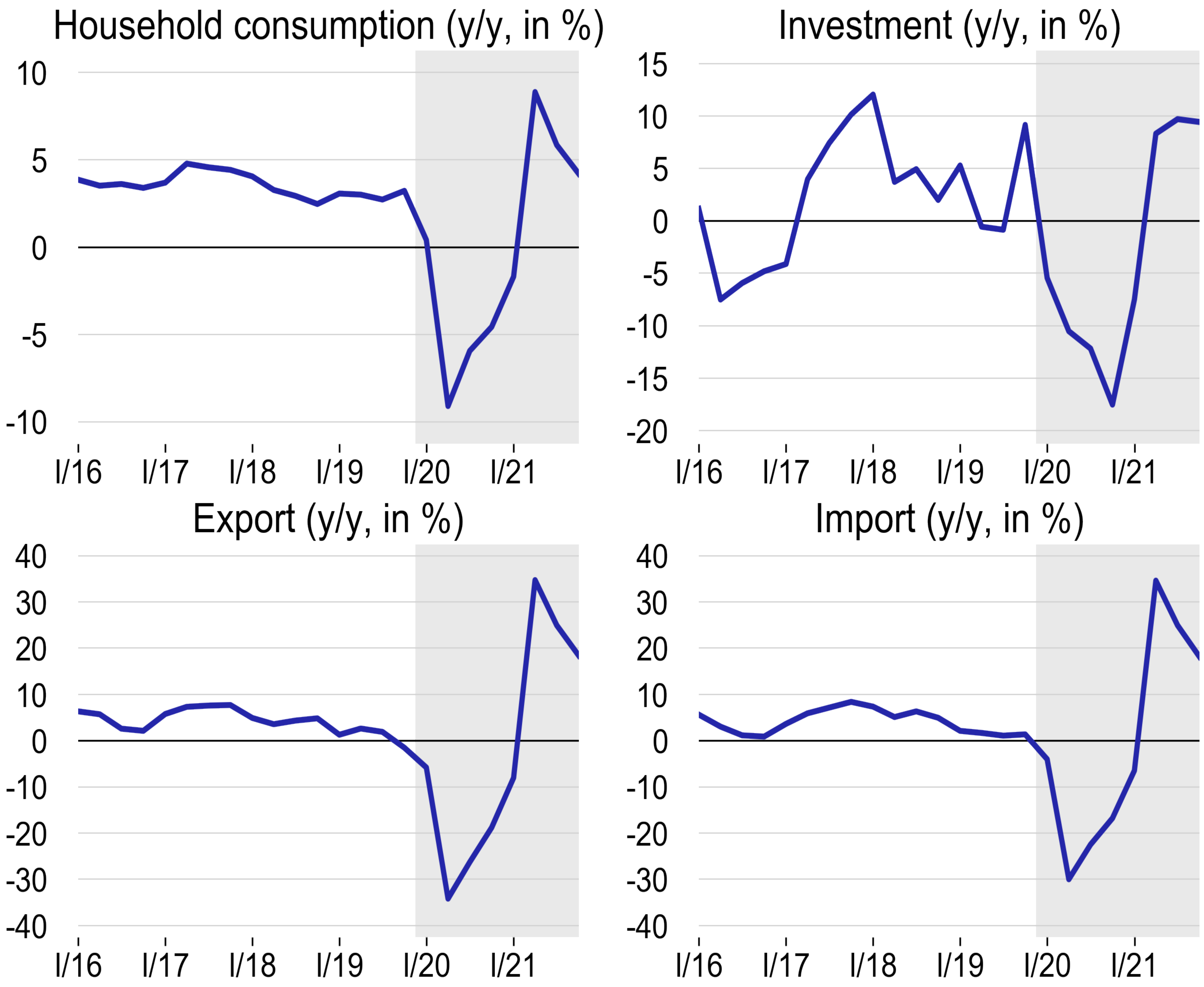
Fiscal Policy



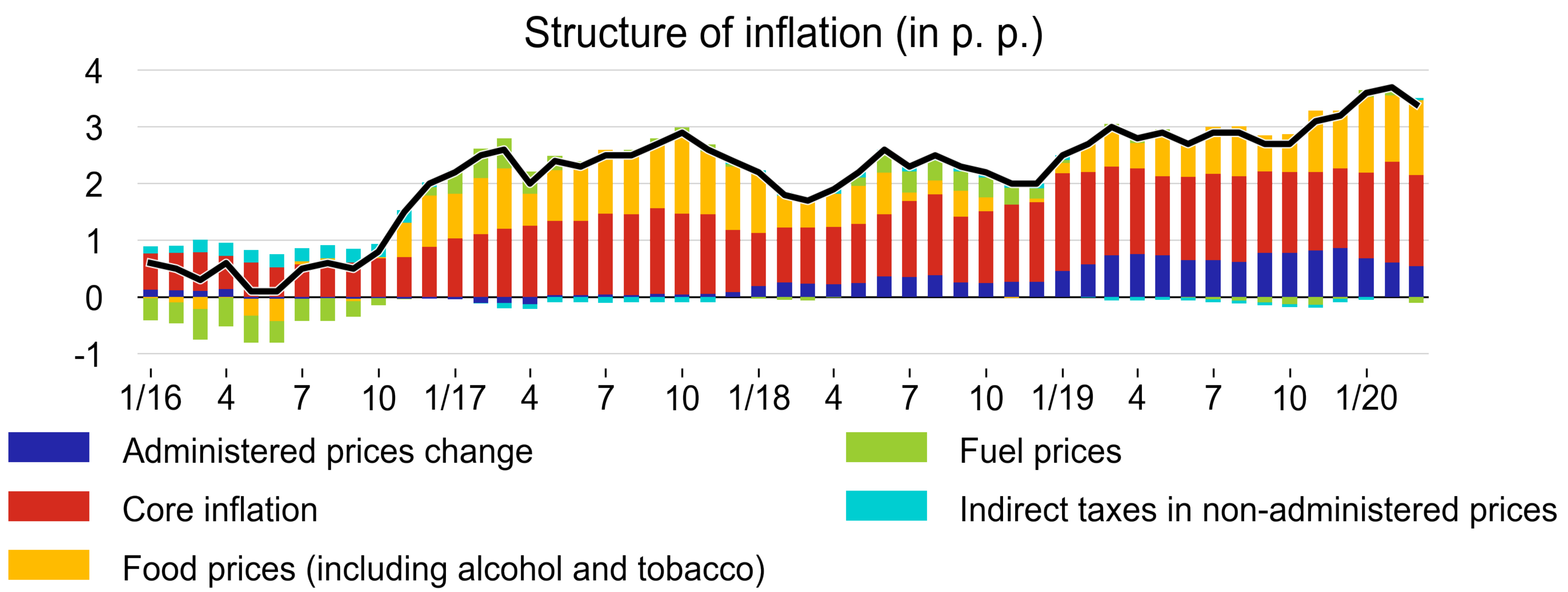
Fiscal impulse (contributions to GDP growth in percentage points)

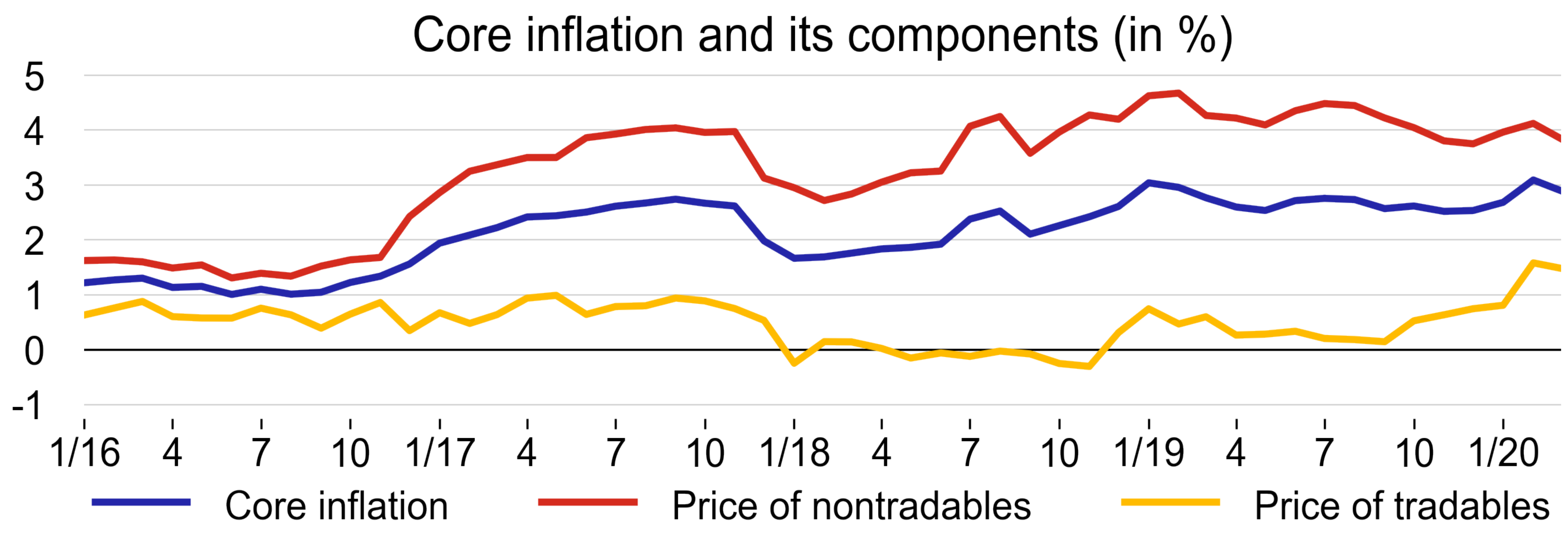
	2018	2019	2020	2021
	actual	forecast	forecast	forecast
Fiscal impulse	0.8	0.5	1.1	-0.8
of which impact through:				
Private consumption	0.4	0.4	1.2	-1.0
Private investment	0.0	0.0	0.0	0.1
Government investment, domestic	0.3	0.1	-0.1	0.0
Government investment, EU funded	0.2	0.0	0.0	0.1

Aggregate Demand

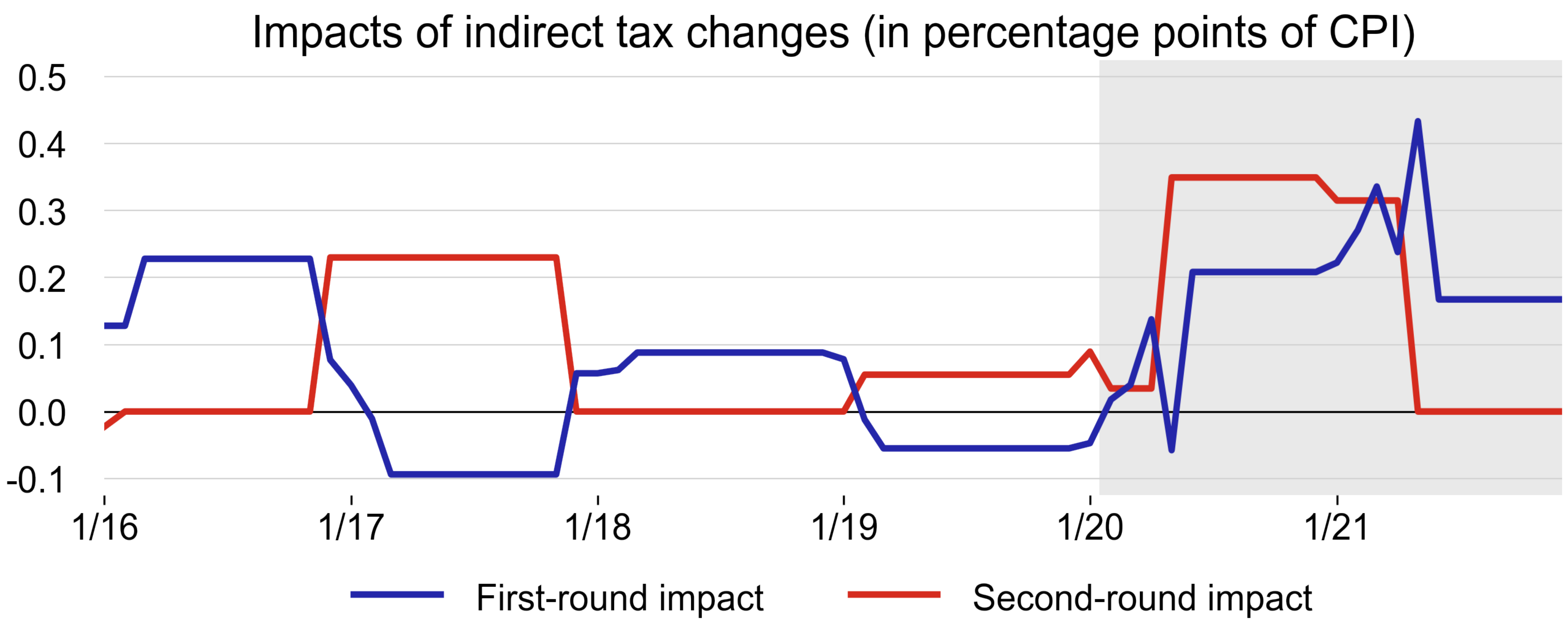


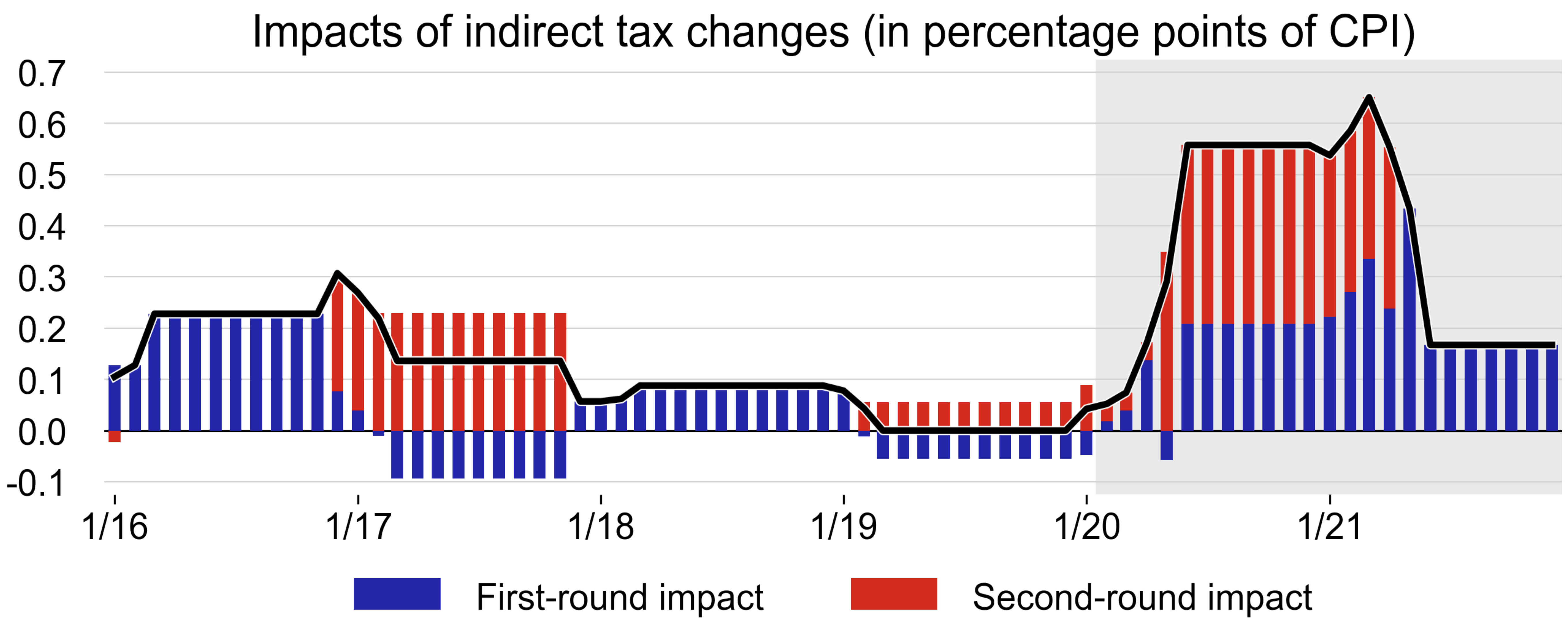
Structure of Inflation





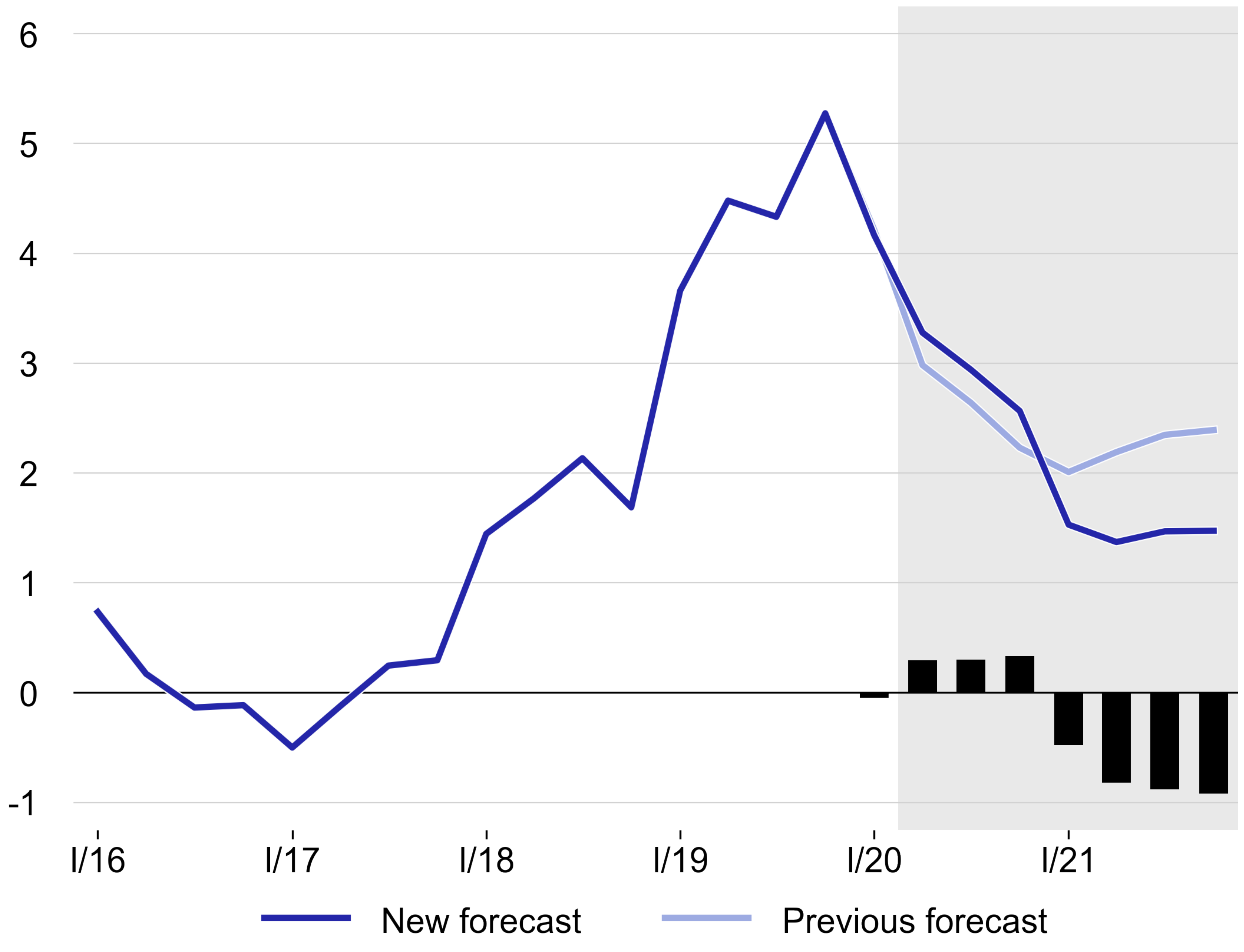
Comparison with Previous Forecast





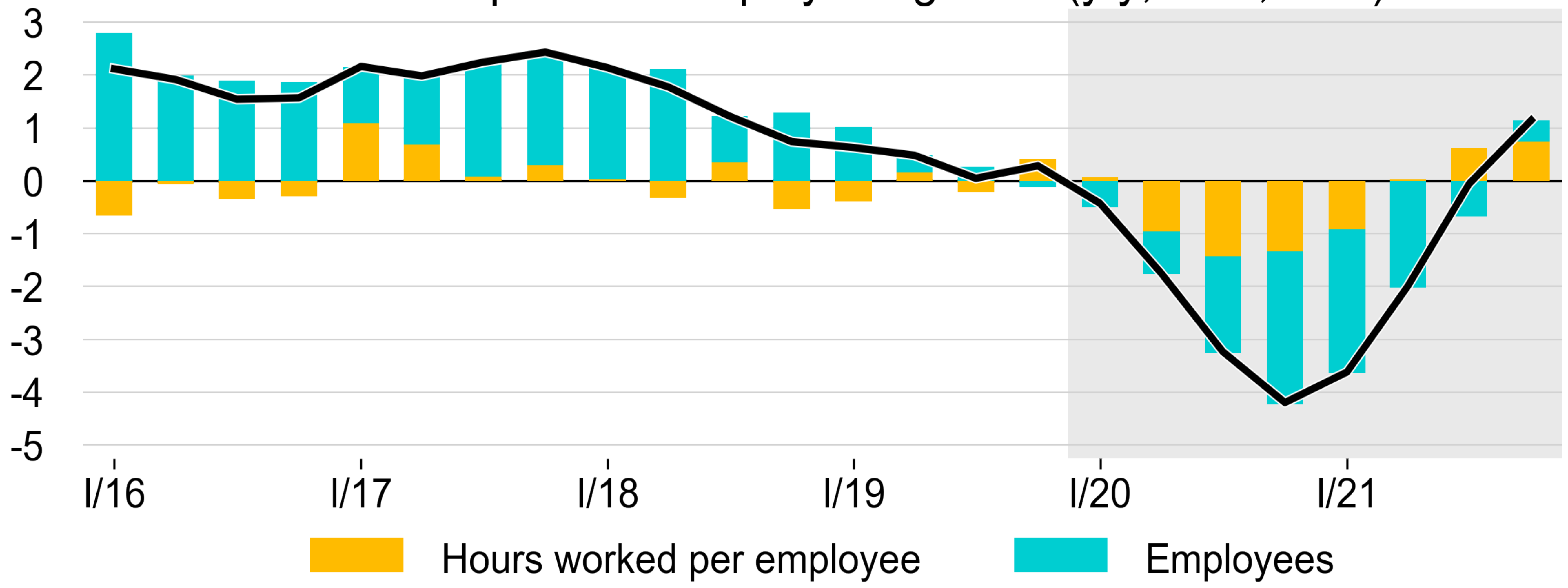
Administered Prices: Comparison

Growth of administered prices (y/y, in %)

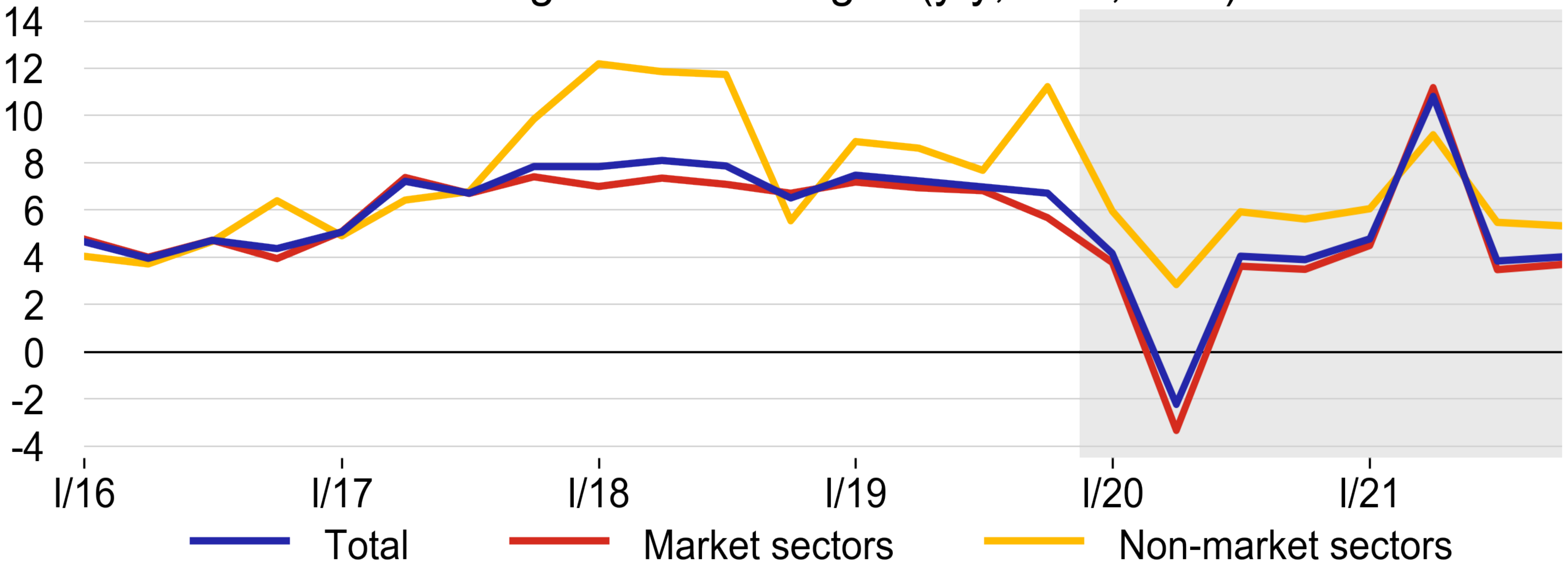


Labour Market

Full time equivalent employees growth (y/y, in %, s. a.)

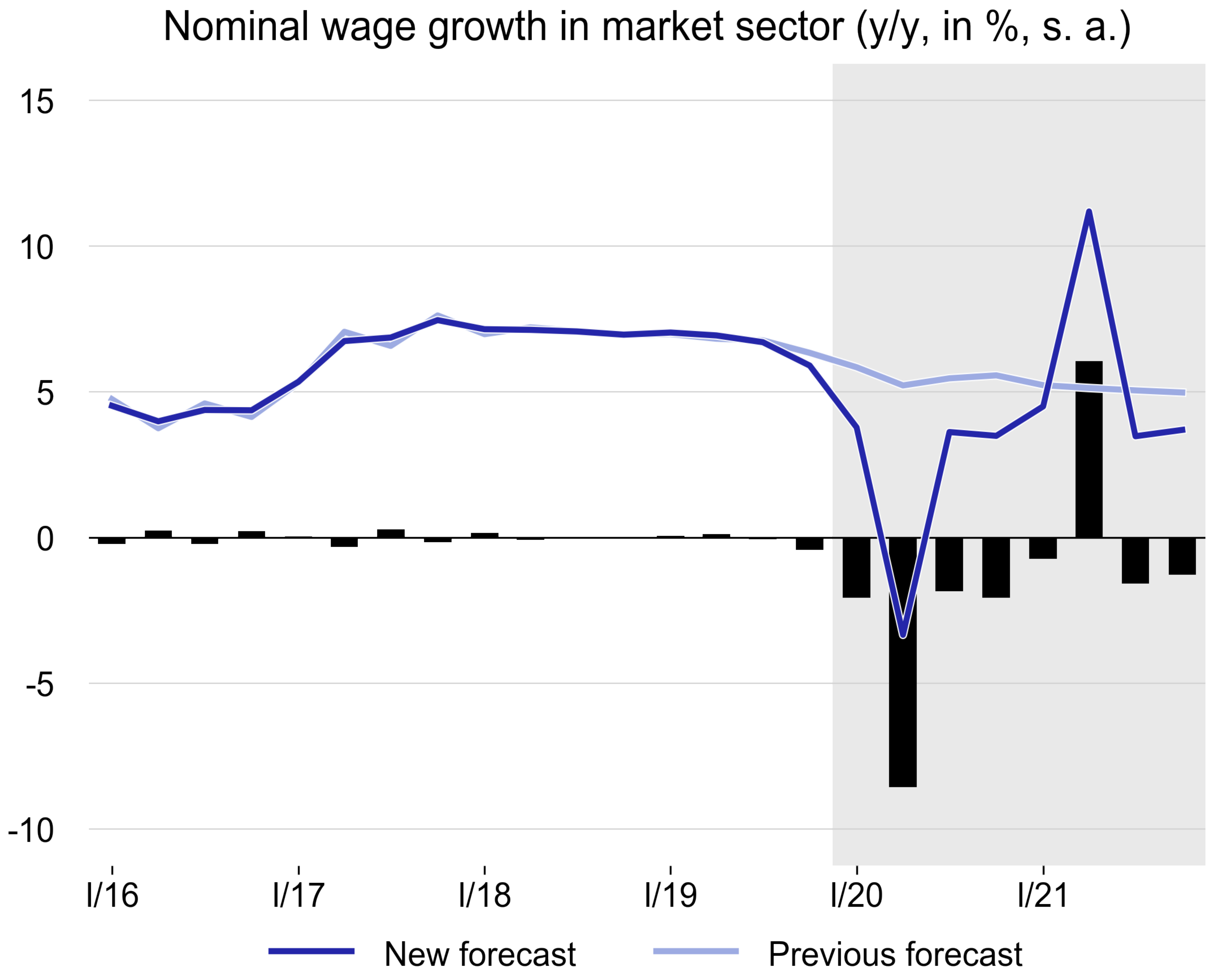


Average nominal wages (y/y, in %, s. a.)

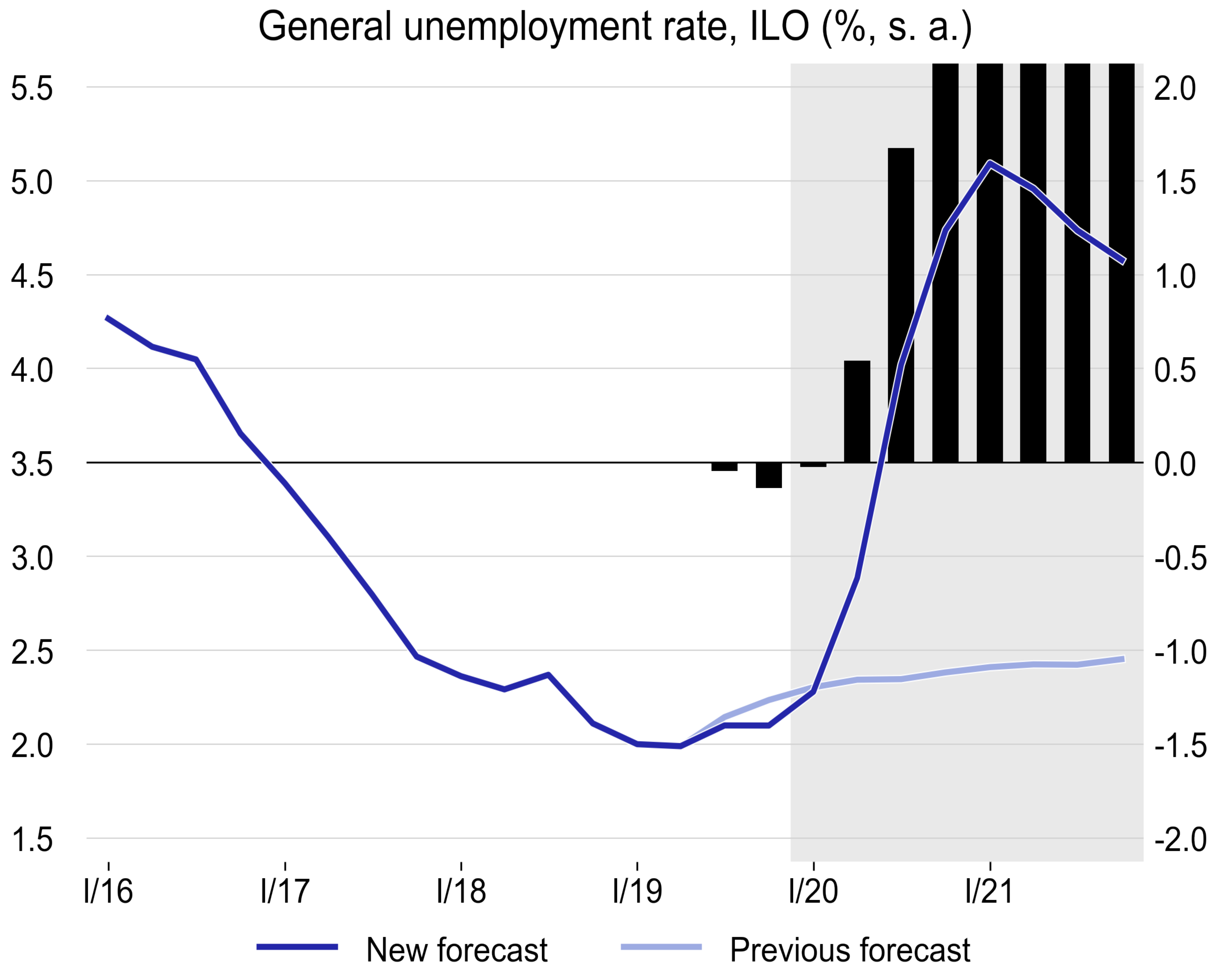


Wages in Market Sectors: Comparison

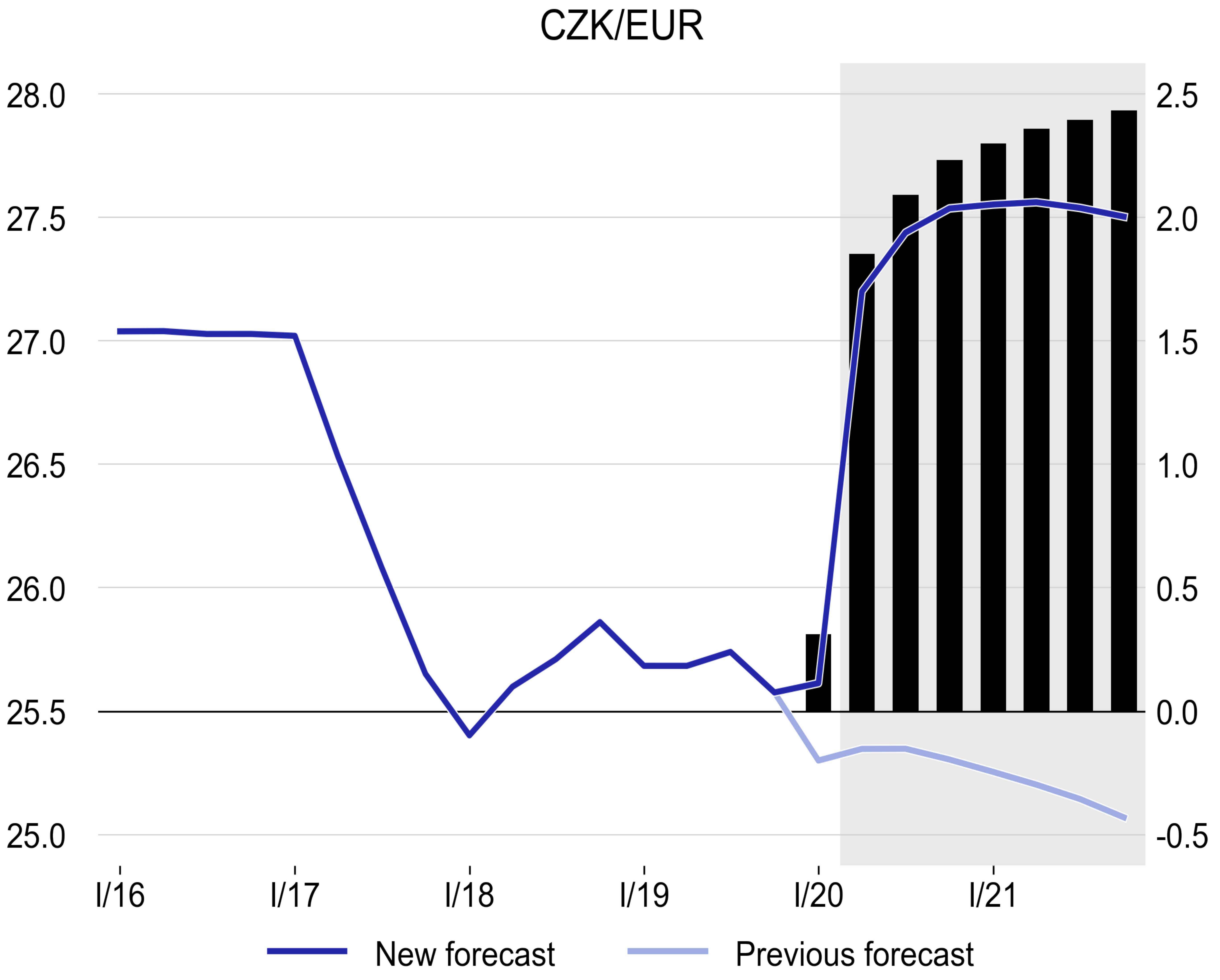
CZECH NATIONAL BANK



Unemployment Rate: Comparison



Exchange Rate: Comparison



Interest Rate: Comparison

CNB CZECH NATIONAL BANK