

# **The EU-ETS : Lessons from an 8 years experience**

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This presentation is inspired by the working paper written in collaboration with Raphaël Trotignon :

Governance of CO2 markets :Lessons from the EU ETS

This paper can be downloaded on the Climate Economic Chair website :

[http://www.chaireconomieduclimat.org](http://www.chaireeconomieduclimat.org)

# EU-ETS ex post evaluation :From the 1<sup>st</sup> to the 2<sup>nd</sup> period

- Three main conclusions of “Pricing Carbon” (based on the 1<sup>st</sup> period) :
  - “CO<sub>2</sub> emissions are no longer free” (P.287)
  - “A liquid and sophisticated market emerged” (P.289)
  - “Abatement occurred” (P.290)
- Three main interrogations in 2013 :
  - Do economic players still consider the EU CO<sub>2</sub> price in their decisions?
  - Why do non-obliged players leave the market ?
  - Can we attribute any abatement to the ETS since mid-2011 ?
- In our view the revival of the EU-ETS implies :
  - A credible commitment of the EU governments on emission targets ;
  - The creation of an Independent entity with the mandate of managing the ETS in order to reach these targets in the covered sectors.

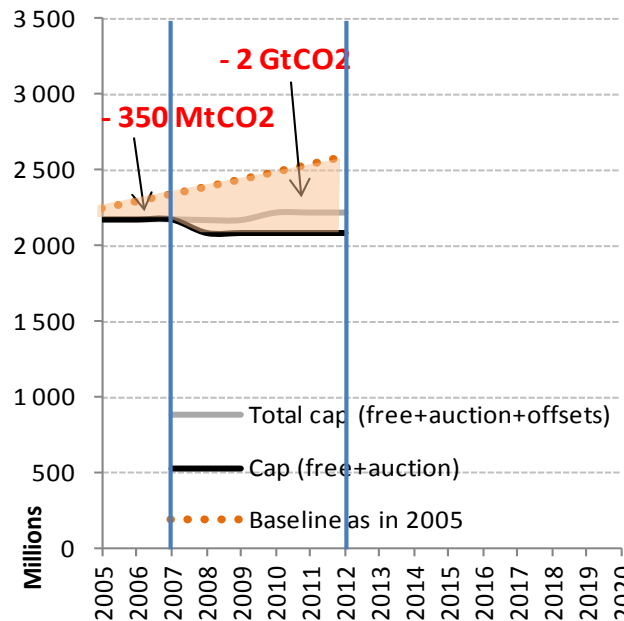
# The goals of the EU-ETS : back to basis

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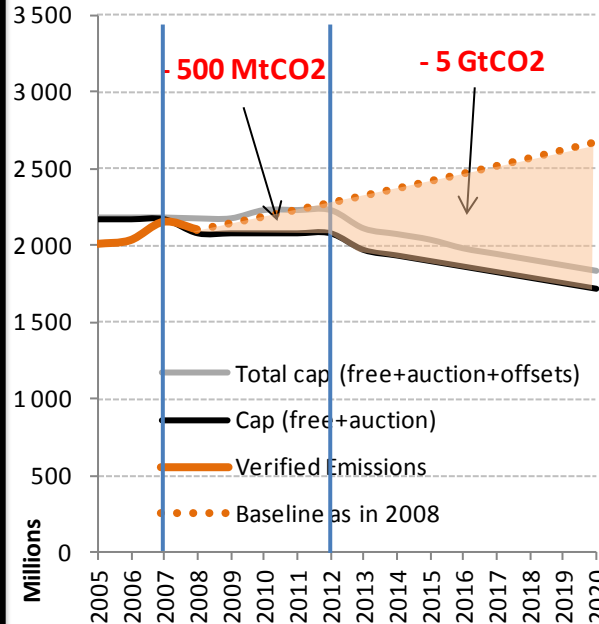
- Short term goal : to achieve abatement resulting from the cap at lowest cost in the EU
- Medium and Long term goal : the path toward a low carbon trajectory (2020, 2030, 2050)
- Function of the market : Reveal the price required to reach both of the targets (quantitative regulation)
- In a context of great uncertainty regarding :
  - Current and future abatement costs
  - Economic conditions
  - Possible overlap with other policies

# Initial expectations and ex post observations

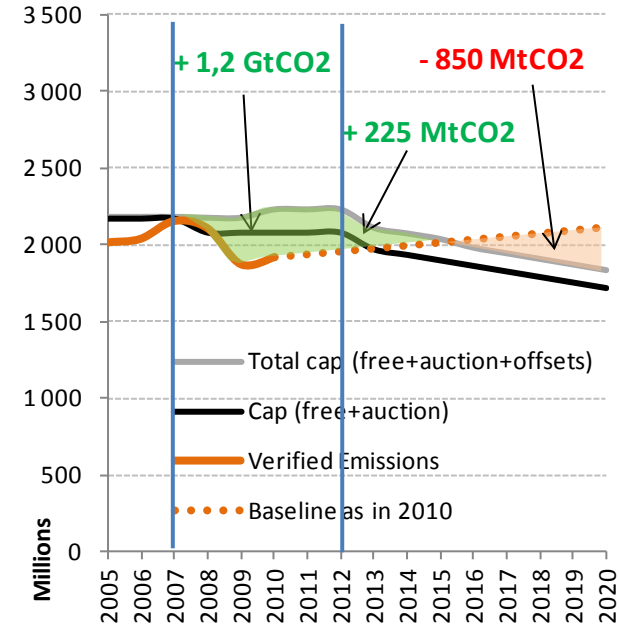
## Beginning of 2005



## Beginning of 2008



## Beginning of 2012



Source: Trotignon (2012)

- Strong overestimation of the constraint and of the risk of high carbon price at the beginning of the 1<sup>st</sup> and 2<sup>nd</sup> periods
- This seems to be a common lesson from “cap & trade” experiences (US SO<sub>2</sub> market, RGGI, KP markets, CCX, ...)

# A brief evaluation of the EU Commission proposals

Scenario	Prix en 2015	Prix en 2020	EU auction revenues in P3
Reference	6 €/tCO <sub>2</sub>	13 €/tCO <sub>2</sub>	78 G€
Backloading only	16 €/tCO <sub>2</sub>	3 €/tCO <sub>2</sub>	92 G€
(a) -34% in 2020	17 €/tCO <sub>2</sub>	27 €/tCO <sub>2</sub>	187 G€
(b)+(c) Retirement in Phase 3 and revision of the linear reduction factor in Phase 4 compatible with Roadmap	16 €/tCO <sub>2</sub>	24 €/tCO <sub>2</sub>	176 G€

Source : CEC, ZEHYR-simulations

- A back-loading is not useful unless it leads to a credible change in the cap
- Only the options that change the long term cap have a lasting effect on the price
- The proposals are limited by a taboo on governance issues, which makes a dynamic management of the supply impossible in the short term (auctions) and in the medium and long term (adjustments to the cap)

# The parallel with a central bank

	Monetary Market	Carbon Market
<b>Final target</b>	Growth path without inflation	Emission reductions at least cost
<b>Primary issuance</b>	Supply of money	Supply of allowances (free allocation + auctions)
<b>Economic signal</b>	Interest rates	Carbon price
<b>Arbitrage over time</b>	Short term growth → medium term inflation	Short term carbon lock-in → high future costs
<b>Interactions</b>	Convertibility of money through exchange rates Reaction to external policies (budgetary policy)	Offsets, international allowances Reaction to external factors (policy overlap)

*Source: De Perthuis & Trotignon (2013)*

# An Independent Carbon Market Authority

Function	Associated actions
<b>Continuous monitoring and information transparency</b>	<ul style="list-style-type: none"> <li>• Collect, analyze and share data on market transactions and prices, emission trajectories, compliance behaviors, low carbon investments, competitiveness effects</li> <li>• Motivate and justify its decisions</li> </ul>
<b>Liquidity and market functioning in the short term</b>	<ul style="list-style-type: none"> <li>• Primary market: dynamic management of auctions</li> <li>• No need for secondary market interventions</li> </ul>
<b>Credibility of the medium to long term constraint over time</b>	<p>The public authority determines the emissions target, and the policy tools to achieve this target</p> <p>The ICMA implements the political target in the covered sectors and it can dynamically adapt the EU ETS cap in two cases:</p> <ul style="list-style-type: none"> <li>• Ensure consistency with other policy instruments over time</li> <li>• Control unexpected effects of offsets and non-EU allowances</li> </ul>
<b>Accountability</b>	<ul style="list-style-type: none"> <li>• Periodic hearings by EU bodies</li> <li>• Public reporting</li> </ul>



# Is there a need for a price floor or a price collar ?

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- Intermediate objective under the responsibility of the ICMA :
  - Avoid market instability through dynamic management of supply (auctions) ;
  - Adapt the cap in case of overlap with other policy tools and unexpected shocks ;
  - Linking with other markets (Offsets and Cap and Trades).
- The issue of a price floor :
  - No explicit need in our vision
  - In some cases, it could be useful (e.g. when combining the EU-ETS with national carbon taxes in non-covered sectors)
  - If the public authority decides to set up such a price, impossible without an ICMA



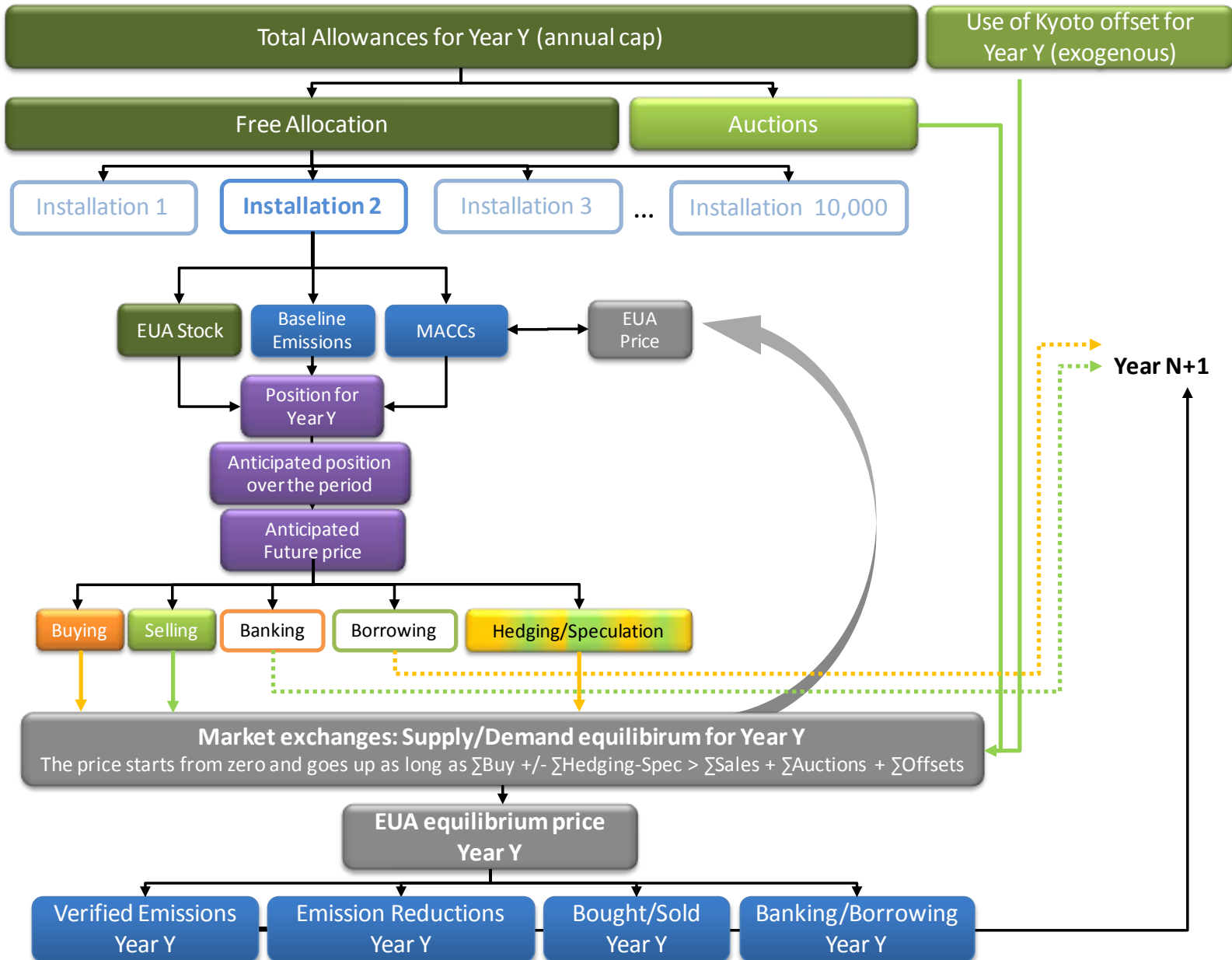
**Thank you for your attention**

**[www.ChaireEconomieDuClimat.org](http://www.ChaireEconomieDuClimat.org)**

Dublin – September, 2013

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# Annex : ZEPHYR-flex model presentation

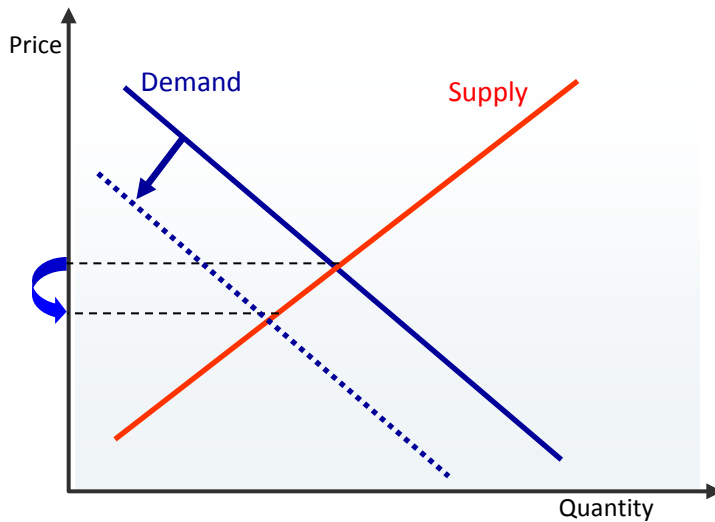


Source: Trotignon (2012)

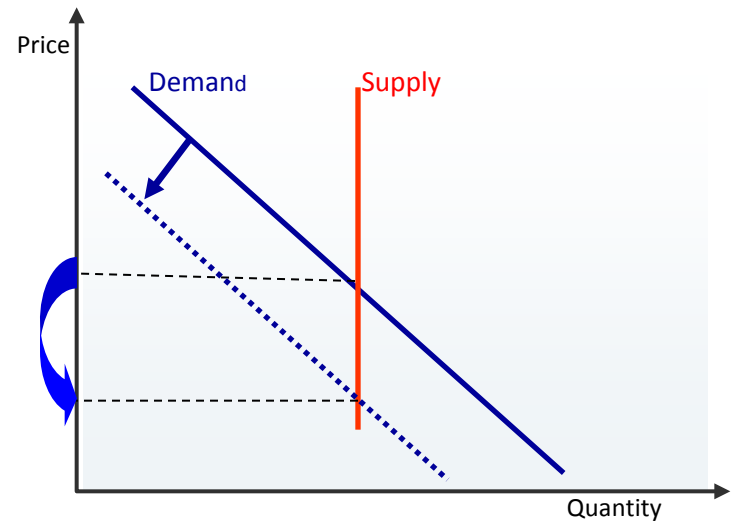
# Annex :The risk of market instability on a cap & trade

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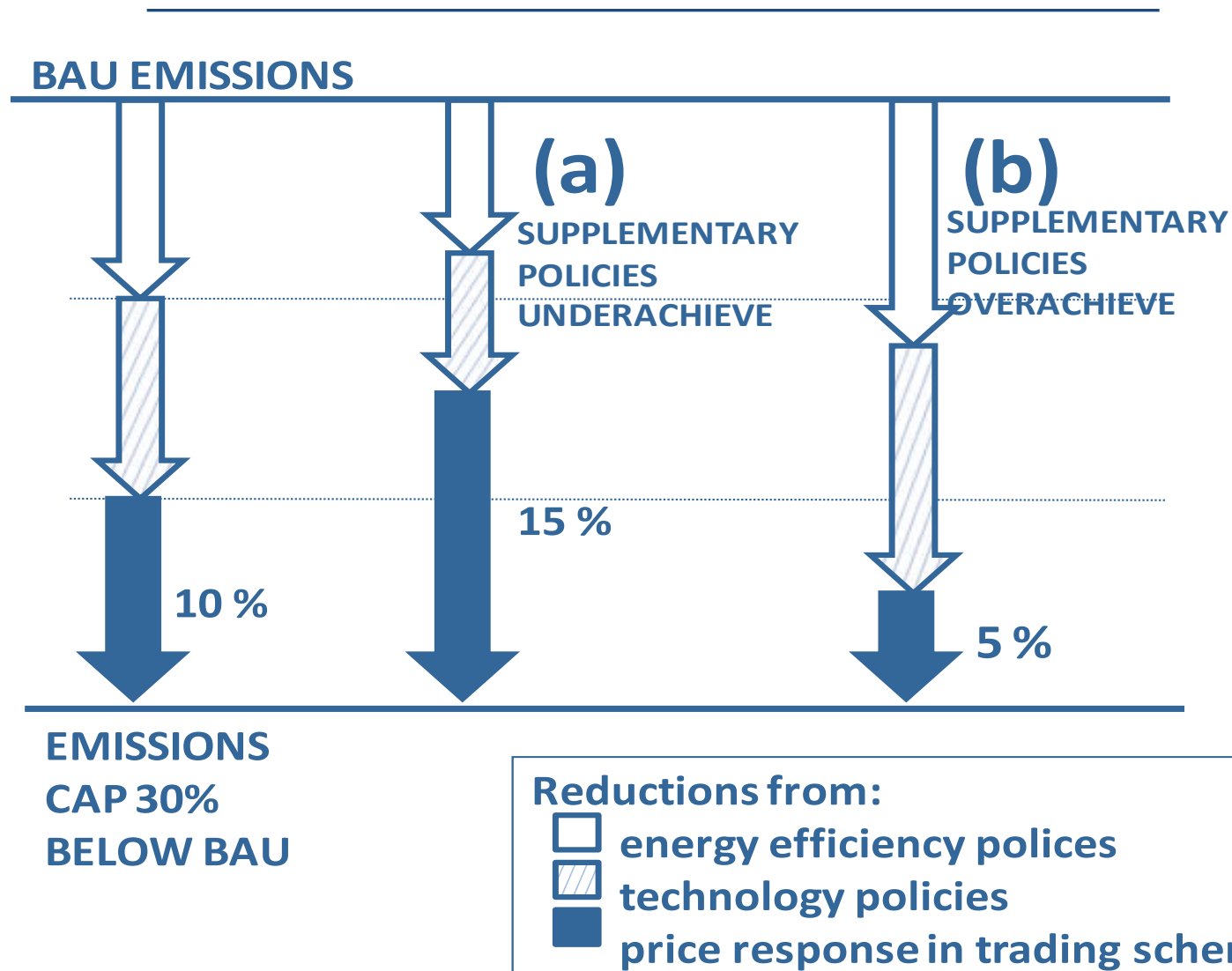
Demand change on a standard Market:



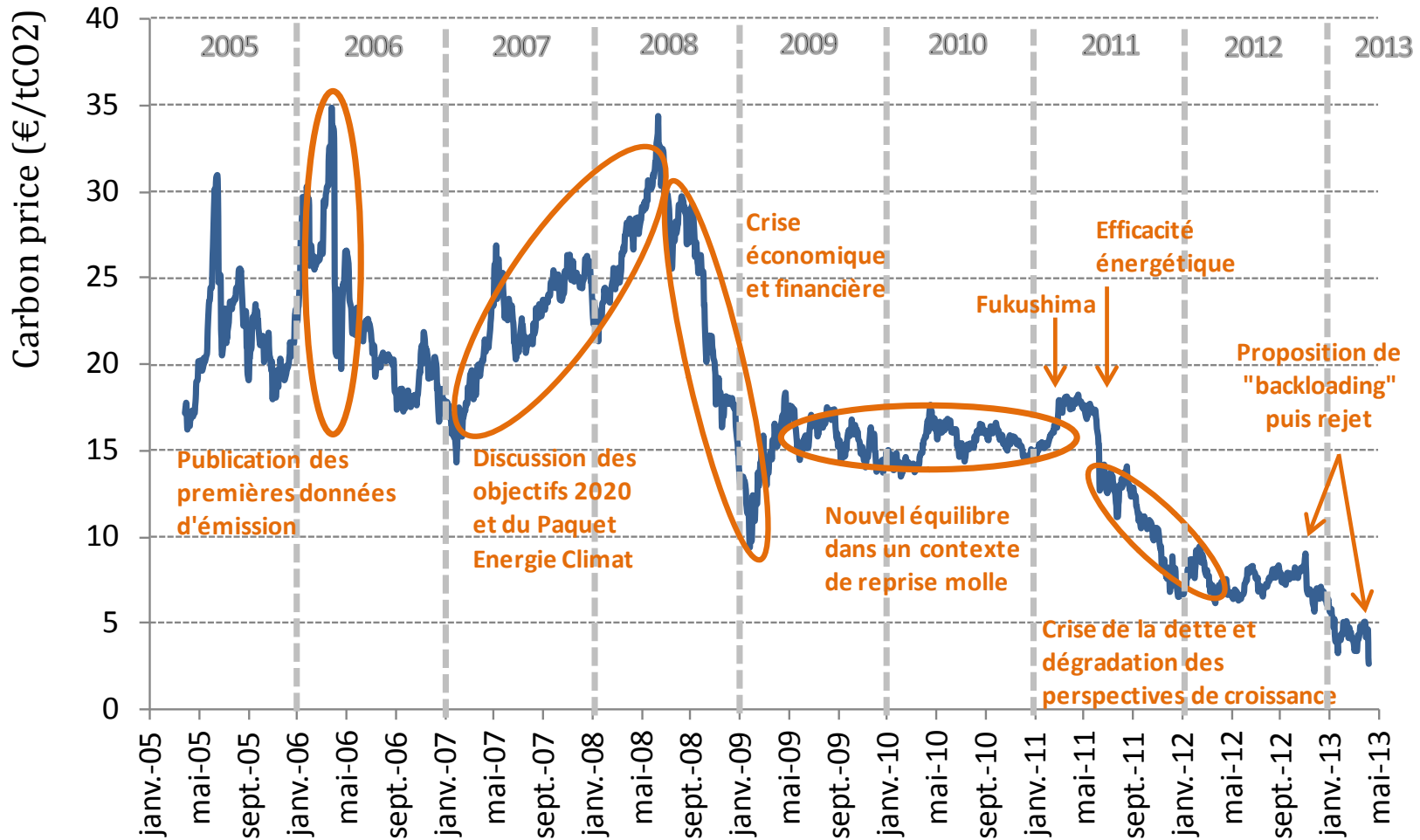
Demand change on a cap and trade market:



# Annex : Managing the risk of overlap between policies



# Annex : A predictable carbon price signal ?



Source: Climate Economics Chair