CONJONCTURE IN FRANCE

December 2018

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BOOSTED PURCHASING POWER IN A CONTEXT OF EUROPEAN SLOWDOWN

Boosted purchasing power in a context of European slowdown

After a gloomy start to the year (+0.2% growth in Q1 and Q2 2018), the French economy rallied this summer (+0.4%). This return to better fortunes was partly achieved through the return to normal of various isolated factors that had put a strain on activity in the spring (especially maintenance work in refineries and strikes in rail transport).

In the Eurozone, meanwhile, where activity did better than in France in H12018, there were signs that it was fading in Q3 (+0.2%). Activity in Italy in particular was at a standstill and the German economy stalled completely. Problems in adapting German automobile production to the new antipollution standard, which came into force in September, certainly had a lot to do with this sudden slowdown. However, business climates have deteriorated constantly since the beginning of the year, suggesting a weakening of European growth which may not be limited to one-off factors.

Activity in the United States has maintained its vigour, boosted by tax reductions although with the risk of macroeconomic imbalances. It is likely to slow a little between now and mid-2019. The US continues to weigh down on world trade with the threat of further increases in customs tariffs. Paradoxically, this is likely to contribute to an acceleration in trade with China at the end of 2018, ahead of further increases whose effects should probably be felt at the beginning of 2019. The engines driving China's growth seem to be gradually losing momentum.

The international context is also marked by the tightening of monetary policy across the Atlantic: some emerging economies could suffer from this. After increasing more or less constantly since mid-2017, the price of oil plummeted in October and November as a result of a market surplus and geopolitical factors. This could limit inflation in the future, provided there is not another turnaround. The exchange rate of the euro against the dollar has remained relatively stable for several months.

In this overcast international climate, Europe is also experiencing internal problems, whether related to the terms of the upcoming Brexit, *uncertainties surrounding the budget in Italy or social tension in France. In addition, analyses of economic cycles within the Eurozone suggest that activity in the main countries should be close to its potential, i.e. the buoyancy associated with catch-up following past recessions could be fading. Despite fiscal support in a few countries, activity in the Eurozone looks set to continue to slow, with growth of around 0.3% per quarter through to mid-2019.*

Over this period, the French economy is likely to improve at a similar pace (0.2% at the end of 2018, 0.4% in Q1 2019 then +0.3% in Q2). As an annual average, French GDP should increase by 1.5% in 2018, with its carry-over effect for 2019 standing at 1.0% by mid-year. Employment is also likely to maintain its moderate pace (64,000 net job creations in H1 2019, after 107,000 for the whole of 2018), probably resulting in only a slow decline in unemployment (forecast at 9.0% for next spring).

After major aeronautical and shipbuilding deliveries at the end of 2018, the contribution of foreign trade to growth will probably become negative once again in H1 2019. The increase in activity is therefore likely to be driven mainly by domestic demand: corporate investment should still be buoyant at the start of 2019, in response to tensions over production capacity, and sustained by financial conditions that are still accommodating. Household investment, on the other hand, is likely to continue to fall back, as indicated by the decline in the number of building permits. However, household consumption should pick up, mainly as a result of purchasing power support measures, and the annual carry-over effect should already reach 2.0% by mid-2019.

In addition to continuing international uncertainties, the consumption behaviour of French households remains one of the uncertainties likely to affect this scenario, sending it either up or down. There was still a question mark hanging over the duration and the consequences of the social unrest by the "yellow vests" at the time this Conjoncture in France was finalised (13 December 2018). ■

General outlook

In anticipation of a hardening of protectionist tensions, world trade was buoyant this summer

China and the United States drove the vigorous improvement in world trade in Q3

After a slowdown in Q2 (+0.7% after +1.3% at the beginning of the year), world trade accelerated a little in Q3 (+0.9%). Growth as an annual average is likely to be very much sustained once again in 2018, similar to 2017 (+5.4%). The United States and China made a major contribution to this dynamism, despite the series of announcements on strengthening protectionist barriers indeed. In anticipation of the introduction of higher customs duties, economic actors increased their purchases during the summer, leading to a sharp increase in imports by the US (+2.2%) and China (+3.5%).

United States buoyant, Europe losing momentum

In Q3 2018, economic growth in the United States was vigorous once again (+0.9% after +1.0%), sustained by a strong increase in private consumption while corporate investment was at a standstill and household investment declined further. In contrast, activity in Japan shrank (–0.6%), with a downturn in household consumption as well as in corporate investment and exports. In the Eurozone, gross domestic product (GDP) slowed down (+0.2% after +0.4% in Q2) due to the contraction of the German economy (–0.2% after +0.5%) and stagnation in Italy (–0.1% after +0.2%). In Germany, the new automobile certification standards held back production and sales, while foreign trade also affected activity. Nevertheless, in France (+0.4% after +0.2%) and especially Spain (+0.6% as in Q2), activity increased more sharply, driven mainly by corporate investment.

Economic crisis in Turkey, expansion in Asia

Fortunes are varied in the emerging economies. On the one hand, the Turkish economy and, to a lesser extent, the Russian economy are being affected by the depreciation of their currency and accelerating consumer prices. On the other hand, the economies of India and China are growing at a rate well above 1% per quarter. In Brazil, activity accelerated in Q3 after the strikes by truck drivers in the spring.

In France, activity accelerated, taking advantage of some one-off factors

In Q3 2018, activity in France increased by 0.4% after two quarters of more moderate growth (+0.2% per quarter). While corporate investment kept up its momentum (+1.6% after +1.3% in spring), especially in services, the upswing in household consumption (+0.4% after –0.2%) is the reason for this rebound. The return to normal in the transport sector after the strikes, and in the energy sector after a fairly mild spring, played a part in this catch-up. The temporary rise in new vehicle registrations in August in anticipation of the new antipollution standard on 1st September also contributed to sustaining consumption of manufactured goods and corporate investment temporarily. However, household investment continued to slow (–0.1% after +0.1% in Q2) penalised by the downturn in housing starts and the peak in sales of existing dwellings. Lastly, foreign trade once again supported activity, contributing around +0.2 points to GDP growth (after –0.2 points in Q2). The acceleration in the pace of aeronautical deliveries notably enabled exports to increase (+0.4% after –0.1%), while imports declined (–0.3% after +0.5%).

The price of oil increased substantially before falling fairly drastically; the exchange rate of the euro remained relatively stable

The price of Brent exceeded $85 per barrel at the beginning of October before dropping below $60 the following month

In Q3 2018, the price of Brent crude stood at an average of $75 per barrel, the same as in Q2, whereas it had been about $50 one year earlier. It then reached more than $85 at the beginning of October in a context of production difficulties in Venezuela and Libya and the prospect of the Iranian embargo being applied. However, the announcement of an increase in Saudi production and forecasts of an economic slowdown triggered a drop in price to a little under $60 in

November. Given these production assumptions, the crude oil market is likely to be in surplus by mid-2019 and the rise in prices could be contained, although US stocks are still high.

The euro continued to depreciate slightly in Q3

In the United States, the Federal Reserve (Fed) continued with its policy of gradually increasing base interest rates. The European Central Bank (ECB) for its part announced it would end its asset purchase programme at the end of 2018 and had no plans to increase its base interest rates before autumn 2019. The advance in the tightening of monetary conditions in the United States over the other three major central banks has supported the rise in the dollar for several quarters, weakening the emerging countries in particular. The euro-dollar exchange rate returned to $1.16 for €1 in summer 2018 (after $1.23 on average during the winter). The forecast assumption is $1.14 for one euro.

In early 2019, protectionist tensions are expected to hamper world trade

World trade looks set to slow with the escalation in the effects of the trade war

In a context of escalating protectionist announcements, export orders declared by purchasing managers have slipped back below their autumn expansion threshold, a long way from the heights achieved at the end of 2017 (*Graph 1*), indicating a coming slowdown in world trade. Although the anticipation of international purchases ahead of the introduction of additional customs duties in the United States and China has maintained strong trade over a few quarters, it is likely that these new customs barriers will eventually hamper world trade flows. The prospect of the United Kingdom leaving the European Union (EU) could also limit trade and activity in the country's main trading partners. Consequently, world trade is unlikely to grow more than 0.6 to 0.8% per quarter in the first half of 2019, whereas the pace of expansion was well above 1% per quarter in 2017 and 2018.

The effect of fiscal support measures on US activity is expected to fade

In the United States, after receiving a boost from the tax cuts introduced in 2018, household consumption and corporate investment will probably return to a more moderate pace of growth. In H1 2019, private consumption is therefore expected to grow at only half the pace (+0.5% per quarter) of that in H2 2018. Residential investment, which has been decreasing since the start of 2018, looks set to continue its decline, in a context where property prices are high and still rising, interest rates are increasing and there is a slowdown in real-estate loans. However, the scale of government spending, forecast to grow by 1.5% per quarter, is expected to make up in part for the slowdown in investment and private consumption. During H1 2019, US activity will probably slow to +0.6% per quarter after +0.9% at the end of 2018.

1 - Decrease of new export orders implies a downturn in world trade

Source: DG Trésor, Markit, INSEE

After the decline over the summer, Japan is expected to return to growth in Q4 (+0.6%), but this will remain at a moderate pace in H1 2019 (+0.2% to +0.3% per quarter). Assuming that the House of Commons and the European Parliament ratify the agreement between the United Kingdom and the European Union on the subject of *Brexit*, GDP is likely to increase moderately in the United Kingdom (+0.2% then +0.3% at the beginning of 2019) still in a context of great uncertainty around this process.

Growth rates in the different emerging economies are expected to remain very varied

In China, business climates have not been encouraging in industry and services, although they picked up in the autumn and were near the expansion threshold. Protectionist tensions may continue to hold back activity and exports, which could slow significantly in H1 2019. The Russian economy is expected to pick up at the end of 2018 but then slow down at the start of 2019 with the effect of a VAT hike. Turkey is unlikely to get out of the crisis completely over the forecasting period, however.

The economic slowdown in the Eurozone looks set to continue into the start of 2019

The catch-up in activity of the main Eurozone countries is coming to an end

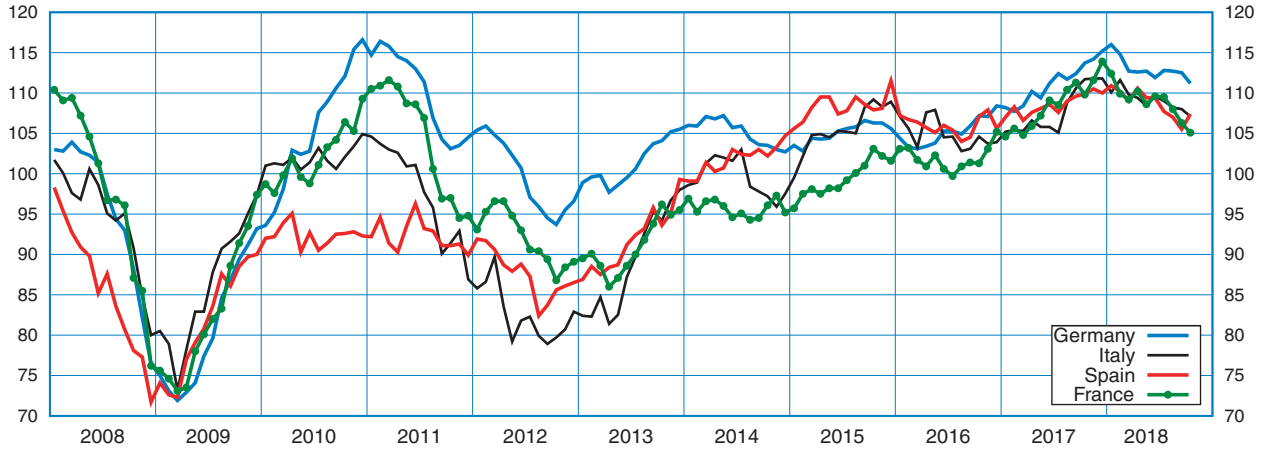
Analysis of the economic cycles of the four main Eurozone economies (*Special report Tensions over supply and the position of the economy in the cycle*) suggests that their activity is close to or slightly above their potential, as far as it is possible to estimate at the moment, as the economic catch-up following earlier recessions has now been or is in the process of being completed. The associated economic dynamism is fading: the growth rate is no longer very much higher than its potential now. In line with the downturn in the business climate (*Graph 2*), this suggests a slowdown in growth in H1 2019 (+0.3% per quarter after +0.4% in Q4 2018) compared with 2018 and even more so with 2017 (when it reached 0.7% per quarter). In Germany, GDP should rebound to +0.5% in Q4 2018, before slowing to +0.3% in Q1 and Q2 2019. Economic activity is likely to increase by 0.5% per quarter in Spain. In Italy, growth is expected to be more moderate once again (+0.1% in Q4, then +0.2% per quarter in H1 2019).

Consumption should be sustained by gains in purchasing power

In Germany, the momentum in real wages combined with the increase in employment (+0.2% per quarter) is expected to push gains in purchasing power to +0.6% per quarter in H1 2019. In Italy, the citizen's income planned for Q2 2019 could support household income; in addition, the ramping up of the government investment plan is expected to contribute to boosting the construction sector.

In Spain, the raising of the minimum wage by 20% should support real wages at the start of 2019. Meanwhile, French households should benefit from measures to support purchasing power announced in December. Throughout the Eurozone, household consumption is expected to increase by around +0.4% per

2 - The economic sentiment clearly withdrew



Source: commission européenne (DG EcFIN)

quarter until mid-2019. Employment will probably slow (+0.2% per quarter in H1, after +0.3% at the end of 2018), resulting in a slower decline than before in the unemployment rate (–0.1 point per quarter, 7.8% in spring 2019).

Investment expected to remain dynamic in H1 2019

Tensions over production capacity in the Eurozone have declined a little recently, although they remain significant (*Special report Tensions over supply and the position of the economy in the cycle*) and are supporting investment which is expected to remain dynamic (+0.5% per quarter). However, exports from Eurozone countries are likely to fluctuate even more. After the dramatic fall in German exports in the summer, the last quarter of 2018 should see a rebound, especially in transport equipment. In H1 2019, however, exports are likely to grow less quickly than imports and foreign trade could hold back activity.

After the vigour forecast for the end of 2018, French exports will probably be at a standstill in H1 2019

After some major aeronautical and shipbuilding deliveries at the end of 2018, manufacturing exports are likely to slip back at the start of 2019

In Q4 2018, French exports are expected to accelerate (+2.1%), driven by manufacturing deliveries and the rebound in sales of agricultural products and energy. The increase in the pace of aeronautical deliveries and the delivery of a cruise liner probably account for the dynamism in exports of transport equipment. However, their return to a more moderate pace in H1 is likely to contribute to a downturn in manufacturing exports and even in goods and services overall. Concerning imports, they should grow in H1 2019 by +0.7% to +0.8% per quarter after a catch-up at the end of the 2018 (+1.4%).

The contribution of foreign trade to growth is likely to become negative once again in H1 2019

All in all in 2018, exports should grow once again, but a little more slowly (+2.9%) than world demand for French goods (+4.2%). Their slowdown in 2019 is likely to result in a carry-over effect of +1.4% for the year, against +2.7% for world demand. After making a positive contribution to GDP growth on average in 2018 (+0.6 point), the contribution to activity evolution of foreign trade will probably be negative in H1 2019 (contribution of –0.3 points carry-over effect by mid-year).

The French economy should progress at a moderate pace

Since the beginning of 2018, the business climate has slipped back almost continuously

In November 2018, the business climate in France paused at 104 in its almost continuous decline since December 2017, when it reached its highest point for 10 years (at 111). This fall since the start of the year concerns all the major sectors of activity, with the exception of building where the morale of entrepreneurs remains high, especially driven by the strong performance of employment in this sector.

The annual carry-over effect of French economy is expected to reach 1.0% by mid-2019

In the absence of a temporary support factor as there was during the summer, and affected by the "yellow vests" social unrest (*Focus on Production sheet*), economic activity is likely to slow in Q4 2018 (+0.2%). It should then pick up again at the beginning of 2019 (+0.4%) and increase by +0.3% by spring. Manufacturing production is unlikely to improve before mid-2019, in a context where the business climate in industry is deteriorating. Energy production looks set to slip back at the end of the year as a result of temperatures that were once again mild for the season, before increasing moderately in H1 2019. Construction activity will probably drop by 0.1% to 0.2% per quarter through to mid-2019 due to the continuing decline in residential construction.

Finally, it is in market services that activity is expected to increase most significantly (+0.6% per quarter in H1), supported by household consumption. All in all, the carry-over effect of GDP for 2019 (+1.0% by mid-year) should reflect this economic slowdown in relation to the growth forecast in 2018 (+1.5%) and that measured in 2017 (+2.3%).

The moderate pace of job creations will probably result in only a slow reduction in unemployment

The pace of market-sector job creations should be maintained in H1 2019

In a context of slowing activity, total employment is expected to decelerate in 2018: after 341,000 jobs created in 2017, it should grow by 107,000 in 2018 then by 64,000 in H1 2019 (*Graph 4*). Employment in services should increase by around 50,000 jobs in H1 2019, but temporary employment started to lose jobs in Q2 and this decline is set to continue until mid-2019.

The decline in non-market sector subsidised employment is expected to have less effect on total employment

Non-market employment was penalised by the drop in the number of beneficiaries of subsidised jobs up to mid-2018 (the effect on employment is likely to be around –50,000 in H2 2017 and H1 2018), however, this negative contribution should be reduced at the end of 2018 and the beginning of 2019 with the ramp-up of the "Employment skills pathway" system. As a result, non-market employment should grow a little from H1 2019 onwards.

The drop in the unemployment rate is likely to be less rapid

The unemployment rate stood at 9.1% in Q2 and Q3 2018. The slowdown in employment makes it unlikely that there will be such a rapid decline in the unemployment rate as in previous years. It is expected to stand at 9.0% in spring 2019.

The annual carry-over effect of household purchasing power is expected to hit 2% by mid-2019.

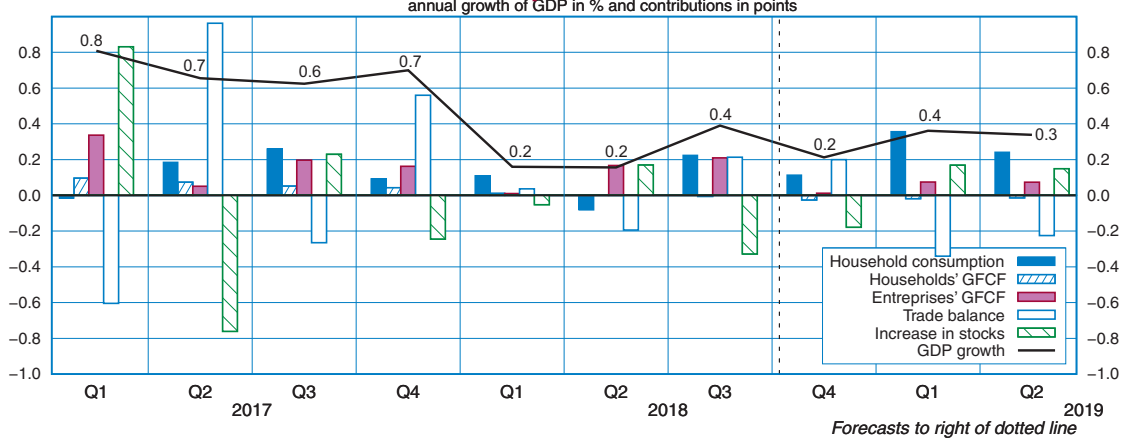
Core inflation should exceed 1% but overall inflation should flow back

Year on year, prices increased by 2.2% in October 2018, which was twice the rate one year earlier. The prices of energy, fresh produce and tobacco were the reason for this rise in inflation. By mid-2019, assuming that the price of Brent stabilises at $60 per barrel and that gas and electricity tariffs also stabilise, inflation should move back to +1.0%, as a result of the slowdown in energy and fresh food prices. For tobacco, price rises scheduled for March 2019 are virtually half those applied in March 2018, and it is expected that this will also contribute to the fall in inflation. Core inflation is likely to rise to 1.2% in June 2019, higher than the level in October 2018 (+0.8%).

Real wages set to accelerate through to mid-2019

Nominal wages per capita in the non-agricultural market sector are likely to accelerate a little in 2018 (+2.0%, after 1.7% in 2017); their carry-over effect should already be at +2.1% by mid-2019. Hiring difficulties reported by employers, which increased significantly in the course of 2018, will probably sustain this momentum as well as the payment of an exceptional bonus by some firms. In real terms, after an increase by +0.4% in 2018 as well as in 2017, the carry-over effect of average wage should rise by +1.2% at mid-2019.

3 - The support given to private consumption is expected to compensate the investment slowdown and the exports in H1 2019



Source: INSEE

After its buoyancy at the end of 2018, purchasing power should level benefit from support measures in H1 2019

As the acceleration in wages made up for the slowdown in employment, payroll in 2018 should retain the same momentum as in 2017 (+3.0% after +3.1%). Social and tax contributions look set to slow down (+2.0% after +2.7% in 2017) and property income is likely to be very dynamic (+10.9% after, +4.9%), driven by the vigour of paid dividends. Households' gross disposable income therefore looks set to accelerate in 2018 (+3.1% after +2.7% in 2017). However, this acceleration will probably be the same as that in consumer prices, with the result that household purchasing power in 2018 is likely to increase by +1.4%, the same as in 2017. After increasing briskly at the end of 2018, mainly as a result of the reductions in contributions for salaried employees and in housing tax and despite the peak in oil prices reached at the start of October, households' gross disposable income should benefit from the measures announced in December to support purchasing power. In addition, given the increase in inflation, the carry-over effect of purchasing power for 2019 should already be at +2.0% by mid-year.

Household consumption is likely to rebound at the beginning of 2019

The one-off factors that sustained consumption in the summer are unlikely to still be effective in Q4 2018: despite the clear increase in purchasing power this quarter, at the end of 2018 consumption is expected to return to a pace that will be all the more moderate as it is likely to be affected by the social unrest of the "yellow vests".

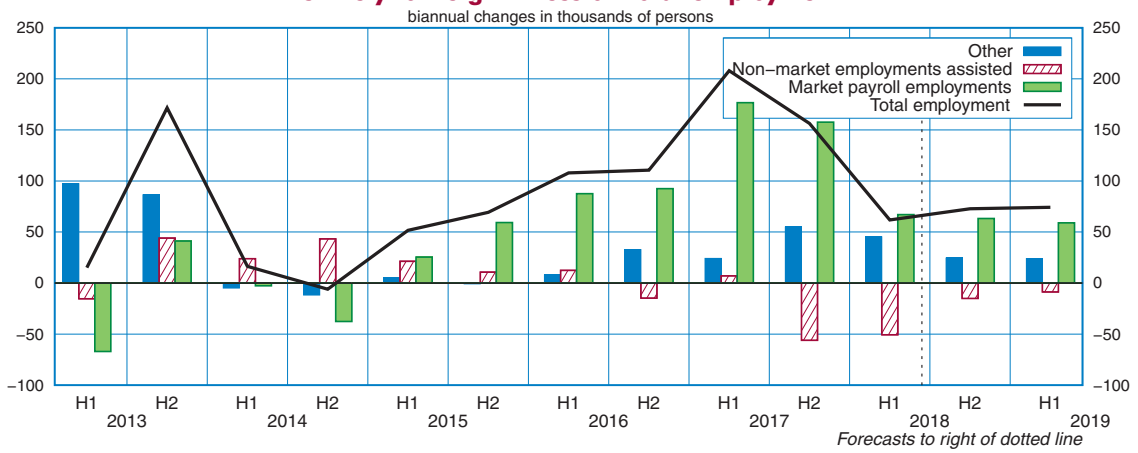
According to the business tendency survey of households in November 2018, the opportunity to make major purchases has decreased substantially (*Focus on Consumption sheet*). Household consumption should then accelerate at the beginning of 2019 as a backlash and as a result of the support measures. On average in 2018, the household savings ratio is expected to remain similar to the 2017 level (14.7% after 14.2%), and should stay a little above this level in the course of H1 2019 (15.2% in carry-over effect by mid-2019).

Corporate investment in service sector should remain dynamic

Corporate investment is likely to be sustained in H1 2019

Corporate investment is likely to remain stable at the end of 2018, due to a downturn in spending on manufactured goods as a result of a backlash effect after the massive number of new vehicle registrations in August. However, it should increase again during H1 2019 (+0.6% per quarter), still sustained by spending in the service sector. The transformation of the Competitiveness and Employment Tax Credit (CICE) into a permanent reduction in employers' social contributions in 2019 should give short-term support to companies' margin rate (which is expected to increase by almost 1.5 points and reach 33.5% at the

4 - Market-sector employment is expected to keep a moderate growth while supported employment is likely to weigh in less on total employment



Source: INSEE

beginning of 2019) and notably this should benefit employment (*Focus on Employment sheet*) and investment.

The decline in household investment is set to escalate

The decline in household investment (around –0.4% per quarter) looks set to continue through to mid-2019. The pace of building permits continues to decline and the volume of transactions on existing dwellings remains high but is no longer increasing. Household investment is expected to rise by only 1.5% in 2018 after +5.6% in 2017 and its carry-over effect for 2019 should be –1.0% by mid-year. General government investment is likely to be stable at the start of 2019.

International uncertainties persist, both political and financial

The negative consequences of US protectionist measures could come to fruition

Until now, world trade has resisted the trade war started by the United States, with economic actors accelerating their trade in the expectation of additional hikes in customs duties. However, the effects on world trade and inflation could be more marked at the beginning of 2019. The tightening of monetary policies across the Atlantic could further hamper not only US growth, but also world growth, next year.

Political and budgetary uncertainties persist in Europe

The risks in Europe relate mainly to the outcome of negotiations on the terms of *Brexit* and on the implementation of the Italian budget and the European procedure to limit its deficit. In both cases, the associated uncertainty could slow investments or generate anxiety in the financial markets.

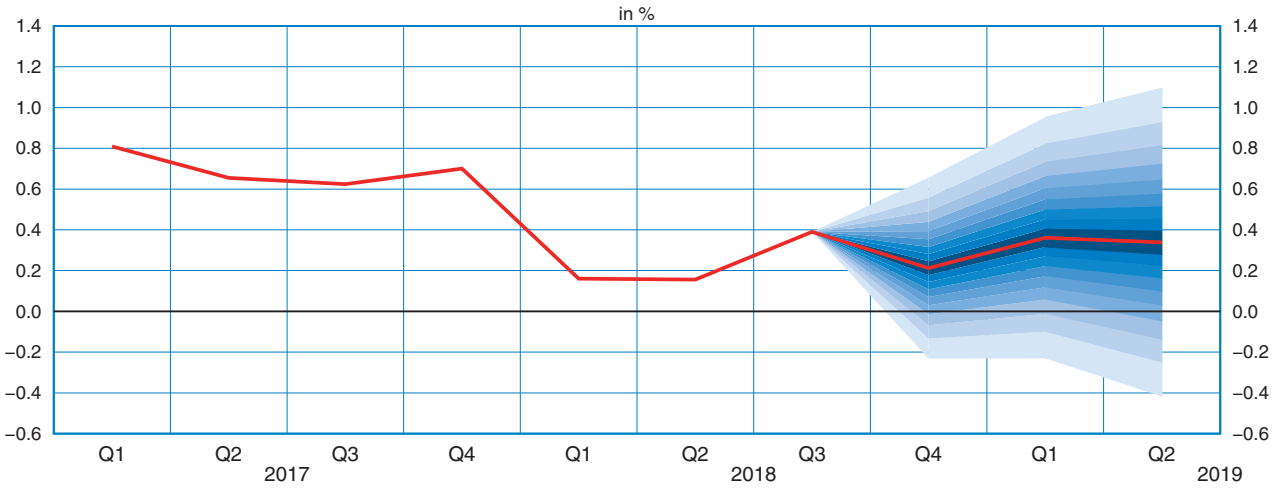
The reaction of household consumption to the new measures and to budget expenditure in the Eurozone is uncertain

Household income and corporate income are likely to be fairly irregular until mid-2019 in France and neighbouring countries (CICE and measures to support purchasing power in France, increase in minimum wage in Spain, citizen's income in Italy, etc.). The reactions of household consumption and corporate investment will be determining factors for change in activity in the Eurozone when confronted with these ongoing international risks.

In France, the uncertainty is accentuated by the ongoing social unrest

In France in particular, the duration and the consequences of the social unrest provoked by the "yellow vests" are still uncertain as this edition of *Conjoncture in France* goes to press (13 December 2018). The arrangements for implementing the purchasing power support measures announced on 10 December are not yet known exactly. Finally, the changes to the calendar for collecting income tax could also affect household consumption behaviour, causing it to go up or down. ■

5 - Fan chart for *Conjoncture in France*



How to read it: the fan chart plots 90% of the likely scenarios around the baseline forecast (red line). The first and darkest band covers the likeliest scenarios around the baseline, which have a combined probability of 10%. The second band, which is a shade lighter, comprises two sub-bands just above and just below the central band. It contains the next most likely scenarios, raising the total probability of the first two bands to 20%. We can repeat the process, moving from the centre outwards and from the darkest band to the lightest, up to a 90% probability (see *INSEE Conjoncture in France* for June 2008, pages 15 to 18). It can therefore be estimated that the first estimate that will be published in the quarterly accounts for Q4 2018 has a 50% chance of being between +0.0% and +0.4% ; for Q1 2019, up to a 90% probability the estimate will be between –0.2% and +0.7% .

Source: INSEE

Key figures: France and its international environment

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
International environment													
Advanced economy GDP	0.6	0.7	0.7	0.5	0.4	0.7	0.4	0.6	0.4	0.5	2.3	2.3	1.7
Eurozone GDP	0.7	0.7	0.7	0.7	0.4	0.4	0.2	0.4	0.3	0.3	2.5	1.9	1.1
Barrel of Brent oil (in dollars)	55	51	52	62	67	74	75	69	60	60	55	71	60
Euro-dollar exchange rate	1.06	1.10	1.17	1.18	1.23	1.19	1.16	1.14	1.14	1.14	1.13	1.18	1.14
World demand for French products	1.5	1.4	1.0	1.9	0.6	0.9	0.5	1.0	0.7	0.9	5.3	4.2	2.7
France - supply and uses													
GDP	**0.8**	**0.7**	**0.6**	**0.7**	**0.2**	**0.2**	**0.4**	**0.2**	**0.4**	**0.3**	**2.3**	**1.5**	**1.0**
Imports	1.9	–0.5	2.0	0.4	–0.7	0.5	–0.3	1.4	0.8	0.7	4.1	1.0	2.3
Household consumption	0.0	0.4	0.5	0.2	0.2	–0.2	0.4	0.2	0.7	0.5	1.1	0.8	1.4
GG and NPISHs consumption	0.3	0.3	0.4	0.3	0.2	0.3	0.3	0.3	0.4	0.4	1.4	1.1	1.2
Total GFCF	2.3	0.8	1.3	1.0	0.1	0.9	0.9	0.0	0.3	0.3	4.7	2.8	1.2
of which: NFEs	*2.7*	*0.4*	*1.6*	*1.3*	*0.1*	*1.3*	*1.6*	*0.1*	*0.6*	*0.6*	*4.4*	*3.8*	*2.2*
Households	*1.9*	*1.4*	*1.0*	*0.8*	*0.2*	*0.1*	*–0.1*	*–0.5*	*–0.4*	*–0.3*	*5.6*	*1.5*	*–1.0*
Exports	0.0	2.6	1.2	2.2	–0.6	–0.1	0.4	2.1	–0.3	0.0	4.7	2.9	1.4
Contributions (in point)													
Domestic demand excluding changes in inventories[1]	0.6	0.5	0.7	0.4	0.2	0.2	0.5	0.2	0.5	0.4	2.0	1.3	1.3
Changes in inventories[1]	0.8	–0.7	0.2	–0.2	–0.1	0.2	–0.3	–0.2	0.2	0.1	0.2	–0.4	0.0
Net foreign trade	–0.6	1.0	–0.3	0.6	0.0	–0.2	0.2	0.2	–0.3	–0.2	0.1	0.6	–0.3
France - situation of households													
Total employment	101	94	46	100	50	18	16	23	33	31	341	107	64
Non-farm market sector employment	86	87	47	102	42	28	20	24	26	23	321	114	49
ILO unemployment rate France[2] (excluding Mayotte)	9.6	9.4	9.6	8.9	9.2	9.1	9.1	9.1	9.1	9.0	8.9	9.1	9.0
Consumer price index[3]	1.1	0.7	1.0	1.2	1.6	2.0	2.2	1.6	1.3	1.0	1.0	1.9	-
Core inflation[3]	0.4	0.4	0.5	0.6	0.9	0.8	0.7	0.8	1.0	1.2	0.5	0.8	-
Household purchasing power	0.2	0.7	0.4	0.4	–0.4	0.8	0.4	1.3	0.5	0.2	1.4	1.4	2.0

Forecast

1. Changes in inventories include acquisitions net of sales of valuable
2. For annual data, unemployment rate is that of the last quarter of the year
3. Year-on-year on the last month of the quarter and annual averages

GDP: gross domestic product
GFCF: gross fixed capital formation
GG: general government
NFEs: non-financial enterprises
NPISHs: non-profit institutions serving households
ILO unemployment: unemployment as defined by the International Labour Organisation

How to read it: the volumes are calculated at the previous year's chain-linked prices, seasonally and working-day adjusted, quarterly and annual averages, as a %.

Source: INSEE

Special Analysis

Supply tensions and the position of the economy in the cycle

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The business tendency surveys carried out in different sectors of the economy, both in France and in the Eurozone, confirm the growing number of companies to have experienced a slowdown in production since mid-2017. More specifically, entrepreneurs interviewed in the manufacturing industry, construction and services report growing difficulties in meeting demand. While the proportion of business leaders who say that they have been limited by insufficient demand has largely declined, more and more are reporting production difficulties related to supply, especially in Germany and France. In particular, the majority of obstacles described are related to a lack of personnel and difficulties in boosting staff numbers.

These reports of a shortfall in supply combined with excess demand are in sharp contrast to the short-term message conveyed previously in the surveys. Indeed, business leaders tended rather to report the opposite imbalance, i.e. a lack of demand. In France, the increase in supply-side tensions and the high rate of growth recorded in 2017, which contrast with figures from the previous decade, raise questions over the current economic situation. Did the French economy reach the peak of a cycle in 2017? Or, conversely, can it continue to grow at the same sustained pace in view of the pressures on the supply side already observed?

Finding answers to these questions requires first identifying the position of the economy in its cycle, a very uncertain exercise as the indicators do not all show the same tensions, as can be seen most notably from the relatively low level of core inflation. To do this, economists resort to the notion of potential gross domestic product (GDP), an unobservable quantity that corresponds to a sustainable use of production factors. In other words, potential GDP denotes a level of production that would be achieved in the absence of any imbalance in the economy. The difference between the observed level of output and potential GDP thus indicates the position of the economy in the cycle. However, this is a difficult notion to estimate. Several methods are therefore considered: a "structural" method based on a theoretical representation of production capacity, a "semi-structural" method which breaks down GDP into two unobservable components (its trend or potential GDP, and its output cycle or gap), and lastly a direct, purely statistical method based on economic indicators, with no prior modelling.

Here, the analysis is carried out for France, but the cases of Germany, Spain and Italy are also discussed. These estimates are to be considered with caution: the modelling choices may be disputed and certain weaknesses in the calculation methods may require caution in interpreting the results. However, in the case of France, they produce a relatively convergent economic diagnosis. After increasing substantially, first in 2008, and then in 2012-2013, the output gap appears to have gradually closed since 2014, in line with the disappearance of demand tensions and the appearance of supply tensions. In 2018, the French economy seems to have settled around the level of its potential, according to these three methods.

Supply tensions and position of the economy in the cycle

Difficulties with supply have outstripped those of demand since 2017

In the Eurozone, more and more companies report encountering production constraints

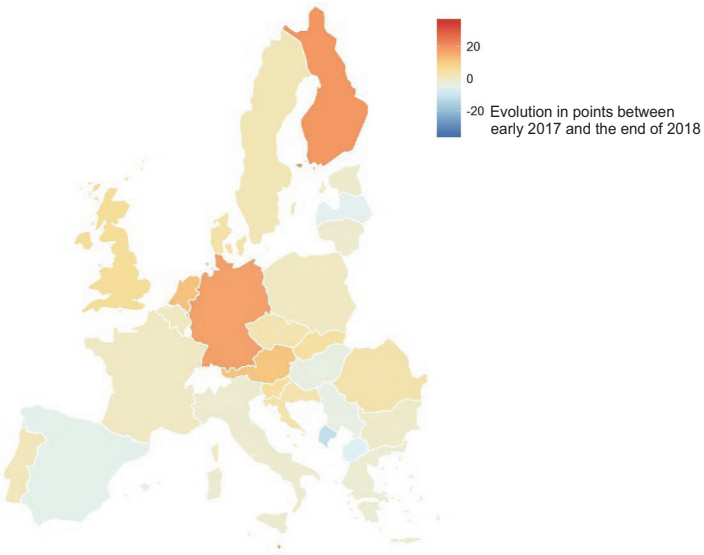
Since mid-2017, more and more companies in the Eurozone have reported encountering production constraints preventing them from making the best use of their production capacity, whether for reasons of insufficient demand, lack of equipment, materials or workforce, financing difficulties, etc. (*Box 1*). In industry in particular, the proportion was 50% in Q4 2018, 8 points higher than in Q2 2017, which was the lowest point since the 2009 crisis and the average for the 2000s. This increase was not limited to industry but could also be seen in market services and construction, although to a lesser extent.

Within the Eurozone the situation varies from one country to another. In Germany and Austria the increase in problems associated with production reported by industrial enterprises has increased since 2017 (see map). In Germany, 48% of business managers in industry reported experiencing production problems in Q4 2018, a level rarely seen, against 31% in Q1 2017. In Austria, production difficulties were close to the highest figure on record, seen at the time of the 2009 crisis, and were due to demand constraints. The Netherlands has also experienced a strong increase in production problems recorded in the industrial sector. In France, as in Portugal and Belgium, the increase is on a smaller scale: the percentage of French companies experiencing production difficulties rose from 67% in Q1 2017 to 71% in Q3 2018, equal to the average of the 1990s. In Spain and Italy, on the contrary, business tendency surveys show that production problems have become less and less significant, and this has been the case since 2014.

This increase is not the result of demand constraints, but supply constraints

Over the last few years, a lack of demand was the reason that companies often gave when reporting obstacles to an increase in production. In fact, over the last few decades, the share of industrial enterprises in the Eurozone reporting that they were hindered by a lack of demand has followed a very similar trend to the more global trend of enterprises experiencing production difficulties (*Graph 1*).

Change in the share of industrial enterprises reporting production difficulties since the beginning of 2017



How to read the map: Since 2017, the share of German industrial enterprises reporting production difficulties has risen by 17 points (from 31% to 48%).

Source: Eurostat (data and map)

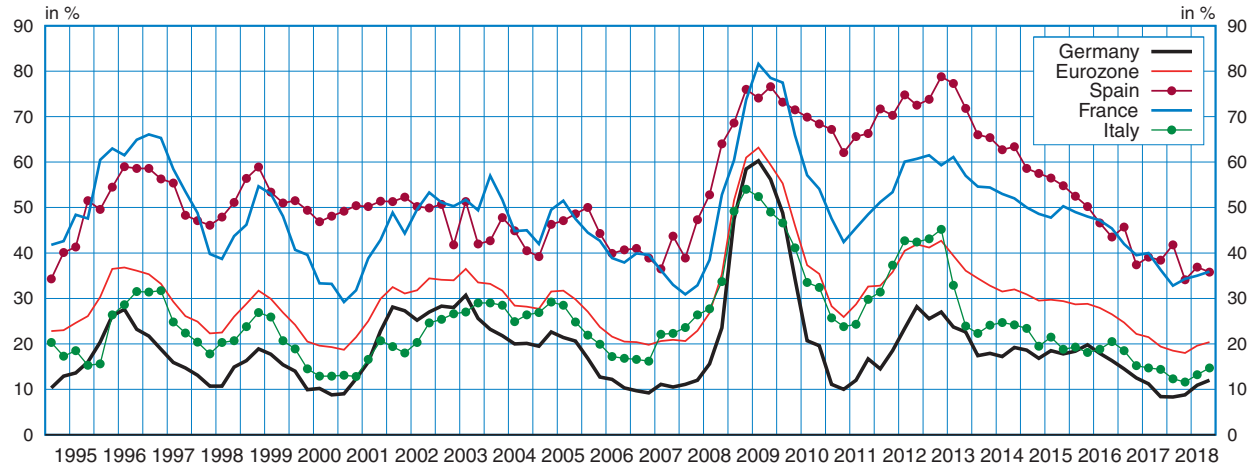
In recent years, however, the increase in production constraints is the result not of difficulties related to demand but rather of difficulties related to supply (*Graph 2*). In the Eurozone, the lack of demand reported in industry has been decreasing constantly since the high point reached during the Eurozone sovereign debt crisis (42% in Q4 2012), which itself followed on from a historic peak during the 2009 crisis (63% in Q3 2009). In Q4 2018, the share of industrial enterprises indicating a lack of demand stabilised at around 20%, one of the lowest points in 30 years. In addition, the same continuous downward trend in lack of demand was seen in the main Eurozone countries.

Thus the recent increase in obstacles to production is due mainly to difficulties linked with supply. More and more companies in the Eurozone say that their ability to increase production is limited for reasons related to supply problems: inadequate facilities or equipment, shortage of workers or financial constraints (*Graph 2*).

In France, difficulties related exclusively to supply have increased substantially and exceed those related exclusively to demand

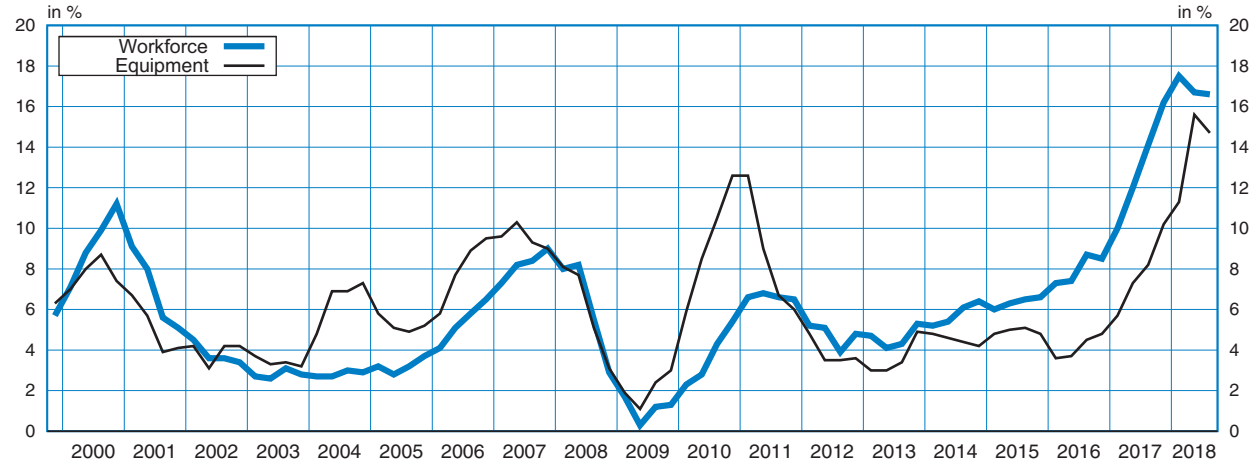
Like their European neighbours, for the last three years companies in France have been reporting more and more supply difficulties and fewer and fewer difficulties related to demand. In the French business tendency surveys, companies reporting that they are limited by demand factors exclusively can be differentiated from those reporting that they are limited exclusively by other factors, classified as supply difficulties (*Box 1*).

1 – Industrial companies reporting a lack of demand



Source: EUROSTAT

2 – Companies in Eurozone industry reporting difficulties because of a lack of workforce or equipment



Source: EUROSTAT

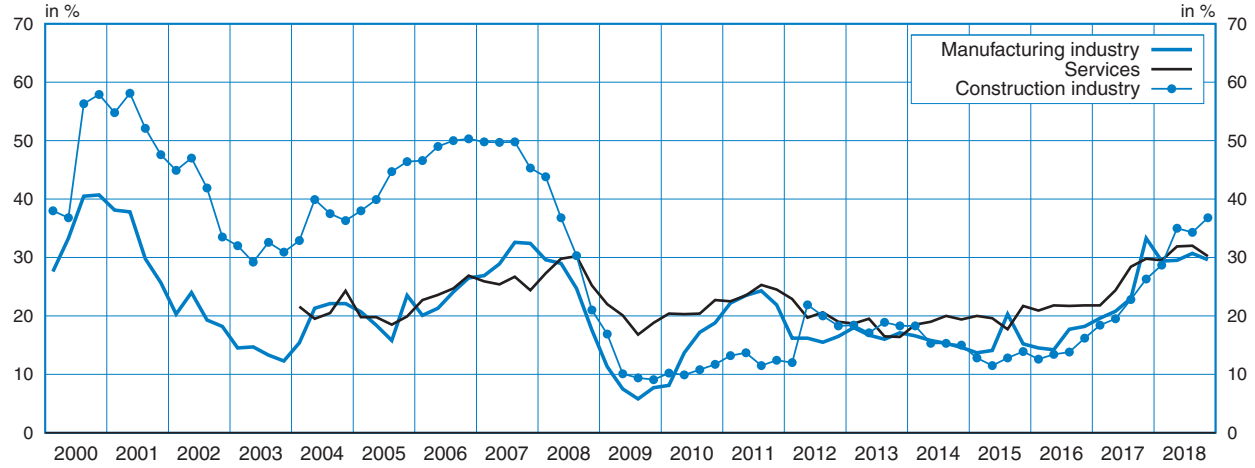
Supply tensions and position of the economy in the cycle

The proportion of companies facing only supply problems thus rose from 2016 after a period of stability from 2012 to 2015 (*Graph 3*). This substantial increase was common to the manufacturing industry, the building industry and the market service sectors interviewed in the business tendency surveys. At the end of 2017, in industry, this proportion reached its highest level since 2001 before stabilising in 2018. In services, it rose once again in 2018, in July reaching a new high point since this question was added to the survey in 2004. Finally, in the building industry, the proportion of companies facing supply problems exclusively has also increased significantly since 2016, although without returning to its high pre-crisis level.

In the manufacturing industry and the building industry, the increase in supply tensions has gone hand in hand with an increase in the production capacity utilisation rate: since 2016 companies in both these sectors have reported using their production capacity more and more intensively.

In contrast to the supply problems, the proportion of companies facing problems related to demand exclusively decreased from 2016 (*Graph 4*). Supply-related difficulties have therefore outstripped difficulties related to demand since 2017, not only in the manufacturing industry and the building industry, but also in services.

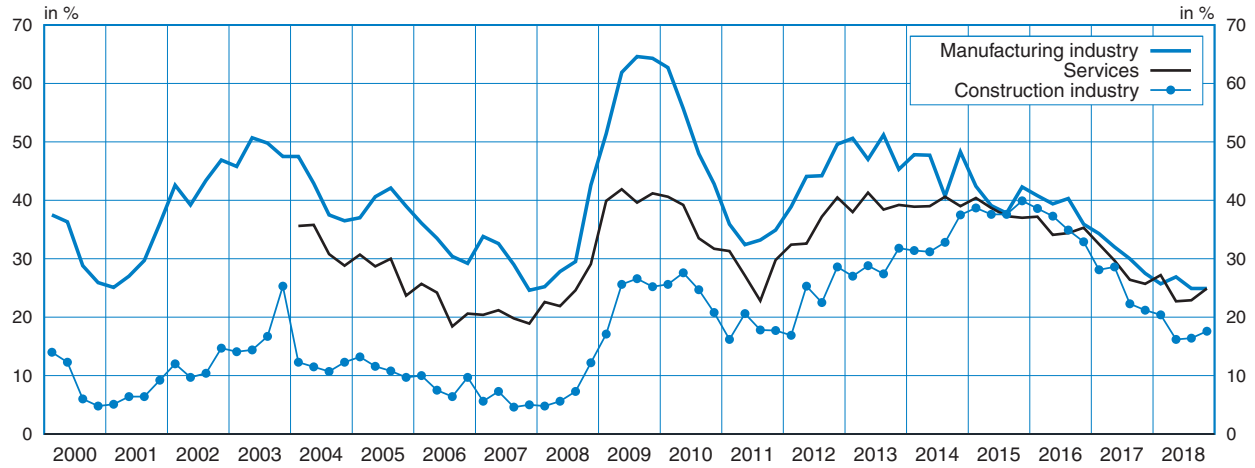
3 – Companies facing difficulties with supply only (France)



Last point: October 2018

Source: INSEE, enquête de conjoncture dans l'industrie, dans les services et dans l'industrie du bâtiment

4 – Companies facing difficulties with demand only (France)



Last point: October 2018

Source: INSEE, enquête de conjoncture dans l'industrie, dans les services et dans l'industrie du bâtiment

On the supply side, Eurozone companies report more difficulties with manpower

In the Eurozone, production problems due to difficulties in finding what is considered to be a competent workforce are particularly noticeable on the supply side. In Germany especially, in Q4 2018, more than a quarter of industrial companies said that their production was limited due to a shortage of staff, a level significantly higher than the historic average (5%). There has been a very strong increase since 2016 with a similar situation in market services and construction.

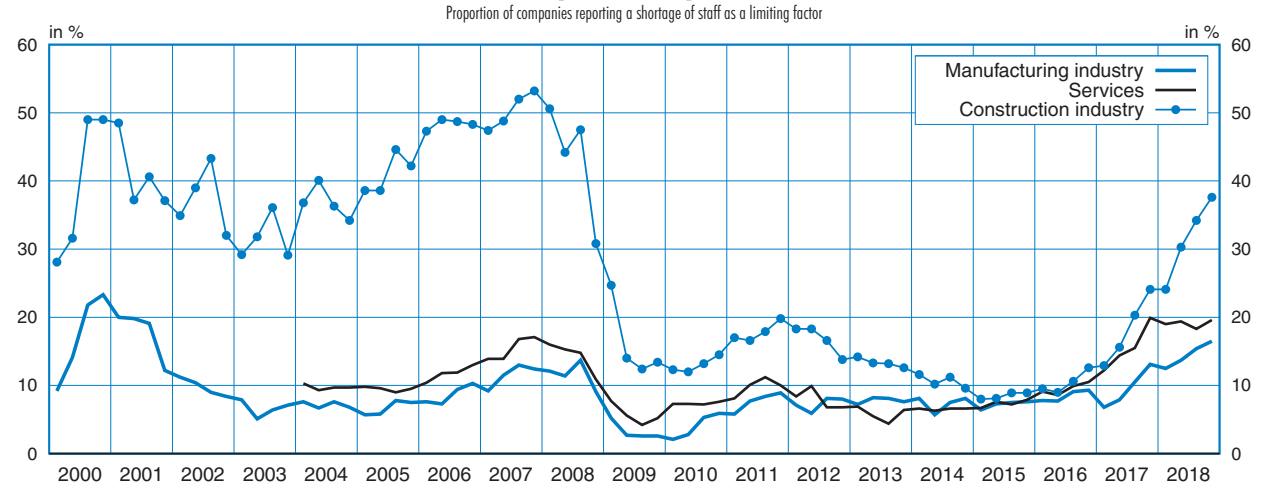
A marked rise has also occurred in France, although it appears to be more muted at this stage: in Q4 2018, 17% of industrial companies said that they were limited by a lack of staff, against 7% at the start of 2017. In Spain there has been a substantial and rapid increase, although it still concerns a smaller proportion of companies. In Italy, this limiting factor seems to be marginal.

Staff shortages have affected all sectors in France

In France, there has recently been a rise in workforce-related difficulties in industry, building construction and services (*Graph 5*). From the beginning of 2016 to the beginning of 2018, more and more companies in these three sectors have reported that they have been prevented from increasing production as much they would like because of staff shortages. This increase is common to all sub-sectors in industry, with the exception of transport equipment. It is also apparent in all sub-sectors of the services surveyed (for example, it is very

5 – Activity limited by workforce

Proportion of companies reporting a shortage of staff as a limiting factor

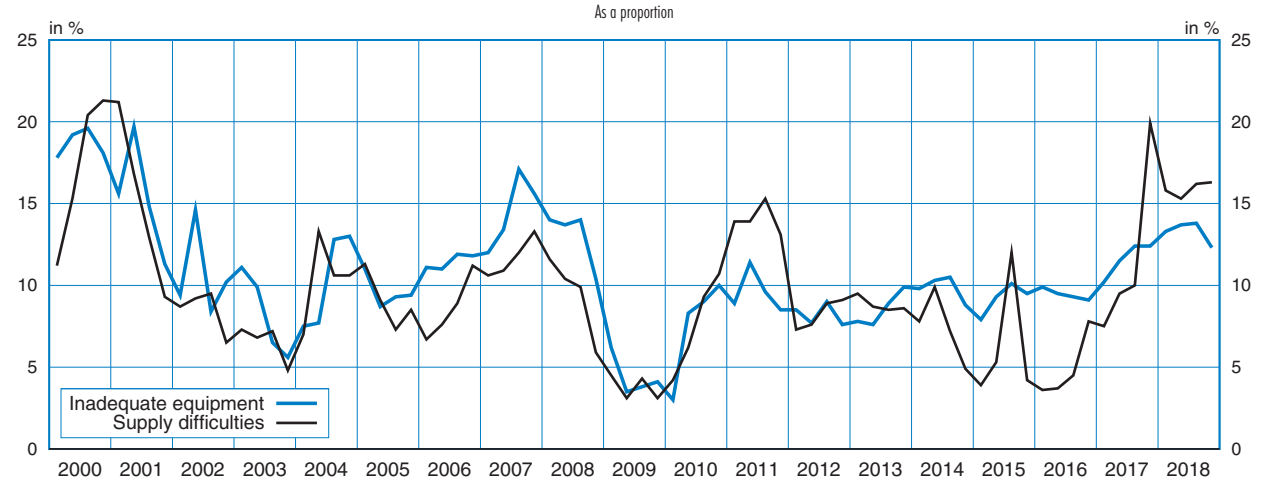


Last point: October 2018

Source: INSEE, enquête de conjoncture dans l'industrie, dans les services et dans l'industrie du bâtiment

6 - Difficulties with sourcing and equipment in the manufacturing industry

As a proportion



Last point: October 2018

Source: INSEE, enquête de conjoncture dans l'industrie, dans les services et dans l'industrie du bâtiment

Box 1: Questions on production capacities in the business tendency surveys

INSEE's business tendency surveys of activity in industry, services, civil engineering and the building industry include questions on production capacities. Depending on the survey, they cover the production capacity utilisation rate, the capacity to produce more and any factors that could prevent an increase in activity. The aim is to assess the potential for an increase in production, and to provide information on the dynamics of employment and investments.

Production capacity utilisation rate

In the surveys on activity in industry and the building industry, a production capacity utilisation rate indicator is calculated. In industry, this rate is defined using the following wording in the questionnaire sent to businesses in the sector: "Give the ratio of your current production to the maximum production attainable if you were to hire additional workers". In the building industry, the utilisation rate is obtained indirectly from the following question on the potential rate of increase in production (TAP in French): "if you were to receive more orders, could you increase production with your current resources? If yes, by how much (as a %)?" The production capacity utilisation rate (CUR - TUC in French) is then defined using the following formula: $TUC = 1/(1+TAP)$.

The production capacity utilisation rate indicators are highly correlated with cycles of activity and give an indication of companies' investment needs.

Factors limiting production

In each survey a specific block of questions asks companies about factors that limit their production. They are asked if at the time of the survey they are prevented from developing production as they would wish due to: insufficient demand, insufficient facilities or equipment, a shortage of workers, financial constraints or any other factors.

Specific factors are reported depending on the sector. In industry and the building industry, companies may report problems linked with sourcing, whereas in the civil engineering survey they are asked if weather conditions affected their ability to carry out work.

The different factors that limit production are differentiated according to whether they relate to demand problems (insufficient demand) or to supply problems (all the other factors). Each company can tick the boxes for several factors that limit production. In order to separate the share of demand problems from supply problems, the proportion of companies reporting demand problems exclusively or one or more supply problems exclusively is calculated.

Production bottlenecks

Production bottlenecks are calculated from the responses provided by companies about factors that limit their production and about their capacity to increase their production in the short term. They represent the proportion of companies reporting that they are unable to increase production and giving a specific limiting factor. For example, workforce bottlenecks correspond to the proportion of companies reporting that they are unable to increase production and also indicating that staff shortages are limiting the growth of their activity.

Hiring difficulties

In the surveys on activity in industry, services, the building industry and small construction companies, businesses are also asked about hiring difficulties in general, without reference to their production capacities. Some companies report production difficulties but do not say that their production is limited by a shortage of workers. The proportion of companies reporting hiring difficulties is therefore higher than the proportion that specifically mention staff shortages as a factor limiting their production. Since January 2017, companies have also been asked about the nature of any obstacles to hiring that they may have encountered (see *Focus*).

European data

French surveys form part of the Harmonised European Programme of Business and Consumer Surveys, conducted by the Directorate-General for Economic and Financial Affairs of the European Commission. This joint framework ensures that the same set of questions is used by all countries and that data are comparable. Despite the similarity of the questions, the way in which they are asked and the methods used for data exploitation, there may still be differences in reporting behaviour between countries which can influence results in the statistical series. For example, the average share of companies reporting difficulties related to demand is very variable, depending on the country. ■

evident in road freight transport). During 2018, workforce difficulties increased further in building construction although they stabilised at a high level in the manufacturing industry and services.

Other supply-side problems such as inadequate equipment or difficulties with sourcing also increased in France as they did in the Eurozone. In particular, equipment difficulties increased substantially in Germany, reaching record levels in Q3 2018, which affected 28% of companies against only 5% (approximately the average historic level) in Q2 2017. There was a similar increase in Austria. In industry in France, companies also reported more problems with sourcing, especially in the manufacture of transport equipment sector (*Graph 6*).

The increase in supply tensions can be related to the position of the economy in its cycle

The analysis so far has shown the increasing difficulties that companies are experiencing in meeting demand using their current production capacities. Therefore the question that must be asked is whether these apparent pressures on supply are likely to slow down economic activity. This question is closely linked to that of identifying the position of the economy in its cycle: does the present situation correspond to a high point in the economic cycle or a catch-up phase that is likely to continue?

To describe the economic cycle, the notion of the output gap is used. This measures the difference between the level of gross domestic product (GDP) observed and a theoretical level, termed potential GDP. This is often defined as the total amount of goods and services (aggregated supply) that an economy is capable of producing in a sustainable way, especially while maintaining stable inflation in the long term. It can also be defined as the level of GDP achievable with a sustainable degree of utilisation of production factors in the medium term, where the quantity is fixed in the short term.

These definitions do not overlap completely, which reflects the difficulty of understanding such a notion unambiguously; however, they do identify potential GDP in terms of a structural economy, i.e. linked intrinsically with the way in which the economy is organised as a whole. In contrast, the output gap can be perceived as a short-term measurement, describing, for a given structure of the economy, movements due to short-term uncertainties or uncertainties linked with one-off events.

The intention here is to analyse the output gap in France and in the other three main Eurozone countries, looking at recent years in particular. The uncertainty linked with the very definition of potential GDP leads to a selection of three alternative models. Three estimation methods are used (*Appendix 1*):

• the first method is a purely statistical approach, commonly known as the "direct method". It extracts common information from the combined change in economic indicators on the size of possible imbalances between supply and demand and is therefore capable of describing the economic cycle correctly. The indicators considered are at the traditional macroeconomic scale (GDP, unemployment rate, inflation, etc.) as well as indicators from the business tendency surveys (capacity utilisation rate in industry, insufficient demand, shortage of staff, etc.) covering different markets (industry, construction, services). In this way, the method is based directly on the tensions analysed previously;

• the second method, called the "semi-structural" method, breaks down the observed GDP directly into two unobservable components, its trend (potential GDP) and its cycle (output gap). Hypotheses based on macroeconomic

mechanisms are imposed relating to the dynamics of these two unobservable components and their relationship with observable economic magnitudes. Thus the output gap is related to the capacity utilisation rate in industry, whereas its variation over time is related to the business climate indicator;

• The third method, called the "structural" method, seeks to clarify potential output as the result of using the economy's production factors (labour, capital) and the combined productivity of these factors[1]. The functioning of the economy is modelled based on an aggregation in a single sector and a two-factor production function (labour and capital) where global productivity links the input amounts at the final level of production.[2]

Within each method, the estimated results must be considered with caution, as they are subject to some uncertainty given the degree of difficulty in providing a statistical estimate to match the selected specifications. Nevertheless, by comparing the results a converging short-term diagnosis can be created, which reinforces the information provided by other alternative indicators (*Box 3*), based on a quantitative and qualitative analysis of the economic cycle.

A positive output gap since 2017 which describes an economy at around its level of potential in 2018

According to these three methods, the economy in 2018 appears to be at around its level of potential, or even higher (*Figure 7*), both in France and in the other countries being considered. However, this convergence is the result of varied trajectories during the years following the 2009 crisis, illustrating distinctly different developments for the different countries. In France, the output gap opened up sharply in 2009 at the time of the Recession then again in 2012 during the sovereign debt crisis in the Eurozone, but appears to have closed gradually since 2014. From 2016 in particular there seems to have been a brisk period of catch-up, with the result that potential GDP was exceeded from 2017. In 2018, the output gap looks set to stand at between 0.5 and 1.1 potential GDP points, depending on the three different estimation methods.

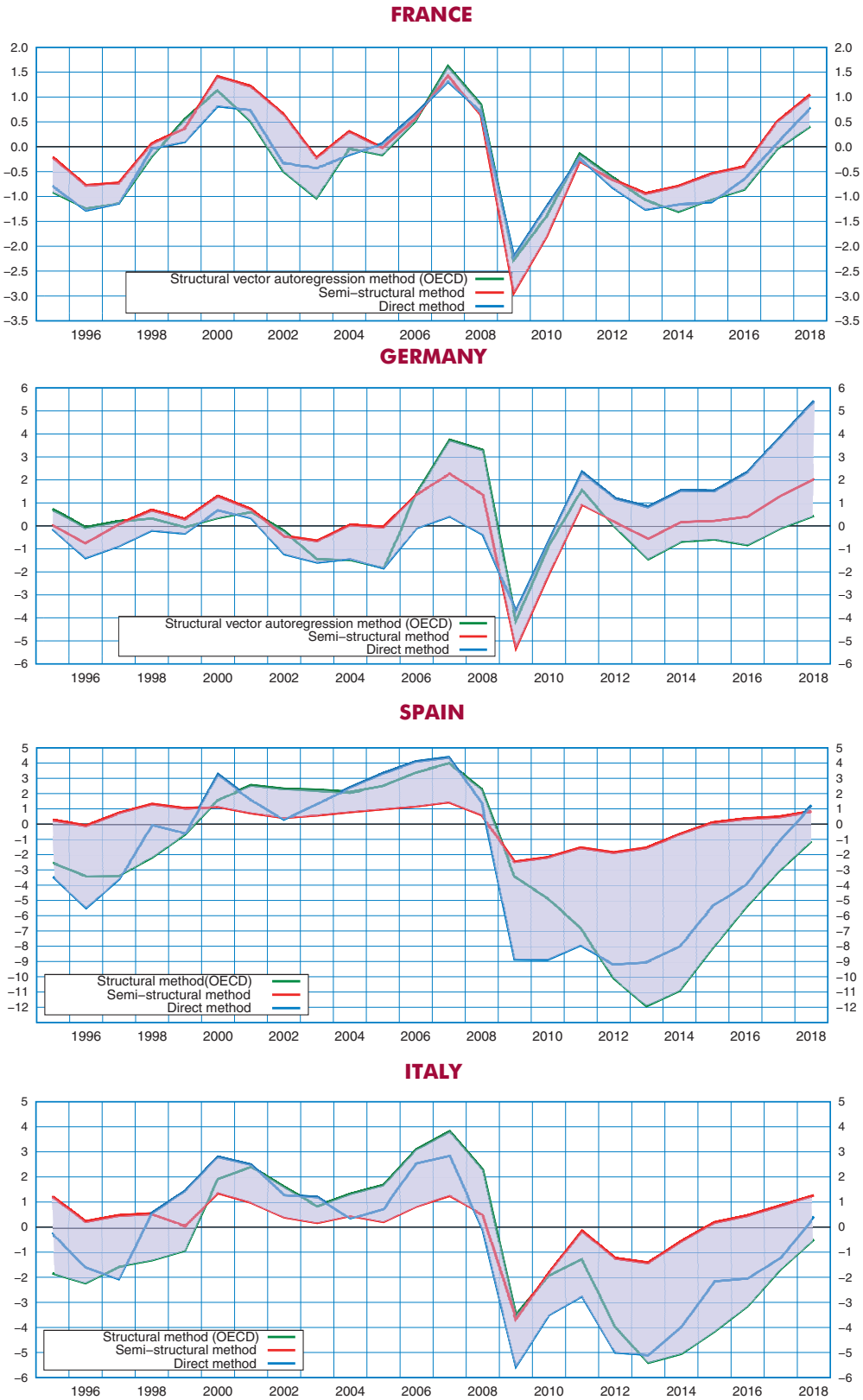
GDP in Germany also seems to be above its potential in 2018, although estimates are less convergent than in the case of France. In 2018, the output gap appears to be between 0.5 points according to the structural method and 5.5 potential GDP points according to the direct method, which is in agreement with the scale of tension reported by German companies, especially on the supply side and difficulties linked with staff shortages. The estimates also diverge over the date that the output gap closed, which was in 2017 according to the structural method, three years later than the date suggested by the semi-structural method, while for the direct method, the output gap appears to have remained positive since immediately after the 2009 crisis. In these circumstances, the diagnosis of an overheating German economy as well as a quantification of its magnitude appears difficult to prove with any certainty, as the scenario suggested by the structural method is one of a moderate catch-up, the opposite of the scenario given by the direct method, based essentially on data from business tendency surveys which reported strong production factors tensions (*see above p.2*). This divergence in the analysis can also be found in the observation that German growth as well as appearing strong tensions reported in the surveys were still not seeing any inflationary spurts despite the recent introduction, in January 2015, of a minimum wage, which has even been revised since then.

The Spanish economy was deviating strongly from its potential GDP at the time of the 2009 recession. This gap persisted in the years that followed, in the

1. A variant of that method, detailed in Lequien and Montant (2014) mobilises only a single production factor (labour), productivity of which is modelised with a labour equation. For further details on labour equation currently used in the forecast exercise by INSEE, refer to Beatriz et al. (2018).
2. For Spain and Italy, a structural method similar to that selected for France and Germany came up against some methodological problems (Appendix 1); it is therefore the estimates produced by the OECD's structural method that are used here.

7 – Output gaps in France, Germany, Spain and Italy

(as a % of potential GDP)



Note: In order not to overload graphs reading, confidence intervals specific to each method have not been indicated. Nevertheless, their value is about 2 points of the potential GDP for France in 2018.

Source: Eurostat, OECD, INSEE, authors'calculation

context of the sovereign debt crisis in the Eurozone, but with a magnitude that differed significantly depending on the estimates (–12 points of potential GDP in 2013 according to the OECD structural method against –1.5 points according to the semi-structural method). Since 2014, the continuous improvement in the business climate reflects the gradual closing of the output gap as estimated by the semi-structural method, and this diagnosis is also verified by the other estimates. Thus, according to the structural method put in place by the OECD, the sharp drop in the unemployment rate, combined with the more restrained decline in the structural unemployment rate led to a reduction in the short-term unemployment rate, thus contributing to the upturn in the output gap. In 2018, the output gap is likely to stand at between –1.1 and 1.3 points of potential GDP, reflecting an economy with a possible growth reserve that has not yet been mobilised or that has already returned to its potential.

Finally, like Spain, during the recession Italy experienced a major shift in relation to its potential GDP, followed by a catch-up phase, halted in 2011 by the sovereign debt crisis. The semi-structural method suggests that the economy has returned to its potential since 2015, linked with the improved business climate, whereas the OECD's structural method rather suggests that growth potential is still available. Italy's room for manoeuvre appears to lie more in a resorption of its short-term unemployment, which was still high in 2018 according to the OECD, than in an increase in its labour force participation rate, which has exceeded its potential level since 2016. In 2018, the output gap of the Italian economy is likely to be between -0.5 and 1.3 points of potential GDP.

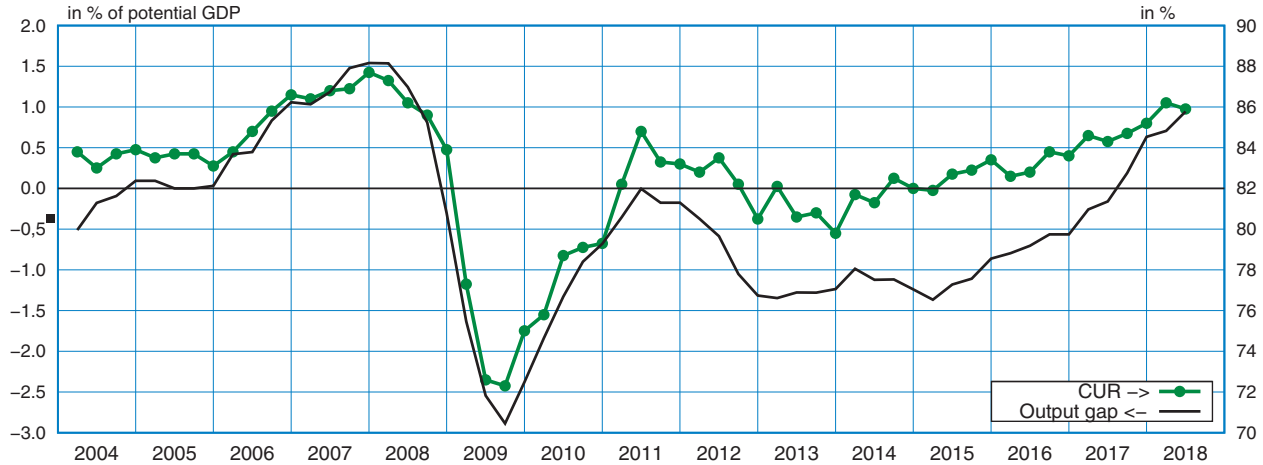
The divergences observed in the profiles concerning the cyclicity of the output gap are based in part on European economic developments which, although shared by the four countries under consideration, do not affect them in the same way. Thus, the cycles in Spain and Italy appear to be more persistent than those in France and Germany (*Box 2*).

In France, the closing of the output gap reflects the disappearance of demand tensions and the appearance of supply tensions

For France, the gradual closing of the output gap from 2014 went hand in hand with the gradual reduction in the imbalance between supply and demand, as reflected in the declarations by business managers in manufacturing, construction and services (gradual reduction in problems of demand and an increase in obstacles linked with supply, especially shortage of manpower).

In addition to the declarations by business leaders about their problems associated with insufficient demand or staff, the production capacity utilisation

8 - Production capacity utilisation rate (France)



Note: the output gap is the one calculated with the direct method

Source: INSEE, Author's calculations

rate (CUR) in manufacturing was also an effective indicator of short-term demands on production capacity. Indeed, using available production capacity reserves is the main lever for responding quickly to a demand shock. Unlike the balances of opinion expressed in the business tendency surveys, which reflect qualitative judgements, the CUR provides quantitative information (*Box 1*), hence its use in both the direct method and in the other methods (*Appendix 1*).

In January 2018, the CUR reached its highest level in ten years, at 85.7% or 2.5 points above its long-term average. After falling sharply from 2011, the steady rise in the CUR from the end of 2013 onwards and the overtaking of its long-term average (83.2%) from July 2016 suggest a steady increase in demand for products (*Figure 8*). However, since the beginning of 2018, the CUR has declined slightly, in a similar way to the decline in demand constraints measured in the business tendency surveys and in the business climate since the beginning of the year.

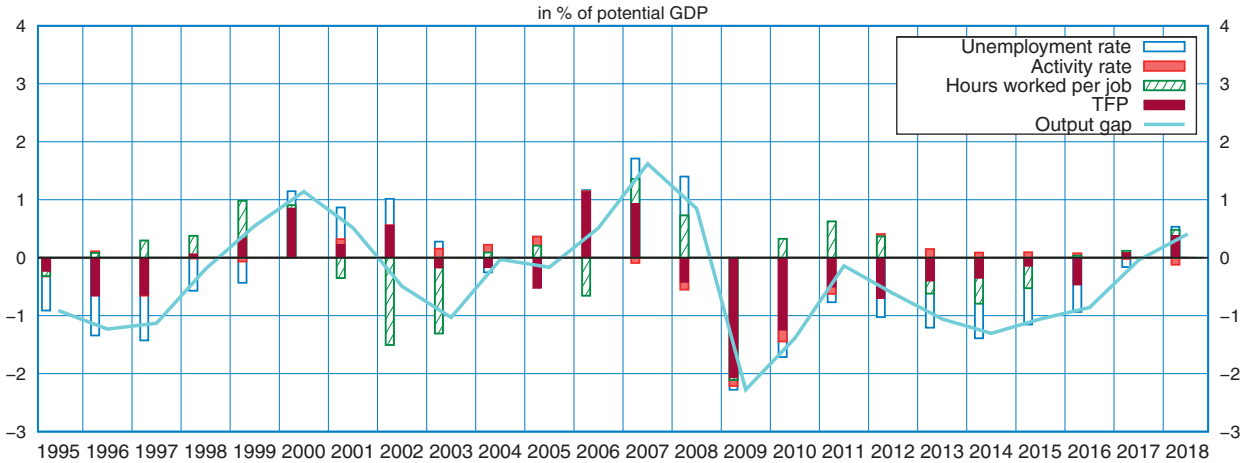
At all events, the recent increase in CUR and the fact that pressures on supply exceed those on demand are in line with a closing of the output gap, or may even suggest that the French economy has exceeded its potential. Therefore, signs of overheating of the French economy can possibly appear. This diagnosis needs to be qualified, however, as the output gap estimated by the direct method mainly reflects the influence of the short-term indicators that are used, with much less attention paid to macroeconomic indicators such as core inflation, the unemployment rate or the investment rate of households and companies. In France these indicators show an inertia which gives them a lesser degree of explanatory power over the variance as a whole.

Growth determinants in France are close to their structural level, or even slightly higher

The purely statistical method described above (direct method) shows in the indicators of tension that the economic situation is near a closing of the output gap; however, it is not able to describe the economic situation in more detail. In particular, determinants of growth are not analysed.

Estimating potential GDP using the structural method provides a breakdown of the output gap according to the contribution to the economy of employed labour (difference between effective level and potential level) and total factor productivity (TFP, difference between effective level and potential level). The gap between the contribution of labour and its potential is also defined according to

9 - Contributions (to the output gap for France) estimated using the structural method



Note: the output gap is the one calculated with the structural method

Source: INSEE, Author's calculations

determinants for quantity of employed work: labour force participation rate, unemployment rate and number of hours worked per job.

In the years following the crisis, the majority of shifts in the output gap were the result of TFP diverging from its potential level (*Figure 9*). Potential TFP certainly declined slightly following the shock of the crisis, but to a much lesser extent than effective TFP. Since 2013, TFP has become more and more dynamic in moving closer to its potential level, and has initiated the gradual closing of the output gap. This is still only a partial explanation for the recent buoyancy of the output gap, however, given that TFP is calculated as a residual and is therefore in part inherently inexplicable. However, the predominant influence of TFP on the closing of the output gap puts into perspective the influence of other determinants like the unemployment rate or the labour force participation rate which contributed much less over the same period.

The estimate for the output gap for the most recent years must be considered with caution. Although calculating the output gap for 2017 and 2018 using the structural method appears plausible in the light of the results from the other two estimation methods, determining potential levels and hence the contributions of the different determinants of growth are particularly uncertain for the last points presented. In fact, the statistical smoothing technique used to determine the potential level of the series being studied (Kalman filter) requires the exploitation of information from all monitoring centres for the scales considered. For dates in the middle of the sample, information on years before and after is modelled. However, for years close to 2018, information about future observations is limited (and is even non-existent in the case of 2018). The result is a more uncertain estimate of the output gap, with a greater margin of error than for the years in the "middle" of the period[3]. This methodological difficulty explains to a large extent why "real-time"[4] estimates of the output gap using the structural method often need to be revised and why they sometimes result in incorrect interpretations of the position of the economy in its cycle.

There has been a slight rebound since 2017 in line with increasing production tensions

As an indicator of imbalances between supply and demand, the output gap is theoretically in line with the dynamics of inflation: for example, a positive output gap is assumed to reflect demand in excess of the immediate productive capacities of the economy, leading companies to increase the use of their capacities and raise their prices in order to take advantage of the rise in demand. In this context, the progressive closing of the output gap which appears to emerge from the previous estimates, even the slight overtaking in France, provoks questionning in terms of the weak inflationnary signals registred at the moment in the countries examined[5].

One possible cause of the hiatus observed between inflation and output gap could be sought in the ability of this indicator to fully reflect changes in the different components of inflation. In Gordon's "triangle" model (1997), total inflation does indeed depend on anticipated inflation, partly related to the inertia of past inflation, demand-driven inflation, essentially domestic, and supply-driven inflation, especially by production costs that are subject to shifts in

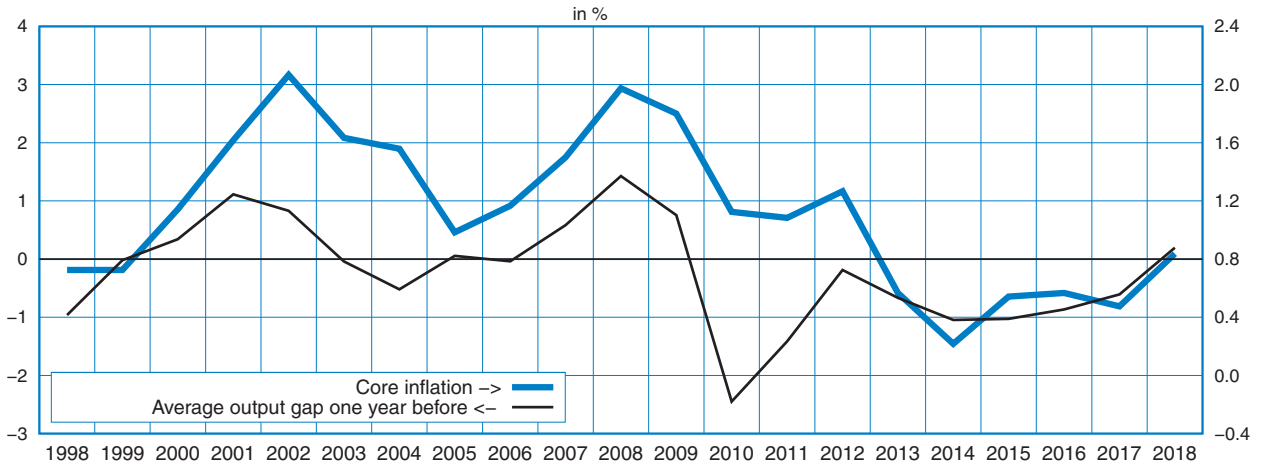
3. This difficulty could potentially be removed by using provisional values to extend the series artificially. On this subject, see the developments proposed by De Waziers 2018.
4. A "real-time" estimate consists in proposing an indicator value on the basis of information present in the statistical series that is effectively available on a given date. This contrasts with an ex post estimate which can take into account, for example, revisions to series or values in these series on dates that are later than the date for which the estimate is proposed.

commodity prices. In this context, the output gap should be considered in relation to demand-driven inflation.

However, several recent empirical studies[5] challenge the statistical quality of using the output gap as the only indicator to describe this cyclical component of inflation correctly. As can be seen in the case of France (*Figure 10*), changes in the output gap seemed to describe variations in inflation and hence the acceleration in prices correctly, and slightly in advance, up until the 2008–2009 crisis; however, it can be seen that this link has obviously become blurred since 2016 and 2017 because the core inflation has slightly decreased while the output gap went on closing. The link, however, is likely to be restored over the more recent period[6].

Thus the apparent paradox between closing the output gap and a weak total inflation and even weaker core inflation between 2014 and 2017 seems to be attributable less to a problem of measuring inflation or estimating the output gap than to a change, now fairly well documented in Europe and in most developed countries, in the inflation regime. This change in regime appears to have weakened the link between inflation and the degree of tension measured by the output gap. Several reasons have been put forward to account for this phenomenon. On the one hand, the greater predictability in carrying out monetary policy could have increased its credibility so that expectations were more firmly anchored around the Central Bank's long-term inflation target. Globalisation could also have had a strong impact on the way in which domestic prices are determined[7]. The significant increase in the share of world trade makes national economies more dependent on the international economic situation and the shift to a floating exchange rate has left prices more sensitive to exchange rate movements. This explanation is rather limited in the case of Eurozone countries, however, due to the monetary integration that resulted in the adoption of the single currency. The opening up of trade has also resulted in increased competition between national companies and their foreign competitors and their market power has therefore deteriorated, leading to changes in their price fixing processes. Finally, developments specific to the

10 - Variations in core inflation and output gap in France



Note: The average output gap is the average of the output gaps measured with the three methods. It is advanced by one year: the point of 2000 corresponds thus to the output gap for year 1999.

5. Stock and Watson (2018) provide a characteristic example of the quantitative exploration of this research topic.
6. Refer to the analysis by Faquet (2018: to be published) over the link between inflation and the position in the cycle in France.
7. For example, Forbes (2018) has looked specifically at the links between inflation and globalisation in the developed countries

labour markets of the advanced economies have affected the dynamics of average wages and ultimately prices. In particular, the effects of the composition of the workforce appear to have played a significant role, whether in the return to the labour market of the low-qualified and previously discouraged unemployed or the strong increase in job offers for the over-55s (see Verdugo, 2016; Mojon & Ragot, 2018).

Conclusion

The tensions that have emerged in the business tendency surveys have led to questions about the position of the European economies in their economic cycle. Concerning France, the methods used to estimate potential GDP appear to converge; they follow the major economic episodes and provide a fairly similar diagnosis: after a gradual closing of the output gap since 2014 accompanied by a reduction in the imbalance between supply and demand, as reported by business leaders, the growth observed appears to have accelerated compared with its potential growth in 2017, resulting in the economy making a vigorous return to its balanced level of production. In 2018, estimates also agree in situating the economy slightly beyond its potential. The relative easing of constraints as indicated by the business tendency surveys should lead to a reduction in the output gap and hence to a stabilising of the economy around the level of its potential.

However, these results must be considered with caution. In addition to the known weaknesses of the smoothing techniques used in the structural and semi-structural methods, links have weakened between the usual economic variables when studying economic cycles, such as the unemployment and core inflation rates and the position of the economy in its cycle, and the basis of the models is now called into question. The divergence of the estimates provided by the different methods for Germany, Italy and Spain also suggest that caution is required.

Nevertheless, outside of France, for each country studied, a common scenario emerges with a gradual closing of the output gap. Spain and Italy appear to be at around their potential level, with Germany above its potential, but the methods diverge widely when it comes to quantifying this divergence: the direct method highlights the tensions that business leaders report, while the structural method suggests a much more mitigated conclusion. ■

Box 2: Economic cycles and spectral analysis

To compare the cyclical components of different economies, it may be wise to consider the series using "spectral" or "frequency" analysis.

The spectral representation of a time series $y(t)$ has its theoretical basis in the notion of decomposing a Fourier series which guarantees that any analytical function can be approximated by a linear combination of trigonometrical functions whose frequencies (called "harmonics") are multiples of a so-called "fundamental" frequency. Once this decomposition has been carried out, it is then possible to construct a quantity called the spectral density (denoted $f(\omega)$) which measures the relative importance of each of the different frequency components contributing to the changes over time of the series under consideration. Using the Wiener-Khinchin theorem, a close link can be established between the temporal autocorrelation function of the series and its spectral density since these two functions are reciprocal Fourier transforms. Notably, this implies that the total area under the spectral density equals the observed variance of the series:

$$Var(y) = \int_{\omega} f(\omega)\ d\omega$$

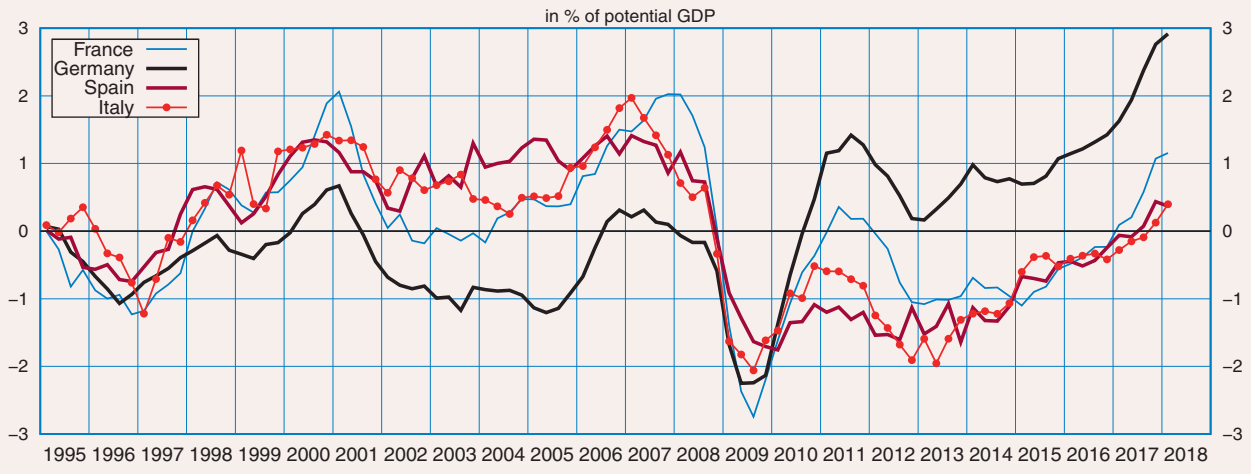
By decomposing the spectrum of a series into frequency bands of clearly defined size and calculating the area under the spectral density on the corresponding frequency intervals, it is possible to specify what types of frequency components participate most in the variance of the series.

For each country considered in this report, the quarterly series[7] of output gap estimated by the direct method are cut up into frequency bands corresponding to economic cycles of between 6 and 32 quarters[8].

Analysis in the temporal domain shows a relative synchronicity in variations in the series of differences in activity between the four countries (*Graph 11*). However, their profiles diverge occasionally, especially during the period 2001–2007 when output gaps in Germany and France appear to have had a downward trend, whereas in Spain and Italy they remained around the average level. Spectral analysis reinforces this observation: it shows that in Germany and France, the economic cycle appears to be governed more by short period components than in Spain and Italy (*Graph 12*).

7. These series have been previously centred and reduced so as to have identical variances, thus guaranteeing their comparability during spectral analysis.
8. In academic studies looking at the dating and characteristics of these cycles, the duration of "short" economic cycles (as opposed to multi–decade cycles like "Kuznets" cycles or "Kondratieff" cycles, for example) is commonly considered to be between 6 and 32 quarters.

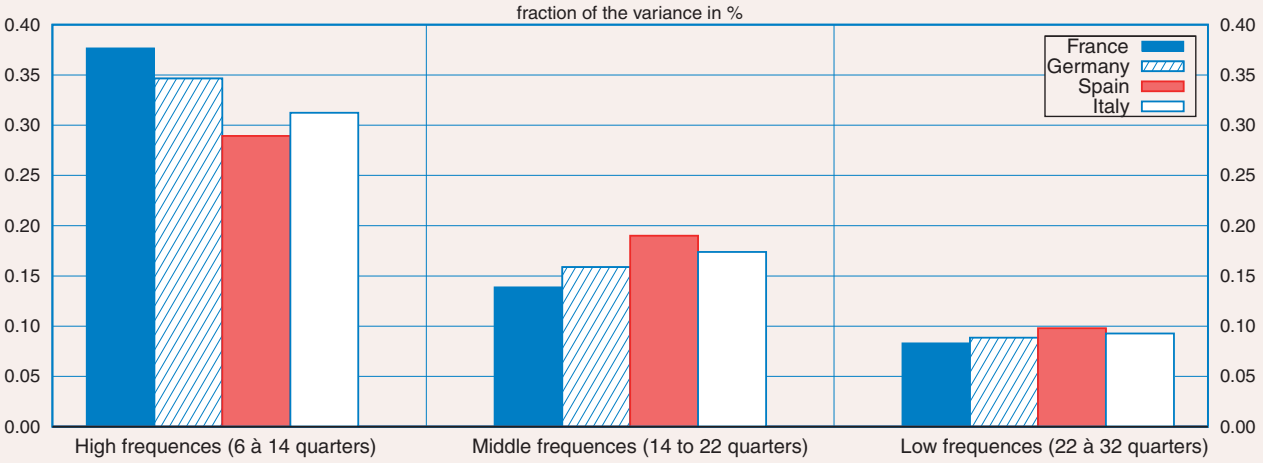
11 – Output gaps estimated using the direct method



Source: Author's calculations

Supply tensions and position of the economy in the cycle

12 – Frequency decomposition of output gap variation



How to read it: in the French case, almost 40% of the variance of the output gap series is explained by 6 to 14 quarter-cyclical components.

Source: Author's calculations

Box 3: The short-term economic indicators used at INSEE

In order to establish a short-term diagnosis, INSEE has put in place two types of monthly composite indicators which summarise the information in the balances of opinion provided by the business tendency surveys. The Monthly indicator of the French business climate (Clavel, Minodier, 2009) measures the state of the economic outlook; the economic turning point indicator (Bardaji, et al., 2008) is qualitative and is used to pinpoint in real time when economic trends are reversed.

The notion of a cycle of growth is used here, based on trend deviations. Recessions are rare in France and so in order to study economic outlook it is more interesting to situate growth in relation to an average determined by the trend.Traditionally, a reference date for GDP is obtained by applying a Christiano–Fitzgerald filter which is able to decompose the series into a trend and a cycle. To be more exact, the period of cycles covers between one and a half years and ten years. A phase is required to last at least four quarters. The peaks and troughs in the series of the cycle obtained define points of turnaround. The light and dark bands on the graph below correspond to phases of slowdown and acceleration respectively in relation to the medium-term trend. (*Figure 13*)

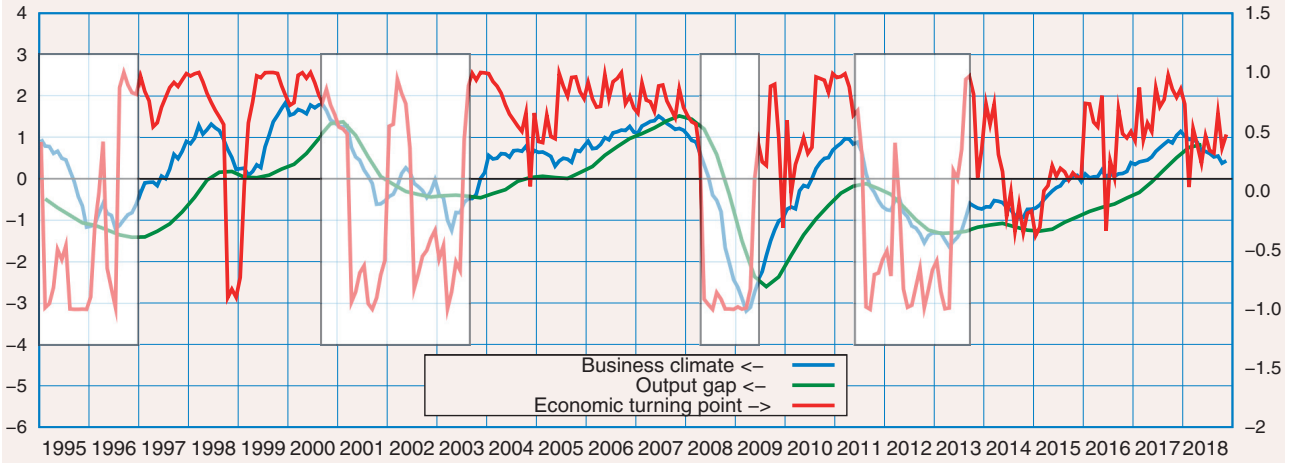
The business climate indicators, the economic turning point indicator and the output gap indicator (direct method) provide a coherent picture of the economic outlook. The main economic events are shown. The 2008 crisis is highlighted by the economic turning point indicator and the composite business climate indicator. In fact the latter begins to change direction in mid-2007 and moves below its long-term average at the start of 2008. The economic turning point indicator clearly signals a sustained slowdown phase. Lastly, the output gap indicator turns down a little late compared with the business climate indicator and dips sharply.

The crisis recovery period is indicated by an improvement in business climate and output gap indicators. The economic turning point indicator does not signal an acceleration phase until June 2009.

The next period, between Q2 2011 and Q3 2013 corresponds to the Eurozone sovereign debt crisis. The French economy experienced stagnation for a few quarters. The economic turning point indicator signalled a deterioration in the economic outlook from August 2011. After this, only a slight hesitation in March 2012 disrupts the diagnosis, while the hesitation is shared by the business climate indicator, which increases slightly at this time. This indicator drops almost continuously until October 2012 before fluctuating around a low point. The output gap indicator also dips during this period before stabilising between Q4 2012 and Q2 2013.

From the end of 2013, the cycle obtained by filtering appears rather to suggest a phase of growth acceleration above the trend. However, the message from the economic outlook indicators calls for more nuance. The business climate indicator experienced a few jumps, as in 2014, for example, where it drops even though it is already below its average. The economic turning point indicator also shows a hesitant economic outlook at this period while the output gap dips slightly. From the end of 2014, the output gap is likely to close gradually, following a continuous improvement in the business climate, although this indicator does not rise above its average for any length of time until 2016. In a similar way, the economic turning point indicator signals an uncertain economic outlook in 2015 and then a more favourable one from 2016, a year that was in fact marked by some uncertain episodes, and the diagnosis delivered becomes clearer in the course of 2017. Since the beginning of 2018, the business leaders questioned for the business tendency surveys have been less and less optimistic. The business climate has fallen back gradually, while remaining above its average. The turning point indicator thus points clearly a hesitant rather uncertain situation. For its part, the output gap indicator slows down in Q1 and Q2 2018 after clearly accelerating in 2017.

13 - Comparison of short-term economic indicators produced at INSEE



How to read it: the dark (respectively clear) areas show periods in which the GDP growth is lower (resp. greater) than the mid-term trend.

Appendix 1 - Methodology

In the absence of a single definition of the concepts of potential gross domestic product (GDP) and output gap, there are many alternative methods to estimate these unobservable magnitudes from statistical data. We usually differentiate "statistical" methods which extract raw data from series without attempting to establish a theoretical economic link between them, from "structural" methods based on prior theoretical reasoning and applied to data using econometric tools. The former have the advantage of not being based on theoretical suppositions, whereas the latter are able to decompose potential GDP according to its determinants, which can be used for medium-term forecasting or projections.

However, the boundary between the two categories of methods is porous as there are also so-called "semi-structural" methods incorporating aspects from each of the two families and which can thus be described as mixed. The decomposition of production into potential GDP (trend component) and output gap (cyclical component) is a technique that uses notions of statistical filtering and smoothing. To estimate the output gap, we first eliminated those components that evolve very slowly, attributed to a movement of potential GDP, and components that evolve very quickly, considered as simple statistical noise, while highlighting the components located in a band generally perceived to correspond to the duration of the economic cycle. However, as it was our intention to propose common models or models estimated across the same time period for the four major European countries, this sometimes limited the specifications selected, which partly detracted from the statistical quality of the results produced.

Direct method

The direct method is based entirely on a principal component analysis (PCA) conducted on a set of variables fixed over time (*Table 1*). The first principal axis is a global indicator of imbalance, which is then made homogeneous to the output gap by a process of normalisation in mean and in variance using an estimated output gap. More precisely, on the one hand is the output gap calculated using the structural method presented in this report for France and Germany, and on the other hand is the output gap calculated by the OECD for Spain and Italy.
Several types of variables were used to carry out PCA. Concerning the business tendency surveys, balances of opinion relating to obstacles to increasing activity due to insufficient demand in the construction, services and industry sectors directly reflect the state of demand that companies experienced. They therefore provide clear information on demand shocks affecting the economy and hindering production. The proportion of companies reporting obstacles linked with low demand decreased at the high point of the cycle, and conversely they increased at the low point.

PCA also incorporates the production capacity utilisation rate in industry. This variable picks up the short-term adjustment made in production capacity to an increase in activity. To cope with an increase in demand, companies can decide to hire staff or to invest, but the determinants of these decisions are complex and tend to be more medium- to long-term in nature. In the short term, the main driving force is the mobilisation of available reserves in their production capacity, provided that this is not saturated.

Table 1 – Indicators selected for the direct method

Sector	Indicator	Source Eurostat	Unit
Industry	Labour shortage	Business tendancy surveys in undustry	Balance of opinions in points
	Insufficient demand		
	Capacity utilisation rate		
Services	Labour shortage	Business tendancy surveys in services	Balance of opinions in points
	Insufficient demand		
Construction	Labour shortage	Business tendancy surveys	Balance of opinions in points
	Insufficient demand		
Whole of the economy	Unemployment rate	Workforce surveys	%
	Nominal unit labour cost per hour worked	Labour cost surveys	Year-on-year variation in %
	Core inflation	Consumer price index	Year-on-year variation in %
	Gross investment rate of non-financial corporations as a % for added value	National accounts	Year-on-year variation in %
	Gross investment of households as a % of gross disposable income	National accounts	Year-on-year variation in %

Other indicators from the business tendency surveys, this time on the supply side, are also considered: difficulties in increasing production due to staff shortages are partly a signal to suggest the appearance of inflationary thrusts, if a tense situation in the labour market is able to lead to wage increases. Finally, a few aggregated indicators complete the analysis: core inflation rate (year-on-year) and unit wage costs (year-on-year), also the unemployment rate, so as to approximate variations in the domestic component of inflation according to the position of the economy in the cycle. Finally, the investment rates of households (% of their real income) and non-financial corporations (% of value added) indicate the state of demand and are therefore good indicators of its movements over time.

The coefficients of each variable introduced into the calculation of the first principal axis are presented for each country.

Table 2 – Indicator coefficients in calculating the first principal axis in PCA

	France	Allemagne	Italie	Espagne
Industry-demand difficulties	–0.35	–0.28	–0.26	–0.39
Industry-workforce difficulties	0.22	0.37	0.38	0.32
Industry-CUR	0.35	0.25	0.32	0.39
Services–demand difficulties	–0.36	–0.38	–0.31	NA
Services–workforce difficulties	0.33	0.34	0.36	NA
Construction–demand difficulties	–0.33	–0.37	–0.38	–0.39
Construction–workforce difficulties	0.33	0.36	0.35	0.06
Unemployment rate	–0.26	–0.33	–0.24	–0.40
Inflation (ga)	0.15	0.04	0.10	0.33
Unit labour costs (ga)	–0.05	–0.03	0.05	0.33
NFC investment rate (ga)	0.3	0.19	0.18	0.03
Household investment (ga)	0.27	0.21	0.3	0.25
Proportion of explained variance with the first principal component	0.56	0.48	0.48	0.53

Semi–structural method

This method is based on a decomposition of GDP into two unobservable components, a trend component equivalent to potential GDP and a cyclical component equivalent to the output gap. To perform this breakdown, the unobservable component values are inferred for each date, on the one hand from observable variables, in this case two indicators from the business tendency surveys (production capacity utilisation rate in industry and business climate), and on the other hand, the writing of the underlying dynamic of the unobservable variables which constrains their variations statistically. The different relationships imposed between variables give this method its "structural" aspect as they define a framework which, although flexible, limits possible changes in the different estimated unobservable magnitudes.

First. relations between these different variables are written in the form of the following linear space–state system:

$$\begin{cases} y_t = y_t^p + OG_t \\ TUC_t = TUC_{ref} + \alpha * 100 * OG_t + \varepsilon_{1t} \\ Climat_t = 100 + \beta * 100 * (OG_t - OG_{t-1}) + \varepsilon_{2t} \end{cases}$$

$$\begin{cases} y_t^p = y_{t-1}^p + \eta_t \\ \eta_t = \gamma * \eta_{t-1} + \varepsilon_{\eta t} \\ OG_t = \delta * OG_{t-1} + \varepsilon_{OGt} \end{cases}$$

– where y_t^p denotes the trend component of GDP;
– OG_t , output gap;
– TUC_t , capacity utilisation rate and TUC_ref an estimated level of reference;
– $Climat_t$, business climate with a reference value fixed at 100;
– η_t , potential growth (or rate of growth of the trend component of GDP).

This space-state system is then estimated using the Kalman smoothing technique. Here the difficulty in modelling is mainly associated with the choice of dynamic imposed on the unobservable components y_t^p and OG_t . In particular, the trend component y_t^p is sometimes likened to a random step, which seems inappropriate here as we want a trend component that has a certain persistence. We want it to describe the possibly complex effects that may be generated on the productivity trajectory by, for example, innovation shocks, adjustment costs on

factors of production, effects of dissemination or learning. The stochastic trend was finally modelled as an integrated process of order 1 and the output gap as an autoregressive process of order 1.

Results of the coefficient estimates are given here:

	TUCref	α	β	γ	δ
France	83.6 (0.99)	2.38 (0.40)	7.62 (1.46)	0.91 (0.06)	0.37 (0.21)
Germany	83.7 (1.98)	2.06 (0.37)	3.60 (1.22)	0.80 (0.09)	0.59 (0.28)
Spain	77.4 (3.46)	2.80 (1.09)	8.44 (3.30)	0.82 (0.14)	0.79 (0.33)

How to read this table: the standard deviations of the estimated coefficients are shown in brackets. The models are estimated from quarterly data covering the period 1995–2018

The advantage of this method is also that it is able to provide a statistical confidence interval directly around the estimated value of the output gap. Thus for 2018, the output gap measured using this method and shown in the body of the report was 1.0% of potential GDP with a symmetrical confidence interval between 0.4% and 1.6% of potential GDP.

Structural method

The structural method described here is inspired by the one used by Lequien and Montaut (2014) and developed by D'Auria et al. (2010). It is based on a representation of production capacity in the form of a Cobb–Douglas production function, combining two factors of production – amount of work measured in number of hours worked and capital stock – and total factor productivity (TFP) broadly including all potential sources of growth not taken into account when simply combining labour and capital. For example, this TFP includes technical or organisational progress, and any change at the level of worker knowledge which improves their hourly productivity. GDP is written:

$$Y = PGF \times \left(POP_{15-64} \times T_x Act \times (1-U) \times NbH \right)^{\alpha} \times K^{1-\alpha}$$

where

Y is GDP;
PGF total factor productivity (TFP);
POP_{15-64} population of working age (15 to 64 years old);
TxAct labour force participation rate;
U unemployment rate;
NbH number of hours worked per job;
K capital stock.

Based on this theoretical representation of production capacity, potential GDP is derived from a combination of potential amounts of production factors (labour and capital) and potential TFP. Each potential magnitude is estimated from observed magnitudes, using methods based on theoretical relations and/or statistical filters (Kalman smoothing). Using these filters, the cyclical component and the trend component can be extracted from an observed magnitude.

For capital stock, it is usual to consider that potential stock is identical to effective stock. It is indeed difficult to evaluate the cyclical component of changes in capital stock as its determinants correspond to a basic shift in the economy. Similarly, the potential population of working age is assumed to be identical to the corresponding population observed, as it appears to be almost totally constrained by long demographic developments. which are by nature orthogonal to short-term economic changes.

To estimate its potential level, the TFP is compared with the capacity utilisation rate in industry, considered as an indicator of the relevant cycle. The method selected assumes the absence of variations in the capacity utilisation rate around a reference value –calculated here when estimating the semi-structural method.

$$\begin{cases} pgf_t = pgf_p^t + \lambda^* \left(TUC_t - TUC_{ref} \right) + \varepsilon_{pt} \\ \Delta pgf_p^t = \zeta + \theta^* \Delta pgf_{t-1}^p + \varepsilon_{gt} \end{cases}$$

where

pgf (resp.pgf^p*)* is the logarithm of total factor productivity (or potential total factor productivity)

TUC is the capacity utilisation rate in industry and TUC_{ref} is the capacity utilisation rate in the reference industry

The potential unemployment rate, usually called the "structural" rate, depends on the characteristics of the labour market. One way to evaluate it is to assume that when the effective unemployment rate moves away from its structural level, tensions appear in the labour market. These are expressed either by a deceleration in wages and prices in the event of an excess supply of labour, or by an acceleration if the opposite is the case. Thus the structural unemployment rate corresponds to the NAIRU (Non–Accelerating Inflation Rate of Unemployment). This is calculated by estimating a "Phillips curve", according to which core inflation[9] is the result of inflation expectations, assumed to be equal to delayed core inflation, and by the difference between effective and structural unemployment, it reflects surplus or insufficient demand. For Germany, since recent developments in inflation appear to be too independent of changes observed in the unemployment rate, thus considerably weakening the estimate from a Phillips curve, the potential unemployment rate was estimated directly using a similar model to that used for TFP.

	λ	χ	θ
France	0.238 (0.02)	0.1 % (0.04)	0.88 (0.05)
Germany	0.125 (0.13)	1.1 % (0.5)	–0.31 (0.55)

How to read this table: The models are estimated from yearly data covering the period 1995–2018

For France

$$\begin{cases} \pi_t^{sj} = \underset{(0.2)}{1.4\%} + \underset{(0.09)}{0.05}\pi_{t-1}^{sj} - \underset{(0.28)}{2.29} * \left(U_t - U_t^p\right) + \varepsilon_{inf\,t} \\ U_t = U_t^p + c_t \\ \Delta U_t^p = \underset{(0.07)}{0.62}\Delta U_{t-1}^p + \varepsilon_{ut} \\ c_t = \underset{(0.16)}{0.35} c_{t-1} + \varepsilon_{ct} \end{cases}$$

For Germany

$$\begin{cases} U_t = U_t^p - \underset{(0.001)}{0.089} * \left(TUC_t - TUC_{ref}\right) + \varepsilon_{ut} \\ \Delta U_t^p = \underset{(0.006)}{0.89} * \Delta U_{t-1}^p + \varepsilon_{upt} \end{cases}$$

where

π_t^{sj} is core inflation
U^p unemployment rate (or structural rate)

For Spain and Italy, it was difficult to find a variable that could both describe the presence of tensions affecting production capacity and also be associated in a relevant way with the very marked variations in unemployment in these two countries, especially following the recession of 2008–2009 and then during the Eurozone sovereign debt crisis. For these reasons, the potential unemployment series that would have been estimated with similar models to those used for France and Germany would only have been simple statistical smoothing techniques incorporating no economic information and these series would therefore have been very similar to the observed unemployment rate series, which was not satisfactory given the theoretical definition of the concept of potential unemployment. In addition, the results that would ultimately have been obtained to estimate the output gap would have been significantly different from those produced by other institutions producing annual output gap estimates for Spain and Italy, such as the European Commission or the OECD. Given this lack of robustness in our results, it was decided that instead we would use the OECD estimates which were produced using a structural method which differed slightly from the one presented in this appendix.

The estimate of the potential labour force participation rate derives from that of structural unemployment (see *above*). We assume that the difference between the effective and the potential labour force participation rate is related to the difference between the effective and potential unemployment rate and the difference between the capacity utilisation rate and a reference value, in order to detect any signs of inflection in the labour market.

$$\begin{cases} TXAct_t = TXAct_t^p + \rho * \left(TUC_t - TUC_{ref}\right) + \sigma * \left(U_t - U_t^p\right) + \varepsilon_{txt} \\ \Delta TXAct_t^p = \Delta TXAct_{t-1}^p + \varepsilon_{upt} \end{cases}$$

9. The core inflation indicator [calculated by INSEE] is estimated by removing from the consumer price index all prices for energy, fresh produce and public tariffs, and adjusting it for tax measures and seasonal variations. Thus core inflation is more suited to an analysis of inflationary pressures as it is less disrupted by external phenomena.

Supply tensions and position of the economy in the cycle

Finally, the potential value of the number of hours worked per capita was estimated from the observed series by a simple purely statistical filter, in this case a Hodrick-Prescott filter adjusted to filter annual data.

The decomposition of the "structural" output gap into its different components is deduced from the production function written in the following form:

$$OG = \frac{Y - Y^*}{Y^*} \approx \ln\left(\frac{Y}{Y^*}\right) = \ln\left(\frac{PGF}{PGF^*}\right) + \alpha \times \left[\ln\left(\frac{TxAct}{TxAct^*}\right) + \frac{U^* - U}{1 - U^*} + \ln\left(\frac{NbH}{NbH^*}\right)\right] \blacksquare$$

	ρ	σ
France	0.002 (0.002)	0.03 (0.01)
Germany	–0.023 (0.03)	–0.22 (0.18)

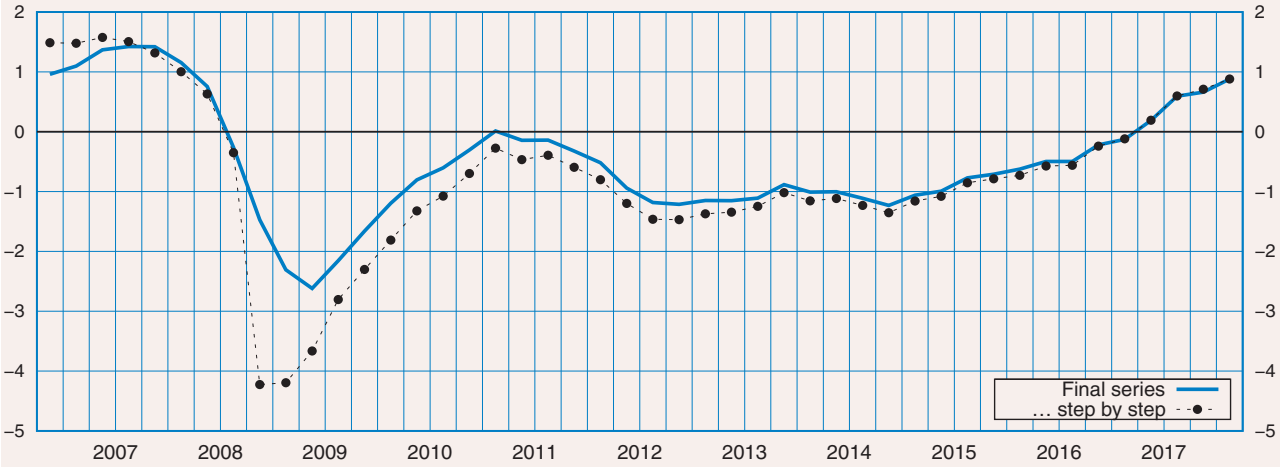
How to read this table: the models are estimated from the periode 1995–2018

Appendix 2 - Simulations in real time for the direct method

One of the main advantages of using the direct method to estimate output gap is the low level of revision over time of information on the recent position of the economy in the short-term cycle. To explain it, the application of the direct method for France is subject to a step-by-step estimation exercise, also called "pseudo real-time", where the output gap is calculated for each quarter using only short-term and economic indicators for the current quarter and preceding periods. The exercise was carried out for France from 2007 (*Figure 14*). The output gap calculated step-by-step has some differences when compared with the value obtained when the direct method is applied to the entire period as this time the coefficients estimated at the time of the principal component analysis were completely recalculated at each date and therefore varied over time. Major differences can be seen with the move into recession in 2008–2009 but these later disappeared. The global profile appeared to be relatively robust, however, where the output gap estimates obtained from structural methods can lead subsequently to some major revisions[10].

The indicator derived from PCA was calculated from cyclical indicators. The coefficients calculated quarter after quarter (*Table 3*) enabled us to examine changes over time. Thus the coefficient associated with the balance of opinion on difficulties associated with insufficient staff in industry slipped back regularly. The coefficient of the unemployment rate varied considerably between Q1 2008 and Q1 2010. These changes can be explained by the lack of any time perspective: the series begins in 2004, with the result that there are only 13 observations up until Q1 2007, for 12 variables. In addition, the balances of opinion reacted to the 2008 crisis very harshly for the most part, which had the effect of distorting the point cloud. ■

14 – Output gap for France, obtained by the direct method carried out step by step or applied to the entire period



Note: the indicator from data analysis,implemented with the direct method is mean- and variance-standardized with the output gap estimated with the structural method which is thus taken as a reference. That output gap is not itself obtained in real time but fixed once for all at the value in 2018; that hybrid exercise is then qualified as "pseudo-real time".

10. Refer to De Waziers (2018) for an in-depth discussion about the order of magnitude of these revisions.

Tableau 3 - Indicators coefficients for calculating principal component analysis in the first principal axis

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Ind.diff.dem	–0.32	–0.34	–0.33	–0.34	–0.34	–0.34	–0.35	–0.34	–0.34	–0.34	–0.34
Ind.diff.mo	0.33	0.30	0.30	0.32	0.31	0.29	0.24	0.22	0.20	0.19	0.21
Ind.TUC	0.34	0.36	0.33	0.34	0.35	0.34	0.34	0.34	0.33	0.34	0.35
Serv.diff.dem.	–0.32	–0.35	–0.32	–0.33	–0.34	–0.34	–0.34	–0.35	–0.35	–0.36	–0.36
Serv.diff.mo	0.34	0.32	0.31	0.33	0.33	0.33	0.34	0.34	0.35	0.35	0.33
Cons.diff.dem	–0.32	–0.34	–0.32	–0.32	–0.32	–0.32	–0.33	–0.33	–0.33	–0.33	–0.33
Cons.diff.mo	0.32	0.33	0.32	0.32	0.31	0.31	0.32	0.33	0.33	0.33	0.33
Taux chômage	–0.30	–0.19	–0.23	–0.25	–0.24	–0.24	–0.25	–0.27	–0.27	–0.27	–0.26
Inflation (ga)	–0.01	0.00	0.16	0.17	0.17	0.17	0.19	0.21	0.21	0.20	0.16
Coûts sal.unit.ga	0.08	–0.15	–0.17	–0.11	–0.11	–0.13	–0.10	–0.05	–0.03	–0.02	–0.05
Invest.SNF.ga	0.33	0.36	0.32	0.29	0.29	0.30	0.30	0.29	0.29	0.30	0.30
Invest.ménages.ga	–0.21	0.17	0.27	0.25	0.25	0.26	0.25	0.26	0.26	0.26	0.27

Note: the table coefficients are those obtained in Q1 every year.

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French developments

Review of the previous forecast

In Q3 2018, gross domestic product (GDP) grew by 0.4%, a little less than expected in the October 2018 issue of Point de Conjoncture (+0.5%). Domestic demand excluding inventory sustained GDP growth, but a little less than forecast (+0.5 points against +0.6 points). Foreign trade drove growth a little more than expected (+0.2 points against +0.1 points), and to match this, the contribution of changes in inventories was a little more negative (–0.3 points against –0.2 points). The growth forecast for Q4 2018 is lowered from that of the October Point de Conjoncture (+0.2% against +0.4% forecast previously).

In Q3 2018, market employment grew by 20,000 (against a forecast of +34,000). At the same time, the unemployment rate remained stable at 9.1% of the French labour force (against a forecast of 9.0%). In November 2018, headline inflation stood at +1.9%, as expected, and the forecast for the end of the year is +1.6%, against +1.8% forecast in October.

In Q3, activity increased a little less quickly than forecast

In Q3 2018, growth reached +0.4%, a slightly slower pace than that forecast in the Point de Conjoncture for October 2018 (+0.5%, *Table 1*). Output in all branches accelerated, as expected (+0.6% *Table 2*). Manufacturing output rebounded a little less than anticipated (+0.7% against a forecast of +0.9%), output in the water-energy-waste branch picked up less than forecast (+0.3% against +1.3%) and construction was disappointing (+0.1% against +0.3%). Trade was less energetic than expected (+0.5% against +0.7%). Conversely, market services accelerated more than forecast (+0.9% against +0.4%), offsetting the forecasting error in the other branches.

Domestic demand sustained growth a little less than forecast

The contribution of domestic demand excluding inventory growth to GDP was slightly less than forecast (+0.5 points against a forecast of +0.6 points). Household consumption accelerated slightly less than expected (+0.4% against +0.7%). Total investment picked up more than expected (+0.9% against +0.6%): corporate investment was more dynamic than anticipated (+1.6% against +0.9%) but household investment fell back slightly whereas stability had been forecast (–0.1% against +0.0%).

The external balance buoyed up growth a little more than forecast (+0.2 points against +0.1 points). Exports increased less than expected (+0.4% against +0.8%) but imports declined unexpectedly (–0.3% against a forecast of +0.5%). In fact, purchases of manufactured goods declined much more than anticipated (–1.6% against

Table 1
Gross domestic product and its main components in the expenditure approach
Percentage changes from previous period in %

	Conjoncture in France October 2018		*Conjoncture in France* December 2018	
	Q3 2018	Q4 2018	Q3 2018	Q4 2018
Gross domestic product	0.5	0.4	0.4	0.2
Imports	0.5	1.6	–0.3	1.4
Household consumption expenditure	0.7	0.5	0.4	0.2
General government consumption expenditure*	0.3	0.3	0.3	0.3
Gross fixed capital formation	0.6	0.6	0.9	0.0
of which: Non financial enterprises	*0.9*	*0.9*	*1.6*	*0.1*
Households	*0.0*	*–0.1*	*–0.1*	*–0.5*
General government	*0.5*	*0.8*	*0.0*	*0.1*
Exports	0.8	1.8	0.4	2.1
Contributions (in percentage points)				
Domestic demand excluding changes in inventories**	0.6	0.5	0.5	0.2
Changes in inventories**	–0.2	–0.1	–0.3	–0.2
Net foreign trade	0.1	0.0	0.2	0.2

Forecast

* General government and non-profit institutions serving households
** Changes in inventories include acquisitions net of sales of valuable

Source: INSEE

–0.2%). In contrast to imports, sales of manufactured goods were disappointing (+0.3% against +1.2%). Finally, in contrast with the contribution of foreign trade, that of changes in inventories was a little more negative than expected (–0.3 points against –0.2 points).

The growth forecast for Q4 2018 is revised downwards

The growth forecast for Q4 2018 is revised downwards from that in the October 2018 issue of Point de Conjoncture (+0.2% against +0.4% forecast previously), taking into account both the deterioration in business climates and the probable effects on economic activity of the "yellow vests" social unrest.

In Q4, manufacturing output looks set to stabilise, where an increase was forecast in the October issue (+0.0% against +0.4%).

Domestic demand is likely to drive growth in Q4 a little less than forecast (+0.2 points against +0.5 points). The forecast for household consumption has also been revised downwards (+0.2% against +0.5%).

The forecast for household investment was also revised downwards (–0.5% against –0.1%), due to the slowdown in home construction. General government investment was revised downwards too (+0.1% against +0.8%).

Foreign trade is expected to make a positive contribution in Q4 rather than the zero contribution forecast in the October Point de conjoncture (+0.2 points). Exports will probably accelerate a little more than expected (+2.1% against +1.8%). Imports should be almost as dynamic as forecast (+1.4% against +1.6%). Forecasts for changes in inventories have been revised downwards, notably because of the delivery schedule for major aeronautical and shipbuilding contracts (–0.2 against –0.1points).

Market employment increased slightly less than forecast

In Q3 2018, market employment increased less than anticipated (+20,000 job creations against 34,000 expected). However, the unemployment rate (including Overseas Departments) remained stable at 9.1% instead of the expected fall to 9.0%.

At the end of 2018, inflation is expected to stand at +1.6%, a little less than forecast in October

In November 2018, headline inflation stood at 1.9%, as forecast in the October issue of Point de conjoncture. This gives a forecast for headline inflation of +1.6% (against 1.8% anticipated in October) at the end of the year, whereas core inflation is expected to increase as forecast (+0.8%). ■

Table 2

	Conjoncture in France October 2018		*Conjoncture in France* December 2018	
	Q3 2018	**Q4 2018**	**Q3 2018**	**Q4 2018**
Output by sector				
Agriculture	0.2	0.3	0.2	0.1
Manufacturing	0.9	0.4	0.7	0.0
Energy, water and waste	1.3	0.2	0.3	–0.9
Construction	0.3	0.3	0.1	–0.1
Trade	0.7	0.5	0.5	0.2
Market services excluding trade	0.4	0.5	0.9	0.4
Non market services	0.3	0.2	0.2	0.2
Total	**0.6**	**0.4**	**0.6**	**0.2**
Employment, unemployment, prices				
Non-agricultural market sector employment	34	33	20	24
ILO* unemployment rate - Metropolitan France	9.0	8.9	9.1	9.1
Consumer price index[1]	2.2	1.8	2.2	1.6
Core inflation[1]	0.7	0.8	0.7	0.8

Forecast

* ILO unemployment: unemployment as defined by the International Labour Organisation
1. Year on year on the last month of the quarter

Source: INSEE

Output

Total output of goods and services accelerated in Q3 2018 (+0.6% after +0.3%), due to the rebound in activity in the manufacturing branches (+0.7%). Since January 2018, the business climate has slipped back regularly but has remained above its long-term average. In Q4 2018, output of goods and services looks set to slow down (+0.2%). Over the year as a whole, it should grow by 1.9%, after +2.6% in 2017. It is expected to accelerate slightly in H1 2019 (+0.3% to +0.4% per quarter). By mid-2019, the carry-over effect for output for the year is expected to be +1.1%.

Output of goods and services should grow moderately up to mid-2019

In Q3, the output of goods and services accelerated (+0.6% after +0.3%; *Table 1*). The business climate has faltered regularly since the beginning of 2018 (*Graph 1*). It was stable in November: at its April 2017 level, it was still above its long-term average. Since the beginning of the year, the climate indicator has dropped in all branches except building construction where it has stabilised at a fairly high level. In this context, total output of goods and services should increase moderately in Q4 2018 (+0.2%), with stability predicted in the manufacturing branches. The pace is likely to be only slightly more sustained in H1 2019 (+0.3% to +0.4% per quarter), due mainly to sluggish activity in manufacturing and less energetic growth expected in services. By mid-2019, the carry-over effect for output for the year is expected to be +1.1%.

Manufacturing output is expected to fall back slightly by mid-2019

After falling back significantly in H1 2018 (–0.1% in Q2 after –1.0% in Q1), manufacturing output rose again in Q3 (+0.7%), as a result of the significant rebound in the manufacture of coke and refined petroleum products (+11.6% after –9.6%). This was associated with the reopening of refineries that had been closed for maintenance. Activity also continued to grow at a sustained pace in transport equipment (+1.6%, scarcely less than in Q2 (+1.8%)) and picked up in capital goods (+0.7% after –0.8%). It remained sluggish in "other industries" (+0.1% after +0.2%) and decreased in agri-food (–0.4% after –0.2%).

In Q4 2018, manufacturing activity appears to be stable (0.0%). In October, the quarterly carry-over effect of growth in the industrial production index was stagnant (0.0%) while the business climate remained above its long-term average, despite slipping back since the beginning of the year, as was the case in all sectors (*Graph 2*). In November, the balances of opinion on past and expected activity improved, whereas those on order books were closer to their average levels. Activity in capital goods is likely to lose its momentum (+0.2% after +0.7%) and in transport equipment (0.0% after +1.6%).

Nevertheless, automobile production should rebound despite the introduction of the WLTP new antipollution standard. Since the refineries were reopened in Q3, activity is also expected to stabilise in the manufacture of coke and refined petroleum products (0.0% after +11.6%). It is

Output by branch at the previous year's chain-linked prices

Q/Q-1 variations (as a %), SA-WDA data

	Quarterly changes										Annual changes		
	2017				2018				2019				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	2017	2018	2019
Agriculture (2%)	1.1	1.3	0.8	0.7	–0.2	0.1	0.2	0.1	0.1	0.0	2.3	1.2	0.4
Manufacturing industry (20%)	0.4	0.8	0.8	1.4	–1.0	–0.1	0.7	0.0	–0.2	0.0	2.4	0.8	0.1
Energy, water, waste (4%)	–1.5	1.0	1.4	0.2	0.7	–1.2	0.3	–0.9	0.7	0.3	1.4	0.8	0.1
Construction (8%)	1.2	1.2	0.4	0.5	–0.4	0.7	0.1	–0.1	–0.2	–0.2	3.5	1.0	–0.2
Trade (10%)	0.9	1.0	1.2	0.8	–0.1	0.5	0.5	0.2	0.6	0.5	3.0	1.9	1.5
Market services excluding trade (41%)	1.3	0.8	0.7	1.2	0.7	0.4	0.9	0.4	0.6	0.6	3.2	3.0	1.9
Non-market services (15%)	0.3	0.2	0.4	0.3	0.2	0.3	0.2	0.2	0.4	0.3	1.1	1.1	1.0
Total (100%)	**0.8**	**0.8**	**0.7**	**0.9**	**0.1**	**0.3**	**0.6**	**0.2**	**0.3**	**0.4**	**2.6**	**1.9**	**1.1**

Forecast

Source: INSEE

likely to be stable in "other industries" (0.0% after –0.1%) and should fall back a little more in agri-food (–0.1% after –0.4%).

On average, manufacturing output should slow sharply in 2018 (+0.8% after +2.4%). In Q1 2019, it is likely to decrease a little further (–0.2%), then stabilise in Q2 (0.0%). The carry-over effect for 2019 should stand at +0.1% at mid-year.

Agricultural output should grow slightly by mid-2019

In Q3 2018, agricultural output increased slightly (+0.2%). On the assumption that weather conditions are normal, it is expected to grow a little in Q4 2018

(+0.1%) and in H1 2019 (+0.0% to +0.1% per quarter). On average over 2018, agricultural output should increase moderately (+1.2%). By mid-2019, the annual carry-over effect is expected to stand at +0.4%.

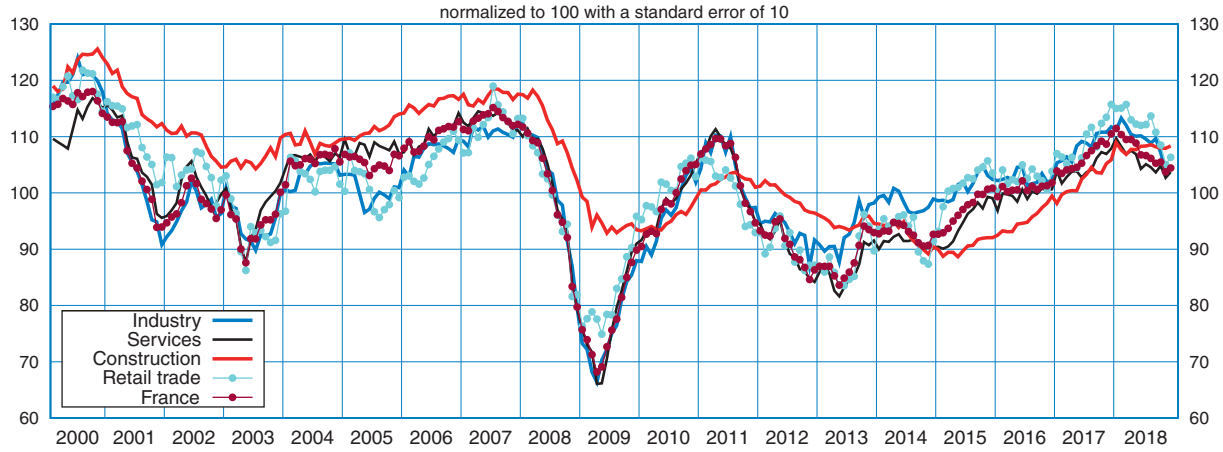
Energy output is likely to grow moderately by mid-2019

In Q3 2018, energy output bounced back (+0.3%) in reaction to the decline in the spring months (–1.2%). It is likely to fall back in Q4 2018 (–0.9%) due to the mild temperatures in October and the beginning of December. On the assumption that temperatures remain seasonal, it should increase by mid-2019 (+0.3% to +0.7% per quarter). On average over 2018, energy output should increase by 0.8%. By mid-2019, the annual carry-over effect should stand at 0.1%.

In construction, activity is set to fall back

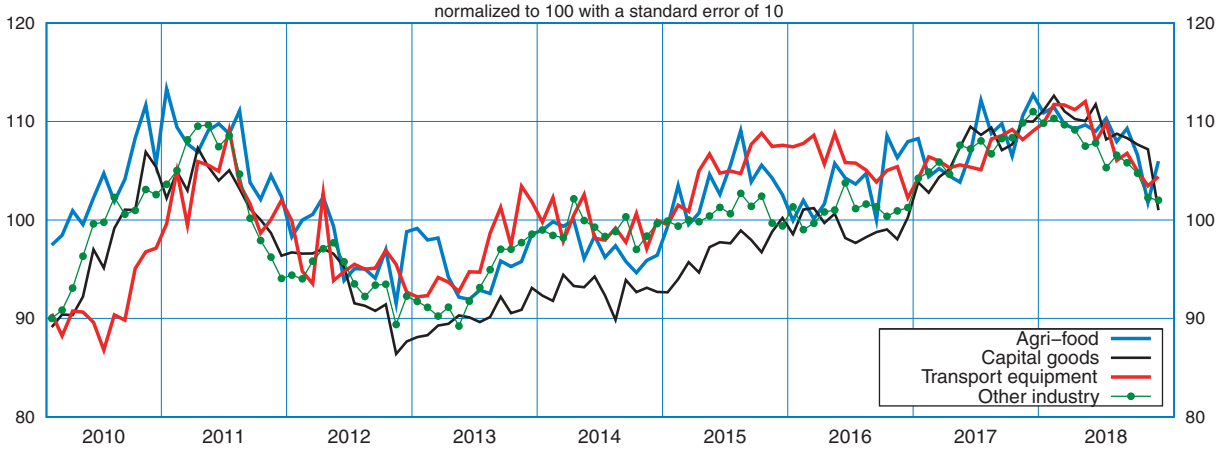
After a dynamic Q2 2018 (+0.7%), output in Q3 in the construction sector was at a standstill (+0.1%) due to the slowdown in activity in building construction and especially the downturn in activity in civil engineering.

1 - Business climate in France : all sectors in industry, services, construction and retail trade



Source: INSEE

2 - Sub-sector business climates in industry



Source: INSEE

The number of building permits for individual dwellings bounced back in Q3 2018 (+4.1%) after falling back sharply the previous quarter (–8.0%). The number of permits for collective housing slipped back (–4.1%) after increasing over two quarters (+2.1% then +4.9%). In the November 2018 business tendency survey of business leaders in the building sector, the balance of opinion on expected activity increased and stood well above its long-term average.

The balance of opinion on past activity fell back slightly but still remained above its long-term average. Property developers again reported less demand for new housing and a deterioration in prospects for housing starts compared with the previous quarter. The corresponding balances are below their average. In Q3 2018, after reaching one of the highest levels since 2012, output is expected to slip back a little in Q4 2018, then again in H1 2019. In civil engineering, the opinion of business leaders about their expected activity has improved a little and their views on their order books remain the same. The corresponding balances remain significantly above their long-term average. Activity is expected to bounce back only very slightly in this sector. Total building output is likely to fall back slightly in Q4 2018 (–0.1% after +0.1%), then decline at a similar pace in H1 2019 (–0.2% per quarter). On average across 2018, activity in the construction sector is expected to slow considerably (+1.0% after +3.5% in 2017). By mid–2019, the carry-over effect for the year is expected to be negative (–0.2%).

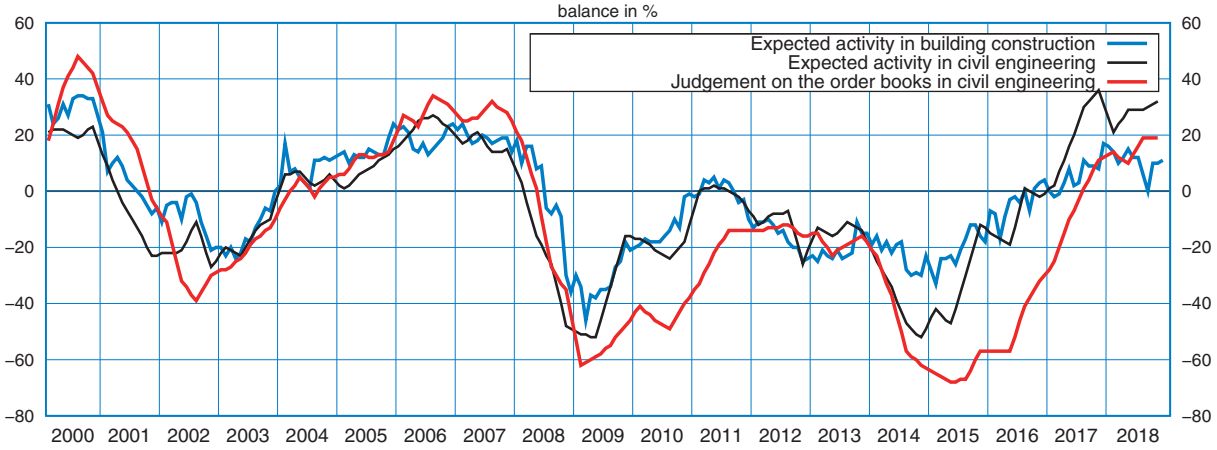
Trade activity should continue its solid growth until mid–2019

In Q3 2018, trade activity increased solidly (+0.5%), as it had in Q2, sustained mainly by dynamic investment by producers of manufactured goods.

In the retail trade and the wholesale trade, the business climate remained above its long-term average. In the retail trade, however, business leaders were clearly less optimistic than in the summer: the balances of opinion on their ordering intentions and expected sales have fallen back since July 2018.

Trade activity should continue to grow at the end of 2018 (+0.2%) but it could be weakened by social unrest. It is likely to accelerate in H1 2019 (+0.5% to +0.6% per quarter). As an annual average, it should increase by 1.9% in 2018, after +3.0% in 2017. By mid-2019, the annual carry-over effect should stand at +1.5%.

3 - Expected activity in construction, judgement on order books in civil engineering



Source: INSEE

Market services excluding trade: growth remains sustained in 2018, as in 2017

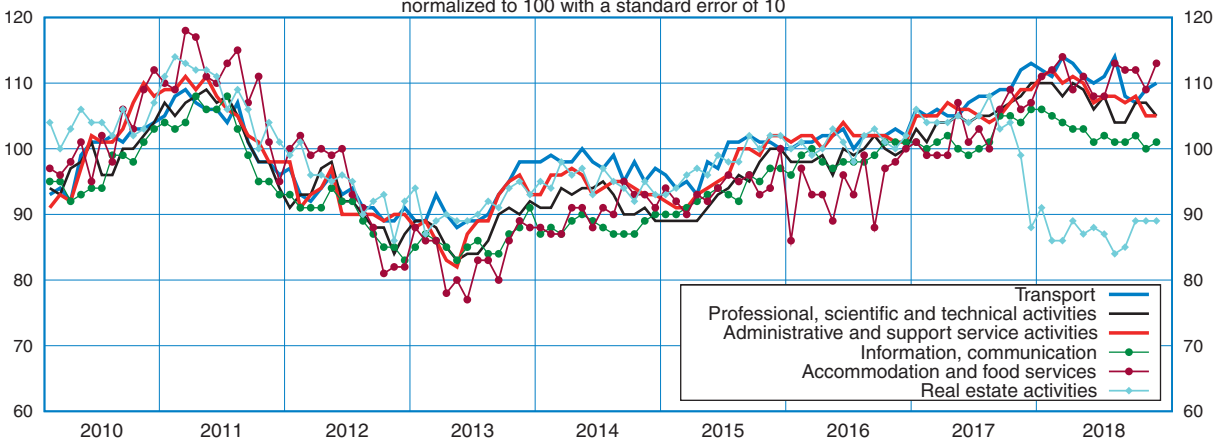
In Q3 2018, activity in market services excluding trade accelerated at a sustained pace (+0.9% after +0.4%). Activity bounced back in transport after falling in Q2 2018 following industrial action (+1.8% after –0.7%) and in the other service activities (+0.5% after –0.5%). Output accelerated significantly in information-communication (+1.8% after +1.2%) and in financial activities (+1.3% after +0.8%). Activity in services to businesses increased solidly (+0.7%) and was virtually the same as in Q2. Finally, output in real estate activities continued to grow steadily (+0.3%, as in the previous quarter). However, output slowed in accommodation and food services (+0.2% after +0.4%).

In November 2018, the business climate was unchanged in the services sector. The composite indicator was stable in information-communication (*Graph 4*) and in real estate activities, where it was still deteriorating. It faltered in specialised, scientific and technical activities but improved in accommodation and food services, administration and support services and in goods transported by road. In Q4 2018, activity in market services excluding trade is set to slow (+0.4% after +0.9%). It should then accelerate a little in H1 2019 (+0.6% per quarter). Across the whole of 2018, output in market services excluding trade should grow by 3.0%, virtually the same as in 2017 (+3.2%). By mid-2019, the carry-over effect is expected to stand at +1.9%.

Mainly non-market services: activity is set to slow very slightly across 2018

Activity in mainly non-market services decelerated slightly in Q3 2018 (+0.2% after +0.3%). In Q4 2018, output is expected to grow at this pace (+0.2%) and should accelerate slightly in H1 2019 (+0.4% in Q1 and +0.3% in Q2). On average over 2018, growth is expected to stand at +1.1%, the same as in 2017. By mid-2019, the carry-over effect should be +1.0%. ■

4 - Sub-sector business climates in services
normalized to 100 with a standard error of 10



Source: INSEE

Macro-economic impact of the «yellow vest» movement: still difficult to gauge

Estimating the economic impact of the "yellow vest" protest movement remains a difficult and uncertain task at time of writing (10th December 2018). This movement, which has since evolved in a fairly unprecedented manner, began in mid-November (i.e. relatively recently) and is still in progress as this edition of Conjoncture in France goes to press. There are therefore very few macro-economic indicators at time of writing.

Originally a response to rising fuel prices, the yellow vest movement has since expanded to take in other demands, with a particular focus on purchasing power. The movement has principally taken the form of roadblocks, but there have also been demonstrations - and even riots - with violent scenes in Paris and elsewhere, including the overseas departments.

Although the movement has no directly comparable historical precedent, we can nevertheless endeavour to list the forms in which it is likely to have an impact on economic activity.

A likely impact on consumption, particularly of services

With regard to industrial output, blockages affecting roads and petroleum depots have delayed deliveries and left some businesses with stock problems. Nevertheless, for the time being these blockages appear to be less substantial than those which hampered economic activity during the mass strikes of December 1995, for example, which knocked approximately 0.2 points off quarterly GDP growth.

On the other hand, the yellow vest movement appears to have penalised consumption via several channels, especially in certain areas. First and foremost, road blocks may have prompted households to postpone or delay certain purchases. Expenditure on goods may be partly postponed. But the postponement effect is generally less applicable to expenditure on services (particularly on accommodation and food, leisure activities and transport), sectors which could thus see more substantial losses.

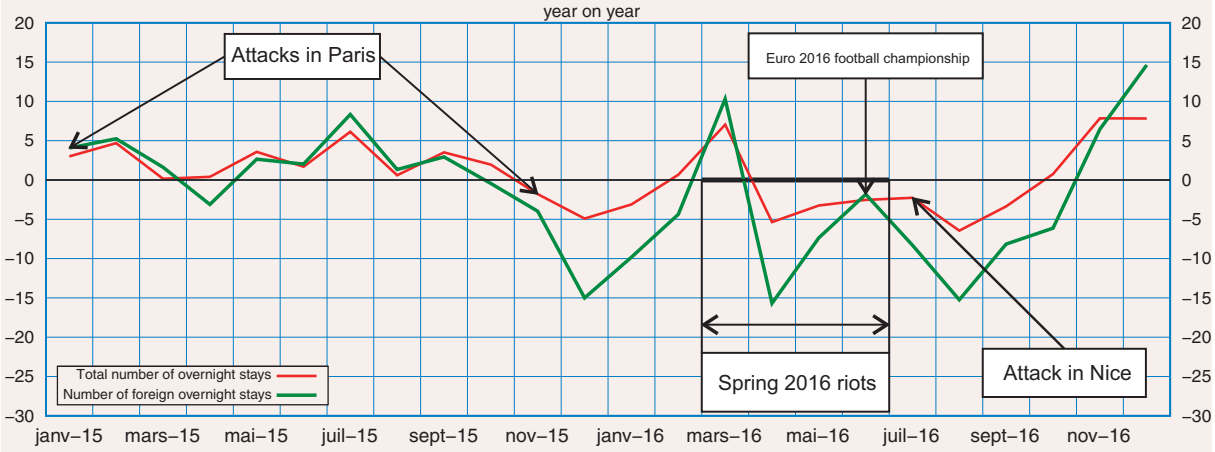
The violent nature of the riots is likely to impede tourism

On top of these blockages, account should be taken of the disturbing scenes of violence which marred the movement on Saturday 24th November, and even more so on 1st December. Some of these scenes played out in some of the country's most symbolic locations and tourist attractions (including the Champs–Elysées and the Arc de Triomphe in Paris). It therefore seems likely that tourism-related activities will suffer as a result.

France has experienced episodes of rioting in the past, for example in November 2005. However, the available data suggest that these riots did not have any significant impact on tourism activities. They were limited to the Greater Paris region, without affecting the tourist-friendly centre of the capital. On the contrary, the terrorist attacks of November 2015 in Paris, although very different from the current events, had a negative effect on tourism for several months, reducing annual growth by 0.2 GDP points in 2016 (see INSEE, 2016 and Beatriz, 2018).

By way of an example, the graph below shows the year-on-year variation in total nights spent in hotels for 2015-2016. Tourist stays in hotels dropped off sharply after the attacks of November 2015 (*Graph*). As might be expected, foreign visitors were the most affected. The attack of 14th July 2016 in Nice is likely to have had a similar effect, albeit less pronounced. At least two other events probably had an impact on the series for this period: demonstrations in spring 2016 which were occasionally violent but by no means comparable to the events of 1st December 2018, and, conversely, the Euro 2016 football tournament hosted in France in June and July 2016.

The evolution of tourism in the hotel industry has been hit by many events in 2015 and 2016



How to read it: Data is raw

Source : INSEE

In November 2018, household confidence in the economic outlook dropped off sharply

Alongside the major macro-economic indicators, the outlook surveys conducted on businesses and households give some idea of the way in which economic stakeholders perceive the short-term outlook.

In mid-December, the results of the business tendency surveys are not yet available for the period since the most violent demonstrations. Since the yellow vest movement only began in earnest on 17th November, business leaders had not yet taken it into consideration when responding to the November survey.

However, the household economic outlook survey shows that the composite indicator for confidence dropped off sharply in November. All components of this confidence indicator are substantially down. In particular, the balance of opinion on opportunities for major purchases fell in November, and this balance can be connected to future household consumption (*Focus: How do households perceive changes in their standards of living in the outlook surveys?*). This leads us to expect a relatively sluggish showing for consumption in Q4 2018, a quarter which nonetheless saw the introduction of fiscal measures (reduction of local residence tax and social security contributions) designed to boost household purchasing power.

This social unrest could also have an impact on employment

Finally, the slowdown in activity caused by the yellow vest movement could also have a negative impact on job creation. For example, a number of fixed-term or temporary contracts offered by stores in preparation for the end-of-year festivities may not be filled because of the blockages.

Overall, the scenario retained for this Conjoncture in France is based on the hypothesis that the yellow vest movement could reduce GDP growth in Q4 2018 by 0.1 points, primarily affecting certain major sectors of activity: retail, accommodation and food, transport, etc. However, this estimate remains subject to considerable uncertainty, not least regarding the duration of the movement.

Bibliography

INSEE (2017), "In 2017 tourism should no longer have a negative impact on French growth, after slowing growth by 0.2 points in 2016", focus article in Conjoncture in France for June 2017.

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Foreign trade

In Q3 2018, foreign trade accelerated in the wake of US and Chinese imports, which had been boosted in the short term by expectations of a hardening of trade tensions between the two countries. By mid-2019, despite demand in the Eurozone holding up well, world trade is expected to slow significantly, from the effect of the increase in US customs duties and probable Chinese reprisals.
Despite a slowdown in world demand for French goods in Q3 (+0.5% after +0.9%), French exports picked up in the summer (+0.4% after –0.1%), especially in manufactured goods (+0.3% after –0.4%). In Q4, exports should take off once again (+2.1%) as a result of sales of military hardware, the continuing catch-up effect in civil aeronautical deliveries and the delivery of a liner. In H1 2019, they are likely to fall back, despite the delivery of a major naval contract.
Imports declined in Q3 (–0.3% after +0.5%), mainly due to a downturn in manufactured goods (–1.6% after +2.0%). They should bounce back in Q4 2018 (+1.4%) then rise again more rapidly than domestic demand in H1 2019 (around +0.7% per quarter).
Foreign trade is set to make as large a contribution to growth in Q4 2018 as in Q3 (+0.2 points per quarter), but this contribution is expected to be negative again in H1 2019.

World trade set to slow by mid-2019

World trade was still vigorous in Q3 (+0.9% after +0.7%, Graph 1), after a dynamic H1 (+1.0% per quarter on average). Chinese imports did indeed accelerate strongly (+3.3% after +0.5%) in anticipation of reprisals associated with the increase in customs tariffs initially announced for January 2019 by Donald Trump. United States imports bounced back (+2.2% after –0.1%), mainly in reaction to the previous quarter. In Q4 2018, world trade is set to continue its acceleration (+1.3%), before increasing less vigorously in 2019, to +0.6% then +0.8% per quarter. Although imports in the Eurozone are doing well, world trade is largely expected to slow due to fewer imports into the United States and the emerging countries, China especially. On average across 2018, growth in world trade should remain almost as buoyant as in 2017 (+5.2% after +5.4%). However, in 2019, world trade is likely to slow sharply (+2.8% carry-over effect by mid-year).

World demand for French goods maintained its momentum into Q3 (+0.5% after +0.9%, *Table 1*), sustained by the imports of its main trading partners, Germany and Italy, who alone represent a quarter of French exports. By mid-2019, demand for French goods should rise by a little less than world trade (+1.0% in Q4 2018

1 - World trade and new export orders

Source : DG Trésor, PMI, INSEE forecast

then +0.8% on average per quarter by mid-2019, Table 2 and Graph 2), driven mainly by demand from the country's European partners.

After a strong acceleration at the close of 2018, exports are expected to be at a standstill in spring 2019

In Q3 2018, French exports bounced back (+0.4% after –0.1%). Exports of manufactured goods increased (+0.3% after –0.4%) following the good performance in sales of other industrial goods (+1.4% after +0.7%) attributable to pharmaceutical goods and as a result of exports of refined petroleum products (+7.8% after –11.4%) which recovered after the reopening of some refineries in France. In addition, the decline in exports of transport equipment was halted (+0.1% after –3.1%) due to the start of a catch-up following aeronautical deliveries. However, exports of agri-food products fell back (–1.8% after +0.7%), as they did for capital goods (–1.3% after +1.9%).

In Q4 2018, exports of manufactured goods are expected to increase strongly (+3.1%, Graph 3). Aeronautical and shipbuilding exports should accelerate at the end of the year, as a result of the combined effects of the catch-up in civil aeronautical deliveries, further deliveries of military hardware and the sale of a liner. Exports of energy products are likely to contract (–3.0%), while agricultural products should accelerate again (+3.0%). Exports of services are expected to slow (+0.3%), returning to their long-term trend. All in all, exports of goods and services should accelerate sharply (+2.1%).

In H1 2019, despite the relative dynamism of demand for French goods and the slight depreciation of the euro, exports are expected to suffer after the return to normal of aeronautical deliveries. They are likely to decline in Q1 despite the delivery of a major naval contract (–0.3%) and should stabilise in spring (–0.0%, Graph 3). As an annual average, exports are expected to slow in

Table 1

World trade and world demand for French products

levels; percentage changes from previous period

	2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2			
World trade	**1.3**	**0.7**	**0.9**	**1.3**	**0.6**	**0.8**	**5.4**	**5.2**	**2.8**
Imports of advanced economies	0.5	0.7	0.4	1.3	0.3	0.6	5.1	3.7	2.2
Imports of emerging economies	3.1	0.7	1.8	1.3	1.2	1.0	6.2	8.3	4.0
World demand for French products	**0.6**	**0.9**	**0.5**	**1.0**	**0.7**	**0.9**	**5.3**	**4.2**	**2.7**

Forecast

Table 2

Foreign trade growth forecast

variations in % at chain-linked previous year prices, contributions in points

	Variations trimestrielles						Annual changes		
	2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2			
Exports									
All goods and services	–0.6	–0.1	0.4	2.1	–0.3	–0.0	4.7	2.9	1.4
Manufactured products (68%)*	–1.1	–0.4	0.3	3.1	–0.7	–0.6	5.0	3.2	1.2
Imports									
All goods and services	–0.7	0.5	–0.3	1.4	0.8	0.7	4.1	1.0	2.3
Manufactured products (68%)*	–0.5	2.0	–1.6	1.8	0.7	0.5	5.5	2.2	2.1
Contribution of foreign trade to GDP	**0.0**	**–0.2**	**0.2**	**0.2**	**–0.3**	**–0.2**	**0.1**	**0.6**	**–0.3**

Forecast

*Part of exports (resp. imports) of non-energy industrial goods in exports (resp. imports) in a whole in 2017.

Source: DG Trésor, INSEE

2018 (+2.9% after +4.7% in 2016) and at the beginning of 2019 (+1.4% carry-over effect at the end of H1 2019), mainly as a result of manufactured goods.

After being strongly positive in 2018, the contribution of foreign trade to growth is expected to become negative again in mid-2019

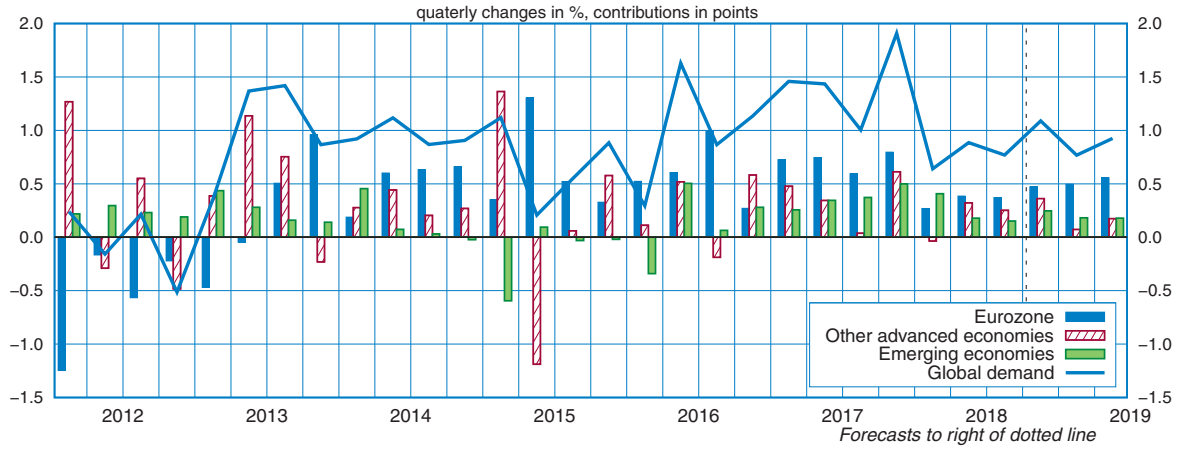
In Q3 2018, French imports were at a standstill (–0.3% after +0.5%). Purchases of manufactured goods had indeed slipped back (–1.6% after +2.0%), especially transport equipment (–3.9% after +2.5%). Imports of refined petroleum products fell back sharply since production had resumed in France. Imports of agricultural products also declined (–2.0% after +0.7%) due to a drop in sourcing of fruit and vegetables. Only energy and services imports bounced back.

In Q4 2018, imports should once again regain their momentum (+1.4%) then increase at the start of 2019 by about +0.7% per quarter, a pace that is consistent with the change in domestic demand.

As an annual average, imports should slow more sharply than exports in 2018 (+1.0% after +4.1% in 2017). As a result, foreign trade should once again make a positive contribution to growth in 2018, more strongly than in 2017 (+0.6 points after +0.1 points). For 2019, however, the contribution of foreign trade to the carry-over effect at mid-year is likely to be negative due to manufactured goods and energy (–0.3 points).

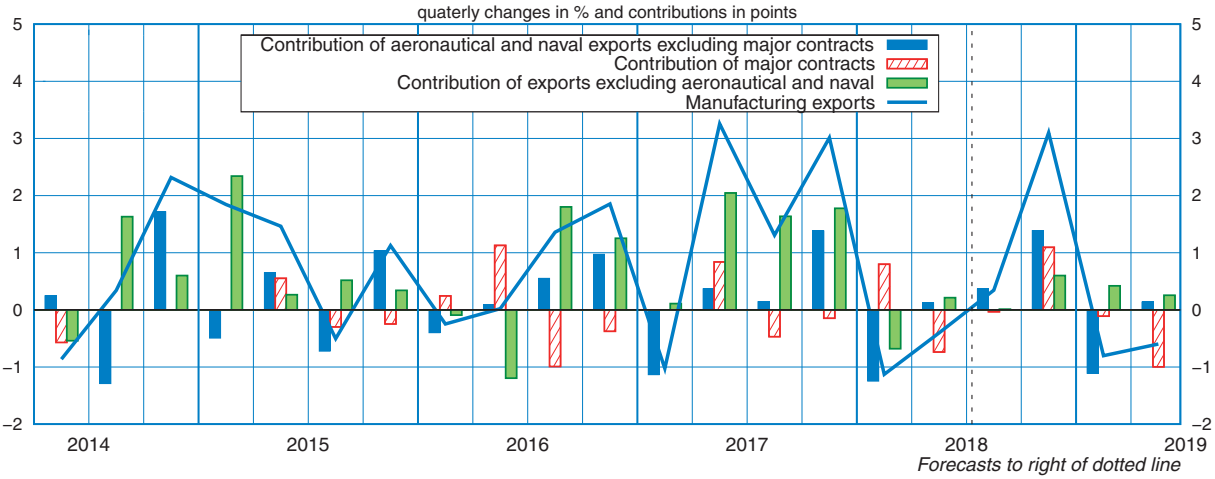
In H1 2018, the balance of trade in goods and services deteriorated substantially. This balance is likely to deteriorate more strongly until mid-2019, because of the widening deficit in manufactured goods. ■

2 - World demand for French products and contributions of the main partners



Sources: DG Trésor, INSEE forecast

3 - Manufacturing exports and main components contributions



Source: INSEE

Employment

In France, non-farm market payroll employment continued to grow at a moderate pace in Q3 2018 (+20,000 after +28,000 in Q2). It should continue to grow at a similar pace in Q4. Across the whole year, 114,000 market payroll jobs should therefore be created (after +321,000 in 2017). In H1 2019, employment is expected to progress at the same pace (+49,000).
In the non-market sector, the decline in employment in H2 2018 appears to be similar to that in H1 (–10,000), although the decrease in the number of beneficiaries of subsidised contracts was much less pronounced. In H1 2019, non-market employment is expected to bounce back a little, with 9,000 additional jobs.
All in all, 107,000 jobs would seem to have been created in 2018, a substantial slowdown compared with 2017 (+341,000). In H1 2019, total employment should continue the same trend as in 2018, with 64,000 jobs created.

Market payroll employment should continue to increase moderately at the end of 2018 and in H1 2019

In 2018 in France (excluding Mayotte), the rise in payroll employment in the non-farm market sectors is likely to be much smaller than the previous year (+114,000, after +321,000 in 2017, *Table 1*). It should continue at the same pace in H1 2019 (+49,000 jobs). The increased difficulties in hiring staff, as reported by companies since 2017, may have contributed to this slowdown

(*Focus: At the end of 2018, companies were pointing to the lack of qualified workforce as the main barrier to hiring, even more so than at the start of 2017*).

Compiled from business leaders' responses on hiring in the business tendency surveys, the employment climate has faltered a little since this summer but still remains favourable, with the index standing at 105 in November, above its long-term average. In Q4 2018, non-farm market payroll employment should continue to increase moderately (+24,000): it is expected to stabilise, more or less, in industry (–1,000) and to continue to rise in construction (+5,000) as well as in the tertiary sector, excluding temporary work (+30,000, after +25,000 in Q3). At the beginning of 2019, payroll employment is expected to increase at this pace once again in the non-farm market sectors (*Graph 1*), in line with the growth expected in activity and a slight upturn in the effects of policies aimed at lowering the cost of labour. In particular, the transformation of the CICE into reductions in employers' contributions from 2019 should help to boost growth by about 15,000 jobs in H1 (*Focus: The transformation of the CICE tax credit into a reduction in social contributions on 1st January 2019 could have a positive – though limited and short-lived – effect on employment*).

Table 1

Change in employment
in thousands, SA

	2018				2019		2018	2018	2019	2017	2018	Level end 2018
	Q1	Q2	Q3	Q4	Q1	Q2	H1	H2	H1			
Mainly non-agricultural market sectors (1)	**42**	**28**	**20**	**24**	**26**	**23**	**70**	**44**	**49**	**321**	**114**	**16 856**
Industry	0	0	–1	–1	–3	–4	0	–2	–7	–1	–2	3 139
Construction	5	6	5	5	3	2	11	10	5	28	21	1 376
Temporary employment	2	–5	–10	–10	–10	–10	–3	–20	–20	123	–22	789
Market services excl. tempory employment	35	27	25	30	36	35	61	55	71	172	116	11 553
Agricultural workers	**3**	**0**	**1**	**1**	**1**	**1**	**3**	**2**	**2**	**4**	**5**	**309**
Mainly non–market service sectors	**3**	**–12**	**–6**	**–3**	**5**	**5**	**–10**	**–10**	**9**	**1**	**–19**	**8 029**
Self–employed	**2**	**2**	**2**	**2**	**2**	**2**	**4**	**4**	**4**	**15**	**8**	**2 861**
TOTAL EMPLOYMENT	**50**	**18**	**16**	**23**	**33**	**31**	**67**	**40**	**64**	**341**	**107**	**28 055**

Forecast

(1) Sectors DE to MN and RU
Scope: France excluding Mayotte
Source: INSEE

Temporary employment is expected to fall but the rise in employment in the tertiary sector excluding temporary work should remain steady

Temporary employment has slipped back slightly since spring and over the whole of 2018 is expected to turn around completely (–22,000, after +123,000 in 2017). As it reacts particularly quickly to fluctuations in activity, it recovered sooner than the other employment components, and in 2017 it exceeded the high levels it had reached before the economic crisis in 2008-2009 (*Graph 2*). In line with 2018, temporary employment is expected to continue to decline slightly in H1 2019 (–20,000, as in H2 2018).

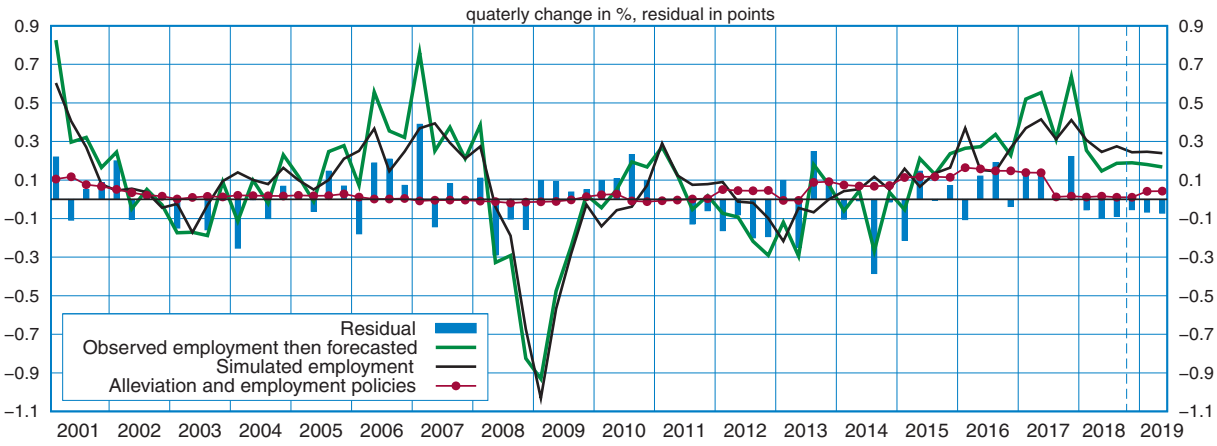
The increase in employment in the tertiary market sector excluding temporary work is likely to falter in 2018 but should remain solid (+116,000, after +172,000 in 2017). In H1 2019, since business leaders in the sector remain optimistic about changes in their workforce, employment is likely to keep the same pace (+71,000, *Graph 3*).

All in all, employment in the tertiary mainly market sector (including temporary work) should increase by 94,000 in 2018 (+59,000 in H1 2018, then +35,000 in H2). This increase is set to continue at a similar pace in the first half of 2019 (+51,000 jobs).

Job losses once again in industry

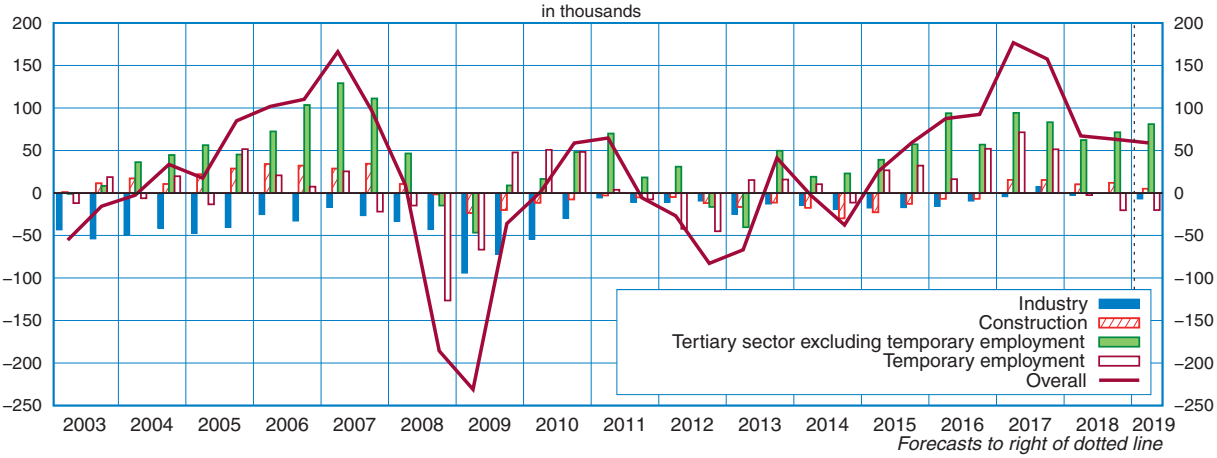
In industry, employment has remained stable since the beginning of 2018. Across the year, it is expected to decline slightly (–2,000) after stabilising in 2017 (–1,000). The expectations of business managers in industry regarding their workforce suggest that employment in industry is likely to continue to decrease over the next few quarters (–7,000 in H1 2019).

1 - Employment observed in the non-agricultural market sector, simulated and residual employment



Note: The equation residual for employment is the spread between the observed employment and the simulated employment from past and current variations in employment and activity and from effects of employment policies (included, over the recent period, the effects of the CICE, the PRS and the employment plan). A positive residual, such as that observed in 2015, indicates that observed employment showed better growth than past behaviour would lead us to expect, see special analysis of the conjoncture in France in june 2018
Estimation period: 1990-2015.
Scope: France excluding Mayotte
Source: INSEE

2 - Year-on-year change in payroll employment in the non-farm market sectors



Scope: France excluding Mayotte
Source: INSEE

Employment in construction should continue to rise

Payroll employment in construction decreased almost continuously between the end of 2008 and the end of 2016. However, job losses gradually declined, and since the beginning of 2017, the sector has returned to growth. In 2018, employment in construction is set to remain buoyant (+21,000 jobs, after +28,000 in 2017). In the business tendency surveys, however, business leaders' opinions on changes in their workforce are deteriorating in civil engineering and building construction. Thus in H1 2019, employment in construction should continue to increase but at a slower pace than in the previous half-year (+5,000 after +10,000).

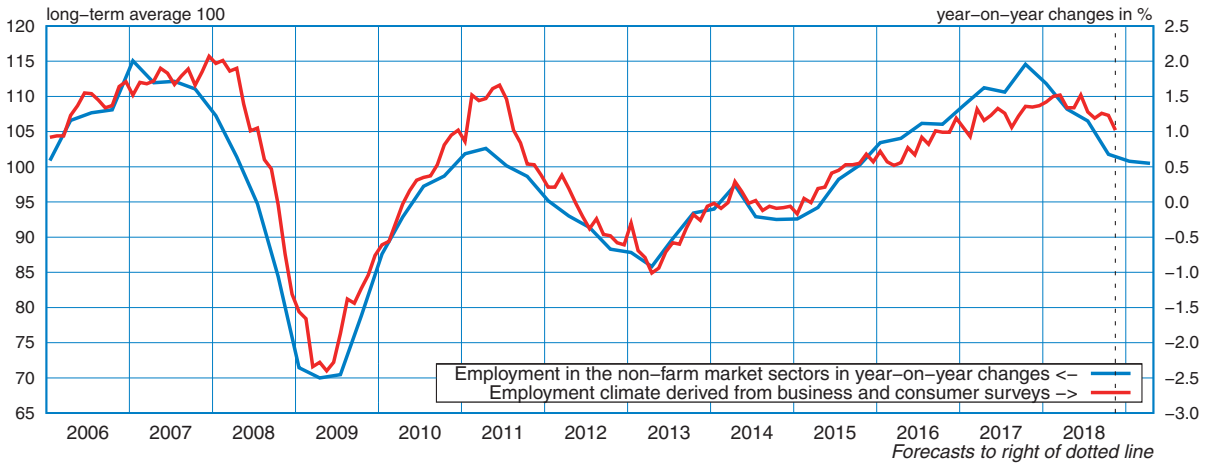
Non-market employment is not expected to fall back further

Non-market employment is set to decrease in Q2 2018 (–10,000), for the third consecutive half-year. However, the net reduction in the number of beneficiaries of subsidised contracts observed from mid-2017 to mid-2018 is expected to fade in the second part of the year (*Table 2*). Non-market employment should bounce back a little in the first half of 2019, with the ramping up of the "Employment skills pathway" and the creation of 9,000 non-market jobs.

Total employment should increase by 64,000 in H1 2019

Including the self-employed and agricultural payroll employees, net job creations across all sectors should reach 107,000 in 2018, which is considerably less than in 2017 (+341,000). Total employment is expected to be slightly less vigorous in H2 (+40,000, after +67,000), due to the slowdown in market payroll employment, and to non-market payroll employment which is still falling. In H1 2019, total employment should pick up somewhat (+64,000), driven by moderate growth in activity, and a slightly favourable effect on employment when the CICE is converted to a reduction in social contributions. ■

3 - Balance of opinion of business leaders on expected workforce



Source: INSEE, Business tendency surveys

Table 2

Change in subsidised employment and civic service in the non–market sector

in thousands

	Variations trimestrielles						Variations semestrielles					Variations annuelles	
	2018				2019		2017		2018		2019		
	T1	T2	T3	T4	T1	T2	S1	S2	S1	S2	S1	2017	2018
Contrats aidés non marchands, hors ACI:	–34	–25	–8	–1	–5	2	7	–75	–58	–8	–3	–67	–66
Emplois d'avenir	*–10*	*–8*	*–8*	*–5*	*–3*	*–3*	*–8*	*–23*	*–18*	*–13*	*–5*	*–31*	*–31*
Contrat unique d'insertion (CUI-CAE)	*–54*	*–53*	*–44*	*–25*	*–6*	*–1*	*6*	*–77*	*–106*	*–69*	*–7*	*–71*	*–175*
Parcours emploi compétences (PEC) (*)	*22*	*28*	*39*	*23*	*–2*	*4*	*0*	*0*	*50*	*62*	*2*	*0*	*112*
Ateliers et chantiers d'insertion (ACI)	–2	0	–3	1	3	–2	1	2	–2	–1	1	3	–3
Services civiques	1	0	4	2	–1	–4	10	4	1	6	–4	14	7
TOTAL	**–43**	**–32**	**–11**	**–4**	**–8**	**–5**	**9**	**–93**	**–75**	**–15**	**–12**	**–84**	**–90**

Forecast

* Since July 2014, recruitment by integration workshops and sites (ACI) no longer takes the form of a CUI–CAE (*Contrat unique d'insertion – Contrat d'accompagnement dans l'emploi* – Single integration contract – Employment support contract) but instead a CDDI (*Contrat à durée déterminée d'insertion* - Fixed-term integration contract). Nevertheless, in order to ensure that the scope of this analysis remains constant when tracking subsidised jobs, the CUI–CAE forecasts given here include ACIs.
Scope: Metropolitan France

Sources: DARES, INSEE calculations

At the end of 2018, companies were pointing to the lack of qualified workforce as the main barrier to hiring, even more so than at the start of 2017

Since January 2017, companies have been asked in the business tendency surveys about barriers to hiring additional staff: half say that they do face this kind of barrier. From the start of 2017 to the end of 2018, this proportion has remained stable overall. However, the types of barrier have changed. More companies now report being unable to find skilled workers, while uncertainty about the economic situation and obstacles related to regulations are now emphasised less.

New questions on barriers to hiring since early 2017

Since January 2017, about 10,000 businesses in industry, services and construction have been questioned in the quarterly business tendency surveys on possible barriers preventing them from hiring more employees on open-ended contracts or fixed-term contracts of long duration. The surveys cover around 70% of payroll employment in the non-agricultural market sector, but do not cover trade and "other service activities".1 These questions complement those on past and future changes to the workforce and difficulties with recruitment (*Table1)*.

In 2017, half of the businesses questioned reported barriers to hiring: in October 2017, companies that had been hindered in their recruitment represented 50% of total payroll employment in the sectors under consideration (Dortet-Bernadet, 2017). From the start of 2017 to the end of 2018, this proportion remained stable overall. By sector, companies in construction report that they are hampered most in their hiring processes, more so than companies in industry and services.

1. This category in the French classification of activities includes mainly arts, entertainment and recreational activities and the activities of households as employers.

Some barriers are linked and companies group them together: questions on the level of regulation (direct financial costs of dismissal, legal risks involved in the dismissal procedure and uncertainty as to how long labour legislation will remain in place) and questions on the cost of labour (cost of recruitment, social contributions and wage levels too high) often provoke similar responses and can be grouped together into specific categories. Barriers can therefore be grouped as follows into four main types: uncertainty about the economic situation, unavailability of a skilled workforce, cost of labour, and regulations. In 2017, businesses reported that the unavailability of a skilled workforce was the main barrier to hiring. In second place was uncertainty about the economic situation.

Since 2016, market employment has increased, difficulties in hiring too

In the business tendency surveys, companies are asked questions on the barriers to hiring that they experience in a specific context of rising market payroll employment. In the non-agricultural market sector employment has once again been on the increase since 2015, accelerating markedly between 2016 and 2017 (334,000 net job creations in 2017 after 180,000 in 2016). Across the whole of 2018, net job creations (+130,000) are likely to slow but should remain at a higher level than their average since 2004 (+56,000).

Table 1 - Questions on the barrier to hiring in business survey, in model survey on the activity in the industry

QUESTIONS ON WORKFORCE

Please put a cross in the appropriate box or circle the arrow that corresponds to your answer.

1. Total workforce in your enterprise

a. Change in the last 3 months ⇗ ⇨ ⇘

b. Probable change in the next 3 months ⇗ ⇨ ⇘

2. Are you currently experiencing difficulties in recruitment??..... YES ☐ NO ☐

3. Are there any barriers that are currently preventing you from hiring more workers on open-ended contracts or on fixed-term contracts of long duration?.....

YES ☐ NO ☐ Sans objet ☐

If YES, what are the main barriers?

-uncertainty about the economic situation..... ☐

- unavailability of skilled labour..... ☐

- recruitment costs..... ☐

- social contributions too high..... ☐

- wage level too high..... ☐

- direct financial cost of dismissals..... ☐

- legal risks associated with dismissal procedure..... ☐

- uncertainties as to whether labour legislation will remain in place..... ☐

- others..... ☐

Source: INSEE, enquêtes de conjoncture.

This buoyancy in employment has been accompanied by a sharp increase in the difficulties companies have experienced in hiring staff (*Graph 1*). At the end of 2018, 45% of businesses in industry, services and construction said they had encountered hiring difficulties, against 21% at the start of 2015. Hiring difficulties have returned to a similar level to that of 2008 in these three sectors.

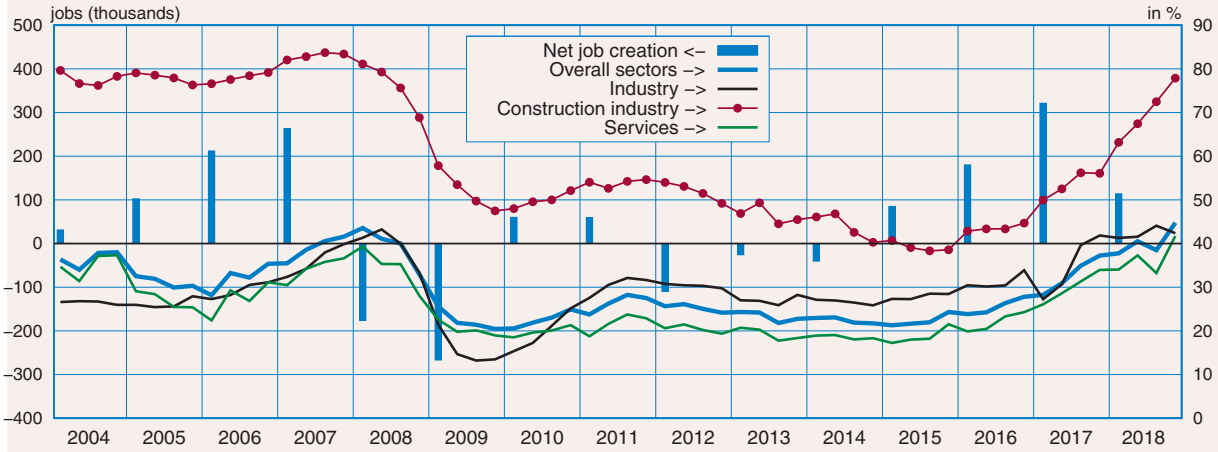
From 2017 to 2018, the unavailability of skilled workers is the barrier that has increased most

Overall, the proportion of enterprises facing barriers to hiring has remained virtually stable since 2017 (*Table 2*). From Q2 2017 to Q4 2018,2 it stood at around slightly less than half. However, the proportion of the different types of barriers to hiring changed substantially (*Graph 2*).

In autumn 2018, the lack of available workforce was still the primary barrier to hiring, and was reported even more often than before. From the beginning of 2017 to the end of 2018, a much higher proportion of companies were reporting that the unavailability of skilled workers was preventing them from hiring more (+12 points). This increase could be seen in all sectors, but was particularly pronounced in the building and construction industry (+21 points). Conversely, the proportion of enterprises that reported being hampered by uncertainty about the economic situation declined substantially (–8 points), although this proportion increased a little towards the end of 2018, probably in line with the upsurge in uncertainties at international level. Once again the trend was very marked for enterprises in building and construction (–20 points between the beginning of 2017 and the end of 2018).

These changes were concurrent with the acceleration in economic activity observed in 2017 and were in agreement with the declarations companies made

1 - Payroll employment in the non-agricultural market sectors and recruitment difficulties

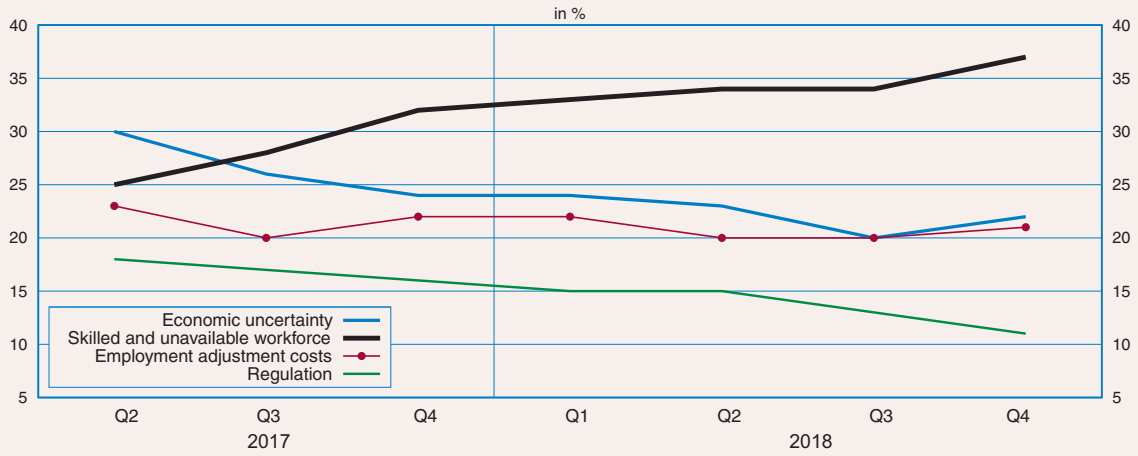


How to read the graph: The sector graphs show the proportion (as a %) of enterprises reporting recruitment difficulties

Note: For each sector, results are weighted by the workforces of the enterprises surveyed; the series including all sectors is obtained by calculating an average of the three sector series weighted by workforce.

Source: INSEE, enquêtes de conjoncture et estimations d'emploi

Change in the different types of barrier to hiring



Note: results are weighted by the workforces of the enterprises surveyed. Several answers are possible for the same enterprise.

Source: INSEE, enquêtes de conjoncture

about production constraints: the proportion of enterprises facing only problems related to demand decreased from 2016. Difficulties with supply, including the supply of workers, have exceeded demand difficulties since 2017 not only in manufacturing but also in the building construction industry and services (*Special analysis: Supply tensions and the position of the economy in the cycle*). Concerning barriers to recruitment, in 2017 the unavailability of workforce exceeded uncertainty about the economic situation and at the end of 2018 this was still the barrier that companies mentioned most frequently.

Companies say they are less limited by the level of social contributions but slightly more limited by wage levels

The strong performance of activity has been accompanied by a slight acceleration in nominal wages: the average wage per capita in the non-agricultural market branches is therefore expected to rise by 1.9% in 2018, after +1.7% in 2017 and +1.2% in 2016 (see *Wages sheet*). This nominal increase in wages may account for the slight increase in the proportion of enterprises saying that they have been prevented from hiring because wage levels are considered to be "too high" (+3 points).

However, the fact that the barrier linked with wage levels appeared with greater frequency was offset by the decline in the barrier linked with the level of social contributions (–6 points). All in all, barriers linked with labour costs (cost of hiring, social contributions and wages) remained virtually stable.

Businesses reported fewer barriers linked with regulations

Overall, barriers linked with regulations were perceived less at the end of 2018 than at the start of 2017 (–7 points) in a context of the adoption of rulings to reform the French Labour Code in September 2017, with the relaxation of certain provisions in dismissal procedures, notably. Fewer companies considered that the direct financial costs of dismissal, the legal risks associated with the dismissal process and uncertainty about whether labour legislation would remain in place were a barrier to hiring. This decline was greater for small and medium enterprises than for larger businesses. ■

2. Non-response is dealt with during the statistical processing of responses to questions on barriers to hiring. When an enterprise answers questions in the «barrier to hiring" module in one survey but does not reply to these questions the next time, its answers from the previous survey are retained. Thus to maintain comparability, the results from Q1 2017 are not shown or commented on.

Table 2 - Share of enterprises mentioning each barrier to hiring at the end of 2018 and change since the start of 2017

	Niveau fin 2018 (en %)				Évolution depuis début 2017 (en points)			
	Industrie	**Services**	**Bâtiment**	**Ensemble**	**Industrie**	**Services**	**Bâtiment**	**Ensemble**
Existence de barrières	58	44	72	49	6	1	–1	2
Incertitude sur la situation économique	26	20	34	22	–7	–6	–20	–8
Main-d'œuvre compétente indisponible	42	33	61	37	12	11	21	12
Coûts liés à l'emploi	20	21	32	21	–1	–2	–4	–2
Coûts de recrutement	7	11	12	10	1	5	3	4
Cotisations sociales trop élevées	14	12	25	13	–4	–6	–7	–6
Niveau des salaires trop élevé	7	9	12	9	2	3	4	3
Réglementation	12	9	22	11	–8	–7	–11	–7
Coûts de licenciement	7	5	13	6	–4	–5	–9	–5
Risques juridiques associés au licenciement	8	6	16	7	–7	–7	–10	–7
Incertitudes sur la pérennité de la législation du travail	7	6	13	6	–4	–4	–9	–5

Note: A single enterprise can mention several types of barrier to hiring.

How to read the table: industrial enterprises recording barriers to hiring and mentioning uncertainty about the economic situation employ 26% of workers in the sector (results obtained by weighting the responses by the workforces of the enterprises). This figure was 33% at the start of 2017.

Scope: France, enterprises in the industry sector with more than 20 employees, in construction with more than 10 employees and in market services.

Source: INSEE, enquêtes de conjoncture.

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Dortet-Bernadet V., "Half of all companies report barriers to hiring?" , *Insee Focus* n°106, December 2017. ■

The transformation of the CICE tax credit into a reduction in social contributions on 1st January 2019 could have a positive – though limited and short-lived – effect on employment

The effects of the CICE on employment could take different routes...

The Competitiveness and Employment Tax Credit (CICE) was introduced in 2013. It is a tax credit that most companies can benefit from, irrespective of their sector of activity, and is based on gross wages paid in the course of the year up to 2.5 times the minimum wage. The aim of the measure was to enhance companies' competitiveness – mainly via an increase in margin rate and investment – and employment, thanks to a drop in the cost of labour. For 2013, the CICE represented 4% of payroll earnings between 1 and 2.5 times the minimum wage, then 6% from 2014. The rate of the CICE was increased temporarily to 7% in 2017, then brought back to 6% in 2018.

The CICE is paid in arrears. Wages paid by companies in year N entitle them to a tax benefit which is received at the earliest during year N+1. When corporation tax (impôt sur les sociétés, IS), a tax based on company profits, is determined in April N+1 the business can then use its CICE to reduce the amount of IS due. In practice, the CICE entitlement for year N can be spread over years N+1 to N+4. If the amount of the tax credit exceeds the corporation tax owed by the company in a given year, then the CICE can be carried forward over 3 years. The balance of any unused CICE is reimbursed by the tax authorities in N+4 at the latest.

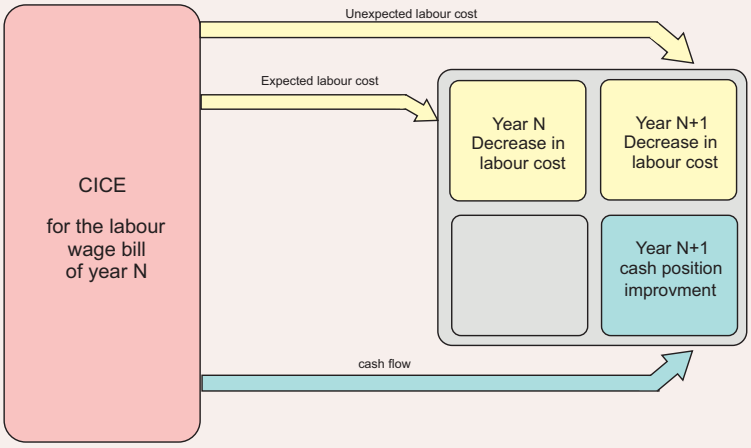
The effect of the CICE on employment can take one of two economic routes: a targeted reduction in the cost of labour or improvement in cash flow. The CICE is a hybrid measure: its assessment base is the company payroll, which makes it similar to a reduction in the cost of labour targeting the lowest wages. However, its tax and accounting mechanism identifies it as a tax credit on profits, which generally improves a company's cash flow position. Due to the complex nature of the measure, it is difficult to know how companies have interpreted the CICE.

From a theoretical point of view, these two routes do not have the same effect on employment. For a given amount, a drop in the cost of labour benefits employment growth more than a measure to improve cash flow as it distorts the capital / labour balance in favour of labour. This effect is all the greater when these two production factors are interchangeable, which is more the case for the low-paid jobs targeted by the CICE. On the other hand, a cash flow measure (equivalent to a reduction in corporation tax) has a more diffuse effect, as the company may decide to use this additional liquidity to redistribute, recruit or invest (*Figure 1*).

The CICE can take effect from year N if companies anticipate the tax benefit fully, or only from year N+1 if they are more concerned with actually receiving payment. Companies are much less able to look ahead and take advantage of the CICE from year N if they are experiencing financial difficulties (fragile cash flow situation or limited access to credit). The incentive to hire workers (or to invest, reduce prices or increase wages, etc.) may be zero in the first year. The CICE "prefinancing" mechanism, offered from 2013, was intended to remove this financial constraint, in part at least. According to the 2018 report of the CICE monitoring committee, by mid–2018, it was mainly vulnerable companies that had taken advantage of these schemes for a total of €13.8 billion of cumulated debt since 2013, or 12.4% of CICE total debt.

On 1st January 2019, the CICE will be replaced by a reduction in employers' social contributions by an equivalent amount. In 2019, employers' contributions on all wages between 1 and 2.5 times the minimum wage will be reduced by 6% (i.e. a reduction of €20.4 billion1). In addition, they will receive the CICE for wages paid in 2018 (€20.2 billion2). 2019 will therefore be a "double" year in terms of public expenditure, but its effect in terms of an employment incentive is uncertain.

1 - Routes and temporality of the effects of the CICE on employment



Source: INSEE

... but they will be difficult to measure

Several assessments have been made of the effects of the CICE on employment since it was introduced. Based on microeconomic data, the estimated and cumulated effects on employment between 2013 and 2015 appear to range between 0 and 255,000 jobs created or saved (see CICE monitoring committee report 2018). When the effects of macroeconomic closure are taken into account, some estimates suggest that over the same period the CICE could have saved or created between 110,000 and 281,000 jobs (see Ducoudré & Yol, 2018). Finally, the total effect of CICE on employment as forecast in Conjoncture in France was at first about 300,000 long-term jobs (see Conjoncture in France, December 2013), of which 215,000 were in the period 2013-2018. Clearly, the diversity of results reflects the uncertainty surrounding the effects of the measure on employment.

The dynamics of payroll employment observed between 2013 and 2017 can be reviewed and compared with the effects of the CICE estimated ex-ante. To do this, a variant of the forecasting equation used at INSEE for market payroll employment is constructed "without CICE" (Conjoncture in France, June 2018). For the period 2013-2017:

- it is assumed that value added growth is known exactly;

- public policy measures that stimulate employment growth are taken into account, with the exception of the CICE (i.e. Responsibility and Solidarity Pact and hiring bonus for SMEs), and it is assumed that their effect on employment is correctly estimated.

With these assumptions, the difference observed over the period 2013–2017 between this simulation and actual employment is examined. It covers two items that cannot be separated: on the one hand, the forecasting errors inherent in the model, and on the other hand, the effect of the CICE on employment, observed at the macroeconomic level. This difference is compared with the ex-ante effects of the CICE in the employment forecasts in Conjoncture in France since 2013.

This exercise, with its strong assumptions, does not take into account many of the factors that could affect the link between GDP growth and employment; no quantitative conclusions can therefore be drawn. However, it can at least be noted that the increase in employment in 2013 and 2014 does not seem to be the result of any significant effect of the CICE (Figure 2). This observation could therefore argue that companies did not make preparations to anticipate the effect of the CICE, at least when it was first introduced. Financing conditions for businesses were in a worse state in 2013 than today (margin rate at its lowest level for more than 20 years, stronger financial constraints), which could account for this result. For subsequent years, the change in employment appears to be relatively consistent with the forecasts for the ex-ante effects of the CICE on employment.

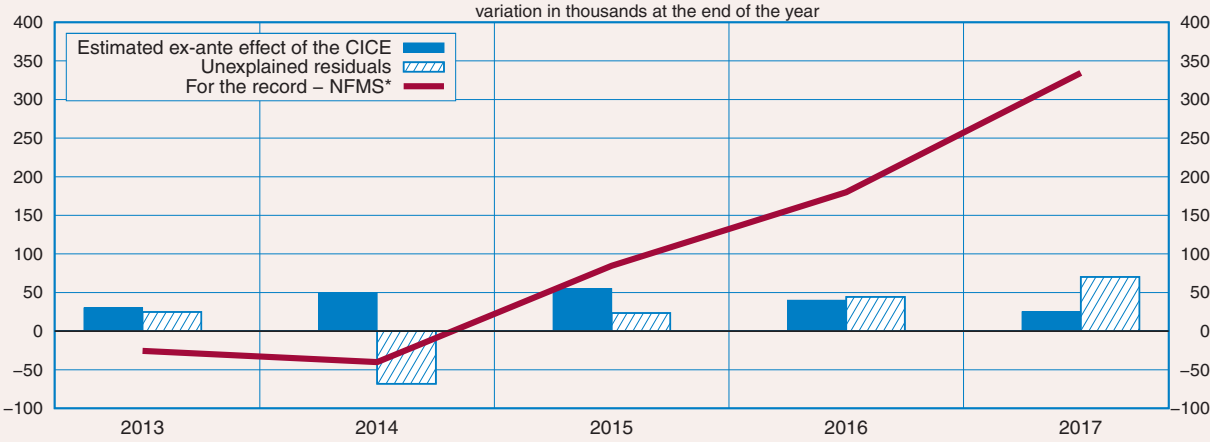
The effect of the transformation of the CICE on employment depends on how businesses view the CICE...

If the CICE is seen as a tax credit, then the switch would necessarily be favourable for employment in the long term since it would be the equivalent of replacing a tax credit by an explicit reduction in the cost of labour.

If, conversely, the CICE is already effectively perceived as a reduction in the cost of labour, then the switch will have less of an effect on employment and in particular it will have zero effect in the long term, as the reduction in social contributions will ultimately pick up where the CICE left off.

1. Source: Rapport économique, social et financier 2019
2. Source: France Stratégie (2018), "Rapport 2018 du comité de suivi du CICE".

2 - Observed residual vs estimated ex-ante effects of the CICE



Note: unexplained residuals are those that exclude the estimated effects of the Responsibility and Solidarity Pact and the hiring bonus for SMEs. The estimated ex-ante effect of the CICE corresponds to effects of the employment intensity of growth, excluding effects on employment linked with additional economic activity (measured by GDP).

*Non-farm market sectors

Source: INSEE

… but also how companies anticipate payment of the credit

In a scenario where the CICE is viewed by all companies as an unanticipated drop in the cost of labour, the switch would result in a double reduction of this cost in 2019, one linked with the CICE paid for the 2018 payroll and the other linked with the targeted reduction in employers' social contributions in 2019.

In the opposite scenario where all companies view the CICE as an anticipated drop in the cost of labour, switching would not make any particular difference compared with continuing the CICE.

Given the difficulty at this stage of leaning towards one scenario rather than another, a median assumption was selected, the equivalent of likening the CICE to a targeted reduction in the cost of labour, half of which was not anticipated (and hence contemporary) and half anticipated. This assumption falls within the continuity of figures relating to this mechanism, as incorporated into the forecasts in Conjoncture in France, and its previous comparison with the change observed in employment shows that it is probably an acceptable assumption.

The effect of the transformation can be estimated using the Mésange model[3]

Using a gap analysis scenario where the CICE remains in place on a permanent basis, and according to this median assumption, the switch would have the same effect on employment as a one-off unanticipated drop in the cost of labour in 2019 of around €10 billion and targeting wages below 2.5 times the minimum wage[4]. This would then have a favourable effect on employment in 2019, reaching a peak in 2020 given its dissemination effects, then eventually disappearing. The effect on activity would follow the same dynamic.

More specifically, the effect on employment would be around 50,000 jobs on average for 2019–2021. This effect would be due on the one hand to additional economic activity, and on the other to the employment intensity of growth, resulting in around 30,000 jobs on average for 2019-2021 (*Table*). However, this estimate must be considered with caution, given the assumption made about the way companies view the CICE. In addition, the effect that was measured was focusing strictly on the switch from the CICE and includes no additional measures. ■

Effect on employment of the transformation of the CICE into a reduction in social contributions

Gap analysis scenario for maintaining the old-format CICE	2019	2020	2021
Employment (thousands)	+40	+70	+40
including employment intensity of growth	*+30*	*+40*	*+30*

How to read the table: excluding the effect on employment linked with additional economic activity (measured by GDP), the transformation of the CICE into a reduction in charges would lead to approximately 30,000 additional jobs in 2019 compared with a situation where it continued to exist in its former tax credit format, and 40,000 jobs if the effect on employment were linked to the additional economic activity. In 2020, this gap would increase to +40,000 jobs (or +70,000 if the effect linked with additional GDP were included) before returning to an average of +30,000 jobs in 2021 (or +40,000).
Source : modèle Mésange, INSEE.

3. Macroeconometric model of the French economy co-developed by INSEE and the Directorate-General of the Treasury. A particular feature of the latest version, published in May 2017, is a breakdown of the labour market into skilled and unskilled workers, adapted from the assessment of policies targeting a reduction in the cost of labour. See Bardaji et al. (2017).
4. If the CICE were continued, it would in fact be a targeted decrease in the cost of labour of around €20 billion from 2019, the result for each year of anticipated and unanticipated effects by companies. However, transforming the CICE results in an equivalent and targeted reduction in employers' social contributions, also from 2019, combined with the unanticipated effect of the CICE paid for salaries in 2018 (targeted drop in the cost of labour of €10 billion)

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Unemployment

In Q3 2018, the ILO unemployment rate in France (excluding Mayotte) remained at 9.1%, after dropping by 0.1 points between Q1 and Q2. Year-on-year it fell by 0.5 points.

Over the forecasting period, by mid-2019, the rise in employment is expected to exceed the increase in the labour force, leading to a slight drop in the unemployment rate: at the end of H1 2019, it should stand at 9.0%, or 0.1 points lower than in mid-2018.

The unemployment rate remained stable in Q3 2018 but fell year on year.

In Q3 2018, the number of unemployed rose by 21,000 (*Table*) but the unemployment rate remained stable (*Graph*) at 9.1% in France (excluding Mayotte), after falling by 0.1 points in Q2. Year on year, the unemployment fell by 0.5 points (–134,000 unemployed people).

In Metropolitan France, the halo of unemployment[1] remained virtually stable between Q2 and Q3 2018 (+8,000). It increased by 48,000 people year-on-year.

The youth unemployment rate rose in Q3 2018

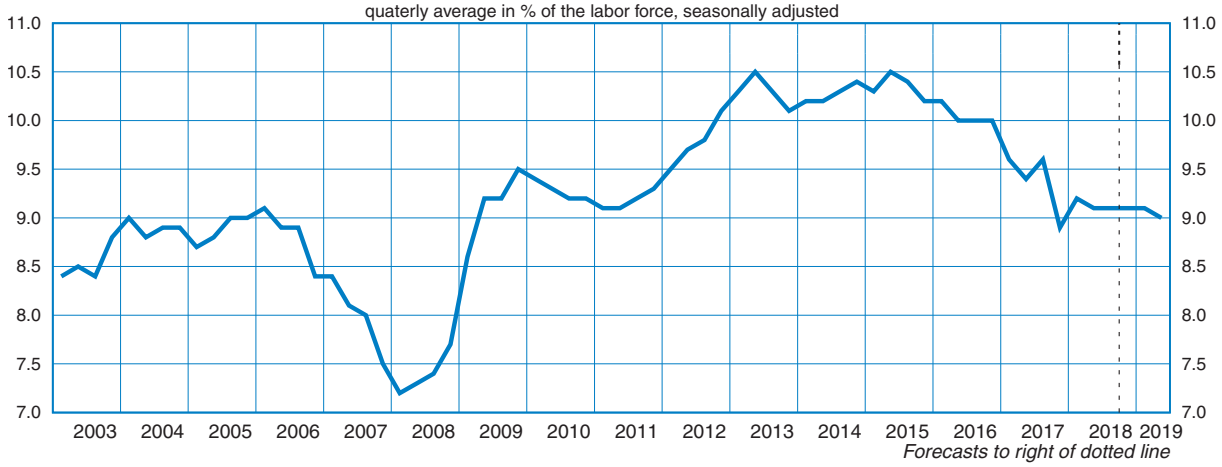
In Q3 2018, the youth unemployment rate stood at 20.6% in Metropolitan France[1]. Despite rising by 0.4 points against the previous quarter, it fell by 0.9 points year-on-year. The rise was more pronounced among young men, for whom the unemployment rate increased by 1.0 point. The unemployment rate for the prime-age labour force population (25–49 years) held steady at 8.2%. It was 0.7 points down against Q3 2017. Lastly, the rate for the over-50s dropped to 6.1%: down by 0.2 points over the quarter and by 0.3 points year-on-year.

The female unemployment rate dropped

Between Q2 and Q3 2018, the female unemployment rate dropped a little (–0.1 points), to 8.7%, whereas the male rate rose slightly, to 8.9% (+0.1 points). However, year on year, unemployment fell by the same amount for both men and women (–0.5 points).

1. The halo of unemployment is made up of economically inactive persons as defined by the International Labour Office (ILO): it refers to people who are seeking employment but who are not available and people who wish to work but are not seeking employment, whether they are available or not.

Unemployment rate (ILO definition)



Scope: France (excluding Mayotte), population of households, people aged 15 or over
Source: INSEE, Employment Survey

The unemployment rate is expected to fall slightly through to mid-2019

In 2018. total employment rose half as quickly as in 2017. In addition. in the absence of a new increase in the retirement age. the spontaneous growth of the labour force in 2018 (i.e. its trend variation. before considering the effects of public policies and downturn effects) is likely to be a little lower than in 2017 and 2016. All in all. in Q4 2018 and Q1 2019. the unemployment rate should remain at the same level as that measured for the two previous quarters (9.1%). In H1 2019. the labour force is likely to be held back somewhat by the gradual ramping up of the Skills Investment Plan (Plan d'investissement dans les compétences). which will temporarily remove people who are taking training from the labour force. Over the forecasting period. a further slight drop in the unemployment rate is expected: it is likely to stand at 9.0 % of the labour force by mid-2019. which would be 0.1 points down on the previous year. ■

Changes in the labour force. employment and unemployment

in thousands. SA. and in %

	Quarterly changes										Annual changes			
	2017				2018				2019		2016	2017	2018	2019 S1
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2				
Population of the 15-64 age bracket	1	1	1	1	–5	–5	–5	–5	3	3	–22	3	–21	6
Population of the 15-59 age bracket	–3	–3	–3	–3	–6	–6	–6	–6	–3	–3	4	–11	–24	–5
Labour force	**–66**	**77**	**122**	**–127**	**163**	**–9**	**38**	**22**	**17**	**8**	**173**	**7**	**214**	**25**
including:														
(a) Contribution of the population and the trend activity rate	23	23	23	23	21	21	21	21	18	18	103	91	83	35
(b) Estimated effects of economic downturns	5	5	5	5	0	0	0	0	2	2	8	21	–1	5
(c) Estimated effects of public policies	7	9	8	–1	4	–3	1	1	–3	–12	–29	24	3	–15
(d) Other short-term fluctuations (residual)	–101	40	86	–154	138	–27	17	0	0	0	91	–130	129	0
Employment	**69**	**97**	**70**	**73**	**75**	**34**	**17**	**20**	**28**	**32**	**227**	**310**	**145**	**60**
reminder: End-of-period employment *(see "Employment" sheet)*	101	94	46	100	50	18	16	23	33	31	218	341	107	64
ILO unemployment	**–135**	**–20**	**52**	**–200**	**88**	**–43**	**21**	**2**	**–12**	**–24**	**–54**	**–303**	**69**	**–35**
	Quaterly average										Average of the last quarter of the period			
ILO unemployement rate (%)														
France (excluding Mayotte)	9.6	9.4	9.6	8.9	9.2	9.1	9.1	9.1	9.1	9.0	10.0	8.9	9.1	9.0

Forecast

How to read it:
- the Employment line presents variations in the number of people in employment as a quarterly average. for consistency with the other data in the table.
- employment and unemployment are not estimated here within strictly equivalent scopes: total population for employment. population of households (excluding collective) for unemployment. As the impact of this difference is very minor (the population outside of households represents less than 1% of the active population). it is neglected here for the unemployment forecasting exercise.
- in (a). the contribution of demographics and of trend activity behaviour includes all the effects of pensions reforms up to and including that in 2010.

Scope: France (excluding Mayotte for employment, unemployment and estimated effects of public policies)

Source: INSEE

Consumer prices

In November 2018, inflation stood at +1.9% year-on-year. Through to June 2019, it is expected to drop to +1.0%. The slowdown in energy and tobacco prices should make the biggest contribution to this drop, which is likely to be reinforced by the announced freezing of energy taxation and gas and electricity prices. Excluding tobacco, inflation should drop to +0.9% against +1.9% in October. Core inflation[1], sluggish throughout 2017, picked up in 2018 (+0.8% in October 2018, against +0.5 % on average throughout 2017). Through to June 2019, it should increase to +1.2% year-on-year. Vigorous nominal wages are expected to support the price rises in services, and the prices of manufactured goods are likely to remain relatively sluggish.

Headline inflation should fall through to June 2019

In November 2018, headline inflation fell in relation to October, to +1.9% year on year (*Graph 1*). Energy prices slowed down (+11.2% after +13.8%), while the prices of manufactured goods fell back a little less (–0.3% after –0.4%). The prices of services increased by 1.0%, after +1.2% in October, and those of food products slackened (+1.9% after +2.2%).

Headline inflation is likely to fall in H1 2019, to stand at +1.0% in June 2019 (*Table*). Energy inflation is expected to fall sharply, to +0.1% year on year by June 2019, after +11.2% in November 2018, while tobacco prices look likely to slacken due to the base effect (+7.1% after +14.5% in November 2018). The prices of food products should be less buoyant in June 2019 than in November 2018 (+0.8% after +1.9%). On the other hand, the prices of services are expected to accelerate to +1.5%.

Energy inflation should fall sharply

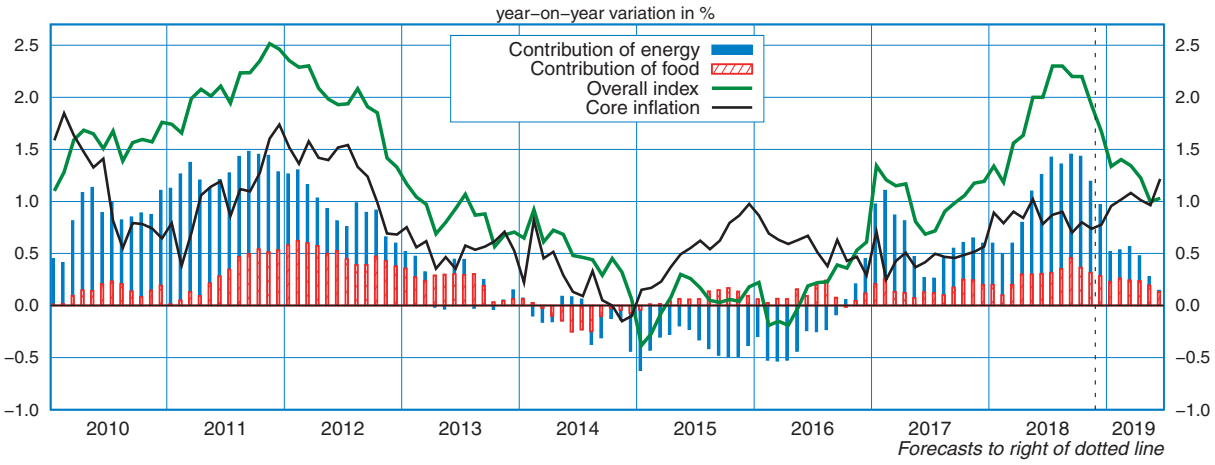
The rise in energy prices accelerated sharply in Q3 2018 and remained high thereafter (+11.2% in November, after +13.8% year on year in October), in line with the increase in crude oil prices, which topped the $80 per barrel mark in September. Assuming that the price of a barrel of Brent remains stable at $60 (€52.60), energy inflation is expected to fall very substantially through to June 2019. The postponement of the increase in taxation on energy products, initially scheduled for January 2019, and the freezing of electricity and gas prices, are likely to contribute to this drop. Energy inflation should then stand at +0.2% year on year by June 2019.

Tobacco prices are set to slow while remaining vigorous

In November 2018, the increase in tobacco prices reached 14.5% year on year. As the increase in taxation scheduled for March 2019 will be smaller than the rise in the winter of 2018, and assuming

1. The core inflation indicator calculated by INSEE is estimated by excluding the prices of energy, fresh food, public tarifs (including tobacco prices) from the overall index. This indicator is corrected for tax measures and is seasonally-adjusted.

1 - Consumer prices in France



Source: INSEE

that manufacturers' margins remain unchanged, tobacco prices should slow down due to the base effect through to June 2019 (+7.1%).

The prices of food products are likely to decelerate

Food inflation should fall by June 2019, to +0.8% against +1.9% in November 2018. The year-on-year variation in the prices of fresh products accelerated significantly after the summer (+11.2% in September), due to the drought, in particular, which adversely affected the supply. It is set to remain high in Q4 2018 (+3.9% in December), but is then expected to fall gradually to stand at –1.5% in June 2019, based on the assumption of normal production conditions over the coming seasons. In addition, the completion of this Conjoncture in France report coincided with the publication of a government Order derived from the "Agriculture and Food" Law on increasing the loss-leader threshold and regulating special offers. These measures could drive the prices of food products upwards.

Excluding fresh products, food inflation remained vigorous in 2018, driven by the prices of dairy products, cereal products and meat, in particular. It stood at +1.4% in November 2018 and is likely to drop to +1.2% through to June 2019.

Prices of manufactured goods should remain stable

The prices of manufactured goods are likely to be stable in June 2019, after dropping slightly in November 2018 (–0.3% year-on-year). The prices of "other manufactured products" (excluding clothing and health goods) are expected to increase a little (+0.4% year-on-year in June 2019, after +0.2% in November), driven mainly by the lowering of the threshold for the application of the "environmental malus" for automobiles in January 2019. After rising in the summer, prices of clothing and footwear were virtually stable in November (–0.1%). Through to June 2019, they are expected to perk up a little (+0.6%), according to changes in the prices of imported textile fibres and assuming that the dates of the sales remain unchanged[2].

2. A reduction in the sales period to four weeks (instead of six at the present time) is intended but has not been likely to be implemented since the winter sales of 2019.

Consumer prices

changes as %

CPI* groups (2018 weightings)	October 2018		November 2018		December 2018		June 2019		Annual averages	
	yoy	cyoy	yoy	cyoy	yoy	cyoy	yoy	cyoy	yoy	cyoy
Food (16.3%)	**2.2**	**0.4**	**1.9**	**0.3**	**1.8**	**0.3**	**0.8**	**0.1**	**1.0**	**1.8**
including : fresh food (2.4%)	*7.0*	*0.2*	*5.0*	*0.1*	*3.9*	*0.1*	*–1.5*	*0.0*	*3.3*	*4.8*
excluding: fresh food (13.8%)	*1.4*	*0.2*	*1.4*	*0.2*	*1.4*	*0.2*	*1.2*	*0.2*	*0.6*	*1.3*
Tobacco (1.9%)	**16.8**	**0.3**	**14.5**	**0.3**	**12.8**	**0.2**	**7.1**	**0.1**	**2.7**	**14.2**
Manufactured products (25.9%)	**–0.4**	**–0.1**	**–0.3**	**–0.1**	**–0.2**	**–0.1**	**0.0**	**0.0**	**–0.6**	**–0.2**
including: clothing and footwear (4.2%)	*0.0*	*0.0*	*–0.1*	*0.0*	*–0.4*	*0.0*	*0.6*	*0.0*	*0.0*	*0.1*
medical products (4.3%)	*–2.3*	*–0.1*	*–2.2*	*–0.1*	*–1.9*	*–0.1*	*–2.0*	*–0.1*	*–2.1*	*–2.2*
other manufactured products (17.5%)	*0.0*	*0.0*	*0.2*	*0.0*	*0.2*	*0.0*	*0.4*	*0.1*	*–0.2*	*0.2*
Energy (7.8%)	**13.8**	**1.1**	**11.2**	**0.9**	**8.7**	**0.7**	**0.1**	**0.0**	**6.2**	**9.8**
including: oil products (4.1%)	*20.7*	*0.8*	*14.8*	*0.6*	*10.2*	*0.4*	*–3.7*	*–0.1*	*10.3*	*14.8*
Services (48.1%)	**1.2**	**0.6**	**1.0**	**0.5**	**1.0**	**0.5**	**1.5**	**0.7**	**1.0**	**1.2**
including: rent-water (7.6%)	*–0.3*	*0.0*	*–0.3*	*0.0*	*–0.3*	*0.0*	*0.9*	*0.1*	*0.4*	*0.1*
health services (6.2%)	*0.3*	*0.0*	*0.3*	*0.0*	*–0.1*	*0.0*	*0.3*	*0.0*	*1.3*	*1.0*
transport (2.8%)	*0.5*	*0.0*	*0.3*	*0.0*	*0.2*	*0.0*	*1.8*	*0.1*	*2.0*	*0.8*
communications (2.2%)	*–1.9*	*0.0*	*–3.6*	*–0.1*	*–3.7*	*–0.1*	*–3.9*	*–0.1*	*–3.5*	*–0.9*
other services (29.2%)	*2.1*	*0.6*	*2.0*	*0.6*	*2.1*	*0.6*	*2.3*	*0.7*	*1.4*	*1.8*
All (100%)	**2.2**	**2.2**	**1.9**	**1.9**	**1.6**	**1.6**	**1.0**	**1.0**	**1.0**	**1.9**
All excluding energy (92.2%)	*1.3*	*1.2*	*1.1*	*1.0*	*1.0*	*1.0*	*1.1*	*1.0*	*0.6*	*1.2*
All excluding tobacco (98.1%)	*1.9*	*1.9*	*1.6*	*1.6*	*1.4*	*1.4*	*0.9*	*0.9*	*1.0*	*1.6*
Core inflation (60.4%)**	**0.8**	**0.5**	**0.7**	**0.4**	**0.8**	**0.5**	**1.2**	**0.7**	**0.5**	**0.8**

Provisionnal

yoy : year-on-year

cyoy : contribution to the year-on-year value of the overall index

*Consumer price index (CPI)

**Index excluding public tariffs and products with volatile prices, corrected for tax measures.

Source: INSEE

The drop in the prices of health goods looks set to continue through to June 2019 (–2.0% year-on-year). The savings on medication set out in the Social Security Financing Bill for 2019 remain substantial and the envisaged limitations of patients' own contributions[3] for hearing aids and dental prostheses could help to maintain this downward trend.

Service prices are set to accelerate

By June 2019, the rise in the prices of services is likely to reach 1.5% year-on-year, against +1.0% in November 2018. Inflation in transport services is expected to increase to +1.8% June 2019, after +0.3% in November 2018. This acceleration relates primarily to the prices of air transport services. The prices of communication services should edge down in 2018 (–3.6% in November), due to numerous special-offer campaigns. Through to June 2019, they are expected to drop by 3.9% as the competitive pressures in this sector remain strong.

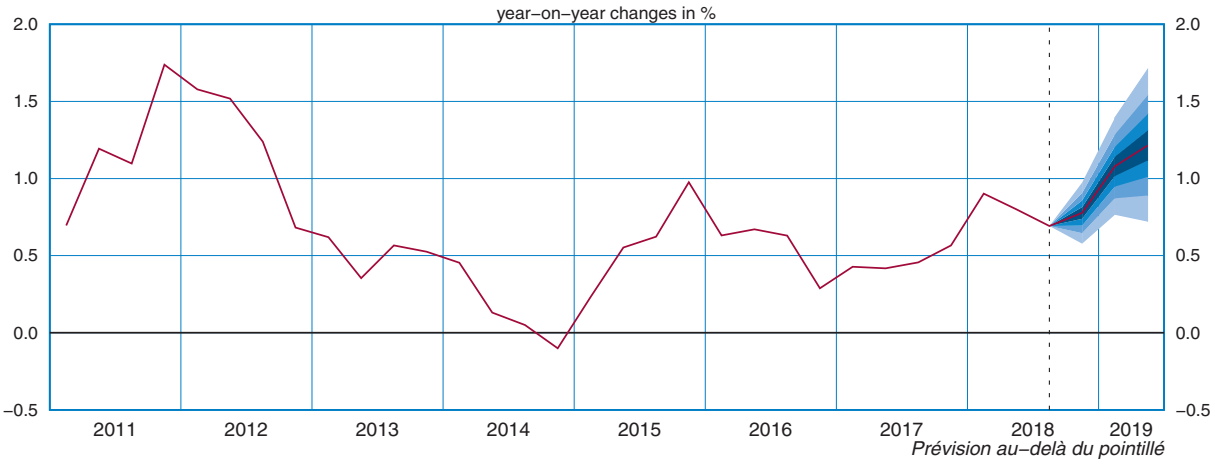
Inflation in health services is likely to remain stable (+0.3% year-on-year in June 2019, as in November 2018), due to increases in the prices of certain conservative dental treatments in April 2019. Lastly, rents look set to increase by 0.9% year-on-year by June 2019 (after –0.3% in November 2018) as the social housing rent reductions drop out of the calculation of the year-on-year figures.

Core inflation is expected to increase

Core inflation remained below 1% throughout 2018 (*Graph 2*), before picking up again in January 2018 (+0.9% against +0.5 % on average over 2017). Through to June 2019, it should rise to +1.2% year on year. The reflection of producer price rises in consumer prices, the acceleration of prices in services and the end of the effects of the past appreciation of the Euro are likely explanations for the increase in core inflation. ■

3. Capped prices will be initiated with regard to hearing aids in January 2019, to dentures in April 2019 and to optics in January 2020.

2 - The core inflation forecast for France and risks around the forecast



How to read it: the fan chart plots 80% of the likely scenarios around the baseline forecast. The first and darkest band covers the likeliest scenarios around the baseline, which have a combined probability of 20%. The second band, which is a shade lighter, comprises two sub-bands just above and just below the central band. It contains the next most likely scenarios, raising the total probability of the first two bands to 40%. We can repeat the process, moving from the centre outwards and from the darkest band to the lightest, up to a 80% probability.

Source: INSEE

Wages

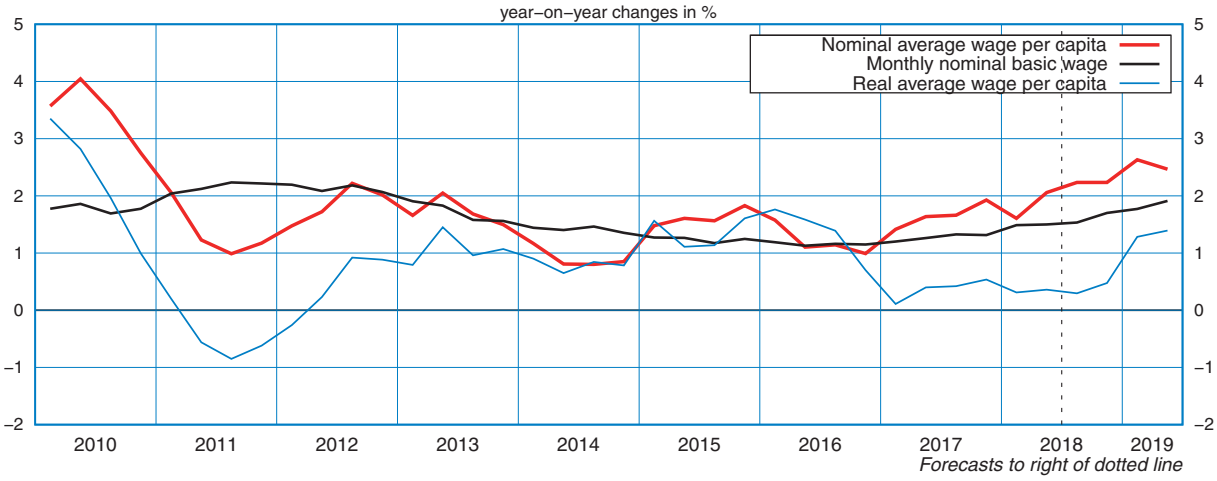
In 2018, nominal wages are expected to pick up slightly in the market sectors: +1.6% as an annual average after +1.3% in 2017 for the basic monthly wage and +2.0% after +1.7% for the average wage per capita. Prices are likely to accelerate faster, with the result that wages in real terms in 2018 should continue to increase at the same pace as in 2017: at +0.4% for the average wage per capita. In H1 2019, the exemption of overtime from tax and social contributions, combined with the payment of exceptional bonuses by certain enterprises, also similarly exempted, are expected to speed up the growth of the average wage per capita in market sectors. Due to the expected inflation downturn, the purchasing power of wages is likely to perk up a little: the annual mid-year growth overhang should reach +1.2% by mid-2019. In general government, growth in the nominal average wage per capita should remain buoyant in 2018 (+2.2% on an annual average basis, as in 2017), but this is due to the granting of an allowance to offset the rise in the general social security contribution in the context of the freezing of the index point and of the Professional Career Paths, Careers and Remunerations (PPCR) protocol. However, the average wage per capita is expected to slacken in real terms (+0.6% after +0.9%). In H1 2019, despite the resumption of the PPCR protocol, the average wage per capita is likely to slow down significantly: in this way, its annual mid-year growth overhang should reach +0.9% in 2019, corresponding to 0.0% in real terms.

In 2018, wages in the market sectors are expected to accelerate in nominal terms, but should slow in real terms

In 2018, the increase in the minimum wage was slightly higher than in the previous year (+1.2% after +0.9%). Unemployment is expected to fall back slightly and inflation is likely to be more vigorous. In the non-agricultural market sectors, the basic monthly wage[1] looks set to increase by 1.6% as an annual average, i.e. by slightly more than in 2017 (+1.3%, *Graph and Table*). The average wage per capita, which covers a broader range of remunerations (bonuses, profit-sharing and overtime) should also pick up (+2.0% on average in 2018 after +1.7% in 2017). In H2 2018, the increase in the average minimum wage per capita is expected to equal the rise in H1 (+1.1% half-year on half-year). Net wages look set to be more dynamic in 2018, with the increase in the general social security contribution being more than offset by two consecutive drops in social contributions for private-sector employees. After an initial reduction in January, the contributions fell again on 1st October 2018.

On an annual average basis, prices[2] are expected to gather pace in 2018, at almost the same rate as nominal wages (+1.7% after +1.3% in 2017), to the extent that in real terms, the basic monthly wage

Change in the nominal and real average wage per capita and basic wage



Scope: non-agricultural market sector
Sources: INSEE, Dares, Acoss

is expected to be almost stable and the average wage per capita should continue to grow at the same rate (0.4%). However, prices look set to slacken during the course of the year: +0.7% in H2 2018, against +1.1% in H1. As a consequence, the real average minimum wage per capita is likely to bounce back during the second half of the year (+0.4% after +0.1%).

Both nominal and real wages are expected to gather pace at the beginning of 2019

Taking account of annual inflation measured in November 2018, the increase in the minimum wage on 1st January 2019 is expected to be +1.5%: higher than the increases in the two previous years. In early 2019, this acceleration is likely to combine with the measures announced on 10 December and with recruitment difficulties to buoy up wages despite the expected slowdown in prices. Nominal wages should then increase at a similar rate to that at the end of 2018: in H1 2019, the basic monthly wage is expected to grow at a similar rate to that at the end of 2018, rising by 1.0% half-year on half-year (after +0.9% in H2 2018). The measures announced on 10 December (exemption of overtime - and of the payment of an exceptional bonus by certain enterprises - from tax and social contributions), should make the average wage per capita more dynamic. In this way, in the market sectors, the average wage per capita should accelerate to +1.3% half-year on half-year. The inflation downturn looks set to enable another rise in the purchasing power of the basic monthly wage at the beginning of 2019: the annual mid-year growth overhang should reach +0.7% in 2019, after –0.1% throughout 2018 as a whole. In the same way, the annual mid-year growth overhang for the average wage per capita in real terms is expected to be +1.2% in 2019 against +0.4% throughout 2018.

In the civil service, gross nominal wages should continue to rise strongly in 2018 before weakening in 2019

In 2018, the terms of compensation for the rise in the general social security contribution in general government have been different from those in the private sector and come partly in the form of an allowance, which increases the gross wage in order to maintain a constant net wage. This allowance has bolstered growth in the average wage per capita despite the freezing of the index point and of the PPCR protocol in 2018. Consequently, on an annual average basis, the nominal average wage per capita in general government in 2018 is likely to be almost as buoyant as in 2017: +2.2%. Taking account of the expected rise in prices, the real average wage per capita looks set to slow down in 2018: +0.6% after +0.9 % in 2017. Real net wages are likely to slow more sharply in 2018.

In 2019, the nominal average wage per capita should slow down significantly. Although the terms of the PPCR should be implemented again after being frozen in 2018, the value of the index point is expected to remain the same. All in all, the annual mid-year growth overhang is likely to be +0.9% in 2019, against +2.2% on average in 2018; it should remain virtually stable in real terms (+0.0%) after rising by 0.6% throughout the previous year as a whole. ■

Variation in the basic monthly wage and the average wage per capita in the non-farm market branches and in general government

in %

	Quarterly growth rates						Half-yearly rates			Annual averages		
	2018				2019		2018 H1	2018 H2	2019 H1	2017	2018	2019
	Q1	Q2	Q3	Q4	Q1	Q2						
Basic monthly wage	0.4	0.4	0.4	0.5	0.5	0.5	0.8	0.9	1.0	1.3	1.6	1.5
Average wage per capita in the non-farm market branches	0.5	0.7	0.5	0.6	0.8	0.5	1.1	1.1	1.3	1.7	2.0	2.1
Average wage per capita in general government (GG)										2.2	2.2	0.9
Household consumer price index (quarterly national accounts)	0.6	0.5	0.4	0.3	0.2	0.2	1.1	0.7	0.4	1.3	1.7	0.9
Real basic monthly wage	–0.2	–0.1	0	0.2	0.3	0.3	–0.3	0.2	0.6	0	–0.1	0.7
Real average wage per capita (non-farm market branches)	–0.2	0.2	0.1	0.3	0.6	0.3	0.1	0.4	1.0	0.4	0.4	1.2
Real average wage per capita (GG)										0.9	0.6	0.0

Forecast

Sources: INSEE, DARES

1. For a definition of the terms "basic monthly wage" and "average wage per capita", see definitions on the site www.insee.fr; both measure gross wages.
2. Inflation here is measured by the variation in household consumer prince in the quarterly national accounts.

Household income

In 2018, household income is expected to pick up slightly: +3.1% after +2.7% in 2017, buoyed up by vigorous earned income and a sharp acceleration in property income. In this way, the purchasing power of household income should maintain its annual growth rate (+1.4%, as in 2017), despite the acceleration of consumer prices (+1.7% after +1.3%). After gathering pace in the autumn of 2018 following the reduction of employee contributions and the housing tax, in Q1 2019 household purchasing power is expected to benefit from the support measures announced in December 2018 (+0.5%) before slowing down as a backlash (+0.2%). The momentum built up at the end of 2018, combined with the new measures, are likely to lead to the annual carry-over effect of the purchasing power of GDI reaching +2.0% by mid-2019.

Earned income should remain buoyant in 2018 and in H1 2019

In 2018, households' earned income looks set to continue to grow at a sustained pace (+2.7% after +2.8%; *Table 1*), in line with the rate of change for gross wages (+3.0% after +3.1%). In the non-agricultural market sectors, gross wages are expected to remain buoyant (+3.5%, as in 2017), thanks to the acceleration of the average wage per capita (+2.0% in 2018 after +1.7% in 2017; *Graph*) which should offset the slowdown in payroll employment (+1.5% after +1.8%). Meanwhile, the operating income of sole proprietors is likely to slow slightly (+0.1% after +0.3%). At the beginning of 2019, the gross wages received by households are expected to gather pace (+0.8% in Q1, *Table 2*). The gross operating surplus of pure households[1] is likely to slow in 2018 (+1.8% after

1. In the national accounts, the gross operating surplus of pure households takes account, among other things, of housing services: the added value is the difference between the rent (actually paid by tenants or imputed for home owners) and the intermediate consumption of the owners, notably banking margins on real-estate loans.

Table 1

Household gross disposable income

	Quarterly changes in %										Annual changes in %		
	2017				2018				2019				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	2017	2018	2019 ovhg
Gross disposable income (100%)	**0.9**	**0.7**	**0.6**	**0.8**	**0.2**	**1.3**	**0.8**	**1.6**	**0.7**	**0.4**	**2.7**	**3.1**	**2.9**
including:													
Earned income (71%)	1.0	0.7	0.6	0.8	0.8	0.6	0.4	0.5	0.7	0.5	2.8	2.7	1.9
Gross wages and salaries (63%)	1.1	0.7	0.7	0.9	0.9	0.7	0.5	0.6	0.8	0.6	3.1	3.0	2.1
GOS of sole proprietors[1] (8%)	0.2	0.2	0.5	0.3	–0.1	–0.3	–0.1	0.1	0.1	0.1	0.3	0.1	0.2
Social benefits in cash (35%)	0.5	0.4	0.6	0.6	0.5	0.5	0.5	0.7	*	*	1.9	2.2	*
GOS of "pure" households (13%)	1.3	1.0	0.8	0.6	0.3	0.2	0.2	0.3	0.4	0.4	3.7	1.8	1.2
Property income (8%)	1.5	2.4	2.4	2.5	2.6	2.3	4.0	2.2	1.7	0.5	4.9	10.9	6.4
Social contributions and taxes (–27%)	0.7	0.6	1.3	0.8	2.6	–1.6	–0.2	–2.8	*	*	2.7	2.0	*
Contributions of households (–11%)	1.1	0.7	0.9	0.6	–7.5	–1.0	0.8	–4.6	*	*	3.2	–7.8	*
Income and wealth tax (including CSG and CRDS) (–16%)	0.5	0.6	1.7	0.9	9.7	–2.0	–0.7	–1.7	*	*	2.3	8.9	*
Household consumer prices (quarterly national accounts)	**0.7**	**0.1**	**0.1**	**0.5**	**0.6**	**0.5**	**0.4**	**0.3**	**0.2**	**0.2**	**1.3**	**1.7**	**0.9**
Purchasing power of gross disposable income	**0.2**	**0.7**	**0.4**	**0.4**	**–0.4**	**0.8**	**0.4**	**1.3**	**0.5**	**0.2**	**1.4**	**1.4**	**2.0**
Household purchasing power by consumption	**0.1**	**0.6**	**0.3**	**0.3**	**–0.5**	**0.7**	**0.3**	**1.2**	**0.4**	**0.1**	**1.0**	**1.0**	**1.6**

Forecast

How to read it: the figures in parentheses give the structure of the year 2017.

1. The gross operating surplus (GOS) of sole proprietors is the balance of the operating accounts of sole proprietorships. It is mixed income, because it remunerates the work performed by the sole proprietor, and possibly the members of his family, but also contains the profit achieved as an enterpreneur.
Source: INSEE

+3.7%). Property income should accelerate strongly (+10.9% in 2018 after +4.9%): the introduction of the PFU (single flat-rate tax), in addition to the profits generated by the positive results of 2017 would appear to have encouraged enterprises to significantly increase the dividends they distribute.

In early 2019, property income is likely to slow (+1.7% in Q1 followed by +6.5% in Q2).

Purchasing power support measures were announced on 10 December 2018

Different purchasing power support measures were announced on 10 December 2018 and should be introduced in early 2019: cancellation – for a certain income bracket – of the increase in the general social security contribution for pensioners that was introduced in 2018; exemption of overtime – and of the payment of an exceptional bonus by certain enterprises – from tax and social security contributions; increase of €100 per month in the income received by minimum-wage-earning employees.

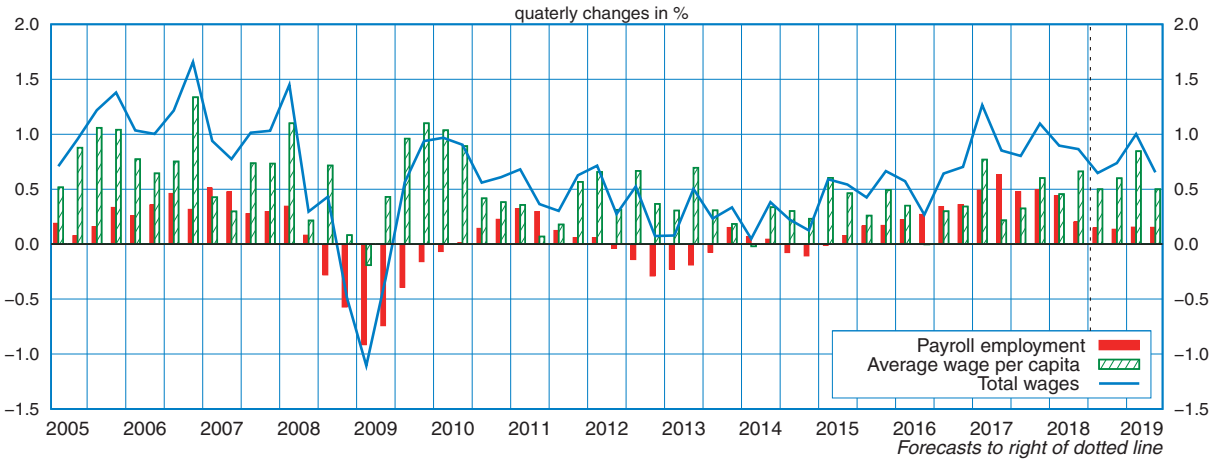
There were still uncertainties over the exact terms for the implementation of these measures at the time this *Conjoncture in France* was finalised (13 December 2018). Nonetheless, they have been incorporated into the forecasting scenario (apart from the measure concerning the income of minimum-wage-earning employees, pending information about the form of the announced increase), and an initial estimate points towards an overall impact of +0.5 GDI points in Q1.

This estimate should be treated with caution because the impact of the measures will ultimately depend on their implementation procedures and calendar, as well as the behaviour of the enterprises that are required to pay their employees an exceptional bonus.

Social benefits look set to pick up slightly in 2018

In 2018, social benefits in cash received by households should pick up a little (+2.2% after +1.9%), buoyed up by rises in social security benefits (+2.3% after +1.8% in 2017; *Table 3*). In particular, retirement pensions should return to a level of growth close to their trend level due to the

Breakdown of the total gross wages received by households in the non-agricultural market sector



Source: INSEE

Table 2

From the payroll of non-financial enterprises to that received by households

	Quarterly changes in %										Annual changes in %		
	2017				2018				2019		2017	2018	2019
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			ovhg
Non-financial enterprises (67%)	1.3	0.9	0.8	1.1	0.9	0.9	0.6	0.7	1.0	0.6	3.6	3.6	2.3
Financial corporations (4%)	–0.2	0.4	0.4	0.5	0.8	0.5	0.4	0.8	1.0	0.7	1.5	2.3	2.5
General government (22%)	0.9	0.6	0.4	0.4	0.9	0.3	0.1	0.1	0.4	0.3	2.5	1.9	0.8
Households excluding sole proprietors (2%)	0.2	–0.5	–0.4	–0.3	1.3	0.2	–0.2	0.2	0.2	0.1	–1.2	0.8	0.3
Total gross wages received by households (100%)	**1.1**	**0.7**	**0.7**	**0.9**	**0.9**	**0.7**	**0.5**	**0.6**	**0.8**	**0.6**	**3.1**	**3.0**	**2.1**
including: Non-agricultural market sectors	1.3	0.9	0.8	1.1	0.9	0.9	0.6	0.7	1.0	0.7	3.5	3.5	2.6

Forecast

How to read it: the figures in parentheses give the structure of the year 2017.
Source: INSEE

end of the shift in the legal retirement age. Indeed, 2018 is expected to be the first year since 2011 in which those retiring represent an entire generation. In the same way, "other social assistance benefits" are expected to accelerate sharply in 2018 (+2.3% after +1.7%). On the other hand, social assistance benefits are expected to slow in 2018 (+1.8% after +3.3%). After relatively flat growth at the beginning of 2018, due to the reduction in the tax relief on earned income in the calculation of the activity premium, the exceptional increase in this premium which occurred in Q4 2018 is set to sustain the growth of social assistance benefits at the end of the year.

At the beginning of 2019, the change in social benefits in cash will partly depend on the terms for the implementation of the purchasing power support measures announced in December (for example, if the €100 increase in the income of minimum-wage-earning employees were to be in the form of an activity premium, social benefits in cash would gather pace). In addition, retirement pensions, family allowances, invalidity pensions and allowances for occupational accidents and diseases are expected to be increased by 0.3% at the beginning of 2019.

Taxes and social contributions should slow down in 2018 and 2019

Across 2018 as a whole, taxes and social contributions borne by households are expected to slow down (+2.0% after +2.7%). Social contributions borne by households are set to fall sharply (–7.8% after +3.2%), whilst taxes on income and wealth are expected to accelerate (+8.9% after +2.3%). Indeed, on 1st January 2018, the general social security contribution rate (CSG) was increased by 1.7 points while the contribution rate was reduced by 2.2 points for private-sector employees, and by 2.15 points for the self-employed. The contribution rate dropped again (–0.95 points) in October 2018 with the elimination of the remaining unemployment insurance contributions for employees. Certain households have benefited from tax cuts with the introduction of the single flat-rate tax (PFU) and the transformation of the wealth tax (ISF) into a property tax. In Q3, the generalisation of the tax credit for the employment of domestic workers reduced the taxes paid by households whilst the effects of the reduction in housing tax will be mainly felt in Q4 2018.

After the reductions implemented at the end of 2018, income and wealth taxes are likely to pick up in Q1 2019 (+1.4% after –1.7%), before slowing Q2 (+0.8%). This rise could be largely due to a backlash effect after the housing tax reduction and the extension of the tax credit for Private Individuals' Employees: two measures primarily accounted for in Q4 2018 (*Focus: The treatment of housing tax reductions in the quarterly national accounts*). However, the purchasing power support measures are likely to exert downward pressure (tax exemption for overtime and an exceptional end-of-year bonus). Lastly, the impact of changes to the calendar for collecting income tax (tax at source) could be neutralised, from an accounting standpoint, by seasonal adjustments, including the liquidity effects linked to the tax credit payment calendar (*Focus: The accounting treatment of tax at source*). Contributions paid by households are expected to decline in Q1 as a result of the new measures (–0.5%). All in all, the annual carry-over effect of taxes and social contributions is likely to stand at –1.4% by mid-2019.

The annual carry-over effect of purchasing power should be +2.0% by mid-2019.

In 2018, nominal household gross disposable income (GDI) looks set to gather pace (+3.1% after +2.7%), buoyed up by the momentum of earned income. At the same time, consumer prices are also likely to accelerate on average over the year (+1.7% after +1.3%), with the result that the purchasing power of GDI in 2018 is likely to grow at the same rate as in 2017 (+1.4%). When adjusted to the individual level in order to take demographic changes into account, purchasing power per consumption unit is set to increase by +1.0% in 2018, as in 2017. In 2019, taking account of the expected drop in inflation and incorporating an initial estimate of the effect of the support measures announced on 10 December, the purchasing power of GDI is expected to rise by +0.5% in Q1, and then to slow down as an after-effect in Q2 (+0.2%). The momentum built up at the end of 2018, combined with the effects of these measures, should see the annual carry-over effect of the purchasing power of GDI reaching +2.0% by mid-2019, which would outstrip the growth of purchasing power forecast for the whole of 2018. ■

Taking into account the deduction at source of income tax in *Conjoncture in France*

In January 2019 the way income tax is collected in France will be transformed, with the introduction of a system of deduction at source. This reform will have an impact on the aggregates for households in the Conjoncture in France reports. This Focus article explains the accounting techniques used to handle this new reform, focusing solely on those aspects affecting analysis of the short-term economic outlook.

Deduction at source will change the dates of tax collection, but not of tax calculation.

Until 2019, household income tax was levied monthly (in ten instalments) or by quarterly instalments (three payments), with the outstanding balance settled at the end of each year. Moreover, the tax owed for year N was based on the income declared for year N-1, charged at a rate calculated following the tax declaration submitted in the spring of year N. From 2019 onwards, income tax will be collected monthly (over twelve months) for the majority of taxable households and the majority of regular income. For fixed income, tax will be levied at the rate determined by the previous year's declaration while the actual sum deducted will depend on contemporary income. Finally, certain tax credits will be paid in a first instalment of 60% in January 2019, with the outstanding balance settled in July.

The effect of these new collection dates on the total value of income tax will be neutralised by the methods used to adjust for seasonal variation.

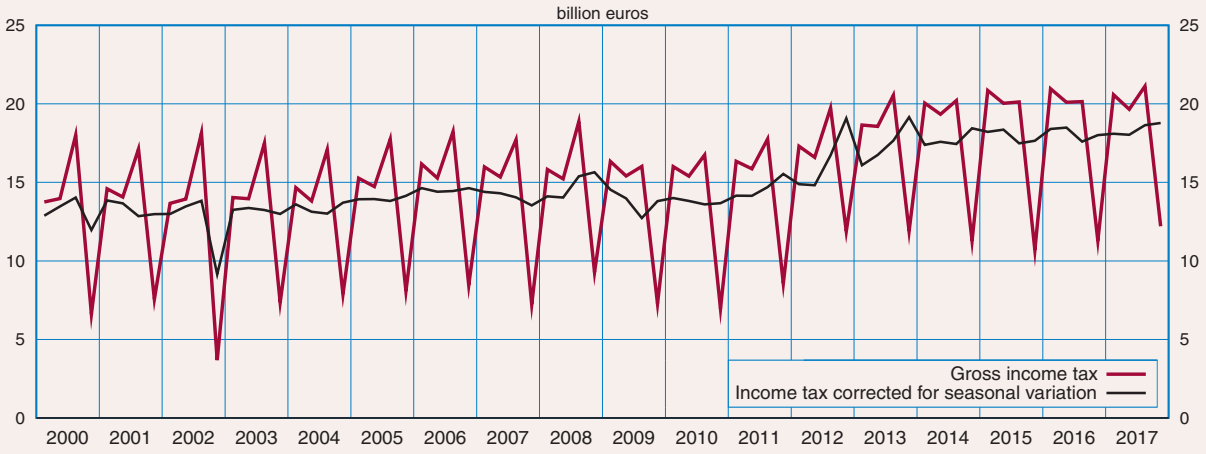
The majority of the economic aggregates analysed in the Conjoncture in France reports present pronounced seasonal variation. For example, household consumption is greater in the festive period at the end of the year, while energy production and consumption are greater in winter than in summer. But these periodic variations are in no way indicative of a weaker or stronger economic outlook. For this reason, the series in question are corrected for seasonal variation[1] to make them analytically pertinent.

Income tax is subject to seasonality induced by the tax collection calendar (*Graph*). Correcting for seasonal fluctuations cancels out the effect of these dates on the series as a whole. Finally, our analysis of the short-term outlook for income tax is limited to measuring variations in the sums collected which can be attributed to non-seasonal phenomena (or, to put it differently, factors already corrected for seasonal variation): fluctuations in payroll employment, changes to the tax brackets, etc.

The introduction of deduction at source, for those forms of income affected, will permanently alter the tax collection calendar. As a result, the outlook analysis would become incomprehensible if the seasonal correction measures previously applied were maintained; these are constructed on the basis of past data. To avoid any incoherency between the new collection calendar and the seasonal correction, the quarterly seasonal fluctuations in income tax will be neutralised in the accounting forecasts of *Conjoncture in France* from 2019 onwards, with fluctuations smoothed from one quarter to the next based on an annual target for variation in the total value of tax (see below). Similarly, the payment of tax credits, including the 60% instalment, will be spread across the whole year (as was the case previously). Finally, our analysis of these series, for those forms of income affected by deduction at source, will continue to function as it has done in previous issues of Conjoncture in France, i.e. without taking account of collection dates or tax credit payment dates.

1. For a description of the methods employed, see *Insee Méthodes* n°126.

Income tax: raw monthly figures and figures corrected for seasonal variation



Source: comptes nationaux trimestriels, INSEE

The total annual income tax paid by households should increase slightly

Above and beyond variations of a seasonal nature, the tax base for sums levied at source will now be contemporary. As such, the tax levied in 2019 will be deducted from income for the current year, not income for 2018. In theory, the total size of the payroll on which income tax is levied should be larger in 2019 than in 2018, as a result of the increase in employment and average wages. The budget bill for 2019 predicts a nominal increase of 4.0% for income tax in 2019, a figure which could be at least partly attributed to the change in collection system. As a result, the Conjoncture in France forecast for the total value of household income tax is for a nominal increase of 4.0% in 2019. This increase will be spread across the year, in line with the usual procedure.

The introduction of deduction at source could have unpredictable effects on consumption

Aside from the accounting changes required by this measure, the new monthly schedule for income tax collection, as well as the tax credit instalment, could nonetheless have a positive effect on household cash flow at the start of the year. In this case, household consumption might be more dynamic in the short term. On the other hand, this unprecedented and substantial transformation could provoke a wait-and-see attitude among households, prompting them to make precautionary savings. All in all, the effects of deduction at source on consumption are beset by a degree of uncertainty which cannot be counteracted by reference to similar precedents. ■

Bibliography

INSEE (2012) "Methodology of quarterly national accounts", Insee Méthodes n°126 - May ■

Treatment of the reduction of local residence taxin the quarterly national accounts

Local residence tax was reduced in Q4 2018 for around 80% of households

The Finance Law for 2018 included a 30% reduction in local residence tax for around 80% of French households (eligibility is determined with reference to taxable income, taking family size into account). This reduction, also known as an abatement, is scheduled to continue over the coming years, leading to the total disappearance of the local residence tax.

The total due for local residence tax is set for each fiscal household on an annual basis. Variations in this total nonetheless need to be taken into account in the quarterly national accounts, which aim to provide a macro-economic description of the recent past, providing a snapshot not yet available from the annual accounts. The Conjoncture in France reports exist within the same conceptual framework as the quarterly accounts, attempting to predict the principal aggregates for the next quarters.

Seasonal adjustment of the tax series requires specific processes

Most of the economic aggregates featured in the quarterly accounts are sensitive to the effects of periodic phenomena of a seasonal nature. In order to calculate the quarterly progression of these aggregates without such fluctuations, they are corrected for seasonal variation. The series for household income and taxes and social contributions are no exception to this rule, and are thus corrected for seasonal variation. Taxes, and income tax in particular, nonetheless receive special treatment when it comes to seasonal adjustment.

As explained in *Insee Méthodes* No.126 (2012), these series "present a unique statistical challenge because their trends change every year, in response to changes in the tax rate and the tax base. But the seasonal adjustment mechanism cannot anticipate these changes, particularly those due to changes in tax rates. To avoid the need for dramatic revisions, seasonal adjustment is performed by forecasting the overall annual variation and the quarterly variations in each tax at the start of each year. Thereafter, the predicted quarterly values are revised after each quarter, taking into account the actual values recorded instead of the estimate, and adjusting the annual forecast accordingly."

New measures (such as tax cuts) are also subject to specific seasonal adjustment measures: they are "taken into account in the quarter in which they take effect for households. When reforms become permanent, or at least when economic agents can plan ahead for them with some certainty, their values are integrated into the seasonal variation for the series."

For the year in which it is introduced, a permanent tax reduction will be entered into the accounts in the season in which it takes effect; for the ensuing years, it will be directly integrated into the seasonal profile of the corresponding series, i.e. smoothed over all four quarters.

Usually, in the absence of measurements, seasonal adjustment requires the total amount of local residence tax paid by households to be spread evenly over the four quarters of the year, for the purposes of the quarterly accounts. In 2018, the actual payments levied for this tax were reduced in Q4 and this reduction should thus also be recorded in Q4 in the seasonally-adjusted national accounts.

A tax cut such as the reduction in local residence tax should, in the first year of implementation, be entered into the accounts in the quarter in which it takes effect (in this case Q4 2018), corresponding to the moment the change becomes effective[1]. Since the reduction introduced in 2018 is permanent, in subsequent years it should be incorporated into the seasonally-adjusted series, i.e. spread evenly over the four quarters of 2019.

To put it another way, for the year 2019 the annual total of local residence tax (less the permanent reduction of 30% introduced in 2018, but before the application of the further reductions scheduled to take effect thereafter) should be spread across the four quarters of the year. As such, in the seasonally-adjusted national accounts the total sum that households are held to have paid in local residence tax should increase between Q4 2018 (where the 30% reduction introduced in 2018 is taken into account) and Q1 2019 (which will only take this reduction into account as a smoothed average over four quarters, i.e. only a quarter of the total). The total paid in Q1 2019 should nonetheless be smaller than the sum paid in Q1 2018.

Given that local residence tax is calculated annually, interpreting year-on-year variations is probably easier than attempting to keep track of quarterly fluctuations.

The abolition of local residence tax for eligible households is scheduled to come into force progressively over several years. As such, a similar phenomenon should be observed in late 2019 and early 2020, when the second phase of the local residence tax abatement will be implemented. In Q4 2019, there should be a clear decrease in the sums paid by households, followed by a less substantial rebound in Q1 2020, corresponding to the smoothing of this new reduction over the four quarters of 2020.

1.That is to say at the time when the debt obligation arises, more precisely at the time when the amounts due are represented by a document; indeed, the notice of taxes due simply forces the taxpayer to pay for the tax.

Given that local residence tax is calculated annually, these infra-annual movements do not necessarily have a direct impact on household consumption behaviour. In general, households smooth their consumption based on their anticipated income status, including any reduction in local residence tax. Hence an annual interpretation remains more pertinent than tracking the quarterly fluctuations. ■

Bibliography

INSEE (2012) "Methodology of the quarterly national accounts" Insee Méthodes No. 126 - May ■

Household consumption and investment

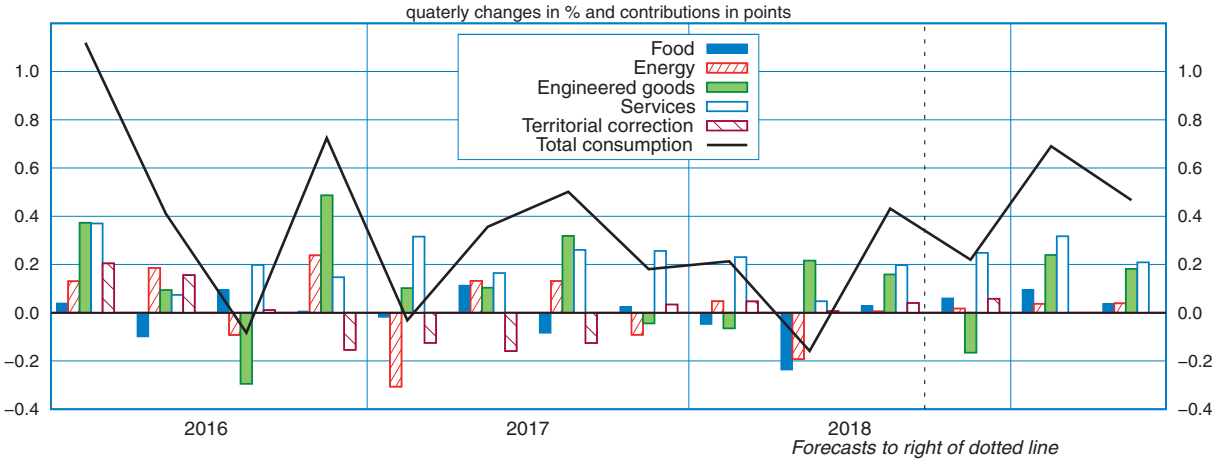
In Q3 2018, household consumption expenditure bounced back (+0.4% after –0.2%), especially spending on energy and food. The consumption of services accelerated (+0.4% after +0.1%), driven – after the strikes in the spring – by the rebound in consumption of transport services. In Q4 2018, consumption is likely to slow (+0.3% after +0.4%), largely due to the downturn in expenditure on goods (–0.2% after +0.4%). Energy consumption is expected to be up but spending on goods produced by the automotive industry is likely fall back sharply. The consumption of services is expected to rise (+0.5% after +0.4%). In H1 2019, household consumption should bounce back (+0.7% in Q1) and then remain solid in the spring (+0.5%). On average over the year, household consumption is set to increase in 2018 at almost exactly the same rate as in 2017 (+0.9% after +1.1%). Meanwhile, purchasing power looks likely to grow by +1.4%, as in 2017, despite a slight pick-up in prices. The savings ratio should be slightly higher than that measured last year (14.7% against 14.2% in 2017). Household investment, after exceptional growth in 2017 (+5.6% after +2.8%), should slow down significantly in 2018 with a drop in the rate of new-build housing sales. On average over the year, it is set to rise by 1.5% in 2018. It is expected to decline in H1 2019. The annual carry-over effect for household investment should stand at –1.0% by mid-2019.

Consumption bounced back in Q3 2018

In Q3 2018, total household consumption bounced back significantly (+0.4% after –0.2% in Q2; *Graph 1*). Indeed, consumption of goods picked up (+0.4% after –0.4%), while consumption of services accelerated slightly (+0.4% after +0.1%). In particular, consumer durables were very buoyant for the second consecutive quarter (+1.6% after +1.6%), driven by the acceleration in the consumption of furnishings (+1.4% after +0,6 %) and a rebound in the consumption of other consumer durables (+0.8% after –0.5%). The consumption of goods produced by the automotive industry increased in momentum (+1.8% after +2.6%), buoyed by the exceptional level of new car sales in August, in anticipation of the introduction of stricter approval tests for new cars in Europe on 1st September. Textile consumption slipped back (–0.6% after +0.8%) and the consumption of other manufactured goods held steady (+0.2%, as in the previous quarter). Food consumption stopped declining (+0.2% after –1.3%), while gas and electricity consumption picked up (+1.4% after –3.9%). However, fuel consumption edged down again (–1.5% after –0.2%).

Consumption of services accelerated (+0.4% after +0.1%), driven by the rebound in transport services after the strikes in the spring (+3.4% after –2.9%) and despite the slight downturn in the consumption of accommodation and food services (–0.3% after +0.3%).

1 - Contributions of the various items to quaterly household consumption



Source: INSEE

Consumption should slow slightly Q4 2018, despite the acceleration of purchasing power

In Q4 2018, total household consumption is expected to increase by 0.2% (*Table*), slowed by the drop in the consumption of cars in particular, in reaction to the previous quarter. In this way, households are likely to smooth the effects of the acceleration in their purchasing power forecast for this quarter (+1.3% after +0.4%) on their consumption. This forecast is consistent with the findings of the Household Economic Outlook Survey in November 2018, which does not point towards an acceleration of consumption in the short term (*Focus*).

After a significant rebound in Q3 (+0.4%), the consumption of goods looks set to drop (–0.2%). Energy expenditure should increase (+0.2% after +0.1%), despite a downturn in gas and electricity consumption (–1.3% after +1.4%). Indeed, spending on fuel is expected to bounce back strongly (+2.1% after –1.5%). Purchases of consumer durables should also slip back (–1.1% after +1.6%), due to the drop in the production of goods produced by the automotive industry (–2.9% after +1.8%) and the slowdown in the consumption of other consumer durables. The consumption of household durables is likely to remain very vigorous (+1.4% after +1.4%). However, expenditure on clothing looks set to drop again in Q4 (–0.6% after –0.6%). Food consumption is expected to accelerate slightly (+0.3% after +0.2%). All in all, consumption of manufactured goods is expected to edge down in Q4 (–0.1% after +0.5%).

The consumption of services should rise again (+0.5% after +0.4%), driven by the rebound in accommodation and food services (+0.6% after –0.3%) and despite the substantial slowdown in transport services (+0.2% after +3.4%). However, the consumption of services should suffer from the social unrest associated with the "yellow vests" movement (*Focus*).

Consumption is set to rebound in Q1 2019

Household consumption is expected to bounce back in Q1 2019 (+0.7%) in reaction to and as a result of the purchasing power support measures, even though households are partially smoothing the effects of the quarterly variations in their income. It is likely to remain solid in Q2 (+0.5%).

Household consumption and investment expenditure

at chain-link previous year prices, SA-WDA

	Quarterly changes in %										Annual changes in %			
	2017				2018				2019		2016	2017	2018	2019
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2				ovhg
Total household consumption expenditures (1)+(2)+(3)	0	0.4	0.5	0.2	0.2	–0.2	0.4	0.2	0.7	0.5	2.0	1.1	0.8	1.4
Services (1)	0.6	0.3	0.5	0.5	0.4	0.1	0.4	0.5	0.5	0.5	1.5	1.6	1.5	1.4
Goods (2)	–0.5	0.7	0.8	–0.2	–0.1	–0.4	0.4	–0.2	0.8	0.6	1.6	1.3	0.1	1.2
including:														
Food	**–0.1**	**0.6**	**–0.5**	**0.1**	**–0.3**	**–1.3**	**0.2**	0.3	0.6	0.2	**0.5**	**0.3**	–1.1	0.8
Agriculture goods (AZ)	–2.3	3.0	–0.9	–1.3	–0.3	–1.3	–2.1	0.6	1.1	0.4	1.0	–1.2	–2.9	0.4
Agri-food products (C1)	0.3	0.2	–0.4	0.4	–0.3	–1.3	0.6	0.3	0.5	0.2	0.4	0.6	–0.7	0.8
Energy	**–3.7**	**1.7**	**1.6**	**–1.1**	**0.6**	**–2.3**	**0.1**	0.2	0.5	0.6	**2.1**	**0.1**	–0.7	0.5
Energy, water and waste (DE)	–5.9	2.3	1.5	0.5	0.2	–3.9	1.4	–1.3	1.5	0.6	2.4	–0.6	–0.8	0.7
Coke and refined petroleum (C2)	**–0.7**	**0.9**	**1.8**	**–3.2**	**1.2**	**–0.2**	**–1.5**	2.1	–0.7	0.5	**1.8**	**1.2**	–0.6	0.4
Engineered goods (C3 to C5)	**0.5**	**0.5**	**1.5**	**–0.2**	**–0.3**	**1.0**	**0.7**	–0.8	1.1	0.8	**2.4**	**2.6**	1.3	1.7
Manufactured goods (C1 to C5)	**0.3**	**0.4**	**0.8**	**–0.2**	**–0.2**	**0.0**	**0.5**	–0.1	0.7	0.6	**1.6**	**1.8**	0.4	1.3
Territorial correction (3) = (4)–(5)	**10.9**	**12.5**	**8.8**	**–2.2**	**–3.2**	**–0.4**	**–2.8**	–4.2	–4.1	4.8	**–25.2**	**34.4**	–0.8	–5.3
Imports of touristic services (4)	–1.1	–0.1	0.7	3.1	2.4	1.2	1.2	0.2	0.2	0.2	3.3	–0.8	6.7	1.4
Exports of touristic services (5)	2.2	3.6	3.3	1.3	0.6	0.7	0.0	–1.1	–1.0	1.5	–5.9	8.2	4.3	–0.6
Investment expenditure	**1.9**	**1.4**	**1.0**	**0.8**	**0.2**	**0.1**	**–0.1**	–0.5	–0.4	–0.3	**2.8**	**5.6**	1.5	–1.0

Forecast

Source: INSEE

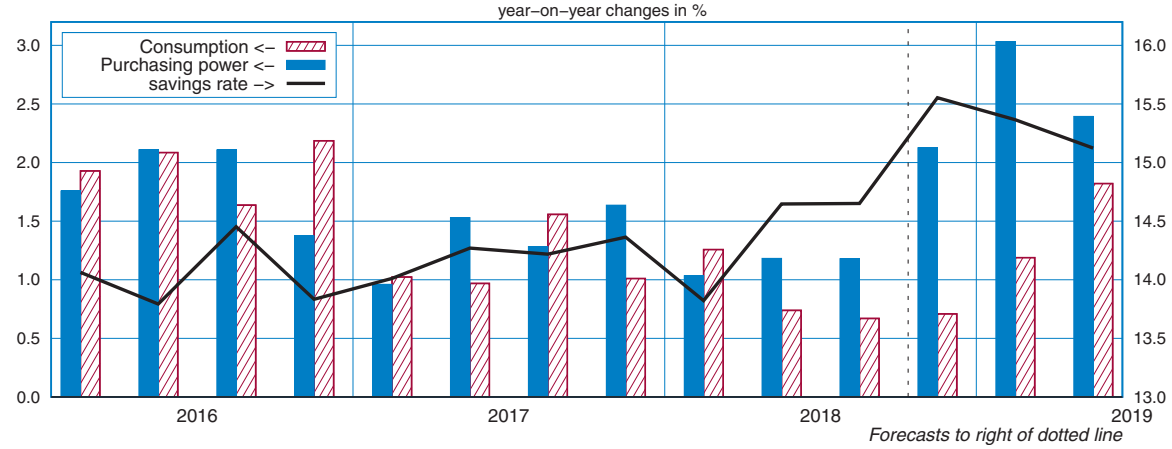
The savings ratio is expected to increase in Q4 2018, before falling in H1 2019

At the end of 2018, the household savings ratio should increase from 14.7% in Q3 to 15.6% in Q4 (*Graph 2*), due to the acceleration of purchasing power and a much more moderate rise in consumption. Over 2018 as a whole, the savings ratio should be slightly higher than in 2017 (14.7% against 14.2% in 2017). Conversely, it is likely to drop in H1 2019, from 15.4% to 15.1% by mid-2019), with the weakening of purchasing power. Nevertheless, the uncertainty over these forecasts has been heightened by the introduction of the collection of income tax at source at the beginning of 2019. The liquidity effects of this scheme will be structurally neutralised by seasonal adjustments, but they could still drive consumer behaviour either upwards (with the part payment of 60% of tax credits in January) or downwards (based on the assumption of households adopting a wait-and-see attitude in response to this change).

Household investment is expected to slow in 2018 and decline in 2019

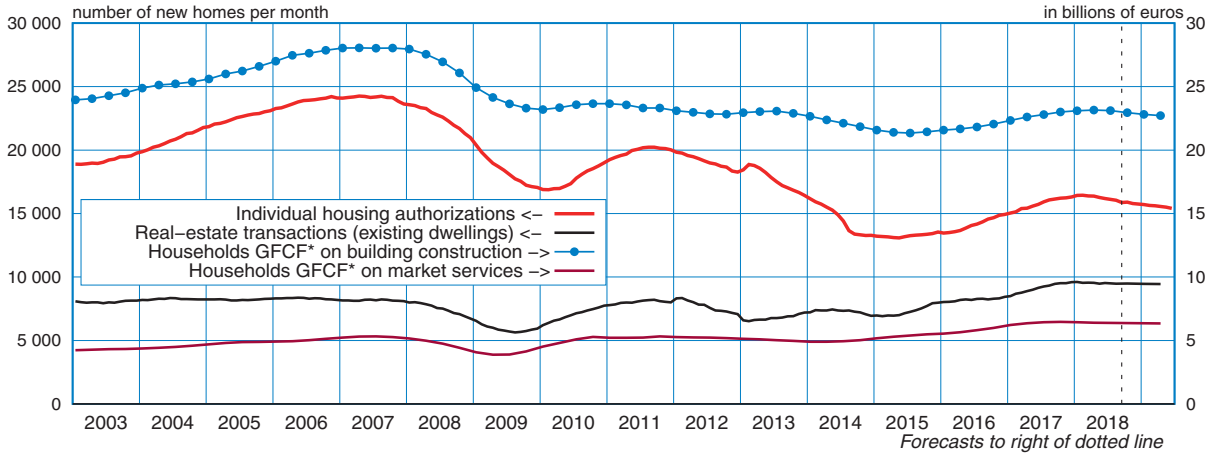
In Q3 2018, household investment slipped back for the first time since Q3 2015 (–0.1% after 0.1%). It is likely to edge down again in Q4 (–0.5%). Indeed, the nosedive in new house sales at the end of 2017 led to a drop in the number of building permits for one-family dwellings, which is likely to be reflected by a decline in the production of one-family dwellings at the end of the year. In addition, after hitting record levels in 2017, the number of property transactions should not increase any further in 2018 and 2019. On an annual average basis, household investment is expected to slow down significantly in 2018 (+1.5% after +5.6%) and decline in H1 2019: the annual carry-over effect for household investment should stand at –1.0% by mid-2019. ■

2 - Savings ratio and variations in consumption and in purchasing power of gross disposable income



Source: INSEE

3 - Household investment on construction and housing starts



*GFCF: gross fixed capital formation
**EAD+: estimated actual dates

Sources: INSEE, SDES

How do households perceive changes in their standards of living in the economic outlook surveys?

The year 2018 saw some fairly substantial quarterly fluctuations in household purchasing power, measured at the aggregate level. These quarterly variations were heavily dependent on the implementation calendar for direct and indirect fiscal measures. Purchasing power fell early on in the year, before bouncing back toward the end. Household consumption was less volatile, with households partly smoothing the impact of fluctuations in purchasing power by varying their consumption and savings.

The monthly household economic outlook surveys conducted by INSEE offer an insight into the perception of such fluctuations in standards of living and future consumption behaviours. Only the aggregated results are published, and these show that perceptions of the situation deteriorated throughout 2018. However, these figures cannot be used to ascertain the responses given by different categories of households, and the fiscal measures introduced do not affect all categories equally. This downturn in the aggregated balances of opinion could therefore conceal differences between different categories of households, ultimately concealing differences in consumption behaviour by the same token.

Examining the results of the surveys category by category suggests that, on the one hand, those households that have benefited most from the measures have a less negative view of the situation than other households, although the downturn in their outlook is still present. On the other hand, a lower level of pessimism can also be detected among those households whose marginal propensity to consume is likely to be smaller (wealthy households). This suggests that the dynamism of purchasing power towards the end of the year is not reflected in the perceptions of all households affected, and that their consumption could fall as a result.

Standards of living of French households have barely increased over the past decade

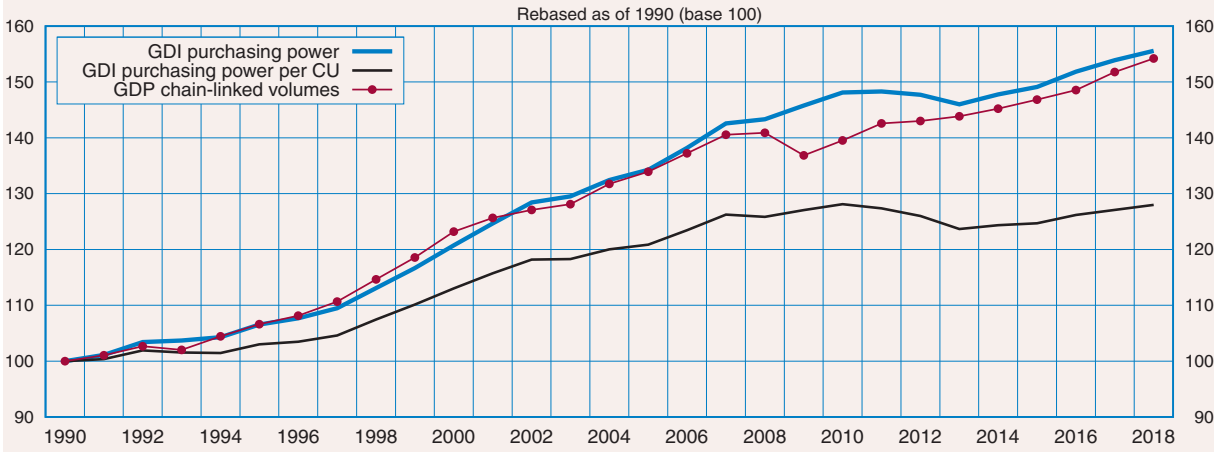
The variation in household purchasing power reflects the variation in the overall income of households, plotted to the increase in consumer prices. Conjoncture in France also tracks the variation in purchasing power per consumption unit, a more pertinent way of measuring changes in the average purchasing power of French people since it accounts for both the increase in the number of households and the changes in their composition. Overall purchasing power has increased over the past decade, despite drops in 2012 and, more substantially, in 2013. However, when set against the rise in the number of consumption units (CU), purchasing power has virtually stagnated, after growing strongly throughout the preceding decade (*Graph 1*).

It seems likely that the relative stagnation experienced over the past ten years can at least partly account for the downturn in the balances of opinion seen in the household surveys over the same period. Although there was occasional optimism in 2017, connected with a return to relatively solid growth and the effects of the presidential election, it gradually subsided throughout 2018. This can probably be partly attributed to the calendar of fiscal measures, in spite of the increase in purchasing power predicted for the fourth quarter.

Household economic outlook surveys provide an insight into how households expect their standard of living and consumption to change.

The monthly household economic outlook survey (CAMME) has been published each month since January 1987. It focuses on households' perception of

Graph 1 - When demographic changes are taken into account, household purchasing power has remained virtually unchanged over the past ten years



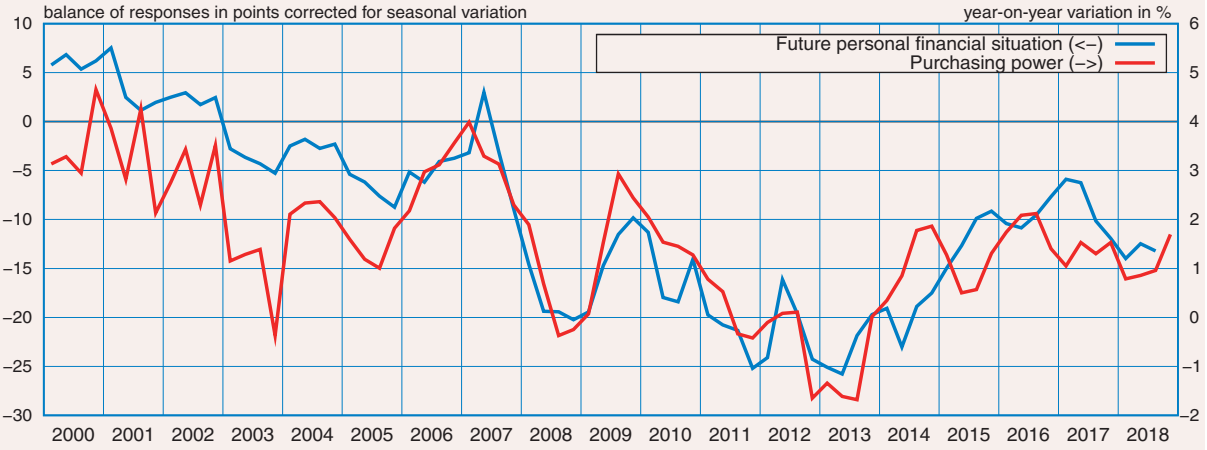
Source: INSEE, national accounts

their past and future personal situations (saving capacity, financial situation etc.) and the French economic situation in general (unemployment, opportunities to make major purchases, opportunities to save etc.) (*See Appendix*). Surveys are conducted over the first three weeks of each month, on a representative sample of around 2000 households. The balance of opinion for each qualitative question is calculated in classical fashion, as the difference between the proportion of positive and negative responses. Generally speaking, the balances of responses to these surveys are broadly similar to certain aggregates tracked in Conjoncture in France. For example, the balance of opinion on respondents' personal financial situations follows a curve relatively close to that of the purchasing power of household income (*Graph 2*). Similarly, the balance relating to opportunities to make major purchases provides an indication of consumption trends (*Graph 3*).

Breaking down the balances of opinion from these surveys in terms of household living standards does not reveal significant disparities between the perceptions reported by poorer and wealthier households.

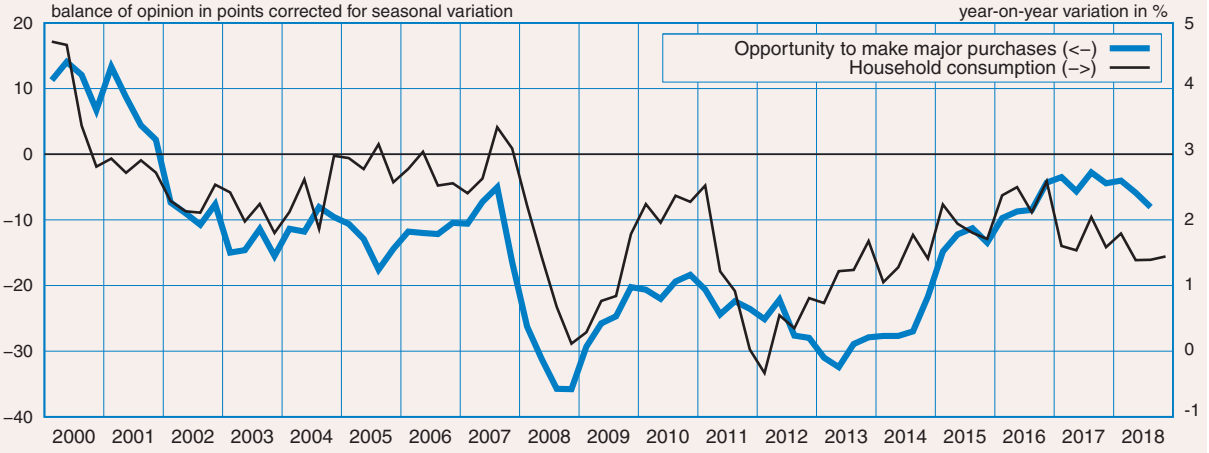
The survey also contains various questions regarding respondents' employment status, marital status, the number of people in their household, household income, etc. These data are used to calculate balances for different categories of household, for example different levels of standard of living. Our analysis focuses on balances relating to the personal financial situation of the household (past and future), standards of living in France (past and future) and perceived opportunities for major purchases, breaking these figures down based on the standard of living of the household and the employment status of the respondent. To do this, households' responses are aggregated using the standard processing method of the CAMME survey in order to create balances of

Graph 2 - Balance of opinion on future personal financial situations and the purchasing power of gross disposable household income



N.B.: The balance given is the mean for the quarter in which the month falls.
Source: INSEE, survey CAMME for each quater

Graph 3 - Balance of opinion on the opportunity for major purchases, and variations in household consumption



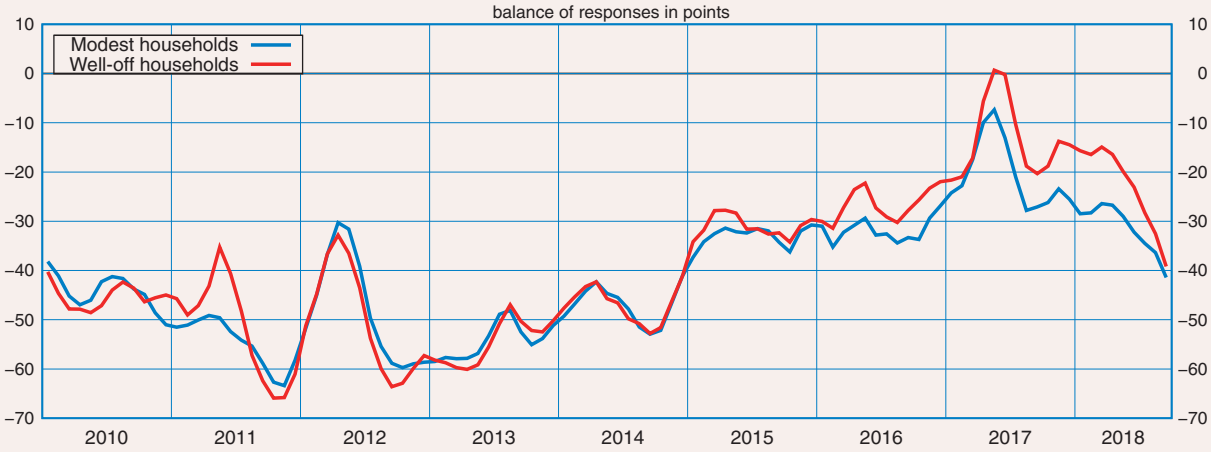
N.B.: The balance given is the mean for the quarter in which the month falls.
Source: INSEE, survey CAMME for each quater

opinion for the different categories. However, since the survey sample size is relatively small, the results derived from these calculations are not as robust as those published each month for the population as a whole. Furthermore, these non-aggregated balances of opinion for different categories of household are not corrected for seasonal variation, as the balances usually published are relatively impervious to seasonal fluctuation. For clarity's sake the balances of opinion published are derived from a moving average covering the past three months.

Despite the measures taken by households to smooth their consumption, fluctuations in income have an effect on their consumption, an effect which can vary depending on the household's situation. Marginal propensity to consume[1] varies depending on the disposable resources of households, and is generally weaker for the wealthiest households. But the latter are probably the greatest beneficiaries of certain measures taken to reduce tax on income from assets, and particularly capital gains (transformation of the solidarity wealth tax - ISF - into the tax on property wealth - IFI - and the introduction of a new flat tax). Breaking down the balance for "future standard of living in France" on the basis of income per consumption unit[2] also seems to indicate a slight difference of perception between the most modest and the most well-off households, with the latter more optimistic during 2018, although their opinions converge toward the end of the year (*Graph 4*).

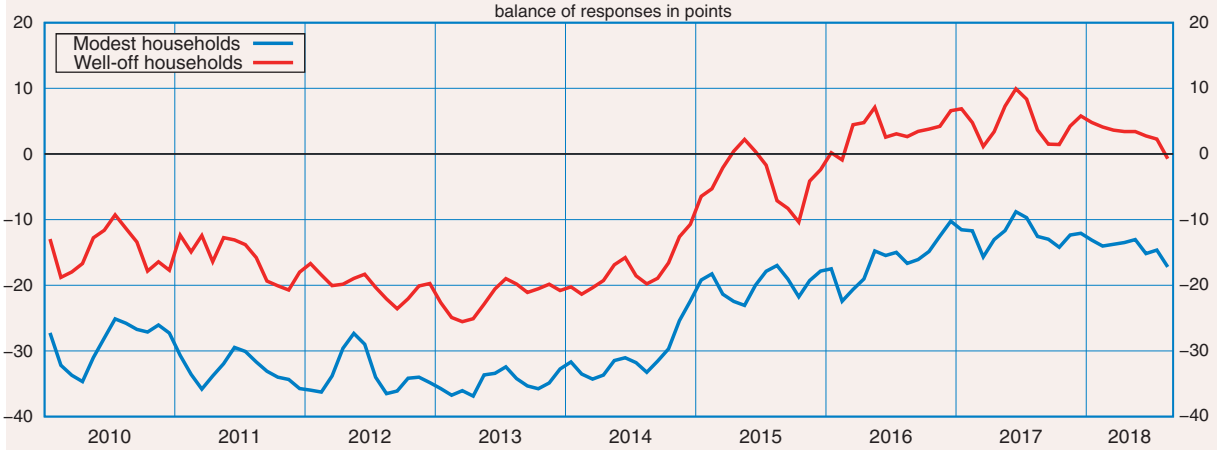
Nonetheless, the question here is about the standard of living in France in general, not future personal financial situations[3] where the balance of opinion shows no difference between poorer and wealthier households. These results must therefore be treated with caution. Furthermore, these differences in perception are not reflected in higher purchasing intentions: the balance of opinion regarding the opportunity to make major purchases has followed the same curve among more modest households as it has among those whose standard of living is above the median in terms of income per consumption unit (*Graph 5*).

Graph 4 - Balance of opinion on future standards of living in France, by category of standard of living



N.B. Lower-income (resp. wealthier) households are defined as those for whom income per consumption unit (CU) is below (resp. above) the median value derived from this survey.
Source: INSEE, CAMME survey

Graph 5 - Opportunity for making major purchases, by income bracket



N.B. Lower-income (resp. wealthier) households are defined as those for whom income per consumption unit (CU) is below (resp. above) the median value derived from this survey.
Source: INSEE, CAMME survey

All in all, although the wealthiest households appear to be less pessimistic about future prospects for standards of living in France, suggesting that they have indeed felt the effects of measures intended to boost purchasing power, this does not seem to have boosted household consumption as a whole.

Since mid-2017, retirees are more pessimistic regarding their future financial situation

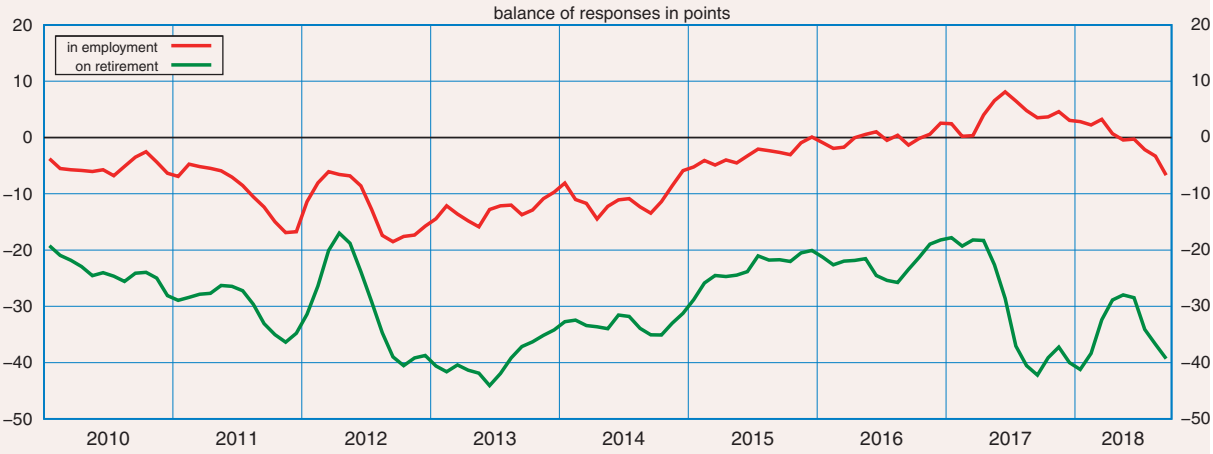
In Q1 2018 the rate of the generalised social contribution (CSG) was increased by 1.7 points. For salaried and self-employed workers in the private sector, the CSG increase was more than offset by the reduction in social contributions (in Q1 and again in Q4). Public-sector employees, meanwhile, received a one-off bonus called the "compensatory remuneration payment" in order to offset the increase in the CSG.

However, the increase in the CSG was not offset for taxable retirees[4], although some have felt the benefit of other fiscal measures (reductions in housing tax, switch from ISF to IFI etc.). This is why the responses to the household economic outlook surveys are examined here through a distinction on the basis of the respondents' employment status ("in employment" or "retired").

Retirees' perception of their future financial situation appears to be more pessimistic than that of those in work: since mid-2017, a clear gap has opened up between the balance of opinion among retired respondents and that among households where the respondent is in employment (*Graph 6*). The same is true of the balances of opinion regarding past personal financial situations (*Graph 7*), with a marked decline in

1. The concept of marginal propensity to consume refers to the proportion of any additional income which households will use to increase their consumption. It is generally held to decrease as income increases, i.e. those on higher incomes have a lower marginal propensity to consume. Accordingly, as income increases so too does the marginal propensity to save, i.e. the extra income households redirect to their savings.
2. In order to break this sample down on the basis of standards of living, we calculated income per consumption unit using the responses to the survey. The survey provides information about the total number of persons in each household, including children under the age of 14 and the presence or absence of a spouse.
3. See the precise wording of the questions in the CAMME survey, given in the appendix.
4. Exemptions to the CSG increase for those on modest pensions were announced in September 2018, coming into effect in 2019.

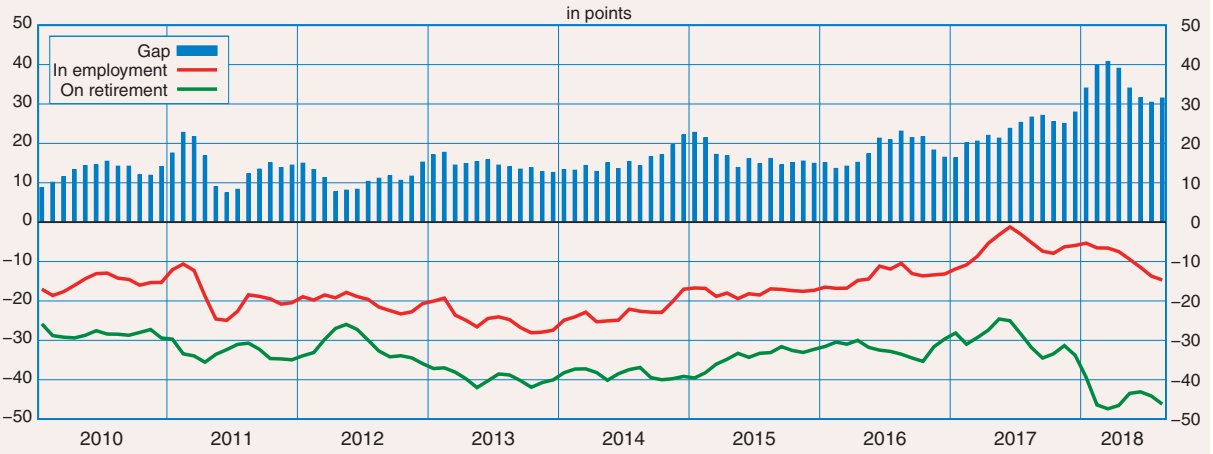
Graph 6 - Future personal financial situation, by employment status



N.B.: Balances are based on moving averages over 3 months.

Source: INSEE, CAMME survey

Graph 7 - Past personal financial situation, by employment status



N.B.: Balances are based on moving averages over 3 months.

Source: INSEE, CAMME survey

early 2018 when the CSG increase came into force. The declared personal financial situation of households in employment has also deteriorated since the start of the year, but less so.

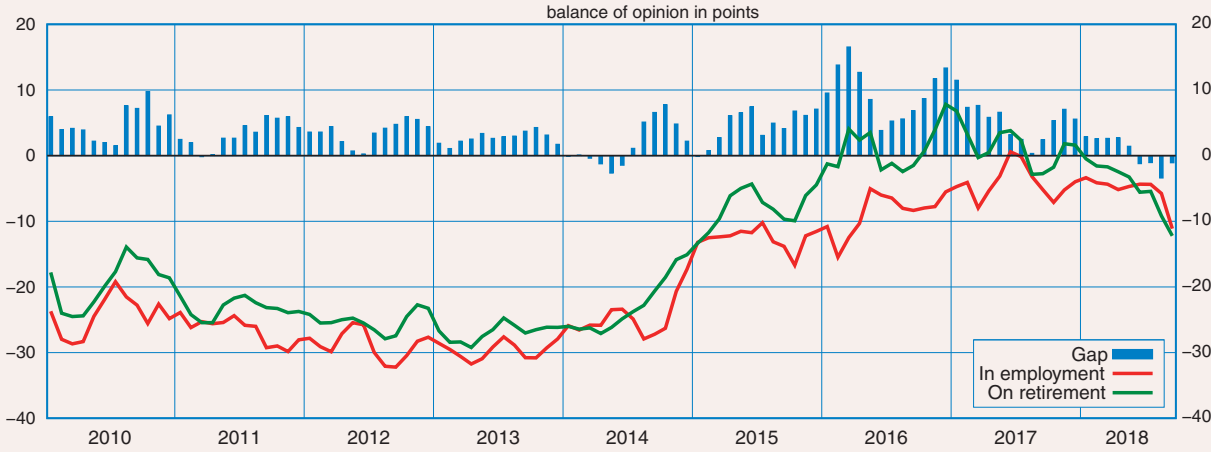
Analysis of the balance of opinion regarding purchasing opportunities also reveals divergent trends among households in employment and retirement: while households where the respondent is in employment have declared themselves to be less and less optimistic regarding their personal financial situation, that has not been reflected in a downturn in the balance of opinion on purchasing opportunities. In households in retirement, on the other hand, this balance has fallen sharply throughout 2018.

Among those households where the respondent is in employment, pessimism is greatest among the least well-off.

Cross-comparing these balances of opinion, by employment status and by standard of living, reveals that the wealthiest retired households do not appear any more optimistic than the more modest retired households about their future financial situation, or their opportunities for making major purchases. The balance of opinion among retired households regarding their purchasing opportunities thus appear to be in decline, irrespective of their standard of living (*Graph 8*). However, the situation is more varied among households in employment, where lower-income households appear to be much more pessimistic about their future personal financial situation (*Graph 9*).

Furthermore, although the balance of opinion among households in employment regarding their purchasing opportunities has only begun to deteriorate recently (*Graph 8*), analysis of the responses given by these households reveals that the general decline conceals internal disparities. The balance of opinion on purchasing opportunities saw a sharp decline in 2018 for lower-income households in employment, while the wealthiest households in employment reported a slight increase (*Graph 10*). Based on the classical assumption that the least well-off households have a higher marginal propensity to consume, a more substantially negative balance of opinion in this category could be seen as a bad sign for household consumption as a whole.

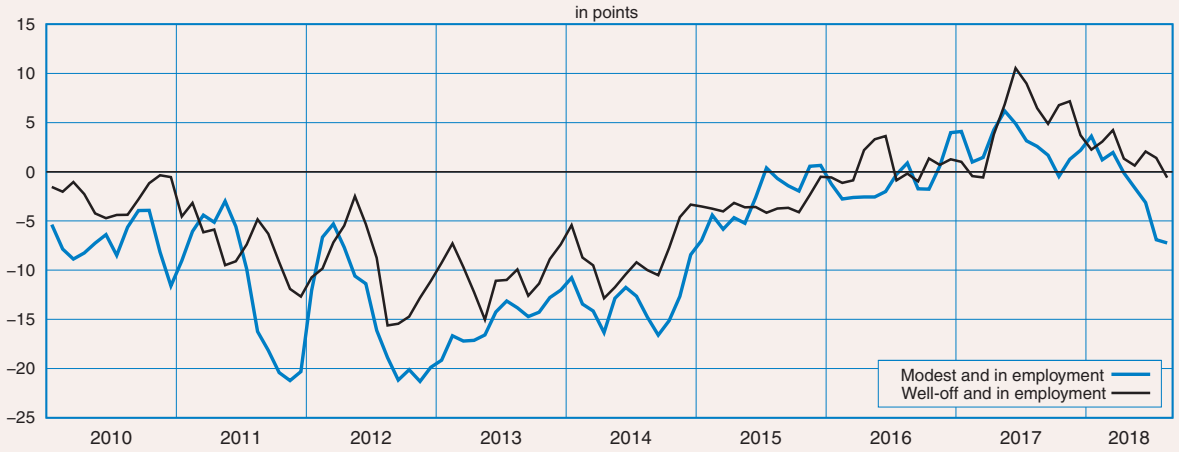
Graph 8 - Opportunity for making major purchases, by employment status



N.B.: Balances are based on moving averages over 3 months

Source : Survey CAMME

Graph 9 - Future personal financial situation, by standard of living, for households where the respondent is in employment

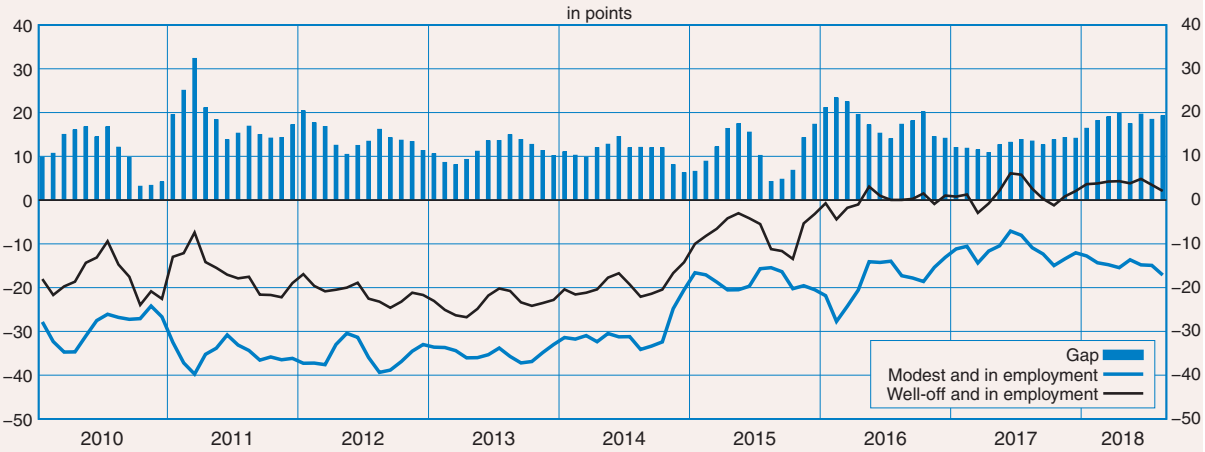


N.B.: Balances are based on moving averages over 3 months.
N.B.:Low-income (resp. well-off) households dispose of an income per consumption unit (CU) wich is lower (resp. greater) than the median income per CU in the survey.

Source: Survey CAMME

All in all, the balances of opinion derived from the household economic outlook surveys appear to be slightly more optimistic for the wealthiest households, whose marginal propensity to consume is smaller. Conversely, retired households and lower-income households where the respondent is in employment are less and less optimistic when asked about their future personal financial situations and their opportunities to make major purchases. Household responses appear to be more motivated by their perception of their medium-term prospects than the immediate short term. ■

Graph 10 - Opportunity for making major purchases, by standard of living, for households where the respondent is in employment



N.B.: Balances are based on moving averages over 3 months.

Source: INSEE, CAMME survey

Appendix

Phrasing of questions and processing.

Purchasing opportunities:

Given the current economic situation, do you think it is in people's best interests to make major purchases? (furniture, household appliances, electronic and computer products etc.)

yes, this is a fairly good time
it's neither a good time nor a bad time
no, this is not a good time

Future personal financial situation:

Do you think that, over the next twelve months, the financial situation of your household...

will improve significantly?
improve slightly?
remain stable?
deteriorate slightly?
deteriorate significantly?

Past personal financial situation:

Over the past twelve months, has the financial situation of your household...

improved significantly?
improved slightly?
remained stable?
deteriorated slightly?
deteriorated significantly?

Future standard of living in France: In your opinion, over the next twelve months will the standard of living in France as a whole improve significantly? improve slightly remain stable? deteriorate slightly deteriorate significantly? For each of these questions, a monthly balance of opinion is obtained by calculating the difference between the number of positive and negative responses, applying the same method used to process survey data for the monthly economic outlook reports. ■

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INSEE (2017) "Electoral periods have a positive albeit short-lived effect on household confidence", *Focus Conjoncture in France*, March

Enterprises' earnings

At the end of 2018, the margin rate of non-financial corporations (NFCs) should be slightly higher than in 2017, at 32.2%. It had dipped in Q2 2018 (31.5% after 32.0% on average in 2017), due to the deterioration in terms of trade. In H2, these terms are expected to improve, and the margin rate should return to a higher level. Productivity gains are also likely to contribute to this improvement. In 2019, a one-off rise in the margin rate is expected due to the transformation of the competitiveness and employment tax credit (CICE) into an exemption from employer contributions. It should reach 33.5% by mid-2019.

At end 2018, the margin rate is expected to exceed its 2017 level

After remaining stable at 32% on average in 2017 (*Table*), the margin rate fell by 0.5% in Q2 2018 to reach 31.5%. This drop can be attributed to consumer prices being more vigorous than value-added prices – especially due to the rise in oil prices, and to the increase in real wages – whereas productivity gains have been sluggish. The margin rate is likely to increase by 0.3 points in Q3 and then by 0.4 points in Q4, driven by productivity gains and the improvement in the terms of trade, in particular. Consequently, it is expected to stand at 32.2% at the end of the year. It looks set to remain below its average level between 1988 and 2007 (*Graph 1*), largely due to services. With the margin rate standing at a higher level in industry, the decline that began in Q2 2017 is likely to continue at the end of 2018 (*Graph 2*). On average in 2018, the margin rate of non-financial corporations (NFCs) looks set to drop slightly (–0.1 points) due to the slowdown in productivity gains and the increase in oil prices.

The margin rate should increase sharply in H1 2019 due to the conversion of the CICE into a reduction in charges

In 2019, the competitiveness and employment tax credit (CICE) will be transformed into an employer contribution exemption scheme (*Employment sheet Focus*). From 1st January 2019, a 6-point reduction in health insurance contributions will replace the CICE (whose rate is also 6 points), while enterprises will also benefit from the CICE for

Breakdown of the margin rate of non-financial corporations (NFCs)

in % and in points

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Margin rate (in level)	**31.7**	**32.0**	**32.1**	**32**	**32.0**	**31.5**	**31.8**	**32.2**	**33.5**	**33.5**	**32.0**	**31.9**	**33.5**
Variation in margin rate	**0.1**	**0.3**	**0.1**	**–0.1**	**0.0**	**–0.5**	**0.3**	**0.4**	**1.3**	**0.0**	**0.1**	**–0.1**	**1.6**
Contributions to the variation margin rate													
Productivity gains	0.6	0.3	0.3	0.4	–0.1	0.0	0.3	0.1	0.1	0.1	1.1	0.6	0.4
Real wage per capita	–0.1	–0.1	–0.1	–0.1	0.1	–0.1	–0.1	–0.2	–0.4	–0.2	–0.2	–0.2	–0.8
Employer contribution ratio	0.0	0.0	–0.1	0.0	0.0	0.0	0.0	0.0	1.6	0.0	–0.1	–0.1	1.6
Ratio of the value-added price to the consumer price	–0.4	0.1	–0.1	–0.3	–0.3	–0.2	0.1	0.5	0.0	0.0	–0.8	–0.5	0.4
Other factors	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0

Forecast

Note: The margin rate (TM) measures the share of value-added which remunerates capital. Its variation is broken down in accounting terms between:
- productivity changes (Y/L), with Y value-added and L employment, and the ratio of the value-added price to the consumer price, or terms of trade (Pva/Pc), which play a positive role;
- changes to the real average wage per head (SMPT/Pc) and the employer contribution ratio (W/SMPT, where W represents all compensation), which play a negative role.
- others factors: taxes on production net of operating subsidies, including CICE and the emergency plan for employment:[1]

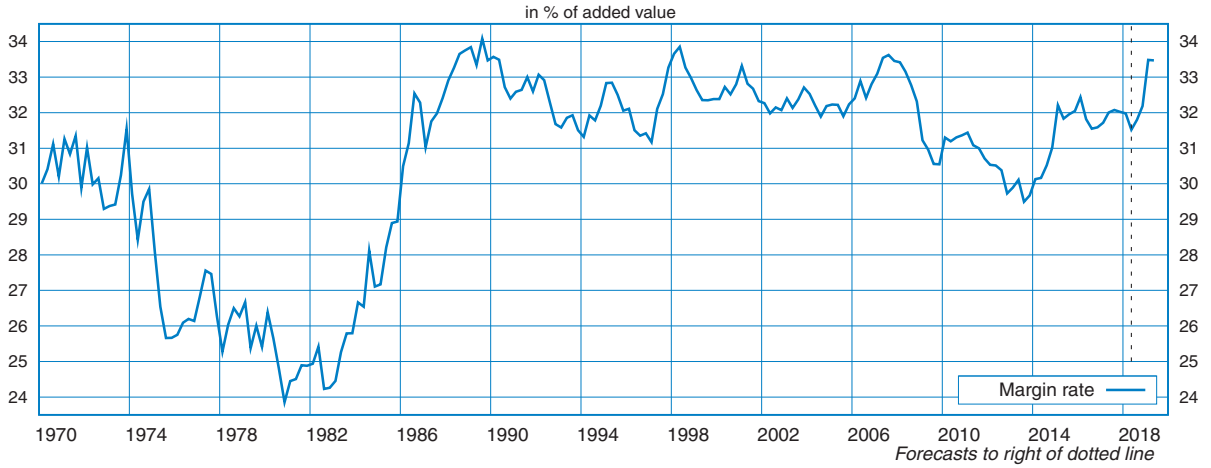
$$TM = \frac{EBE}{VA} \approx 1 - \frac{W.L}{Y.P_{va}} + other\ factors = 1 - \frac{L}{Y}\frac{W}{SMPT}\frac{SMPT}{P_c}\frac{P_c}{P_{va}} + \text{other factors}$$

1. The CICE reduces companies' corporation tax, but in the national accounts it is recorded as a subsidy to companies, as recommended in the latest version of the European System of Account (ESA 2010).

Source: INSEE

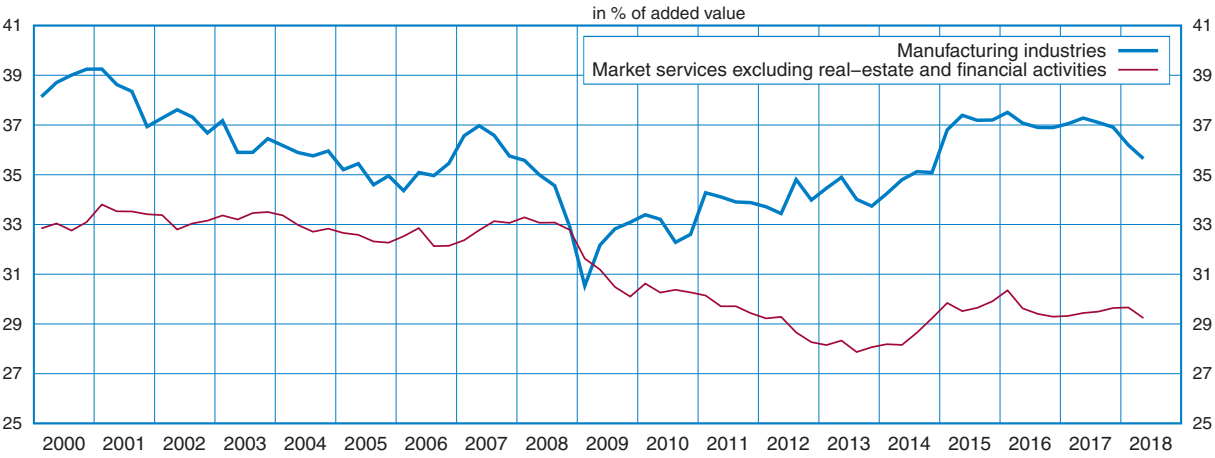
their wages for 2018, paid in 2019. This double transitional payment should give a one-off boost to their margin rate in Q1. The abolition of the CICE for wages in 2019, however, will have a downward impact of the same magnitude on the margin rate of NFCs in Q1 2020. In addition, the terms of trade are expected to make a positive contribution at the beginning of 2019. In other respects, the contribution of real wages is likely to be negative (–0.4 points and then –0.2 per quarter), whereas the improvement in productivity should contribute around +0.1 points per quarter to the margin rate. Consequently, the margin rate of NFCs looks set to increase strongly, to 33.5% by mid-2019. ■

1 - Margin rate of non-financial corporations (NFCs)



Source: INSEE, quarterly national accounts

2 - Margin rate in industry and services



Source: INSEE, quarterly national accounts

Corporate investment and inventory

In Q3 2018, investment by non-financial enterprises (NFEs) grew by 1.6%, after +1.3% in Q2. It was driven by the acceleration of investment in transport equipment and services, whereas construction expenditure fell back (–0.4% after +1.1%). Corporate investment is expected to slow down (+0.1%) in Q4 2018 before regaining momentum in H1 2019 (+0.6% per quarter). On an annual average basis, investment is expected to slacken slightly in 2018 to +3.8%, after a very dynamic year in 2017 (+4.4%). For 2019, the annual carry-over effect should reach +2.2% at the mid-year point. The investment rate is likely to remain above 22.4% in Q4 2018, as in H1 2019.

In Q3 2018 changes in inventories made a negative contribution to growth (–0.3 GDP points) – a reversal of the results from the previous quarter (+0.2 points). Changes in inventories in manufactured goods (–0.4 points after +0.3 points), and particularly transport equipment, account for the majority of this turnaround. In Q4, the destocking tendency associated with major deliveries of transport equipment is likely to hamper growth once again. Throughout 2018 as a whole, changes in inventories should make a negative contribution to growth (–0.4 points). In H1 2019, their contribution is expected to be slightly positive.

Corporate investment remained buoyant in Q3 2018

In Q3 2018, investment by non-financial enterprises (NFEs) remained buoyant (+1.6%, after +1.3%; *Table 1*). Investment in manufactured products increased strongly again (+2.2% after +1.6% in the previous quarter): the acceleration of investment in transport equipment offset the slackening of investment in capital goods. Investment in services gathered pace (+2.2%, after +1.2%), driven by expenditure on information and communication. However, investment in construction edged down (–0.4% after +1.1%) due to a backlash effect from civil engineering expenditure. All in all, the investment rate of NFEs increased by 0.5 points over the first three quarters of 2018 and reached 22.6% In Q3 (*Graph 1*).

Corporate investment is set to slow temporarily at the end of 2018 before regaining momentum in 2019

In Q3 2018, the business tendency surveys showed signs of a slowdown in corporate investment expenditure. According to the October survey of investments in industry, business managers have reduced their investment forecasts for 2018; they now expect their investment to drop by 1% in value over the year as a whole. However, they have forecast a dynamic upswing in investments in 2019 (+4%). According to the survey on activity in industry, the production capacity utilisation rate fell slightly in October after reaching its highest level in ten years in January 2018. Significant production bottlenecks remain, after easing at the beginning of 2018: between July and October, there was no change in the number of business managers who considered that they could not produce more if they received more orders (*Graph 2*). In services, the balance of opinion on investment prospects edged down in both October and November, dropping below its long-term average.

In 2018, corporate financing terms appeared slightly less favourable than in 2017 but are expected to improve in early 2019. In 2018, corporate margins once again benefited from an increase in the Competitiveness and Employment Tax Credit (CICE) applicable to remunerations paid in 2017, from 6% to 7%. However, the rise in

Table 1

Investment by non-financial enterprises (NFEs)

at chain-link previous year prices, SA-WDA

	Quarterly changes										Annual changes		
	2017				2018				2019				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	2017	2018	2019 ovhg
Manufactured products (34%)	3.9	0.4	2.7	1.7	–1.6	1.6	2.2	–1.0	0.5	0.5	5.2	3.1	1.6
Construction (24%)	0.3	0.6	0.1	-0.3	–0.2	1.1	–0.4	0.0	–0.2	–0.2	1.0	0.4	–0.2
Other (42%)	3.1	0.3	1.5	1.8	1.6	1.2	2.2	1.0	1.0	1.0	5.7	6.2	3.9
All non-financial enterprises (100%)	**2.7**	**0.4**	**1.6**	**1.3**	**0.1**	**1.3**	**1.6**	**0.1**	**0.6**	**0.6**	**4.4**	**3.8**	**2.2**

Forecast

Source: INSEE

commodity prices and the increase in wages reduced their margin rates. At the beginning of 2019, enterprises should benefit from an exceptional combination of the CICE for remunerations paid in 2018 and its conversion into a long-term reduction in social charges (*Employment sheet Focus*). In addition, real unemployment rates look set to remain low through to mid-2019.

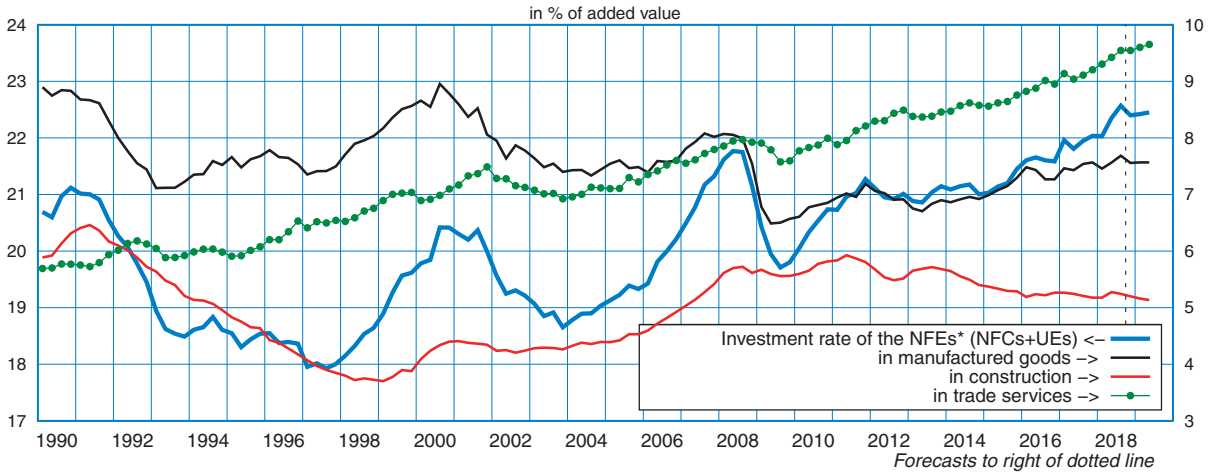
Investment expenditure by NFEs is expected to slow down (+0.1%) in Q4 2018 before regaining momentum in H1 2019 (+0.6% per quarter). On average over the year, NFE investment in 2018 is likely to grow more slowly than in 2017: +3.8% after +4.4%. For 2019, its annual carry-over effect should stand at +2.2% by mid-year. The NFE investment rate looks set to remain at a very high level: it is expected to be above 22.4% in Q4 2018 and in H1 2019.

Investment in manufactured products should edge down at the end of 2018, before bouncing back in 2019

Investment in manufactured products by NFEs is likely to edge down in Q4 2018 (–1.0% after +2.2%). Vehicle registrations recorded until October do indeed suggest a backlash effect in investments in transport equipment after accelerating in Q3 ahead of the change in the test procedure for new vehicles (WLTP). For H1 2019, the expectations of business leaders in the manufacturing industry concerning their investments in 2019, and the fact that production capacity tensions remain high, point towards an upturn in investment in manufactured products (+0.5% per quarter). On an annual average basis, investment in manufactured products is likely to slow down in 2018, (+3.1% after +5.2%). In 2019, its carry-over effect is expected to be +1.6% by mid-year.

1- Investment rate of NFEs by type of product

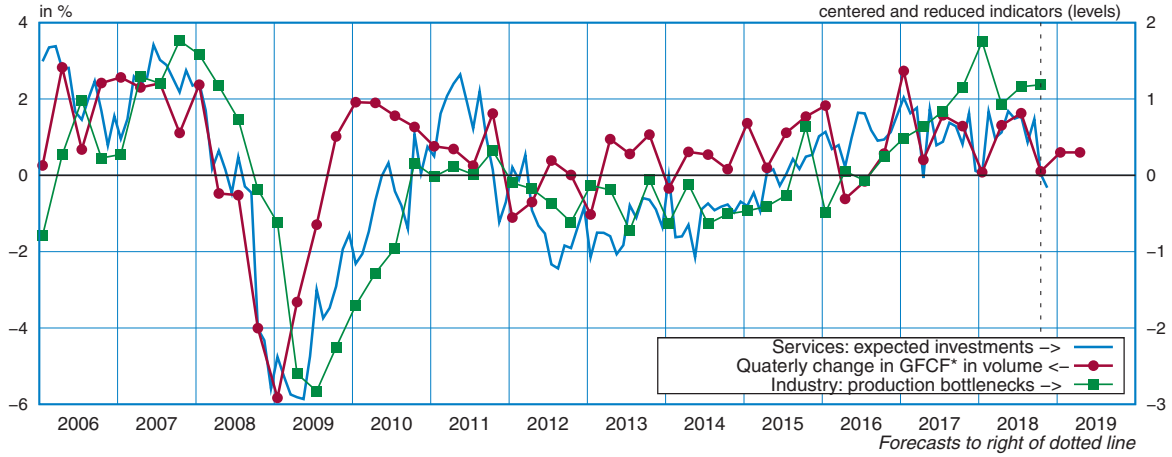
in % of the value added



* Non-financial enterprises: non-financial corporations (NFCs) and unincorporated enterprises (UEs)
** Self-financing rate: ratio of non-financial enterprises savings to their investments.

Source: INSEE, quarterly national accounts

2 - Opinion on the future trend in investment in services and production bottlenecks in industry



*GFCF: Gross fixed capital formation

Sources: INSEE, monthly survey in services and industry, quarterly national accounts

Investment in construction looks set to decline in early 2019

Corporate investment in construction is expected to remain stable in Q4 2018 and then drop in H1 2019 (–0.2% per quarter), due mainly to investment expenditure in the building sector. Indeed, non-residential building starts declined steadily throughout 2018, suggesting a downturn in NFE investment in the building sector. At the end of 2018, civil engineering enterprises remain confident about their business prospects. Investment in civil engineering should return to moderate growth in Q4 2018, after a downturn in Q3. On an annual average basis, corporate investment in construction is expected to slacken in 2018: +0.4% in 2018 after +1.0% in 2017. The carry-over effect for 2019 should stand at –0.2% at the mid-year point.

Investment in services should continue to increase briskly

Investment by NFEs in services was very dynamic in Q3 2018. For service sectors in which activity is dependent on investment expenditure (notably programming, consulting and other information technology activities), the business leaders interviewed in business tendency surveys remain optimistic about growth in their turnover. After a slight slowdown in Q4 2018, investment in services is expected to remain brisk through to mid-2019 (+1.0% per quarter). As an annual average, investment expenditure on services in 2018 is expected to increase even more briskly than in 2017 (+6.2% after +5.7%). In 2019, its carry-over effect is likely to be +3.9% by mid-year.

On average in 2018, the contribution of inventory change to growth should be negative

Changes in inventories made a negative contribution to growth in gross domestic product (GDP) in Q3 2018 (–0.3 points) – a reversal of the situation in the previous quarter (+0.2 points) – due to changes in inventories for transport equipment and "other industrial goods" (*Table 2*).

In Q4, changes in inventories should again contribute negatively to the growth of activity. The catch-up effect of aeronautical deliveries scheduled for the end of the year, along with the delivery of an ocean liner, are expected to lead to changes in transport equipment inventories making a negative contribution. Throughout 2018 as a whole, changes in inventories in companies are likely to make a negative contribution to growth (–0.4 points).

In Q1 2019, despite the delivery of another ocean liner, the return to normal of aeronautical deliveries should see changes in inventories making a positive contribution (+0.2 points). Thereafter, in Q2 2019, changes in inventories in enterprises should again contribute positively to growth (+0.1 points). Over H1 2019 as a whole, the contribution of inventories to growth looks likely to be slightly positive. ■

Table 2

Contribution of inventory changes to growth

in GDP points

	Quarterly changes										Annual changes		
	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Agricultural products	**0.1**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**0.2**	**0.0**	**0.0**
Manufactured products	**0.8**	**–0.7**	**0.3**	**–0.4**	**0.0**	**0.3**	**–0.4**	**–0.2**	**0.2**	**0.1**	**–0.1**	**–0.4**	**0.0**
Agrifood products	0.0	0.0	0.0	0.0	0.0	0.0	0.0						
Coke and refined petroleum products	0.1	–0.1	–0.1	0.0	0.0	0.0	0.0						
Machinery and equipment goods	–0.1	0.1	–0.1	–0.1	0.1	–0.1	0.0						
Transport equipment	0.5	–0.5	0.4	–0.2	0.1	0.3	–0.2						
Other industrial goods	0.3	–0.2	0.0	–0.1	–0.1	0.1	–0.2						
Energy, water and waste	–0.1	–0.1	–0.1	0.2	0.0	–0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Others (construction, services)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL[1]	0.8	–0.7	0.2	–0.2	–0.1	0.2	–0.3	–0.2	0.2	0.1	0.2	–0.4	0.0

Forecast

1. Changes in inventories include acquisitions net of sales of valuables.

Source: INSEE

International developments

Oil and raw materials

Return to a market in surplus

In Q3 2018, the price of Brent hovered around $75 per barrel on average, up 0.8% on the previous quarter. Supply increased significantly, with output rising both in the United States and in OPEC countries. Demand also picked up, driven mainly by the emerging countries and China. All in all, the physical market was in surplus.

The surplus on the physical market should be maintained through to mid-2019. Meanwhile, output by the OPEC countries is expected to increase while the American supply should continue to rise, under the continued stimulus of the relatively high price of Brent. Global demand looks set to increase in Q4 and is then expected to stall in Q1 2019, before rising again in Q2. Stocks should remain at a relatively high level.

Until Q2 2019, the conventional assumption is that oil prices will stabilise at around $60. This forecast is subject to several uncertainties. Firstly, the scenario is based on OPEC countries increasing their output. If this is lower than forecast, the surplus on the physical market could diminish or disappear, which would ease the downward pressure on prices. The same applies to American output, which could turn out to be lower than forecast. Conversely, if the OPEC output or the upturn in unconventional American production should prove to be stronger, the surplus would become more pronounced and adversely affect prices, while any increase in geopolitical tensions in the Middle East could causes prices to rise.

Commodity prices in euros fell in Q3 2018 (–5%), despite the increase in iron and steel prices.

In Q3 2018, the price of Brent rose slightly, hovering around $75 per barrel

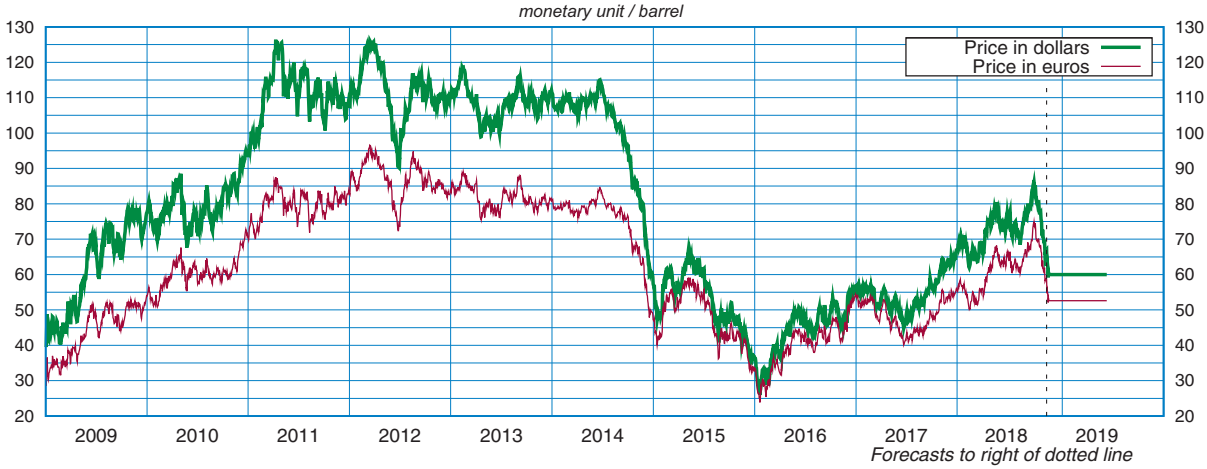
In Q3 2018, the average price of Brent crude stood at $75 per barrel (*Graph 1*), up 0.8 % on Q2 2018 ($74) and up 44% on Q3 2017 ($52). Between the end of October and the beginning of November, the price of Brent dropped by over $20. Over the forecasting period, oil prices are conventionally set at $60 – their level at the end of November.

Demand is changing at its trend rate

Global demand gathered pace in Q3, driven by the emerging countries, including China. It is expected to rise at its trend rate through to the end of the year, with the slowdown in Chinese demand being offset by rising demand from other emerging countries.

In Q1 2019, global demand is likely to remain almost stable before bouncing back in Q2 2019, under the impetus of American and European demand, in particular. All in all, global demand

1 - Brent prices in dollars and euros



Source: Commodity Research Bureau

would appear to have risen by 1.7 Mbpd (million barrels per day) in 2018, after +0.8 Mbpd in 2017 and +1.2 Mbpd in 2016 and is expected to increase by +1.2 Mbpd due to the carry-over effect, as an annual average at the end of Q1 2019.

Supply rises

In Q3 2018, global supply rose sharply, by +1.0 Mbpd according to seasonally adjusted data (*Graph 2*), mainly due to the rise in American and OPEC output.

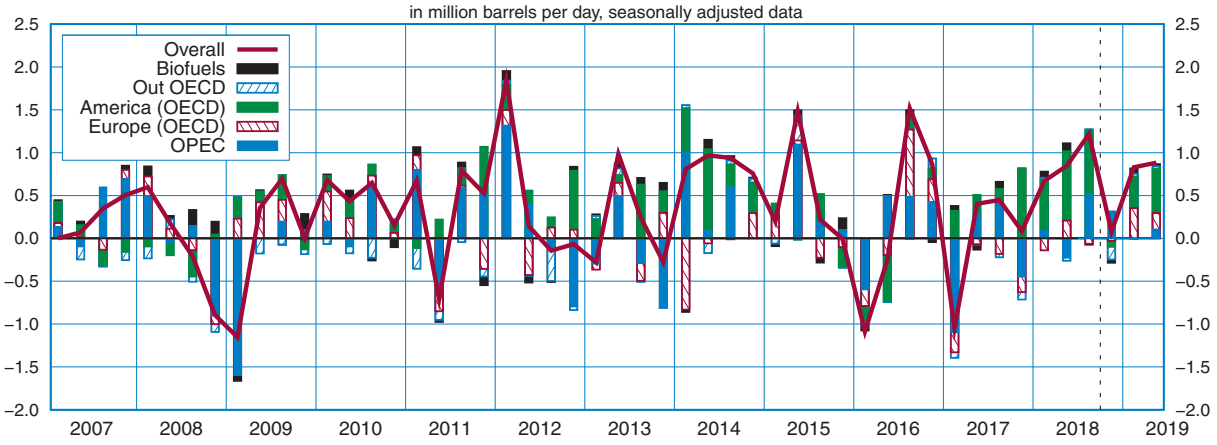
Indeed, the United States announced the implementation of new economic sanctions against Iran, and the members of OPEC decided to increase their output for the coming months, officially to compensate for the future losses of Iranian and Venezuelan output.

Venezuelan output continued to nosedive in Q3 2018. Iranian output decreased, with Iranian-oil-importing countries anticipating the implementation of American sanctions in November. Libyan and Nigerian output rose. Iraqi output remained above the level set in the OPEC countries' current agreement to reduce production. Saudi Arabia and Russia, also bound by the agreement with OPEC, significantly increased their output to well above the agreed limits. In the United States, output rose again in Q3, but the new rig count has remained stable since May 2018 (*Graph 3*).

In Q4 2018, OPEC output is expected to rise again. Libyan and Nigerian output should continue to increase. Iraqi output is likely to be dynamic. Iranian output is expected to suffer from the American sanctions and should be in continuous decline. Venezuelan output is set to plummet again. Saudi Arabia is expected to increase its output as forecast. According to the International Energy Agency (IEA), Russia should continue to increase its output. American output is likely to slow slightly.

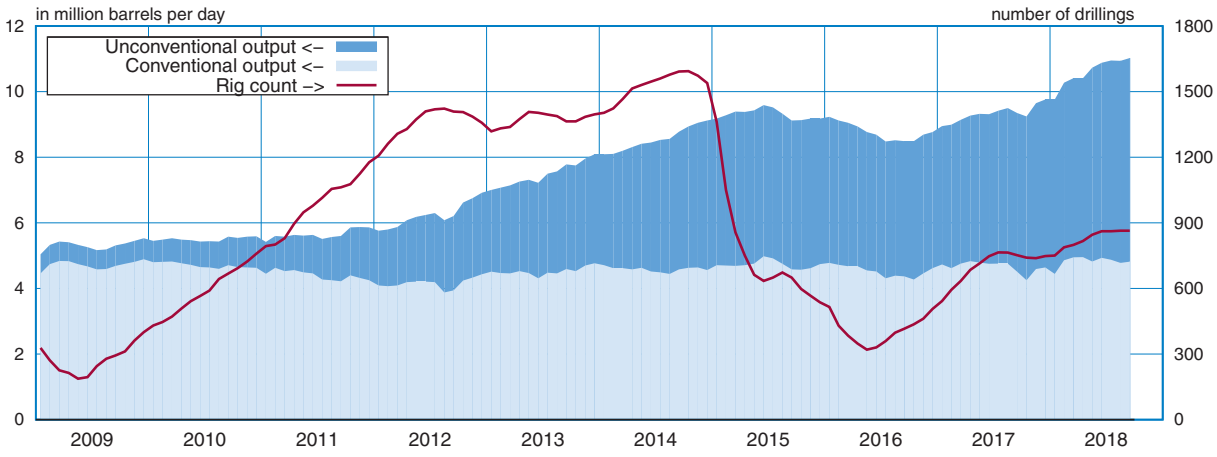
In H1 2019, OPEC output should be initially stable before increasing, while American output is

2 - Main contributors to the variation in global oil supply



Sources: AIE, INSEE

3 - Output and rig count in the United States



Sources: AIE, Baker Hughes

expected to rise according to IEA. The evolution in OPEC output is one of the main uncertainties concerning Brent prices.

All in all, world output is likely to rise over the forecasting period. As demand should increase less quickly, the market should remain in surplus through to mid-2019 (*Graph 4*).

Stocks are expected to remain at a high level.

Crude oil stocks in the United States rose again, to 418 million barrels in October. This was below the October 2017 level, but remains well above (+24%) the average for 2011-2014.

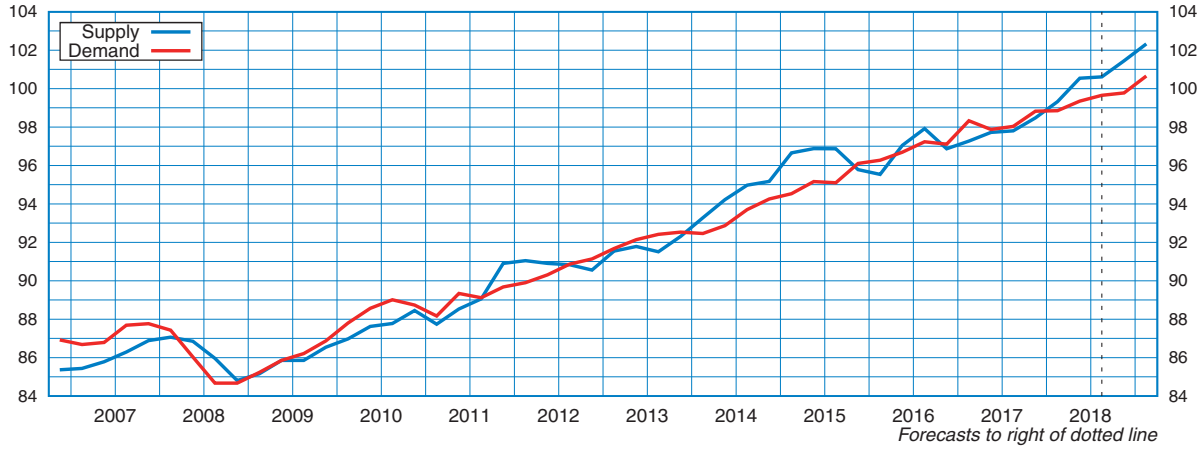
Upward pressure on prices could therefore be curbed by the level of trade reserves continuing to remain high.

Commodity prices increase slightly

In Q3 2018, the prices of all commodities (in euros) were down (–5%; *Graph 5*). Cereal prices edged down in Q3 (–3.6%), as did prices of agricultural commodities (–3.3%) and industrial commodities (–3.6%). However, iron ore and scrap steel prices rose (+4.4%), as did textile fibre prices (+2.1%). ■

4 - World oil market

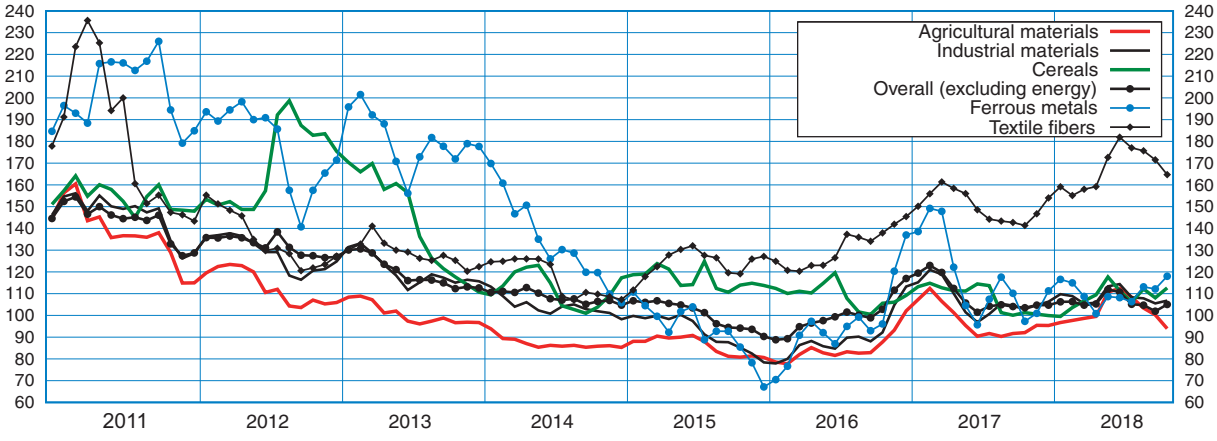
Seasonally adjusted data in millions of barrels per day



Sources: AIE, INSEE

5 - Commodity price indices in euros

base 100 in 2010



Source: HWWI

Financial markets

Downturn in financial markets against a backdrop of monetary policy normalisation

The Federal Reserve (Fed) is ahead of the European Central Bank (ECB) in the normalisation of its monetary policy. The Fed raised its base rate on three occasions in 2018, and could increase it again in December, as American inflation is above the 2% target and the unemployment rate remains very low. The European Central Bank is continuing its quantitative easing programme until December and will end it in January 2019, as the economic situation remains favourable despite a slowdown in activity in the Eurozone and with core inflation below the 2% target.

Outstanding loans continue to rise despite disparities within the Eurozone. European banks are expecting credit terms to tighten after their recent easing.

The stock market indices of the advanced countries slipped back in October, with NASDAQ suffering its biggest monthly losses in 10 years. In emerging countries confronted with the flight of capital and the rise of the dollar, the indices are generally down, except in Brazil.

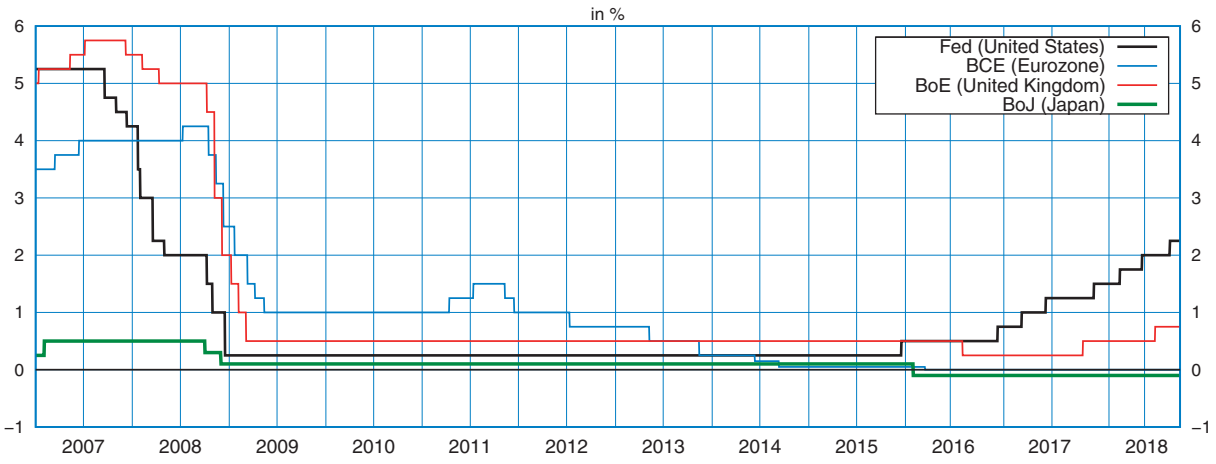
The euro has been depreciating against the dollar since the end of April and stabilised at around $1.14 in November due to the slowdown in the Eurozone, the expected rise in the Fed's base interest rates and the increase in American sovereign yields. The pound stabilised at around £0.88 to €1. For forecasting purposes, the euro exchange rate has been set at $1.14, £0.88 and 130 yen. The real effective exchange rate for French exporters should therefore fall in Q4 2018 and to a lesser extend in H1 2019.

The Federal Reserve continues to normalise its monetary policy

Having already raised its base rate on three occasions in 2018 (*Graph 1*), the Fed is expected to raise it again after its next Monetary Policy Committee meeting on 18 and 19 December 2018. Another two rises are then expected to occur during the forecasting period, in March and June 2019. The Fed is maintaining and gradually stepping up its efforts to reduce its balance sheet, which currently stands at $4,200 billion, at a rate of $50 billion per month in Q4 2018. This policy has been encouraged by inflation being above 2% and a very low unemployment rate that is below the usual estimates of the structural rate.

This tightening of monetary policy is adversely affecting certain emerging countries, such as Argentina and Turkey, and leading to the repatriation of capital to the United States. The scale of these withdrawals of capital could be increased by the fact that recent years have seen massive influxes of capital into emerging countries, corresponding to the quest for higher returns in a

1 - Base rates of the main central banks



Sources: Fed, BCE, BoJ, BoE

context of low interest rates. The Turkish lira has lost over 40% of its value since the beginning of the year, for example, as has also been undermined by the American sanctions. Confronted with the rise in US base rates and given the depreciation of their currencies and withdrawals of foreign capital, emerging countries are being forced to raise their own base rates. Base rates in Turkey rose sharply in October 2018, but not in Brazil where the financial conditions have improved (*Graph 2*).

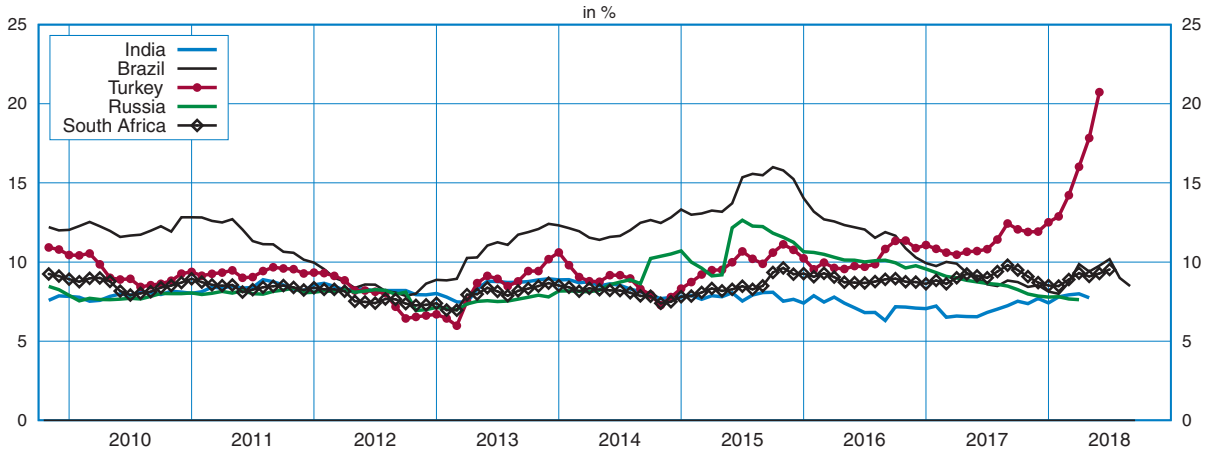
The European Central Bank is following in the Federal Reserve's footsteps

The ECB has confirmed the reduction of its securities purchase programme to €15 billion per month from October to December 2018, and the subsequent stoppage of this programme in January 2019. The next rise in its base rates is now expected before the end of 2019. However, the normalisation to come remains dependent on inflation being in line with expectations. In November 2018, core inflation continued to be virtually stable in the Eurozone at 1.0%, below the 2% target. The 10-year French inflation forecasts by the financial markets have increased slightly, to 1.5%. Within the Eurozone, the ongoing quantitative easing programme is keeping the interbank rates close to the deposit facility rate and the volume of transactions on the interbank market remains very low, at between €5 and €10 billion traded per day.

Sovereign yields are responding to the normalisation of monetary policies

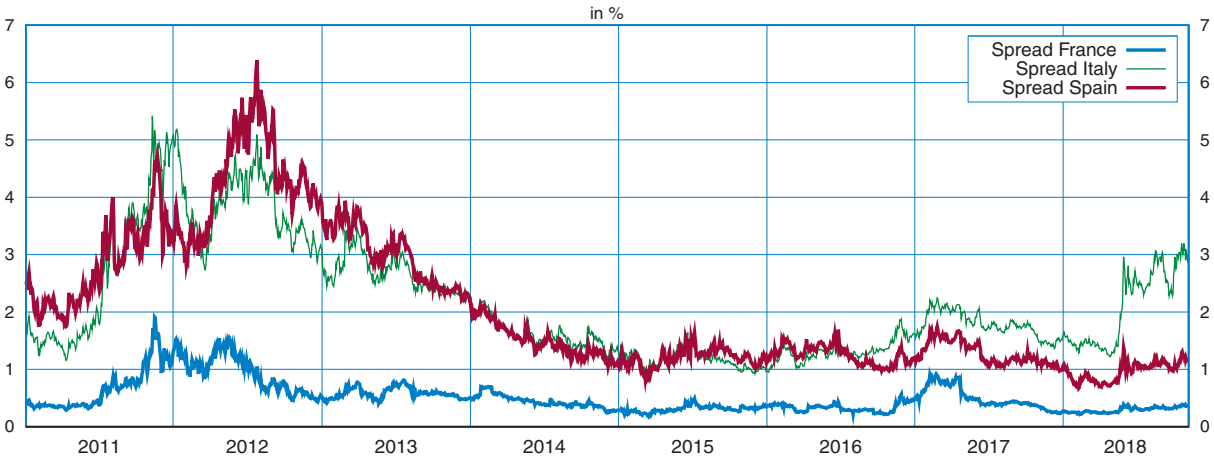
Whereas US monetary policy has caused American interest rates to rise, the German and French rates remain stable. Uncertainty over Italian fiscal policy has caused Italian interest rates to rise since 2018: the spread between the German and Italian sovereign bonds now stands at around 300 basis points (*Graph 3*), a level not seen since the beginning of 2013. There has been hardly any contagion, however: the Spanish and Portuguese rates have barely risen.

2 - Ten-year interest rates



Sources: CB, Eurostat, ICE Bank of America Merrill Lynch, OECD

3 -Spreads in relation to the Bund



Source: DataInsight

International developments

Favourable outlook for credit markets

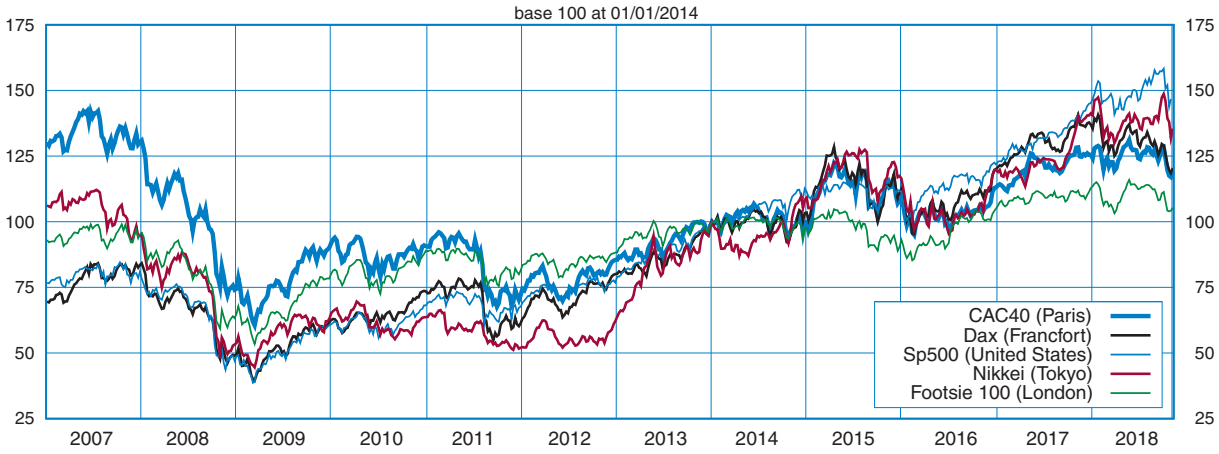
Credit terms continue to be very favourable in the Eurozone, despite persistent disparities. Outstanding loans to non-financial corporations in the Eurozone continue their uninterrupted rise that began in mid-2015. Outstanding loans are continuing to grow at a vigorous rate in France (+6.3% year on year in October) and in Germany (+5.5% year on year in October); they are increasing again in Italy (+1.6% in October) and remain stable in Spain. Lastly, the interest rates charged to companies are stabilising in the four countries, at around 1.3% in Germany, between 1.4 and 1.5% in France and Italy, and at 1.8% in Spain.

France still stands out from its main European partners due to the buoyancy of its household credit and corporate lending. Moreover, the rates for new loans to French households dropped slightly in 2018, from 1.61% in January to 1.51% in October. According to the Bank Lending Survey (BLS), credit terms have tightened slightly in the Eurozone and this trend is expected to continue in Q4 2018. Corporate loans could therefore slow in the Eurozone at the end of 2018.

Downturn in stock market indices

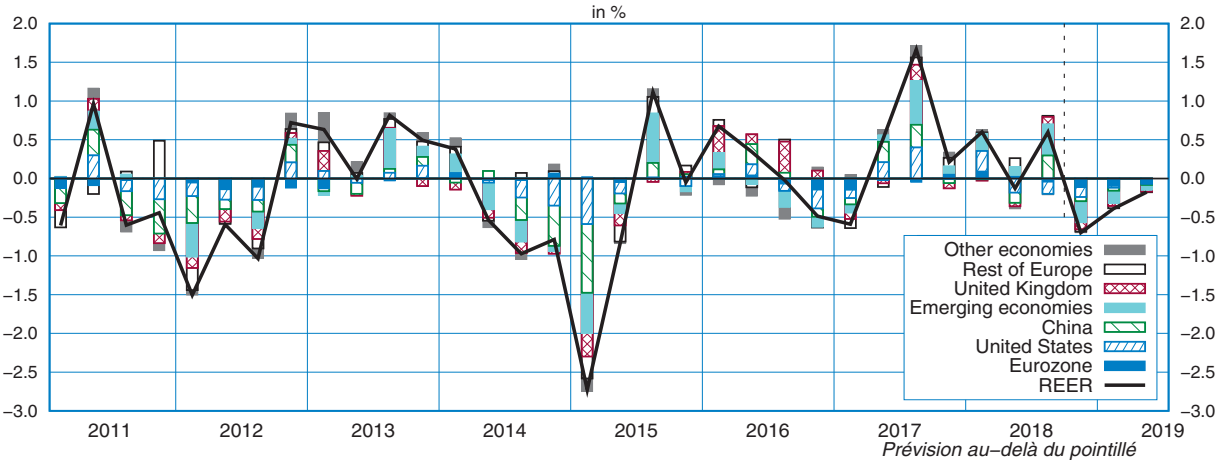
The stock market indices of advanced countries slipped back in October (*Graph 4*). NASDAQ suffered its biggest monthly drop since October 2008 and the S&P 500 recorded its largest monthly losses since January 2016. Possible explanations for this correction include higher interest rates,

4 - Stock market indices of the advanced countries



Source: ECB

5 - Quarterly changes in real effective exchange rate (REER) in France and its main contributing components



Source: Banque de France, national statistical institutes, INSEE calculations

enterprises' earnings sometimes being worse than expected and heightened vigilance concerning the valuations attained.

The downturn in emerging market indices over the past few months points towards a reversal of capital flows, some of which are withdrawals from emerging countries for repatriation to the United States, attracted by the increase in the American base and sovereign rates, the rising dollar and the American government's fiscal measures.

Consequently, the shares of the most indebted enterprises, especially in emerging countries, have dropped sharply. In addition, the MSCI EM (Morgan Stanley Capital International Emerging Market) stock market index, which measures market performance in 24 emerging countries, fell by 8.9% in October.

The euro is stabilising against the dollar at the end of the year

The euro depreciated against the dollar in Q2 2018 and then stabilised at around 1.14 dollars during the month of October: a level that will be used for forecasting purposes through to late June 2019. This depreciation is explained by the differences in growth and monetary policy between the Eurozone and the United States. The recent rises in the dollar and in the Fed's base rates have led to substantial depreciations of emerging currencies and of the Turkish lira and Argentinian peso, in particular. The real effective exchange rate (REER) for French exporters (*Graph 5*) is expected to fall in Q4 2018 (–0.7%) and to a lesser extend in H1 2019 (–0.4% in Q1 and –0.2% in Q2) as a result of the depreciation of the euro and lower inflation in France than in the rest of the Eurozone. ■

Eurozone

European growth is faltering, despite certain fiscal support measures

In Q3 2018, Eurozone GDP slowed to +0.2% after +0.4%. Consumption lost ground, while foreign trade also made a disappointing negative contribution to growth. Activity slipped back in Germany but picked up in France. During the autumn, the European business climates deteriorated again, except in the construction sector. Growth is expected to stand at +0.4% at the end of 2018, buoyed by a reaction in Germany, before slowing in H1 2019 (+0.3% per quarter). As an annual average, activity is likely to be less lively in 2018 than in 2017 (+1.9% after +2.5%), with a mid-year growth overhang of +1.1% expected in 2019. However, a moderate increase in the labour force should see unemployment continuing to fall, reaching 7.9% by mid-2019.

Activity has stalled in Germany and should continue to slacken

In Q3 2018, activity slackened (+0.2% after +0.4%, Table), against the +0.4% forecast in the October issue of Conjoncture in France. This slowdown is mainly due to the situation in Germany, where GDP has edged down (–0.2% after +0.5%), after German car manufacturers failed to make adequate preparations for the introduction of the new Worldwide Harmonized Light Vehicle Test Procedure (WLTP) emissions standard. Activity also edged down in Italy (–0.1%), whereas it regained a little momentum in France (+0.4%) and remained buoyant in Spain (+0.6%). In the autumn, business tendency surveys revealed that the business climates were down, except in construction (*Graph 1*). Growth is expected to pick up in Q4 (+0.4%), driven by a reaction in Germany, before slowing again to +0.3% per quarter in early 2019 (*Graph 2*).

After 2017, the strongest growth (+2.5%) in the Eurozone since 2007, GDP is likely to increase by +1.9% in 2018. The rate is set to slow down a little more in 2019, when the mid-year growth overhang is expected to stand at +1.1%. Surveys on employment prospects point towards the slowdown being consistent with the slackening of economic activity. However, the slight increase in the labour force should enable unemployment to continue to edge down in the Eurozone, although at a slower rate than in previous years (–0.1 points per quarter against –0.2 to –0.3 per quarter in 2017), reaching 7.9% by mid-2019.

Consumption should benefit from certain fiscal support measures

Private consumption is likely to remain buoyant through to mid-2019 (around +0.5% per quarter). Wages are expected to be quite dynamic (around +0.7%) in a context of serious recruitment difficulties (*Report*) and falling unemployment. Purchasing power should also benefit from a substantial increase in the Spanish minimum wage and fiscal support measures in certain countries, as in Italy – by as yet uncertain means – with the plans to introduce a "citizen's income", and in France with the reduction in social contributions and housing tax introduced in late 2018 added to last the measures due to the social unrest by the "yellow vests".

All in all, household income in the Eurozone should therefore be dynamic (+3.1% in current euros in 2018 after +2.6% in 2017), and its annual mid-year growth overhang is expected to reach

Gross domestic product and main aggregates of Eurozone economies

quarter-on-quarter and year-on-year changes in %

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Eurozone	0.7	0.7	0.7	0.7	0.4	0.4	0.2	0.4	0.3	0.3	2.5	1.9	1.1
France	0.8	0.6	0.6	0.7	0.2	0.2	0.4	0.2	0.3	0.3	2.3	1.5	0.9
Germany	1.1	0.5	0.6	0.5	0.4	0.5	–0.2	0.5	0.3	0.3	2.5	1.6	1.0
Spain	0.8	0.9	0.6	0.7	0.6	0.6	0.6	0.5	0.5	0.5	3.0	2.5	1.8
Italy	0.5	0.3	0.4	0.3	0.3	0.2	–0.1	0.1	0.2	0.2	1.6	0.9	0.5
Household purchasing power in the Eurozone (year-on-year changes)	1.8	1.5	1.4	1.4	1.3	1.7	2.1	2.0	1.7	1.4	1.5	1.8	1.1
ILO unemployment rate in the Eurozone	9.5	9.2	9.0	8.7	8.5	8.3	8.1	8.0	8.0	7.9	9.1	8.2	8.0

Forecast

Sources: Eurostat, National statistical institutes, INSEE forecast

+2.6% in 2019. Based on the assumption of a deceleration in energy prices, inflation should dip below 2% again at the beginning of 2019 (*Graph 3*) to stand at +1.4% in mid-2019. Overall, purchasing power is expected to gather pace in 2018 (+1.6% after +1.3% in 2017) and its mid-year growth overhang should be +1.6% for 2019.

Mixed signals about investment

In Q3 2018, investment in the construction sector marks the pace 0.0 after 1.3. The signals differ from country to country: building permits are buoyant in Germany and Spain but down in France. All in all, investment in construction is likely to rise by around +0.4% per quarter through to the spring of 2019. On average over the year, it is expected to have increased by +3.0% in 2018 after +4.2% in 2017 with a mid-year growth overhang of +1.3% expected in 2019.

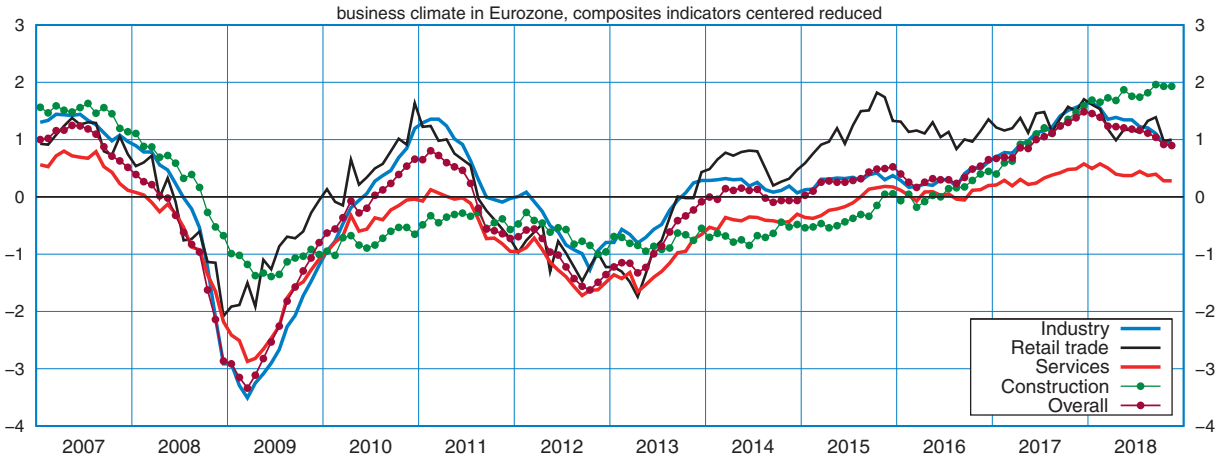
Investment in equipment slowed in Q3 2018 (+0.5%) after a second record-breaking quarter (+2.5%). It should then grow at around +0.6% per quarter, driven by the relatively sound financial situation of European enterprises and a context of production capacity tensions.

The contribution of foreign trade to Eurozone growth is likely to become negative again by mid-2019

Exports fell back in Q3 2018 (–0.1% after +1.0%), because of the situation in Germany. They are expected to pick up again in Q4 (+1.2%) through aviation sales in France and Germany at the end of the year.

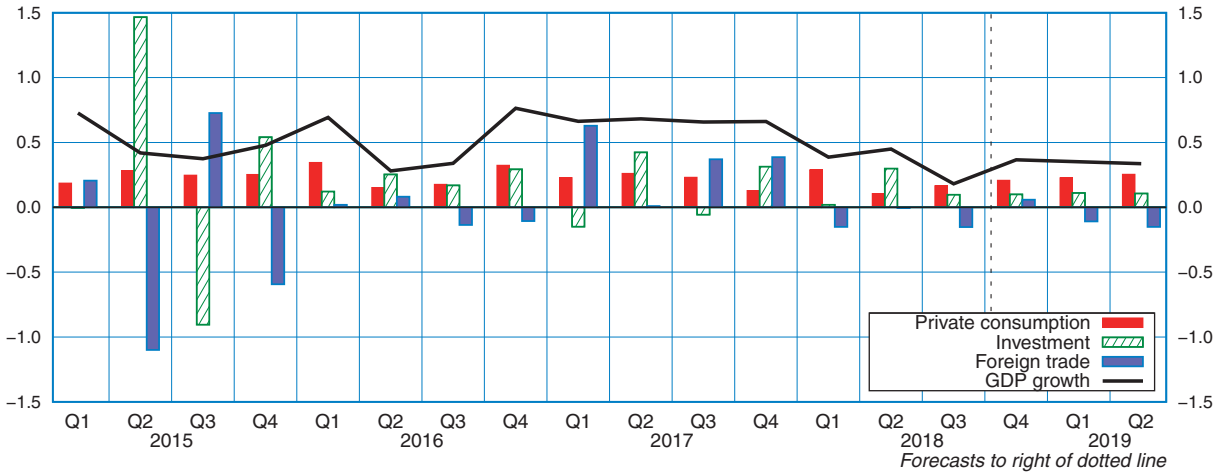
This rise is likely to be curbed by growth in the Netherlands occurring at nearer the trend rate. Exports should then slow in early 2019 as a

1 - Entrepreneurs' confidence slipped back at the beginning of the year



Source: European Commission (DG EcFin)

2 – Consumption and investment should remain buoyant; foreign trade is expected to make a smaller contribution to growth than in 2017

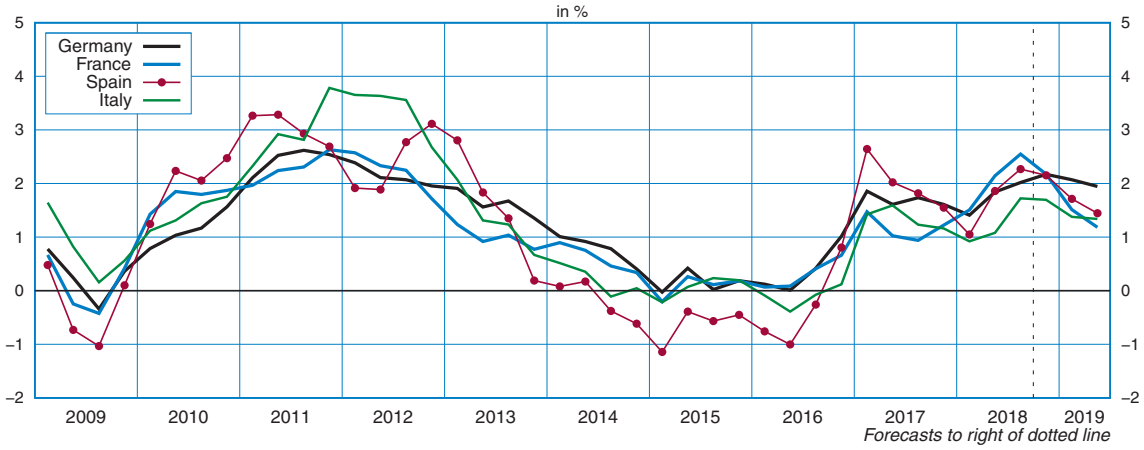


Source: Eurostat

backlash (+0.5%), and then maintain this rate in Q2 (+0.5%). All in all, exports are likely to increase by +2.9% in 2018 after +5.4% in 2017; their mid-year growth overhang should be +2.0% in 2019, in a context of uncertainty over factors including trade tensions with the United States.

Imports slackened in Q3 2018 (+0.5% after +1.1%). Over the coming quarters, they are expected to maintain a dynamic pace (+0.9% per quarter) in response to domestic demand. On an annual basis, imports would appear to have increased by +2.6% in 2018 after +4.0% in 2017; their mid-year growth overhang should be +3.0% in 2019. All in all, the contribution of foreign trade should remain positive in 2018 (+0.2 points after +0.8 points in 2017) but its mid-year growth overhang in 2019 is likely to be negative (–0.3 points). ■

3 - The harmonised inflation of the main Eurozone countries is expected to converge at around 2%



Source: national statistical institutes

Germany

The automotive sector stalls, activity comes to a standstill

In Germany, activity stagnated in Q3 2018 (–0.2% after +0.5%). Domestic demand made a smaller contribution to growth, with household consumption suffering from the automotive sector's struggles to adapt to the new emissions standard. Foreign trade significantly held back activity (–0.9 points in Q3). In reaction, GDP should pick up in Q4 2018 (+0.5%), before slowing again in 2019 (+0.3% per quarter through to the spring), adversely affected by the negative contribution of foreign trade and the slowdown in equipment investment.

The automotive sector has been disrupted by the new emissions standards

For the first time since the winter of 2015, activity in Germany – penalised by a drop in automobile production – shrank in Q3 2018 (–0.2% after +0.5%). Indeed, German manufacturers were inadequately prepared for the entry into force of the WLTP emissions standards on 1st September, which introduced stricter rules for the approval of new vehicles. Consequently, automobile production fell back by 7.4% in Q3 (*Graph*). However, the manufacturers are expected to have adapted their production lines by the winter: the output index had already picked up in September. Although the turmoil in the automotive sector led to a drop in consumption in Q3, consumer confidence remained high in the autumn, pointing towards a rebound in private consumption in Q4 (+0.8% after –0.3%).

Employment is likely to grow at a moderate rate (+0.2% per quarter in 2019), while serious recruitment difficulties and extremely low unemployment should push wages upwards. In this way, despite inflation being around 2.0%, the purchasing power of German households is expected to keep growing (+0.4% in Q4 followed by +0.6% per quarter at the beginning of 2019): private consumption should therefore be vigorous in H1 2019 (+0.3% in Q1, then +0.4% in Q2).

Investment is lacklustre

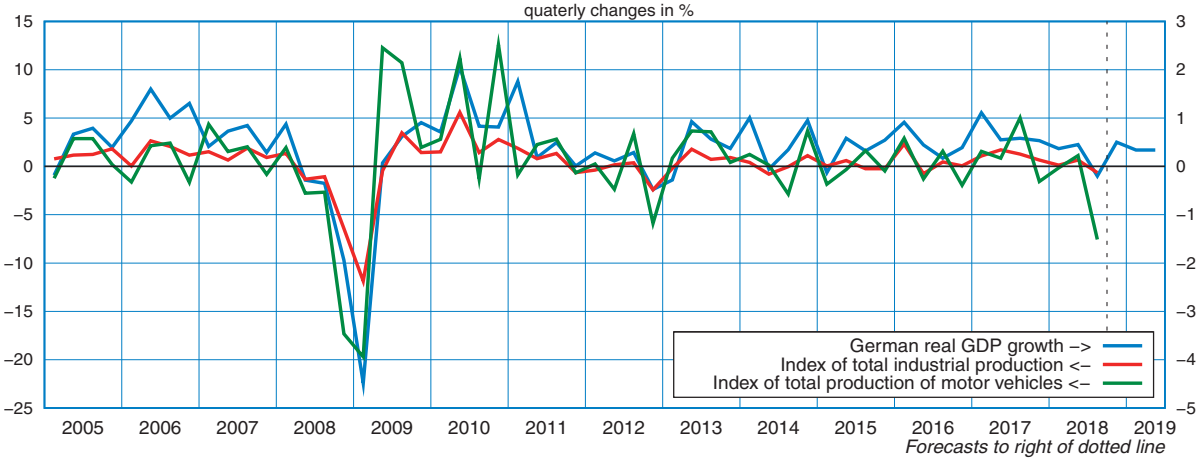
Equipment investment, which was also affected by the problems in the automotive sector in the autumn, is likely to gather pace in Q4 (+1.1% after +0.8%), before slowing again in H1 2019 (+0.7% followed by +0.5%), in the context of a downturn in the business climate. The construction sector is expected to benefit from the increase in orders to accelerate slightly at the beginning of 2019 (+0.6% per quarter). All in all, investment is likely to slow somewhat, to +0.6% per quarter.

Foreign trade is now expected to hold back activity

Through to mid-2019, imports should be buoyant (+1.3% per quarter) in response to domestic demand, compensating for the probable slowdown in the highly constrained German production capacity. As exports are likely to suffer from the slowdown in global demand and trade tensions, foreign trade is expected to make a negative contribution to growth in activity in H1 2019 (–0.1 points per quarter).

For the first time in three years PIB is set to slow in 2018 (+1.6% after +2.5% in 2017). Activity is then likely to increase at 0.3% per quarter and the GDP growth overhang for 2019 after H1 should be +1.0%. ■

German activity is highly dependent on automobile production



Sources: Destatis, INSEE calculations

Italy

Sluggish growth despite fiscal stimulus

In Q3 2018, Italian activity fell back (–0.1% after +0.2%) due to the decline in private consumption and investment. Activity is likely to increase by +0.1% in Q4, thanks to the slight investment rebound. On average over 2018, GDP is not expected to grow as quickly as in 2017 (+0.9% after +1.6%). In H1 2019, activity should only increase moderately (+0.2% per quarter): domestic demand is expected to be buoyed by fiscal stimulus from the government, but foreign trade is likely to hold back growth.

Consumption should benefit from the upturn in purchasing power

Household consumption edged down in Q3 2018 (–0.1% after +0.0%). It is likely to perk up a little in Q1 2019, thanks to dynamic purchasing power. Nominal wages, rising faster than inflation, should maintain relatively sustained growth (+0.6% per quarter in H2 2018 and +0.5% per quarter in H1 2019). In addition, the Finance Bill for 2019 provides for the introduction of a "citizen's income" of €780 per month from Q2 onwards. Household purchasing power is expected to pick up as a consequence, boosting private consumption to +0.5% in the spring (*Graph*). After rising slightly in 2018 (+0.6%), the mid-year growth overhang for household consumption in 2019 is likely to reach already this same rate.

Investment should grow slightly, driven by the construction sector

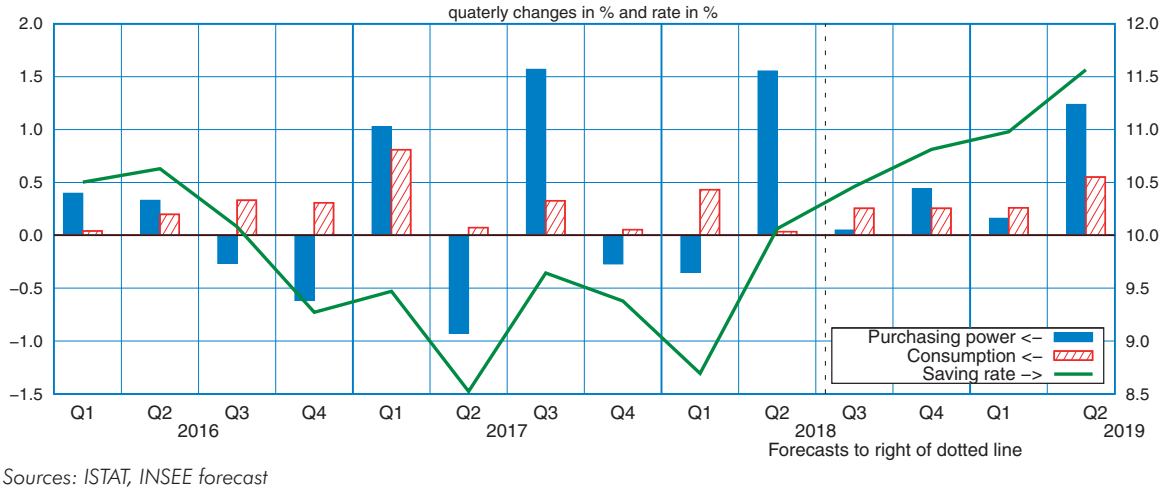
Investment intentions have declined in industry since the beginning of 2018. In Q3 2018, equipment investment plummeted (–2.8% after +6.9 %). However, the self-financing ratio for non-financial enterprises remains at a historically high level, at nearly 100%. Equipment investment is set to bounce back slightly in Q4 (+0.5%) and this growth rate is expected to continue in H1 2019.

With the rebuilding of the Genoa bridge postponed until 2019, investment in the construction sector is expected to slow down at the end of the year (+0.3% in Q4 after +0.5% in Q3). It is likely to pick up somewhat in H1 2019 (+0.7% per quarter), in line with the private investment plan set out in the Finance Bill for 2019.

Foreign trade is not likely to contribute to growth

In Q3 2018, imports slackened (+0.8% after +2.4%), whereas exports accelerated (+1.1% after +0.6%). At the end of 2018, exports should continue to grow (+1.0%), at the same rate as imports. All in all, foreign trade is likely to make a negative contribution to growth in 2018 (–0.3 points after +0.4 in 2017). In H1 2019, driven by domestic demand, imports are expected to remain dynamic (+0.8% in Q1, followed by +1.1% in Q2), whereas exports should continue to slow down. Foreign trade is therefore likely to hamper Italian growth in Q2 2019 (–0.2 points). ■

The upturn in purchasing power should boost Italian household consumption and savings



Sources: ISTAT, INSEE forecast

Spain

Growth should be slightly less vigorous but still robust

In Q3 2018, Spanish growth remained stable at +0.6%, despite another negative contribution by foreign trade. With the less favourable business climate at the end of the year, activity is expected to slow slightly, to +0.5% in Q4 2018. It should maintain this rate in H1 2019, with the rise in wages supporting consumption. However, domestic demand is likely to make a smaller contribution to growth, as investment looks set to be less dynamic. On average in 2018, activity is expected to grow less rapidly than in 2017 (+2.5% after +3.0%), due to the marked slowdown in exports.

Consumption should remain vigorous thanks to the rise in the minimum wage

In Spain, household consumption gathered pace in Q3 2018 (+0.6% after +0.1%). It is expected to slow down slightly in Q4 (+0.5%), in reaction to the high number of vehicle registrations during the summer. The agreement sought by the Spanish government concerning the 2019 budget provides for a 22% increase in the minimum wage, coming into effect in January 2019. This measure should contribute to the rise in nominal wages in H1 (+0.8% per quarter). At the same time, real wages are likely to accelerate thanks to a decrease in inflation below 2% (*Graph*). In this way, household purchasing power is expected to boost private consumption through to the spring (+0.6% per quarter).

Corporate investment is likely to slow

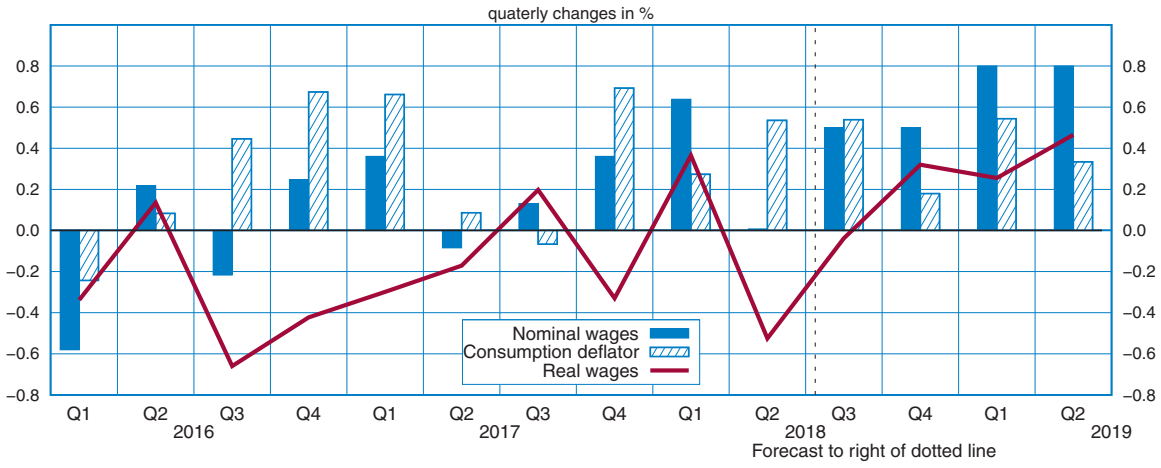
In Q3 2018, equipment investment slackened (+2.2% after +3.6%). The corporate margin rate and the production capacity utilisation rate stopped growing. Equipment investment is therefore expected to decelerate in H1 2019 (+0.8% per quarter). Investment in construction also slowed down in Q3 2018 (+0.5% after +2.2%). The number of building permits has stabilised at a high level. Investment in construction is therefore likely to remain at a moderate rate through to the spring of 2019.

All in all, the investment slowdown in Q3 2018 (+1.0% after +3.5%) looks set to continue in Q4 (+0.9%) and again in H1 2019 (+0.8% per quarter).

Foreign trade should hold back growth

Since Q1 2018, foreign trade has been making a negative contribution to growth. In Q3, imports fell sharply (–1.2%). Exports also plummeted (–1.8%) because tourism activity slipped back. Trade is expected to pick up at the end of the year: imports are likely to bounce back in response to domestic demand (+0.8%) and exports should recover (+0.9%). On average in 2018, foreign trade is likely to hold back growth (–0.6 point) after making a positive contribution to it for two years. In H1 2019, foreign trade should slow down. Exports are expected to lose some of their buoyancy (+0.6% in Q1, followed by +0.5% in Q2) in the same way as imports (+0.7% then +0.6%). All in all, foreign trade is expected to make a negative contribution to growth in H1 2019. ■

The rise in the minimum wage should be reflected in wages



Source: INE, INSEE forecast

United Kingdom
Awaiting Brexit

In Q3 2018, British activity accelerated slightly, to +0.6% after +0.4 %, buoyed by private consumption and exports. However, corporate investment, penalised by the Brexit waiting game, fell for the third consecutive quarter. Thereafter, activity is likely to slacken to +0.2% in Q4 2018, followed by +0.3% in early 2019, penalised by private consumption: households are expected to increase their precautionary savings. Assuming that the European Union and the United Kingdom approve the technical agreement struck in November 2018 before the end of March 2019, British GDP should not be negatively impacted in Q2 2019 (+0.3%). The mid-year growth overhang for 2019 is expected to stand at +1.1%, after +1.3% on average in 2018.

Households are expected to build up their precautionary savings

In Q3 2018, household consumption picked up (+0.5% after +0.4%), sustained by the buoyancy of wages and by the pay rises for National Health Service employees and the increase in the minimum wage in April, in particular. Household consumption should come to a standstill at the end of 2018 (0.0%). Households are likely to prioritise their savings, in anticipation of a coming rise in inflation associated with the risks of depreciation of the pound and increased import taxes due to Brexit. In H1 2019, consumption is expected to be sluggish (+0.2% per quarter), due to the Brexit waiting game.

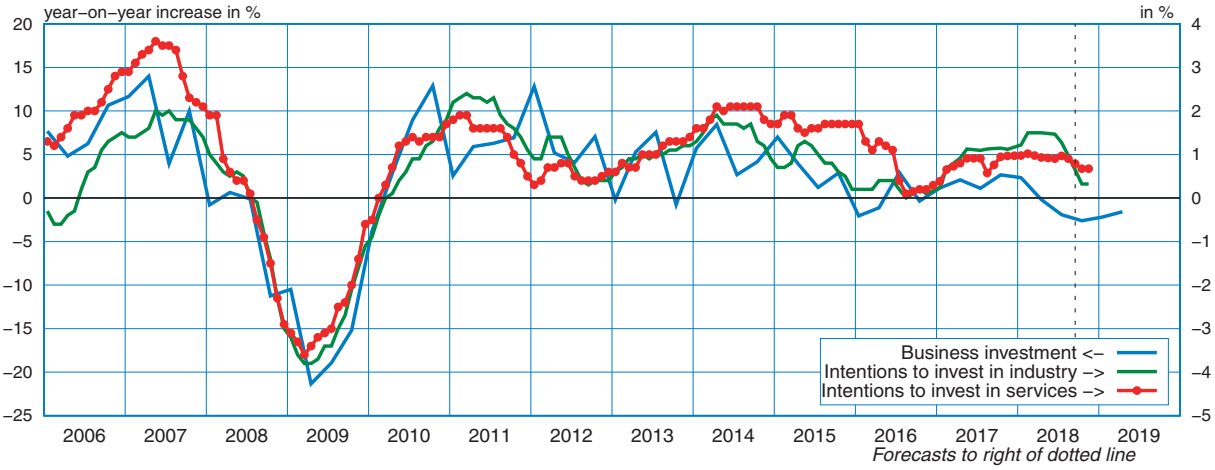
Private investment is still adversely affected by the wait-and-see attitude

Corporate investment fell for the third consecutive quarter in the summer (–1.2% after –0.7% in Q2 and –0.5% in early 2018), adversely affected by the Brexit waiting game: Bank of England surveys reveal a sharp decline in investment intentions (*Graph*). Looking ahead, corporate investment – still penalised by Brexit – should continue to fall back (–0.2% at the end of late 2018 and then –0.1% per quarter). Household investment is also expected to slacken (+0.1% per quarter after +0.2% at the end of 2018) due to the sluggishness of the real estate market, as reflected by the downturn in prices on the London market.

Foreign trade should increase in anticipation

In Q3 2018, exports bounced back (+2.7% after –2.2%). Over the coming months, they are likely to grow in anticipation of a possible increase in customs tariffs associated with Brexit (+0.6% in late 2018, followed by +0.8% in early 2019), as should imports (+0.6% and then +0.5%, after 0.0% in Q3 2018). Assuming that the European Union and the United Kingdom ratify the technical agreement of November 2018 before the deadline of 29 March 2019, ushering in a transitional period in which the United Kingdom would continue to benefit from the Single Market until the end of 2020, exports should remain buoyant (+0.7%), as should imports (+0.5%). On an annual average basis in 2018, foreign trade is expected to make a reduced contribution to growth (+0.3 points, as in 2017). ■

Corporate investment is likely to be penalised by the Brexit waiting game



Sources: ONS, Bank of England

United States

Activity is expected to slow slightly despite the continued fiscal stimulus

In Q3 2018, driven by household consumption and increased inventory levels, American activity rose by 0.9% (after +1.0% during the previous quarter). Private investment stalled, however, and foreign trade hampered growth. Activity is likely to remain vigorous in Q4 (+0.9%) before slowing down in H1 2019 (+0.6% per quarter), held back by domestic demand. On an annual average basis, growth is expected to reach +3.0% in 2018 – its highest level since 2005 – after +2.2 % in 2017. The mid-year growth overhang for 2019 should reach 2.4%.

Activity is set to slow down

In Q3, American activity slowed slightly (+0.9% after +1.0%), hampered by foreign trade (contribution of –0.5 points, after +0.3 points). Nevertheless, it was buoyed by private consumption (+0.9% as in Q3) and by significant changes in inventories (contribution of +0.6 points after –0.3 points). In the autumn, the indicators derived from surveys and industrial output remained positive. Activity is therefore expected to remain vigorous (+0.9% in Q4 2018), before slowing in H1 2019 (+0.6% per quarter), like domestic demand.

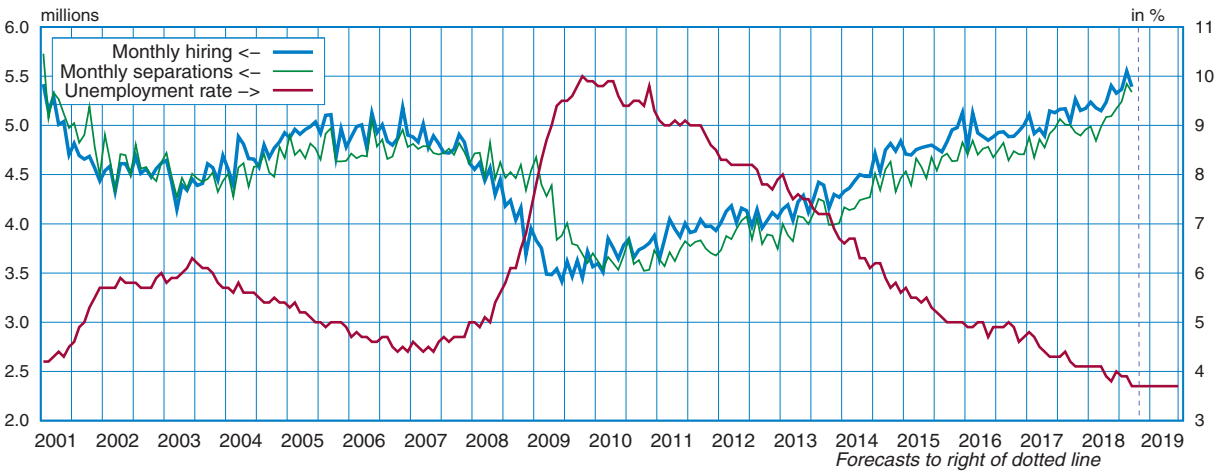
Public spending should gradually take over from private consumption

Household consumption remained buoyant over the summer. With strong wages (+0.9% in Q4 2018 and in Q1 2019, followed by +0.7%) and inflation dipping to 1.4% due to falling energy prices, the growth overhang for purchasing power for 2019 is expected to reach +2.4% in late June (after +2.8% for the whole of 2018). Household consumption should remain vigorous in the autumn (+0.9%) but is still likely to slacken in H1 2019 (+0.5% per quarter), due to the stabilisation of the unemployment rate in a very buoyant labour market (*Graph*) and negative wealth effects following the stock-market turmoil. The rise in inflation associated with customs duties should be limited (*Focus*). In this way, households are expected to stabilise their savings ratio at around 6.7% in mid-2019, as in 2018. Public spending is likely to accelerate sharply under the effect of the stimulus plans adopted in the spring: it should increase by 1.5% per quarter, after +0.6% in Q3, boosting activity significantly.

Foreign trade is likely to slow down

Exports fell back over the summer (–1.1% after +2.2%), whereas imports bounced back (+2.2% after –0.1%), in the context of an appreciating dollar and trade tensions with the United States' partners, especially China (*Focus*). Exports should bounce back in Q4 (+1.0%). As a backlash, they are then likely to decline at the beginning of the year (–0.5%) before stabilising in the spring. Imports are expected to rise again in Q4 (+2.0%), in anticipation of possible new increases in customs duties, before falling in early 2019 (–1.0% and then 0.0%). The contribution of foreign trade should reach –0.2 points by mid-2019. ■

The labour market remains very buoyant, sustaining the rise in wages



Source: BEA, INSEE forecast

The increase in American customs duties on Chinese imports should have moderate inflationary effects

Successive waves of increases

The American government has announced several waves of increases to the customs duties charged on imports from China. On 6 July 2018 a first wave of increases came into force, affecting Chinese goods for a total annual value of 34 billion dollars; customs duties on these products were increased by 25 percent. On 7 August a second wave of customs duty increases (+25 points) came into force, affecting a further 16 billion dollars' worth of Chinese goods. 18 September saw a third wave of increases, affecting $200bn of imports from China, taxed at a rate of 10% of their total value as of 24 September. These duties could be increased to 25% as of 1st March 2019 if the two countries have not reached an agreement by that date, at the expiry of a 90-day moratorium agreed in early December. The United States has also threatened to raise customs duties on a further 267 billion dollars' worth of Chinese imports. China has retaliated with equivalent tariffs on American imports. The targeting of these measures is partly informed by political considerations, focusing in particular on those American states which voted for President Donald Trump, for example states that are major producers of soybean.

Products affected

After several weeks of hearings and consultations with interest groups, on 18 September the Office of the United States Trade Representative published a list of Chinese goods affected by the tariffs. These new customs duties came into force on 24 September 2018. They concern an extremely broad array of products, ranging from food to manufactured goods, chemicals, agrifood products, energy, some transport equipment (locomotives) and electronic goods. All furnishings (a segment worth around 28 billion dollars) are affected. Nevertheless, certain products are exempted from these tariffs, including Apple products (smart watches, Bluetooth equipment) and certain chemical products used in agriculture and the manufacturing industry.

What impact will these measures have on prices of goods consumed in the USA?

All other things being equal, and assuming that commercial exchanges between the countries will change little in the short term, these American measures should increase the consumption deflator (the PCE index, monitored by the Fed) by 0.1 percentage points (see Method below). If the customs duties announced in the third wave of tariffs are increased to 25%, the American consumption deflator would then increase by a further 0.1 percentage points.

According to the forecasts, this deflator should increase by 0.4% in both Q4 and Q3 2018 as a quarter-on-quarter variation, before slowing to +0.1% in early 2019 as a result of the fall in energy prices. The consumption deflator should then grow by 0.4% again in the spring. In year-on-year terms, this should mean a 1.9% increase in Q4, 1.4% in the first quarter of 2019 and 1.3% in the spring.

In a more general sense, taking into account the possibility that economic forces will adapt their behaviour accordingly, the effects of these tariff increases are theoretically ambiguous. Customs duties should make products imported to America from China more expensive, thus increasing the prices of goods consumed in the USA. Furthermore, an increase is expected in the prices of USA-produced goods and services relying on intermediate consumption of products imported from China, and thus impacted by the increased customs duties.

Nevertheless, these customs duties could also have the effect of driving down demand for Chinese products, reducing the influx of currency and purchases of the yuan, leading to a depreciation of the yuan. Economic uncertainty regarding the Chinese situation could serve to accentuate this depreciation, as could any speculation against the Chinese currency on the financial markets. This factor, combined with the decline in the yuan observed since the spring, could offset price increases for Americans.

Businesses might also seek to diversify their supply sources and utilise the diversity of their value chains to keep production costs down. They might also choose to pass on only part of these customs duties to consumers in the form of price increases. Some businesses might in fact be incapable of passing on price increases due to contractual obligations, competition, commercial policies etc. Competition and price rigidity could thus serve to attenuate the impact on inflation. ■

Method

In order to determine the Chinese-import content in American household consumption, we use the world input-output table (WIOT) published by Eurostat (in the World Input-Output Database, WIOD) for 2014, the most recent year available.

This table is a matrix with 2464 lines, corresponding to 44 countries and 56 products. The lines describe the possible applications of a given product manufactured in a given country: for example a car manufactured in France, a telephone manufactured

in China etc. The columns correspond to uses: so cell (*i*,*j*), where i is the line number and j the column number, indicates the value of a country-product combination i used as intermediate consumption in the production of the product-country combination *j*.

In order to estimate the potential impact of an increase in customs duties on American inflation, we begin by inverting this table to determine the Chinese-import content of American household consumption: households consume products imported from China, but businesses also use imported intermediate consumption goods in their production processes, before selling on the end product or service to the consumer. This inversion therefore allows us to account for "second round" effects.

To achieve this, we begin by constructing a matrix of technical coefficients A, dividing each cell (*i*,*j*) by the value of the output from the country-production combination *j*:

$$A_{i,j} = \frac{TIES_{i,j}}{Prod_j},$$

where $WIOTS_{i,j}$ refers to cell (*i*,*j*) in the WIOT. $A_{i,j}$ thus designates the proportion of intermediate consumption coming from the pairing (product-country) *i* in the output of the pairing (product-country) *j*. But this product-country pairing, used as intermediate consumption, itself relies on intermediate consumption, and so on and so on. In order to produce, a given product-country pairing may make use of any number of other product-country pairings, which in turn may make use of any number of other product-country pairings. This leaves us with a geometric progression:

$$Y_x = Y_0 \sum_{i=0}^{+\infty} A^k$$

where Y_x represents total production used to produce the output of the pairing (country-product) *x* and Y_0 represents the output of this pairing, hence $Yx = Y_0 (I–A)^{-1}, (I–A)$ using the Leontief matrix.

Calculating the Chinese-import content of American household consumption requires us to multiply the value-added vector, for which each term corresponds to the value added of a product-country pairing (i.e. 1 minus the sum of the corresponding column), by the Leontief matrix and by the final demand vector.

The figure stood at 1.7% in 2014: to satisfy 100 dollars of American consumption, the value added of China was 1.7 dollars. American imports from China totalled 333 billion dollars in 2014, growing to 505 billion dollars in 2017.

The average rate of customs duties levied on all Chinese imports leads to a 0.1-point increase in inflation, calculated as follows:

$$\text{Surtaxes} = (50/505*0.25 + 200/505*0.10) = 0.064$$
$$\text{Customs inflation} = 0.017*\text{Surtaxes}$$

It should be noted that we have used the WIOT for 2014 here. But the table may have evolved in the meantime. Moreover, the rise in customs duties may lead some companies to transfer their production activities from China back to the USA, or elsewhere in Asia (Vietnam, Thailand, Malaysia). In fact these tariff barriers have been introduced with the explicit intention of modifying the value chain, encouraging companies to produce more in the United States and protect American intellectual property.

Our analysis is limited to the pure accounting effects of these changes, assuming that the structure of consumption and consumer behaviour remain unchanged, i.e. that consumers do not switch to alternative products, and that companies pass on the increase in their production costs to the final price, thus preserving their margins.

Moreover, these effects are calculated at a constant exchange rate; and yet the yuan has fallen sharply since these sanctions came into effect. The length of the time lag before these effects are felt is uncertain, and may vary from several weeks to several months.

Finally, the proportion of consumption taken up by Chinese imports is higher when it comes to business investment: investment by business could therefore be hit harder by these new customs duties, with potential consequences for productivity and potential growth in the USA. ■

Japan

Domestic demand should take over from foreign trade

Japanese activity, affected by unfavourable climatic and seismic conditions, shrank in Q3 2018 (–0.6% after +0.7%): domestic demand and foreign trade both contributed negatively to growth. Activity should bounce back at the end of the year (+0.6%), before returning to a more moderate growth rate in H1 2019 (+0.2% in Q1, then +0.3 % in Q2).

Household consumption is expected to regain momentum

Japanese activity, affected by major climatic and seismic events, declined in Q3 2018 (–0.6% after +0.7%). GDP is expected to gather pace at the end of the year (+0.6%) before resuming a more moderate growth rate in H1 2019 (around +0.2% per quarter). Its mid-year growth overhang for 2019 should reach +0.7%. Household consumption came to a standstill this summer, after a second quarter buoyed by highly favourable wage negotiations (–0.2% after +0.7%). It is likely to speed up in Q2 2019 (+0.5%), driven by the expected increase in the tax on consumption scheduled for October 2019. It should also benefit from a new rise in the average wage per capita resulting from the wage negotiations in March 2019: the tax incentives for employers to increase wages are expected to be renewed.

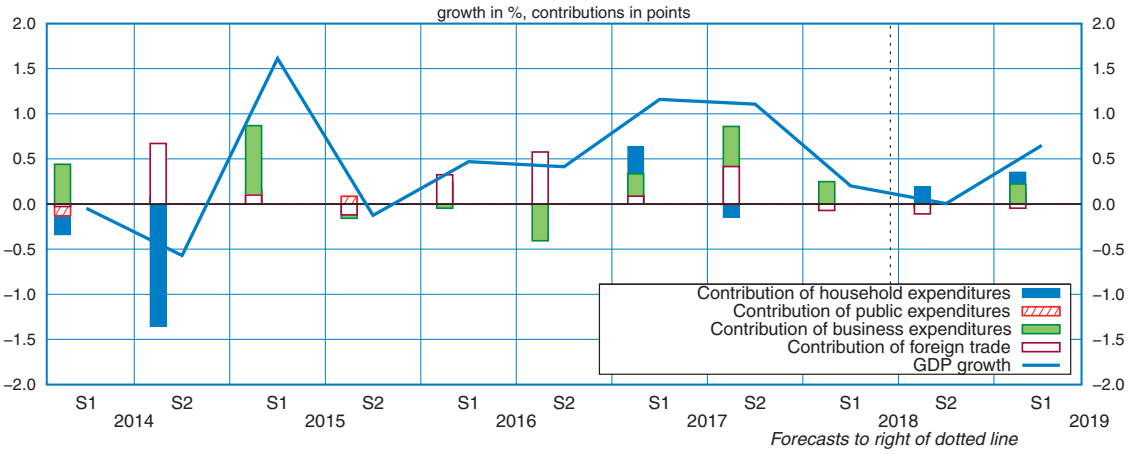
Moderate growth of corporate investment and an upturn in public investment

Despite the profit rate hitting its highest ever level, corporate investment fell back in Q3 2018 (–2.8% after +2.8%). It would rebound at the end of the year +1,5%) and regain moderate growthe in 2019 (+0,2% at the beginning of the year then +0.4% in the Q2). It should return to moderate growth (+0.4% at the end of 2018, +0.2% at the beginning of 2019, and then +0.4% in Q2), sustained by the wage negotiations in the spring, with tax benefits being dependent on corporate investment. After falling for several quarters, public investment is likely to speed up progressively, reaching +0.5% in the spring of 2019. The origins of this rise included in the budget for the 2018-2019 tax year are the rebuilding projects in regions affected by the natural disasters of the past summer, military spending and infrastructure projects, especially for the 2020 Olympic Games.

Foreign trade is no longer likely to sustain activity

Imports fell in Q3 (–1.8% after +0.3%). They should recover at the end of the year (+2.0%) and then slow in H1 2019, in an international context of trade tensions with the United States. As an annual average, Japanese exports should weaken in 2018 (+3.2% after +6.8%). Their mid-year growth overhang is expected to be just +0.8% for 2019. However, imports should regain momentum in the wake of domestic demand, rising to +1.7% at the end of 2018, before growing moderately in H1 2019. As an annual average, they would appear to have slowed down in 2018, (+2.9% after +3.4%). In this way, foreign trade is expected to contribute +0.1 points to growth in 2018, after +0.6 points in 2017 (*Graph*). Its mid-year growth overhang for 2019 is expected to be negative (–0.1 point). ■

Foreign trade is expected to hamper growth once again



Sources: Cabinet Office of Japan

Emerging economies

The Chinese growth drivers are running out of steam

In Q3 2018, Chinese investment would appear to have slowed slightly (+1.5% after +1.6%). It is expected to maintain this growth rate of +1.5% per quarter through to mid-2019, held back by both domestic and foreign demand. On an annual average basis, Chinese growth should decelerate only slightly in 2018, to +6.6% after +6.9%, due to the slowdown in domestic demand.
In Russia, diplomatic tensions are penalising the rouble and boosting inflation. In Brazil, after being affected by a strike in May, activity would appear to have accelerated in reaction during the summer and at the end of 2018, before an expected slowdown in H1 2019. In Turkey, the business climate has deteriorated significantly since March and inflation has soared: GDP would seem to have fallen back over the summer and should continue to decline from now on. In India, activity is expected to gather pace in 2018 and should maintain its momentum in 2019. Lastly, growth in the Eastern European countries is likely to remain dynamic but should slip back slightly, in the wake of the Eurozone.

China: activity held back by demand

In Q3, Chinese GDP would appear to have slowed down (+1.5% posted after +1.6%). The business climate indicators are misdirected and the profits of industrial enterprises are down. Lower domestic demand and uncertainties related to trade tensions with the United States are hampering production.

Investment has slackened in the real estate sector with the deceleration of new housing starts, but also in the other sectors.

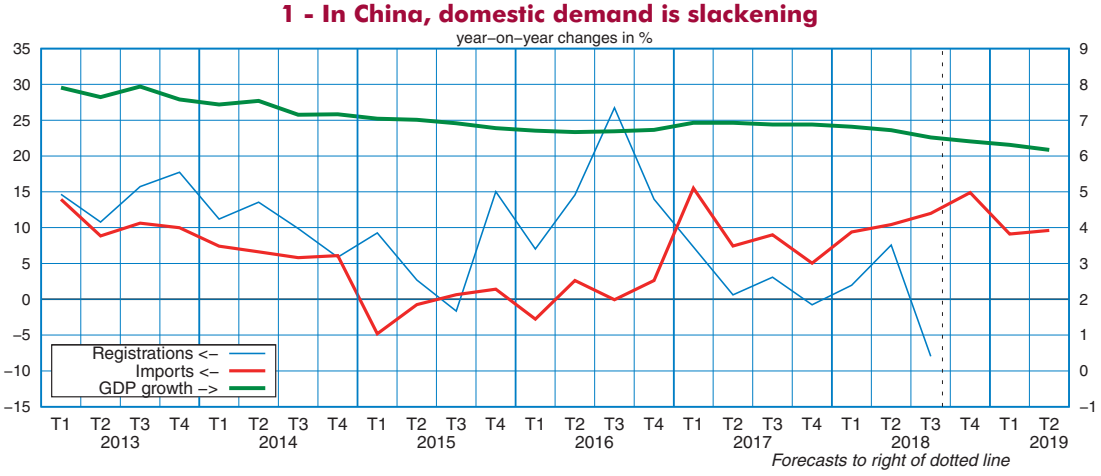
On the household side, the confidence indicators are following a downward trend. In October, retail sales slowed year on year, and car registrations fell again after previously declining in Q3 (*Graph 1*).

Exports picked up in Q3 (+2.2% after –2.3%, *Focus*), in line with the depreciation of the yuan and probably due to the anticipation of new hikes in American customs duties. Exports should gradually slow down (+1.5% at the end of the year, followed by +1.2% in Q1 and then +1.0% in Q2 2019), held back by shrinking foreign demand, especially from the United States. On an annual average basis, exports are expected to accelerate sharply in 2018, to +6.8% after +4.2%. Their mid-year growth overhang for 2019 should reach +3.6%.

Imports also bounced back (+3.3% after +0.5%). They are expected to maintain this growth rate at the end of 2018, before gradually slowing down through to mid-2019 (+2.0% at the end of the year, +1.5% at the beginning of 2019 followed by +1.0% in Q2), in the wake of activity and with the stabilisation of the share of the assembly trade in foreign trade. On an annual average basis, imports would appear to have strongly picked up pace in 2018 (+11.3% after +9.1%) and their mid-year growth overhang for 2019 should stand at +5.6%.

Between now and mid-2019, activity should maintain a growth rate of +1.5% per quarter. It is likely to be held back by less lively domestic demand (concerning both household consumption and investment) and foreign trade (under the effect of protectionist tensions).

1 - In China, domestic demand is slackening



Source: National Bureau of Statistics of China

As an annual average, activity is expected to slow down slightly in 2018, to +6.6% after +6.9%, held back by the slackening of domestic demand. Its mid-year growth overhang for 2019 should reach +5.0 % at the end of Q2. However, the Chinese authorities have declared their intention to curb this slowdown by adapting their policy mix (easing of monetary policy and provision of fiscal support).

Russia: inflationary pressures are likely to hamper growth

After accelerating gradually throughout H1 2018, GDP fell by 0.4% in the summer. Due to diplomatic tensions with the United States, the rouble lost 10% of its value between January and September, boosting inflation (*Graph 2*). Consequently, retail sales have slowed, and new vehicle registrations edged down in the summer.

Russian activity is expected to resume moderate growth at the end of 2018 (+0.7%). In H1 2019, growth is expected to decline slightly, penalised by the drop in purchasing power linked to the previous depreciation of the rouble and the implementation of a new VAT hike on 1st January 2019. On average in 2018, GDP is set to accelerate slightly to +1.8% in 2018 after +1.5% in 2017.

India: activity is expected to remain buoyant

In Q3 2018, activity in India remained buoyant (+1.1% after +1.8%), penalized by household consumption. Surveys of purchasing managers remain above the expansion threshold. Imports by volume – sensitive to oil prices – have slowed (+6.5% after 11.0%). Between now and mid-2019, they should continue to decelerate (+2.5% at the end of the year followed by +2.0% per quarter through to mid-2019), under the effect of the import tax hike on certain products.
Indian activity is likely to maintain its momentum between now and mid-2019 (+1.7% per quarter). On average in 2018, GDP growth is expected to reach 7.5% after 6.2% in 2017. Its mid-year growth overhang should stand at +5.3% in 2019.

Brazil: activity struggles to gain momentum

In the spring of 2018, activity remained sluggish (+0.2% after +0.1%), under the effect of a strike by road hauliers in May. After this industrial action, activity picked up slightly in Q3 (+0.8%). However, the business climate in services dropped below the expansion threshold. Inflation increased substantially with the depreciation of the Brazilian real due to political tensions related to the presidential elections, penalising purchasing power. From now on, growth is expected to weaken again due to inflationary pressures. On average in 2018, activity should grow by 1.2%, after +1.1% in 2017.

Turkey: monetary turmoil

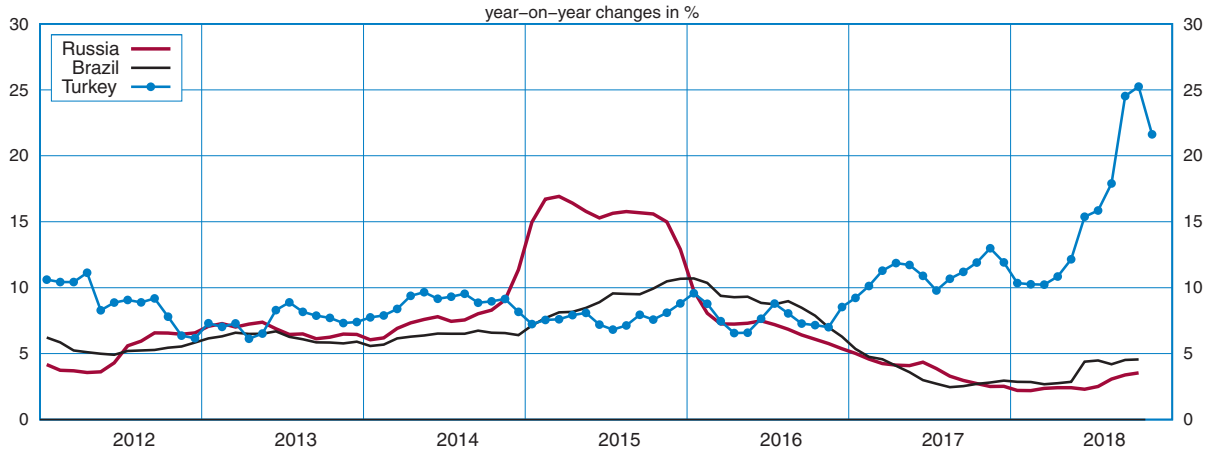
The business climate in the manufacturing sector has significantly deteriorated since March, reaching its lowest level since 2009. In Q3, industrial production slipped back again, and the Turkish lira has continued to depreciate under the effect of political tensions, boosting inflation: in November, prices had risen by 21.6% year on year.

In this way, activity would appear to have slipped back in Q3 2018 (–1.0%). GDP should continue to decline from now on, and then stagnate in Q2 2019. On average in 2018, growth is expected to reach +3.6%: a very substantial slowdown in relation to 2017 (+7.3%).

CEEC: growth is expected to slow

In Q3, activity gathered pace in the Central and Eastern European Countries (CEEC) (+1.4% after +1.1%). Activity is likely to decelerate slightly at the end of 2018, held back by declining demand from the Eurozone. In H1 2019, the GDP of the CEECs should continue to slow. On average in 2018, growth should stand at +4.4% in 2017 after +4.6% in 2017, and the mid-year growth overhang for 2019 is expected to be +2.8%. ■

2 - In Russia, Brazil and Turkey, political tensions are driving inflation upwards



Source: National statistical institutes

What impact does the date of Chinese New Year have on growth in world trade?

China's foreign trade accounts for around 10% of total world trade: this is why the inclusion of Chinese foreign trade data in a global analysis framework tracking the past and future flows of goods of services between the largest economies is so important when it comes to analysing the economic outlook.

But the data issued by the *National Bureau of Statistics of China (NBS)* are not adjusted for seasonal variation, despite the fact that the series reveal certain seasonal specificities, not least in relation to the date of Chinese New Year. Chinese New Year is a very important and symbolically-charged festival in China, and a large proportion of the country's public holidays are linked to the new year. Many employees take their holidays in this period, with an impact on activity comparable to that seen in France in August. As with Easter, the date of Chinese New Year depends on the lunar calendar and thus changes from year to year. This focus article explains the new method used in *Conjoncture in France* to correct for seasonal variations in Chinese import and export data.

The "X12" seasonal adjustment method used up until the Conjoncture in France issue of March 2018 was called into question because it suggested a strong surge in Chinese imports in Q1 2018, an upturn inconsistent with the export figures for the major advanced economies, and in particular China's biggest suppliers (USA and Japan), for which the quarterly accounts indicated a generalised slowdown. This observation of an increase in Chinese imports in Q1 was corroborated by the Dutch CPB (Central Planning Bureau), an institution which reprocesses and summarises customs data for world trade as a whole, but the incoherency in the data remained unresolved.

The raw figures for the month-on-month development of Chinese imports over the past five years show a high degree of seasonal variation (*Figures 1* and *2*). In 2018, non-seasonally-adjusted import figures show a sharp slowdown in February (–23.1%), the month in which Chinese New Year fell this year, followed by a rebound in March (+27.7%).

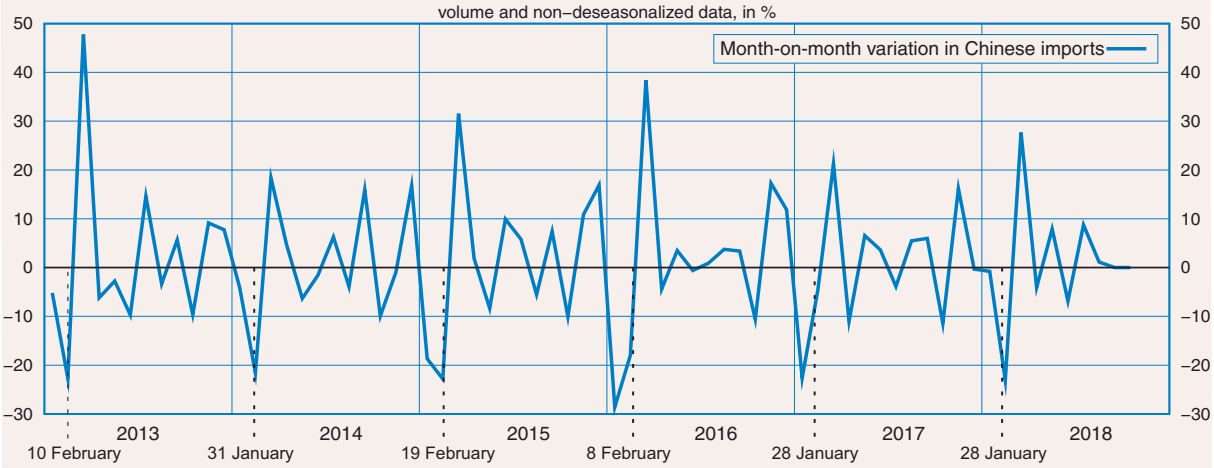
Imports have a tendency to drop off significantly in the month of Chinese New Year (January or February) then bounce back vigorously the next month. The main explanation for this phenomenon is the slowdown in investments in this period, which account for a substantial proportion of Chinese imports. But, just as the number of working days in a month or the date of Easter have economic effects which are corrected by existing methods to smooth seasonal variation, the calendar effects of Chinese New Year need to be taken into consideration when processing and analysing the data. As far as we are aware there is no standard model to correct these effects, and as such this article presents a new method for correcting seasonal variation which takes CNY into account.

Applying the standard seasonal adjustment method ("X12") to Chinese import data for early 2018 alters the estimation of these changes by transferring to January a large part of the increase observed in the raw data in March. In quarterly terms, this is reflected in a strong increase for Q1 2018 in the data seasonally adjusted using method X12 (+8.5% in the volume data).

The new seasonal adjustment method introduced here (*Method*) allows us to reconcile Chinese import data with the corresponding export data from trading partners, and also to correct for the effects of Chinese New Year. It attenuates the substantial variations observed in the raw data, which have no equivalent in the data for China's trading partners, thus bringing the series for Chinese international trade into line with the series for its trading partners (*Figures 2* and *3*). It better takes the calendar effects of Chinese New Year into account, effects with no economic origin: the consequences of monthly variations in imports and exports used to have a substantial effect on the quarterly variations, especially when the former method of seasonal adjustment erroneously transferred the downturn from the New Year month onto the preceding month.

This new method can be used to estimate the impact of the New Year date: the coefficient β_3 in front of the

1 - Clear seasonal effects linked to Chinese New Year
Month-on-month variation in Chinese imports (in %) and dates of Chinese New Year



Source: National Bureau of Statistics of China (NBS), General Administration of Customs of the People's Republic of China

variable representing the proportion of public holidays linked to New Year in the month (CNY_t, see the methodological note) is –0.75. In other words, if the whole month were to be declared a public holiday because of New Year, imports would fall by 75%. New Year actually brings with it an average of 5 holidays, i.e. approximately one-fifth of the total number of working days in the month: New Year thus causes imports to fall by around 15%, which in turn has a noticeable effect on world trade.

The results are consistent with the international trade figures for other countries, with the same observed economic events: for example, January 2016 saw a sharp downturn, even after seasonal adjustment, which can be explained by the worsening of the Chinese financial crisis in early January 2016 – the Shanghai stock exchange tumbled on 4 and 7 January, with significant consequences for investments, and thus imports.

Furthermore, the results are less erratic and make it easier to track trends. ■

METHOD

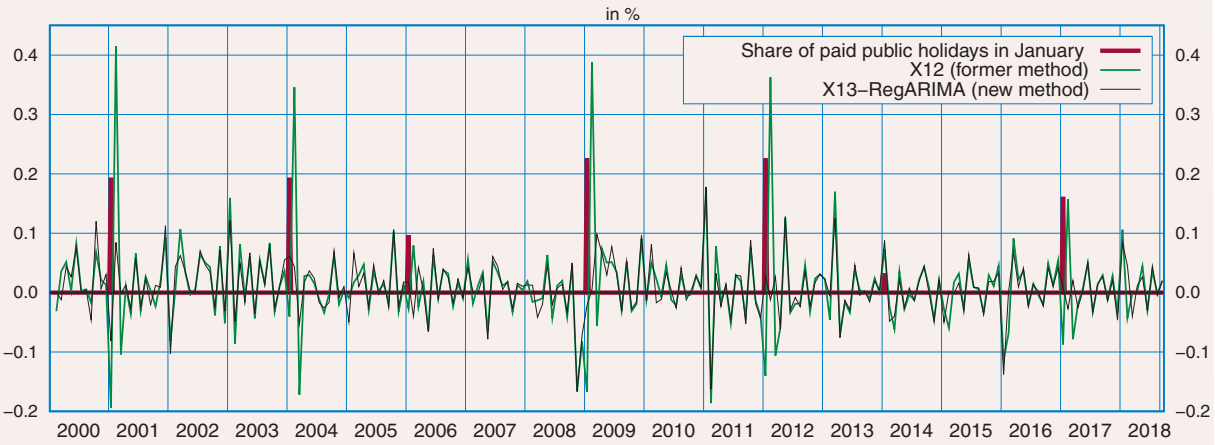
The first step in this new method is a linear regression analysis of the series to be seasonally adjusted (import or export figures). The explanatory variables are the number of working days in the month (*td*, *trading days*) as well as the proportion of public holidays connected with the new year in this month (*CNY, Chinese New Year*). This variable is equal to 0 for all months from March to December, and is between 0 and 1 in either January or February. An indicator for the month of November 2008 has been added in order to take into account the special circumstances caused by the economic and financial crisis, an event whose ramifications extended far beyond China and saw international trade nosedive. The estimated equation is as follows:

$$Yt = \beta_1 + \beta_2 td + \beta_3 CNY_t + \beta_4 \quad 1_{nov\,2008} + u_t$$

In the second phase, the residuals are seasonally adjusted using the ARIMA method and the principle of moving averages. This method is iterative: the trend is estimated first then separated from the series; we then estimate seasonal variation, fine-tuning the estimated trend using the series without the estimated seasonal component, and so on. This method allows us to estimate a series independently of its seasonal component. The estimate is robust and stable: various specifications have been tested, with multiple variables in the regression stage, and with sliding windows of 10 years for the seasonal adjustment of residuals in the second stage. Seasonal adjustment and the estimation of the polynomial coefficients for sliding periods of 10 years (2000-2009, 2001-2010, etc.) yield relatively constant results which vary little when subjected to different statistical tests and criteria.

Seasonal adjustment is calculated from January 2000 and up to the most recent period for which data are available. The start date has been set as January 2000, in order to take into account the exponential acceleration of China's trading relations since the turn of the millennium, and particularly since joining the World Trade Organization (WTO) in November 2001. ■

3 - Monthly variations in Chinese imports, calculated using the old and new methods



Source : NBS , INSEE calculations

2 - Taking the dates of Chinese New Year into account improves the seasonal adjustment of Chinese import data
Month-on-month variation in Chinese imports in volume terms for 2018, using different methods of seasonal adjustmentois améliore la désaisonnalisation des importations chinoises

	January	February	March	April	May	June	July	August
Seasonally adjusted data	–0.8	–23.1	27.7	–4.1	7.9	–6.9	8.7	1.2
Seasonally adjusted data (with X12)	25.0	–8.2	–0.4	1.4	4.5	–6.0	6.9	0.0
Seasonally adjusted data taking the dates of Chinese New Year into account	8.4	4.5	–4.0	1.2	2.6	–3.0	4.5	–0.5

Source : National Bureau of Statistics of China (NBS), General Administration of Customs of the People's Republic of China

Statistical French Appendix

Goods and services: sources and uses at chain-linked previous year prices

billion euros and percentage changes from previous period and previous year
working-day and seasonally adjusted data

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Gross domestic product (GDP)	556.5	560.2	563.7	567.6	568.5	569.4	571.7	572.9	574.9	576.9	2248	2282	
% change	*0.8*	*0.7*	*0.6*	*0.7*	*0.2*	*0.2*	*0.4*	*0.2*	*0.4*	*0.3*	*2.3*	*1.5*	*1.0*
Imports	186.8	185.9	189.6	190.3	188.9	189.8	189.3	191.9	193.4	194.7	752.5	759.9	
% change	*1.9*	*–0.5*	*2.0*	*0.4*	*–0.7*	*0.5*	*–0.3*	*1.4*	*0.8*	*0.7*	*4.1*	*1.0*	2.3
Total resources	1191	1198	1208	1218	1218	1221	1227	1232	1237	1242	4815	4899	
% change	*1.0*	*0.6*	*0.9*	*0.8*	*0.0*	*0.3*	*0.5*	*0.4*	*0.4*	*0.4*	*2.9*	*1.7*	*1.3*
Household consumption expenditure	292.1	293.2	294.6	295.2	295.8	295.3	296.6	297.3	299.3	300.7	1175	1185	
% change	*0.0*	*0.4*	*0.5*	*0.2*	*0.2*	*–0.2*	*0.4*	*0.2*	*0.7*	*0.5*	*1.1*	*0.8*	*1.4*
General government consumption expenditure*	141.3	141.8	142.4	142.8	143.0	143.4	143.8	144.2	144.9	145.5	568.3	574.5	
% change	*0.3*	*0.3*	*0.4*	*0.3*	*0.2*	*0.3*	*0.3*	*0.3*	*0.4*	*0.4*	*1.4*	*1.1*	*1.2*
General government individual consumption expenditure	87.9	88.2	88.8	89.1	89.3	89.6	89.9	90.4	90.8	91.2	354.1	359.2	
% change	*0.5*	*0.3*	*0.7*	*0.3*	*0.2*	*0.4*	*0.3*	*0.5*	*0.5*	*0.5*	*1.8*	*1.5*	*1.5*
Collective consumption expenditure	45.9	46.0	46.1	46.1	46.2	46.2	46.2	46.2	46.4	46.5	184.2	184.7	
% change	*0.0*	*0.3*	*0.1*	*0.1*	*0.1*	*0.0*	*0.1*	*0.0*	*0.4*	*0.3*	*0.5*	*0.3*	*0.6*
Gross fixed capital formation (GFCF)	125.5	126.6	128.2	129.4	129.5	130.7	131.9	131.9	132.2	132.6	509.7	523.9	
% change	*2.3*	*0.8*	*1.3*	*1.0*	*0.1*	*0.9*	*0.9*	*0.0*	*0.3*	*0.3*	*4.7*	*2.8*	*1.2*
of which: Non-financial enterprises (incl. unincorporated enterprises)	70.6	70.9	72.0	72.9	73.0	73.9	75.1	75.2	75.6	76.0	286.3	297.2	
% change	*2.7*	*0.4*	*1.6*	*1.3*	*0.1*	*1.3*	*1.6*	*0.1*	*0.6*	*0.6*	*4.4*	*3.8*	*2.2*
Households	28.8	29.2	29.5	29.7	29.8	29.8	29.8	29.6	29.5	29.4	117.2	119.0	
% change	*1.9*	*1.4*	*1.0*	*0.8*	*0.2*	*0.1*	*–0.1*	*–0.5*	*–0.4*	*–0.3*	*5.6*	*1.5*	*–1.0*
Government	19.2	19.3	19.3	19.4	19.4	19.5	19.5	19.5	19.5	19.5	77.2	77.9	
% change	*0.6*	*0.6*	*0.2*	*0.2*	*0.0*	*0.6*	*0.0*	*0.1*	*0.0*	*0.0*	*1.6*	*0.8*	*0.3*
Exports	171.7	176.3	178.3	182.2	181.1	180.9	181.6	185.4	184.8	184.8	708.6	729.0	
% change	0.0	2.6	1.2	2.2	–0.6	–0.1	0.4	2.1	–0.3	0.0	4.7	2.9	1.4
Contributions to GDP growth: (in percentage points)													
Domestic demand excluding inventory changes**	0.6	0.5	0.7	0.4	0.2	0.2	0.5	0.2	0.5	0.4	2.0	1.3	1.3
Inventory changes**	0.8	–0.7	0.2	–0.2	–0.1	0.2	–0.3	–0.2	0.2	0.1	0.2	–0.4	0.0
Net foreign trade	–0.6	1.0	–0.3	0.6	0.0	–0.2	0.2	0.2	–0.3	–0.2	0.1	0.6	–0.3

Forecast

*Includes consumption expenditures by non-profit institutions serving households (NPISHs)
**Inventory changes include acquisitions net of sales of valuables

Manufactured goods: sources and uses at chain-linked previous year prices

percentage changes from previous period and previous year
working-day and seasonally adjusted data

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Output of the branches of activity	0.4	0.8	0.8	1.4	–1.0	–0.1	0.7	0.0	–0.2	0.0	2.4	0.8	0.1
Value added	0.6	0.5	0.6	1.4	–0.9	0.0	0.3	0.0	–0.2	0.0	2.0	0.8	–0.1
Intermediate consumption	0.3	0.9	0.8	1.4	–1.1	–0.2	0.8	0.0	–0.2	0.0	2.6	0.9	0.2
Imports	3.5	–1.0	3.6	0.1	–0.5	2	–1.6	1.8	0.7	0.5	5.5	2.2	2.1
Taxes on products excluding subsidies	0.8	0.1	0.2	–0.4	–0.3	0.3	0.3	0.1	0.5	0.4	1.5	–0.1	1.1
Trade and transport margins	1.1	1.2	0.8	0.9	0.1	0.2	0.7	0.3	0.5	0.5	3.1	2.0	1.5
Total resources	1.4	0.3	1.5	0.8	–0.6	0.6	0.0	0.6	0.3	0.3	3.2	1.4	1.0
Intermediate uses	0.9	0.7	0.9	1.3	–0.4	0.4	0.6	0.1	0.1	0.1	3.2	1.8	0.7
Household consumption expenditure	0.3	0.4	0.8	–0.2	–0.2	0.0	0.5	–0.1	0.7	0.6	1.8	0.4	1.3
General government individual consumption expenditure*	1.0	1.3	1.9	0.4	1.2	1.1	0.8	1.2	1.2	1.2	5.5	4.5	3.8
Gross fixed capital formation (GFCF)	2.9	0.0	2.0	1.7	–1.3	1.3	2.1	–0.8	0.5	0.5	3.7	2.8	1.6
Non-financial enterprises (incl. unincorporated enterprises)	3.9	0.4	2.7	1.7	–1.6	1.6	2.2	–1.0	0.5	0.5	5.2	3.1	1.7
Other	–2.9	–2.5	–2.1	1.5	0.6	–0.2	1.0	0.4	0.4	0.4	–5.1	0.5	1.5
*Contribution of inventory changes** to manufactured production*	*2.4*	*–2.1*	*0.9*	*–1.2*	*0.0*	*0.9*	*–1.3*	*–0.5*	*0.5*	*0.4*	*–0.2*	*–1.1*	*–0.1*
Exports	–1.0	3.3	1.3	3.0	–1.1	–0.4	0.3	3.1	–0.7	–0.6	5.0	3.2	1.2
Domestic demand excluding inventory changes**	0.8	0.5	1.0	0.7	–0.4	0.4	0.7	0.0	0.4	0.4	2.8	1.4	1.0

Forecast

* Public Administration
**Changes in inventories include acquisitions net of sales of valuables

Goods and services: sources and uses, chain-linked previous year prices index

percentage changes from previous period and previous year
working-day and seasonally adjusted data

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Gross domestic product (GDP)	0.4	0.3	0.1	0.0	0.4	0.1	0.4	0.7	0.2	0.2	0.7	1.0	1.0
Imports	1.3	–0.7	–0.3	1.0	0.3	1.2	1.0	0.1	–0.6	–0.3	2.1	2.1	0.1
Total resources	0.6	–0.1	0.0	0.5	0.3	0.5	0.6	0.2	–0.1	0.0	1.2	1.3	0.5
Household consumption expenditure	0.7	0.1	0.1	0.5	0.6	0.5	0.4	0.3	0.2	0.2	1.3	1.7	0.9
General government consumption expenditure*	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.7	0.3	0.2
Gross fixed capital formation (GFCF)	0.5	0.2	0.1	0.3	0.4	0.5	0.4	0.4	0.1	0.2	1.1	1.4	0.9
of which: Non-financial enterprises (incl. unincorp. enterprises)	0.4	0.2	0.1	0.2	0.3	0.4	0.3	0.4	0.0	0.1	0.7	1.1	0.7
Households	0.6	0.6	0.4	0.2	0.4	0.8	0.3	0.5	0.3	0.3	1.9	1.7	1.3
Exports	0.9	–0.6	–0.3	0.3	0.0	0.6	1.0	0.7	–0.1	–0.2	0.8	1.0	0.8
Domestic demand excluding inventory changes**	0.6	0.1	0.1	0.3	0.4	0.4	0.3	0.3	0.1	0.2	1.1	1.3	0.7

Forecast

* Public Administration
**Changes in inventories include acquisitions net of sales of valuables

Manufactured goods: sources and uses, chain-linked previous year prices index

percentage changes from previous period and previous year
working-day and seasonally adjusted data

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Output of the branches of activity	0.9	0.0	–0.2	0.4	0.3	0.6	0.8	0.5	–0.3	–0.3	1.7	1.4	0.4
Value added	0.1	0.3	–0.5	–1.3	0.0	–0.2	1.0	2.3	–0.4	–0.7	–0.7	–0.2	1.2
Intermediate consumption	1.2	–0.1	–0.1	1.1	0.4	0.9	0.7	–0.3	–0.2	–0.1	2.7	2.1	0.1
Imports	0.9	–0.3	–0.2	0.2	0.1	1.0	0.8	0.3	–0.2	–0.4	1.7	1.3	0.4
Total resources	0.9	–0.1	–0.2	0.3	0.4	0.6	0.6	0.3	–0.2	–0.2	1.5	1.4	0.3
Intermediate uses	1.3	–0.1	–0.1	0.7	0.3	0.7	0.6	–0.1	–0.2	–0.2	2.7	1.6	0.0
Household consumption expenditure	0.7	–0.1	–0.1	0.7	1.0	0.9	0.2	0.2	–0.2	0.1	1.0	2.3	0.4
General government individual consumption expenditure	–0.1	–0.7	–0.7	–0.6	–1.2	–0.8	–0.5	–0.2	–0.6	–0.9	–2.1	–3.1	–1.9
Gross fixed capital formation (GFCF)	0.1	0.4	–0.2	–0.3	0.6	0.1	0.4	0.5	0.1	0.1	0.2	0.7	0.7
of which: Non-financial enterprises (incl. unincorp. enterprises)	0.1	0.4	–0.2	–0.3	0.6	0.1	0.4	0.5	0.1	0.1	0.3	0.8	0.8
General government	0.2	0.1	–0.8	–0.8	0.7	0.0	0.8	0.2	0.0	0.0	–0.7	0.1	0.6
Exports	1.2	–0.6	–0.3	0.0	–0.2	0.7	0.8	0.8	–0.2	–0.4	1.1	0.7	0.7
Domestic demand excluding inventory changes*	0.9	–0.1	–0.1	0.6	0.5	0.7	0.4	0.0	–0.2	–0.1	1.7	1.6	0.2

Forecast

Household consumption expenditure at chain-linked previous year prices

working-day and seasonally adjusted data, percentage changes from previous period and previous year

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Agricultural goods	–2.3	3.0	–0.9	–1.3	–0.3	–1.3	–2.1	0.6	1.1	0.4	–1.2	–2.9	0.4
Manufactured goods	0.3	0.4	0.8	–0.2	–0.2	0.0	0.5	–0.1	0.7	0.6	1.8	0.4	1.3
Energy, water and waste	–5.9	2.3	1.5	0.5	0.2	–3.9	1.4	–1.3	1.5	0.6	–0.6	–0.8	0.7
Trade	1.4	–0.6	0.8	1.5	0.7	1.1	–1.2	0.3	0.4	0.6	3.9	2.4	0.8
Market services excluding trade	0.6	0.4	0.5	0.5	0.5	0.0	0.4	0.5	0.5	0.5	1.8	1.5	1.4
Non market services	0.1	–0.1	0.5	0.3	0.3	0.6	0.3	0.5	0.5	0.4	0.3	1.4	1.4
Territorial correction	10.9	12.5	8.8	–2.2	–3.2	–0.4	–2.8	–4.2	–4.1	4.8	34.4	–0.8	–5.3
Total consumption expenditure	0.0	0.4	0.5	0.2	0.2	–0.2	0.4	0.2	0.7	0.5	1.1	0.8	1.4
Total consumption	0.1	0.4	0.5	0.2	0.2	0.0	0.4	0.3	0.6	0.5	1.3	1.0	1.4

Forecast

Investment (non-financial incorporated and unincorporated enterprises) at chain-linked previous year prices

percentage changes from previous period and previous year
working-day and seasonally adjusted data

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Manufactured goods	3.9	0.4	2.7	1.7	–1.6	1.6	2.2	–1.0	0.5	0.5	5.2	3.1	1.7
Construction	0.3	0.6	0.1	–0.3	–0.2	1.1	–0.4	0.0	–0.2	–0.2	1.0	0.4	–0.2
Other	3.1	0.3	1.5	1.8	1.6	1.2	2.2	1.0	1.0	1.0	5.7	6.2	3.9
Total	2.7	0.4	1.6	1.3	0.1	1.3	1.6	0.1	0.6	0.6	4.4	3.8	2.2

Forecast

Output by sector at chain-linked previous year prices

percentage changes from previous period and previous year
working-day and seasonally adjusted data

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Agriculture	1.1	1.3	0.8	0.7	–0.2	0.1	0.2	0.1	0.1	0.0	2.3	1.2	0.4
Manufacturing	0.4	0.8	0.8	1.4	–1.0	–0.1	0.7	0.0	–0.2	0.0	2.4	0.8	0.1
Energy, water and waste	–1.5	1.0	1.4	0.2	0.7	–1.2	0.3	–0.9	0.7	0.3	1.4	0.8	0.1
Construction	1.2	1.2	0.4	0.5	–0.4	0.7	0.1	–0.1	–0.2	–0.2	3.5	1.0	–0.2
Trade	0.9	1.0	1.2	0.8	–0.1	0.5	0.5	0.2	0.6	0.5	3.0	1.9	1.5
Market services excluding trade	1.3	0.8	0.7	1.2	0.7	0.4	0.9	0.4	0.6	0.6	3.2	3.0	1.9
Non market services	0.3	0.2	0.4	0.3	0.2	0.3	0.2	0.2	0.4	0.3	1.1	1.1	1.0
Total	0.8	0.8	0.7	0.9	0.1	0.3	0.6	0.2	0.3	0.4	2.6	1.9	1.1

Forecast

Imports (CIF) at chain-linked previous year prices

percentage changes from previous period and previous year
working-day and seasonally adjusted data

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Agricultural goods	0.1	1.5	–2.3	–2.6	3.3	0.7	–2.0	1.5	0.5	0.5	1.9	0.3	1.2
Manufactured goods	3.5	–1.0	3.6	0.1	–0.5	2.0	–1.6	1.8	0.7	0.5	5.5	2.2	2.1
Energy, water and waste	–7.6	2.4	–5.5	12.5	–4.4	–13.8	15.2	0.0	1.0	1.0	7.3	–1.9	5.0
Total goods	2.5	–0.7	2.8	0.8	–0.7	0.8	–0.6	1.7	0.7	0.5	5.5	1.8	2.3
Total services	0.4	0.2	–0.9	–1.7	–1.8	–1.1	0.7	0.5	1.2	1.5	0.6	–3.8	2.8
Total*	1.9	–0.5	2.0	0.4	–0.7	0.5	–0.3	1.4	0.8	0.7	4.1	1.0	2.3

Forecast

*Including territorial correction

Exports (FOB) at chain-linked previous year prices

percentage changes from previous period and previous year
working-day and seasonally adjusted data

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Agricultural goods	1.3	2.6	9.3	2.7	–0.4	3.2	–6.3	3.0	1.0	0.5	–3.0	6.6	1.1
Manufactured goods	–1.0	3.3	1.3	3.0	–1.1	–0.4	0.3	3.1	–0.7	–0.6	5.0	3.2	1.2
Energy, water and waste	20.1	4.7	3.3	–2.7	9.0	3.4	6.4	–3.0	1.0	1.0	19.0	15.3	3.4
Total goods	–0.6	3.3	1.6	2.9	–0.9	–0.2	0.3	3.0	–0.7	–0.5	4.9	3.5	1.2
Total services	1.2	0.5	–0.8	0.4	–0.2	–0.1	1.0	0.3	1.2	1.2	2.7	0.3	2.9
Total*	0.0	2.6	1.2	2.2	–0.6	–0.1	0.4	2.1	–0.3	0.0	4.7	2.9	1.4

Forecast

*Including territorial correction

Changes in inventories at chain-linked previous year prices

Contributions (in percentage points)
working-day and seasonally adjusted data

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Agricultural goods	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0
Manufactured goods	0.8	–0.7	0.3	–0.4	0.0	0.3	–0.4	–0.2	0.2	0.1	–0.1	–0.4	0.0
Energy, water and waste	–0.1	–0.1	–0.1	0.2	0.0	–0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Other (construction, services)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.8	–0.7	0.2	–0.2	–0.1	0.2	–0.3	–0.2	0.2	0.1	0.2	–0.4	0.0

Forecast

Value added by sector at chain-linked previous year prices

percentage changes from previous period and previous year
working-day and seasonally adjusted data

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Agriculture	2.7	2.6	1.5	1.0	–0.5	0.0	0.2	0.3	0.3	0.2	4.8	1.8	0.8
Manufacturing	0.6	0.5	0.6	1.4	–0.9	0.0	0.3	0.0	–0.2	0.0	2.0	0.8	–0.1
Energy, water and waste	–1.9	1.2	1.2	0.0	0.4	–1.2	–0.5	–0.9	0.7	0.3	0.7	–0.1	–0.3
Construction	1.0	1.1	0.6	0.2	0.1	0.4	–0.3	–0.3	–0.3	–0.3	2.5	0.9	–0.9
Trade	1.0	1.1	1.1	0.7	–0.2	0.2	0.2	0.0	0.3	0.3	3.0	1.4	0.7
Market services excluding trade	1.1	0.7	0.6	1.0	0.6	0.3	0.7	0.4	0.5	0.5	2.7	2.5	1.6
Non market services	0.2	0.1	0.3	0.2	0.1	0.2	0.2	0.2	0.4	0.4	0.9	0.8	1.0
Total	0.8	0.6	0.6	0.8	0.2	0.2	0.4	0.2	0.3	0.3	2.2	1.6	1.0

Forecast

Household income account

working-day and seasonally adjusted data, percentage changes from previous period and previous year

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Gross operating surplus	0.9	0.7	0.7	0.5	0.1	0.0	0.1	0.3	0.3	0.3	2.4	1.2	0.8
Unincorporated enterprises	0.2	0.2	0.5	0.3	–0.1	–0.3	–0.1	0.1	0.1	0.1	0.3	0.1	0.2
Households excluding unincorporated enterprises	1.3	1.0	0.8	0.6	0.3	0.2	0.2	0.3	0.4	0.4	3.7	1.8	1.2
Gross wages and salaries	1.1	0.7	0.7	0.9	0.9	0.7	0.5	0.6	0.8	0.6	3.1	3.0	2.1
Net interests and dividends	1.5	2.4	2.4	2.5	2.6	2.3	4.0	2.2	1.7	0.5	4.9	10.9	6.4
Social benefits (in cash)	0.5	0.4	0.6	0.6	0.5	0.5	0.5	0.7	*	*	1.9	2.2	*
Total ressources	0.8	0.7	0.7	0.8	0.7	0.6	0.6	0.6	0.7	0.5	2.7	2.8	2.0
Income and wealth taxes	0.5	0.6	1.7	0.9	9.7	–2.0	–0.8	–1.7	*	*	2.3	8.9	*
Households' contributions	1.1	0.7	0.9	0.6	–7.5	–1.0	0.8	–4.6	*	*	3.2	–7.8	*
Total charges	0.7	0.6	1.3	0.8	2.6	–1.6	–0.2	–2.8	*	*	2.7	2.0	*
Gross disposable income	0.9	0.7	0.6	0.8	0.2	1.3	0.8	1.6	0.7	0.4	2.7	3.1	2.9
Consumption deflator	0.7	0.1	0.1	0.5	0.6	0.5	0.4	0.3	0.2	0.2	1.3	1.7	0.9
Real gross disposable income	0.2	0.7	0.4	0.4	–0.4	0.8	0.4	1.3	0.5	0.2	1.4	1.4	2.0
Social benefits (in kind)	0.7	0.5	0.7	0.4	0.2	0.4	0.3	0.5	0.5	0.5	2.2	1.5	1.5
Adjusted gross disposable income	0.8	0.7	0.6	0.7	0.2	1.1	0.7	1.3	0.6	0.4	2.6	2.7	2.6

Forecast

Main ratios (households)

working-day and seasonally adjusted data, in percentage points

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Saving ratio	14.0	14.3	14.2	14.4	13.8	14.6	14.7	15.6	15.4	15.1	14.2	14.7	15.2
Financial saving ratio*	4.3	4.4	4.3	4.4	3.6	4.3	4.4	5.4	5.3	5.1	4.4	4.4	5.1
Weight of taxes and social contributions**	21.7	21.7	21.8	21.8	22.2	21.7	21.5	20.8	*	*	21.7	21.6	*
Gross wages and salaries/gross disposable income	64.0	64.1	64.1	64.1	64.6	64.2	64.0	63.4	63.5	63.6	64.1	64.1	63.6
Social benefits (cash)/gross disposable income	35.8	35.7	35.7	35.6	35.7	35.4	35.3	35.0	*	*	35.7	35.4	*

Forecast

* Breakdown not available in view at the time this conjoncture in France is being finalised (13 December 2018).
** Savings excluding dwelling/gross disposable income
***Taxes and social contributions/gross disposable income before taxes and social contributions

Operating account of non-financial corporations and unincorporated enterprises

working-day and seasonally adjusted data, percentage changes from previous period and previous year

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Value added	1.4	1.3	1.0	1.1	0.5	0.3	1.0	1.2	0.5	0.6	3.6	3.1	2.4
Subsidies	2.0	1.6	–0.3	–0.4	7.4	–0.4	0.0	0.0	1.5	1.5	4.6	7.1	2.5
Total ressources	1.4	1.3	0.9	1.0	0.6	0.2	1.0	1.2	0.5	0.6	3.6	3.2	2.4
Compensation of employees	1.3	0.9	0.9	1.2	0.9	0.9	0.7	0.7	–1.4	0.7	3.7	3.7	0.1
of which: Gross wages and salaries	1.3	0.9	0.8	1.1	0.9	0.9	0.6	0.7	1.0	0.6	3.6	3.6	2.6
Employers' social contributions	1.4	1.0	1.1	1.3	1.1	1.1	0.8	0.7	–8.8	0.7	3.9	4.3	–7.2
Taxes on production	1.4	1.7	0.5	0.8	–0.2	0.6	0.6	0.4	0.6	0.5	4.7	2.0	1.8
Total charges	1.3	1.0	0.9	1.1	0.8	0.9	0.7	0.7	–1.3	0.6	3.8	3.6	0.3
Gross operating surplus	1.5	1.8	1.1	0.8	0.3	–0.9	1.5	2.0	3.7	0.5	3.3	2.5	6.2
Unincorporated entreprises	0.2	0.2	0.5	0.3	–0.1	–0.3	–0.2	0.4	0.5	0.5	0.3	0.2	1.0
Non-financial corporations	1.9	2.3	1.3	1.0	0.4	–1.1	2.0	2.5	4.6	0.5	4.3	3.2	7.7

Forecast

Non-financial corporations' income account

working-day and seasonally adjusted data, percentage changes from previous period and previous year

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Value added	1.5	1.4	1.0	1.2	0.5	0.3	1.1	1.3	0.5	0.6	4.0	3.4	2.6
Subsidies	2.2	1.8	–0.3	–0.4	8.0	–0.4	0.0	0.0	1.6	1.6	5.3	7.7	2.7
Total ressources	1.5	1.4	1.0	1.1	0.7	0.3	1.1	1.3	0.5	0.6	4.0	3.5	2.6
Compensation of employees	1.4	0.9	0.9	1.2	1.0	1.0	0.7	0.7	–1.5	0.7	3.8	3.8	0.1
Taxes	–1.8	6.2	0.3	6.1	–7.5	–4.5	3.5	2.7	0.8	0.7	10.1	–2.8	3.9
of which: Taxes on production	1.3	1.6	0.5	0.8	–0.2	0.6	0.5	0.4	0.6	0.5	4.5	1.9	1.7
Corporate taxes	–5.9	12.7	0.0	12.9	–15.7	–11.4	8.0	6.0	1.0	1.0	18.0	–8.7	7.0
Net interests and dividends	–16.9	–12.7	–4.9	4.0	12.7	8.2	4.5	3.5	7.0	6.5	–33.3	19.6	19.9
Other net charges	6.0	4.0	1.3	0.5	–0.2	–0.4	0.3	1.0	0.4	0.4	13.9	1.9	1.5
Total charges	0.2	1.1	0.6	1.9	0.3	0.6	1.1	1.0	–0.8	0.9	2.8	3.5	1.4
Gross disposable income	6.4	2.5	2.2	–1.4	2.3	–0.7	1.0	2.0	5.2	–0.4	8.6	3.5	6.7

Forecast

Breakdown of non-financial corporations' profit share

working-day and seasonally adjusted data, percentage changes from previous period and previous year

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Margin rate* (in %)	31.7	32.0	32.1	32.0	32.0	31.5	31.8	32.2	33.5	33.5	32.0	31.9	33.5
Margin rate % change	0.1	0.3	0.1	–0.1	0.0	–0.5	0.3	0.4	1.3	0.0	0.1	–0.1	1.6
Contributions to margin rate variation													
Productivity (+)	0.6	0.3	0.3	0.4	–0.1	0.0	0.3	0.1	0.1	0.1	1.1	0.6	0.4
Real wages (–)	–0.1	–0.1	–0.1	–0.1	0.1	–0.1	–0.1	–0.2	–0.4	–0.2	–0.2	–0.2	–0.8
Employers' social contributions rate (–)	0.0	0.0	–0.1	0.0	0.0	0.0	0.0	0.0	1.6	0.0	–0.1	–0.1	1.6
Ratio of value added price and consumption price (+)	–0.4	0.1	–0.1	–0.3	–0.3	–0.2	0.1	0.5	0.0	0.0	–0.8	–0.5	0.4
Other items	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0

Forecast

Main ratios (non-financial corporate sector)

working-day and seasonally adjusted data, in percentage points

	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Wage costs / Value added (VA)	65.8	65.5	65.4	65.4	65.7	66.2	65.9	65.5	64.2	64.3	65.5	65.8	64.2
Taxes on production / VA	5.3	5.3	5.3	5.2	5.2	5.2	5.2	5.1	5.2	5.2	5.3	5.2	5.2
Margin rate (GOS* / VA)	31.7	32.0	32.1	32.0	32.0	31.5	31.8	32.2	33.5	33.5	32.0	31.9	33.5
Investment rate (GFCF** / VA)	23.6	23.4	23.5	23.6	23.6	23.9	24.1	23.9	23.9	24.0	23.5	23.9	24.0
Saving ratio (savings / VA)	22.5	22.8	23.1	22.5	22.9	22.7	22.6	22.8	23.8	23.6	22.7	22.7	23.6
Tax pressure***	14.3	15.5	15.3	17.1	14.5	13.2	13.9	14.4	13.9	14.1	15.6	14.0	14.1
Self–financing ratio (cash earnings)	95.7	97.5	98.1	95.3	97.0	94.8	93.8	95.2	99.5	98.4	96.6	95.2	98.7

Forecast

* Gross operating surplus
** Gross fixed capital formation
***Income taxes / gross disposable income before taxes

Countries Accounts

Eurozone	Quarterly change in %										Annual change in %		
	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Supply and use table (in real terms)													
GDP	**0.7**	**0.7**	**0.7**	**0.7**	**0.4**	**0.4**	**0.2**	**0.4**	**0.3**	**0.3**	**2.5**	**1.9**	**1.1**
Private consumption (56%)	0.4	0.5	0.4	0.2	0.5	0.2	0.1	0.4	0.5	0.5	1.7	1.3	1.2
Investment (20%)	–0.7	2.1	–0.3	1.5	0.1	1.4	0.2	0.5	0.5	0.5	2.9	2.9	1.7
Public consumption (21%)	0.2	0.4	0.5	0.2	0.1	0.4	0.2	0.3	0.5	0.4	1.2	1.0	1.3
Exports (45%)	1.8	1.0	1.3	2.1	–0.7	1.0	–0.1	1.2	0.5	0.5	5.4	2.9	2.1
Imports (41%)	0.5	1.1	0.6	1.5	–0.5	1.2	0.5	1.1	0.9	0.9	4.0	2.6	2.9
Contributions to GDP growth													
Domestic demand excluding inventories	**0.1**	**0.8**	**0.3**	**0.5**	**0.3**	**0.5**	**0.1**	**0.4**	**0.5**	**0.5**	**1.8**	**1.5**	**1.3**
Changes in inventories	–0.1	–0.1	0.0	–0.2	0.2	0.0	0.3	–0.1	0.0	0.0	0.0	0.1	0.1
Foreign trade	0.6	0.0	0.4	0.4	–0.2	0.0	–0.3	0.1	–0.1	–0.1	0.8	0.2	–0.3

Forecast

How to read it: percentage variation, contribution in points of pourcentage.
% in brackets represent the weight in the nominal GDP

Consumer prices in Eurozone

changes in a % and contributions in points

	Q3 2018		Q4 2018		Q1 2019		Q2 2019		Annual averages	
CPI groups (2015 weightings)	**yoy**	**cyoy**	**yoy**	**cyoy**	**yoy**	**cyoy**	**yoy**	**cyoy**	**2018**	**2019***
All (100.0%)	**2.1**		**2.0**		**1.7**		**1.5**		**1.8**	**1.2**
Food (including Alc. and Tobacco) (19.6%)	2.5	0.5	2.1	0.4	1.9	0.4	1.4	0.3	2.2	1.2
Energy (10.6%)	9.4	0.9	8.7	0.8	6.0	0.6	4.0	0.4	6.4	2.7
"Core" inflation (69.8%)	1.0	0.7	1.0	0.7	1.1	0.8	1.1	0.8	1.0	1.0

Forecast

How to read it: % in brackets represent the weight in the whole
yoy: year on year
cyoy: contributions year-on-year
* the figure 2018 is the carry-over effect at the end of S1

France (21%)[1]	Quarterly change in %										Annual change in %		
	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Supply and use table (in real terms)													
GDP	0.8	0.7	0.6	0.7	0.2	0.2	0.4	0.2	0.4	0.3	2.3	1.5	1.0
Private consumption (55%)	0.0	0.4	0.5	0.2	0.2	–0.2	0.4	0.2	0.7	0.5	1.1	0.8	1.4
Investment (22%)	2.3	0.8	1.3	1.0	0.1	0.9	0.9	0.0	0.3	0.3	4.7	2.8	1.2
Public consumption (24%)	0.3	0.3	0.4	0.3	0.2	0.3	0.3	0.3	0.4	0.4	1.4	1.1	1.2
Exports (29%)	0.0	2.6	1.2	2.2	–0.6	–0.1	0.4	2.1	–0.3	0.0	4.7	2.9	1.4
Imports (31%)	1.9	–0.5	2.0	0.4	–0.7	0.5	–0.3	1.4	0.8	0.7	4.1	1.0	2.3
Contributions to GDP growth													
Domestic demand excluding inventories	0.6	0.5	0.7	0.4	0.2	0.2	0.5	0.2	0.5	0.4	1.9	1.3	1.3
Changes in inventories	0.8	–0.7	0.2	–0.2	–0.1	0.2	–0.3	–0.2	0.2	0.1	0.3	–0.4	0.1
Foreign trade	–0.6	1.0	–0.3	0.6	0.0	–0.2	0.2	0.2	–0.3	–0.2	0.1	0.6	–0.3

Forecast

How to read it: percentage variation, contribution in points of pourcentage
% in brackets represent the weight in the nominal GDP in 2016.

1. Share in Eurozone GDP in 2016

Sources: Eurostat. INSEE

Germany (29%)[1]	Quarterly change in %										Annual change in %		
	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q4			
Supply and use table (in real terms)													
GDP	**1.1**	**0.5**	**0.6**	**0.5**	**0.4**	**0.5**	**–0.2**	**0.5**	**0.3**	**0.3**	**2.5**	**1.6**	**1.0**
Private consumption (54%)	0.7	0.8	0.1	0.2	0.5	0.3	–0.3	0.8	0.3	0.4	2.0	1.2	1.2
Investment (20%)	2.0	1.3	0.4	0.3	1.4	0.5	0.8	0.7	0.6	0.6	3.6	3.1	2.1
Public consumption (20%)	0.5	0.4	0.3	0.4	–0.5	0.8	0.2	0.5	0.7	0.7	1.6	0.9	1.9
Exports (47%)	2.3	1.1	1.2	1.7	–0.3	0.8	–0.9	1.3	0.8	0.8	5.3	2.3	2.1
Imports (40%)	1.1	1.9	0.5	1.4	–0.3	1.5	1.3	1.3	1.3	1.3	5.3	3.6	4.2
Contributions to GDP growth													
Domestic demand excluding inventories	0.9	0.7	0.2	0.3	0.4	0.4	0.1	0.7	0.4	0.5	2.1	1.5	1.5
Changes in inventories	–0.4	0.0	0.1	0.0	–0.1	0.2	0.7	–0.3	0.0	0.0	0.0	0.5	0.3
Foreign trade	0.7	–0.2	0.3	0.2	0.0	–0.2	–0.9	0.1	–0.1	–0.1	0.3	–0.4	–0.8

Forecast

Italy (16%)[1]	Quarterly change in %										Annual change in %		
	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Supply and use table (in real terms)													
GDP	**0.5**	**0.3**	**0.4**	**0.3**	**0.3**	**0.2**	**–0.1**	**0.1**	**0.2**	**0.2**	**1.6**	**0.9**	**0.5**
Private consumption (61%)	0.8	0.1	0.3	0.0	0.4	0.0	–0.1	0.1	0.2	0.5	1.5	0.6	0.6
Investment (17%)	–1.6	1.4	3.2	1.5	–0.8	2.8	–0.9	0.3	0.5	0.5	4.4	4.0	1.4
Public consumption (19%)	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.1	0.1	–0.1	0.1	0.3
Exports (30%)	3.1	–0.3	1.4	1.9	–2.3	0.6	1.1	1.0	0.7	0.5	6.3	1.0	2.6
Imports (27%)	1.7	1.4	0.9	1.9	–2.6	2.4	0.8	1.0	0.8	1.1	5.6	2.0	3.4
Contributions to GDP growth													
Domestic demand excluding inventories	0.2	0.3	0.8	0.3	0.1	0.6	–0.2	0.1	0.2	0.4	1.6	1.1	0.7
Changes in inventories	–0.2	0.5	–0.5	–0.1	0.2	0.1	0.0	0.0	0.0	0.0	–0.4	0.1	0.0
Foreign trade	0.5	–0.5	0.2	0.1	0.0	–0.5	0.1	0.0	0.0	–0.2	0.4	–0.3	–0.2

Forecast

Spain (10%)[1]	Quarterly change in %										Annual change in %		
	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Supply and use table (in real terms)													
GDP	**0.8**	**0.9**	**0.6**	**0.7**	**0.6**	**0.6**	**0.6**	**0.5**	**0.5**	**0.5**	**3.0**	**2.5**	**1.8**
Private consumption (58%)	0.5	0.8	0.9	0.4	0.9	0.1	0.6	0.5	0.6	0.6	2.5	2.4	1.7
Investment (20%)	2.4	–0.2	2.3	0.6	1.1	3.5	1.0	0.9	0.8	0.8	4.8	6.1	3.5
Public consumption (19%)	1.1	0.6	0.6	0.3	0.8	0.1	0.8	0.3	0.3	0.3	1.9	2.1	1.2
Exports (33%)	1.3	1.3	0.1	1.4	0.6	0.2	–1.8	0.9	0.6	0.5	5.2	1.5	0.7
Imports (30%)	2.4	0.5	1.9	0.6	1.7	1.0	–1.2	0.8	0.7	0.6	5.6	3.5	1.5
Contributions to GDP growth													
Domestic demand excluding inventories	1.0	0.6	1.1	0.4	0.9	0.8	0.7	0.6	0.6	0.6	2.8	3.0	2.0
Changes in inventories	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1
Foreign trade	–0.3	0.3	–0.5	0.3	–0.3	–0.2	–0.2	0.0	–0.1	–0.1	0.1	–0.6	–0.2

Forecast

How to read it: % in brackets represent the weight in the nominal GDP in 2016.
1. Share in Eurozone GDP in 2016

Sources: Eurostat. Destatis. Istat. INE. INSEE forecast

United States of America	Quarterly change in %										Annual change in %		
	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Supply and use table (in real terms)													
GDP	**0.4**	**0.7**	**0.7**	**0.6**	**0.5**	**1.0**	**0.9**	**0.9**	**0.6**	**0.6**	**2.2**	**3.0**	**2.4**
Private consumption (68%)	0.4	0.7	0.6	1.0	0.1	0.9	0.9	0.9	0.5	0.5	2.5	2.7	2.2
Private investment (16%)	2.4	1.1	0.6	1.5	1.9	1.6	0.3	0.6	–0.2	0.0	4.8	5.2	0.7
Government expenditures and public investment (18%)	–0.2	0.0	–0.3	0.6	0.4	0.6	0.6	1.5	1.5	1.5	–0.1	1.9	4.2
Exports (13%)	1.2	0.9	0.9	1.6	0.9	2.2	–1.1	1.0	–0.5	0.0	3.0	4.2	0.2
Imports (17%)	1.2	0.6	0.7	2.8	0.7	–0.1	2.2	2.0	–1.0	0.0	4.6	4.9	1.5
Contributions to GDP growth													
Domestic demand excluding inventories	0.7	0.7	0.4	1.0	0.5	1.0	0.8	1.0	0.6	0.6	2.5	3.0	2.3
Changes in inventories	–0.2	0.1	0.3	–0.2	0.1	–0.3	0.6	0.1	0.0	0.0	0.2	0.3	0.4
Foreign trade	0.0	0.0	0.0	–0.2	0.0	0.3	–0.5	–0.2	0.1	0.0	–0.4	–0.3	–0.3

Forecast

United Kingdom	Quarterly change in %										Annual change in %		
	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Supply and use table (in real terms)													
GDP	**0.4**	**0.3**	**0.4**	**0.4**	**0.1**	**0.4**	**0.6**	**0.2**	**0.3**	**0.3**	**1.7**	**1.3**	**1.1**
Private consumption (62%)	0.6	0.3	0.3	0.3	0.5	0.4	0.5	0.0	0.2	0.2	1.9	1.6	0.7
Investment (17%)	1.0	1.8	0.2	0.7	–1.0	–0.5	0.8	–0.1	0.0	0.5	3.3	0.1	0.6
Public consumption (23%)	–0.5	0.3	–0.2	0.2	0.1	–0.4	0.4	0.2	0.2	0.2	–0.2	0.2	0.6
Exports (30%)	–0.4	1.1	2.8	1.0	–0.8	–2.2	2.7	0.6	0.8	0.7	5.7	1.5	2.6
Imports (32%)	0.3	0.7	1.1	–0.1	–0.3	–0.2	0.0	0.6	0.5	0.5	3.2	0.4	1.3
Contributions to GDP growth													
Domestic demand excluding inventories	0.5	0.6	0.2	0.4	0.2	0.1	0.6	0.0	0.2	0.3	1.5	0.9	0.6
Changes in inventories	0.1	–0.4	–0.3	–0.4	0.1	1.0	–0.8	0.2	0.0	0.0	–0.5	0.0	0.1
Foreign trade	–0.2	0.1	0.5	0.3	–0.1	–0.6	0.8	0.0	0.1	0.1	0.7	0.3	0.4

Forecast

Japan	Quarterly change in %										Annual change in %		
	2017				2018				2019		2017	2018	2019 ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Supply and use table (in real terms)													
GDP	**0.8**	**0.5**	**0.7**	**0.4**	**–0.3**	**0.7**	**–0.6**	**0.4**	**0.2**	**0.3**	**1.9**	**0.7**	**0.6**
Private consumption (60%)	0.6	1.0	–0.8	0.4	–0.3	0.7	–0.2	0.4	0.2	0.5	1.4	0.4	1.0
Investment (21%)	1.0	1.6	0.4	0.1	–0.1	1.5	–2.2	0.3	0.2	0.3	3.0	0.7	–0.1
Public consumption (21%)	0.3	–0.1	0.2	0.0	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.6	0.6
Exports (15%)	1.7	–0.2	2.7	2.1	0.5	0.3	–1.8	2.0	0.1	0.1	6.8	3.2	0.8
Imports (17%)	1.3	1.7	–1.0	3.1	0.2	1.0	–1.4	1.7	0.3	0.5	3.4	2.9	1.5
Contributions to GDP growth													
Domestic demand excluding inventories	0.6	0.9	–0.3	0.3	–0.1	0.8	–0.6	0.3	0.2	0.4	1.4	0.5	0.7
Changes in inventories	0.1	–0.1	0.4	0.2	–0.3	0.0	0.0	0.0	0.0	0.0	–0.2	0.1	0.0
Foreign trade	0.1	–0.3	0.6	–0.1	0.1	–0.1	–0.1	0.1	0.0	–0.1	0.6	0.1	–0.1

Forecast

How to read it: % in brackets represent the weight in the nominal GDP in 2016.

Sources: BEA. ONS. Japan Cabinet Office. INSEE forecast