

CNB's New Forecast (Inflation Report III/2019)

Meeting with Analysts

2 August 2019

1. Model g3+

2. Assumptions of the forecast
3. The new macroeconomic forecast
4. Comparison with the previous forecast
5. Alternative scenario: g3 model forecast
6. Sensitivity scenario: foreign slowdown

- The new core projection model of the CNB enables to capture economic phenomena more accurately and ultimately improves the model's predictive properties.
- The **main extensions of g3+** include:
 - richer external block in structure and more internally consistent;
 - division of foreign producer prices into their energy and core components;
 - inclusion of energy in the factors of domestic production;
 - introduction of “hand-to-mouth” households;
 - a new way of working with exogenous outlooks;
 - recalibration of selected model parameters and long-term equilibrium levels:

	g3	g3+
Foreign economic growth (y-o-y, %)	1.8	1.6
Foreign interest rate (p.a., %)	3.5	2.5
Domestic economic growth (y-o-y, %)	3.0	3.0
Domestic interest rate (p.a., %)	3.0	3.0
CZK/EUR appreciation (y-o-y, %)	1.5	1.5
Czech risk premium (%)	1.0	2.0

1. Model g3+

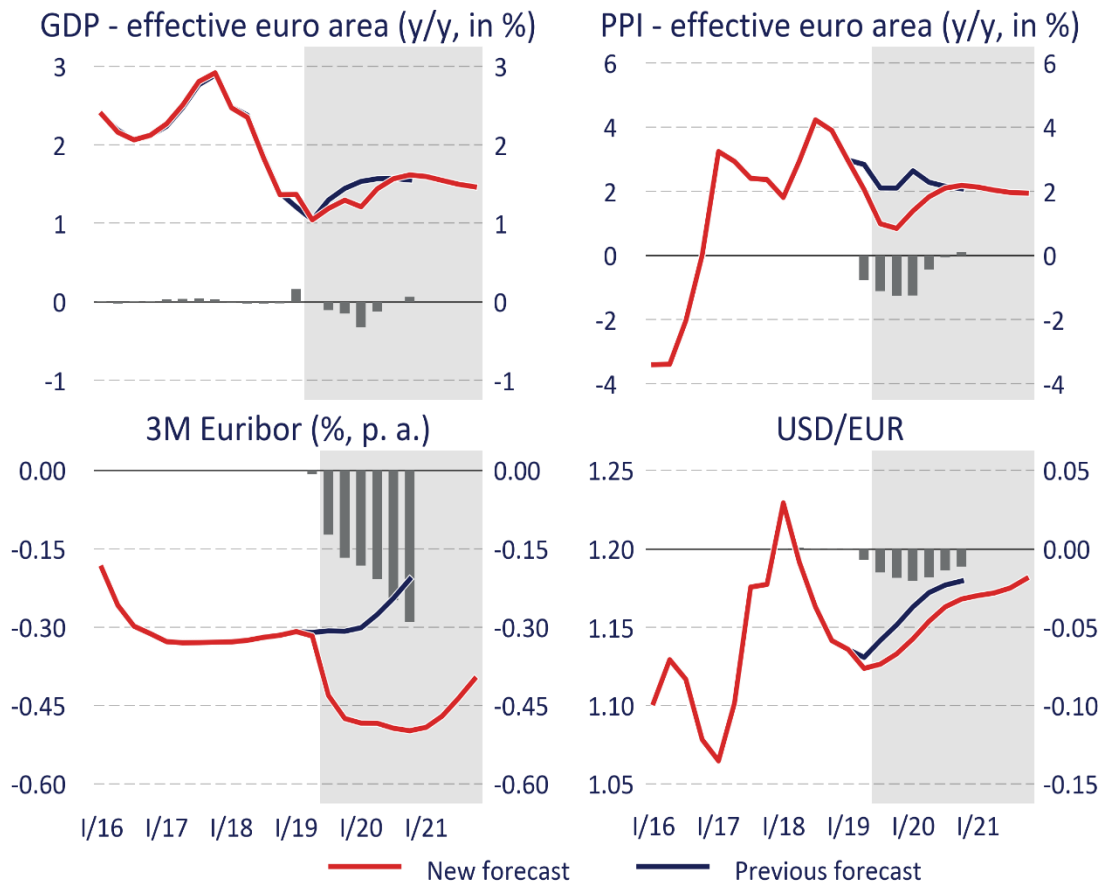
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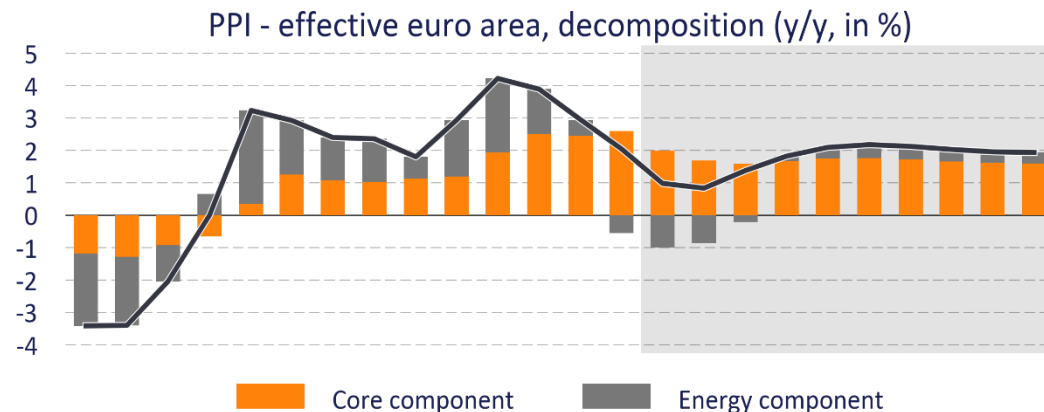
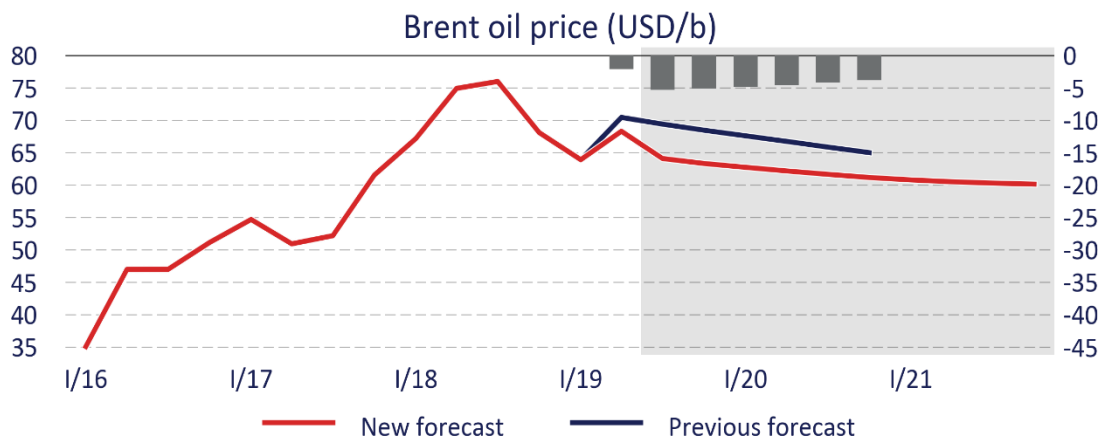
5. Alternative scenario: g3 model forecast

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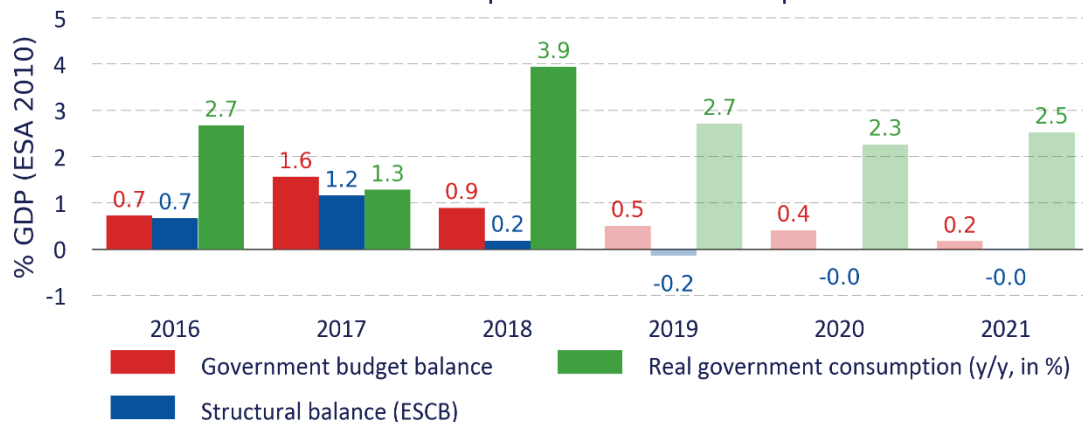
- **GDP growth in the effective euro area** will slow down further in 2019 Q2 due to adverse external factors, but it will accelerate gradually afterwards reflecting growing global demand.
- **Foreign industrial producer price inflation** will slow further until the end of this year owing to a decline in energy prices.
- The ECB's readiness to ease monetary policy shifted the market outlook for the **3M EURIBOR** deeper into negative territory.
- The **euro against the dollar** will strengthen.

PPI in Effective Euro Area: Decomposition



- The **price of crude oil** was volatile in 2019 Q2 and its outlook is slightly falling.
- The overall **inflation pressures** from the production sector are weakening as a result of a decreasing contribution of the **energy component**. The contribution of the **core component** of the PPI index also decreased.
- In the following two years, producer price inflation will reach 2% on average, driven by both components, which will return to their long-term trends.

Fiscal development in the Czech Republic



Fiscal impulse (contributions to GDP growth in percentage points)

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

- The **government budget surpluses** will gradually decrease over the forecast horizon.
- The **government consumption growth** will gradually slow down, but it will stay close to 2.5%.
- The **expansionary effect of fiscal policy** this year is linked mainly with the higher-than-usual increase in old-age pensions, continued growth in government investment and rapid wage growth in the government sector.
- Fiscal policy will be neutral over the next two years.

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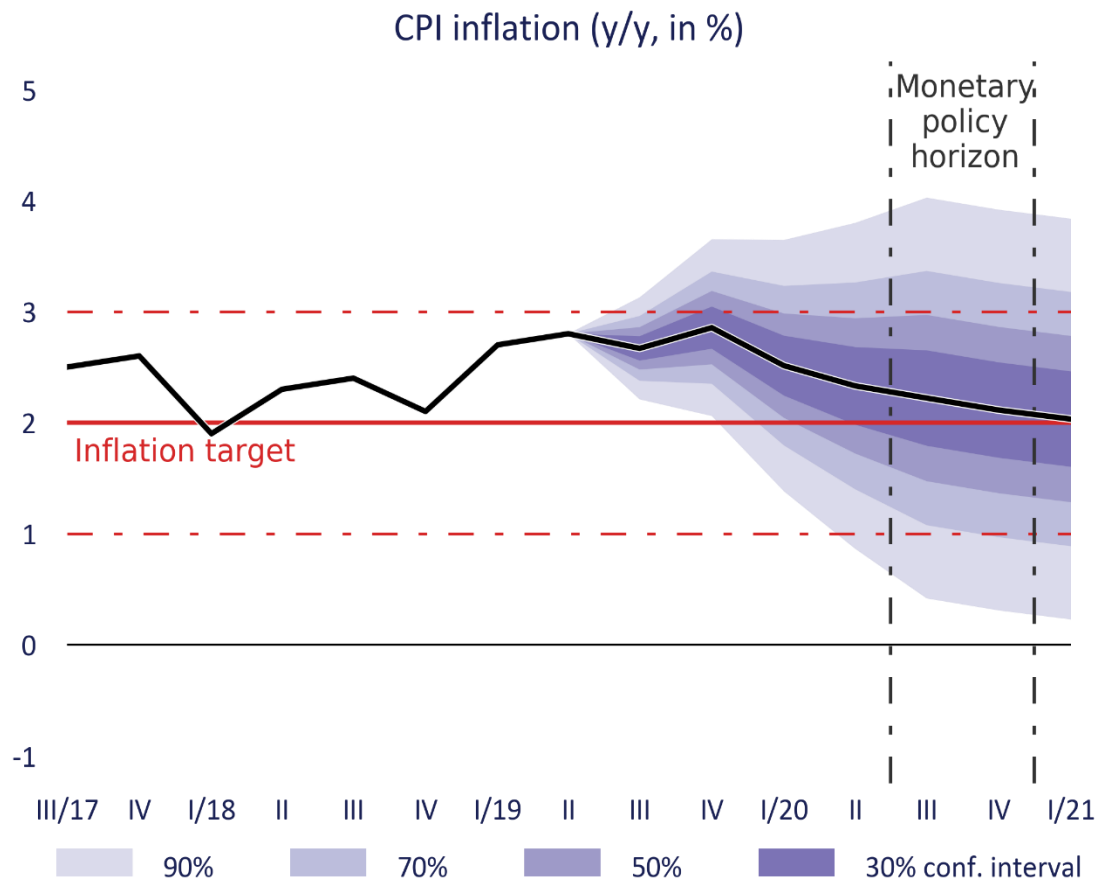
Inflation

Economic activity and labour market

Exchange rate and interest rate

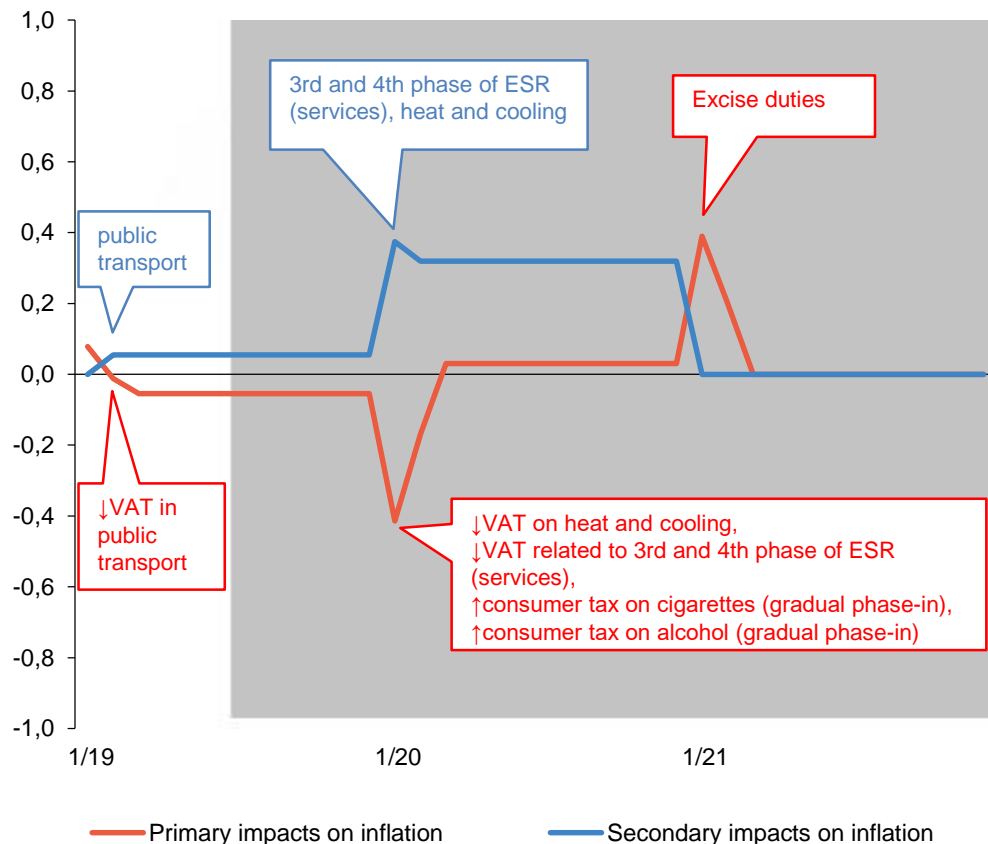
- **Inflation** will be in the upper half of the tolerance band this year and will decrease to the 2% target next year.
- The decrease in inflation in 2020 will be slowed by the impacts of expected **changes to indirect taxes**.

Headline Inflation Forecast



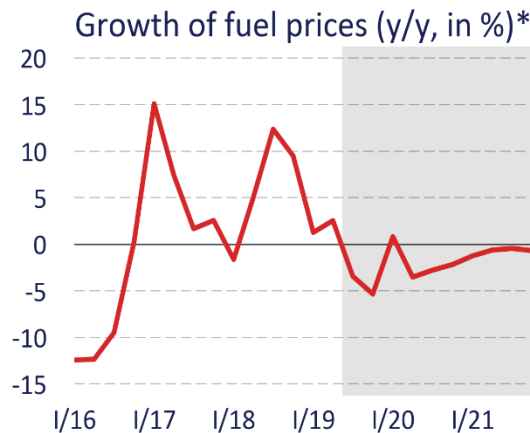
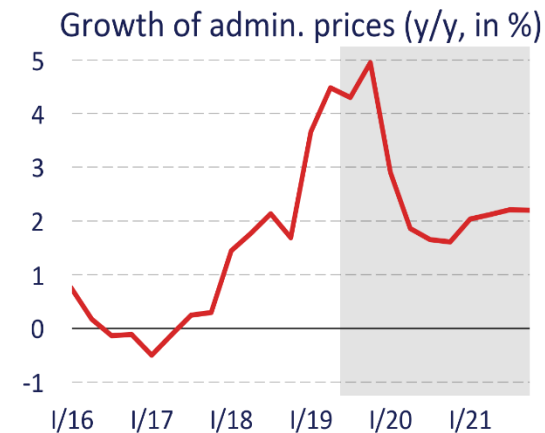
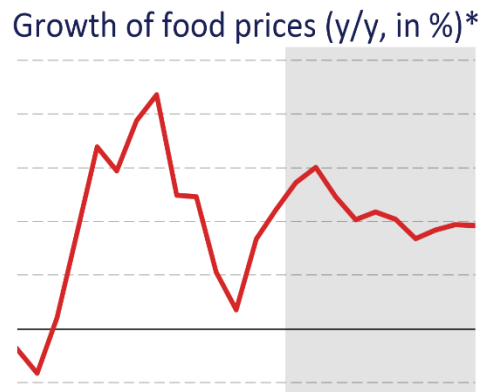
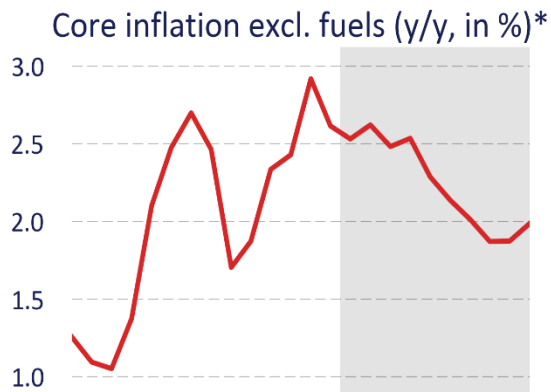
- **Headline inflation** will be in the upper half of the tolerance band this year and will decrease to the 2% target next year.
- **Monetary policy-relevant inflation** will be close to headline inflation, except in the first few quarters of 2020 and 2021 due to the introduction of indirect tax changes.

Effects of Changes to Indirect Taxes on Inflation Forecast



- Several tax changes planned for 2020 are taken on board in this forecast.
 - The launch of the 3rd and 4th phases of ESR include the reclassification of certain services and goods into the second reduced VAT rate (10%).
 - Increase excise duty on alcohol and a “harmonisation” increase in excise duty on cigarettes.
- The total **first-round effects** will be close to zero, but the expected significantly positive second-round impacts will affect inflation.
- The positive **second-round impacts** lead ceteris paribus to a higher path of market interest rates.

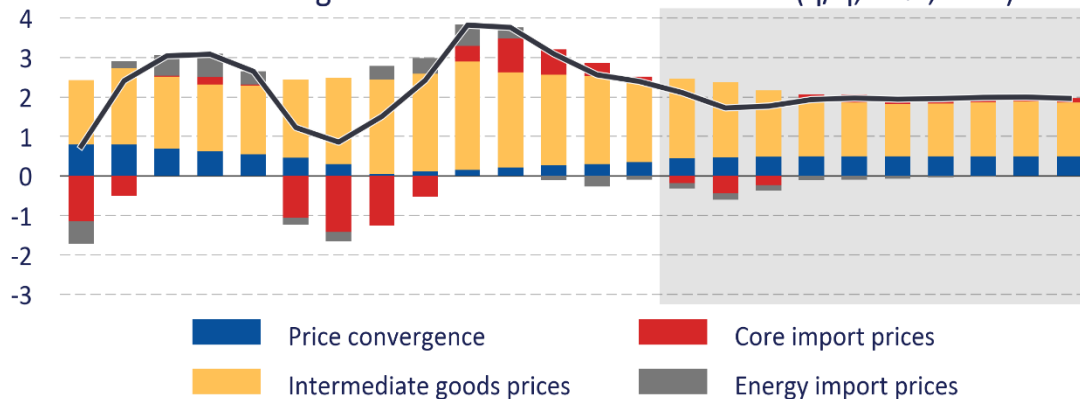
Core Inflation and Food Prices



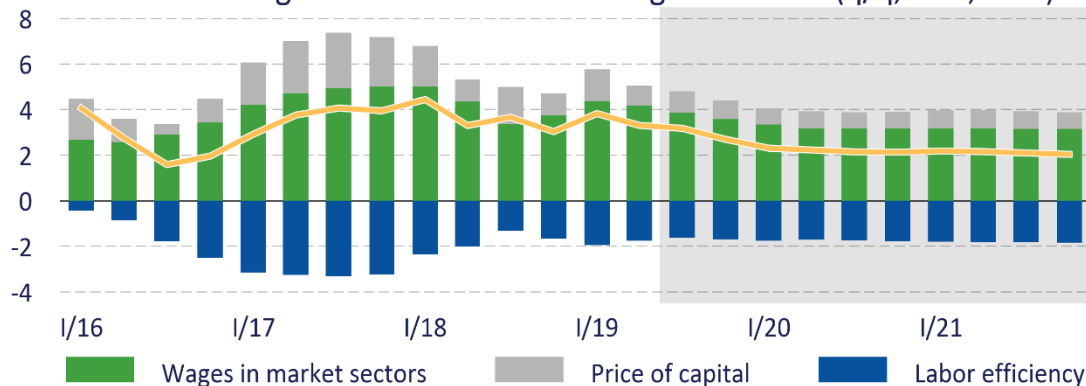
* excluding tax changes

- **Core inflation** will remain at its present high levels and start to decline gradually to 2% next year due to declining domestic inflation pressures.
- **Food price inflation** will increase further this year on the back of a rise in food commodity prices, and then will decrease.
- The strong **growth in administered prices** will continue this year, driven mainly by growth in electricity prices, and slow next year.
- The decline in **fuel prices** will deepen in the second half of this year, reflecting the expected year-on-year decline in global oil prices.

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 nominal costs** will slow further in the second half of this year and stabilise around 2% later on.
- The expected appreciation of the koruna will cause the core import prices to have an anti-inflationary effect in the next few quarters. It will then turn positive mainly due to an acceleration of foreign PPI inflation.
- **Domestic cost pressures** will gradually ease due to slowing wage growth.
- The contribution of the price of capital will remain positive, reflecting continued growth in domestic demand.

Inflation

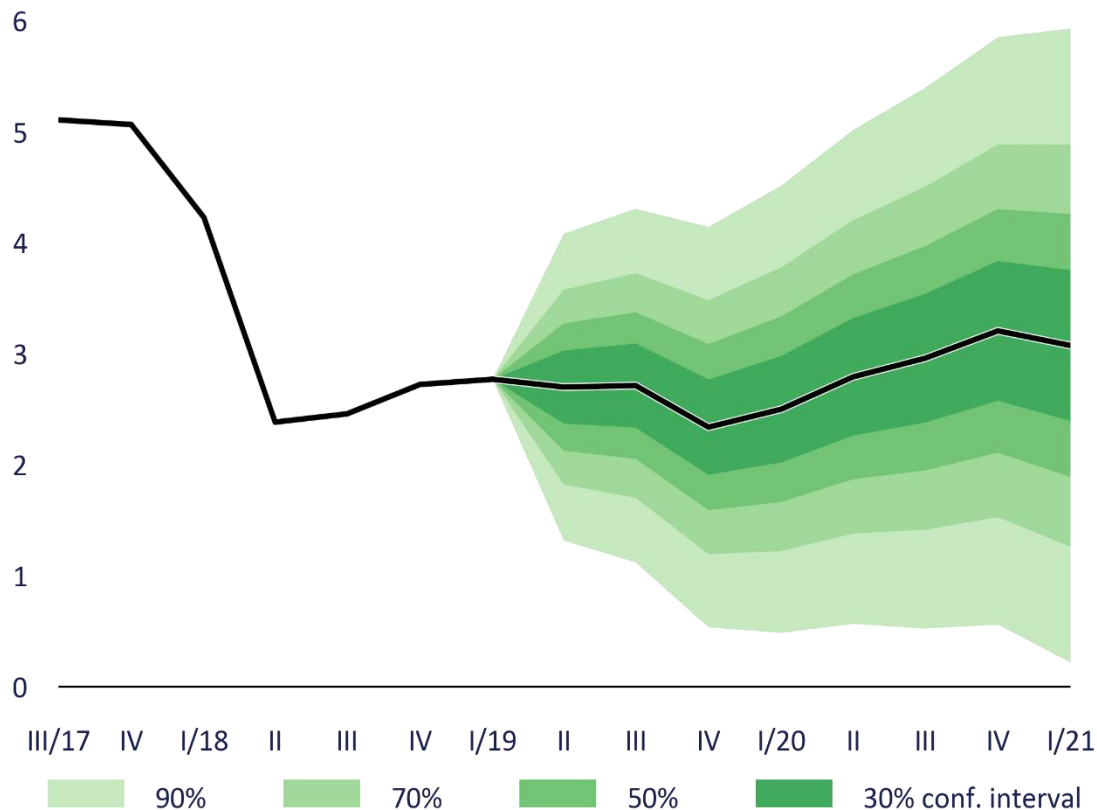
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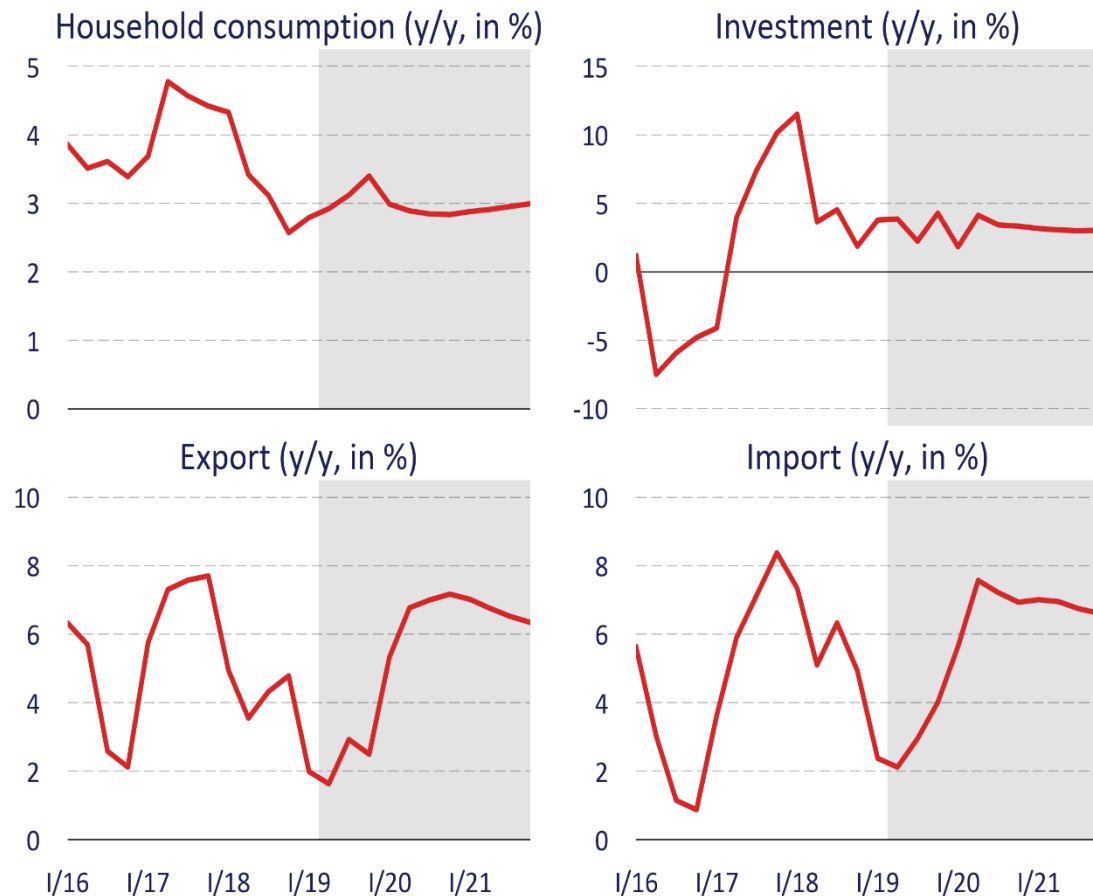
- **GDP** will grow by 2.6% this year and slightly accelerate to close to the pace of potential output growth over the next two years.
- **Wage growth** in both market and non-market sectors will not slow noticeably until next year, as the labour market remains tight.

GDP Growth Forecast

GDP growth (y/y, in %)



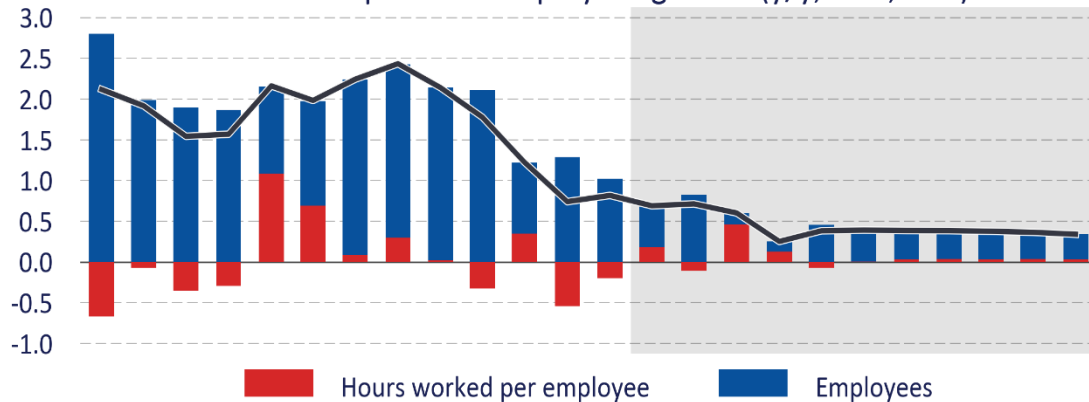
- **Economic growth** of 2.6% this year will continue to be driven by all components of final domestic demand.
- The negative contribution of net exports to GDP growth will fade away in early-2020. This will lead to a slight upturn in economic growth over the next two years.



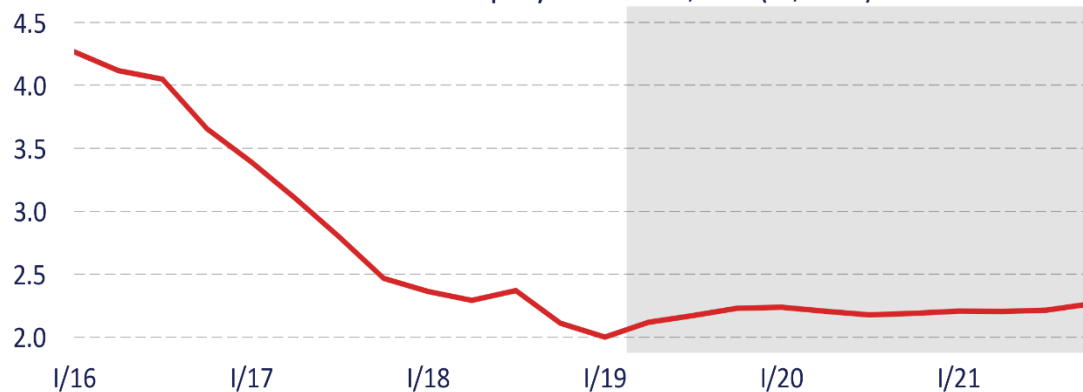
- The continued **household consumption growth** will reflect rapid, albeit gradually slowing, growth in wages, salaries and other income.
- **Gross capital formation** will continue to be supported by both private and government investment, while the contribution of inventories will remain very subdued.
- The currently subdued **export growth** will recover significantly next year in line with a renewed upswing in external demand.
- **Import growth** will reflect solid growth in domestic demand and later also a recovery in exports.

Labour Market: Employment and Unemployment

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



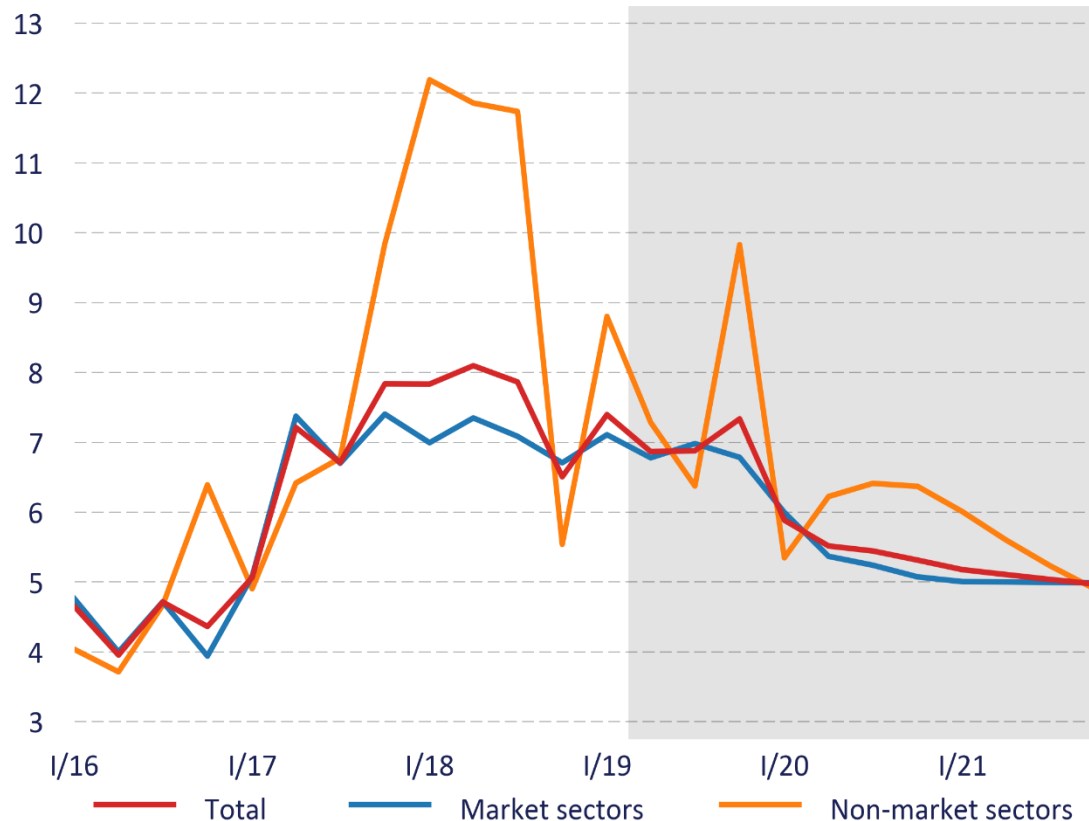
General unemployment rate, ILO (% , s. a.)



- **Employment growth** will slow further due to labour shortages and slightly weakening demand for labour.
- The **unemployment rate** will be close to its present levels as a result of slightly weakening – yet still generally strong – demand for labour.

Labour Market: Nominal Wage Growth

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



- **Market wage growth** will stay close to 7% for 2019. It will gradually converge to its steady-state level next year and remain close to it.
- Wage growth in market sectors in Q2 was affected by assumed high bonuses paid for good fulfilment of performance indicators last year. Unwinding of this factor and firms' efforts to maintain their competitiveness and profitability will lead to a slower wage growth.
- Pronounced **wage growth** will continue **in non-market sectors**. It will mainly reflect an increase in the wages of teachers and other public employees over the forecast horizon.

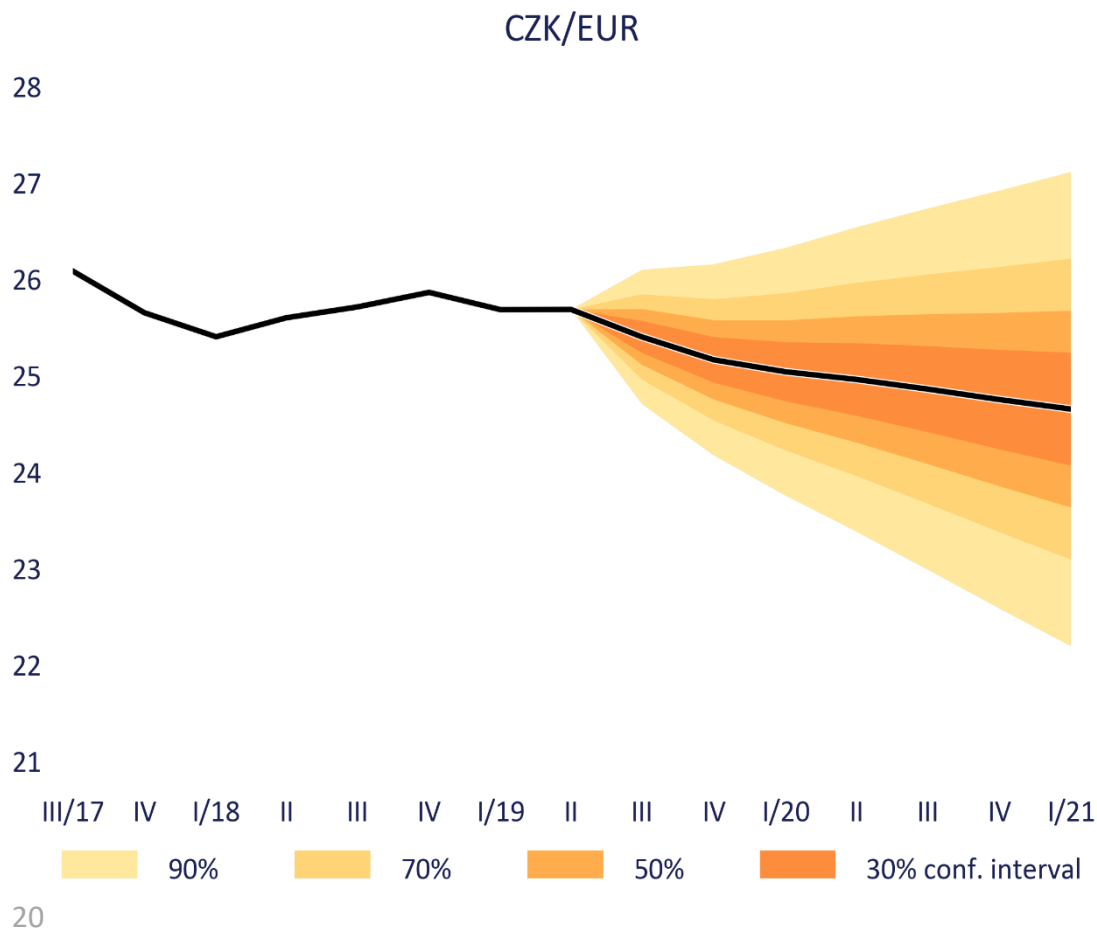
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Exchange rate and interest rate

- The **koruna** will gradually appreciate over the forecast horizon.
- Consistent with the forecast is a modest rise in domestic market **interest rates** initially followed by their decline in 2020.

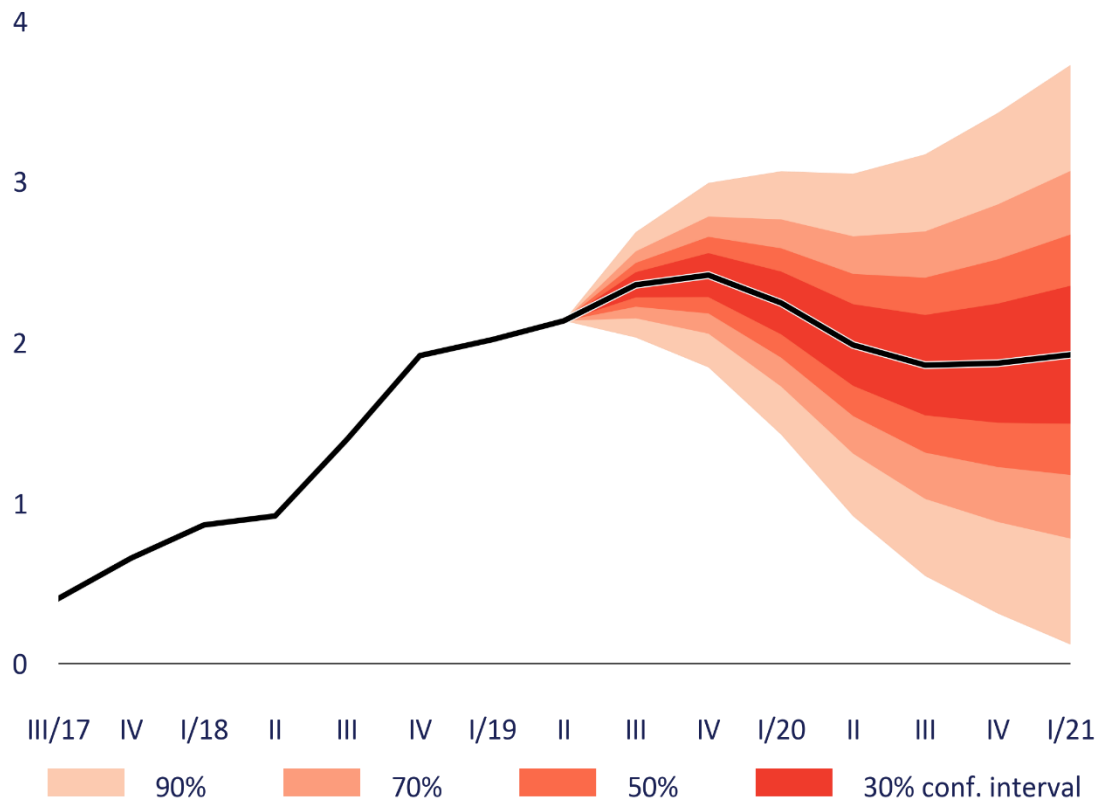
Exchange Rate CZK/EUR



- **The exchange rate** forecast expects the koruna to appreciate to CZK 25.4 against the euro in 2019 Q3.
- The forecasted path of the exchange rate takes into account its broad stability since 2018 Q2.
- The appreciation of the koruna will be driven by a wider positive interest rate differential vis-à-vis the euro area and continued convergence of the Czech economy.
- The exchange rate will thus gradually appreciate to CZK 25 to the euro at the start of next year.

Interest Rate Path (3M PRIBOR)

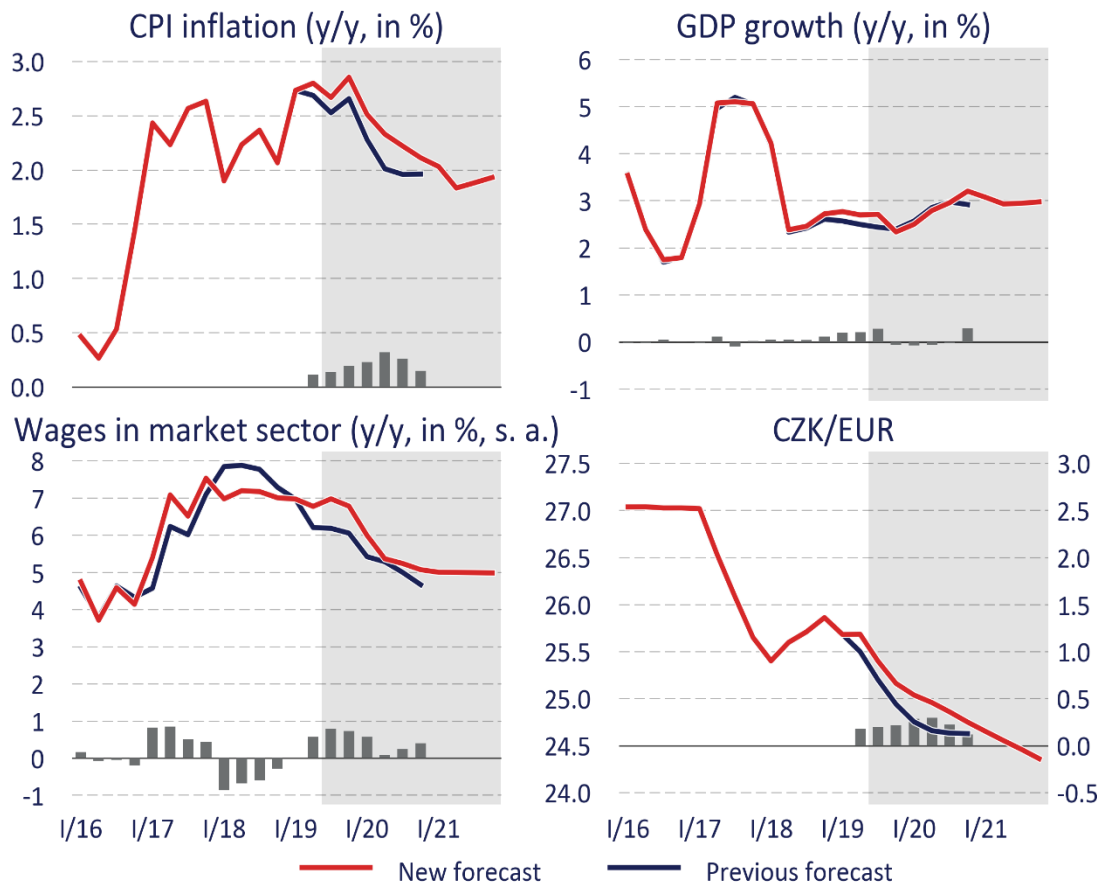
3M PRIBOR (% , p. a.)



- Consistent with the forecast is a modest rise in **domestic market interest rates** initially followed by their decline in 2020.
- The initial modest rise primarily reflects persisting strong domestic inflation pressures due to rapid growth in wages and household consumption, coupled with the second-round effects of changes to indirect taxes next year.
- The subsequent decline in domestic rates in 2020 will be due mainly to deeply negative interest rates in the euro area amid a neutral effect of domestic inflation pressures.

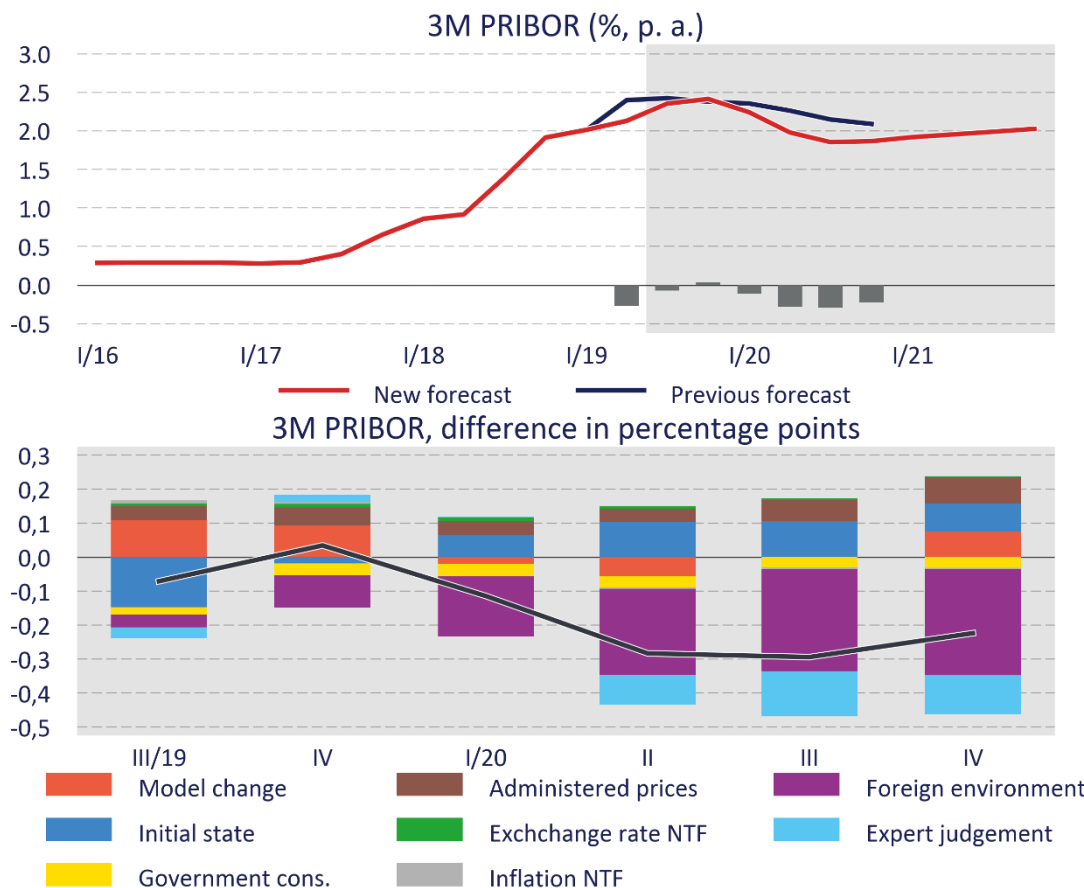
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Comparison with Previous Forecast



- The **inflation** forecast is higher due to stronger price pressures and the newly incorporated tax effects.
- The forecast for **domestic economic growth** is little changed, but the structure of the growth has been partly revised.
- The buoyant **wage growth** will last longer compared with the previous forecast. The higher rate of wage growth in 2019 H1 was fostered by more generous bonuses.
- The forecast for the **koruna exchange rate** has moved to weaker levels. This reflects the weaker observed exchange rate in Q2 as well as slightly worse outlook of foreign demand.

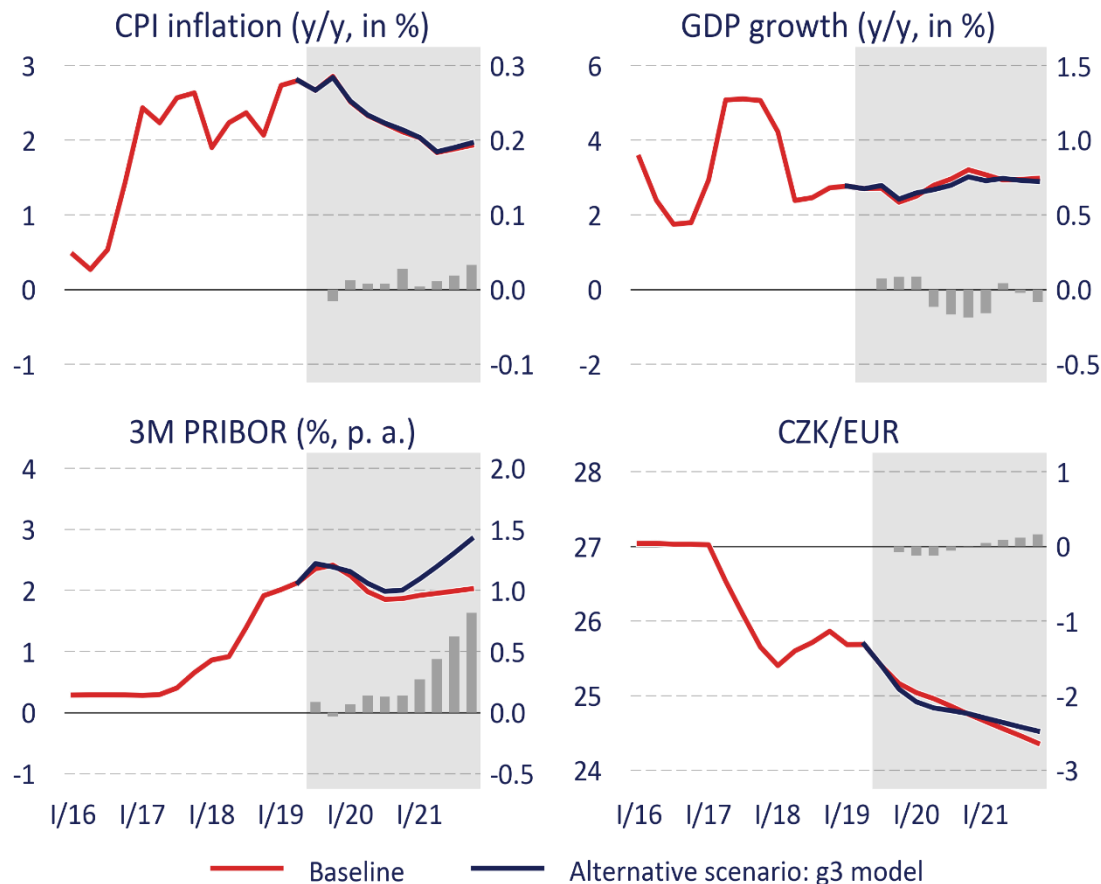
Comparison: Interest Rate Forecast



- The new forecast implies a **similar interest rate** level until the end of 2019 as in the previous forecast.
 - Model change from g3 to g3+.
 - The external outlook – especially interest rates in 2020 – has the dominant downward effect.
 - Higher rates are fostered by the initial state (growth in wages and household consumption) and the second-round effects of tax changes in administered prices.
 - Expertly restricted propagation of the one-off bonuses paid out in 2019 H1 outweighed the second-round effects of tax changes in market prices.

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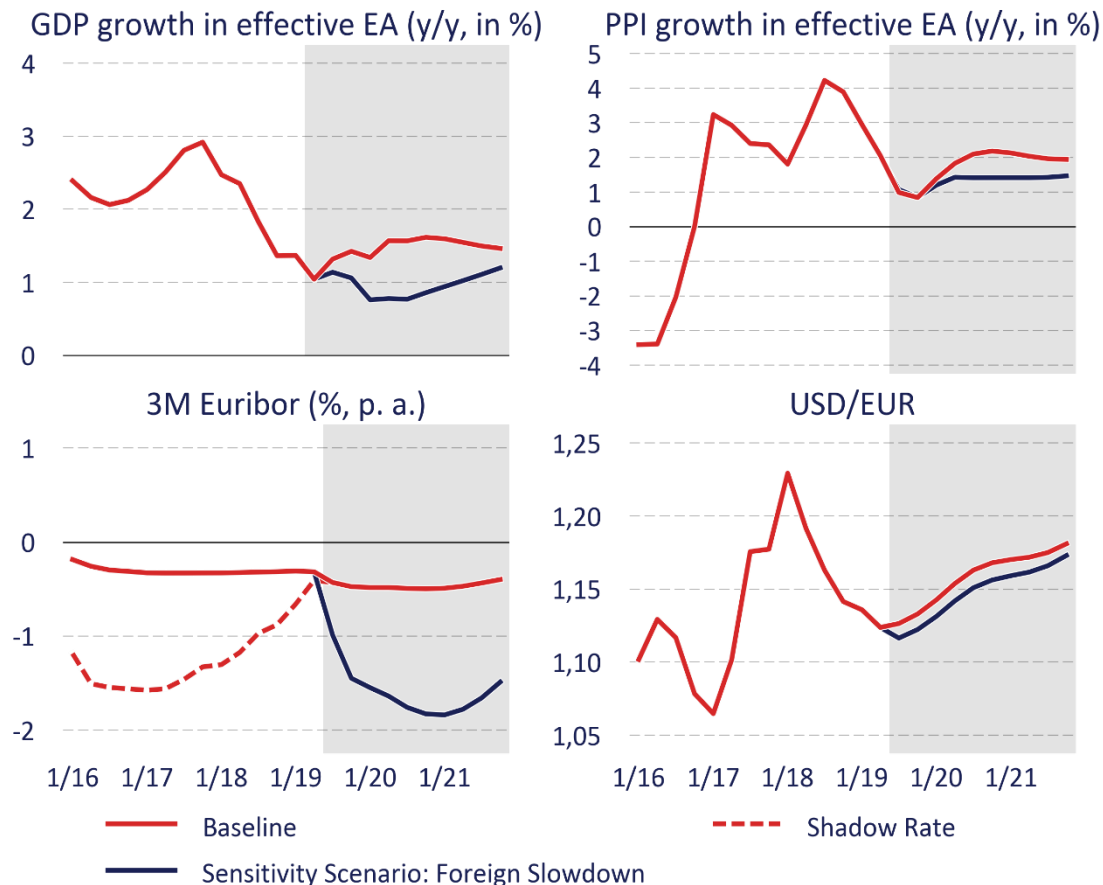
Alternative Scenario: g3 Model – Forecast Comparison



- The current phase of the economic cycle is assessed similarly to the baseline scenario, i.e. as a decline from the peak accompanied by a dominant effect of domestic inflationary pressures stemming from a tight labour market.
- Differences in inflation, GDP growth and the exchange rate compared to the baseline are tiny.
- **Interest rates** in the alternative scenario are broadly in line with the baseline scenario until the end of 2020 and then substantially higher. This mainly reflects the different way of working with exogenous outlooks.

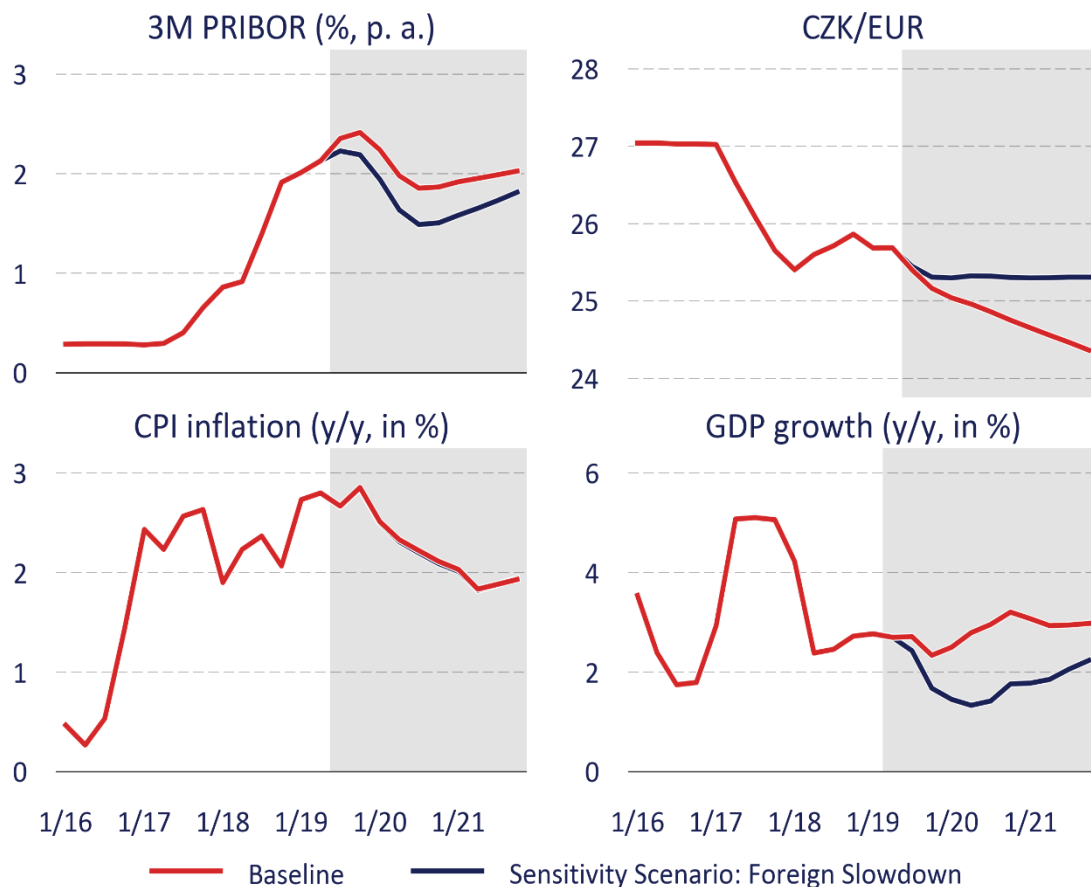
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Sensitivity Scenario: Deeper Foreign Slowdown



- The sensitivity scenario assumes that **GDP in the effective euro area** will grow at half the rate contained in the baseline scenario of the forecast.
- This will lead to a lower producer and consumer price inflation in euro area.
- The ECB will immediately respond by easing monetary policy, which will be reflected in a weakening of the euro-dollar exchange rate.
- The sensitivity scenario assumes that the ECB will ease monetary policy through a combination of standard and unconventional instruments.

Sensitivity Scenario: Deeper Foreign Slowdown



- The fall in demand for Czech exports is reflected in a weaker **koruna** relative to the baseline scenario.
- The anti-inflationary effect of subdued **domestic economic activity** will outweigh the inflationary effect of import prices.
- This will lead to a lower path of **domestic interest rates** than in the forecast.
- As the slower growth in external demand is expected and the monetary policy response is forward-looking, **headline inflation** is almost unchanged from the forecast.

Thank you for your attention

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