

## Tax increases since 2014 have to a large extent absorbed the effect of the drop in oil prices on energy consumer prices

Oil prices have plummeted since 2014. The average price of a barrel of Brent was US\$108 in H1 2014, but it fell dramatically from the end of 2014, reaching a low point of \$31 in January 2016. It has picked up since then, and at the end of 2017 was hovering around \$60, but is still far below the price at the beginning of 2014.

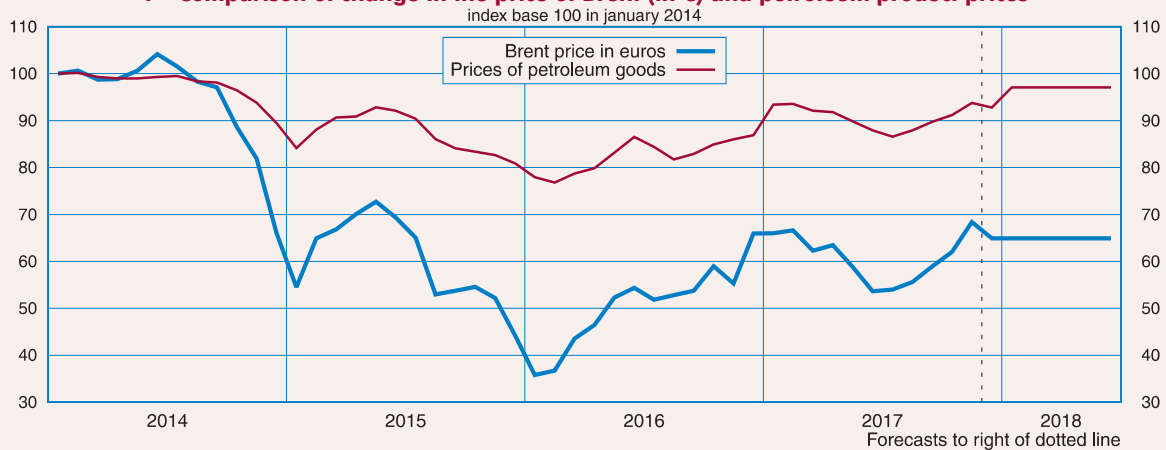
In the wake of oil prices, petroleum product consumer prices (fuel and domestic heating oil) slipped back by around -6% between January 2014 and November 2017. This drop was less pronounced than that for oil prices (Graph 1) because only part of the price of fuel reacts to variations in oil prices, and energy taxation rose substantially over the same period. At the start of 2018, the price of petroleum products is therefore likely to be only 3% lower than in January 2014, although the price of a barrel of Brent is still expected to be 35% lower than at the beginning of 2014.

### The drop in pre-tax prices was limited because margins were maintained or increased

Only part of the price of petroleum products reacts to variations in oil prices. This is because the domestic duty on consumption of energy products (TICPE) relates to volumes (quantities consumed in litres) and not to the ad valorem amount. Thus for the same consumption, the amount of this duty is not affected by a rise or a fall in the price per litre. In October 2017, these duties represented an average of 46% of the price of fuel (Graph 2), and 16% of the price of heating oil.

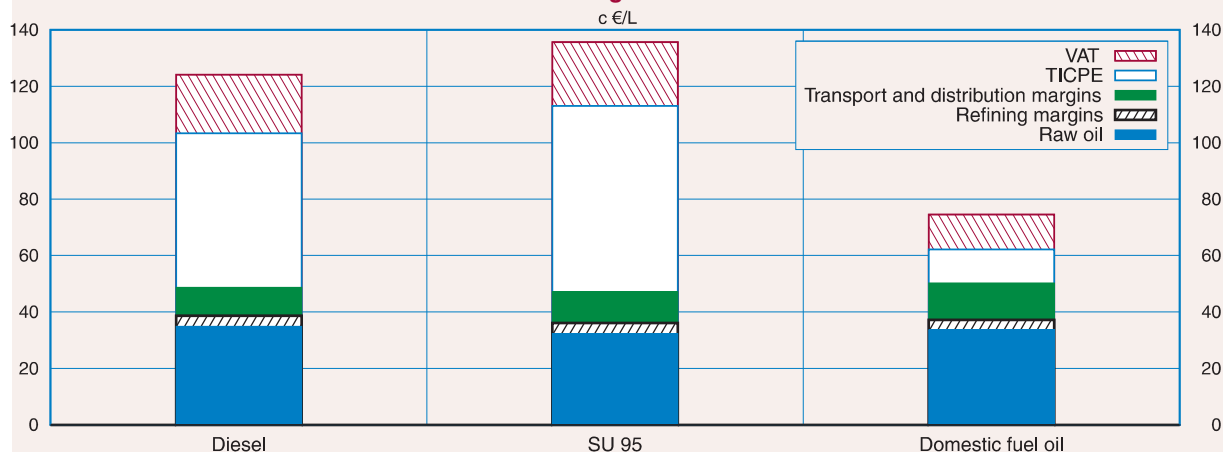
In addition, any reduction in pre-tax prices was limited by transport-distribution margins being maintained or increased. For diesel prices these were c€7.8/L on average in 2014 (i.e. 12% of the pre-tax price), whereas at the end of 2017, they were c€10.0/L (i.e. 22% of the pre-tax price). Transport-distribution margins for petrol were at the same level at the end of

1 - Comparison of change in the price of Brent (in €) and petroleum product prices



Sources: INSEE, DataInsight

2 - Breakdown of average price of a litre of diesel, unleaded 95 petrol and domestic heating oil in October 2017



Sources: DGEC, INSEE calculations

## French developments

2017 as in 2014 (c€10.0/L). The increased margins in the manufacture of refined petroleum products also limited any price reduction. These were €3.1/barrel on average in 2014 (which represented 4% of the price in euros of a barrel of Brent), against €5.8 in October 2017 (i.e. 12% of the price per barrel).

VAT, on the other hand, is a proportional tax: the amount is adjusted downwards when oil prices fall.

All in all, the drop in petroleum product prices inclusive of taxes is therefore less pronounced than the drop in the pre-tax price (Graph 3).

### Successive tax rises between 2014 and 2018 have to a large extent absorbed the effect of the fall in oil prices on energy consumer prices

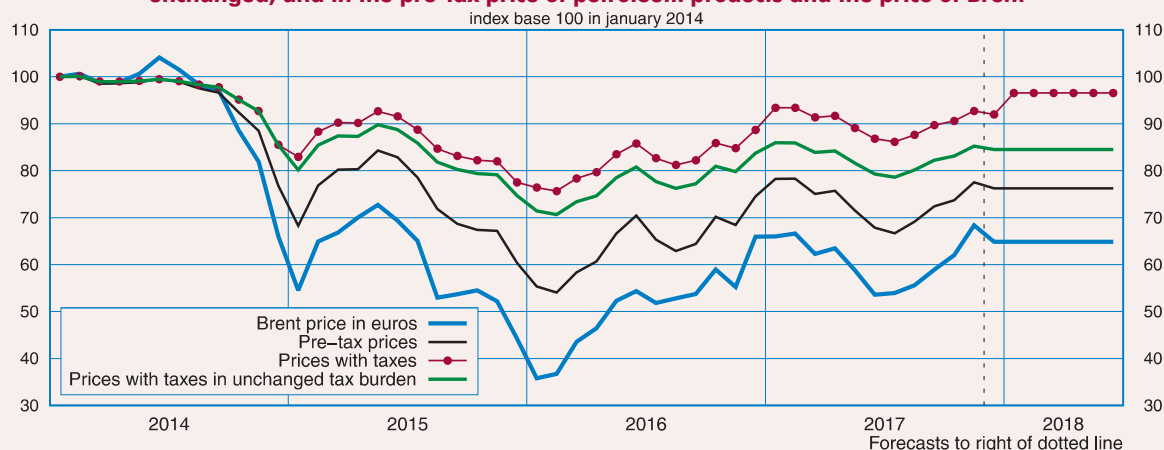
Taxes on petroleum products have increased on 1<sup>st</sup> January of each year since 2015, in order to reduce fossil fuel consumption and contribute to a return to equilibrium for public finances (see Clément and Rolland, 2017). Between January 2014 and December 2017, these increases bolstered petroleum product prices by around 8.1 points (i.e. 2.7 points per year on average).

Taxation will increase again in January 2018, in accordance with the measures set out in the Finance Law. This increase is likely to be greater than in previous years, affecting petroleum product prices by +4.9 points in 2018 (Table 1). The rise in energy taxation is therefore expected to buoy up inflation overall by 0.2 points in 2018.

About half of the oil imported by France is used to manufacture fuels consumed directly by households. The decline in oil prices represents an improvement in the terms of trade of around €20 billion per year (see Bortoli and Milin, 2016), half of which is therefore potentially related to household consumption. The actual drop in consumer prices of petroleum products (fuels and domestic heating oil) has been much less pronounced, however, as energy taxation increased substantially over the same period.

Taking into account the rise forecast for January 2018 and using 2013 (i.e. before the fall in prices) as the baseline year, the State looks set to lose €1.3 billion in annual VAT revenue in 2018 compared with 2013 because of the fall in pre-tax prices. However, with the increase in indirect taxation between 2014 and 2018 it should recover €5.7 billion of additional taxes on petroleum products (Table 2). The net gain for the State

**3 - Comparison of change in the price including taxes, in the simulated price including taxes with taxation unchanged, and in the pre-tax price of petroleum products and the price of Brent**



Sources: DGEC, INSEE forecast

**Table 1 - Effect of tax increases on petroleum product prices**

contribution in point to annual variation

	2015	2016	2017	2018
Diesel	+3.7	+3.1	+3.9	+6.2
Gasoline	+1.4	+1.0	+1.1	+2.8
Heating oil	+2.8	+3.4	+4.3	+6.1
<b>Petroleum products</b>	<b>+2.7</b>	<b>+2.4</b>	<b>+2.9</b>	<b>+4.9</b>

Sources : DGEC, INSEE calculations

**Table 2 - Annual savings for households (compared with 2013) due to the drop in petroleum product prices**  
in billion euros in gap to year of reference 2013

	2014	2015	2016	2017	2018
<b>Gains made by households</b>	<b>+2.3</b>	<b>+7.3</b>	<b>+9.2</b>	<b>+5.3</b>	<b>+2.3</b>
<b>of which pre-tax price</b>	<b>+2.1</b>	<b>+7.3</b>	<b>+9.7</b>	<b>+7.4</b>	<b>+6.7</b>
<b>of which price of taxes paid</b>	<b>+0.2</b>	<b>0.0</b>	<b>-0.5</b>	<b>-2.1</b>	<b>-4.4</b>
of which increase in indirect taxation	-0.2	-1.4	-2.4	-3.6	-5.7
of which VAT	+0.4	+1.4	+1.9	+1.5	+1.3

Source: INSEE calculations

should therefore be €4.4 billion compared with baseline year 2013, which would represent almost two-thirds of the €6.7 billion in total gains as a result of the drop in pre-tax prices.

### Taxes on petroleum products have increased more in France than in the rest of Europe since 2014

The change in petroleum product prices excluding taxes in France is fairly similar to the average trajectory observed in the European Union (Graph 4). However,

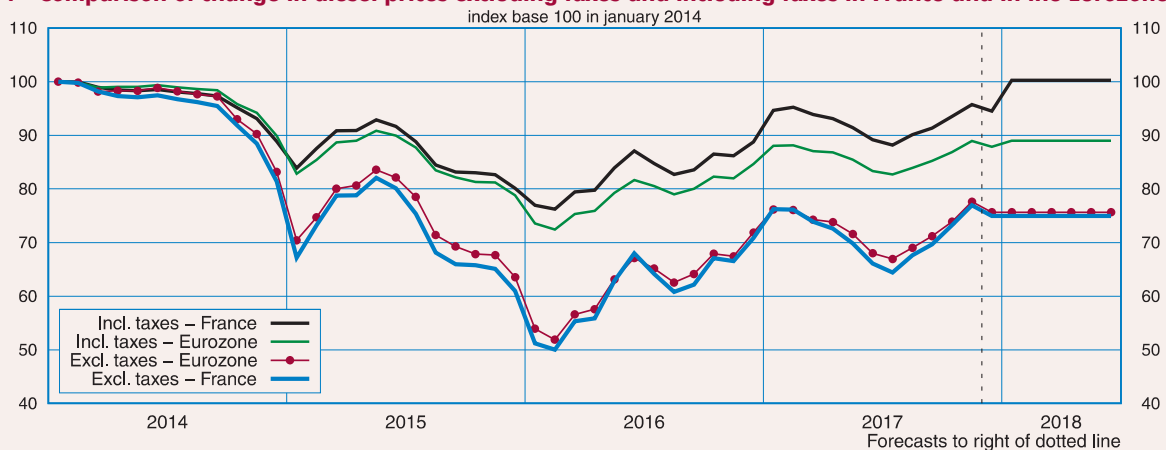
energy taxation has not been recorded in the main European countries, apart from France. For diesel in particular, when the rise planned for January 2018 is taken into account, the price in France at the beginning of 2018, including tax, is expected to be back to the same level as at the start of 2014, whereas in the Eurozone it is still likely to be 10% less, on average. In 2018, the proportion of taxation in the total price of diesel in France, which in 2013 was similar to that in Germany, is expected to be the same as in Italy, which is considerably higher than in Germany or Spain (Graph 5). ■

### Bibliography

**Bortoli C. and Milin K.** (2016), "Who has benefited from the fall in oil prices?", *Conjoncture in France*, INSEE, March, p. 41-61.

**Clément M. and Rolland A.** (2017), "Household energy bills have gone down since 2013 despite higher taxes", *Economic players and the environment - INSEE Références*, p. 25-34. ■

**4 - Comparison of change in diesel prices excluding taxes and including taxes in France and in the Eurozone**



**5 - Share of taxes in the total price of diesel**

