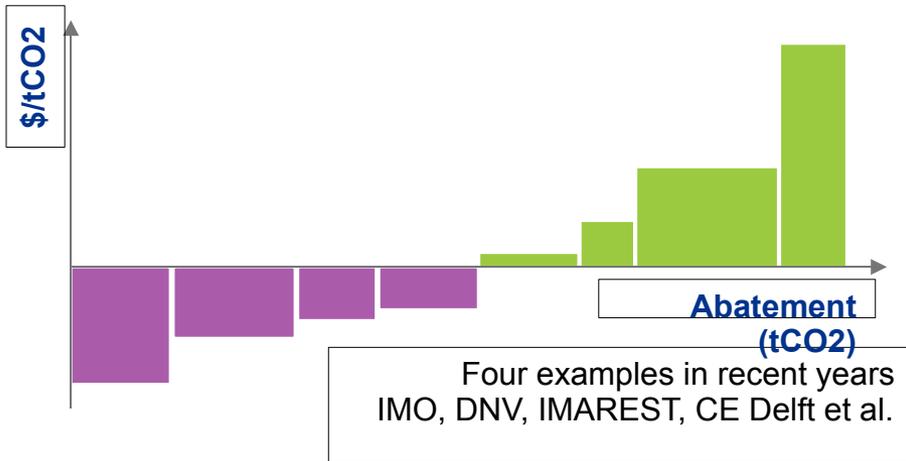


Addressing the barriers to low carbon shipping

13th October 2011 style





- In the last few years, there have been four reports on the potential for cost-effective carbon savings
- All four reports conclude that there is a large cost-effective abatement potential
- Abatement potentials are about 400 Mt CO₂ by 2030 or about the size of Australia's current CO₂ emissions. This represents c. \$75bn (25%) saving in fuel bills

Reasons why this might be overstated

- Underestimated operational costs
- Technical barriers
- Interaction between measures

Reasons why this might be understated

- Technology will become more effective and less expensive over time
- Fuel prices rises

...Shipping is a sophisticated industry. If these kind of savings were readily available, they would be taken up very quickly. The very fact that these potential saving are not being realised is a clear confirmation that barriers to investment are real and significant

- Impact of freight rates cycle on investment strategies
- Asset lock-in of current shipping stock
- Transaction cost economics
- Short investment horizons
- Availability of financing
- Attitudes to risk

- Low confidence in new
- Technical barriers to MRV
- Uncertainty of energy prices
- Valuation of energy efficient ships
- Lack of willingness to share information on new technologies with competitors

- Wide diversity of opinion

- Increasing complexity of legislation

- Lack of consistency across regions

- Adverse unforeseen impacts of legislation

- Competition rules

- Split incentives

- Restrictions of current charter contracts

- Shipyard capacity

- Delivery time pressures

- Complexity of industry stakeholder map

- Shipyard preference for standard ship designs

Current Examples

Future Possibilities

Regulatory

- EEDI
- SEEMP

- Carbon pricing
- Keep an eye on aviation

Economic

- Life cycle costing
- Customer demands
- Speed reductions

- Recycling of carbon revenues into the shipping sector
- Establish an accepted mechanism for pricing the value of a more sustainable ship

Information

- Shipefficiency.org is a first attempt
- IMO 2nd GHG study

- Technology discounts for sharing sea trials information / information networks

Structural

- Virtual arrival
- Reduced harbour fees

- Favourable financing for sustainable vessels

Thank you for listening

Oliver Pereira

**Shipping team, Climate Change &
Sustainability**

KPMG LLP

Email: oliver.pereira@kpmg.co.uk