

# **The EU Emission Trading Scheme – Stringency of the Caps in the first Trading Years**

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- The EU Emission Trading Scheme (EU ETS) is a key instrument in European climate policy
  - Covers 60% of EU CO<sub>2</sub> emissions
  - Data on verified emissions and allocated allowances are available for the first trading phase (2005-2007) and the first Kyoto year (2008)

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## ■ Analysis of two issues:

- Stringency of the allocation caps (European, sectoral /country level, and installation level)
- Results of the EU ETS pilot phase and 2008 are compared

## Calculating net positions

### 1. Long / short position on installation level

$$\text{Allocation}_{\text{Installation}} - \text{Verified Emissions}_{\text{Installation}}$$

### 2. Gross long / short position aggregated on country / sectoral level

$$\sum \text{Long position}_{\text{Installation}} = \text{Gross long position}_{\text{Sector/Country}}$$

$$\sum \text{Short position}_{\text{Installation}} = \text{Gross short position}_{\text{Sector/Country}}$$

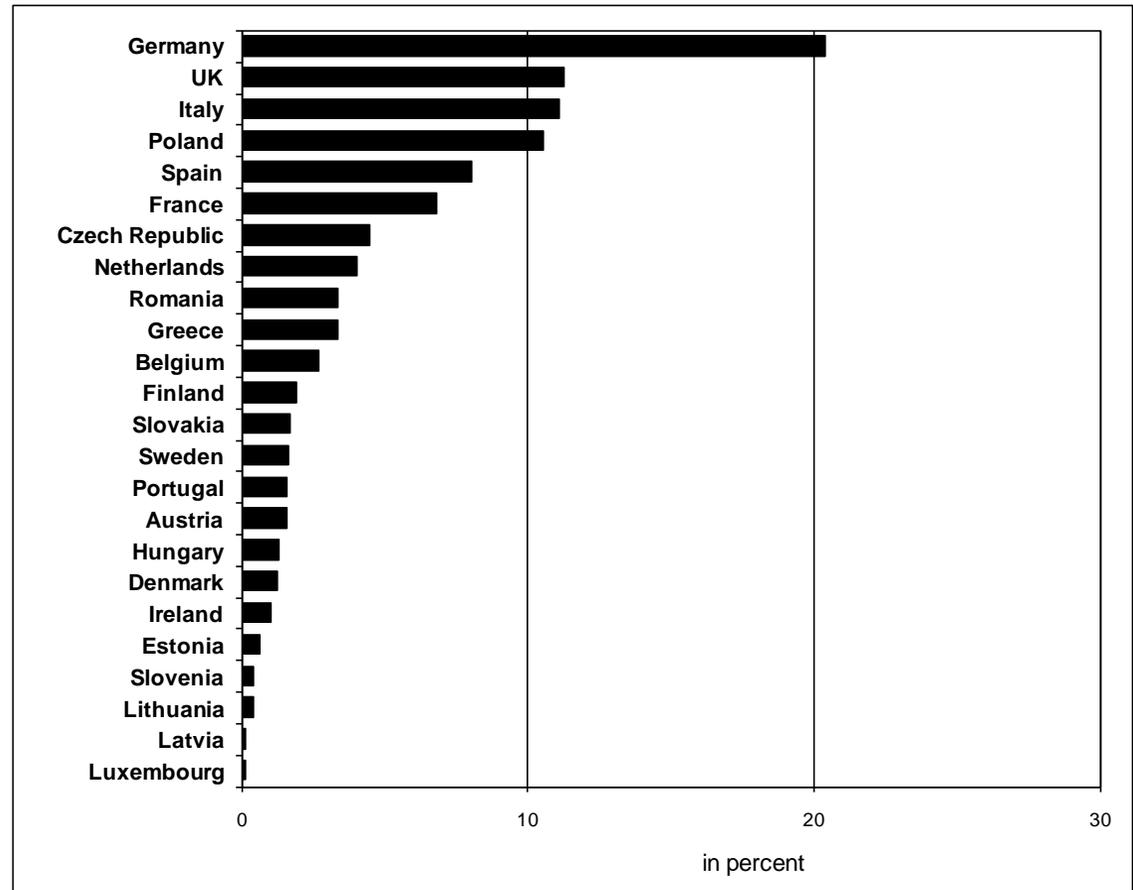
### 3. Net long / short position on country / sectoral level

$$\sum \text{Gross long position}_{\text{Sector/Country}} - \text{Gross short position}_{\text{Sector/Country}}$$

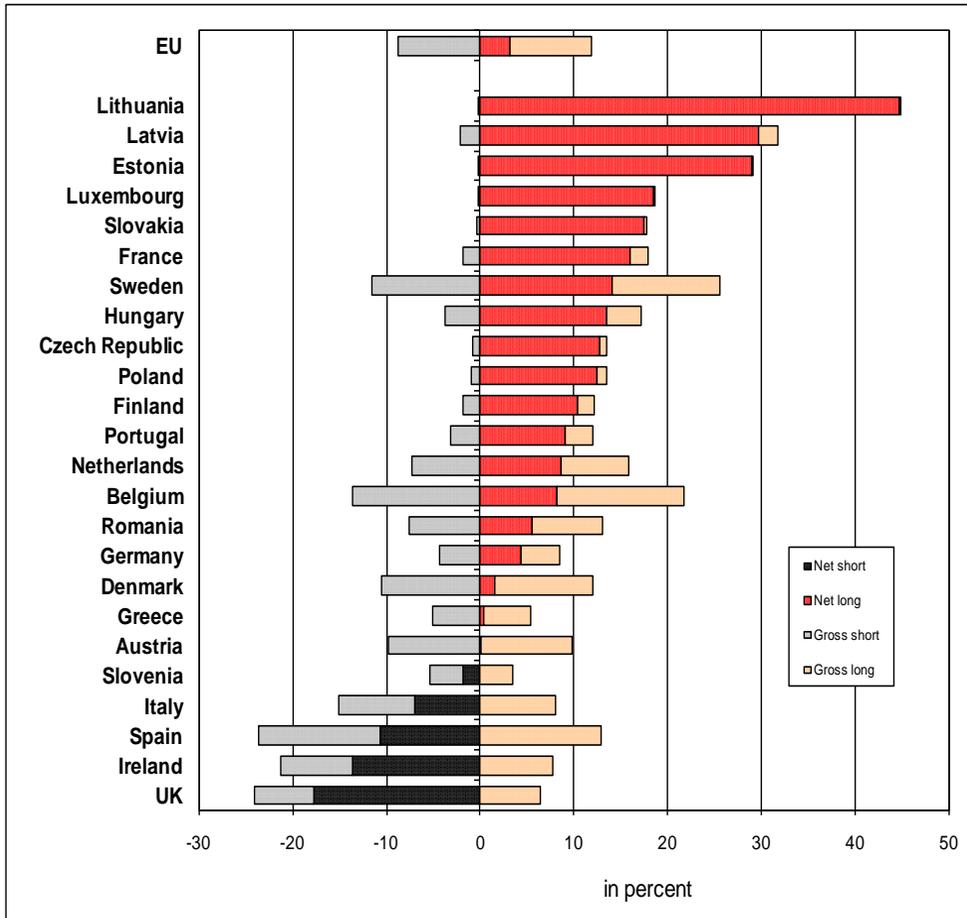
$$= \text{Net long / short position}_{\text{Sector/Country}}$$

# Countries shares in total EU ETS allowances (2008)

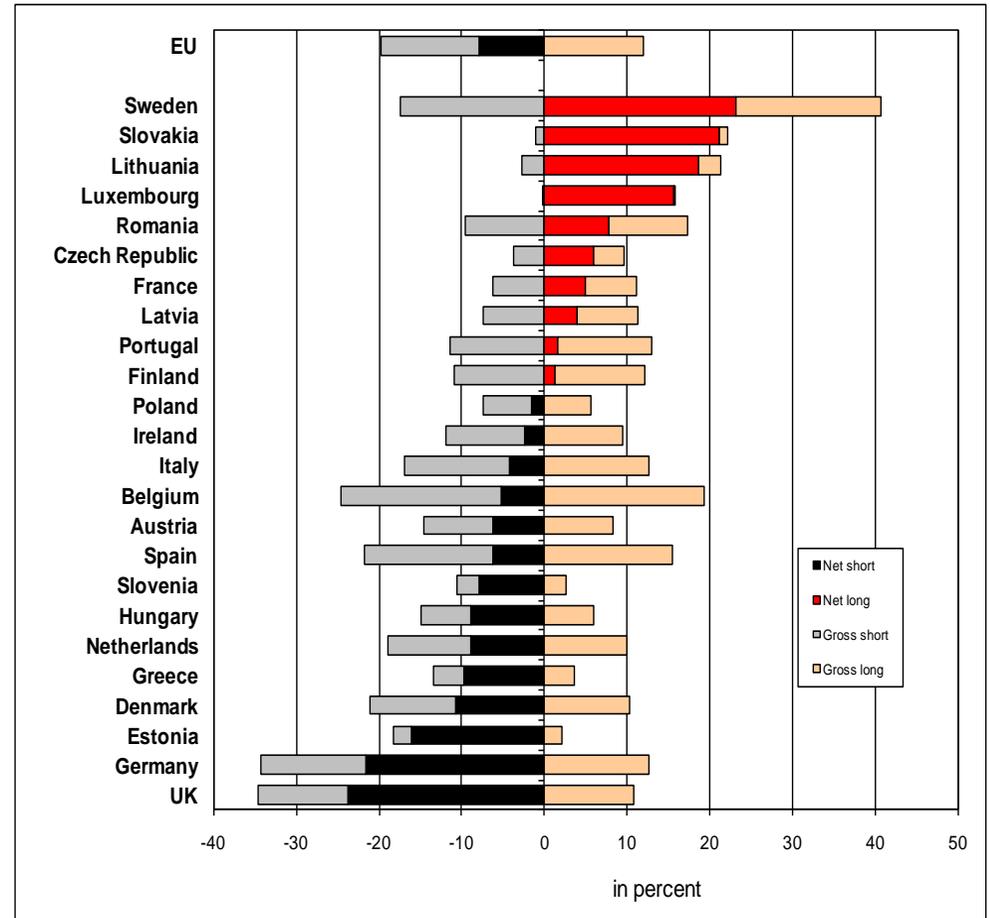
- The 5 countries with the largest share in allowances account for more than 60% of emissions
- The largest share of allowances (over 20%) accrues to Germany
- Rise in the UK's share in to EU ETS allowances compared to phase 1 due to inclusion of first period opt-outs



Source: CITL; WIFO calculations



Average 2005-2007; Source: CITL; WIFO calculations



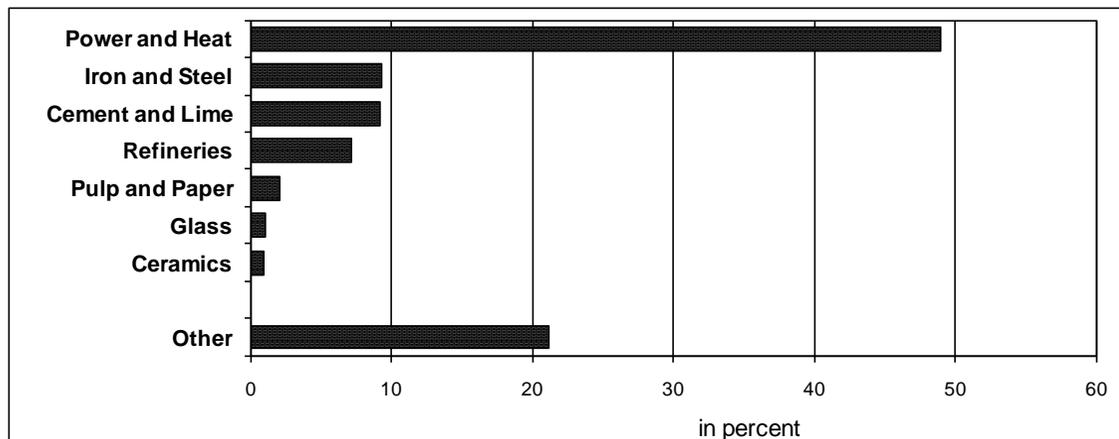
2008; Source: CITL; WIFO calculations

## WIFO ■ Short and long positions by countries (II)

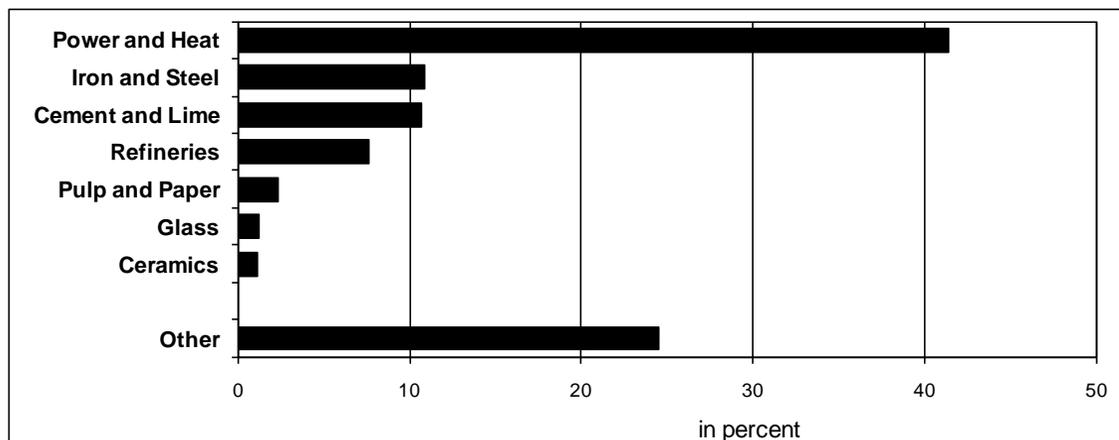
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- National caps and hence the overall cap were more stringent in 2008
  - Commission demanded downward adjustment of caps for the second phase because of over-allocation in the first phase
  - Example: Baltic States
- Discrepancies between countries increased in 2008
- Gross positions increased in 2008 indicating higher discrepancies on installation level

# Sectoral shares in total EU ETS allowances



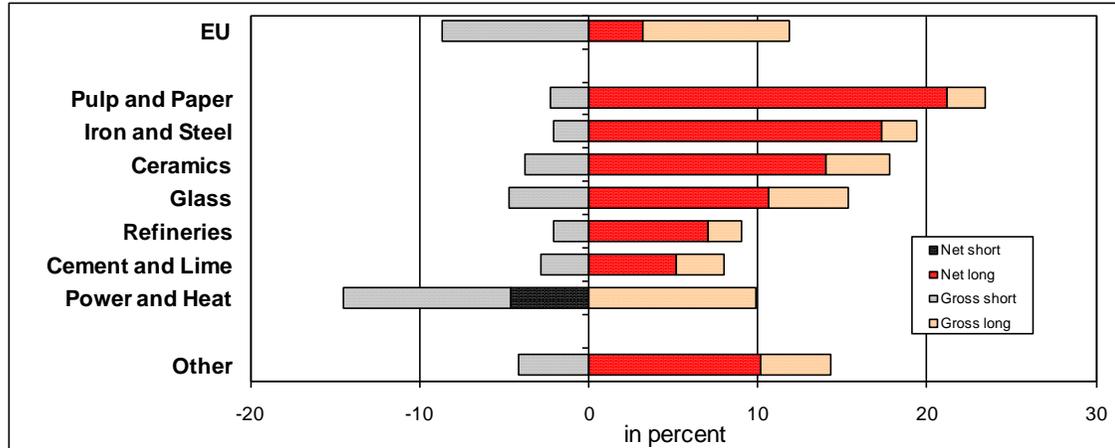
Average 2005-2007; Source: CITL; WIFO calculations



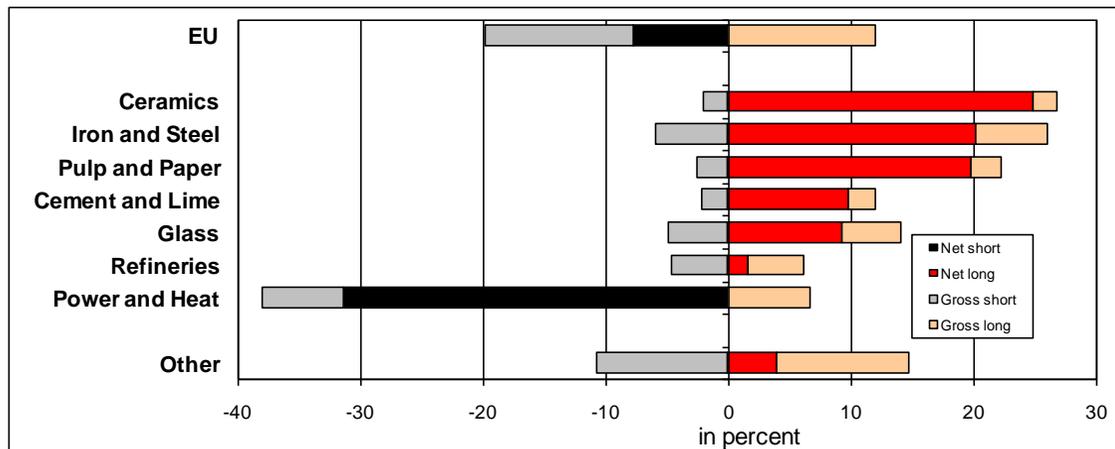
2008; Source: CITL; WIFO calculations

- The largest share of allowances accrues to the power and heat sector
- The share of the power and heat sector has declined between phase 1 and 2008
- The shares of the sectors iron and steel and cement and lime have increased between phase 1 and 2008

# Short and long positions by sectors



Average 2005-2007; Source: CITL; WIFO calculations

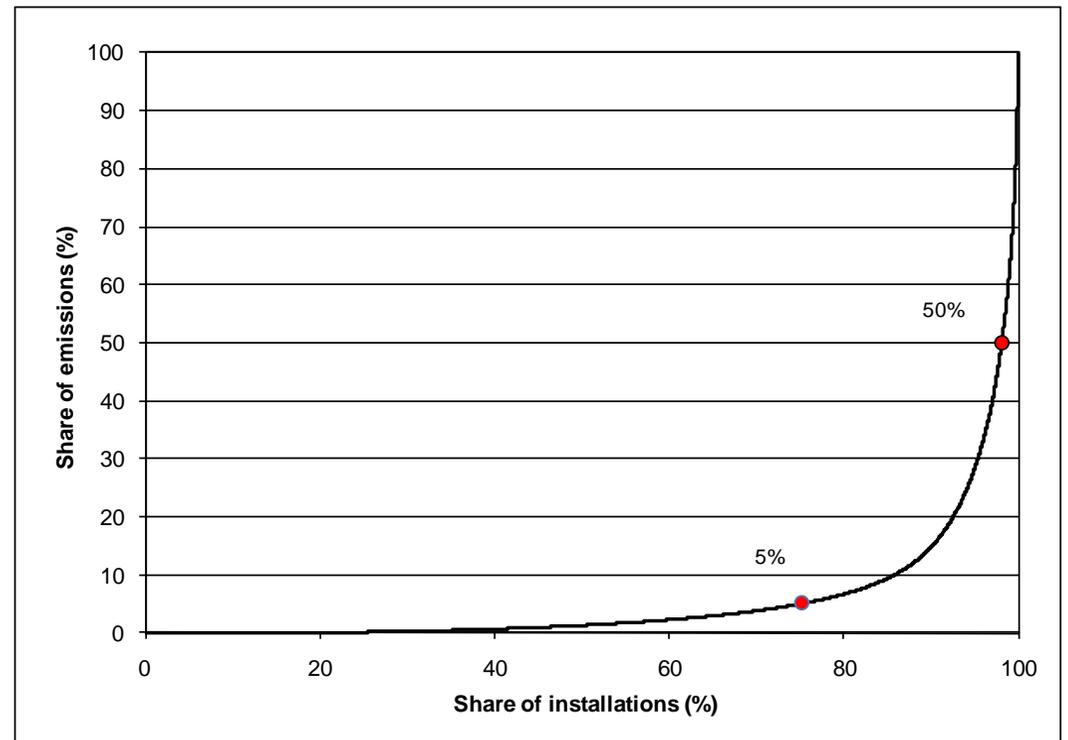


2008; Source: CITL; WIFO calculations

- The power and heat sector is the only sector in a net short position
- The short position of the power and heat sector in 2008 is more pronounced than in the first trading period

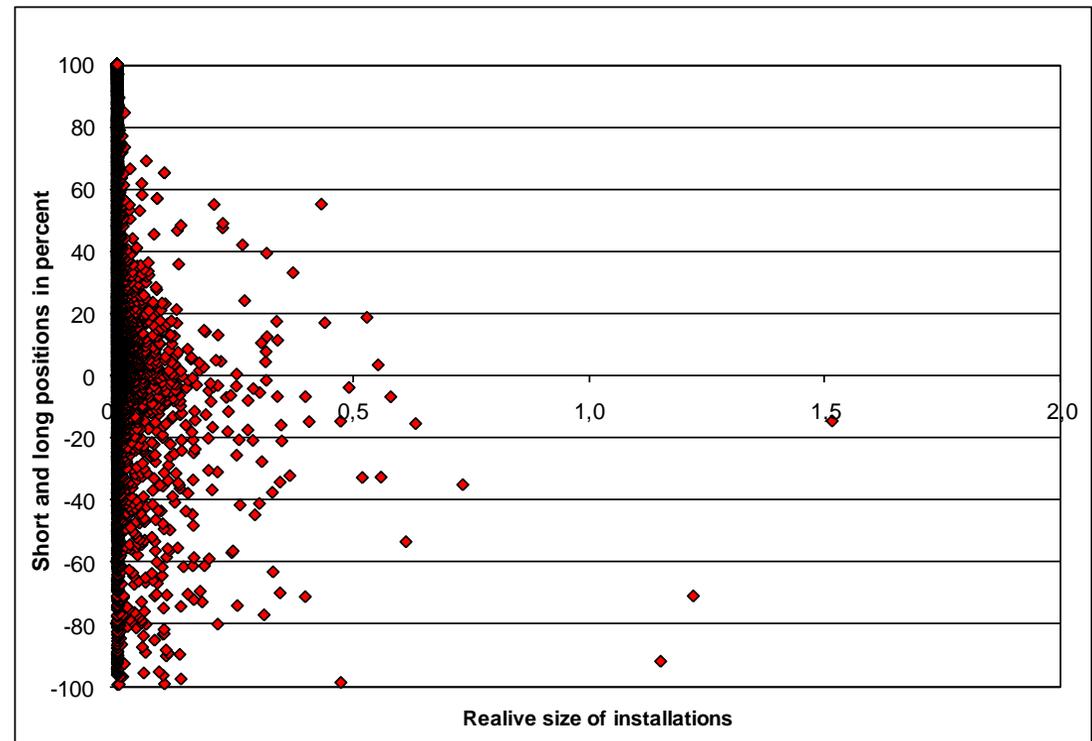
## Many small installations with respect to emissions in the EU ETS

- 75% of all installations contribute only 5% of verified emissions
- The biggest 1.9% of all installations account for 50% of emissions
- The biggest 20 installations (0.5%) emit 25% of all emissions.
- The 1,000 biggest installations contribute 83.1% of EU ETS emissions
- In 2008 62% of all installations emitted less than 25,000 t of CO<sub>2</sub> and could be excluded from the EU ETS in phase 3
- Results also hold for the pilot phase



Source: CITL; WIFO calculations

- Small emitters show a higher dispersion of the allocation discrepancy than large emitters
- Large emitters are more likely in a short position than small emitters
- Results also hold for the EU ETS pilot phase



Source: CITL; WIFO calculations