Lessons learnt so far from the EU ETS Phase II (2008-2012)

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Topics

Key market drivers

> Macroeconomics, weather et. al.

Lessons learnt

> Trading / Market assessment

Outlook

> Hard to tell

Sources: mostly Point Carbon, KfW/ZEW surveys

Key market drivers:

DEMAND

Overall

> Macroeconomics

> Weather

Power Sector

> Non-emitting generation

> New build / retirements

> Coal-Gas Spread

> Electricity demand

Industrial

> Refining, Cement, Metals

SUPPLY

CDM/JI

Policy / Institutional Developments

Reserves / Auctions

OVERALL

Phase III regulation

Copenhagen negotiations

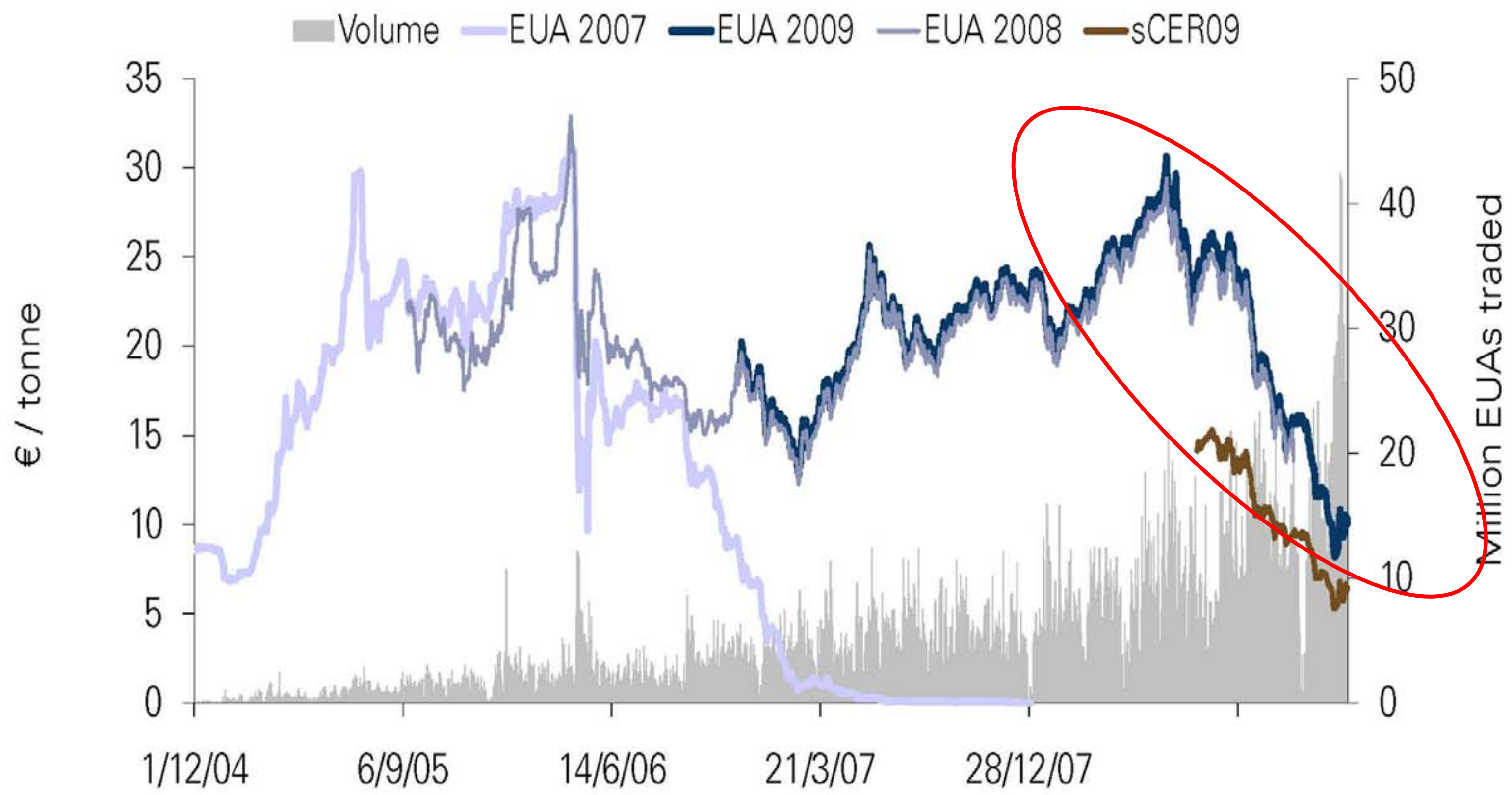
Lessons learnt so far: Trading 2008

- The EU ETS remained the largest segment in the global carbon market in 2008, with **3.1 Gt CO2e worth €67bn** being traded, accounting for 2/3 and respectively 3/4 of total market volume and value.
- Over the year 2008, the EUA Dec-08 contract traded in a **range between €13.52/t and €29.38/t.**
- The contract started the year at €23, and after a decline in January, a EUA bull run started at the end of February, as a firming energy complex sent EUAs soaring. The January **climate and energy proposal by the Commission** compounded the bullish mood leading to a year high on 1 July (€29.38).
- The long ascendancy was reversed in July, near the all-time high for the contract, amid **concerns** over the US economy and a bursting of the crude oil price bubble.
- A wave of selling from industries, which **expected lower production** and hence lower emissions, put further pressure on EUAs in the second part of the year.
- Starting from October, EUAs were driven further downwards by a worsening global economic outlook, with data showing the Euro zone officially in a **recession**, and continuing bearish energy complex.

Volumes and prices in the EU ETS, 2004-09

Prices in the brokered OTC market, volumes in brokered OTC market and on the exchanges.

Source: Point Carbon's Carbon Market Trader



PointCarbon

Source: *Carbon 2009*, page 5, 17 March 2009

Lessons learnt so far: Market assessment

> **Maturity of the EU ETS** is perceived to increase continuously**.**

> Most installations implement **incremental reductions.**

> **Internal abatement is the first choice** but most companies use it in combination with trading and credits, seeking the most cost-efficient option.

> While most companies do **trade**, **only a small minority of companies** seems to be doing so on a more regular basis - representing **mainly larger companies**.

> The **energy sector turns out to be the most active** with abatement measures, in spot and forward markets for EUA and Certified Emission Reductions (CERs) from emission reduction projects in developing and transition countries.

> **Carbon price decisive factor for investment,** but currently lower influence.

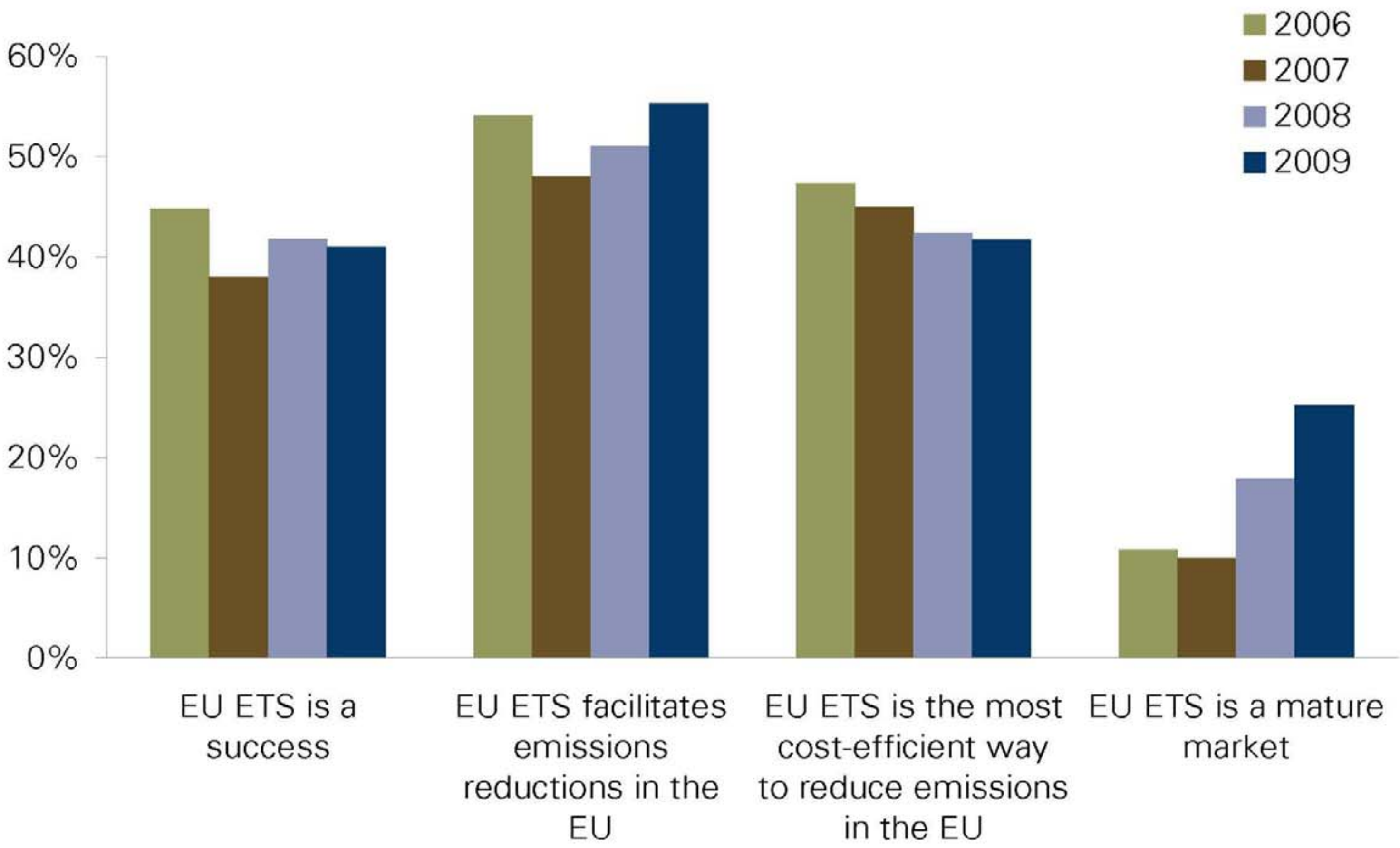
> Unclear long-term price signal creating added **uncertainty** for investment.

> **Carbon leakage** not widespread (metals and cement most impacted), but even possible for power companies.

Assessing the EU ETS

Share of respondents agreeing with the given statements (options 4 and 5). N=3,243 (2009)

Source: Point Carbon



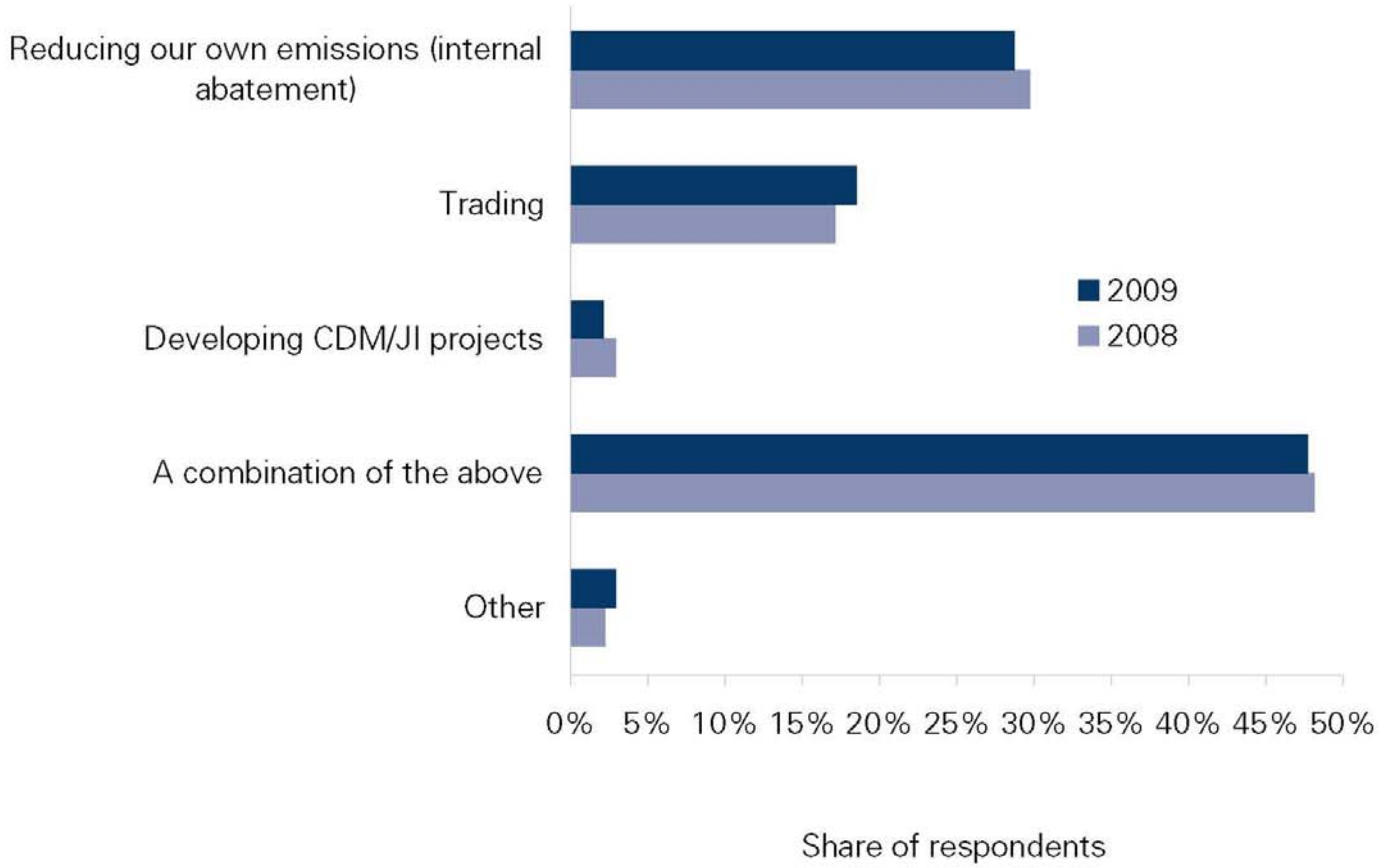
PointCarbon

Source: *Carbon 2009*, page 7, 17 March 2009

Compliance strategies in the EU ETS

Question "What is your company's primary EU ETS compliance strategy?" N=373 (2009)

Source: Point Carbon

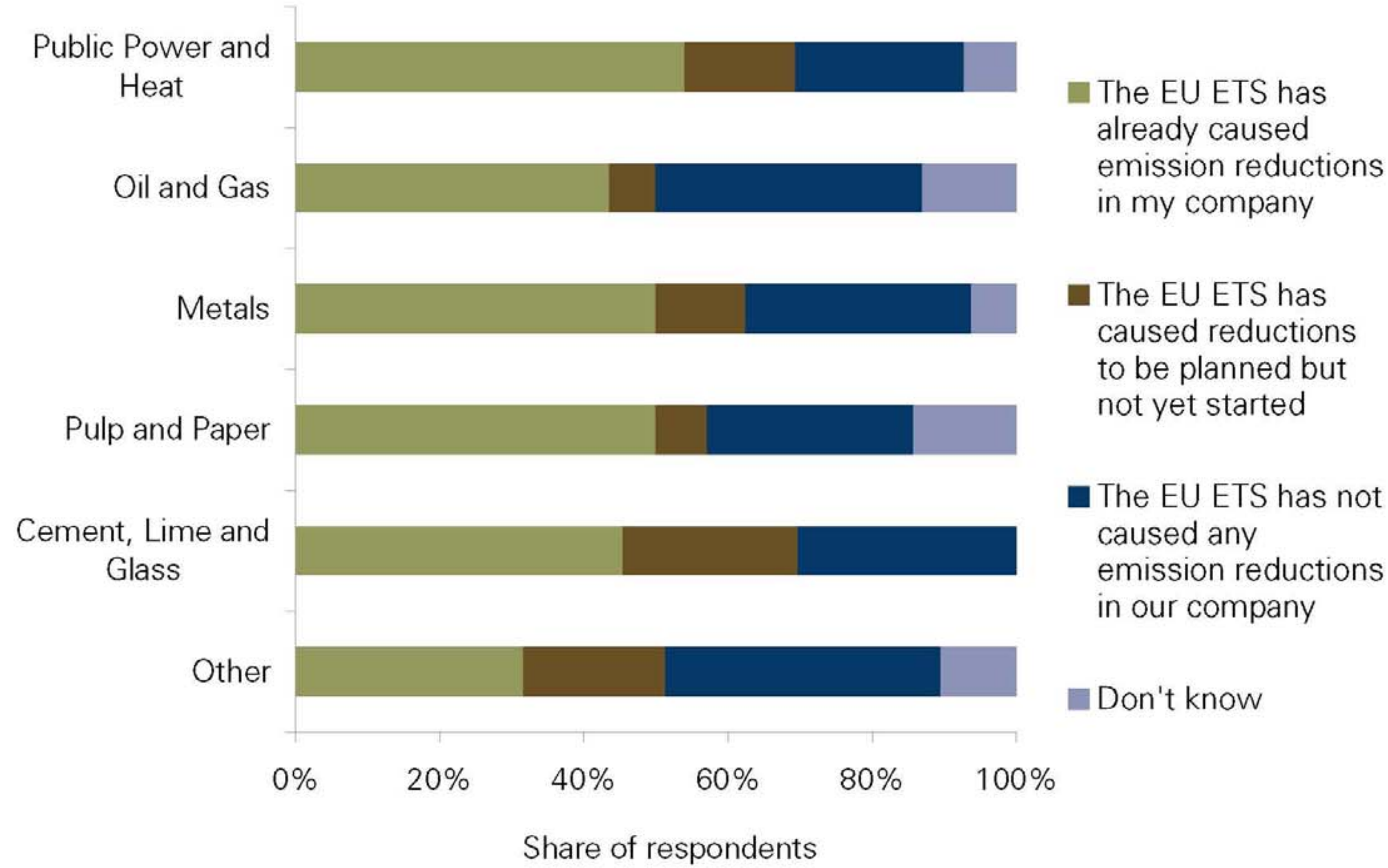


Source: *Carbon 2009*, page 9, 17 March 2009

Reducing emissions, by sector

Answer to question as in Figure 2.7, by main EU ETS sector, N=309

Source: Point Carbon



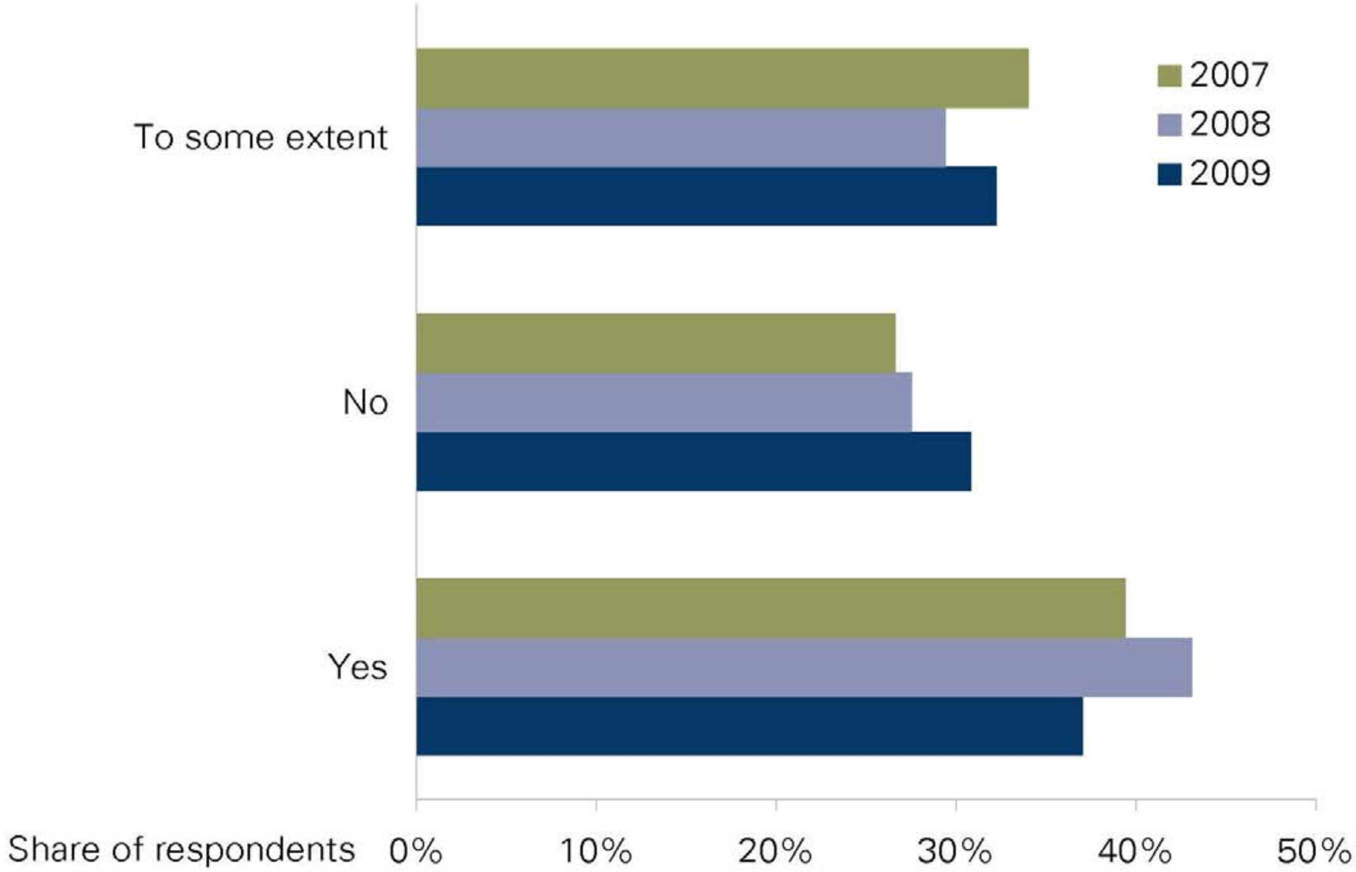
PointCarbon

Source: *Carbon 2009*, page 9, 17 March 2009

Carbon price and the degree of new investment

"Has the price of carbon influenced the degree of new investments in your company?" (N=354)

Source: Point Carbon



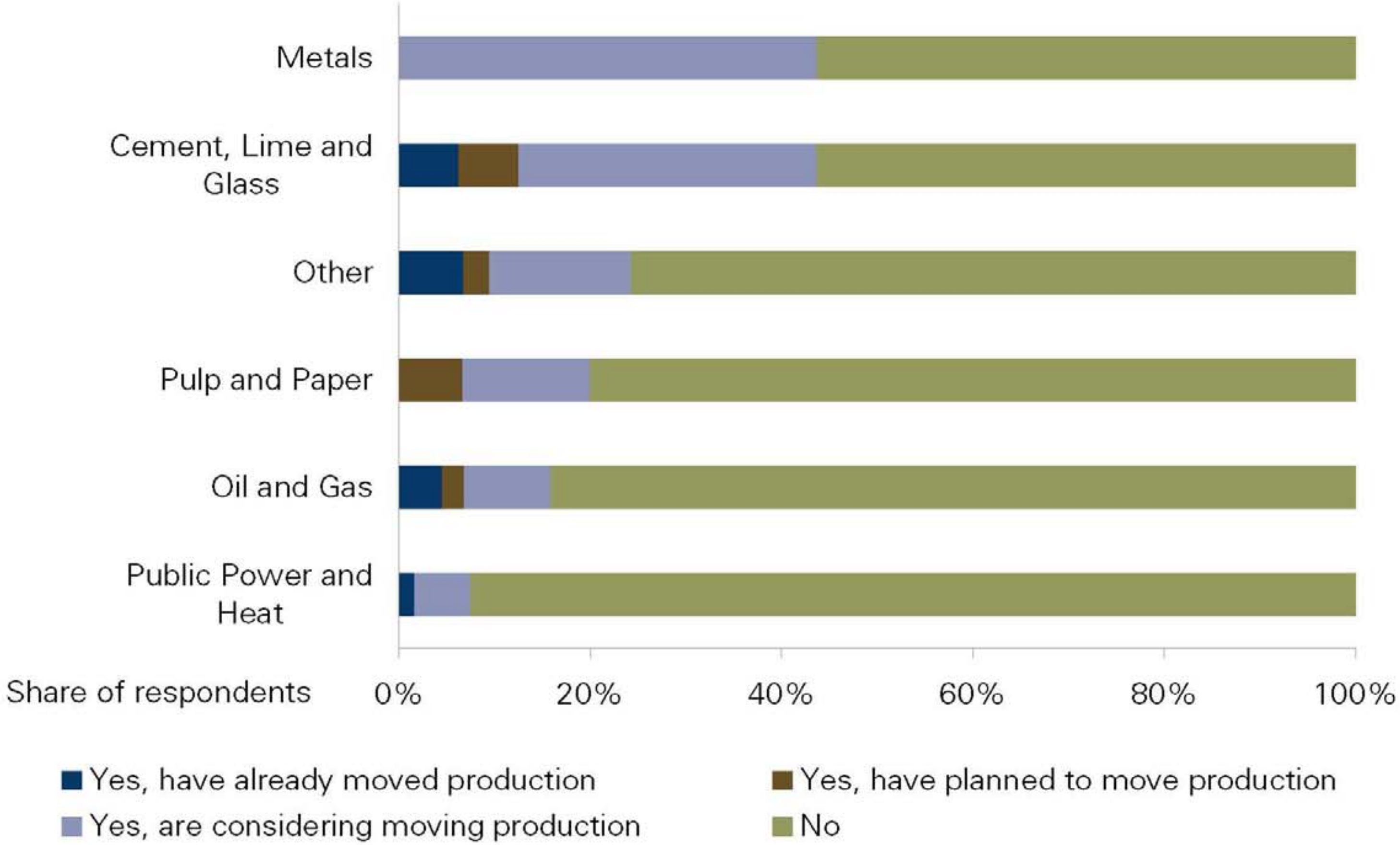
PointCarbon

Source: *Carbon 2009*, page 11, 17 March 2009

Carbon leakage in the EU ETS, by sector

All companies covered by the EU ETS. N=301

Source: Point Carbon



PointCarbon

Source: *Carbon 2009*, page 12, 17 March 2009

Outlook

> While Phase I was characterised by a general over-allocation, national **caps have been tightened** for Phase II, with Verified Emissions (excl. NO, LI) for 2008 being 2099 Mt CO2 and the cap set at 2083 Mt.

> **Despite the economic downturn,** German installations under the EU ETS were generally short in emissions allowances in 2008.

> Only less than one third of German firms expect to be short over the entire trading period 2008-2012. (Two thirds of the firms anticipating their allocation to be too low were actually long in 2008 – indicating possible **difficulties to assess actual emissions due to the unexpected strong economic downturn.**)

Key areas to look out for:

> **Auctioning** – volume and timing ⬇

> **NER –** auctioned or withheld ⬇

> **Hedging behaviour –** for Phase III ⬆

> **Restrictions** – Quality for Phase III ⬇

Overall expectations are somewhat bearish.

Thank you for your attention.

VORWEG GEHEN

EU ETS Phase III: Total cap in 2020: 1,720 Mt
Big step in the direction of long-term stability

Backup

Summary

> In January 2008, the European Commission published its energy and climate change package, including the review of EU ETS for Phase 3. The European institutions reached a compromise in December. The final outcome is to a large extent in line with the initial proposal. Key elements are the cap, credit limit, the level of auctioning and the new sectors/gases included.

> The allocation in phase 3 represents a 21 percent reduction compared to 2005 levels by 2020, with a yearly reduction of 1.74 percent from 2010. The total cap in 2020 is 1,720 Mt. A credit limit of 50 percent of the reduction effort will apply over the 2008-2020 period, representing about 1,600 Mt over the period. The legal competence on allocation is moved to the EU level.

> For the power and heat sector, full auctioning is the main principle, but it is optional on some conditions. The free allocation in 2013 shall not exceed 70 percent of verified emissions in the 2005-2007 period, and will then decrease linearly to zero in 2020. The industry sectors will get an 80 percent free allocation in 2013 (calculated as a percentage of the sector's relative share of the phase 3 cap), decreasing to 30 percent in 2020. The sectors exposed to carbon leakage will get a 100 percent free allocation in phase 3.

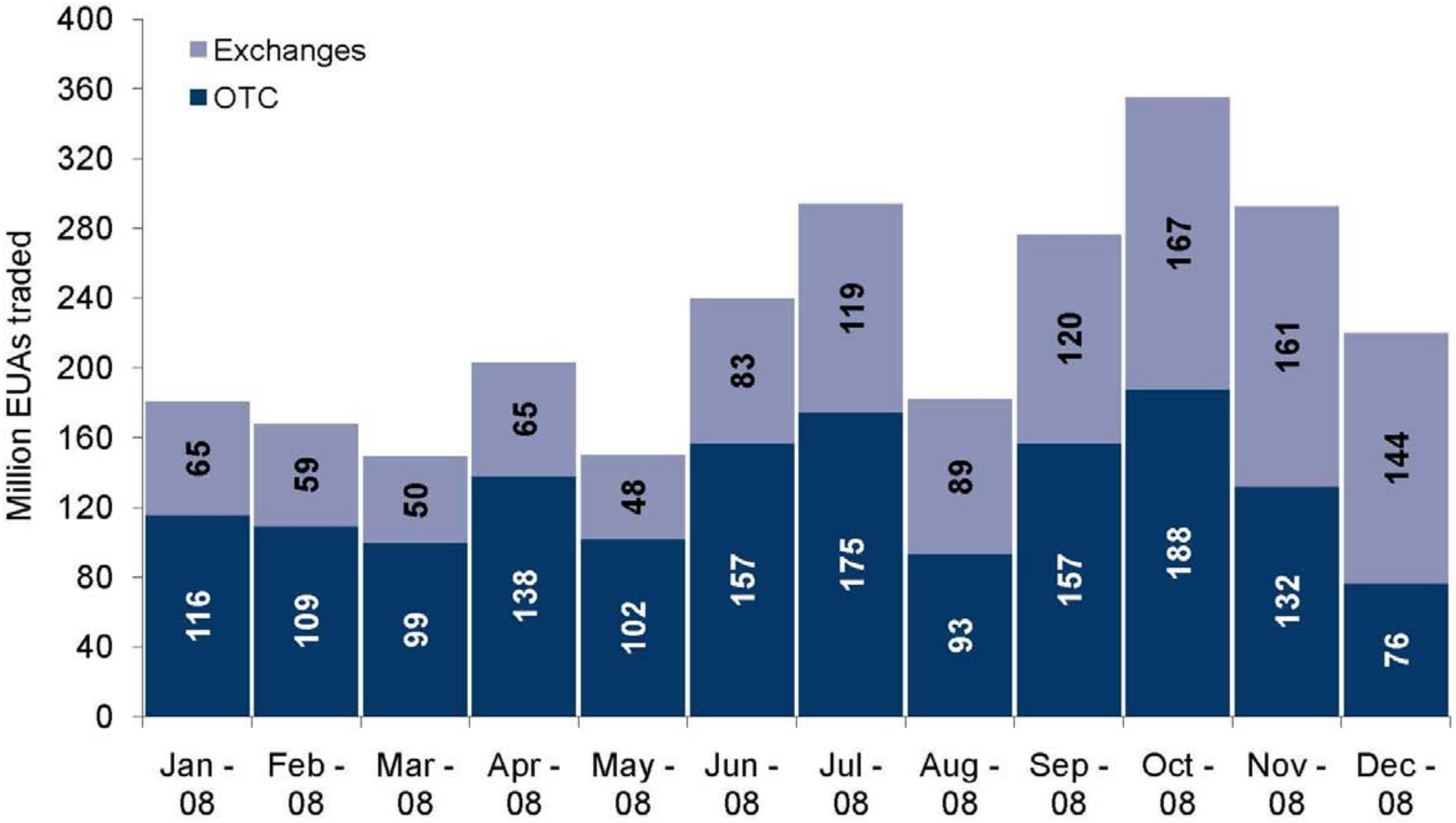
> The aviation sector is included from 2012 (approximately 220 Mt/year), and new sectors (aluminium) and gases (N_2O) add another 100Mt/year from 2013.

Backup

Monthly EUA trade volume, 2008

Volumes in the brokered OTC market and on the exchanges

Source: Point Carbon's Carbon Market Trader



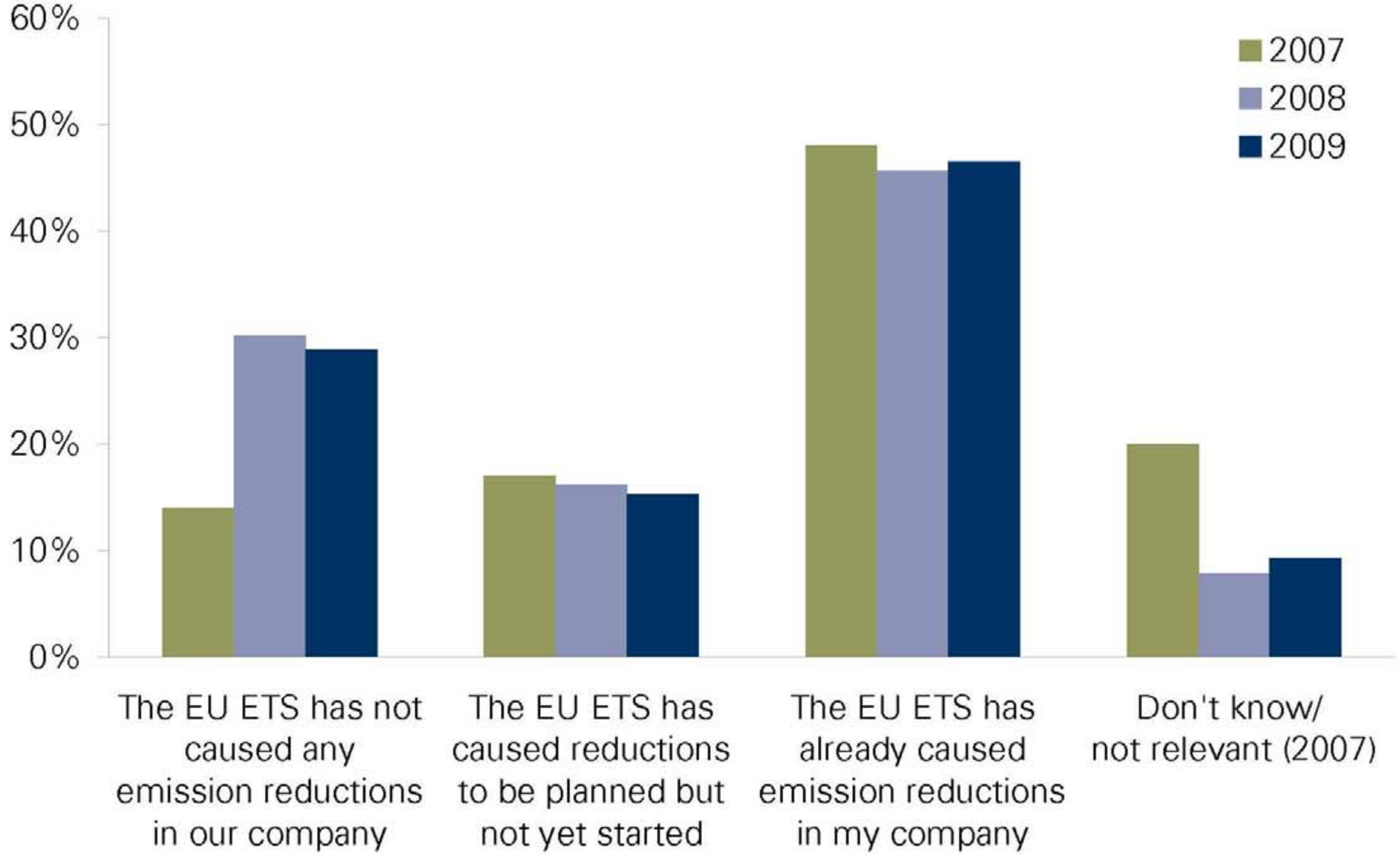
Source: *Carbon 2009*, page 6, 17 March 2009

Backup

EU ETS and internal abatement

Companies covered by EU ETS (2009) or CO2 regulation in general (2007); slightly different wording of questions in 2007. N=353 (2009)

Source: Point Carbon



PointCarbon

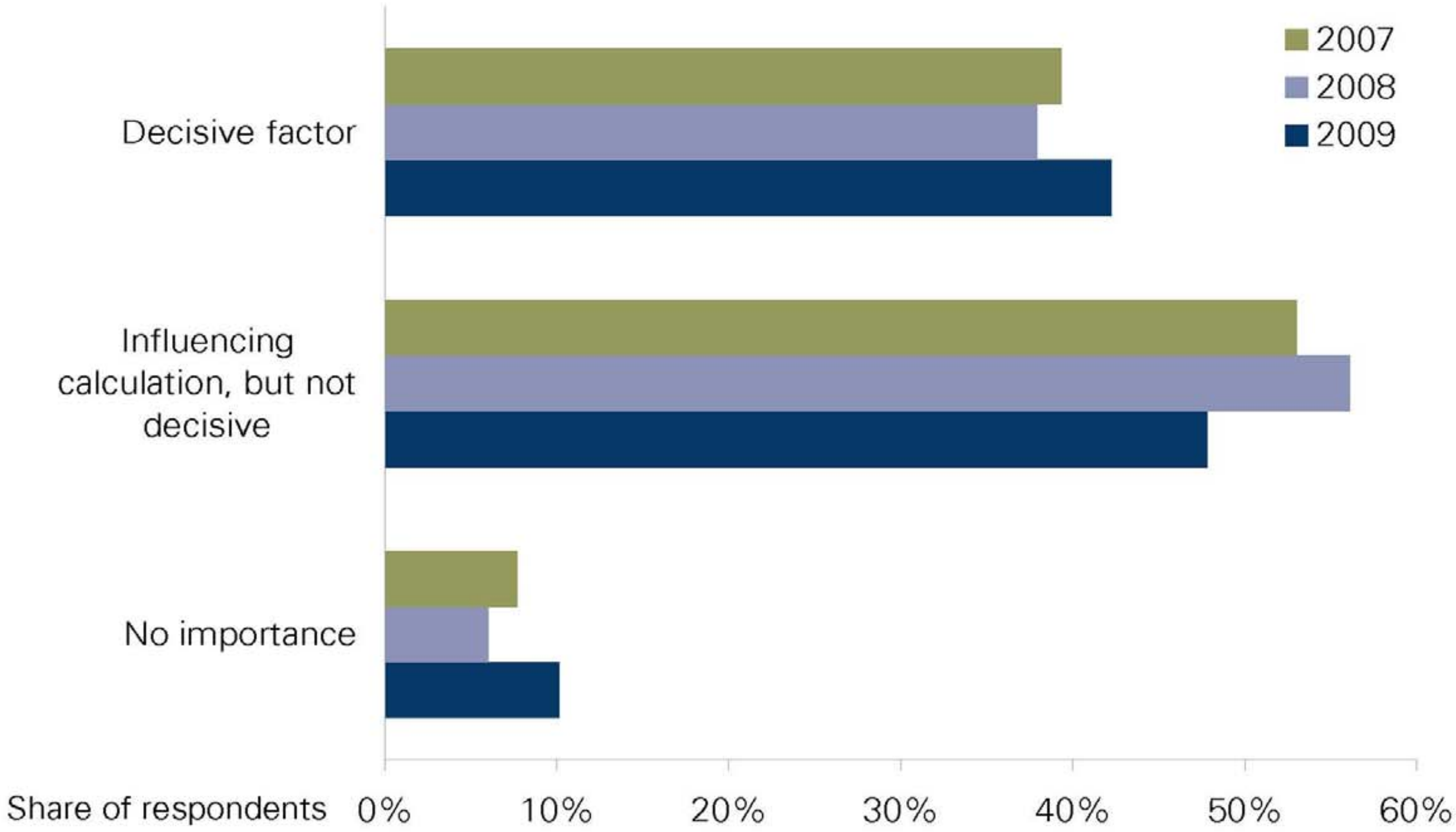
Source: *Carbon 2009*, page 8, 17 March 2009

Backup

The EU ETS and investments at company level

How important is the long-term carbon price (e.g in 2020) for new investments in your industry?

Source: Point Carbon



PointCarbon

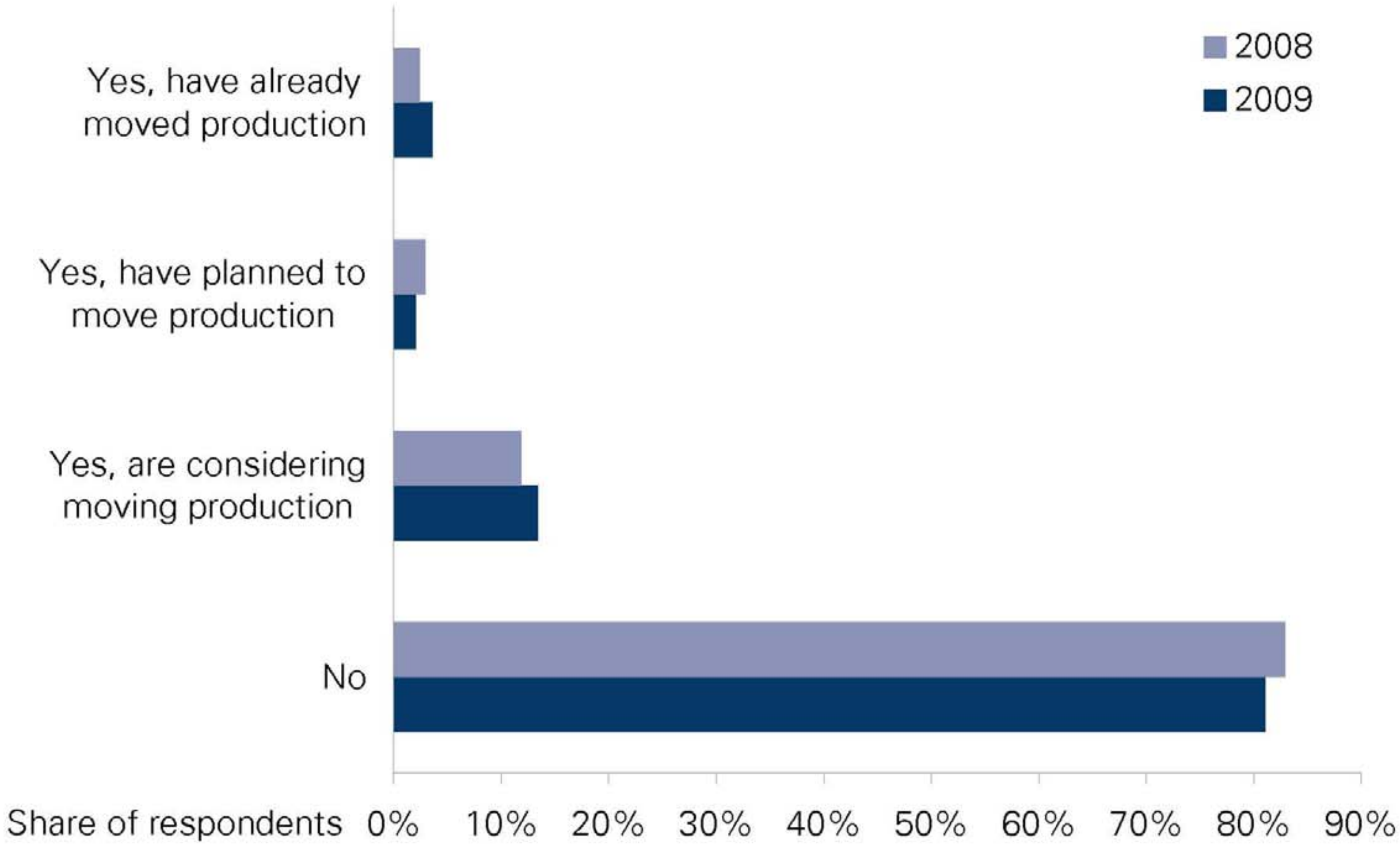
Source: *Carbon 2009*, page 10, 17 March 2009

Backup

Carbon leakage in the EU ETS

All companies covered by the EU ETS. N= 306 (2009)

Source: Point Carbon



PointCarbon

Source: *Carbon 2009*, page 12, 17 March 2009