Carbon Pricing: Where to from here?

How can public opposition be overcome?
The Challenge

- 12 billion tonne gap
- Escalating emissions
- 5% change of <2 degC
- Modelled range 2-4.9 degC, median 3.2 degC
- Context: at 6 degC Earth => Venus?

"The Vanishing Face of Gaia"
– James Lovelock

The Great Grandfather

- 1997 announcement to reduce 10% below 1990 levels by 2010
- Launch 1999, 12 major business units
- Real emissions, fake money, real reward
- March 2002 announcement:
  - 10% reduction achieved 7 years ahead of plan
  - $650m in new shareholder value
  - Average price ~$40/t CO2

"There is mounting evidence that greenhouse gas emissions exert an influence on the Earth’s climate"

– John Browne, 1997
**European ETS**

- Core pillar of EU climate policy
- 43% below 2005 levels by 2030, 1.82bn cap in 2020
- ‘10% reduction 2005-2012, no impact on competitiveness’
- Erosion of impact through overlapping policies leads to allowance oversupply, depressed prices and policy intervention:
  - Renewable Energy Directive
  - Fuel Quality Directive – Upstream Emissions Reductions \( \sim £200/tCO2 \)
  - ‘Reduction in 700mt demand’
  - Backloading/Market Stability Reserve

“[Our] main recommendation is to avoid overlap as a matter of principle as it inhibits the market effectiveness of the EU ETS”
- International Emissions Trading Association

Source: OECD Economics Department Working Paper 1515
California Cap and Trade

- 40% below 1990 levels by 2030
- 334m cap in 2020
- $6.5bn state revenue in 2017

CaT is ‘back-stop’ to quilt of overlapping policies:
- Renewable Portfolio Standard
- Energy efficiency Programs
- Low Carbon Fuel Standard (~$200/tCO2)

“the best designed program in the world”
– Dallas Burtraw, Resources for the Future

“the real threat to the program is we get to a high price level and have apolitical crisis”
- Severin Borenstein, Prof Haas Business School

Source: California Air Resources Board (CARB)
**Corporates Internal Carbon Pricing**

- 1,400 companies, $7Tn annual revenue
- 150 companies in 2014
- Higher price than regulated markets

**What objective?**
- Identify opportunity
- Pre-empt policy
- Risk stress testing
- Satisfy investor pressure

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**Energy**

<table>
<thead>
<tr>
<th>Company</th>
<th>Country</th>
<th>Price (US$)</th>
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<tr>
<td>OMV AG</td>
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<td>Neste Oyj</td>
<td>Finland</td>
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<tr>
<td>Total</td>
<td>France</td>
<td>30.00–40.00</td>
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<td>MOL Nyrt.</td>
<td>Hungary</td>
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<td>Royal Dutch Shell</td>
<td>Netherlands</td>
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<td>Vopak</td>
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<td>Aker BP ASA</td>
<td>Norway</td>
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<td>Tullow Oil</td>
<td>United Kingdom</td>
<td>40.00</td>
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</tbody>
</table>

**Source:** Carbon Disclosure Project (CDP), 2017

“it’s not just the price, its how you use”
- Albzeta Klein, Director IFC
The ‘Real’ Challenge

- Companies are designed to optimise profits
- Science has the burden of proof
- Rational man is not rational society
- Democracy moves to social media mentality

How can public opposition be overcome?

“Losing Earth: The decade we almost stopped climate change”
– Nathaniel Rich, NY Times

Thank you for your time!

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