

# GLOBAL ECONOMIC OUTLOOK - DECEMBER

Monetary Department  
External Economic Relations Division

2019



|   |           |
|---|-----------|
| <b>I. Introduction</b>  | <b>2</b>  |
| <b>II. Economic outlook in selected territories</b>                       | <b>3</b>  |
| <b>II.1 Euro area</b>   | <b>3</b>  |
| <b>II.2 United States</b>   | <b>5</b>  |
| <b>II.3 United Kingdom</b>  | <b>6</b>  |
| <b>II.4 Japan</b>   | <b>6</b>  |
| <b>II.5 China</b>   | <b>7</b>  |
| <b>II.6 Russia</b>  | <b>7</b>  |
| <b>II.7 Developing countries in the spotlight</b>                         | <b>8</b>  |
| <b>III. Leading indicators and outlook of exchange rates</b>              | <b>9</b>  |
| <b>IV. Commodity market developments</b>                                  | <b>10</b> |
| <b>IV.1 Oil and natural gas</b>   | <b>10</b> |
| <b>IV.2 Other commodities</b>   | <b>11</b> |
| <b>V. Focus</b>   | <b>12</b> |
| <b>The boom in short-term accommodation</b>                               | <b>12</b> |
| <b>A. Annexes</b>   | <b>16</b> |
| <b>A1. Change in predictions for 2019</b>                                 | <b>16</b> |
| <b>A2. Change in predictions for 2020</b>                                 | <b>16</b> |
| <b>A3. GDP growth and inflation outlooks in the euro area countries</b>   | <b>17</b> |
| <b>A4. GDP growth and inflation in the individual euro area countries</b> | <b>17</b> |
| <b>A5. List of abbreviations</b>  | <b>24</b> |

#### Cut-off date for data

13 December 2019

#### CF survey date

9 December 2019

#### GEO publication date

20 December 2019

#### Notes to charts

ECB, Fed, BoE and BoJ: midpoint of the range of forecasts.

The arrows in the GDP and inflation outlooks indicate the direction of revisions compared to the last GEO. If no arrow is shown, no new forecast is available. Asterisks indicate first published forecasts for given year. Historical data are taken from CF, with exception of MT and LU, for which they come from EIU.

Leading indicators are taken from Bloomberg and Refinitiv Datastream.

Forecasts for EURIBOR and LIBOR rates are based on implied rates from interbank market yield curve (FRA rates are used from 4M to 15M and adjusted IRS rates for longer horizons). Forecasts for German and US government bond yields (10Y Bund and 10Y Treasury) are taken from CF.

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| <b>Jan Hošek</b>      | IV.1 Oil and natural gas, IV.2 Other commodities |

## I. Introduction

**Geopolitical risks decreased further in December due to the clear outcome of the elections in the UK and to tangible progress in the negotiation of a trade deal between the USA and China.** The uncertainty on the UK political scene has decreased substantially after the Conservative Party led by Boris Johnson won a strong parliamentary majority. This suggests that the UK will most probably leave the EU on 31 January 2020. The agreement of a “phase 1” trade deal between the USA and China also contributed to a visible drop in geopolitical risks. The deal should lead to a 50% cut in existing tariffs on Chinese goods worth USD 360 billion a year and cancel the tariffs scheduled to take effect on 15 December. Negotiations on a “phase 2” deal will reportedly start after the US presidential elections next year.

**The GDP growth outlooks for the euro area, Germany and Japan were raised slightly in December.** The modest revision of German growth was also due to external demand, as exports of German goods and services rose much faster than imports in Q3. Even so, Germany and the euro area as a whole will grow at a visibly slower pace than the USA next year despite the expected US economic slowdown. As

### December GDP growth and inflation outlooks for monitored countries, in %

| HDP     | EA    | DE    | US    | UK    | JP    | CN    | RU    |
|---------|-------|-------|-------|-------|-------|-------|-------|
| 2019    | 1,2 ↗ | 0,5 ↗ | 2,3 ↗ | 1,3 ↗ | 1,0 ↗ | 6,1 ↗ | 1,1 ↗ |
| 2020    | 1,0 ↗ | 0,9 ↗ | 1,8 ↗ | 1,1 ↗ | 0,3 ↗ | 5,8 ↗ | 1,7 ↗ |
| Inflace | EA    | DE    | US    | UK    | JP    | CN    | RU    |
| 2019    | 1,2 ↗ | 1,4 ↗ | 1,8 ↗ | 1,8 ↘ | 0,6 ↗ | 2,8 ↗ | 3,6 ↘ |
| 2020    | 1,2 ↗ | 1,4 ↘ | 2,0 ↗ | 1,8 ↘ | 0,6 ↘ | 2,9 ↗ | 3,8 ↘ |

Source: Consensus Forecasts (CF)

Note: The arrows indicate the direction of revisions compared with the last GEO.

usual, the slowest growth is expected for the Japanese economy, while China’s economy will continue to slow gradually.

**The inflation outlooks for Germany, the UK and Japan for next year have been revised down.** Inflation in the economies we monitor should not be lower next year than this year. For the euro area, this means a continued dismal situation of inflation distinctly lower than the 2% “ideal”. The search for ways

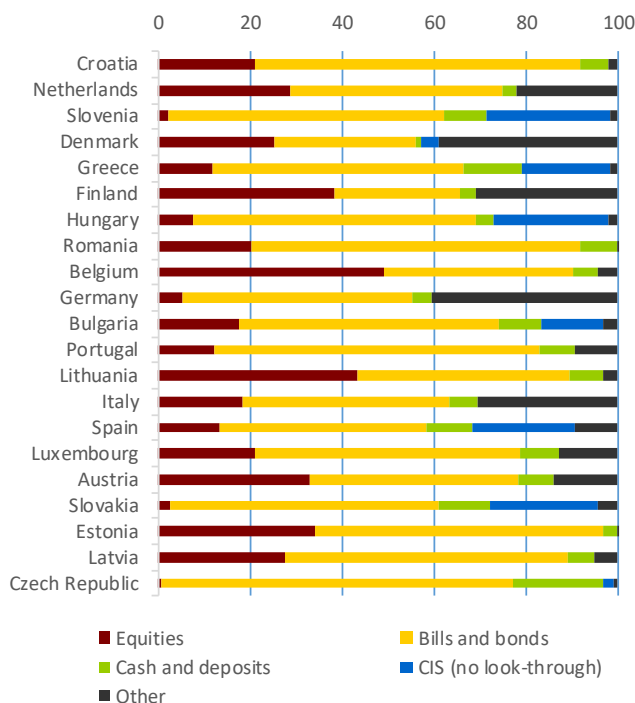
to bring inflation closer to the 2% level thus represents a big challenge for new ECB President Christine Lagarde. In contrast, expected inflation in China rose again, moving further away from the 2.5% target.

**The dollar will weaken slightly against the euro, sterling and the yen at the one-year horizon, but will strengthen slightly against the renminbi and the rouble.** The CF outlook for the Brent crude oil price at the end of 2020 is USD 61/bbl (highest estimate USD 70/bbl, lowest estimate USD 51/bbl). The outlook for 3M USD LIBOR market rates is still slightly falling, while 3M EURIBOR rates remain negative over the entire outlook horizon.

**The chart in the December issue shows the difference in the structure of pension funds’ assets.** Over the past five years, the highest real investment rate of return has been recorded by pension funds in Croatia (almost 6%) and the lowest by those in the Czech Republic, the only country with a negative real return (-0.5%). Over the past 15 years, the real return has been negative in only two countries. The best performers have been funds in Denmark and the Netherlands, which have long been generating a real rate of return of more than 4% a year. The result reflects the funds’ asset structure, i.e. the degree of risk they take on (a higher proportion of investment in equity at the expense of other assets). The OECD has called on countries to strengthen their pension systems in order to tackle population ageing.

**The current issue also contains an analysis: [The boom in short-term accommodation](#).** The article discusses the popularity of short-term accommodation in Europe in the context of property market developments, the sharing economy and regulation in some cities.

### Structure of pension funds’ assets in selected EU countries, in %



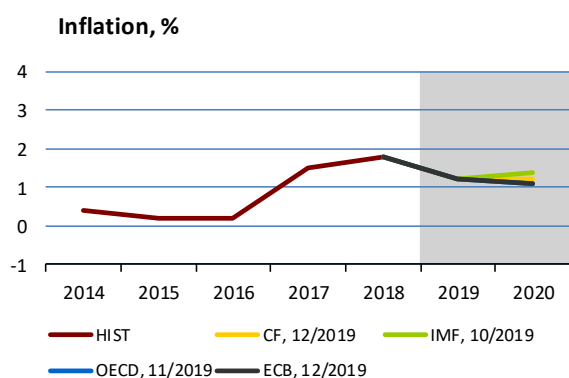
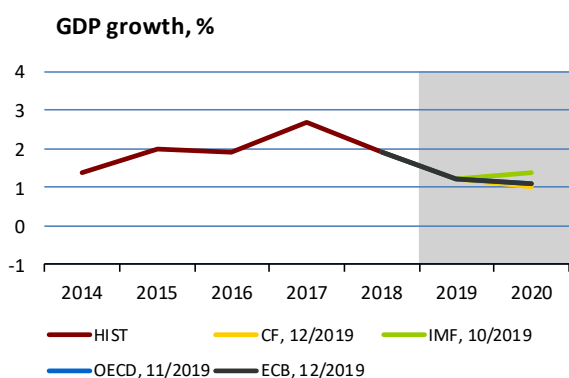
Source: OECD Global Pension Statistics

Note: Countries are ranked according to funds’ rates of return over the past five years

II.1 Euro area

**Annual GDP growth in the euro area stayed at 1.2% in 2019 Q3.** As in the previous quarter, the economy was driven by investment growth coupled with positive contributions from household and government consumption. By contrast, the contribution of net exports remained negative. However, it was rather smaller than in the previous quarter. In quarter-on-quarter terms, GDP grew by 0.2%. This was mainly due to surprisingly positive developments in Germany, whose economy recorded moderate quarter-on-quarter growth after a decline (of 0.2%) in Q2, thereby avoiding a technical recession. Unlike in the euro area as a whole, external demand also made a positive contribution, as exports of German goods and services grew much more than imports. This trend matches the pattern of global trade, which returned to quarter-on-quarter growth in Q3 following a decline. The other large euro area economies maintained their previous growth rates. It thus seems that the effective euro area is probably close to the trough of its cyclical slowdown.

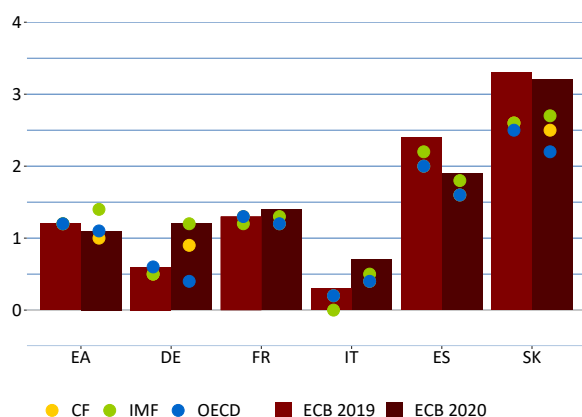
**Available indicators suggest continued subdued quarterly growth of the euro area economy in Q4.** The PMI in manufacturing recorded a marked rise in November but remains in the contraction band. The ZEW business sentiment indicator also rose significantly in the same month. The improved sentiment is due to a temporary easing of global uncertainties (Brexit, the US-China trade war and the threat of tariffs on European car exports to the US) and the positive surprise of the data published for Q3. The dual nature of the economy persists, with subdued international trade primarily dampening industrial production but a still tight labour market supporting the services sector. Nonetheless, year-on-year retail sales growth slowed somewhat in October.



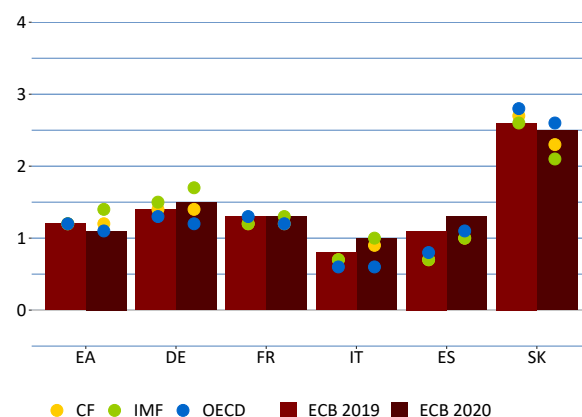
|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 1.2 | 1.2 | 1.2  | 1.2 |
| 2020 | 1.0 | 1.4 | 1.1  | 1.1 |

|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 1.2 | 1.2 | 1.2  | 1.2 |
| 2020 | 1.2 | 1.4 | 1.1  | 1.1 |

GDP growth in selected euro area countries in 2019 and 2020, %



Inflation in selected euro area countries in 2019 and 2020, %



Note: Charts show institutions' latest available outlooks of for the given economy.

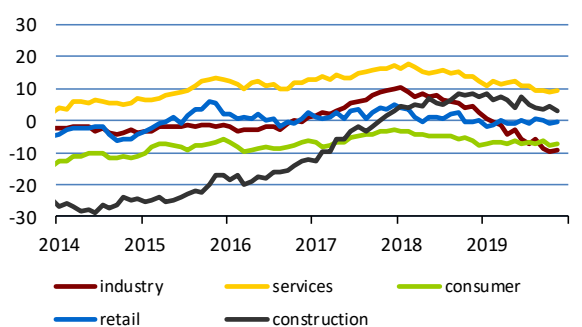
## II. ECONOMIC OUTLOOK IN SELECTED TERRITORIES

**CF, the OECD and the ECB slightly raised their economic growth outlooks for this year in December.** However, most institutions are predicting a slowdown for next year. CF expects slightly higher economic growth in Germany and France next year but has revised its growth estimate for Slovakia down for both years.

**Inflation in the euro area also remains subdued.** As expected, the ECB left its key interest rates and other monetary policy settings unchanged at its December meeting. It also published new outlooks for GDP growth and inflation up to 2022. It slightly raised its inflation outlook for next year but slightly lowered its GDP growth outlook. New ECB President Christine Lagarde mentioned low inflation expectations in the euro area, as also indicated by the October SPF survey, which generated a slight reduction of estimated inflation at the five-year horizon. Expectations based on the five-year inflation swap were flat at 1.2% in December compared with the previous month. According to a preliminary estimate, headline inflation increased to 1% in November. The rise was driven by services and food price inflation, while a drop in energy prices had the opposite effect. Core inflation went up to 1.3% in November. The fastest growth was recorded for prices in Slovakia and the Netherlands and the slowest for prices in Portugal and Italy. Inflation in Germany was above the level of the euro area as a whole.

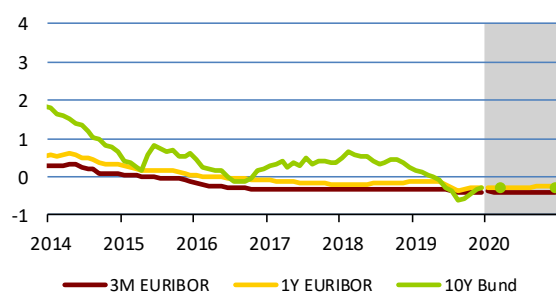
**The outlooks for both short-term interest rates and long-term-yields are negative.** The outlook for the ten-year German government bond yield was revised upwards at its short end. The outlooks for French and Italian yields were revised similarly. According to the December CF, the 3M EURIBOR will be -0.4% over the entire one-year outlook horizon.

ESI leading indicators



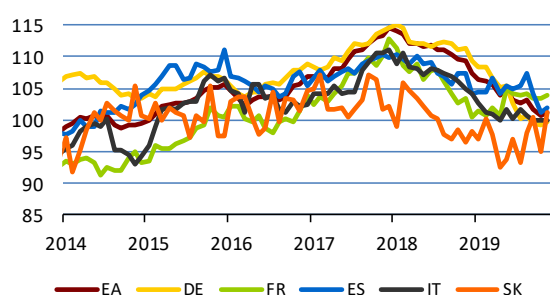
|       | industry | services | consum. | retail | constr. |
|-------|----------|----------|---------|--------|---------|
| 9/19  | -8.9     | 9.5      | -6.5    | 0.2    | 3.4     |
| 10/19 | -9.5     | 9.0      | -7.6    | -0.9   | 4.4     |
| 11/19 | -9.2     | 9.3      | -7.2    | -0.2   | 3.1     |

Interest Rates, %



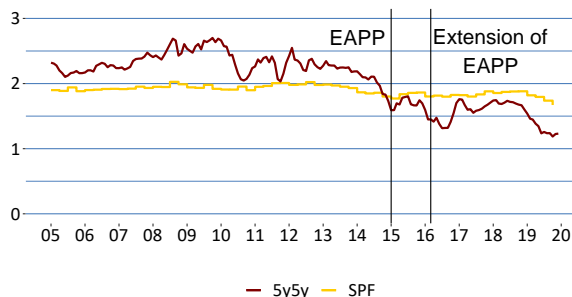
|            | 11/19 | 12/19 | 3/20  | 12/20 |
|------------|-------|-------|-------|-------|
| 3M EURIBOR | -0.40 | -0.40 | -0.41 | -0.41 |
| 1Y EURIBOR | -0.27 | -0.27 | -0.28 | -0.24 |
| 10Y Bund   | -0.33 | -0.30 | -0.30 | -0.30 |

ESI leading indicators



|       | EA    | DE   | FR    | ES    | IT    | SK    |
|-------|-------|------|-------|-------|-------|-------|
| 9/19  | 101.7 | 99.4 | 103.5 | 104.2 | 99.9  | 100.4 |
| 10/19 | 100.8 | 99.2 | 103.5 | 101.2 | 100.0 | 95.1  |
| 11/19 | 101.3 | 99.6 | 103.9 | 101.9 | 99.9  | 101.1 |

Inflation expectations in the euro area, %



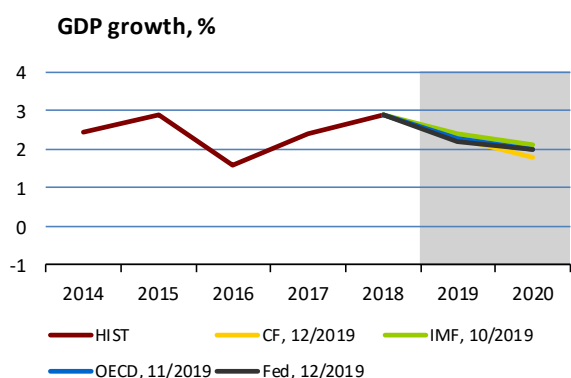
Note: Inflation expectations based on 5year inflation swap and SPF

II.2 United States

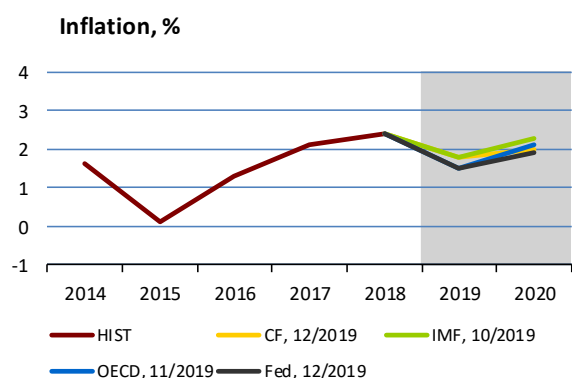
**The USA and China announced in mid-December that they had agreed on a phase 1 trade deal.** The deal could be signed in the first week of January. The USA will thus not introduce the tariffs it had planned to impose on Chinese goods worth USD 160 billion. It will even halve its tariffs on USD 120 billion worth of imports to 7.5%. China has pledged to buy US farm goods worth USD 40 billion in the next two years and has suspended the introduction of a 25% tariff on imports of US-made cars.

**Concerns of a sharp slowdown of the US economy are easing, although business sentiment has still not improved much.** According to a revised estimate, annual GDP growth in the USA reached 2.1% in Q3, due mainly to higher inventories. Private consumption grew by 2.9%, whereas corporate investment fell again in year-on-year terms (by 2.7%). According to the Atlanta Fed, the economy will maintain growth of more than 2% in 2019 Q4. The growth will continue to be driven by strong private consumption. Non-farm payrolls surprised on the positive side, reaching 266,000 in November as against the expected 183,000. Retail sales are growing at a solid pace (3.3% in November). Initial data are also indicating a turnaround in corporate investment. Capital investment recorded its first month-on-month increase (of 1.1%) in October. However, industrial activity fell by 1.1% year on year in October. According to the ISM, manufacturing is in the contraction band for the fourth consecutive month now. By contrast, according to IHS Markit, the situation in industry has probably stabilised.

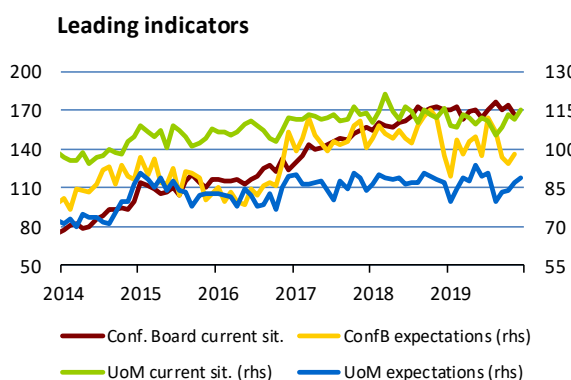
**The US central bank has announced a pause from rate cuts after three decreases of the target range for key rates this year.** The central bank will assess the overall effect of all three rate cuts made in 2019. It thus made no change to the monetary policy settings at its December meeting, the published dot plots indicate that the first rate hike can be expected in 2021. By contrast, the financial markets expect rates to be stable until the end of 2022. The Fed, like the December CF, left its GDP growth and inflation outlooks unchanged. The OECD, by contrast, cut its 2019 outlooks for both indicators.



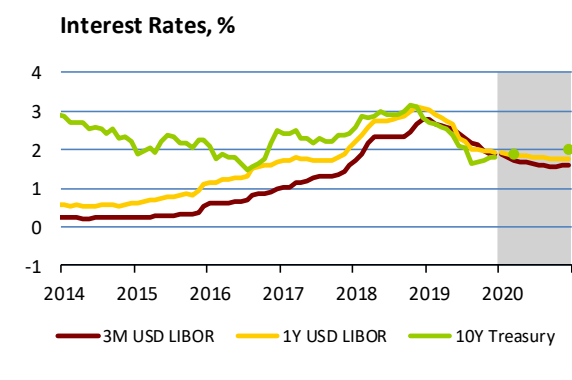
|      | CF    | IMF | OECD  | Fed   |
|------|-------|-----|-------|-------|
| 2019 | 2.3 → | 2.4 | 2.3 → | 2.2 → |
| 2020 | 1.8 → | 2.1 | 2.0 → | 2.0 → |



|      | CF    | IMF | OECD  | Fed   |
|------|-------|-----|-------|-------|
| 2019 | 1.8 → | 1.8 | 1.5 → | 1.5 → |
| 2020 | 2.0 → | 2.3 | 2.1 → | 1.9 → |



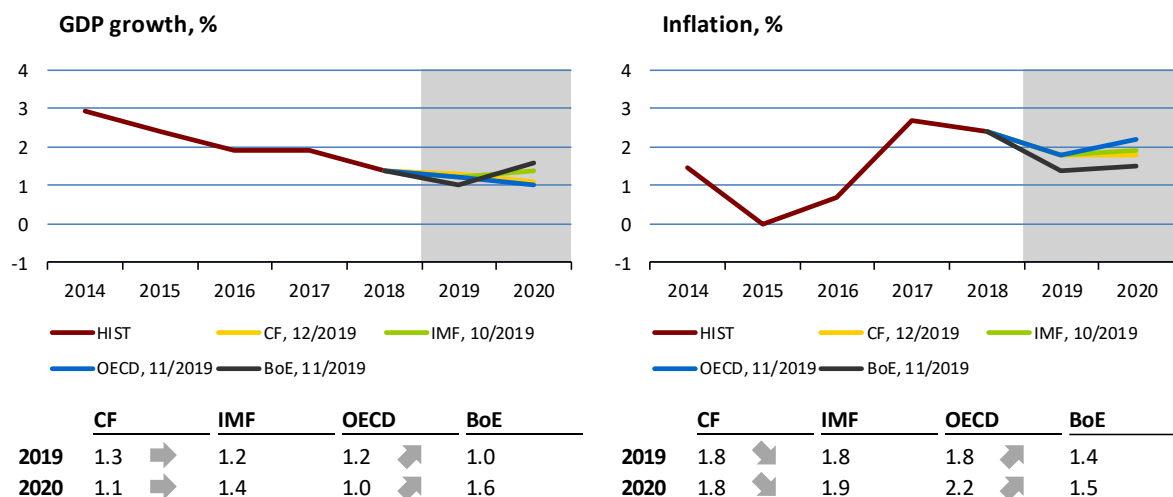
|       | ConfB curr. | ConfB exp. | UoM curr. | UoM exp. |
|-------|-------------|------------|-----------|----------|
| 10/19 | 173.5       | 94.5       | 113.2     | 84.2     |
| 11/19 | 166.9       | 97.9       | 111.6     | 87.3     |
| 12/19 |             |            | 115.2     | 88.9     |



|              | 11/19 | 12/19 | 3/20 | 12/20 |
|--------------|-------|-------|------|-------|
| USD LIBOR 3M | 1.90  | 1.89  | 1.71 | 1.58  |
| USD LIBOR 1R | 1.96  | 1.96  | 1.85 | 1.75  |
| Treasury 10R | 1.82  | 1.82  | 1.90 | 2.00  |

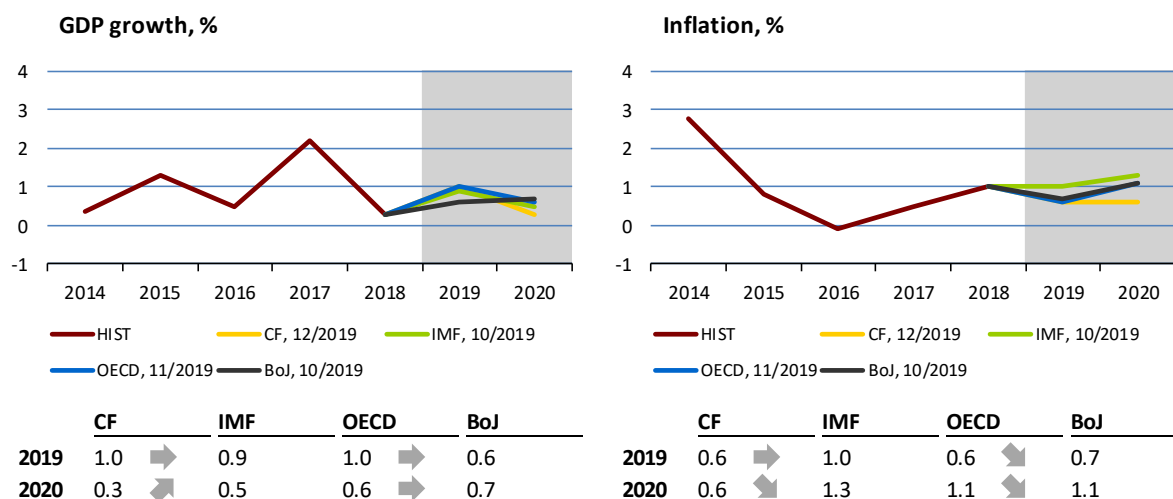
### II.3 United Kingdom

The early parliamentary elections were won by the Conservative Party led by Boris Johnson, who confirmed 31 January 2020 as the Brexit deadline and set this task as the new government's highest priority. The result of the elections, in which the incumbent governing party won a majority of seats in the lower house, had a positive effect on the financial markets – both sterling and stock markets gained. Construction, which had supported growth in Q3, by contrast unexpectedly fell in Q4. According to the UK NIESR, the economy will grow by 0.1% in 2019 Q4. It is facing a continued decline in foreign orders, with the composite PMI indicator staying below the 50-point level. The NIESR raised its GDP growth forecast for both this year and the next in its latest forecast. The labour market remains stable with low unemployment (3.8%), but the number of vacancies fell slightly. CF revised its inflation forecast downwards, but it is still higher than the BoE projection.



### II.4 Japan

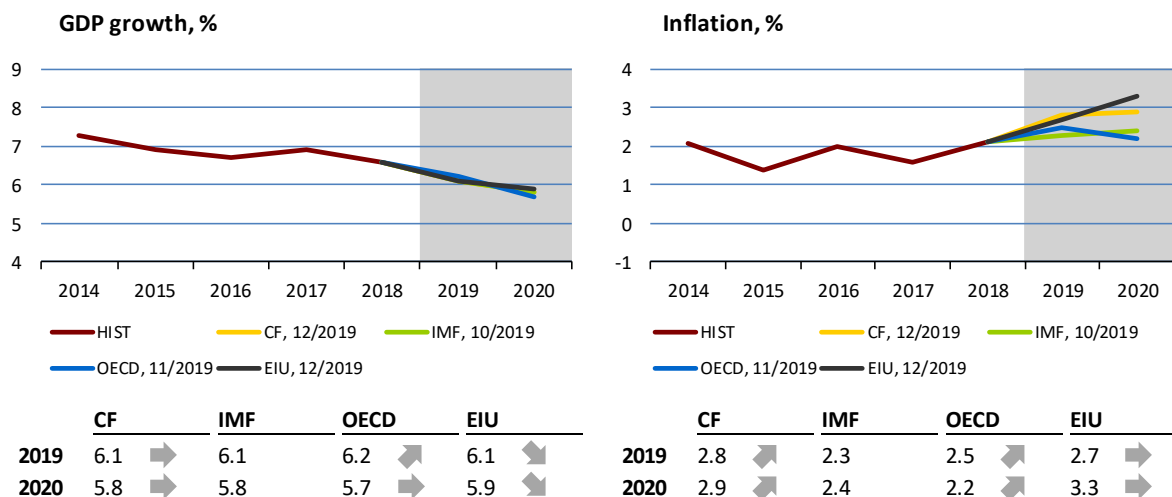
Japanese economic growth remains subdued. GDP growth in Q3 was raised to 0.4%. In annualised terms, the economy grew by 1.7% year on year. Short-term indicators are less optimistic. Despite a slight rise (to 48.9 in November), the PMI in manufacturing stayed in the contraction band for the seventh consecutive month. The PMI in services was slightly above the 50-point level. Industrial production dropped by 4.2% month on month in November, the sharpest fall since January. Machinery and motor vehicles recorded the biggest year-on-year decline of 7.4%. According to the new CF, GDP growth will slow next year, although rather less than expected in November. By contrast, consumer price inflation will slow even more (a 0.1 pp revision in both cases).





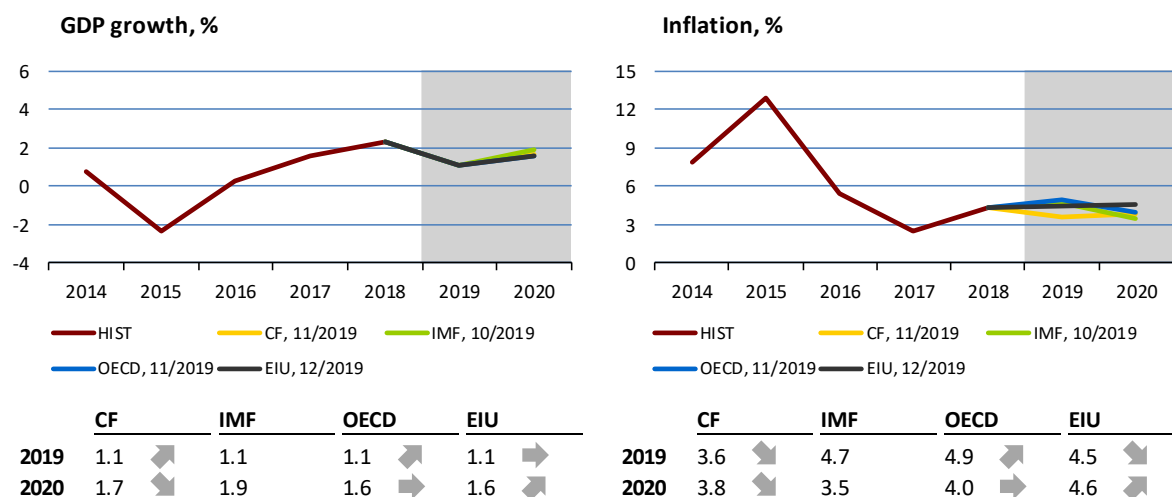
### II.5 China

**Stabilising the Chinese economy might be tilting at windmills unless the trade war ends.** Chinese exports fell by 1.1% year on year in November, with shipments to the US dropping by 23%. The October data on industrial production, investment and retail sales suggest a further slowdown of the Chinese economy. It is thus surprising in the current situation that the Chinese statistical office has revised the GDP data for 2018. Financial market analysts are speculating that the revision is related to an effort to meet the growth target in difficult conditions. CF left its growth outlook for both this year and the next unchanged and only raised its inflation forecast. Inflation pressures have been growing in China in recent months due to growth in prices of pork after a swine fever epidemic. Consumer price inflation hit an eight-year high in November (4.5%).



### II.6 Russia

**Weak demand is increasing the risk of an economic slowdown at the year-end.** Year-on-year GDP growth of 1.7% was confirmed in Q3. Industry was driven by manufacturing, which accelerated by 2.5%. However, leading indicators are suggesting a potential slowdown. The PMI in manufacturing, which has been falling for several months now, saw its biggest drop since May 2009 in November (to 45.6) in response to worsening operating conditions for firms in this sector, falling orders and weak demand. The trend in industrial production is not so dramatic as yet. Its year-on-year growth slowed to 2.6% in October. In month-on-month terms, by contrast, it rose by 5.5%, the highest figure since March 2019. The surge in the quarterly growth of the Russian economy led the November CF to improve its GDP growth outlook for this year. However, it lowered the outlook for next year due to risks and uncertainties and weak demand.

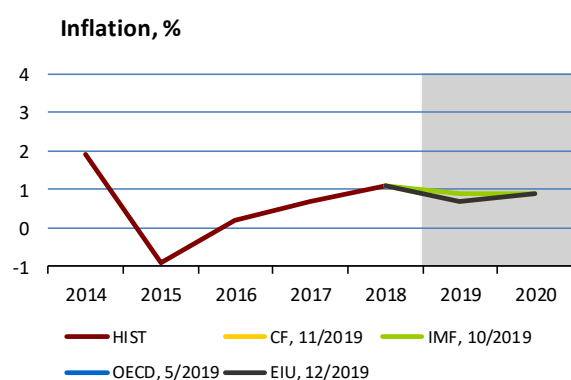
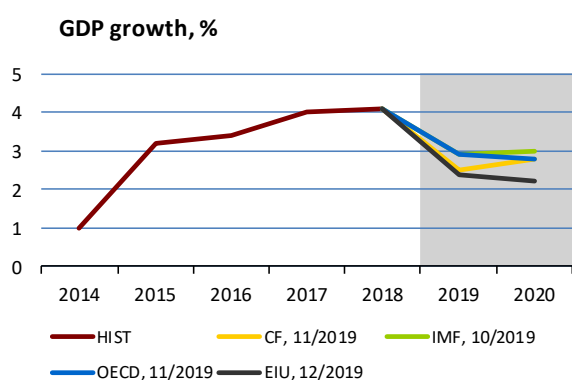


## II.7 Developing countries in the spotlight

**Thailand recorded 2.4% growth in Q3, driven by investment, government consumption and net exports.** Household consumption remains weak and is not expected to strengthen next year either. Consumer price inflation has been fluctuating around 1% for several years now and inflation pressures remain subdued. In November, the Bank of Thailand (BOT) cut its key interest rate by 25 bp to 1.25% and relaxed the rules for capital outflows to support economic growth and ease the appreciation pressure on the Thai baht. However, this strengthened the view that Thailand is intentionally weakening its currency to gain an advantage for its exports. Nominal wage growth slowed by more than 2 pp year on year to 1.8%.

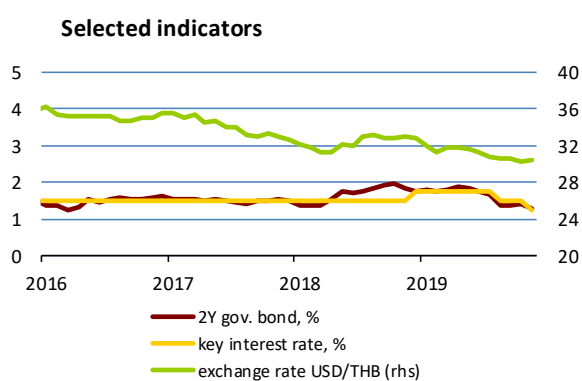
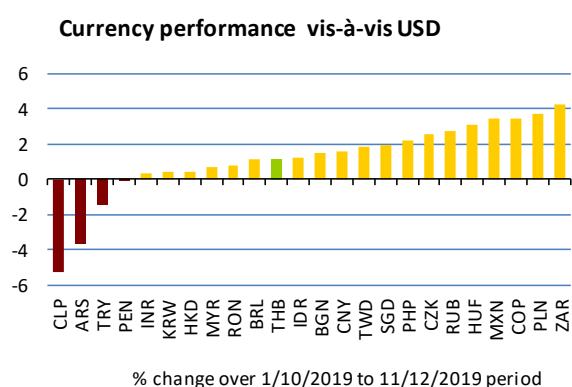
**Thailand went through a military coup in 2014 and held general elections under a new electoral system early this year.** The government, controlled by army generals, currently holds a narrow majority of 254 out of the 500 seats in the lower house of parliament. Thailand is gradually normalising its relations with the West and is expected to resume talks with the EU on a new trade deal. By contrast, the USA is planning to suspend part of its preferential trade deal. This would involve USD 1.3 billion worth of exports, a small figure relative to the country's total exports to the USA (USD 31.9 billion in 2018). The official reason is poor working conditions for Thai fishermen. In fact, the move is meant as a warning for firms to discourage transfers of production from China to Thailand due to the tariffs on China.

**Economic growth will stay below its potential, which the BOT estimates at 3.8%, this year and the next.** According to the IMF, EIU and CF projections, economic growth will not exceed 3.0% this year and the next. The lower growth is due to weaker household consumption and exports in an uncertain global trade situation. Most institutions expect consumer inflation to stay below 1% until next year. The BOT has little room left for further interest rate cuts. While the EIU estimates that the Thai baht will weaken to USD 32.97/THB next year, CF predicts stability of the Thai currency.



|      | CF  | IMF | OECD | EIU |
|------|-----|-----|------|-----|
| 2019 | 2.5 | 2.9 | 2.9  | 2.4 |
| 2020 | 2.8 | 3.0 | 2.8  | 2.2 |

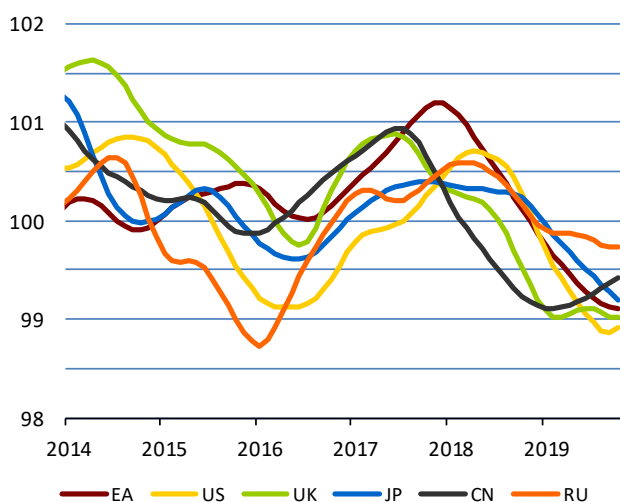
|      | CF  | IMF | OECD  | EIU |
|------|-----|-----|-------|-----|
| 2019 | 0.7 | 0.9 | n. a. | 0.7 |
| 2020 | 0.9 | 0.9 | n. a. | 0.9 |



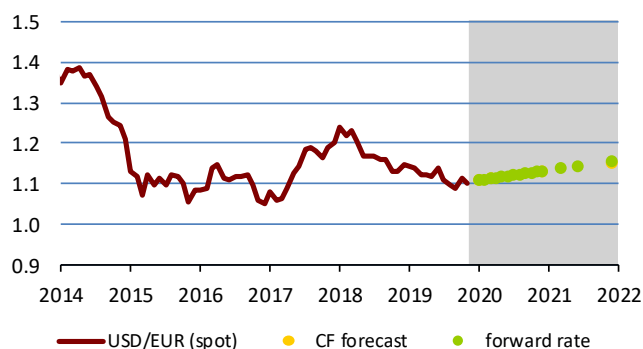
|         | 2Y gov. bond, % | interest rate, % | USD/THB |
|---------|-----------------|------------------|---------|
| 9/2019  | 1.35            | 1.50             | 30.61   |
| 10/2019 | 1.41            | 1.50             | 30.26   |
| 11/2019 | 1.29            | 1.25             | 30.36   |

III. Leading indicators and outlook of exchange rates

OECD Composite Leading Indicator

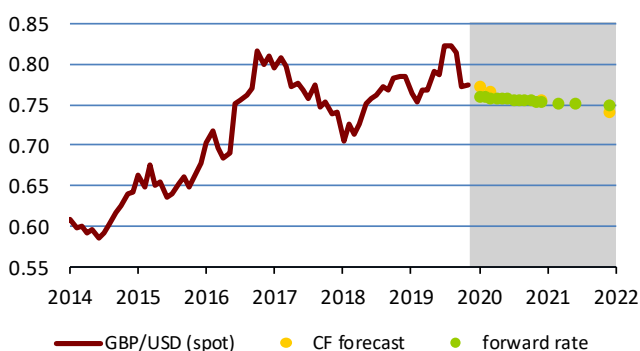


The US dollar (USD/EUR)



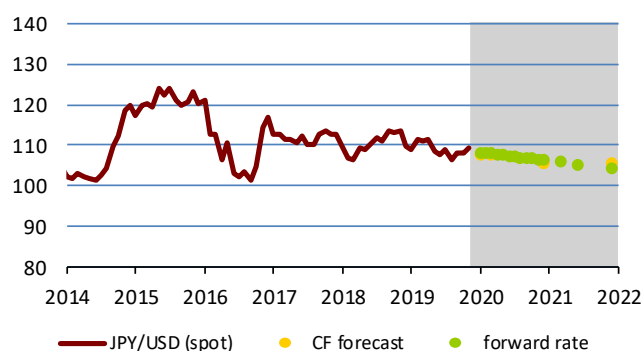
|              | 9/12/19 | 1/20  | 3/20  | 12/20 | 12/21 |
|--------------|---------|-------|-------|-------|-------|
| spot rate    | 1.107   |       |       |       |       |
| CF forecast  |         | 1.108 | 1.112 | 1.131 | 1.153 |
| forward rate |         | 1.109 | 1.113 | 1.132 | 1.155 |

The British pound (GBP/USD)



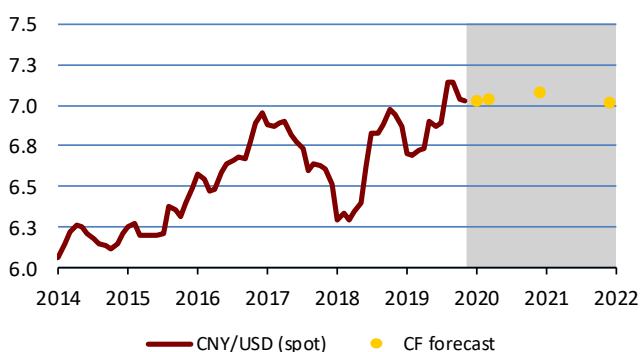
|              | 9/12/19 | 1/20  | 3/20  | 12/20 | 12/21 |
|--------------|---------|-------|-------|-------|-------|
| spot rate    | 0.760   |       |       |       |       |
| CF forecast  |         | 0.772 | 0.765 | 0.756 | 0.740 |
| forward rate |         | 0.760 | 0.758 | 0.753 | 0.748 |

The Japanese yen (JPY/USD)



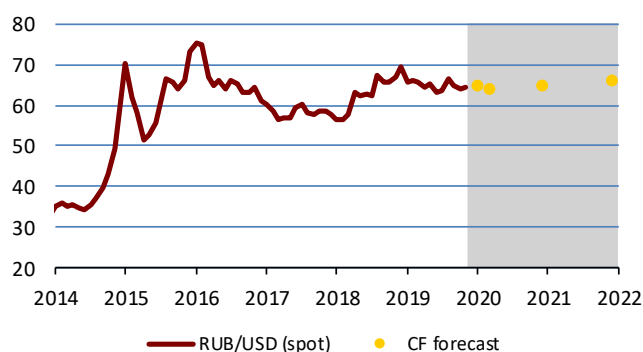
|              | 9/12/19 | 1/20  | 3/20  | 12/20 | 12/21 |
|--------------|---------|-------|-------|-------|-------|
| spot rate    | 108.6   |       |       |       |       |
| CF forecast  |         | 107.8 | 107.5 | 105.6 | 105.5 |
| forward rate |         | 108.3 | 107.9 | 106.3 | 104.2 |

The Chinese renminbi (CNY/USD)



|             | 9/12/19 | 1/20  | 3/20  | 12/20 | 12/21 |
|-------------|---------|-------|-------|-------|-------|
| spot rate   | 7.040   |       |       |       |       |
| CF forecast |         | 7.024 | 7.032 | 7.079 | 7.013 |

The Russian rouble (RUB/USD)



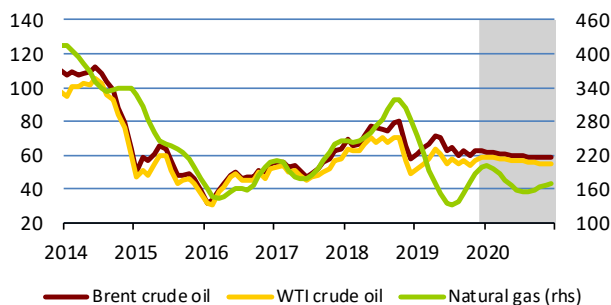
|             | 9/12/19 | 1/20  | 3/20  | 12/20 | 12/21 |
|-------------|---------|-------|-------|-------|-------|
| spot rate   | 63.67   |       |       |       |       |
| CF forecast |         | 64.64 | 64.16 | 64.74 | 66.14 |

Note: Exchange rates as of last day of month. Forward rate does not represent outlook; it is based on covered interest parity, i.e. currency of country with higher interest rate is depreciating. Forward rate represents current (as of cut-off date) possibility of hedging future exchange rate.

### IV.1 Oil and natural gas

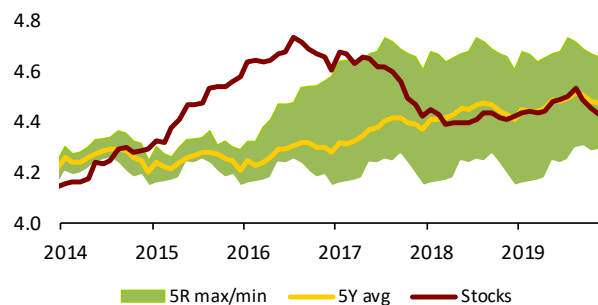
The Brent crude oil price has been rising since the start of October on optimism regarding the signing of a phase 1 trade deal between the US and China. Oil prices are also being generally supported by an expected slowdown in shale oil production growth in the USA next year as a result of weakening local drilling activity. At the beginning of December, the price of oil was also buoyed by a lowering of production limits under a "Declaration of Cooperation" between the OPEC+ countries. The limits were officially cut by 0.5 million barrels per day (b/d), which would in fact mean no drop compared with current output. Moreover, Saudi Arabia announced a voluntary commitment to reduce production by another 0.4 million b/d. The real decrease in production should thus be about 0.5 million b/d from January. For now, the agreement holds only until March 2020, when OPEC will hold an extraordinary meeting to discuss further strategy. A weakening of the US dollar also contributed to the growth in oil prices at the start of December. In mid-December, Brent crude oil was hovering just below USD 65/bbl. Increasing extraction and inventories in the US are preventing greater price growth. The negative slope of the futures curve for Brent crude oil supplies steepened further due to the currently robust seasonal demand, with hedge funds increasing their net long positions in November. The EIA, however, expects global inventories to show renewed growth in 2020 Q1, (at a pace of 0.7 million b/d) due to seasonally lower demand. Oil prices should thus decrease, returning to growth only in the second half of next year. The EIA forecast for the average Brent crude oil price for 2020 is approximately USD 61/bbl. The market curve at the start of November implied an average price of around USD 60/bbl and USD 57.5/bbl for the next two years respectively. The December CF expects stagnation at around USD 61/bbl at the one-year horizon.

**Outlook for prices of oil (USD/barrel) and natural gas (USD / 1000 m<sup>3</sup>)**



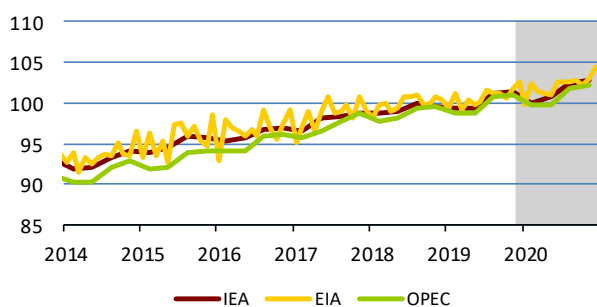
|      | Brent |   | WTI   |   | Natural gas |   |
|------|-------|---|-------|---|-------------|---|
| 2019 | 63.97 | ↗ | 56.94 | ↗ | 175.81      | ↘ |
| 2020 | 59.87 | ↗ | 56.68 | ↗ | 171.12      | ↘ |

**Total stocks of oil and oil products in OECD (bil. barrel)**



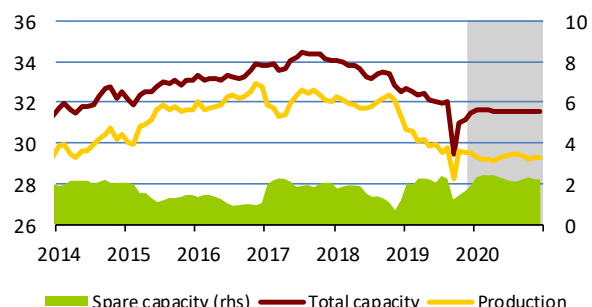
5R max/min 5Y avg Stocks

**Global consumption of oil and oil products (mil. barrel / day)**



|      | IEA    |   | EIA    |   | OPEC   |   |
|------|--------|---|--------|---|--------|---|
| 2019 | 100.28 | ↘ | 100.72 | ↘ | 99.79  | ↗ |
| 2020 | 101.51 | ↘ | 102.15 | ↘ | 100.87 | ↗ |

**Production, total and spare capacity in OPEC countries (mil. barrel / day)**



|      | Production |   | Total capacity |   | Spare capacity |   |
|------|------------|---|----------------|---|----------------|---|
| 2019 | 29.81      | ↘ | 31.77          | ↘ | 1.96           | ↘ |
| 2020 | 29.30      | ↘ | 31.58          | ↘ | 2.28           | ↘ |

Source: Bloomberg, IEA, EIA, OPEC, CNB calculation

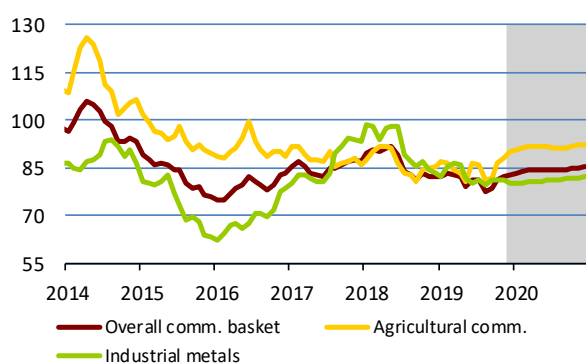
Note: Oil price at ICE, average gas price in Europe – World Bank data, smoothed by the HP filter. Future oil prices (grey area) are derived from futures and future gas prices are derived from oil prices using model. Total oil stocks (commercial and strategic) in OECD countries – IEA estimate. Production and extraction capacity of OPEC – EIA estimate.

IV.2 Other commodities

**The aggregate non-energy commodity price index kept rising in November and the first half of December, due solely to growth in the food commodity price sub-index.** Conversely, the industrial metals price sub-index is contributing to a slightly growing outlook for the aggregate index. After a strong rise in October, the food commodity price index continued to go up in the following two months, although at a slower pace. Wheat and rice prices contributed to this rise, while corn and soy prices decreased. Coffee and cocoa prices increased sharply and the price of sugar also went up slightly. The price of beef rose markedly, while the price of pork dropped slightly.

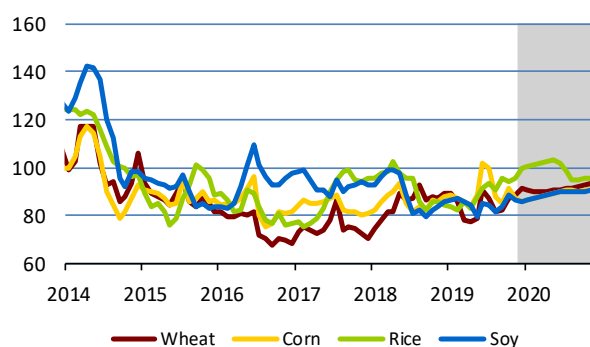
**The basic metals price sub-index stagnated at the October level for the second month in a row in November, then dropped slightly in mid-December. Its outlook is slightly rising, however.** This is probably due to the improved outlook for manufacturing, as the J.P.Morgan Global Manufacturing PMI rose slightly further to 50.3 (a seven-month high). Nonetheless, the trends across the index were very mixed. The price of aluminium has been flat for several months now, whereas the outlook continues to expect strong growth. The copper price showed slight growth in November, strengthening in December in response to a drop in stocks at the LME. The tin price also started rising in the second half of November. Conversely, lead and zinc prices dropped sharply, after their previous growth. The price of nickel followed a similar path, falling sharply after several months of growth due to fears of a drop in supplies from Indonesia, as doubts are starting to arise about whether the country will really ban nickel ore exports. The price of iron ore declined at the beginning of November but was back to its pre-decline level by mid-December

Non-energy commodities price indices



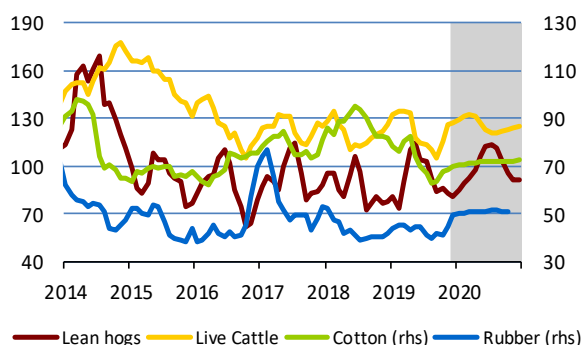
|      | Overall | Agricultural | Industrial |
|------|---------|--------------|------------|
| 2019 | 81.2 ↗  | 85.1 ↗       | 82.2 ↘     |
| 2020 | 84.4 ↗  | 91.5 ↗       | 81.1 ↘     |

Food commodities



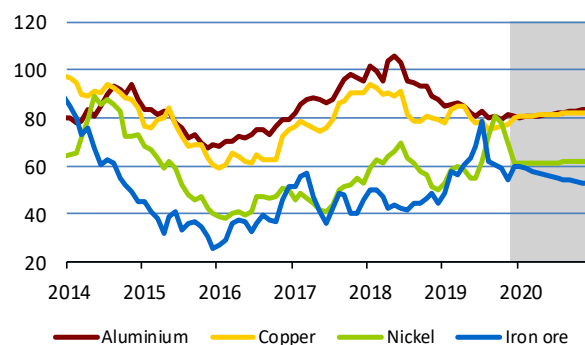
|      | Wheat  | Corn   | Rice   | Soy    |
|------|--------|--------|--------|--------|
| 2019 | 84.9 ↗ | 89.5 ↘ | 90.4 ↗ | 84.8 ↘ |
| 2020 | 91.6 ↗ | 89.5 ↘ | 98.8 ↗ | 89.2 ↘ |

Meat, non-food agricultural commodities



|      | Lean hogs | Live Cattle | Cotton | Rubber |
|------|-----------|-------------|--------|--------|
| 2019 | 91.9 ↘    | 121.9 ↘     | 71.6 ↘ | 43.8 ↗ |
| 2020 | 99.2 ↘    | 126.0 ↘     | 71.6 ↘ | 50.8 ↗ |

Basic metals and iron ore



|      | Aluminium | Copper | Nickel | Iron ore |
|------|-----------|--------|--------|----------|
| 2019 | 82.5 ↘    | 79.4 ↗ | 63.6 ↘ | 60.8 ↗   |
| 2020 | 81.9 ↘    | 81.6 ↗ | 61.5 ↘ | 55.7 ↗   |

Source: Bloomberg, CNB calculations.

Note: Structure of non-energy commodity price indices corresponds to composition of The Economist commodity indices. Prices of individual commodities are expressed as indices 2010 = 100.

## The boom in short-term accommodation<sup>1</sup>

Property prices are rising continuously in many European states, and property markets are overheating in various countries. The high prices are making housing less affordable and may be putting financial stability at risk. Supervisors are therefore adopting various measures and local authorities are introducing new regulations. The upward price trend is also due to limited supply caused by a boom in the popularity of short-term accommodation. What can we say about this newly developing market?

### Short-term rentals and the sharing economy

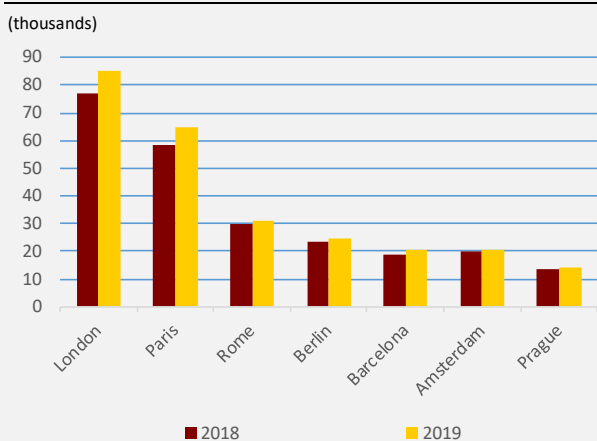
**According to some figures, Airbnb is the world's biggest provider of short-term accommodation.**

Airbnb is active in more than 190 countries and was advertising over 7 million properties at the end of 2019. The number has risen by more than 16% over the last six months.<sup>2</sup> More detailed official figures are not available, not even historical ones. The figures in the media therefore come mostly from third-party analyses, especially as regards the number of genuinely active listings. Airbnb has the most listings in the USA, where it originated (over 660,000). France is second with 485,000 listings, followed by Italy (340,000), Spain (245,000) and the UK (175,000).<sup>3</sup> These figures indicate the huge popularity of this short-term rental service, especially in Europe, and its sharp growth, given that it was established only ten years ago. Chart 1 shows the number of listings and their growth in selected European cities this year.

**The original concept of the service was based on owners occasionally renting out free rooms to make extra money.** In addition to extra income, the sharing economy concept involved the factor of "staying with locals" rather than at a standardised hotel. However, the situation has changed over time and the platform now offers not only separate rooms, but entire apartments and houses for rental. The latter even make up the majority (see Chart 2). More than a quarter of the listings can be booked all year round and almost 80% are available for rent for over half the year.<sup>4</sup> The number of hosts listing more than one property is also rising. It is therefore clear that the platform is changing direction and opening up new business opportunities.

**The change in hosts' business model is based on the profitability of short- versus long-term rental.** It is pretty obvious that property owners try to maximise their profits, and the new service has made it easier for them to access a wider range of potential guests. Coupled with the tourism boom, short-term rental has become more lucrative than long-term rental for owners. The original sharing economy concept has thus morphed into a platform that is significantly affecting the property market situation. In particular, it is limiting the supply of property for long-term rental by causing properties to be moved to the short-term rental market. New competition for accommodation services has therefore emerged.

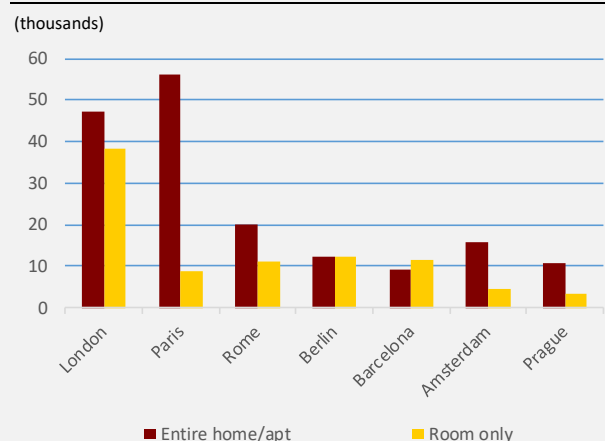
Chart 1 – Rising number of Airbnb listings for selected cities



Source: Author's calculations

Note: The 2019 column shows data as of September 2019 and the 2018 column data as of the end of 2018.

Chart 2 – Number of Airbnb listings by accommodation type for selected cities



Source: Author's calculations

Note: Data as of September 2019

<sup>1</sup> Author: Petr Polák. The views expressed in this article are those of the author and do not necessarily reflect the official position of the Czech National Bank.

<sup>2</sup> In early March, Airbnb reported 6 million listings, overtaking its rival Booking; see <https://www.bloomberg.com/news/articles/2019-03-01/airbnb-edges-out-home-rental-rival-with-6-million-listings>.

<sup>3</sup> Source: <https://ipropertymanagement.com/airbnb-statistics>

<sup>4</sup> The figures differ across countries; see <https://www.airdna.co/blog/2015-in-review-airbnb-data-for-the-usa>

**Airbnb is not the sole short-term rentals provider.** Its biggest competitors include HomeAway, Expedia and recently also Booking.com, which originally focused only on standard accommodation services such as hotels, hostels and guest houses. The size of the entire market cannot be determined simply by summing the listings on these platforms, as some analyses based on a detailed examination of the data claim that the numbers of listings may be overstated by more than a third.<sup>5</sup>

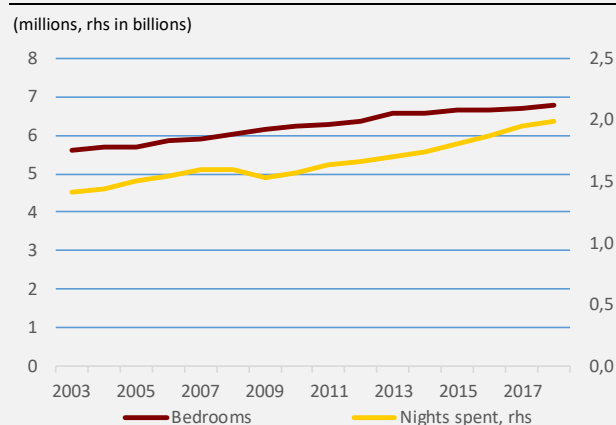
**The short-term rental boom has prompted a debate about changing the rules. Numerous cities have adopted various types of regulation.** Short-term rentals affect a city's inhabitants through their effect not only on prices, but also on housing quality – tourists staying a few nights do not always respect local customs and often disturb their neighbours. Regulation of the sharing economy can be criticised for undermining the potential for further development, but according to the above figures Airbnb has moved well away from its founding principles and its unchecked development is causing negative externalities. The slowly adapting legal framework and auditability of the system are fuelling growth in the grey economy.<sup>6</sup>

**The most common way of regulating the sector is to cap the number of days for which a property can be rented out per year.** Amsterdam is very strict in this respect, currently allowing hosts to rent out their properties for just 30 days a year and requiring them to register with the local authorities; a year ago, 60 days were permitted. Such caps on the number of days are frequently used, as they represent a simple rule and motivate owners to offer properties for long-term rental. This type of regulation has been adopted by London (90 days) and Paris (120 days). Barcelona is also very strict, granting licences for recreational rentals. Every host is required to have a licence, and the city has access to data from Airbnb. The main advantages for the city are that it can diversify licences geographically and it gains accurate information on income from such rentals. Berlin originally imposed the strictest regulation in 2016, introducing a requirement for owners to occupy at least 50% of the property listed. Two years later, this was changed to allowing the entire property to be rented out for no more than 90 days a year on the basis of a licence. According to Hsi (2018), the original regulation reduced the number of properties listed by 40% and led to a rise in short-term rental prices. Luková (2019) estimates what limit could be set for Prague, which is considering regulation, and finds that it should be no more than 135 days.

**Demand for short-term accommodation is constantly rising, as travel statistics show.**

According to Eurostat data, the number of rooms offered at hotels and similar facilities in the EU has been rising steadily over the last 15 years. The number of nights spent at these facilities is also increasing (a decrease occurred only during the financial crisis), as Chart 3 shows. It is clear, then, that travel is expanding in the EU, so demand for accommodation is also rising. This trend is driving the development of services such as Airbnb, as they are competitors of hotels and similar facilities rather than, say, campsites. This is corroborated by Coyle and Yeung (2016), who analysed 14 European cities and found Airbnb's presence to have a negative effect on hotel occupancy rates but a positive effect on the average daily rate. Zervas et al. (2017) also studied Airbnb's impact on the hotel industry, but in Texas. They found Airbnb had caused revenue to drop by 8%–10%.

**Chart 3 – Number of rooms and nights spent at hotels and similar facilities in the EU**



Source: Eurostat

## Rents and property prices

**According to the available data, rents are rising throughout the EU, but with large differences across countries.** Chart 4 shows Eurostat data on rents. Looking at the EU average, rents have been rising by 2% a year since 2000. Interestingly, the financial crisis did cause rents to fall, but only in some countries. In Greece, for example, there was no decline and rents peaked in 2011. Estonia and Lithuania are currently experiencing the fastest growth in rents. Countries like Spain, Italy and France, where Airbnb is most widespread, have seen no dramatic changes in rents so far. However, it should be said that the problem of short-term rentals is biggest in cities, whereas the statistics are for whole countries, so a dramatic rise in the capital may not affect the national average too much, especially in large countries. The data used in rent analyses can differ significantly from source to source. Take Barcelona, for example, where rents have been rising by 10% a year according to the Housinganywhere International Rent Index, whereas figures from the National Institute of Statistics suggest that housing costs in that city have fallen

<sup>5</sup> Hosts naturally offer their properties on multiple portals simultaneously; see <https://www.airdna.co/blog/vacation-rental-industry-overstated>

<sup>6</sup> Issues include the payment of various fees and taxes, as well as when exactly an activity qualifies as entrepreneurial.

over the last year. The highly aggregated data also make it difficult to estimate Airbnb's effect on the rental market using quantitative empirical methods. Horn and Merante (2017) analysed the Boston market and found a positive relationship between the concentration of Airbnb listings and asking rents. Lee (2016) arrived at similar conclusions in an analysis of the Los Angeles market.

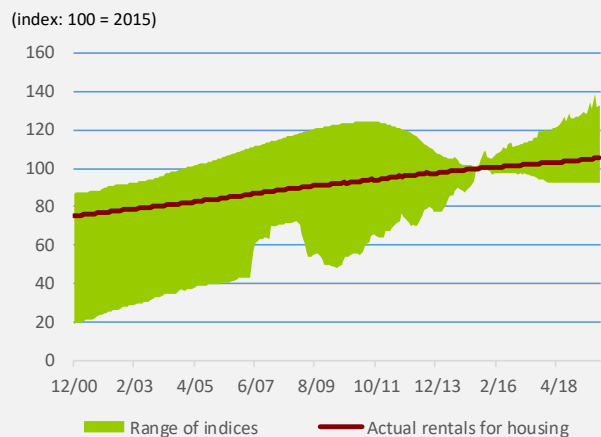
**Property prices are rising across Europe and are at historical highs in many countries.** Chart 5 illustrates property prices in EU countries. It reveals that the financial crisis had an immediate effect on property prices, which subsequently began to fall. This is also true of the EU average. In this regard, property prices are therefore much more procyclical than rents (see Chart 4). At present, property prices are rising sharply in almost all EU countries. The market is overheating and posing a significant risk for many countries, as the European Systemic Risk Board points out in its September report (ESRB, 2019). This is due partly to increasing demand for property as an asset; at a time of loose monetary policy and low interest rates, property is affordable thanks to mortgage loans and offers investors an attractive rate of return. In some countries, the growth is also due to low property supply. According to Deloitte (2019), the lowest number of completed new dwellings in 2018 was observed in Latvia (only 3,000; 2,100 were initiated) and the highest number in France with almost 460,000 completions (and 419,000 starts).<sup>7</sup> Buying a property purely for short-term rental has meanwhile started to become an attractive option for some investors. Again, however, this applies mainly to apartments in cities, and not to such an extent for this demand segment alone to have much effect on property prices. Deloitte (2019) states that among European capitals, prices are rising fastest in Prague. Sheppard and Udell (2016) found a positive relationship between Airbnb supply and property prices in New York; however, it remains an open question what the effect is in Europe.

## Conclusion

**Airbnb is causing properties to be moved from the long- to the short-term rental market.** In their analysis of the impact of Airbnb on the US property market, Barron et al. (2018) found a positive impact of an increase in Airbnb listings on both rents and house prices, explained by homes being reallocated from the long- to the short-term rental market. An analysis of Airbnb listings reveals that the majority of them are entire houses or apartments and are mostly available for rent for over half the year. For this reason, numerous cities have introduced regulation of short-term rentals, in most cases in the form of caps on the number of days properties can be rented out per year.

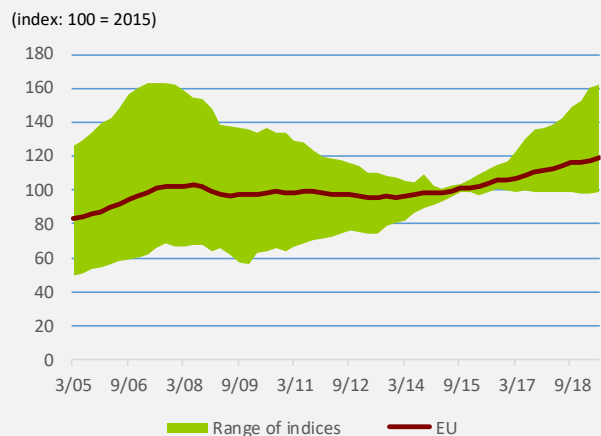
**Property prices in the EU are increasing, and Airbnb is contributing to a drop in supply.** European cities in particular are facing rising property prices. Property markets also differ from country to country in terms of construction activity, as there are huge differences in the numbers of housing completions and starts per 1,000 citizens. Moreover, European economies are currently growing, so their property markets are overheating. It is very difficult to quantify Airbnb's contribution to property price growth in Europe, as the available data are very limited and the academic studies on this topic are based on US data.

Chart 4 – Rents in EU countries



Source: Eurostat

Chart 5 – Property prices in EU countries



Source: Eurostat

<sup>7</sup> This represents 1.5 completions and 1.1 starts per 1,000 citizens in Latvia and 6.9 and 6.3 respectively in France.



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## Keywords

Short-term accommodation, Airbnb, property market

## JEL Classification

H21, R31, R38

## A1. Change in predictions for 2019

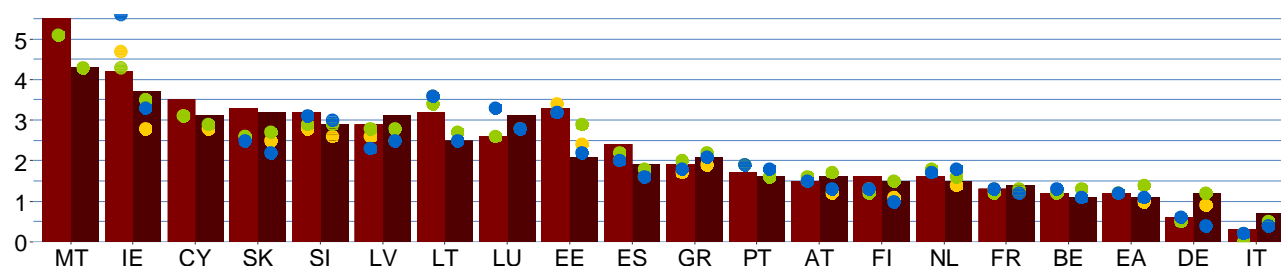
|    | GDP growth, % |         |      |          | Inflation, % |         |      |          |      |         |      |         |      |         |      |         |
|----|---------------|---------|------|----------|--------------|---------|------|----------|------|---------|------|---------|------|---------|------|---------|
|    | CF            | IMF     | OECD | CB / EIU | CF           | IMF     | OECD | CB / EIU |      |         |      |         |      |         |      |         |
| EA | +0.1          | 2019/12 | -0.1 | 2019/10  | +0.1         | 2019/11 | +0.1 | 2019/12  | 0    | 2019/12 | -0.1 | 2019/10 | 0    | 2019/11 | 0    | 2019/12 |
|    |               | 2019/11 |      | 2019/7   |              | 2019/9  |      | 2019/9   |      | 2019/11 |      | 2019/4  |      | 2019/5  |      | 2019/9  |
| US | 0             | 2019/12 | -0.2 | 2019/10  | -0.1         | 2019/11 | 0    | 2019/12  | 0    | 2019/12 | -0.2 | 2019/10 | -0.1 | 2019/11 | 0    | 2019/12 |
|    |               | 2019/11 |      | 2019/7   |              | 2019/9  |      | 2019/9   |      | 2019/11 |      | 2019/4  |      | 2019/5  |      | 2019/9  |
| UK | 0             | 2019/12 | -0.1 | 2019/10  | +0.2         | 2019/11 | -0.3 | 2019/11  | -0.1 | 2019/12 | 0    | 2019/10 | +0.1 | 2019/11 | -0.2 | 2019/11 |
|    |               | 2019/11 |      | 2019/7   |              | 2019/9  |      | 2019/8   |      | 2019/11 |      | 2019/4  |      | 2019/5  |      | 2019/8  |
| JP | 0             | 2019/12 | 0    | 2019/10  | 0            | 2019/11 | -0.1 | 2019/10  | 0    | 2019/12 | -0.1 | 2019/10 | -0.2 | 2019/11 | -0.3 | 2019/10 |
|    |               | 2019/11 |      | 2019/7   |              | 2019/9  |      | 2019/7   |      | 2019/11 |      | 2019/4  |      | 2019/5  |      | 2019/7  |
| CN | 0             | 2019/12 | -0.1 | 2019/10  | +0.1         | 2019/11 | -0.1 | 2019/12  | +0.2 | 2019/12 | 0    | 2019/10 | +0.6 | 2019/11 | 0    | 2019/12 |
|    |               | 2019/11 |      | 2019/7   |              | 2019/9  |      | 2019/11  |      | 2019/11 |      | 2019/4  |      | 2019/5  |      | 2019/11 |
| RU | +0.1          | 2019/11 | -0.1 | 2019/10  | +0.2         | 2019/11 | 0    | 2019/12  | -0.3 | 2019/11 | -0.3 | 2019/10 | +0.1 | 2019/11 | -0.1 | 2019/12 |
|    |               | 2019/10 |      | 2019/7   |              | 2019/9  |      | 2019/11  |      | 2019/10 |      | 2019/4  |      | 2019/5  |      | 2019/11 |

## A2. Change in predictions for 2020

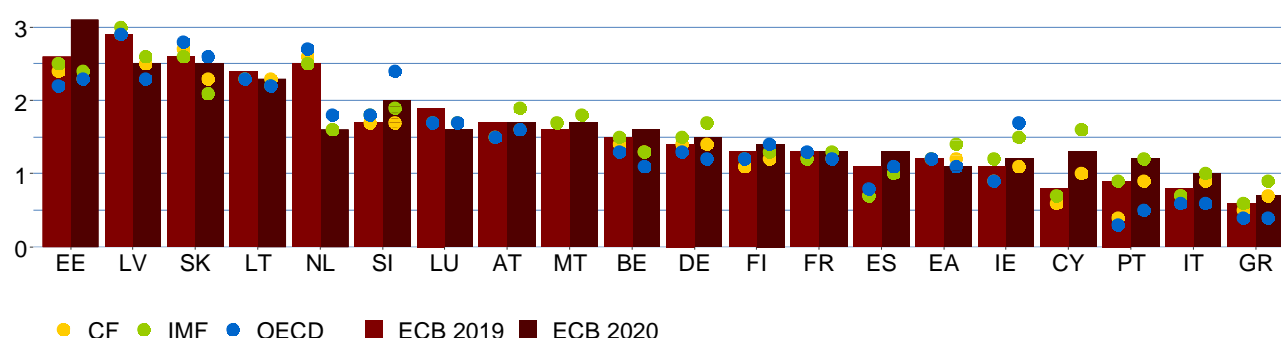
|    | GDP growth, % |         |      |          | Inflation, % |         |      |          |      |         |      |         |      |         |      |         |
|----|---------------|---------|------|----------|--------------|---------|------|----------|------|---------|------|---------|------|---------|------|---------|
|    | CF            | IMF     | OECD | CB / EIU | CF           | IMF     | OECD | CB / EIU |      |         |      |         |      |         |      |         |
| EA | 0             | 2019/12 | -0.2 | 2019/10  | +0.1         | 2019/11 | -0.1 | 2019/12  | 0    | 2019/12 | -0.2 | 2019/10 | -0.4 | 2019/11 | +0.1 | 2019/12 |
|    |               | 2019/11 |      | 2019/7   |              | 2019/9  |      | 2019/9   |      | 2019/11 |      | 2019/4  |      | 2019/5  |      | 2019/9  |
| US | 0             | 2019/12 | +0.2 | 2019/10  | 0            | 2019/11 | 0    | 2019/12  | 0    | 2019/12 | -0.4 | 2019/10 | 0    | 2019/11 | 0    | 2019/12 |
|    |               | 2019/11 |      | 2019/7   |              | 2019/9  |      | 2019/9   |      | 2019/11 |      | 2019/4  |      | 2019/5  |      | 2019/9  |
| UK | 0             | 2019/12 | 0    | 2019/10  | +0.1         | 2019/11 | +0.3 | 2019/11  | -0.1 | 2019/12 | -0.1 | 2019/10 | +0.3 | 2019/11 | -0.6 | 2019/11 |
|    |               | 2019/11 |      | 2019/7   |              | 2019/9  |      | 2019/8   |      | 2019/11 |      | 2019/4  |      | 2019/5  |      | 2019/8  |
| JP | +0.1          | 2019/12 | +0.1 | 2019/10  | 0            | 2019/11 | -0.2 | 2019/10  | -0.1 | 2019/12 | -0.2 | 2019/10 | -0.4 | 2019/11 | -0.2 | 2019/10 |
|    |               | 2019/11 |      | 2019/7   |              | 2019/9  |      | 2019/7   |      | 2019/11 |      | 2019/4  |      | 2019/5  |      | 2019/7  |
| CN | 0             | 2019/12 | -0.2 | 2019/10  | 0            | 2019/11 | -0.2 | 2019/12  | +0.2 | 2019/12 | -0.1 | 2019/10 | +0.1 | 2019/11 | 0    | 2019/12 |
|    |               | 2019/11 |      | 2019/7   |              | 2019/9  |      | 2019/11  |      | 2019/11 |      | 2019/4  |      | 2019/5  |      | 2019/11 |
| RU | -0.1          | 2019/11 | 0    | 2019/10  | 0            | 2019/11 | +0.1 | 2019/12  | -0.1 | 2019/11 | -1.0 | 2019/10 | 0    | 2019/11 | +0.4 | 2019/12 |
|    |               | 2019/10 |      | 2019/7   |              | 2019/9  |      | 2019/11  |      | 2019/10 |      | 2019/4  |      | 2019/5  |      | 2019/11 |

### A3. GDP growth and inflation outlooks in the euro area countries

GDP growth in the euro area countries in 2019 and 2020, %



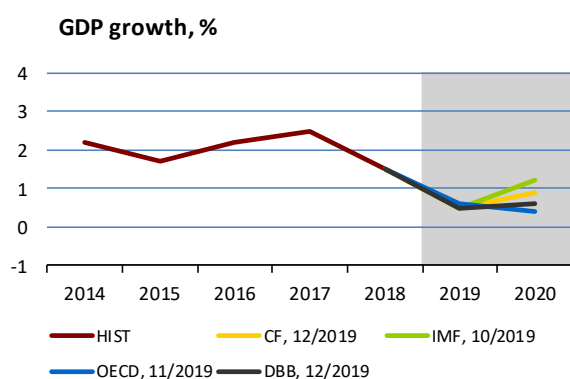
Inflation in the euro area countries in 2019 and 2020, %



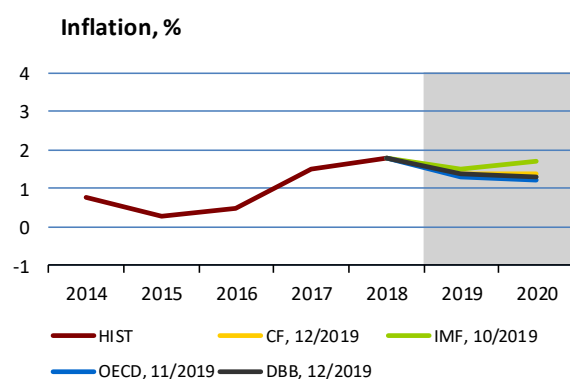
Note: Charts show institutions' latest available outlooks of for the given country.

### A4. GDP growth and inflation in the individual euro area countries

#### Germany

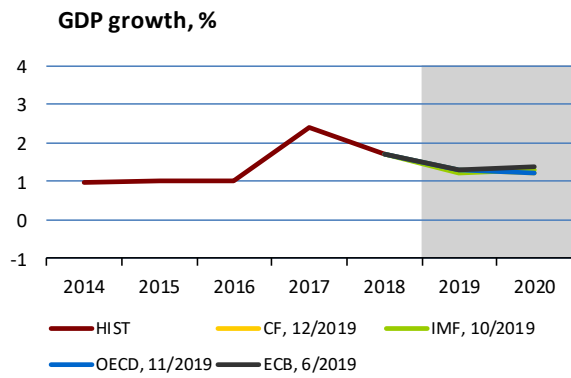


|      | CF  | IMF | OECD | DBB |
|------|-----|-----|------|-----|
| 2019 | 0.5 | 0.5 | 0.6  | 0.5 |
| 2020 | 0.9 | 1.2 | 0.4  | 0.6 |

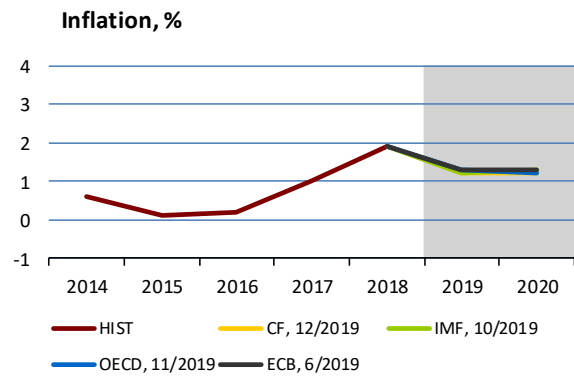


|      | CF  | IMF | OECD | DBB |
|------|-----|-----|------|-----|
| 2019 | 1.4 | 1.5 | 1.3  | 1.4 |
| 2020 | 1.4 | 1.7 | 1.2  | 1.3 |

## France

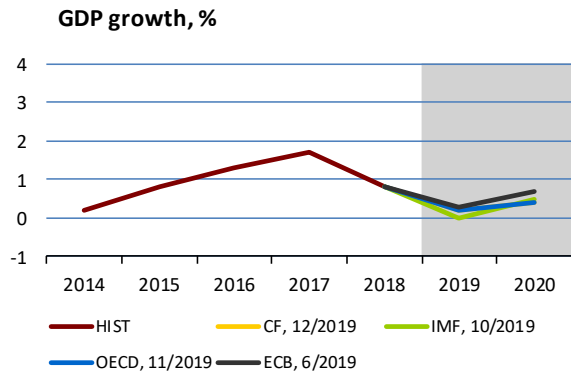


|      | CF    | IMF | OECD  | ECB |
|------|-------|-----|-------|-----|
| 2019 | 1.3 → | 1.2 | 1.3 → | 1.3 |
| 2020 | 1.2 → | 1.3 | 1.2 → | 1.4 |

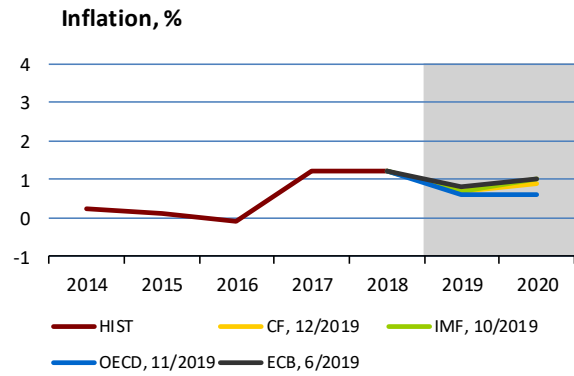


|      | CF    | IMF | OECD  | ECB |
|------|-------|-----|-------|-----|
| 2019 | 1.2 → | 1.2 | 1.3 → | 1.3 |
| 2020 | 1.2 → | 1.3 | 1.2 → | 1.3 |

## Italy

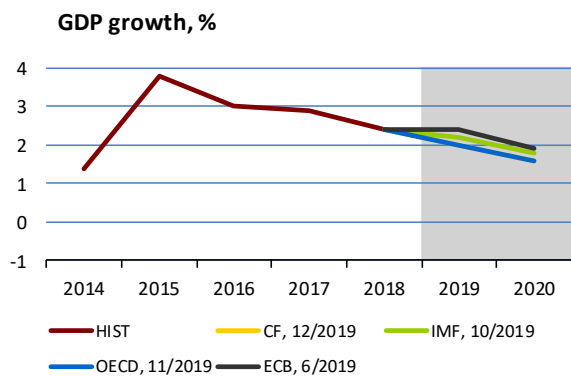


|      | CF    | IMF | OECD  | ECB |
|------|-------|-----|-------|-----|
| 2019 | 0.2 → | 0.0 | 0.2 → | 0.3 |
| 2020 | 0.4 → | 0.5 | 0.4 → | 0.7 |

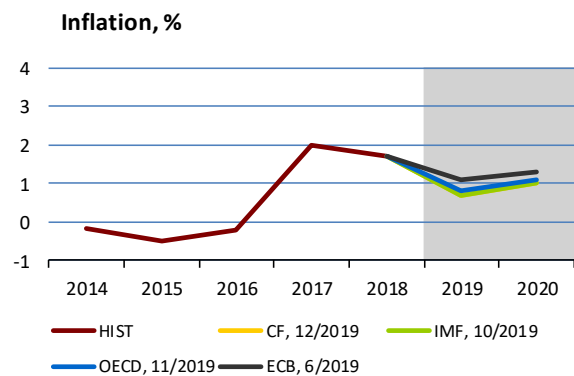


|      | CF    | IMF | OECD  | ECB |
|------|-------|-----|-------|-----|
| 2019 | 0.7 → | 0.7 | 0.6 → | 0.8 |
| 2020 | 0.9 → | 1.0 | 0.6 → | 1.0 |

## Spain

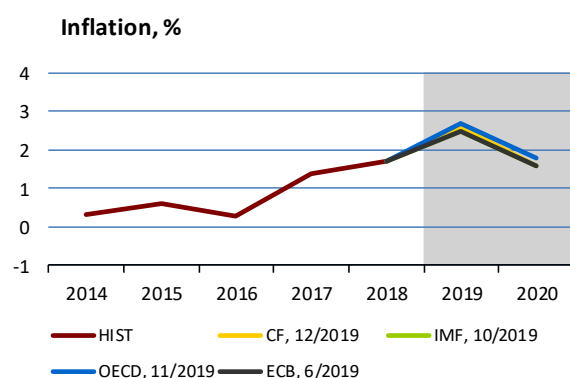
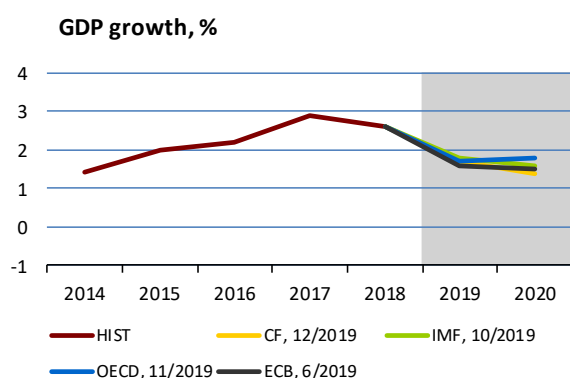


|      | CF    | IMF | OECD  | ECB |
|------|-------|-----|-------|-----|
| 2019 | 2.0 → | 2.2 | 2.0 → | 2.4 |
| 2020 | 1.6 → | 1.8 | 1.6 → | 1.9 |

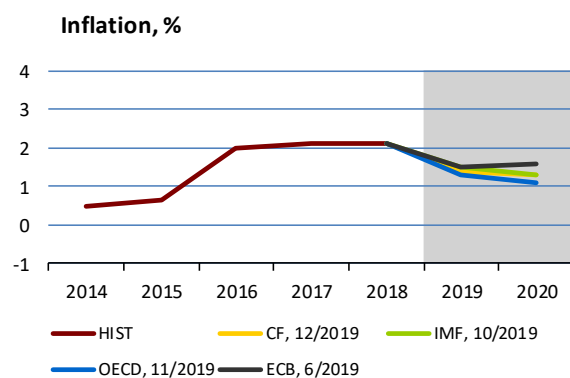
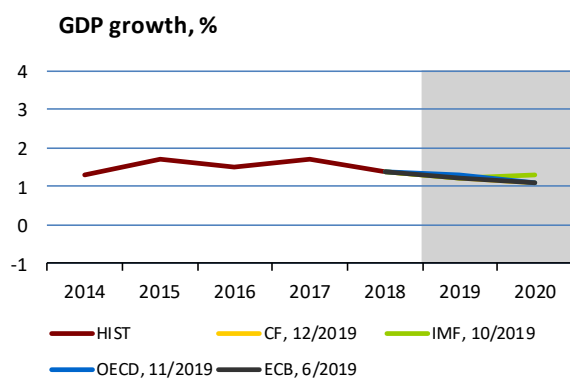


|      | CF    | IMF | OECD  | ECB |
|------|-------|-----|-------|-----|
| 2019 | 0.7 → | 0.7 | 0.8 → | 1.1 |
| 2020 | 1.0 → | 1.0 | 1.1 → | 1.3 |

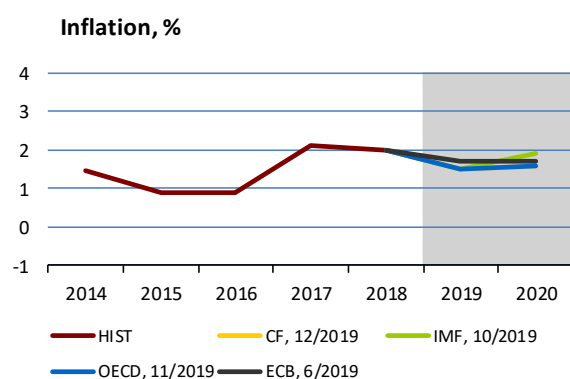
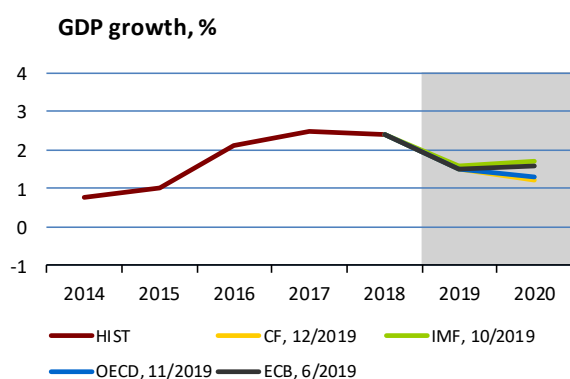
## Netherlands



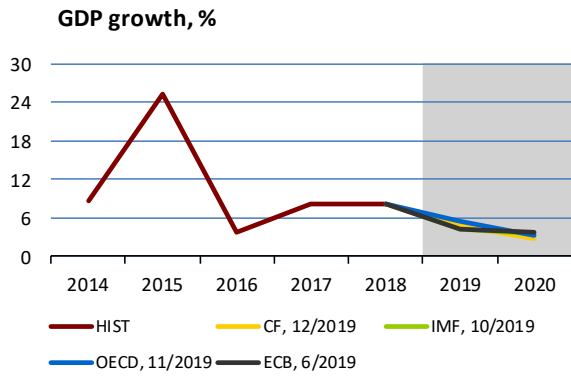
## Belgium



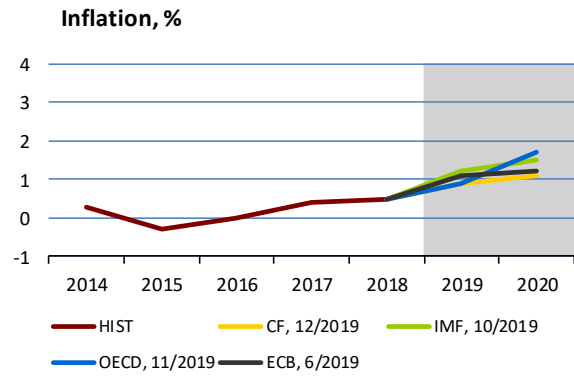
## Austria



## Ireland

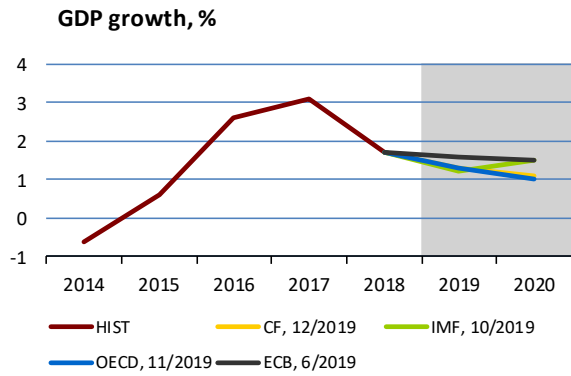


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 4.7 | 4.3 | 5.6  | 4.2 |
| 2020 | 2.8 | 3.5 | 3.3  | 3.7 |

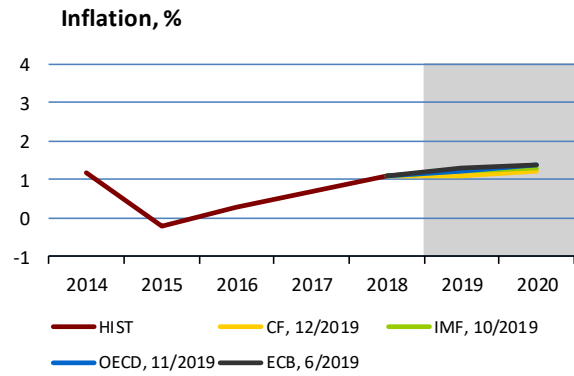


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 0.9 | 1.2 | 0.9  | 1.1 |
| 2020 | 1.1 | 1.5 | 1.7  | 1.2 |

## Finland

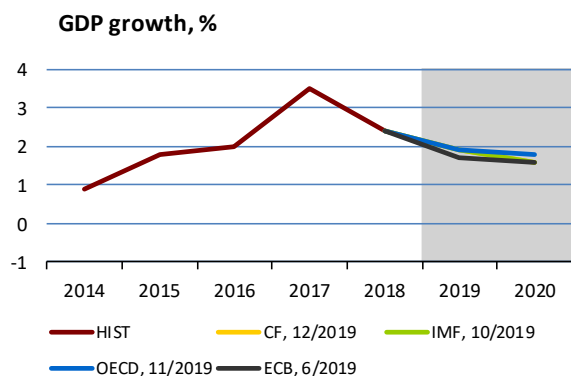


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 1.3 | 1.2 | 1.3  | 1.6 |
| 2020 | 1.1 | 1.5 | 1.0  | 1.5 |

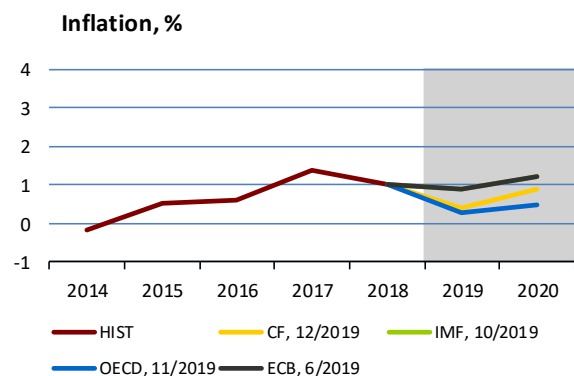


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 1.1 | 1.2 | 1.2  | 1.3 |
| 2020 | 1.2 | 1.3 | 1.4  | 1.4 |

## Portugal

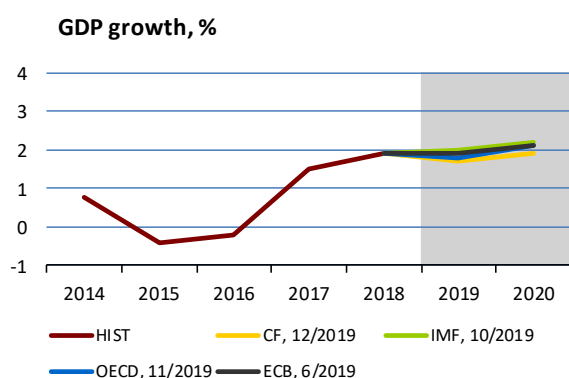


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 1.9 | 1.9 | 1.9  | 1.7 |
| 2020 | 1.6 | 1.6 | 1.8  | 1.6 |

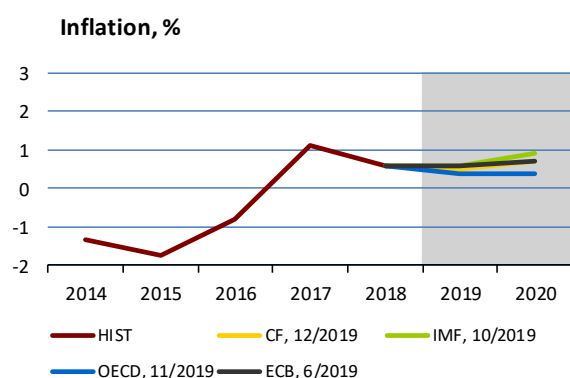


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 0.4 | 0.9 | 0.3  | 0.9 |
| 2020 | 0.9 | 1.2 | 0.5  | 1.2 |

## Greece

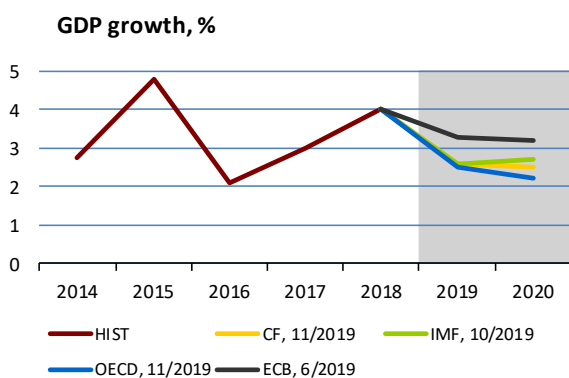


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 1.7 | 2.0 | 1.8  | 1.9 |
| 2020 | 1.9 | 2.2 | 2.1  | 2.1 |

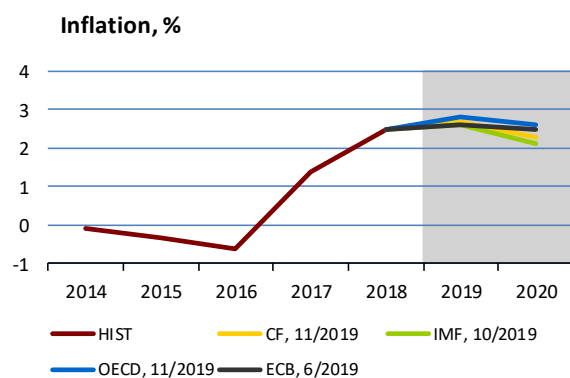


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 0.5 | 0.6 | 0.4  | 0.6 |
| 2020 | 0.7 | 0.9 | 0.4  | 0.7 |

## Slovakia

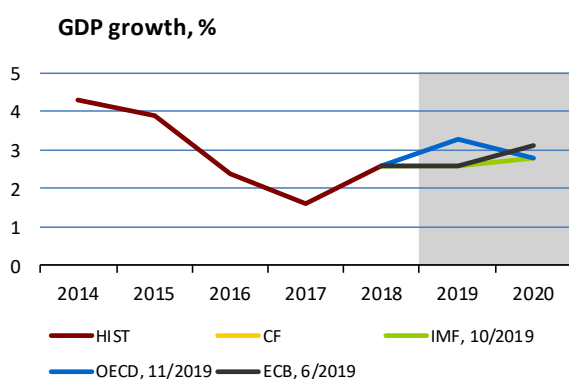


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 2.6 | 2.6 | 2.5  | 3.3 |
| 2020 | 2.5 | 2.7 | 2.2  | 3.2 |

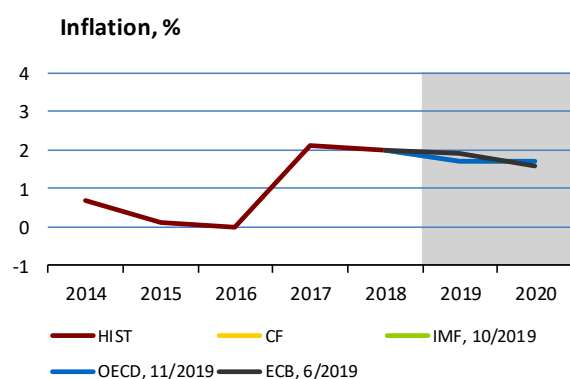


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 2.7 | 2.6 | 2.8  | 2.6 |
| 2020 | 2.3 | 2.1 | 2.6  | 2.5 |

## Luxembourg

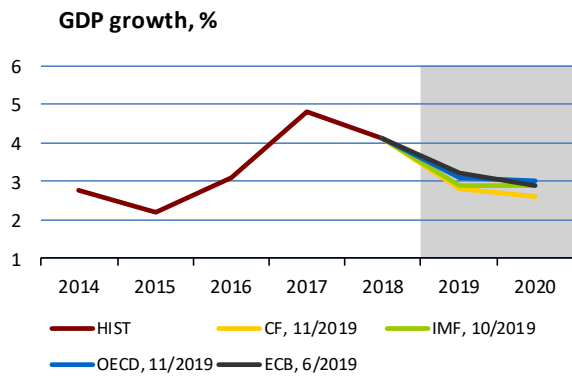


|      | CF    | IMF | OECD | ECB |
|------|-------|-----|------|-----|
| 2019 | n. a. | 2.6 | 3.3  | 2.6 |
| 2020 | n. a. | 2.8 | 2.8  | 3.1 |

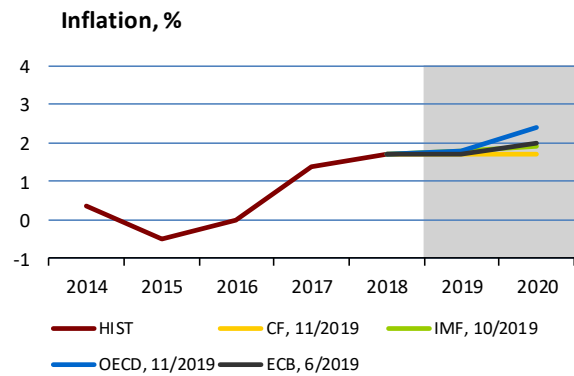


|      | CF    | IMF | OECD | ECB |
|------|-------|-----|------|-----|
| 2019 | n. a. | 1.7 | 1.7  | 1.9 |
| 2020 | n. a. | 1.7 | 1.7  | 1.6 |

## Slovenia

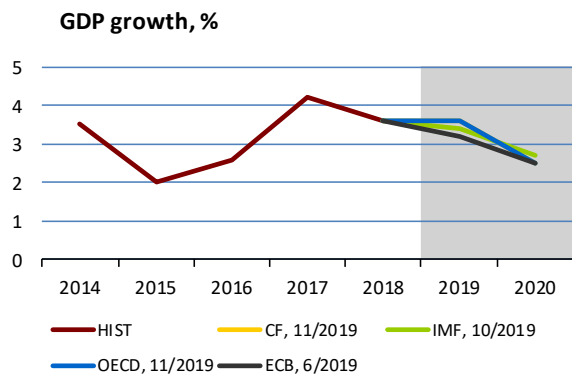


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 2.8 | 2.9 | 3.1  | 3.2 |
| 2020 | 2.6 | 2.9 | 3.0  | 2.9 |

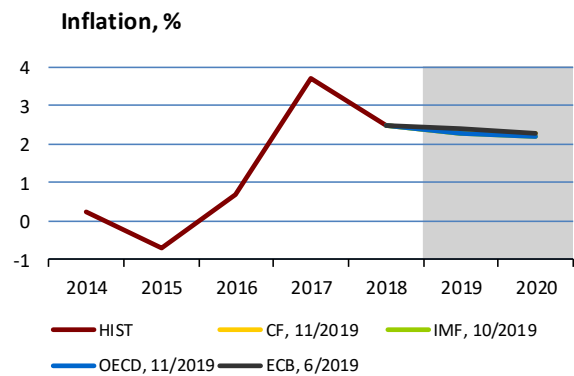


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 1.7 | 1.8 | 1.8  | 1.7 |
| 2020 | 1.7 | 1.9 | 2.4  | 2.0 |

## Lithuania

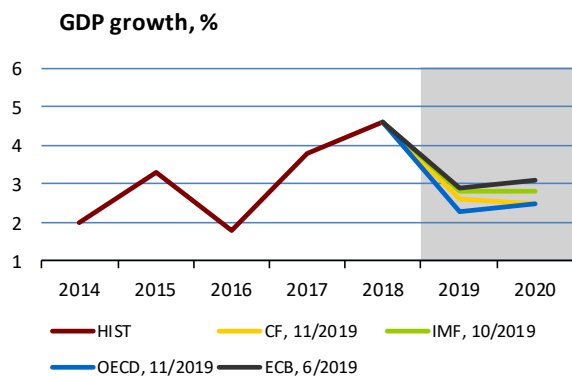


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 3.6 | 3.4 | 3.6  | 3.2 |
| 2020 | 2.5 | 2.7 | 2.5  | 2.5 |

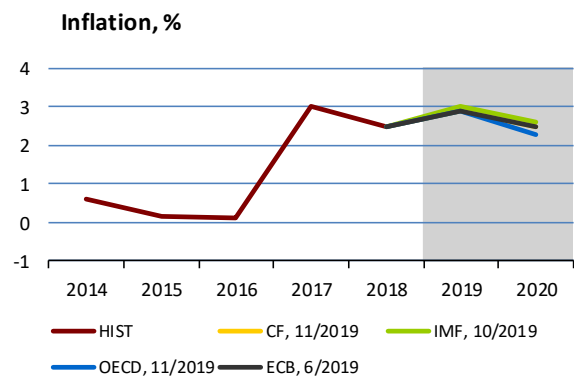


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 2.3 | 2.3 | 2.3  | 2.4 |
| 2020 | 2.3 | 2.2 | 2.2  | 2.3 |

## Latvia



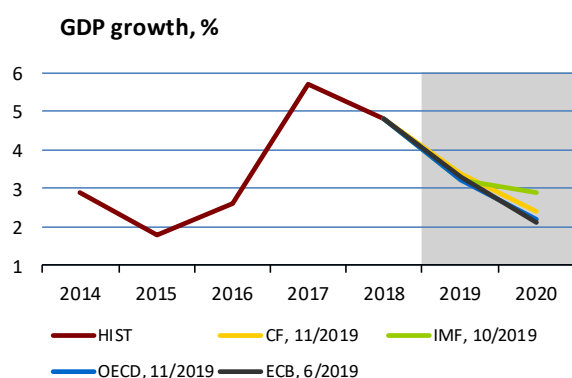
|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 2.6 | 2.8 | 2.3  | 2.9 |
| 2020 | 2.5 | 2.8 | 2.5  | 3.1 |



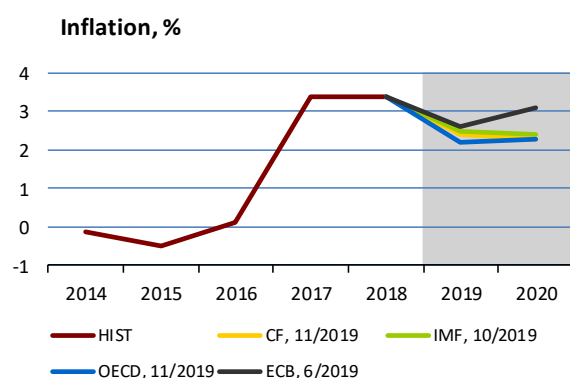
|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 2.9 | 3.0 | 2.9  | 2.9 |
| 2020 | 2.5 | 2.6 | 2.3  | 2.5 |



## Estonia

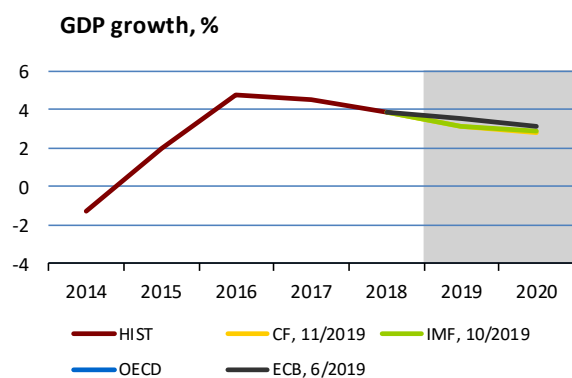


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 3.4 | 3.2 | 3.2  | 3.3 |
| 2020 | 2.4 | 2.9 | 2.2  | 2.1 |

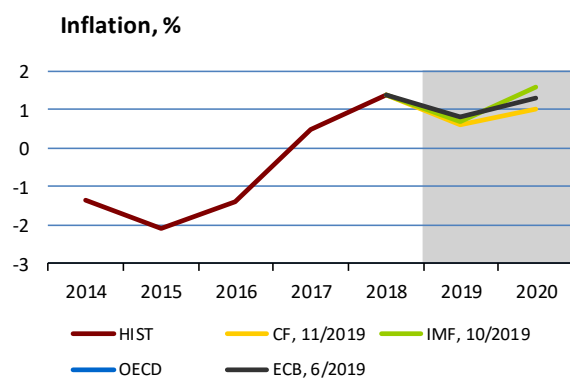


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 2.4 | 2.5 | 2.2  | 2.6 |
| 2020 | 2.3 | 2.4 | 2.3  | 3.1 |

## Cyprus

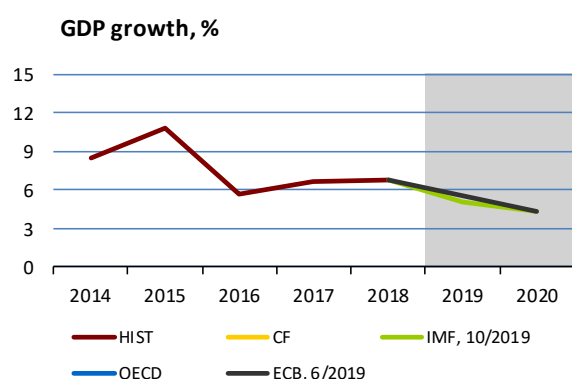


|      | CF  | IMF | OECD  | ECB |
|------|-----|-----|-------|-----|
| 2019 | 3.1 | 3.1 | n. a. | 3.5 |
| 2020 | 2.8 | 2.9 | n. a. | 3.1 |

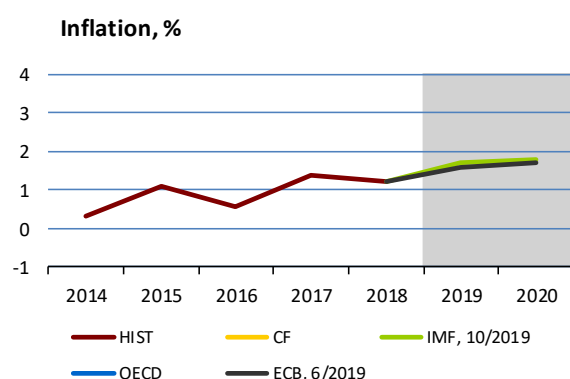


|      | CF  | IMF | OECD  | ECB |
|------|-----|-----|-------|-----|
| 2019 | 0.6 | 0.7 | n. a. | 0.8 |
| 2020 | 1.0 | 1.6 | n. a. | 1.3 |

## Malta



|      | CF    | IMF | OECD  | ECB |
|------|-------|-----|-------|-----|
| 2019 | n. a. | 5.1 | n. a. | 5.5 |
| 2020 | n. a. | 4.3 | n. a. | 4.3 |



|      | CF    | IMF | OECD  | ECB |
|------|-------|-----|-------|-----|
| 2019 | n. a. | 1.7 | n. a. | 1.6 |
| 2020 | n. a. | 1.8 | n. a. | 1.7 |

## A5. List of abbreviations

|                |   |                 |  |
|----------------|---|-----------------|--|
| <b>AT</b>      | Austria   | <b>IFO</b>      | Leibniz Institute for Economic Research at the University of Munich  |
| <b>bbl</b>     | barrel  | <b>IMF</b>      | International Monetary Fund  |
| <b>BE</b>      | Belgium   | <b>IRS</b>      | Interest Rate swap   |
| <b>BoE</b>     | Bank of England (the UK central bank)                   | <b>ISM</b>      | Institute for Supply Management  |
| <b>BoJ</b>     | Bank of Japan (the central bank of Japan)               | <b>IT</b>       | Italy  |
| <b>bp</b>      | basis point (one hundredth of a percentage point)       | <b>JP</b>       | Japan  |
| <b>CB</b>      | central bank  | <b>JPY</b>      | Japanese yen   |
| <b>CBR</b>     | Central Bank of Russia                                  | <b>LIBOR</b>    | London Interbank Offered Rate  |
| <b>CF</b>      | Consensus Forecasts                                     | <b>LME</b>      | London Metal Exchange  |
| <b>CN</b>      | China   | <b>LT</b>       | Lithuania  |
| <b>CNB</b>     | Czech National Bank                                     | <b>LU</b>       | Luxembourg   |
| <b>CNY</b>     | Chinese renminbi  | <b>LV</b>       | Latvia   |
| <b>ConfB</b>   | Conference Board Consumer Confidence Index              | <b>MKT</b>      | Markit   |
| <b>CXN</b>     | Caixin  | <b>MT</b>       | Malta  |
| <b>CY</b>      | Cyprus  | <b>NIESR</b>    | National Institute of Economic and Social Research (UK)  |
| <b>DBB</b>     | Deutsche Bundesbank (the central bank of Germany)       | <b>NKI</b>      | Nikkei   |
| <b>DE</b>      | Germany   | <b>NL</b>       | Netherlands  |
| <b>EA</b>      | euro area   | <b>OECD</b>     | Organisation for Economic Co-operation and Development   |
| <b>ECB</b>     | European Central Bank                                   | <b>OECD-CLI</b> | OECD Composite Leading Indicator   |
| <b>EE</b>      | Estonia   | <b>OPEC+</b>    | member countries of OPEC oil cartel and 10 other oil-exporting countries (the most important of which are Russia, Mexico and Kazakhstan) |
| <b>EIA</b>     | Energy Information Administration                       | <b>PMI</b>      | Purchasing Managers' Index   |
| <b>EIU</b>     | Economist Intelligence Unit                             | <b>pp</b>       | percentage point   |
| <b>ES</b>      | Spain   | <b>PT</b>       | Portugal   |
| <b>ESI</b>     | Economic Sentiment Indicator of the European Commission | <b>QE</b>       | quantitative easing  |
| <b>EU</b>      | European Union  | <b>RU</b>       | Russia   |
| <b>EUR</b>     | euro  | <b>RUB</b>      | Russian rouble   |
| <b>EURIBOR</b> | Euro Interbank Offered Rate                             | <b>SI</b>       | Slovenia   |
| <b>Fed</b>     | Federal Reserve System (the US central bank)            | <b>SK</b>       | Slovakia   |
| <b>FI</b>      | Finland   | <b>UK</b>       | United Kingdom   |
| <b>FOMC</b>    | Federal Open Market Committee                           | <b>UoM</b>      | University of Michigan Consumer Sentiment Index - present situation  |
| <b>FR</b>      | France  | <b>US</b>       | United States  |
| <b>FRA</b>     | forward rate agreement                                  | <b>USD</b>      | US dollar  |
| <b>FY</b>      | fiscal year   | <b>USDA</b>     | United States Department of Agriculture  |
| <b>GBP</b>     | pound sterling  | <b>WEO</b>      | World Economic Outlook   |
| <b>GDP</b>     | gross domestic product                                  | <b>WTI</b>      | West Texas Intermediate (crude oil used as a benchmark in oil pricing)   |
| <b>GR</b>      | Greece  | <b>ZEW</b>      | Centre for European Economic Research  |
| <b>ICE</b>     | Intercontinental Exchange                               |                 |  |
| <b>IE</b>      | Ireland   |                 |  |
| <b>IEA</b>     | International Energy Agency                             |                 |  |

