

## After the 2015 Paris Agreement : Progresses and perils

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Gollier, C., and J. Tirole, (2015), Negotiating effective institutions against climate change, *Economics of Energy and Environmental Policy*, Vol 4, n°2.

# A complex tragedy of commons

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- Most benefits of mitigation are global, distant and uncertain, while costs are local, immediate and certain.
  - 100% of cost of green policy; 1% of the benefits.
  - National interests always dominate (Brexit).
- A country which would contemplate a unilateral mitigation strategy would be discouraged by the presence of the so-called "carbon leakages".
  - Zero net global benefits; lost employment and revenues.
- Mitigation is a threat to the oil rent, and its owners should be expected to react to it.
  - As long as fossil fuels are the cheapest source of energy, someone is going to burn them.
- Climate policy is also used to fight inequalities.
  - Multiple objectives; conflicting interests, definition of common but differentiated responsibilities?

# A uniform carbon pricing is necessary

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- Surprisingly a hot issue!
  - Economics 101.
  - Polluter pays principle.
- Universal price: Simple, transparent and efficient.
- Least-cost approach.
- Require strong political will:
  - At national level:  $\text{cost} > \text{benefit}$ ;
  - At world level:  $\text{benefit} \gg \text{cost}$ .
  - Costs are for current voters; benefits are for future generations (who do not vote).

# Social cost of carbon

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- The best estimate of the PV of future damages generated by 1tCO<sub>2</sub> emitted to day is around \$40.
- We emit around 50 GtCO<sub>2</sub>eq every year.
- The present value of future damages that we generate every year is around 2,000 billion dollars.
- Benefit-cost analysis: Around the world,
  - Any action to reduce emission by 1tCO<sub>2</sub> that costs less than \$40 should be implemented.
  - Any action to reduce emission by 1tCO<sub>2</sub> that costs more than \$40 should be discarded.

# COP21: INDC and good will

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- Lesson of the first 20 COPs: We need a carrot-and-stick approach.
- Copenhagen 2009/Lima 2014/Paris 2015
  - Abandon idea of economic instruments;
  - Rely on non-committal pledges: INDC;
- Issues:
  - Low global ambition.
  - Stability: What will happen when one will identify the free-riders and beneficiaries of our carbon leakages?
  - Efficiency: What will happen when one will realize that many low-cost actions are unexploited?
  - How could we verify emissions?
  - How should we compensate poor countries to induce them to participate?
- Globally, we believe that Paris is less incentive-compatible than Kyoto, which failed.

# Enforcement: The carrot-and-stick approach

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- ❑ UNFCCC should be in charge of estimating the implicit/explicit price of carbon in each country.
- ❑ Naming and shaming is an approach and should be used; but as we have seen with the Kyoto “commitments”, it has limited effects. Easy excuses.
- ❑ Nordhaus (2015): WTO should view non-compliance with an international agreement as a form of dumping, leading to punitive border taxes.
- ❑ Not easy, but crucial. Without penalty, adaptation becomes the only remaining option.

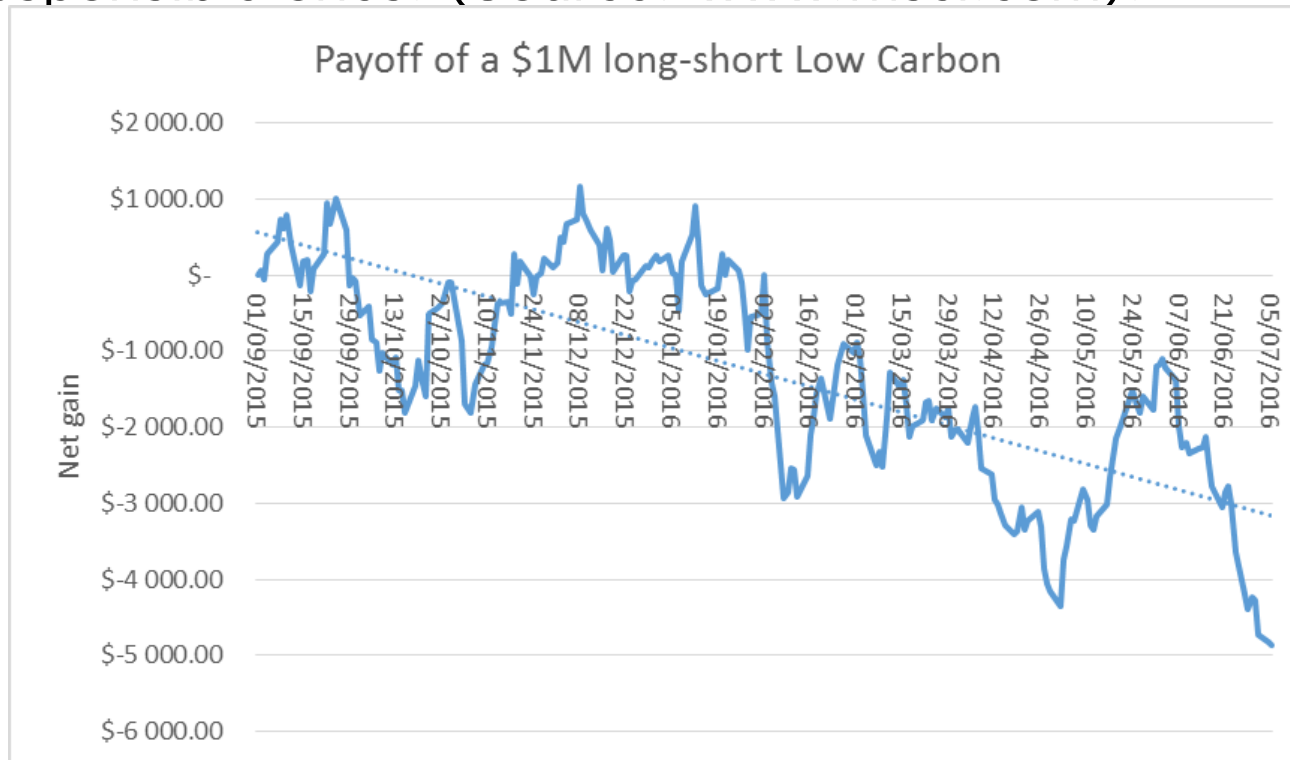
# Zero-ambition promises

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- Is associated to some self-interested efforts
  - Co-benefits (SO<sub>2</sub>/NO<sub>x</sub>/MP/...);
  - Co-benefits (energy-saving, ...);
  - Green R&D: rent-seeking game and positive externalities;
  - Some internalization by very large countries;
  - Placate public opinion at home.
- Saved by emerging low-cost green tech?

# What do investors believe about all this?

- Short CO2-intensive stocks and go long on climate-responsible ones. (Source: [www.msci.com](http://www.msci.com)).





Thank you very much for your attention!

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# International policy linkage? (in article 6)

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## □ What is written on this?

Parties shall, where engaging on a voluntary basis in cooperative approaches that involve the use of internationally transferred mitigation outcomes towards nationally determined contributions, promote sustainable development and ensure environmental integrity and transparency, including in governance, and shall apply robust accounting to ensure, inter alia, the avoidance of double counting, consistent with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement.

- Least-cost approach: ITMO?
- Reminiscent of CDM (Clean Development Mechanism).
  - This is a priori good.
  - But efficient accounting method is crucial.