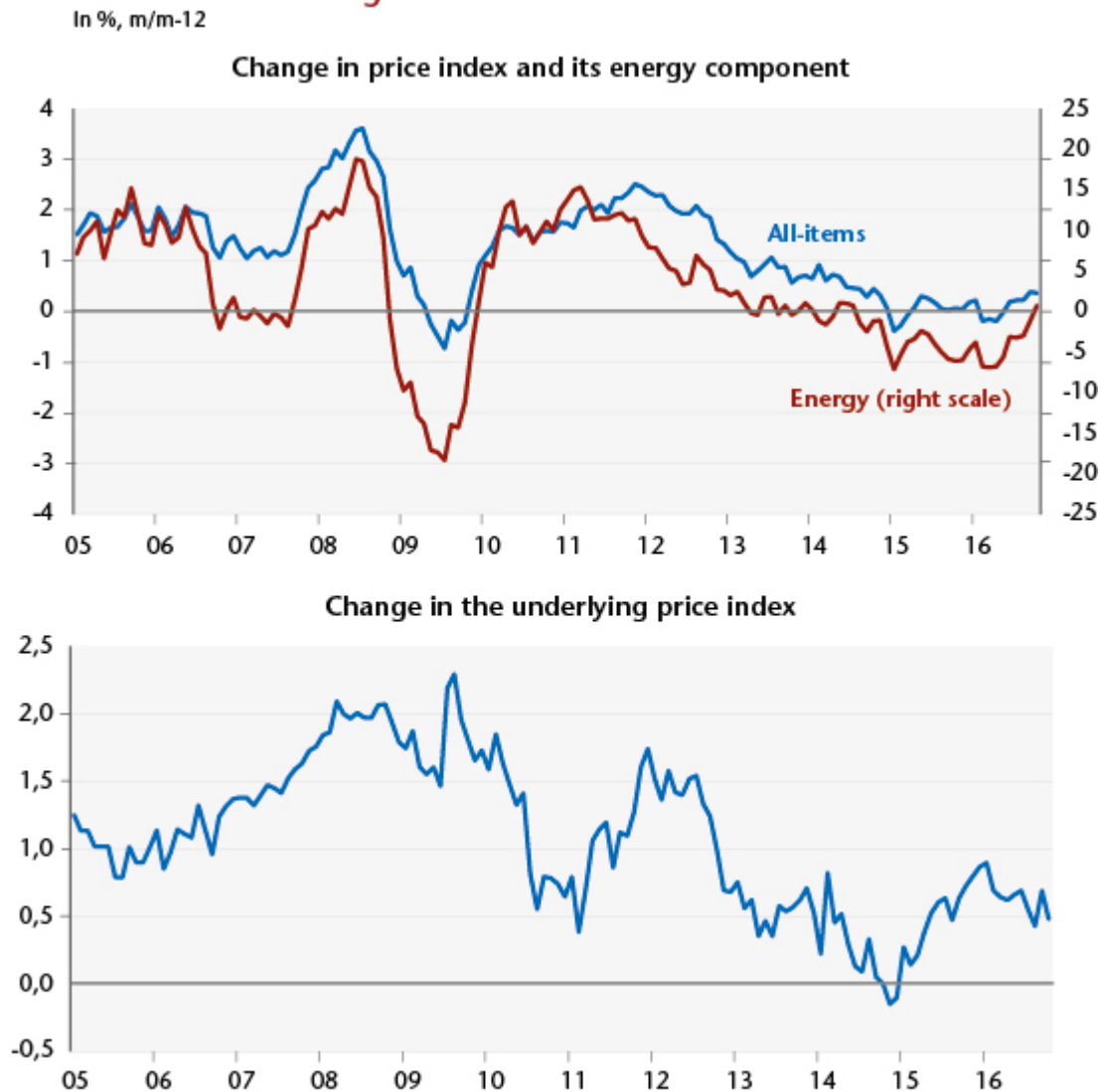


Inflationary pressures are mounting

By [Hervé Péléraux](#)

The publication of the price index by the INSEE on November 15 confirmed the return of inflation to positive territory, +0.4%, in October and September, after it oscillated around 0 since the end of 2014. The deflationary phase experienced over the past two years has in part replicated the trajectory of the energy price index, which saw the price of oil fall in early 2016 to one-third of its price in mid-2014. With a weighting of almost 8% in the all-items index, the energy price index, which incorporates the price of fuel but also of oil-indexed products such as gas and electricity, automatically pushed down inflation. This phase of energy-related disinflation now seems to have come to an end, with crude oil prices rising to between USD 45 and 50 a barrel since the low in mid-January 2016 at under USD 30. The gradual rise in the year-on-year change in the energy price index since spring has in fact pulled along the overall index.

Figure 1. Inflation in France



Source : INSEE.

However, the euro's depreciation against the dollar, which paralleled the fall in oil prices (from 1.35 dollars per euro on average in the first half of 2014 to 1.10 on average since spring 2015), has had a contrary inflationary effect, first by moderating the fall in the prices of energy imports after their conversion from dollars to euros, and second by increasing the price of non-energy imports. Changes in the underlying price index, which excludes products with volatile prices (energy, some fresh food products) and products with administered prices (health care, tobacco, public prices) from the overall index, reflected this second effect by rebounding from early 2015. This increase in underlying inflation was not, however, due solely to the depreciation of the euro. The

gradual end of the period of stagnation that marked the French economy between Q2 2011 and Q2 2014 reactivated inflationary mechanisms that had previously been thwarted by the easing of tension and the rise in unemployment.

The inflationary upturn begun in the last few months is expected to continue until 2018. The exhaustion of the disinflationary impact of the oil counter-shock and the rise in the price of crude oil, which has already largely occurred but will continue through the forecasting horizon up to 52 euros per barrel from its low point in early 2016 (31 euros per barrel) should mark the end of the disinflationary phase linked to energy prices. On top of this, the depreciation of the European currency, also already accomplished in large part, will continue, with a fall from 1.10 euros per dollar in mid-October 2016 to 1.05 according to our forecast. This will contribute to higher import prices. Inflation should therefore have hit a low point in the second quarter of 2016 before becoming positive again in the second half of 2016. By 2017, price increases will be close to 2% year-on-year, partly due to the effect of the recovery in oil prices and the depreciation of the euro. Excluding these two effects, inflation would just exceed 1% by end 2017 and then reach 1.5% the following year.

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The price-wage loop

Inflation forecasts are based on the modelling of a price-wage loop that estimates the parameters of the relationship between employees and companies: employers pass wage increases on to prices to preserve their margins, while employees respond to price increases by trying to obtain higher wages to preserve their purchasing power. Two equations model this process.

The wage formation equation (1) has terms for indexing wages

to prices (PC), labour productivity (π), a part of which is redistributed in the form of wages, the unemployment rate (U), which governs workers' bargaining power, and the minimum wage (SMIC), which can have impacts on the scale of adjacent wages.

Equation (2) gives the prices of value added (PVA), a function of unit wage costs, which can be broken down into the difference between wages (W) and labour productivity. The elasticity between the value-added prices and the unit wage cost ($W - \pi$) is set to 1, which means that, in the long run, fluctuations in unit labour costs do not affect companies' target margin rate. Since there is inflationary pressure on the productive apparatus, the rate of utilization of production capacity (TU) is added to the unit labour costs.

$$W_t = f_1 [P_t^C (+), \pi_t (+), U_t (-), SMIC_t (+)] \quad (1)$$

$$P_t^{VA} = f_2 [(W_t - \pi_t) (+), TU_t (+)] \quad (2)$$

The formation of prices in the domestic market also depends on the prices of imported goods excluding taxes (MP), which are a function of the price of oil expressed in euros (PPétrole) and the nominal effective exchange rate (TCEN).

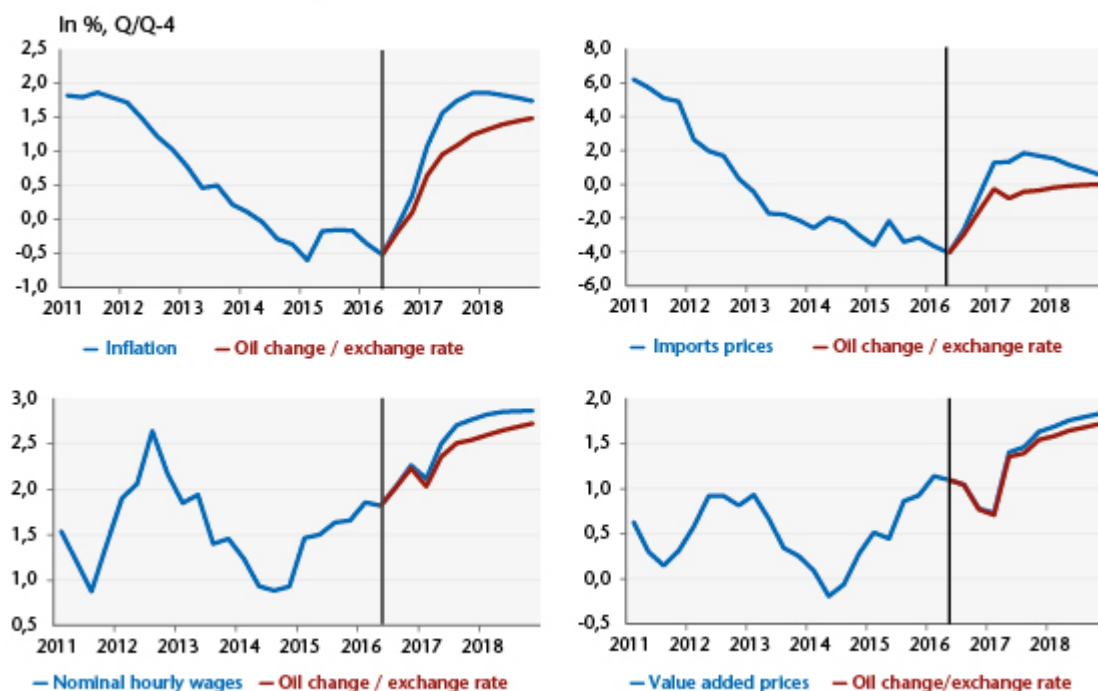
$$P_t^M = f_3 [P_t^{PETROLE} (+), TCEN_t (-)] \quad (3)$$

Finally, an accounting equation for the formation of domestic prices combines the value-added prices and the pre-tax import prices, with the total being increased by the rate of VAT to simulate the after-tax price index on the domestic market (here the deflator of household consumption from the national accounts). The different equations are estimated using error correction models.

In accordance with this model, the trajectory of inflation by 2018 will be affected both by external impulses, namely changes in the effective exchange rate and in oil prices, and by internal impulses, namely the response of wages to these external shocks through indexation and the fall in

unemployment. The renewed rise in oil prices and the depreciation of the effective exchange rate will revive imported inflation. Import prices will thus once again begin to rise in the first quarter of 2017, and will therefore contribute accounting-wise to the rebound in inflation. The indexing mechanisms will then push up wages, due to the added inflation. The fall in the unemployment rate begun at the end of 2015 will add to this impulse. Nevertheless, the rebound in inflation in the second half of 2016 cannot be reduced solely to the impact of external shocks. By neutralizing these effects and holding the nominal effective exchange rate and oil prices constant at their mid-2016 values, the rebound in inflation would not disappear, but it would be 0.6 percentage point lower at end 2017 (and 0.2 point lower at end 2018) relative to what comes from the central accounts (Figure 2).

Figure 2. Inflation and its determinants



Sources : INSEE, OFCE estimates and forecasts.

An end to growth?

Analysis and Forecasting Department (international team)

This text relies on the 2016-2018 forecast for the global economy and the euro zone, the full version of which [is available here, in French](#).

After avoiding a Grexit in the summer of 2015, Europeans will now have to face a Brexit. In addition to what should be a significant impact on the UK economy lies the question of the effect this shock will have on other countries. Given that all the indicators seemed to be green for finally allowing the euro zone to recover from the double-dip recession following the 2007-2008 financial crisis and then the sovereign debt crisis, will a Brexit risk interrupting the trend towards a recovery? This fear is all the more credible as the delayed recovery was not sufficient to absorb all the imbalances that built up over the years of crisis. The unemployment rate for the euro zone was still over 10% in the second quarter of 2016. A halt to growth would only exacerbate the social crisis and in turn fuel doubt – and therefore mistrust – about Europe's ability to live up to the ambitions set out in the preamble to the [Treaty on the Functioning of the European Union](#) and reiterated in [Lisbon in 2000](#).

Nevertheless, despite fears of a new financial shock, it is clear that it hasn't happened. Brexit will of course be the fruit of a long process that has not yet started, but it seems that the worst has been avoided for now. The British economy will see growth halved in 2017. But the short-term negative effects on other euro zone countries should be fairly limited, except perhaps Ireland which is more interdependent on the United Kingdom. In any case the global recovery should continue, but growth will be down in the euro zone from 1.9% in 2015 to 1.3% in 2018.

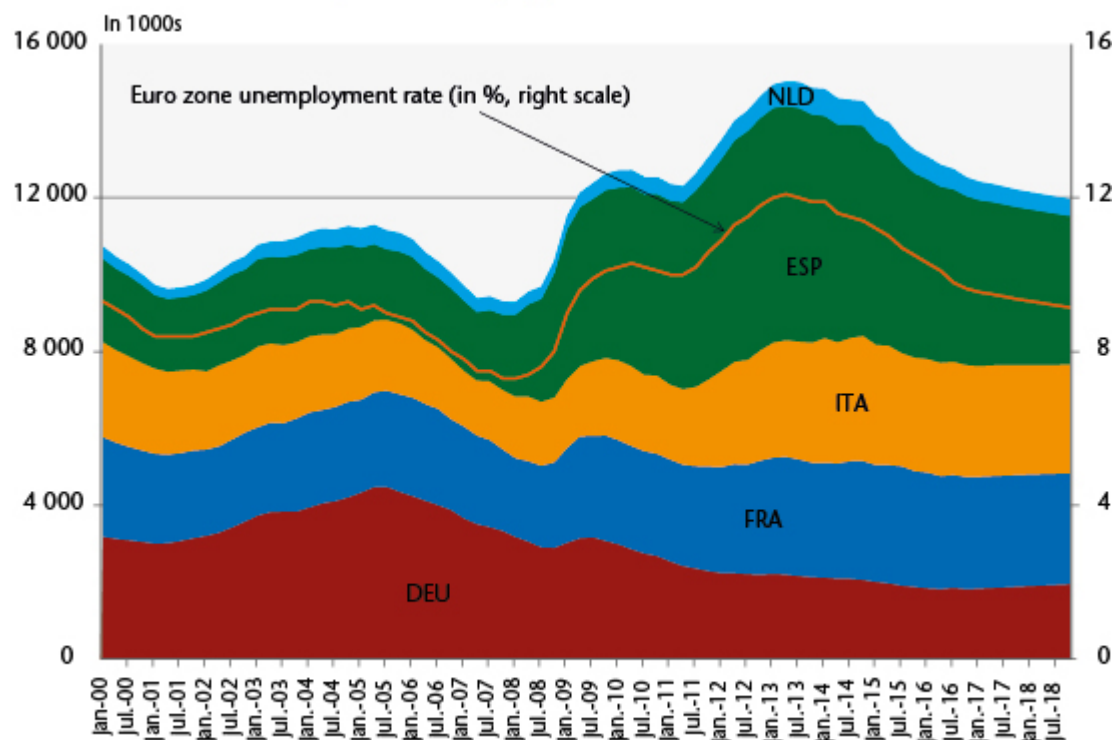
The many factors that helped initiate the recovery^[1] will to some extent lose steam. The price of oil has already begun to rise after hitting a low of under USD 30 in January 2016. It is now once again over 50 dollars a barrel. As for the euro, it has fluctuated since the beginning of the year at around 1.10 dollar, while in 2014 and 2015 it depreciated by 12.5% and 11.3%, respectively. In contrast, the European Central Bank has stuck to its expansionary monetary policy, and fiscal policy is much less restrictive than from 2011 to 2014. In 2015 and 2016, the aggregate fiscal impulse was even slightly positive.

Finally, world trade is slowing significantly, well beyond what would be expected simply from the change in China's economic model, which is resulting in a deceleration of imports. There were hopes that after the recovery kicked off, a virtuous cycle of growth would be triggered in the euro zone. Higher growth partly driven by exogenous factors would lead to job creation, higher incomes and better prospects for households and businesses. These elements would be conducive to a return of confidence and in turn stimulate investment and consumption. The dynamics of productive investment in France and Spain in the last quarter have given credence to this scenario.

The recovery will certainly not be aborted, but this rate of growth seems insufficient to reduce the imbalances brought about by long years of recession and low growth. At the end of 2018, the unemployment rate in the euro zone will still be nearly 2 percentage points higher than at end 2007 (graphic). For the five largest countries in the euro zone, this represents nearly 2.7 million additional people without jobs. In these conditions, it is undoubtedly the social situation of the euro zone which, even more than Brexit, is putting the European project in jeopardy. Europe certainly cannot be held solely responsible for low growth and high unemployment in the various countries, but the current forecast indicates that we

have undoubtedly not achieved the goals that were set in Lisbon in 2000, i.e. making the European Union “the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion”.

Figure: Unemployment in the euro zone



Source: Eurostat, OFCE forecasts – October 2016.

[1] View See the OFCE’s earlier [synthesis](#) (in French) of the international outlook (summarized [here](#) in English).

France’s battered growth

By the Analysis and Forecasting Department

This text summarizes the 2016-2017 forecast for the French economy. [Click here to consult the full version, in French.](#)

The news on 28 October that French economic growth came to 0.2% in the third quarter of 2016 constitutes a cyclical signal that is consistent with our analysis of the state of France's economy. This figure is close to our latest forecast (+0.3% forecast for the third quarter) and in line with our growth scenario up to 2018.

After three years of sluggish growth (0.5% on average over the period 2012-14), activity picked up moderately in France in 2015 (1.2%), driven by falling oil prices, the depreciation of the euro and a lowered level of fiscal consolidation. For the first time since 2011, the French economy has begun to create jobs in the private sector (98,000 for the year as a whole), which has been encouraged by tax measures that cut labour costs. Combined with an increase in the number of employees in the public sector (+49,000) and the creation of non-salaried jobs (+56,000), the number of unemployed according to the ILO fell in 2015 (-63,000, or -0.2 percentage point of the active population). Meanwhile, boosted by additional tax cuts on industrial equipment, business investment has revived in 2015 (+3.9% yoy).

French growth has been below that of the rest of the euro zone since 2014; in addition to the fact that it did better over the period 2008-2013, this is due to two major factors: first, France made greater fiscal adjustments than its European neighbours over the period 2014-16, and second, exports did not contribute much to growth, even though the fiscal approach to supply policy aimed to restore the competitiveness of French business. It seems, however, that since 2015 French exporters have chosen to improve their margins rather than to reduce their export prices, with no impact on their export volumes. While for a number of quarters now this behaviour has resulted in falling market share, this might still turn out to be an asset in the longer term due to strengthening the financial position of the country's exporters, especially if these margins are reinvested in non-cost competitiveness and

lead to upgrading the products manufactured in France.

In 2016, despite a strong first quarter (+0.7%) driven by exceptionally strong domestic demand excluding stock (+0.9%), GDP growth will peak at 1.4% on average over the year (see table). The mid-year air pocket, which was marked by strikes, floods, terrorist attacks and the originally scheduled end of the investment tax reduction, partly explains the weak recovery in 2016. As a result of the pick-up in margin rates, the historically low cost of capital and the extension of the investment tax cut, investment should continue to grow in 2016 (+2.7% yoy). The creation of private sector jobs should be relatively dynamic (+149,000), due to support from the CICE competitiveness tax credit, the Responsibility Pact and the *prime à l'embauche* hiring bonus. In total, taking into account unwaged employees and the workforce in the public sector, 219,000 jobs will be created in 2016. The unemployment rate will fall by 0.5 point over the year, of which 0.1 point is linked to the implementation of the "training 500,000" programme, so at year end will come to 9.4% of the workforce. Meanwhile the public deficit will drop to 3.3% of GDP in 2016, after a level of 3.5% in 2015 and 4% in 2014.

In 2017, France's economy will grow at a 1.5% rate, which will be slightly above its potential rate (1.3%), as the country's fiscal policy will not hold down GDP for the first time in seven years. On the other hand, in contrast to the forecast last spring, France will have to confront two new shocks: the negative impact of Brexit on foreign trade and the terrorist attacks' influence on the number of tourists. These two shocks will cut 0.2 percentage point off GDP growth in 2017 (following 0.1 point in 2016). The French economy will create 180,000 jobs, including 145,000 in the private sector, reducing the unemployment rate by "only" 0.1 point, due to the rebound in the labour force as people who benefit from the training programme gradually re-join the workforce. The renewed rise in oil prices and the depreciation of the euro

will see inflation rising to 1.5% in 2017 (after 0.4% in 2016). Finally, the government deficit will be 2.9% of GDP in 2017, back below the 3% threshold for the first time in ten years. After stabilizing at 96.1% of GDP in 2015 and 2016, the public debt will fall slightly, down to 95.8% in 2017.

The French economy though battered by new shocks and with the wounds from the crisis far from having healed, is recovering gradually, as can be seen by the gradual improvement in economic agents' financial position: business margins are up, household purchasing power has rebounded, the deficit is down and the public debt has stabilized.

Table. Summary of the forecast for France

Change from the preceding period, in %

	2016				2017				2015	2016	2017	2018
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
GDP	0.7	-0.1	0.3	0.5	0.4	0.4	0.4	0.4	1.2	1.4	1.5	1.5
GDP / capital	0.6	-0.2	0.2	0.4	0.3	0.3	0.2	0.3	0.8	0.9	1.0	1.0
Household consumption	1.1	-0.1	0.2	0.5	0.3	0.3	0.3	0.3	1.5	1.5	1.3	1.3
Public consumption	0.4	0.4	0.2	0.2	0.2	0.2	0.3	0.3	1.4	1.5	1.0	1.2
Total GFCF, of which:	1.3	-0.2	0.4	0.6	0.7	0.4	0.4	0.4	0.9	2.7	1.9	1.4
<i>Private production</i>	2.1	-0.4	0.4	0.6	0.8	0.4	0.4	0.4	2.7	3.7	1.9	1.4
<i>Housing</i>	0.1	-0.3	0.3	0.6	0.6	0.7	0.5	0.4	-0.8	0.4	2.0	1.5
<i>Public</i>	0.1	0.7	0.4	0.5	0.5	0.5	0.4	0.4	-3.9	2.5	1.9	1.2
Exports of goods and services	-0.4	0.2	0.5	0.5	0.6	0.6	0.6	0.6	6.0	0.8	2.2	2.5
Imports of goods and services	0.2	-1.8	0.5	0.4	0.5	0.5	0.5	0.5	6.4	1.8	1.3	2.0
Contributions :												
Non-inventory domestic demand	0.9	0.0	0.2	0.5	0.4	0.3	0.3	0.3	1.4	1.8	1.4	1.3
Change in Inventory	-0.1	-0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.1	-0.1	-0.1	0.1
Foreign trade	-0.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	-0.3	0.2	0.1
Consumer prices (HICP), Q/Q-4	0.0	0.1	0.4	0.9	1.8	1.1	1.5	1.6	0.1	0.4	1.5	1.6
Unemployment rate	9.9	9.6	9.5	9.4	9.4	9.4	9.4	9.3	10.1	9.6	9.4	9.3
Household savings rate (% of GDI)	14.5	14.8	14.9	14.7	14.6	14.5	14.6	14.7	14.5	14.7	14.6	14.6
Margin rate of non-fin corp. (% of VA)	32.2	31.7	31.8	31.8	31.9	31.8	31.8	31.7	31.4	31.9	31.8	31.8
Public deficit (% of GDP)									-3.5	-3.3	-2.9	-2.4
Public debt (% of GDP)									95.8	96.1	95.8	95.3

Sources: INSEE, OFCE forecasts 2016-2018.