

The EU Emission Trading Scheme: Allocation patterns and trading flows

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- The EU Emission Trading Scheme (EU ETS) is a key instrument in European climate policy
 - Largest cap-and-trade scheme - covers 60% of EU CO₂ emissions
 - Trading phases:
 - Phase 1 ('Pilot phase'): 2005 – 2007
 - Phase 2 ('Kyoto phase'): 2008 – 2012
 - Phase 3 ('Post-Kyoto phase'): 2013 – 2020
 - Phase 1 and Phase 2
 - Allocation of allowances on Member State level according to EC guidelines
 - Grandfathering as allocation principle

■ Analysis of two issues:

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

Part A:

Analysis of the stringency of the cap and allocation discrepancies

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- Installation data from the Community Independent Transaction Log (CITL) assigned to sectors based on National Allocation Plans
 - 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_{Installation} – Verified Emissions_{Installation}

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

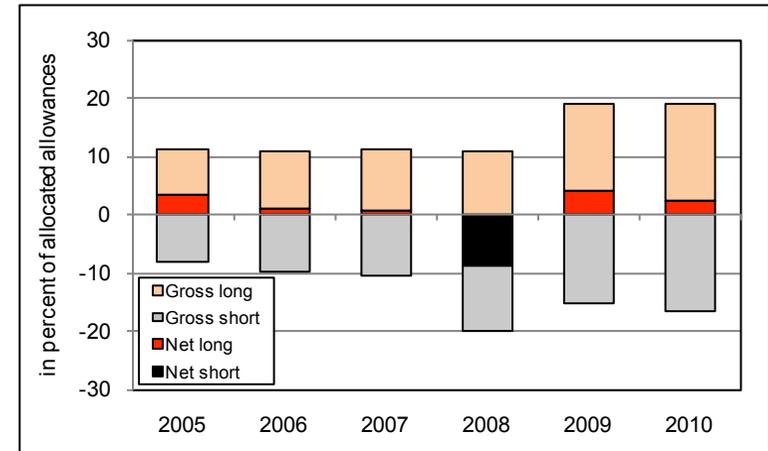
\sum Long position_{Installation} = Gross long position_{Sector/Country}

\sum Short position_{Installation} = Gross short position_{Sector/Country}

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

\sum Gross long position_{Sector/Country} – Gross short position_{Sector/Country}
= Net long / short position_{Sector/Country}

- First trading phase: surplus of allowances (net long position) in all years
- Second trading phase:
 - Net short position in 2008 – more stringent cap
 - Net long position in 2009 – effects of the economic crisis



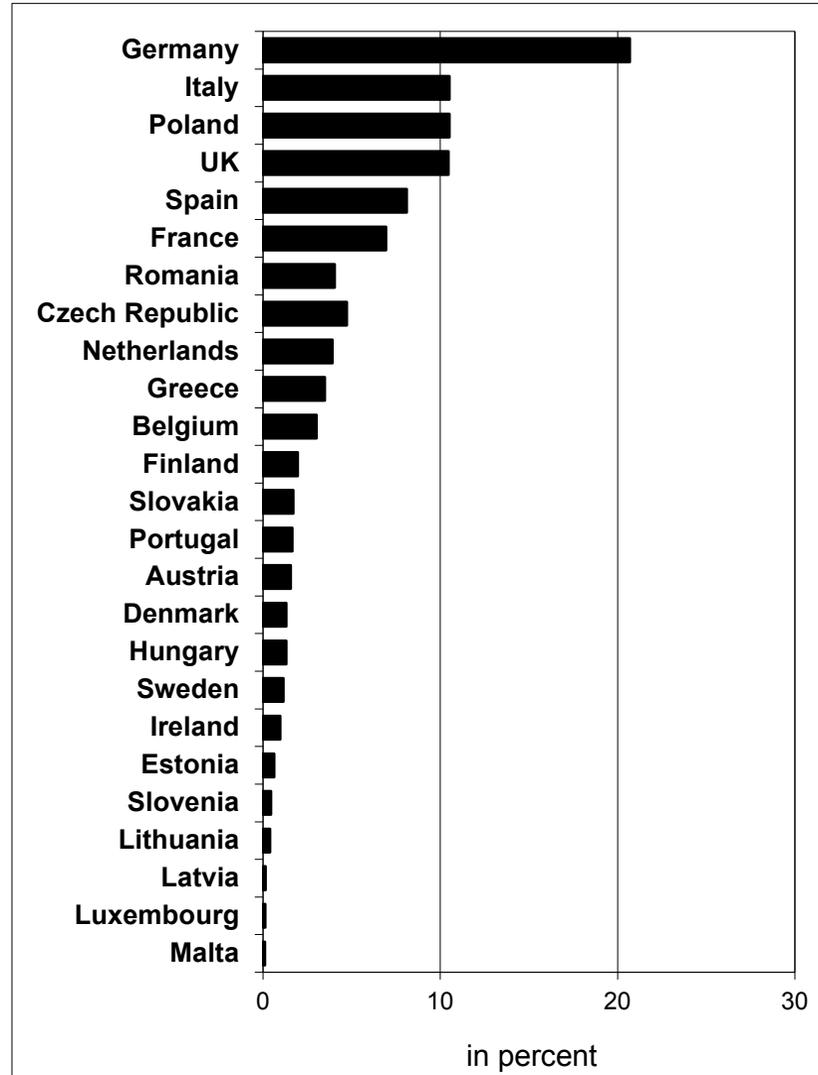
Source: CITL; WIFO calculations

	Phase 1	2008	2009	2010	ΔP1/2008	Δ2008/09
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	-	-

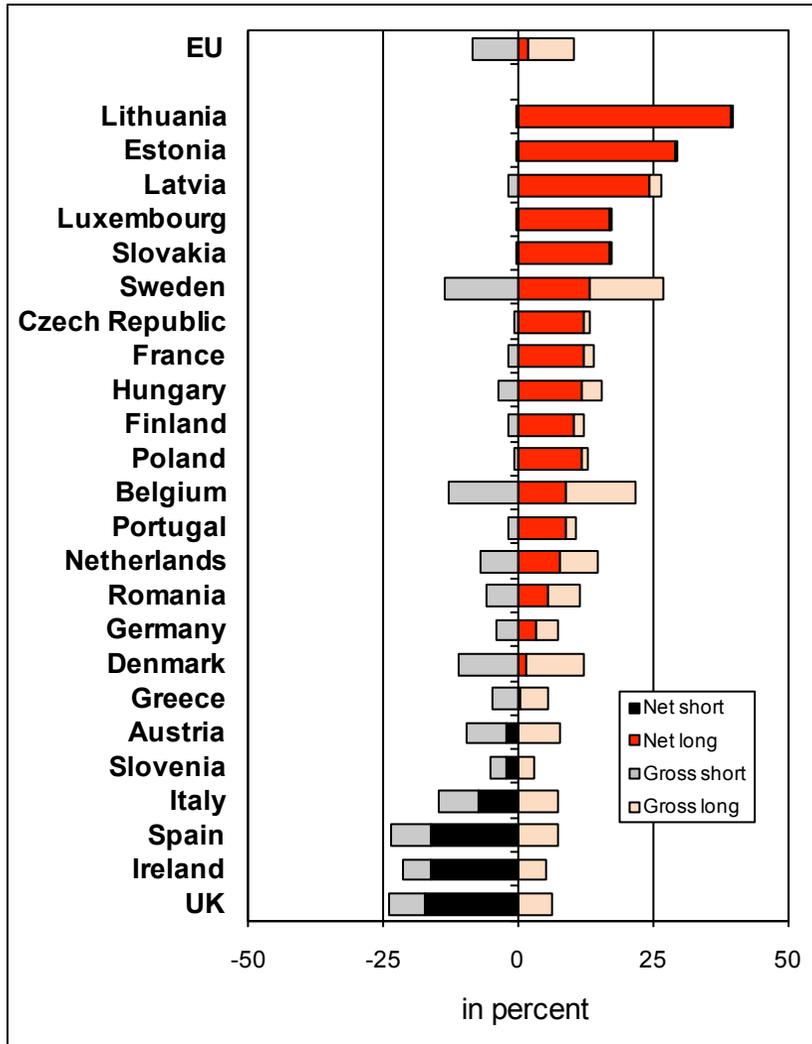
Source: CITL; WIFO calculations

- The 5 countries with the largest share in allowances account for more than 60% of allowances

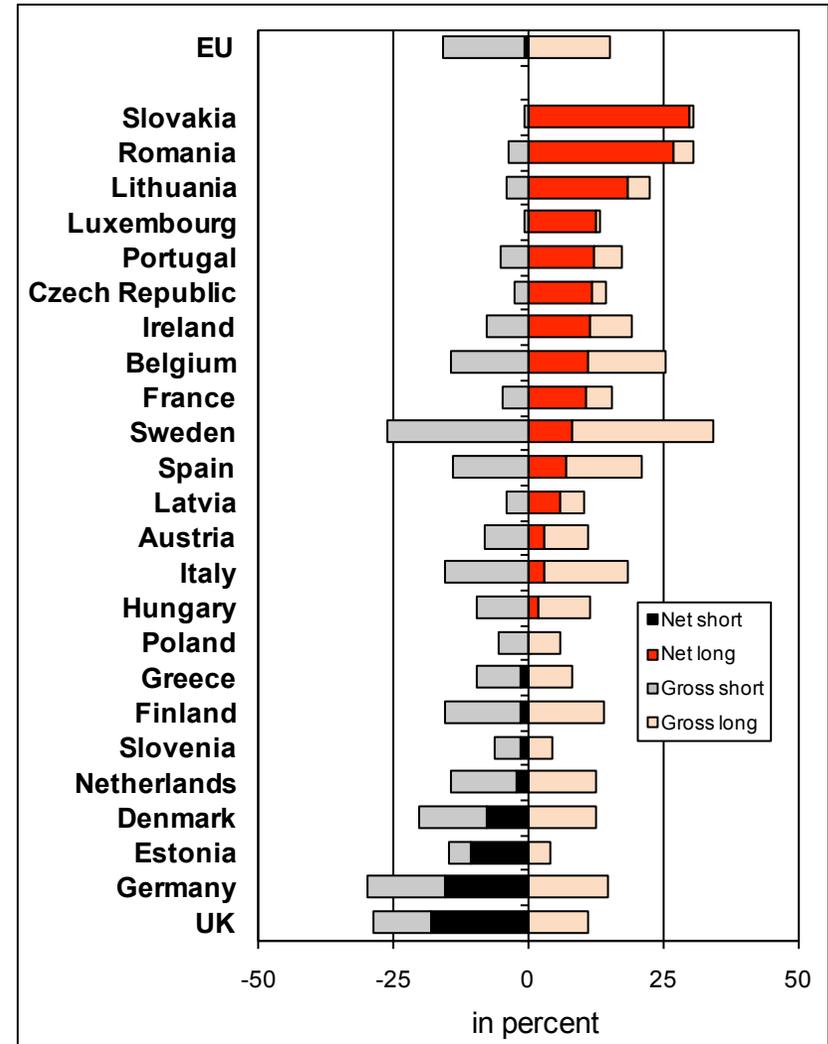
- The largest share of allowances (over 20%) accrues to Germany



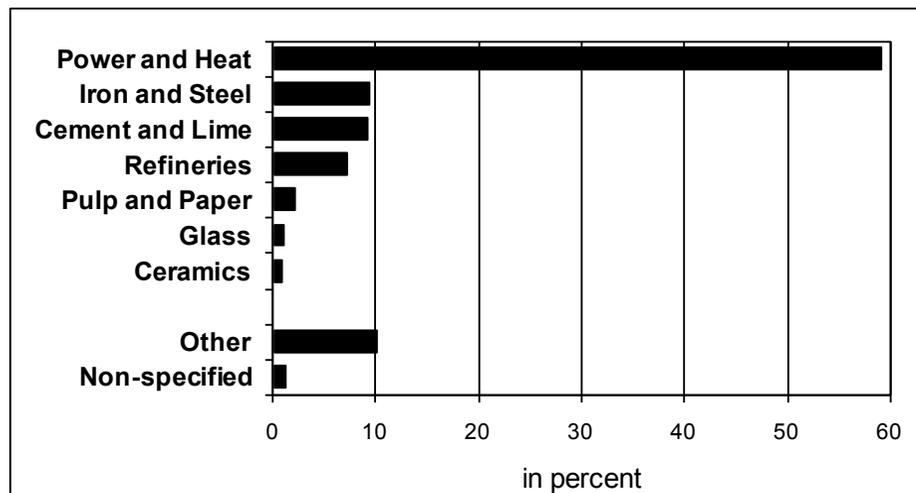
Average 2008-2010; Source: CITL; WIFO calculations



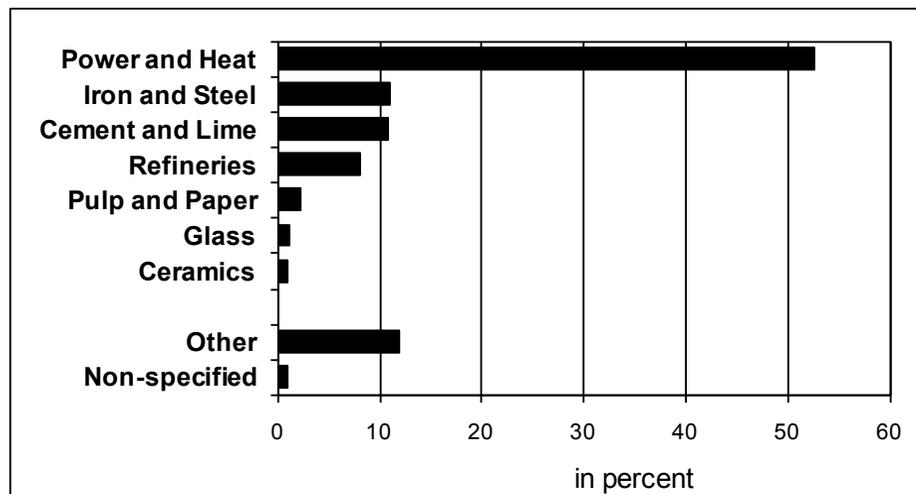
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Average 2008-2010; Source: CITL; WIFO calculations

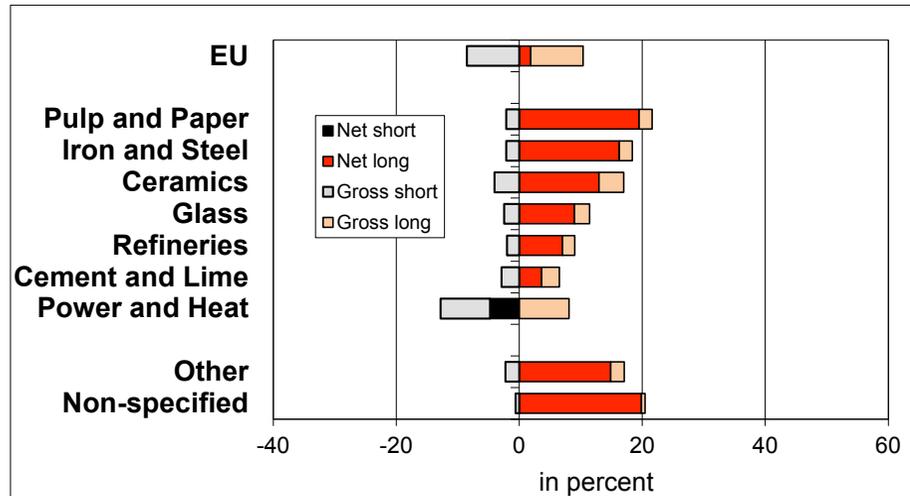


Average 2005-2007; Source: CITL; WIFO calculations



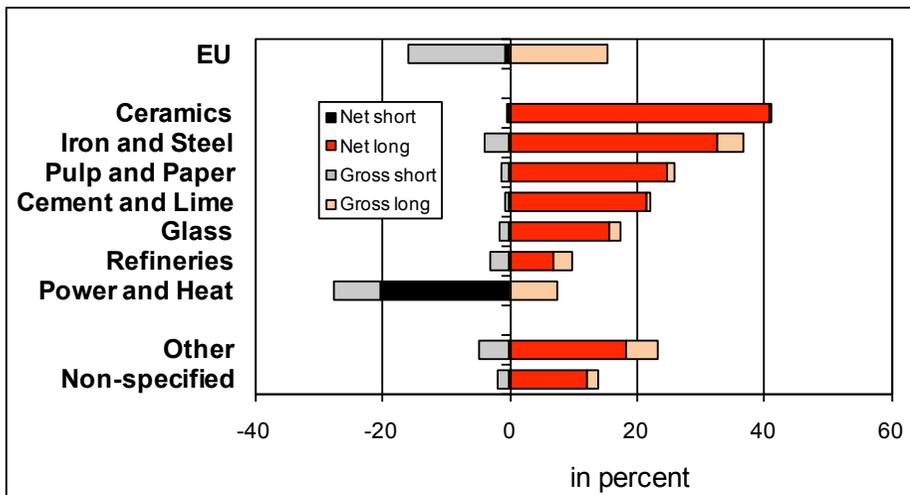
Average 2008-2010; Source: CITL; WIFO calculations

- The largest share of allowances accrues to the power & heat sector
- The share of the power & heat sector has declined between phase 1 and phase 2
- The shares of the sectors iron & steel and cement & lime have increased between phase 1 and phase 2



Average 2005-2007; Source: CITL; WIFO calculations

- The power & heat sector is the only sector in a net short position
- The short position of the power & heat sector in phase 2 is more pronounced than in the first trading period

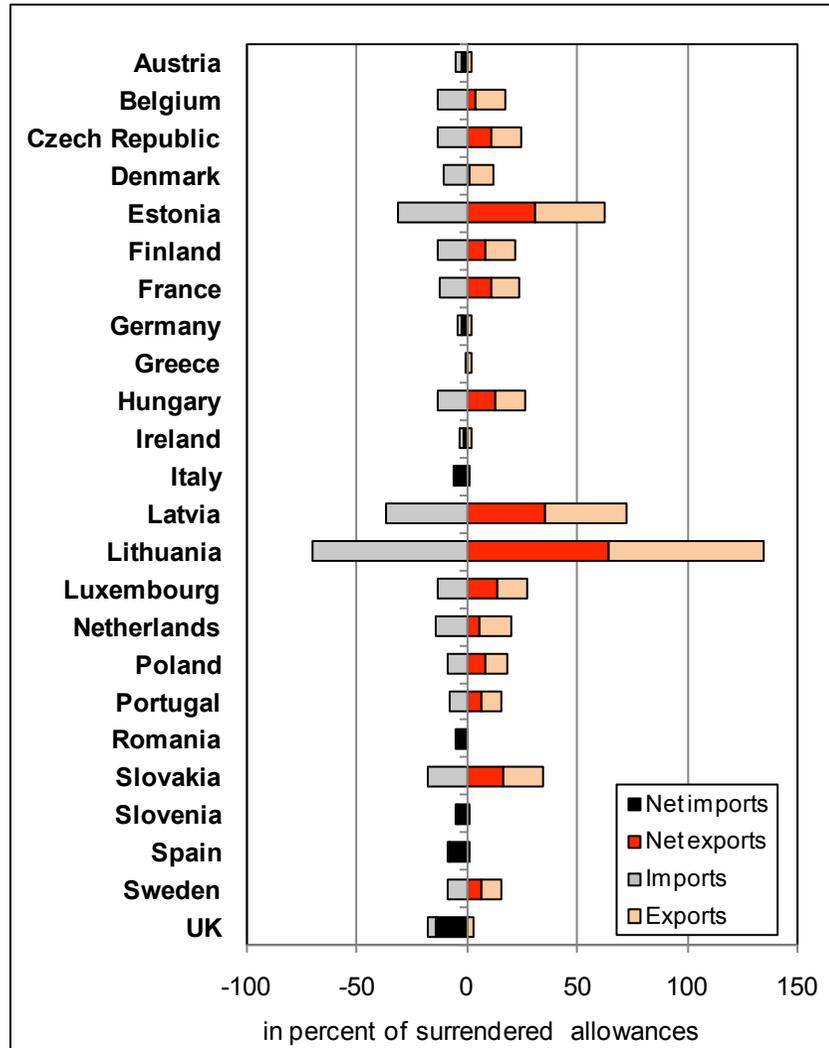


Average 2008-2010; Source: CITL; WIFO calculations

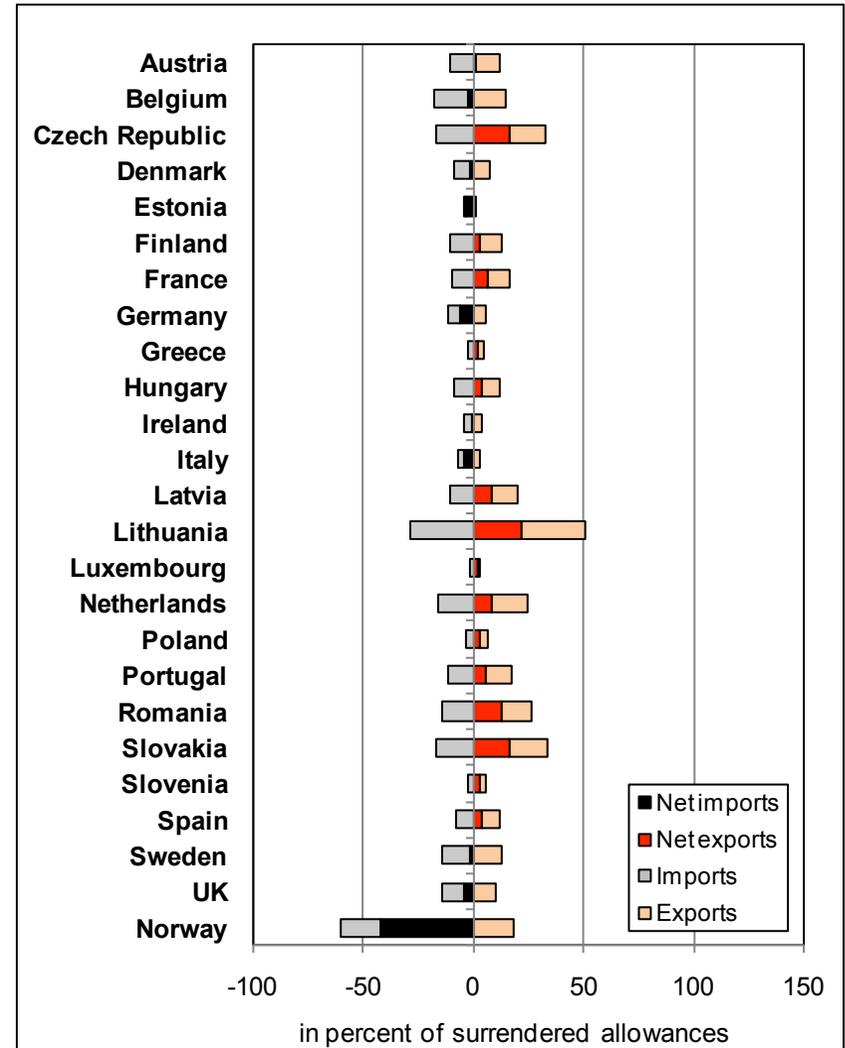
Part B:

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



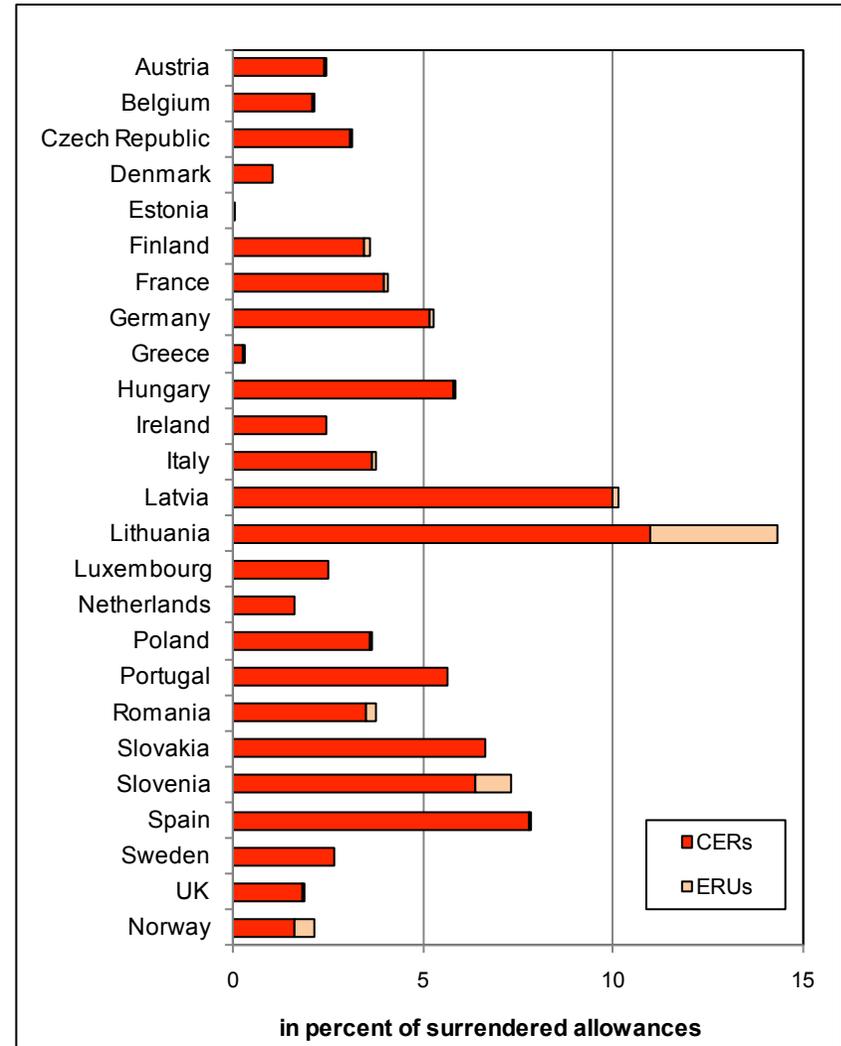
Average 2005-2007; Source: CITL; WIFO calculations



Average 2008-2009; Source: CITL; WIFO calculations

- 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

- CERs and ERUs only small share in surrendered allowances (3.9% and 0.1%)
- 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

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- 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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