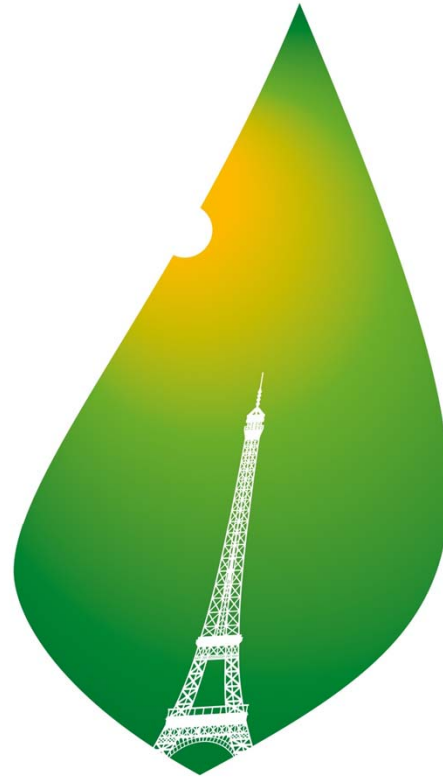


# The Road to Paris: Towards a Fair and Effective Climate Agreement?



CLIMATE  
CHANGE  
EUROZONE  
CARTELS INNOVATION  
AND MERGERS  
R&D INEQUALITY  
CRISIS

***12 days until start***



COP21 • CMP11  
**PARIS 2015**  
UN CLIMATE CHANGE CONFERENCE

# ***What makes Global Climate Policy so Difficult?***

## **GHG Abatement is a Global Public Good:**

Everyone is better off when it is provided and no one can be excluded

## **Free-Riding Problem:**

Incentives for free-riding on the actions of others are high, enforcement is difficult

## **Responsibilities and Vulnerabilities:**

Those responsible for GHG emissions might not be the same countries suffering most from the impacts of climate change

## **Long-Term Perspective:**

Costly measures today might only create benefits in the future

## ***COP 21 and Bottom-up Approach***



### **Bottom-up Approach**

Intended Nationally Determined Contributions (INDCs)  
from 164 countries  
covering 91% of  
global emissions



#### **Pros:**

- Intended contributions of major emitters
- Overcomes dichotomy between developed vs emerging/developing world
- Initiative comprises current national actions



#### **Cons:**

- Unilateral actions uncoordinated
- Difficult to compare individual actions
- Two-degree target not yet reached
- Tragedy of the commons remains

## ***What are Important Challenges Ahead?***

- Pledged actions must be implemented
- Pledges must become more stringent over time
- Pledges must become comparable and able to review
- Actions taken need to be effective and efficient
- Distributional issues must be addressed

## *Paris as point of departure*



- The outcome of Paris will likely not provide enough to reach the two degree target
- But Paris can be a starting point
- Evidence from behavioral economic research shows that (Danneberg et al., 2014):
  - Non-binding pledges (INDCs) signal willingness to cooperate
  - Pledges can help to coordinate mitigation efforts
  - Non-binding pledges become also implemented
  - **But:** Early actions need to be perceived as fair. Richer players need to do more making others more likely to contribute

# Institutionalization

- **If we have voluntary efforts, why do we still need an agreement?**
  - Need accepted rules for reviewing efforts
  - Climate change and policy may lead to significant redistribution
  - Poor countries will need support for this transformation
- **Minimum Participation Rules (MPR) are a widely used instrument to ensure participation of sufficient (key) players**
- **ZEW Survey** among 500 delegates from 120 countries of COP-16, COP-17 (Kesternich, 2015) indicates
  - Assessment towards specific MPRs are expected to remain controversial
  - Minimum emission threshold as major obstacle between developed and developing/emerging countries

Treaty

Agreement



Minimum #

## ***Make climate policy more efficient***

- **Coordination of unilateral actions can reduce overall policy costs**
- **E.g. Linking of EU ETS with potential Chinese ETS in power sectors**
- **Needs a reliable Monitoring, Reporting, and Verification Process**
- **But substantial distributional questions need to be addressed:**
  - CGE study indicates that China would suffer from full free trade in permits (Gavard et al., 2013)
  - Need to restrict trade for politically feasible solution and a careful design of coupling mechanism



## *Pricing carbon might not be enough*

- Pricing carbon is the most important instrument
- But it might not be enough: Additional market failures exist in
  - R&D process and diffusion of new technologies
  - Energy efficiency investments
- Need additional policy instruments
- This matters

In the EU, an optimal policy portfolio that addresses this additional market failures too, **reduces policy cost** vs. carbon price only **by 1/3** (Hübler et al., 2015)
- Need to enhance the policy toolbox

## *Climate Funds for Adaptation*

- **Financial transfers**  
(Loss and Damages, Green Climate Fund,...) are **seen as essential for agreement**
- **Target: Mobilize annually 100 b USD by 2020**
- **Important part: fund adaptation measures in developing countries**
- **Adaptation is (mostly) a private good. Why do funds exist?**
  - Fairness and equity considerations
  - Side payments to facilitate international mitigation negotiations
  - Self-interest due to Terms of Trade effect



## ***Climate Funds for Adaptation***

- Schenker and Stephan (2014) use a multi-region CGE model with climate impacts in agricultural sector
- **Terms of Trade losses for most parts of developed world**
- **Adaptation funding à la GCF reduces climate impacts in developing world's agricultural sector**
  - Improves ToT in almost all developed countries
  - Has positive effects on the welfare of almost all regions vs no funding (only exception is North America)
- **Rationale for self-interested adaptation funding**

## *Summary*

- **Bottom-up approach provides promising platform for future global climate policy,**
  - Although will not provide enough global GHG reduction to meet two-degree target
  - Broaden participation: From few to many eliminates binary structure
- **Top-down elements needed**
  - For reviewing INDCs
  - Climate finance part of negotiations

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