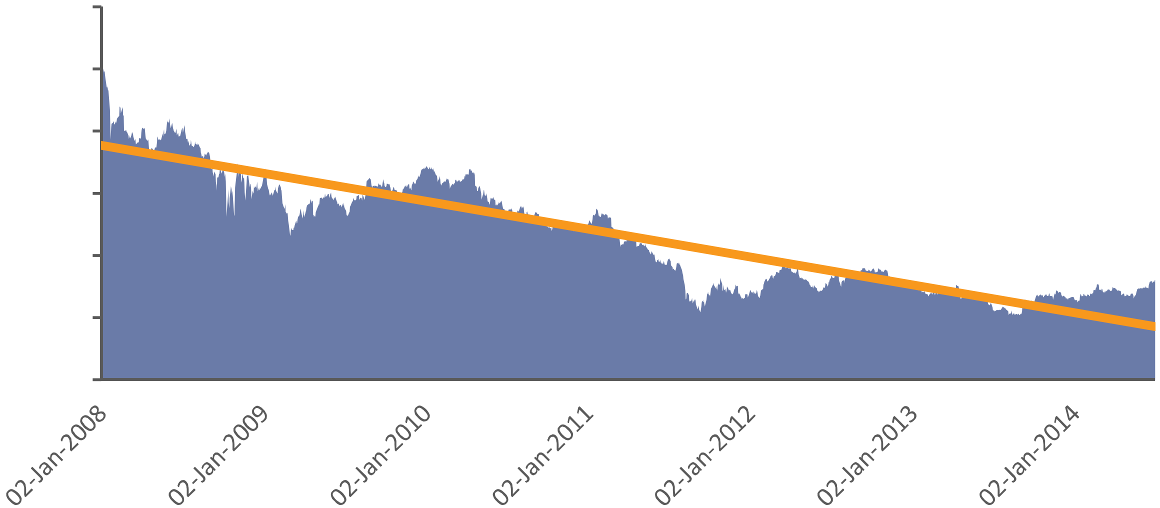
Competitiveness and the EU-ETS

10 July, 2014

European Commission Stakeholder Workshop
Martin Schoenberg

Asset stranding is not limited to the fossil fuel companies

Stock market performance of a major European utility



Two possible courses of action for the energy intensive industry

Defend status quo → Continue less efficient production processes → Government regulation strands assets

Embrace change → Catch up with Asian competitors in terms of efficiency – and overtake them → EU regulation a driver of competitiveness
Emerging regulation in other regions creates new opportunities

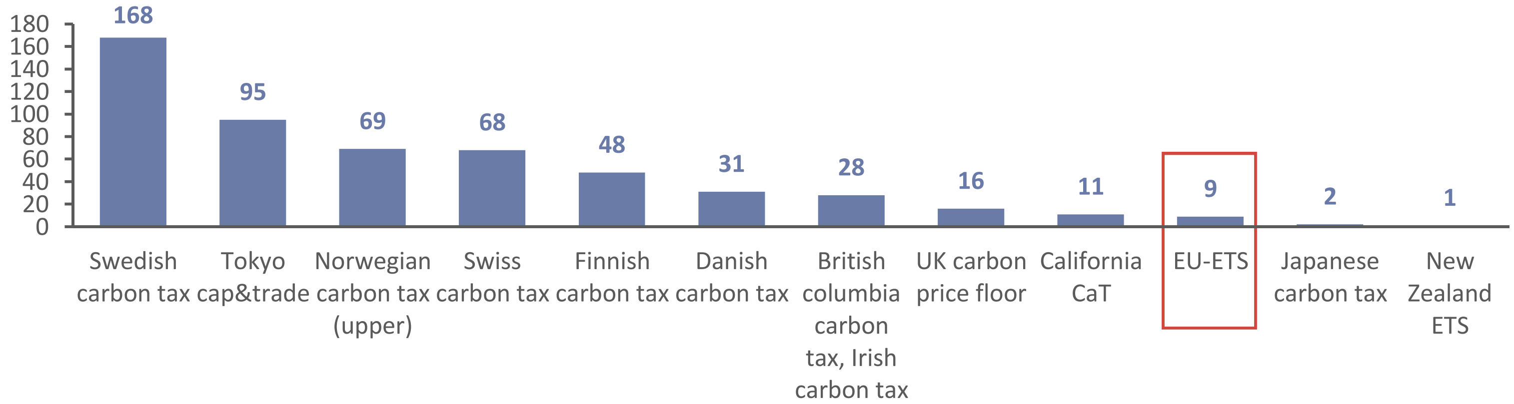
Carbon can only leak if there is a major market it can leak to

Some examples of emerging carbon regulation

Source: World Bank

The EU-ETS price is amongst the lowest in the world

Price of carbon in USD in 2014 (examples)



Number of countries with ETSs

Implemented	**40**
Implementation scheduled	**2**
Under consideration	**8**

Number of countries with carbon taxes

Implemented	**12**
Implementation scheduled	**1**
Under consideration	**2**

Policy-makers have a choice between taxes and trading
If we do not repair the EU-ETS, we may end up with national taxes on a much higher level

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Source: World Bank

Whatever strategy companies choose, carbon pricing supports their competitiveness

Most energy-intensive products are commodities

The low-carbon economy requires new, differentiated products

Cost leadership *Standard offer for a lower cost than the competitors*	**Differentiation** *Upward and downward differentiation*
Economies of scale and size	About process as much as the product offering – efficient processes can differentiate the organisation
Learning effect/economies of learning	Differentiation potential exploited across the value chain, looking to the organisation and its buyers
Innovation and substitution of labour by capital	
Input costs	
Capacity utilisation & residual efficiency	

The organisation with the highest accumulated output, the longest experience and the biggest market share benefits from a significant cost advantage

The higher the experience effect in the industry, the larger the cost advantage of the market leaders

Carbon pricing accelerates the experience effect

The organisation is as profitable as a cost leader

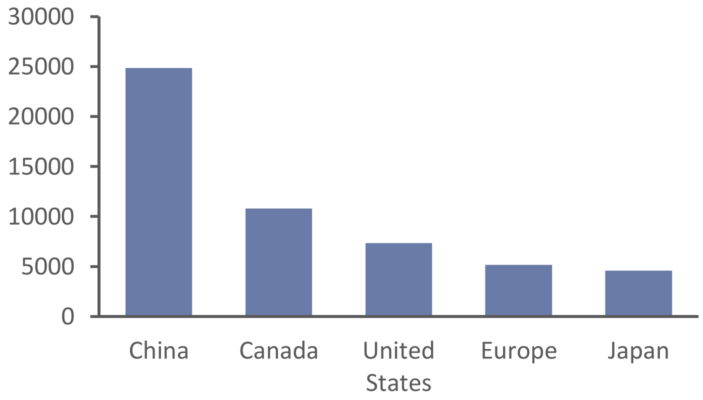
Carbon markets create a reward for efficiency and thus support process excellence

Carbon pricing supports rather than obstructs competitiveness

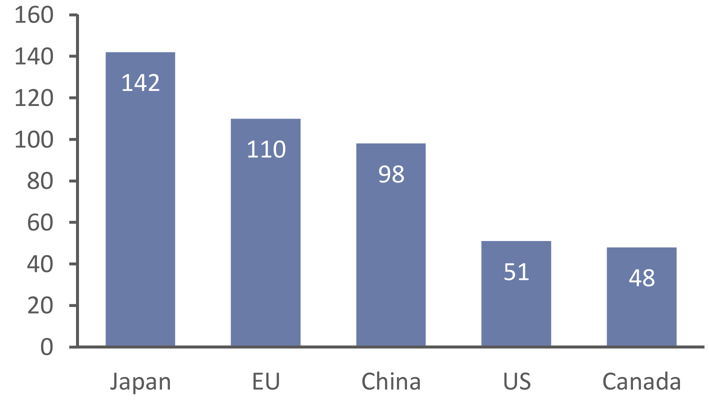
Source: adapted from Hadida & Porter

The price of energy does not determine competitiveness; price differentials are still caused by differences in natural resource endowments

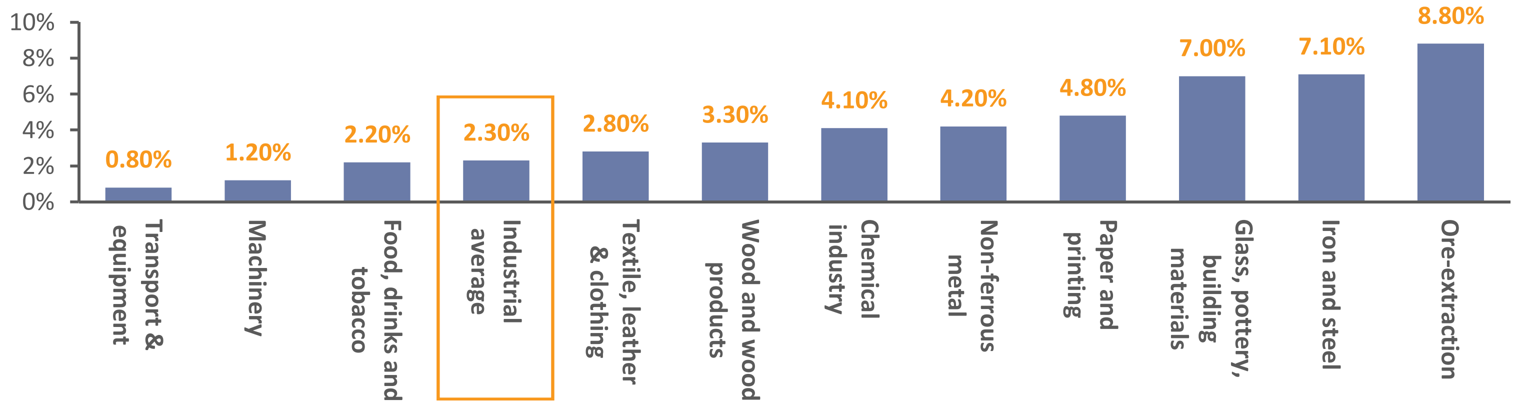
Energy intensity in the major markets in 2011 (BTU per year per USD of GDP)



Retail electricity prices in 2012: industrial consumers



Average industrial energy purchase costs related to the total production costs in 2010 in the EU

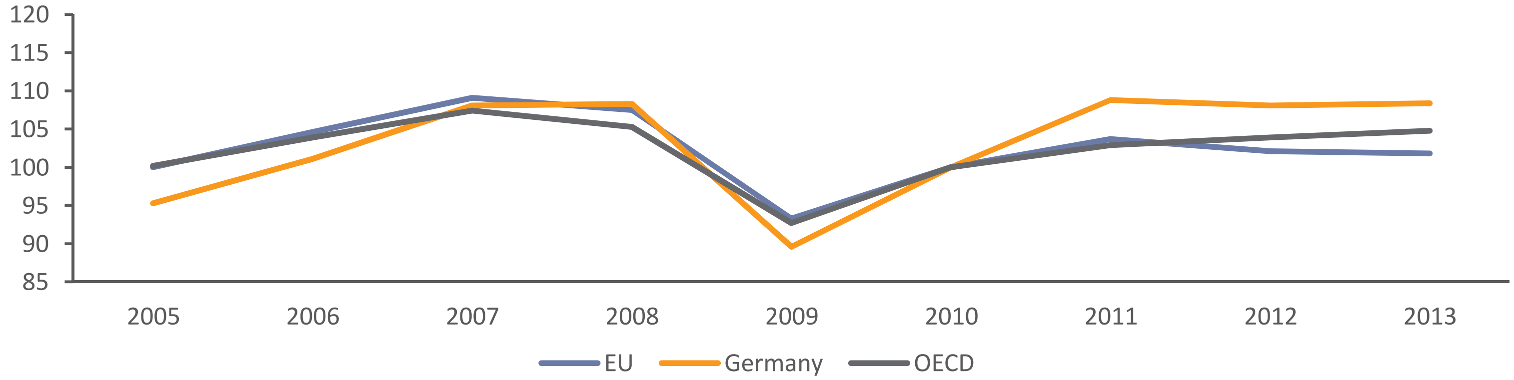


For most industries, the cost of energy is not a major factor

Source: EIA, European Commission

Despite the crisis and “despite” the 2020 climate-energy framework, industrial output in the EU has stayed constant

Level of industrial production



Comments

- The EU level of industrial production recovered quickly from the crisis but has been falling behind the OECD average since then
- With strong renewables support, German industrial output has been increasing faster than the OECD average
- Are energy prices truly to blame for the EU falling behind? UK energy prices are lower than the EU average but the country has been shifting rapidly towards services

Factors determining the competitiveness of countries

Institutions	**Labour market efficiency**
Infrastructure	**Financial market development**
Macroeconomic environment	**Technological readiness**
Health and primary education	**Market size**
Higher education and training	**Business opportunities**
Goods market efficiency	**Innovation**

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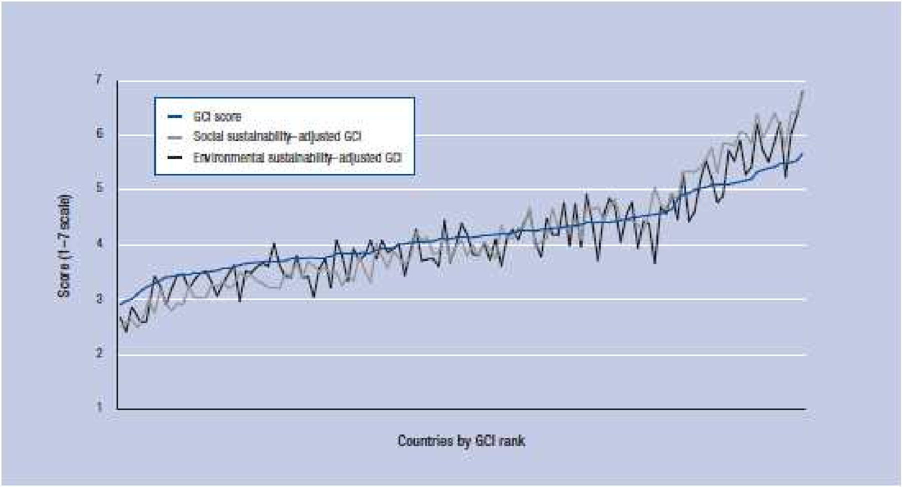
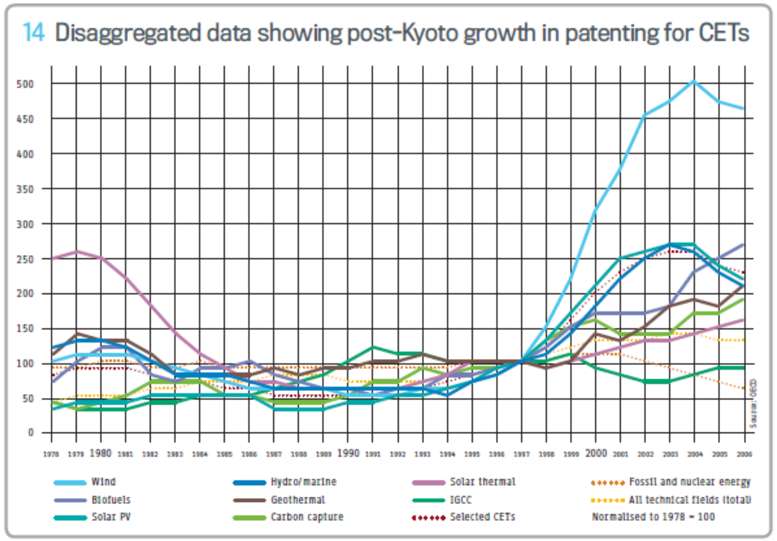
Source: OECD, WEF

Competitiveness rankings show that environmental and social criteria go hand in hand with overall country competitiveness; the Kyoto Protocol sparked major jumps in innovation

GCI score, social sustainability-adjusted GCI, environmental sustainability-adjusted GCI



Post-Kyoto growth in patenting for clean energy technologies (CETs)



- The Kyoto Protocol and its implementation in the EU sparked a shift in R&D activity from fossil to clean technologies and a large boom in CET patenting activity

Source: WEF, EPO

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Competitiveness is a whole-of-the-economy issue

Key messages

- Emissions trading has had a positive impact on competitiveness in many cases …
- … and the ETS has to be repaired before 2021
- As investors, we look at the competitiveness of the whole economy
  - If the world economy suffers from increased climate change impacts, our investments will suffer and so will the citizens that have provided the money to us
  - The impacts of climate change will have to be paid for by somebody, which is often the government
- The threat of carbon leakage is constantly reducing due to measures in other jurisdictions
- However, if there is a threat of relocation, we support some limited exemptions – but only for companies really at risk of international competition
- The number of companies and sub-sectors at risk is small, but very vocal
- To stay in business in the long-term, energy intensive industries should accelerate their transition

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Climate Change Capital™

CCC Registered Head Office
3 More London Riverside
London
SE1 2AQ
United Kingdom

Tel: +44 (0)20 7939 5000
www.climatechangecapital.com