

# Oil: carbon for growth

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*This text is based on the [special study of the same name](#) [Pétrole : du carbone pour la croissance, in French] that accompanies the OFCE's 2015-2016 Forecast for the euro zone and the rest of the world.*

The 50% fall in the price of Brent between summer 2014 and January 2015 and its continuing low level over the following months is good news for oil-importing economies. In a context of weak growth, this has resulted in a transfer of wealth to the benefit of the net importing countries through the trade balance, which is stimulating growth and fuelling a recovery. Lower oil prices are boosting household purchasing power and driving a rise in consumption and investment in a context where companies' production costs are down. This has stimulated exports, with the additional demand from other oil-importing economies more than offsetting the slowdown seen in the exporting economies.

That said, the fall in oil prices is not neutral for the environment. Indeed, the fall in oil prices is making low-carbon transportation and production systems less attractive and could well hold back the much-needed energy transition and the reduction of greenhouse gas emissions (GHG).

This oil counter-shock will have a favourable impact on growth in the net oil-importing countries only if it is sustained. By 2016, the excess supply in the oil market, which has fuelled by the past development of shale oil production in the United States and OPEC's laissez-faire policy, will taper off. Unconventional oil production in the United States, whose profitability is uncertain at prices of under 60 dollars per barrel, will have to adjust to lower prices, but the tapering

off expected from the second half of 2015 will not be sufficient to bring prices down to their pre-shock level. Brent crude prices could stay at about 55 dollars a barrel before beginning towards end 2015 to rise to 65 dollars a year later. Prices should therefore remain below the levels of 2013 and early 2014, and despite the expected upward trend the short-term impact on growth will remain positive.

To measure the impact of this shock on the French economy, we have used two macroeconomic models, *e-mod.fr* and *ThreeMe*, to carry out a series of simulations. These models also allow us to assess the macroeconomic impact, the transfers in activity from one sector to another, and the environmental impact of the increased consumption of hydrocarbons. The results are presented in detail in the [special study](#). It turns out that for the French economy a 20 dollar fall in oil prices leads to additional growth of 0.2 GDP point in the first year and 0.1 point in the second, but this is accompanied by a significant environmental cost. After five years, the price fall would lead to additional GHG emissions of 2.94 MtCO<sub>2</sub>, or nearly 1% of France's total emissions in 2013. This volume for France represents nearly 4% of [Europe's goal](#) of reducing emissions by 20% from 1990 levels.

The simulations using the French *e-mod.fr* model can be extended to the major developed economies (Germany, Italy, Spain, the USA and UK) by adapting it to suit characteristics for the consumption, import and production of oil. With the exception of the United States, the oil counter-shock has a substantial positive impact that is relatively similar for all the countries, with Spain benefitting just a little more because of its higher oil intensity. Ultimately, considering the past and projected changes in oil prices (at constant exchange rates), the additional growth expected on average in the major euro zone countries would be 0.6 GDP point in 2015 and 0.1 point in 2016. In the US, the positive impact would be partially offset by the crisis that is hitting the

unconventional oil production business<sup>[1]</sup>. The impact on GDP would be positive in 2015 (+0.3 point) and negative in 2016 (-0.2 point). While lower oil prices are having a positive impact on global economic growth, this is unfortunately not the case for the environment ...

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<sup>[1]</sup> See the post, [The US economy at a standstill in Q1 2015 : the impact of shale oil](#), by Aurélien Saussay, from 29 April on the OFCE site.

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## **The planetary alignment has not always been favourable to the euro zone countries**

By [Eric Heyer](#) and Raul Sampognaro

In 2015, the euro zone economies will benefit from a favourable [“planetary alignment”](#) (with the euro and oil prices down and financial constraints on the economy easing), which should trigger [a virtuous circle of growth](#). Over the previous four years (2011-2014), the “planetary alignment” that existed was in a diametrically opposite direction: the euro and oil prices were high, with financing conditions and the fiscal stance very tight.

In [a recent article](#), we propose an evaluation of the impact of

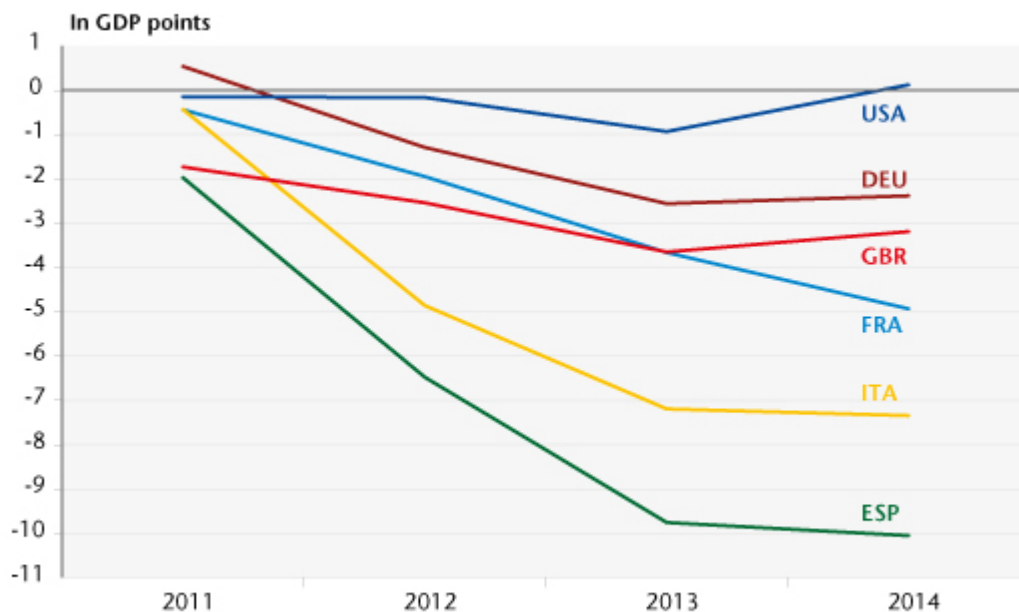
these four factors on the economic performance of six major developed countries since 2011 (France, Germany, Italy, Spain, the UK and USA).

It is clear from our analysis that the combination of these shocks explains a large part of the differences in growth recorded during the period 2011-2014 between the United States and the major European economies. A non-negligible part of this performance gap is explained in particular by the difference in the economic policies adopted, with a policy mix that has been much more restrictive in the euro zone than in the case of the US. In particular, a very sharp fiscal adjustment took place in the countries experiencing pressure on their sovereign debt, such as Spain and Italy. In addition, the effects of the pressure on sovereign debt were multiplied by financial fragmentation, which can be seen in the deterioration of private sector financing terms, whereas the quantitative easing measures taken by the Fed and the Bank of England helped to prop up financing conditions in these countries. It was not until Mario Draghi's speech in July 2012 and [the announcement of the OMT programme](#) in September 2012 that the ECB's actions were sufficient [to reduce the financial pressure](#). While exchange rate trends tended to support activity in the euro zone throughout 2011-2014, the contribution of this factor depended on the way the various countries were integrated with global trade flows [\[1\]](#) and on the scale of wage disinflation, which was particularly pronounced in Spain. Finally, the rise in oil prices held back Europe's growth, while it had less impact in the United States, which [benefited from the exploitation of shale oil](#).

The cumulative loss in GDP was very significant in Spain (-10 points between 2011 and 2014), Italy (-7.5 points) and France (-5 points) and more moderate in the UK (-3 points) and Germany (-2.5 points). In contrast, the cumulative impact since 2011 on growth in the United States was zero, suggesting that real growth in the US was in line with spontaneous growth

[2] (Figure 1).

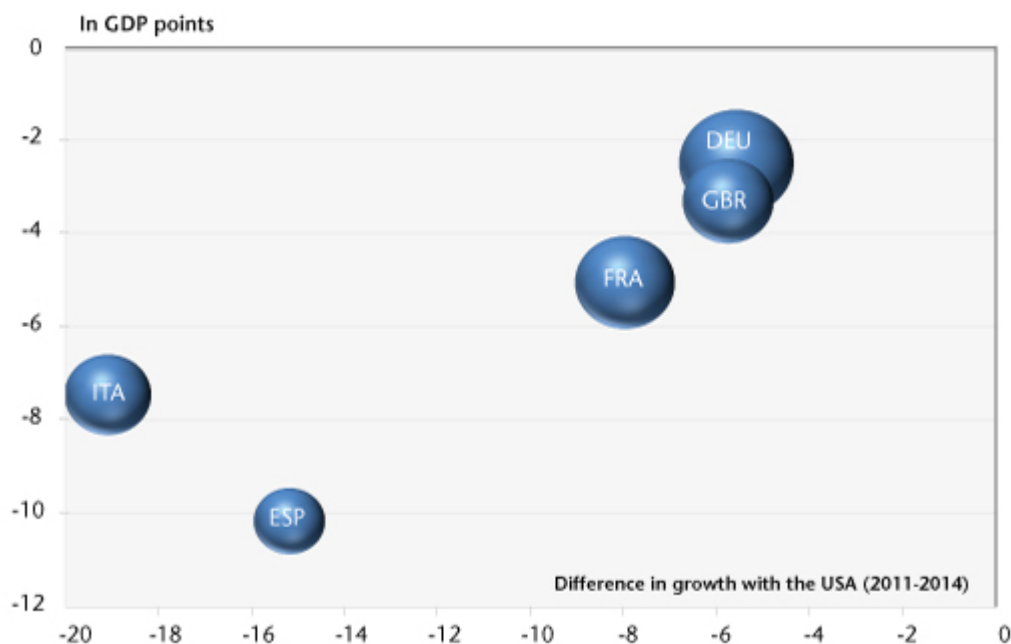
Figure 1. Cumulative impact on GDP of various shocks since 2011



Sources: National accounts, OFCE calculations.

Thus, in the absence of these shocks, Europe's spontaneous growth could have exceeded the rate of potential growth, as in the United States (Figure 2). This would have led in the euro zone countries in particular to a long-term convergence of GDP with its potential level, to a reduction in imbalances on the labour market, to the normalization of capacity utilization, and to a recovery in the public accounts.

**Figure 2. Difference in growth and the cumulative impact on GDP of various shocks for countries over the period 2011-2014**



Sources: OECD eo96 for the output gap, national accounts, OFCE calculations for the impact of the shocks.

[Go to the full version of our study.](#)

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[1] The impact of these competitiveness shocks differs across countries because of differences in the elasticity of foreign trade, but also due to variations in the countries' degree of exposure to trade and to intra / extra euro zone competition. For more on this, see [Ducoudré and Heyer \(2014\)](#).

[2] An economy's spontaneous growth results from its long-term potential growth (which depends on structural factors that determine in particular changes in the global productivity of the factors and the labour force) and the rate of closing the output gap, which was deepened in most countries by the 2008-2009 crisis and which depends on an economy's capacity to absorb the shocks that hit it.

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# The coming recovery

By the Analysis and Forecasting Department, under the direction of [Eric Heyer](#) and [Xavier Timbeau](#)

This text summarises the [OFCE 2015-2016 economic outlook for the euro zone and the rest of the world](#)

While up to now the euro zone had not been part of the global recovery, the conjunction of a number of favourable factors (the fall in oil prices and depreciation of the euro) will unleash a more sustained process of growth that is shared by all the EU countries. These developments are occurring at a time when the massive and synchronised fiscal austerity that had pushed the euro zone back into recession in 2011 is easing. The brakes on growth are gradually being lifted, with the result that in 2015 and 2016 GDP should rise by 1.6% and 2%, respectively, which will reduce unemployment by half a point per year. This time the euro zone will be on the road to recovery. However, with an unemployment rate of 10.5% at the end of 2016, the social situation will remain precarious and the threat of deflation is not going away.

## **The expected demand shock**

After a period during the Great Recession of 2008-2009 when growth was boosted by expansionary fiscal policy, the euro zone countries quickly reversed their policy orientation and adopted a more restrictive one. While the United States also chose to reduce its budget deficit, austerity has had less effect there. First, the negative demand shock at the euro zone level was amplified by the synchronisation of the consolidation. Second, in a context of rising public debt, the lack of fiscal solidarity between the countries opened up a

breach for speculative attacks, which pushed up first sovereign rates and then bank rates or the non-financial agents market. The euro zone plunged into a new recession in 2011, while globally the momentum for growth gathered pace in the other developed countries (chart). This episode of consolidation and financial pressure gradually came to an end. In July 2012, the ECB made a commitment to support the euro; fiscal austerity was eased in 2014; and the Member States agreed on a draft banking union, which was officially initiated in November 2014, with new powers on banking supervision entrusted to the ECB. All that was lacking in the euro zone then was a spark to ignite the engine of growth. The transfer of purchasing power to households that resulted from the fall in oil prices – about one percentage point of GDP if oil prices stay down until October 2015 – represents this positive demand shock, which in addition has no budget implications. The only cost resulting from the shock comes from the decline in income in the oil-producing countries, which will lead them to import less in the coming quarters.

An external demand shock will combine with this internal demand shock in the euro zone. The announcement of a quantitative easing programme in the euro zone represents a second factor accelerating growth. This programme, under which the ECB is to purchase more than 1,000 billion euros of securities at a pace of 60 billion per month until September 2016, not only will amplify the fall in sovereign yields but more importantly will also lead to a reallocation of portfolio assets and drive the euro (further) down. Investors looking for higher returns will turn to dollar-denominated securities, especially as the prospect of a gradual monetary tightening in the US improves the outlook for earnings on this side of the pond. The rising dollar will lift the currencies of the Asian countries with it, which will increase the competitive advantage of the euro zone at the expense this time of the United States and some emerging countries. It is unlikely that the fragility induced in these countries and in the oil-



producing countries by the oil shock and by the decline in the euro will offset the positive effects expected in the euro zone. On the contrary, they will also be vectors for the rebalancing of growth needed by the euro zone.

Investment is the factor that will complete this growth scenario. The anticipation of higher demand will remove any remaining reluctance to launch investment projects in a situation where financing conditions are, overall, very positive, representing a real improvement in countries where credit constraints had weighed heavily on growth.

All this will lead to a virtuous circle of growth. All the signals should turn green: an improvement in household purchasing power due to the oil impact, increased competitiveness due to the lower euro, an acceleration in investment and, ultimately, growth and employment.

### **A fragile recovery?**

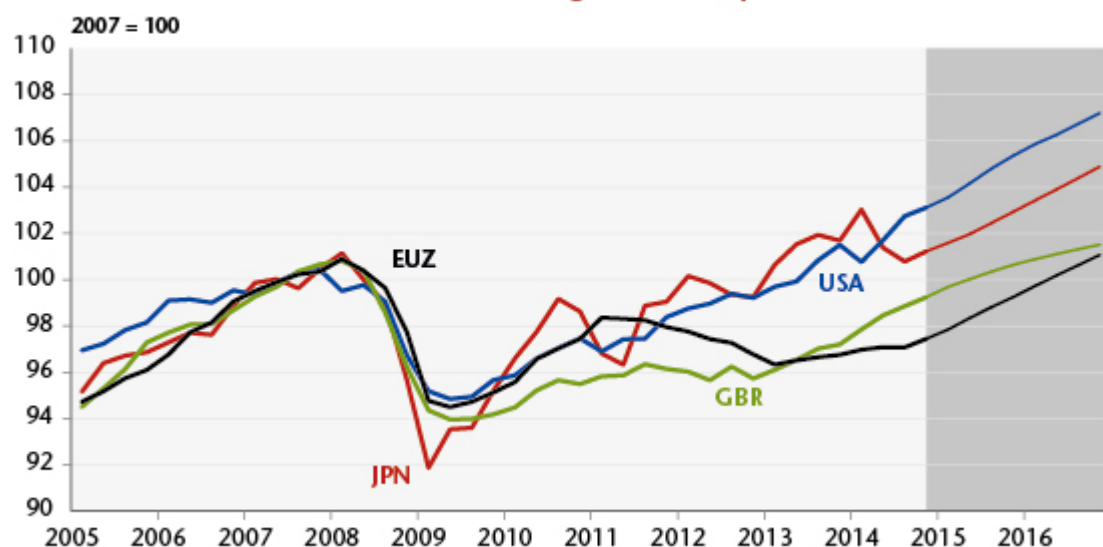
While the elements promoting the euro zone's growth are not mere hypotheticals about the future but represent a number of tangible factors whose effects will gradually make themselves felt, the fact remains that they are somewhat fragile. The falling price of oil, for instance, is probably not sustainable. The equilibrium price of oil is closer to USD 100 than USD 50 and, ultimately, a rise in energy prices is in the cards: what has a positive effect today could undermine the resumption of a recovery tomorrow. The decline of the euro seems more long-term; it should last at least until the end of the ECB's quantitative easing programme, which officially is at least September 2016. The euro should not, however, fall below a level of 0.95 dollar per euro. The time it takes for changes in exchange rates to translate into trade volumes, however, should allow [the euro zone to benefit in 2016 from a gain in competitiveness](#).

It is worth noting that a Greek exit from the euro zone could

also put a halt to the nascent recovery. The firewalls set up at the European level to reduce that risk should limit any contagion, at least so long as the political risk has not been concretised. It will be difficult for the ECB to support a country where a party explicitly calling for leaving the euro zone is at the gates of power. The contagion that is now considered extinguished could then catch fire again and reignite the sovereign debt crisis in the euro zone.

Finally, the constraints of the Stability Pact have been shifted so as to leave more time to the Member States, particularly France, to get back to the 3% target. They have therefore not really been lifted and should soon be reinforced once it comes to assessing the budgetary efforts being made by the countries to reduce their debt.

**Figure. The GDP of the euro zone, the United States, the United Kingdom and Japan**



Source : National accounts, OFCE forecasts April 2015.