

## **Carbon Tax: The French Connection**

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n early 2010, France will introduce a carbon tax, becoming the largest economy in the world to do so. As the nations of the world prepare to draft a successor to the fatally flawed Kyoto Protocol during 2010, missing the Copenhagen summit deadline, this is an important commitment. First, because it somewhat eases the grave 'crisis of credibility' affecting developed countries that currently plague the UN talks (proposed mitigation efforts are overall insufficient and offers of financial aid to assist developing countries in adapting are even more so, given the historical responsibility of the developed countries in causing climate change). Second, because

Éloi Laurent is a senior research fellow and scientific advisor at OFCE (Sciences-Po Centre for Economic Research, Paris) and a visiting scholar at the Center for European Studies at Harvard University. carbon taxes are an efficient but underutilized economic instrument for curbing so-called 'diffuse pollution,' i.e. decentralized greenhouse gas (GHG) emissions stemming from transport and housing. Because these emissions come from hundreds of millions of sources, they are very hard to monitor and reduce through cap-and-trade markets (which are much better suited to curbing centralized pollution by energy-producing and energy-intensive industrial sectors; for example, the EU Emission Trading Scheme, or EU ETS, comprises a mere 11,000 participating installations). The French initiative is thus to be commended.

Yet as we enter the nuts and bolts era of climate change policy, we have to go beyond good intentions and take a hard look at the details of proposed policies, in search of the proverbial devil.

The obvious question to be asked first is "Why?" Why would France need a carbon tax, while it enjoys the lowest carbon-intensive economic growth in the developed world thanks to the massive investment it made some thirty years ago in nuclear power?

The answer is legal: France has committed since 2007 to a new development strategy based on ecological sustainability. The so-called 'Grenelle de l'environnement' has now been translated into law, with another law being finalized in Parliament. These laws demand that France divide its GHG emissions by a factor of 4 from 1990 to 2050, when it should emit less than 140 millions tons of  $CO_2$  (in line with the scientific consensus framed by the IPCC). But why would France need a carbon tax to do that? The answer here is empirical, and comes from the observation

of GHG emissions dynamics in the French economy during the last four decades.

What is clear from the GHG emissions profile of France is that the French economy suffers, ecologically speaking, from 'nuclear fatigue' or 'complacency': sins of diffuse pollution from housing and transportation have over time offset energy virtue (road transportation alone now accounts for a third of total emissions, as its share increased by an astonishing 490 percent since 1960). Hence, if French CO<sub>2</sub> emissions went down 30 percent from 1980 to 2007, they only decreased by 10 percent from 1990 to 2007. If France is to respect its commitment and reach the 'factor 4' target by 2050, it must control its diffuse emissions. If it is to control these emissions. it has to find an economic instrument able to do just that. Carbon tax is the way to go.

But doesn't France already heavily tax carbon through existing energy taxation? Well, not really, at least not by European standards: the latest data compiled by Eurostat show that energy taxation has, if anything, gone down in the last decade in France, the country now ranking at the very bottom of the European Union (EU) both for energy taxes as a percent

of GDP, with 1.4 percent in 2007 (23rd out of 27) and for energy taxes as a percent of total taxation, with 3.3 percent in 2007 (26th out of 27).

The crucial question thus becomes "How?" Two issues are at stake here: how to choose the right "carbon price" and even more importantly the right carbon price trajectory so that the tax reform is a success in terms of ecological efficiency? How to compensate for social regressivity effects in order to improve political acceptability, given the fact that more modest French households pay, like households everywhere else, a higher share of their income on energy (2.5 times more for the bottom 20 percent compared to the top 20 percent)? On these two fronts, alas, the final proposal included by the government in the 2010 budget does not look good.

The first issue, ecological efficiency, has been a classical example of 'idealist' experts vs 'realist' politicians (on the issue of climate change, these adjectives should be inverted). In the end, President Sarkozy set the price tag at 17 euros per ton of CO<sub>2</sub> for 2010. This level is substantially lower than the 32 euros per ton of CO<sub>3</sub> advocated by the 'Rocard

Commission,' convened to determine the features of the French carbon tax, most members of which actually favored a launching level of 45 euros. The 'Rocard Commission' was named after the former prime minister who was chosen to head it and gathered economists, civil servants and NGO representatives to debate the details of the reform, including compensation options. But with a mere four weeks between its formation and the release of its conclusions, it was given considerably less time than a typical European 'Green tax' commission, as found in Norway or the Netherlands. In the end, France will end up with a third of what was required by experts. Worse still, there is no clear political indication to date about the price trajectory, economists setting the 2030 level at 100 euros (a level Sweden already surpasses) to eventually reach the 'factor 4' target. The overall impact of the tax in 2010, a mere 4.6 billion euros, will be weak, close to 0.23 percent of GDP and 0.47 percent of total tax revenues.

The argument put forward to justify this level was that French households should not pay more than firms engaged in the EU ETS (the European Union cap-and-trade market).

The French decision thus reveals that the major flaw of the EU ETS since its launching in 2005, a price signal too low and unstable, not only is a problem for the sectors it covers, but also for the other sectors for which it serves as a benchmark. In a study published with Jacques Le Cacheux, we offer a number of scenarios to reform the FU ETS, which is a powerful instrument that needs fixing. One of them consists in 'taxifying' this cap and trade market. "Taxifying" means both strengthening the obligation and making it more predictable, in order for the EU ETS to have effects comparable to a tax. Several non-exclusive measures to taxify the EU ETS may be envisaged. The first, which is by far the most desirable from the perspective of efficiency, consists of creating a floor price. Respect for this price would be assured by a mechanism of public intervention on the market (perhaps using the European budget) to remove excess supply in case of an excessive drop in price—following a procedure similar to the market support used in the past for certain agricultural products, with destruction of the excess. The second mechanism consists of auctioning permits at a faster pace starting with phase III of the market (beginning in 2013). Lastly, it would probably be useful to reduce considerably the exemptions for 'carbon leakage' and, given their current poor performance, to further limit the possibilities of carbon offsets.

The second key issue of the French carbon tax, the question of social justice, touches on compensation. Contrary to a common belief, it is perfectly possible to preserve the ecological efficiency of carbon taxes by not allowing any exemption and yet compensate households financially to ease energy taxation social regressivity. In other words, it is perfectly possible to render compatible social justice and sustainability through intelligent policy design. The French case illustrates this nicely. Computations by ADEME, the French agency for environment and energy efficiency, show that, for instance, with cash transfers of 94 euros for people living in the country and 76 euros for people living in urban areas, the tax actually benefits French citizens up to the third decile of income distribution. Other economically sound compensation options exist, such as lowering social contributions to foster employment—not a bad idea in current economic times. Yet, the government has chosen to compensate households through tax credits on their income taxes, a strategy that will hurt one of the last bits of progressivity remaining in the French tax system.

Overall, the introduction of a carbon tax in France is quite a good example of the truth that ecologically efficient and socially fair solutions do exist to curb climate change, but that it takes public pedagogy, sound economic reasoning and above all political courage to bring them into being.

What more specific lessons, if any, could be drawn from the French and EU climate policy experience for the US? The European and American climate strategies differ in that the EU ETS is not intended to cover more than half of GHG emissions over time, leaving national tax systems to deal with the rest of the problem, while for instance the Waxman-Markey bill aims at encompassing 85 percent of American emissions. Yet, in opting for cap-and-trade, the U.S. would be better not to duplicate European mistakes, in terms of instability of the price signal, generous carbon offsets or insufficient auctioning of permits that leaves too little revenue for

compensation. The same goes if the Federal government or the states want to complement carbon markets with carbon taxes. The design of climate policies both with respect to ecological efficiency and social justice hold the key, in America as well as in Europe, to their acceptance by citizens.

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## REFERENCES AND FURTHER READING

Laurent, Éloi and Jacques Le Cacheux (2009) "An Ever Less carbonated Union? Towards a Better European Taxation against Climate Change," Notre Europe, December 2009. Available at: <a href="http://www.notre-europe.eu/uploads/tx\_publication/Etud74-Laurent-LeCacheux-en\_01.pdf">http://www.notre-europe.eu/uploads/tx\_publication/Etud74-Laurent-LeCacheux-en\_01.pdf</a>.

