

- **Climate and Green Finance Agenda in EU**

Carbon Trading Economics

Jean Monnet Module **“Promoting knowledge on EU policy in fiscal administration, climate, and energy topics – PRO-Facts”**

Elements of Response to Increased GHG Emissions

- Technology development
- Technology diffusion
- New market based instruments

Markets are Key

- Market-stimulated change
 - Must have global system encouraging innovation and cost-effective climate action
 - Must have strong market linkages to ensure global diffusion of beneficial technologies
- Must develop, identify and act on least-cost opportunities to minimize impact of that growth

Elements of the GHG Market

■ Source of Demand -

Capped Economies/Economic Sectors

- Sovereign Demand (Kyoto Protocol)
- Corporate Demand
 - Regulatory (EU ETS)
 - Voluntary (CCX, retail market))

■ Supply

- Offsets – reductions from a BAU for sectors not capped
 - Domestic offsets
 - Kyoto offsets (Clean Development Mechanism)

Kyoto's fundamental architecture

- National emissions caps, from countries according to stage of development and responsibilities
- Efficiency and incentives through international market mechanism
 - Trading in allocated instruments e.g. EUA
 - Global reach & creation of additional credits through project offsets e.g. CDM & JI

Carbon Markets

- What they don't do
 - Do not create reductions
 - Not Applicable to all sectors - not a silver bullet
- What they Do
 - Set a cap and put a price on a ton of carbon
 - Incentivize overcompliance – do more
 - Economic signal for asset allocation
 - Provide incentive for the development of clean tech solutions
 - Provide flexibility

Carbon trading implementation mechanism

- Emission Trading
- Clean Development Mechanism
- Joint implementation

CASE STUDY: EUROPEAN UNION EMISSION TRADING SCHEME

The *EUROPEAN UNION EMISSION SCHEME* has been divided into 3 phases:

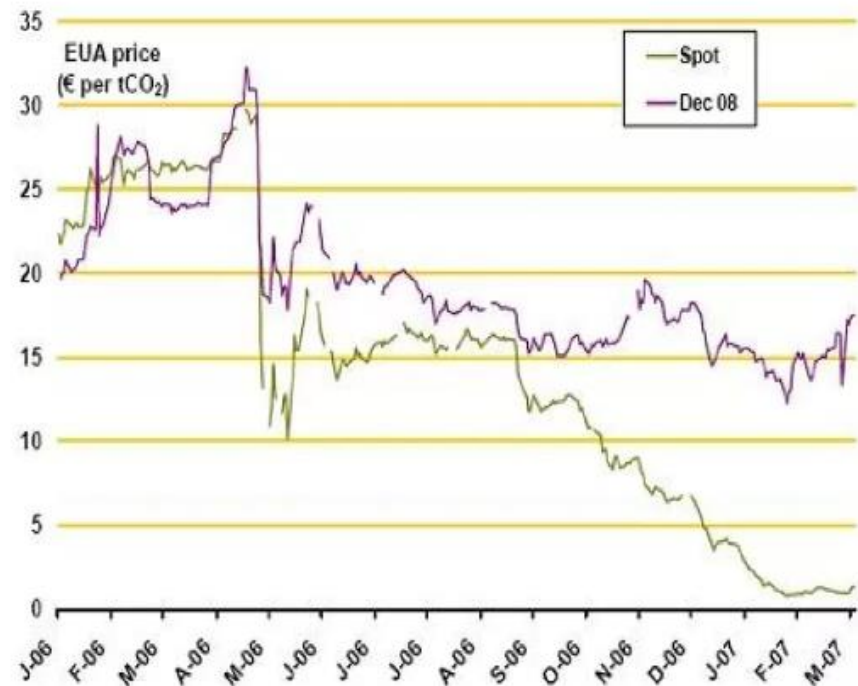
- ❑ Phase I (2005-2007)
- ❑ Phase II (2008-2012)
- ❑ Phase III (2013-2020)

For each EU ETS Phase, the total quantity to be allocated is defined by **National Allocation Plan (NAP)**

Highlights of Phase I: (2005-2007)

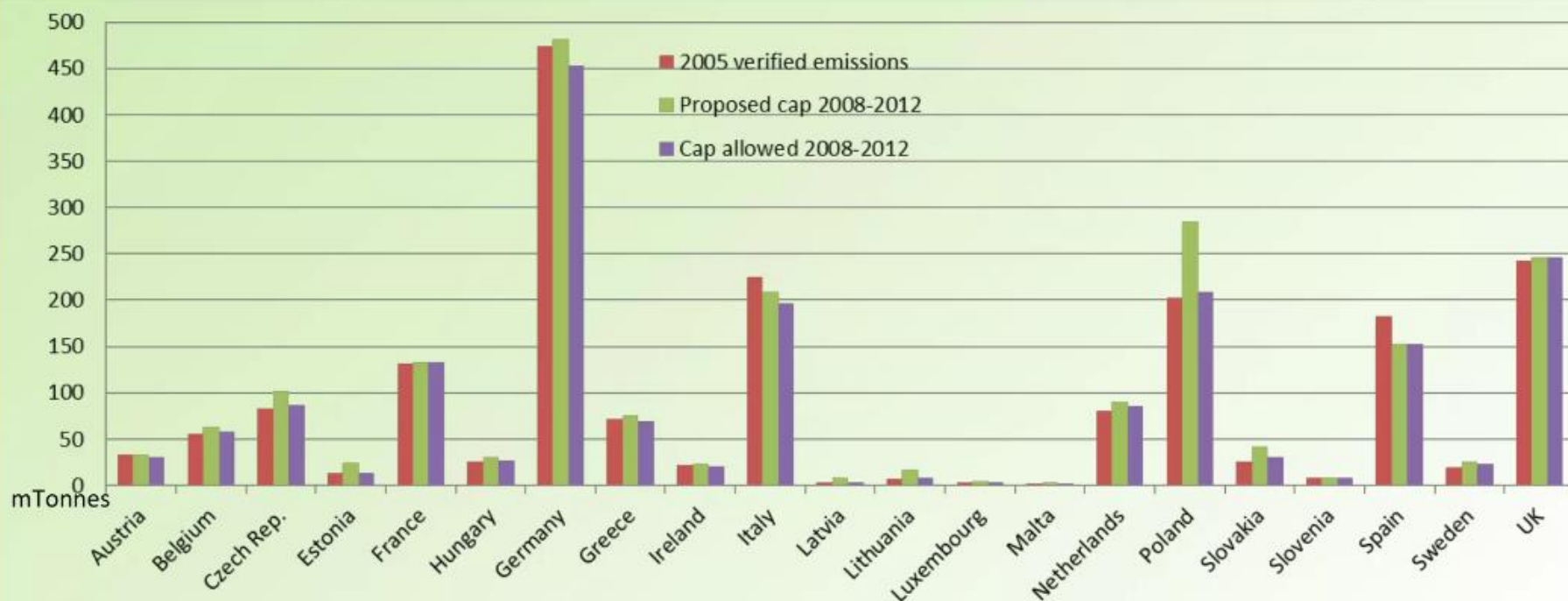
- 15 member countries participated
- *Over allocation of allowances and distribution of free permits at the beginning*
- From May 2006 to December of 2007, carbon prices **dropped** from €30/ton to €0.03/ton.
- **Overall emissions increased by 1.9% between 2005 and 2007**

Figure 1: Spot and Dec'08 Prices for EUAs 2006-Q1'07 (Source: Powernext, ECX)



Highlights of Phase II : 2008-2012

- ❑ CDM and JI were introduced
- ❑ An average allowance cut of nearly 2.6% below the 2005 emission levels
- ❑ The carbon price increased to over 20 Euro/tCO₂ in the first half of 2008 but decayed to 13 Euro/tCO₂ in the first half of 2009
- ❑ The assigned cap is expected to result in an emission reduction in 2010 of about 2.4% compared to expected emissions without the cap (business-as-usual emissions)



Highlights of Phase III: (2013-2020)

The European Commission has proposed a number of changes:

- ☐ *Tighter limits* on the use of offsets
- ☐ Replacing allowances by *auctioning*
- ☐ Establishment of an *overall fixed cap* and then assignment to the members

Projections for 2020:

20% cut in EU emissions relative to 1990 levels with carbon price of around or below 30 Euro/tCO₂

Benefits of Carbon trading

- Reduction in GHG Emissions
- Providing revenues for developing countries
- Based on a free market mechanism
- Incentivizes the development of green technology

Downsize of Carbon trading

- Does not forbid pollution
- Slow and ambiguous process
- Missing of standardization and global scale of the action
- No effective carbon reduction on a global scale