

Incentives to reduce CO2 emissions in transport

**Directorate for Climate of
Energy**

Ministry of Ecology

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Part I (*Mamdouh Abbara*)

Taxation of energy products related to CO2 emissions

Part II (*Lisa Sutto*)

The French bonus-malus scheme

History of the carbon tax

- Finance act for 2010: introduction of a “carbon contribution” (17€/tCO₂)
- Applies to fuels consumptions: gasoline, diesel, LPG, gas, coal, heating oil,...
- Environmental goal, seen in particular from parliamentary debates
- Does not apply to several activities: EU ETS, aircraft, sea transport, road public transport, agriculture, fishing
- Banned by the Constitutional Council: breaks the principle of equality before public charges
- 2013: a new project taking into account the learnings from the 2010 carbon tax episode. Voted in the finance act for 2014.

2013: preparing a new project

- create a tax incentive based on CO2 emissions of energy products
- while taking into account learnings from the 2010 carbon tax episode
- and while taking into account several other constraints
- Some fundamental differences with the carbon tax of 2009

New project exemption constraints

- EU ETS: sector already under a carbon incentive. If taxed:
 - additional burden on the French industries
 - EU overall effect is void: quotas transfer to other countries
 - decrease of the quota exchange rate
- Aircraft, sea transport, fishing: exemptions by intra-community and international commitments
- Others (road haulage, road public transports, etc.): economical or political constraints

New project: law constraints

- A tax pursuing an environmental goal must equally apply among stakeholders
- Exemptions can apply to sectors already paying a contribution
→ ETS in 2014 has paying quotas (not the case in 2010)
- Reduced rates can apply to pursue a public interest (e.g. the competitiveness of a sector exposed to international competition)
→ can apply to energy intensive sectors, in compliance with article 17 of Directive 2003/96

New project: social and economical impacts

- Households in a precarious situation
- Competitiveness of companies
- In 2014: commitment to ensure tax stability
- Since the end of 2012: Committee for Ecological Taxation (“CFE”)
 - → permanent committee, in order to study and debate over tax issues
 - → representatives: environmental NGOs, trade unions, companies, consumers, local authorities, French and European parliament
 - → enables civil society to take part in tax-related environmental issues
 - → debated over the impacts of a taxation of CO2 emissions in fuels
 - → made recommendations to the Government

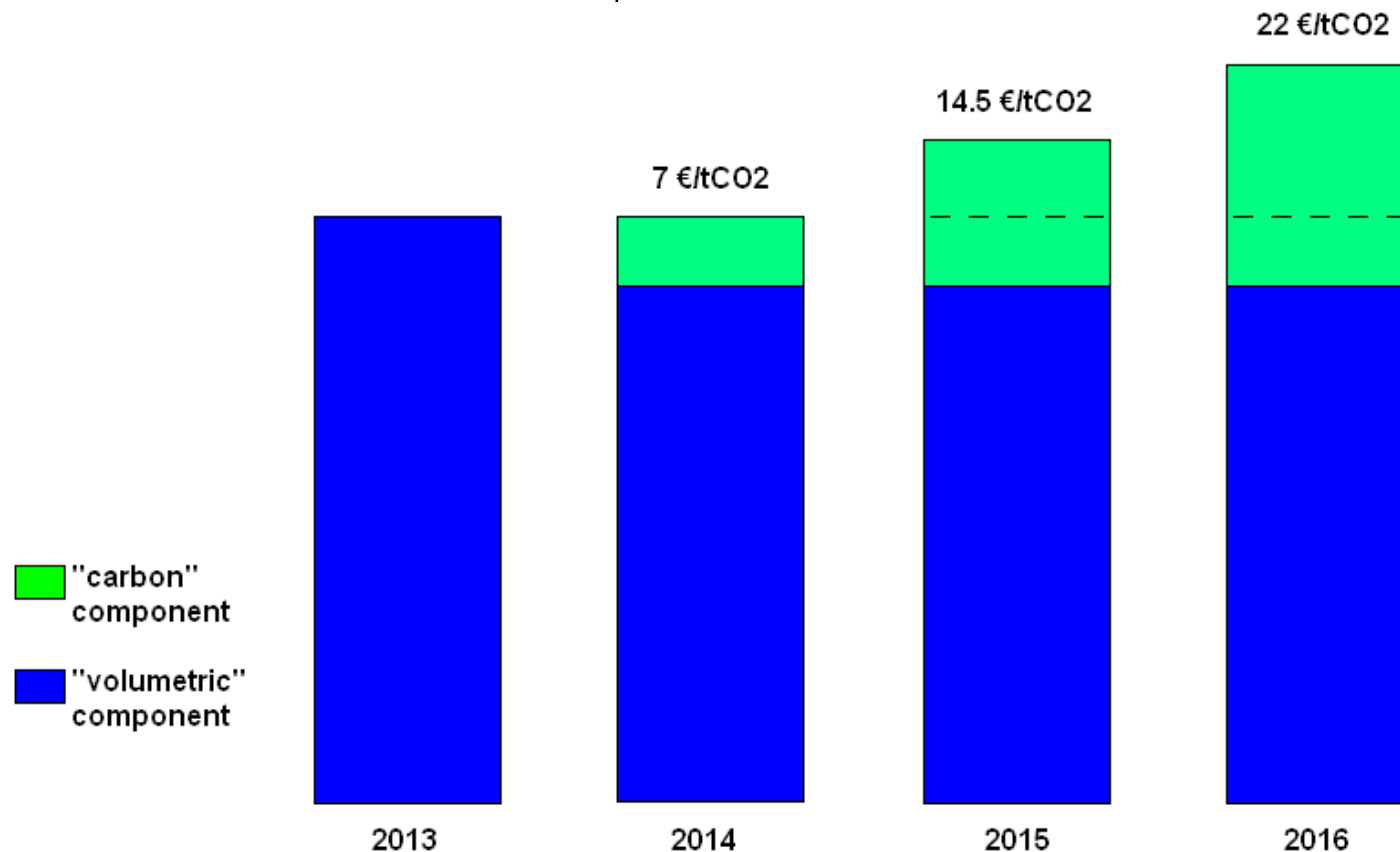
Finance act for 2014 (1)

- Evolution of the rates of the excises on energy (“TICPE”)
- Base: fuels, whether for motors (gasoline, diesel, LPG,...) or heating (gas, coal, heating oil,...)
- A few TICPE rates in 2013 :

Product	Rate	Rate c€/kWh	GHG content kgCO ₂ /kWh
Gasoline	60,69 c€/l	6,58	0,27
Diesel	42,84 c€/l	4,35	0,27
LPG	10,76 c€/kg	0,84	0,23
Natural Gas	0	0	0,20

Finance act for 2014 (2)

- Not a new tax, but changes in an existing tax
- In order to take into account the emissions of CO₂ of the products
- The TICPE evolves in 2014, 2015 and 2016:



Finance act for 2014 (3)

- Most rates in 2014 remain the same, in particular motor fuels
- Motor fuels, from 2015:
 - diesel $\sim +2\text{c€/l}$ per year, gasoline $\sim +1,7\text{c€/l}$ per year
 - average impact on households: + 20€ per year
- Expected yield of €4bn in 2016.
 - €3bn dedicated to companies, via a reduction of employment taxes

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Introduction: French policy for GHG mitigation from road vehicles

■ European requirements

The European legislation sets mandatory emission reduction targets for new cars: 130 gCO₂/km by 2015 and 95gCO₂/km by 2021, phased in from 2020

■ National targets

- A specific target of 120gCO₂/km by 2020 has been decided in 2009 for the whole French car fleet
- A target for GHG emissions from transport activities: -20% in absolute terms by 2020 (i.e. achieving the same level as in 1990)

■ Several policy options

- Supply-side policies: inspection and maintenance programs, penalties for manufacturers who do not meet their targets, R&D
- Demand-side policies: public-awareness campaigns, measures and schemes encouraging the purchase of clean vehicles, such as the development of an alternative recharging infrastructure and economic incentives for buyers

The French bonus-malus scheme

- **Implementation:** January 2008
- **General principle**

The bonus-malus scheme works on the basis of a simple principle which alternately rewards (bonus) or penalizes (malus) the purchase of cars, depending on their CO2 emission level

2014

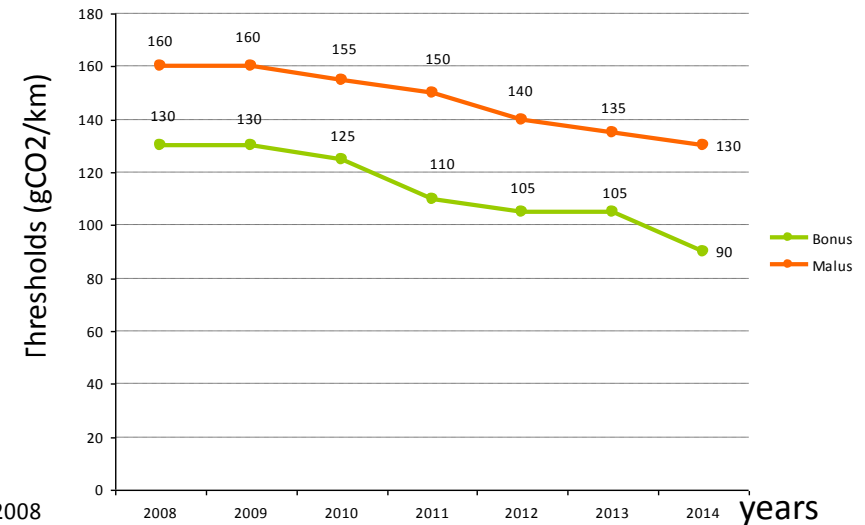
BONUS	
CO2 emissions (gCO2/km)	Amount of the bonus
0-20 g	6 300 € (max 27% of total costs)
21 à 60 g	4 000 € (max 20% of total costs)
61 à 90 g	150 €
Hybrids (less than 110 g)	3 300 €

MALUS	
CO2 emissions (gCO2/km)	Amount of the malus
131-135 g	150 €
136-140 g	250 €
141-145 g	500 €
146-150 g	900 €
151-155 g	1 600 €
156-175 g	2 200 €
176-180 g	3 000 €
181-185 g	3 600 €
186-190 g	4 000 €
191-200 g	6 500 €
over 201 g	8 000 €

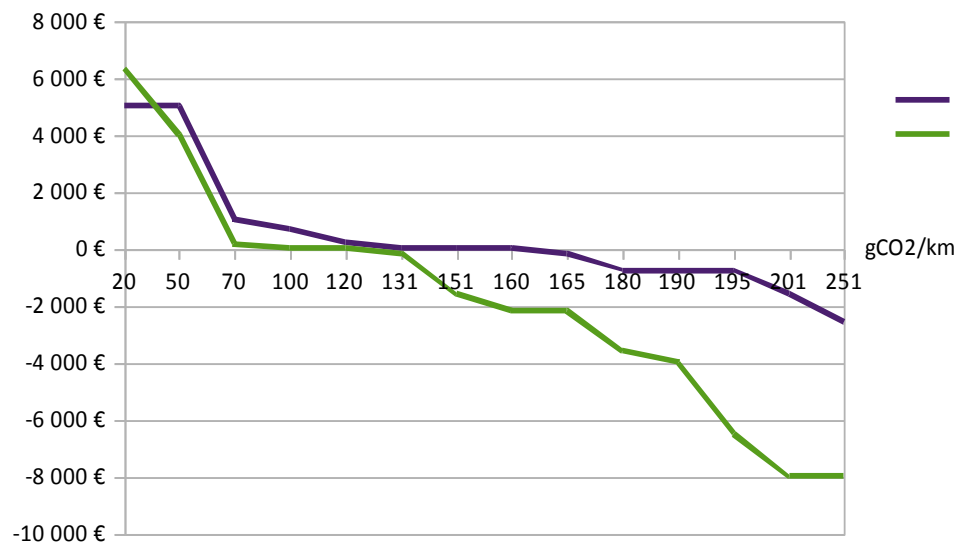
The French bonus-malus scheme

■ Operating principle of the scheme: what is a clean car?

■ Evolution of thresholds (gCO₂/km)

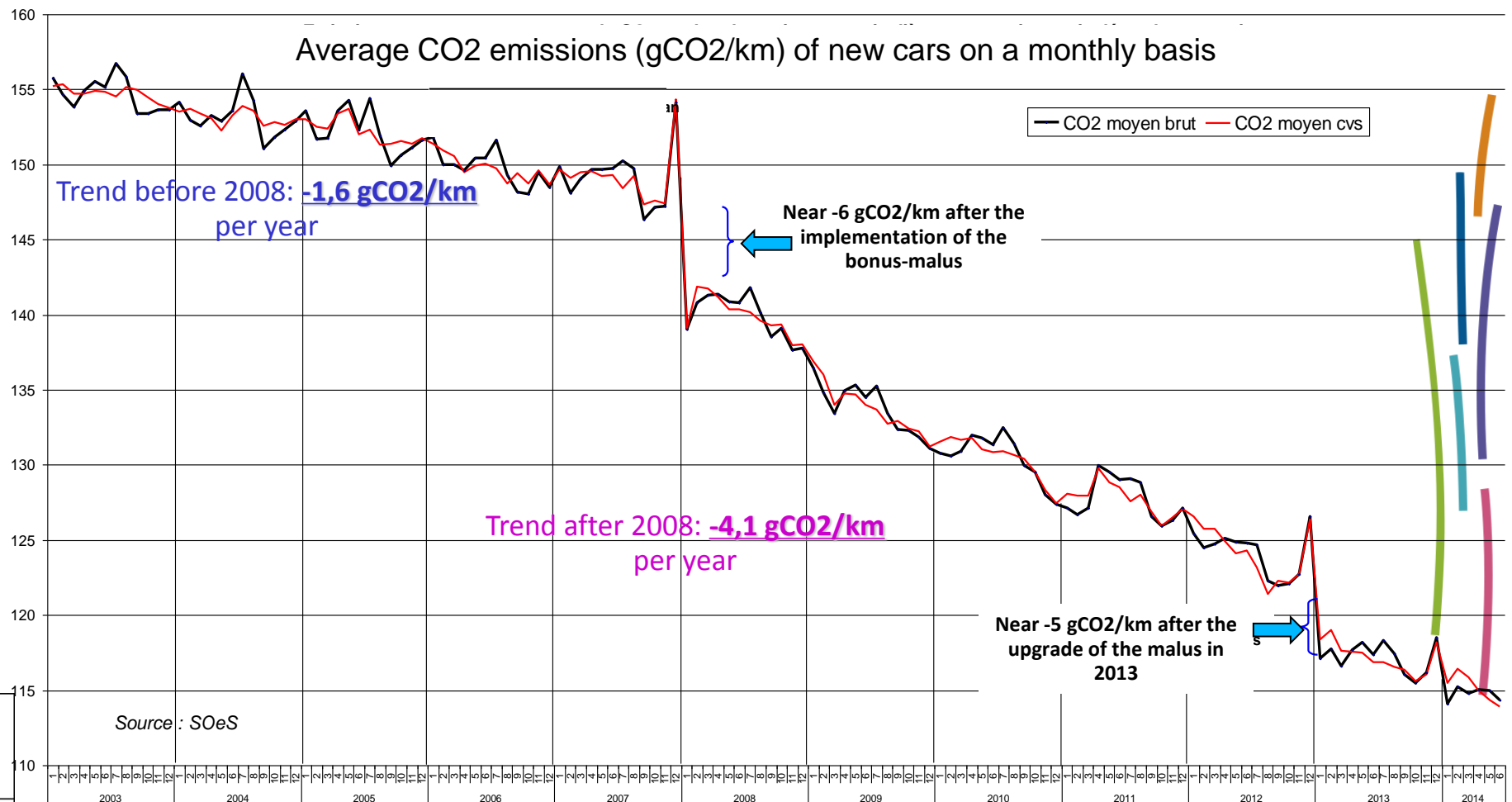


■ Evolution of amounts (€)



Did the bonus-malus achieve its objectives?

■ Effectiveness of the measure



Did the bonus-malus achieve its objectives?

■ Efficiency of the measure

- An increasing cost associated to the Scheme
- An unanticipated overreaction of the French consumers and a strong increase of sales of new cars
- A budget deficit for the State

■ Acceptability and enforcement of the measure

■ Wider impacts/ side effects

- Impacts on air pollution: in average, diesel cars emit less CO₂ than petrol
- The rebound effect on the overall transport demand
- Official emission versus real-world emissions

Recent evolutions and key learning points

■ The evolution of bonus-malus for 2015

- A new methodological approach aiming at assuring a balanced budget every year
- A reorientation of the scheme in favor of the most performing vehicles on the basis of a new approach combining climate mitigation and air pollution
 - No more bonus for internal combustion engine vehicles
 - Focus on plug-ins
 - A new specific “reconversion” prime for urban areas aiming at the replacement of old diesels by new clean cars (eligible to the new bonus criteria)

Thank you for your attention

