

# Enforcing emission trading in the European Union

Floor Fleurke - 12 November 2013



# Outline

- Objective of the ENTRACTE research
- EU- ETS the system in a nutshell
- Compliance and Carbon Crime
- EU Enforcement: General Principles
- Enforcement of Directive 2003/87/EC
- Future Challenges

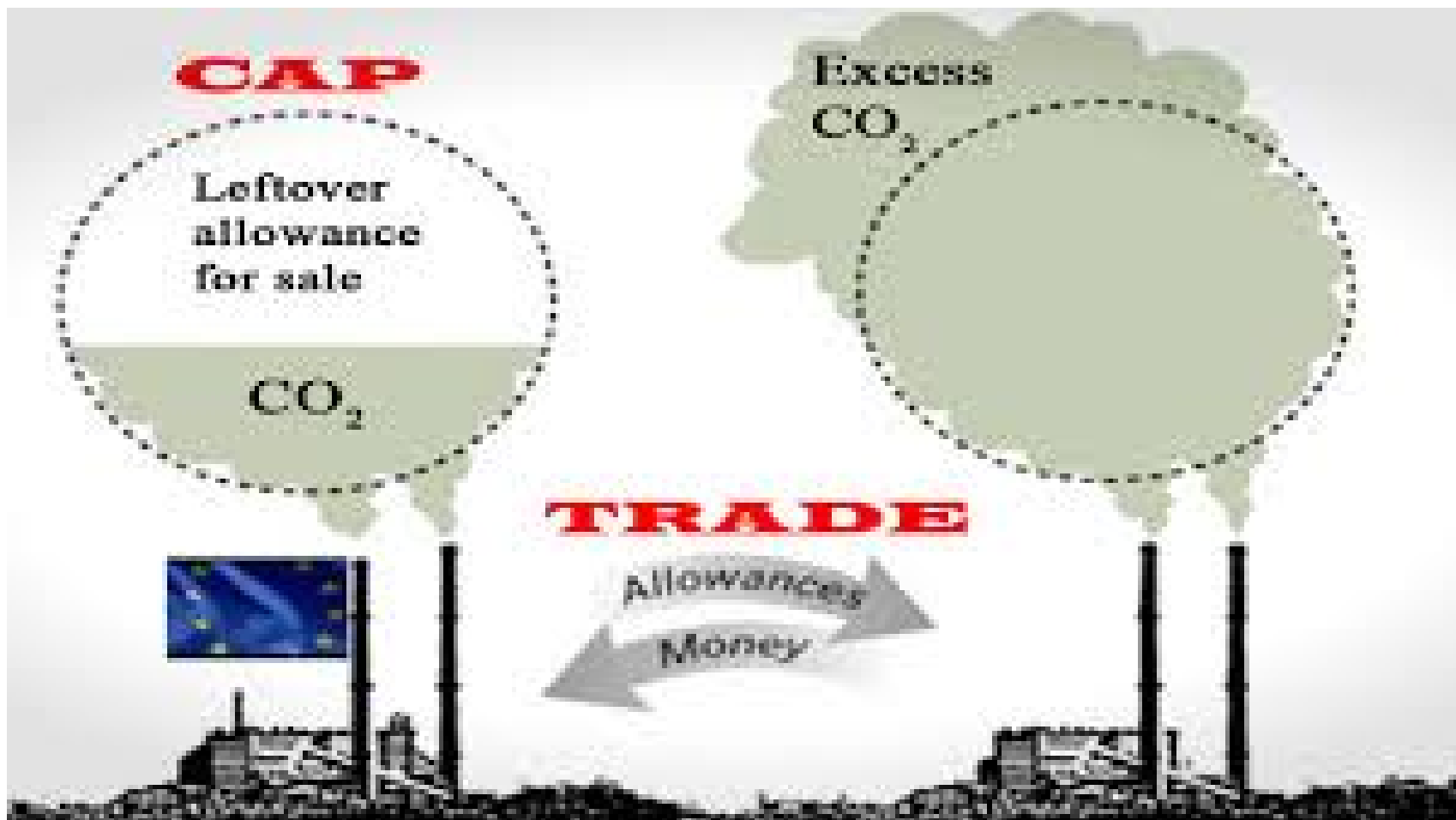
# Objective of ENTRACTE

- Clarify enforcement mechanism for the EU ETS
  - Gather statistics on compliance with the EU ETS across 3 categories:
    - Phase
    - Country
    - Type of Activity
  - Understand what type of installations/companies are most likely not to comply
  - Link compliance with enforcement data
  - Articulate future challenges
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# The EU ETS

- Carbon markets: artificially constructed mechanisms that aim to internalize the costs of greenhouse gas pollution within firms.
- In creating a symbolic commodity in the sense of a tradable allowance

# EU ETS Cap and Trade scheme



# EU ETS Learning by doing

- 1st set up phase started in 2005-2007
- 2nd phase: 2008-2012
  - E.g. Dir. 2008/101: aviation emissions were to be included from 2012
- 3rd phase: 2013-2020
  - E.g. Regulation 1031/2010/EU: Most allowances are to be auctioned, from 40% in 2013 to 70% in 2027.
- Multi-jurisdictional system: 28 member states + Norway, Iceland and Liechtenstein

# Compliance

Compliance: “acting in accordance with a certain standard”.

In an emission trading program, a participating actor is compliant if it:

- (1) correctly measures and reports its emissions and,
- (2) meets its emission reduction or limitation target.

# Compliance depends on:

- ability to detect non-compliant behaviour
- severity of sanctions for non-compliance,
- Likelihood that non-compliant behaviour actually results in execution of sanctions.



# Measuring compliance

- Compliance is initially measured by comparing surrendered allowances to verified emissions in the same year
- If surrendered allowances  $\geq$  verified emissions, installation considered as “compliant”
- If surrendered allowances  $<$  verified emissions, considered as “non-compliant”
- All data and graphs to follow are from the European Commission's CITL Database
- We look at two categories:
  - Number of installations
  - Allowances distributed

# Initial assessment compliance I

- From 2005-2011, there were 3,928 instances of non-compliance among installations, accounting for 5.5% of the total in the EU ETS and 6.7% of the emissions
- Non-compliant installations are relatively larger:
  - Average size of non-compliant: 210,516 allowances distributed
  - Average size of compliant: 180,725 allowances distributed
- Phase 2 appears more compliant than Phase 1, maybe due to learning effects – or low price

# Initial assessment compliance II

- Some countries are more compliant than others, maybe due to variations in member states' legal systems, enforcement cultures and administrative capabilities (Kruger & Pizer, 2004)
- Chemicals and non-ferrous metals are the most non-compliant sectors

# Over-compliance

- There are 4,129 instances of OVER-compliance, that is, an installation surrendering more allowances than verified emissions (5.8% of total installationsXyear)
- Surrendering more than required may be a result of chronic oversupply of permits

# Non-compliant behaviour (incl. Carbon Crime)

- a participant might fail to measure and report its emissions correctly
- a participant might *oversell* allowances
- a participant might *underbuy* allowances
- Missing trader fraud (VAT fraud)
- Computer crime (Phishing, Identity theft)
- Recycling of Certified Emission Reduction off set credits

# Next steps

- Investigate the consequences when installations do not comply!
- Analyze drivers of non-compliance
- Analyze to what extent compliance is linked with enforcement policies

# EU requirements of enforcement:

- Treaty: Art. 4(3) VEU – principle of loyalty
  - Effective
  - Non-discriminatory
  - Dissuasive
  - Proportional
  - Includes state responsibility for private behaviour (*Spanish Strawberries Case*)
- Secondary law:
  - Dir. 2008/99/EC on the protection of the environment through criminal law?
  - Check Dir 2003/87?
  - Regs x and y?

# Enforcement of Dir. 2003/87/EC

- Sanctions:
  - EUR 100 fine for each tonne excess CO<sub>2</sub> emissions, and obligation to cover the shortfall in next period
  - Naming and shaming
  - Prohibition to sell allowances
  - Imposition of an operating ban at EU level, including conditions (for aviation sector)



# Regulations on Compliance

- Reg. 920/2010/EU (single Union Registry and a European Union Transaction Log (EUTL))
  - rules on persons involved in the transaction administration were tightened and security measures were increased
- Regulation 601/2012/EU on monitoring and reporting
  - Monitoring plan is central instrument
- Regulation 600/2012/EU on verification
  - aim to fully harmonize and integrate the rules for the accreditation of verifiers

# Emerging strategy:

- Full use of extended regulatory toolbox (see L.Lessig) for the sake of securing compliance:
  - Markets (in carbon)
  - Hierarchy (Fixing the Cap, etc.)
  - Society (naming and shaming, peer review of verificateurs)
  - Technology (facilitating the use of secure technologies)

# Future Challenges

- Although harmonization of enforcement, there is no centralization of enforcement
  - No inspection powers for EC
- Regaining credibility
- Territorial Extention of the EU ETS (Aviation)
- Linking to other ETS
- Mixing of policies

Thank you for your attention!

Questions?