Linking the Swiss and EU Emissions trading schemes (ETS): Risks and benefits

Prof. Dr. Regina Betz, 12.9.2017

SCCER CREST
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Motivation

Linking carbon markets seen as a 2nd best solution to achieve a **global carbon price**.
Number of carbon markets is rapidly **increasing** (e.g. China, Korea, Mexico).
New mechanisms for **linking** carbon markets are discussed under the **Paris Agreement** (Art. 6 internationally transferred mitigation outcomes) e.g. World bank suggests Networked carbon markets.

Different types of linking of ETS have already been established (e.g. EU ETS with Norway, New Zealand to Kyoto or California with Quebec), but **little ex-post evaluation is available yet** (Ormsby et al. 2016).
Economists were optimistic about linking ETS schemes in the past; **lately more critical views** on linking carbon markets are published (Green 2017; Ormsby and Kerr 2016)

Switzerland is planning to **link soon** to the **EU ETS**:

– the Federal Council approved the signing of the agreement.
– the EU Commission adopted proposals for the signature and ratification of the agreement.
– Now Swiss and European parliaments need to approve it.

Different types of linking

Direct linking

– Government level: bilateral link over Article 17 Kyoto Protocol trading or under Paris Art. 6

(we looked at the transfer activities of AAUs in the Swiss registry)

– Company level:
  – bilateral link (e.g. allowances of EU ETS can be used in CH ETS for compliance and vice versa)
  – unilateral link (e.g. allowances of EU ETS can be used in CH scheme for compliance but not the other way around)

Indirect linking

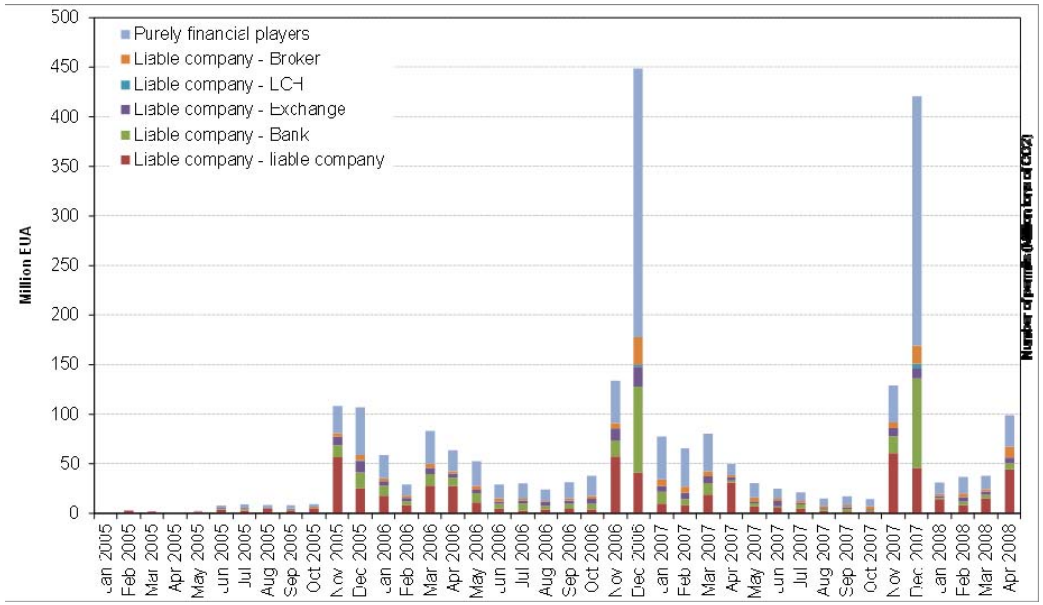
– Project based mechanism of the Kyoto Protocol like CDM Units and JI Units can be used (with or without) limitations in different markets.

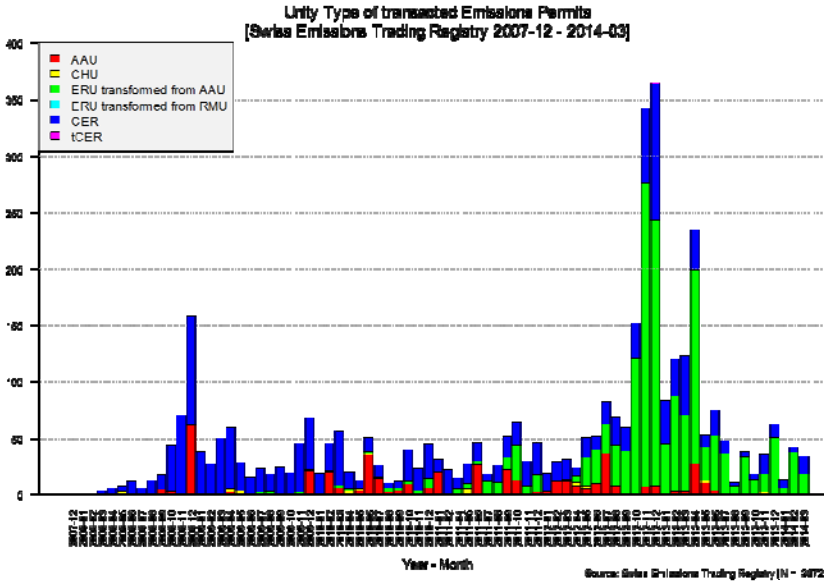
Benefits of linking - Risks of linking

- Linking improves **cost-effectiveness** (more flexibility in mitigation) of meeting (a more stringent) combined cap (but only if local externalities are internalized).
- Linking improves **market liquidity**.
- Linking will buffer domestic shocks, thus **reduces price volatility**.
- Linking reduces **competitive distortions** as companies have level playing field and simplifies business especially for multinationals.
- Linking reduces risk of **policy reversal**.

- Linking to one market means linking to all (future) markets – **interdependence** increases (e.g. difficulty to keep hot air out).
- Negative impact if **integrity** of other countries' schemes is not ensured (e.g. **criminal activity**).
- Linking will make the market **more sensitive** to policy changes elsewhere (increases political uncertainty).
- Government **gives up autonomy** over extent of abatement action (domestic price) and design of their regulations.
- Linking may have significant **distributional consequences** (price will follow larger ETS price).
- **Differences** in **design** (e.g. penalty level, banking rules) could lead to higher aggregate emissions if schemes are linked.

Market liquidity (transferred volumes EU registry - CH registry)





Transfers are happening in the CH registry, but rarly with CH Units mainly with Kyoto units.

Source: Cludius / Betz 2016

Market liquidity is mainly influenced by (Leu et al. 2016 and Betz and Schmidt 2016):

- Players in the market (size, sector, allocation position)
- Vast majority of regulated companies is not very active (more compliance trading)
- Banking and borrowing rules (if banking is limited arbitrage trading takes place)
- Availability of Auctions (CH ETS 2/3 of the allowances of buyers are bought via auction)

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Examples of international criminal activities in carbon markets

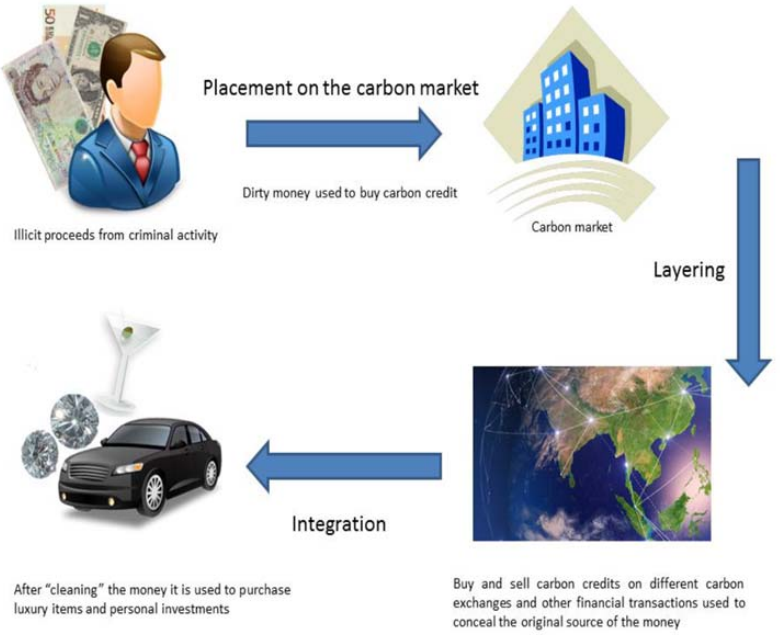
Linking will increase the risk for legal loopholes, inconsistent regulations and enforcement (e.g. case of Denmark)

Exploitation of weak regulations in the carbon market to commit **financial crimes** has taken place and governments have lost billion of Euros (Interpol 2013):

– VAT fraud (Europol estimates 5-6 billion Euros)
– Money laundering (see graph)
– Tax evasion and transfer mispricing (intra company trades to avoid paying tax).

IT security problems:

– Computer hacking
– Pishing
– Theft of personal information



Source: Interpol 2013

Questions for discussion

Do benefits of linking outweight the risks of linking?

– Will linking lead to a more **cost-effective** achievement of the cap? What about the local externalities? Will the complexity of understanding the shortage situation in a linked market outweight the gains from access to cheaper abatement?
– Is a **liquid secondary market** really important for an ETS or can we establish a well functioning Swiss market with auctioning (e.g. like SO2 requirement to sell % of free allocated units and recieve auctionprice to ensure liquidity)?
– Is **price volatility** really reduced with linking? Would this not be better achieved through a price floor and a managed reserve? Is the market stability reserve in the EU ETS really able to work and reduce price volatility?
– Will the linking improve the comparability between Swiss and EU ETS regulation or is it already easier for mulitnationals since rules are comparable?
– What will be the risks of **financial criminal activities** in a linked compared to a national system? What needs to be done to prevent criminal activities?
– What about the risk of **policy reversal**? Could this be reduced by a plan for a simple Swiss ETS?

Related Literature

CREST related literature:

Betz, R.; Schmidt, T. (2016): Transfer patterns in Phase I of the EU Emissions Trading System: A first reality check based on cluster analysis. Climate Policy, 16/4

Cludius, J. and Betz, R. (2016): EU Emissions Trading: The Role of Banks and Other Financial Actors. CREST Working Paper.

Leu T., Betz R., Cludius J. (2016): Trading costs in the first phase of the EU ETS: Estimation and explanations - Evidence from CITL data. CREST Working Paper.

Neuhoff K. et al. (2015): Is a Market Stability Reserve likely to improve the functioning of the EU ETS? Evidence from a model comparison exercise, Published in: Climate Strategies

Others:

Europol (2010): Further investigations into VAT fraud linked to the Carbon Emissions Trading System, Press release.

Eidgenössische Finanzkontrolle (2017): Evaluation der Lenkungswirkung des Emissionshandelssystems, Bern.

Green, J. (2017) Don`t link carbon markets, Nature, Vol. 543, pp. 484-486.

Interpol (2013): Guide to Carbon Trading Crime.

Thank you
for your attention.