Do we trust carbon pricing?

Trust in the Single Market?
The case of the EU Emissions Trading System

Herman Vollebergh

Tilburg University & Netherlands Environmental Assessment Agency

CentER

TILBURG UNIVERSITY

Trust?

- Who is trusted or should trust?
  - General public *vs* Politicians *vs* Large Firms *vs* SME's *vs* NGO's?
  - Yellow jackets, climate skeptics and beyond?

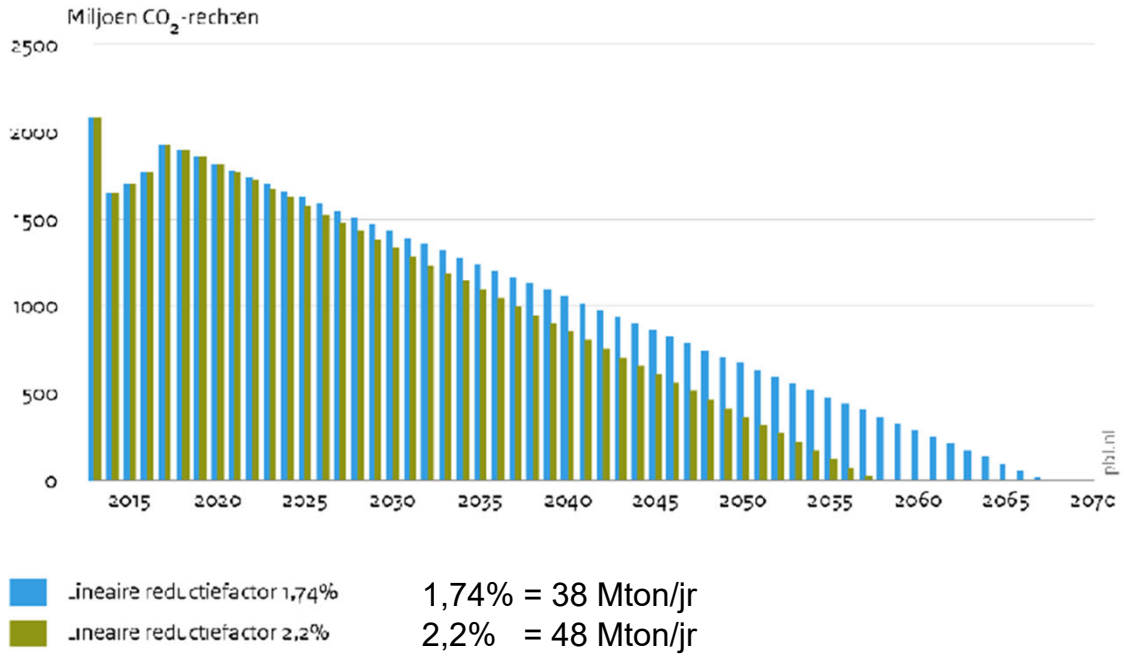
- Carbon pricing and trust:
  - Carbon or energy taxes:
    - Wide distrust in taxes, but once implemented they are 'hidden' (gasoline tax)
    - Fierce opposition (lobbying) against pricing in general: coalition of the unwilling!
  - EU ETS:
    - Only known to specialist and not to the general public!
      - Example: Netherlands ongoing negotiations on climate agreement (follow up of energy agreement)
    - And many misunderstandings as to how ETS works and as if only ETS price is relevant

Does EU ETS deliver?

- Emission cap from -1,74 to -2,2% each year from 2021

Figuur 1

Jaarlijks aanbod van emissierechten in het EU ETS vanaf 2013



1,74% = 38 Mton/jr
2,2% = 48 Mton/jr

Does EU ETS deliver?

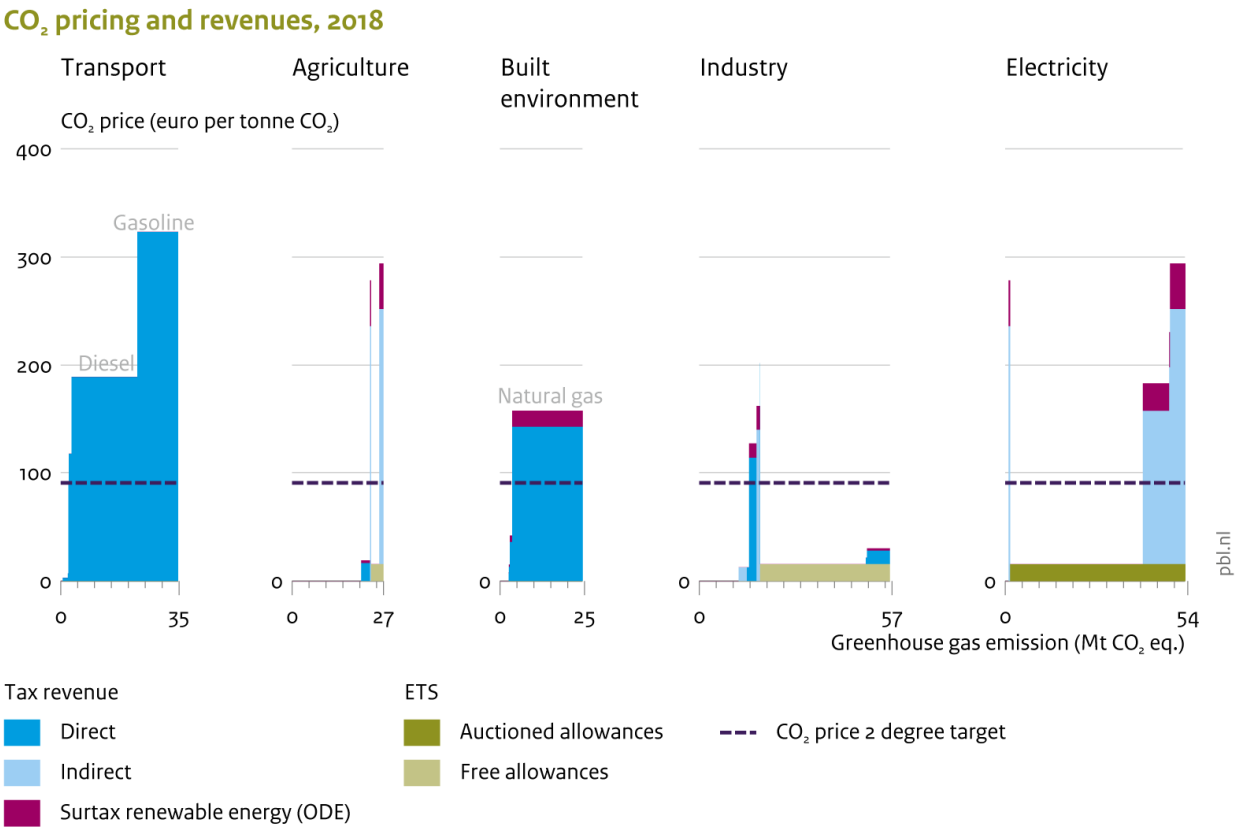
- Introduction of latest Market Stability Rules (MSR):
  - restricts the ‘bank’ and endogenizes the cap by cancellation of allowances
  - waterbedeffect temporarily punctured
- Emission price up from 5 to 20-25 euro per ton

Does EU ETS deliver?

- Answer depends on your expectations with respect to what is needed
- Wide perception that it does not deliver!
  - Too little, too late for Paris agreement and price too low
- A problem of messing up goals and instruments
  - EU ETS caps emissions and does deliver for the ETS sectors,
    - MSR adaptation renders minimum price schemes redundant in the short run ….
    - but cap is still too lose from Paris perspective
  - Also outside ETS more effort needed but pleas for uniform carbon pricing may backfire
    - Example of uniform carbon taxation in NL

Non-uniformity in actual carbon prices

- Often misperceptions on actual state of affairs
  - Use effective carbon taxes and prices (OECD) for proper picture
- Economist should be careful not to contribute to the fuzz in EU
  - Uniform pricing, in particular an additional carbon tax, ignites wrong discussion: lower taxes in non-ETS? Tax + ETS?
  - Also role of taxes for other (externality) purposes relevant!



Source: PBL

Building trust requires (local) climate coalitions

- Currently several initiatives within EU to go beyond 2018 agreements
  - Member State initiatives to implement even unilateral policies within ETS
  - But also efforts for conditional stricter policies (‘coalitions of the willing’)
    - ‘Two-speed EU’ (Parry and Vollebergh, 2017: ‘subsidiarity’)

- Unilateral action within EU climate policy inefficient and ineffective at the EU-scale and beyond, but only partly so:
  - relocation of emissions through trade within and outside EU
    - power production electricity
    - but also in highly exposed industries (e.g. fossil based chemicals and oil refining)
  - ‘waterbed effect’: as long as total number of permits within EU ETS is unchanged, emissions may still occur at any place/time
    - MSR helpful but only if additional action is early enough in time

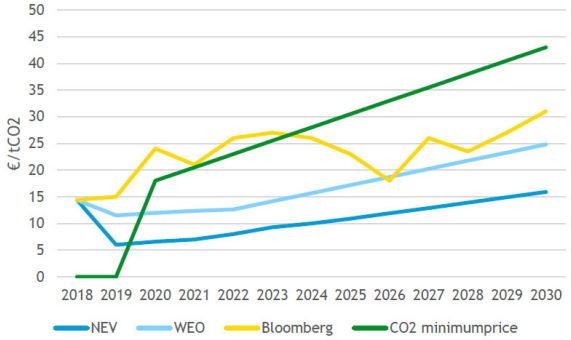
Impatience and (local) climate coalitions

- Example: Netherlands
  - GHG emission reduction 2030 ambition minus 49% and even 55% in a coalition
  - closure of five existing coal power plants by 2030 (5 GW)
  - carbon floor price electricity: increasing from €18 (2020) to €43/ton (2030)
  - carbon 'tax/price' industry!
  - many more actions in non-ETS (e.g. tax shift from electricity to gas)

- Study using applied CGE model Worldscan
  - Brink and Vollebergh (2019)

Complementary national measures

- Carbon price floor increasing to €43/tCO_2 in 2030
  - by carbon tax in addition to EU ETS price
    - for power sector only – **CO2TAX-POW**
    - for all ETS sectors – **CO2TAX-ETS**
  - by additional permits to be surrendered
    - by power sector only – **ADDEUA-POW**
    - by all ETS sectors – **ADDEUA-ETS**
- Buy and cancel allowances – **CANCEL**
  - Total annual budget 40% auction revenues (reduction = **CO2TAX-POW**)



Impatience and (local) climate coalitions

- Findings show no unambiguous ‘most cost effective’ option but trade-offs:
  - Leakage highest for tax and even negative for buy&cancel
  - Tax reduces ETS price while ETS interventions raise this price
  - Welfare cost (per ton CO_2) are inversely related to leakage
- Including industry:
  - larger emission reductions, but also larger economic impact (‘leakage’)
- Unilateral vs coalition:
  - less domestic emission reduction...
  - ...but smaller leakage rates and lower cost
- Relatively high costs in Germany
  - CO_2-intensive power sector compared to France
  - lower existing energy taxes compared to the Netherlands

Trust, impatience and (local) climate coalitions

- EU is locked into ETS and should cope with its potential shortcomings
  - Carbon pricing for ETS sectors electricity and industry settled and does not compromise trust of the general public (‘polluter pays’)
  - Impatience should be tackled preferably by adapting the cap of the EU as a whole
    - new climate package 2030
  - No longer clear whether minimum price is still necessary
    - cancelation policy MSR seems to do the same (Gerlach and Heijmans, 2019)
    - taxes as additional instrument less efficient compared to direct interventions into ETS

- Building climate coalitions of the willing is the only proper answer to built trust against drawbacks of globalisation
  - Two-speed solutions second best, but still effective and less costly than unilateral action
  - Within those coalitions separate but visible policies should tackle distributionals impacts