



Climate change, trade and competitiveness – A European perspective

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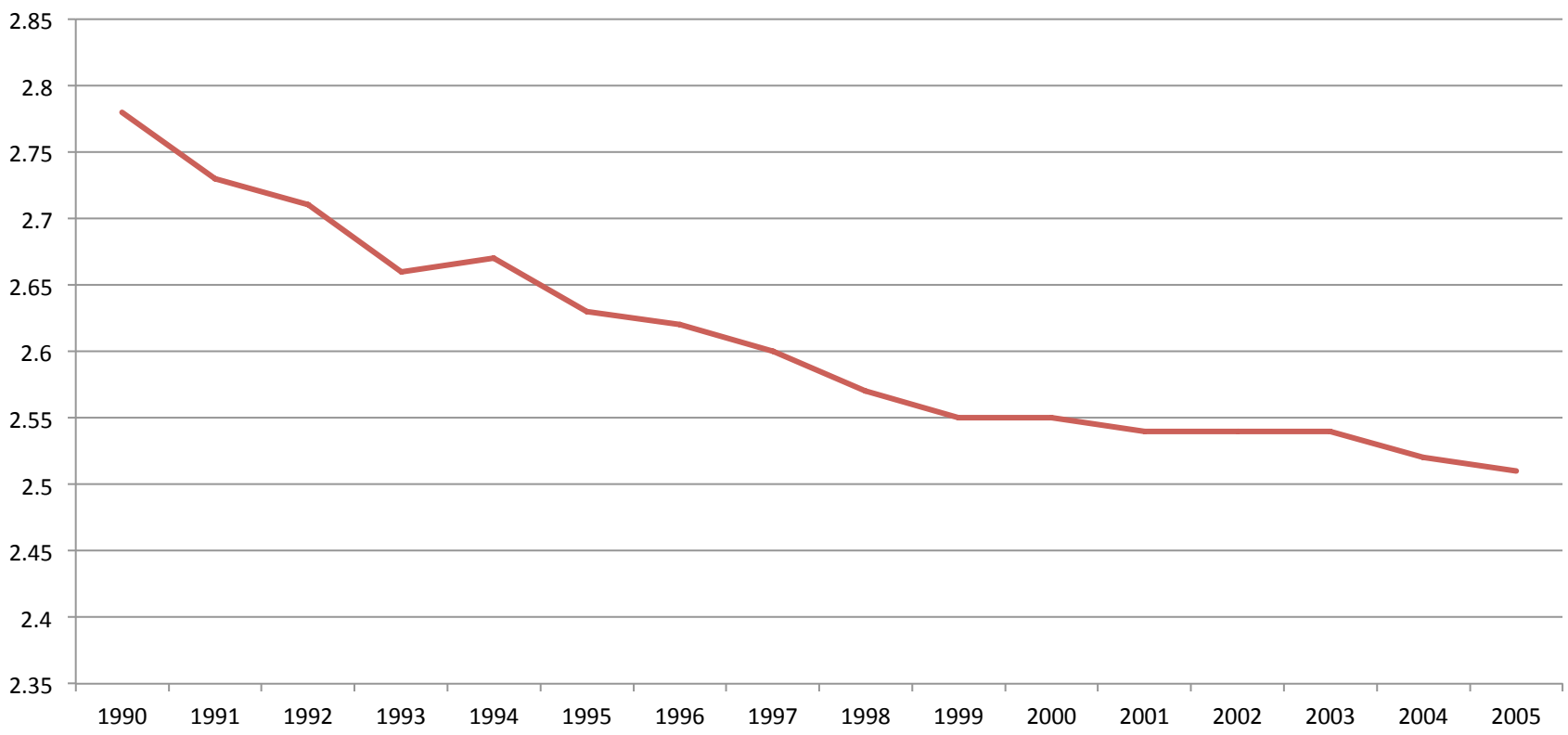


Proposition 1

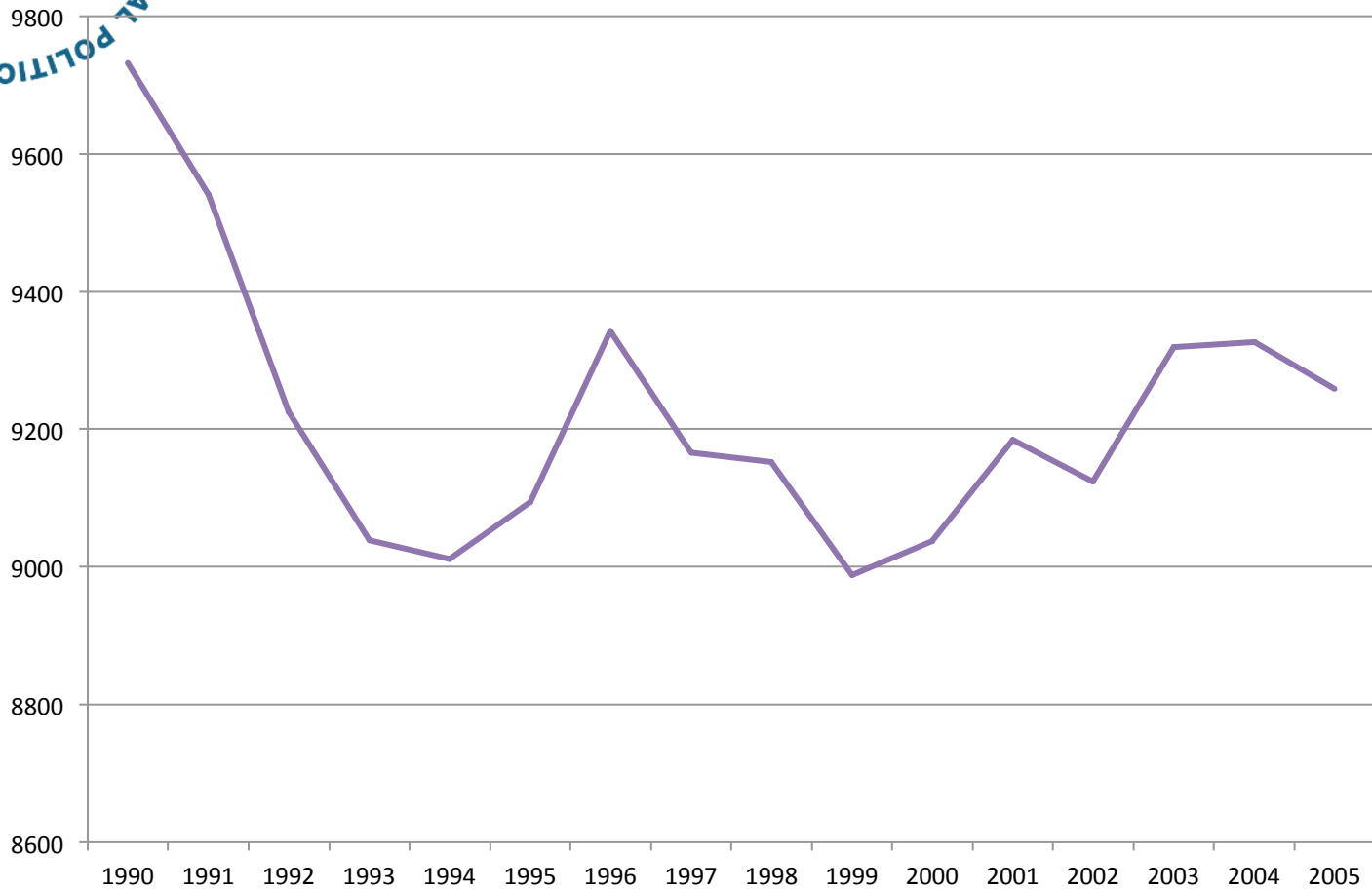
Europe wants to lead on carbon-emission reduction, but is making slow progress at home.



Carbon intensity (tonne CO₂/toe)

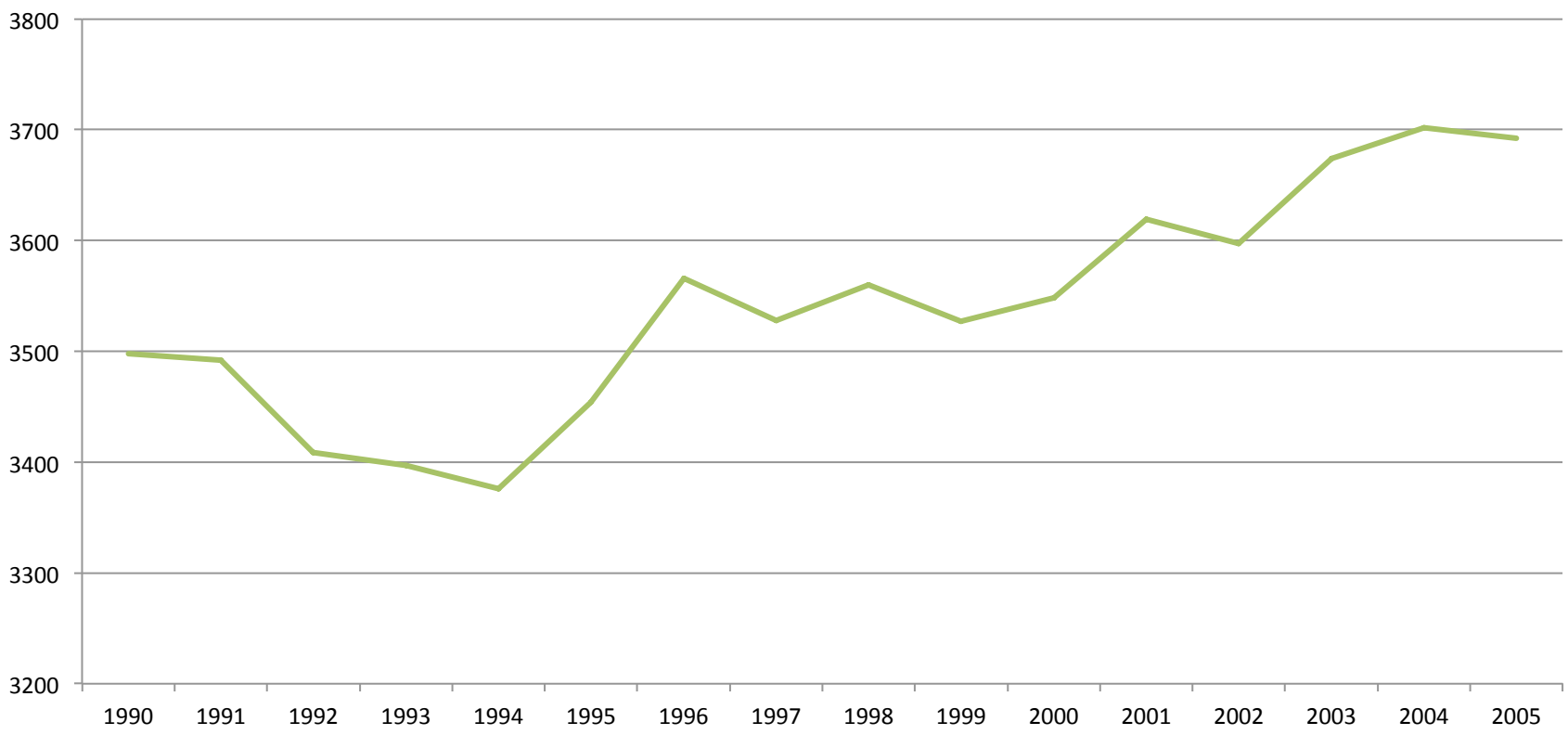


CO2 emissions/capita (kg/inh)

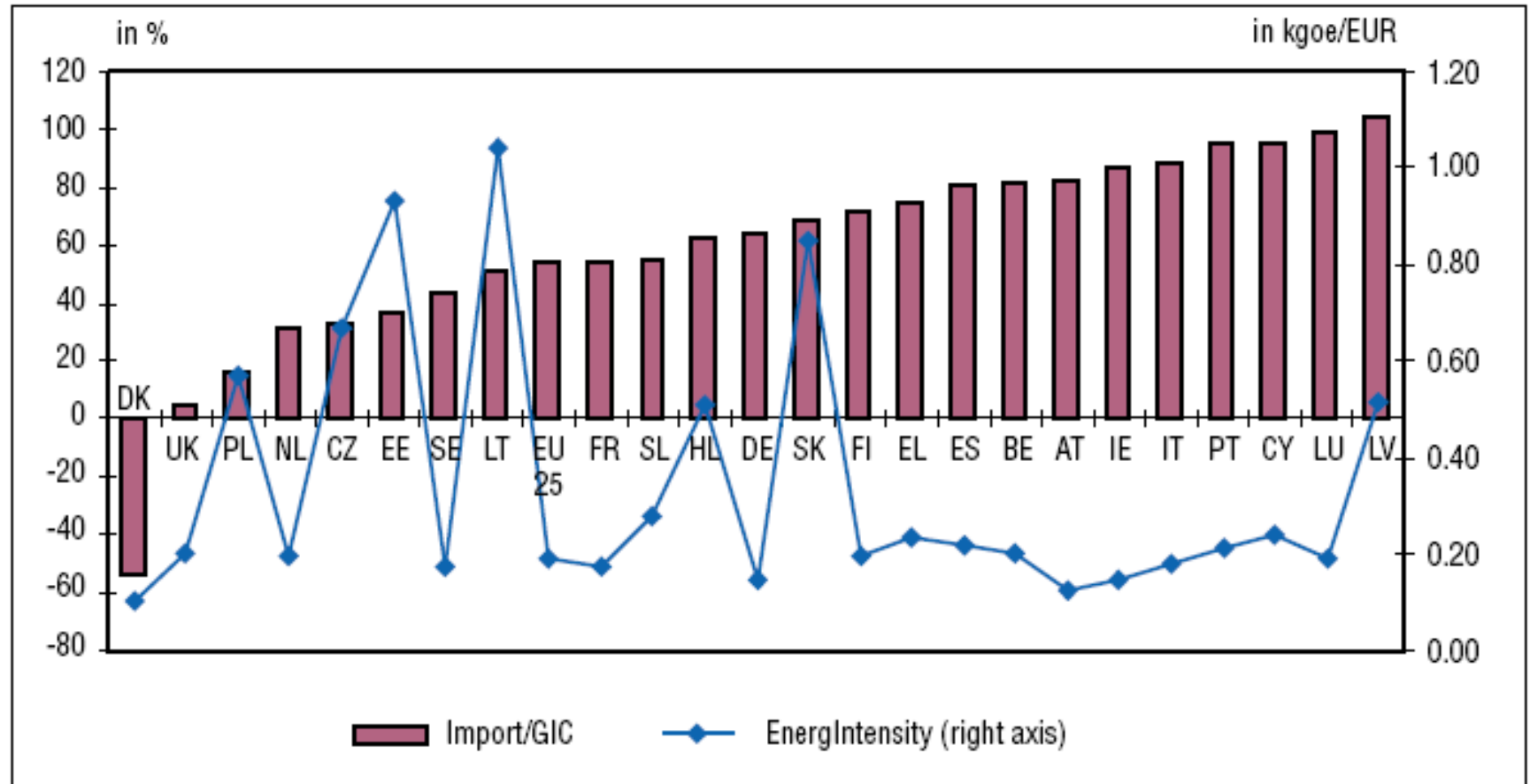




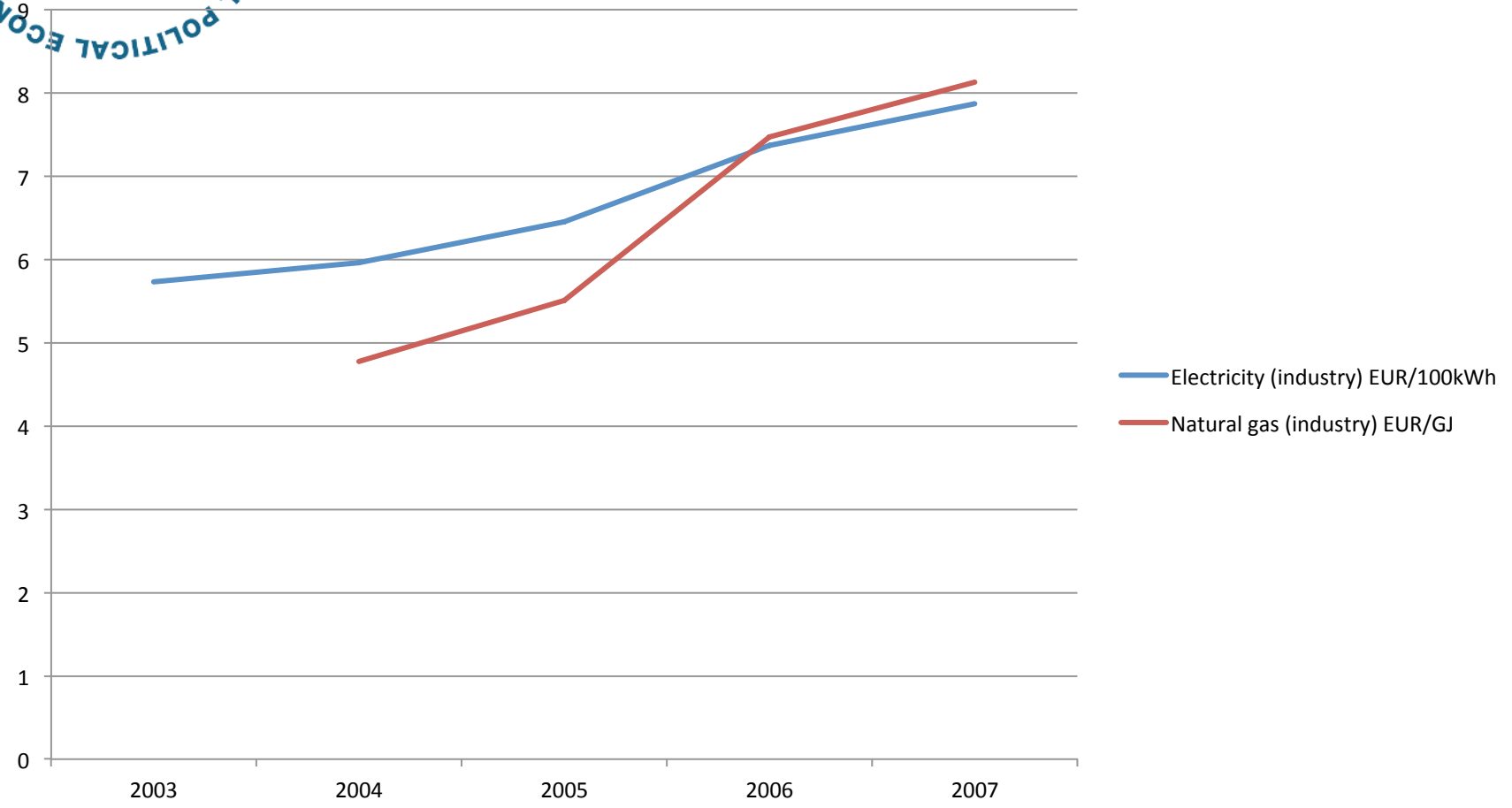
GIC per Capita (kgoe/inh)



Import intensity and energy intensity (2006)



Energy prices for industry

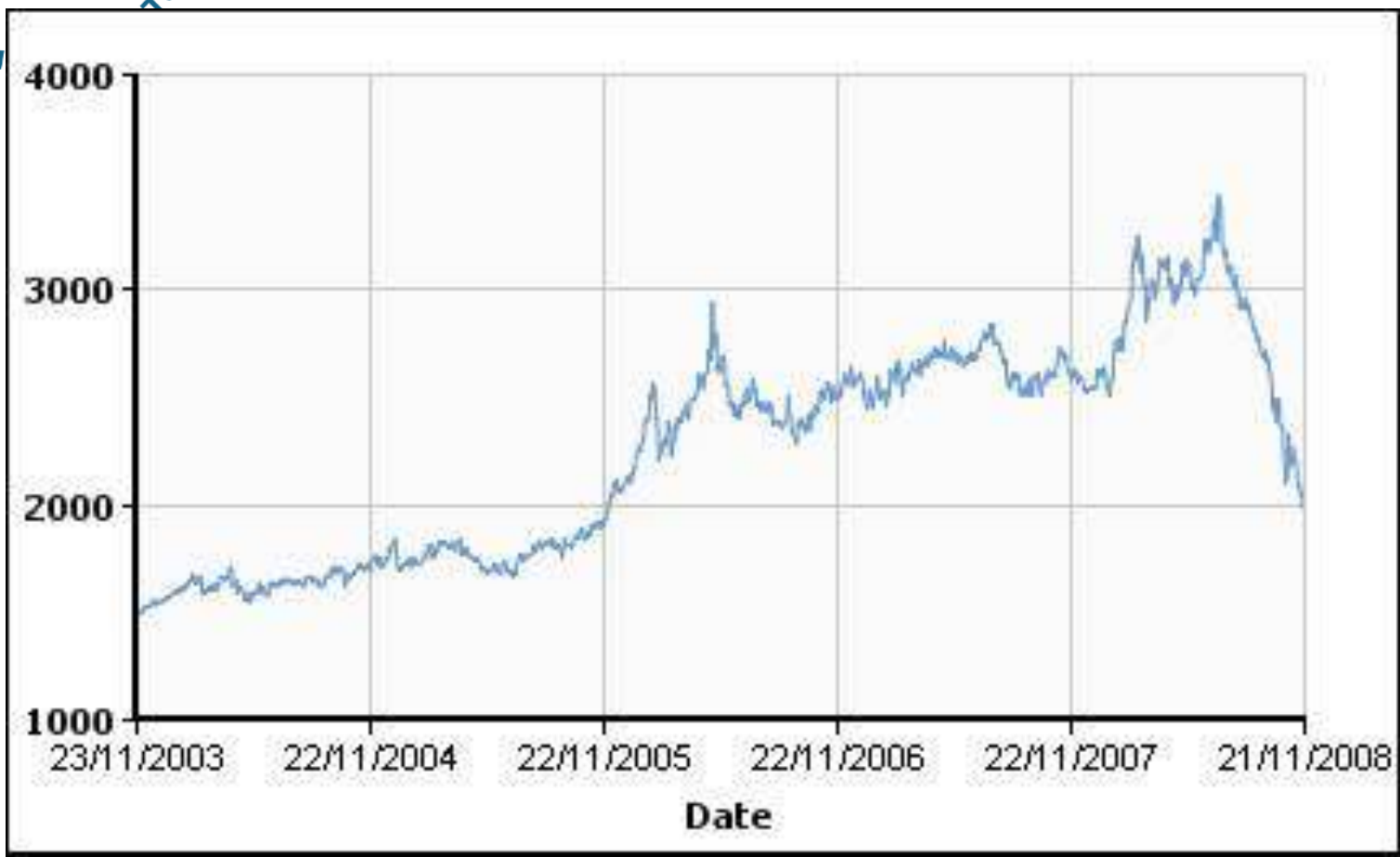




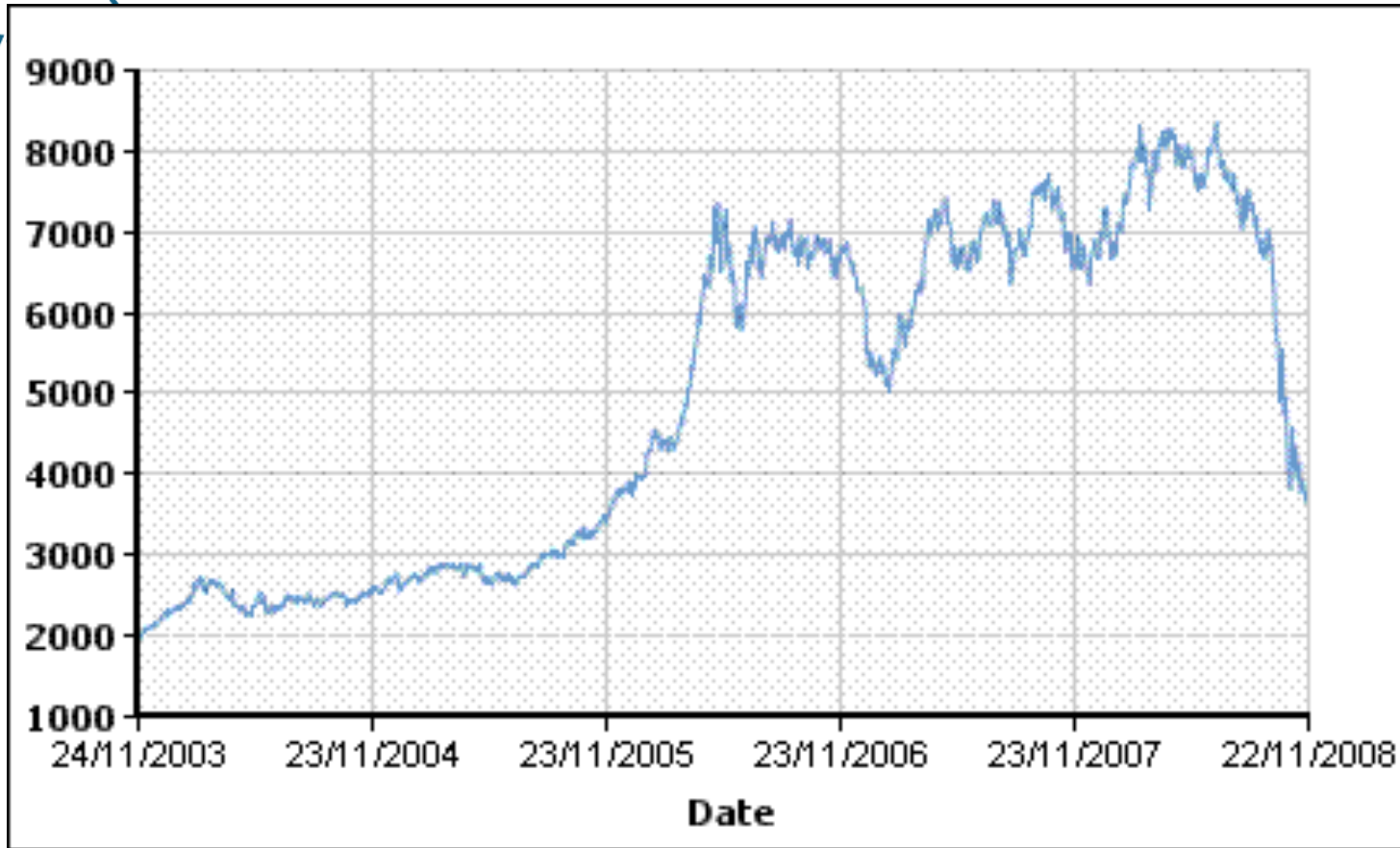
Proposition 2

Falling prices for raw materials helps ambitions to lower carbon emissions as sectors buying emission allowances are raw-material intensive. But the effect is temporary.

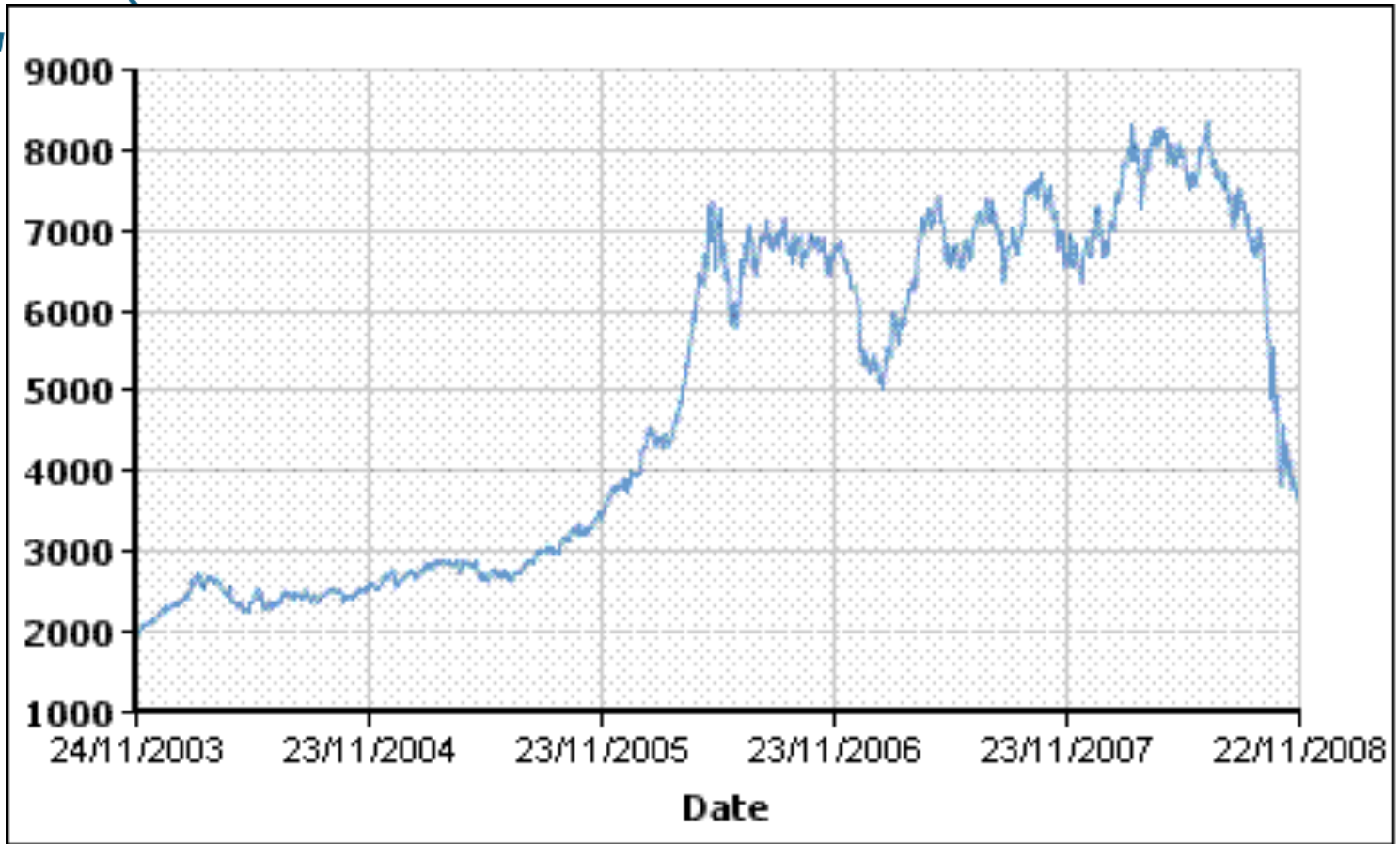
Aluminium price, 15-months buyer. London Metal Exchange



Copper (grade A), 15-months buyer, London Metal Exchange



Tin price, 15-months buyer, London Metal Exchange





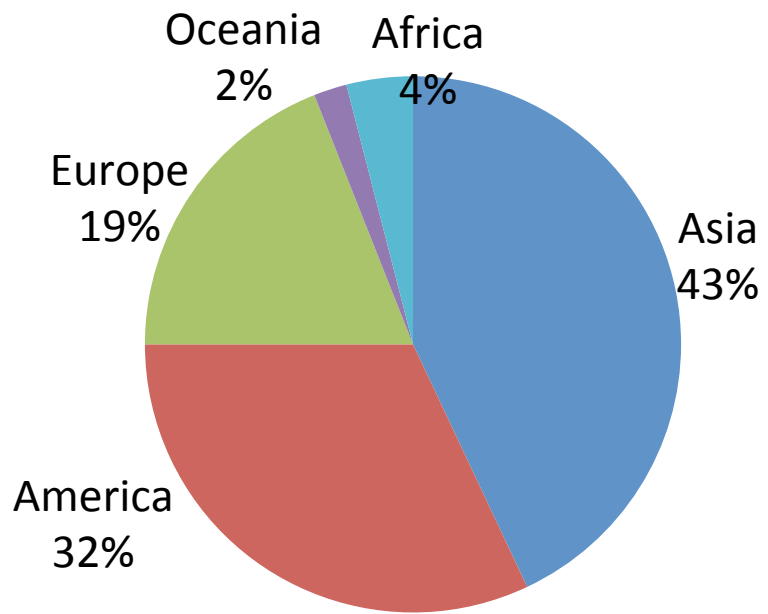
Proposition 3

There will be strong pushes for carbon-based trade measures, but some of the costs will “temper passions”.

A. Access to raw materials

World copper production 2007

Source: WBMS





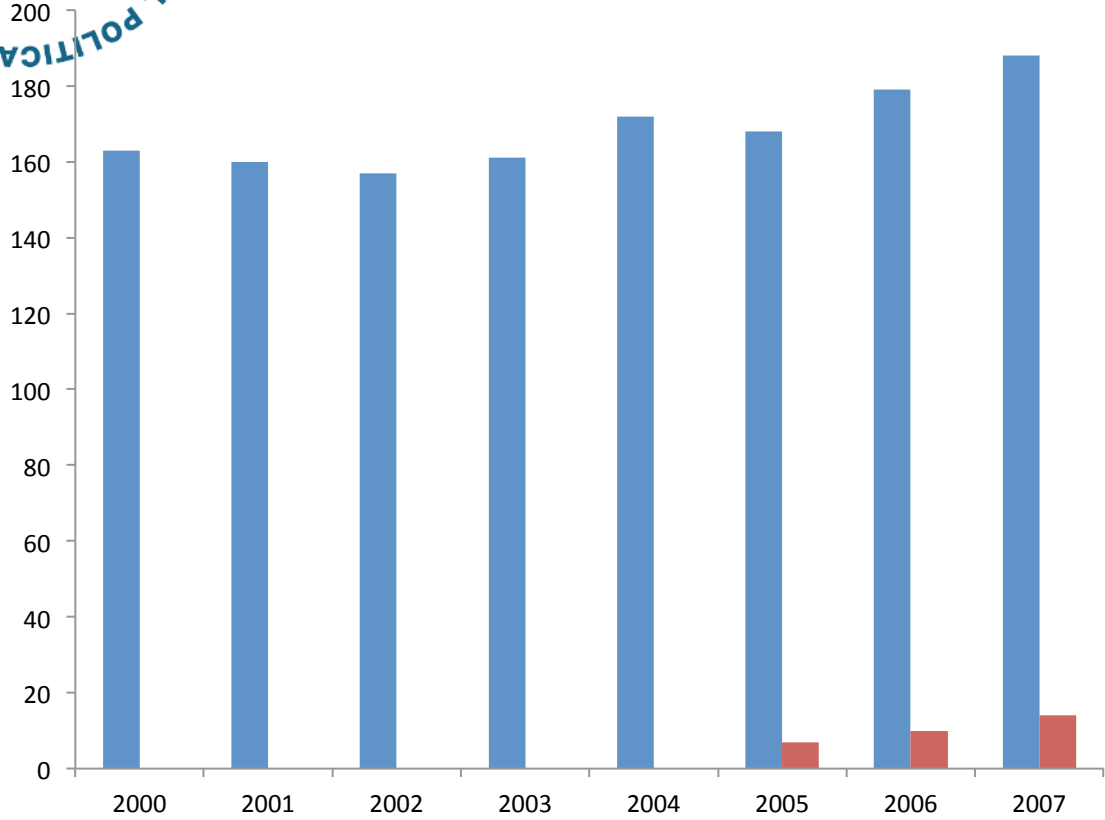
World steel consumption and production

- China's crude steel consumption doubled in the last five years and represents 34 percent of world consumption.
- US and EU steel consumption on gradual but slow growth path.
- China represented 2/3 of increasing in global steel production 2001-2006 – from 18 to 36 % of world steel output.
- US, EU and Japan increase output, but at slow rate



EU-27 apparent steel use and import from China

Source: Eurostat and IISI



- Apparent steel use
- Imp from China



EU policy on raw materials

- Zero tariffs on raw materials
- Increase in production and consumption in Asia – esp. China and India
- EU wants better market access to raw materials from Asia and emerging markets
- Complains about export taxes on raw materials, e.g. in China
- Raw material vs manufacture of input goods made of raw material



B. Unlikely to affect others choices

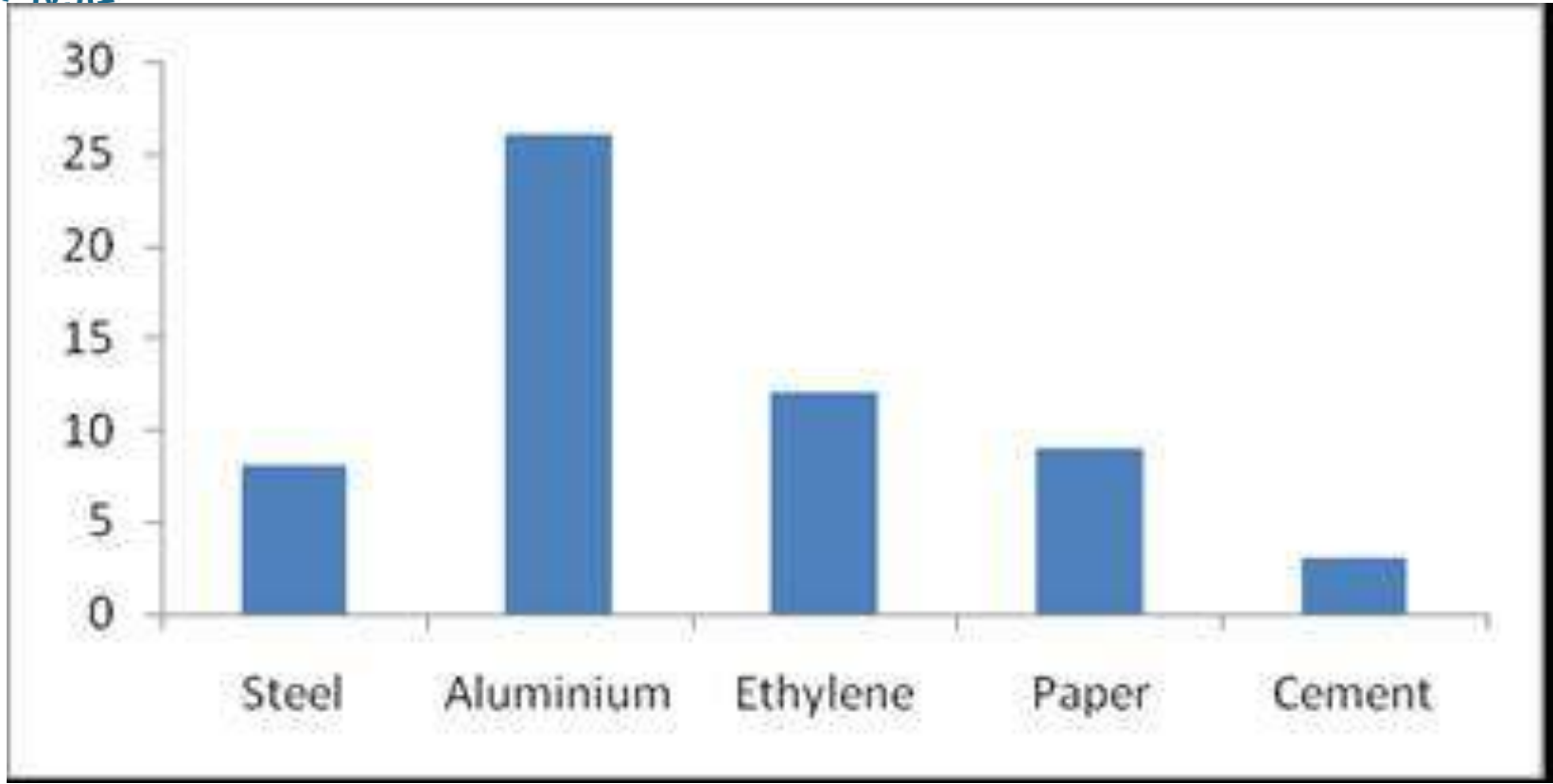
- Tariffs have the potential to affect the output in the rest of the world only in a market *for a good in which the imports of a country are a substantial fraction of output in the rest of the world.*
- WTO legality, "like products", if adjusted to firm-level behaviour?

Share of EU-15 in sectoral exports

	Korea	Turkey	United States	China
Pulp and paper	2.14%	16.71%	16.97%	4.14%
Lime and cement	0.31%	28.37%	3.96%	15.00%
Iron and steel	3.40%	31.09%	7.70%	9.99%
Manufactures of metal	9.42%	36.98%	14.50%	22.06%
Chemicals	4.15%	29.47%	30.25%	16.91%
Glass	3.37%	45.49%	17.20%	9.54%
Aluminum	0.28%	51.96%	7.40%	2.02%

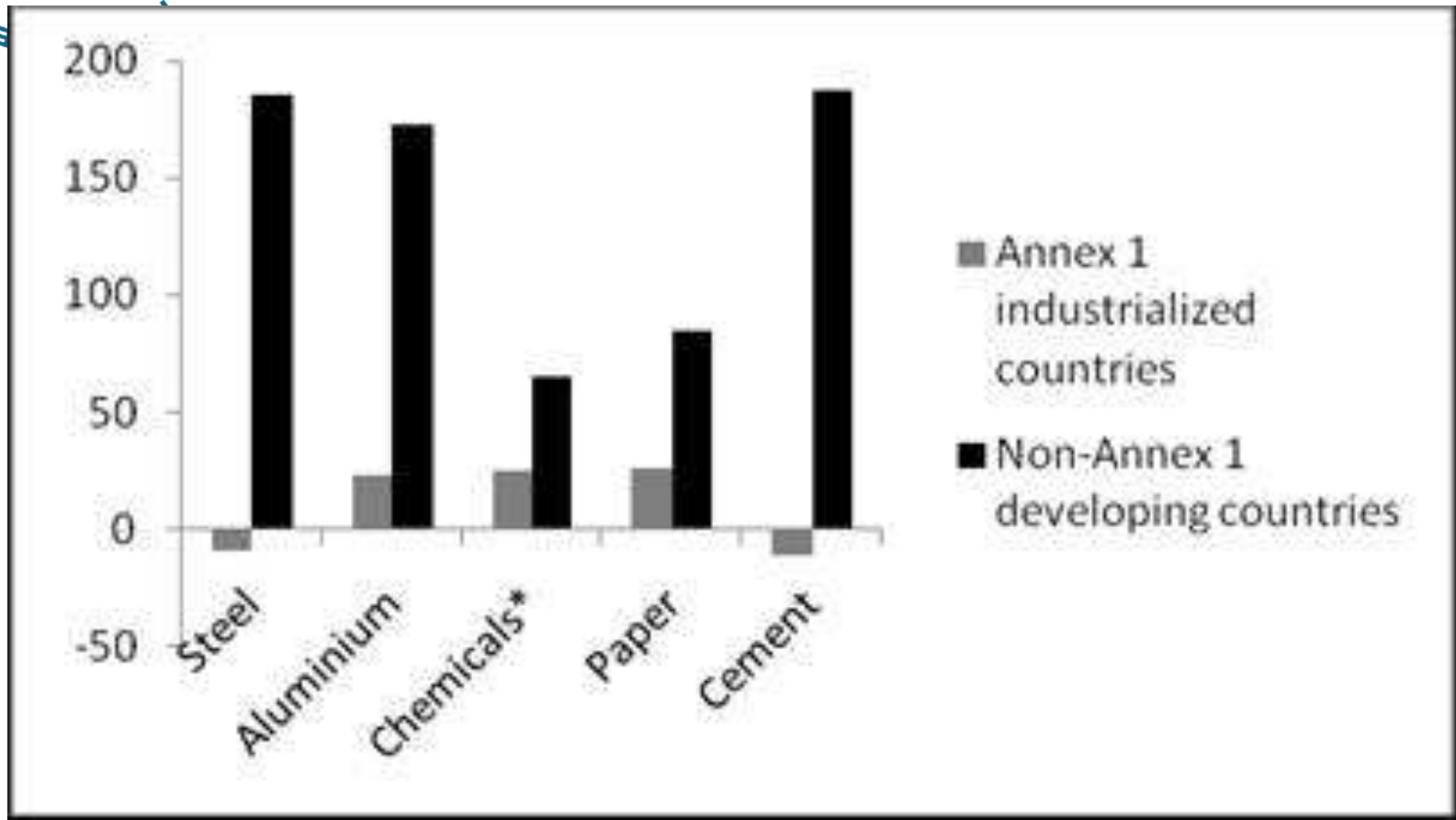
Chinese exp as share of production

Source: Houser et al (2008)

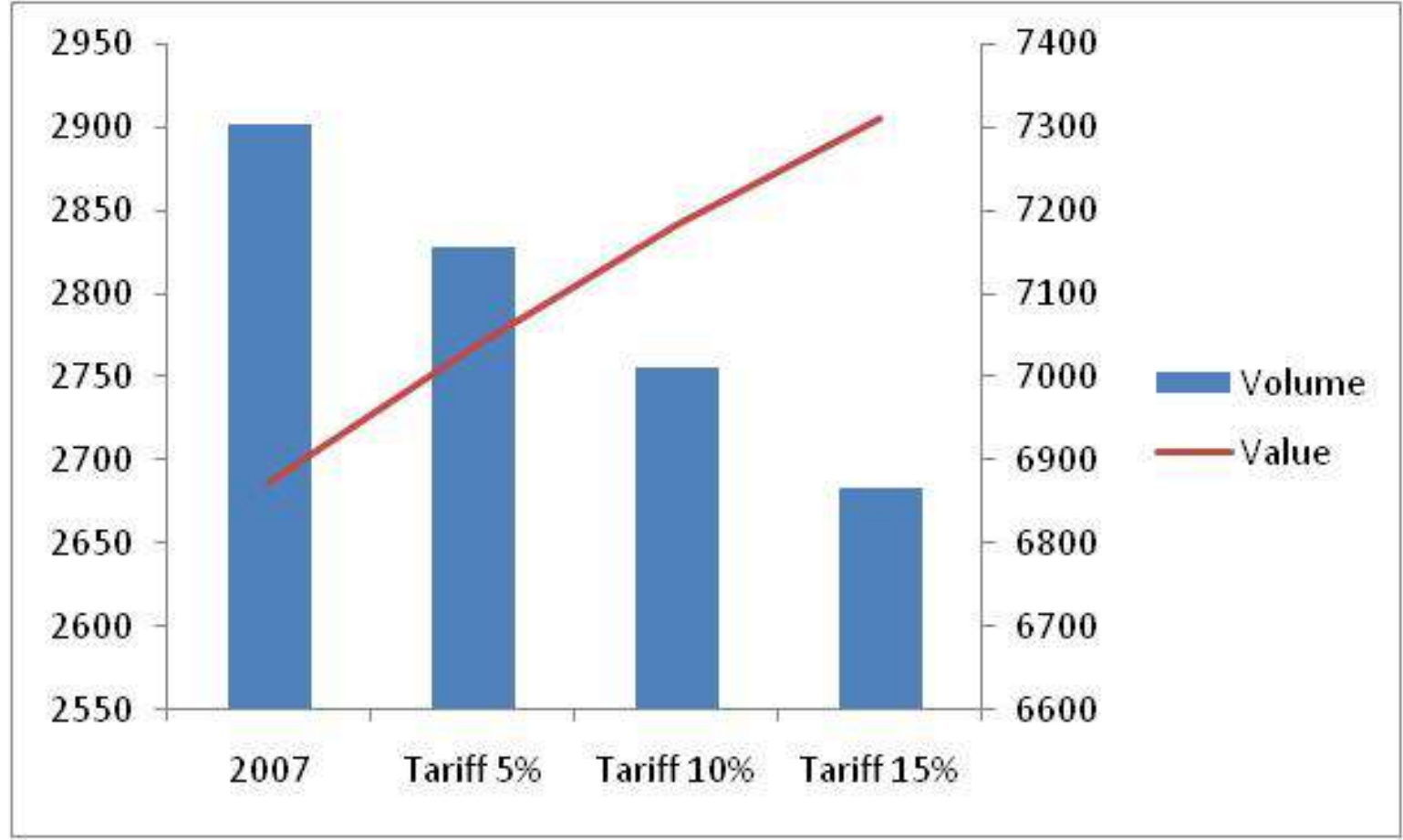


Demand growth by country grouping 1991-2005 (%)

Source: House et al (2008)



C. Costly (aluminium)





Costs and benefits

- Production methodology/power
 - Raw material a targeted sector but EU wants to have better and cheaper access to raw materials
 - Demands from uncompetitive sectors – finished goods
- Transport
 - Input import industry/fragmented supply chains
- Who would benefit?