

Briefing: Fuel and carbon taxation in the EU

June 2010

How a revised Energy Taxation Directive could make transport greener and the economy more efficient

Pricing is of the utmost strategic importance in climate policies, not least in the transport sector where the behaviour of millions of actors is affected. Higher prices on fossil fuels give everyone incentives to reduce their climate impact as cheaply and as easily as possible. If we don't make wise use of efficient market instruments the costs of an ambitious climate policy will rise unnecessarily, and perhaps dramatically.

The importance of fuel taxation is enormous. The fact that Europe's fuel prices are more than double those in America goes a long way to explain why the US uses more than twice the amount of transport fuel per head. Fuel taxes have given Europe's vehicle producers a strong incentive to develop fuel efficient technology, something that gives them a competitive edge on world markets. In addition, fuel taxes give people incentives to buy lighter cars, drive less, and use public transport more. Without fuel taxes Europe's dependence on imported oil would have been even larger.

The Europe 2020 strategy, presented by the Commission in March, contains some very encouraging language on energy taxes:

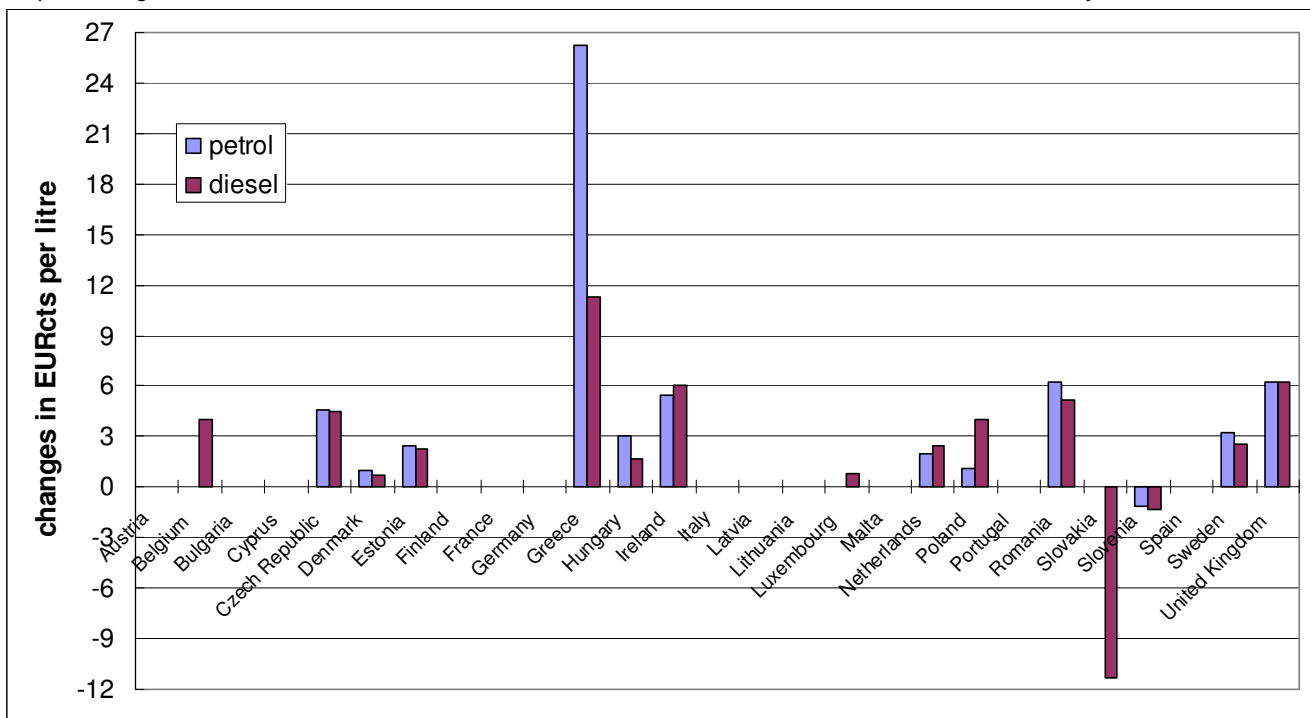
'Where taxes may have to rise, this should, where possible, be done in conjunction with making the tax systems more "growth-friendly". For example, raising taxes on labour, as has occurred in the past at great costs to jobs, should be avoided. Rather Member States should seek to shift the tax burden from labour to energy and environmental taxes as part of a "greening" of taxation systems.'

Although France recently experienced difficulties in introducing carbon taxes, throughout Europe another trend is emerging. Over the past six months, nine EU member states have raised fuel taxes by more than 3 cents per litre. Greece is a rather obvious outlier. See graph below. Note: the reduction of diesel taxation in Slovakia was linked to the introduction of a kilometre charging system for trucks in the country on 1 January 2010.

Unanimity and how to deal with it

Clearly there are substantial difficulties surrounding common taxation initiatives at EU level. But for several reasons a strong proposal

Graph: Changes in road fuel excise duties in the 27 EU Member states between October 2009 and May 2010



from the Commission is still of paramount importance:

1) While the previous directive took six years to come into force, the important thing was that it was eventually adopted.

2) The yawning budget deficits across the EU will have to be closed and a process towards a greater EU-level oversight of budgetary processes is likely to take off over the next years

3) A less sensitive area could be the issue of facilitating mechanisms which would allow for easier national action.

Why sticking to -20% will not trigger fuel tax action in transport

Transport emissions, except aviation, fall under caps defined in the so-called effort sharing decision (ESD). Formally the ESD should in itself put pressure on the Member States to raise their fuel taxes in order to comply with their respective national commitments.

In reality the current ESD is unlikely to play such a role, for two reasons:

1. the decision allows generous use of 'cheap' and flexible mechanisms, allowing the postponement of domestic reduction measures which are politically more difficult to be taken.
2. the recession and resulting CO₂ cuts have reduced or even removed any remaining difference between business-as-usual and targets.

As a consequence, it is unlikely that ESD in itself will trigger any significant raising of fuel taxes. However the directive may have some significance for a few member states where a particularly large share of non-ETS emissions are related to sales of petrol and diesel e.g. Luxembourg.

If the EU GHG reduction target for 2005-2020 is raised to 30%, a revision of ESD that puts stronger pressure on Member States will be necessary. A strong review of the energy tax directive will then be crucial.

Tax competition – 'fuel tax havens'

Over the years, the issue of diesel tax competition, particularly for lorries, has repeatedly been raised by the Commission. A central aim of the Single Market is to stimulate all sorts of competition within the Union in order

to boost economic growth, combat inflation and increase real incomes.

Unfortunately, this mechanism also gives incentives to Member States to lower fuel taxes, in particular those on diesel that can be carried over large distances in lorries. Luxembourg is a good example. In 2007 its low fuel tax led to 5-10 times higher fuel sales per head than neighbouring Germany, France and Belgium. But most worryingly, such 'fuel tax havens' prevent neighbouring countries from making independent decisions on fuel taxes and hence stand in the way of a cost-efficient EU climate policy.

From a climate policy perspective, fuel tax competition is clearly counterproductive, which in turn damages European economic prosperity. To cut the costs of the necessary GHG emission reductions - thus also replacing job-cutting taxes on labour - we need European energy tax legislation that gives member states incentives to raise diesel taxes.

The Commission has repeatedly highlighted the tax competition dilemma and proposed that the already existing possibility for member states to differentiate diesel taxation between heavy ("commercial") and light ("non-commercial") vehicles should be linked to the introduction of km-charges. With such a link, member states could raise the diesel tax for passenger cars (low cross-border share) without causing increased border trade among heavy vehicles in cross border traffic.

Suggested improvements

Under the existing decision rules T&E has identified five possible ways of improving the Energy Tax Directive:

1. Raise existing minimum levels, especially for diesel
2. Expand effective minimum rates to aviation, and other modes
3. Adapt rates to inflation or purchasing power
4. Limit the risk for border trade
5. Establish a group of "fore-runners" with higher ambitions

For further details on these points, see below:

1. Raise existing minimum levels, especially for diesel

We strongly support the ambition of the Commission to raise the minimum tax on diesel. Since a litre of diesel has both a higher energy content than a litre of petrol and also causes

more CO₂ emissions per litre, the minimum tax for diesel should be higher than for petrol. The difference equals approx. 12 per cent. If the tax basis shifts to energy and CO₂, they should in principle be applied in the same manner for petrol and diesel.

Carmakers argue that levelling petrol and diesel taxes would be a bad idea because 1) it would deprive Europe of one of its key competitive strengths and 2) it would even increase CO₂ emissions because diesel cars are more fuel efficient than petrol cars. Such fears are unfounded though as we show below.

1a) The success of diesel cars in Europe does not depend on fuel taxes

The evidence shows that the market for diesel cars in Western Europe is virtually independent of the differences on fuel taxes levied. So levelling petrol and diesel taxes by no means implies that diesel engine technology will disappear from Europe. The graph below shows no detectable correlation between tax differences and the share of diesel cars. The share of new diesel car sales in the country with the smallest difference between petrol and diesel taxes (UK, where the two are taxed at the same level) in 2009 was 20 percentage points

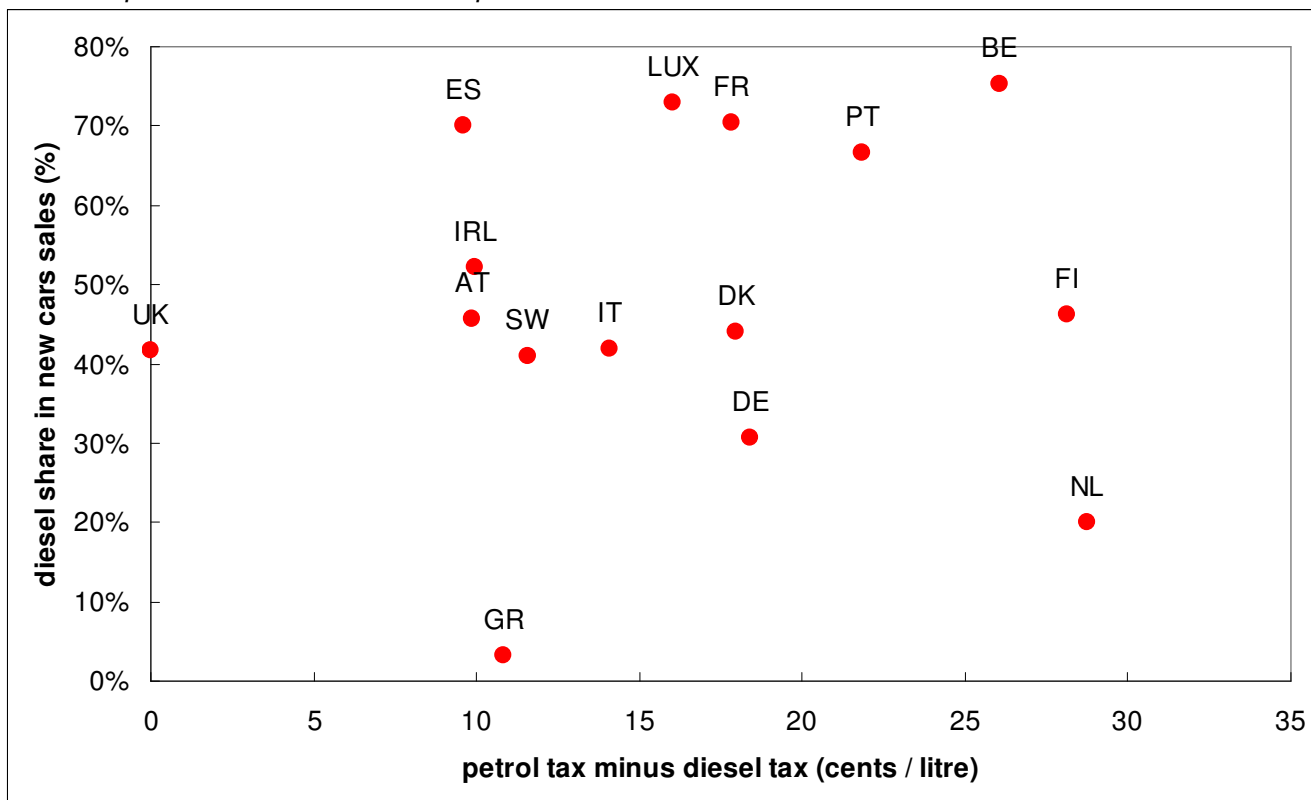
higher than in the country with the biggest difference between petrol and diesel (NL, €0.29/litre difference). Greece and Spain had almost similar differences in fuel taxes, but the share of diesel cars in Spain was almost 70% higher.

The main explanation for this is vehicle taxation. Many member states (including NL) currently tax diesel cars more heavily to compensate for the lower tax on diesel fuel; levelling taxes on fuels could be used to also level taxes on cars, as the UK does. Vehicle taxes are powerful tools and Member States should use them.

1b) The current lower diesel tax makes people choose heavier cars and drive them more; higher diesel taxation would eliminate these negative rebound effects and hence cut CO₂

Lower diesel taxes lead to two strong rebound effects on fuel consumption and CO₂: on car choice, because diesel cars are on average much bigger than petrol cars, and on vehicle kilometres. Both add up to a strong effect, cancelling out the initial fuel efficiency gains of diesel. These rebound effects have been well documented in work by the IEA and the University of California which concluded that diesel cars in Europe 'probably do not provide

Graph: differences in taxes on petrol and diesel vs. the share of diesel in new car sales in 2009



Fuel taxes were taken from the European Commission's Oil Bulletin, October 2009.

The share of diesel in new car sales in 2009 was taken from the ACEA EU economic report, March 2010, p18.

*significant national energy or CO₂ savings on average across the 8 countries studied*¹.

A second main reason why diesel should be taxed higher than petrol, is that many of the externalities related to road driving are proportional to distance driven and not to fuel consumed. This applies in particular to congestion, accidents and noise. A diesel vehicle causes more of these externalities per litre consumed, than a petrol vehicle, since the number of kilometres driven per litre is greater.

Thirdly, higher diesel taxes would also cut diesel use in HGVs, which in many countries is higher than diesel use in cars. A forthcoming study by T&E points to a fuel price elasticity for HGVs of -0.2 to -0.6. In other words: a 10% higher diesel price would reduce diesel consumption of trucks by 2 to 6%.

Finally it is well known in the oil industry that a lower share of diesel would have a positive impact on the energy efficiency of refining in Europe.

All in all, higher taxes on diesel will reduce CO₂, not increase it as the car industry suggests, and would not spell doom for diesel technology either.

2. Expand effective minimum rates to aviation, and other modes

Currently minimum tax levels only exist for road fuels. This severely distorts competition in the transport market and unnecessarily limits efforts to reduce emissions and energy use in the road sector.

Aviation

The most important distortion occurs in aviation. Aviation is by far the most carbon and energy intensive of transport modes. Its GHG intensity (i.e. climate impact per € of value added) is roughly an order of magnitude higher than in other transport modes. In other words, it is one of the cheapest ways to heat the planet and therefore aviation growth is a serious obstacle to Europe's ambition to delink GHG emissions from economic performance.

There are few viable alternatives for oil in the aviation sector, making an efficient and sparing use of it of paramount importance.

The sector is due to be included in the ETS by 2012, but in no way this precludes energy taxation of kerosene. Assuming a CO₂ price of €20 a tonne, the EU-ETS would add about 5 cents to the cost of a litre of fuel. But 85% of permits will be handed out for free, so the net tax to airlines would be in the range of 1 cent a litre. Compare this with minimum rates of 36 cents for petrol and 33 cents for diesel and the conclusion is that aviation is treated very favourably indeed².

There should be a level playing field with other modes and a legally binding minimum energy tax for kerosene used on intra-EU flights in the proposal.

Legally this is no barrier to this. And leakage ('tankering') can be avoided by taxing the fuel used on intra-EU *flights*, rather than the fuel bought at EU *airports*.

Rail diesel

Taxation of diesel fuel used by railways is enormously incoherent across the EU. Some countries levy zero rates, and yet a country like Germany taxes rail diesel like road diesel.

When diesel is not taxed it is generally cheaper for rail operators to use diesel locomotives than electric ones. This leads to the paradoxical situation that freight trains often use diesel even on electrified tracks. If Europe is serious about electrifying transport, taxing rail diesel is one of the most obvious ways to start.

If minimum road diesel taxes were increased in parallel, this would not lead to negative 'modal shift'.

Inland shipping

The Commission should push harder to revise existing treaties that forbid charging on inland waterway transport, because these make it difficult to level the playing field in transport and implement sensible climate policies for the sector.

No zero rating for biofuels

A zero rating for CO₂ taxation of biofuels is not defensible. Taxation should stimulate improved efficiency, irrespective of energy carrier. The assumption that biofuels do not contribute to

¹ Disappointed by Diesel? The Impact of the Shift to Diesels in Europe through 2006, Lee Schipper and Lew Fulton, University of California, Berkeley and International Energy Agency, November 2008

² Adding to this picture is the fact that, in basically all EU countries, both domestic and international air tickets are either exempt from VAT (for international tickets), or subject to a lower than normal VAT rate (for domestic tickets)

climate change has clearly turned out wrong for several reasons, inter alia:

- Additional biofuels cultivation often leads, directly or indirectly, to conversion of natural land to agricultural land. More often than not this process leads to huge losses of carbon stocks and hence huge CO₂ emissions;
- The production cycle of biofuels leads to GHG emissions, for example N₂O emissions from fertilisers, CO₂ emissions from processing plants and so on.

Unfortunately the Kyoto Protocol does not take this into account when giving bioenergy a zero carbon rating. The ETS repeats this mistake.

A first step could be to link tax reductions for biofuels to the mandatory GHG savings in the renewable energy directive. As biofuel policy becomes more GHG-based, carbon taxes should also be based on the real GHG performance.

3. Adapt rates to inflation or purchasing power

An automatic mechanism related to inflation or purchasing power is easy to defend. If taxation does not follow inflation, the strength of this climate policy tool will in fact be weakened over time. Similarly increased purchasing power will cause an increase in fuel consumption and, consequently, emissions.

Furthermore, such a mechanism may be easier to implement than high start rates for taxes. It would not necessarily have to force member states to increase fuel taxes every year, but could give them flexibility within a three-year time frame, for example.

4. Limit the risk for border trade

a. The present directive allows member states to differentiate the diesel tax between “commercial” and “non-commercial” use. The two categories are defined as vehicles with a laden weight above or below 7.5 tonnes respectively. Derogations in the present directive mean that the 7.5t limit is not valid in 6 member states. In two countries (DE, NL) the limit is 12t, in 4 countries (IT, ES, PL, EE) it is 3.5t. By changing this weight limit to 3.5 tons the differentiation possibility would be more clearly connected to the ‘Eurovignette’ directive on road charging for lorries, thereby making it easier for member states who would like to apply a high diesel tax without triggering tax-induced cross border trade.

b. Along the eastern EU border substantial volumes of petrol and diesel can be transported in vehicle tanks into EU without being taxed. According to Article 113 of Council Regulation 918/83 of 28 March 1983, Member States are permitted to limit the duty-free introduction of diesel in heavy vehicles to 200 litres per journey. As far as we are aware, no Member State at present uses this possibility. This loophole creates a further pressure downwards on the diesel tax, primarily in most of the eastern Member States, but in fact indirectly in the rest of the Union as well. We suggest that tank content above 100 or 150 litres in heavy vehicles that enter the union from a non-EEA country should always be taxed according to national legislation.

5. Establish a group of ‘fore-runners’ with higher ambitions

Unanimity is a prerequisite for Council decisions on taxes. One possible way to avoid that the unwilling minority prevents a willing majority from moving ahead could be to establish a voluntary set of rules for those member states that agree on taking up a stronger commitment than the one that can be decided in consensus.

The existing directive explicitly opens up this possibility for aviation fuel (article 14.2). Such mechanisms deserve to be strongly expanded and reinforced, for example under the open method of co-ordination³.

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http://europa.eu/scadplus/glossary/open_method_co_ordination_en.htm