

# The EU Emission Trading Scheme: Allocation patterns and trading flows

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## Analysis of two issues:

- Stringency of the allocation caps
  - EU and country level
  - Comparison of the EU ETS pilot phase and the second trading phase
- Trading flows of emission certificates
  - EUAs, ERUs, CERs
  - Comparison of the EU ETS pilot phase and the second trading phase

## Part A

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# Analysis of the stringency of the cap and allocation discrepancies

- Installation data from the Community Independent Transaction Log (CITL)
- Coverage:
  - EU-27 (except CY, BG)
  - 2005 – 2010
- Only installations for which data on allocation and verified emissions were available for all years are considered in the analysis

## Calculating net positions

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

Allocation<sub>Installation</sub> – Verified Emissions<sub>Installation</sub>

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

$\sum$  Long position<sub>Installation</sub> = Gross long position<sub>Sector/Country</sub>

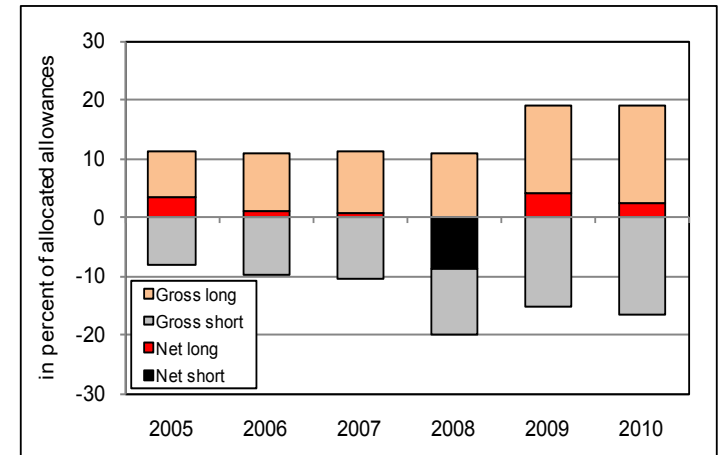
$\sum$  Short position<sub>Installation</sub> = Gross short position<sub>Sector/Country</sub>

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

$\sum$  Gross long position<sub>Sector/Country</sub> - Gross short position<sub>Sector/Country</sub>

= Net long / short position<sub>Sector/Country</sub>

- Phase 1 (2005 – 2007):  
Surplus of allowances (net long position) in all years
- Phase 2 (2008 – 2012):
  - Net short position in 2008 – more stringent cap
  - Net long position in 2009 – effects of the economic crisis



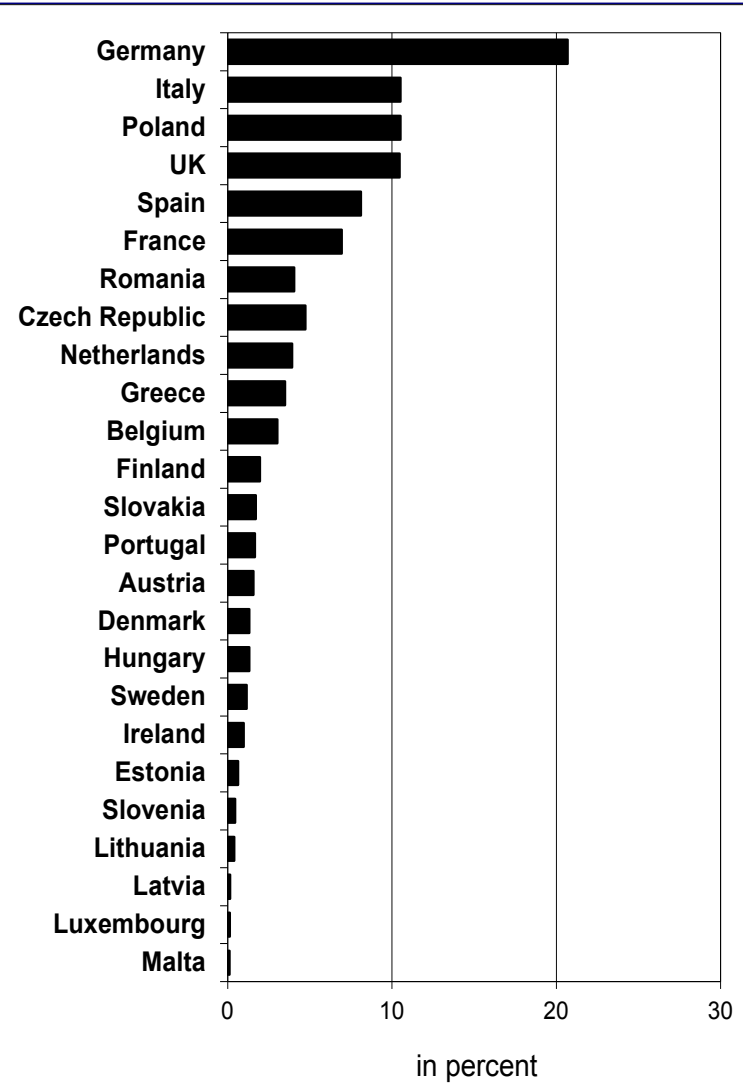
Source: CITL; WIFO calculations

	Phase 1	2008	2009	2010	$\Delta P1/2008$	$\Delta 2008/09$
Allocation in Mt	2,070	1,785	1,785	1,791	-13.8	0
Emissions in Mt	2,030	1,944	1,713	1,745	-4.3	-11.9
Net pos. in Mt	40	-159	72	46	-	-

Source: CITL; WIFO calculations

## Country shares in total EU ETS allowances

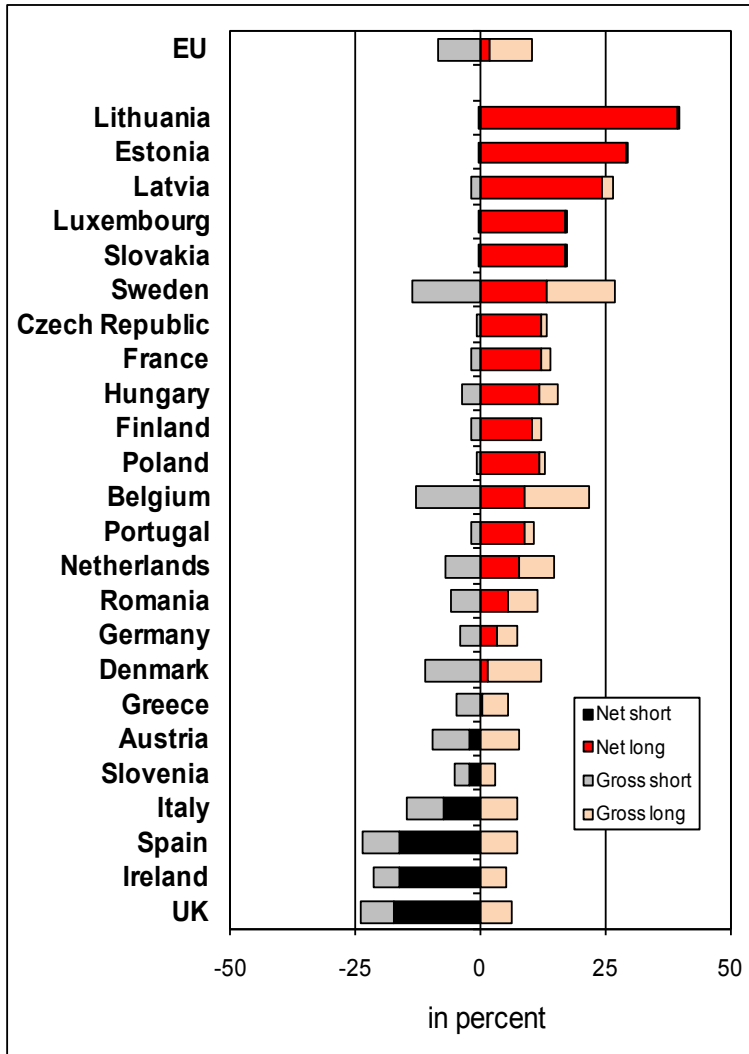
- The 5 countries with the largest share in allowances account for more than 60% of allowances
- The largest share of allowances (over 20%) accrues to Germany



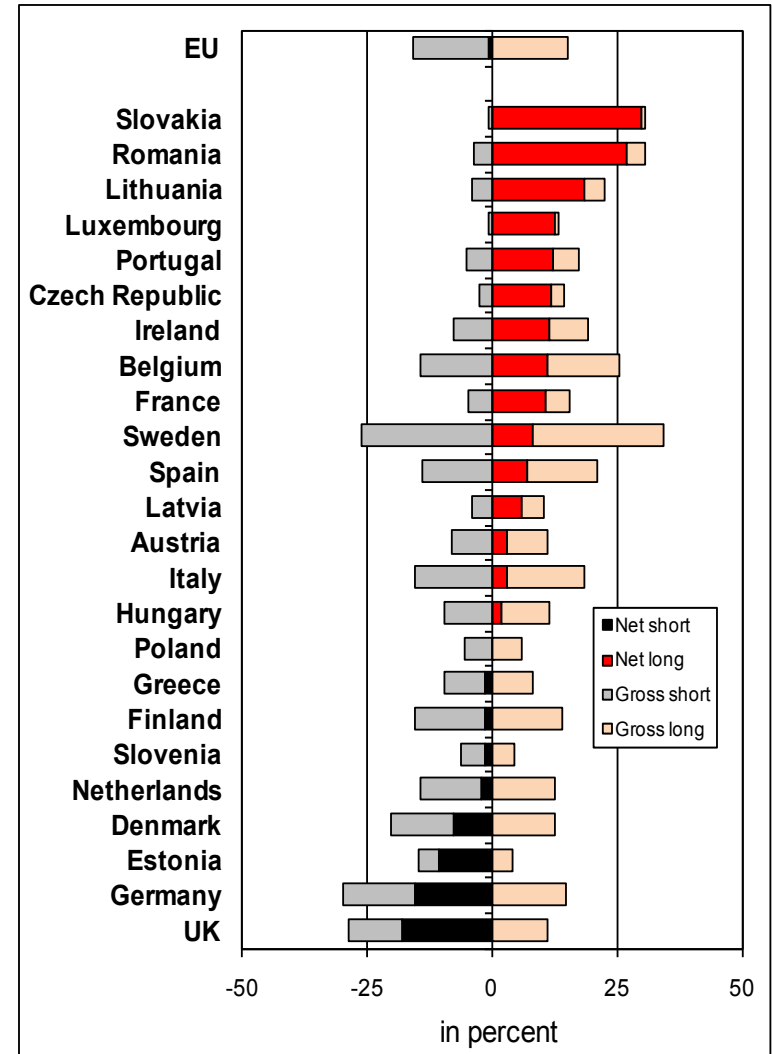
Average 2008-2010; Source: CITL; WIFO calculations



# Short and long positions by countries



Average 2005-2007; Source: CITL; WIFO calculations



Average 2008-2010; Source: CITL; WIFO calculations



## Part B

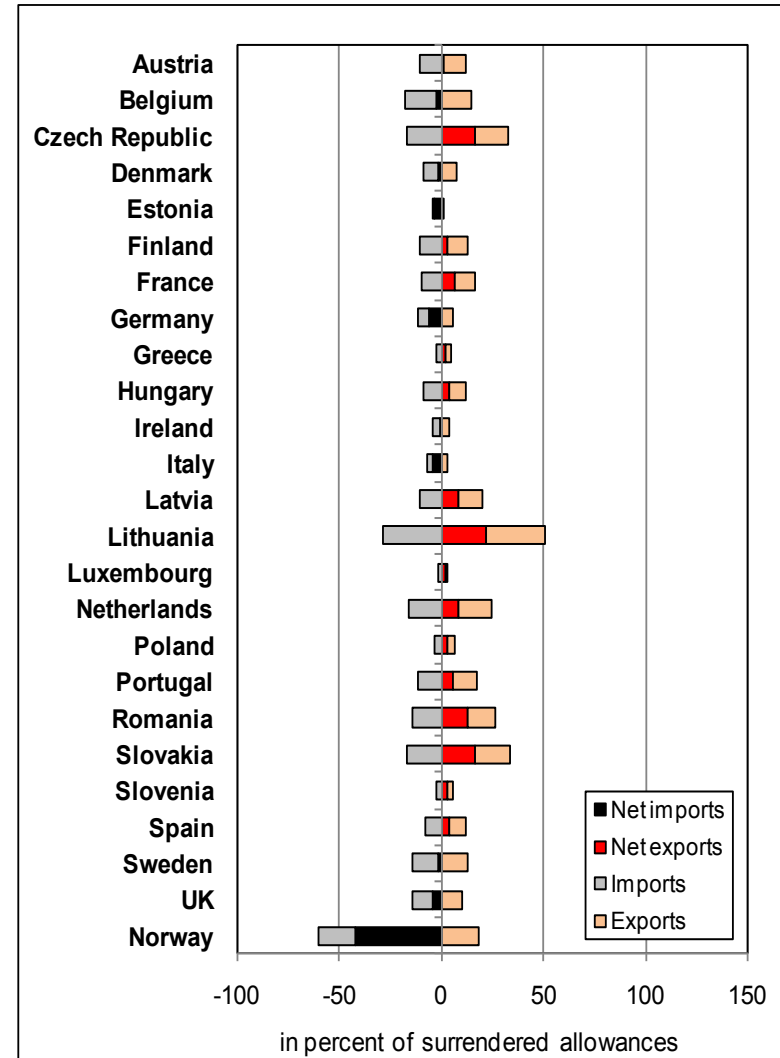
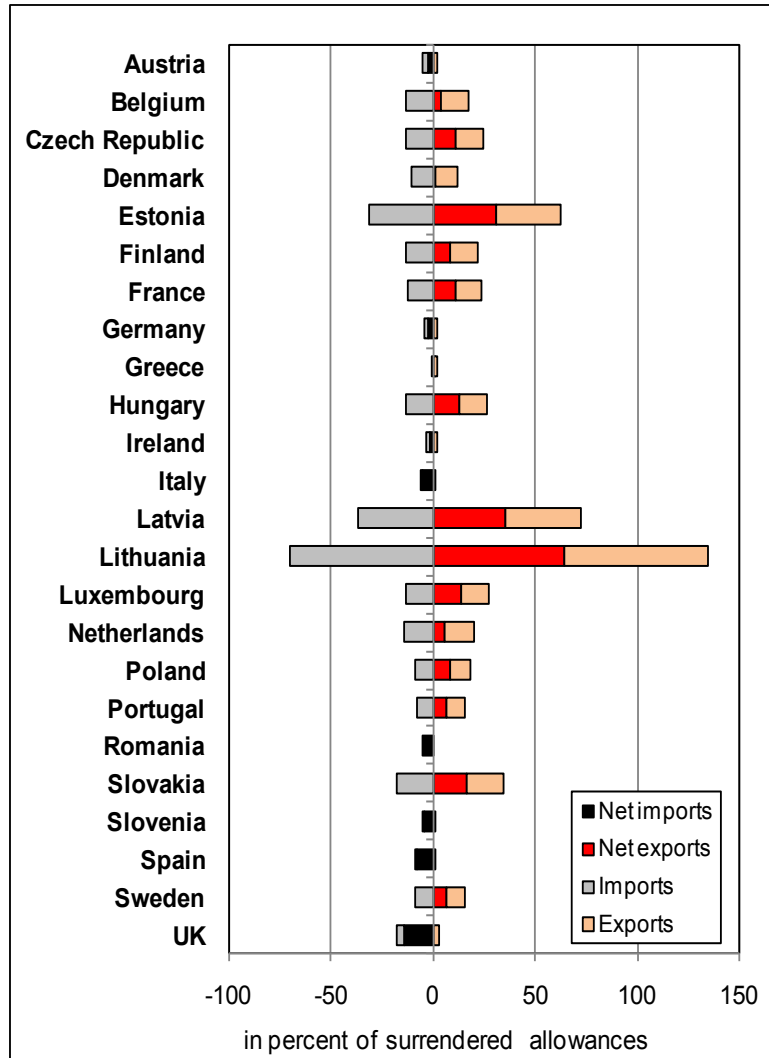
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# Trading Flows

- Database
  - CITL operator holding accounts
  - Surrendered EUAs, ERUs and CERs by country of origin on installation level
  - Data coverage 2005 to 2009
- Indicators
  - Net exports of EUAs = difference between EUA exports and imports if this difference is positive
  - Net imports of EUAs = difference between EUA exports and imports if this difference is negative
  - Imports of JI and CDM credits



# EUA trading flows by countries (I)



Average 2005-2007; Source: CITL; WIFO calculations

Average 2008-2009; Source: CITL; WIFO calculations

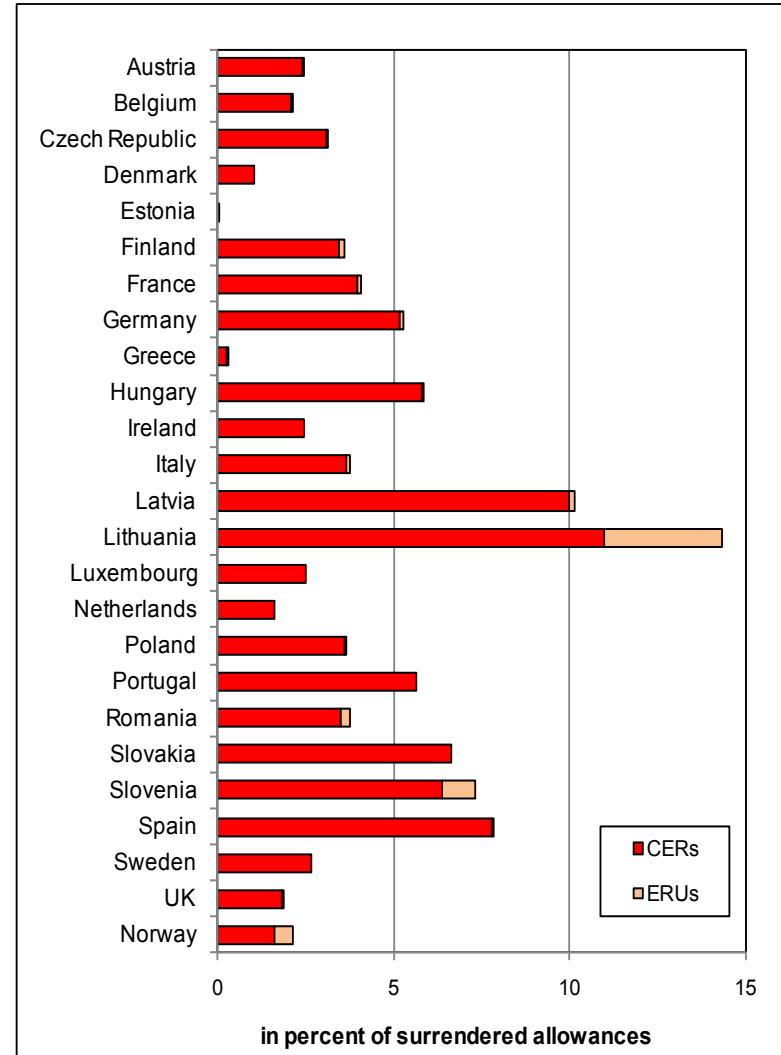
## EUA trading flows by countries (II)

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- Higher trading volume in second trading phase (120m vs. 160m)
- Lower spread of exports and imports within countries
- Highest absolute net exports –  
Poland in Phase 1 (18.2m), Czech Republic in Phase 2 (12.8m)
- Highest absolute net imports –  
UK in Phase 1 (35.2m), Germany in Phase 2 (30.6m)
- Net exports and net imports correlate with net long and net short positions

# CER and ERU imports by countries

- CERs and ERUs only small share in surrendered allowances (3.9% (80m) and 0.1% (2 m))
- Largest importers:
  - Lithuania 14.3%
  - Germany 25.2m
- Main suppliers of CERs
  - China (47%), India (26%), South Korea (15%), Brazil (8%)
- Main suppliers of ERUs
  - Ukraine (72%), Germany (16%), France (5%)



Average 2008-2009; Source: CITL; WIFO calculations



- Over-allocation in the pilot phase (2005-2007) particularly for NMS
- Second trading phase (2008-2012)
  - Higher stringency of the caps in 2008 due to the stronger role of the Commission in the development of the national allocation plans
  - Pronounced long positions in 2009 due to economic crisis
  - Moderate increase in emissions in 2010 but still long position
- Volume of EUA trading increased in second trading phase
- Net exports and imports of EUAs correlate with net positions
- CERs and ERUs account for only a small share in allowance imports

# Thank you!

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