

# GLOBAL ECONOMIC OUTLOOK – OCTOBER

Monetary Department  
External Economic Relations Division

2019



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**Cut-off date for data**

18 October 2019

**CF survey date**

14 October 2019

**GEO publication date**

25 October 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.

**Contact**

gev@cnb.cz

**Authors**

|                       |  |
|-----------------------|--|
| <b>Luboš Komárek</b>  | Editor-in-chief, I. Introduction                 |
| <b>Petr Polák</b>     | Editor, II.3 United Kingdom                      |
| <b>Filip Novotný</b>  | II.1 Euro area                                   |
| <b>Soňa Benecká</b>   | II.2 United States, II.5 China, V. Focus         |
| <b>Oxana Babecká</b>  | II.4 Japan, II.6 Russia                          |
| <b>Milan Frydrych</b> | II.7 Developing countries in the spotlight       |
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## I. Introduction

**Embryonic agreements concerning Brexit and the US-China trade war offered hope of a decrease in geopolitical risks in October.** These issues also resonated strongly at the IMF and World Bank Annual Meetings. Regarding Brexit, EU and UK representatives announced an agreement on the terms of Britain's exit from EU. The deal was subsequently approved at an EU summit. The debate in the British Parliament, the outcome of which is uncertain, will clearly be key to completing Brexit. The announcement of a consensus between the US and Chinese negotiating teams on a "Phase 1" trade deal is also helping to reduce geopolitical risks. The US did not proceed with its planned increase in import duties on Chinese goods of USD 250 billion, while China pledged to increase its purchases of agricultural commodities from the US to USD 50 billion a year. However, optimism is being dampened by the fact that only a partial agreement will be signed, and probably not sooner than at the November APEC summit in Chile. In early October, the WTO ruled in favour of the USA in the 15-year-long Airbus dispute, granting it the right to impose import duties on EU goods valued at USD 7.5 billion. This does not, however, end the disputes between the US and the EU, since in a few months' time the WTO is to rule on the Boeing dispute.

**The GDP growth outlooks have again been revised only downwards, if at all, since September.**

**October GDP growth and inflation outlooks for monitored countries, in %**

| GDP       | EA    | DE    | US    | UK    | JP    | CN    | RU    |
|-----------|-------|-------|-------|-------|-------|-------|-------|
| 2019      | 1.1 → | 0.5 → | 2.3 → | 1.2 → | 1.0 → | 6.2 → | 1.0 → |
| 2020      | 0.9 → | 0.8 → | 1.8 → | 1.0 → | 0.2 → | 5.9 → | 1.8 → |
| Inflation | EA    | DE    | US    | UK    | JP    | CN    | RU    |
| 2019      | 1.2 → | 1.4 → | 1.8 → | 1.9 → | 0.6 → | 2.5 → | 4.3 → |
| 2020      | 1.2 → | 1.5 → | 2.1 → | 2.1 → | 0.7 → | 2.5 → | 3.9 → |

Source: Consensus Forecasts (CF)

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

The economies we monitor will grow at a slower pace next year than this year. The exceptions are Russia and Germany. The latter's expected growth will still be the second lowest in the euro area after Italy. The euro area as a whole will not achieve even 1% growth in 2020. In the case of the UK, analysts are clearly still assuming that a no-deal Brexit will not happen, as the growth expected for 2020 is only slightly lower than this year's. Japan still

has the lowest growth prospects and is expected to approach recession next year. The outlooks for the USA have not been revised. This may give Fed officials another strong argument for voting to cut rates further. The Chinese economy is expected to continue to slow gradually. Its officially reported growth rates (whose correctness is the subject of frequent debate) should fall below 6% next year.

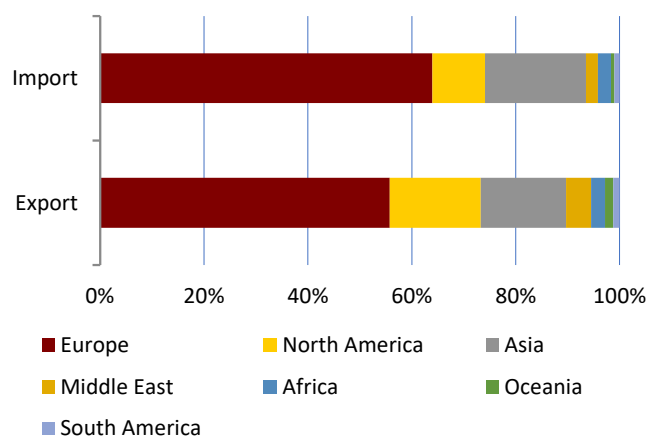
**The inflation outlooks have also been revised down.** The exception is China, where expected inflation is 2.5%. Inflation in the developed economies we monitor should not be higher than this year. In the case of the euro area, this nonetheless means that inflation will be 0.8 pp lower than the 2% "ideal".

**The dollar will weaken slightly against the euro, sterling and the yen at the one-year horizon.** By contrast, it will strengthen slightly against the renminbi and the rouble. The CF outlook for the Brent crude oil price at the end of this year moved slightly lower than last month to USD 60.9/bbl (highest estimate down slightly to USD 70/bbl, lowest estimate down more markedly to USD 50/bbl), proving that the September attack on Saudi oil facilities was just a brief and already forgotten episode. The outlook for 3M USD LIBOR market rates is still slightly falling, while 3M EURIBOR rates will remain negative over the entire outlook horizon.

**The chart in the October issue presents a territorial breakdown of the UK's foreign trade.** As the chart shows, other European countries – de facto the EU – account for the largest proportion of imports and exports. That is why the form of Brexit is key for both the UK and the EU. The UK has a deficit with Europe and Asia and a surplus with other territories.

**The October issue also contains an analysis:** [The automobile market slump in China: A global threat?](#) It examines the situation on the largest car market in the world. It shows that in the current context, characterised by pressure to innovate and a shrinking financial buffer, the slump on the Chinese market could inflict a severe blow on some manufacturers.

**UK foreign trade, in %**



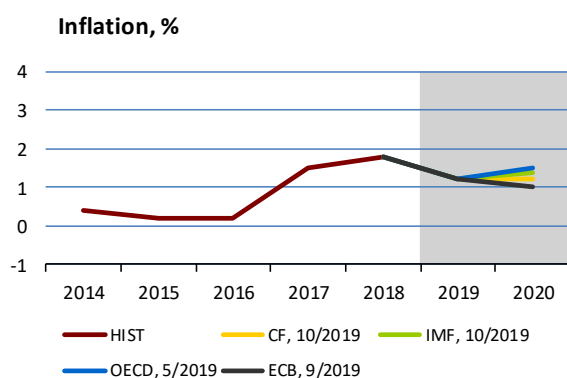
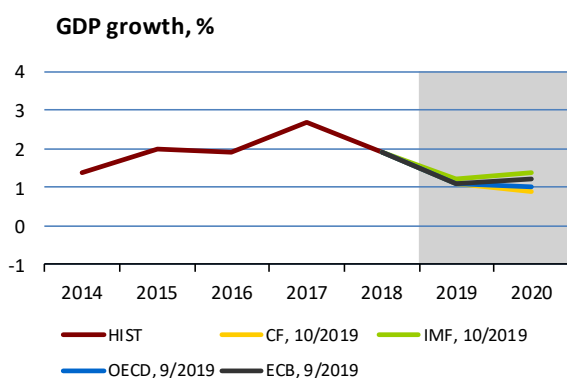
Source: Office for National Statistics

II.1 Euro area

**Economic growth in the euro area slowed in Q2, dampened by developments in Germany and Italy.** Quarterly GDP growth stood at just 0.2%. Household consumption growth slowed sharply, but the fall in its contribution to total economic growth was almost fully offset by faster growth in fixed investment. The euro area slowdown was thus due to a decline in net exports linked with international trade tensions, specifically the persisting uncertainty regarding Brexit and the ongoing trade war between the USA and China. Only two economies recorded lower growth than the euro area as a whole: Germany, whose GDP dropped by 0.1% quarter on quarter, and stagnating Italy. The economic growth of the euro area thus slowed slightly to 1.2% year on year in Q2.

**The available indicators suggest a further slight slowdown in economic growth in Q3, followed by a slight pick-up at the end of this year.** The international trade situation is weighing negatively on manufacturing. In August, however, industrial production increased month on month (by 0.4%) after previous declines. In year-on-year terms, however, production has been falling for nine consecutive months (by 1.7% on average). The PMI in manufacturing remained in the contraction band, but a significant decline in the new orders sub-index was particularly worrying. In contrast, the unemployment rate dropped slightly again in August. However, year-on-year wage growth in the business sector remains subdued. Wage growth in the euro area slowed to 2.5% in Q2 (stagnating at 2.7% in Germany).

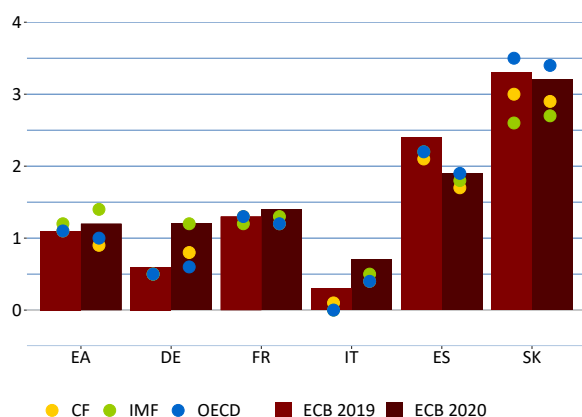
**For the whole year, economic growth in the euro area will be noticeably lower this year than in 2018.** CF left its outlook for this year unchanged at 1.1% and lowered its outlook for next year by 0.2 pp. Next year’s outlooks for Germany, Spain and Slovakia, for example, worsened. The outlooks of the other monitored institutions are higher than the CF outlooks for next year.



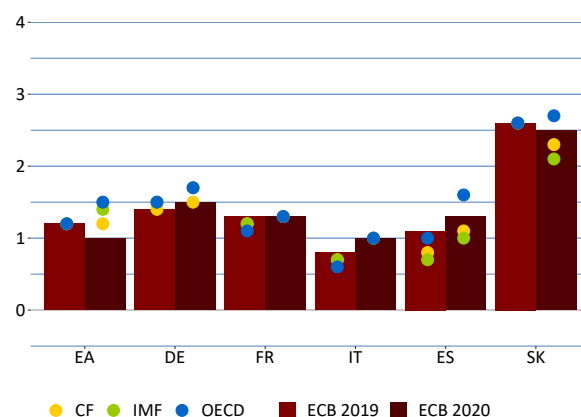
|      | CF    | IMF   | OECD  | ECB |
|------|-------|-------|-------|-----|
| 2019 | 1.1 → | 1.2 → | 1.1 → | 1.1 |
| 2020 | 0.9 ↘ | 1.4 ↘ | 1.0 ↘ | 1.2 |

|      | CF    | IMF   | OECD | ECB |
|------|-------|-------|------|-----|
| 2019 | 1.2 ↘ | 1.2 ↘ | 1.2  | 1.2 |
| 2020 | 1.2 ↘ | 1.4 ↘ | 1.5  | 1.0 |

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



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



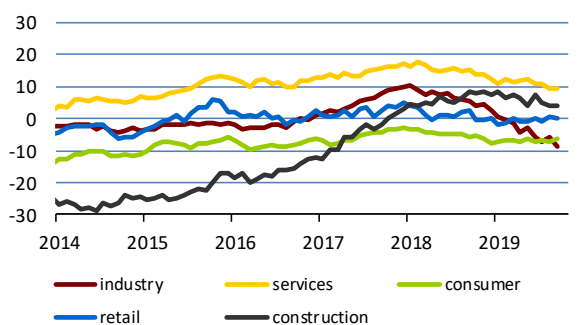
Note: Charts show institutions' latest available outlooks of for the given economy.

## II. ECONOMIC OUTLOOK IN SELECTED TERRITORIES

**Inflation in the euro area remains low and well below the ECB's target.** Headline HICP inflation dropped to 0.8% in September. The negative contribution of energy prices to overall inflation increased, and food price inflation decreased slightly. The contributions of the other components remained unchanged. Core inflation meanwhile reached 1%. Similarly low inflation figures can be expected in the months ahead, as upward pressures on oil and energy prices remain absent. The future path of core inflation is uncertain. The uncertainty regarding the outlook for economic growth and external demand continues, having an anti-inflationary effect. The outlooks we regularly monitor jointly expect inflation of 1.2% this year. CF revised its outlook down to 1.2% both this year and the next. According to the ECB's September forecast, inflation will fall to 1% next year.

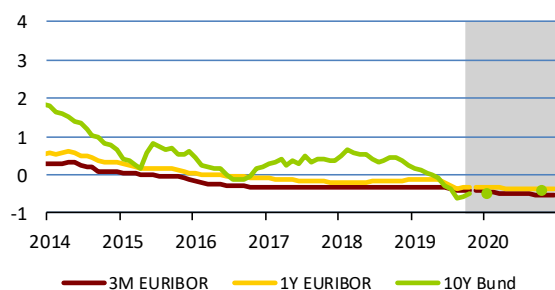
**Despite the September easing of ECB monetary policy, inflation expectations remain undesirably anchored at levels well below the 2% inflation target.** This is particularly evident from a sharp drop in five-year inflation swap-based expectations. In September, the ECB reacted to the uncertainty associated with the economic growth outlook and the subdued inflation outlook by lowering interest rates and, in November, by restarting the asset purchase programme. From the perspective of the current lower inflation expectations, however, the impact of the monetary policy easing on future inflation is currently uncertain. The one-year outlook for the German 10Y government bond yield nonetheless dropped to -0.4%, while the overall yield curve flattened. The French government bond yield curve underwent a similar change. The outlook for the Italian government bond yield with ten-year maturity meanwhile declined significantly compared with the previous month. Its spread vis-à-vis the German and French yields thus narrowed considerably. By contrast, the outlook for the Spanish 10Y bond yield shifted slightly higher, though only at the three-month horizon.

ESI leading indicators



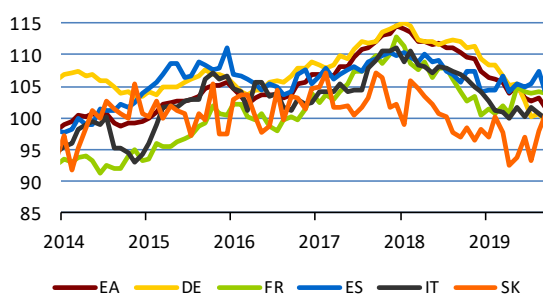
|      | industry | services | consum. | retail | constr. |
|------|----------|----------|---------|--------|---------|
| 7/19 | -7.3     | 10.6     | -6.6    | -0.7   | 5.0     |
| 8/19 | -5.8     | 9.2      | -7.1    | 0.6    | 3.9     |
| 9/19 | -8.8     | 9.5      | -6.5    | 0.1    | 3.8     |

Interest Rates, %



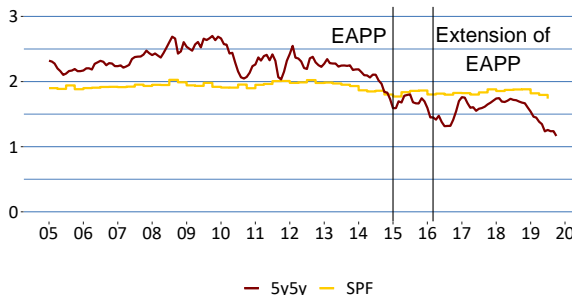
|            | 9/19  | 10/19 | 1/20  | 10/20 |
|------------|-------|-------|-------|-------|
| 3M EURIBOR | -0.42 | -0.42 | -0.44 | -0.52 |
| 1Y EURIBOR | -0.34 | -0.32 | -0.33 | -0.36 |
| 10Y Bund   | -0.57 | -0.49 | -0.50 | -0.40 |

ESI leading indicators



|      | EA    | DE    | FR    | ES    | IT    | SK    |
|------|-------|-------|-------|-------|-------|-------|
| 7/19 | 102.7 | 100.2 | 103.9 | 105.4 | 101.6 | 93.4  |
| 8/19 | 103.1 | 100.6 | 104.1 | 107.3 | 100.7 | 97.9  |
| 9/19 | 101.7 | 99.4  | 103.9 | 104.2 | 99.9  | 100.4 |

Inflation expectations in the euro area, %



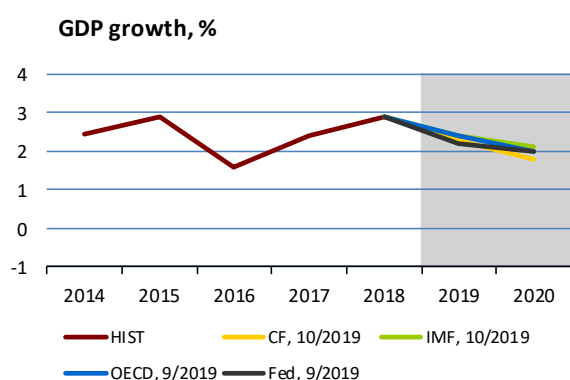
Note: Inflation expectations based on 5year inflation swap and SPF

## II.2 United States

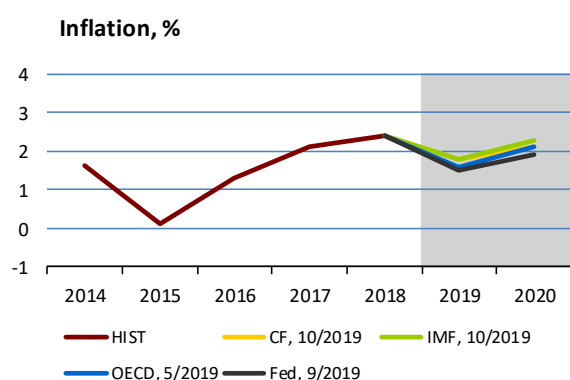
**The conclusion of a phase-1 trade deal between the US and China indicates a possible shift in the 18-month-long conflict.** The phase-1 agreement only covers the purchase of agricultural products, currency issues and aspects of intellectual property protection. Among other things, China is pledging to buy US agricultural products worth USD 40–50 billion. The US subsequently suspended increases of tariffs on Chinese imports in mid-October. US President Donald Trump has yet to decide on the tariffs scheduled to take effect in December. However, the hope for a quick end to the trade war is slim, because the details of the agreement are unknown and the most burning issues remain unresolved.

**The performance of the US economy is still raising no big concerns, however, so the CF outlooks remain unchanged.** According to the Atlanta Fed, annual GDP growth was only 1.8% in Q3, but according to CF, growth will recover at the year-end. It will be pulled down by industrial production, exports and investment, but consumer demand should remain strong. Industrial production even fell year on year in September (by 0.1%), mainly due to lower oil output and car production. The ISM PMI leading indicator is holding near 50, whereas expectations of new orders have tumbled again. Retail sales, however, continue to increase by more than 4% year on year and consumer confidence has grown in the past three months.

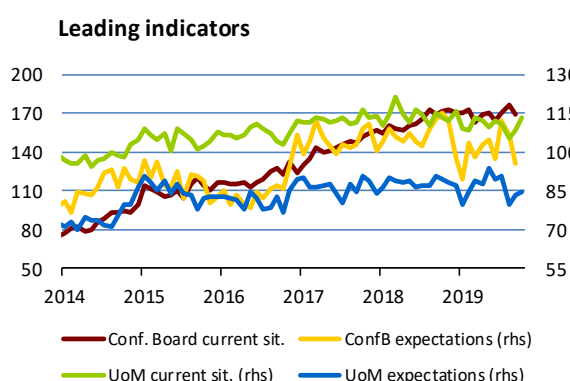
**In reaction to the risks to the US economy, the Fed cut the range for benchmark rates by 25 bp to 1.75%–2.00%.** The central bank also launched short-term bond purchase of USD 60 billion, which should last until the end of 2020 Q2. The Fed will continue to conduct overnight repo operations of USD 75 billion every day. In addition, it will provide term repo loans (maturities over 2 weeks) totalling USD 35 billion twice a week. The aim of this program is not to deliver quantitative easing, but to provide financial markets with the necessary short-term liquidity. The US central bank thus reacted to an unexpected liquidity shortage reflected in a sharp rise in short-term money market rates of up to 10%.



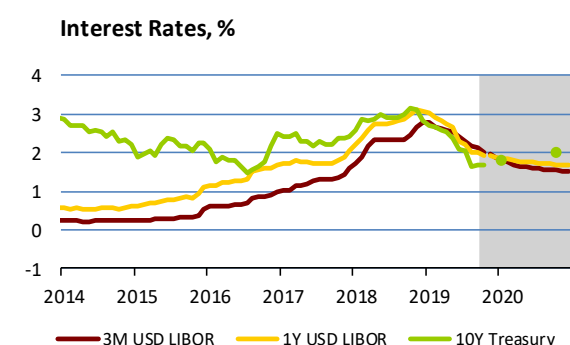
|      | CF    | IMF   | OECD  | Fed   |
|------|-------|-------|-------|-------|
| 2019 | 2.3 → | 2.4 → | 2.4 → | 2.2 → |
| 2020 | 1.8 → | 2.1 → | 2.0 → | 2.0 → |



|      | CF    | IMF   | OECD  | Fed   |
|------|-------|-------|-------|-------|
| 2019 | 1.8 → | 1.8 → | 1.6 → | 1.5 → |
| 2020 | 2.1 → | 2.3 → | 2.1 → | 1.9 → |



|       | ConfB curr. | ConfB exp. | UoM curr. | UoM exp. |
|-------|-------------|------------|-----------|----------|
| 8/19  | 176.0       | 106.4      | 105.3     | 79.9     |
| 9/19  | 169.0       | 95.8       | 108.5     | 83.4     |
| 10/19 |             |            | 113.4     | 84.8     |

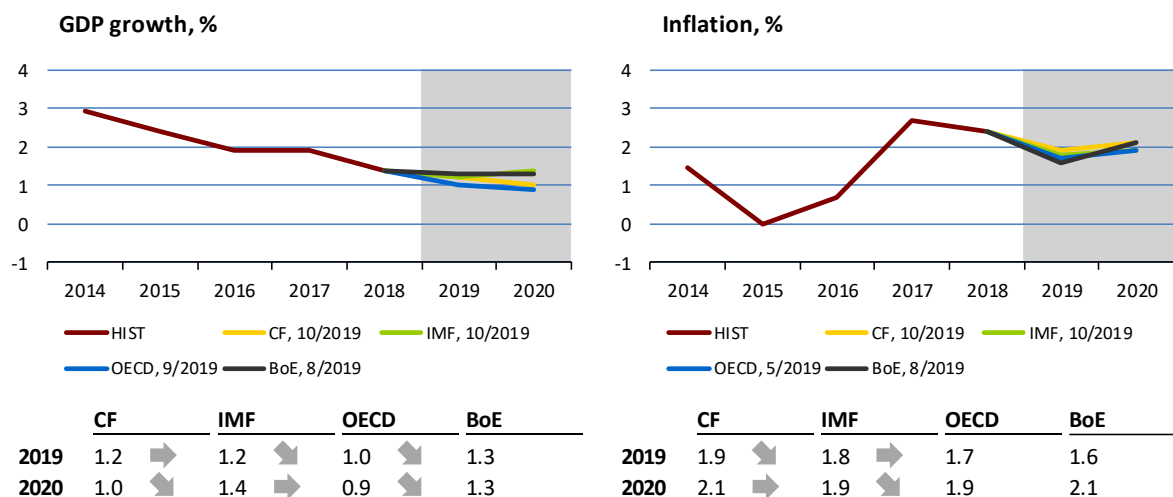


|              | 9/19 | 10/19 | 1/20 | 10/20 |
|--------------|------|-------|------|-------|
| USD LIBOR 3M | 2.13 | 2.02  | 1.79 | 1.54  |
| USD LIBOR 1R | 2.00 | 2.00  | 1.85 | 1.69  |
| Treasury 10R | 1.68 | 1.68  | 1.80 | 2.00  |

### II.3 United Kingdom

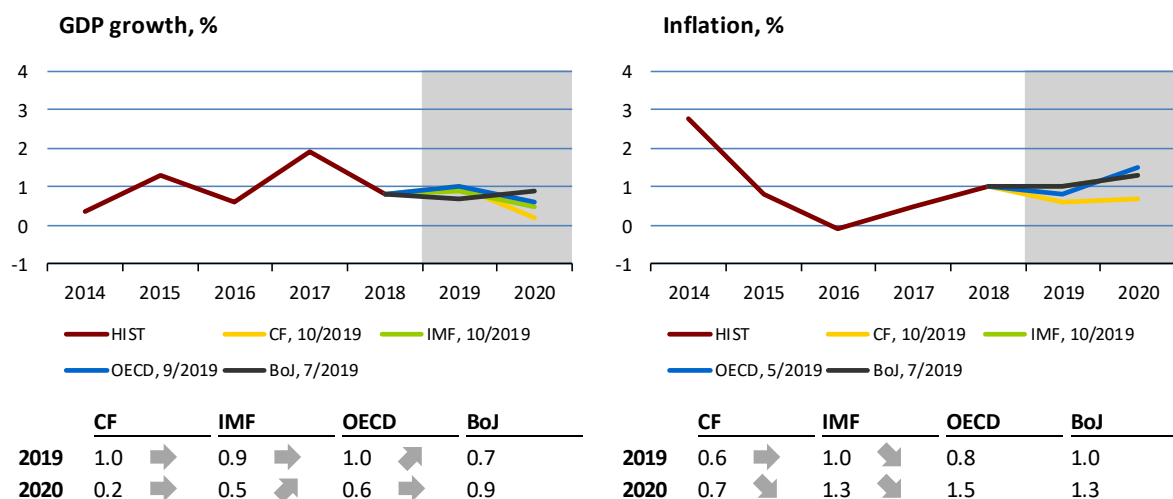
**The deadline for the UK to leave the EU is nearing, but the form of Brexit is still nowhere in sight.**

As of November 2019, the UK should no longer be part of the EU, but the subsequent form of cooperation still remains unclear. PM Boris Johnson and his negotiators have prepared a new agreement that, although acceptable to the EU, is not certain to be approved by the British Parliament. Trade with the EU is very important for the UK, as exports to the EU make up 46.9% of total exports and imports from the EU 52.5% of total imports. The initial information on the new agreement had a positive impact on the financial markets, but investment activity is still on hold. Both the OECD and the IMF revised their GDP growth estimates downward (the OECD to 1%). The British NIESR is more optimistic, expecting overall growth of 1.3% this year. CF lowered its GDP growth outlook for next year again, to 1%.



### II.4 Japan

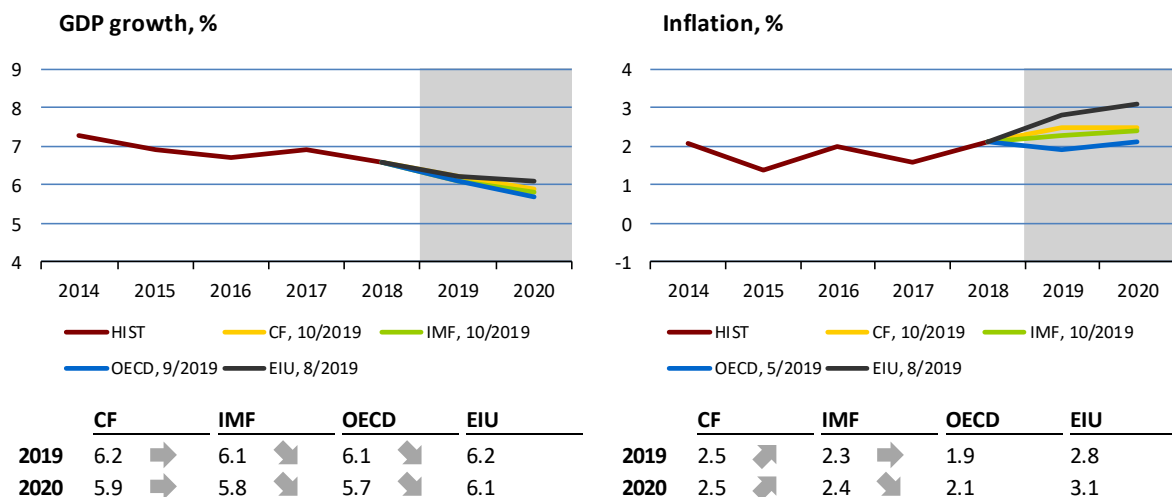
**Japan remains under pressure from the global slowdown and trade wars.** Its imports plunged by more than 8% and its exports by 12% in August. Exports to China and Hong Kong fell the most. There was also a sharp drop in exports to the USA, South Korea and Taiwan. Imports from Hong Kong recorded the biggest decrease. In August, industrial production decreased at a pace of almost 5%, with manufacturing recording the same rate of contraction. The September PMI worsened the outlook both in manufacturing and in services. Despite the largely pessimistic short-term indicators, the CF and IMF forecasts for this year did not change, and the OECD even raised its outlook slightly. Annual consumer price inflation decreased to 0.2% in September. The decline in industrial producer prices meanwhile deepened further (to -1.1%) and foreign trade prices also fell year on year in August. The overall inflation outlook was reduced for this year and the next (with one exception).





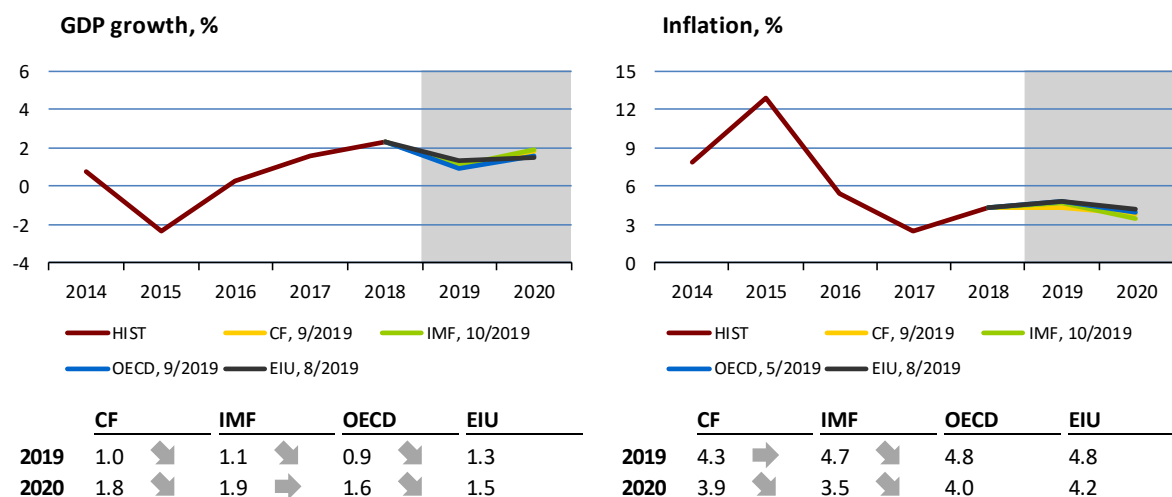
### II.5 China

**China's economy slowed in Q3 to the lowest level in more than 27 years, recording annual GDP growth of just 6%.** The trade war with the USA is taking its toll on China, so the foreign trade figures in particular indicated a deterioration. Total exports fell by 3% year on year in September. Imports from the US decreased by 26%, while exports to the US plunged by 10%. Moreover, investment growth is decreasing, just as it is in the US and the euro area. Though retail sales growth is lower than in previous years, it is still holding above 7% year on year. Inflation in China conversely reached a six-year high, primarily due to an almost 70% year-on-year increase in pork prices. Domestic production was affected by a wave of African swine fever that reduced China's pig population by almost 40%.



### II.6 Russia

**The growth of the Russian economy remains largely subdued.** The latest PMI still sees different trends in manufacturing and services. While an even greater worsening of the situation is expected in manufacturing (a fall to 46.3), services are expected to thrive overall (a rise to 53.6). The September PMI in manufacturing declined due deteriorations in all key items: output, new orders, export orders and employment. However, the latest data show that the annual growth rate of manufacturing rose by 0.5 pp to 3.2% in September. This, together with 3.8% growth in electricity generation and gas production, led to a slight acceleration in the overall growth rate of industrial production. However, the mining industry slowed (from 3.1% to 2.5%). Exports declined year on year, mainly due to a more-than-10% drop in oil prices. Imports, on the other hand, recorded a slight rise. The October CF lowered the GDP growth outlook by 0.1 pp for both this year and the next.

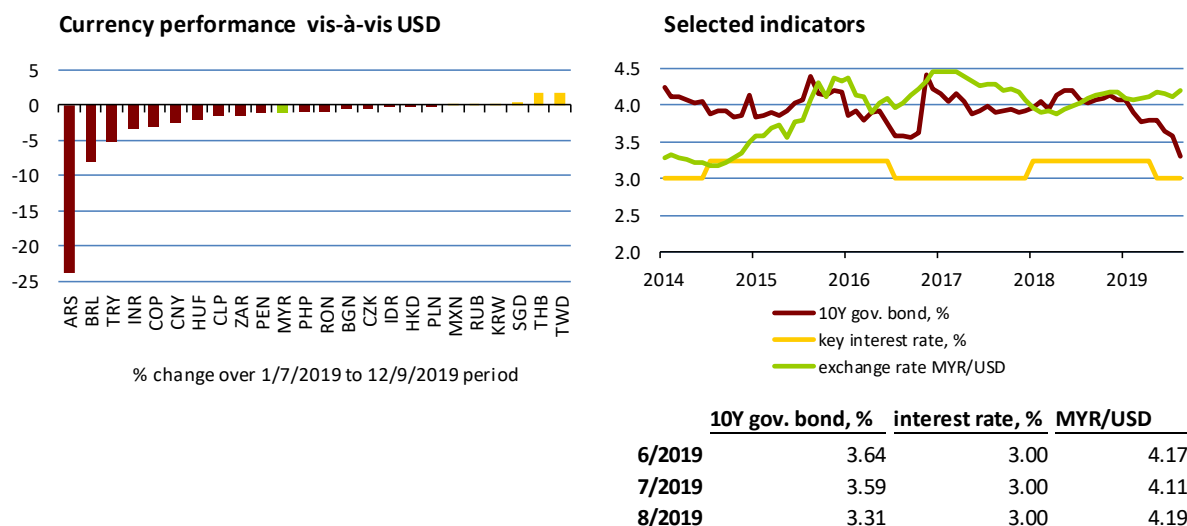
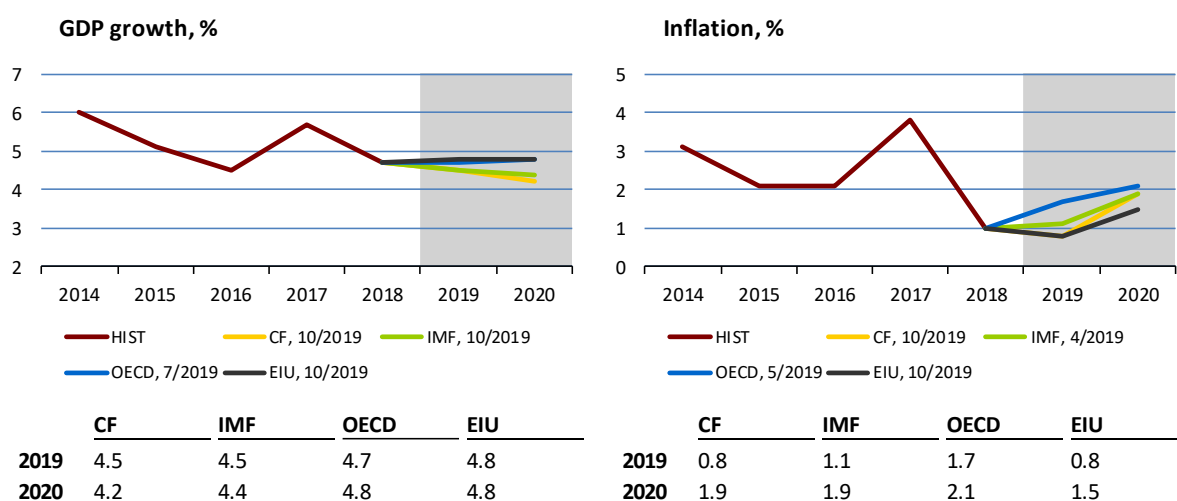


## II.7 Developing countries in the spotlight

**Malaysia's economy maintained strong momentum in Q2**, expanding by 4.9% year on year despite the ongoing tensions between the USA and China. These countries are important trading partners of Malaysia. Household consumption was the main driver of growth. Consumer inflation rose above 1% in June after previous low or negative rates, as base effects faded. Taxes were cut last year to support household consumption. Inflation rose further in August to 1.5%. Nevertheless, inflation pressures are still subdued. In May, the Malaysian central bank (BNM) lowered policy rates by 25 bp to 3% because of significant global and domestic uncertainty, which had led to a worsening of financial conditions on the Malaysian market.

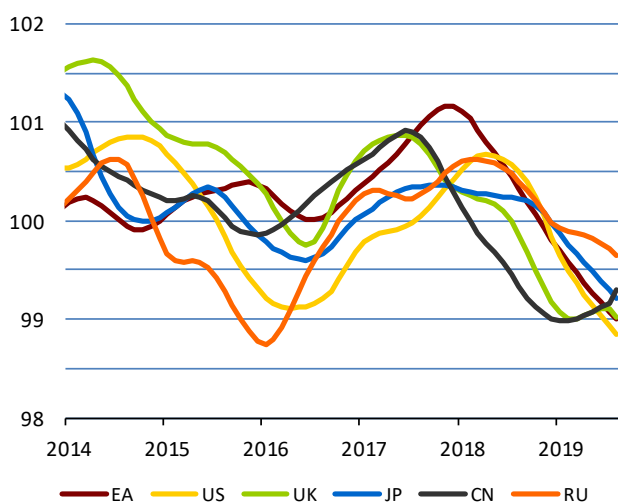
**Malaysia currently has a relatively stable government.** The Pakatan Harapan (PH) coalition holds a comfortable majority in the lower house but is plagued by internal disputes over the successor to the current prime minister Mahathir Mohamed (94), which are eating away at voter favour. The government's passivity on necessary reforms and the increasing global uncertainty are also reflected in a reluctance of domestic firms to invest. By contrast, the inflow of foreign investment is rising due to the tensions between the US and China. PH is focusing its programme on the population in agricultural areas and has also launched an anti-corruption campaign. The Corruption Perception Index in Malaysia is high (at the same level as Romania). However, the budget deficit, planned at 3.4% of GDP this year, must simultaneously be held in check. According to Finance Minister Lim Guan Eng, it will probably not fall below 3% of GDP next year.

**Malaysia will maintain GDP growth of over 4% in the coming years.** CF, the EIU and the IMF estimate the growth of the local economy at 4.2%–4.8% for 2020. The ongoing trade disputes and the subdued demand for electronics – the main export item – pose a significant risk to Malaysia. Most institutions are predicting that inflation will enter the 1.5%–2.1% band next year. According to the BNM's latest statement, monetary policy will remain accommodative to developments in the domestic and global economy. The Malaysian ringgit is currently stable at around MYR 4.2/USD, and the CF and EIU outlooks do not expect it to move significantly this year or the next.

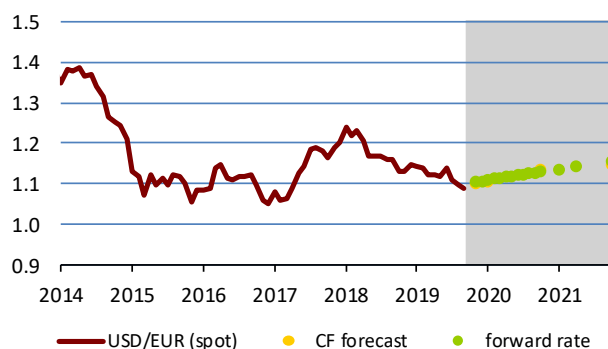


III. Leading indicators and outlook of exchange rates

OECD Composite Leading Indicator

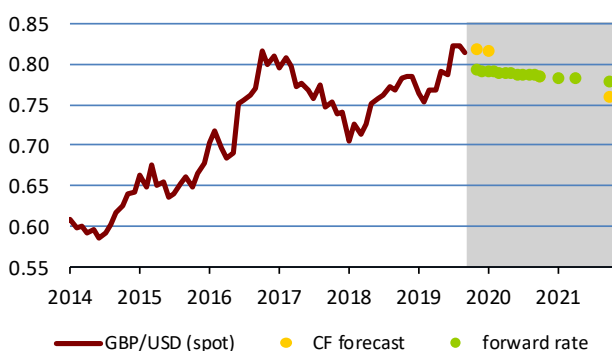


The US dollar (USD/EUR)



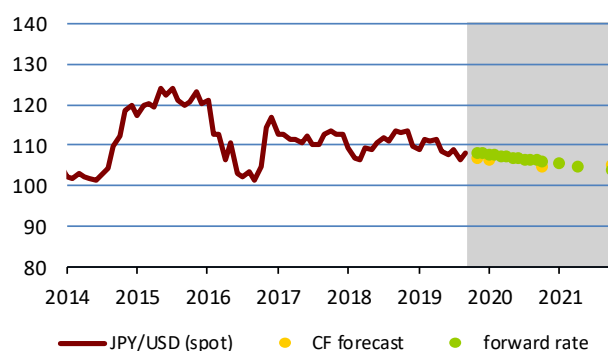
|              | 14/10/19 | 11/19 | 1/20  | 10/20 | 10/21 |
|--------------|----------|-------|-------|-------|-------|
| spot rate    | 1.103    |       |       |       |       |
| CF forecast  |          | 1.103 | 1.105 | 1.134 | 1.149 |
| forward rate |          | 1.105 | 1.110 | 1.129 | 1.153 |

The British pound (GBP/USD)



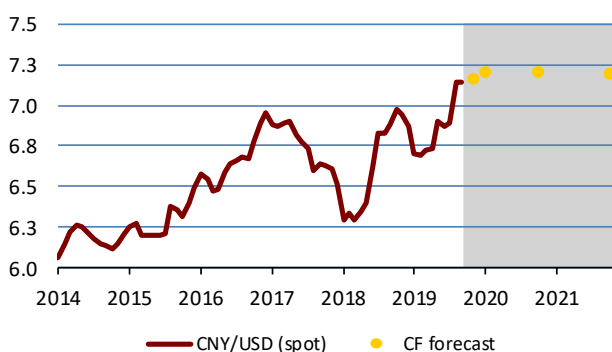
|              | 14/10/19 | 11/19 | 1/20  | 10/20 | 10/21 |
|--------------|----------|-------|-------|-------|-------|
| spot rate    | 0.795    |       |       |       |       |
| CF forecast  |          | 0.819 | 0.816 | 0.784 | 0.760 |
| forward rate |          | 0.792 | 0.791 | 0.785 | 0.779 |

The Japanese yen (JPY/USD)



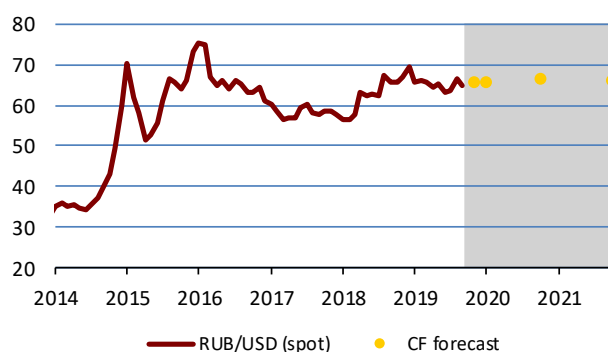
|              | 14/10/19 | 11/19 | 1/20  | 10/20 | 10/21 |
|--------------|----------|-------|-------|-------|-------|
| spot rate    | 108.4    |       |       |       |       |
| CF forecast  |          | 106.7 | 106.4 | 104.9 | 105.3 |
| forward rate |          | 108.2 | 107.7 | 106.0 | 103.8 |

The Chinese renminbi (CNY/USD)



|             | 14/10/19 | 11/19 | 1/20  | 10/20 | 10/21 |
|-------------|----------|-------|-------|-------|-------|
| spot rate   | 7.067    |       |       |       |       |
| CF forecast |          | 7.159 | 7.206 | 7.206 | 7.195 |

The Russian rouble (RUB/USD)



|             | 14/10/19 | 11/19 | 1/20  | 10/20 | 10/21 |
|-------------|----------|-------|-------|-------|-------|
| spot rate   | 64.31    |       |       |       |       |
| CF forecast |          | 65.66 | 65.73 | 66.39 | 66.11 |

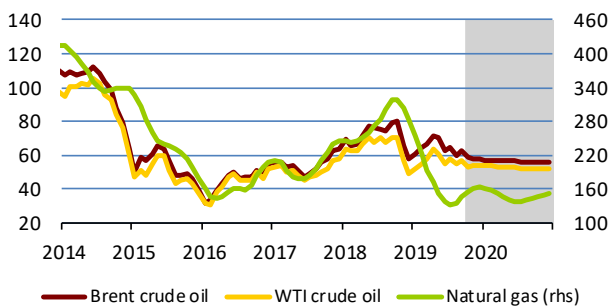
Note: Exchange rates as of last day of month. Forward rate does not represent outlook; it is based on covered interest parity, i.e. currency of country with higher interest rate is depreciating. Forward rate represents current (as of cut-off date) possibility of hedging future exchange rate.

### IV.1 Oil and natural gas

**The price of oil rose sharply in mid-September after the attacks on Saudi Arabian oil facilities, but soon reversed its previous growth and by late September was lower than before the attacks.**

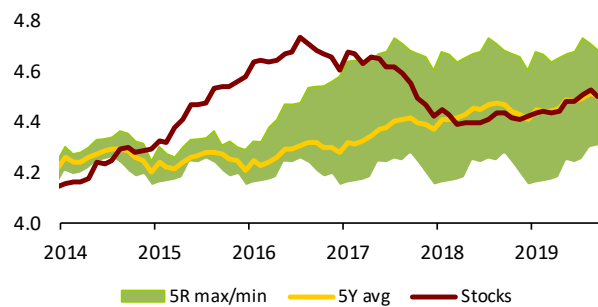
The attacks on two large oil complexes in Saudi Arabia temporarily shut down about half of the oil production there, creating uncertainty in the market regarding how long the outage would last. However, restoration of the facilities progressed surprisingly rapidly, and concerns over the weakening outlooks for the global economy and oil demand soon returned to the fore. The sharp fall in oil prices at the end of September was compounded by rapid appreciation of the US dollar. At the beginning of October, the price of Brent crude oil reached its lowest level in almost two months (USD 57.7/bbl). Despite rising slightly since then, it remained below USD 60/bbl in the first half of October. The EIA further lowered its forecast to USD 59/bbl for Q4 and to an average of USD 60/bbl for 2020. The EIA forecast recognises a higher supply disruption risk in the Gulf, but this is more than offset by a weaker outlook for global economic growth and oil demand. The price curve for future oil supplies is even lower at USD 58.1/bbl at the end of this year and USD 56.4/bbl next year. The curve is downward-sloping until the end of 2021, when it begins to turn to growth. The October CF on the other hand is slightly higher, with a price of USD 60.9/bbl for both the three-month and one-year horizons. Major oil traders agree that the price of oil will close at USD 50–60/bbl over the next year unless a US-China trade agreement is reached. However, they do not expect a rapid end to the trade war. The situation in this area is changing practically every day, with optimistic expectations regarding further negotiations alternating with reports of retaliation from one side or the other.

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



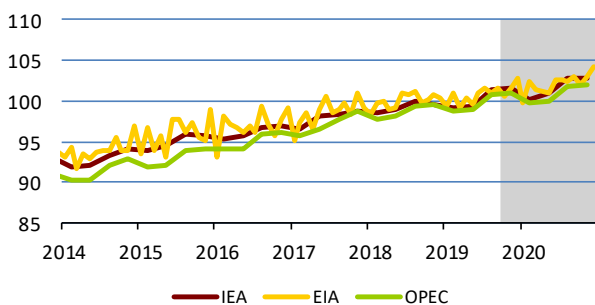
|      | Brent |   | WTI   |   | Natural gas |   |
|------|-------|---|-------|---|-------------|---|
| 2019 | 63.08 | ↘ | 56.19 | ↘ | 168.57      | ↗ |
| 2020 | 56.42 | ↘ | 52.57 | ↘ | 147.31      | ↗ |

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



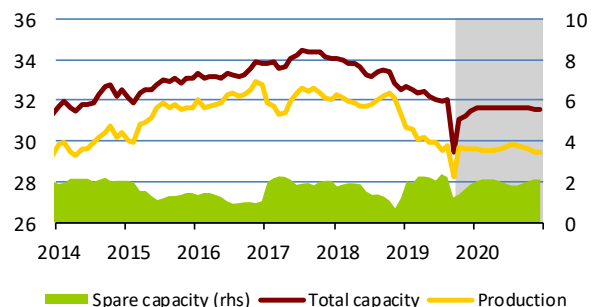
5R max/min 5Y avg Stocks

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



|      | IEA    |   | EIA    |   | OPEC   |   |
|------|--------|---|--------|---|--------|---|
| 2019 | 100.33 | ↗ | 100.82 | ↘ | 99.79  | ↘ |
| 2020 | 101.65 | ↘ | 102.13 | ↘ | 100.87 | ↘ |

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



|      | Production |   | Total capacity |   | Spare capacity |   |
|------|------------|---|----------------|---|----------------|---|
| 2019 | 29.84      | ↘ | 31.79          | ↘ | 1.96           | ↘ |
| 2020 | 29.62      | ↗ | 31.63          | ↗ | 2.01           | ↗ |

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.

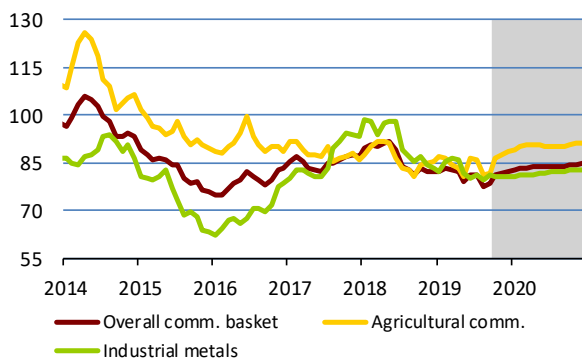
IV.2 Other commodities

**The aggregate non-energy commodity price index rose slightly in September and the first half of October, and its outlook is also slightly rising.** Both components contributed to the index growth in September, while in the first half of October a rise in the food commodity price index outweighed a slight decline in the base metals price index. The outlooks for both sub-indices remain slightly rising.

**The base metals price sub-index decreased in the first half of October due solely to a continuing decrease in the price of aluminium.** Overall, base metals prices have been supported by an easing of tensions in the US-China trade war, but manufacturing surveys continue to signal a decline in activity (for the fifth consecutive month). However, the J.P.Morgan Global Manufacturing PMI rose slightly from 49.5 to 49.7 in September. The price of aluminium has been on a downward trend since mid-2018, although it retains its customary upward outlook. The price of copper stagnated, slightly supported by a drop in stocks on the LME, the first in four months. The price of nickel remained at its highest level in several years on the back of continuing concerns of supply shortages due to the ban on exports of nickel ore from Indonesia from 2020. The iron ore price stagnated at a relatively high level after the August correction of its previous growth. It was pushed down by a recovery in Brazilian exports in Q3. On the contrary, tin and zinc prices stayed near a local low. Only the price of lead increased.

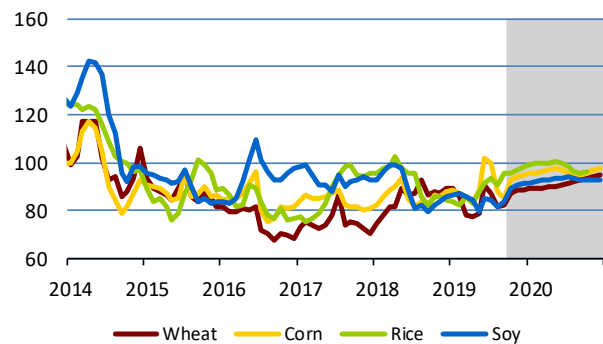
**The food commodity price sub-index accelerated its growth in early October.** This was due to prices of wheat and corn, which entered a growth trend in early September. Sugar and cocoa prices also started to rise relatively strongly in September. The price of pork stagnated at a seasonal low, while the price of beef rebounded from its seasonal low.

Non-energy commodities price indices



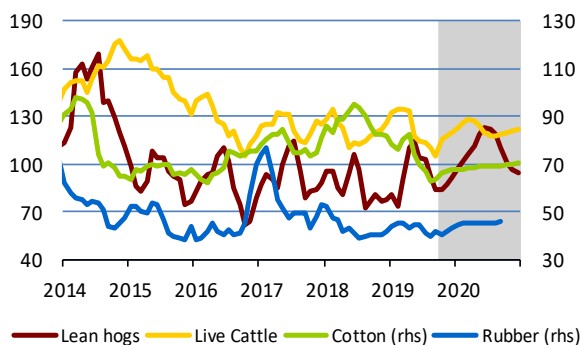
|      | Overall | Agricultural | Industrial |
|------|---------|--------------|------------|
| 2019 | 81.1 ↗  | 85.0 ↗       | 82.2 ↘     |
| 2020 | 83.7 ↗  | 90.4 ↗       | 81.9 ↘     |

Food commodities



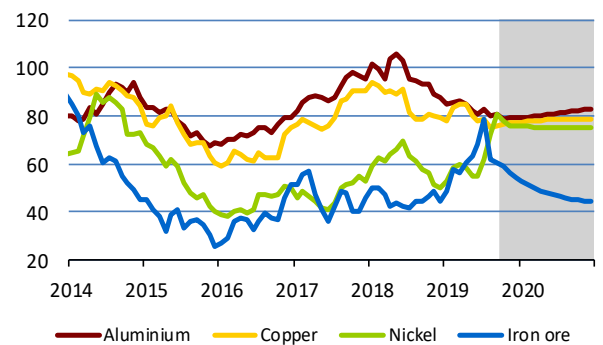
|      | Wheat  | Corn   | Rice   | Soy    |
|------|--------|--------|--------|--------|
| 2019 | 84.6 ↗ | 90.9 ↗ | 90.5 ↗ | 85.7 ↗ |
| 2020 | 91.4 ↗ | 96.2 ↗ | 98.5 ↗ | 93.0 ↗ |

Meat, non-food agricultural commodities



|      | Lean hogs | Live Cattle | Cotton | Rubber |
|------|-----------|-------------|--------|--------|
| 2019 | 93.0 ↗    | 120.6 ↗     | 71.2 ↗ | 42.9 ↘ |
| 2020 | 108.5 ↗   | 121.9 ↗     | 69.1 ↗ | 45.4 ↘ |

Basic metals and iron ore



|      | Aluminium | Copper | Nickel | Iron ore |
|------|-----------|--------|--------|----------|
| 2019 | 82.2 ↘    | 79.1 ↘ | 65.4 ↘ | 60.5 ↗   |
| 2020 | 81.1 ↘    | 78.4 ↗ | 75.1 ↘ | 47.4 ↘   |

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 automobile market slump in China: A global threat?<sup>1</sup>

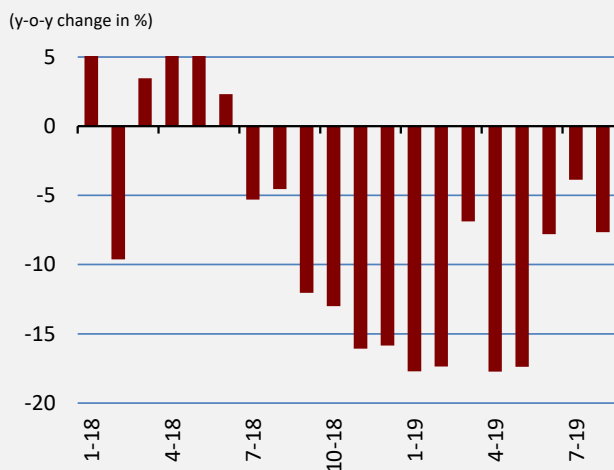
The Chinese car market is contracting sharply and the media is predicting the collapse of the global car industry and, with it, the German economy. China has been one of the fastest growing markets in recent years and has tended to absorb shocks in global car demand. However, it has changed structurally, and the downswing will certainly not affect all automakers equally. For example, Volkswagen Group, whose profitability is affected by revenue from China, could be more at risk. Over the past year, the group has managed to slightly increase its share of the Chinese market, while US firms have lost significant ground there. By contrast, Škoda Auto, for example, should not be affected at all by a drop in revenue from China, and the Czech carmaker has even managed to slightly increase its market share in Europe – no easy task in a shrinking car market. Without a buffer, the competition between world car manufacturers will become fiercer. Long-term market survival will be driven by innovation, especially in electromobility.

### The Chinese car market in tumult

**Car sales in China fell again year on year in July (see Chart 1), prompting concerns about the dynamics of the global car market.** The Chinese market has been one of the fastest growing in recent years and has tended to absorb shocks in global car demand. The current worsening outlook for the world economy is already being reflected in a correction of corporate expectations, although consumer sentiment remains relatively robust. A further deterioration in sentiment, related investment constraints and a decline in employment may have a significant impact on car demand. With the Chinese market in decline, this is jeopardising the stability of the whole industry on a global scale.

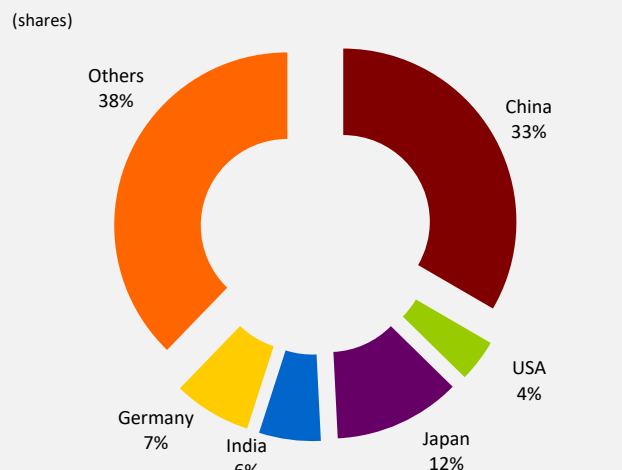
**China's car market is the largest in the world not only in terms of the number of cars in use, but also as regards overall car production.** In 2018, the number of registered cars in China was 240 million, while the motorisation rate was just 171 per 1,000 inhabitants. In the USA, the motorisation rate is 910 cars per 1,000 inhabitants, so the Chinese market has great potential. China's motor-vehicle industry is more productive than those of the US, Japan and the EU combined, with every third vehicle in the world produced in China in 2018. The same year, Chinese vehicle production reached 28 million, of which 85% were passenger cars. The second largest automaker is Japan, followed by Germany (see Chart 2).

**Chart 1 – Car sales in China have been falling year on year since mid-2018**



Source: Refinitiv Datastream

**Chart 2 – China accounted for one third of global passenger car production in 2018**



Source: International Organization of Motor Vehicle Manufacturers

**The reasons for the drop in car sales in China are both cyclical and structural.** Retail car sales have been falling year on year in China since recording a 5.3% drop in July 2018. So, this is not a blip but a sign of deeper changes in the Chinese economy. We will therefore take a closer look at the impact not only of macroeconomic conditions, but also of cyclical fluctuations and structural factors on the Chinese car market.

**The significant macroeconomic factors affecting the Chinese car market include the introduction of car import duties, fluctuations in China's financial markets and rising property prices.** The introduction of duties on car imports from the USA has also hit imports of German cars made in the USA. According to press reports, exports of cars manufactured by BMW and Mercedes-Benz in the USA dropped from 115,000 in 2017 to 95,000 in 2018. German automakers have four large factories in the USA and

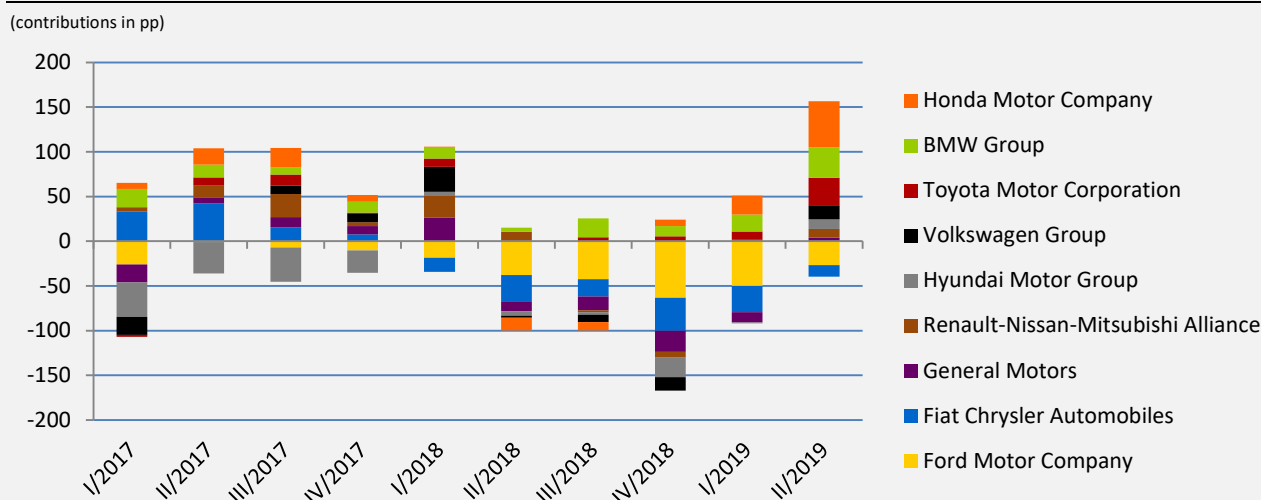
<sup>1</sup> Author: Soňa Benecká. The views expressed in this article are those of the author and do not necessarily reflect the official position of the Czech National Bank. The author thanks Martin Motl and Vladimír Žďárský for analytical support.

employ 118,000 people. Meanwhile, imports of BMW and Mercedes-Benz cars make up the largest share of auto imports, since other firms produce cars for the Chinese market directly in China. These are, however, more expensive, luxury vehicles that are less sensitive to price factors. Similarly, stock market sell-offs and capital transfers have had an impact on the investment choices of wealthier sections of the population, while growth in property prices, especially in smaller towns, has reduced the purchasing power of the less well off. More detailed sales data, however, show that demand has dropped mainly for less expensive cars in less expensive cities.

**The cyclical factors particular to the passenger car sector include higher taxes on vehicle operation, worsening financing terms, and market saturation for some models.** As mentioned in the introduction, the per capita motorisation rate in China is very low. Acquiring and operating a car in China, especially in Beijing, is relatively expensive and only the more affluent segments of the population can afford to do so. Tax on car purchases increased from 5% in 2016 to 10% in 2018. The numbers of vehicle registration plates issued have been limited (for example from 240,000 in 2010 to 40,000 in Beijing in 2017) and such plates are sold by auction and can thus cost more than the car. The regulatory changes may have led some consumers to buy cars earlier under better conditions (frontloading). Since 2017, credit conditions have also been tightened, although the impact on car sales should be small. Goldman Sachs estimates that only 40% of vehicle sales are externally financed, while the global average is 70%. The Chinese market is also specific with respect to demand for certain types of cars, especially SUVs in recent years. In 2018, SUVs accounted for half of the cars sold in China. Some of the higher-end brands are therefore continuing to record rising revenue in the Chinese market, while other joint ventures (JVs)<sup>2</sup> are suffering from low capacity utilisation. In the first half of 2019, capacity utilisation for Changan PSA and Changan Ford was less than 10% (with PSA, Fiat Chrysler and Ford). Domestic manufacturers (especially Geely) are outcompeting some foreign groups, pushing them out of the shrinking market.

**German marques, however, are competing significantly better on the Chinese market than US ones.** BMW and VW are performing relatively well on the plunging local market. Even Japanese makes such as Honda and Toyota have also improved (see Chart 3). In contrast, analysts are worried about the very slow introduction of new models by Ford and the effect on its financial results. Ford Group's car sales in China have dropped by 46% on average over the past 12 months. Chrysler Group and General Motors have seen decreases in car sales of 25% and 11% respectively over the same period. The escalation of tensions in China-US trade relations, which is exacerbating the negative consumer sentiment towards US companies,

Chart 3 – Passenger car sales in China by automaker



Source: Bloomberg

is also strongly affecting sales of American cars. US automotive companies and their Chinese partners (SAIC and Changan) could lose up to half of their sales in China judging by the impact of past boycotts of Japanese and South Korean vehicles by Chinese consumers.<sup>3</sup> Ford is trying to face the new situation by launching 50 new vehicle models in China as part of its 2025 plan. The new models include 15 electrified vehicles, some of which will be produced in partnership with the Chinese company Zotye Auto.

<sup>2</sup> Foreign car companies make cars for the local market through joint ventures with local manufacturers. For example, VW and Audi cars are produced in China in a dual-partnership joint venture: FAW-Volkswagen and SAIC Volkswagen.

<sup>3</sup> In 2012, sales of Japanese passenger cars in China decreased by 13% in nine months following anti-Japanese demonstrations in a dispute over territorial claims on islands in the East China Sea. In 2017, China boycotted Hyundai and Kia vehicles due to US missile defence installations in South Korea, with sales declining by one-third.

**The structural factors pushing down car sales in China mainly include measures to reduce emissions, the development of the used car market and the rise of sharing services.** Rapidly deteriorating living conditions in cities have in recent years prompted the central authorities to implement a series of measures, from reducing plant operations in the winter to new environmental regulations. In addition to limits on vehicle registration plates in some cities, these have included more stringent emission standards for cars (the China VI Emission Standards<sup>4</sup>). From 1 June 2019, dealers cannot sell any cars that do not meet these standards. Originally, the standard was to be introduced in 2020, but its implementation was accelerated in order to improve air quality, especially in the 15 worst affected cities. Before the new regulation came into force in June 2019, all marques offered large discounts on car sales, leading to a one-off upswing in sales. On the other hand, until recently, large subsidies were offered for the purchase of electric cars (up to 60% of the value of the car), but these have been significantly reduced since July. Manufacturers of electric and hybrid cars suffered losses already in July, as interest in electric cars without subsidies was thin. Many manufacturers are calling for a new package of support measures to enable them to better face the deteriorating domestic demand, but the Chinese government has not yet taken vigorous steps. It is possible that manufacturers will see these come to pass when the full effects of the trade war with US are felt. Demand for new cars is also being dampened by the emerging used car market, which got going after the government abolished the prohibition of using vehicles in cities other than where they were purchased. The high acquisition costs of cars have also fuelled the development of sharing services. For example, the Chinese version of Uber (Didi Chuxing) already had 550 million users in 2018.

**To sum up, the growth observed in the past cannot be expected to return, since the Chinese car market was driven largely by one-off effects and frontloading.** However, the government may step up its support for car sales when the measures to reduce urban emissions and the downswing of the Chinese economy in the wake of the trade war with the US are felt in full.

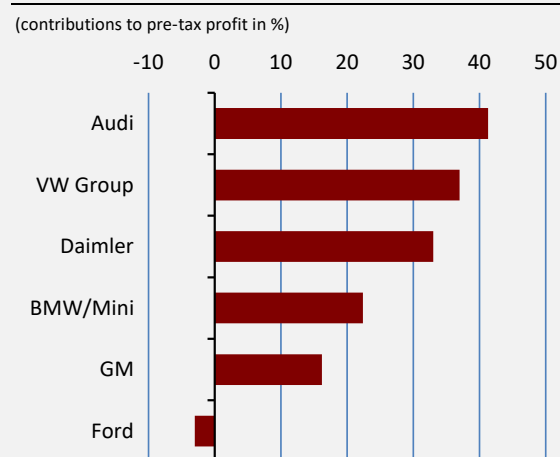
### The falling sales in China will lower automakers' profits but not endanger the firms themselves

**The direct impact on Czech exports will be negligible given the symbolic weight of Czech exports to China in this goods segment.** Taking the pre-contraction situation as our starting point, in 2017, Czech exports amounted to just CZK 4.8 billion (dominated by parts and accessories at CZK 4.5 billion). In 2018, they fell to CZK 3.2 billion (with parts accounting for CZK 3.05 billion). The decline deepened further to CZK 1.3 billion in 2019 H1. Compared with 2017 H1, exports have fallen by 46%, or almost half, in two years. Given their negligible weight in overall Czech exports, however, this is barely perceptible. The overall negative impact of the Chinese market contraction on the Czech economy is thus around CZK 2.5 billion. The drop in demand for cars in China may have a slightly larger negative indirect impact on exports of parts to European countries that in turn export cars made from them to China (mainly Germany). This indirect impact cannot be quantified, however.

**The lower car sales in China are, however, affecting the overall sales of Skoda Auto, one of the largest Czech employers.** China is currently the company's biggest sales market. Škoda Auto's market share in China is under 2%. Its cars for the Chinese market are manufactured directly in China. In the first half of 2019, Škoda Auto delivered 620,000 cars to customers, down 4.9% year on year. Without the Chinese market, however, it would have maintained 1.6% growth in production, as it supplied 495,000 cars to other world markets. It managed to increase its sales in Europe, where it sells two-thirds of its output. More than 275,000 Škoda cars went to Western Europe (+3.2% y-o-y). The marque was particularly successful in Germany (99,000 cars, +6.5%). Skoda Auto's total revenues thus improved in 2019 H1, mainly because it took over regional responsibility for India within the group. Skoda Auto expects overall car supplies to continue to grow until the year-end and to exceed last year's figure, with sales increasing by 5%.

**The lower sales of Škoda cars in China will affect Volkswagen (VW) Group, of which the Czech automaker is a part.** The financial impact associated with the drop in sales of Skoda Auto products will be reflected in a fall in sales revenue, on which Volkswagen's management is currently deciding. So, the fall in

Chart 4 – Revenue from China made up a large part of some automakers' profits in 2018



Source: Financial Times

<sup>4</sup> The standard is similar to Euro 6; see: <https://theicct.org/publications/china's-stage-vi-emissions-standard-heavy-duty-vehicles-final-rule>



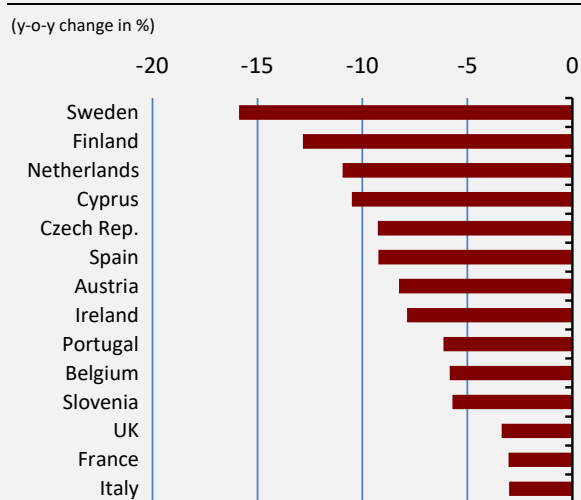
this revenue is not key from the perspective of the Czech economy. Volkswagen Group, however, is the largest car manufacturer in the world and China's contribution to its profitability is significant (see Chart 4). Overall, VW Group sold 4.2 million cars on the Chinese market in 2018, 0.5% more than in 2017. To maintain market share, it plans to offer 14 electric models for the Chinese market this year.

**A drop in European sales would be a significant shock for VW Group.** In 2018, the group as a whole sold 4.38 million cars on the European market, but the results for this year are looking less optimistic. According to the group's press releases, deliveries to European customers fell by almost 10% year on year in August. A downward year-on-year trend in deliveries has been apparent since the beginning of the year, but the figures reflect last year's high base, when frontloading occurred. Also significant is the American market, where there is still a risk that the USA will introduce import duties.

**Demand on the European car market has been slowing slightly in recent months.** According to the European Automobile Manufacturers' Association (ACEA), over 10.5 million cars were registered in the EU28 in the first eight months of 2019, 3% fewer than in the same period of 2018. However, the weaker result reflected carmakers' preparations for the introduction of new emission regulations last year. Sweden, Finland and the Netherlands recorded the biggest drops in car registration (see Chart 5). In the Czech Republic, registrations decreased by more than 9% year on year, while in Germany they increased by just under 1%. Car sales are expected to rebound in the autumn, though not as much as in past years. The firms that account for the bulk of car demand are postponing their investments due to global uncertainty, so company fleet renewals cannot be expected. Nor can it be overlooked that many EU countries have entered the late stage of the business cycle, with consumers reining in their demand for certain consumer goods, such as cars.

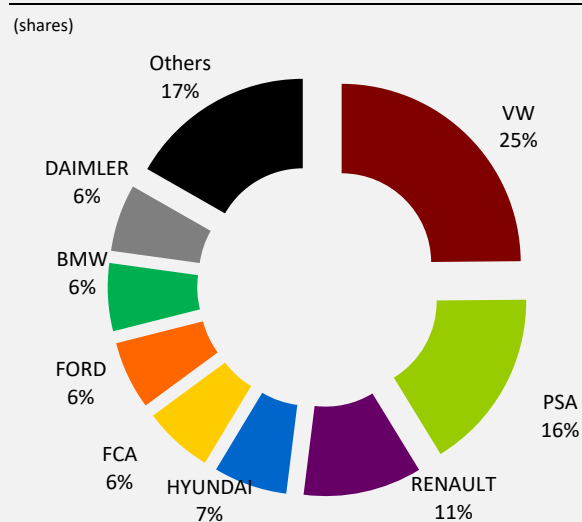
**VW Group has a significant share of the European market but is failing to withstand the market contraction.** VW Group's share of European car registrations (see Chart 6) was 24.8% (January–August 2019), while Škoda's was 4.8%. Audi and VW registrations fell by more than 7% year on year, whereas the domestic car manufacturer did much better. Škoda registrations actually increased by 1.4% year on year. Given the sharp contraction of the company's home market, this is evidence of its competitiveness.

**Chart 5 – Many EU countries recorded a year-on-year decline in car registrations in the first eight months of 2019**



Source: ACEA

**Chart 6 – Every fourth car registered in the EU28 was from VW Group (January–August 2019)**



Source: ACEA

**The worsening profitability of German automakers may undermine their ability to invest, which is crucial given the current rise in electromobility.** Since Dieseltgate, the automobile industry has undergone a dramatic change and the pressure to innovate has increased substantially. Company profitability is key to sustaining the pace of innovation and maintaining market share in the next decade.

## Conclusion

**China's car market is contracting sharply, but not just for purely cyclical reasons.** A greater emphasis on environmental protection, the development of the used car market and the rise of car sharing are contributing very significantly to a decline in interest in cars in China. The market developments in China cannot be called a harbinger of a Czech or global recession. Nonetheless, lower revenues from emerging markets are seriously jeopardising the profits of global car manufacturers such as Volkswagen. These may be partly offset by revenues from traditional markets such as Europe, but they too appear to be threatened by poorer growth prospects, greater uncertainty (due to the USA's trade disputes with China and

the EU and because of Brexit) and tightened environmental standards. The pressure for innovation, in particular the transition to electromobility, will pose a real challenge in an environment of declining profits.

**Keywords**

foreign exchange reserves, monetary policy, inflation targeting, financial crisis

**JEL Classification**

E58, F31, F41

## A1. Change in predictions for 2019

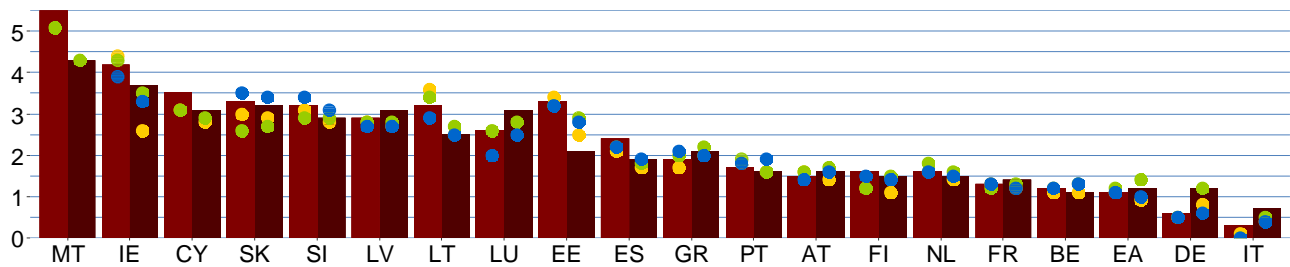
|    | GDP growth, % |         |      |          | Inflation, % |         |      |          |      |         |      |         |      |         |
|----|---------------|---------|------|----------|--------------|---------|------|----------|------|---------|------|---------|------|---------|
|    | CF            | IMF     | OECD | CB / EIU | CF           | IMF     | OECD | CB / EIU |      |         |      |         |      |         |
| EA | 0             | 2019/10 | -0.1 | 2019/10  | -0.1         | 2019/10 | -0.1 | 2019/10  | -0.1 | 2019/10 | -0.1 | 2019/10 | -0.1 | 2019/10 |
|    |               | 2019/9  |      | 2019/7   |              | 2019/9  |      | 2019/4   |      | 2019/9  |      | 2018/11 |      | 2019/6  |
| US | 0             | 2019/10 | -0.2 | 2019/10  | -0.4         | 2019/9  | +0.1 | 2019/9   | 0    | 2019/10 | -0.2 | 2019/10 | -0.7 | 2019/5  |
|    |               | 2019/9  |      | 2019/7   |              | 2019/5  |      | 2019/6   |      | 2019/9  |      | 2019/4  |      | 2018/11 |
| UK | 0             | 2019/10 | -0.1 | 2019/10  | -0.2         | 2019/9  | -0.2 | 2019/8   | -0.1 | 2019/10 | 0    | 2019/10 | -0.6 | 2019/5  |
|    |               | 2019/9  |      | 2019/7   |              | 2019/5  |      | 2019/5   |      | 2019/9  |      | 2019/4  |      | 2018/11 |
| JP | 0             | 2019/10 | 0    | 2019/10  | +0.3         | 2019/9  | -0.1 | 2019/7   | 0    | 2019/10 | -0.1 | 2019/10 | -0.6 | 2019/5  |
|    |               | 2019/9  |      | 2019/7   |              | 2019/5  |      | 2019/4   |      | 2019/9  |      | 2019/4  |      | 2018/11 |
| CN | 0             | 2019/10 | -0.1 | 2019/10  | -0.1         | 2019/9  | 0    | 2019/8   | +0.1 | 2019/10 | 0    | 2019/10 | -1.1 | 2019/5  |
|    |               | 2019/9  |      | 2019/7   |              | 2019/5  |      | 2019/6   |      | 2019/9  |      | 2019/4  |      | 2018/11 |
| RU | -0.1          | 2019/9  | -0.1 | 2019/10  | -0.5         | 2019/9  | 0    | 2019/8   | 0    | 2019/9  | -0.3 | 2019/10 | -0.2 | 2019/5  |
|    |               | 2019/8  |      | 2019/7   |              | 2019/5  |      | 2019/7   |      | 2019/8  |      | 2019/4  |      | 2018/11 |

## A2. Change in predictions for 2020

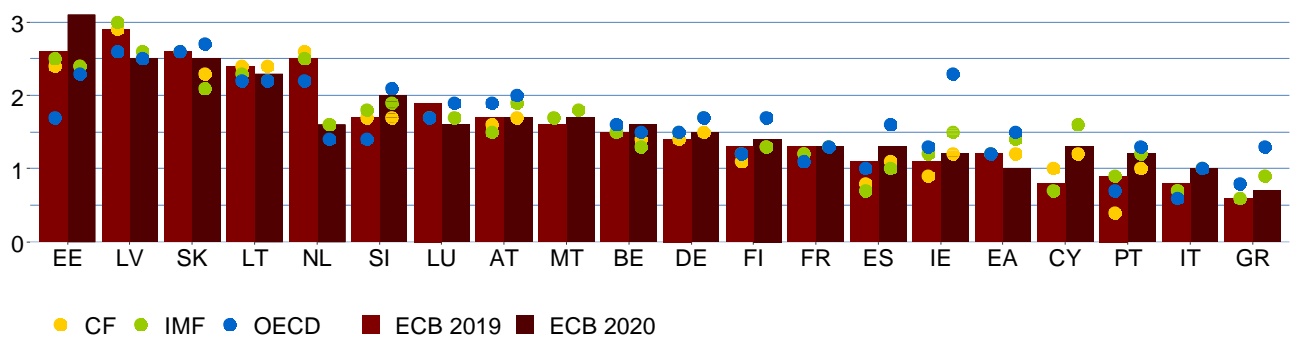
|    | GDP growth, % |         |      |          | Inflation, % |        |      |          |      |         |      |         |      |         |
|----|---------------|---------|------|----------|--------------|--------|------|----------|------|---------|------|---------|------|---------|
|    | CF            | IMF     | OECD | CB / EIU | CF           | IMF    | OECD | CB / EIU |      |         |      |         |      |         |
| EA | -0.2          | 2019/10 | -0.2 | 2019/10  | -0.4         | 2019/9 | -0.2 | 2019/9   | -0.1 | 2019/10 | -0.2 | 2019/10 | -0.4 | 2019/9  |
|    |               | 2019/9  |      | 2019/7   |              | 2019/5 |      | 2019/6   |      | 2019/9  |      | 2019/4  |      | 2018/11 |
| US | 0             | 2019/10 | +0.2 | 2019/10  | -0.3         | 2019/9 | 0    | 2019/9   | 0    | 2019/10 | -0.4 | 2019/10 | -0.3 | 2019/5  |
|    |               | 2019/9  |      | 2019/7   |              | 2019/5 |      | 2019/6   |      | 2019/9  |      | 2019/4  |      | 2018/11 |
| UK | -0.1          | 2019/10 | 0    | 2019/10  | -0.1         | 2019/9 | -0.3 | 2019/8   | 0    | 2019/10 | -0.1 | 2019/10 | -0.2 | 2019/5  |
|    |               | 2019/9  |      | 2019/7   |              | 2019/5 |      | 2019/5   |      | 2019/9  |      | 2019/4  |      | 2018/11 |
| JP | 0             | 2019/10 | +0.1 | 2019/10  | 0            | 2019/9 | 0    | 2019/7   | -0.1 | 2019/10 | -0.2 | 2019/10 | -0.4 | 2019/5  |
|    |               | 2019/9  |      | 2019/7   |              | 2019/5 |      | 2019/4   |      | 2019/9  |      | 2019/4  |      | 2018/11 |
| CN | 0             | 2019/10 | -0.2 | 2019/10  | -0.3         | 2019/9 | 0    | 2019/8   | +0.2 | 2019/10 | -0.1 | 2019/10 | -0.9 | 2019/5  |
|    |               | 2019/9  |      | 2019/7   |              | 2019/5 |      | 2019/6   |      | 2019/9  |      | 2019/4  |      | 2018/11 |
| RU | -0.1          | 2019/9  | 0    | 2019/10  | -0.5         | 2019/9 | 0    | 2019/8   | -0.1 | 2019/9  | -1.0 | 2019/10 | 0    | 2019/5  |
|    |               | 2019/8  |      | 2019/7   |              | 2019/5 |      | 2019/7   |      | 2019/8  |      | 2019/4  |      | 2018/11 |

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

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



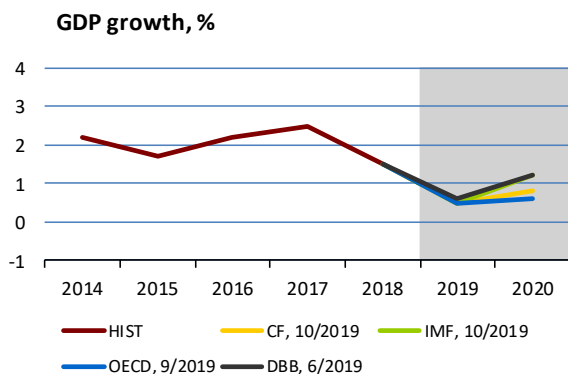
Inflation in the euro area countries in 2019 and 2020, %



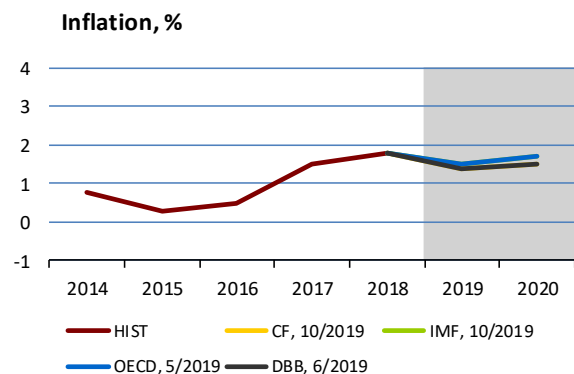
Note: Charts show institutions' latest available outlooks of for the given country.

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

#### Germany

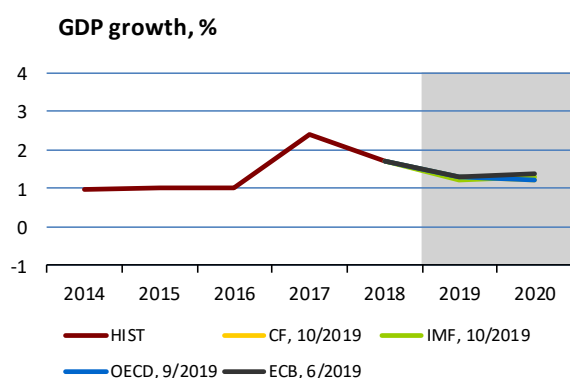


|      | CF    | IMF   | OECD  | DBB |
|------|-------|-------|-------|-----|
| 2019 | 0.5 → | 0.5 → | 0.5 → | 0.6 |
| 2020 | 0.8 → | 1.2 → | 0.6 → | 1.2 |

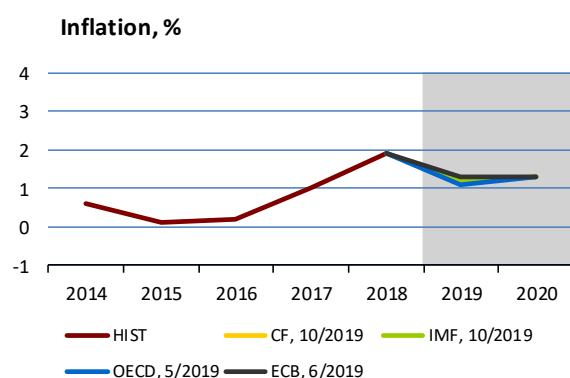


|      | CF    | IMF   | OECD  | DBB |
|------|-------|-------|-------|-----|
| 2019 | 1.4 → | 1.5 → | 1.5 → | 1.4 |
| 2020 | 1.5 → | 1.7 → | 1.7 → | 1.5 |

## France

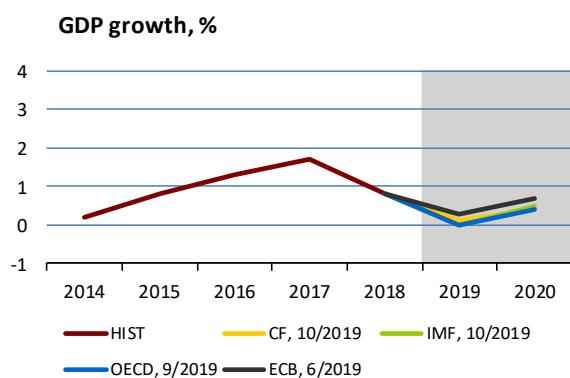


|      | CF    | IMF   | OECD  | ECB |
|------|-------|-------|-------|-----|
| 2019 | 1.3 → | 1.2 ↘ | 1.3 → | 1.3 |
| 2020 | 1.2 → | 1.3 ↘ | 1.2 ↘ | 1.4 |

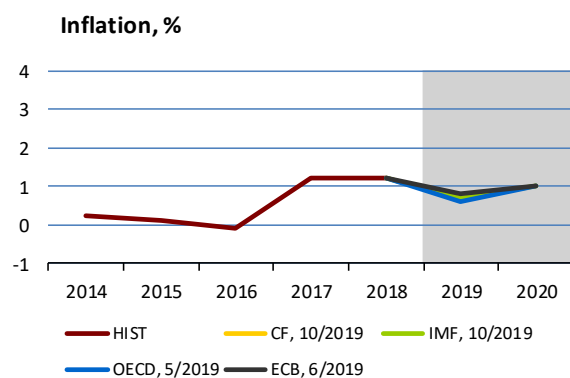


|      | CF    | IMF   | OECD | ECB |
|------|-------|-------|------|-----|
| 2019 | 1.2 → | 1.2 ↘ | 1.1  | 1.3 |
| 2020 | 1.3 → | 1.3 ↘ | 1.3  | 1.3 |

## Italy

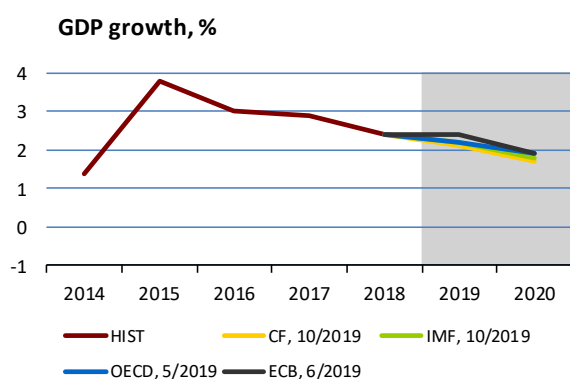


|      | CF    | IMF   | OECD  | ECB |
|------|-------|-------|-------|-----|
| 2019 | 0.1 → | 0.0 ↘ | 0.0 → | 0.3 |
| 2020 | 0.4 → | 0.5 ↘ | 0.4 ↘ | 0.7 |

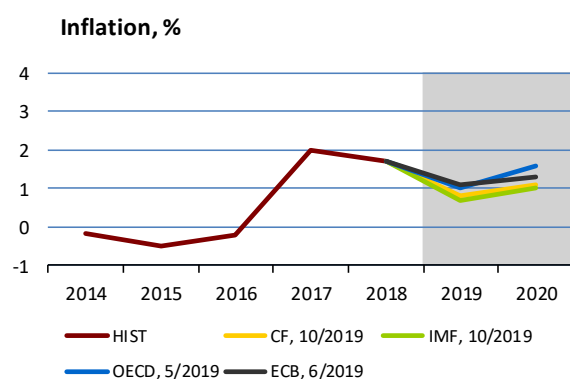


|      | CF    | IMF   | OECD | ECB |
|------|-------|-------|------|-----|
| 2019 | 0.7 ↘ | 0.7 ↘ | 0.6  | 0.8 |
| 2020 | 1.0 ↘ | 1.0 ↘ | 1.0  | 1.0 |

## Spain

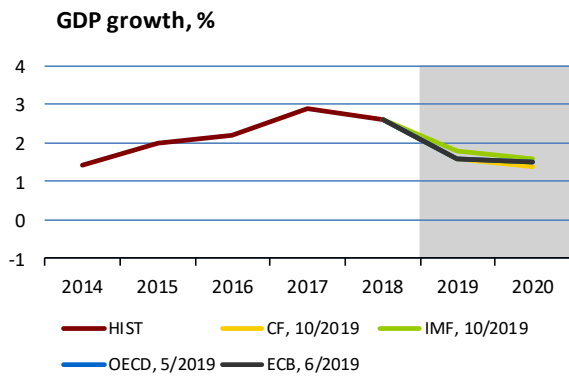


|      | CF    | IMF   | OECD | ECB |
|------|-------|-------|------|-----|
| 2019 | 2.1 ↘ | 2.2 ↘ | 2.2  | 2.4 |
| 2020 | 1.7 ↘ | 1.8 ↘ | 1.9  | 1.9 |

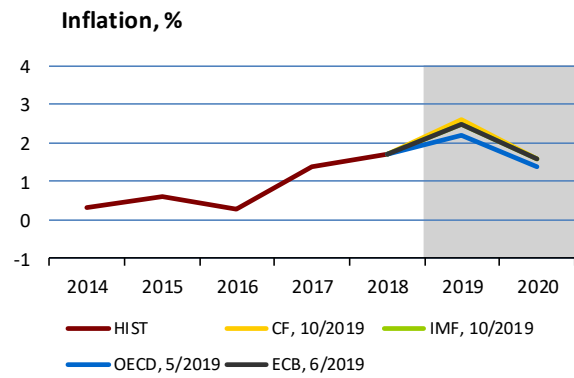


|      | CF    | IMF   | OECD | ECB |
|------|-------|-------|------|-----|
| 2019 | 0.8 ↘ | 0.7 ↘ | 1.0  | 1.1 |
| 2020 | 1.1 ↘ | 1.0 ↘ | 1.6  | 1.3 |

## Netherlands

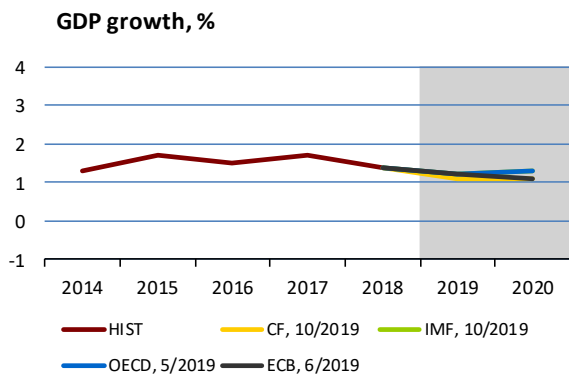


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 1.6 | 1.8 | 1.6  | 1.6 |
| 2020 | 1.4 | 1.6 | 1.5  | 1.5 |

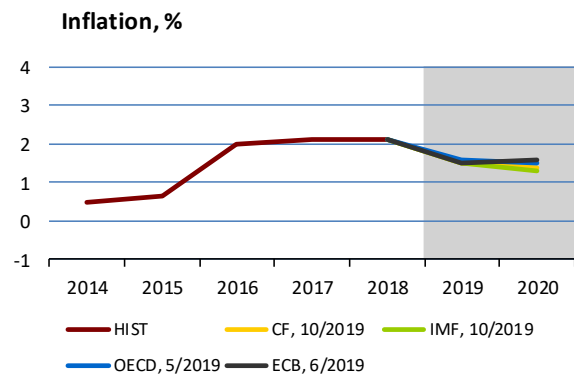


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 2.6 | 2.5 | 2.2  | 2.5 |
| 2020 | 1.6 | 1.6 | 1.4  | 1.6 |

## Belgium

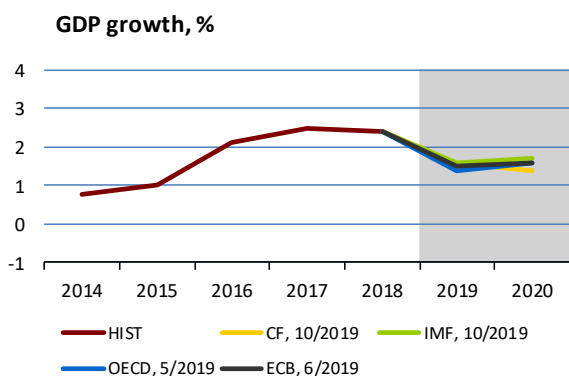


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 1.1 | 1.2 | 1.2  | 1.2 |
| 2020 | 1.1 | 1.3 | 1.3  | 1.1 |

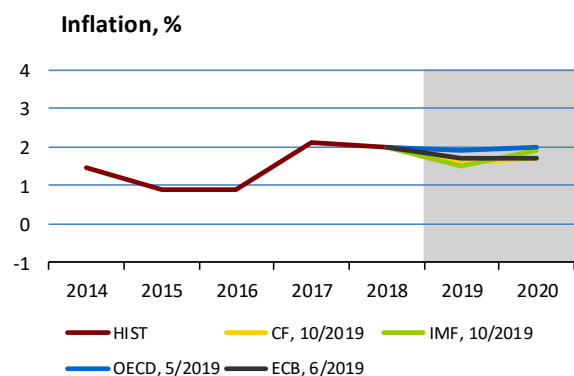


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 1.5 | 1.5 | 1.6  | 1.5 |
| 2020 | 1.4 | 1.3 | 1.5  | 1.6 |

## Austria

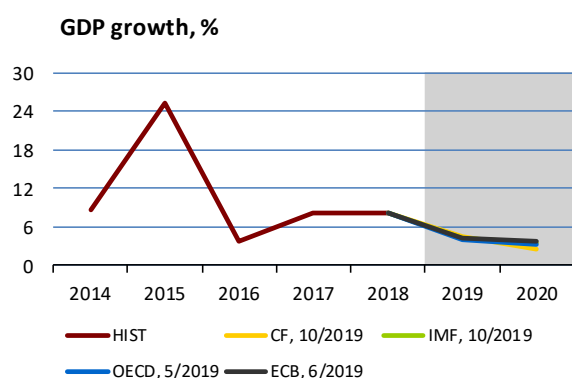


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 1.6 | 1.6 | 1.4  | 1.5 |
| 2020 | 1.4 | 1.7 | 1.6  | 1.6 |

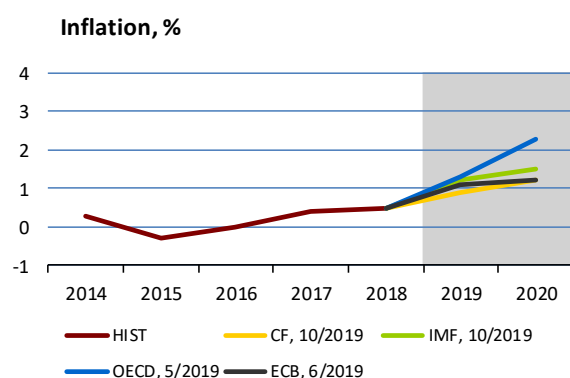


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 1.6 | 1.5 | 1.9  | 1.7 |
| 2020 | 1.7 | 1.9 | 2.0  | 1.7 |

## Ireland

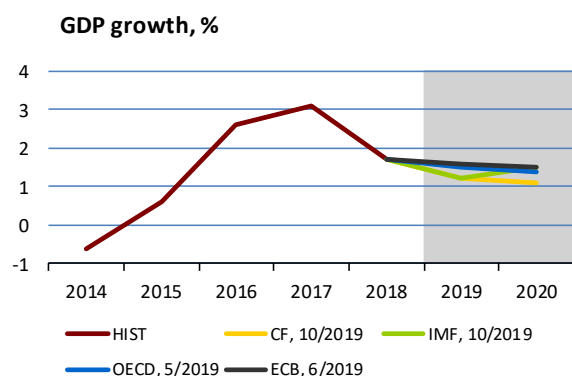


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 4.4 | 4.3 | 3.9  | 4.2 |
| 2020 | 2.6 | 3.5 | 3.3  | 3.7 |

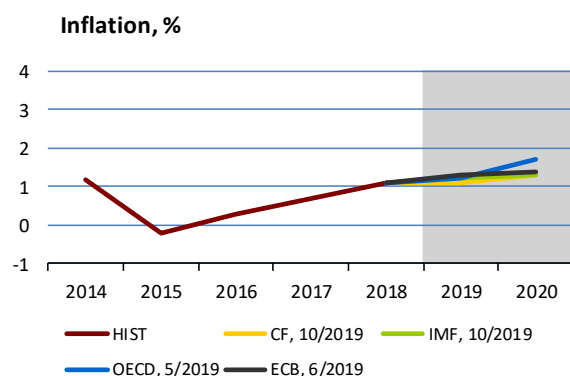


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 0.9 | 1.2 | 1.3  | 1.1 |
| 2020 | 1.2 | 1.5 | 2.3  | 1.2 |

## Finland

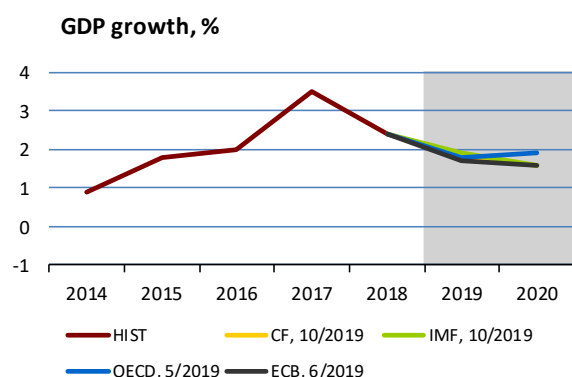


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 1.2 | 1.2 | 1.5  | 1.6 |
| 2020 | 1.1 | 1.5 | 1.4  | 1.5 |

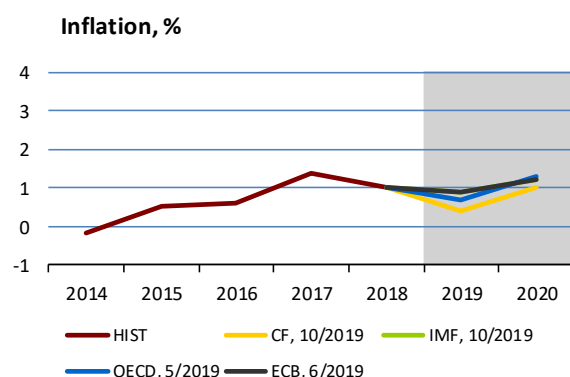


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 1.1 | 1.2 | 1.2  | 1.3 |
| 2020 | 1.3 | 1.3 | 1.7  | 1.4 |

## Portugal

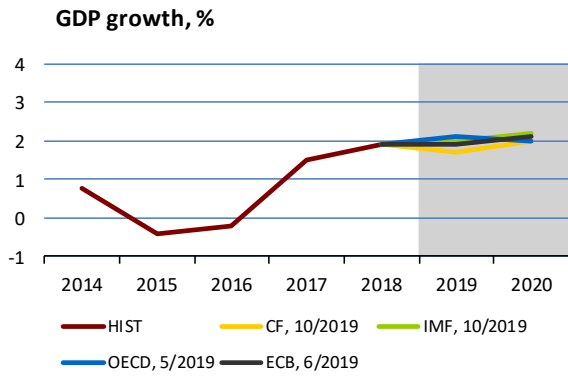


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 1.8 | 1.9 | 1.8  | 1.7 |
| 2020 | 1.6 | 1.6 | 1.9  | 1.6 |

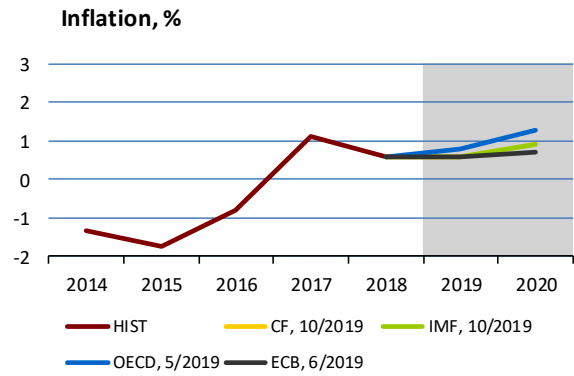


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 0.4 | 0.9 | 0.7  | 0.9 |
| 2020 | 1.0 | 1.2 | 1.3  | 1.2 |

## Greece

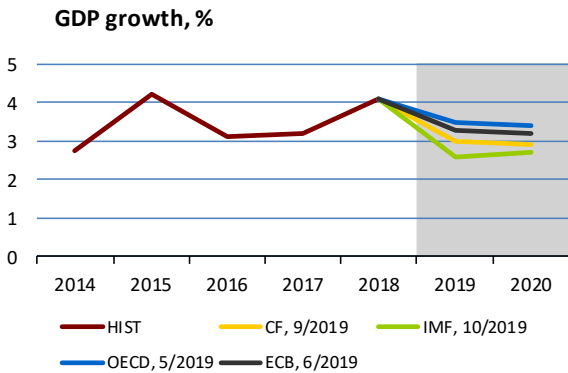


|      | CF    | IMF   | OECD | ECB |
|------|-------|-------|------|-----|
| 2019 | 1.7 → | 2.0 ↘ | 2.1  | 1.9 |
| 2020 | 2.0 ↗ | 2.2 → | 2.0  | 2.1 |

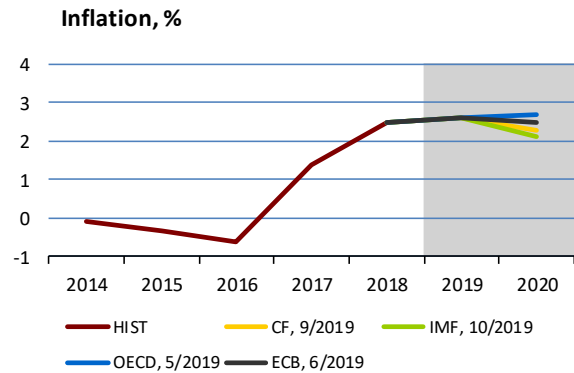


|      | CF    | IMF   | OECD | ECB |
|------|-------|-------|------|-----|
| 2019 | 0.6 ↘ | 0.6 ↘ | 0.8  | 0.6 |
| 2020 | 0.9 ↘ | 0.9 ↘ | 1.3  | 0.7 |

## Slovakia

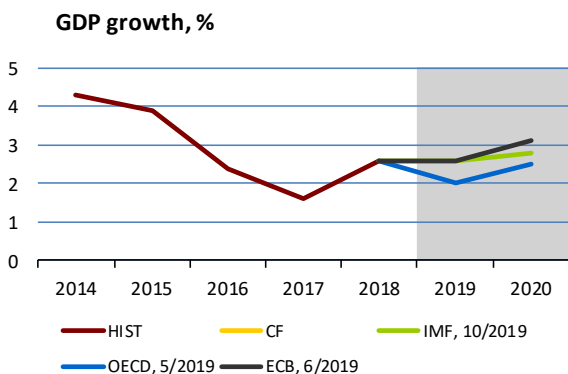


|      | CF    | IMF   | OECD | ECB |
|------|-------|-------|------|-----|
| 2019 | 3.0 ↘ | 2.6 ↘ | 3.5  | 3.3 |
| 2020 | 2.9 ↘ | 2.7 ↘ | 3.4  | 3.2 |

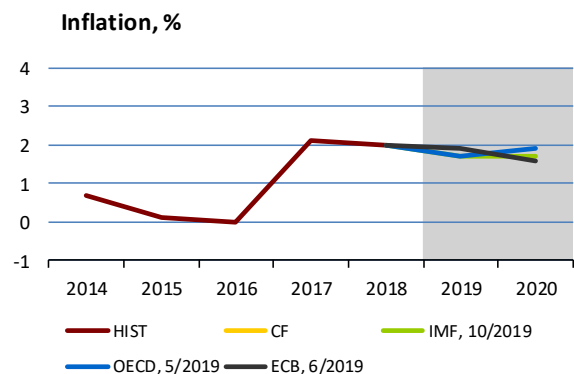


|      | CF    | IMF   | OECD | ECB |
|------|-------|-------|------|-----|
| 2019 | 2.6 → | 2.6 ↘ | 2.6  | 2.6 |
| 2020 | 2.3 → | 2.1 ↘ | 2.7  | 2.5 |

## Luxembourg



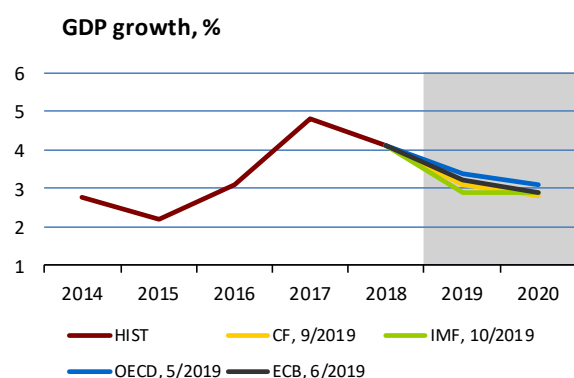
|      | CF    | IMF   | OECD | ECB |
|------|-------|-------|------|-----|
| 2019 | n. a. | 2.6 ↘ | 2.0  | 2.6 |
| 2020 | n. a. | 2.8 → | 2.5  | 3.1 |



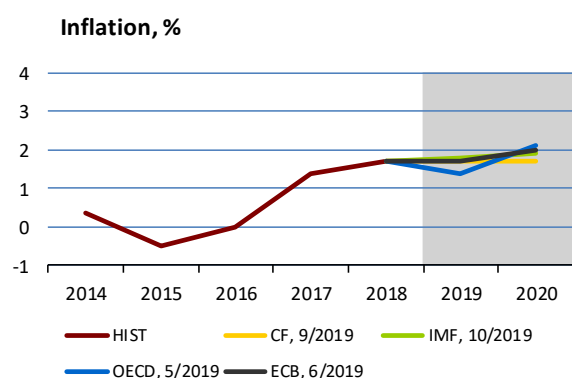
|      | CF    | IMF   | OECD | ECB |
|------|-------|-------|------|-----|
| 2019 | n. a. | 1.7 ↘ | 1.7  | 1.9 |
| 2020 | n. a. | 1.7 ↘ | 1.9  | 1.6 |



## Slovenia

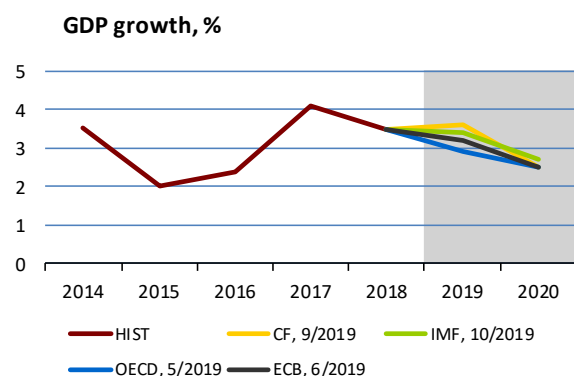


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 3.1 | 2.9 | 3.4  | 3.2 |
| 2020 | 2.8 | 2.9 | 3.1  | 2.9 |

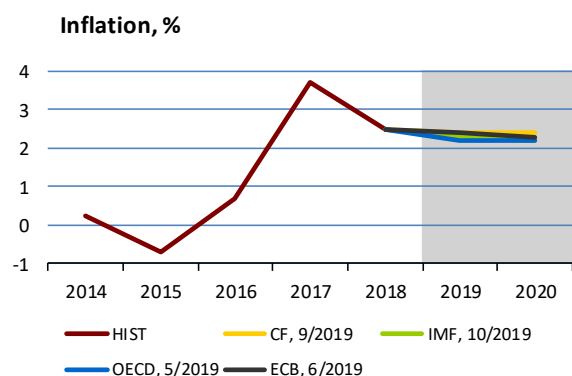


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 1.7 | 1.8 | 1.4  | 1.7 |
| 2020 | 1.7 | 1.9 | 2.1  | 2.0 |

## Lithuania

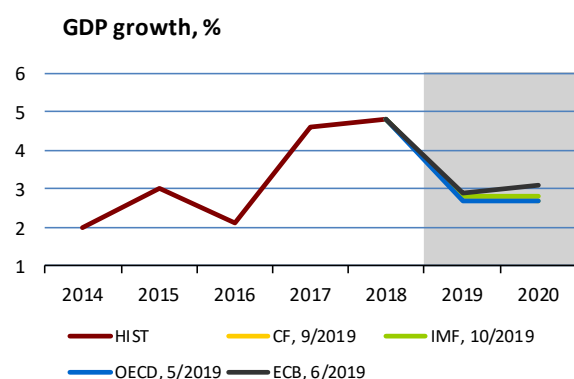


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 3.6 | 3.4 | 2.9  | 3.2 |
| 2020 | 2.5 | 2.7 | 2.5  | 2.5 |

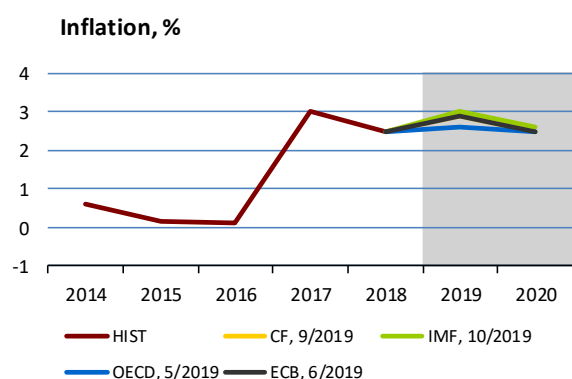


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 2.4 | 2.3 | 2.2  | 2.4 |
| 2020 | 2.4 | 2.2 | 2.2  | 2.3 |

## Latvia

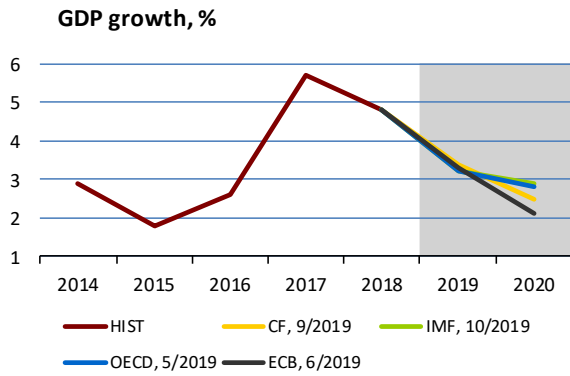


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 2.8 | 2.8 | 2.7  | 2.9 |
| 2020 | 2.7 | 2.8 | 2.7  | 3.1 |

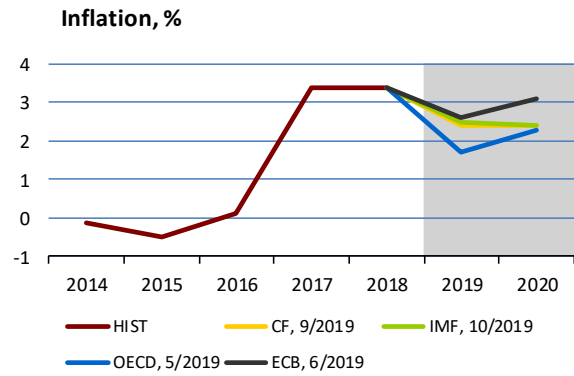


|      | CF  | IMF | OECD | ECB |
|------|-----|-----|------|-----|
| 2019 | 2.9 | 3.0 | 2.6  | 2.9 |
| 2020 | 2.5 | 2.6 | 2.5  | 2.5 |

## Estonia

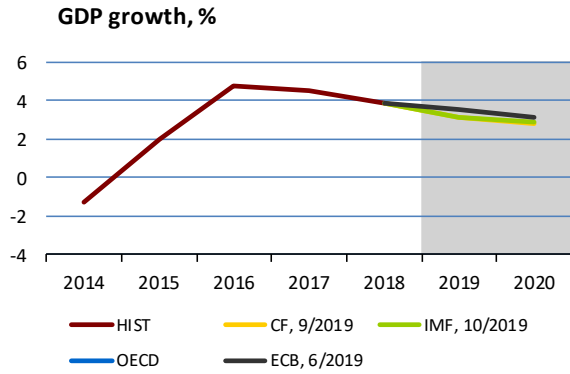


|      | CF    | IMF   | OECD | ECB |
|------|-------|-------|------|-----|
| 2019 | 3.4 → | 3.2 ↗ | 3.2  | 3.3 |
| 2020 | 2.5 → | 2.9 ↗ | 2.8  | 2.1 |

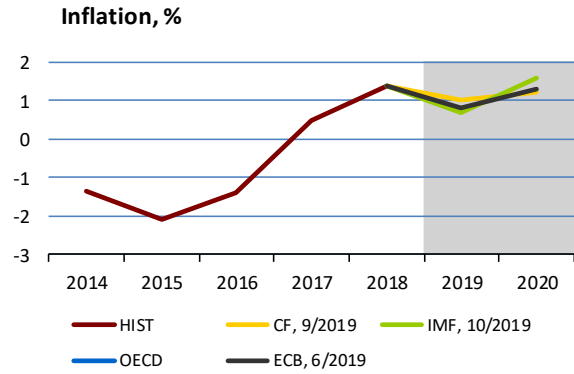


|      | CF    | IMF   | OECD | ECB |
|------|-------|-------|------|-----|
| 2019 | 2.4 → | 2.5 ↗ | 1.7  | 2.6 |
| 2020 | 2.4 ↘ | 2.4 ↗ | 2.3  | 3.1 |

## Cyprus

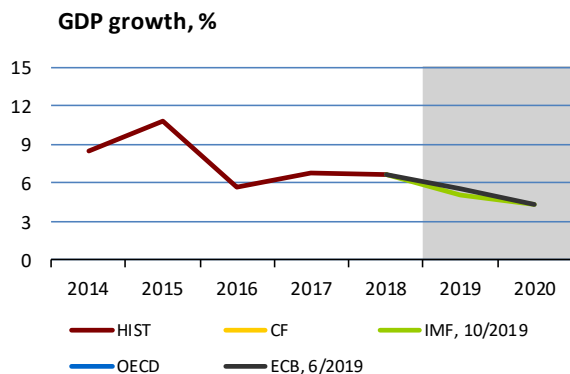


|      | CF    | IMF   | OECD  | ECB |
|------|-------|-------|-------|-----|
| 2019 | 3.1 → | 3.1 ↗ | n. a. | 3.5 |
| 2020 | 2.8 → | 2.9 ↗ | n. a. | 3.1 |

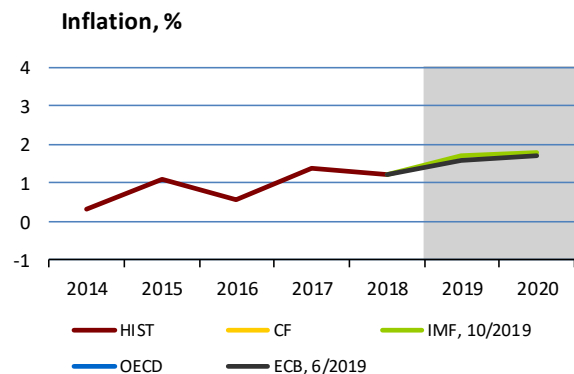


|      | CF    | IMF   | OECD  | ECB |
|------|-------|-------|-------|-----|
| 2019 | 1.0 → | 0.7 ↗ | n. a. | 0.8 |
| 2020 | 1.2 → | 1.6 ↗ | n. a. | 1.3 |

## 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                             |                 |  |

