CECILIA 2050
OPTIMAL EU CLIMATE POLICY

CECILIA2050
Country Report: Spain

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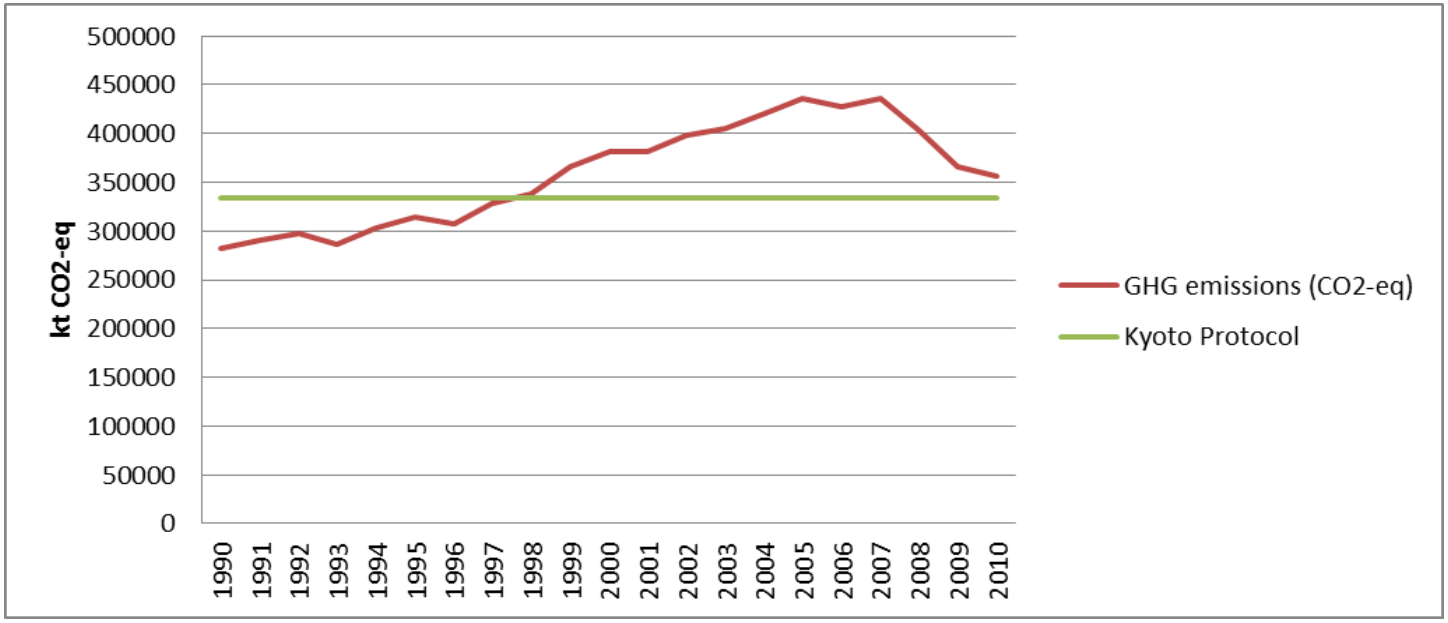
Introduction

- Spanish climate policy is shaped by the European Union targets for 2020:
  - Reduce GHG emissions from the non-ETS sectors by 10% below 2005 levels
  - Increase the share of renewable energy sources in final consumption to 20%
  - Contribute to the EU target of reducing energy demand by 20%
- Spain's target under the Kyoto protocol limited its GHG emissions 15% above 1990 level from 2008 to 2012.
- The Spanish Government set a strategy: Climate Change and Clean Energy Strategy (2007-2012-2020)

Introduction



Source: MAGRAMA

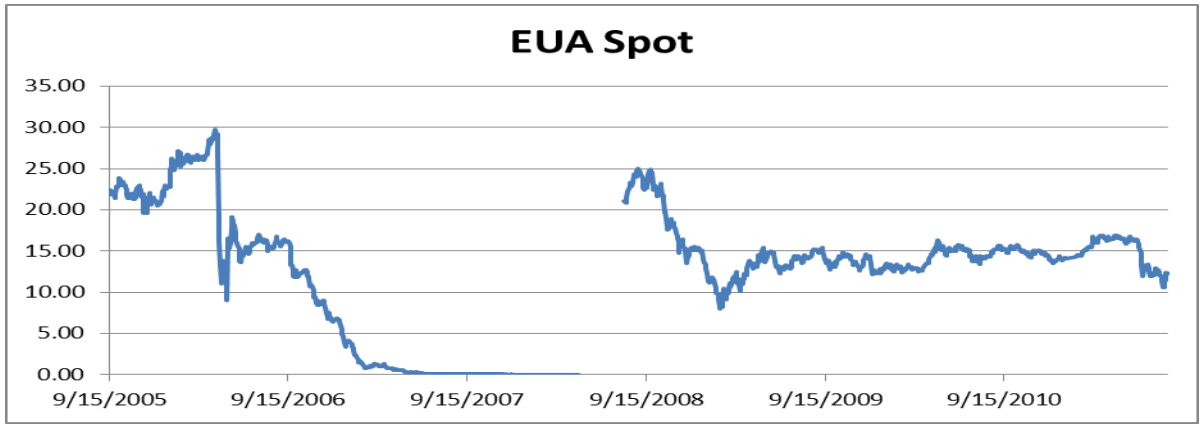
- Before the financial crisis, in 2007, GHG emissions were around 50% higher than in 1990.
- In 2010, emissions are 23% higher than in 1990.

Overview of the overall policy landscape

Carbon pricing	Energy efficiency and energy consumption	Promotion of renewable sources of energy	Non-carbon dioxide greenhouse gases
• EU ETS	• EU ETS	• EU ETS	• EU ETS
• Subsidies for coal production	• Excise tax on oil products	• Feed-in tariffs for Renewable Energy Sources (FIT/RES)	• Subsidies for investments in equipment for anaerobic digestion
• Excise tax on oil products	• Excise tax on electricity	• Technical Code of Buildings (CTE)	
• Excise tax on electricity	• Excise tax on gas consumption	• Subsidies for investments in equipment for anaerobic digestion	
• Excise tax on gas consumption	• CO2-based vehicle registration tax on new car	• Incentives to R&D on energy	
• CO2-based vehicle registration tax on new car	• Technical Code of Buildings (CTE)		
• Regional taxes on CO2, SOx and NOx emissions (Galicia, Andalucia, etc.)	• Subsidies on building refurbishment		
	• Energy labeling for appliances		
	• Speed limits		

Carbon pricing landscape: Instrument mix

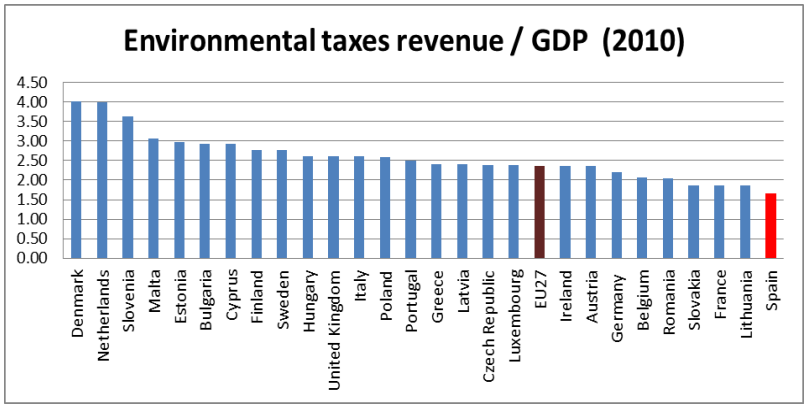
- EU ETS
  - Around 1100 installations which account for 45 % of GHG emissions (Power generation, energy-intensive industries, commercial aviation).
  - Cap and trade system which ensures that a certain quantity of emissions will be reduced in a flexible way.
  - The initial periods were characterized by an excessive number of allowances and the financial crisis, which lead to a surplus of unused allowances and thus to low carbon prices.



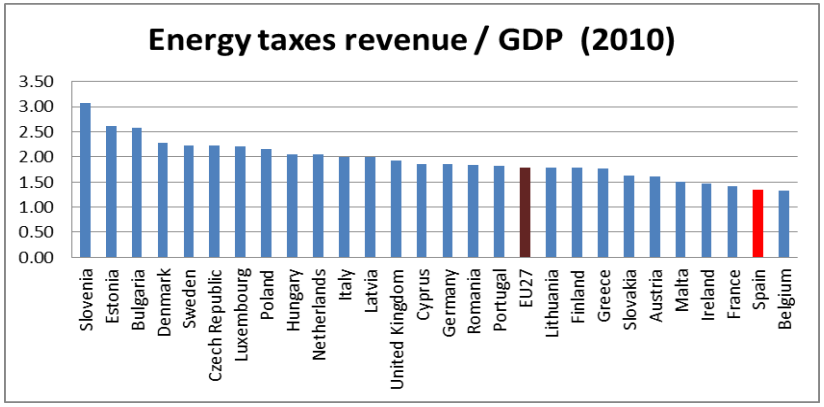
Source: European Environment Agency

Carbon pricing landscape: Instrument mix

- Taxes on energy sources
  - Subsidies on coal production. In the period 2005-2011, they have decreased from €503 million to €380 million.
  - Excise tax on oil products. The tax component in gasoline and diesel is 51.1% and 44.5% (21% VAT).
  - Excise tax on electricity. A new tax on electricity sales (7%).
  - Excise tax on natural gas. A new tax on natural gas (€1.15 GJ)



Source: Eurostat



Source: Eurostat

Carbon pricing landscape: Instrument mix

- Other taxes
  - CO2-based vehicle registration tax on new cars

CO2 emissions g per km	Tax rate (%)
<120	0
≥120, <160	4.75
≥160, <200	9.75
≥200	14.75

  - Regional taxes on CO2:
    - Andalucía: €0.025-0.07 Tm
    - Aragón: €0.2 Tm

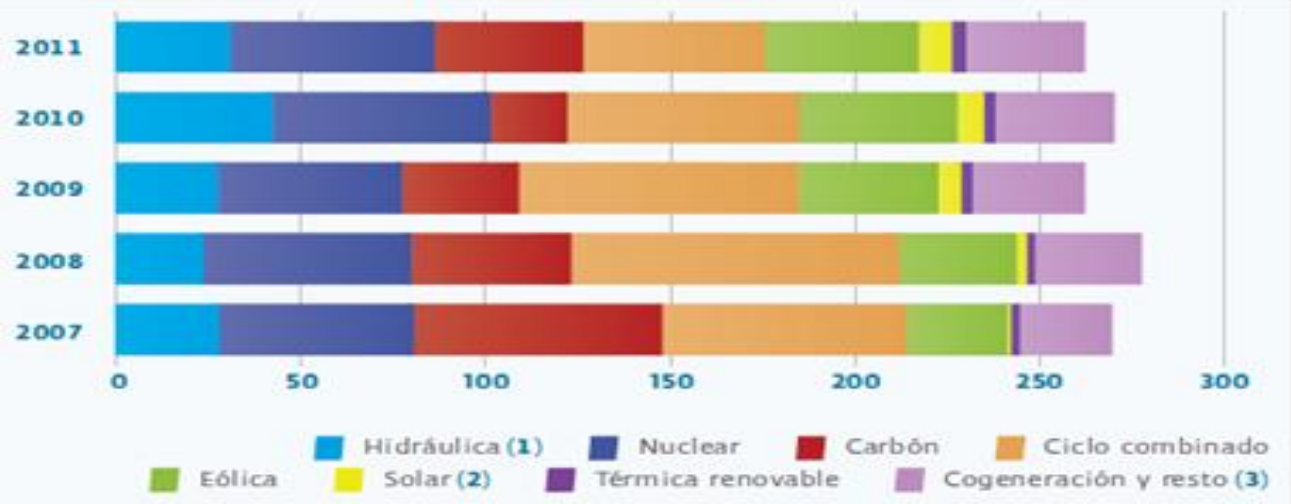
Carbon pricing landscape: Instrument interactions

- EU ETS / Taxes on energy sources
  - Objective: They do not share the same primary objective. Energy taxes do not have an environmental component.
  - Scope: Power generation and energy-intensive industries are affected by both instruments.
  - Administration: European instrument vs National instrument.

- Excise tax on oil products / CO2-based vehicle registration tax
  - Objective: The registration tax has an environmental component.
  - Scope: The transport sector
  - Administration: National authorities.

Carbon pricing landscape: Instrument interactions

- Excise tax on natural gas / Subsidies on coal production
  - Objective: They do not share the same objective.
  - Scope: Power generation
  - Administration: National authorities.



Source: REE

Carbon pricing landscape: Assessment

- Environmental effectiveness
  - The EU ETS ensures a certain emission reduction. However low prices may not incentive other secondary goals such as the promotion of renewables or energy efficiency.
  - In non-ETS sectors, energy taxes are not high enough to fix an adequate carbon price. Particularly in the transport sector.
- Cost-effectiveness
  - Market-based instruments are considered cost-effective. They give flexibility to meet targets.
  - Low and uncertain future prices in the EU ETS may reduce its dynamic efficiency.
  - The interaction between energy taxes and the EU ETS may reduce the static efficiency of the latter, since they alter abatement costs

Carbon pricing landscape: Assessment

- Feasibility
  - Energy taxes are particularly unpopular in Spain and may have negative distributional effects.
  - Higher costs may impact the competitiveness of domestic industries (carbon leakage).

Conclusions

- Spain needs to increase its efforts to reduce GHG emissions.
  - Emission reduction has been mainly caused by European instruments and the economic crisis.
- Environmental taxation is very low compared to other EU countries.
- Energy taxes are not high enough to fix an adequate carbon price in non-ETS sectors.
- Taxes on oil products are particularly low, and this affects the transport sector.