

GLOBAL ECONOMIC OUTLOOK - AUGUST

Monetary Department
External Economic Relations Division

2018

I. Summary	2
II. Economic outlook in advanced countries	3
II.1 Euro area	3
II.2 Germany	4
II.3 United States	5
II.4 United Kingdom	6
II.5 Japan	6
III. Economic outlook in BRIC countries	7
III.1 China	7
III.2 India	7
III.3 Russia	8
III.4 Brazil	8
IV. Leading indicators and outlook of exchange rates	9
IV.1 Advanced economies	9
IV.2 BRIC countries	10
V. Commodity market developments	11
V.1 Oil and natural gas	11
V.2 Other commodities	12
VI. Focus	13
Ratings of highly indebted euro area countries	13
A. Annexes	22
A1. Change in GDP predictions for 2018	22
A2. Change in inflation predictions for 2018	22
A3. GDP growth in the euro area countries	23
A4. Inflation in the euro area countries	24
A5. List of abbreviations	25

Cut-off date for data

17 August 2018

CF survey date

13 August 2018

GEO publication date

24 August 2018

Notes to charts

ECB and Fed: 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 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.

Authors

Luboš Komárek	Pavla Růžicková	Tomáš Adam	Filip Novotný	Soňa Benecká
Editor-in-chief I. Summary VI. Focus	Editor II.4 United Kingdom	II.1 Euro area	II.2 Germany	II.3 United States III.1 China
Iveta Polášková	Oxana Babecká	Jan Hošek	Jana Hanzlíková	
II.5 Japan III.2 India	III.3 Russia III.4 Brazil	V.1 Oil and natural gas V.2 Other commodities	VI. Focus	

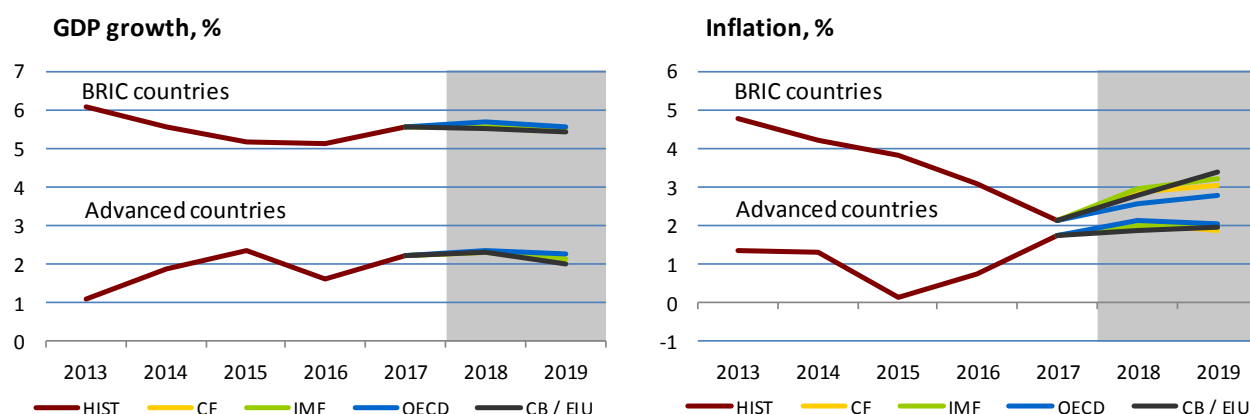
The second issue of Global Economic Outlook during this year's summer holidays presents the regular monthly overview of recent and expected developments in selected territories, focusing on key economic variables: inflation, GDP growth, leading indicators, interest rates, exchange rates and commodity prices. The analytical section of this issue looks at the credit ratings of highly indebted euro area countries. It first outlines the current situation in the credit rating agency (CRA) market, including issues relating to the degree of regulation of CRAs. It then compares the relationship between the long-term credit ratings of selected EU countries and their debt-to-GDP ratios. With the benefit of hindsight and knowledge of the main effects of the latest financial crisis, we hypothesise whether sovereign ratings should take more account of debt burdens and their sustainability.

Although the August outlooks for economic growth in the economies we monitor are almost unchanged from the previous month, they are surrounded by an increasing level of uncertainty. It stems mainly from the still deteriorating expectations regarding world trade due to the USA's protectionist measures and retaliation by the countries affected. The current situation in Turkey is a new uncertainty, especially as regards its spillover to other countries. Despite these uncertainties, the current outlooks show that the USA will continue to enjoy robust economic growth, despite further expected monetary policy tightening by the Fed. The outlooks for the euro area and Germany and especially for the UK and Japan still indicate distinctly lower economic growth than in the USA. The inflation outlooks for advanced countries are relatively close to 2% consumer price inflation. The outlooks for Japan lag furthest behind this ideal inflation rate.

The August outlooks for the economic performance of the BRIC countries can still be assessed as solid. The growth outlooks for India and China have remained strong around current levels for several months now. However, the current forecasts have moved them downwards slightly. Growth in China is expected to slow gradually to 6.5% this year and 6.2% in 2019. Growth in India will return to 7.5% from the weaker levels observed last year. In the case of China, any further decline in the outlook will depend on the degree of escalation of its trade disputes with the USA. The inflation estimates for China remain relatively low, only just above the 2% level. The expected inflation figure in India is unchanged at 5%. This can be considered consistent with the robust economic growth in that country from the macroeconomic perspective. The growth outlooks for Brazil and Russia have decreased despite some current positive news. Despite the current outlook adjustments, the Brazilian and Russian economies are expected to grow by almost 2.5% and 2.0% respectively, amid inflation close to 4%.

According to market outlooks, euro area interest rates will remain negative until the end of 2019. By contrast, US interest rates can be expected to keep edging up, probably at the Fed meeting in September. According to CF, the US dollar will weaken against all the currencies we monitor one year ahead and the outlook for the Brent crude oil price will be close to USD 72 a barrel at the one-year horizon. Prices of metals and in particular food commodities are moving towards growth over the outlook horizon.

GDP growth and inflation development and outlook in monitored countries

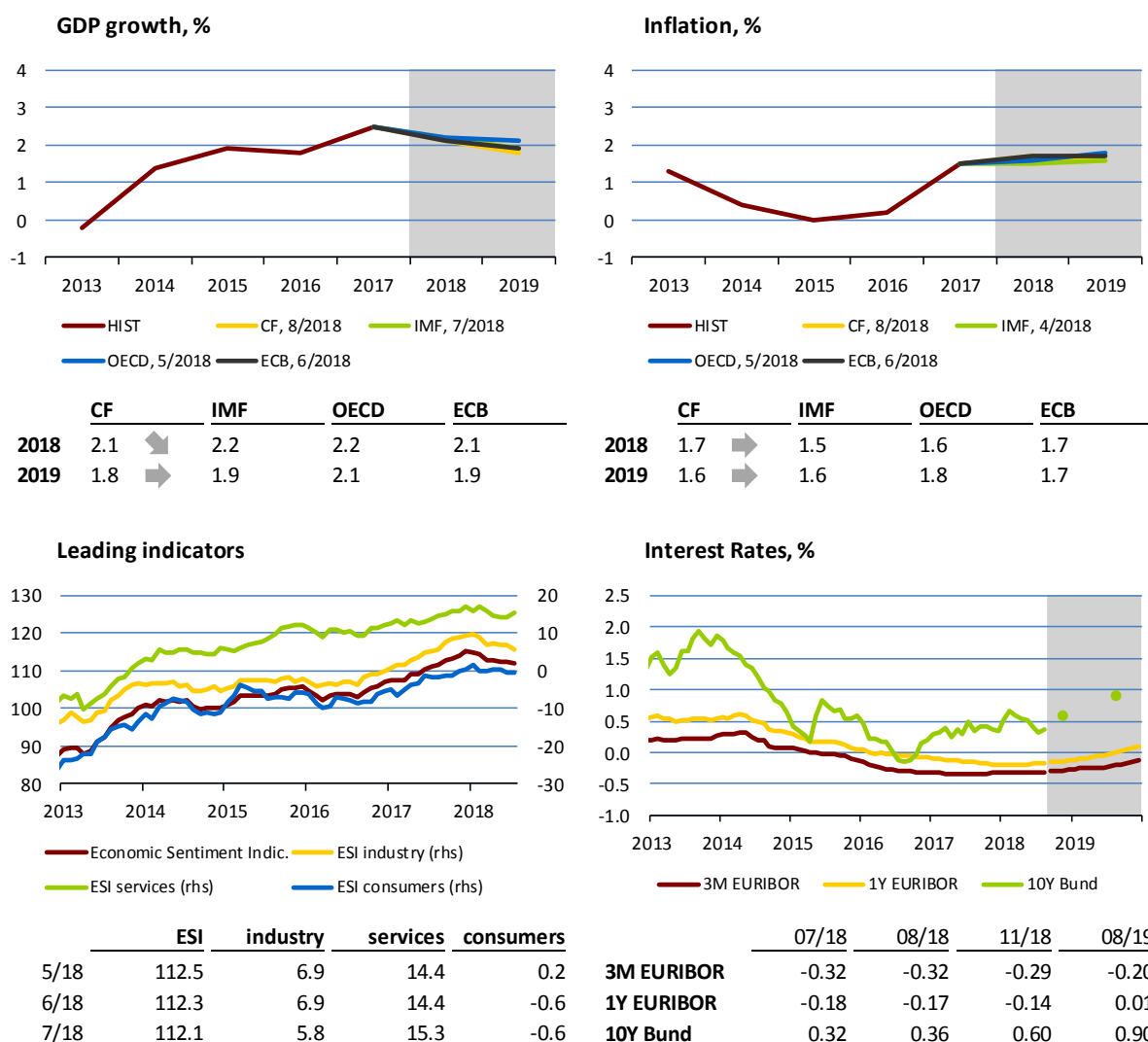


Note: The figures represent the weighted averages of historical series / outlooks in individual countries. The weights are based on nominal GDP measured in USD during 2013–2016 (source: EIU). Advanced countries: euro area, United States, United Kingdom, Japan. BRIC countries: China, India, Russia, Brazil.

II.1 Euro area

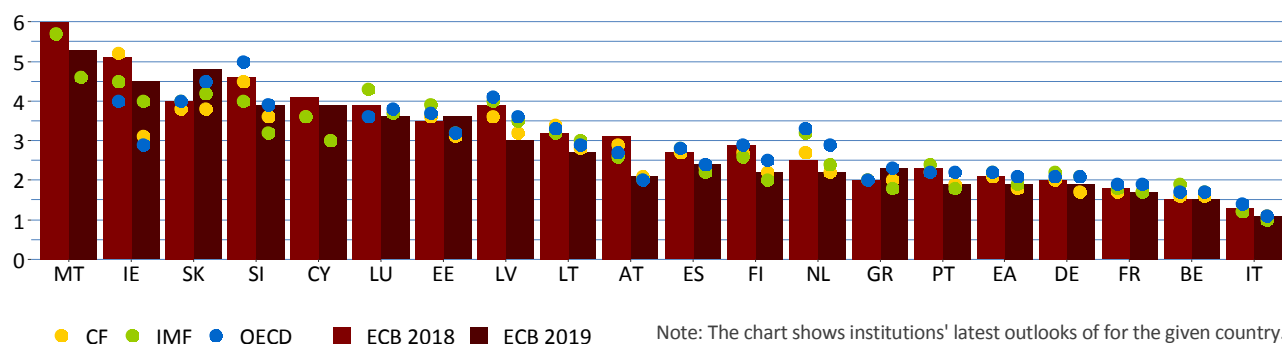
According to Eurostat's flash estimate, quarterly euro area GDP growth amounted to 0.4% in Q2. It thus remained at the same level as in the previous quarter, despite a further worsening of some leading and coincident indicators (industrial production, for example, declined month on month in April and June). The rate of growth of the monetary union was maintained thanks mainly to the German economy, whose quarterly growth accelerated to 0.5%; Spain and Italy, by contrast, showed a slowdown. The growth rate in the euro area remains lower than in the second half of 2017. This was reflected in a further slowdown in annual growth to 2.2%. Nevertheless, the decline in most leading indicators stabilised in July and the PMI in manufacturing edged up to 55.1. Although it is thus in the expansion band, its lower levels reflect uncertainty regarding the outlook for global growth associated mainly with an increase in protectionist measures in international trade. This uncertainty is already having a tangible effect on, for example, growth in new export orders, which reached almost a two-year high. Accordingly, CF revised its growth outlook for this year downwards to 2.1%.

Headline inflation in the euro area has been above the ECB's target since June and stood at 2.1% in July. Its rise since May reflects a much bigger contribution of energy prices, while core inflation remained at similar levels as in previous months (1.1%). At its July meeting, the ECB left its monetary policy stance unchanged and repeated its expectations regarding the continuation of its asset purchase programme (the net asset purchases will be reduced to EUR 15 billion a month from October until the end of the year and will then end) and key rates should remain at the current level at least until summer 2019. Nevertheless, these expectations are conditional on the medium-term outlook for inflation. The exchange rate of the euro against the dollar weakened below 1.15 in mid-August, coming under pressure from the currency crisis in Turkey, where some European banks and firms have major exposures.

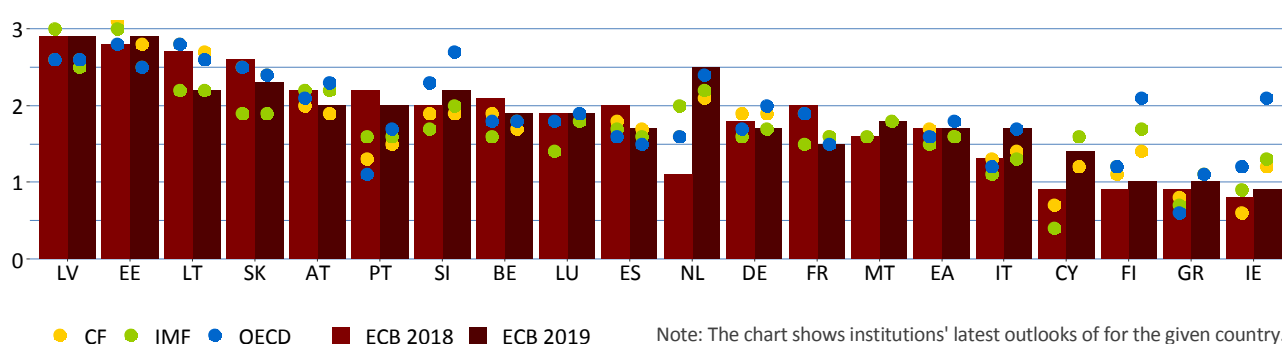


II. ECONOMIC OUTLOOK IN ADVANCED ECONOMIES

GDP growth outlooks in the euro area countries in 2018 and 2019, %

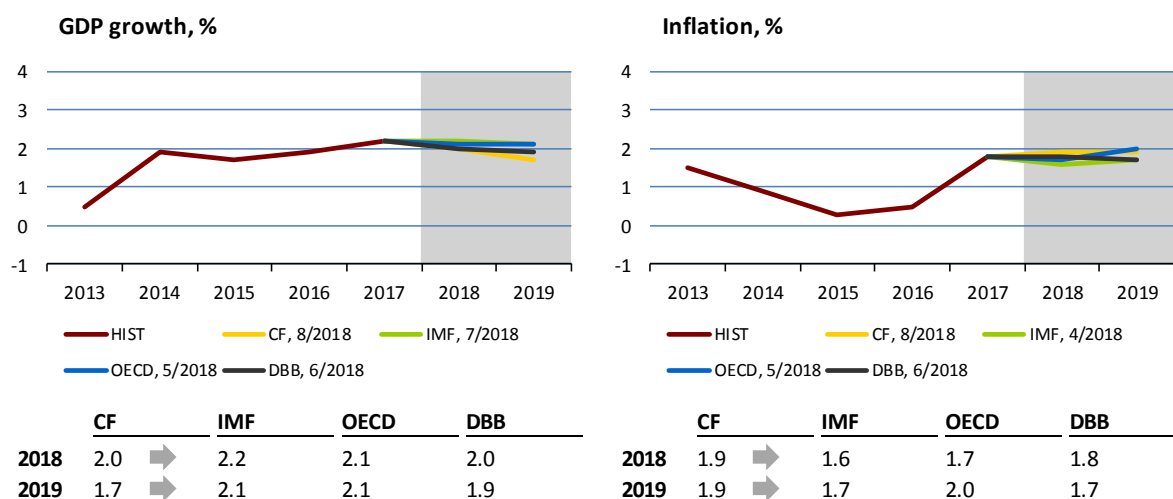


Inflation outlooks in the euro area countries in 2018 and 2019, %



II.2 Germany

The German GDP growth outlook remained unchanged for both this year and the next. A gradual slight slowdown is thus expected. The risk of protectionist trade measures is having a negative effect on business confidence, as the USA is the biggest export market for German goods (8.8% of total exports). Even after a slight correction in trend, Germany's overall trade surpluses are at high levels. The IFO leading indicator fell further in July, as did the ZEW economic sentiment indicator, which, however, reversed its previous decline in August. The PMI in manufacturing rose in July (to 56.9) after having hit an 18-month low in June. Following previous declines, the unemployment rate stabilised just above 5% in the first month of the summer holidays. Inflation slowed in July compared to the previous two months and will not reach 2% for 2018 as a whole. Inflation excluding volatile prices of energy and food remained flat in July.



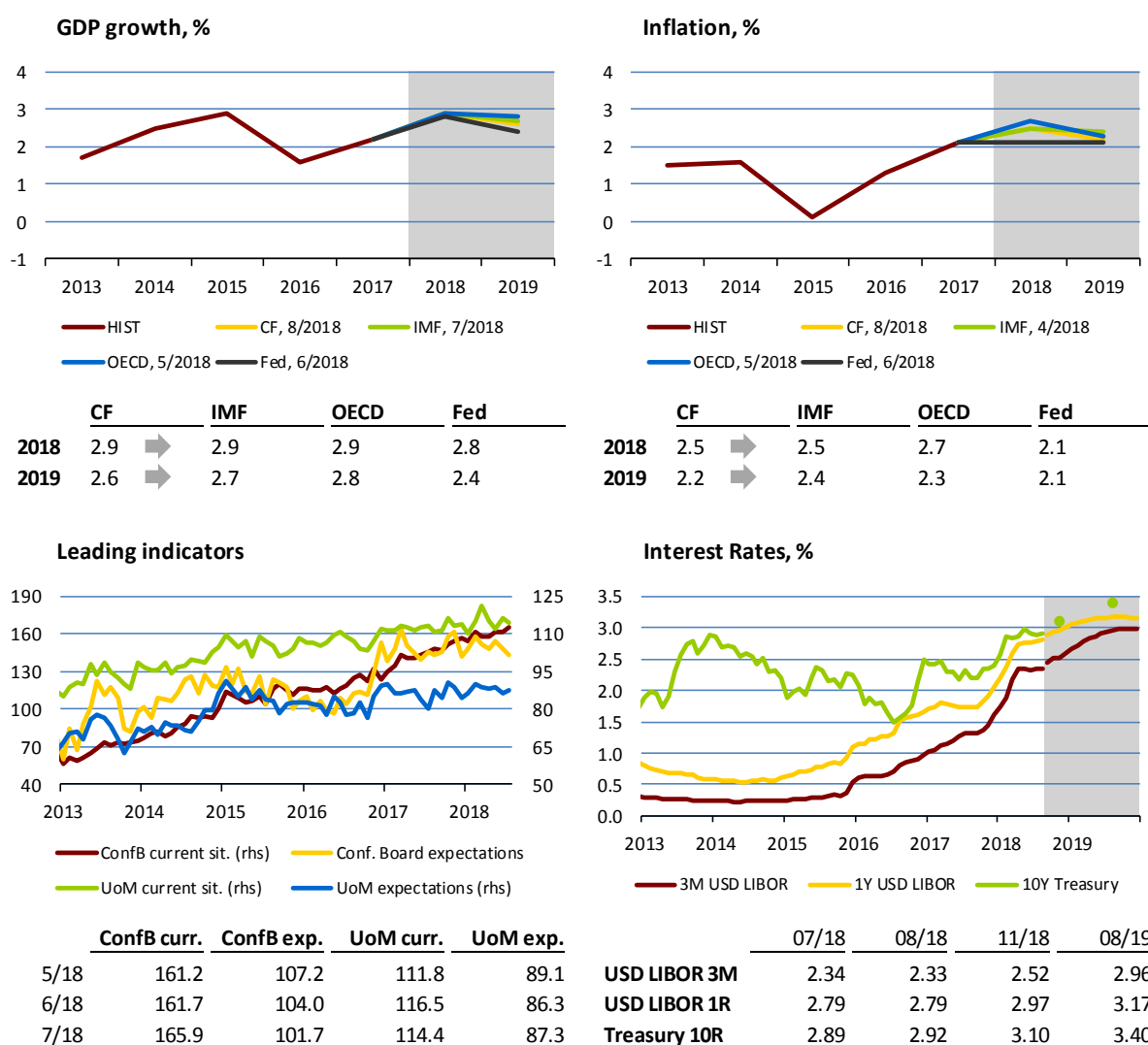
II.3 United States

The trade dispute between the USA and China worsened further after President Trump threatened to increase tariffs on USD 200 billion worth of Chinese goods from the originally planned 10% to 25%. After this step, tariffs would apply to roughly half of Chinese imports to the USA, affecting domestic prices and demand. China said it was prepared to impose new tariffs of 5%–25% on more than 5,000 US products, totalling USD 60 billion, if the USA took this step.

Economic activity in the USA is growing at a solid pace. According to the initial estimate, GDP growth reached its highest level in two years in 2018 Q2 (4.1% in quarter on quarter annualised terms). The contribution of consumer spending increased compared to Q1, while that of inventories was negative. There was a one-off increase in net exports as soybean exporters accelerated exports ahead of the introduction of tariffs by China. The effect of the tax reform approved by President Trump at the end of 2017 also passed through fully to the US economy.

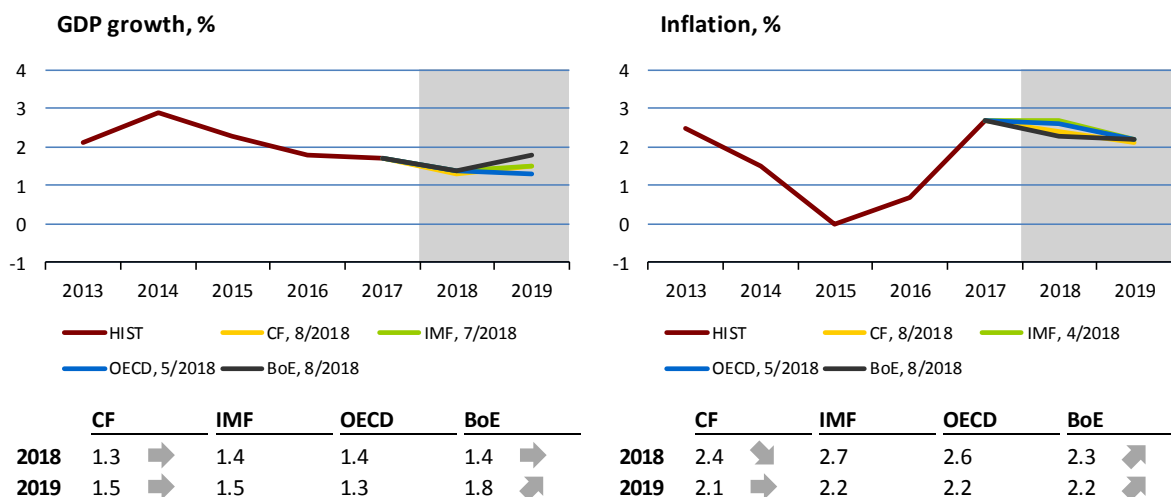
The growth rate is thus expected to stay at a solid level in Q3, when, according to the Atlanta Fed, GDP growth will accelerate slightly further to 4.3%. The latest figures confirm a continued expansion. Year-on-year retail sales growth reached 6.4% in July. Non-farm payrolls stood at a mere 157,000 in July, but the unemployment rate dropped to 3.9% and the average hourly wage continued to grow by 2.7% year on year. The ISM PMI leading indicator in manufacturing edged down in July due to new orders, export orders in particular.

Core PCE inflation was 1.9% in July, the same as the revised figure for June. Headline CPI inflation reached 2.9% in July, due mainly to energy prices. No change was made to the monetary policy stance at the Fed's meeting in early August, but another increase in the target range for key rates can be expected in September. The July CF brought no changes to the outlook.



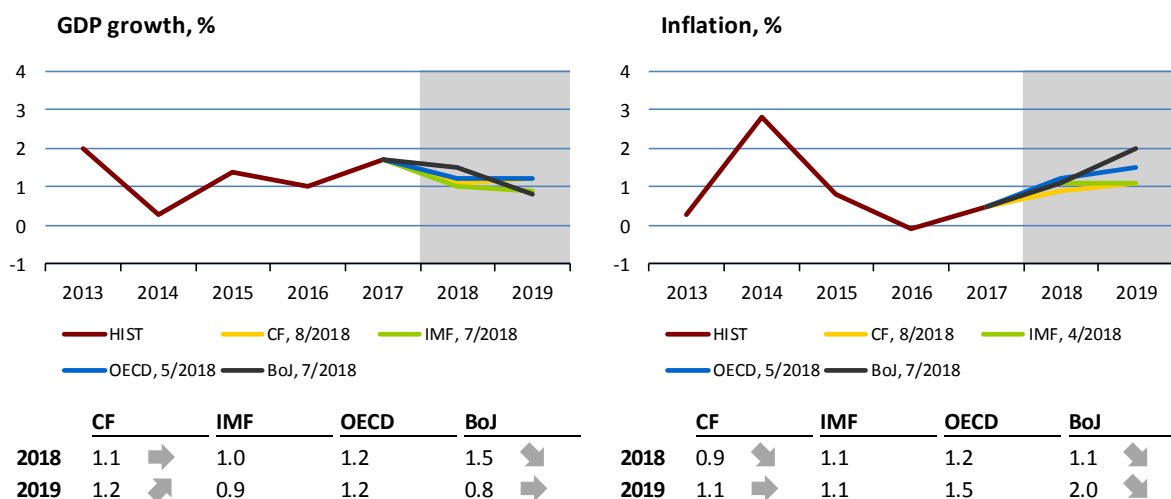
II.4 United Kingdom

The UK economy recorded a modest upswing in growth in Q2 (from 0.2% in Q1, due to icy weather, to 0.4% quarter on quarter). The source of the recovery on the demand side was a return of fixed investment to growth, while that on the supply side was solid growth of the services sector. Even so, at 1.3%, annual growth in the UK is well below the current rates in most other advanced economies. Moreover, further developments are subject to extreme uncertainty owing to the still to be negotiated final form of Brexit, the date of which is approaching quickly. The BoE raised its key rate by 25 bp to 0.75% at its August meeting. Inflation remains above the target (2.4% in June and 2.5% in July). It is currently being increased primarily by the recent further weakening of sterling and by growth in energy prices. After slight corrections, the inflation outlook for this year and the next remains just above 2%, mainly because of an increasingly tight labour market.



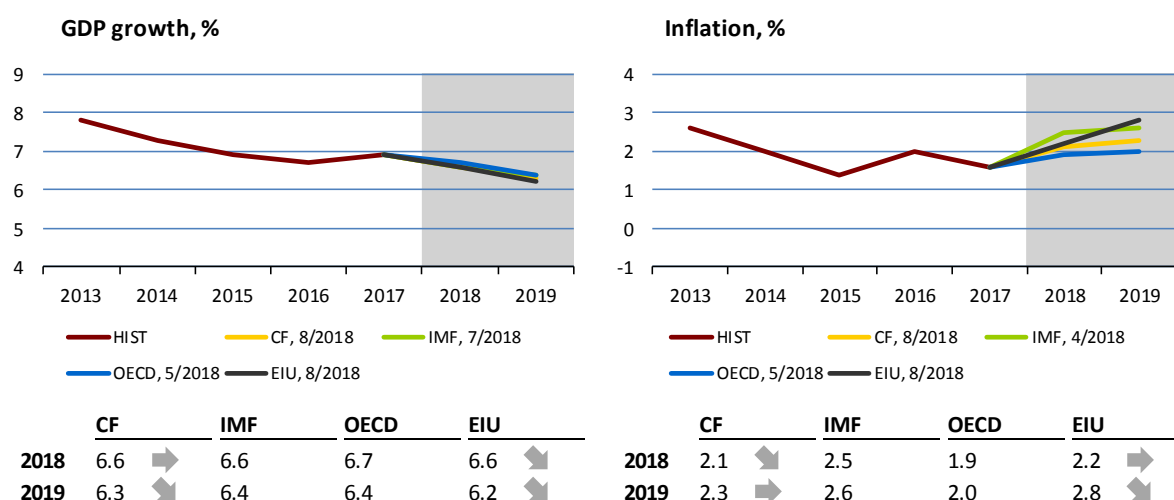
II.5 Japan

According to preliminary figures, the Japanese economy grew by 1.9% in Q2 (in quarter-on-quarter annualised terms). This represents a strong recovery compared to the contraction of 0.9% recorded in the previous quarter. GDP growth was supported mainly by household consumption and capital expenditure. Annual retail sales growth went up in June, as did wage growth. On the other hand, annual growth in industrial production decreased. The PMI in manufacturing fell to 51.6 points in July. According to purchasing managers, the drop was due to slower growth in output and new orders. The GDP growth outlooks were revised slightly in both directions. Annual inflation stayed at 0.7% in June. Transport price inflation increased again, but was offset by lower food price inflation. The BoJ left its monetary policy stance unchanged in July. The inflation forecasts were revised downwards.



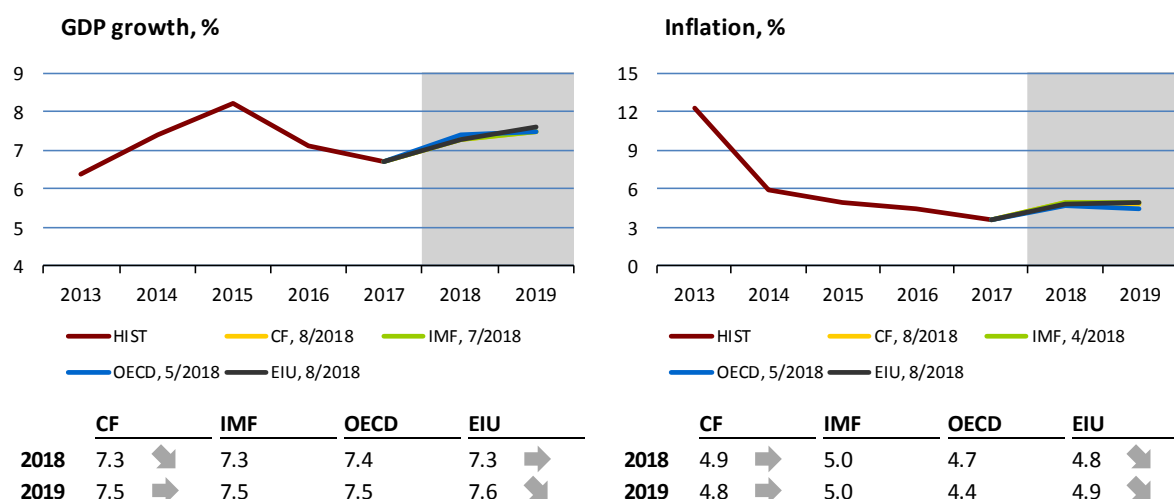
III.1 China

Annual GDP growth dropped slightly to 6.7% in 2018 Q2. This slowdown in the economic expansion had been widely expected given China's efforts to deal with its debt burden coupled with the escalation of its trade disputes with the USA. CF and the EIU expect GDP to grow by 6.6% this year and slow to 6.2% in 2019. Inflation rose to 2.1% in July. This is also the level forecasted by the new CF for the end of this year. Worsening liquidity on Chinese financial markets and depreciation pressure on the renminbi versus the dollar prompted the central bank to take a whole range of actions to stabilise the markets. Among other things, the 3-month interbank rate dropped close to 3%. The Chinese currency has depreciated by 5.3% since the end of 2017. The rate of depreciation intensified significantly at the end of June but has been more moderate in recent weeks.



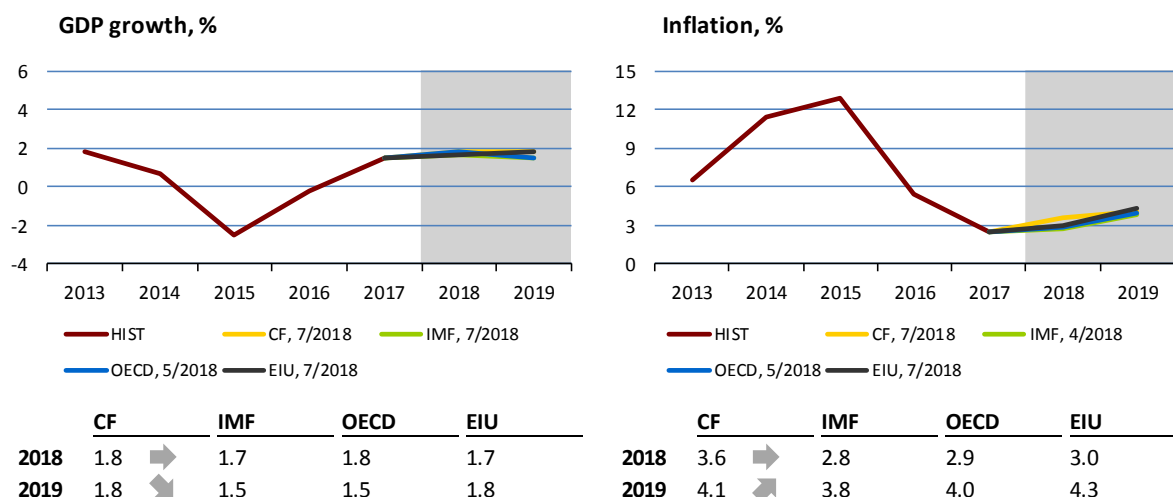
III.2 India

Annual industrial production growth rose sharply in June. This was due to growth in electricity generation, manufacturing output and mining. This notwithstanding, the PMI in manufacturing fell to 52.3 points in July. According to purchasing managers, the decline reflects slower growth in output, new orders and employment. The August CF revised the GDP growth outlook for this fiscal year slightly downwards. The EIU slightly lowered its GDP growth forecast for the next fiscal year. Annual consumer price inflation declined by 0.8 pp to 4.2% in July, due mainly to lower growth in food prices. In light of inflation-related uncertainties, however, the RBI increased its key rate by 0.25 pp to 6.5% at its August meeting. This was the second hike in a row. The EIU lowered its inflation forecast for both monitored years, while CF left its forecast unchanged. Both institutions currently expect inflation to be just below 5% at the monitored horizon.



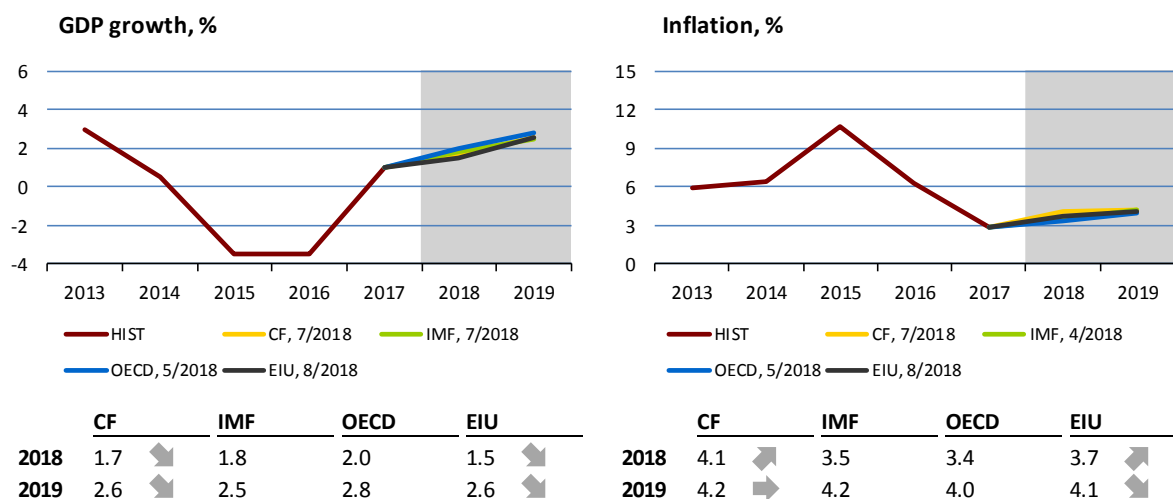
III.3 Russia

According to the Russian statistical office's preliminary estimate, the annual growth rate of economic activity in Russia increased by 0.5 pp to 1.8% in Q2. The world football championship held recently in Russia supported GDP growth through travel services, in particular hotels, transport and restaurants. The Russian central bank expects economic growth of 1.5%–2.0% in the remaining quarters of this year. This is roughly in line with the latest available CF outlook, which expects GDP growth of 1.8% for 2018 as a whole. This outlook remained unchanged. The inflation outlook as of December 2018 was also unchanged (at 3.6%). Annual consumer price inflation went up from 2.3% to 2.5% in July, due to rising food prices. However, the CF forecast still has room to materialise if the previously gradual price growth is accelerated by, for example, the planned VAT increase or external risks.



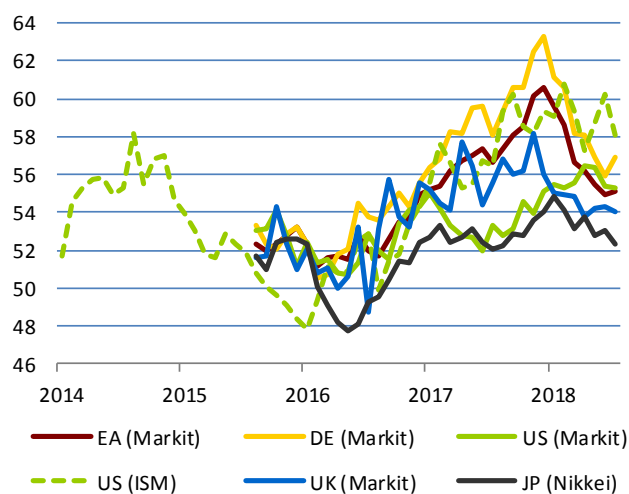
III.4 Brazil

Industrial production in Brazil returned to annual growth in June (3.5%). The PMI leading indicators in manufacturing and services both returned to the economic expansion zone in July. However, the latest macroeconomic developments may not have been fully reflected in the July CF outlooks, which downgraded the Brazilian GDP growth outlook for the third time in a row for both this year and the next. The latest available CF outlooks expect growth of 1.7% in 2018 and 2.6% in 2019. The EIU expects similar figures. Consumer price inflation jumped to 4.4% in June and stood at 4.5% in July. The leap in inflation was due to rising food and transport prices. Similar growth rates were last observed in 2017 Q1; inflation subsequently fluctuated between 2.5% and 3.0%. CF expects inflation to slow to 4.1% by the end of the year and remain at a similar level at the end of 2019.

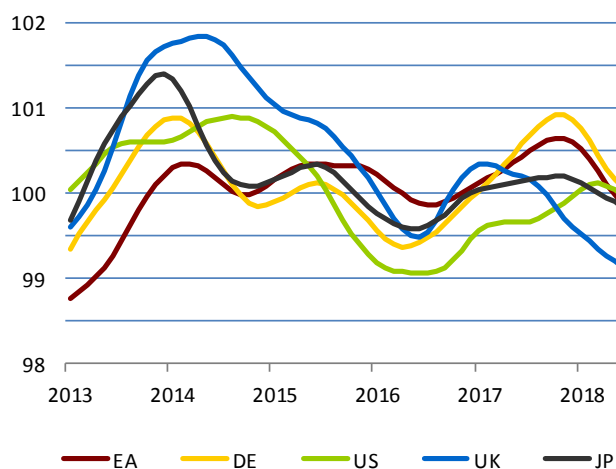


IV.1 Advanced economies

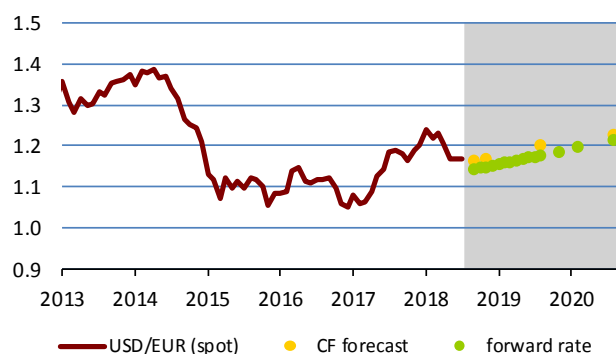
PMI in manufacturing



OECD Composite Leading Indicator

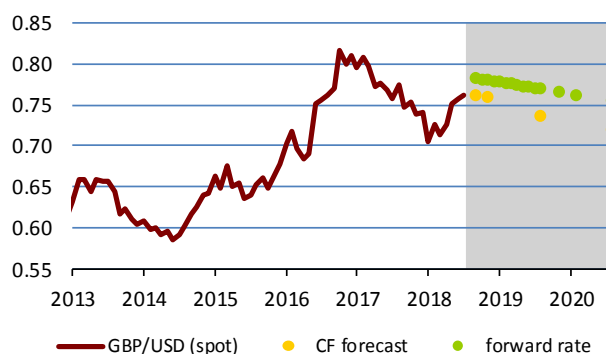


The US dollar (USD/EUR)



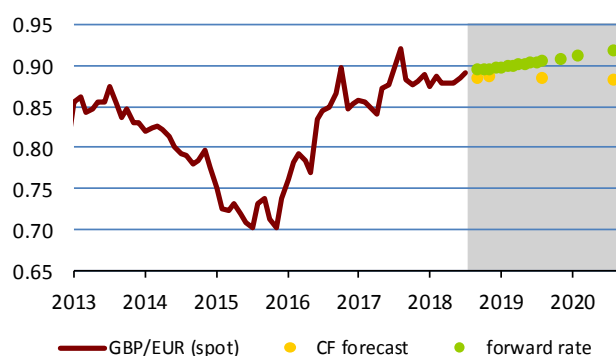
	13/8/18	09/18	11/18	08/19	08/20
spot rate	1.142				
CF forecast		1.162	1.168	1.203	1.225
forward rate		1.144	1.149	1.177	1.216

The British pound (GBP/USD)



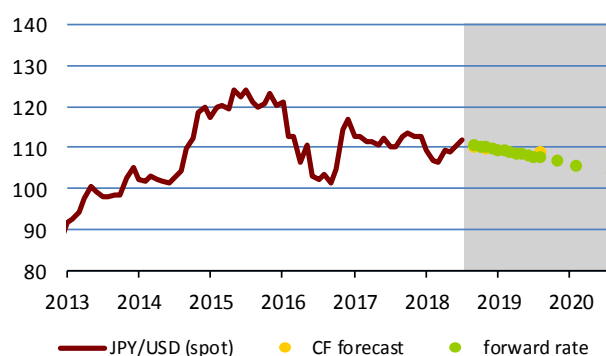
	13/8/18	09/18	11/18	08/19	08/20
spot rate	0.782				
CF forecast		0.762	0.759	0.736	0.720
forward rate		0.782	0.780	0.769	0.755

The British pound (GBP/EUR)



	13/8/18	09/18	11/18	08/19	08/20
spot rate	0.894				
CF forecast		0.886	0.886	0.885	0.883
forward rate		0.894	0.896	0.905	0.918

The Japanese yen (JPY/USD)

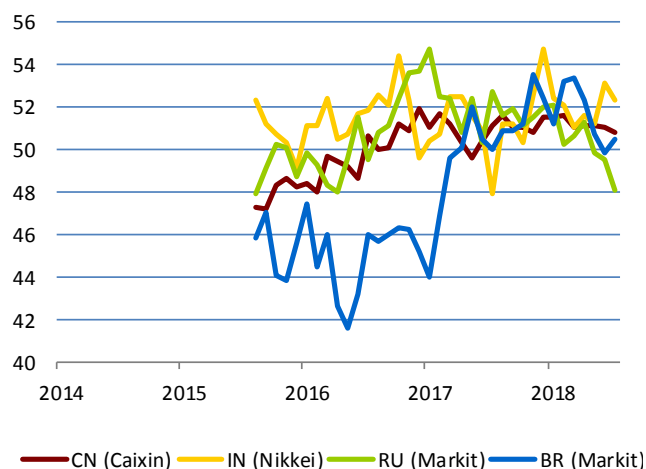


	13/8/18	09/18	11/18	08/19	08/20
spot rate	110.8				
CF forecast		110.2	109.9	108.8	107.7
forward rate		110.5	110.0	107.5	103.9

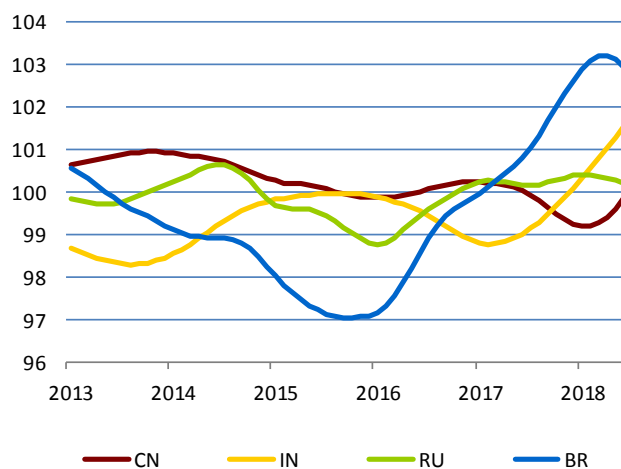
Note: Exchange rates as of last day of month. Forward rate does not represent outlook; it is based on covered interest parity, i.e. currency of country with higher interest rate is depreciating. Forward rate represents current (as of cut-off date) possibility of hedging future exchange rate.

IV.2 BRIC countries

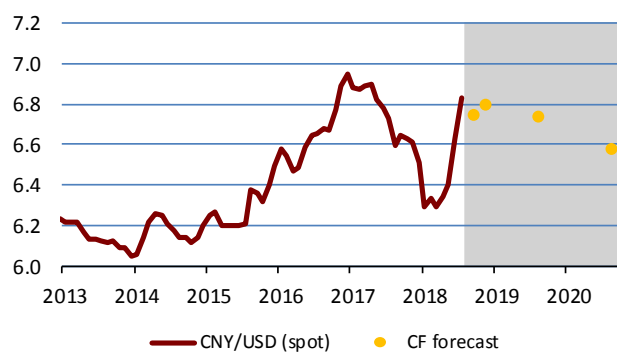
PMI in manufacturing



OECD Composite Leading Indicator

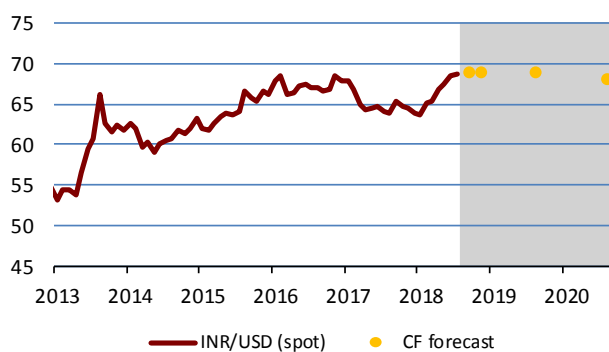


The Chinese renminbi (CNY/USD)



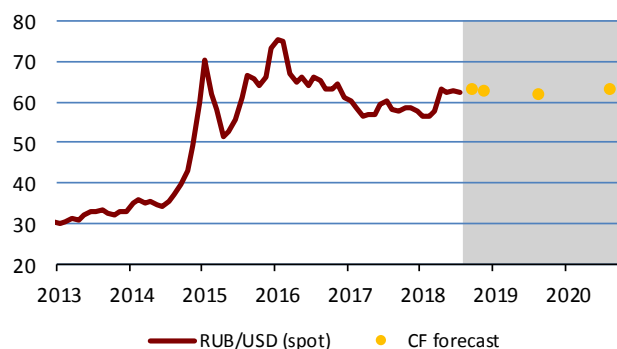
	13/8/18	09/18	11/18	08/19	08/20
spot rate	6.877				
CF forecast		6.748	6.797	6.737	6.582

The Indian rupie (INR/USD)



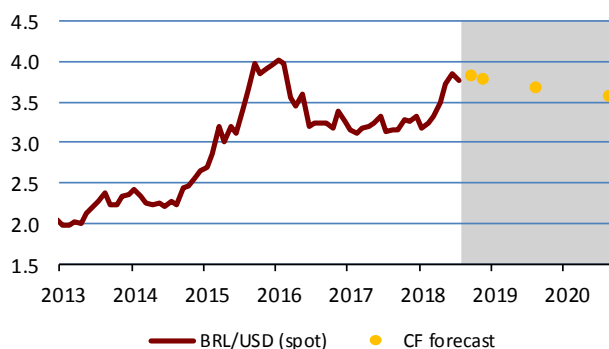
	13/8/18	09/18	11/18	08/19	08/20
spot rate	69.85				
CF forecast		68.79	68.82	68.87	68.01

The Russian rouble (RUB/USD)



	13/8/18	09/18	11/18	08/19	08/20
spot rate	67.81				
CF forecast		63.11	62.89	61.97	63.25

The Brazilian real (BRL/USD)

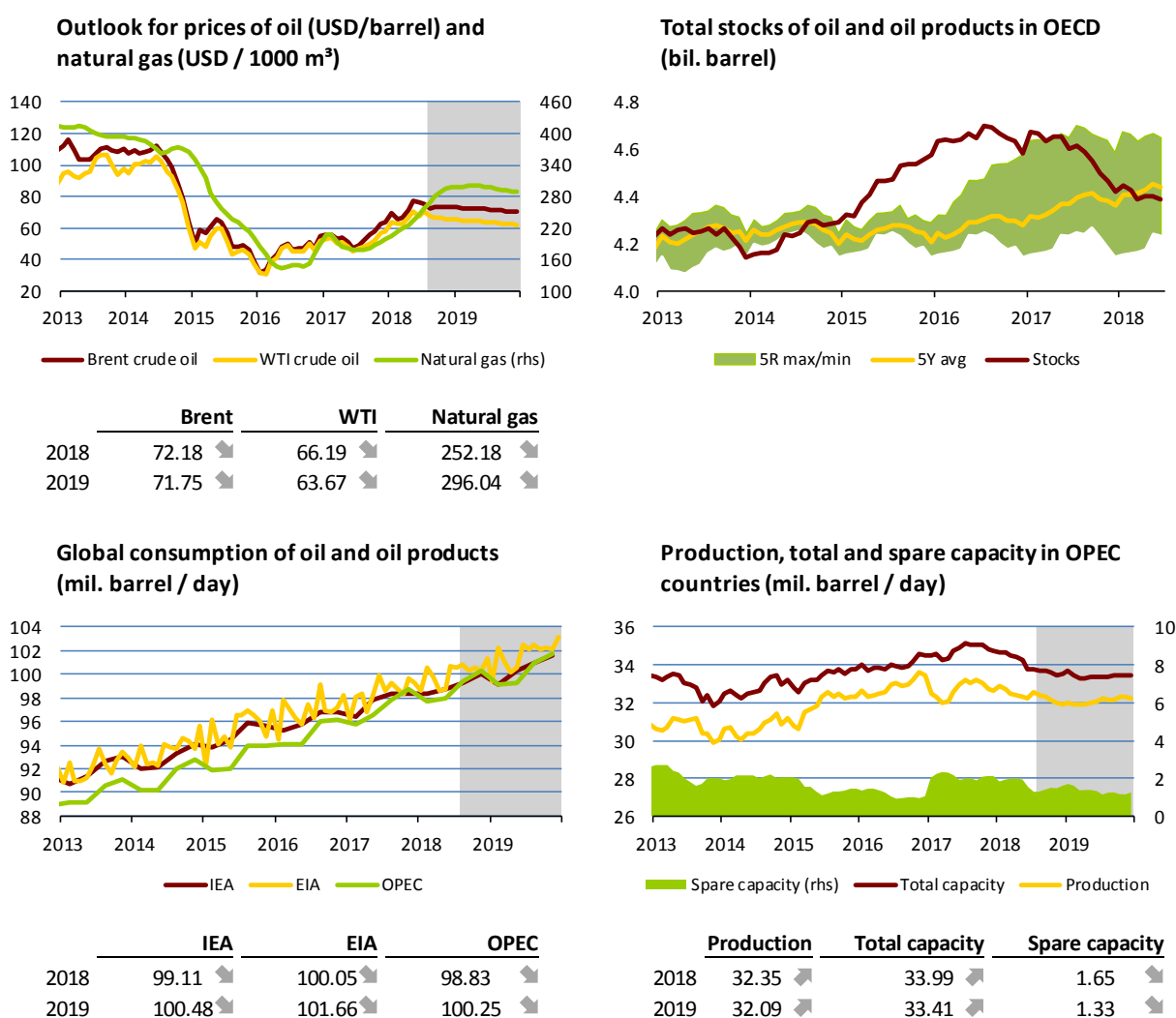


	13/8/18	09/18	11/18	08/19	08/20
spot rate	3.888				
CF forecast		3.829	3.78	3.669	3.579

Note: Exchange rates as of last day of month.

V.1 Oil and natural gas

The average Brent crude oil price recorded its second (albeit again only slight) monthly decline in a row in July, to USD 75/bbl. Conversely, the average WTI price rose sharply, exceeding USD 70/bbl for the first time since November 2014. The gap between the two prices thus narrowed significantly. Among other factors, the rise in the WTI price was due to a decline in stocks in the USA, especially at Cushing (to an almost four-year low due to limited supplies from Canada) and a promising outlook for US demand due to faster US economic growth. On the other hand, the Brent price is being pulled down by concerns relating to the disputes between the USA and its trading partners, which might weaken global economic growth and hence demand for oil. The appreciation of the dollar against the currencies of large emerging economies may also have a negative impact on those countries' demand for oil. This is reflected in the shape of futures curves. The backwardation of the WTI curve increased further, signalling limited supply on the market, while the Brent curve switched to contango at its shorter end (roughly until the end of this year), signalling currently perceived excess oil supply. Speculative funds are closing their net long positions in Brent crude oil, which have dropped by almost a half since April. By the end of June, however, the Brent crude oil price had hardly responded at all to this sell-off. This may indicate solid physical demand. By contrast, speculative long positions in WTI crude oil have increased sharply since mid-June. This was reflected in growth in its price. The market curve implies a Brent crude oil price of USD 73/bbl on average for the rest of the year and a decline to USD 71.8/bbl and USD 68.7/bbl respectively in the next two years. This is broadly in line with the August CF forecast, which expects a price of USD 72/bbl one year ahead.



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.

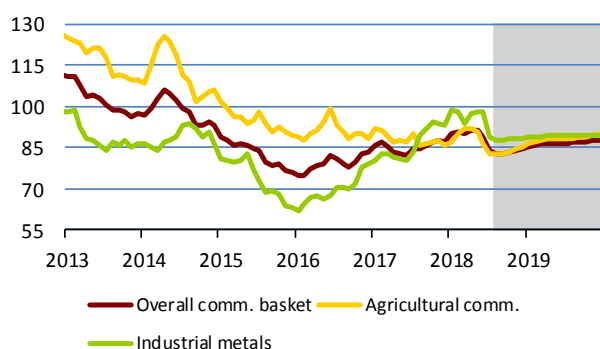
V.2 Other commodities

The aggregate non-energy commodity price index fell sharply between mid-June and mid-July. The fall later halted. The strong decrease was due to the food commodity price sub-index, which recorded an 11-year low, and particularly to the basic metals price sub-index, which dropped by 9% (with virtually all its components contributing). The outlook for food commodity prices is increasing relatively strongly, while that for industrial metals is rising only modestly.

In the case of food commodities, there were mixed movements across the index. As regards grain prices, prices of wheat and corn increased, while the price of soy was flat and the price of rice dropped sharply. Prices of sugar, coffee and cocoa decreased and the price of pork also recorded a strong seasonal fall, while the price of beef was flat after a previous decline.

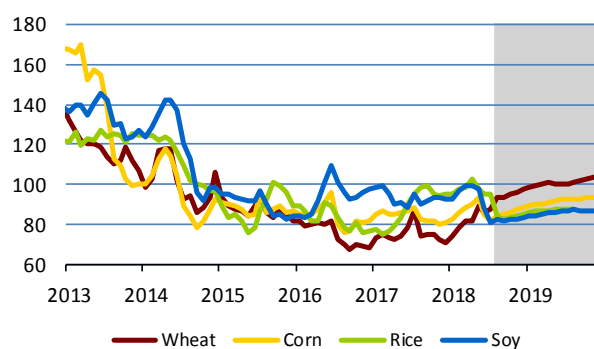
Basic metal prices dropped sharply between mid-June and mid-July. This was due to an expected slowdown in manufacturing and the escalation of trade disputes between the USA and its trading partners. The JPMorgan Global Manufacturing PMI recorded a 12-month low in July, falling from 53.0 to 52.7, while the new orders sub-index approached the expected stagnation at 50.3. The decline in aluminium prices was additionally due to growing exports from China and hopes that the sanctions on Russian producers would be delayed or abolished. In July, the average coal price reached its highest level since January 2012, increasing across regions. This was due to strong demand from power stations due to a heatwave in East Asia and especially in China, where, however, administrative measures are dampening domestic mining output and imports have therefore increased sharply.

Non-energy commodities price indices



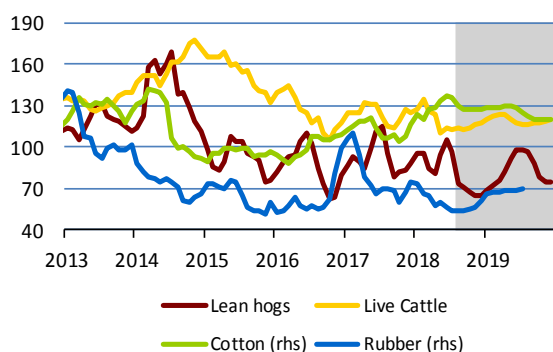
	Overall	Agricultural	Industrial
2018	87.1	86.7	92.8
2019	86.7	88.3	89.4

Food commodities



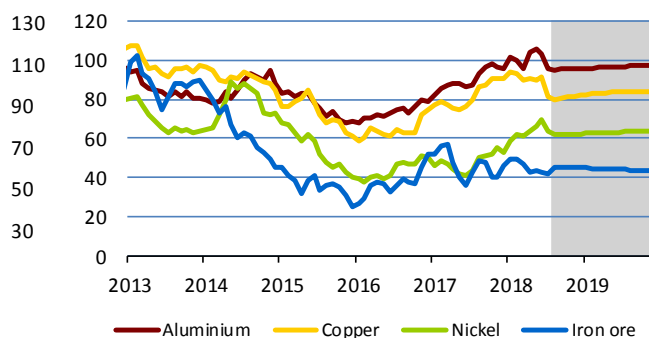
	Wheat	Corn	Rice	Soy
2018	87.9	86.6	91.9	89.0
2019	101.2	92.0	87.0	86.2

Meat, non-food agricultural commodities



	Lean hogs	Live Cattle	Cotton	Rubber
2018	82.9	118.6	89.3	43.0
2019	83.3	119.3	86.8	48.8

Basic metals and iron ore



	Aluminium	Copper	Nickel	Iron ore
2018	98.5	86.1	62.9	45.2
2019	96.7	83.3	63.1	44.1

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.

Ratings of highly indebted euro area countries¹

Credit rating agencies (CRAs) have undergone major changes to the way they operate over the last decade. Those changes have been driven by the lessons of the period leading up to the financial crisis, lessons which have resulted in tighter regulation of CRAs. The new system is aimed at regulating the influence and activities of CRAs in the EU. This article will first outline the current situation in the CRA market, including issues relating to the degree of regulation of CRAs. We will then focus on the relationship between the long-term credit ratings of selected EU countries and their debt-to-GDP ratios. The key hypothesis is whether sovereign ratings adequately reflect a country's fiscal position, or to what extent they correspond to it. Our analysis is based on the country ratings issued by the Big Three CRAs in 2007–2017. In particular, we will aim to show whether actual and projected debt ratios are reflected in a country's overall rating and compare this with the market assessment of the risk of default based on CDS levels.

The phenomenon of credit rating agencies

The general objective of ratings is to provide an independent, objective, high-quality, transparent and forward-looking assessment that helps reduce information asymmetry and costs among users of ratings. A sovereign rating can be defined as an assessment of the ability of a national or local government to meet its obligations in a proper and timely manner, taking into account the probability of the qualitative and quantitative characteristics of all known risks. These textbook formulations can be illustrated using the example of a sovereign rating downgrade. When this happens, the perception of the country's position in financial markets worsens. This is amplified if public finance is not viewed as sustainable. The downgrade thus entails increased debt-servicing costs. This can lead to the situations experienced by Argentina and Greece in the present century. The sovereign ratings we primarily examine in this article – in the debt context – are a specific area of rating activity in terms of regulation and rating methodology.

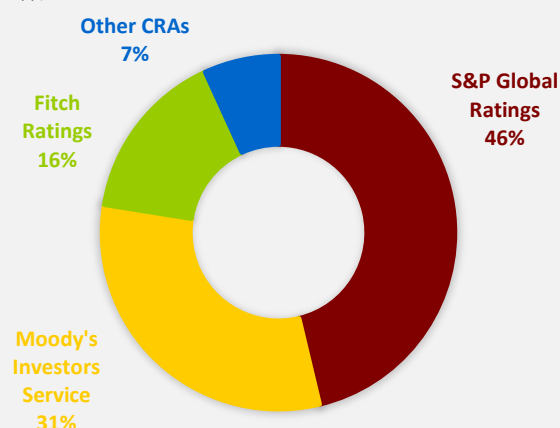
The rating providers markets in both Europe and the USA have long been made up of the three largest CRAs. In its latest report (ESMA, 2017), the European Securities and Markets Authority (ESMA)² – the supervisory authority for CRAs operating in the EU – states that the European market continues to be dominated by the “Big Three”: S&P Global Ratings, Moody's Investors Service and Fitch Ratings. ESMA monitors the market shares of CRAs exceeding 10%. This threshold has been set to increase competition on the CRA market. The CRA Regulation encourages issuers that need two ratings to appoint at least one CRA with less than a 10% market share. If they do not, their decision is documented by ESMA.³

The remaining CRAs have very small shares of the European market (see Chart 1). The three strongest CRAs account for 93% of the market. Another 23 CRAs account for the remaining 7%. According to the latest Nationally Recognized Statistical Rating Organizations report (NRSRO, 2017), the market share situation in the USA is similar to that in the EU – the Big Three share 96% of the market and seven CRAs account for the rest. The global CRA market thus meets the criteria of an oligopoly, a fact which may lead to insufficient competition in the rating services area.

The largest CRAs offer ratings for all types of segments, i.e. insurance, structured financing, sovereign and public financing, corporate financing and financial institutions.⁴

Chart 1 – Market shares of credit rating agencies in the EU

(2017, in pp)



Source: ESMA, Report on CRA Market Share Calculation, December 2017
Note: CRA – credit rating agency

¹ Authors: Jana Hanzlíková (CNB General Secretariat) and Luboš Komárek (Monetary Department). The views expressed in this article are those of the authors and do not necessarily reflect the official position of the Czech National Bank. The authors would like to thank Pavla Růžicková and Oxana Babecká-Kucharčuková from the Monetary Department and Michal Dvořák from the Financial Stability Department for their valuable comments.

² The role of ESMA is to enhance the protection of investors and promote stable and orderly financial markets.

³ The secondary objective of ESMA is thus to support smaller CRAs. If an issuer commissions two ratings and chooses Big Three CRAs for both of them, this decision is documented by ESMA.

⁴ The list of registered CRAs in the EU includes the following agencies specialising exclusively in sovereign ratings: the Economist Intelligence Unit (EIU), European Rating Agency a.s. and INC Rating.

Regulation of CRAs

The regulation of the European and US CRA markets was significantly affected and accelerated by the global financial crisis, whose onset is linked with the collapse of Lehman Brothers almost ten years ago. The U.S. Securities and Exchange Commission (SEC) started to address the regulation of CRAs in 2006, i.e. rather earlier than the European supervisory authority ESMA and its predecessor the Committee of European Securities Regulators (CESR). The 2006 Dodd-Frank Act and Credit Rating Agency Reform Act are of key importance for CRAs on the US market. CRAs operating in the EU are mainly affected by Regulation No. 1060/2009 on credit rating agencies (CRA I) as amended by Regulation No. 513/2011 (CRA II), which was issued in connection with the establishment of ESMA in 2010. In addition to these legal rules, CRAs should abide by the Code of Conduct Fundamentals for Rating Agencies issued by the International Organisation of Securities Commissions (IOSCO).⁵

The legislation on CRAs in Europe seeks primarily to: (i) mitigate the adverse effect of the publication of ratings on financial markets and the real economy, i.e. to limit excessive volatility of economic variables in response to the publishing of ratings; (ii) increase competition among CRAs; (iii) reduce potential conflicts of interest arising from the investor-pays model; (iv) increase the transparency and accuracy of sovereign/bond ratings, and (v) create a European framework for civil liability in the event of serious wilful misconduct or gross negligence in the issuing of ratings.⁶ These rules apply to ratings of both EU and non-EU public entities where government bond ratings are issued by an EU-registered CRA.

Another factor which accelerated the issuance of the CRA Regulation was a lack of rules for the publication of sovereign ratings, including unsolicited ones. An example of this is the incident that occurred on 10 November 2011,⁷ when Standard & Poor's mistakenly published a worse credit rating for France than that implied by its data. Before the EU regulation was issued, CRAs had commented on their ratings by saying that a rating was a mere recommendation or opinion. However, given the effect that rating actions have on financial markets and users of ratings (especially if they contain unexpected changes), such effects had to be reduced. The solution was the above-mentioned CRA Regulation, which delegates a substantial degree of responsibility for the timing of rating actions and the content of ratings to CRAs and the methodologies they apply. It should be noted, however, that no regulatory measure is a "magic pill" that will cure all problems with the commissioning, creation and publication of ratings. Regulatory measures must also provide the market with some freedom so that excessive regulation does not lead to an underdeveloped market and hence prevent sound competition.

Regulatory rules, however well configured they are, cannot entirely resolve procyclicality or the system of payments for rating services. Procyclicality is mainly a manifestation of excessive consideration of market opinions rather than fundamental factors. It is also fostered by inappropriate timing of rating actions (see CNB, 2011). The current issuer-pays model came into being through a process of evolution. An important step on this journey was the establishment in 1975 of a list of "recognised" CRAs at the Nationally Recognised Statistical Rating Organization (NRSRO). Until 2002, this list consisted solely of the Big Three CRAs, i.e. S&P Global Ratings, Moody's Investor Service and Fitch Ratings. Previously, the investor-pays model applied. The current model is controversial in principle and may lead to conflicts of interest.⁸ When investors pay for ratings, there is more pressure for reliable ratings and CRAs have more credibility, and that, in turn, fosters stronger and sounder competition in the rating market.

Sovereign ratings may be issued on the basis of an analysis of country specifics and CRAs must be ready to document how they arrived at them. Regulatory rules on the disclosure of sovereign ratings are set out in Article 8a of the CRA Regulation (CESR, 2009). At the end of each year, each CRA is obliged to publish a calendar for its ratings for the following 12 months, setting a maximum of three dates for the publication of unsolicited and solicited sovereign ratings and rating outlooks. Such dates must be set on a Friday so that sovereigns can prepare adequately for them, as an unsolicited rating may have a negative effect on a country's economy. Any unsolicited rating must be identified properly as such and must be clearly distinguishable from a solicited one. ESMA charges CRAs registration and supervisory fees to cover its necessary expenditure and the reimbursement of any costs that the competent authorities may incur carrying out work pursuant to the regulations.

Since the CRA Regulation entered into force, CRAs have been obliged to publish and submit annual transparency reports (see FitchRatings, 2018, Standard & Poor's, 2017, and Moody's, 2017). These reports include information on any actual or potential conflicts of interest, ancillary services provided, the policy concerning the publication of credit ratings and rating outlooks, compensation arrangements, the methodologies and descriptions of models and key rating assumptions (mathematical and correlation assumptions in particular) and any material modification to systems, resources or procedures.

⁵ IOSCO was established in 1983 when an originally US regional association was converted into an international organisation.

⁶ Investors can thus enforce their claims before national courts, the onus of proof being borne by CRAs.

⁷ See, for example, <https://www.esma.europa.eu/document/esma-censures-standard-poor-s-internal-control-failings>.

⁸ This effect will be stronger for corporate ratings than for sovereign ratings. In the case of sovereign ratings, the authorities of the relevant countries can exert pressure on CRAs by threatening tighter regulation of their activities.

A glance at CRAs' methodologies

In the area of CRAs' activities, the regulations generally describe what requirements should be imposed on CRAs' methodologies, but they also safeguard the necessary independence of CRAs.

Outside interference in the content of ratings or methodologies is prohibited. This is evidently due to the risk of delegating responsibility for the correctness of ratings to supervisory authorities or EU Member States and also to the risk of jeopardising the independence of ratings. So:

- CRAs should ensure that methodologies, models and key rating assumptions are properly maintained, up-to-date and subject to a comprehensive review on a periodic basis. This information should be published in a manner permitting review.
- The methodologies themselves should be rigorous, systematic, continuous and based on historical experience and back-testing.
- Information on methodologies, models and key rating assumptions should be disclosed with a level of detail such that the users of credit ratings are given adequate information to perform their own due diligence and can thus assess whether to rely on those credit ratings.

The basic framework for Moody's sovereign rating methodology is based on an analysis of qualitative and quantitative factors entering the rating assessment. The starting point for the resulting rating is an assessment of two main components (see Moody's, 2017). The first of these is a score-based *baseline credit assessment* (BCA). The BCA entails an assessment of idiosyncratic and systemic risk. Idiosyncratic risk takes into account important information about entities' trustworthiness in four main factors: economic fundamentals, institutional framework, financial performance and debt profile, and governance and management. Each of the factors of idiosyncratic and systemic risk is also assigned a probability weighting and a score and the BCA matrix is then used to decide on its inclusion in the rating scale. The second component of the assessment deals with extraordinary support, mainly the likelihood of support from third parties and extraordinary support from a higher-tier government (such as the EU) and considers the interconnectedness and hierarchy of local and regional governments (provinces, municipalities, regions). It also contains specific aspects of each country, such as its historical behaviour and institutional framework (intergovernmental relations, government policy stance, relationship between government and public, legal framework, law enforceability, degree of oversight, reputation risk, moral hazard and so on). After a score is assigned, all the systemic risk factors are summed and a rating is proposed. The agency says that financial indicators are more important for the rating than the qualitative component. Nevertheless, the final rating depends on additional information and factors available to the agency. Although there is an effort to apply forward-looking principles, unexpected events may occur on the market (such as a sudden liquidity crisis, actions filed by the state or unexpected changes in government decisions) and the rating is then usually adjusted. The rating may be unsolicited.

Rating and market assessments: the case of highly indebted euro area countries

The growth in the debt burden seen over the last ten years calls for a comparison of how much this growth has been reflected in selected euro area countries' ratings and how it has been reflected by the market in the credit default swap (CDS) price. For this comparison, we selected several euro area countries whose debt has long exceeded "sound" levels, namely the countries on the southern periphery of the euro area (Greece, Portugal and Spain) plus Italy, Ireland and Cyprus. The debt ratios and ratings of France and Belgium are included for comparison. All these countries have long recorded debt-to-GDP ratios above the Maastricht convergence criterion (60%) for entry into the euro area.

Before the financial crisis broke out, euro area countries were assigned high ratings regardless of their reported debt levels (see Charts 4–7). Without knowing CRAs' internal procedures, it is quite hard to identify how much this was due to routine procedures for issuing ratings for euro area countries, to general underestimation of the debt phenomenon during the period of economic prosperity observed since the start of the 21st century, or to blind faith that advanced countries with reserve currencies could not be hit by financial instability. The high ratings of countries with poor fiscal discipline also probably reflected the fact that these countries were simply benefiting from the existence of the euro area.

The effects of the financial and later debt crisis in the euro area are most visible in the southern euro area countries and Ireland, whose debt surged. However, Greece and Italy are examples of countries whose debt levels had been very high (equal to their total annual GDP) long before the financial crisis erupted. Their initial conditions at the start of the crisis were thus more difficult than those of other countries. In terms of debt-to-GDP, this applies particularly to Greece and Italy, whose post-crisis debt burdens amounted to 170% and 130% of GDP respectively. For a long time, the countries on the southern periphery of the euro area and also Italy reported lower real growth rates and higher unemployment rates than before the crisis, and some of them still do. The path to economic normalisation thus still lies partly ahead of them.

If a country has enough fiscal room for potentially stimulating the economy before a crisis, it has a much better prospect of stabilising the economy. As regards escalation of the debt burden, the "winner" is Ireland, where the debt-to-GDP ratio surged from 25% at the start of 2007 to almost 125% at the start of 2013. Later, however, the debt burden fell to 70% of GDP at similar rate. This was reflected in

a return to a near-prestigious rating. The academic literature contains many interesting findings in this regard. For example, Reinhart and Rogoff (2009) show that the ratio of government debt to GDP very often increases after a crisis (see Charts 4–7), reflecting a decline in revenues and, unless the fiscal authority is simultaneously passive, an increase in expenditure. This is substantiated by Mendoza and Ostry (2008), who show that the lower the debt-to-GDP ratio, the greater the propensity towards activist (expansionary) fiscal policy. Romer and Romer (2017) conclude that if the debt-to-GDP ratio reaches around 130%, there is no longer any room for economic stimulus through fiscal policy.

Give their debt burdens, some very indebted euro area countries paradoxically still have very high ratings (in the mid-As). Examples include France and Belgium, whose debt-to-GDP ratios are very close to 100%, which is not only far from the debt convergence criterion for entry into the euro area, but also well above the estimated debt level that is still stimulating for the economy.

The evolution of CDS reflects a more focused view of debt, i.e. seen through the lens of debt sustainability and fulfilment of obligations (see Charts 2 and 3). It shows in a more direct way that as the debt burden rises, there is a steady increase in the risk of the debt not being repaid duly and on time. In euphemistic terms, a CDS is a safeguard against bond default. The CDS price was almost astronomical for the above countries at the peak of the crisis. In the case of Greece it was even not tracked for several years (see the interrupted line in Chart 2). CDS surged sky-high in several countries hit hard by the debt crisis – not only Greece, Portugal, Spain, but also Ireland and Cyprus. The CDS developments in Italy were not as dramatic as those in the aforementioned countries. This might have been partly due to investors believing that a “collapse” of Italy might jeopardise the integrity of the euro area. The size of the Italian economy is grounds for caution and concern about what the “Greek path” would mean for Italy, the euro area and the world as a whole.

Chart 2 – Sovereign CDS of more indebted and generally lower-rated countries hit hard by the crisis

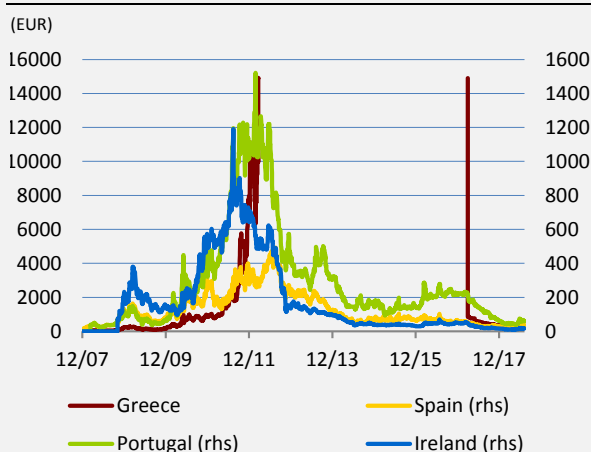
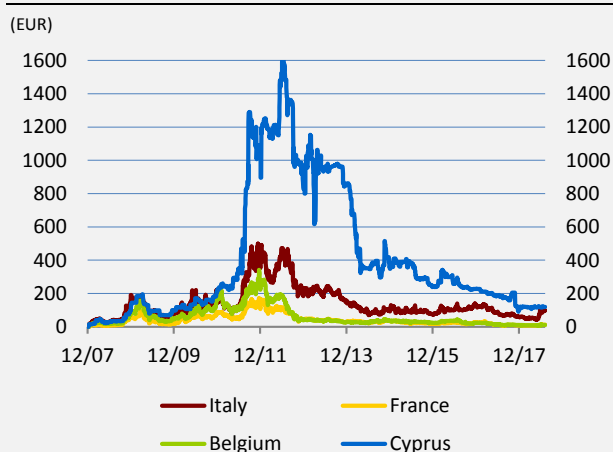


Chart 3 – Sovereign CDS of more indebted and generally higher-rated countries



Conclusion

Rating agencies, most notably the Big Three (S&P Global Ratings, Moody's Investors Service and Fitch Ratings), gradually gained a significant influence over global financial markets. The response to their growing influence took the form of a debate about possible regulation, the implementation of which was accelerated by the financial crisis. The activities of CRAs are more transparent than they were before the crisis. This stems in part from their duty to publish transparency reports. Nevertheless, the academic perspective calls for a discussion of to what extent the debt level and its sustainability are fairly reflected in ratings. As the financial crisis showed, a very high debt level equal to a country's annual GDP can lead to a rapid departure from macroeconomic equilibrium and cause a domino effect. It is therefore an open question whether sovereign ratings should take more account of debt burdens and their sustainability.

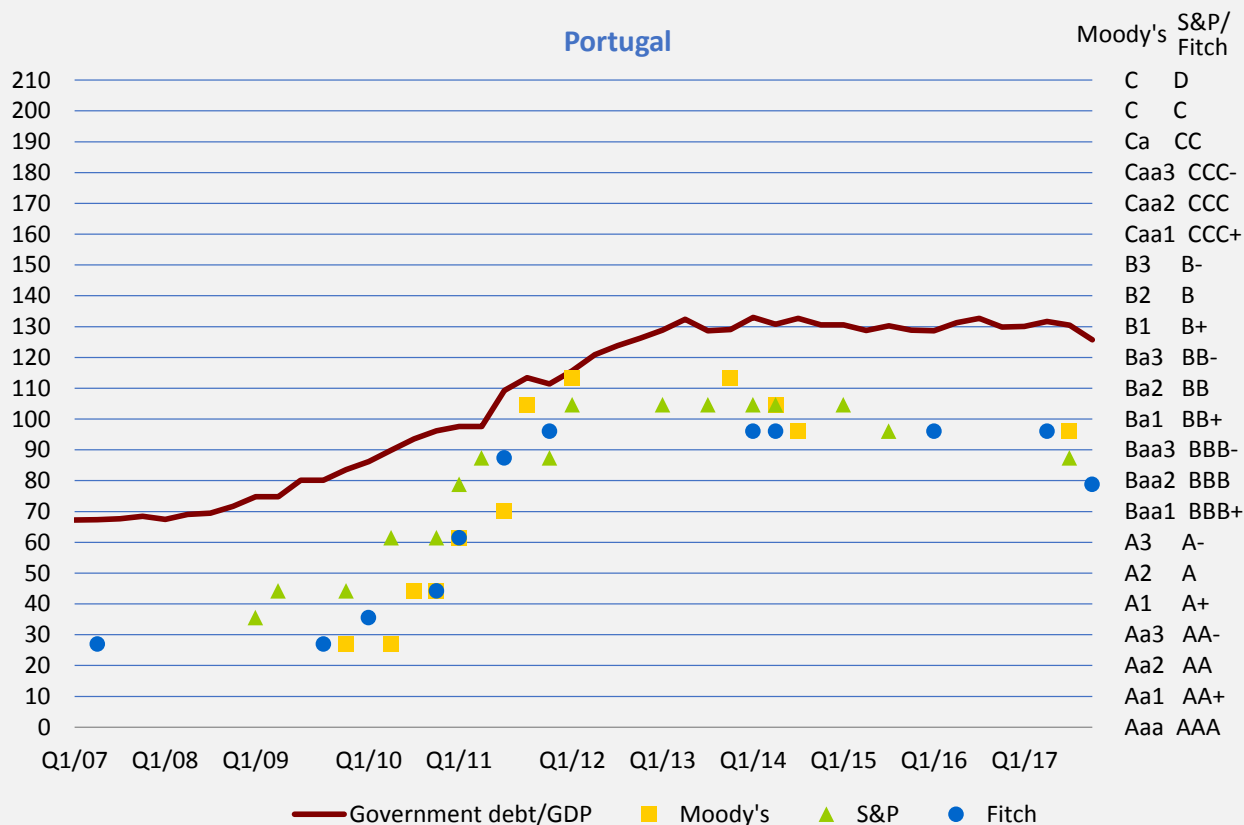
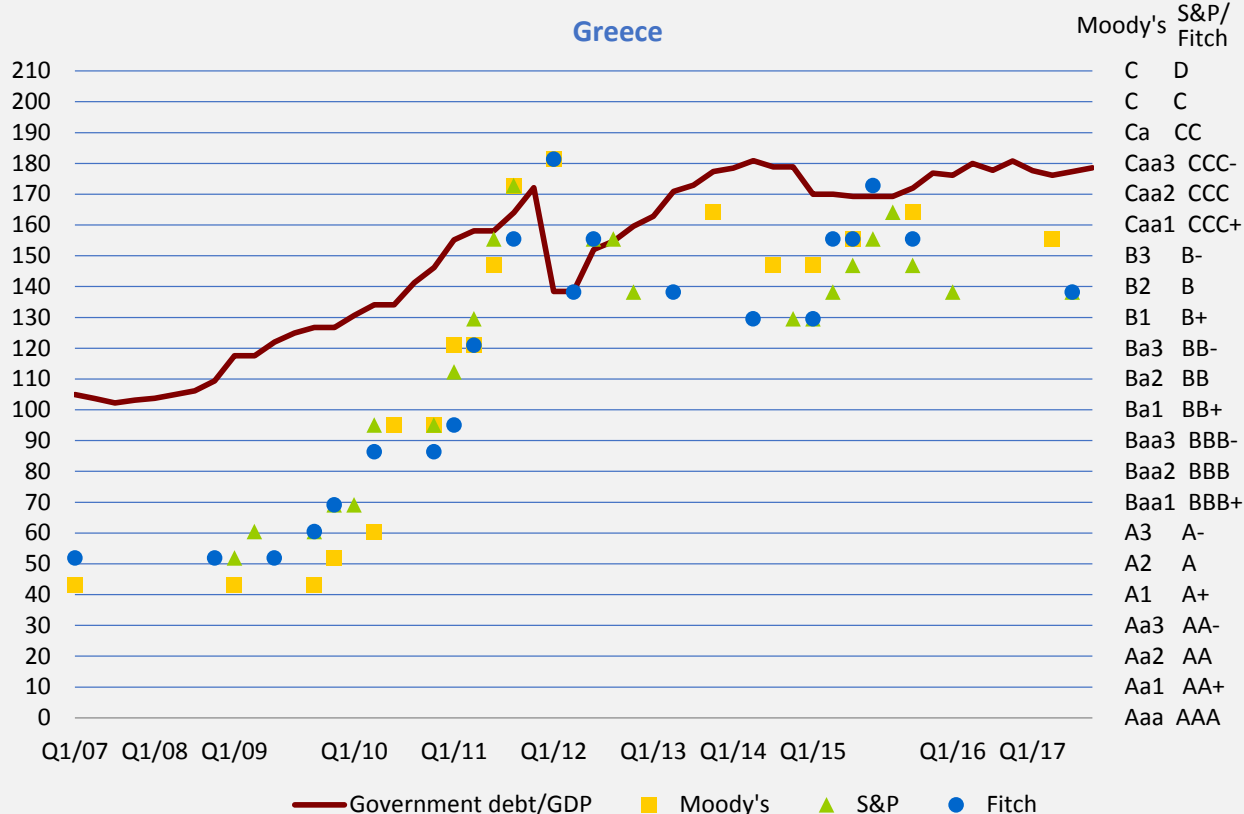
References

- CESR (2009): Regulation (EC) No 1060/2009 of the European Parliament and of the Council of 16 September 2009 on credit rating agencies.
- CNB (2011): A Look Back at the IIF Annual Membership Meeting. In: Global Economic Outlook. October 2011.
- ESMA (2017): Report on CRA Market Share Calculation. December 2017.
- FitchRatings (2018): European Union Transparency Report. March 2018.

- Mendoza, E. G., Ostry, J. D. (2008): International Evidence on Fiscal Solvency: Is Fiscal Policy “Responsible”? *Journal of Monetary Economics* 55 (6): 1081–1093.
- Moody’s (2017): European Union Transparency Report. Moody’s Investors Service.
- NRSRO (2017): Summary Examination Report. December 2017.
- Reinhart, C. M., Rogoff, K. S. (2009): *This Time Is Different: Eight Centuries of Financial Folly*. Princeton, NJ: Princeton University Press.
- Romer, C. D., Romer, D. H. (2017): New Evidence on the Aftermath of Financial Crises in Advanced Countries. *American Economic Review* 107 (10): 3072–3118.
- Standard & Poor’s (2017): S&P Global Ratings. EU Group of Credit Rating Agencies. Transparency Report 2017.

Chart 4 – Ratings and debt ratios (government debt/GDP)

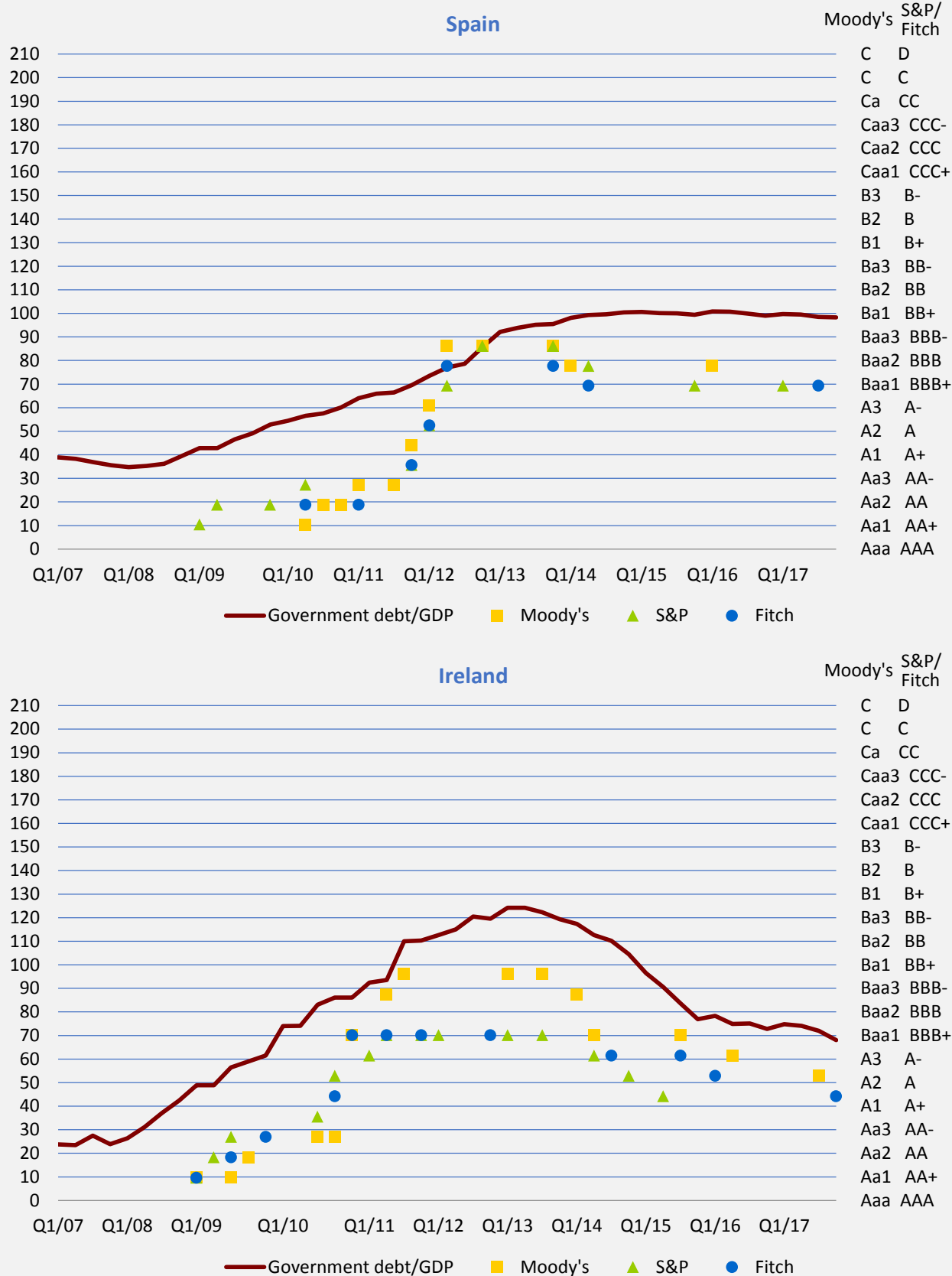
(in % – left-hand scale; rating scales – right-hand scale)



Source: Eurostat, Moody's, S&P and Fitch.

Chart 5 – Ratings and debt ratios (government debt/GDP)

(in % – left-hand scale; rating scales – right-hand scale)

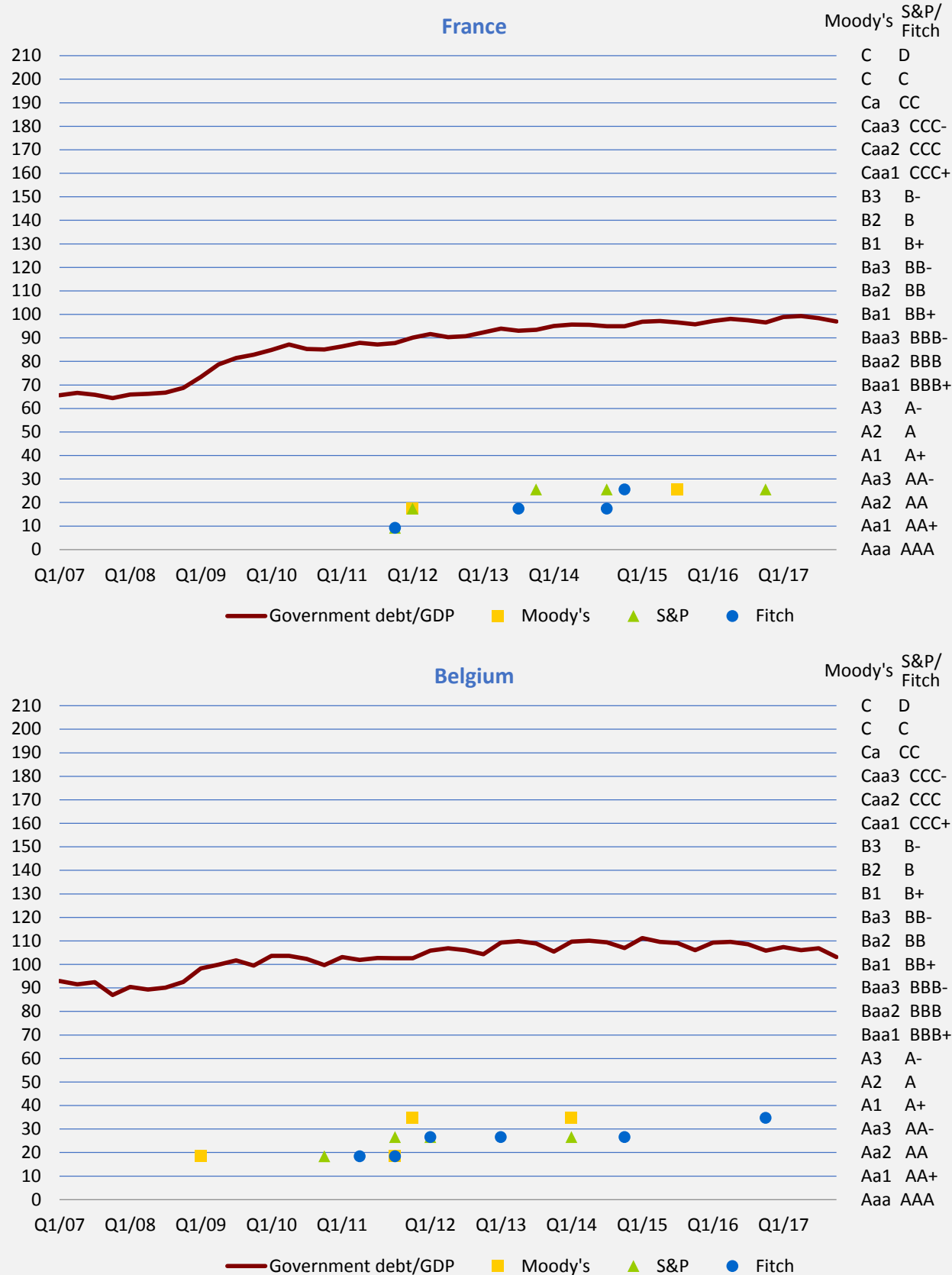


Source: Eurostat, Moody's, S&P and Fitch.

Note: Ireland: Previous rating: Moody's (Aaa, stable; May 1998); S&P (AAA, stable; October 2001); Fitch (AAA, stable; September 2000). Spain: Previous rating: Moody's (Aaa, stable; December 2001); S&P (AAA, stable; December 2004); Fitch (AAA, stable; December 2003).

Chart 6 – Ratings and debt ratios (government debt/GDP)

(in % – left-hand scale; rating scales – right-hand scale)

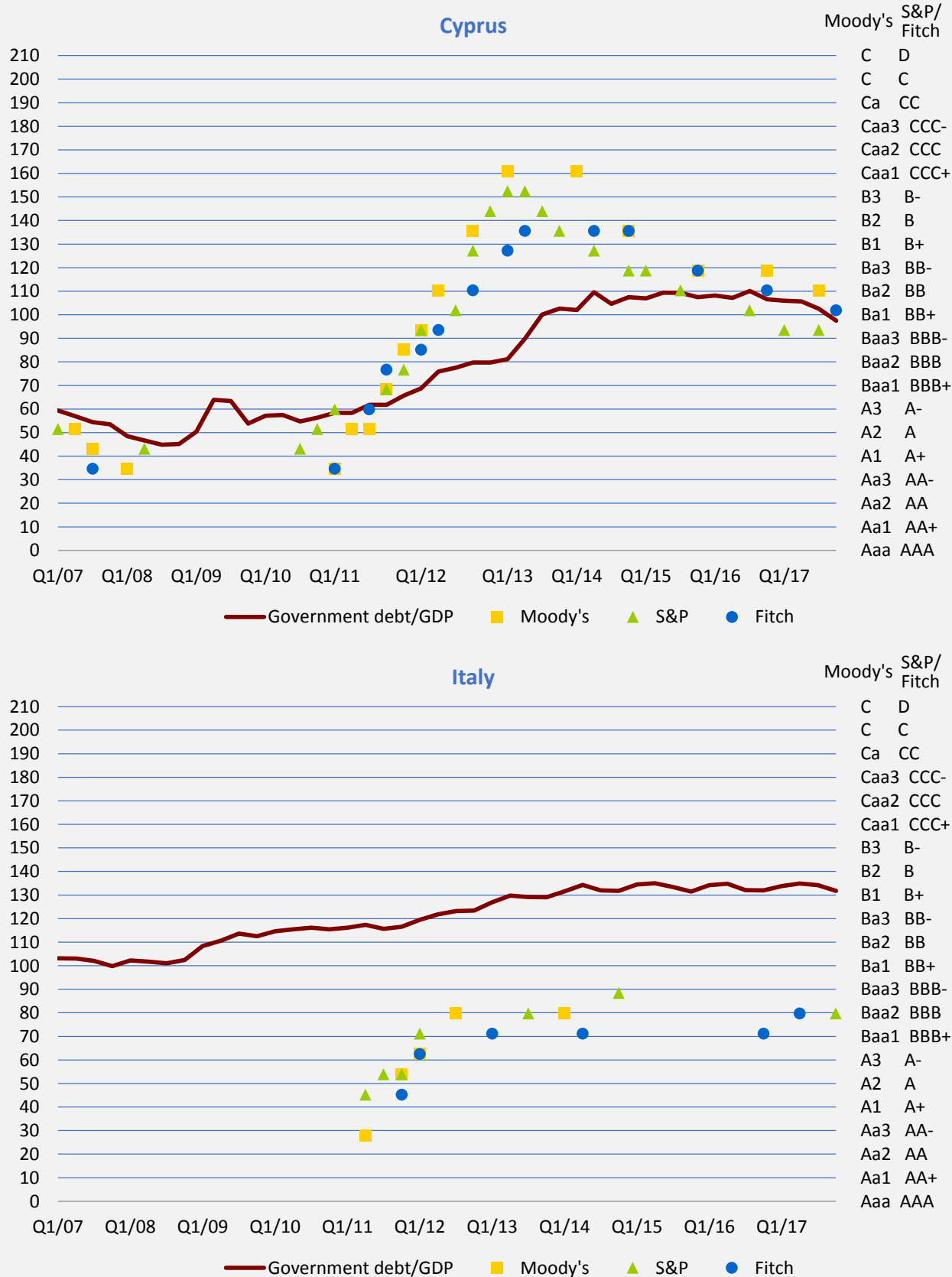


Source: Eurostat, Moody's, S&P and Fitch.

Note: France: Previous rating: Moody's (Aaa, stable; January 1979); S&P (AAA, stable; January 1989); Fitch (AAA, stable; September 2000). Belgium: Previous rating: Moody's (Aa1, positive; March 2006); S&P (AA+, stable; July 1992); Fitch (AA+, stable; May 2006).

Chart 7 – Ratings and debt ratios (government debt/GDP)

(in % – left-hand scale; rating scales – right-hand scale)



Source: Eurostat, Moody's, S&P and Fitch.

Note: Italy: Previous rating: Moody's (Aa2, stable; May 2002); S&P (A+, stable; October 2006); Fitch (AA-, stable; October 2006).

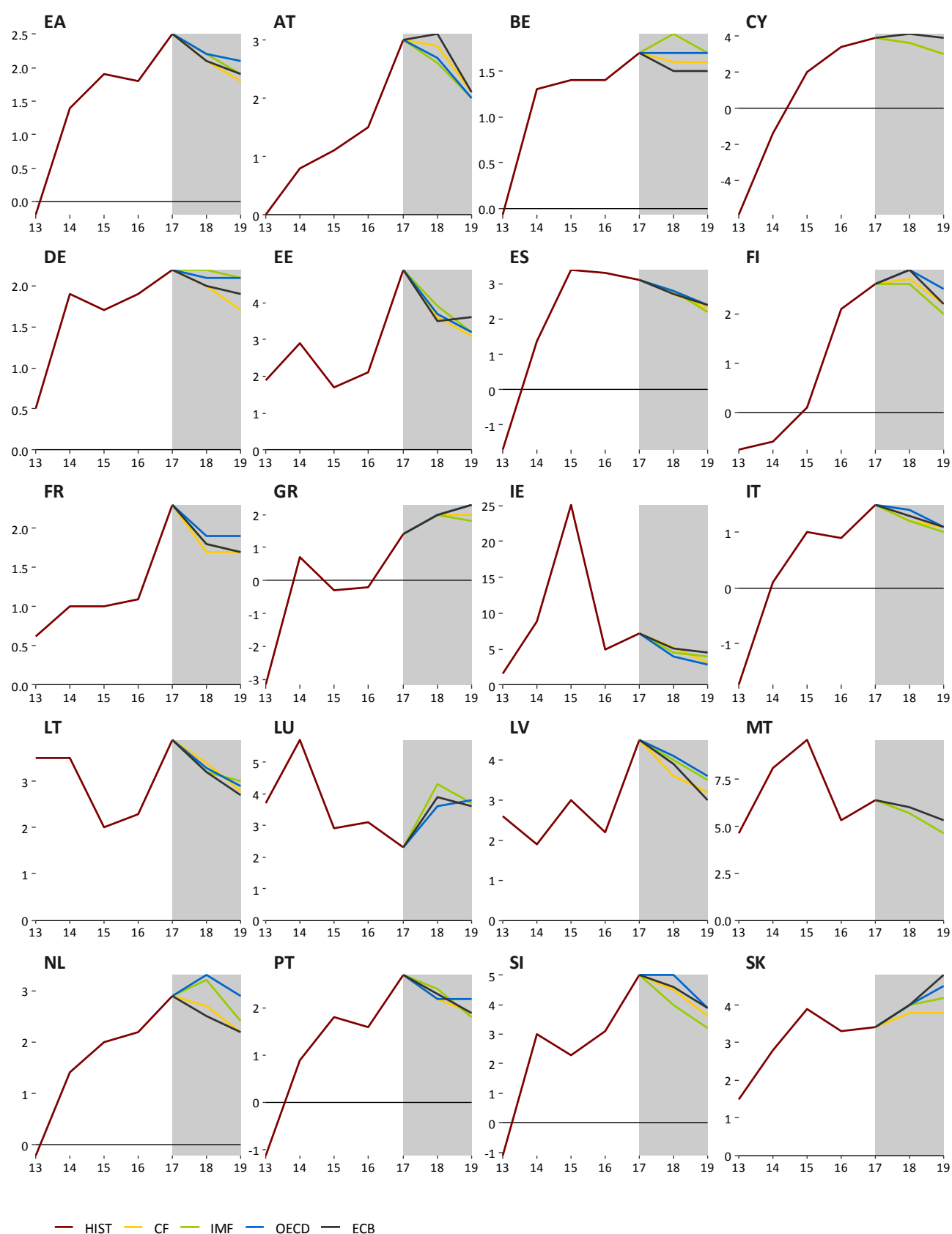
A1. Change in GDP predictions for 2018

	CF		IMF		OECD		CB / EIU	
EA	-0.1	2018/8	-0.2	2018/7	-0.1	2018/5	-0.3	2018/6
		2018/7		2018/4		2018/3		2018/3
DE	0	2018/8	-0.3	2018/7	-0.3	2018/5	-0.5	2018/6
		2018/7		2018/4		2018/3		2017/12
US	0	2018/8	0	2018/7	0	2018/5	+0.1	2018/6
		2018/7		2018/4		2018/3		2018/3
UK	0	2018/8	-0.2	2018/7	+0.1	2018/5	0	2018/8
		2018/7		2018/4		2018/3		2018/5
JP	0	2018/8	-0.2	2018/7	-0.3	2018/5	-0.1	2018/7
		2018/7		2018/4		2018/3		2018/4
CN	0	2018/8	0	2018/7	0	2018/5	-0.1	2018/8
		2018/7		2018/4		2018/3		2018/6
IN	-0.1	2018/8	-0.1	2018/7	+0.2	2018/5	0	2018/8
		2018/7		2018/4		2018/3		2018/5
RU	0	2018/7	0	2018/7	0	2018/5	0	2018/7
		2018/6		2018/4		2018/3		2018/5
BR	-0.2	2018/7	-0.5	2018/7	-0.2	2018/5	-0.5	2018/8
		2018/6		2018/4		2018/3		2018/6

A2. Change in inflation predictions for 2018

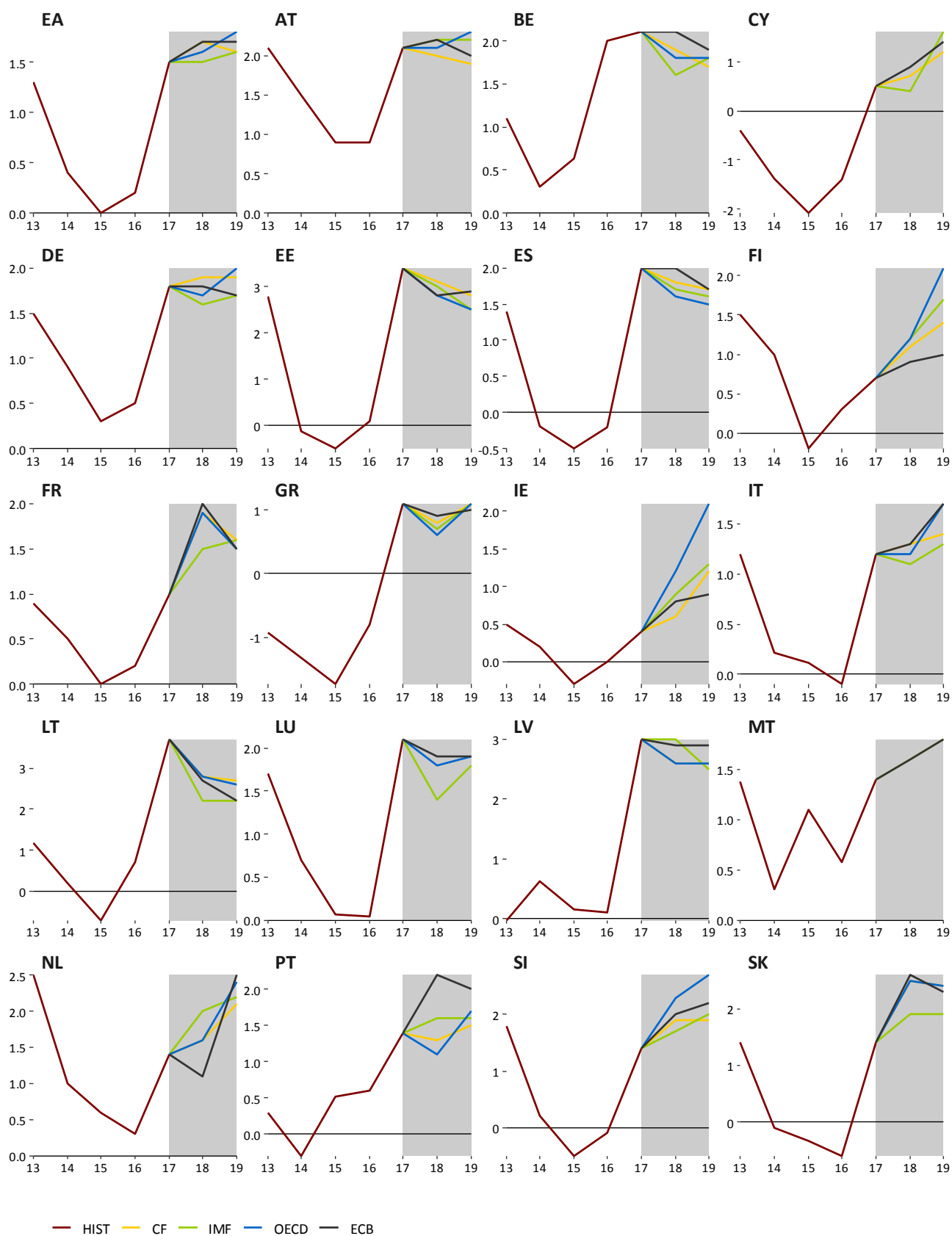
	CF		IMF		OECD		CB / EIU	
EA	0	2018/8	+0.1	2018/4	+0.1	2018/5	+0.3	2018/6
		2018/7		2017/10		2017/11		2018/3
DE	0	2018/8	+0.1	2018/4	-0.1	2018/5	+0.2	2018/6
		2018/7		2017/10		2017/11		2017/12
US	0	2018/8	+0.4	2018/4	+0.7	2018/5	+0.2	2018/6
		2018/7		2017/10		2017/11		2018/3
UK	-0.1	2018/8	+0.1	2018/4	0	2018/5	+0.1	2018/8
		2018/7		2017/10		2017/11		2018/5
JP	-0.1	2018/8	+0.6	2018/4	+0.2	2018/5	-0.2	2018/7
		2018/7		2017/10		2017/11		2018/4
CN	-0.1	2018/8	+0.1	2018/4	+0.1	2018/5	0	2018/8
		2018/7		2017/10		2017/11		2018/6
IN	0	2018/8	+0.1	2018/4	+0.1	2018/5	-0.2	2018/8
		2018/7		2017/10		2017/11		2018/5
RU	0	2018/7	-1.1	2018/4	-0.9	2018/5	-0.5	2018/7
		2018/6		2017/10		2017/11		2018/5
BR	+0.3	2018/7	-0.5	2018/4	-0.5	2018/5	+0.3	2018/8
		2018/6		2017/10		2017/11		2018/6

A3. GDP growth in the euro area countries



Note: The chart shows institutions' latest available outlooks of for the given country (in %).

A4. Inflation in the euro area countries



Note: The chart shows institutions' latest available outlooks of for the given country (in %).

A5. List of abbreviations

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

