Sectoral allocation patterns in the EU Emission Trading Scheme

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Outline

1. Design of the EU ETS
2. Empirical Analysis of Free Allocation and Emissions on
   - EU level
   - Sector level
3. Outlook and Conclusions

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EU ETS Key Facts

- The EU Emission Trading Scheme (EU ETS) is a key instrument in European climate policy
- Largest cap-and-trade scheme worldwide – Covers more than 50% of EU CO_2 emissions
- Trading phases:
  - Phase 1('Pilot phase'): 2005 – 2007
  - Phase 2 ('Kyoto phase'): 2008 – 2012
  - Phase 3 ('Post-Kyoto phase'): 2013 – 2020

Design in Phases 1&2

- Allocation of allowances on Member State level in National Allocation Plans (NAPs)
- Grandfathering as allocation principle
- No banking between Phase 1 and Phase 2
- Banking of allowances between Phase 2 and Phase 3

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Design in Phase 3

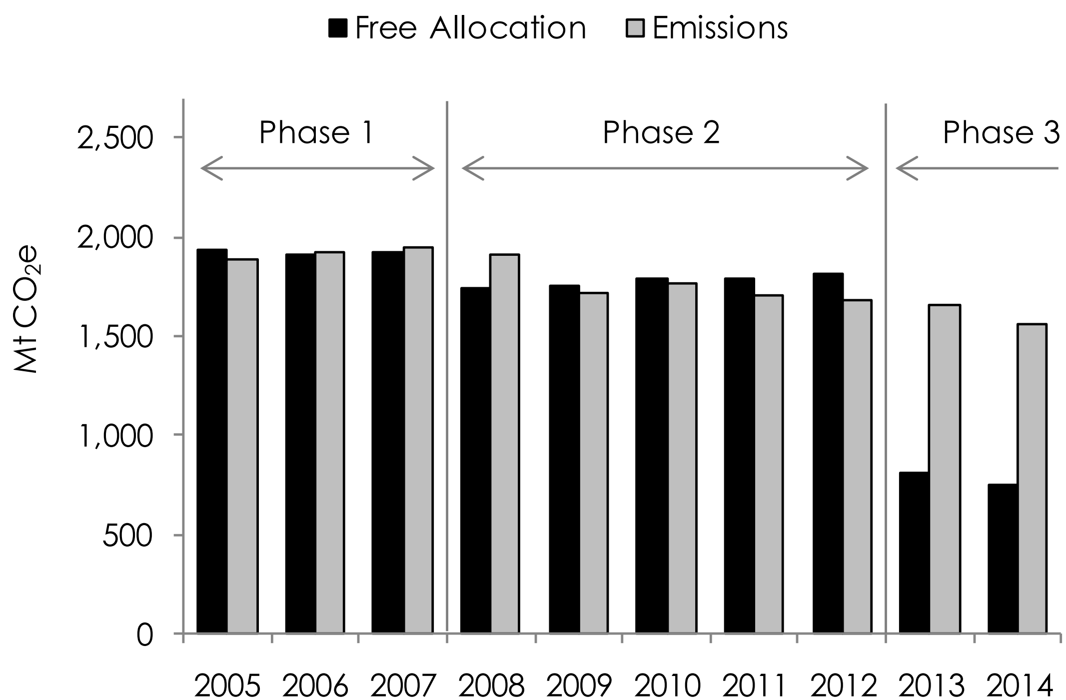
- EU wide allocation
- Linear decrease of allocation cap (2013 – 2020)
- Changes in allocation principles
  - Power sector : Full auctioning
  - “Exposed” sectors*: 100% free allocation
  - “Normal” sectors: 80% free allocation in 2013 (30% in 2020)
  - Free allocation is based on EU-wide sectoral benchmarks
- Small emitters could be excluded from the EU ETS provided equivalent measures to be in place

*Sectors that are considered to be at risk of carbon leakage have to fulfill certain criteria related to trade and CO_2 cost intensity

Analysis of Free Allocation and Emissions
Data sources

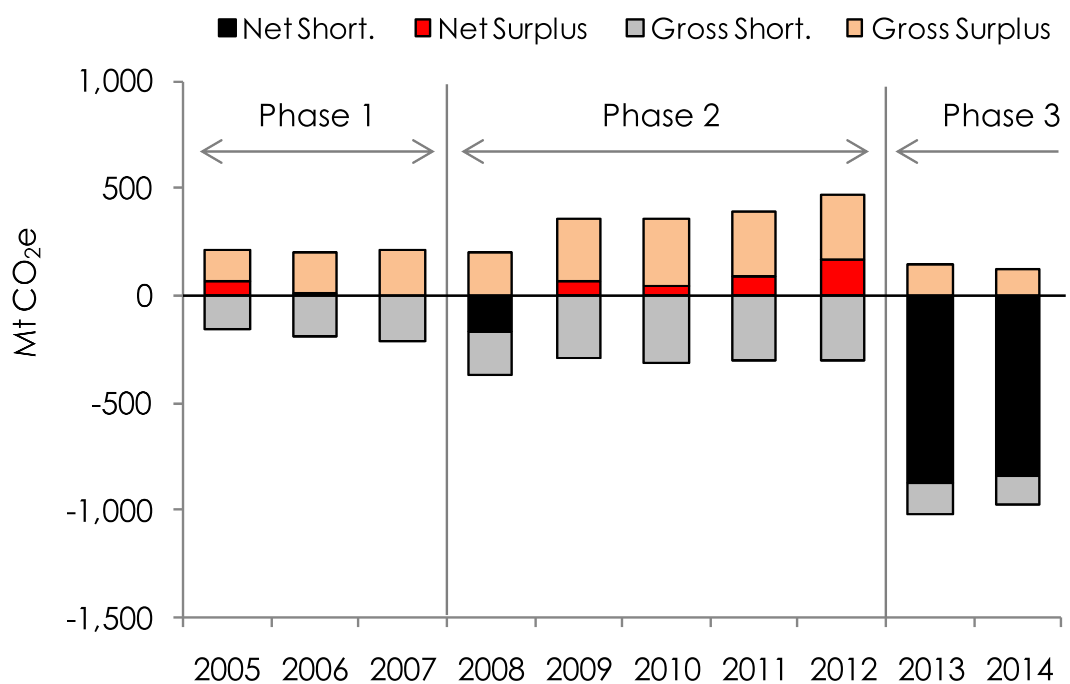
- European Transaction Log (EUTL)
  - Free allocation and emissions data on installation level
  - Coverage
    - More than 11,000 installations
    - EU-28, NO, LI, IS
    - 2005 - 2014
- Analysis of free allocation and emissions
  - Sample of 8,000 installations
  - Scope: EU-28 (except BG, HR)

Free Allocation and Emissions EU ETS, 2005 – 2014 (I)



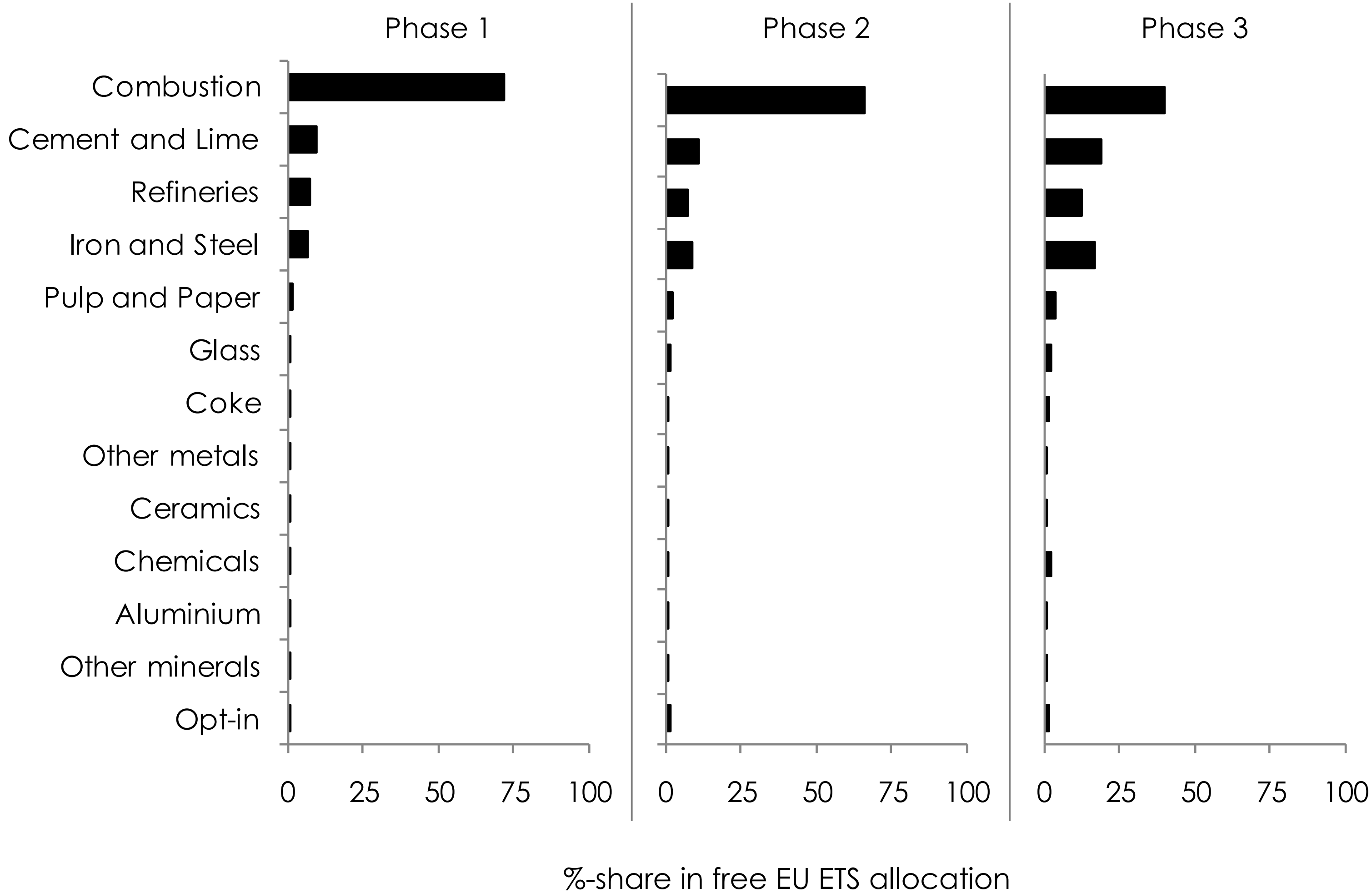
Source: EUTL

Free Allocation and Emissions EU ETS, 2005 – 2014 (II)

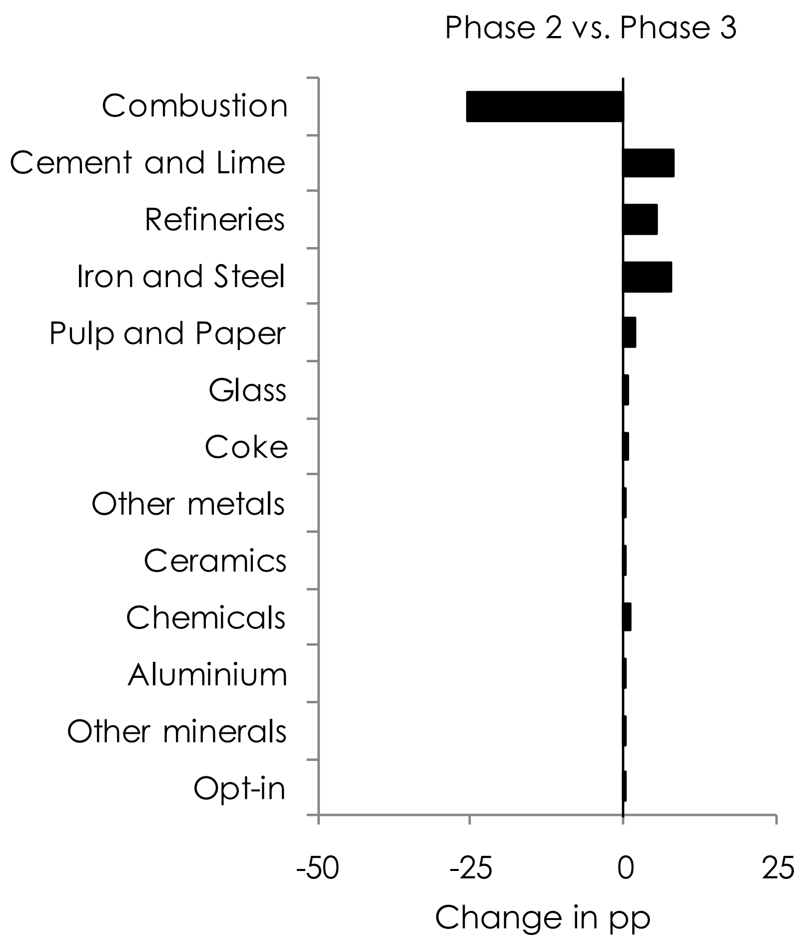


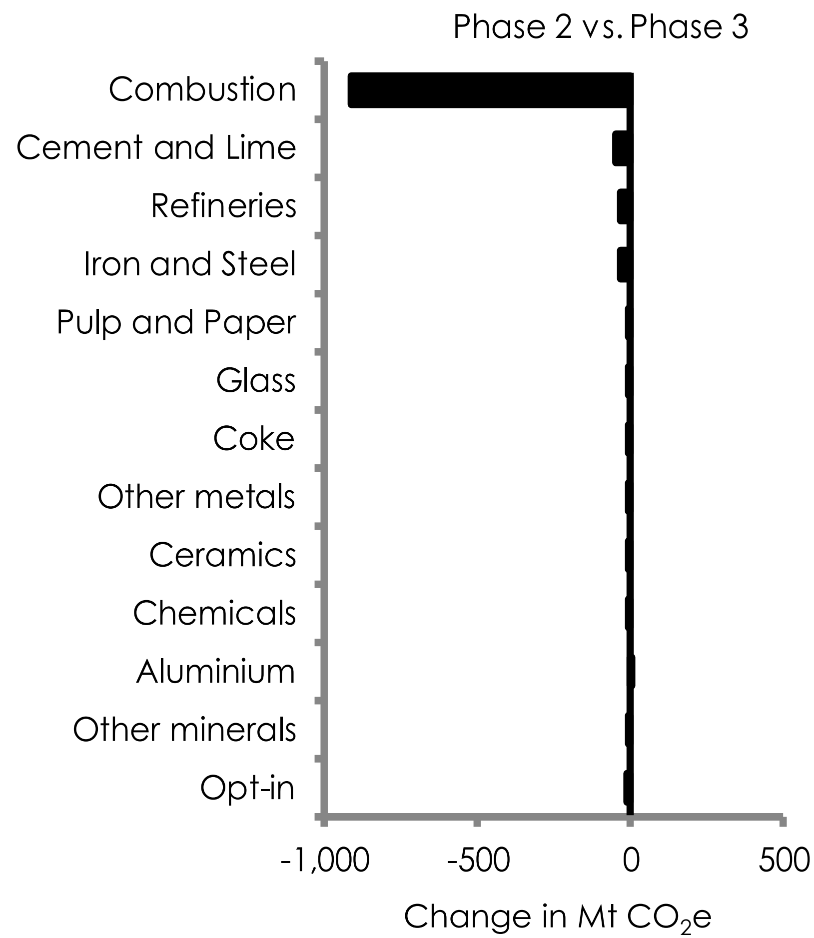
Source: EUTL

Development of Free Allocation by Sector (I)

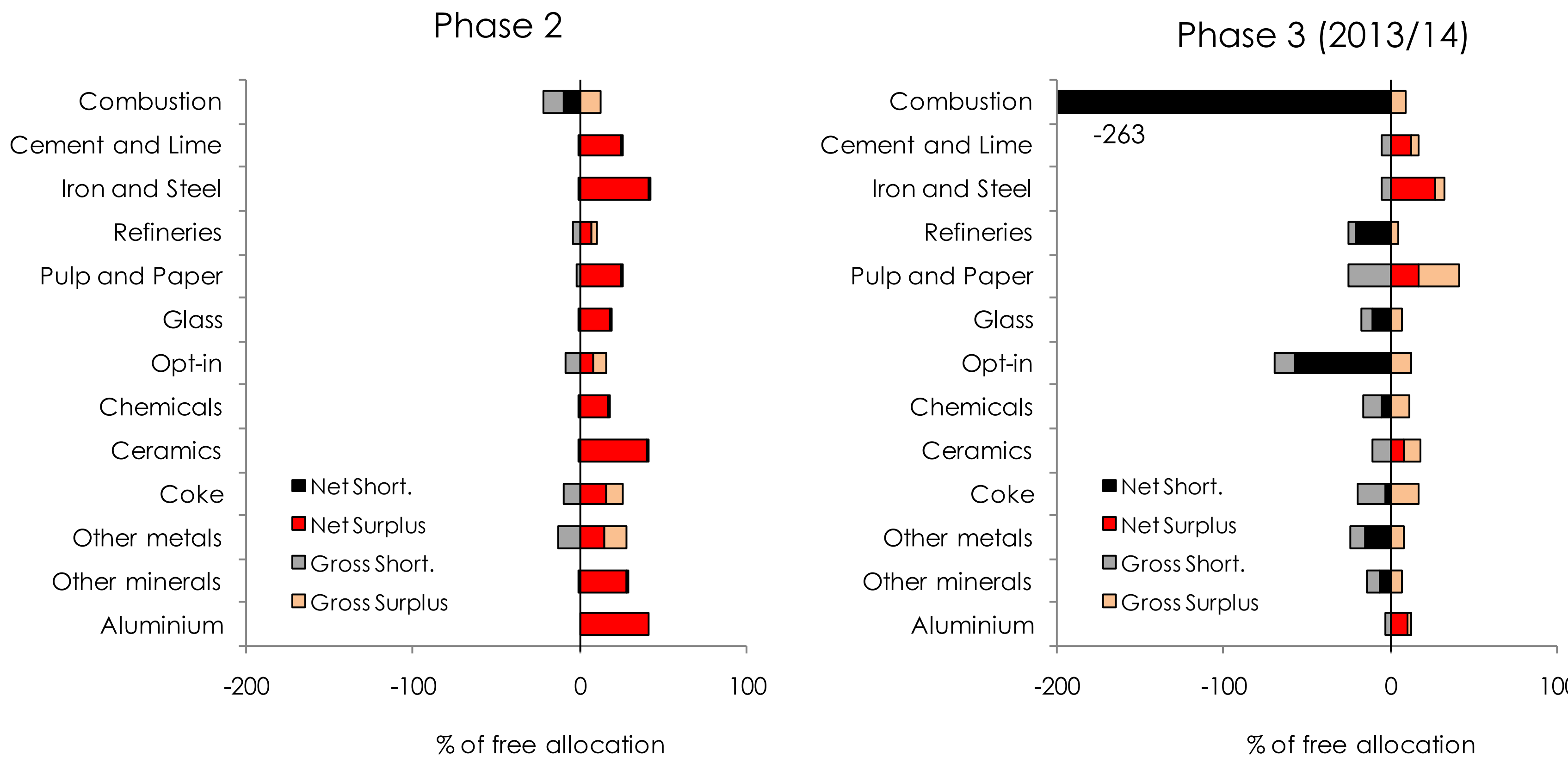


Development of Free Allocation by Sector (II)





Free Allocation vs. Emissions by Sector



Source: EUTL

Incentives for emission abatement is particularly low in sectors with a surplus of free allowances!

Generally little incentives for GHG abatement due to low carbon prices

Source: Point Carbon, EEX

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Outlook Beyond 2020

- EC 'Summer Package 2015'
  - Increase of the linear annual reduction factor to 2.2% in order to achieve an emission reduction of 43% in ETS sectors (vs. 2005)
  - Share of auctioned allowances in total allowances is fixed at 57% ⇨ Frequent alignment of free allocation to production data
  - The list of sectors considered at risk of carbon leakage will be determined based on trade and CO_2 intensity (instead of trade and cost intensity)
  - Update of benchmarks to reflect technological advances since 2008
- Market Stability Reserve

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Conclusions

- In contrast to previous trading periods, in Phase 3 the EU ETS faces a tight cap
- EU ETS sets only weak incentives for GHG abatement
  - Persistent low carbon prices due to ‘structural allowance surplus’
  - Individual sectors are still endowed with a surplus of FREE allowances
- ‘EC Summer Package’ and ‘Market Stability Reserve’ can contribute to improve the EU ETS’s resilience to external shocks and help generate a stable price signal

THANK YOU!

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